

Compilation of Changes to the CPC Scheme Between 2019.02 and 2019.05

Presentation Details

- Entries for new symbols and headings: *Black text in italics*
- Entries for existing symbols and headings
- text insertions: *Green text in italics with yellow background*
 - text deletions: ~~Red strikethrough text with grey background~~
- Entries for deleted symbols and headings: ~~Black strikethrough text~~
- In cases when the originating project cannot be found, "N/A" is given for the Project information (e.g. the change could be due to an Editorial Correction).
 - Projects ending in "-F" indicate finalisation after reclassification was completed.

Project: RP0221 (A01G)

U A01G 3/00 **Cutting implements specially adapted for horticultural purposes; Delimiting standing trees (forestry delimiters [A01G 23/095](#))**

U A01G 3/02 • Secateurs; Flower or fruit shears

M A01G 2003/023 • • {with means for grasping *or collecting* the cut ~~object~~*objects*}

U A01G 7/00 **Botany in general**

M A01G 7/04 • Electric or magnetic *{or acoustic}* treatment of plants for promoting growth

M A01G 7/045 • • {with electric lighting}

WARNING

Group [A01G 7/045](#) is incomplete pending reclassification of documents from group [A01G 9/26](#).

Groups [A01G 9/26](#) and [A01G 7/045](#) should be considered in order to perform a complete search.

U A01G 9/00 **Cultivation in receptacles, forcing-frames or greenhouses (of mushrooms [A01G 18/00](#); soilless cultivation [A01G 31/00](#)); Edging for beds, lawn or the like**

WARNING

Group [A01G 9/00](#) is impacted by reclassification into groups [A01G 18/00](#), [A01G 18/60](#) and [A01G 9/28](#).

Groups [A01G 9/00](#), [A01G 18/00](#), [A01G 18/60](#) and [A01G 9/28](#) should be considered in order to perform a complete search.

M A01G 2009/003 • {~~Plant pots~~ *Receptacles* consisting of ~~two halves~~ *separable sections*, e.g. for allowing easy removal of the plant}

M A01G 9/006 • {Labels or label holders *specially adapted* for ~~flower pots~~ *plant receptacles*}

U A01G 9/12 • Supports for plants; Trellis for strawberries or the like ({trellis-work for vines [A01G 17/06](#)}; stays for trees, props for vines [A01G 17/14](#))

M A01G 9/128 • • {Fixing of plants to supports, e.g. by means of clips (*tying devices in trellis-work* [A01G 17/08](#))}

M A01G 9/20 • Forcing-frames; Lights *{, i.e. glass panels covering the forcing}*

M A01G 9/24 • Devices {or systems} for heating, ventilating, regulating temperature *{, illuminating}*, or watering, in greenhouses, forcing-frames, or the like

U A01G 2009/248 • • {with distillation of water}

N A01G 9/249 • • {*Lighting means (with special arrangements for promoting growth* [A01G 7/045](#))}

WARNING

Group [A01G 9/249](#) is incomplete pending reclassification of documents from group [A01G 9/26](#).

Groups [A01G 9/26](#) and [A01G 9/249](#) should be considered in order to perform a complete search.

- C A01G 9/26
- • Electric devices ~~{(A01G 9/249 takes precedence)}~~
- WARNING**
Group [A01G 9/26](#) is impacted by reclassification into groups [A01G 9/249](#) and [A01G 7/045](#).
Groups [A01G 9/26](#), [A01G 9/249](#) and [A01G 7/045](#) should be considered in order to perform a complete search.
- U **A01G 13/00** Protecting plants (apparatus for the destruction of vermin or noxious animals [A01M](#); use of chemical materials therefor, composition of protective materials, e.g. grafting wax, [A01N](#) {; coverings around trees forming part of a road [E01C 9/005](#)})
- D A01G 2013/002
- {Wind-breakers}
<administratively transferred to [A01G 13/0225](#)>
- U A01G 13/02
- Protective coverings for plants; {Coverings for the ground;} Devices for laying-out {or removing} coverings {(covering materials [A01G 9/1438](#))}
- T A01G 13/0225
- • {Wind breakers, i.e. devices providing lateral protection of the plants}
- U **A01G 17/00** Cultivation of hops, vines, fruit trees, or like trees
- U A01G 17/04
- Supports for hops, vines, or trees
- U A01G 17/06
- • Trellis-work
- M A01G 17/08
- • • Tools ~~{e.g. clips}~~ for attaching hops, vines, or boughs to trellis-work; Tying devices
- M A01G 17/085
- • • • ~~{Tying instruments}~~ [Espalier machines](#); [Espalier Tying](#) machines}
- U **A01G 25/00** Watering gardens, fields, sports grounds or the like (special apparatus or adaptations for fertilising-liquids [A01C 23/00](#); nozzles or outlets, spraying apparatus [B05B](#))
- U A01G 25/02
- Watering arrangements located above the soil which make use of perforated pipe-lines or pipe-lines with dispensing fittings, e.g. for drip irrigation
- M A01G 25/026
- • ~~{Machines and methods}~~ [Apparatus or processes](#) for ~~fixing fitting~~ [the drippers into the pipe hoses or the pipes](#)}
- U **A01G 31/00** Soilless cultivation, e.g. hydroponics (growth substrates therefor [A01G 24/00](#); cultivation of seaweed [A01G 33/00](#))
- U A01G 31/02
- Special apparatus therefor (self-acting watering devices [A01G 27/00](#))
- U A01G 31/04
- • Hydroponic culture on conveyors
- M A01G 31/042
- • • {with containers travelling on a ~~conveyor~~ belt or the like, [or conveyed by chains](#)}
- M A01G 31/045
- • • {with ~~hanging~~ containers [travelling guided](#) along a rail}
- M A01G 31/047
- • • {~~using a with containers inside~~ rotating [drum drums](#) or ~~the like~~ [rotating around a horizontal axis, e.g. carousels](#)}

Project: RP0020-F (A01K)

- M **A01K 89/00** Reels (devices for casting lines [A01K 91/02](#))

WARNING

Group ~~A01K 89/00~~ is impacted by reclassification into group ~~A01K 89/004~~.
Groups ~~A01K 89/00~~ and ~~A01K 89/004~~ should be considered in order to perform a complete search.

- M A01K 89/004
- {Alternate right or left side drives}
- WARNING
Group A01K 89/004 is incomplete pending reclassification of documents from group A01K 89/00.
Groups A01K 89/00 and A01K 89/004 should be considered in order to perform a complete search.
- U A01K 89/006
- {Hand crank features}
- M A01K 89/009
- • {Collapsible or extensible}
- WARNING
Group A01K 89/009 is incomplete pending reclassification of documents from group A01K 89/006.
Group-s A01K 89/006 and A01K 89/009 should be considered in order to perform a complete search.
- M A01K 89/01
- with pick-up, i.e. with the guiding member rotating and the spool not rotating during normal retrieval of the line ([A01K 89/027](#) takes precedence)
- WARNING
Group A01K 89/01 is impacted by reclassification into groups A01K 89/0106, A01K 89/01121, A01K 89/011221, A01K 89/011222, A01K 89/011223, A01K 89/01123, A01K 89/01124, A01K 89/01125, A01K 89/01126, A01K 89/01127, A01K 89/0113, A01K 89/0122, A01K 89/0123, A01K 89/0124, A01K 89/0125, and A01K 89/0126.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/0102
- • {with a closed face}
- WARNING
Group A01K 89/0102 is impacted by reclassification into groups A01K 89/01025, A01K 89/01026, and A01K 89/01029.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/01025
- • • {with line snubber shifted by a remote actuator}
- WARNING
Groups A01K 89/01025, A01K 89/01026, and A01K 89/01029 are incomplete pending reclassification of documents from group A01K 89/0102.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/0106
- • {Ratchet-type drives}
- WARNING
Group A01K 89/0106, A01K 89/01121, A01K 89/011221, A01K 89/011222, A01K 89/011223, A01K 89/01123, A01K 89/01124, A01K 89/01125, A01K 89/01126, A01K 89/01127, A01K 89/0113, A01K 89/0122, A01K 89/0123, A01K 89/0124, A01K 89/0125, and A01K 89/0126 are incomplete pending reclassification of documents from group A01K 89/01.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/0108
- • {Pick-up details}
- WARNING
Group A01K 89/0108 is impacted by reclassification into group A01K 89/01081.

Groups A01K 89/0108 and A01K 89/01081 should be considered in order to perform a complete search.

M A01K 89/01081

- • {Guiding members on rotor axially rearward of spool}

WARNING

Groups A01K 89/01081, A01K 89/01082, A01K 89/01083, A01K 89/01084, A01K 89/01085, A01K 89/01086, A01K 89/01087, and A01K 89/01088 are incomplete pending reclassification of documents from group A01K 89/0108.
All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/01085

- • {Guiding members on rotor forward of spool ([A01K 89/0102](#) takes precedence)}

WARNING

Groups A01K 89/01081, A01K 89/01082, A01K 89/01083, A01K 89/01084, A01K 89/01085, A01K 89/01086, A01K 89/01087, and A01K 89/01088 are incomplete pending reclassification of documents from group A01K 89/0108.
All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/01121

- • {Frame details}

WARNING

Groups A01K 89/0106, A01K 89/01121, A01K 89/011221, A01K 89/011222, A01K 89/011223, A01K 89/01123, A01K 89/01124, A01K 89/01125, A01K 89/01126, A01K 89/01127, A01K 89/0113, A01K 89/0122, A01K 89/0123, A01K 89/0124, A01K 89/0125 and A01K 89/0126 are incomplete pending reclassification of documents from group A01K 89/01.
All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/0113

- • {Spool locking devices on spool shaft}

WARNING

Groups A01K 89/0106, A01K 89/01121, A01K 89/011221, A01K 89/011222, A01K 89/011223, A01K 89/01123, A01K 89/01124, A01K 89/01125, A01K 89/01126, A01K 89/01127, A01K 89/0113, A01K 89/0122, A01K 89/0123, A01K 89/0124, A01K 89/0125, and A01K 89/0126 are incomplete pending reclassification of documents from group A01K 89/01.
All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/0114

- • {Reciprocating mechanisms}

WARNING

Group A01K 89/0114 is impacted by reclassification into groups A01K 89/01141, A01K 89/01142, and A01K 89/01143.
All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/01141

- • {including eccentric cams reciprocating the spool}

WARNING

Groups A01K 89/01141, A01K 89/01142, and A01K 89/01143 are incomplete pending reclassification of documents from group A01K 89/0114.

All groups listed in this Warning should be considered in order to perform a complete search.

- M A01K 89/01142
- • {for reciprocating the guiding member}

WARNING

Groups A01K 89/01141, A01K 89/01142, and A01K 89/01143 are incomplete pending reclassification of documents from group A01K 89/0114.

All groups listed in this Warning should be considered in order to perform a complete search.

- M A01K 89/0117
- • {Anti-reverse mechanisms}

WARNING

Group A01K 89/0117 is impacted by reclassification into group A01K 89/0118.

Groups A01K 89/0117 and A01K 89/0118 should be considered in order to perform a complete search.

- M A01K 89/0118
- • {defining home position of reel part}

WARNING

Group s A01K 89/0118 is incomplete pending reclassification of documents from group A01K 89/0117.

Group s A01K 89/0117 and A01K 89/0118 should be considered in order to perform a complete search.

- M A01K 89/012
- • motor-driven

WARNING

Group A01K 89/012 is impacted by reclassification into group A01K 89/0121. Groups A01K 89/012 and A01K 89/0121 should be considered in order to perform a complete search.

- M A01K 89/0121
- • {Spring motors}

WARNING

Group A01K 89/0121 is incomplete pending reclassification of documents from group A01K 89/012

Groups A01K 89/012 and A01K 89/0121 should be considered in order to perform a complete search.

- M A01K 89/0122
- • {with unwinding indicators, e.g. bell or flashing light}

WARNING

Groups A01K 89/0106, A01K 89/01121, A01K 89/011221, A01K 89/011222, A01K 89/011223, A01K 89/01123, A01K 89/01124, A01K 89/01125, A01K 89/01126, A01K 89/01127, A01K 89/0113, A01K 89/0122, A01K 89/0123, A01K 89/0124, A01K 89/0125 and A01K 89/0126 are incomplete pending reclassification of documents from group A01K 89/01. All groups listed in this Warning should be considered in order to perform a complete search.

- M A01K 89/0126
- • {with line unwinding limiters}

WARNING

Groups A01K 89/0106, A01K 89/01121, A01K 89/011221, A01K 89/011222, A01K 89/011223, A01K 89/01123, A01K 89/01124, A01K 89/01125, A01K 89/01126, A01K 89/01127, A01K 89/0113, A01K 89/0122, A01K 89/0123, A01K 89/0124, A01K 89/0125 and A01K 89/0126 are incomplete pending reclassification of documents from group A01K 89/01.

All groups listed in this Warning should be considered in order to perform a complete search.

- M A01K 89/015 • with {a} rotary drum {, i.e. with a rotating spool} ([A01K 89/033](#) takes precedence)

WARNING

Group A01K 89/015 is impacted by reclassification into groups A01K 89/0175, A01K 89/0176, A01K 89/0178, A01K 89/0179, A01K 89/018, A01K 89/0181, A01K 89/0182, A01K 89/0183, A01K 89/0184, A01K 89/0185, A01K 89/0186, A01K 89/0187, A01K 89/0188, A01K 89/0189, A01K 89/01901, A01K 89/01902, A01K 89/01903, A01K 89/01904, A01K 89/01905, A01K 89/01906, A01K 89/01907, A01K 89/01908, A01K 89/01909, A01K 89/0191, A01K 89/01911, A01K 89/01912, A01K 89/019125, A01K 89/01913, A01K 89/01914, A01K 89/01915, A01K 89/01916, A01K 89/01917, A01K 89/01918, A01K 89/01919, A01K 89/0192, A01K 89/01921, A01K 89/01922, A01K 89/01923, A01K 89/01924, A01K 89/01925, A01K 89/01928, A01K 89/01929, A01K 89/0193, and A01K 89/01931.

All groups listed in this Warning should be considered in order to perform a complete search.

- M A01K 89/0155 • • Antibrake devices

WARNING

Group A01K 89/0155 is impacted by reclassification into groups A01K 89/01556 and A01K 89/01557.

Groups A01K 89/0155, A01K 89/01556 and A01K 89/01557 should be considered in order to perform a complete search.

- M A01K 89/01556 • • • {Line tension responsive actuators}

WARNING

Groups A01K 89/01556 and A01K 89/01557 are incomplete pending reclassification of documents from group A01K 89/0155.

Groups A01K 89/0155, A01K 89/01556 and A01K 89/01557 should be considered in order to perform a complete search.

- M A01K 89/01557 • • • {Centrifugal}

WARNING

Groups A01K 89/01556 and A01K 89/01557 are incomplete pending reclassification of documents from group A01K 89/0155.

Groups A01K 89/0155, A01K 89/01556 and A01K 89/01557 should be considered in order to perform a complete search.

- M A01K 89/016 • • Fly reels {, i.e. with a stub shaft support}

WARNING

Group A01K 89/016 is impacted by reclassification into group A01K 89/0162.

Groups A01K 89/016 and A01K 89/0162 should be considered in order to perform a complete search.

- M A01K 89/0162 • • • {with a releasable latch to retain spool on shaft}

WARNING

Group A01K 89/0162 is incomplete pending reclassification of documents from group A01K 89/016.

Group s A01K 89/016 and A01K 89/0162 should be considered in order to perform a complete search.

- M A01K 89/017
- • motor-driven
- WARNING**
Group A01K 89/017 is impacted by reclassification into groups A01K 89/0171, A01K 89/0172, A01K 89/0173, and A01K 89/0174. All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/0171
- • • {Spring motors}
- WARNING**
Groups A01K 89/0171, A01K 89/0172, A01K 89/0173, and A01K 89/0174 are incomplete pending reclassification of documents from group A01K 89/017. All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/0175
- • {Axial unwinding}
- WARNING**
Groups A01K 89/0175, A01K 89/0176, A01K 89/0178, A01K 89/0179, A01K 89/018, A01K 89/0181, A01K 89/0182, A01K 89/0183, A01K 89/0184, A01K 89/0185, A01K 89/0186, A01K 89/0187, A01K 89/0188, A01K 89/0189, A01K 89/01901, A01K 89/01902, A01K 89/01903, A01K 89/01904, A01K 89/01905, A01K 89/01906, A01K 89/01907, A01K 89/01908, A01K 89/01909, A01K 89/0191, A01K 89/01911, A01K 89/01912, A01K 89/019125, A01K 89/01913, A01K 89/01914, A01K 89/01915, A01K 89/01916, A01K 89/01917, A01K 89/01918, A01K 89/01919, A01K 89/0192, A01K 89/01921, A01K 89/01922, A01K 89/01923, A01K 89/01924, A01K 89/01925, A01K 89/01928, A01K 89/01929, A01K 89/0193, A01K 89/01931 are incomplete pending reclassification of documents from group A01K 89/015. All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/0178
- • {with unwinding indicators, e.g. a bell or a flashing light}
- WARNING**
Groups A01K 89/0175, A01K 89/0176, A01K 89/0178, A01K 89/0179, A01K 89/018, A01K 89/0181, A01K 89/0182, A01K 89/0183, A01K 89/0184, A01K 89/0185, A01K 89/0186, A01K 89/0187, A01K 89/0188, A01K 89/0189, A01K 89/01901, A01K 89/01902, A01K 89/01903, A01K 89/01904, A01K 89/01905, A01K 89/01906, A01K 89/01907, A01K 89/01908, A01K 89/01909, A01K 89/0191, A01K 89/01911, A01K 89/01912, A01K 89/019125, A01K 89/01913, A01K 89/01914, A01K 89/01915, A01K 89/01916, A01K 89/01917, A01K 89/01918, A01K 89/01919, A01K 89/0192, A01K 89/01921, A01K 89/01922, A01K 89/01923, A01K 89/01924, A01K 89/01925, A01K 89/01928, A01K 89/01929, A01K 89/0193, A01K 89/01931 are incomplete pending reclassification of documents from group A01K 89/015. All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/0182
- • {with line unwinding limiters}
- WARNING**
Groups A01K 89/0175, A01K 89/0176, A01K 89/0178, A01K 89/0179, A01K 89/018, A01K 89/0181, A01K 89/0182, A01K 89/0183, A01K 89/0184, A01K 89/0185, A01K 89/0186, A01K 89/0187, A01K 89/0188, A01K 89/0189, A01K 89/01901, A01K 89/01902, A01K 89/01903, A01K 89/01904, A01K 89/01905, A01K 89/01906, A01K 89/01907, A01K 89/01908,

~~A01K 89/01909, A01K 89/0191, A01K 89/01911, A01K 89/01912, A01K 89/019125, A01K 89/01913, A01K 89/01914, A01K 89/01915, A01K 89/01916, A01K 89/01917, A01K 89/01918, A01K 89/01919, A01K 89/0192, A01K 89/01921, A01K 89/01922, A01K 89/01923, A01K 89/01924, A01K 89/01925, A01K 89/01928, A01K 89/01929, A01K 89/0193, A01K 89/01931 are incomplete pending reclassification of documents from group A01K 89/015.~~
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M A01K 89/0183

- {Drive mechanism details}

WARNING

~~Groups A01K 89/0175, A01K 89/0176, A01K 89/0178, A01K 89/0179, A01K 89/018, A01K 89/0181, A01K 89/0182, A01K 89/0183, A01K 89/0184, A01K 89/0185, A01K 89/0186, A01K 89/0187, A01K 89/0188, A01K 89/0189, A01K 89/01901, A01K 89/01902, A01K 89/01903, A01K 89/01904, A01K 89/01905, A01K 89/01906, A01K 89/01907, A01K 89/01908, A01K 89/01909, A01K 89/0191, A01K 89/01911, A01K 89/01912, A01K 89/019125, A01K 89/01913, A01K 89/01914, A01K 89/01915, A01K 89/01916, A01K 89/01917, A01K 89/01918, A01K 89/01919, A01K 89/0192, A01K 89/01921, A01K 89/01922, A01K 89/01923, A01K 89/01924, A01K 89/01925, A01K 89/01928, A01K 89/01929, A01K 89/0193, A01K 89/01931 are incomplete pending reclassification of documents from group A01K 89/015.~~
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M A01K 89/0192

- {Frame details}

WARNING

~~Groups A01K 89/0175, A01K 89/0176, A01K 89/0178, A01K 89/0179, A01K 89/018, A01K 89/0181, A01K 89/0182, A01K 89/0183, A01K 89/0184, A01K 89/0185, A01K 89/0186, A01K 89/0187, A01K 89/0188, A01K 89/0189, A01K 89/01901, A01K 89/01902, A01K 89/01903, A01K 89/01904, A01K 89/01905, A01K 89/01906, A01K 89/01907, A01K 89/01908, A01K 89/01909, A01K 89/0191, A01K 89/01911, A01K 89/01912, A01K 89/019125, A01K 89/01913, A01K 89/01914, A01K 89/01915, A01K 89/01916, A01K 89/01917, A01K 89/01918, A01K 89/01919, A01K 89/0192, A01K 89/01921, A01K 89/01922, A01K 89/01923, A01K 89/01924, A01K 89/01925, A01K 89/01928, A01K 89/01929, A01K 89/0193, A01K 89/01931 are incomplete pending reclassification of documents from group A01K 89/015.~~
~~All groups listed in this Warning should be considered in order to perform a complete search.~~

M A01K 89/01931

- {Spool or spool shaft details (spool details in reel with pick-up [A01K 89/0111](#))}

WARNING

~~Groups A01K 89/0175, A01K 89/0176, A01K 89/0178, A01K 89/0179, A01K 89/018, A01K 89/0181, A01K 89/0182, A01K 89/0183, A01K 89/0184, A01K 89/0185, A01K 89/0186, A01K 89/0187, A01K 89/0188, A01K 89/0189, A01K 89/01901, A01K 89/01902, A01K 89/01903, A01K 89/01904, A01K 89/01905, A01K 89/01906, A01K 89/01907, A01K 89/01908, A01K 89/01909, A01K 89/0191, A01K 89/01911, A01K 89/01912, A01K 89/019125, A01K 89/01913, A01K 89/01914, A01K 89/01915, A01K 89/01916, A01K 89/01917, A01K 89/01918, A01K 89/01919, A01K 89/0192, A01K 89/01921, A01K 89/01922, A01K 89/01923, A01K 89/01924, A01K 89/01925, A01K 89/01928, A01K 89/01929, A01K 89/0193, A01K 89/01931 are incomplete pending reclassification of documents from group A01K 89/015.~~

All groups listed in this Warning should be considered in order to perform a complete search.

- U A01K 89/02
 - Brake devices for reels
- M A01K 89/027
 - • with pick-up {, i.e. for reels with the guiding member rotating and the spool not rotating during normal retrieval of the line}

WARNING
Group A01K 89/027 is impacted by reclassification into groups A01K 89/028, A01K 89/029, and A01K 89/03.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/028
 - • {Continuously applied (for closed face reels [A01K 89/0275](#))}

WARNING
Groups A01K 89/028, A01K 89/029, and A01K 89/03 are incomplete pending reclassification of documents from group A01K 89/027.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/033
 - • with {a} rotary drum {, i.e. for reels with a rotating spool (antibacklash devices [A01K 89/0155](#))}

WARNING
Group A01K 89/033 is impacted by reclassification into groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/045
 - • {Spool bearing brake}

WARNING
Groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059 are incomplete pending reclassification of documents from group A01K 89/033.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/046
 - • {Manual pressure control}

WARNING
Groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059 are incomplete pending reclassification of documents from group A01K 89/033.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A01K 89/05
 - • {Brakes connected to the spool by one-way clutch}

WARNING
Groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059 are incomplete pending reclassification of documents from group A01K 89/033.

All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/051

- • • {Adjustable pressure pawls, e.g. braking clickers}

WARNING

Groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059 are incomplete pending reclassification of documents from group A01K 89/033.

All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/052

- • • {Positive}

WARNING

Groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059 are incomplete pending reclassification of documents from group A01K 89/033.

All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/056

- • • {Radially engaged}

WARNING

Groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059 are incomplete pending reclassification of documents from group A01K 89/033.

All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/057

- • • {Axially engaged}

WARNING

Groups A01K 89/045, A01K 89/046, A01K 89/047, A01K 89/048, A01K 89/049, A01K 89/05, A01K 89/051, A01K 89/052, A01K 89/053, A01K 89/054, A01K 89/055, A01K 89/056, A01K 89/057, A01K 89/058 and A01K 89/059 are incomplete pending reclassification of documents from group A01K 89/033.

All groups listed in this Warning should be considered in order to perform a complete search.

M A01K 89/08

- Pole-less fishing apparatus, i.e. hand-held reels

WARNING

Group A01K 89/08 is impacted by reclassification into group A01K 89/081. Groups A01K 89/08 and A01K 89/081 should be considered in order to perform a complete search.

M A01K 89/081

- • {Axial unwinding}

WARNING

Group A01K 89/081 is incomplete pending reclassification of documents from group A01K 89/08.

Group-s A01K 89/08 and A01K 89/081 should be considered in order to perform a complete search.

Project: RP0137-F (A24B)

U A24B 15/00 **Chemical features or treatment of tobacco; Tobacco substitutes ([A24B 3/00](#) takes precedence)**

NOTE

In groups [A24B 15/30](#) - [A24B 15/42](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place for a substance. {This Note corresponds to IPC Note (1) relating to [A24B 15/30](#) - [A24B 15/42](#).}

U A24B 15/10 · Chemical features of tobacco products or tobacco substitutes

M A24B 15/16 · · of tobacco substitutes

WARNING

~~Group A24B 15/16 is impacted by reclassification into group A24B 15/167. Groups A24B 15/16 and A24B 15/167 should be considered in order to perform a complete search.~~

M A24B 15/167 · · · {in liquid or vaporizable form, e.g. liquid compositions for e-cigarettes}

WARNING

~~Group A24B 15/167 is incomplete pending reclassification of documentation from group A24B 15/16. Groups A24B 15/16 and A24B 15/167 should be considered in order to perform a complete search.~~

Project: N/A (A47C)

U A47C 7/00 **Parts, details, or accessories of chairs or stools (attaching to floor [A47B 91/08](#))**

A47C 7/50 · Supports for the feet or the legs {coupled to fixed parts of the chair} (coupled to other adjustable parts {of the reclining or easy chair} [A47C 1/034](#), [A47C 1/037](#); {stand-alone rests or supports for the feet or the legs, e.g.} footstools [A47C 16/02](#))

U A47C 27/00 **Spring, stuffed or fluid mattresses {or cushions} specially adapted for chairs, beds or sofas**

A47C 27/08 · Fluid mattresses {or cushions} (connecting valves to inflatable elastic bodies [B60C 29/00](#))

Project: MP0428 (A61B)

U A61B 5/00 **Detecting, measuring or recording for diagnostic purposes (radiation diagnosis [A61B 6/00](#); diagnosis by ultrasonic, sonic or infrasonic waves [A61B 8/00](#)); Identification of persons**

U A61B 5/04 · Measuring bioelectric signals of the body or parts thereof

U A61B 5/0402 · · Electrocardiography, i.e. ECG

U A61B 5/0452 · · · Detecting specific parameters of the electrocardiograph cycle

M A61B 5/0464 · · · · Detecting tachycardia {*tachycardia*} or brachycardia {*brachycardia*}

U A61B 10/00 **Other methods or instruments for diagnosis, e.g. instruments for taking a cell sample, for biopsy, for vaccination diagnosis (vaccination prophylaxis, vaccination therapy [A61B 17/20](#)); Sex determination; Ovulation-period determination (menstruation tables [G06C 3/00](#)); Throat striking implements**

NOTE

Attention is drawn to group [A61F 13/15](#) which provides for swabs

- M A61B 10/0045 · {Devices for taking samples of body liquids (devices for taking blood samples [A61B 5/1405](#)[A61B 5/15](#))}
- U A61B 17/00 **Surgical instruments, devices or methods, e.g. tourniquets ([A61B 18/00](#) takes precedence; contraceptive devices, pessaries, or applicators therefor [A61F 6/00](#); eye surgery [A61F 9/007](#); ear surgery [A61F 11/00](#))**
- U A61B 17/02 · for holding wounds open; Tractors ({specula [A61B 1/32](#)}; drainage appliances for wounds [A61M 27/00](#))
- M A61B 17/0218 · · {for minimally invasive surgery (~~[A61B 17/0218](#)~~; [A61B 17/0281](#), [A61B 17/0469](#), [A61B 17/12013](#), [A61B 17/1285](#), [A61B 17/29](#), [A61B 17/320016](#) take precedence)}

Project: RP0155-F (A61B)

- M A61B 17/14 · Surgical saws ({[A61B 17/1637](#) takes precedence;} tooth saws [A61C 3/12](#));} Accessories therefor}
- WARNING**
Group ~~A61B 17/14~~ is impacted by reclassification into groups ~~A61B 17/147~~ and ~~A61B 17/149~~.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A61B 17/142 · · {with reciprocating saw blades, e.g. with cutting edges at the distal end of the saw blades}
- WARNING**
Group ~~A61B 17/142~~ is impacted by reclassification into group ~~A61B 17/144~~.
Groups ~~A61B 17/142~~ and ~~A61B 17/144~~ should be considered in order to perform a complete search.
- M A61B 17/144 · · · {with cutting edges at the side of the saw blades}
- WARNING**
Group ~~A61B 17/144~~ incomplete pending reclassification of documents from group ~~A61B 17/142~~.
Groups ~~A61B 17/142~~ and ~~A61B 17/144~~ should be considered in order to perform a complete search.
- M A61B 17/147 · · {with circularly moving saw blades, i.e. non-reciprocating saw blades}
- WARNING**
Group ~~A61B 17/147~~ is incomplete pending reclassification of documents from group ~~A61B 17/14~~.
Groups ~~A61B 17/147~~ and ~~A61B 17/14~~ should be considered in order to perform a complete search.
- M A61B 17/149 · · {Chain, wire or band saws}
- WARNING**
Group ~~A61B 17/149~~ is incomplete pending reclassification of documents group ~~A61B 17/14~~.
Groups ~~A61B 17/149~~ and ~~A61B 17/14~~ should be considered in order to perform a complete search.
- U A61B 17/16 · {Bone cutting, breaking or removal means other than saws, e.g.} Osteoclasts; Drills or chisels for bones; Trepanns {(arthroscopic bone cutters [A61B 17/320016](#); dental implant drills potentially for other surgical use [A61C 8/0089](#); bone grinders [A61F 2/4644](#), [A22C 17/06](#); [A61B 17/1662](#) takes precedence over all other subgroups except [A61B 17/17](#))}
- U A61B 17/17 · · Guides {or aligning means} for drills {, mills, pins or wires}

- M A61B 17/1739 . . . {specially adapted for particular parts of the body}
- WARNING
Group A61B 17/1739 is impacted by reclassification into groups A61B 17/1771, A61B 17/1775, A61B 17/1778, A61B 17/1782, A61B 17/1785, A61B 17/1789 and A61B 17/1792.
All groups listed in this Warning should be considered in order to perform a complete search.
- M A61B 17/1771 . . . {for the ear}
- WARNING
Group A61B 17/1771 is incomplete pending reclassification of documents from group A61B 17/1739.
Groups A61B 17/1771 and A61B 17/1739 should be considered in order to perform a complete search.
- M A61B 17/1775 . . . {for the foot or ankle}
- WARNING
Group A61B 17/1775 is incomplete pending reclassification of documents from group A61B 17/1739.
Groups A61B 17/1775 and A61B 17/1739 should be considered in order to perform a complete search.
- M A61B 17/1778 . . . {for the shoulder}
- WARNING
Group A61B 17/1778 is incomplete pending reclassification of documents from group A61B 17/1739.
Groups A61B 17/1778 and A61B 17/1739 should be considered in order to perform a complete search.
- M A61B 17/1782 . . . {for the hand or wrist}
- WARNING
Group A61B 17/1782 is incomplete pending reclassification of documents from group A61B 17/1739.
Groups A61B 17/1782 and A61B 17/1739 should be considered in order to perform a complete search.
- M A61B 17/1785 . . . {for the sinus or nose}
- WARNING
Group A61B 17/1785 is incomplete pending reclassification of documents from group A61B 17/1739.
Groups A61B 17/1785 and A61B 17/1739 should be considered in order to perform a complete search.
- M A61B 17/1789 . . . {for the sternum}
- WARNING
Group A61B 17/1789 is incomplete pending reclassification of documents from group A61B 17/1739.
Groups A61B 17/1789 and A61B 17/1739 should be considered in order to perform a complete search.
- M A61B 17/1792 . . . {for the ribs}
- WARNING
Group A61B 17/1792 is incomplete pending reclassification of documents from group A61B 17/1739.

Groups A61B 17/1792 and A61B 17/1739 should be considered in order to perform a complete search.

Project: RP0339 (A61C)

M A61C

DENTISTRY; APPARATUS OR METHODS FOR ORAL OR DENTAL HYGIENE (non-driven toothbrushes [A46B](#); {tongue scrapers [A61B 17/24](#);} preparations for dentistry [A61K 6/00](#); preparations for cleaning the teeth or mouth [A61K 8/00](#), [A61Q 11/00](#))

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

A61C 7/24	covered by	A61C 7/20
A61C 7/26	covered by	A61C 7/20
A61C 7/32	covered by	A61C 7/28
A61C 8/02	covered by	A61C 8/0004
A61C 11/04	covered by	A61C 11/00
A61C 13/003	covered by	A61C 13/26
A61C 13/007	covered by	A61C 13/01
A61C 13/03	covered by	A61C 13/01
A61C 13/07	covered by	A61C 13/0025
A61C 13/093	covered by	A61C 13/1006
A61C 13/103	covered by	A61C 13/1009
A61C 13/105	covered by	A61C 13/1009
A61C 13/107	covered by	A61C 13/0001
A61C 13/113	covered by	A61C 13/0001
A61C 13/15	covered by	A61C 19/003
A61C 13/23	covered by	A61C 13/0025
A61C 13/263	covered by	A61C 13/225
A61C 13/271	covered by	A61C 13/26
A61C 13/32	covered by	A61C 13/225
A61C 13/36	covered by	A61C 13/1016
A61C 13/38	covered by	A61C 13/12
A61C 17/024	covered by	A61C 17/02
A61C 17/032	covered by	A61C 17/02
A61C 17/06	covered by	A61C 17/00
A61C 17/08	covered by	A61C 17/00
A61C 17/10	covered by	A61C 17/00
A61C 17/12	covered by	A61C 17/00
A61C 17/18	covered by	A61C 17/16

2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

U A61C 3/00

Dental tools or instruments (implanting tools [A61C 8/00](#); tools for fastening artificial teeth [A61C 13/12](#); visual inspection devices, e.g. dental mirrors, [A61B 1/24](#))

U A61C 3/02

• Tooth drilling or cutting instruments; Instruments acting like a sandblast machine

C A61C 3/03

• • Instruments operated by vibration

WARNING

Group [A61C 3/03](#) is impacted by reclassification into groups [A61C 17/18](#) and [A61C 17/20](#).

Groups A61C 3/03, A61C 17/18 and A61C 17/20 should be considered in order to perform a complete search.

- U A61C 17/00** Devices for cleaning, polishing, rinsing or drying teeth, teeth cavities or prostheses (instruments acting like a sandblast machine [A61C 3/025](#); tooth polishing discs or holders therefor [A61C 3/06](#); devices for cleaning between the teeth [A61C 15/00](#)); Saliva removers; Dental appliances for receiving spittle
- NOTE
Cleaning of prostheses using ultrasonic techniques similar to those used for natural teeth is classified in this group. Other ultrasonic cleaning of prostheses is classified in group [B08B 3/12](#)
- C A61C 17/02**
- Rinsing or air-blowing devices, e.g. using fluid jets {or comprising liquid medication} (~~air and water supply systems in dental machines in general [A61C 1/0061](#); with particulate material supply [A61C 3/025](#);~~ combined with ~~power-driven cleaning or polishing receptacles for spittle [A61C 17/14](#) devices [A61C 17/16](#);~~ combined with power-driven cleaning or polishing devices [A61C 17/16](#))
- WARNING
*Group [A61C 17/02](#) is impacted by reclassification into groups [A61C 17/024](#) and [A61C 17/14](#).
Groups [A61C 17/02](#), [A61C 17/024](#) and [A61C 17/14](#) should be considered in order to perform a complete search.*
- C A61C 17/0211**
- {specially adapted for rinsing the teeth of at least one jaw simultaneously ([A61C 17/20](#) takes precedence)}
- WARNING
*Group [A61C 17/0211](#) is impacted by reclassification into groups [A61C 17/0211](#) and [A61C 17/028](#).
All groups listed in this Warning should be considered in order to perform a complete search.*
- D A61C 17/0214**
- {adapted to be connected to the main water supply, e.g. using a water tap} <administratively transferred to [A61C 17/032](#)>
- U A61C 17/022**
- Air-blowing devices {, e.g. with means for heating the air}
- N A61C 17/024**
- with constant liquid flow
- WARNING
*Group [A61C 17/024](#) is incomplete pending reclassification of documents from group [A61C 17/02](#).
Groups [A61C 17/02](#) and [A61C 17/024](#) should be considered in order to perform a complete search.*
- T A61C 17/028**
- with intermittent liquid flow ~~{([A61C 17/0211](#) takes precedence)}~~
- WARNING
*Group [A61C 17/028](#) is incomplete pending reclassification of documents from group [A61C 17/0211](#).
Groups [A61C 17/0211](#) and [A61C 17/028](#) should be considered in order to perform a complete search.*
- N A61C 17/032**
- using pressurised tap-water {, e.g. rinsing devices specially adapted for being connected to the main water supply}
- M A61C 17/036**
- {Cleaning devices for dental prostheses removed from the oral cavity ~~(using ultrasonics [B08B 3/12](#))~~}

- F A61C 17/04
(Frozen)
- {Spittoons or saliva removers for dental use}
- WARNING**
Group [A61C 17/04](#) is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups [A61C 17/06](#), [A61C 17/084](#), [A61C 17/088](#), [A61C 17/092](#), [A61C 17/096](#), [A61C 17/10](#), [A61C 17/12](#), [A61C 17/125](#), [A61C 17/13](#), [A61C 17/135](#) and [A61C 17/14](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- D A61C 17/043
- {Aspiration tips (aspiration combined with rinsing or liquid medication [A61C 17/0208](#))}
 - <administratively transferred to [A61C 17/08](#)>
- D A61C 17/046
- {characterised by provisions for processing the collected matter, e.g. for separating solids or air (similar devices for medical use [A61M 1/0056](#))}
 - <administratively transferred to [A61C 17/065](#)>
- N A61C 17/06
- Saliva removers; Accessories therefor
- WARNING**
Groups [A61C 17/06](#), [A61C 17/084](#), [A61C 17/088](#), [A61C 17/092](#), [A61C 17/096](#), [A61C 17/10](#), [A61C 17/12](#), [A61C 17/125](#), [A61C 17/13](#) and [A61C 17/135](#) are incomplete pending reclassification of documents from group [A61C 17/04](#).
These groups should be considered in order to perform a complete search.
- N A61C 17/065
- {characterised by provisions for processing the collected matter, e.g. for separating solids or air}
- N A61C 17/08
- Aspiration nozzles
- N A61C 17/084
- {with light sources}
- N A61C 17/088
- {with mirrors}
- N A61C 17/092
- {with tips having features to prevent suction of soft tissues}
- N A61C 17/096
- {Bendable saliva removers}
- N A61C 17/10
- with mouth props, tongue guards, tongue depressors or cheek spreaders
- N A61C 17/12
- Control devices, e.g. for suction
- N A61C 17/125
- • {with backflow prevention, e.g. check valves}
- N A61C 17/13
- • {with manually operated valves}
- N A61C 17/135
- • {with self-cleaning or self-disinfecting means}
- M A61C 17/14
- Dental appliances for receiving spittle, with or without rinsing means therefor, e.g. dental basins, spittoons, cuspidors
- WARNING**
Group [A61C 17/14](#) is incomplete pending reclassification of documents from groups [A61C 17/02](#) and [A61C 17/04](#).
Groups [A61C 17/14](#), [A61C 17/02](#), and [A61C 17/04](#) should be considered in order to perform a complete search.
- U A61C 17/16
- Power-driven cleaning or polishing devices
- N A61C 17/18
- Chiselling scalers ([A61C 17/20](#) takes precedence)
- WARNING**
Group [A61C 17/18](#) is incomplete pending reclassification of documents from group [A61C 3/03](#).
Groups [A61C 3/03](#) and [A61C 17/18](#) should be considered in order to perform a complete search.

M A61C 17/20 · · using ultrasonics

WARNING

Group A61C 17/20 is incomplete pending reclassification of documents from group A61C 3/03.
Groups A61C 3/03 and A61C 17/20 should be considered in order to perform a complete search.

Project: MP0428 (A61F)

- U A61F 2/00** Filters implantable into blood vessels; Prostheses, i.e. artificial substitutes or replacements for parts of the body; Appliances for connecting them with the body; Devices providing patency to, or preventing collapsing of, tubular structures of the body, e.g. stents (as cosmetic articles, see the relevant subclasses, e.g. wigs, hair pieces, [A41G 3/00](#), [A41G 5/00](#), artificial nails [A45D 31/00](#); dental prostheses [A61C 13/00](#); materials for prostheses [A61L 27/00](#); artificial hearts [A61M 1/10](#); artificial kidneys [A61M 1/14](#))
- U A61F 2/02 · Prostheses implantable into the body {(closure means for urethra or rectum or for artificial body openings therefor [A61F 2/0004](#))}
- U A61F 2/30 · · Joints
- M A61F 2/30767 · · · {Special external ~~and~~/or bone-contacting surfaces, e.g. coating for improving bone ingrowth ~~(materials for coating prostheses A61L 27/28)~~}
- M A61F 2/30771 · · · · {applied in original prostheses, e.g. holes, ~~or~~ grooves ~~(etching the surface A61F 2/30767)~~}
- U A61F 2/50 · Prostheses not implantable in the body {(closure means for urethra or rectum or for artificial body openings therefor [A61F 2/0004](#))}
- U A61F 2/78 · · Means for protecting prostheses or for attaching them to the body, e.g. bandages, harnesses, straps, or stockings for the limb stump
- U A61F 2/7812 · · · {Interface cushioning members placed between the limb stump and the socket, e.g. bandages or stockings for the limb stump}
- M A61F 2002/7818 · · · · {Stockings or socks for the limb stump (cosmetic coverings ~~A61F 2/0059~~[A61F 2002/5001](#))}
- U A61F 13/00** Bandages or dressings (suspensory bandages [A61F 5/40](#); {contact-avoiding wound protectors [A61F 15/008](#); bandages or dressings with incorporated medicaments [A61L 15/44](#), [A61M 35/006](#); radioactive dressings [A61N 5/1029](#)); Absorbent pads (chemical aspects of, or use of materials for, bandages, dressings or absorbent pads [A61L 15/00](#); {absorbent pads for tracheostomy [A61M 16/047](#)})
- U A61F 2013/00089 · {Wound bandages ([A61F 2013/00361](#) takes precedence;)}
U A61F 2013/00217 · · {not adhering to the wound (with wax [A61F 2013/00161](#))}
- M A61F 2013/00229 · · · {with alginate ~~(absorbent structures with superabsorbent materials, e.g. SAM K61F13/15D7)~~}
- M A61F 2013/00234 · · · {metallic layer ~~(metallic underlayers K61F13/15E2)~~}
- M A61F 2013/00246 · · {in a special way pervious to air or vapours ~~(air permeability of absorbent structures K61F13/15D10T; underlayers impervious to fluids but not for air or vapours K61F13/15E1A; fibrous underlayers impervious to fluids end open for air K61F13/15E3A)~~}
- M A61F 13/15 · Absorbent pads, e.g. sanitary towels, swabs or tampons for external or internal application to the body (non-absorbent catamenial receptacles ~~A61F~~[A61F 5/44](#)); Supporting or fastening means therefor; Tampon applicators

Project: MP0428 (A61H)

- M A61H 7/00 **Devices for suction-kneading massage; Devices for massaging the skin by rubbing or brushing not otherwise provided for (electro-medical massage devices applying electric current by contact [A61N 1/18](#) {-; ~~brushes in general A46; bathing sponges, brushes, gloves or similar cleaning or rubbing implements not specially for massage A47K 7/02; suction devices for nursing A61M 1/06, A61M 1/08; rollers or balls therefore, A61H 15/00~~)**

Project: RP0006-F (A61J)

- U A61J 1/00 **Containers specially adapted for medical or pharmaceutical purposes (capsules or the like for oral use [A61J 3/07](#); specially adapted for surgical or diagnostic appliances or instruments [A61B 50/00](#); {antithrombogenic treatment of articles for conditioning blood [A61L 33/00](#); devices for introducing media into or onto the body [A61M](#));} containers for radioactive substances [G21F 5/00](#)**
- U A61J 1/05 • for collecting, storing or administering blood, plasma or medical fluids {(multiple bags systems for separating or storing blood components [A61M 1/0209](#)); Infusion or perfusion containers}
- M A61J 1/14 • • Details {, e.g. provisions for hanging or shape retaining means}; Accessories therefor {, e.g. inlet or outlet ports, filters or caps} ([A61J 7/00](#) takes precedence; {plugs or stoppers [B65D 51/00](#);} openers [B65D](#), [B67B 7/00](#))
- WARNING**
Group A61J 1/14 is impacted by reclassification into group A61J 1/1468.- Groups A61J 1/14 and A61J 1/1468 should be considered in order to perform a complete search.
- M A61J 1/1412 • • • {Containers with closing means, e.g. caps (plugs for containers [B65D 51/00](#))}
- WARNING**
Group A61J 1/1412 is impacted by reclassification into groups A61J 1/1418 - A61J 1/1431.- Groups A61J 1/1412 and A61J 1/1418 - A61J 1/1431 should be considered in order to perform a complete search.
- M A61J 1/1418 • • • • {Threaded type}
- WARNING**
Groups A61J 1/1418- A61J 1/1431 are incomplete pending reclassification of documents from groups A61J 1/1412.- Groups A61J 1/1412, A61J 1/1418 - A61J 1/1431 should be considered in order to perform a complete search.
- M A61J 1/1425 • • • • {Snap-fit type}
- WARNING**
Group(s) A61J 1/1418- A61J 1/1431 is/are incomplete pending reclassification of documents from group(s) A61J 1/1412.- Groups A61J 1/1412, A61J 1/1418 - A61J 1/1431 should be considered in order to perform a complete search.
- M A61J 1/1431 • • • • {Permanent type, e.g. welded or glued}
- WARNING**
Groups A61J 1/1418- A61J 1/1431 are incomplete pending reclassification of documents from groups A61J 1/1412.- Groups A61J 1/1412, A61J 1/1418 - A61J 1/1431 should be considered in order to perform a complete search.

- M A61J 1/1443
- • • {Containers with means for dispensing liquid medicaments in a filtered or sterile way, e.g. with bacterial filters}
- WARNING
~~Groups A61J 1/1443 is impacted by reclassification into groups A61J 1/145 – A61J 1/1456.~~
~~Groups A61J 1/1443 and A61J 1/145 – A61J 1/1456 should be considered in order to perform a complete search.~~
- M A61J 1/145
- • • {using air filters}
- WARNING
~~Groups A61J 1/145 – A61J 1/1456 are incomplete pending reclassification of documents from groups A61J 1/1443.~~
~~Groups A61J 1/1443, A61J 1/145 – A61J 1/1456 should be considered in order to perform a complete search.~~
- M A61J 1/1456
- • • {using liquid filters}
- WARNING
~~Groups A61J 1/145 – A61J 1/1456 are incomplete pending reclassification of documents from groups A61J 1/1443.~~
~~Groups A61J 1/1443, A61J 1/145 – A61J 1/1456 should be considered in order to perform a complete search.~~
- M A61J 1/1468
- • • {Containers characterised by specific material properties}
- WARNING
~~Group A61J 1/1468 is incomplete pending reclassification of documents from group A61J 1/14.~~
~~Groups A61J 1/14 and A61J 1/1468 should be considered in order to perform a complete search.~~
- M A61J 1/1475
- • • {Inlet or outlet ports}
- WARNING
~~Group A61J 1/1475 is impacted by reclassification into groups A61J 1/1481 – A61J 1/1487.~~
~~Groups A61J 1/1475 and A61J 1/1481 – A61J 1/1487 should be considered in order to perform a complete search.~~
- M A61J 1/1481
- • • {with connection retaining means, e.g. thread or snap-fit}
- WARNING
~~Groups A61J 1/1481 – A61J 1/1487 are incomplete pending reclassification of documents from group A61J 1/1475.~~
~~Groups A61J 1/1475, A61J 1/1481 – A61J 1/1487 should be considered in order to perform a complete search.~~
- M A61J 1/1487
- • • {with friction fit, e.g. connecting tubes directly to a protruding port}
- WARNING
~~Groups A61J 1/1481 – A61J 1/1487 are incomplete pending reclassification of documents from groups A61J 1/1475.~~
~~Groups A61J 1/1475, A61J 1/1481 – A61J 1/1487 should be considered in order to perform a complete search.~~
- M A61J 1/20
- • • Arrangements for transferring {or mixing} fluids, e.g. from vial to syringe
- WARNING
~~Group A61J 1/20 is impacted by reclassification into groups A61J 1/2003 – A61J 1/2086.~~

~~Groups A61J 1/20 and A61J 1/2003 – A61J 1/2086 should be considered in order to perform a complete search.~~

- M A61J 1/2003
 - • • {Accessories used in combination with means for transfer or mixing of fluids, e.g. for activating fluid flow, separating fluids, filtering fluid or venting}

WARNING

~~Groups A61J 1/2003– A61J 1/2086 are incomplete pending reclassification of documents from groups A61J 1/20. Groups A61J 1/20, A61J 1/2003 – A61J 1/2086 should be considered in order to perform a complete search.~~

- U A61J 7/00 **Devices for administering medicines orally, e.g. spoons (calibrated capacity measures for fluids or fluent solid material [G01F 19/00](#); weighing spoons [G01G 19/56](#)); Pill counting devices; Arrangements for time indication or reminder for taking medicine**

- U A61J 7/04
 - Arrangements for time indication or reminder for taking medicine, e.g. programmed dispensers

- M A61J 7/0409
 - • {with timers}

WARNING

~~Group A61J 7/0409 is impacted by reclassification into groups A61J 7/0418– A61J 7/0463. Groups A61J 7/0409 and A61J 7/0418 – A61J 7/0463 should be considered in order to perform a complete search.~~

- M A61J 7/0418
 - • • {with electronic history memory}

WARNING

~~Groups A61J 7/0418– A61J 7/0463 are incomplete pending reclassification of documents from groups A61J 7/0409. Groups A61J 7/0409, A61J 7/0418 – A61J 7/0463 should be considered in order to perform a complete search.~~

- M A61J 7/0427
 - • • {with direct interaction with a dispensing or delivery system}

WARNING

~~Groups A61J 7/0418– A61J 7/0463 are incomplete pending reclassification of documents from groups A61J 7/0409. Groups A61J 7/0409, A61J 7/0418 – A61J 7/0463 should be considered in order to perform a complete search.~~

- M A61J 7/0454
 - • • {for dispensing of multiple drugs}

WARNING

~~Groups A61J 7/0418– A61J 7/0463 are incomplete pending reclassification of documents from groups A61J 7/0409. Groups A61J 7/0409, A61J 7/0418 – A61J 7/0463 should be considered in order to perform a complete search.~~

- M A61J 7/0463
 - • • {for multiple patients}

WARNING

~~Groups A61J 7/0418– A61J 7/0463 are incomplete pending reclassification of documents from groups A61J 7/0409. Groups A61J 7/0409, A61J 7/0418 – A61J 7/0463 should be considered in order to perform a complete search.~~

- M A61J 7/0481
- • • {working on a schedule basis}
- WARNING
Group A61J 7/0481 is impacted by reclassification into group A61J 7/049. Groups A61J 7/0481 and A61J 7/049 should be considered in order to perform a complete search.
- M A61J 7/049
- • • {automatically changing in response to a schedule deviation by the patient}
- WARNING
Group A61J 7/049 is incomplete pending reclassification of documents from group A61J 7/0481. Groups A61J 7/0481 and A61J 7/049 should be considered in order to perform a complete search.
- U A61J 9/00**
- Feeding-bottles in general**
- M A61J 9/06
- Holders for bottles
- WARNING
Group A61J 9/06 is impacted by reclassification into groups A61J 9/0607 - A61J 9/0692. Groups A61J 9/06 and A61J 9/0607 - A61J 9/0692 should be considered in order to perform a complete search.
- M A61J 9/0607
- • {having aesthetic features, e.g. toy-like or imitating a female breast}
- WARNING
Groups A61J 9/0607 - A61J 9/0692 are incomplete pending reclassification of documents from groups A61J 9/06. Groups A61J 9/06, A61J 9/0607 - A61J 9/0692 should be considered in order to perform a complete search.
- M A61J 9/0615
- • {providing isolation}
- WARNING
Groups A61J 9/0607 - A61J 9/0692 are incomplete pending reclassification of documents from groups A61J 9/06. Groups A61J 9/06, A61J 9/0607 - A61J 9/0692 should be considered in order to perform a complete search.
- M A61J 9/0623
- • {facilitating gripping}
- WARNING
Groups A61J 9/0607 - A61J 9/0692 are incomplete pending reclassification of documents from groups A61J 9/06. Groups A61J 9/06, A61J 9/0607 - A61J 9/0692 should be considered in order to perform a complete search.
- M A61J 9/063
- • {having a particular supporting function}
- WARNING
Groups A61J 9/0607 - A61J 9/0692 are incomplete pending reclassification of documents from groups A61J 9/06. Groups A61J 9/06, A61J 9/0607 - A61J 9/0692 should be considered in order to perform a complete search.
- M A61J 9/0653
- • {characterised by the type of support}
- WARNING
Groups A61J 9/0607 - A61J 9/0692 are incomplete pending reclassification of documents from groups A61J 9/06.

Groups A61J 9/06, A61J 9/0607 – A61J 9/0692 should be considered in order to perform a complete search.

U A61J 15/00

Feeding-tubes for therapeutic purposes

M A61J 15/0026

- {Parts, details or accessories for feeding-tubes (external tubes from medical containers to a connector outside of the body [A61M 39/08](#))}

WARNING

Group A61J 15/0026 is impacted by reclassification into groups A61J 15/0076 – A61J 15/0088.

Groups A61J 15/0026 and A61J 15/0076 – A61J 15/0088 should be considered in order to perform a complete search.

M A61J 15/0076

- {Feeding pumps ([A61M 1/00](#), [A61M 5/142](#), [A61M 25/1018](#) take precedence)}

WARNING

Groups A61J 15/0076 – A61J 15/0088 are incomplete pending reclassification of documents from groups A61J 15/0026.

Groups A61J 15/0026, A61J 15/0076 – A61J 15/0088 should be considered in order to perform a complete search.

M A61J 15/008

- {Sensor means, e.g. for sensing reflux, acidity or pressure (sensors for diagnostic purposes [A61B 5/00](#); sensors for inflation control [A61M 25/1018](#))}

WARNING

Groups A61J 15/0076 – A61J 15/0088 are incomplete pending reclassification of documents from groups A61J 15/0026.

Groups A61J 15/0026, A61J 15/0076 – A61J 15/0088 should be considered in order to perform a complete search.

M A61J 17/00

Baby-comforters; Teething rings

WARNING

Group A61J 17/00 is impacted by reclassification into groups A61J 17/001 – A61J 17/008.

Groups A61J 17/00 and A61J 17/001 – A61J 17/008 should be considered in order to perform a complete search.

M A61J 17/001

- {Baby-comforters}

WARNING

Groups A61J 17/001 – A61J 17/008 are incomplete pending reclassification of documents from groups A61J 17/00.

Groups A61J 17/00, A61J 17/001 – A61J 17/008 should be considered in order to perform a complete search.

Project: MP0428 (A61K)

U A61K 8/00

Cosmetics or similar toilet preparations (casings or accessories for storing or handling of solid or pasty toilet or cosmetic substances [A45D 40/00](#))

NOTES

1. Use of cosmetics or similar toilet preparations is further classified in subclass [A61Q](#).
2. Use of cosmetics or similar toilet preparations is mandatorily further classified in subclass [A61Q](#).
3. Attention is drawn to the Notes in class [C07](#), for example the notes following the title of subclass [C07D](#), setting forth the rules for classifying organic

compounds in that class, which rules are also applicable, if not otherwise indicated, to the classification of organic compounds in group [A61K 8/00](#).

4. Salts or complexes of organic compounds are classified according to the base compounds. If a complex is formed between two or more compounds, classification is made for each compound.

U A61K 8/18 · characterised by the composition

NOTE

In this group, the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

U A61K 8/30 · · containing organic compounds

U A61K 8/33 · · · containing oxygen

U A61K 8/36 · · · · Carboxylic acids; Salts or anhydrides thereof

M A61K 8/368 · · · · · with carboxyl groups directly bound to carbon atoms **orof** aromatic rings

U A61K 31/00 Medicinal preparations containing organic active ingredients

NOTES

1. When classifying in groups [A61K 31/00](#) - [A61K 41/00](#) the symbol [A61K 2300/00](#) may be added, using Combination Sets, to indicate a mixture of active ingredients.

2. In the preparation of new organic compounds and their use in medicinal preparations, classification is only made in the relevant subclasses [C07C](#) - [C07J](#) according to the type of compound. However, the inventions dealing with medicinal preparations containing at least two active organic ingredients are always classified in this group in addition to the classification for the type of compounds in [C07C](#) - [C07J](#).

3. Attention is drawn to the notes in class [C07](#), particularly to the definition of steroids given in Note (1) following the title of [C07J](#) and to the definition of carbohydrates and sugars given in the notes following the title of [C07H](#).

4. Salts and complexes of organic active compounds are always classified according to the free active compounds. If a complex is formed between two or more active compounds, then they are classified according to all compounds forming the salts or complexes followed by the symbol [A61K 2300/00](#) (i.e. as a mixture of active organic compounds). According to the last place rule, organic active compounds forming salts with heavy metals should be classified in [A61K 33/24](#) - [A61K 33/38](#) and not in subgroups [A61K 31/28](#) - [A61K 31/32](#), [A61K 31/555](#) or [A61K 31/714](#).

This does not apply to complexes, as apparent from the [A61K 31/00](#) scheme, wherein the complexes hemin and hematin are classified in [A61K 31/555](#) and cyanocobalamin in [A61K 31/714](#).

5. From January 2003 onwards, the EPO copies into CPC the IPC classification of the first document received (family representative). However, blends of active ingredients receive the additional symbol [A61K 2300/00](#) as Combination Set.

U A61K 31/33 · Heterocyclic compounds

U A61K 31/395 · · having nitrogen as a ring hetero atom, e.g. guanethidine, rifamycins ([A61K 31/496](#))

WARNING

Group [A61K 31/395](#) is impacted by reclassification into group [A61K 31/5545](#). Groups [A61K 31/395](#) and [A61K 31/5545](#) should be considered in order to perform a complete search.

U A61K 31/435 · · · having six-membered rings with one nitrogen as the only ring hetero atom

M A61K 31/438 ~~the~~*The* ring being spiro-condensed with carbocyclic *or heterocyclic* ring systems

Project: RP0339 (A61M)

A61M 1/00

Suction or pumping devices for medical purposes; Devices for carrying-off, for treatment of, or for carrying-over, body-liquids; Drainage systems (~~{A61M 3/00 - A61M 5/00, A61M 11/00 - A61M 16/00, A61M 27/00 - A61M 35/00 take precedence }~~); catheters [A61M 25/00](#); tube connectors, tube couplings, valves or branch units specially adapted for medical use [A61M 39/00](#); devices for taking samples of blood [A61B 5/14](#); implements for holding wounds open [A61B 17/02](#); {saliva removers for dentists ~~A61C 17/04~~[A61C 17/06](#)}; filters implantable into blood vessels [A61F 2/01](#); pumps in general [F04](#))

WARNING

Groups [A61M 1/0007](#), [A61M 1/0015](#), [A61M 1/0017](#), [A61M 1/0025 - A61M 1/0029](#), [A61M 1/0033](#), [A61M 1/0035](#), [A61M 1/0045](#), [A61M 1/005 - A61M 1/0054](#), [A61M 1/006](#), [A61M 1/0068 - A61M 1/0072](#), [A61M 1/0082](#), [A61M 1/0086](#), [A61M 1/009 - A61M 1/0098](#), [A61M 1/0204](#), [A61M 1/0213 - A61M 1/0236](#), [A61M 1/0254](#), [A61M 1/0277](#), [A61M 1/0286](#), [A61M 1/0295](#), [A61M 1/062 - A61M 1/068](#), [A61M 1/1001 - A61M 1/1008](#), [A61M 1/1012 - A61M 1/1036](#), [A61M 1/1039 - A61M 1/1044](#), [A61M 1/1048 - A61M 1/1051](#), [A61M 1/1055 - A61M 1/1058](#), [A61M 1/1062 - A61M 1/1065](#), [A61M 1/1074 - A61M 1/1075](#), [A61M 1/1082](#), [A61M 1/1084](#), [A61M 1/1087 - A61M 1/1089](#), [A61M 1/1096 - A61M 1/1098](#), [A61M 1/122 - A61M 1/125](#), [A61M 1/1601 - A61M 1/1652](#), [A61M 1/166 - A61M 1/1676](#), [A61M 1/1682 - A61M 1/1684](#), [A61M 1/1688](#), [A61M 1/262 - A61M 1/267](#), [A61M 1/281 - A61M 1/284](#), [A61M 1/288](#), [A61M 1/301 - A61M 1/309](#), [A61M 1/322 - A61M 1/327](#), [A61M 1/3403 - A61M 1/341](#), [A61M 1/3417](#), [A61M 1/3424 - A61M 1/3437](#), [A61M 1/3444 - A61M 1/3451](#), [A61M 1/3458](#), [A61M 1/3465](#), [A61M 1/3468](#), [A61M 1/3475 - A61M 1/3493](#), [A61M 1/3601 - A61M 1/362](#), [A61M 1/3629 - A61M 1/3632](#), [A61M 1/3635 - A61M 1/3638](#), [A61M 1/3641](#), [A61M 1/3644 - A61M 1/3652](#), [A61M 1/3656 - A61M 1/3661](#), [A61M 1/3667](#), [A61M 1/3673](#), [A61M 1/3676](#), [A61M 1/3678](#), [A61M 1/3683](#), [A61M 1/3686](#), [A61M 1/3689](#), [A61M 1/3692](#), [A61M 1/3695 - A61M 1/3698](#) are incomplete pending reclassification of documents from group [A61M 1/00](#) or respective subgroup.

Until reclassification is complete, groups [A61M 1/00](#) or respective subgroup and [A61M 1/0007](#), [A61M 1/0015](#), [A61M 1/0017](#), [A61M 1/0025 - A61M 1/0029](#), [A61M 1/0033](#), [A61M 1/0035](#), [A61M 1/0045](#), [A61M 1/005 - A61M 1/0054](#), [A61M 1/006](#), [A61M 1/0068 - A61M 1/0072](#), [A61M 1/0082](#), [A61M 1/0086](#), [A61M 1/009 - A61M 1/0098](#), [A61M 1/0204](#), [A61M 1/0213 - A61M 1/0236](#), [A61M 1/0254](#), [A61M 1/0277](#), [A61M 1/0286](#), [A61M 1/0295](#), [A61M 1/062 - A61M 1/068](#), [A61M 1/1001 - A61M 1/1008](#), [A61M 1/1012 - A61M 1/1036](#), [A61M 1/1039 - A61M 1/1044](#), [A61M 1/1048 - A61M 1/1051](#), [A61M 1/1055 - A61M 1/1058](#), [A61M 1/1062 - A61M 1/1065](#), [A61M 1/1074 - A61M 1/1075](#), [A61M 1/1082](#), [A61M 1/1084](#), [A61M 1/1087 - A61M 1/1089](#), [A61M 1/1096 - A61M 1/1098](#), [A61M 1/122 - A61M 1/125](#), [A61M 1/1601 - A61M 1/1652](#), [A61M 1/166 - A61M 1/1676](#), [A61M 1/1682 - A61M 1/1684](#), [A61M 1/1688](#), [A61M 1/262 - A61M 1/267](#), [A61M 1/281 - A61M 1/284](#), [A61M 1/288](#), [A61M 1/301 - A61M 1/309](#), [A61M 1/322 - A61M 1/327](#), [A61M 1/3403 - A61M 1/341](#), [A61M 1/3417](#), [A61M 1/3424 - A61M 1/3437](#), [A61M 1/3444 - A61M 1/3451](#), [A61M 1/3458](#), [A61M 1/3465](#), [A61M 1/3468](#), [A61M 1/3475 - A61M 1/3493](#), [A61M 1/3601 - A61M 1/362](#), [A61M 1/3629 - A61M 1/3632](#), [A61M 1/3635 - A61M 1/3638](#), [A61M 1/3641](#), [A61M 1/3644 - A61M 1/3652](#), [A61M 1/3656 - A61M 1/3661](#), [A61M 1/3667](#), [A61M 1/3673](#), [A61M 1/3676](#), [A61M 1/3678](#), [A61M 1/3683](#), [A61M 1/3686](#), [A61M 1/3689](#), [A61M 1/3692](#),

[A61M 1/3695](#) - [A61M 1/3698](#) should be considered in order to perform a complete search.

- U A61M 1/0023 · {Suction drainage systems (containers therefor [A61M 1/0001](#); suction-irrigation systems [A61M 1/0058](#))}
- A61M 1/0056 · {Filters for solid matter (similar devices for dental use ~~A61C 17/046~~[A61C 17/065](#))}

Project: MP0379 (A61M)

- U A61M 5/00 **Devices for bringing media into the body in a subcutaneous, intra-vascular or intramuscular way; Accessories therefor, e.g. filling or cleaning devices, arm-rests ({vaccination appliances for veterinary use [A61D 1/025](#)}; tube connectors, tube couplings, valves or branch units specially adapted for medical use [A61M 39/00](#); containers specially adapted for medical or pharmaceutical purposes [A61J 1/00](#); combinations of vial and syringe for mixing or transferring their contents [A61J 1/20](#); holders for containers for collecting, storing or administering blood or medical fluids [A61J 1/16](#))}**
- U A61M 5/178 · Syringes
- U A61M 5/31 · Details
- U A61M 5/32 · · · Needles; Details of needles pertaining to their connection with syringe or hub (infusion needles [A61M 5/158](#)); Accessories for bringing the needle into, or holding the needle on, the body {([A61M 5/42](#), [A61M 5/46](#) take precedence; guide needles for catheters [A61M 25/065](#)); Devices for protection of needles {(apparatus specially adapted for cleaning or sterilising needles [A61M 5/001](#))}
- U A61M 5/3205 · · · · {Apparatus for removing or disposing of used needles or syringes, e.g. containers; Means for protection against accidental injuries from used needles (for sharps [A61B 50/362](#); disintegrating apparatus in general [B02C](#), e.g. [B02C 19/0075](#), [B23H 9/001](#); disposal of medical waste in general [B09B 3/0075](#); receptacles for refuse disposal in general [B65F 1/00](#))}
- U A61M 5/321 · · · · · {Means for protection against accidental injuries by used needles}
- U A61M 5/322 · · · · · {Retractable needles, i.e. disconnected from and withdrawn into the syringe barrel by the piston (devices for protecting guide needles in combination with catheters [A61M 25/0612](#))}
- M A61M 5/3232 · · · · · · {Semi-automatic needle retraction, i.e. in which **the** triggering of the needle retraction requires a deliberate action by the user, e.g. manual release of spring-biased retraction means}
- M A61M 5/3234 · · · · · · · {Fully automatic *needle retraction*, i.e. in which *triggering of the triggering needle* does not require a deliberate action by the user}
- M A61M 2005/3235 · · · · · · · · {triggered by radial deflection of the anchoring parts between needle mount and syringe barrel or needle housing, e.g. spreading of needle mount retaining hooks having slanted surfaces by engagement with correspondingly shaped surfaces on the piston at the end of an injection stroke}
- M A61M 2005/3236 · · · · · · · · · {Trigger provided at the distal end, i.e. syringe end for mounting a needle}
- M A61M 2005/3238 · · · · · · · · · {Trigger provided at the proximal end, i.e. syringe end opposite to needle mounting end}
- M A61M 2005/3239 · · · · · · · · · {triggered by dislodgement of outer part anchoring the needle portion to the inside of the syringe barrel wall, e.g. a ring-shaped portion}
- M A61M 2005/3241 · · · · · · · · · {Needle retraction energy is accumulated inside of a hollow plunger rod}

- M A61M 2005/3242 {Needle retraction by vacuum}
- U A61M 5/3243 {being axially-extensible, e.g. protective sleeves coaxially slidable on the syringe barrel (devices for protecting guide needles in combination with catheters [A61M 25/0612](#))}
- M A61M 5/3257 {Semi-automatic sleeve extension, i.e. in which ~~the~~ triggering of the sleeve extension requires a deliberate action by the user, e.g. manual release of spring-biased extension means}
- M A61M 5/326 {Fully automatic *sleeve extension*, i.e. in which *triggering of the triggering sleeve* does not require a deliberate action by the user}
- M A61M 2005/3261 {triggered by radial deflection of the anchoring parts between sleeve and syringe barrel, e.g. spreading of sleeve retaining hooks having slanted surfaces by engagement with conically shaped collet of the piston rod during the last portion of the injection stroke of the plunger}
- M A61M 2005/3263 {Trigger provided at the distal end, i.e. syringe end for mounting a needle}
- M A61M 2005/3264 {Trigger provided at the proximal end, i.e. syringe end opposite to needle mounting end}
- M A61M 2005/3265 {Degree of extension of sleeve to its needle covering position is progressively established by the degree of piston insertion into the syringe barrel}
- M A61M 2005/3267 {Biased sleeves where the needle is uncovered by insertion of the needle into a patient's body}
- M A61M 2005/3268 {having cantilever elastically spreadable arms, e.g. to accumulate energy during needle uncovering movement for urging protection sleeve to return to needle covering position}

Project: MP0428 (A61M)

- U A61M 25/00 **Catheters; Hollow probes (dilators [A61M 29/00](#); {peritoneal catheters [A61M 1/285](#); tracheal tubes [A61M 16/04](#); for drainage [A61M 27/00](#); for uterus, vagina or rectum [A61M 31/00](#) } ; for measuring or testing [A61B](#); {materials for catheters [A61L 29/00](#))}**
- U A61M 25/01 . Introducing, guiding, advancing, emplacing or holding catheters ([A61M 25/10](#) takes precedence)
- U A61M 25/0194 . . {Tunnelling catheters}
- M A61M 2025/0197 . . . {for creating an artificial passage within the body, e.g. in order to go around occlusions ~~(for fixation outside the body [A61M 25/0194](#))}~~

Project: RP0021 (A61M)

- U A61M 25/10 . Balloon catheters ({[A61M 25/0125](#) takes precedence; embolectomy [A61B 17/22032](#); retractors [A61B 17/02](#);} inflatable balloons for placing stents or stent-grafts [A61F 2/958](#) {; stomach balloons for treatment of obesity [A61F 5/0003](#); oesophageal tubes [A61J 15/00](#)})
- M A61M 25/1018 . . {Balloon inflating or inflation-control devices}

WARNING

Groups A61M 25/10181 – A61M 25/10188 are incomplete pending reclassification of documents from group A61M 25/1018. Until reclassification is complete, groups A61M 25/1018 and A61M 25/10181 – A61M 25/10188 should be considered in order to perform a complete search.

Project: MP0428 (A61M)

- U A61M 2025/1043 · {with special features or adapted for special applications (not used)}
- M A61M 2025/1047 · · {having centering means, e.g. balloons having an appropriate shape}

NOTE

This group also covers **other balloon catheters with centering means and is not limited to other than centering means using balloons**

Project: RP0129 (A61M)

- C A61M 35/00** Devices for applying; {, e.g. spreading}, media, e.g. remedies, on the human body (devices for handling toilet or cosmetic substances **A45D**; absorbent pads, e.g. swabs **{for medical use}**, **A61F 13/15**); **{Introducing media, e.g. remedies, into the body by diffusion through the skin (using salt baths A61H 33/04)}**

WARNING

Group **A61M 35/00** is impacted by reclassification into groups **A61M 35/10**, **A61M 35/20**, **A61M 35/25**, and **A61M 35/30**.

All groups listed in this Warning should be considered in order to perform a complete search.

- M A61M 35/003 · **{Hand Portable hand-held applicator instruments-applicators having media means for dispensing or spreading means-integral media (apparatus for iontophoresis A61N 1/30; hand tools for applying fluent material to surfaces; in general B05C 17/00; container closures with pads or like contents-applying means, in general B65D 47/42 hand-held massage devices with liquid delivery A61H 7/003)}**
- M A61M 35/006 · **{Absorbent pads using sponges, e.g. swabs foams, containing a liquid, e.g. in a rupturable reservoir absorbent pads or swabs as spreading means}(absorbent pads, e.g. swabs, for medical use, in general A61F 13/00, e.g. A61F 13/38)}**
- N A61M 35/10 · **{Wearable devices, e.g. garments, glasses or masks}**

WARNING

Group **A61M 35/10** is incomplete pending reclassification of documents from group **A61M 35/00**.

Groups **A61M 35/00** and **A61M 35/10** should be considered in order to perform a complete search.

- N A61M 35/20 · **{Non-portable devices, e.g. spraying booths}**

WARNING

Group **A61M 35/20** is incomplete pending reclassification of documents from group **A61M 35/00**.

Groups **A61M 35/00** and **A61M 35/20** should be considered in order to perform a complete search.

- N A61M 35/25 · **{specially adapted for the application of sunscreen, tanning or self-tanning lotions}**

WARNING

Group **A61M 35/25** is incomplete pending reclassification of documents from group **A61M 35/00**.

Groups **A61M 35/00** and **A61M 35/25** should be considered in order to perform a complete search.

- N A61M 35/30 · {Gas therapy for therapeutic treatment of the skin}
- WARNING
 Group [A61M 35/30](#) is incomplete pending reclassification of documents from group [A61M 35/00](#).
 Groups [A61M 35/00](#) and [A61M 35/30](#) should be considered in order to perform a complete search.

Project: MP0428 (A61M)

- U A61M 2202/00 **Special media to be introduced, removed or treated (applying radioactive material [A61N 5/1028](#))**
- NOTE
 The classification symbols [A61M 2202/0007](#) - [A61M 2202/0092](#) are not listed first when assigned to patent documents.
 They are used only when associated to other subgroups of [A61M 2202/00](#) in combination sets
 Example:
[A61M 2202/0417](#), [A61M 2202/0057](#)

- M A61M 2202/02 · Gases ~~(smoke evacuating A61B 2218/008)~~

- M A61M 2230/00 **Measuring parameters of the user**

NOTE

+A following the symbol means that the parameter is used for controlling an apparatus

The classification ~~{In this group, symbol [A61M 2230/005](#) is only not listed first when assigned to patent documents. It is used as subsequent symbol in C-Sets and should not be allocated as single symbols.}~~ only when associated to other subgroups of [A61M 2230/00](#).
 Example:
[A61M 2230/06 + A61M 2230/005](#)

Project: MP0453 (A62)

- M A62 **LIFE-SAVING; FIRE-FIGHTING ~~(ladders E06C)~~**

Project: MP0370 (A63B)

- M A63B 6/00 **Mats or the like for absorbing shocks for jumping, gymnastics or the like ~~{(for jogging on the spot A63B 69/0035; resiliently-mounted floors E04F 15/22)}~~**
- M A63B 6/02 · for landing, e.g. for pole vaulting ~~{(jumping-mattresses for rescue A62B 1/22)}~~
- M A63B 19/00 **Hoop exercising apparatus ~~{([A63B 21/0608](#) takes precedence; not driven by the user, e.g. motor driven, A63G 29/00, A63G 31/00)}~~**
- M A63B 19/02 · Freely-movable rolling hoops, e.g. gyrowheels {or spheres or cylinders, carrying the user inside (resisting devices overcoming gyroscopic forces of rotating bodies [A63B 21/22](#); standing on it for equilibrium exercises [A63B 26/003](#); ~~spherical hulls or hulls in the shape of a vertical ring for use in water B63B 1/047~~)}

- U A63B 21/00** **Exercising apparatus for developing or strengthening the muscles or joints of the body by working against a counterforce, with or without measuring devices (electric or electronic controls therefor [A63B 24/00](#))**
- NOTE
In this subclass, the following terms or expressions are used with the meaning indicated:
- "resistance" and "resistance force" are often used in the art as synonyms for "counterforce";
 - "interface with the user" covers the part of the apparatus, on which the user directly applies his force
- U A63B 21/06 · User-manipulated weights
- M A63B 21/0608 · · {Eccentric weights put into orbital motion by nutating movement of the user (~~symmetric devices, e.g. hula hoops, put into orbital motion [A63B 19/00](#)~~)}
- M A63B 27/00** **Apparatus for climbing poles, trees, or the like ({ropes [A63B 29/02](#)};) safety belts for climbers [A62B 35/00](#); {climbing irons permanently attached to fixed structures [E06C 9/04](#)}**
- U A63B 29/00** **Apparatus for mountaineering (helmets [A42B 3/00](#); non-skid devices or attachments for footwear, e.g. crampons, [A43C 15/00](#); breathing masks or helmets for use at high altitudes [A62B 18/00](#); picks [B25D 7/00](#))**
- U A63B 29/02 · Mountain guy-ropes or accessories, e.g. avalanche ropes; Means for indicating the location of accidentally buried, e.g. snow-buried, persons
- NOTE
Contrary to the wording of group [A63B 29/02](#), devices for lowering persons are classified in [A62B 1/06](#)
- M A63B 29/021 · · {Means for indicating the location of accidentally buried, e.g. snow-buried, persons (~~detecting hidden masses in general [G01V](#)~~)}
- M A63B 31/00** **Swimming aids (teaching swimming [A63B 69/10](#) - [A63B 69/14](#); life-saving in water; {, e.g. life-buoys, life-belts};-) [B63C 9/00](#))**
- M A63B 35/00** **Swimming framework; {, i.e. apparatus fixed to or held by the swimmer or diver};} with driving mechanisms operated by the swimmer or by a motor (other vessels or like floating structures for pleasure or sport [B63B 35/71](#), [B63B 35/73](#); divers' sleds or like craft [B63C 11/46](#))**
- NOTE
References listed below indicate CPC places which could also be of interest when carrying out a search in respect of the subject matter covered by the preceding group:
- Effecting propulsion of vessels by muscle power [B63H 16/00](#)
- U A63B 39/00** **Hollow non-inflatable balls {, i.e. having no valves (rigid balls [A63B 37/00](#))}**
- U A63B 39/02 · Arrangements for maintaining the pressure
- M A63B 39/025 · · {using containers with pressurising means for balls not in use (~~packages under vacuum or pressure, or special atmospheres [B65D 81/20](#)~~)}
- U A63B 43/00** **Balls with special arrangements**
- M A63B 43/04 · with an eccentric centre of gravity; with mechanism for changing the centre of gravity (solid balls [A63B 37/10](#); {motorised rolling toys [A63H 33/005](#)})

- U A63B 47/00** **Devices for handling or treating balls {, e.g. for holding or carrying balls}**
WARNING
 Group [A63B 47/00](#) is impacted by reclassification into group [A63B 57/20](#).
 Groups [A63B 47/00](#) and [A63B 57/20](#) should be considered in order to perform a complete search.
- M A63B 47/008 · {Devices for measuring or verifying ball characteristics ~~(measuring or testing in general G01)~~}
- U A63B 55/00** **Bags for golf clubs; Stands for golf clubs for use on the course; Wheeled carriers specially adapted for golf bags**
WARNING
 Group [A63B 55/00](#) is impacted by reclassification into groups [A63B 55/30](#), [A63B 55/40](#), [A63B 60/60](#), and [A63B 60/64](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- M A63B 55/404 · {Covers or hoods for ~~golfbags~~ *golf bags*}
- U A63B 65/00** **Implements for throwing (throwing toys [A63H 33/18](#)); Mechanical projectors, e.g. using spring force}**
- M A63B 65/02 · Spears or the like {; {Javelins ~~(darts F42B 6/003)~~}
- M A63B 65/10 · Discus discs; Quoits ~~{{flying disc toys A63H 33/18}}~~
- U A63B 67/00** **Sporting games or accessories therefor, not provided for in groups [A63B 1/00](#) - [A63B 65/00](#)**
- M A63B 67/02 · Special golf games, e.g. miniature golf {, ~~e.g. or~~ golf putting games played on putting tracks; putting practice apparatus having an elongated platform as a putting track ~~(mats for golf practice A63B 69/3661)~~}
- M A63B 67/04 · Table games physically beneficial for the human body, modelled on outdoor sports, e.g. table tennis (~~{tables for table tennis A47B 25/003}~~; other table games [A63F](#))
- M A63B 67/10 · Games with thread-suspended or swingably-mounted bodies, e.g. balls, pointed bodies shaped as birds, animals, or the like, for aiming at and hitting targets (games using a bat with a ball tethered thereto [A63B 67/20](#), *pin games with tethered balls A63D 7/00* ; ~~pin games with tethered balls A63D 7/00~~); {Games using tethered bodies, e.g. balls, not otherwise provided for}
- M A63B 67/20 · Games using a bat {or racket} with a *ball* {~~body, e.g. a or other body~~} *ball* tethered thereto

Project: N/A (A63B)

- U A63B 69/00** **Training appliances or apparatus for special sports (training of parachutists [B64D 23/00](#))**
- A63B 69/40 · Stationarily-arranged devices for projecting balls {or other bodies} ({golf cups with ball ejector means [A63B 57/405](#)}; traps for clay-pigeon targets [F41J 9/18](#))

Project: RP0057 (A63C)

- C A63C 9/00** **Ski bindings**

WARNING

*Group [A63C 9/00](#) is impacted by reclassification into group [A63C 9/005](#).
 Groups [A63C 9/00](#) and [A63C 9/005](#) should be considered in order to perform a complete search.*

- C A63C 9/005
- ~~{adjustable in length}~~ *with means for adjusting the position of a shoe holder or height of the complete binding relative to the ski*

WARNING

Group [A63C 9/005](#) is incomplete pending reclassification of documents from group [A63C 9/00](#).

Group [A63C 9/005](#) is also impacted by reclassification into groups [A63C 9/0053](#) and [A63C 9/0057](#).

Groups [A63C 9/00](#), [A63C 9/005](#), [A63C 9/0053](#) and [A63C 9/0057](#) should be considered in order to perform a complete search.

- N A63C 9/0053
- • {for length adjustment}

WARNING

Group [A63C 9/0053](#) is incomplete pending reclassification of documents from group [A63C 9/005](#).

Groups [A63C 9/005](#) and [A63C 9/0053](#) should be considered in order to perform a complete search.

- N A63C 9/0057
- • {for height adjustment}

WARNING

Group [A63C 9/0057](#) is incomplete pending reclassification of documents from group [A63C 9/005](#).

Groups [A63C 9/005](#) and [A63C 9/0057](#) should be considered in order to perform a complete search.

Project: RP0585 (A99)

- N A99 **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

Project: RP0585 (A99Z)

- N A99Z **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

NOTE

This subclass *covers* subject matter that:

Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and

Is not explicitly covered by any subclass of another section.

- N A99Z 99/00 **Subject matter not otherwise provided for in this section**

Project: MP0453 (B01)

- M B01 **PHYSICAL OR CHEMICAL PROCESSES OR APPARATUS IN GENERAL**
(furnaces, kilns, ovens, retorts in general F27)

Project: RP0339 (B01D)

- U B01D 2221/00 **Applications of separation devices**
B01D 2221/10
- Separation devices for use in medical, pharmaceutical or laboratory applications, e.g. separating amalgam from dental treatment residues (apparatus for dental treatment ~~A61C 17/04~~ [A61C 17/065](#))

Project: MP0453 (B03)

M B03 SEPARATION OF SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS; MAGNETIC OR ELECTROSTATIC SEPARATION OF SOLID MATERIALS FROM SOLID MATERIALS OR FLUIDS; SEPARATION BY HIGH-VOLTAGE ELECTRIC FIELDS (~~separating isotopes B01D 59/00; crushing or disintegrating B02C; centrifuges or vortex apparatus for carrying out physical processes B04~~)

Project: MP0453 (B04)

M B04 CENTRIFUGAL APPARATUS OR MACHINES FOR CARRYING-OUT PHYSICAL OR CHEMICAL PROCESSES (~~using centrifugal force for the separation of particles from liquids or gases, in general B01D, e.g. B01D 21/26, B01D 43/00, B01D 45/12~~)

Project: MP0453 (B05)

M B05 SPRAYING OR ATOMISING IN GENERAL; APPLYING LIQUIDS OR OTHER FLUENT MATERIALS TO SURFACES, IN GENERAL (~~domestic cleaning A47L; cleaning in general by methods essentially involving the use or presence of liquid B08B 3/00; sand-blasting B24C; coating of articles during shaping of substances in a plastic state B29C 39/10, B29C 39/18, B29C 41/20, B29C 41/30, B29C 43/18, B29C 43/28, B29C 45/14, B29C 48/15; for further classification of forming layered products, see B32B; printing, copying B41; conveying articles or workpieces through baths of liquid B65G, e.g. B65G 49/02; handling webs or filaments in general B65H; surface treatment of glass by coating C03C 17/00, C03C 25/10; coating or impregnation of mortars, concrete, stone or ceramics C04B 41/45; paints, varnishes, lacquers C09D; enamelling of metals, applying a vitreous layer to metals, chemical cleaning or de-greasing of metallic objects C23; electroplating C25D; treating of textile materials by liquids, gases or vapours D06B; laundering D06F; treating roads E01C; apparatus or processes for the preparation or treatment of photosensitive materials G03; apparatus or processes, restricted to a purpose fully provided for in a single other class, see the relevant class covering the purpose)~~

NOTE

In this class, the following terms are used with the meanings indicated:

- "other fluent materials" includes semiliquids, pastes, melts, solutions, dispersions, suspensions, particulate materials, gases or vapours;
- "particulate materials" includes powders, granules, short fibres or chips;
- "coating" means the materials applied. The coating may be a liquid having become solid after drying, e.g. paint.

Project: MP0428 (B05D)

U B05D 7/00 Processes, other than flocking, specially adapted for applying liquids or other fluent materials to particular surfaces or for applying particular liquids or other fluent materials {(coating of foodstuffs [A23P 20/17](#), [A23P 20/15](#), [A23P 20/18](#))}

U B05D 7/22 • to internal surfaces, e.g. of tubes

U B05D 7/222 • • {of pipes}

M B05D 7/225 • • • {[Laminating Coating](#) inside the pipe}

Project: MP0453 (B07)

M B07 **SEPARATING SOLIDS FROM SOLIDS; SORTING** (~~separation in general B01D; wet separating processes, sorting by processes using fluent material in the same way as liquid B03; using liquids B03B, B03D; sorting by magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high voltage electric fields B03C; centrifuges or vortex apparatus for carrying out physical processes B04; sorting peculiar to particular materials or articles and provided for in other classes, see the relevant classes~~)

Project: MP0453 (B09)

M B09 **DISPOSAL OF SOLID WASTE; RECLAMATION OF CONTAMINATED** ~~CONTAMINATED~~ **SOIL** ~~SOIL~~ ~~{{(treatment of waste water, sewage or sludge C02F; treating radioactively contaminated solids G21F 9/28)}~~

Project: MP0453 (B21)

M B21 **MECHANICAL METAL-WORKING WITHOUT ESSENTIALLY REMOVING MATERIAL; PUNCHING METAL** (~~casting, powder metallurgy B22; shearing B23D; working of metal by the action of a high concentration of electric current B23H; soldering, welding, flame-cutting B23K; other working of metal B23P; punching sheet material in general B26F; processes for changing of physical properties of metals C21D, C22F; electroforming G25D 1/00~~)

NOTES

1. This class covers:
 - working of metallic materials;
 - working of non-metallic materials, provided that the methods applied are similar to those used in metal-working and not provided for elsewhere.
2. This class does not cover:
 - combinations of operations covered by different subclasses of class [B21](#), which are covered by subclass [B23P](#);
 - combinations of operations covered by any particular subclass of class [B21](#) with operations covered by other classes, e.g. with operations involving removal of material, which are also covered by subclass [B23P](#), except that if the operations covered by the other classes are subsidiary to the operations properly covered by a single subclass of [B21](#) the combination is classified in that subclass.

Project: MP0453 (B23)

M B23 **MACHINE TOOLS; METAL-WORKING NOT OTHERWISE PROVIDED FOR** (~~punching, perforating, making articles by processing sheet metal, tubes, or profiles B21D; wire-working B21F; making pins, needles, or nails B21G; making chains B21L; grinding B24~~)

NOTES

1. This class covers:
 - working of metallic materials;
 - working of non-metallic materials, provided that the methods applied are similar to those used in metal-working and not provided for elsewhere;
 - features, specific to machine tools, which relate to a requirement or problem of a nature which is not peculiar to a particular kind of machine tool, e.g. feeding work, which are covered by subclass [B23Q](#), although the realisation of these features may differ according to the kind of machine tool concerned. The said subclass covers such features, in general, even

if the feature or a specific function, in any particular case, is to some extent peculiar to, or is claimed only for, machine tools designed for one particular operation; only in exceptional cases are such features classified in the subclass for the machine tool concerned. Certain features of this general nature are, however, referred to subclasses relating to particular metal-working operations, especially [B23B](#), in which case the subclasses in question are not restricted, in respect of those features, to the kind of machine tool with which they are primarily concerned.

2. In this class, the following terms or expressions are used with the meanings indicated:

- "kind of operations" and similar expressions relate to such metal-working operations as boring, drilling, milling and grinding;
- "kind of machine" means a machine designed for a particular kind of metal-working operation (e.g. a lathe);
- "form of machine" means a machine of a particular kind adapted or arranged for a particular way of working or for particular work, e.g. face-plate lathe, tailstock lathe, turret lathe;
- "different machines" covers different forms of machines for performing the same type of metal-working operation, e.g. vertical and horizontal boring machines.

3. If details, components, or accessories have no essential feature specific to machine tools, the more general class, e.g. [F16](#), takes precedence.

Project: MP0428 (B24B)

U B24B 3/00

Sharpening cutting edges, e.g. of tools; Accessories therefor, e.g. for holding the tools (non-abrasive sharpening devices for scythes, sickles, or the like [A01D 3/00](#); sharpening devices designed as components of machines with cutters, see the relevant places for the machines, e.g. [A01D 75/08](#), {[B23F 23/1225](#), ,} [B26D 7/12](#); sharpening of saw teeth [B23D 63/12](#); sharpening of files or rasps [B23D 73/00](#); grinding of die-stocks or chasers [B23G 1/36](#))

U B24B 3/60

• of tools not covered by the preceding subgroups

M B24B 3/605

• • {of ~~chirurgical~~*surgical* or dental instruments}

Project: MP0453 (B29)

M B29

WORKING OF PLASTICS; WORKING OF SUBSTANCES IN A PLASTIC STATE, IN GENERAL (~~processing doughs [A21C](#); working chocolate [A23G](#); casting of metals [B22](#); working cement, clay [B28](#); chemical aspects, see section C, particularly [C08](#); working glass [C03B](#); candle making [C11C 5/02](#); making soap [C11D 13/00](#); manufacture of artificial filaments, threads, fibres, bristles or ribbons [D01D](#), [D01F](#); manufacture of articles from cellulosic fibrous suspensions or from papier-mâché [D21J](#))~~

NOTES

1. This class does not cover the working of plastics sheet material in a manner analogous to the working of paper, which is covered by class [B31](#).

2. In this class, the following term is used with the meaning indicated:

- "plastics" means macromolecular compounds or compositions based on such compounds.

3. In this class, the following rules apply:

- a. The working of plastics is, as far as possible, classified primarily according to the particular shaping technique used, e.g. in subclass [B29C](#).
- b. Classification according to production of particular articles in subclass [B29D](#) is restricted to:
 - i. aspects which are characteristic for the production of a particular article, and not classifiable in subclass [B29B](#) or [B29C](#);

- ii. combined operations for making the particular article which are not fully classifiable in subclass [B29C](#).
- c. Products per se are not classified in this class. However, if a product is characterised by the way it is produced and not by its structure or composition, the production method should be classified in this class.

Project: MP0453 (B41)

M B41 PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS ~~(reproduction or duplication of pictures or patterns by scanning and converting into electrical signals H04N)~~

Project: MP0428 (B41N)

M B41N PRINTING PLATES OR FOILS (photosensitive material [G03](#)); MATERIALS FOR SURFACES USED IN PRINTING MACHINES FOR PRINTING, INKING, DAMPING, OR THE LIKE; PREPARING SUCH SURFACES FOR USE AND CONSERVING THEM ~~{In this subclass the COPES System is used}~~

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Project: MP0428 (B60C)

U B60C 5/00 Inflatable pneumatic tyres or inner tubes ([B60C 1/00](#), [B60C 9/00](#) - [B60C 17/00](#) take precedence)

U B60C 5/12 • without separate inflatable inserts, e.g. tubeless tyres with transverse section open to the rim ([B60C 5/20](#) takes precedence)

M B60C 5/14 • • with impervious liner or coating on the inner wall of the tyre ~~([B60C21/04](#), [B60C21/08](#) take precedence)~~

Project: RP0444 (B60H)

M B60H 1/00 Heating, cooling or ventilating ~~{[HVAC]}~~ devices (heating, cooling or ventilating devices providing other air treatment, the other treatment being relevant, [B60H 3/00](#); ventilating solely by opening windows, doors, roof parts, or the like [B60J](#); heating or ventilating devices for vehicle seats [B60N 2/56](#); vehicle window or windscreen cleaners using air, e.g. defrosters, [B60S 1/54](#))

NOTE

In this group and its subgroups, as well as in patent documents, the following abbreviation is used:

- HVAC Heating, Ventilating and Air Conditioning

U B60H 1/00007 • {Combined heating, ventilating, or cooling devices (control systems or mechanisms [B60H 1/00642](#))}

M B60H 1/00021 • • {Air flow details of ~~the heating, ventilating and cooling~~ [HVAC] devices}

C B60H 1/00271 • {~~Heating, cooling or ventilating~~ HVAC devices specially adapted for particular vehicle parts or components and being connected to the vehicle HVAC unit}

WARNING

Group B60H 1/00271 is impacted by reclassification into group B60H 1/00295. Groups B60H 1/00271 and B60H 1/00295 should be considered in order to perform a complete search.

U B60H 1/00292 • • {for steering wheels (steering wheels with heating or ventilation means independent from the HVAC system of the vehicle [B62D 1/065](#))}

- N B60H 1/00295
- {for trim components, e.g. panels, dashboards, liners}
- WARNING
Group [B60H 1/00295](#) is incomplete pending reclassification of documents from group [B60H 1/00271](#).
Groups [B60H 1/00295](#) and [B60H 1/00271](#) should be considered in order to perform a complete search.
- C B60H 1/00492
- {~~characterised by~~ comprising regenerative heating or cooling means, e.g. heat accumulators}
- WARNING
Group [B60H 1/00492](#) is impacted by reclassification into group [B60H 1/00499](#).
Groups [B60H 1/00492](#) and [B60H 1/00499](#) should be considered in order to perform a complete search.
- N B60H 1/00499
- {Heat or cold storage without phase change including solid bodies, e.g. batteries}
- WARNING
Group [B60H 1/00499](#) is incomplete pending reclassification of documents from groups [B60H 1/00492](#) and [B60H 1/005](#).
Groups [B60H 1/00492](#), [B60H 1/005](#) and [B60H 1/00499](#) should be considered in order to perform a complete search.
- C B60H 1/005
- {Regenerative cooling means, e.g. cold accumulators}
- WARNING
Group [B60H 1/005](#) is impacted by reclassification into group [B60H 1/00499](#).
Groups [B60H 1/005](#) and [B60H 1/00499](#) should be considered in order to perform a complete search.
- C B60H 1/00642
- {~~Control systems or circuits;~~ {Control ~~systems or circuits, control~~ members or indication devices for heating, cooling or ventilating devices ([B60H 1/3201](#) - [B60H 1/3208](#), [B60H 1/3225](#) take precedence; ~~dashboards B60K 37/00; systems for controlling or regulating non-electric variables in general G05D~~)}
- WARNING
Group [B60H 1/00642](#) is impacted by reclassification into groups [B60H 1/0073](#) and [B60H 2001/00733](#).
Groups [B60H 1/00642](#), [B60H 1/0073](#) and [B60H 2001/00733](#) should be considered in order to perform a complete search.
- U B60H 1/00664
- {Construction or arrangement of damper doors (control systems or circuits for damper doors [B60H 1/00835](#))}
- U B60H 2001/00728
- • {Film doors}
- N B60H 1/0073
- {Control systems or circuits characterised by particular algorithms or computational models, e.g. fuzzy logic or dynamic models}
- WARNING
Group [B60H 1/0073](#) is incomplete pending reclassification of documents from groups [B60H 1/00642](#), [B60H 1/00735](#) and [B60H 1/00964](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60H 2001/00733
- • {Computational models modifying user-set values}
- WARNING
Group [B60H 2001/00733](#) is incomplete pending reclassification of documents from groups [B60H 1/00642](#), [B60H 1/00735](#) and [B60H 1/00964](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- C B60H 1/00735
- {Control systems or circuits characterised by their input, i.e. by the detection, measurement or calculation of particular conditions, e.g. signal treatment, dynamic models}
- WARNING**
*Group B60H 1/00735 is impacted by reclassification into groups B60H 1/0073 and B60H 2001/00733.
Groups B60H 1/00735, B60H 1/0073 and B60H 2001/00733 should be considered in order to perform a complete search.*
- U B60H 1/00814
- {Control systems or circuits characterised by their output, for controlling particular components of the heating, cooling or ventilating installation}
- C B60H 1/00878
- • {the components being temperature regulating devices (~~B60H 1/00899 takes precedence; constructions of valves B60H 1/00485~~)}
- WARNING**
*Group B60H 1/00878 is impacted by reclassification into group B60H 2001/00961.
Groups B60H 1/00878 and B60H 2001/00961 should be considered in order to perform a complete search.*
- C B60H 2001/00928
- • • {comprising a secondary circuit}
- WARNING**
*Group B60H 2001/00928 is impacted by reclassification into group B60H 2001/00961.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C B60H 2001/00935
- • • {comprising four way valves for controlling the fluid direction}
- WARNING**
*Group B60H 2001/00935 is impacted by reclassification into group B60H 2001/00961.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C B60H 2001/00942
- • • {comprising a plurality of heat exchangers, e.g. for multi zone heating or cooling}
- WARNING**
*Group B60H 2001/00942 is impacted by reclassification into group B60H 2001/00961.
All groups listed in this Warning should be considered in order to perform a complete search.*
- C B60H 2001/00949
- • • {comprising additional heating/cooling sources, e.g. second evaporator}
- WARNING**
*Group B60H 2001/00949 is impacted by reclassification into group B60H 2001/00961.
All groups listed in this Warning should be considered in order to perform a complete search.*

- C B60H 2001/00957 . . . {comprising locations with heat exchange within the refrigerant circuit itself, e.g. cross-, counter-, or parallel heat exchange}
- WARNING**
*Group [B60H 2001/00957](#) is impacted by reclassification into group [B60H 2001/00961](#).
 All groups listed in this Warning should be considered in order to perform a complete search.*
- N B60H 2001/00961 . . . {comprising means for defrosting outside heat exchangers}
- WARNING**
*Group [B60H 2001/00961](#) is incomplete pending reclassification of documents from groups [B60H 1/00878](#), [B60H 2001/00928](#), [B60H 2001/00935](#), [B60H 2001/00942](#), [B60H 2001/00949](#) and [B60H 2001/00957](#).
 All groups listed in this Warning should be considered in order to perform a complete search.*
- C B60H 1/00964 . . {Control systems or circuits characterised by including features for automatic and non-automatic control, e.g. for changing from automatic to manual control}
- WARNING**
*Group [B60H 1/00964](#) is impacted by reclassification into groups [B60H 1/0073](#) and [B60H 2001/00733](#).
 Groups [B60H 1/00964](#), [B60H 1/0073](#) and [B60H 2001/00733](#) should be considered in order to perform a complete search.*
- D B60H 2001/00992 . . {Calculations modifying a user set value}
 <administratively transferred to [B60H 2001/00733](#) ADD>
- U B60H 1/02 . the heat being derived from the propulsion plant {([B60H 1/00492](#) takes precedence)}
- C B60H 1/03 . . and from a source other than the propulsion plant
- WARNING**
*Group [B60H 1/03](#) is impacted by reclassification into group [B60H 1/039](#).
 Groups [B60H 1/03](#) and [B60H 1/039](#) should be considered in order to perform a complete search.*
- U B60H 1/038 . . {from the cooling liquid of the propulsion plant and from a viscous fluid heater}
- N B60H 1/039 . . {from air leaving the interior of the vehicle, i.e. heat recovery}
- WARNING**
*Group [B60H 1/039](#) is incomplete pending reclassification of documents from group [B60H 1/03](#).
 Groups [B60H 1/03](#) and [B60H 1/039](#) should be considered in order to perform a complete search.*
- U B60H 1/22 . the heat being derived otherwise than from the propulsion plant {([B60H 1/0025](#), [B60H 1/00492](#) and [B60H 1/03](#) take precedence)}
- C B60H 1/2215 . . {the heat being derived from electric heaters (~~in general H05B; for electric traction vehicles B60L 1/02~~)}
- WARNING**
*Group [B60H 1/2215](#) is impacted by reclassification into groups [B60H 1/2226](#) and [B60H 1/2227](#).
 Groups [B60H 1/2215](#), [B60H 1/2226](#) and [B60H 1/2227](#) should be considered in order to perform a complete search.*

- U B60H 1/2225 • • • {arrangements of electric heaters for heating air}
- N B60H 1/2226 • • • {Electric heaters using radiation}
- WARNING
Group [B60H 1/2226](#) is incomplete pending reclassification of documents from group [B60H 1/2215](#).
Groups [B60H 1/2215](#) and [B60H 1/2226](#) should be considered in order to perform a complete search.
- N B60H 1/2227 • • • {Electric heaters incorporated in vehicle trim components, e.g. panels or linings}
- WARNING
Group [B60H 1/2227](#) is incomplete pending reclassification of documents from group [B60H 1/2215](#).
Groups [B60H 1/2215](#) and [B60H 1/2227](#) should be considered in order to perform a complete search.
- U B60H 1/32 • Cooling devices ({[B60H 1/00478](#), [B60H 1/005](#) take precedence;} vehicles adapted to transport refrigerated goods [B60P 3/20](#))
- C B60H 1/3201 • • {using absorption or adsorption (~~in general [F25B 15/00](#), [F25B 17/00](#))}~~
- WARNING
Group [B60H 1/3201](#) is impacted by reclassification into groups [B60H 1/32011](#) and [B60H 1/32014](#).
Groups [B60H 1/3201](#), [B60H 1/32011](#) and [B60H 1/32014](#) should be considered in order to perform a complete search.
- N B60H 1/32011 • • • {using absorption, e.g. using Li-Br and water}
- WARNING
Group [B60H 1/32011](#) is incomplete pending reclassification of documents from group [B60H 1/3201](#).
Groups [B60H 1/3201](#) and [B60H 1/32011](#) should be considered in order to perform a complete search.
- N B60H 1/32014 • • • {using adsorption, e.g. using Zeolite and water}
- WARNING
Group [B60H 1/32014](#) is incomplete pending reclassification of documents from group [B60H 1/3201](#).
Groups [B60H 1/3201](#) and [B60H 1/32014](#) should be considered in order to perform a complete search.
- C B60H 1/3204 • • {using compression ([B60H 1/3233](#) takes precedence; ~~in general [F25B](#), [F25D](#))}~~
- WARNING
Group [B60H 1/3204](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C B60H 1/3205 • • • {Control means therefor}
- WARNING
Group [B60H 1/3205](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- C B60H 1/3222
- • • {characterised by the compressor driving arrangements, e.g. clutches, transmissions or multiple drives ([B60H 1/3208](#), [B60H 1/3226](#) take precedence)}
- WARNING**
Group [B60H 1/3222](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C B60H 1/3223
- • • {characterised by the arrangement or type of the compressor ([B60H 1/3222](#) takes precedence)}
- WARNING**
Group [B60H 1/3223](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C B60H 1/3225
- • • {characterised by safety arrangements, e.g. compressor anti-seizure means or by signalling devices}
- WARNING**
Group [B60H 1/3225](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C B60H 1/3226
- • • {Self-contained devices, i.e. including own drive motor}
- WARNING**
Group [B60H 1/3226](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#). All groups listed in this Warning should be considered in order to perform a complete search.
- C B60H 1/3227
- • • {characterised by the arrangement or the type of heat exchanger, e.g. condenser, evaporator (condensed liquid drainage means [B60H 1/3233](#))}
- WARNING**
Group [B60H 1/3227](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B60H 1/3228
- • • {characterised by refrigerant circuit configurations}
- WARNING**
Group [B60H 1/3228](#) is incomplete pending reclassification of documents from groups [B60H 1/3204](#), [B60H 1/3205](#), [B60H 1/3222](#), [B60H 1/3223](#), [B60H 1/3225](#), [B60H 1/3226](#), [B60H 1/3227](#), [B60H 1/3229](#), [B60H 1/323](#) and [B60H 1/3232](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B60H 1/32281
- • • • {comprising a single secondary circuit, e.g. at evaporator or condenser side}
- WARNING**
Group [B60H 1/32281](#) is incomplete pending reclassification of documents from groups [B60H 1/3204](#), [B60H 1/3205](#), [B60H 1/3222](#), [B60H 1/3223](#),

[B60H 1/3225](#), [B60H 1/3226](#), [B60H 1/3227](#), [B60H 1/3229](#), [B60H 1/323](#)
and [B60H 1/3232](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N B60H 1/32284

- • • {comprising two or more secondary circuits, e.g. at evaporator and condenser side}

WARNING

Group [B60H 1/32284](#) is incomplete pending reclassification of documents from groups [B60H 1/3204](#), [B60H 1/3205](#), [B60H 1/3222](#), [B60H 1/3223](#), [B60H 1/3225](#), [B60H 1/3226](#), [B60H 1/3227](#), [B60H 1/3229](#), [B60H 1/323](#) and [B60H 1/3232](#).

All groups listed in this Warning should be considered in order to perform a complete search.

C B60H 1/3229

- • • {characterised by constructional features, e.g. housings, mountings, conversion systems ([B60H 1/3227](#), [B60H 1/3233](#) take precedence)}

WARNING

Group [B60H 1/3229](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#).

All groups listed in this Warning should be considered in order to perform a complete search.

C B60H 1/323

- • • {characterised by comprising auxiliary or multiple systems, e.g. plurality of evaporators, or by involving auxiliary cooling devices}

WARNING

Group [B60H 1/323](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#).

All groups listed in this Warning should be considered in order to perform a complete search.

C B60H 1/3232

- • • {particularly adapted for load transporting vehicles ([B60H 1/3226](#) takes precedence)}

WARNING

Group [B60H 1/3232](#) is impacted by reclassification into groups [B60H 1/3228](#), [B60H 1/32281](#) and [B60H 1/32284](#).

All groups listed in this Warning should be considered in order to perform a complete search.

C B60H 1/3233

- • {characterised by condensed liquid drainage means}

WARNING

Group [B60H 1/3233](#) is impacted by reclassification into group [B60H 1/32331](#). Groups [B60H 1/3233](#) and [B60H 1/32331](#) should be considered in order to perform a complete search.

N B60H 1/32331

- • • {comprising means for the use of condensed liquid, e.g. for humidification or for improving condenser performance}

WARNING

Group [B60H 1/32331](#) is incomplete pending reclassification of documents from group [B60H 1/3233](#).

Groups [B60H 1/3233](#) and [B60H 1/32331](#) should be considered in order to perform a complete search.

Project: RP0377-F (B60K)

- M B60K 16/00** Arrangements in connection with power supply of propulsion units in vehicles from force of nature, e.g. sun or wind (electric propulsion with power supply from force of nature, e.g. sun or wind, [B60L 8/00](#); effecting propulsion by wind motors driving water-engaging propulsive elements [B63H 13/00](#); wind motors specially adapted for installation on vehicles [F03D 9/32](#))

WARNING

Group B60K 16/00 is impacted by reclassification into group F03D 9/32. Groups B60K 16/00 and F03D 9/32 should be considered in order to perform a complete search.

Project: RP0442 (B60K)

- D B60K 2350/00 - B60K 2704/00** ~~Arrangement or mounting of propulsion units in vehicles (of control devices for such units B60K 26/00; elastic mountings per se F16F; propulsion units or their control per se, see the relevant classes)~~
- D B60K 2350/00** Arrangements or adaptations of instruments; Dashboards <administratively transferred to [B60K 2370/00](#) ADD>
- D B60K 2350/10** . Input/output devices or features thereof <administratively transferred to [B60K 2370/10](#) ADD>
- D B60K 2350/1004** . . Graphical user interfaces or menu aspects <administratively transferred to [B60K 2370/11](#) ADD>
- D B60K 2350/1008** . . Input devices or features thereof <administratively transferred to [B60K 2370/12](#) ADD>
- D B60K 2350/1012** . . . Controls by an approaching finger <administratively transferred to [B60K 2370/141](#) ADD>
- D B60K 2350/1016** . . . with reconfigurable control functions <administratively transferred to [B60K 2370/122](#) ADD>
- D B60K 2350/102** . . . Rotary controllers <administratively transferred to [B60K 2370/126](#) ADD>
- D B60K 2350/1024** . . . Touch sensitive control means or buttons <administratively transferred to [B60K 2370/143](#) ADD>
- D B60K 2350/1028** Touch screens <administratively transferred to [B60K 2370/1438](#) ADD>
- D B60K 2350/1032** Emulation of control buttons <administratively transferred to [B60K 2370/1442](#) ADD>
- D B60K 2350/1036** Touch switches <administratively transferred to [B60K 2370/1446](#) ADD>
- D B60K 2350/104** . . . Input by combination of touch screen and control button <administratively transferred to [B60K 2370/145](#) ADD>
- D B60K 2350/1044** . . . Input by voice <administratively transferred to [B60K 2370/148](#) ADD>
- D B60K 2350/1048** . . . Joysticks <administratively transferred to [B60K 2370/135](#) ADD>
- D B60K 2350/1052** . . . Input by gesture <administratively transferred to [B60K 2370/146](#) ADD>
- D B60K 2350/1056** . . Output devices or features thereof <administratively transferred to [B60K 2370/15](#) ADD>
- D B60K 2350/106** . . . Video screens <administratively transferred to [B60K 2370/152](#) ADD>

- D B60K 2350/1064 . . . Combined instruments with analogue meters and additional displays
<administratively transferred to [B60K 2370/154](#) ADD>
- D B60K 2350/1068 . . . the same information is available on different displays
<administratively transferred to [B60K 2370/184](#) ADD>
- D B60K 2350/1072 . . . Virtual instruments
<administratively transferred to [B60K 2370/155](#) ADD>
- D B60K 2350/1076 . . . Type of information
<administratively transferred to [B60K 2370/16](#) ADD>
- D B60K 2350/108 . . . Explanation of functions
<administratively transferred to [B60K 2370/161](#) ADD>
- D B60K 2350/1084 . . . Distance to obstacles or vehicles
<administratively transferred to [B60K 2370/179](#) ADD>
- D B60K 2350/1088 . . . Reversing assist
<administratively transferred to [B60K 2370/173](#) ADD>
- D B60K 2350/1092 . . . Economic driving
<administratively transferred to [B60K 2370/174](#) ADD>
- D B60K 2350/1096 . . . Information displayed according to relevancy
<administratively transferred to [B60K 2370/186](#) ADD>
- D B60K 2350/20 . . . Optical features of instruments
<administratively transferred to [B60K 2370/20](#) ADD>
- D B60K 2350/2004 . . . Displays on a manual operation element
<administratively transferred to [B60K 2370/1537](#) ADD>
- D B60K 2350/2008 . . . using color changes
<administratively transferred to [B60K 2370/188](#) ADD>
- D B60K 2350/2013 . . . using a camera
<administratively transferred to [B60K 2370/21](#) ADD>
- D B60K 2350/2017 . . . Three-dimensional displays
<administratively transferred to [B60K 2370/1531](#) ADD>
- D B60K 2350/2021 . . . using a filter
<administratively transferred to [B60K 2370/25](#) ADD>
- D B60K 2350/2026 . . . Holographic features
<administratively transferred to [B60K 2370/29](#) ADD>
- D B60K 2350/203 . . . Illumination features
<administratively transferred to [B60K 2370/33](#) ADD>
- D B60K 2350/2034 . . . Electroluminescent elements
<administratively transferred to [B60K 2370/331](#) ADD>
- D B60K 2350/2039 . . . Backlit symbols
<administratively transferred to [B60K 2370/34](#) ADD>
- D B60K 2350/2043 . . . Translucent dashboard skins
<administratively transferred to [B60K 2370/339](#) ADD>
- D B60K 2350/2047 . . . using a laser
<administratively transferred to [B60K 2370/333](#) ADD>
- D B60K 2350/2052 . . . using projection means
<administratively transferred to [B60K 2370/334](#) ADD>
- D B60K 2350/2056 . . . Optical elements for superposition of display information
<administratively transferred to [B60K 2370/347](#) ADD>
- D B60K 2350/206 . . . Optical elements in front of, or behind a dial
<administratively transferred to [B60K 2370/20](#) ADD>
- D B60K 2350/2065 . . . using real or virtual images of components
<administratively transferred to [B60K 2370/31](#) ADD>

- D B60K 2350/2069
 - • Adjustment of brightness
<administratively transferred to [B60K 2370/349](#) ADD>
- D B60K 2350/2073
 - • Fogging prevention
<administratively transferred to [B60K 2370/35](#) ADD>
- D B60K 2350/2078
 - • Glare prevention
<administratively transferred to [B60K 2370/37](#) ADD>
- D B60K 2350/2082
 - • Anti-reflection means
<administratively transferred to [B60K 2370/39](#) ADD>
- D B60K 2350/2086
 - • Instrument cover plate features
<administratively transferred to [B60K 2370/693](#) ADD>
- D B60K 2350/2091
 - • • for instruments which should not be visible
<administratively transferred to [B60K 2370/28](#) ADD>
- D B60K 2350/2095
 - • Semi-transparent optical elements
<administratively transferred to [B60K 2370/27](#) ADD>
- D B60K 2350/30
 - Hardware adaptations for dashboards
<administratively transferred to [B60K 2370/40](#) ADD>
- D B60K 2350/302
 - • Circuit board features
<administratively transferred to [B60K 2370/42](#) ADD>
- D B60K 2350/305
 - • Wiring harness
<administratively transferred to [B60K 2370/44](#) ADD>
- D B60K 2350/307
 - • Electrical connections
<administratively transferred to [B60K 2370/46](#) ADD>
- D B60K 2350/35
 - Control system arrangements
<administratively transferred to [B60K 2370/50](#) ADD>
- D B60K 2350/352
 - • Control of displays
<administratively transferred to [B60K 2370/52](#) ADD>
- D B60K 2350/355
 - • Remote controls
<administratively transferred to [B60K 2370/55](#) ADD>
- D B60K 2350/357
 - • Wireless data transfers
<administratively transferred to [B60K 2370/589](#) ADD>
- D B60K 2350/40
 - Structural details of dashboards
<administratively transferred to [B60K 2370/60](#) ADD>
- D B60K 2350/401
 - • Dashboard parts used as air ducts
<administratively transferred to [B60K 2370/658](#) ADD>
- D B60K 2350/402
 - • Instrument dial features
<administratively transferred to [B60K 2370/695](#) ADD>
- D B60K 2350/403
 - • • with several available dial configurations
<administratively transferred to [B60K 2370/1515](#) ADD>
- D B60K 2350/405
 - • Foldable or movable screens
<administratively transferred to [B60K 2370/67](#) ADD>
- D B60K 2350/406
 - • Means to cover or hide instruments
<administratively transferred to [B60K 2370/682](#) ADD>
- D B60K 2350/407
 - • Instruments movable with steering column
<administratively transferred to [B60K 2370/685](#) ADD>
- D B60K 2350/408
 - • Pointers of combined instruments
<administratively transferred to [B60K 2370/698](#) ADD>
- D B60K 2350/90
 - Problems related to user adaptation
<administratively transferred to [B60K 2370/73](#) ADD>
- D B60K 2350/901
 - • the user is the driver
<administratively transferred to [B60K 2370/736](#) ADD>

- D B60K 2350/903
- the user is the passenger
<administratively transferred to [B60K 2370/739](#) ADD>
- D B60K 2350/905
- Adaptation to left or right steering
<administratively transferred to [B60K 2370/733](#) ADD>
- D B60K 2350/906
- Disabling of display functions
<administratively transferred to [B60K 2370/195](#) ADD>
- D B60K 2350/908
- Manual selection of display features
<administratively transferred to [B60K 2370/151](#) ADD>
- D B60K 2350/92
- Mounting positions or locations
<administratively transferred to [B60K 2370/70](#) ADD>
- D B60K 2350/921
- characterised by locations other than the dashboard
<administratively transferred to [B60K 2370/77](#) ADD>
- D B60K 2350/922
- • on the ceiling
<administratively transferred to [B60K 2370/771](#) ADD>
- D B60K 2350/924
- • at vehicle exterior
<administratively transferred to [B60K 2370/797](#) ADD>
- D B60K 2350/925
- • on or in the centre console
<administratively transferred to [B60K 2370/774](#) ADD>
- D B60K 2350/927
- • on sun visor or rear view mirror
<administratively transferred to [B60K 2370/777](#) ADD>
- D B60K 2350/928
- • on the steering wheel
<administratively transferred to [B60K 2370/782](#) ADD>
- D B60K 2350/94
- Mounting process, Fixation means
<administratively transferred to [B60K 2370/80](#) ADD>
- D B60K 2350/941
- Fixation of instruments to dashboard
<administratively transferred to [B60K 2370/81](#) ADD>
- D B60K 2350/943
- Fixation of dashboard to vehicle structure
<administratively transferred to [B60K 2370/87](#) ADD>
- D B60K 2350/945
- using exchangeable modules
<administratively transferred to [B60K 2370/828](#) ADD>
- D B60K 2350/946
- using inserts
<administratively transferred to [B60K 2370/81](#) ADD>
- D B60K 2350/948
- with pluggable connections
<administratively transferred to [B60K 2370/834](#) ADD>
- D B60K 2350/96
- Perception or visibility of information
<administratively transferred to [B60K 2370/18](#) ADD>
- D B60K 2350/962
- Perception adaptable to driving situations
<administratively transferred to [B60K 2370/1868](#) ADD>
- D B60K 2350/965
- Means for improving awareness
<administratively transferred to [B60K 2370/193](#) ADD>
- D B60K 2350/967
- Blocking display functions
<administratively transferred to [B60K 2370/195](#) ADD>
- N B60K 2370/00 - B60K 2704/00**
- Arrangement or mounting of propulsion units in vehicles (of control devices for such units [B60K 26/00](#); elastic mountings per se [F16F](#); propulsion units or their control per se, see the relevant classes)***
- N B60K 2370/00**
- Details of arrangements or adaptations of instruments specially adapted for vehicles, not covered by groups [B60K 35/00](#), [B60K 37/00](#)***
- Q B60K 2370/10
- Input devices or features thereof
- WARNING**
- Group [B60K 2370/10](#) is impacted by reclassification into groups [B60K 2370/18](#), [B60K 2370/182](#), [B60K 2370/191](#), [B60K 2370/197](#) and [B60K 2370/199](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- Q B60K 2370/11 • • Graphical user interfaces or menu aspects
WARNING
Group [B60K 2370/11](#) is impacted by reclassification into groups [B60K 2370/111](#), [B60K 2370/113](#), [B60K 2370/115](#), [B60K 2370/117](#) and [B60K 2370/119](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/111 • • • for controlling multiple devices
WARNING
Group [B60K 2370/111](#) is incomplete pending reclassification of documents from group [B60K 2370/11](#).
Groups [B60K 2370/11](#) and [B60K 2370/111](#) should be considered in order to perform a complete search.
- N B60K 2370/113 • • • Scrolling through menu items
WARNING
Group [B60K 2370/113](#) is incomplete pending reclassification of documents from group [B60K 2370/11](#).
Groups [B60K 2370/11](#) and [B60K 2370/113](#) should be considered in order to perform a complete search.
- N B60K 2370/115 • • • Selection of menu items
WARNING
Group [B60K 2370/115](#) is incomplete pending reclassification of documents from group [B60K 2370/11](#).
Groups [B60K 2370/11](#) and [B60K 2370/115](#) should be considered in order to perform a complete search.
- N B60K 2370/117 • • • Cursors
WARNING
Group [B60K 2370/117](#) is incomplete pending reclassification of documents from group [B60K 2370/11](#).
Groups [B60K 2370/11](#) and [B60K 2370/117](#) should be considered in order to perform a complete search.
- N B60K 2370/119 • • • Icons
WARNING
Group [B60K 2370/119](#) is incomplete pending reclassification of documents from group [B60K 2370/11](#).
Groups [B60K 2370/11](#) and [B60K 2370/119](#) should be considered in order to perform a complete search.
- Q B60K 2370/12 • • Input devices or input features
WARNING
Group [B60K 2370/12](#) is impacted by reclassification into groups [B60K 2370/128](#), [B60K 2370/131](#), [B60K 2370/133](#), [B60K 2370/137](#), [B60K 2370/139](#) and [B60K 2370/149](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/122 • • • with reconfigurable control functions, e.g. reconfigurable menus

- N B60K 2370/126 . . . Rotatable input devices
- N B60K 2370/128 . . . Axially displaceable input devices
- WARNING
Group [B60K 2370/128](#) is incomplete pending reclassification of documents from group [B60K 2370/12](#).
Groups [B60K 2370/12](#) and [B60K 2370/128](#) should be considered in order to perform a complete search.
- N B60K 2370/131 . . . Pivotal input devices
- WARNING
Group [B60K 2370/131](#) is incomplete pending reclassification of documents from group [B60K 2370/12](#).
Groups [B60K 2370/12](#) and [B60K 2370/131](#) should be considered in order to perform a complete search.
- N B60K 2370/133 . . . Multidirectional input devices
- WARNING
Group [B60K 2370/133](#) is incomplete pending reclassification of documents from group [B60K 2370/12](#).
Groups [B60K 2370/12](#) and [B60K 2370/133](#) should be considered in order to perform a complete search.
- N B60K 2370/135 Joysticks
- N B60K 2370/137 Jog-dials
- WARNING
Group [B60K 2370/137](#) is incomplete pending reclassification of documents from group [B60K 2370/12](#).
Groups [B60K 2370/12](#) and [B60K 2370/137](#) should be considered in order to perform a complete search.
- N B60K 2370/139 . . . Clusters of input devices
- WARNING
Group [B60K 2370/139](#) is incomplete pending reclassification of documents from group [B60K 2370/12](#).
Groups [B60K 2370/12](#) and [B60K 2370/139](#) should be considered in order to perform a complete search.
- N B60K 2370/141 . . . Activation by approaching fingers or pens
- Q B60K 2370/143 . . . Touch sensitive input devices
- WARNING
Group [B60K 2370/143](#) is impacted by reclassification into group [B60K 2370/1434](#).
Groups [B60K 2370/143](#) and [B60K 2370/1434](#) should be considered in order to perform a complete search.
- N B60K 2370/1434 Touch panels
- WARNING
Group [B60K 2370/1434](#) is incomplete pending reclassification of documents from group [B60K 2370/143](#).
Groups [B60K 2370/143](#) and [B60K 2370/1434](#) should be considered in order to perform a complete search.
- N B60K 2370/1438 Touch screens
- N B60K 2370/1442 Emulation of input devices

- N B60K 2370/1446 Touch switches
- N B60K 2370/145 Input by combination of touch screen and hardware input devices
- Q B60K 2370/146 Input by gesture
- WARNING
Group [B60K 2370/146](#) is impacted by reclassification into groups [B60K 2370/1464](#), [B60K 2370/1468](#), [B60K 2370/1472](#) and [B60K 2370/1476](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/1464 3D-gesture
- WARNING
Group [B60K 2370/1464](#) is incomplete pending reclassification of documents from group [B60K 2370/146](#).
Groups [B60K 2370/146](#) and [B60K 2370/1464](#) should be considered in order to perform a complete search.
- N B60K 2370/1468 Touch gesture
- WARNING
Group [B60K 2370/1468](#) is incomplete pending reclassification of documents from group [B60K 2370/146](#).
Groups [B60K 2370/146](#) and [B60K 2370/1468](#) should be considered in order to perform a complete search.
- N B60K 2370/1472 Multi-touch gesture
- WARNING
Group [B60K 2370/1472](#) is incomplete pending reclassification of documents from group [B60K 2370/146](#).
Groups [B60K 2370/146](#) and [B60K 2370/1472](#) should be considered in order to perform a complete search.
- N B60K 2370/1476 Handwriting
- WARNING
Group [B60K 2370/1476](#) is incomplete pending reclassification of documents from group [B60K 2370/146](#).
Groups [B60K 2370/146](#) and [B60K 2370/1476](#) should be considered in order to perform a complete search.
- N B60K 2370/148 Input by voice
- N B60K 2370/149 Input by detecting viewing direction
- WARNING
Group [B60K 2370/149](#) is incomplete pending reclassification of documents from group [B60K 2370/12](#).
Groups [B60K 2370/12](#) and [B60K 2370/149](#) should be considered in order to perform a complete search.
- Q B60K 2370/15 Output devices or features thereof
- WARNING
Group [B60K 2370/15](#) is impacted by reclassification into groups [B60K 2370/156](#), [B60K 2370/157](#), [B60K 2370/1575](#), and [B60K 2370/158](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/151 Reconfigurable output

- N B60K 2370/1515 . . . Reconfigurable dials
- Q B60K 2370/152 . . . Displays
- WARNING
Group [B60K 2370/152](#) is impacted by reclassification into groups [B60K 2370/1523](#), [B60K 2370/1526](#), [B60K 2370/1529](#), [B60K 2370/1531](#), [B60K 2370/1533](#), [B60K 2370/1534](#) and [B60K 2370/1537](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/1523 . . . Matrix displays
- WARNING
Group [B60K 2370/1523](#) is incomplete pending reclassification of documents from group [B60K 2370/152](#).
Groups [B60K 2370/152](#) and [B60K 2370/1523](#) should be considered in order to perform a complete search.
- N B60K 2370/1526 . . . Dual-view displays
- WARNING
Group [B60K 2370/1526](#) is incomplete pending reclassification of documents from group [B60K 2370/152](#).
Groups [B60K 2370/152](#) and [B60K 2370/1526](#) should be considered in order to perform a complete search.
- N B60K 2370/1529 . . . Head-up displays
- WARNING
Group [B60K 2370/1529](#) is incomplete pending reclassification of documents from group [B60K 2370/152](#).
Groups [B60K 2370/152](#) and [B60K 2370/1529](#) should be considered in order to perform a complete search.
- N B60K 2370/1531 . . . Three-dimensional displays
- WARNING
Group [B60K 2370/1531](#) is incomplete pending reclassification of documents from group [B60K 2370/152](#).
Groups [B60K 2370/152](#) and [B60K 2370/1531](#) should be considered in order to perform a complete search.
- N B60K 2370/1533 . . . Flexible displays
- WARNING
Group [B60K 2370/1533](#) is incomplete pending reclassification of documents from group [B60K 2370/152](#).
Groups [B60K 2370/152](#) and [B60K 2370/1533](#) should be considered in order to perform a complete search.
- N B60K 2370/1534 . . . Simultaneous multiple use of display matrix, e.g. to display information and to illuminate pointer
- WARNING
Group [B60K 2370/1534](#) is incomplete pending reclassification of documents from group [B60K 2370/152](#).
Groups [B60K 2370/152](#) and [B60K 2370/1534](#) should be considered in order to perform a complete search.

- N B60K 2370/1537
- • • Displays on a manual operation element
- WARNING
Group [B60K 2370/1537](#) is incomplete pending reclassification of documents from group [B60K 2370/152](#).
Groups [B60K 2370/152](#) and [B60K 2370/1537](#) should be considered in order to perform a complete search.
- N B60K 2370/154
- • Combined instruments with analogue meters and additional displays
- N B60K 2370/155
- • Virtual instruments
- N B60K 2370/156
- • Variable gauge scales
- WARNING
Group [B60K 2370/156](#) is incomplete pending reclassification of documents from group [B60K 2370/15](#).
Groups [B60K 2370/15](#) and [B60K 2370/156](#) should be considered in order to perform a complete search.
- N B60K 2370/157
- • Acoustic output
- WARNING
Group [B60K 2370/157](#) is incomplete pending reclassification of documents from group [B60K 2370/15](#).
Groups [B60K 2370/15](#) and [B60K 2370/157](#) should be considered in order to perform a complete search.
- N B60K 2370/1575
- • • Voice
- WARNING
Group [B60K 2370/1575](#) is incomplete pending reclassification of documents from group [B60K 2370/15](#).
Groups [B60K 2370/15](#) and [B60K 2370/1575](#) should be considered in order to perform a complete search.
- N B60K 2370/158
- • Haptic output
- WARNING
Group [B60K 2370/158](#) is incomplete pending reclassification of documents from group [B60K 2370/15](#).
Groups [B60K 2370/15](#) and [B60K 2370/158](#) should be considered in order to perform a complete search.
- Q B60K 2370/16
- Type of information
- WARNING
Group [B60K 2370/16](#) is impacted by reclassification into groups [B60K 2370/162](#), [B60K 2370/163](#), [B60K 2370/164](#), [B60K 2370/165](#), [B60K 2370/166](#), [B60K 2370/167](#), [B60K 2370/168](#), [B60K 2370/169](#), [B60K 2370/171](#), [B60K 2370/172](#), [B60K 2370/175](#), [B60K 2370/176](#), [B60K 2370/177](#) and [B60K 2370/178](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/161
- • Explanation of functions, e.g. instructions
- N B60K 2370/162
- • Visual feedback on control action
- WARNING
Group [B60K 2370/162](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/162](#) should be considered in order to perform a complete search.

- N B60K 2370/163
- Language
- WARNING
Group [B60K 2370/163](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/163](#) should be considered in order to perform a complete search.
- N B60K 2370/164
- Infotainment
- WARNING
Group [B60K 2370/164](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/164](#) should be considered in order to perform a complete search.
- N B60K 2370/165
- Videos and animations
- WARNING
Group [B60K 2370/165](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/165](#) should be considered in order to perform a complete search.
- N B60K 2370/166
- Navigation
- WARNING
Group [B60K 2370/166](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/166](#) should be considered in order to perform a complete search.
- N B60K 2370/167
- Vehicle dynamics information
- WARNING
Group [B60K 2370/167](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/167](#) should be considered in order to perform a complete search.
- N B60K 2370/168
- Target or limit values
- WARNING
Group [B60K 2370/168](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/168](#) should be considered in order to perform a complete search.
- N B60K 2370/169
- Remaining operating distance or charge
- WARNING
Group [B60K 2370/169](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).
Groups [B60K 2370/16](#) and [B60K 2370/169](#) should be considered in order to perform a complete search.
- N B60K 2370/171
- Vehicle or relevant part thereof displayed
- WARNING
Group [B60K 2370/171](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).

Groups [B60K 2370/16](#) and [B60K 2370/171](#) should be considered in order to perform a complete search.

N B60K 2370/172

- Driving mode indication

WARNING

Group [B60K 2370/172](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).

Groups [B60K 2370/16](#) and [B60K 2370/172](#) should be considered in order to perform a complete search.

N B60K 2370/173

- Reversing assist

N B60K 2370/174

- Economic driving

N B60K 2370/175

- Autonomous driving

WARNING

Group [B60K 2370/175](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).

Groups [B60K 2370/16](#) and [B60K 2370/175](#) should be considered in order to perform a complete search.

N B60K 2370/176

- Camera images

WARNING

Group [B60K 2370/176](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).

Groups [B60K 2370/16](#) and [B60K 2370/176](#) should be considered in order to perform a complete search.

N B60K 2370/177

- Augmented reality

WARNING

Group [B60K 2370/177](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).

Groups [B60K 2370/16](#) and [B60K 2370/177](#) should be considered in order to perform a complete search.

N B60K 2370/178

- Warnings

WARNING

Group [B60K 2370/178](#) is incomplete pending reclassification of documents from group [B60K 2370/16](#).

Groups [B60K 2370/16](#) and [B60K 2370/178](#) should be considered in order to perform a complete search.

N B60K 2370/179

- Distances to obstacles or vehicles

N B60K 2370/18

- Information management

WARNING

Group [B60K 2370/18](#) is incomplete pending reclassification of documents from group [B60K 2370/10](#).

Groups [B60K 2370/10](#) and [B60K 2370/18](#) should be considered in order to perform a complete search.

N B60K 2370/182

- Distributing information between displays

WARNING

Group [B60K 2370/182](#) is incomplete pending reclassification of documents from group [B60K 2370/10](#).

Groups [B60K 2370/10](#) and [B60K 2370/182](#) should be considered in order to perform a complete search.

- N B60K 2370/184 • • *Displaying the same information on different displays*
- Q B60K 2370/186 • • *Displaying Information according to relevancy*
WARNING
 Group [B60K 2370/186](#) is impacted by reclassification into group [B60K 2370/1876](#).
 Groups [B60K 2370/186](#) and [B60K 2370/1876](#) should be considered in order to perform a complete search.
- N B60K 2370/1868 • • • *according to driving situations*
- N B60K 2370/1876 • • • *according to vehicle situations*
WARNING
 Group [B60K 2370/1876](#) is incomplete pending reclassification of documents from group [B60K 2370/186](#).
 Groups [B60K 2370/186](#) and [B60K 2370/1876](#) should be considered in order to perform a complete search.
- N B60K 2370/188 • • *Displaying information using colour changes*
- N B60K 2370/191 • • *Highlight information*
WARNING
 Group [B60K 2370/191](#) is incomplete pending reclassification of documents from group [B60K 2370/10](#).
 Groups [B60K 2370/10](#) and [B60K 2370/191](#) should be considered in order to perform a complete search.
- Q B60K 2370/193 • • *for improving awareness*
WARNING
 Group [B60K 2370/193](#) is impacted by reclassification into group [B60K 2370/194](#).
 Groups [B60K 2370/193](#) and [B60K 2370/194](#) should be considered in order to perform a complete search.
- N B60K 2370/194 • • • *by directing line of sight*
WARNING
 Group [B60K 2370/194](#) is incomplete pending reclassification of documents from group [B60K 2370/193](#).
 Groups [B60K 2370/193](#) and [B60K 2370/194](#) should be considered in order to perform a complete search.
- N B60K 2370/195 • • *Blocking or enabling display functions*
- N B60K 2370/197 • • *Blocking or enabling of input functions*
WARNING
 Group [B60K 2370/197](#) is incomplete pending reclassification of documents from group [B60K 2370/10](#).
 Groups [B60K 2370/10](#) and [B60K 2370/197](#) should be considered in order to perform a complete search.
- N B60K 2370/199 • • *for avoiding maloperation*
WARNING
 Group [B60K 2370/199](#) is incomplete pending reclassification of documents from group [B60K 2370/10](#).
 Groups [B60K 2370/10](#) and [B60K 2370/199](#) should be considered in order to perform a complete search.

- Q B60K 2370/20
- Optical features of instruments
- WARNING
Group [B60K 2370/20](#) is impacted by reclassification into group [B60K 2370/23](#). Groups [B60K 2370/20](#) and [B60K 2370/23](#) should be considered in order to perform a complete search.
- N B60K 2370/21
- • using cameras
- N B60K 2370/23
- • using reflectors
- WARNING
Group [B60K 2370/23](#) is incomplete pending reclassification of documents from group [B60K 2370/20](#). Groups [B60K 2370/20](#) and [B60K 2370/23](#) should be considered in order to perform a complete search.
- N B60K 2370/25
- • using filters
- N B60K 2370/27
- • using semi-transparent optical elements
- N B60K 2370/28
- • • for instruments which are not visible when inactive
- N B60K 2370/29
- • Holographic features
- N B60K 2370/31
- • Virtual images
- Q B60K 2370/33
- • Illumination features
- WARNING
Group [B60K 2370/33](#) is impacted by reclassification into groups [B60K 2370/332](#), [B60K 2370/336](#), [B60K 2370/338](#), [B60K 2370/341](#), [B60K 2370/343](#), and [B60K 2370/345](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/331
- • • Electroluminescent elements
- N B60K 2370/332
- • • Light emitting diodes
- WARNING
Group [B60K 2370/332](#) is incomplete pending reclassification of documents from group [B60K 2370/33](#). Groups [B60K 2370/33](#) and [B60K 2370/332](#) should be considered in order to perform a complete search.
- N B60K 2370/333
- • • Lasers
- N B60K 2370/334
- • • Projection means
- N B60K 2370/336
- • • Light guides
- WARNING
Group [B60K 2370/336](#) is incomplete pending reclassification of documents from group [B60K 2370/33](#). Groups [B60K 2370/33](#) and [B60K 2370/336](#) should be considered in order to perform a complete search.
- N B60K 2370/338
- • • Light strips
- WARNING
Group [B60K 2370/338](#) is incomplete pending reclassification of documents from group [B60K 2370/33](#). Groups [B60K 2370/33](#) and [B60K 2370/338](#) should be considered in order to perform a complete search.
- N B60K 2370/339
- • • Translucent dashboard skins

- N B60K 2370/34 • • • Backlit symbols
- N B60K 2370/341 • • • Illumination of dials
WARNING
 Group [B60K 2370/341](#) is incomplete pending reclassification of documents from group [B60K 2370/33](#). Groups [B60K 2370/33](#) and [B60K 2370/341](#) should be considered in order to perform a complete search.
- N B60K 2370/343 • • • Illumination of matrix displays
WARNING
 Group [B60K 2370/343](#) is incomplete pending reclassification of documents from group [B60K 2370/33](#). Groups [B60K 2370/33](#) and [B60K 2370/343](#) should be considered in order to perform a complete search.
- N B60K 2370/345 • • • Illumination of controls
WARNING
 Group [B60K 2370/345](#) is incomplete pending reclassification of documents from group [B60K 2370/33](#). Groups [B60K 2370/33](#) and [B60K 2370/345](#) should be considered in order to perform a complete search.
- N B60K 2370/347 • • • Optical elements for superposition of display information
- N B60K 2370/349 • • • Adjustment of brightness
- N B60K 2370/35 • • Fogging prevention
- N B60K 2370/37 • • Glare prevention
- N B60K 2370/39 • • Anti-reflection arrangements
- Q B60K 2370/40 • Hardware adaptations for dashboards or instruments
WARNING
 Group [B60K 2370/40](#) is impacted by reclassification into groups [B60K 2370/47](#) and [B60K 2370/48](#). Groups [B60K 2370/40](#), [B60K 2370/47](#) and [B60K 2370/48](#) should be considered in order to perform a complete search.
- N B60K 2370/42 • • Circuit board features
- N B60K 2370/44 • • Wiring harness
- N B60K 2370/46 • • Electrical connections
- N B60K 2370/47 • • • using wireless power transfer or transmission.
WARNING
 Group [B60K 2370/47](#) is incomplete pending reclassification of documents from group [B60K 2370/40](#). Groups [B60K 2370/40](#) and [B60K 2370/47](#) should be considered in order to perform a complete search.
- N B60K 2370/48 • • Sensors
WARNING
 Group [B60K 2370/48](#) is incomplete pending reclassification of documents from group [B60K 2370/40](#). Groups [B60K 2370/40](#) and [B60K 2370/48](#) should be considered in order to perform a complete search.

- Q B60K 2370/50
- Control arrangements; Data network features
- WARNING
 Group [B60K 2370/50](#) is impacted by reclassification into groups [B60K 2370/58](#), [B60K 2370/583](#), [B60K 2370/586](#), [B60K 2370/5894](#), [B60K 2370/5899](#), [B60K 2370/5905](#), [B60K 2370/5911](#), [B60K 2370/5915](#), [B60K 2370/592](#) and [B60K 2370/595](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/52
- Control of displays
- Q B60K 2370/55
- Remote controls
- WARNING
 Group [B60K 2370/55](#) is impacted by reclassification into groups [B60K 2370/56](#), [B60K 2370/563](#), [B60K 2370/566](#), [B60K 2370/569](#), [B60K 2370/573](#) and [B60K 2370/577](#).
 All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/56
- using mobile devices
- WARNING
 Group [B60K 2370/56](#) is incomplete pending reclassification of documents from group [B60K 2370/55](#).
 Groups [B60K 2370/55](#) and [B60K 2370/56](#) should be considered in order to perform a complete search.
- N B60K 2370/563
- Vehicle displaying mobile device information
- WARNING
 Group [B60K 2370/563](#) is incomplete pending reclassification of documents from group [B60K 2370/55](#).
 Groups [B60K 2370/55](#) and [B60K 2370/563](#) should be considered in order to perform a complete search.
- N B60K 2370/566
- Mobile devices displaying vehicle information
- WARNING
 Group [B60K 2370/566](#) is incomplete pending reclassification of documents from group [B60K 2370/55](#).
 Groups [B60K 2370/55](#) and [B60K 2370/566](#) should be considered in order to perform a complete search.
- N B60K 2370/569
- Vehicle controlling mobile device functions
- WARNING
 Group [B60K 2370/569](#) is incomplete pending reclassification of documents from group [B60K 2370/55](#).
 Groups [B60K 2370/55](#) and [B60K 2370/569](#) should be considered in order to perform a complete search.
- N B60K 2370/573
- Mobile devices controlling vehicle functions
- WARNING
 Group [B60K 2370/573](#) is incomplete pending reclassification of documents from group [B60K 2370/55](#).
 Groups [B60K 2370/55](#) and [B60K 2370/573](#) should be considered in order to perform a complete search.

- N B60K 2370/577 Mirror link with mobile devices
WARNING
 Group [B60K 2370/577](#) is incomplete pending reclassification of documents from group [B60K 2370/55](#).
 Groups [B60K 2370/55](#) and [B60K 2370/577](#) should be considered in order to perform a complete search.
- N B60K 2370/58 . . . Data transfers
WARNING
 Group [B60K 2370/58](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).
 Groups [B60K 2370/50](#) and [B60K 2370/58](#) should be considered in order to perform a complete search.
- N B60K 2370/583 . . . between instruments
WARNING
 Group [B60K 2370/583](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).
 Groups [B60K 2370/50](#) and [B60K 2370/583](#) should be considered in order to perform a complete search.
- N B60K 2370/586 . . . Wired data transfers
WARNING
 Group [B60K 2370/586](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).
 Groups [B60K 2370/50](#) and [B60K 2370/586](#) should be considered in order to perform a complete search.
- N B60K 2370/589 . . . Wireless
- N B60K 2370/5894 SIM cards
WARNING
 Group [B60K 2370/5894](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).
 Groups [B60K 2370/50](#) and [B60K 2370/5894](#) should be considered in order to perform a complete search.
- N B60K 2370/5899 Internet
WARNING
 Group [B60K 2370/5899](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).
 Groups [B60K 2370/50](#) and [B60K 2370/5899](#) should be considered in order to perform a complete search.
- N B60K 2370/5905 Wi-fi
WARNING
 Group [B60K 2370/5905](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).
 Groups [B60K 2370/50](#) and [B60K 2370/5905](#) should be considered in order to perform a complete search.
- N B60K 2370/5911 Bluetooth
WARNING
 Group [B60K 2370/5911](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).

Groups [B60K 2370/50](#) and [B60K 2370/5911](#) should be considered in order to perform a complete search.

N B60K 2370/5915 Inter vehicle communication

WARNING

Group [B60K 2370/5915](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).

Groups [B60K 2370/50](#) and [B60K 2370/5915](#) should be considered in order to perform a complete search.

N B60K 2370/592 External database involved

WARNING

Group [B60K 2370/592](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).

Groups [B60K 2370/50](#) and [B60K 2370/592](#) should be considered in order to perform a complete search.

N B60K 2370/595 Internal database involved

WARNING

Group [B60K 2370/595](#) is incomplete pending reclassification of documents from group [B60K 2370/50](#).

Groups [B60K 2370/50](#) and [B60K 2370/595](#) should be considered in order to perform a complete search.

Q B60K 2370/60 Structural details of dashboards or instruments

WARNING

Group [B60K 2370/60](#) is impacted by reclassification into groups [B60K 2370/61](#), [B60K 2370/62](#), [B60K 2370/63](#), [B60K 2370/65](#), [B60K 2370/654](#), [B60K 2370/66](#), [B60K 2370/68](#), [B60K 2370/688](#), [B60K 2370/691](#), and [B60K 2370/692](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N B60K 2370/61 Specially adapted for utility vehicles

WARNING

Group [B60K 2370/61](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).

Groups [B60K 2370/60](#) and [B60K 2370/61](#) should be considered in order to perform a complete search.

N B60K 2370/62 Anti-theft arrangements

WARNING

Group [B60K 2370/62](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).

Groups [B60K 2370/60](#) and [B60K 2370/62](#) should be considered in order to perform a complete search.

N B60K 2370/63 Crash protection features

WARNING

Group [B60K 2370/63](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).

Groups [B60K 2370/60](#) and [B60K 2370/63](#) should be considered in order to perform a complete search.

- N B60K 2370/65
- • Features of dashboards
- WARNING
Group [B60K 2370/65](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).
Groups [B60K 2370/60](#) and [B60K 2370/65](#) should be considered in order to perform a complete search.
- N B60K 2370/654
- • • Dashboard panels
- WARNING
Group [B60K 2370/654](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).
Groups [B60K 2370/60](#) and [B60K 2370/654](#) should be considered in order to perform a complete search.
- N B60K 2370/658
- • • Dashboard parts used as air ducts
- N B60K 2370/66
- • Projection screens or combiners
- WARNING
Group [B60K 2370/66](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).
Groups [B60K 2370/60](#) and [B60K 2370/66](#) should be considered in order to perform a complete search.
- N B60K 2370/67
- • Foldable or movable displays
- N B60K 2370/68
- • Features of instruments
- WARNING
Group [B60K 2370/68](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).
Groups [B60K 2370/60](#) and [B60K 2370/68](#) should be considered in order to perform a complete search.
- N B60K 2370/682
- • • Arrangements to cover or hide instruments
- N B60K 2370/685
- • • Instruments movable with steering column
- N B60K 2370/688
- • • Frames or decorative parts
- WARNING
Group [B60K 2370/688](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).
Groups [B60K 2370/60](#) and [B60K 2370/688](#) should be considered in order to perform a complete search.
- N B60K 2370/691
- • • Housings
- WARNING
Group [B60K 2370/691](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).
Groups [B60K 2370/60](#) and [B60K 2370/691](#) should be considered in order to perform a complete search.
- N B60K 2370/692
- • • Sealings
- WARNING
Group [B60K 2370/692](#) is incomplete pending reclassification of documents from group [B60K 2370/60](#).
Groups [B60K 2370/60](#) and [B60K 2370/692](#) should be considered in order to perform a complete search.
- N B60K 2370/693
- • • Cover plate features

- N B60K 2370/695 . . . Dial features
- Q B60K 2370/698 . . . Pointers of combined instruments
- WARNING
Group [B60K 2370/698](#) is impacted by reclassification into groups [B60K 2370/6985](#) and [B60K 2370/6992](#).
Groups [B60K 2370/698](#), [B60K 2370/6985](#) and [B60K 2370/6992](#) should be considered in order to perform a complete search.
- N B60K 2370/6985 . . . with only part of pointer being visible
- WARNING
Group [B60K 2370/6985](#) is incomplete pending reclassification of documents from group [B60K 2370/698](#).
Groups [B60K 2370/698](#) and [B60K 2370/6985](#) should be considered in order to perform a complete search.
- N B60K 2370/6992 . . . Light conducting pointers
- WARNING
Group [B60K 2370/6992](#) is incomplete pending reclassification of documents from group [B60K 2370/698](#).
Groups [B60K 2370/698](#) and [B60K 2370/6992](#) should be considered in order to perform a complete search.
- N B60K 2370/70 . Arrangements of instruments in the vehicle
- Q B60K 2370/73 . . with special adaptation to the user or to the vehicle
- WARNING
Group [B60K 2370/73](#) is impacted by reclassification into groups [B60K 2370/731](#), [B60K 2370/741](#) and [B60K 2370/744](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/731 . . . user programmable systems
- WARNING
Group [B60K 2370/731](#) is incomplete pending reclassification of documents from group [B60K 2370/73](#).
Groups [B60K 2370/73](#) and [B60K 2370/731](#) should be considered in order to perform a complete search.
- N B60K 2370/733 . . . Left or right steering
- N B60K 2370/736 . . . the user being the driver
- N B60K 2370/739 . . . the user being the passenger
- N B60K 2370/741 . . . User detection
- WARNING
Group [B60K 2370/741](#) is incomplete pending reclassification of documents from group [B60K 2370/73](#).
Groups [B60K 2370/73](#) and [B60K 2370/741](#) should be considered in order to perform a complete search.
- N B60K 2370/744 . . . Position adjustable by user
- WARNING
Group [B60K 2370/744](#) is incomplete pending reclassification of documents from group [B60K 2370/73](#).
Groups [B60K 2370/73](#) and [B60K 2370/744](#) should be considered in order to perform a complete search.

- Q B60K 2370/77
- • characterised by locations other than the dashboard
- WARNING
Group [B60K 2370/77](#) is impacted by reclassification into groups [B60K 2370/785](#), [B60K 2370/788](#), [B60K 2370/791](#), and [B60K 2370/794](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N B60K 2370/771
- • • on the ceiling
- N B60K 2370/774
- • • on or in the centre console
- Q B60K 2370/777
- • • on or in sun visors
- WARNING
Group [B60K 2370/777](#) is impacted by reclassification into group [B60K 2370/779](#). Groups [B60K 2370/777](#) and [B60K 2370/779](#) should be considered in order to perform a complete search.
- N B60K 2370/779
- • • on or in rear view mirrors
- WARNING
Group [B60K 2370/779](#) is incomplete pending reclassification of documents from group [B60K 2370/777](#). Groups [B60K 2370/777](#) and [B60K 2370/779](#) should be considered in order to perform a complete search.
- N B60K 2370/782
- • • on the steering wheel
- N B60K 2370/785
- • • on or in relation to the windshield or windows
- WARNING
Group [B60K 2370/785](#) is incomplete pending reclassification of documents from group [B60K 2370/77](#). Groups [B60K 2370/77](#) and [B60K 2370/785](#) should be considered in order to perform a complete search.
- N B60K 2370/788
- • • on or in side pillars
- WARNING
Group [B60K 2370/788](#) is incomplete pending reclassification of documents from group [B60K 2370/77](#). Groups [B60K 2370/77](#) and [B60K 2370/788](#) should be considered in order to perform a complete search.
- N B60K 2370/791
- • • on or in the transmission tunnel or parking brake lever
- WARNING
Group [B60K 2370/791](#) is incomplete pending reclassification of documents from group [B60K 2370/77](#). Groups [B60K 2370/77](#) and [B60K 2370/791](#) should be considered in order to perform a complete search.
- N B60K 2370/794
- • • on or in doors
- WARNING
Group [B60K 2370/794](#) is incomplete pending reclassification of documents from group [B60K 2370/77](#). Groups [B60K 2370/77](#) and [B60K 2370/794](#) should be considered in order to perform a complete search.
- N B60K 2370/797
- • • At the vehicle exterior

- Q B60K 2370/80
- Mounting or fastening arrangements; Mounting or fastening processes
- WARNING
Group [B60K 2370/80](#) is impacted by reclassification into groups [B60K 2370/84](#), [B60K 2370/90](#), [B60K 2370/91](#), [B60K 2370/92](#), [B60K 2370/95](#) and [B60K 2370/98](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- Q B60K 2370/81
- • Fastening of instruments, e.g. to dashboard
- WARNING
Group [B60K 2370/81](#) is impacted by reclassification into groups [B60K 2370/816](#) and [B60K 2370/822](#).
Groups [B60K 2370/81](#), [B60K 2370/816](#) and [B60K 2370/822](#) should be considered in order to perform a complete search.
- N B60K 2370/816
- • • Fastening of displays or touch screens
- WARNING
Group [B60K 2370/816](#) is incomplete pending reclassification of documents from group [B60K 2370/81](#).
Groups [B60K 2370/81](#) and [B60K 2370/816](#) should be considered in order to perform a complete search.
- N B60K 2370/822
- • • Adjustment of instruments during mounting
- WARNING
Group [B60K 2370/822](#) is incomplete pending reclassification of documents from group [B60K 2370/81](#).
Groups [B60K 2370/81](#) and [B60K 2370/822](#) should be considered in order to perform a complete search.
- N B60K 2370/828
- • • Exchangeable modules
- N B60K 2370/834
- • • Docking
- N B60K 2370/84
- • Mounting of dashboard components
- WARNING
Group [B60K 2370/84](#) is incomplete pending reclassification of documents from group [B60K 2370/80](#).
Groups [B60K 2370/80](#) and [B60K 2370/84](#) should be considered in order to perform a complete search.
- N B60K 2370/87
- • Fixation of dashboard to vehicle structure
- N B60K 2370/90
- Calibration, testing or manufacturing aspects
- WARNING
Group [B60K 2370/90](#) is incomplete pending reclassification of documents from group [B60K 2370/80](#).
Groups [B60K 2370/80](#) and [B60K 2370/90](#) should be considered in order to perform a complete search.
- N B60K 2370/91
- • Assembly of instruments
- WARNING
Group [B60K 2370/91](#) is incomplete pending reclassification of documents from group [B60K 2370/80](#).
Groups [B60K 2370/80](#) and [B60K 2370/91](#) should be considered in order to perform a complete search.

- N B60K 2370/92
- Calibration of instruments
- WARNING
Group [B60K 2370/92](#) is incomplete pending reclassification of documents from group [B60K 2370/80](#). Groups [B60K 2370/80](#) and [B60K 2370/92](#) should be considered in order to perform a complete search.
- N B60K 2370/95
- Testing of instruments
- WARNING
Group [B60K 2370/95](#) is incomplete pending reclassification of documents from group [B60K 2370/80](#). Groups [B60K 2370/80](#) and [B60K 2370/95](#) should be considered in order to perform a complete search.
- N B60K 2370/98
- Manufacturing of instruments
- WARNING
Group [B60K 2370/98](#) is incomplete pending reclassification of documents from group [B60K 2370/80](#). Groups [B60K 2370/80](#) and [B60K 2370/98](#) should be considered in order to perform a complete search.

Project: MP0428 (B60L)

- U B60L 15/00 **Methods, circuits, or devices for controlling the traction-motor speed of electrically-propelled vehicles**
- U B60L 15/20
- for control of the vehicle or its driving motor to achieve a desired performance, e.g. speed, torque, programmed variation of speed
- M B60L 15/2036
- {Electric differentials, e.g. for supporting steering of vehicles ~~(arrangement of control devices for differential gearing B60K 23/02)~~}

Project: RP0017 (B60R)

- U B60R 21/00 **Arrangements or fittings on vehicles for protecting or preventing injuries to occupants or pedestrians in case of accidents or other traffic risks (safety belts or body harnesses in vehicles [B60R 22/00](#); devices, apparatus or methods for life-saving in general [A62B](#); safety devices for propulsion unit control specially adapted for, or arranged in, vehicles [B60K 28/00](#); seats constructed to protect the occupant from the effect of abnormal g-forces, e.g. crash or safety seats, [B60N 2/42](#); energy-absorbing arrangements for hand wheels for steering vehicles [B62D 1/11](#); energy-absorbing arrangements for vehicle steering columns [B62D 1/19](#); harnessing in aircraft [B64D 25/00](#))**
- U B60R 21/01
- Electrical circuits for triggering {passive} safety arrangements, {e.g. airbags, safety belt tighteners,} in case of vehicle accidents or impending vehicle accidents {(electrical circuits for transmission of signals between steering wheel and the vehicle itself [B60R 16/027](#); for electrically actuating belt retractor locking means [B60R 22/343](#))}
- U B60R 21/013
- including means for detecting collisions, impending collisions or roll-over
- U B60R 21/0132
- responsive to vehicle motion parameters {, e.g. to vehicle longitudinal or transversal deceleration or speed value}
- M B60R 21/0133
- {by integrating the amplitude of the input signal}

WARNING

Group(s) [B60R 21/0133](#) -- [B60R 21/01338](#) are incomplete pending reclassification of documents from group [B60R 21/0132](#).

Until reclassification is complete, groups B60R 21/0132 and B60R 21/0133 -- B60R 21/01338 should be considered in order to perform a complete search.

Project: RP0530 (B62K)

D B62K 2700/00 Frames for bicycles

NOTES

1. This code and all of its subdivisions are not used for classification of new documents;
2. This code and all its subdivisions were used for indexing documents which were classified in the former Dutch IdT main group 63B and sub-groups, and which have been administratively classified in best proximate CPC groups

- D B62K 2700/02
 - Frames for cycles characterised by the material used, i.e. where the construction of the frame is unimportant
- D B62K 2700/04
 - • Frames for cycles characterised by the shape of the material used
- D B62K 2700/10
 - • Frames for cycles characterised by the kind of material used
- D B62K 2700/12
 - • • Metallic frames
- D B62K 2700/14
 - • • Wooden frames
- D B62K 2700/16
 - • • Frames constructed from another material other than wood or metal
- D B62K 2700/20
 - Frames for cycles characterised by their shape
- D B62K 2700/22
 - • Frames for cycles with two wheels positioned next to one another
- D B62K 2700/30
 - • Frames for cycles with two wheels positioned one behind the other; Cycles without a special usage
- D B62K 2700/32
 - • • Elastic frames
- D B62K 2700/34
 - • • Rigid frames
- D B62K 2700/36
 - • • • Polygonal frames with four sides, for men
- D B62K 2700/38
 - • • • Frames with crossing elements connecting between the steering head tube and the seat tube
- D B62K 2700/40
 - • • • Cross-shaped frames
- D B62K 2700/50
 - • Frames for cycles with two wheels positioned one behind the other, e.g. cycles with a special usage
- D B62K 2700/52
 - • • Frames characterised by the position of the cyclist
- D B62K 2700/54
 - • • Frames for a plurality of cyclists; Propulsion means therefor
- D B62K 2700/56
 - • • Frames for cycles propelled by foot contact on the ground, scooters
- D B62K 2700/58
 - • • • Propulsion means
- D B62K 2700/60
 - • • Frames of a special shape with regard to luggage transportation

D B62K 2710/00 Frames or general construction of cycles with side cars or trailers

NOTES

1. This code and all its subdivisions are not used for classification of new documents;
2. This code and all its subdivisions were used for indexing documents which were classified in the former Dutch IdT main group 63H and sub-groups, and which have been administratively classified in best proximate CPC groups

- D B62K 2710/02
 - Side cars and trailers for cycles
- D B62K 2710/04
 - • Bodywork, mudguards, luggage carriers, heating or ventilation devices
- D B62K 2710/06
 - • Hoods

- D B62K 2710/08 · · Resilient bodywork-suspension
- D B62K 2710/10 · · Resilient axle-suspension
- D B62K 2710/12 · · Coupling-parts
- D B62K 2710/14 · · Steering-mechanisms for motorcycles with side-cars or for side-cars with a driven-wheel
- D B62K 2710/16 · · Trailers for cycles and their couplings

Project: RP0530 (B62M)

- D B62M 2700/00 Rider-propulsion of bicycles or vehicles having transmission mainly of unchangeable ratio**
- D B62M 2700/001 · Propulsion of bicycles and vehicles using planetary gears transmission
- D B62M 2700/003 · Propulsion of bicycles and vehicles using toothed wheels transmission
- D B62M 2700/005 · Propulsion of bicycles and vehicles using bevel/conical wheels transmission
- D B62M 2700/006 · Propulsion of bicycles and vehicles using cranks having reciprocating levers
- D B62M 2700/008 · Propulsion of bicycles and vehicles using other means
- D B62M 2701/00 Transmissions for motorcycles or motorised bicycles characterised by position of engine or gear box**
- D B62M 2701/0007 · Construction details of gear-box for motorcycles
- D B62M 2701/0015 · Transmissions and/or engine-attachement to frame
- D B62M 2701/0023 · Transmissions using belt, chain and friction wheel
- D B62M 2701/003 · · Motorcycles or bicycles with engine besides or within driven wheel
- D B62M 2701/0038 · · Motorcycles or bicycles with engine over the front or rear wheel
- D B62M 2701/0046 · Gear change control and other for motorcycles or bicycles
- D B62M 2701/0053 · · Control by means of a lever
- D B62M 2701/0061 · · Control of pulleys in transmission
- D B62M 2701/0069 · Engine control
- D B62M 2701/0076 · Chain and chainwheel
- D B62M 2701/0084 · Clutch control by driver
- D B62M 2701/0092 · Clutch arrangement in the transmission
- D B62M 2901/00 Rear-derailleur supported by the chain-stay or rear fork of the bicycle**

Project: RP0473 (B63B)

- M B63B SHIPS OR OTHER WATERBORNE VESSELS; EQUIPMENT FOR SHIPPING ({amphibious vehicles [B60F 3/00](#);} air-cushion vehicles [B60V](#); arrangements of vessel ventilation, heating, cooling or air conditioning [B63J 2/00](#))**

NOTE

In this subclass, the indexing codes [B63B 2201/00](#) - [B63B 2241/00](#) are to be used for relevant technical information concerning particular or unusual use, materials, design, methods or means.

WARNING

1. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

2. Groups [B63B 1/00](#) - [B63B 2241/28](#) are incomplete pending reclassification of documents from groups [B63B 2701/00](#) - [B63B 2770/00](#). All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2701/00
(Frozen)

Building of the ship's hull

WARNING

Groups [B63B 2701/00](#) - [B63B 2770/00](#) are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F B63B 2701/02 (Frozen) • Steel construction
- F B63B 2701/04 (Frozen) • Reinforced concrete construction
- F B63B 2701/06 (Frozen) • Wood construction; Composite construction
- F B63B 2701/08 (Frozen) • Electric and fusion welding for ships (welding in general [B23K](#))
- F B63B 2701/10 (Frozen) • Keelsons, floors, double bottoms, tanks, coal bunkers, tunnels, engine and boiler rooms
- F B63B 2701/12 (Frozen) • Frames, web frames, deck beams, longitudinal girders, coamings, deck pillars
- F B63B 2701/14 (Frozen) • Deck plating, wooden decks for steel ships
- F B63B 2701/16 (Frozen) • Shell plating and bulwarks; Fenders; Gunwales; Bilge keels and other elements fixed to the shell
- F B63B 2701/18 (Frozen) • Longitudinal and transverse bulkheads made of steel or wood
- F B63B 2701/20 (Frozen) • Stems and keels; Stern frames; Bossings and struts; Propeller guards
- F B63B 2701/22 (Frozen) • Lining and panelling in wood or metal; Movable partition walls within accommodation spaces; Insulating walls; Stairs; Windshields on decks (internal partitions for buildings [E04B 2/00](#))

F B63B 2702/00
(Frozen)

Submarines

WARNING

Groups [B63B 2702/00](#) - [B63B 2702/14](#) are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F B63B 2702/02 (Frozen) • Equipment for lifting sunken submarines (Equipment for salvaging sunken vessels or other objects [B63C 7/00](#))
- F B63B 2702/04 (Frozen) • Arrangements of motors and transmissions in submarines; Propulsion
- F B63B 2702/06 (Frozen) • Arrangements for the transportation, drydocking, and testing of submarines (drydocking [B63C 1/00](#))
- F B63B 2702/08 (Frozen) • Arrangements for anchoring of submarines

- F B63B 2702/10
(Frozen) · Miscellaneous arrangement for submarines
- F B63B 2702/12
(Frozen) · Submarines of special construction or fitted with special devices or apparatus; Merchant submarines
- F B63B 2702/14
(Frozen) · Arrangements for detecting and localising submarines (Acoustic detection [G01S](#), electromagnetic detection [G01N](#))
- F B63B 2704/00
(Frozen)** **Port-holes, windows, doors and other openings in the superstructures**
- WARNING**
Group [B63B 2704/00](#) is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2705/00
(Frozen)** **Closets, latrines, swimming pools and washing facilities for ships; Overboard discharges**
- WARNING**
Group [B63B 2705/00](#) is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2707/00
(Frozen)** **Doors and closing means**
- WARNING**
Group [B63B 2707/00](#) is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2708/00
(Frozen)** **Winches; Capstans**
- WARNING**
Groups [B63B 2708/00](#) - [B63B 2708/02](#) is no longer used for the classification of documents as of May 1, 2019.
The content of these groups is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2708/02
(Frozen) · Winches and capstans driven by electric or electro-hydraulic means
- F B63B 2709/00
(Frozen)** **Tables, chairs and other furniture peculiar to vessels**
- WARNING**
Group [B63B 2709/00](#) is no longer used for the classification of documents as of May 1, 2019.

*The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

F **B63B 2710/00**
(Frozen)

Miscellaneous equipment for ships, e.g. collision mats, rat guards

WARNING

Group [B63B 2710/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F **B63B 2711/00**
(Frozen)

Equipment for watching and measuring the oscillations, the resistance and the movements of ships; Model towing tanks

WARNING

Group [B63B 2711/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F **B63B 2712/00**
(Frozen)

Equipment for handling the boats by means of turning davits, i.e. a set formed by the davit, davit foundation, davit drive, boat support, boat guides, boat pulley blocks and winches

WARNING

Group [B63B 2712/00](#) - [B63B 2712/02](#) are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F **B63B 2712/02**
(Frozen)

• Equipment for handling the boats by means of swinging davits, i.e. a set formed by the davit, davit foundation, davit drive, boat support, boat guides, boat pulley blocks and winches

F **B63B 2713/00**
(Frozen)

Stowing of the boats, i.e. arrangement, chocks, lashing down and transport of the boats on deck

WARNING

Group [B63B 2713/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F B63B 2714/00 (Frozen)** **Construction of turning davits, davit foundations and davit drives**
- WARNING**
*Groups B63B 2714/00 - B63B 2714/02 are no longer used for the classification of documents as of May 1, 2019.
The content of these groups is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2714/02 (Frozen)** • Construction of swinging davits and other davits and of davit foundation and drives
- F B63B 2715/00 (Frozen)** **Hydraulic and pneumatic steering gear**
- WARNING**
*Group B63B 2715/00 is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2716/00 (Frozen)** **Steam-powered steering gear**
- WARNING**
*Group B63B 2716/00 is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2717/00 (Frozen)** **Hand-operated steering gears; Combined hand and steam-powered steering gears**
- WARNING**
*Group B63B 2717/00 is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2718/00 (Frozen)** **Components of the steering gears, e.g. steering wheels, telemotors, driving chains, shock dampers, quadrants, arrangements to block the rudder, brakes, rudder stops**
- WARNING**
*Group B63B 2718/00 is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.*

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2719/00
(Frozen)

Arrangements for slowing-down of ships by means of side flaps and for creating a lateral resistance for **manoeuvring **maneuvering****

WARNING

Group B63B 2719/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2721/00
(Frozen)

Automatic steering apparatus, non-electric

WARNING

Groups B63B 2721/00 - B63B 2721/02 are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2721/02
(Frozen)

• Auxiliary steering gear and other steering arrangements

F B63B 2722/00
(Frozen)

Towing in general

WARNING

Group B63B 2722/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2723/00
(Frozen)

Miscellaneous equipment for towing

WARNING

Group B63B 2723/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2724/00
(Frozen)

Navigation signals, e.g. masthead and side lights, marking of seaways, arrangements of compasses

WARNING

Group B63B 2724/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2725/00
(Frozen)

Engine room signals and arrangements for controlling the main engines from the navigation bridge

WARNING

Group B63B 2725/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2726/00
(Frozen)

Miscellaneous signalling devices and draft indicators

WARNING

Group B63B 2726/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2727/00
(Frozen)

Signalling devices using acoustic or mechanical means

WARNING

Groups B63B 2727/00 - B63B 2727/02 are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2727/02
(Frozen)

• Arrangements for the detection of icebergs, reefs, derelicts, or the like

F B63B 2728/00
(Frozen)

Lifeboats, liferafts, lifesaving floats, etc.

WARNING

Group B63B 2728/00 is no longer used for the classification of documents as of May 1, 2019.

F B63B 2729/00
(Frozen)

Coastal lifesaving

WARNING

Group B63B 2729/00 is no longer used for the classification of documents as of May 1, 2019.

F B63B 2730/00
(Frozen)

Diving suits

WARNING

Groups B63B 2730/00 - B63B 2730/02 are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2730/02
(Frozen) · Resilient suits

F B63B 2731/00
(Frozen) **Arrangements for avoiding capsizing and sinking**

WARNING

Group B63B 2731/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2732/00
(Frozen) **Arrangements for avoiding or reducing collision damage**

WARNING

Group B63B 2732/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2733/00
(Frozen) **Arrangements for reducing the risk of running aground; Depth sounders**

WARNING

Group B63B 2733/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2734/00
(Frozen) **Loading and unloading ships by ship-mounted means**

WARNING

Group B63B 2734/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2735/00
(Frozen) **Miscellaneous shipbuilding-related arrangements and constructions, e.g. pontoons**

WARNING

Group B63B 2735/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2736/00
(Frozen)

Slipways, shipyard installations and apparatus for launching or hauling-out ships

WARNING

Group B63B 2736/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2737/00
(Frozen)

Dry and floating docks; Cleaning devices for hulls; Drydocking of hull parts; Equipment for dry and floating docks

WARNING

Group B63B 2737/00 is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2738/00
(Frozen)

Re-floating of ships and sunken objects

WARNING

Group B63B 2738/00 - B63B 2738/12 is no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.

All groups listed in this Warning should be considered in order to perform a complete search.

F B63B 2738/02
(Frozen)

• Salvaging of ships by means of floats

F B63B 2738/04
(Frozen)

• Salvaging of ships using cofferdams

F B63B 2738/06
(Frozen)

• Salvaging of ships using diving bells

F B63B 2738/08
(Frozen)

• Salvaging of ships by other means, e.g. using balloons or frozen blocks

F B63B 2738/10
(Frozen)

• Floating docks for lifting ships

F B63B 2738/12
(Frozen)

• Attaching floats and chains to the hull by mechanical means; Lifting chains

F B63B 2739/00
(Frozen)

Boats or canoes in general; Construction and outfitting

WARNING

Group B63B 2739/00 is no longer used for the classification of documents as of May 1, 2019.

*The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).
All groups listed in this Warning should be considered in order to perform a complete search.*

F **B63B 2741/00**
(Frozen)

Manual propulsion; Paddles

WARNING

Group [B63B 2741/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F **B63B 2742/00**
(Frozen)

Anti-torpedo nets and shields for ships; Anti-submarine nets and devices for the protection of harbours and means for the destruction thereof

WARNING

Groups [B63B 2742/00](#) - [B63B 2742/02](#) are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F **B63B 2742/02**
(Frozen)

- Arrangements on ships for reducing danger due to torpedo or sea mine explosions

F **B63B 2743/00**
(Frozen)

Paddle wheels for ships in general

WARNING

Group [B63B 2743/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F **B63B 2744/00**
(Frozen)

Stern paddle wheels

WARNING

Group [B63B 2744/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F **B63B 2745/00**
(Frozen)

Propellers for ships in general (construction of air propellers [B64C](#))

WARNING

Groups [B63B 2745/00](#) - [B63B 2745/04](#) are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F [B63B 2745/02](#)
(Frozen) · Contra-propellers and other water guiding installations in front of or behind the rotating propeller (rudders with water guiding surfaces [B63H 25/00](#))
- F [B63B 2745/04](#)
(Frozen) · Propulsive devices, e.g. rotating cylinders, paddle wheels; Rudders or stabilising surfaces using Magnus effect

- F [B63B 2746/00](#)
(Frozen) **Propellers with air exhaust, e.g. hollow propellers for ships**

WARNING

Group [B63B 2746/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F [B63B 2747/00](#)
(Frozen) **Arrangements of propellers and other propulsive devices on ships**

WARNING

Groups [B63B 2747/00](#) - [B63B 2747/02](#) are no longer used for the classification of documents as of May 1, 2019.

The content of these groups is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F [B63B 2747/02](#)
(Frozen) · Propellers driven by outboard motors placed astern or on the sides of the ship

- F [B63B 2748/00](#)
(Frozen) **Propeller hubs and blade connections**

WARNING

Group [B63B 2748/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#)-[B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F [B63B 2749/00](#)
(Frozen) **Propeller shafts and paddle-wheel shafts; Shaft liners**

WARNING

Group [B63B 2749/00](#) is no longer used for the classification of documents as of May 1, 2019.

The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F B63B 2750/00**
(Frozen)
- Propeller shaft bearings, thrust bearings**
- WARNING
- Group B63B 2750/00 is no longer used for the classification of documents as of May 1, 2019.
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
- All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2751/00**
(Frozen)
- Propulsion of ships using the reaction effect of a water jet**
- WARNING
- Group B63B 2751/00 is no longer used for the classification of documents as of May 1, 2019.
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
- All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2752/00**
(Frozen)
- Propulsion of ships using the reaction effect of steam jets or gas jets**
- WARNING
- Group B63B 2752/00 is no longer used for the classification of documents as of May 1, 2019.
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
- All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2753/00**
(Frozen)
- Propulsion of ships using the reaction effect of gas explosions**
- WARNING
- Group B63B 2753/00 is no longer used for the classification of documents as of May 1, 2019.
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
- All groups listed in this Warning should be considered in order to perform a complete search.
- F B63B 2754/00**
(Frozen)
- Propulsive flaps**
- WARNING
- Group B63B 2754/00 is no longer used for the classification of documents as of May 1, 2019.
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.
- All groups listed in this Warning should be considered in order to perform a complete search.

- F B63B 2755/00**
(Frozen)
- Electric drives for the propulsive devices**
- WARNING
- Group B63B 2755/00 is no longer used for the classification of documents as of May 1, 2019.*
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.*
- All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2756/00**
(Frozen)
- Steam reciprocating engine drives for the propulsive devices**
- WARNING
- Group B63B 2756/00 is no longer used for the classification of documents as of May 1, 2019.*
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.*
- All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2757/00**
(Frozen)
- Steam turbine drives for the propulsive devices**
- WARNING
- Group B63B 2757/00 is no longer used for the classification of documents as of May 1, 2019.*
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.*
- All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2758/00**
(Frozen)
- Internal combustion engine drives for the propulsive devices**
- WARNING
- Group B63B 2758/00 is no longer used for the classification of documents as of May 1, 2019.*
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.*
- All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2759/00**
(Frozen)
- Other means for driving marine propulsion devices; Arrangements for synchronising two or more engines**
- WARNING
- Group B63B 2759/00 is no longer used for the classification of documents as of May 1, 2019.*
- The content of this group is being reclassified into groups B63B 1/00 - B63B 2241/28, B63C 1/00 - B63C 15/00, B63G 1/00 - B63G 2013/027, B63H 1/00 - B63H 25/52, B63J 1/00 - B63J 2099/008.*
- All groups listed in this Warning should be considered in order to perform a complete search.*

- F B63B 2760/00**
(Frozen)
- Marine drive governors that are influenced by the movements of the ship**
- WARNING
- Group [B63B 2760/00](#) is no longer used for the classification of documents as of May 1, 2019.*
- The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).*
- All groups listed in this Warning should be considered in order to perform a complete search.*
- F B63B 2770/00**
(Frozen)
- Apparatus or methods specially adapted for use on marine vessels, for handling power plant or unit liquids, e.g. lubricants, coolants, fuels or the like**
- WARNING
- Group [B63B 2770/00](#) is no longer used for the classification of documents as of May 1, 2019.*
- The content of this group is being reclassified into groups [B63B 1/00](#) - [B63B 2241/28](#), [B63C 1/00](#) - [B63C 15/00](#), [B63G 1/00](#) - [B63G 2013/027](#), [B63H 1/00](#) - [B63H 25/52](#), [B63J 1/00](#) - [B63J 2099/008](#).*
- All groups listed in this Warning should be considered in order to perform a complete search.*

Project: RP0473 (B63C)

- M B63C**
- LAUNCHING, HAULING-OUT, OR DRY-DOCKING OF VESSELS; LIFE-SAVING IN WATER; EQUIPMENT FOR DWELLING OR WORKING UNDER WATER; MEANS FOR SALVAGING OR SEARCHING FOR UNDERWATER OBJECTS (floating nets, floating slipways, or the like for recovering aircraft from the water [B63B 35/52](#))**
- NOTE
- In this subclass, the indexing codes [B63B 2201/00](#) - [B63B 2241/00](#) are to be used for relevant technical information concerning particular or unusual use, materials, design, methods or means.
- WARNING
1. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.
- 2. Groups [B63C 1/00](#) - [B63C 15/00](#) are incomplete pending reclassification of documents from groups [B63B 2701/00](#) - [B63B 2770/00](#).*
- All groups listed in this Warning should be considered in order to perform a complete search.*
- M B63C 7/00**
- Salvaging of disabled, stranded, or sunken vessels; Salvaging of vessel parts or furnishings, e.g. of safes; Salvaging of other underwater objects (means for searching for underwater objects [B63C 11/48](#))**
- NOTE
- in this group the following indexing codes are used:
- [B63B 2702/02](#), [B63B 2738/00](#), [B63B 2738/04](#)

M B63C 9/00 Life-saving in water (life-saving in general [A62B](#); arrangement or adaptation of signalling or lighting devices for ships, other waterborne vessels or for equipment for shipping [B63B 45/00](#); rescue equipment specially adapted for submarine personnel [B63G 8/40](#))

NOTE

- in this group the following indexing code is used: [B63B 2729/00](#)

M B63C 9/02 • Lifeboats, life-rafts or the like, specially adapted for life-saving (floatable furniture [B63C 9/30](#); boats in general [B63B](#); inflatable vessels [B63B 7/00](#); equipment for handling lifeboats or the like [B63B 23/00](#); rafts [B63B 35/58](#))

NOTE

- in this group the following indexing code is used: [B63B 2728/00](#)

Project: RP0473 (B63G)

M B63G **OFFENSIVE OR DEFENSIVE ARRANGEMENTS ON VESSELS; MINE-LAYING; MINE-SWEEPING; SUBMARINES; AIRCRAFT CARRIERS (means of attack or defence in general, e.g. turrets [F41H](#))**

NOTE

In this subclass, the indexing codes [B63B 2201/00](#) - [B63B 2241/00](#) are to be used for relevant technical information concerning particular or unusual use, materials, design, methods or means.

WARNING

1. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

2. Groups [B63G 1/00](#) - [B63G 2013/027](#) are incomplete pending reclassification of documents from groups [B63B 2701/00](#) - [B63B 2770/00](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP0473 (B63H)

M B63H **MARINE PROPULSION OR STEERING (arrangement of propulsion or steering means on amphibious vehicles [B60F 3/0007](#);} propulsion of air-cushion vehicles [B60V 1/14](#); peculiar to submarines, other than nuclear propulsion, [B63G](#); peculiar to torpedoes [F42B 19/00](#))**

NOTE

In this subclass, the indexing codes [B63B 2201/00](#) - [B63B 2241/00](#) are to be used for relevant technical information concerning particular or unusual use, materials, design, methods or means

WARNING

1. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

2. Groups [B63H 1/00](#) - [B63H 25/52](#) are incomplete pending reclassification of documents from groups [B63B 2701/00](#) - [B63B 2770/00](#).

All groups listed in this Warning should be considered in order to perform a complete search.

U B63H 21/00 Use of propulsion power plant or units on vessels (use of outboard propulsion units [B63H 20/00](#); hull reinforcements for carrying propulsion power plant or units [B63B 3/70](#); {propulsion of submarines [B63G 8/08](#); } propulsion power plant or units per se, see the relevant classes)

NOTE

This group comprises arrangements of propulsion power plant or units on vessels and to some extent it includes adaptations of such plant or units to facilitate such arrangements

M B63H 21/38

- Apparatus or methods specially adapted for use on marine vessels, for handling power plant or unit liquids, e.g. lubricants, coolants, fuels or the like ({in outboard drives [B63H 20/001](#); } lubricating or cooling machines or engines in general [F01](#) - [F04](#))

WARNING

~~This group and its subgroups are~~

~~– systematically used for classification of documents published from 01.06.2010 onwards –~~

~~– not complete; for documents published before 01.06.2010, see [B63B 2770/00](#)~~

Project: RP0473 (B63J)

M B63J **AUXILIARIES ON VESSELS**

NOTES

1. In this subclass, the following term is used with the meaning indicated:
 - "auxiliaries" means only apparatus specially arranged for rendering vessels, in general, habitable or operative, insofar as such apparatus is not specifically provided for in another subclass of class [B63](#)
2. In this subclass, the indexing codes [B63B 2201/00](#) - [B63B 2241/00](#) are to be used for relevant technical information concerning particular or unusual use, materials, design, methods or means.

WARNING

1. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

2. Groups [B63J 1/00](#) - [B63J 2099/008](#) are incomplete pending reclassification of documents from groups [B63B 2701/00](#) - [B63B 2770/00](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP0283 (B64G)

U B64G 1/00 **Cosmonautic vehicles**

U B64G 1/22 • Parts of, or equipment specially adapted for fitting in or to, cosmonautic vehicles

C B64G 1/24 • • Guiding or controlling apparatus, e.g. for attitude control (jet-propulsion plants [F02K](#); navigation or navigational instruments, see the relevant subclass, e.g. [G01C](#); automatic pilots [G05D 1/00](#))

WARNING

Group [B64G 1/24](#) is impacted by reclassification into group [B64G 1/244](#).

Groups [B64G 1/24](#) and [B64G 1/244](#) should be considered in order to perform a complete search.

U B64G 1/242 • • • {Orbits and trajectories}

- N B64G 1/244
- • • {Attitude control}
- WARNING
Group [B64G 1/244](#) is incomplete pending reclassification of documents from group [B64G 1/24](#).
Groups [B64G 1/24](#) and [B64G 1/244](#) should be considered in order to perform a complete search.
- M B64G 2001/245
- • • {~~Spacecraft attitude control, e.g. Attitude control algorithms for spacecraft attitude control algorithms~~}

Project: RP0168 (B65B)

- C B65B 59/00
- Arrangements to enable machines to handle articles of different sizes, to produce packages of different sizes, to vary the contents of packages *{, to handle different types of packaging material,}* or to give access for cleaning or maintenance purposes
- NOTE
In all subgroups of this main group multi-aspect classification is applied, so that aspects of subject matter that are covered by more than one of its subgroups should be classified in each of those subgroups.
- WARNING
Group [B65B 59/00](#) is impacted by reclassification into groups [B65B 59/001](#) and [B65B 59/003](#).
Groups [B65B 59/00](#), [B65B 59/001](#), and [B65B 59/003](#) should be considered in order to perform a complete search.
- N B65B 59/001
- {Arrangements to enable adjustments related to the product to be packaged}
- WARNING
Group [B65B 59/001](#) is incomplete pending reclassification of documents from groups [B65B 59/00](#), [B65B 59/005](#), and [B65B 59/02](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N B65B 59/003
- {Arrangements to enable adjustments related to the packaging material}
- WARNING
Group [B65B 59/003](#) is incomplete pending reclassification of documents from groups [B65B 59/00](#), [B65B 59/005](#), and [B65B 59/02](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C B65B 59/005
- {Adjustable conveying means ~~(B65B 59/02 takes precedence)~~}
- WARNING
Group [B65B 59/005](#) is incomplete pending reclassification of documents from group [B65B 59/02](#).
Group [B65B 59/005](#) is also impacted by reclassification into groups [B65B 59/001](#) and [B65B 59/003](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- C B65B 59/02
- Arrangements to enable adjustments to be made while the machine is running
- WARNING
Group [B65B 59/02](#) is impacted by reclassification into groups [B65B 59/001](#), [B65B 59/003](#), and [B65B 59/005](#).
All groups listed in this Warning should be considered in order to perform a complete search.

Project: MP0428 (B65D)

- U B65D 5/00 Rigid or semi-rigid containers of polygonal cross-section, e.g. boxes, cartons or trays, formed by folding or erecting one or more blanks made of paper (rigid pallets with side walls [B65D 19/02](#))
- U B65D 5/02 · by folding or erecting a single blank to form a tubular body with or without subsequent folding operations, or the addition of separate elements, to close the ends of the body ([B65D 5/36](#) takes precedence)
- M B65D 5/0254 · · {with end closures formed by inward folding of flaps and **securing means of securing** them by means of a tongue integral with one of the flaps}
- U B65D 2571/00 Bundles of articles held together by packaging elements for convenience of storage or transport, e.g. portable segregating carrier for plural receptacles such as beer cans, pop bottles; Bales of material
- U B65D 2571/00123 · Bundling wrappers or trays
- U B65D 2571/00129 · · Wrapper locking means (end walls locking means [B65D 2571/00722](#))
- M B65D 2571/00135 · · · **integrap***integral* with the wrapper

Project: MP0428 (B65G)

- U B65G 47/00 Article or material-handling devices associated with conveyors; Methods employing such devices
- U B65G 47/34 · Devices for discharging articles or materials from conveyor ([B65G 47/256](#) takes precedence)
- M B65G 47/46 · · **with distribution and distributing**, e.g. automatically, to desired points (in tube mail systems [B65G 51/36](#))

Project: MP0428 (B66C)

- U B66C 23/00 Cranes comprising essentially a beam, boom, or triangular structure acting as a cantilever and mounted for translatory or swinging movements in vertical or horizontal planes or a combination of such movements, e.g. jib-cranes, derricks, tower cranes (base supporting structures with legs [B65C 5/00](#))
- U B66C 23/62 · Constructional features or details (of dredgers [E02F](#))
- U B66C 23/82 · · Luffing gear
- M B66C 23/821 · · · {Bracing equipment for booms (**Abspannstütze**)}

Project: MP0453 (B67)

- M B67 OPENING, CLOSING {OR CLEANING} BOTTLES, JARS OR SIMILAR CONTAINERS; LIQUID HANDLING (**nozzles in general B05B; packaging liquids B65B, e.g. B65B 3/00; pumps in general F04; siphons F04F 10/00; valves F16K; handling liquefied gases F17C**)

Project: RP0585 (B99)

- N B99 SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION

Project: RP0585 (B99Z)

- N B99Z SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION

NOTE

This subclass covers subject matter that:

- a. Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and*
- b. Is not explicitly covered by any subclass of another section.*

N B99Z 99/00 *Subject matter not otherwise provided for in this section*

Project: MP0454 (C01)

M C01 **INORGANIC CHEMISTRY** (~~processing powders of inorganic compounds preparatory to the manufacturing of ceramic products C04B 35/00; fermentation or enzyme-using processes for the preparation of elements or inorganic compounds except carbon dioxide C12P 3/00; obtaining metal compounds from mixtures, e.g. ores, which are intermediate compounds in a metallurgical process for obtaining a free metal C21B, C22B; production of non-metallic elements or inorganic compounds by electrolysis or electrophoresis C25B~~)

NOTES

1. In this class, in the absence of an indication to the contrary, a compound is classified in the last appropriate place; { except compounds of group [C01B 6/00](#) which takes precedence over the other groups of class [C01](#) }.

2. The name of compounds is to be taken in a strictly limitative sense. With the exception of hydrogen and oxygen, in order to include water of hydration and acid salts, compounds may not contain other parts than its name suggests. In some cases however subgroups are provided for compounds containing more parts than their name suggests, e.g. group [C01F 7/76](#), providing for alum, is a subgroup of group [C01F 7/74](#) covering aluminium sulfates. In such a case, this note is applicable to the particular subgroup

3. In class [C01](#) it is desirable to add the indexing codes relating to structural and physical aspects of solid inorganic compounds. The indexing codes are chosen from the groups of [C01P](#)

Project: MP0454 (C02)

M C02 **TREATMENT OF WATER, WASTE WATER, SEWAGE, OR SLUDGE** (~~settling tanks, filtering, e.g. sand filters or screening devices, B01D~~)

Project: MP0454 (C03)

M C03 **GLASS; MINERAL OR SLAG WOOL** (~~{organic glasses C08; metallic glasses, amorphous metals B22F, C22C}~~)

Project: MP0454 (C04)

M C04 **CEMENTS; CONCRETE; ARTIFICIAL STONE; CERAMICS; REFRACTORIES** (~~alloys based on refractory metals C22C~~)

NOTE

This class does not cover mechanical features provided for elsewhere, e.g. mechanical working [B28](#), kilns [F27](#).

Project: MP0454 (C05)

M C05 **FERTILISERS; MANUFACTURE THEREOF** (~~processes or devices for granulating materials, in general B01J 2/00; soil-conditioning or soil-stabilising materials C09K 17/00~~)

NOTES

1. An ingredient in a mixture of fertilisers, or a single fertiliser which contains more than one of the chemical elements on which the subdivision into subclasses is based, is classified only in the first of the appropriate subclasses. Thus, a nitrophosphate or an ammoniated superphosphate is classified in [C05B](#)

but not in [C05C](#), magnesium phosphate is classified in [C05B](#) but not in [C05D](#), and calcium cyanamide in [C05C](#) but not in [C05D](#).

2.

In this class, mixtures of fertilizers are classified in the first appropriate place. After the notation of the appropriate classification symbol and separated therefrom by a + sign, notations concerning the ingredients of the mixture, not covered by the chosen classification symbol, may be added. These notations are selected from class [C05](#) and are presented in the following way, e.g. [C05B 1/02](#) + [C05D 1/02](#) + [C05D 9/02](#)

Project: MP0454 (C07)

M C07

ORGANIC CHEMISTRY ~~(such compounds as the oxides, sulfides, or oxysulfides of carbon, cyanogen, phosgene, hydrocyanic acid or salts thereof C01; products obtained from layered base-exchange silicates by ion-exchange with organic compounds such as ammonium, phosphonium or sulfonium compounds or by intercalation of organic compounds C01B 33/44; macromolecular compounds C08; dyes C09; fermentation products C12; fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture C12P; production of organic compounds by electrolysis or electrophoresis C25B 3/00, C25B 7/00)~~

NOTES

1. In this class, the following term is used with the meaning indicated:
 - "preparation" covers purification, separation, stabilisation or use of additives, unless a separate place is provided therefor.
2. Biocidal, pest repellent, pest attractant or plant growth regulatory activity of compounds or preparations is further classified within IPC. {This IPC Note does not apply in CPC}
3. In subclasses [C07C-C07K](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, and with the exception referred to below, a compound is classified in the last appropriate place. For example, 2-butyl- pyridine, which contains an acyclic chain and a heterocyclic ring, is classified only as a heterocyclic compound, in subclass [C07D](#). In general, and in the absence of an indication to the contrary, such as mentioned in groups [C07C 59/58](#), [C07C 59/70](#), the terms "acyclic" and "aliphatic" are used to describe compounds in which there is no ring; and, if a ring were present, the compound would be taken by the "last place" rule to a later group for cycloaliphatic or aromatic compounds, if such a group exists. Where a compound or an entire group of compounds exists in tautomeric forms, it is classified as though existing in the form which is classified last in the system, unless the other form is specifically mentioned earlier in the system.
4. Chemical compounds and their preparation are classified in the groups for the type of compound prepared. The processes of preparation are also classified in places for the types of reaction employed, if of interest. Examples of such places outside this class are:
 - [C12P](#) Fermentation or enzyme-using processes to synthesise a desired chemical compound or composition or to separate optical isomers from a racemic mixture
 - [C25B 3/00](#) Electrolytic production of organic compounds
 - [C25B 7/00](#) Electrophoretic production of compounds
5. General processes for the preparation of a class of compounds falling into more than one main group are classified in the groups for the processes

employed, when such groups exist. The compounds prepared are also classified in the groups for the types of compound prepared, if of interest.

6. In this class, in the absence of an indication to the contrary, the compounds containing carboxyl or thiocarboxyl groups are classified as the relevant carboxylic or thiocarboxylic acids, unless the "last place rule" (see Note (3), above) dictates otherwise; a carboxyl group being a carbon atom having three bonds, and no more than three, to hetero atoms, other than nitrogen atoms of nitro or nitroso groups, with at least one multiple bond to the same hetero atom and a thiocarboxyl group being a carboxyl group having at least one bond to a sulfur atom, e.g. amides or nitriles of carboxylic acids, are classified with the corresponding acids.

7. Salts of a compound, unless specifically provided for, are classified as that compound, e.g. aniline hydrochloride is classified as containing carbon, hydrogen and nitrogen only in group [C07C 211/46](#), sodium malonate is classified as malonic acid in [C07C 55/08](#), and a mercaptide is classified as the mercaptan. Metal chelates are dealt with in the same way. Similarly, metal alcoholates and metal phenates are classified in subclass [C07C](#) and not in subclass [C07F](#), the alcoholates for instance in groups [C07C 31/28-C07C 31/32](#) and the phenates in group [C07C 39/235](#) or [C07C 39/44](#). Salts, adducts or complexes formed between two or more organic compounds are classified according to all compounds forming the salts, adducts or complexes.

Project: MP0379 (C07C)

- U C07C 63/00** **Compounds having carboxyl groups bound to a carbon atoms of six-membered aromatic rings**
- U C07C 63/68 · containing halogen
- U C07C 63/72 · · Polycyclic acids
- M C07C 63/74 · · having unsaturation outside the aromatic rings

Project: MP0454 (C08)

- M C08** **ORGANIC MACROMOLECULAR COMPOUNDS; THEIR PREPARATION OR CHEMICAL WORKING-UP; COMPOSITIONS BASED THEREON**
(~~manufacture or treatment of artificial threads, fibres, bristles or ribbons~~ D01)

Project: MP0454 (C09)

- M C09** **DYES; PAINTS; POLISHES; NATURAL RESINS; ADHESIVES;**
MISCELLANEOUS COMPOSITIONS **COMPOSITIONS NOT OTHERWISE PROVIDED FOR;** **MISCELLANEOUS APPLICATIONS OF MATERIALS NOT OTHERWISE PROVIDED FOR**

Project: MP0407 (C09J)

- U C09J 2400/00** **Presence of inorganic and organic materials**
- U C09J 2400/20 · Presence of organic materials
- U C09J 2400/22 · · Presence of unspecified polymer
- M C09J 2400/225 · · · in the release **layercoating**
- U C09J 2401/00** **Presence of cellulose**
- M C09J 2401/005 · in the release **layercoating**
- U C09J 2403/00** **Presence of starch**
- M C09J 2403/005 · in the release **layercoating**

U	C09J 2405/00	Presence of polysaccharides
M	C09J 2405/005	· in the release layercoating
U	C09J 2407/00	Presence of natural rubber
M	C09J 2407/005	· in the release layercoating
U	C09J 2409/00	Presence of diene rubber
M	C09J 2409/005	· in the release layercoating
U	C09J 2411/00	Presence of chloroprene
M	C09J 2411/005	· in the release layercoating
U	C09J 2413/00	Presence of rubbers containing carboxyl groups
M	C09J 2413/005	· in the release layercoating
U	C09J 2415/00	Presence of rubber derivatives
M	C09J 2415/005	· in the release layercoating
U	C09J 2417/00	Presence of reclaimed rubber
M	C09J 2417/005	· in the release layercoating
U	C09J 2421/00	Presence of unspecified rubber
M	C09J 2421/005	· in the release layercoating
U	C09J 2423/00	Presence of polyolefin
M	C09J 2423/005	· in the release layercoating
U	C09J 2423/04	· Presence of homo or copolymers of ethene
M	C09J 2423/045	· · in the release layercoating
U	C09J 2423/10	· Presence of homo or copolymers of propene
M	C09J 2423/105	· · in the release layercoating
U	C09J 2423/16	· Presence of ethen-propene or ethene-propene-diene copolymers
M	C09J 2423/165	· · in the release layercoating
U	C09J 2425/00	Presence of styrenic polymer
M	C09J 2425/005	· in the release layercoating
U	C09J 2427/00	Presence of halogenated polymer
M	C09J 2427/005	· in the release layercoating
U	C09J 2429/00	Presence of polyvinyl alcohol
M	C09J 2429/005	· in the release layercoating
U	C09J 2431/00	Presence of polyvinyl acetate
M	C09J 2431/005	· in the release layercoating
M	C09J 2433/00	Presence of (meth)acrylic polymer
M	C09J 2433/005	· in the release layercoating
U	C09J 2451/00	Presence of graft polymer
M	C09J 2451/005	· in the release layercoating
U	C09J 2453/00	Presence of block copolymer
M	C09J 2453/005	· in the release layercoating
U	C09J 2455/00	Presence of ABS

M	C09J 2455/005	· in the release layercoating
U	C09J 2459/00	Presence of polyacetal
M	C09J 2459/005	· in the release layercoating
M	C09J 2461/00	Presence of phenolic resin condensation polymers of aldehydes or ketones
M	C09J 2461/005	· in the release layercoating
U	C09J 2463/00	Presence of epoxy resin
M	C09J 2463/005	· in the release layercoating
U	C09J 2465/00	Presence of polyphenylene
M	C09J 2465/005	· in the release layercoating
U	C09J 2467/00	Presence of polyester
M	C09J 2467/005	· in the release layercoating
U	C09J 2469/00	Presence of polycarbonate
M	C09J 2469/005	· in the release layercoating
U	C09J 2471/00	Presence of polyether
M	C09J 2471/005	· in the release layercoating
U	C09J 2475/00	Presence of polyurethane
M	C09J 2475/005	· in the release layercoating
U	C09J 2477/00	Presence of polyamide
M	C09J 2477/005	· in the release layercoating
U	C09J 2479/00	Presence of polyamine or polyimide
U	C09J 2479/02	· polyamine
M	C09J 2479/025	· · in the release layercoating
U	C09J 2479/08	· polyimide
M	C09J 2479/085	· · in the release layercoating
U	C09J 2481/00	Presence of sulfur containing polymers
M	C09J 2481/005	· in the release layercoating
U	C09J 2483/00	Presence of polysiloxane
M	C09J 2483/005	· in the release layercoating
U	C09J 2489/00	Presence of protein
M	C09J 2489/005	· in the release layercoating
U	C09J 2493/00	Presence of natural resin
M	C09J 2493/005	· in the release layercoating
U	C09J 2495/00	Presence of bitume
M	C09J 2495/005	· in the release layercoating
U	C09J 2497/00	Presence of lignin
M	C09J 2497/005	· in the release layercoating
U	C09J 2499/00	Presence of natural macromolecular compounds or on derivatives thereof, not provided for in groups C09J 2489/00 - C09J 2497/00
M	C09J 2499/005	· in the release layercoating

Project: MP0454 (C11)

M C11 ANIMAL **AND/OR** VEGETABLE OILS, FATS, FATTY SUBSTANCES **AND/OR** WAXES; FATTY ACIDS THEREFROM; DETERGENTS; CANDLES (~~edible oil or fat compositions A23~~)

Project: MP0454 (C13)

M C13 SUGAR INDUSTRY (~~polysaccharides, e.g. starch, derivatives thereof C08B; malt C12C~~)

NOTE

In class [C13](#), the following terms or expressions are used with the meanings indicated:

- "sugars" are a class of edible, water-soluble crystalline carbohydrates, having a characteristic sweet taste, including mono-, di- and oligosaccharides, e.g. sucrose, lactose and fructose. A more specific meaning of the term "sugar" is defined in the note of subclass [C13B](#).

Project: N/A (C21)

C21 - ~~C40~~**C30** METALLURGY

Project: MP0454 (C22)

M C22 METALLURGY (~~of iron C21~~); FERROUS OR NON-FERROUS ALLOYS; TREATMENT OF ALLOYS OR NON-FERROUS METALS (~~production of metals by electrolysis or electrophoresis C25~~)

Project: MP0454 (C23)

M C23 COATING METALLIC MATERIAL; COATING MATERIAL WITH METALLIC MATERIAL (~~by metallising textiles D06M 11/83; decorating textiles by locally metallising D06Q 1/04~~); CHEMICAL SURFACE TREATMENT; DIFFUSION TREATMENT OF METALLIC MATERIAL; COATING BY VACUUM EVAPORATION, BY SPUTTERING, BY ION IMPLANTATION OR BY CHEMICAL VAPOUR DEPOSITION, IN GENERAL (~~for specific applications, see the relevant places, e.g. for manufacturing resistors H01C 17/06~~); INHIBITING CORROSION OF METALLIC MATERIAL OR INCRUSTATION IN GENERAL (~~treating metal surfaces or coating of metals by electrolysis or electrophoresis C25D, C25F~~)

NOTES

1. In this class, the following expression is used with the meaning indicated:
 - "metallic material" covers:
 - a. metals;
 - b. alloys
2. Attention is drawn to the Note following the title of subclass [C22C](#). {
 - [C22C 29/00](#) concerns alloys containing at least 50 % by weight of one or more of borides, carbides, nitrides, oxides or silicides and binding metal;
 - [C22C 32/00](#) concerns non-ferrous alloys containing at least 5 % by weight but less than 50 % by weight of borides, carbides, nitrides, oxides or silicides of refractory metals, whether added as such or formed in situ.
 }

Project: RP0394 (C23C)

U C23C 14/00 Coating by vacuum evaporation, by sputtering or by ion implantation of the coating forming material

U C23C 14/58 · After-treatment

- U C23C 14/5806 • • {Thermal treatment}
- M C23C 14/582 • • • {using electron bombardment}

WARNING

Group [C23C 14/582](#) is incomplete pending reclassification of documents from group [C23C 14/5826](#).
Groups [C23C 14/582](#) and [C23C 14/5826](#) should be considered in order to perform a complete search.

- C C23C 14/5826 • • {**Plasma treatment**} Treatment with charged particles ([C23C 14/582](#) takes precedence)}

WARNING

Group [C23C 14/5826](#) is impacted by reclassification into group [C23C 14/582](#).
Groups [C23C 14/5826](#) and [C23C 14/582](#) should be considered in order to perform a complete search.

- U C23C 14/5833 • • • {Ion beam bombardment}

Project: RP0271 (C23C)

- U C23C 18/00 **Chemical coating by decomposition of either liquid compounds or solutions of the coating forming compounds, without leaving reaction products of surface material in the coating; Contact plating**

NOTE

This groups covers also suspensions containing reactive liquids and non-reactive solid particles.

- C C23C 18/14 • Decomposition by irradiation, e.g. photolysis, particle radiation {*or by mixed irradiation sources*}

WARNING

Group [C23C 18/14](#) is impacted by reclassification into groups [C23C 18/143](#) and [C23C 18/145](#).
Groups [C23C 18/14](#), [C23C 18/143](#), and [C23C 18/145](#) should be considered in order to perform a complete search.

- N C23C 18/143 • • {Radiation by light, e.g. photolysis or pyrolysis}

WARNING

Group [C23C 18/143](#) is incomplete pending reclassification of documents from group [C23C 18/14](#).
Groups [C23C 18/14](#) and [C23C 18/143](#) should be considered in order to perform a complete search.

- N C23C 18/145 • • {Radiation by charged particles, e.g. electron beams or ion irradiation}

WARNING

Group [C23C 18/145](#) is incomplete pending reclassification of documents from group [C23C 18/14](#).
Groups [C23C 18/14](#) and [C23C 18/145](#) should be considered in order to perform a complete search.

Project: MP0454 (C25)

M C25 ELECTROLYTIC OR ELECTROPHORETIC PROCESSES; APPARATUS THEREFOR (~~electrodialysis, electro-osmosis, separation of liquids by electricity B01D; (separation of isotopes by electrochemical methods B01D 59/38); working of metal by the action of a high concentration of electric current B23H; treatment of water, waste water or sewage by electrochemical methods C02F 1/46; surface treatment of metallic material or coating involving at least one process provided for in class C23 and at least one process covered by this class C23C 28/00, C23F 17/00; anodic or cathodic protection C23F; single-crystal growth C30B; metallising textiles D06M 11/83; decorating textiles by locally metallising D06Q 1/04; electrochemical methods of analysis G01N; electrochemical measuring, indicating or recording devices G01R; electrolytic circuit elements, e.g. capacitors, H01G; electrochemical current or voltage generators H01M)~~)

NOTES

1. Electrolytic or electrophoretic processes or apparatus or operational features are classified:
 - i. in the groups for the compounds or articles produced, and
 - ii. in the groups which cover the apparatus or operational features.
2. The electrolytic or electrophoretic purification of materials is classified according to the nature of the liquid in the relevant places, e.g. [A01K 63/00](#), [C02F 1/46](#), [C25B 15/08](#), [C25D 21/16](#), [C25F 7/02](#).

Project: MP0454 (C30)

M C30 CRYSTAL GROWTH (~~separation by crystallisation in general B01D 9/00~~)

Project: N/A (C40)

N C40 - C40 COMBINATORIAL TECHNOLOGY

C40 COMBINATORIAL **CHEMISTRY TECHNOLOGY**

Project: RP0585 (C99)

N C99 **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

Project: RP0585 (C99Z)

N C99Z **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

NOTE

This subclass covers subject matter that:

- a. *Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and*
- b. *Is not explicitly covered by any subclass of another section.*

N C99Z 99/00 **Subject matter not otherwise provided for in this section**

Project: MP0453 (D01)

M D01 NATURAL OR **ARTIFICIAL MAN-MADE** THREADS OR FIBRES; SPINNING (~~metal threads B21; fibres or filaments of softened glass, minerals, or slag C03B 37/00; yarns D02~~)

NOTE

In this class, the following terms are used with the meanings indicated:

- "fibre" means a relatively-short, elongated member of natural or **artificial man-made** material;

- "filament" means an endless or quasi-endless, elongated member of natural or **artificial** *man-made* material;
- "yarn" means a unitary assembly of fibres, usually produced by spinning;
- "thread" means an assembly of yarns or filaments, usually produced by twisting;
- *"synthetic" fibres or filaments means fibres or filaments or the like manufactured from synthesising polymers or small molecules. Examples are polyamide, acrylic, polyester or carbon fibres;*
- *"artificial" fibres or filaments means fibres or filaments or the like manufactured by man from natural polymers or their derivatives. Examples are regenerated cellulosic fibres or semi-synthetic fibres;*
- *"man-made" fibres or filaments means fibres or filaments which are manufactured by man including "synthetic" or "artificial" fibres.*

Project: MP0402 (D21H)

M D21H

PULP COMPOSITIONS; PREPARATION THEREOF NOT COVERED BY SUBCLASSES [D21C](#) OR [D21D](#); IMPREGNATING OR COATING OF PAPER; TREATMENT OF FINISHED PAPER NOT COVERED BY CLASS [B31](#) OR SUBCLASS [D21G](#); PAPER NOT OTHERWISE PROVIDED FOR

NOTES

1. This subclass covers also pulp compositions for the preparation of fibreboard or other fibrous articles by wet processes.
2. In this subclass, the following terms are used with the meaning indicated:
 - "pulp" means a dispersion, { e.g. an aqueous suspension,} comprising paper-making fibres and optional additives, which is to be processed, and covers the term "stock"; it also means dry paper-making fibres which are to be made into paper by either wet or dry processes;
 - "paper" means paper, cardboard or wet-laid non-woven fabrics.
3. In groups [D21H 11/00](#) - [D21H 15/00](#), in the absence of an indication to the contrary, classification is made in the last appropriate place.

4. Attention is drawn to the use of Combination Sets as specified in the Notes after groups [D21H 17/00](#), [D21H 17/69](#), [D21H 17/71](#), [D21H 19/00](#), [D21H 21/00](#), [D21H 21/14](#), [D21H 23/00](#), [D21H 23/22](#), [D21H 25/00](#) and [D21H 27/00](#).

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
[D21H 27/12](#) covered by
2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

M D21H 17/00

Non-fibrous material added to the pulp, characterised by its constitution; Paper-impregnating material characterised by its constitution

NOTE

1. In this group, in the absence of an indication to the contrary, a material is classified in the last appropriate place.
2. ~~In this group, it is desirable to classify the individual constituents of fibres used in the pulp or paper using Combination Sets with symbols chosen from groups [D21H 11/00](#) - [D21H 15/00](#).~~

U D21H 17/63

- Inorganic compounds

U D21H 17/67

- Water-insoluble compounds, e.g. fillers, pigments

- M D21H 17/69
- • • modified, e.g. by association with other compositions prior to incorporation in the pulp or paper
- NOTE**
In this group, it is desirable to classify the individual components of the mixtures using Combination Sets with symbols chosen from groups D21H 17/00 or D21H 21/00.
- M D21H 17/71
- {Mixtures of material ([D21H 17/69](#) takes precedence); Pulp or paper comprising several different materials not incorporated by special processes ([D21H 23/10](#), [D21H 23/70](#), [D21H 23/76](#) take precedence)}
- NOTE**
In this group, it is desirable to classify the individual components of the mixtures using Combination Sets with symbols chosen from groups D21H 17/00 or D21H 21/00.
- M D21H 19/00
- Coated paper (coated fibreboard [D21J 1/08](#)); Coating material (recording sheets characterised by the coating used to improve ink, dye or pigment receptivity [B41M 5/50](#))**
- NOTE**
In this group, it is desirable to classify the individual constituents of the fibres used in the pulp or the paper, the non-fibrous material added to the pulp or the impregnating or coating material, using Combination Sets with symbols chosen from groups D21H 11/00 - D21H 17/00 or D21H 21/14 - D21H 21/56.
- M D21H 21/00
- Non-fibrous material added to the pulp, characterised by its function, form or properties; Paper-impregnating or coating material, characterised by its function, form or properties**
- NOTE**
In groups D21H 21/00 - D21H 21/12, it is desirable to classify the individual constituents of the fibres used in the pulp or the paper, the non-fibrous material added to the pulp or the impregnating or coating material, using Combination Sets with symbols chosen from groups D21H 11/00 - D21H 17/00.
- M D21H 21/14
- characterised by function or properties in or on the paper ([D21H 19/66](#), [D21H 27/02](#) take precedence)
- NOTE**
In groups D21H 21/14 - D21H 21/56, it is desirable to classify the individual constituents of the fibres used in the pulp or the paper, the non-fibrous material added to the pulp or the impregnating or coating material, using Combination Sets with symbols chosen from groups D21H 11/00 - D21H 19/00.
- M D21H 23/00
- Processes or apparatus for adding material to the pulp or to the paper (applying liquids or other fluent material to surfaces, in general [B05](#); processes for making continuous lengths of paper [D21F 11/00](#))**
- NOTE**
1. In groups D21H 23/00 - D21H 23/20, it is desirable to classify the individual constituents of the fibres used in the pulp or the paper, the non-fibrous material added to the pulp or the impregnating or coating material, as Combination Sets with symbols chosen from groups D21H 11/00 - D21H 17/00 or D21H 21/00.
 2. 1. Processes or apparatus used for addition to the paper during its manufacture, i.e. on-machine, are classified in groups [D21H 23/24](#) - [D21H 23/28](#) if they are specially influenced by, or specially adapted to the paper-making process.

- U D21H 23/02 · characterised by the manner in which substances are added
- M D21H 23/22 · · Addition to the formed paper

NOTE

In groups D21H 23/22 - D21H 23/78, it is desirable to classify the individual constituents of the fibres used in the pulp or the paper, the non-fibrous material added to the pulp or the impregnating or coating material, using Combination Sets with symbols chosen from groups D21H 11/00 - D21H 21/00.

- M D21H 25/00 After-treatment of paper not provided for in groups [D21H 17/00](#) - [D21H 23/00](#)

NOTE

In this group, it is desirable to classify the individual constituents of the fibres used in the pulp or the paper, the non-fibrous material added to the pulp or the impregnating or coating material, using Combination Sets with symbols chosen from groups D21H 11/00 - D21H 21/00.

- M D21H 27/00 Special paper not otherwise provided for, e.g. made by multi-step processes

NOTE

1. This group provides for the classification of paper with special properties or applications which are only partially or not at all provided for elsewhere in the classification. Whenever possible, however, these papers are classified according to the criteria used in the other groups of this subclass.

2. In this group, it is desirable to classify the individual constituents using Combination Sets with symbols chosen from groups D21H 11/00 - D21H 25/00.

- M D21H 27/002 · {Tissue paper; Absorbent paper ([D21H 21/22](#), [D21H 27/02](#), [D21H 27/20](#) take precedence; toilet paper [A47K 10/00](#); absorbent pads for physiological fluids [A61L 15/16](#); making on paper-making machines [D21F 11/00](#))}

WARNING

Not complete. Documents presently classified elsewhere, mainly in D21F and D21H, need reclassification to this group or its subgroups

Project: RP0585 (D99)

- N D99 SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

Project: RP0585 (D99Z)

- N D99Z SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

NOTE

This subclass *covers* subject matter that:

- Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and
- Is not explicitly covered by any subclass of another section.

- N D99Z 99/00 Subject matter not otherwise provided for in this section**

Project: MP0453 (E01)

- M E01 CONSTRUCTION OF ROADS, RAILWAYS, OR BRIDGES (of tunnels E21D)**

Project: MP0428 (E03F)

- U E03F 5/00 Sewerage structures**

- M E03F 5/10
- Collecting-tanks; Equalising-tanks for regulating the run-off; Laying-up basins ~~{{sewage settling installations 85C3E, 85C6A; sand traps 85C6A2; emptying sewage settling installations 85C6E; settling installations in general B01D-21/00}}~~

Project: RP0521 (E04G)

- U E04G 3/00 **Scaffolds essentially supported by building constructions, e.g. adjustable in height (E04G 1/00 takes precedence {and E04G 21/3204 takes precedence})**
- U E04G 3/24
- specially adapted for particular parts of buildings or for buildings of particular shape, e.g. chimney stacks or pylons (E04G 3/28 takes precedence; {E04G 1/362, E04G 3/305 take precedence; scaffolding usable on slipways and in dry docks B63C 5/02})
- M E04G 3/243
- • {following the outside contour of a *building* (E04G 3/26 takes precedence)}
- U E04G 17/00 **Connecting or other auxiliary members for forms, falsework structures, or shutterings**
- U E04G 17/06
- Tying means; Spacers {; Devices for extracting or inserting wall ties (E04G 17/047 takes precedence; permanent forms for walls, e.g. with ties E04B 2/86)}
- D E04G 2017/0601
- • {Tying means, the tensional element of which is threaded to ensure its fastening or tensioning}
 - <administratively transferred to E04G 17/065>
- D E04G 2017/0603
- • • {one-piece element}
 - <administratively transferred to E04G 17/0651>
- D E04G 2017/0605
- • • • {fully recoverable}
 - <administratively transferred to E04G 17/0652>
- D E04G 2017/0607
- • • • {remaining completely or partially embedded in the cast material}
 - <administratively transferred to E04G 17/0654>
- D E04G 2017/0609
- • • {the element consisting of several parts}
 - <administratively transferred to E04G 17/0655>
- D E04G 2017/0611
- • • • {fully recoverable}
 - <administratively transferred to E04G 17/0657>
- D E04G 2017/0612
- • • • {remaining completely or partially embedded in the cast material}
 - <administratively transferred to E04G 17/0658>
- D E04G 2017/0614
- • {Tying means, the tensional element of which is fastened or tensioned by means of wedge-shaped members}
 - <administratively transferred to E04G 17/07>
- D E04G 2017/0616
- • • {one-piece element}
 - <administratively transferred to E04G 17/0707>
- D E04G 2017/0618
- • • • {fully recoverable}
 - <administratively transferred to E04G 17/0714>
- D E04G 2017/062
- • • • {remaining completely or partially embedded in the cast material}
 - <administratively transferred to E04G 17/0721>
- D E04G 2017/0622
- • • {the element consisting of several parts}
 - <administratively transferred to E04G 17/0728>
- D E04G 2017/0624
- • • • {fully recoverable}
 - <administratively transferred to E04G 17/0735>
- D E04G 2017/0625
- • • • {remaining completely or partially embedded in the cast material}
 - <administratively transferred to E04G 17/0742>

- D E04G 2017/0627 . . {Tying means, the tensional element of which is fastened or tensioned by other means}
<administratively transferred to [E04G 17/075](#)>
- D E04G 2017/0629 . . . {one-piece element}
<administratively transferred to [E04G 17/0751](#)>
- D E04G 2017/0631 {fully recoverable}
<administratively transferred to [E04G 17/0752](#)>
- D E04G 2017/0633 {remaining completely or partially embedded in the cast material}
<administratively transferred to [E04G 17/0754](#)>
- D E04G 2017/0635 . . . {the element consisting of several parts}
<administratively transferred to [E04G 17/0755](#)>
- D E04G 2017/0637 {fully recoverable}
<administratively transferred to [E04G 17/0757](#)>
- D E04G 2017/0638 {remaining completely or partially embedded in the cast material}
<administratively transferred to [E04G 17/0758](#)>

U E04G 21/00 **Preparing, conveying, or working-up building materials or building elements in situ; Other devices or measures for constructional work (conveying in general [B65G](#); lifting devices [B66](#); working stone-like materials [B28D](#); measuring instruments [G01](#))**

- U E04G 21/02 . Conveying or working-up concrete or similar masses able to be heaped or cast (in connection with finishing work [E04F](#); construction and surfacing of floorings made of similar material to roads or pavements [E01C](#); in connection with barrages [E02B 7/00](#); in connection with foundations [E02D 15/00](#); composition of concrete [C04B](#); working concrete in general, e.g. mixing machines [B28C](#))
- U E04G 21/06 . . Solidifying concrete, e.g. by application of vacuum before hardening (devices for solidifying also soil [E02D 3/02](#); for road building [E01C 19/00](#); {for producing shaped articles [B28B 1/00](#)})
- M E04G 21/063 ~~... {making [E04G 21/08](#) take... use of vibrating or jolting tools ([E04G 21/08](#) takes precedence)}~~
- M E04G 21/065 {~~making use of vibrating or jolting tools~~ acting upon the shuttering}
- M E04G 21/066 {~~making use of vibrating or jolting tools~~ acting upon the surface of the concrete, whether or not provided with parts penetrating the concrete}
- M E04G 21/068 {~~making use of vibrating or jolting tools~~ acting upon the reinforcement}

Project: RP0585 (E99)

N E99 **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

Project: RP0585 (E99Z)

N E99Z **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

NOTE

This subclass covers subject matter that:

- a. *Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and*
- b. *Is not explicitly covered by any subclass of another section.*

N E99Z 99/00 **Subject matter not otherwise provided for in this section**

Project: MP0453 (F01)

M F01 **MACHINES OR ENGINES IN GENERAL (~~combustion engines F02; machines for liquids F03, F04~~); ENGINE PLANTS IN GENERAL; STEAM ENGINES**

- "scavenging" means forcing the combustion residues from the cylinders other than by movement of the working pistons and thus embraces tuned exhaust systems.

2. Attention is drawn to the Notes preceding class [F01](#), specially as regards Note (1).

3. Engines with specified cycles or number of cylinders are classified in group [F02B 75/02](#) or [F02B 75/16](#), unless other classifying features predominate.

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

M F02B 33/00

Engines characterised by provision of pumps for charging or scavenging (characterised by the introduction of liquid fuel into cylinders by use of auxiliary fluid [F02B 13/00](#); characterised by after-charging [F02B 29/06](#); characterised by provision of pumps for sucking combustion residues from cylinders [F02B 35/00](#); characterised by provision of exhaust-driven pumps [F02B 37/00](#))

NOTE

-in this group the following indexing code is used:

[F02M 2700/33](#)

U F02B 37/00

Engines characterised by provision of pumps driven at least for part of the time by exhaust (characterised by the introduction of liquid fuel into cylinders by use of auxiliary fluid [F02B 13/00](#); characterised by after-charging [F02B 29/06](#); characterised by passages conducting the charge from the pump to the engine inlet [F02B 33/44](#))

U F02B 37/12

- Control of the pumps

U F02B 2037/125

- • {Control for avoiding pump stall or surge}

D F02B 37/127

- • {by bypassing air from the pump inlet, e.g. to the pump outlet (bypassing charging air [F02B 37/16](#); valves for admission of atmospheric air to engine [F02B 33/446](#))}
- <administratively transferred to [F02B 37/162](#)>

M F02B 37/16

- • by bypassing charging air ~~{(bypassing air from the pump inlet, e.g. to the pump outlet [F02B 37/127](#))}~~

D F02B 2037/162

- • • {by bypassing, e.g. partially, intake air from pump inlet to pump outlet}
- <administratively transferred to [F02B 37/162](#) INV>

N F02B 37/162

- • • {by bypassing, e.g. partially, intake air from pump inlet to pump outlet}

M F02B 37/168

- • • {into the exhaust conduit (~~[F02B 37/186](#)~~[F02B 37/166](#) takes precedence)}

Project: MP0428 (F02M)

U F02M 21/00

Apparatus for supplying engines with non-liquid fuels, e.g. gaseous fuels stored in liquid form

NOTE

- in this group the following indexing codes are used:

[F02M 2700/12](#) - [F02M 2700/13](#)

U F02M 21/02

- for gaseous fuels

U F02M 21/0203

- • {characterised by the type of gaseous fuel}

U F02M 21/0209

- • • {Hydrocarbon fuels, e.g. methane or acetylene}

M F02M 21/0212

- • • • {comprising at least 3 C-Atoms, e.g. liquefied petroleum gas [LPG], propane, ~~butane~~ or dimethyl ether [DME] [butane](#)}

Project: RP0529 (F02W)

- D F02W INDEXING SCHEME RELATING TO TURBINES; GAS TURBINES**
- NOTE
This subclass constitutes an internal scheme for indexing only, associated with subclasses F01D, F01K, F02C and F02K, relating to turbines and gas turbines
- D F02W 2746/00 Indexing scheme associated with former IdT class 46F**
- D F02W 2746/00006 . Turbines; Gas turbines
 - D F02W 2746/00013 . . Turbines with combustion chamber whose inlet and outlet open and close periodically; Explosion turbines
 - D F02W 2746/00019 . . Methods for improving the efficiency, special cycles, refrigeration by means of turbines, gas turbine plants with heat pumps (**R02C746/00F8** takes precedence), indirect heating by circulation of an auxiliary fluid (gas turbine plants comprising separators for ashes consisting of matters put in circulation and being used at the same time for heat transfer **R02C746/00F30N**)
 - D F02W 2746/00026 . . . using combustion gas, gas turbines functioning by means of exhaust gas
 - D F02W 2746/00032 . . . using magnetohydrodynamic generators
 - D F02W 2746/00039 . . Turbines with special provisions for the compression of fuel gas or of its components, plants in which the compressor and the turbine form a unit, groups of compression of charge or complement for gas turbine cycles, compression by shock waves (burners with pulsatory combustion **R02C746/00F1**, **R02C746/00F30N6**)
 - D F02W 2746/00046 . . . Compression in the rotor for the turbine blades, turbines also functioning as compressor, cell compressors (plants with cellular wheel **R02C746/00F40A**)
 - D F02W 2746/00052 . . Turbines using a single driven special gas, use of catalysts, use of oxyhydric gas or detonating gas, use of air or liquid oxygen, using of gas generating cartridges, use of compressed air tanks, air turbines, provisions for preventing the formation of snow or frost in the turbine, turbines for hand-held tools
 - D F02W 2746/00059 . . Turbines using mixtures of gas and steam as driving medium, also if the gas and steam currents only mix after the turbine, water injection
 - D F02W 2746/00065 . . Turbines using an auxiliary liquid
 - D F02W 2746/00072 . . . the auxiliary liquid making a to-and-fro movement
 - D F02W 2746/00078 . . . the auxiliary liquid being circulated in a close circuit
 - D F02W 2746/00085 . . Turbines using several gases or steams with separate action (**R02C746/00F13** takes precedence)
 - D F02W 2746/00092 . . Turbines other than those according to groups **R02C746/00F1**–**R02C746/00F15**, counter-rotating turbines
 - D F02W 2746/00098 . . . Turbines using fluid friction
 - D F02W 2746/00105 . . . Special kinds of reaction turbines; Turbines with blades having channels passing through the rotor
 - D F02W 2746/00111 . . . Explosion turbines, i.e. internal combustion
 - D F02W 2746/00118 . . . Turbines with saw-tooth or ratchet-wheel shaped rotor
 - D F02W 2746/00125 . . . Propeller and similar turbines driven by reaction, e.g. fluids issuing from the rotor
 - D F02W 2746/00131 . . . Turbines with radial entry (gas turbines driven by exhaust gas **R02C746/00F5A**)
 - D F02W 2746/00138 . . Cooling
 - D F02W 2746/00144 . . . Cooling of gas; Cooling of oil

- D F02W 2746/00151 . . Components and control; Inversion of rotation; Turbines with forward and reverse rotation
- D F02W 2746/00157 . . . Blades and blade carrying members
- D F02W 2746/00164 Turbine rotors, e.g. multistage; Assembly; Shafts
- D F02W 2746/00171 . . . Safety and control devices; Test benches
- D F02W 2746/00177 . . . Starting devices, e.g. quick-starting devices
- D F02W 2746/00184 using starting cartridges
- D F02W 2746/0019 . . . Elements specifically intended for combustion turbines, pulverulent and solid fuel turbines; Separation of ashes
- D F02W 2746/00197 Fuel supply and feeding devices, e.g. pre-processing of fuel, pumps, valves, draining of the fuel system
- D F02W 2746/00203 Combustion chambers with admission valves, control, scavenging and filling
- D F02W 2746/0021 . . Plants with specific use of turbines; Construction of power stations with gas turbines
- D F02W 2746/00217 . . . Plants comprising a turbine of a special kind, plants with cellular wheel; Grouping of the various parts of a plant
- D F02W 2746/00223 . . . Turbo-compressor plants for providing compressed air or gases, hot gases or steam, control of these plants
- D F02W 2746/0023 . . . Propulsion plants, e.g. marine turbines
- D F02W 2746/00236 Turbine plants for gas-turbine locomotives
- D F02W 2746/00243 Control of the gas turbines in propulsion plants, e.g. for ships or turbo-propulsion (control of gas turbines in general **R02C746/00F30**, control of fuel supply **R02C746/00F45** - **R02C746/00F48**)
- D F02W 2746/0025 Gas turbine plants for marine propulsion
- D F02W 2746/00256 . . . Turbines supplied by other gas generators than those consisting in a combination of combustion chambers and axial or centrifugal compressors
- D F02W 2746/00263 Turbines supplied by piston gas generators
- D F02W 2746/00269 Plants consisting of pistons gas generators, e.g. with free pistons bringing a driving gas to separately assembled turbines, control of such plants
- D F02W 2746/00276 Plants consisting of a piston gas generator forming a unit with a turbine
- D F02W 2746/00282 Turbines supplied by other gas generators than those according to group **R02C746/00F40D1**
- D F02W 2746/00289 . . Control systems for the fuel supply to the combustors of gas turbines plants (control of gas turbines in general **R02C746/00F30A**, control of gas turbines in propulsion plants except for the jet propulsion **R02C746/00F40C2**, fuel supply systems **R02C746/00F30N1**)
- D F02W 2746/00296 . . . using a fuel pump with adjustable flow (**R02C746/00F45C** - **R02C746/00F45F** take precedence)
- D F02W 2746/00302 with control according to one parameter
- D F02W 2746/00309 with control according to one or several speeds
- D F02W 2746/00315 with control according to one or several pressures
- D F02W 2746/00322 with control according to one or several temperatures
- D F02W 2746/00328 with control according to two parameters
- D F02W 2746/00335 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00342 with control according to one or several speeds and of one or several temperatures

- D F02W 2746/00348 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/00355 with control according to at least three parameters
- D F02W 2746/00361 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/00368 . . . using a fuel pump with adjustable flow and at least one adjustable valve between pump and burners (**R02C746/00F45F** takes precedence)
- D F02W 2746/00375 with control according to one parameter
- D F02W 2746/00381 with control according to one or several speeds
- D F02W 2746/00388 with control according to one or several pressures
- D F02W 2746/00394 with control according to one or several temperatures
- D F02W 2746/00401 with control according to two parameters
- D F02W 2746/00407 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00414 with control according to one or several speeds and of one or several temperatures
- D F02W 2746/00421 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/00427 with control according to at least three parameters
- D F02W 2746/00434 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/0044 . . . using a fuel pump with adjustable flow and at least one adjustable by-pass valve (**R02C746/00F45F** takes precedence)
- D F02W 2746/00447 with control according to one parameter
- D F02W 2746/00453 with control according to one or several speeds
- D F02W 2746/0046 with control according to one or several pressures
- D F02W 2746/00467 with control according to one or several temperatures
- D F02W 2746/00473 with control according to two parameters
- D F02W 2746/0048 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00486 with control according to one or several speeds and of one or several temperatures
- D F02W 2746/00493 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/005 with control according to at least three parameters
- D F02W 2746/00506 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/00513 . . . using a fuel pump with adjustable flow and at least one adjustable valve between pump and burners, and also at least one adjustable by-pass valve
- D F02W 2746/00519 with control according to one parameter
- D F02W 2746/00526 with control according to one or several speeds
- D F02W 2746/00532 with control according to one or several pressures
- D F02W 2746/00539 with control according to one or several temperatures
- D F02W 2746/00546 with control according to two parameters
- D F02W 2746/00552 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00559 with control according to one or several speeds and of one or several temperatures

- D F02W 2746/00565 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/00572 with control according to at least three parameters
- D F02W 2746/00578 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/00585 . . . using a fuel pump with non-adjustable flow and at least one adjustable valve between pump and burners (**R02C746/00F45J** takes precedence)
- D F02W 2746/00592 with control according to one parameter
- D F02W 2746/00598 with control according to one or several speeds
- D F02W 2746/00605 with control according to one or several pressures
- D F02W 2746/00611 with control according to one or several temperatures
- D F02W 2746/00618 with control according to two parameters
- D F02W 2746/00625 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00631 with control according to one or several speeds and of one or several temperatures
- D F02W 2746/00638 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/00644 with control according to at least three parameters
- D F02W 2746/00651 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/00657 . . . using a fuel pump with non-adjustable flow and at least one adjustable by-pass valve (**R02C746/00F45J** takes precedence)
- D F02W 2746/00664 with control according to one parameter
- D F02W 2746/00671 with control according to one or several speeds
- D F02W 2746/00677 with control according to one or several pressures
- D F02W 2746/00684 with control according to one or several temperatures
- D F02W 2746/0069 with control according to two parameters
- D F02W 2746/00697 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00703 with control according to one or several speeds and of one or several temperatures
- D F02W 2746/0071 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/00717 with control according to at least three parameters
- D F02W 2746/00723 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/0073 . . . using a fuel pump with non-adjustable flow, at least one adjustable valve between pump and burners, and at least one adjustable by-pass valve
- D F02W 2746/00736 with control according to one parameter
- D F02W 2746/00743 with control according to one or several speeds
- D F02W 2746/0075 with control according to one or several pressures
- D F02W 2746/00756 with control according to one or several temperatures
- D F02W 2746/00763 with control according to two parameters
- D F02W 2746/00769 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00776 with control according to one or several speeds and of one or several temperatures

- D F02W 2746/00782 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/00789 with control according to at least three parameters
- D F02W 2746/00796 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/00802 . . . Components and parts of control systems according to **R02C746/00F45B - R02C746/00F45J**
- D F02W 2746/00809 with control according to one parameter
- D F02W 2746/00815 with control according to one or several speeds
- D F02W 2746/00822 with control according to one or several pressures
- D F02W 2746/00828 with control according to one or several temperatures
- D F02W 2746/00835 with control according to two parameters
- D F02W 2746/00842 with control according to one or several speeds and of one or several pressures
- D F02W 2746/00848 with control according to one or several speeds and of one or several temperatures
- D F02W 2746/00855 with control according to one or several pressures and of one or several temperatures
- D F02W 2746/00861 with control according to at least three parameters
- D F02W 2746/00868 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- D F02W 2746/00875 Construction of adjustable valves
- D F02W 2746/00881 . . Control systems for the fuel supply to the main burners as well as to the after-burners of a single gas turbine, or with regulation of another adjustable component of the gas turbine (control systems for the fuel supply only to the main burners or only to the after-burners **R02C746/00F45, R02C746/00F48**)
- D F02W 2746/00888 . . . of additional fuel injection between the after-burners to ignite them, e.g. "hot-shot", programming devices for the ignition of after-burners
- D F02W 2746/00894 . . . of the fuel supply to the main burners and to the after-burners (**R02C746/00F46G** takes precedence)
- D F02W 2746/00901 . . . of the fuel supply to the main burners and to the nozzle (**R02C746/00F46G** takes precedence)
- D F02W 2746/00907 . . . of the fuel supply to the after-burners and to the nozzle (**R02C746/00F46G** takes precedence)
- D F02W 2746/00914 . . . of the fuel supply to the main burners, to the after-burners and to the nozzle
- D F02W 2746/00921 . . . of the fuel supply to the main burners and of the adjustable stator vanes of the gas turbine
- D F02W 2746/00927 . . . Systems for controlling the fuel supply to the injectors and a variable-pitch propeller driven by the gas turbine
- D F02W 2746/00934 . . . Systems for controlling the fuel supply to the injectors and the by-passing of the driving fluid
- D F02W 2746/0094 . . . Systems for controlling the fuel supply to the burners of gas turbine plants not foreseen in **R02C746/00F45** or **R02C746/00F46**
- D F02W 2746/00947 . . . specially adapted to the use of a special fuel or a plurality of fuels
- D F02W 2746/00953 . . . using two pumps or more
- D F02W 2746/0096 . . . for the combined control of two gas turbine plants or more
- D F02W 2746/00967 . . . for dividing the fuel between the main burners or between the after-burners of a single gas turbine (division of fuel between main burners and after-burners **R02C746/00F46**)

- D F02W 2746/00973
 - • specially adapted for aircraft gas turbine engines, in which the control is a function of the speed of the aircraft; Mach number control, optimisation of fuel consumption
- D F02W 2746/0098
 - • Control systems provided with an additional control system which can take over in case of a breakdown of the normal system, safety devices
- D F02W 2746/00986
 - • specially adapted for gas turbine plants with intermittent fuel injection
- D F02W 2746/00993
 - • Mechanical control devices linked to the throttle lever

Project: MP0453 (F03)

- M F03 MACHINES OR ENGINES FOR LIQUIDS (for liquid and gases F01; positive-displacement machines for liquids F04); WIND, SPRING, OR WEIGHT AND MISCELLANEOUS MOTORS; PRODUCING MECHANICAL POWER; PRODUCING MECHANICAL POWER OR A REACTIVE PROPULSIVE THRUST, NOT OTHERWISE PROVIDED FOR**

Project: RP0377-F (F03D)

- U F03D 1/00 **Wind motors with rotation axis substantially parallel to the air flow entering the rotor (controlling thereof [F03D 7/02](#))**
- M F03D 1/02
 - having a plurality of rotors

WARNING
Group F03D 1/02 is impacted by reclassification into groups F03D 1/04, F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 1/025
 - {coaxially arranged}

WARNING
Group F03D 1/025 is impacted by reclassification into groups F03D 1/04, F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 1/04
 - having stationary wind-guiding means, e.g. with shrouds or channels ([F03D 9/35](#) takes precedence)

WARNING
Group F03D 1/04 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- U F03D 3/00 **Wind motors with rotation axis substantially perpendicular to the air flow entering the rotor (controlling thereof [F03D 7/06](#))**
- M F03D 3/02
 - having a plurality of rotors

WARNING
Group F03D 3/02 is impacted by reclassification into groups F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049, F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 3/04
 - having stationary wind-guiding means, e.g. with shrouds or channels ([F03D 9/35](#) takes precedence)

WARNING

Group F03D 3/04 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 3/0409
 - {having stationary guiding vanes surrounding the rotor ([F03D 3/0427](#) takes precedence)}

WARNING

Group F03D 3/0409 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 3/0418
 - • {the vanes being adjustable}

WARNING

Group F03D 3/0418 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 3/0427
 - {with augmenting action, i.e. the guiding means intercepting an area greater than the effective rotor area ([F03D 3/0463](#), [F03D 3/049](#) take precedence)}

WARNING

Group F03D 3/0427 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 3/0436
 - {having shield means on one side of the rotor}

WARNING

Group F03D 3/0436 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 3/0445
 - • {fixed with respect to rotor, orientable together}

WARNING

Group F03D 3/0445 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 3/0454
- • • {and only with concentrating action, i.e. only increasing the airflow speed into the rotor ([F03D 3/0463](#) takes precedence)}
- WARNING**
Group F03D 3/0454 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 3/0463
- • • {with augmenting action, i.e. the shield means intercepting an area greater than the effective rotor area}
- WARNING**
Group F03D 3/0463 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 3/0472
- • • {orientable with respect to the rotor}
- WARNING**
Group F03D 3/0472 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 3/0481
- • • {and only with concentrating action, i.e. only increasing the airflow speed into the rotor ([F03D 3/049](#) takes precedence)}
- WARNING**
Group F03D 3/0481 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 3/049
- • • {with augmenting action, i.e. the shield means intercepting an area greater than the effective rotor area}
- WARNING**
Group F03D 3/049 is impacted by reclassification into groups F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45 and F03D 9/46.
All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 9/00
- Adaptations of wind motors for special use; Combinations of wind motors with apparatus driven thereby; Wind motors specially adapted for installation in particular locations (hybrid wind-photovoltaic energy systems for the generation of electric power [H02S 10/12](#))**
- WARNING**
Group F03D 9/00 is impacted by reclassification into groups F03D 9/18, F03D 9/19, F03D 9/20, F03D 9/30, F03D 9/32, F03D 9/34, F03D 9/35, F03D 9/37, F03D 9/39, F03D 9/41, F03D 9/43, F03D 9/45, F03D 9/46, F03D 9/48 and H02S 10/12.
All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 9/007
- {the wind motor being combined with means for converting solar radiation into useful energy}
- WARNING
Group F03D 9/007 is impacted by reclassification into group H02S 10/12.- Groups F03D 9/007 and H02S 10/12 should be considered in order to perform a complete search.-
- M F03D 9/008
- {the wind motor being combined with water energy converters, e.g. a water turbine}
- WARNING
Group F03D 9/008 is impacted by reclassification into group H02S 10/12.- Groups F03D 9/008 and H02S 10/12 should be considered in order to perform a complete search.-
- M F03D 9/10
- Combinations of wind motors with apparatus storing energy
- WARNING
Group F03D 9/10 is impacted by reclassification into groups F03D 9/12, F03D 9/18, F03D 9/19 and H02S 10/12.- All groups listed in this Warning should be considered in order to perform a complete search.-
- M F03D 9/11
- • storing electrical energy
- WARNING
Group F03D 9/11 is impacted by reclassification into group H02S 10/12.- Groups F03D 9/11 and H02S 10/12 should be considered in order to perform a complete search.-
- M F03D 9/12
- • storing kinetic energy, e.g. using flywheels
- WARNING
Group F03D 9/12 is incomplete pending reclassification of documents from group F03D 9/10.- Groups F03D 9/10 and F03D 9/12 should be considered in order to perform a complete search.-
- M F03D 9/13
- • storing gravitational potential energy
- WARNING
Group F03D 9/13 is impacted by reclassification into group H02S 10/12.- Groups F03D 9/13 and H02S 10/12 should be considered in order to perform a complete search.-
- M F03D 9/14
- • • using liquids
- WARNING
Group F03D 9/14 is impacted by reclassification into group H02S 10/12.- Groups F03D 9/14 and H02S 10/12 should be considered in order to perform a complete search.-
- M F03D 9/16
- • • using weights
- WARNING
Group F03D 9/16 is impacted by reclassification into group H02S 10/12.- Groups F03D 9/16 and H02S 10/12 should be considered in order to perform a complete search.-

- M F03D 9/17
- storing energy in pressurised fluids
- WARNING
Group F03D 9/17 is impacted by reclassification into group H02S 10/12.
Groups F03D 9/17 and H02S 10/12 should be considered in order to perform a complete search.
- M F03D 9/18
- storing heat
- WARNING
Group F03D 9/18 is incomplete pending reclassification of documents from group F03D 9/00 and F03D 9/10.
Groups F03D 9/00, F03D 9/10 and F03D 9/18 should be considered in order to perform a complete search.
- M F03D 9/19
- storing chemical energy, e.g. using electrolysis
- WARNING
Group F03D 9/19 is incomplete pending reclassification of documents from group F03D 9/00 and F03D 9/10.
Groups F03D 9/00, F03D 9/10 and F03D 9/19 should be considered in order to perform a complete search.
- M F03D 9/20
- Wind motors characterised by the driven apparatus ([F03D 9/10](#) takes precedence)
- WARNING
Group F03D 9/20 is incomplete pending reclassification of documents from group F03D 9/00.
Groups F03D 9/00 and F03D 9/20 should be considered in order to perform a complete search.
- M F03D 9/22
- the apparatus producing heat
- WARNING
Group F03D 9/22 is impacted by reclassification into group H02S 10/12.
Groups F03D 9/22 and H02S 10/12 should be considered in order to perform complete search.
- M F03D 9/25
- the apparatus being an electrical generator ([F03D 9/22](#) takes precedence)
- WARNING
Group F03D 9/25 is impacted by reclassification into group H02S 10/12.
Groups F03D 9/25 and H02S 10/12 should be considered in order to perform complete search.
- M F03D 9/255
- {connected to an electrical general supply grid; Arrangements therefor}
- WARNING
Group F03D 9/255 is impacted by reclassification into group H02S 10/12 search.
Groups F03D 9/255 and H02S 10/12 should be considered in order to perform a complete search.
- M F03D 9/257
- {the wind motor being part of a wind farm}
- WARNING
Group F03D 9/257 is impacted by reclassification into group H02S 10/12.
Groups F03D 9/257 and H02S 10/12 should be considered in order to perform a complete search.

- M F03D 9/28
- the apparatus being a pump or a compressor
- WARNING
Group F03D 9/28 is impacted by reclassification into group H02S 10/12. Groups F03D 9/28 and H02S 10/12 should be considered in order to perform a complete search.
- M F03D 9/30
- Wind motors specially adapted for installation in particular locations (means for mounting or supporting wind motors [F03D 13/20](#))
- WARNING
Group F03D 9/30 is incomplete pending reclassification of documents from group F03D 9/00. Groups F03D 9/00 and F03D 9/30 should be considered in order to perform a complete search.
- M F03D 9/32
- on moving objects, e.g. vehicles
- WARNING
Group F03D 9/32 is incomplete pending reclassification of documents from group B60K 16/00 and F03D 9/00. Groups B60K 16/00, F03D 9/00 and F03D 9/32 should be considered in order to perform a complete search.
- M F03D 9/34
- on stationary objects or on stationary man-made structures
- WARNING
Group F03D 9/34 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00. All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 9/35
- within towers, e.g. using chimney effects
- WARNING
Group F03D 9/35 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00. All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 9/37
- with means for enhancing the air flow within the tower, e.g. by heating
- WARNING
Group F03D 9/37 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00. All groups listed in this Warning should be considered in order to perform a complete search.
- M F03D 9/39
- by circulation or vortex formation
- WARNING
Group F03D 9/39 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04,

F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 9/41
 - • • • by using the wind outside the tower, e.g. using ejectors

WARNING

Group F03D 9/41 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 9/43
 - • • using infrastructure primarily used for other purposes, e.g. masts for overhead railway power lines

WARNING

Group F03D 9/43 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 9/45
 - • • • Building formations

WARNING

Group F03D 9/45 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 9/46
 - • • • Tunnels or streets

WARNING

Group F03D 9/46 is incomplete pending reclassification of documents from group F03D 1/02, F03D 1/025, F03D 1/04, F03D 3/02, F03D 3/04, F03D 3/0409, F03D 3/0418, F03D 3/0427, F03D 3/0436, F03D 3/0445, F03D 3/0454, F03D 3/0463, F03D 3/0472, F03D 3/0481, F03D 3/049 and F03D 9/00.

All groups listed in this Warning should be considered in order to perform a complete search.

- M F03D 9/48
 - • using landscape topography, e.g. valleys

WARNING

Group F03D 9/48 is incomplete pending reclassification of documents from group F03D 9/00.

Groups F03D 9/00 and F03D 9/48 should be considered in order to perform a complete search.

M	F03D 13/00	<p>Assembly, mounting or commissioning of wind motors; Arrangements specially adapted for transporting wind motor components</p> <p><u>WARNING</u> Group F03D 13/00 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 13/00 should be considered in order to perform a complete search.</p>
M	F03D 13/20	<ul style="list-style-type: none"> • Arrangements for mounting or supporting wind motors; Masts or towers for wind motors <p><u>WARNING</u> Group F03D 13/20 is impacted by reclassification into group F03D 13/25. Groups F03D 13/20 and F03D 13/25 should be considered in order to perform a complete search.</p>
M	F03D 13/25	<ul style="list-style-type: none"> • specially adapted for offshore installation <p><u>WARNING</u> Group F03D 13/25 is incomplete pending reclassification of documents from group F03D 13/20. Groups F03D 13/20 and F03D 13/25 should be considered in order to perform a complete search.</p>
M	F03D 17/00	<p>Monitoring or testing of wind motors, e.g. diagnostics (testing during commissioning of wind motors F03D 13/30)</p> <p><u>WARNING</u> Group F03D 17/00 is incomplete pending reclassification of documents from group F03D 80/00. Groups F03D 80/00 and F03D 17/00 should be considered in order to perform a complete search.</p>
M	F03D 80/00	<p>Details, components or accessories not provided for in groups F03D 1/00 - F03D 17/00</p> <p><u>WARNING</u> Group F03D 80/00 is impacted by reclassification into groups F03D 13/00 and F03D 80/60. All groups listed in this Warning should be considered in order to perform a complete search.</p>
M	F03D 80/50	<ul style="list-style-type: none"> • Maintenance or repair <p><u>WARNING</u> Group F03D 80/50 is impacted by reclassification into group F03D 80/55. Groups F03D 80/50 and F03D 80/55 should be considered in order to perform a complete search.</p>
M	F03D 80/55	<ul style="list-style-type: none"> • Cleaning (F03D 80/40 takes precedence) <p><u>WARNING</u> Group F03D 80/55 is incomplete pending reclassification of documents from group F03D 80/50. Groups F03D 80/50 and F03D 80/55 should be considered in order to perform a complete search.</p>

M F03D 80/60 · Cooling or heating of wind motors

WARNING

Group F03D 80/60 is incomplete pending reclassification of documents from group F03D 80/00.
Groups F03D 80/00 and F03D 80/60 should be considered in order to perform a complete search.

Project: MP0453 (F04)

M F04

POSITIVE DISPLACEMENT MACHINES FOR LIQUIDS; PUMPS FOR LIQUIDS OR ELASTIC FLUIDS (~~portable fire-extinguishers with manually-operated pumps A62C 11/00, with power-driven pumps A62C 25/00; charging or scavenging combustion engines by pumps F02B; engines fuel-injection pumps F02M; ion pumps H01J 41/00; electro-dynamic pumps H02K 44/02~~)

NOTE

Combinations of positive-displacement and non-positive displacement pumps are classified in subclass [F04B](#) as a general subclass for pumps and in subclasses [F04C](#), [F04D](#) in respect of matter specific to these subclasses.

Project: MP0379 (F05D)

U F05D 2260/00

Function

- U F05D 2260/30 · Retaining components in desired mutual position
- M F05D 2260/31 · Retaining bolts or nuts
- M F05D 2260/311 · of the frangible or shear type

Project: N/A (F05D)

- U F05D 2260/32 · by means of magnetic or electromagnetic forces
- U F05D 2260/33 · with a bayonet coupling
- U F05D 2260/34 · Balancing of radial or axial forces on regenerative rotors
- U F05D 2260/35 · Reducing friction between regenerative impeller discs and casing walls
- U F05D 2260/36 · by a form fit connection, e.g. by interlocking
- U F05D 2260/37 · by a press fit connection
- U F05D 2260/38 · by a spring, i.e. spring loaded or biased towards a certain position
- U F05D 2260/39 · by a V-shaped ring to join the flanges of two cylindrical sections, e.g. casing sections of a turbocharger

Project: MP0453 (F17)

M F17

STORING ~~OF~~ OR DISTRIBUTING GASES OR LIQUIDS (~~water supply E03B~~)

Project: MP0453 (F21)

M F21

LIGHTING (~~electric aspects or elements, see section H, e.g. electric light sources H01J, H01K, H05B~~)

NOTE

In this class, the following terms are used with the meanings indicated:

- "Portable" means "intended to be carried personally"
- "Non-portable" means "not intended to be carried personally, even if capable of being moved from place to place"

Project: RP0116-F (F21V)

- M F21V 29/00** **Protecting lighting devices from thermal damage; Cooling or heating arrangements specially adapted for lighting devices or systems (lighting fixtures combined with outlets for air-treatment systems [F24F 13/078](#))**
- WARNING**
 Groups ~~F21V 29/002 - F21V 29/006, F21V 29/02, F21V 29/20, F21V 29/2212, F21V 29/30, F21V 29/40, and F21V 29/402~~ are no longer used for the classification of documents as of January 15, 2015. The backfile of these groups is being reclassified into groups ~~F21V 29/002 - F21V 29/89~~.
- Until reclassification is complete, groups ~~F21V 29/002 - F21V 29/006 and F21V 29/02, F21V 29/20, F21V 29/2212, F21V 29/30, F21V 29/40, and F21V 29/402~~ should be considered in order to perform a complete search.
- D F21V 29/002** • {Cooling arrangements (F21V 29/02 takes precedence)}
 —(Frozen)
WARNING
 Group ~~F21V 29/002~~ is no longer used for the classification of documents as of January 15, 2015. The backfile of this group is being reclassified into groups ~~F21V 29/00 - F21V 29/89~~.
- Until reclassification is complete, group ~~F21V 29/002~~ should also be considered in order to perform a complete search.
- D F21V 29/004** • {Natural cooling, i.e. by natural convection, conduction or radiation}
 —(Frozen)
WARNING
 Group ~~F21V 29/004~~ is no longer used for the classification of documents as of January 15, 2015. The backfile of this group is being reclassified into groups ~~F21V 29/00 - F21V 29/89~~.
- Until reclassification is complete, group ~~F21V 29/004~~ should also be considered in order to perform a complete search.
- D F21V 29/006** • {Cooling devices or systems using condensation or evaporation of a fluid, e.g. heat pipes or two phase cooling systems}
 —(Frozen)
WARNING
 Group ~~F21V 29/006~~ is no longer used for the classification of documents as of January 15, 2015. The backfile of this group is being reclassified into groups ~~F21V 29/51 and F21V 29/52~~.
- Until reclassification is complete, groups ~~F21V 29/006, F21V 29/51 and F21V 29/52~~ should also be considered in order to perform a complete search.
- D F21V 29/02** • Cooling by forcing air {or gas} over or around the light source (cooling arrangements structurally associated with electric {discharge or incandescent} lamps H01J 61/52, H01K 1/58)
 —(Frozen)
WARNING
 Group ~~F21V 29/02~~ is no longer used for the classification of documents as of January 15, 2015. The backfile of this group is being reclassified into groups ~~F21V 29/503, and F21V 29/60 - F21V 29/89~~.
- Until reclassification is complete, group ~~F21V 29/02~~ should also be considered in order to perform a complete search.

- M F21V 29/10
- Arrangement of heat-generating components to reduce thermal damage, e.g. by distancing heat-generating components from other components to be protected
- WARNING**
Group F21V 29/10 is incomplete pending reclassification of documents from groups F21V 29/002, F21V 29/004 and F21V 29/02.
Until reclassification is complete, groups F21V 29/002, F21V 29/004 and F21V 29/02 should also be considered in order to perform a complete search.
- D F21V 29/20
—(Frozen)
- {Cooling devices, cooling systems or arrangements thereof}
- WARNING**
Group F21V 29/20 is no longer used for the classification of documents as of January 15, 2015. The backfile of this group is being reclassified into groups F21V 29/00–F21V 29/89.
Until reclassification is complete, group F21V 29/20 should also be considered in order to perform a complete search.
- D F21V 29/2212
—(Frozen)
- {the fins or blades being planar}
- WARNING**
Group F21V 29/2212 is no longer used for the classification of documents as of January 15, 2015. The backfile of this group is being reclassified into groups F21V 29/76–F21V 29/78.
Until reclassification is complete, group F21V 29/2212 should also be considered in order to perform a complete search.
- D F21V 29/30
—(Frozen)
- {Forced cooling using liquids, e.g. water}
- WARNING**
Group F21V 29/30 is no longer used for the classification of documents as of January 15, 2015. The backfile of this group is being reclassified into groups F21V 29/56–F21V 29/59.
Until reclassification is complete, groups F21V 29/30 should also be considered in order to perform a complete search.
- D F21V 29/40
—(Frozen)
- {Forced cooling by electrically-powered actuators (fans **F21V29/025**)}
- WARNING**
Groups F21V 29/40 and F21V 29/402 are no longer used for the classification of documents as of January 15, 2015. The backfile of these groups is being reclassified into groups F21V 29/51–F21V 29/677.
Until reclassification is complete, groups F21V 29/40 and F21V 29/402 should also be considered in order to perform a complete search.
- D F21V 29/402
—(Frozen)
- {Multi-phase cooling systems actuated by pumps}
- M F21V 29/50
- Cooling arrangements (air-treatment systems dissipating or using the heat of lighting fixtures [F24F 3/056](#))
- WARNING**
Groups F21V 29/50–F21V 29/503 are incomplete pending reclassification of documents from groups F21V 29/002, F21V 29/004, and F21V 29/02.

~~Until reclassification is complete, groups F21V 29/002, F21V 29/004, and F21V 29/02 should also be considered in order to perform a complete search.~~

- M F21V 29/51
- using condensation or evaporation of a fluid, e.g. heat pipes

WARNING

~~Groups F21V 29/51 – F21V 29/52 are incomplete pending reclassification of documents from groups F21V 29/006, F21V 29/40, and F21V 29/402.~~

~~Until reclassification is complete, groups F21V 29/006, F21V 29/40 and F21V 29/402 should also be considered in order to perform a complete search.~~

- M F21V 29/54
- using thermoelectric means, e.g. Peltier elements

WARNING

~~Group F21V 29/54 is incomplete pending reclassification of documents from groups F21V 29/40 and F21V 29/402.~~

~~Until reclassification is complete, groups F21V 29/40 and F21V 29/402 should also be considered in order to perform a complete search.~~

- M F21V 29/56
- using liquid coolants ([F21V 29/51](#) takes precedence)

WARNING

~~Groups F21V 29/56 – F21V 29/59 are incomplete pending reclassification of documents from groups F21V 29/30, F21V 29/40 and F21V 29/402~~

~~Until reclassification is complete, groups F21V 29/30, F21V 29/40 and F21V 29/402 should also be considered in order to perform a complete search.~~

- M F21V 29/60
- characterised by the use of a forced flow of gas, e.g. air

WARNING

~~Groups F21V 29/60 – F21V 29/677 are incomplete pending reclassification of documents from groups F21V 29/02, F21V 29/40 and F21V 29/402~~

~~Until reclassification is complete, groups F21V 29/02, F21V 29/40 and F21V 29/402 should also be considered in order to perform a complete search.~~

- M F21V 29/70
- characterised by passive heat-dissipating elements, e.g. heat-sinks

WARNING

~~Groups F21V 29/70 – F21V 29/83 are incomplete pending reclassification of documents from group F21V 29/02.~~

~~Until reclassification is complete, group F21V 29/02 should be considered in order to perform a complete search.~~

- U F21V 29/74
- with fins or blades

- M F21V 29/76
- with essentially identical parallel planar fins or blades, e.g. with comb-like cross-section

WARNING

~~Groups F21V 29/76 – F21V 29/767 are incomplete pending reclassification of documents from group F21V 29/2212.~~

~~Until reclassification is complete, group F21V 29/2212 should also be considered in order to perform a complete search.~~

- M F21V 29/77
- • • with essentially identical diverging planar fins or blades, e.g. with fan-like or star-like cross-section

WARNING

~~Groups F21V 29/77–F21V 29/777 are incomplete pending reclassification of documents from group F21V 29/2212.~~

~~Until reclassification is complete, group F21V 29/2212 should also be considered in order to perform a complete search.~~

- M F21V 29/78
- • • with helically or spirally arranged fins or blades

WARNING

~~Group F21V 29/78 is incomplete pending reclassification of documents from group F21V 29/2212.~~

~~Until reclassification is complete, group F21V 29/2212 should also be considered in order to perform a complete search.~~

- M F21V 29/85
- characterised by the material (liquid coolants [F21V 29/56](#))

WARNING

~~Groups F21V 29/85–F21V 29/89 are incomplete pending reclassification of documents from group F21V 29/02.~~

~~Until reclassification is complete, group F21V 29/02 should also be considered in order to perform a complete search.~~

Project: MP0453 (F22)

M F22

STEAM GENERATION (~~chemical or physical apparatus for generating gases B01J; chemical generation of gas, e.g. under pressure, Section C; removal of combustion products or residues, e.g. cleaning of the combustion contaminated surfaces of tubes of boilers, F23J; generating combustion products of high pressure or high velocity F23R; water heaters not for steam generation F24H, F28; cleaning of internal or external surfaces of heat-transfer conduits, e.g. water tubes of boilers, F28G~~)

NOTE

In this class the following term is used with the meaning indicated:

- "steam" covers also other condensable vapours, e.g. mercury, diphenyl, diphenyl oxide.

Project: MP0428 (F23B)

- N** F23B 2101/00 - Indexing scheme related to adaptation of combustion apparatus to boilers
F23B 2900/00
- D** F23B 2103/00 - Indexing scheme related to adaptation of combustion apparatus to boilers
F23B 2700/00

Project: MP0453 (F24)

- M** F24 **HEATING; RANGES; VENTILATING (protecting plants by heating in gardens, orchards, or forests A01G 13/06; baking ovens and apparatus A21B; cooking devices other than ranges A47J; forging B21J, B21K; specially adapted for vehicles, see the relevant subclasses of B60 - B64; combustion apparatus in general F23; drying F26B; ovens in general F27; electric heating elements and arrangements H05B)**

NOTE

In this class, the following terms are used with the meanings indicated:

- "stove" includes apparatus which may have an open fire, e.g. fireplace;
- "range" means an apparatus for cooking having elements that perform different cooking operations or cooking and heating operations.

Project: N/A (F24F)

- U** F24F 1/00 **Room units for air-conditioning, e.g. separate or self-contained units or units receiving primary air from a central station**
- U** F24F 1/0007 • Indoor units, e.g. fan coil units (self-contained units [F24F 1/02](#))

WARNING

Group [F24F 1/0007](#) is impacted by reclassification into groups [F24F 1/00073](#), [F24F 1/00075](#), [F24F 1/00077](#), [F24F 1/0035](#), [F24F 1/0038](#), [F24F 1/0041](#), [F24F 1/0043](#), [F24F 1/0047](#), [F24F 1/005](#), [F24F 1/0053](#), [F24F 1/0057](#), [F24F 1/0059](#), [F24F 1/0063](#), [F24F 1/0067](#), [F24F 1/0068](#), [F24F 1/0071](#), [F24F 1/0073](#), [F24F 1/0076](#), [F24F 1/008](#), [F24F 1/0083](#), [F24F 1/0087](#), [F24F 1/009](#), [F24F 1/0093](#), [F24F 1/0097](#), [F24F 1/032](#), [F24F 1/0323](#), [F24F 1/0325](#), [F24F 1/0326](#), [F24F 1/0328](#), [F24F 1/035](#), [F24F 1/0353](#) and [F24F 1/037](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- F24F 1/0083 • • with dehumidification means

WARNING

Group [F24F 1/0083](#) is/are incomplete pending reclassification of documents from group [F24F 1/0007](#).

Groups [F24F 1/0007](#) and [F24F 1/0083](#) should be considered in order to perform a complete search.

- U** F24F 1/02 • Self-contained room units for air-conditioning, i.e. with all apparatus for treatment installed in a common casing

WARNING

Group [F24F 1/02](#) is impacted by reclassification into groups [F24F 1/028](#), [F24F 1/0284](#), [F24F 1/0287](#), [F24F 1/029](#), [F24F 1/03](#), [F24F 1/031](#), [F24F 1/0314](#), [F24F 1/0317](#), [F24F 1/032](#), [F24F 1/0323](#), [F24F 1/0325](#), [F24F 1/0326](#), [F24F 1/0328](#), [F24F 1/035](#), [F24F 1/0353](#), [F24F 1/0355](#), [F24F 1/0358](#), [F24F 1/037](#), [F24F 1/0373](#), [F24F 1/0375](#), [F24F 1/0378](#) and [F24F 1/039](#).

All groups listed in this Warning should be considered in order to perform a complete search.

F24F 1/028

- characterised by air supply means, e.g. fan casings, internal dampers or ducts (with secondary air induced by injector action of the primary air [F24F 1/01](#))

WARNING

Group [F24F 1/028](#) is/are incomplete pending reclassification of documents from group [F24F 1/02](#).

Groups [F24F 1/02](#) and [F24F 1/028](#) should be considered in order to perform a complete search.

Project: MP0453 (F27)**M F27**

FURNACES; KILNS; OVENS; RETORTS (~~especially adapted for a purpose covered by a single other class and specifically mentioned in that class; see the class in question, e.g. bakery ovens A21B, glass melting furnaces C03B, coke or gas-making apparatus C10B, C10J, apparatus for cracking hydrocarbons C10G, blast furnaces C21B, converters for making steel C21C, furnaces for heat treatment of metal C21D; furnaces for electrosag or arc remelting of metals C22B 9/00; enamelling ovens C23D; combustion apparatus F23; electric heating H05B~~)

NOTES

1. This class deals with furnaces, kilns, ovens, retorts, open sintering apparatus, and details or accessories therefor, in general. It includes the arrangement of electrical heating elements in or on furnaces, but not the elements themselves. It is not concerned with the processes carried on within the furnaces.
2. In this class, where appropriate, the term "furnaces" is to be understood as covering kilns, ovens, or retorts.

Project: RP0585 (F99)**N F99****SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION****Project: RP0585 (F99Z)****N F99Z****SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**NOTE

This subclass covers subject matter that:

- a. Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and*
- b. Is not explicitly covered by any subclass of another section.*

N F99Z 99/00**Subject matter not otherwise provided for in this section****Project: MP0431 (G01)****M G01****MEASURING** (~~counting G06M~~); **TESTING**NOTES

1. This class covers, in addition to "true" measuring instruments, other indicating or recording devices of analogous construction, and also signalling or control devices insofar as they are concerned with measurement (as defined in Note 2 below) and are not specially adapted to the particular purpose of signalling or control.
2. In this class, the following term is used with the meaning indicated:
 - "measuring" is used to cover considerably more than its primary or basic meaning. In this primary sense, it means finding a numerical expression of the value of a variable in relation to a unit or datum or to another variable of the same nature, e.g. expressing a length in terms of another length as

in measuring a length with a scale; the value may be obtained directly (as just suggested) or by measuring some other variable of which the value can be related to the value of the required variable, as in measuring a change in temperature by measuring a resultant change in the length of a column of mercury. However, since the same device or instrument may, instead of giving an immediate indication, be used to produce a record or to initiate a signal to produce an indication or control effect, or may be used in combination with other devices or instruments to give a conjoint result from measurement of two or more variables of the same or different kinds, it is necessary to interpret "measuring" as including also any operation that would make it possible to obtain such a numerical expression by the additional use of some way of converting a value into figures. Thus the expression in figures may be actually made by a digital presentation or by reading a scale, or an indication of it may be given without the use of figures, e.g. by some perceptible feature (variable) of the entity (e.g. object, substance, beam of light) of which the variable being measured is a property or condition or by an analogue of such a feature (e.g. the corresponding position of a member without any scale, a corresponding voltage generated in some way). In many cases there is no such value indication but only an indication of difference or equality in relation to a standard or datum (of which the value may or may not be known in figures); the standard or datum may be the value of another variable of the same nature but of a different entity (e.g. a standard measure) or of the same entity at a different time.

In its simplest form, measurement may give merely an indication of presence or absence of a certain condition or quality, e.g. movement (in any direction or in a particular direction), or whether a variable exceeds a predetermined value.

3. Attention is drawn to the Notes following the title of Section [G](#), especially as regards the definition of the term "variable".

4. In many measuring arrangements, a first variable to be measured is transformed into a second, or further, variables. The second, or further, variables may be (a) a condition related to the first variable and produced in a member, or (b) a displacement of a member. Further transformation may be needed.

When classifying such an arrangement, (i) the transformation step, or each transformation step, that is of interest is classified, or (ii) if interest lies only in the system as a whole, the first variable is classified in the appropriate place.

This is particularly important where two or more conversions take place, for instance where a first variable, for example pressure, is transformed into a second variable, for example an optical property of a sensing body, and that second variable is expressed by means of a third variable, for example an electric effect. In such a case, the following classification places should be considered: the place for the transformation of the first variable, that for sensing the condition caused by that variable, subclass [G01D](#) for expression of the measurement, and finally the place for the overall system, if any

5. The measurement of change in the value of a physical property is classified in the same subclass as measurement of that physical property, e.g. measurement of expansion of length is classified in [G01B](#).

Project: MP0404 (G01C)

U G01C 11/00

Photogrammetry or videogrammetry, e.g. stereogrammetry; Photographic surveying (cameras combined with surveying instruments, e.g. with theodolites, [G01C 1/00](#), [G01C 3/00](#), [G01C 5/00](#), [G01C 9/00](#); surveying cameras [G03B 37/00](#))

- M G01C 2011/36 · {Videogrammetry, i.e. electronic processing of video signals from a single source or from different sources to give parallax or range information}

WARNING

~~This group is currently not used for classification purpose in ECLA. Subject-matter covered by the IPC group G01C 11/36 is rather classified in the following CPC groups: G01C 11/00 - G01C 11/34~~

Project: MP0404 (G01L)

- U G01L 9/00** **Measuring steady or quasi-steady pressure of a fluid or a fluent solid material by electric or magnetic pressure-sensitive elements ((G01L 11/004 takes precedence)); Transmitting or indicating the displacement of mechanical pressure-sensitive elements, used to measure the steady or quasi-steady pressure of a fluid or fluent solid material by electric or magnetic means (measuring differences of two or more pressure values G01L 13/00; measuring two or more pressure values simultaneously G01L 15/00; vacuum gauges G01L 21/00; transferring the output of the sensing member to the indicating or recording part in general G01D 5/00)**
- U G01L 9/0001 · {Transmitting or indicating the displacement of elastically deformable gauges by electric, electro-mechanical, magnetic or electro-magnetic means (G01L 9/0026, G01L 9/0033, G01L 9/0082, G01L 9/0089, G01L 9/0091 take precedence)}
- U G01L 9/0008 · · {using vibrations}
- M G01L 9/001 · · · {of an element not provided for in the following subgroups of G01L 9/0008 (not used)}

Project: MP0404 (G01M)

- U G01M 3/00** **Investigating fluid-tightness of structures**
- U G01M 3/02 · by using fluid or vacuum
- U G01M 3/26 · · by measuring rate of loss or gain of fluid, e.g. by pressure-responsive devices, by flow detectors
- M G01M 3/28 · · · for pipes, cables or tubes; for pipe joints or seals; for valves {; for welds}

Project: MP0404 (G01N)

- U G01N 1/00** **Sampling; Preparing specimens for investigation**
- U G01N 1/02 · Devices for withdrawing samples (for medical or veterinary purposes A61; {sampling of foundation soil E02D 1/04}; obtaining samples of soil or well fluids E21B 49/00; {collecting or conveying radioactive samples G01T 7/00, e.g. G01T 7/02, G01T 7/08})
- U G01N 1/22 · · in the gaseous state {(specially adapted for biological material G01N 33/497; measuring breath flow A61B 5/087)}
- U G01N 1/2202 · · · {involving separation of sample components during sampling}
- M G01N 2001/222 · · · · {otherOther features (not used)}

Project: RP0338 (G01N)

- U G01N 30/00 Investigating or analysing materials by separation into components using adsorption, absorption or similar phenomena or using ion-exchange, e.g. chromatography ([G01N 3/00](#) - [G01N 29/00](#) take precedence; separation for the preparation or production of components [B01D 15/00](#), [B01D 53/02](#), [B01D 53/14](#); solid sorbent compositions in general [B01J 20/00](#); ion-exchange in general [B01J 39/00](#) - [B01J 49/00](#)) {or field flow fractionation (for preparation or production of components [B01D 21/00](#), [B01D 43/00](#), [B01D 45/00](#) or [B03C](#))}

NOTE

In this group, the following term is used with the meaning indicated:

- "conditioning" refers to the adjustment or control of environmental parameters, e.g. temperature or pressure.

- U G01N 30/02 · Column chromatography
- U G01N 30/60 · · Construction of the column
- U G01N 30/6052 · · · {body}
- D G01N 2030/6056 · · · · {using semiconductor micromachining techniques}
<administratively transferred to [G01N 30/6095](#)>

Project: MP0404 (G01N)

- U G01N 33/00 Investigating or analysing materials by specific methods not covered by groups [G01N 1/00](#) - [G01N 31/00](#)
- U G01N 33/48 · Biological material, e.g. blood, urine ([G01N 33/02](#), [G01N 33/26](#), [G01N 33/44](#), [G01N 33/46](#) take precedence); Haemocytometers (counting blood corpuscles distributed over a surface by scanning the surface [G06M 11/02](#))
- U G01N 33/50 · · Chemical analysis of biological material, e.g. blood, urine; Testing involving biospecific ligand binding methods; Immunological testing (measuring or testing processes involving enzymes or microorganisms, compositions or test papers therefor; processes for forming such compositions, condition responsive control in microbiological or enzymological processes [C12Q](#))

NOTES

1. In this group, the following expression is used with the meaning indicated: "involving", when used in relation to a material, includes the testing for the material as well as employing the material as a determinant or reactant in a test for a different material.
2. In groups [G01N 33/52](#) – [G01N 33/98](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.
3. Documents relating to new peptides or new DNA or its corresponding mRNA, encoding for the peptides, and their use in measuring or testing processes are classified in subclass [C07K](#) or in group [C12N 9/00](#) according to the peptides, with the appropriate indexing codes relating to their use in diagnostics. However, if the investigating or analysing aspects are of interest, the documents are classified in this group.

- U G01N 33/53 · · · Immunoassay; Biospecific binding assay; Materials therefor
- U G01N 33/543 · · · · with an insoluble carrier for immobilising immunochemicals
- U G01N 33/544 · · · · · the carrier being organic
- U G01N 33/545 · · · · · · Synthetic resin
- M G01N 33/546 · · · · · · · as water suspendable particles ~~{(insoluble carriers for immobilising immunochemicals G01N 33/54313)}~~

- M G01N 33/547 with antigen or antibody attached to the carrier *via* a bridging agent ~~{(ligands attached to the carrier via a chemical coupling agent G01N 33/54353)}~~
- M G01N 33/549 with antigen or antibody entrapped within the carrier ~~{(with ligand physically entrapped within the solid phase G01N 33/5436)}~~
- M G01N 33/563 involving antibody fragments ~~{(G01N 33/6857 takes precedence)}~~
- U G01N 2333/00 Assays involving biological materials from specific organisms or of a specific nature**
- NOTE
In groups [G01N 2333/47](#) - [G01N 2333/994](#) indexing codes are assigned according to the chemical nature of the materials irrespective of the source organism.
- U G01N 2333/435 from animals; from humans
- U G01N 2333/46 from vertebrates
- U G01N 2333/47 Assays involving proteins of known structure or function as defined in the subgroups
- M G01N 2333/4701 ~~(not used)~~ *Details*
- U G01N 2333/90 Enzymes; Proenzymes
- NOTE
Enzymes are generally categorised below according to the "Nomenclature and Classification of Enzymes" of the International Commission on Enzymes. Where appropriate, this designation appears in the groups below in parenthesis.
- U G01N 2333/902 Oxidoreductases (1.)
- U G01N 2333/90245 acting on paired donors with incorporation of molecular oxygen (1.14)
- M G01N 2333/9027 Miscellaneous (1.14.99) ~~(not used)~~
- M G01N 2333/90274 with a definite EC number (1.14.99.-) ~~(not used)~~
- U G01N 2333/914 Hydrolases (3)
- U G01N 2333/948 acting on peptide bonds (3.4)
- U G01N 2333/95 Proteinases, i.e. endopeptidases (3.4.21-3.4.99)
- U G01N 2333/964 derived from animal tissue
- U G01N 2333/96402 from non-mammals
- M G01N 2333/96405 in general ~~(not used)~~
- M G01N 2333/96408 with EC number ~~(not used)~~
- U G01N 2333/96425 from mammals
- M G01N 2333/96427 in general ~~(not used)~~
- M G01N 2333/9643 with EC number ~~(not used)~~
- U G01N 2333/96433 Serine endopeptidases (3.4.21)
- M G01N 2333/96441 with definite EC number ~~(not used)~~
- U G01N 2333/96472 Aspartic endopeptidases (3.4.23)
- M G01N 2333/96475 with definite EC number ~~(not used)~~
- U G01N 2333/96486 Metalloendopeptidases (3.4.24)
- M G01N 2333/96491 with definite EC number ~~(not used)~~

Project: MP0404 (G01R)

- U G01R 19/00** Arrangements for measuring currents or voltages or for indicating presence or sign thereof (**G01R 5/00** takes precedence; {voltage measurements using secondary electron emission when testing electronic circuits **G01R 31/305**}; for measuring bioelectric currents or voltages **A61B 5/04**)
- NOTE**
Within groups **G01R 19/02** - **G01R 19/32**, group **G01R 19/28** takes precedence. Groups **G01R 19/18** - **G01R 19/257** take precedence over groups **G01R 19/02** - **G01R 19/17** and **G01R 19/30**.
- M G01R 19/0046 • {characterised by a specific application or detail not covered by any other subgroup of **G01R 19/00** (~~contains no documents~~)}
- U G01R 19/165 • Indicating that current or voltage is either above or below a predetermined value or within or outside a predetermined range of values (circuits with regenerative action, e.g. Schmitt trigger **H03K 3/00**; threshold switches **H03K 17/00**)
- M G01R 19/16504 • • {characterised by the components employed (~~contains no documents~~)}
- M G01R 19/16533 • • {characterised by the application (~~contains no documents~~)}
- M G01R 19/16566 • • {Circuits and arrangements for comparing voltage or current with one or several thresholds and for indicating the result not covered by subgroups **G01R 19/16504**, **G01R 19/16528**, **G01R 19/16533** (~~contains no documents~~)}
- U G01R 29/00** Arrangements for measuring or indicating electric quantities not covered by groups **G01R 19/00** - **G01R 27/00**
- U G01R 29/08 • Measuring electromagnetic field characteristics ({measuring electrostatic fields **G01R 29/12**; for determining a voltage **G01R 15/14**; measuring magnetic fields **G01R 33/00**; measuring or estimating received signal strength **H04B 17/318**)}
- M G01R 29/0807 • • {characterised by the application (~~not used, see subgroups~~)}
- M G01R 29/0864 • • {characterised by constructional or functional features (~~not used, see subgroups~~)}
- U G01R 31/00** Arrangements for testing electric properties; Arrangements for locating electric faults; Arrangements for electrical testing characterised by what is being tested not provided for elsewhere ({measuring superconductive properties **G01R 33/1238**;} testing or measuring semiconductors or solid state devices during manufacture {**H01L 22/00**}; testing line transmission systems **H04B 3/46**)
- U G01R 31/28 • Testing of electronic circuits, e.g. by signal tracer ({EMC, EMP or similar testing of electronic circuits **G01R 31/002**}; testing for short-circuits, discontinuities, leakage or incorrect line connection **G01R 31/02**; checking computers {or computer components} **G06F 11/00**; checking static stores for correct operation **G11C 29/00**; {testing receivers or transmitters of transmission systems **H04B 17/00**})}
- M G01R 31/2832 • • {Specific tests of electronic circuits not provided for elsewhere (~~contains no documents~~; **G01R 31/2801** and, **G01R 31/316** take precedence)}

Project: RP0248 (G01S)

- U G01S 13/00** **Systems using the reflection or reradiation of radio waves, e.g. radar systems; Analogous systems using reflection or reradiation of waves whose nature or wavelength is irrelevant or unspecified (using acoustic waves [G01S 15/00](#); using electromagnetic waves other than radio waves [G01S 17/00](#))**
- NOTES**
- This group covers :
 - systems for detecting the presence of an object, e.g. by reflection or reradiation from the object itself, or from a transponder associated with the object, for determining the distance or relative velocity of an object, for providing a co-ordinated display of the distance and direction of an object or for obtaining an image thereof;
 - systems arranged for mounting on a moving craft or vehicle and using the reflection of waves from an extended surface external to the craft, e.g. the surface of the earth, to determine the velocity and direction of motion of the craft relative to the surface.
 - This group does not cover :
 - systems for determining the direction of an object by means not employing reflection or reradiation, which are covered by groups [G01S 1/00](#) or [G01S 3/00](#);
 - systems for determining distance or velocity of an object by means not employing reflection or reradiation, which are covered by group [G01S 11/00](#).
- U G01S 13/88** • Radar or analogous systems specially adapted for specific applications (electromagnetic prospecting or detecting of objects, e.g. near-field detection, [G01V 3/00](#))
- C G01S 13/89** • for mapping or imaging
- WARNING**
Group [G01S 13/89](#) is impacted by reclassification into group [G01S 13/895](#). Groups [G01S 13/89](#) and [G01S 13/895](#) should be considered in order to perform a complete search.
- N G01S 13/895** • • • {Side looking radar [SLR]}
- WARNING**
Group [G01S 13/895](#) is incomplete pending reclassification of documents from group [G01S 13/89](#). Groups [G01S 13/89](#) and [G01S 13/895](#) should be considered in order to perform a complete search.
- C G01S 13/90** • • • using synthetic aperture techniques {, e.g. ~~correcting range migration errors synthetic aperture radar [SAR] techniques~~ (~~compression in range per se [G01S 13/28](#); platform motion compensation for AMTI [G01S 13/5242](#)~~)}
- WARNING**
Group [G01S 13/90](#) is impacted by reclassification into groups [G01S 13/9004](#), [G01S 13/9019](#), [G01S 13/9021](#), [G01S 13/9027](#), [G01S 13/904](#), [G01S 13/9054](#), [G01S 13/9056](#) and [G01S 13/9089](#). All groups listed in this Warning should be considered in order to perform a complete search.
- N G01S 13/9004** • • • • {SAR image acquisition techniques}
- WARNING**
Group [G01S 13/9004](#) is incomplete pending reclassification of documents from group [G01S 13/90](#).

Groups [G01S 13/90](#) and [G01S 13/9004](#) should be considered in order to perform a complete search.

- M G01S 13/9005 [G01S 13/9005](#) {with optical processing of the SAR signals}
- M G01S 13/9011 [G01S 13/9011](#) {with frequency domain processing of the SAR signals in azimuth ([G01S 13/9005](#) takes precedence)}
- M G01S 13/9017 [G01S 13/9017](#) {with time domain processing of the SAR signals in azimuth, ~~e.g. time focusing~~ ([G01S 13/9005](#) takes precedence)}
- N [G01S 13/9019](#) {Auto-focussing of the SAR signals}
WARNING
Group [G01S 13/9019](#) is incomplete pending reclassification of documents from group [G01S 13/90](#).
Groups [G01S 13/90](#) and [G01S 13/9019](#) should be considered in order to perform a complete search.
- N [G01S 13/9021](#) {SAR image post-processing techniques}
WARNING
Group [G01S 13/9021](#) is incomplete pending reclassification of documents from group [G01S 13/90](#).
Groups [G01S 13/90](#) and [G01S 13/9021](#) should be considered in order to perform a complete search.
- C G01S 13/9023 [G01S 13/9023](#) {combined with ~~monopulse or~~ interferometric techniques (~~monopulse hybrid systems G01S-13/4481~~)}
WARNING
Group [G01S 13/9023](#) is impacted by reclassification into group [G01S 13/9092](#).
Groups [G01S 13/9023](#) and [G01S 13/9092](#) should be considered in order to perform a complete search.
- N [G01S 13/9027](#) {Pattern recognition for feature extraction}
WARNING
Group [G01S 13/9027](#) is incomplete pending reclassification of documents from group [G01S 13/90](#).
Groups [G01S 13/90](#) and [G01S 13/9027](#) should be considered in order to perform a complete search.
- M G01S 13/9029 [G01S 13/9029](#) {specially adapted for moving target detection [within a single SAR image or within multiple SAR images taken at the same time](#)} (~~MTI per se G01S-13/52~~)
- D G01S 13/9035 {Particular SAR processing techniques not provided for elsewhere, e.g. squint mode, doppler beam-sharpening mode, spotlight mode, bistatic SAR, inverse SAR}
<administratively transferred to [G01S 13/904](#)>
- Q [G01S 13/904](#) {SAR modes}
WARNING
Group [G01S 13/904](#) is incomplete pending reclassification of documents from group [G01S 13/90](#).
Group [G01S 13/904](#) is also impacted by reclassification into groups [G01S 13/9054](#) and [G01S 13/9056](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- D G01S 2013/9041 {Squint mode}
<administratively transferred to [G01S 13/9041](#)>

- N G01S 13/9041 {*Squint mode*}
- N G01S 13/9043 {*Forward-looking SAR*}
- D G01S 2013/9047 {~~Doppler beam-sharpening mode~~}
<administratively transferred to [G01S 13/9047](#)>
- N G01S 13/9047 {*Doppler beam sharpening mode*}
- D G01S 2013/9052 {~~Spotlight mode~~}
<administratively transferred to [G01S 13/9052](#)>
- N G01S 13/9052 {*Spotlight mode*}
- N G01S 13/9054 {*Stripmap mode*}
- WARNING
Group [G01S 13/9054](#) is incomplete pending reclassification of documents from groups [G01S 13/90](#) and [G01S 13/904](#). Groups [G01S 13/90](#), [G01S 13/904](#) and [G01S 13/9056](#) should be considered in order to perform a complete search.
- N G01S 13/9056 {*Scan SAR mode*}
- WARNING
Group [G01S 13/9056](#) is incomplete pending reclassification of documents from groups [G01S 13/90](#) and [G01S 13/904](#). Groups [G01S 13/90](#) and [G01S 13/904](#) and [G01S 13/9056](#) should be considered in order to perform a complete search.
- D G01S 2013/9058 {~~Bistatic SAR~~}
<administratively transferred to [G01S 13/9058](#)>
- N G01S 13/9058 {*Bistatic or multistatic SAR*}
- D G01S 2013/9064 {~~Inverse SAR [ISAR]~~}
<administratively transferred to [G01S 13/9064](#)>
- N G01S 13/9064 {*Inverse SAR [ISAR]*}
- D G01S 2013/907 {~~Forward looking SAR~~}
<administratively transferred to [G01S 13/9043](#)>
- D G01S 2013/9076 {~~Polarimetric features in SAR (see also G01S 7/024)~~}
<administratively transferred to [G01S 13/9076](#)>
- N G01S 13/9076 {*Polarimetric features in SAR*}
- D G01S 2013/9082 {~~rotating SAR[ROSAR], i.e. antennas rotatably mounted~~}
<administratively transferred to [G01S 13/9082](#)>
- N G01S 13/9082 {*Rotating SAR [ROSAR]*}
- D G01S 2013/9088 {~~circular SAR [CSAR, C-SAR]~~}
<administratively transferred to [G01S 13/9088](#)>
- N G01S 13/9088 {*Circular SAR [CSAR, C-SAR]*}
- N G01S 13/9089 {*SAR having an irregular aperture*}
- WARNING
Group [G01S 13/9089](#) is incomplete pending reclassification of documents from group [G01S 13/90](#). Groups [G01S 13/90](#) and [G01S 13/9089](#) should be considered in order to perform a complete search.
- N G01S 13/9092 {*combined with monopulse techniques*}
- WARNING
Group [G01S 13/9092](#) is incomplete pending reclassification of documents from group [G01S 13/9023](#).

Groups [G01S 13/9023](#) and [G01S 13/9092](#) should be considered in order to perform a complete search.

- U G01S 13/9094 {Theoretical aspects}
- C G01S 13/91 . . for traffic control ([G01S 13/93](#) takes precedence)

WARNING

Group [G01S 13/91](#) is impacted by reclassification into group [G01S 13/917](#). Groups [G01S 13/91](#) and [G01S 13/917](#) should be considered in order to perform a complete search.

- U G01S 2013/916 . . . {Airport surface monitoring [ASDE]}
- N [G01S 13/917](#) . . . {for marine craft or other waterborne vessels}

WARNING

Group [G01S 13/917](#) is incomplete pending reclassification of documents from group [G01S 13/91](#). Groups [G01S 13/91](#) and [G01S 13/917](#) should be considered in order to perform a complete search.

Project: MP0404 (G01S)

- M G01S 2205/00 **Position-fixing by co-ordinating two or more direction or position line determinations; Position-fixing by co-ordinating two or more [Indexing scheme associated with group G01S 5/00](#) distance determinations, relating to position-fixing (not used)**
- M G01S 2205/001 . Transmission of position information to remote stations ~~(not used)~~

Project: MP0431 (G02)

- M G02 **OPTICS (making optical elements or apparatus [B24B](#), [B29D 11/00](#), [G03](#), or other appropriate subclasses or classes; materials per se, see the relevant places, e.g. [G03B](#), [G03C](#))**
- NOTE
- In this class, the following expression is used with the meaning indicated:
- "optical" applies not only to visible light but also to ultra-violet or infra-red radiations.

Project: MP0404 (G02B)

- M G02B **OPTICAL ELEMENTS, SYSTEMS, OR APPARATUS ([G02F](#) takes precedence; ~~measuring instruments, see the relevant subclass of [G01](#), e.g. optical rangefinders [G01C](#)~~; ~~measuring instruments, see the relevant subclass of [G01](#), e.g. optical rangefinders [G01C](#)~~; testing of optical elements, systems, or apparatus [G01M 11/00](#); spectacles [G02C](#); sound lenses [G10K 11/30](#); electron and ion "optics" [H01J](#); X-ray "optics" [H01J](#), [H05G 1/00](#); optical elements structurally combined with electric discharge tubes [H01J 5/16](#), [H01J 29/89](#), [H01J 37/22](#); microwave "optics" [H01Q](#); combination of optical elements with television receivers [H04N 5/72](#); heating arrangements specially adapted for transparent or reflecting areas [H05B 3/84](#); ~~{optical apparatus [42H](#)}~~)**

NOTE

Attention is drawn to the Notes following the titles of class [B81](#) and subclass [B81B](#) relating to "microstructural devices" and "microstructural systems".

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

G02B 11/00 – G02B 11/34 covered by [G02B 9/00](#) and [G02B 13/00](#)

2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

- U G02B 7/00** **Mountings, adjusting means, or light-tight connections, for optical elements**
- U G02B 7/18 • for prisms; for mirrors
- U G02B 7/182 • • for mirrors ([G02B 7/181](#) takes precedence; mounting of MEMS mirrors, e.g. DMDs, [G02B 26/0833](#)); optical devices or arrangements using movable or deformable optical elements for controlling the intensity, colour, phase, polarisation or direction of light [G02B 26/00](#) {}; mirror arrangements in vehicles [B60R 1/02](#))
- M G02B 7/185 • • • with means for adjusting the shape of the mirror surface (mirrors with curved faces [G02B 5/10](#) ~~{not in use, see [G02B 26/06](#), [G02B 26/0825](#)}; for controlling the phase of light [G02B 26/06](#), the direction of light [G02B 26/0825](#)})~~
- M G02B 7/198 • • • with means for adjusting the mirror relative to its support (~~{not in use, see [G02B 7/1822](#) and subgroups [G02B 7/1822](#) takes precedence}~~)
- U G02B 27/00** **Other optical systems; Other optical apparatus (means for bringing about special optical effects in shop-windows, showcases [A47F](#), e.g. [A47F 11/06](#); optical toys [A63H 33/22](#); designs or pictures characterised by special light effects [B44F 1/00](#))**
- M G02B 27/18 • for optical projection, e.g. combination of mirror and condenser and objective ~~{(not in use, see the relevant CPC classes according to projector type, e.g. photographic, cine and overhead projectors [G03B 21/00](#) and subgroups; photographic projection printing [G03B 27/32](#); photolithographic projectors [G03F 7/20](#); projection television [H04N 5/74](#); colour projection television [H04N 9/31](#) photographic, cine and overhead projectors [G03B 21/00](#); photographic projection printing [G03B 27/32](#); photolithographic projectors [G03F 7/20](#); projection television [H04N 5/74](#); colour projection television [H04N 9/31](#))}~~
- U G02B 27/22 • for producing stereoscopic or other three dimensional effects (in microscopes [G02B 21/22](#); viewing apparatus [G02B 27/02](#); stereoscopic television [H04N 13/00](#))
- M G02B 27/24 • • involving reflecting prisms and mirrors only ~~{(not used, see [G02B 27/22](#) and subgroups)}~~

Project: MP0404 (G02F)

- U G02F 1/00** **Devices or arrangements for the control of the intensity, colour, phase, polarisation or direction of light arriving from an independent light source, e.g. switching, gating, or modulating; Non-linear optics (thermometers using change of colour or translucency [G01K 11/12](#); using changes in fluorescence [G01K 11/32](#); light guide devices [G02B 6/00](#); optical devices or arrangements using movable or deformable elements for controlling light independent of the light source [G02B 26/00](#); control of light in general [G05D 25/00](#); visible signalling systems [G08B 5/00](#); indicating arrangements for variable information by selection or combination of individual elements [G09F 9/00](#); control arrangements or circuits for visual indicators other than cathode-ray tubes [G09G 3/00](#); control of light sources [H01S 3/10](#), [H05B 33/08](#), [H05B 35/00](#) - [H05B 43/00](#); {photochromic filters [G02B 5/23](#); optical logic elements [G02F 3/00](#))}**

NOTE

This group covers only :

- devices or arrangements, e.g. cells, the optical operation of which is modified by changing the optical properties of the medium of the devices

or arrangements by the influence or control of physical parameters, e.g. electric fields, electric current, magnetic fields, sound or mechanical vibrations, stress or thermal effects;

- devices or arrangements in which the electric or magnetic field component of the light beams influences the optical properties of the medium, i.e. non-linear optics;
- control of light by electromagnetic waves, e.g. radio waves, or by electrons or other elementary particles.

- U G02F 1/01
- for the control of the intensity, phase, polarisation or colour ([G02F 1/29](#), [G02F 1/35](#) take precedence)

WARNING

Group [G02F 1/01](#) is impacted by reclassification into groups [G02F 1/165](#), [G02F 1/166](#), [G02F 1/1673](#), and [G02F 1/169](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- U G02F 1/13
- based on liquid crystals, e.g. single liquid crystal display cells (liquid crystal materials [C09K 19/00](#))

- M G02F 1/1306
- {Details ~~(not used, see sub-groups)~~}

Project: MP0431 (G03)

M G03

PHOTOGRAPHY; CINEMATOGRAPHY; *ANALOGOUS TECHNIQUES USING WAVES OTHER THAN OPTICAL WAVES*; ELECTROGRAPHY; HOLOGRAPHY ~~(reproduction of pictures or patterns by scanning and converting into electrical signals H04N)~~

NOTE

1. *This class does not cover reproduction of pictures or patterns by scanning and converting into electrical signals, which is covered by subclass H04N.*
2. *In this class, the following terms are used with the meaning indicated:*
 - *"records" means photographs or any other kind of latent, directly-visible or permanent storage of pictorial information, which consist of an imagewise distribution of a quantity, e.g. an electric charge pattern, recorded on a carrier member;*
 - *"optical" applies not only to visible light but also to ultra-violet or infra-red radiations.*

Project: MP0379 (G03F)

U G03F 7/00 **Photomechanical, e.g. photolithographic, production of textured or patterned surfaces, e.g. printing surfaces; Materials therefor, e.g. comprising photoresists; Apparatus specially adapted therefor (using photoresist structures for special production processes, see the relevant places, e.g. [B44C](#), [H01L](#), e.g. [H01L 21/00](#), [H05K](#))**

- U G03F 7/004
- Photosensitive materials ([G03F 7/12](#), [G03F 7/14](#) take precedence)

- U G03F 7/039
- Macromolecular compounds which are photodegradable, e.g. positive electron resists ([G03F 7/075](#) takes precedence; macromolecular quinonediazides [G03F 7/023](#))

- U G03F 7/0392
- {the macromolecular compound being present in a chemically amplified positive photoresist composition}

- M G03F 7/0397
- {the *macromolecular compound having an* alicyclic moiety *being* in a side chain}

Project: MP0404 (G04B)

U G04B 18/00 **Mechanisms for setting frequency {(for stabilising frequency [G04B 17/00](#))}**

- M G04B 18/08 · Component parts or constructional details ~~{{(not used; see group G04B 17/32 G04B 17/32 takes precedence)}}~~
- U G04B 37/00 Cases ~~{{(cases with a special shape G04B 45/0069; ornamentation of the case G04B 47/04; cartridges A45C 11/00 - A45C 11/38)}}~~**
- U G04B 37/14 · Suspending devices, supports or stands for time-pieces insofar as they form part of the case ~~{{(wrist watch straps, fastening means therefor A44C 5/00)}}~~
- M G04B 37/16 · · Fastening the case to the bracelet ~~{{(not used; see provisionally G04B 37/00)}}~~
- M G04B 37/18 · for pocket or wrist watches (G04B 37/02 - G04B 37/16 ~~takes~~take precedence ~~{{(not used; see provisionally G04B 37/00)}}~~)
- M G04B 37/20 · · with hinged covers or backs ~~{{(not used; see provisionally G04B 37/00)}}~~

Project: MP0404 (G04F)

- U G04F 8/00 Apparatus for measuring unknown time intervals by electromechanical means**
- U G04F 8/02 · using an electromechanical oscillator ~~{{(G04F 5/00, G04F 10/00 take precedence)}}~~
- M G04F 8/04 · · using a ~~piezoelectric~~piezo-electric oscillator ~~{{(not used)}}~~
- M G04F 8/06 · · using a magnetostrictive oscillator ~~{{(not used)}}~~

Project: MP0431 (G05)

- M G05 CONTROLLING; REGULATING ~~(specially adapted to a particular field of use, see the relevant place for that field, e.g. A62C 37/00, B03B 13/00, B23Q)~~**

NOTES

1. This class covers methods, systems, and apparatus for controlling, in general.
2. In this class, the following terms or expressions are used with the meanings indicated:
 - "controlling" means influencing a variable in any way, e.g. changing its direction or its value (including changing it to or from zero), maintaining it constant, limiting its range of variation;
 - "regulation" means maintaining a variable automatically at a desired value or within a desired range of values. The desired value or range may be fixed, or manually varied, or may vary with time according to a predetermined "programme" or according to variation of another variable. Regulation is a form of control;
 - "automatic control" is often used in the art as a synonym for "regulation".
3. Attention is drawn to the Notes following the title of section G, especially as regards the definition of the term "variable".

Project: MP0428 (G05B)

- U G05B 2219/00 Program-control systems**
- U G05B 2219/10 · Plc systems
- U G05B 2219/11 · · Plc I-O input output
- M G05B 2219/1198 · · · Activate output only if power ~~of the output signal is~~ sufficient
- U G05B 2219/20 · Pc systems
- U G05B 2219/26 · · Pc applications
- M G05B 2219/2658 · · · ~~Heath~~Heat pump
- U G05B 2219/30 · Nc systems
- U G05B 2219/31 · · From computer integrated manufacturing till monitoring

- M G05B 2219/31452 . . . Send a warning message ~~before~~ that an event has to be monitored *before the event occurs*
- U G05B 2219/33 . . Director till display
- M G05B 2219/33099 . . . ~~Cnc, computer~~ *Computer* numerical control; ~~swc, softwired control~~ *[CNC]; Software control [SWC]*
- U G05B 2219/34 . . Director, elements to supervisory
- M G05B 2219/34451 . . . False alarm states ~~evalutation~~ *evaluation*, ~~threshhold~~ *threshold* to verify correctness alarm
- M G05B 2219/34464 . . . Adaptive ~~threshhold~~ *threshold*, level for alarm, eliminate false alarm
- U G05B 2219/49 . . Nc machine tool, till multiple
- M G05B 2219/49016 . . . ~~Combination DTM and machining, sff, sfm solid free form fabrication~~ *Desktop manufacturing [DTM]; Solid freeform machining [SFM]; Solid freeform fabrication [SFF]*

Project: MP0428 (G05D)

- U G05D 1/00 **Control of position, course or altitude of land, water, air, or space vehicles, e.g. automatic pilot (radio navigation systems or analogous systems using other waves G01S)**
- U G05D 1/02 . . Control of position or course in two dimensions
- U G05D 1/021 . . {specially adapted to land vehicles}

NOTES

1. This group covers control of position or course in two dimensions specially adapted for land vehicles, i.e. control systems to define a trajectory for a land vehicle, and to take suitable actions to make the vehicle follow said trajectory.

2. Relationships with other classification places.

Subclass [G01C](#) covers navigation in general, i.e. determining the position and course of land vehicles, ships, aircraft, and space vehicles.

Subclass [G01S](#) covers radio, sonar or lidar navigation systems, i.e. navigation by use of radio, acoustic or optical waves, or analogue arrangements using other electromagnetic waves.

Subclass [G08G](#) covers navigation systems for traffic control purposes, i.e. systems in which the navigation is not performed autonomously by or in the vehicle, but where the vehicles are guided by instructions transmitted to them.

Aspects of navigation systems that are important per se should also be classified in the relevant groups of [G01C](#) (see for example list under "Informative References" below).

Aspects of radio, sonar or lidar navigation systems that are important per se should also be classified in the relevant groups of [G01S](#) (see for example list under "Informative References" below).

Aspects of navigation systems for traffic purposes that are important per se should also be classified in the relevant groups of [G08G](#) (see for example list under "Informative References" below).

3. Informative References.

Attention is drawn to the following places, which could be of interest for search:

- navigation, i.e. determining the position and course of land vehicles, ships, aircraft, and space vehicles [G01C 21/00](#)
- measuring distance traversed on the ground by vehicles, e.g. using odometers [G01C 22/00](#)
- position-fixing by co-ordinating a plurality of determinations of direction or position lines [G01S 5/00](#)
- determining distance or velocity using waves and not using reflection or reradiation of waves [G01S 11/00](#)

- radar systems specially designed for traffic control [G01S 13/91](#)
- radar systems specially designed for for anti-collision purposes [G01S 13/93](#)
- sonar systems specially designed for for anti-collision purposes [G01S 15/93](#)
- lidar systems specially designed for for anti-collision purposes [G01S 17/93](#)
- traffic control systems for road vehicles [G08G 1/00](#)
- monitoring the location of fleet of vehicles in traffic control systems [G08G 1/127](#)
- anti-collision traffic control systems [G08G 1/16](#)

- U G05D 1/0231 . . . {using optical position detecting means (position-fixing by using electromagnetic waves other than radio waves, e.g. optical position detecting means [G01S 5/16](#))}
- M G05D 1/0246 {using a video camera in combination with image processing means ~~(image data processing in general G06T; video signal coding and transmission H04N)~~}

Project: RP0283 (G05D)

- U G05D 1/04 . Control of altitude or depth
- C G05D 1/06 . . Rate of change of altitude or depth

WARNING
Group G05D 1/06 is impacted by reclassification into group G05D 1/0688. Groups G05D 1/06 and G05D 1/0688 should be considered in order to perform a complete search.

- C G05D 1/0607 . . . {specially adapted for aircraft}

WARNING
Group G05D 1/0607 is impacted by reclassification into group G05D 1/0688. Groups G05D 1/0607 and G05D 1/0688 should be considered in order to perform a complete search.

- U G05D 1/0653 {during a phase of take-off or landing}
- U G05D 1/0676 {specially adapted for landing}
- U G05D 1/0684 {on a moving platform, e.g. aircraft carrier}
- N G05D 1/0688 {Emergency descent}

WARNING
Group G05D 1/0688 is incomplete pending reclassification of documents from groups G05D 1/06 and G05D 1/0607. Groups G05D 1/06, G05D 1/0607 and G05D 1/0688 should be considered in order to perform a complete search.

- U G05D 1/08 . Control of attitude, i.e. control of roll, pitch, or yaw
- D G05D 1/0883 . . {specially adapted for space vehicles}
<administratively transferred to [B64G 1/244](#)>
- C G05D 1/10 . Simultaneous control of position or course in three dimensions ([G05D 1/12](#) takes precedence)

WARNING
Group G05D 1/10 is impacted by reclassification into groups G05D 1/106, G05D 1/1062 and G05D 1/1064.

All groups listed in this Warning should be considered in order to perform a complete search.

C G05D 1/101

- {specially adapted for aircraft}

WARNING

Group [G05D 1/101](#) is impacted by reclassification into groups [G05D 1/106](#), [G05D 1/1062](#) and [G05D 1/1064](#).

All groups listed in this Warning should be considered in order to perform a complete search.

C G05D 1/105

- • {specially adapted for unpowered flight, e.g. glider, parachuting, forced landing (parachutes per se [B64D 17/00](#))}

WARNING

Group [G05D 1/105](#) is impacted by reclassification into groups [G05D 1/106](#), [G05D 1/1062](#) and [G05D 1/1064](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N G05D 1/106

- • • {Change initiated in response to external conditions, e.g. avoidance of elevated terrain or of no-fly zones}

WARNING

Group [G05D 1/106](#) is incomplete pending reclassification of documents from groups [G05D 1/10](#), [G05D 1/101](#) and [G05D 1/105](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N G05D 1/1062

- • • • {specially adapted for avoiding bad weather conditions}

WARNING

Group [G05D 1/1062](#) is incomplete pending reclassification of documents from groups [G05D 1/10](#), [G05D 1/101](#) and [G05D 1/105](#).

All groups listed in this Warning should be considered in order to perform a complete search.

N G05D 1/1064

- • • • {specially adapted for avoiding collisions with other aircraft}

WARNING

Group [G05D 1/1064](#) is incomplete pending reclassification of documents from groups [G05D 1/10](#), [G05D 1/101](#) and [G05D 1/105](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: MP0431 (G06)

M G06

COMPUTING; CALCULATING; COUNTING (~~score computers for games [A63B 71/06](#), [A63D 15/20](#), [A63F 1/18](#); combinations of writing implements with computing devices [B43K 29/08](#))~~

NOTES

1. This class covers:

- simulators which are concerned with the mathematics of computing the existing or anticipated conditions within the real device or system;
- simulators which demonstrate, by means involving computing, the function of apparatus or of a system, if no provision exists elsewhere;
- image data processing or generation.

2. This class does not cover:

- combinations of writing implements with computing devices, which are covered by group [B43K 29/08](#);

- control functions derived from simulators, in general, which are covered by class [G05](#), although such functions may be covered by the subclass of this class for the device controlled;
 - measurement or analysis of an individual variable to serve as an input to a simulator, which is covered by class [G01](#);
 - simulators regarded as teaching or training devices which is the case if they give perceptible sensations having a likeness to the sensations a student would experience in reality in response to actions taken by him. Such simulators are covered by class [G09](#);
 - components of simulators, if identical with real devices or machines, which are covered by the relevant subclass for these devices or machines and not by class [G09](#).
3. In this class, the following terms or expressions are used with the meanings indicated:
- "data" is used as the synonym of "information". Therefore, the term "information" is not used in subclasses [G06C](#), [G06F](#) or [G06Q](#);
 - "calculating or computing" includes, *inter alia*, operations on numerical values and on data expressed in numerical form. Of these terms "computing" is used throughout the class;
 - "computation" is derived from this interpretation of "computing". In the French language the term "calcul" will serve for either term;
 - "simulator" is a device which may use the same time scale as the real device or operate on an expanded or compressed time scale. In interpreting this term models of real devices to reduced or expanded scales are not regarded as simulators;
 - "record carrier" means a body, such as a cylinder, disc, card, tape, or wire, capable of permanently holding information, which can be read-off by a sensing element movable relative to the recorded information.
4. Attention is drawn to the Notes following the title of section [G](#), especially as regards the definition of the term "variable".

Project: RP0458 (G06F)

- U G06F 3/00** **Input arrangements for transferring data to be processed into a form capable of being handled by the computer; Output arrangements for transferring data from processing unit to output unit, e.g. interface arrangements (typewriters [B41J](#); conversion of physical variables [F15B 5/00](#), [G01](#); image acquisition [G06T 1/00](#), [G06F 9/00](#); coding, decoding or code conversion in general [H03M](#); transmission of digital information [H04L](#); {in regulating or control systems [G05B](#)})**
- U G06F 3/01 • Input arrangements or combined input and output arrangements for interaction between user and computer ([G06F 3/16](#) takes precedence)
- U G06F 3/03 • • Arrangements for converting the position or the displacement of a member into a coded form
- NOTE
In this group, the first place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.
- U G06F 3/033 • • • Pointing devices displaced or positioned by the user, e.g. mice, trackballs, pens or joysticks; Accessories therefor {(constructional details of joysticks [G05G 9/047](#); arrangement for interfacing a joystick to a computer [G06F 3/038](#))}
- U G06F 3/038 • • • • Control and interface arrangements therefor, e.g. drivers or device-embedded control circuitry
- U G06F 3/0386 • • • • • {for light pen}

- C G06F 3/039 Accessories therefor, e.g. mouse pads ~~(furniture aspects A47B 21/00)~~
- WARNING
Group [G06F 3/039](#) is impacted by reclassification into group [G06F 3/0393](#).
Groups [G06F 3/039](#) and [G06F 3/0393](#) should be considered in order to perform a complete search.
- N G06F 3/0393 {Accessories for touch pads or touch screens, e.g. mechanical guides added to touch screens for drawing straight lines, hard keys overlaying touch screens or touch pads}
- WARNING
Group [G06F 3/0393](#) is incomplete pending reclassification of documents from group [G06F 3/039](#).
Groups [G06F 3/039](#) and [G06F 3/0393](#) should be considered in order to perform a complete search.
- U G06F 3/041 Digitisers, e.g. for touch screens or touch pads, characterised by the transducing means
- M G06F 3/0412 ~~{Integrated displays and digitisers~~ *Digitisers structurally integrated in a display*}
- C G06F 3/0414 {using force sensing means *to determine a position*}
- WARNING
Group [G06F 3/0414](#) is impacted by reclassification into groups [G06F 3/04142](#), [G06F 3/04144](#) and [G06F 3/04146](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N G06F 3/04142 {the force sensing means being located peripherally, e.g. disposed at the corners or at the side of a touch sensing plate}
- WARNING
Group [G06F 3/04142](#) is incomplete pending reclassification of documents from group [G06F 3/0414](#).
Groups [G06F 3/0414](#) and [G06F 3/04142](#) should be considered in order to perform a complete search.
- N G06F 3/04144 {using an array of force sensing means (position sensing using the local deformation of sensor cells [G06F 3/0447](#))}
- WARNING
Group [G06F 3/04144](#) is incomplete pending reclassification of documents from group [G06F 3/0414](#).
Groups [G06F 3/0414](#) and [G06F 3/04144](#) should be considered in order to perform a complete search.
- N G06F 3/04146 {using pressure sensitive conductive elements delivering a boolean signal and located between crossing sensing lines, e.g. located between X and Y sensing line layers}
- WARNING
Group [G06F 3/04146](#) is incomplete pending reclassification of documents from group [G06F 3/0414](#).
Groups [G06F 3/0414](#) and [G06F 3/04146](#) should be considered in order to perform a complete search.

- C G06F 3/0416 {Control **and/or** interface arrangements *pecially adapted* for **touch screen digitisers**}
- WARNING**
Group G06F 3/0416 is impacted by reclassification into groups G06F 3/04162, G06F 3/04164, G06F 3/04166, G06F 3/041661, and G06F 3/041662.
All groups listed in this Warning should be considered in order to perform a complete search.
- N G06F 3/04162 {for exchanging data with external devices, e.g. smart pens, via the digitiser sensing hardware}
- WARNING**
Group G06F 3/04162 is incomplete pending reclassification of documents from group G06F 3/0416.
Groups G06F 3/0416 and G06F 3/04162 should be considered in order to perform a complete search.
- N G06F 3/04164 {Connections between sensors and controllers, e.g. routing lines between electrodes and connection pads}
- WARNING**
Group G06F 3/04164 is incomplete pending reclassification of documents from group G06F 3/0416.
Groups G06F 3/0416 and G06F 3/04164 should be considered in order to perform a complete search.
- N G06F 3/04166 {Details of scanning methods, e.g. sampling time, grouping of sub areas or time sharing with display driving (Synchronisation with the driving of the display or the backlighting unit to avoid interferences generated internally G06F 3/04184)}
- WARNING**
Group G06F 3/04166 is incomplete pending reclassification of documents from group G06F 3/0416.
Groups G06F 3/0416 and G06F 3/04166 should be considered in order to perform a complete search.
- N G06F 3/041661 {using detection at multiple resolutions, e.g. coarse and fine scanning; using detection within a limited area, e.g. object tracking window}
- WARNING**
Group G06F 3/041661 is incomplete pending reclassification of documents from group G06F 3/0416.
Groups G06F 3/0416 and G06F 3/041661 should be considered in order to perform a complete search.
- N G06F 3/041662 {using alternate mutual and self-capacitive scanning}
- WARNING**
Group G06F 3/041662 is incomplete pending reclassification of documents from group G06F 3/0416.
Groups G06F 3/0416 and G06F 3/041662 should be considered in order to perform a complete search.
- C G06F 3/0418 {for error correction or compensation, e.g. *based on* parallax, calibration, **or** alignment}
- WARNING**
Group G06F 3/0418 is impacted by reclassification into groups G06F 3/04182, G06F 3/04184, and G06F 3/04186.

All groups listed in this Warning should be considered in order to perform a complete search.

- N G06F 3/04182 {Filtering of noise external to the device and not generated by digitiser components}
WARNING
Group [G06F 3/04182](#) is incomplete pending reclassification of documents from group [G06F 3/0418](#).
Groups [G06F 3/0418](#) and [G06F 3/04182](#) should be considered in order to perform a complete search.
- N G06F 3/04184 {Synchronisation with the driving of the display or the backlighting unit to avoid interferences generated internally}
WARNING
Group [G06F 3/04184](#) is incomplete pending reclassification of documents from group [G06F 3/0418](#).
Groups [G06F 3/0418](#) and [G06F 3/04184](#) should be considered in order to perform a complete search.
- N G06F 3/04186 {Touch location disambiguation}
WARNING
Group [G06F 3/04186](#) is incomplete pending reclassification of documents from group [G06F 3/0418](#).
Groups [G06F 3/0418](#) and [G06F 3/04186](#) should be considered in order to perform a complete search.
- M G06F 3/042 by opto-electronic means-~~{(pens detecting optically their absolute position with respect to a coded surface G06F 3/0317)}~~
- U G06F 3/043 using propagating acoustic waves
- U G06F 3/0436 {in which generating transducers and detecting transducers are attached to a single acoustic waves transmission substrate}
- C G06F 3/044 by capacitive means
WARNING
Group [G06F 3/044](#) is impacted by reclassification into groups [G06F 3/0441](#), [G06F 3/0442](#), [G06F 3/0443](#), [G06F 3/0444](#), [G06F 3/0445](#), [G06F 3/0446](#), [G06F 3/0447](#), and [G06F 3/0448](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N G06F 3/0441 {using active external devices, e.g. active pens, for receiving changes in electrical potential transmitted by the digitiser, e.g. tablet driving signals}
- N G06F 3/0442 {using active external devices, e.g. active pens, for transmitting changes in electrical potential to be received by the digitiser}
- N G06F 3/0443 {using a single layer of sensing electrodes}
- N G06F 3/0444 {using a single conductive element covering the whole sensing surface, e.g. by sensing the electrical current flowing at the corners}
- N G06F 3/0445 {using two or more layers of sensing electrodes, e.g. using two layers of electrodes separated by a dielectric layer}
- N G06F 3/0446 {using a grid-like structure of electrodes in at least two directions, e.g. using row and column electrodes}
- N G06F 3/0447 {Position sensing using the local deformation of sensor cells}
- N G06F 3/0448 {Details of the electrode shape, e.g. for enhancing the detection of touches, for generating specific electric field shapes, for enhancing display quality}

Project: MP0404 (G06F)

- U G06F 7/00** **Methods or arrangements for processing data by operating upon the order or content of the data handled (logic circuits [H03K 19/00](#))**
- U G06F 7/22 · Arrangements for sorting or merging computer data on continuous record carriers, e.g. tape, drum, disc
- U G06F 7/24 · · Sorting, i.e. extracting data from one or more carriers, rearranging the data in numerical or other ordered sequence, and rerecording the sorted data on the original carrier or on a different carrier or set of carriers {sorting methods in general}([G06F 7/36](#) takes precedence)
- M G06F 7/26 · · · the sorted data being recorded on the original record carrier within the same space in which the data had been recorded prior to their sorting, without using intermediate storage ~~{(contains no documents, see [G06F 7/24](#))}~~
- U G06F 7/38 · Methods or arrangements for performing computations using exclusively denominational number representation, e.g. using binary, ternary, decimal representation
- U G06F 7/48 · · using non-contact-making devices, e.g. tube, solid state device; using unspecified devices
- U G06F 7/52 · · · Multiplying; Dividing ([G06F 7/483](#) - [G06F 7/491](#), [G06F 7/544](#) take precedence)
- U G06F 7/535 · · · · Dividing only
- M G06F 7/537 · · · · · Reduction of the number of iteration steps or stages, e.g. using the Sweeny-Robertson-Tocher [SRT] algorithm ~~{(not used, see [G06F 7/535](#) or [G06F 7/5375](#))}~~
- M G06F 7/5375 · · · · · {Non restoring calculation, where each digit is either negative, zero or positive, e.g. SRT;}

WARNING

~~Not complete. Provisionally see [G06F 7/535](#) + [G06F 7/5375](#)~~

Project: N/A (G06F)

- U G06F 2201/00** **Indexing scheme relating to error detection, to error correction, and to monitoring**
- G06F 2201/855 · Details of ~~asynchronous~~ **asynchronous** mirroring using a journal to transfer not-yet-mirrored changes

Project: RP0458 (G06F)

- U G06F 2203/00** **Indexing scheme relating to [G06F 3/00](#) - [G06F 3/048](#)**
- U G06F 2203/038 · Indexing scheme relating to [G06F 3/038](#)
- U G06F 2203/0384 · · Wireless input, i.e. hardware and software details of wireless interface arrangements for pointing devices
- C G06F 2203/041 · Indexing scheme relating to [G06F 3/041](#) - [G06F 3/045](#)
- WARNING**
*Group [G06F 2203/041](#) is impacted by reclassification into group [G06F 2203/04114](#).
 Groups [G06F 2203/041](#) and [G06F 2203/04114](#) should be considered in order to perform a complete search.*
- U G06F 2203/04104 · · Multi-touch detection in digitiser, i.e. details about the simultaneous detection of a plurality of touching locations, e.g. multiple fingers or pen and finger

- M G06F 2203/04105
- ~~Separate pressure detection, i.e. detection of~~ *Pressure sensors for measuring the pressure applied or force exerted* on the touch surface *using additional pressure sensors or switches not interfering with* ~~without providing~~ the position sensing process and generally disposed outside of the active touch sensing part *position*
- U G06F 2203/04112
- Electrode mesh in capacitive digitiser: electrode for touch sensing is formed of a mesh of very fine, normally metallic, interconnected lines that are almost invisible to see. This provides a quite large but transparent electrode surface, without need for ITO or similar transparent conductive material
- M G06F 2203/04113
- Peripheral electrode pattern in resistive ~~digitiser~~ *digitisers*, i.e. electrodes at the periphery of the resistive sheet are shaped in patterns enhancing linearity of induced field
- N G06F 2203/04114
- *Touch screens adapted for alternating or simultaneous interaction with active pens and passive pointing devices like fingers or passive pens*
- WARNING**
 Group [G06F 2203/04114](#) is incomplete pending reclassification of documents from group [G06F 2203/041](#).
 Groups [G06F 2203/041](#) and [G06F 2203/04114](#) should be considered in order to perform a complete search.

Project: MP0404 (G06F)

- U G06F 2207/00** **Indexing scheme relating to methods or arrangements for processing data by operating upon the order or content of the data handled**
- U G06F 2207/38
- Indexing scheme relating to groups [G06F 7/38](#) - [G06F 7/575](#)
- M G06F 2207/3804
- Details ~~(not used)~~
- U G06F 2207/552
- Indexing scheme relating to groups [G06F 7/552](#) - [G06F 7/5525](#)
- M G06F 2207/5526
- Roots or inverse roots of single operands ~~(not used)~~
- M G06F 2221/00** **Indexing scheme relating to security arrangements for protecting computers, components thereof, programs or data against unauthorised activity ~~(not used)~~**
- U G06F 2221/07
- Indexing scheme relating to [G06F 21/10](#), protecting distributed programs or content
- M G06F 2221/0702
- Binding ~~(not used)~~
- M G06F 2221/0722
- Content ~~(not used)~~
- M G06F 2221/0726
- Personalisation ~~(not used)~~
- M G06F 2221/0751
- Key ~~(not used)~~
- M G06F 2221/0757
- Licence ~~(not used)~~
- M G06F 2221/0762
- Definition ~~(not used)~~
- M G06F 2221/0779
- Transfer ~~(not used)~~

Project: MP0404 (G06K)

- U G06K 9/00** **Methods or arrangements for reading or recognising printed or written characters or for recognising patterns, e.g. fingerprints (processing or analysis of tracks of nuclear particles [G01T 5/02](#) {; information retrieval [G06F 16/00](#); radio frequency identification [G06K 7/00](#); recognition of barcodes and similar code images [G06K 7/10](#); computer systems based on specific computational models [G06N](#); image analysis, inspection, positioning or tracking [G06T 7/00](#); recognition of acoustic speech signals [G10L 15/00](#); acoustic speaker identification [G10L 17/00](#))}**
- NOTES**
- In this group, the following term is used with the meaning indicated:
 - "recognising" includes several functions such as extracting features, clustering, classifying or matching.
 - IPC subgroups [G06K 9/20](#), [G06K 9/36](#), [G06K 9/62](#) and [G06K 9/74](#) refer to methods or arrangements that can be applied to a pattern independently of its nature or to that are applied to specific patterns not included in the subgroups in the range [G06K 9/00006](#) - [G06K 9/00852](#). The CPC subgroups in the range [G06K 9/00006](#) - [G06K 9/00852](#) refer to the same methods or arrangements when applied or specially adapted to the specific patterns to which these subgroups relate.
 - The present group does not cover the use of recognised patterns in specific applications, e.g. the use of traced gestures recognised as commands to be input to a computer is covered by the groups under [G06F 3/00](#)
- U G06K 9/62** • Methods or arrangements for recognition using electronic means (machine learning [G06N 20/00](#); digital correlation [G06F 17/15](#); analogue correlation [G06G 7/19](#))
- U G06K 9/68** • • using sequential comparisons of the image signals with a plurality of references {in which the sequence of the image signals or the references is relevant}, e.g. addressable memory
- M G06K 9/70** • • • the selection of the next reference depending on the result of the preceding comparison ~~{contains no documents}~~
- U G06K 11/00** **Methods or arrangements for graph-reading or for converting the pattern of mechanical parameters, e.g. force or presence, into electrical signal (combined with character or pattern recognition [G06K 9/00](#); feelers for copying devices on machine tools [B23Q 35/00](#); arrangements for measuring areas [G01B](#); measuring force [G01L](#); adapted as input devices to computers [G06F 3/00](#); systems for transmitting the position of an object with respect to a predetermined reference system, e.g. tele-autographic system, [G08C 21/00](#))}**
- WARNING**
- This group and its subgroups are no longer used for the classification of new documents as from 1 January 2006. Documents relating to methods and arrangements for input to a computer are classified under [G06F 3/033](#) and [G06F 3/041](#)
- M G06K 11/06** • Devices for converting the position of a manually-operated writing or tracing member into an electrical signal {(not used, see [G06F 3/03](#) arrangements for converting the position or the displacement of a member into a coded form [G06F 3/03](#))}
- M G06K 2215/00** **Arrangements for producing a permanent visual presentation of the output data (not used)**

Project: RP0026-F (G06Q)

U G06Q 40/00 Finance; Insurance; Tax strategies; Processing of corporate or income taxes

M G06Q 40/10 · {Tax strategies}

WARNING

The backfile of this group is being reclassified into groups G06Q 40/10 and G06Q 40/12. Until reclassification is complete, groups G06Q 40/10 and G06Q 40/12 should be considered in order to perform a complete search.

M G06Q 40/12 · {Accounting}

WARNING

G06Q 40/12 is incomplete pending reclassification of documents from G06Q 40/10. Until reclassification is complete, groups G06Q 40/10 and G06Q 40/12 should be considered in order to perform a complete search.

Project: MP0404 (G06T)

U G06T 9/00 Image coding (bandwidth or redundancy reduction for static pictures [H04N 1/41](#); coding or decoding of static colour picture signals [H04N 1/64](#); methods or arrangements for coding, decoding, compressing or decompressing digital video signals [H04N 19/00](#))

M G06T 9/001 · {Model-based coding, e.g. wire frame ~~(see provisionally also G06T 9/00)~~}

M G06T 9/004 · {Predictors, e.g. intraframe, interframe coding ~~(see provisionally also G06T 9/00)~~}

M G06T 9/005 · {Statistical coding, e.g. Huffman, run length coding ~~(see provisionally also G06T 9/00)~~}

M G06T 9/007 · {Transform coding, e.g. discrete cosine transform ~~(see provisionally also G06T 9/00)~~}

M G06T 9/008 · {Vector quantisation ~~(see provisionally also G06T 9/00)~~}

M G06T 9/40 · Tree coding, e.g. quadtree, octree ~~(see provisionally also G06T 9/00)~~}

Project: MP0431 (G08)

M G08 **SIGNALLING** ~~(indicating or display devices per se G09F; transmission of pictures H04N)~~

Project: MP0404 (G09G)

M G09G 2300/00 Aspects of the constitution of display devices ~~(not used, see subgroups)~~

Project: RP0100 (G11B)

M G11B

INFORMATION STORAGE BASED ON RELATIVE MOVEMENT BETWEEN RECORD CARRIER AND TRANSDUCER ({producing carriers of sound records for needle playback [B29C 39/00](#)}; recording measured values in a way that does not require playback through a transducer [G01D](#); photosensitive materials or processes for photographic purposes [G03C](#); electrography, electrophotography, magnetography [G03G](#); recording or playback apparatus using mechanically marked tape, e.g. punched paper tape, or using unit records, e.g. punched or magnetically marked cards, [G06K](#); transferring data from one type of record carrier to another [G06K 1/18](#); printing of data from record carriers [G06K 3/00](#); arrangements for producing a permanent visual presentation of the output data [G06K 15/00](#); arrangements or circuits for control of indicating devices using static means to present variable information [G09G](#); coding, decoding or code conversion, in general [H03M](#); circuits for coupling output of reproducer to radio receiver [H04B 1/20](#); circuits {or arrangements} specially adapted for {pictorial or} television signal recording {[H04N 1/21](#)}, [H04N 5/76](#), [H04N 9/79](#); loudspeakers, microphones, gramophone pick-ups or like acoustic electromechanical transducers or circuits therefor [H04R](#))

NOTES

1. This subclass covers :

- recording or playback of information by relative movement between a record track and a transducer, the transducer directly producing, or being directly actuated by, modulation in the track being recorded or played-back, and the extent of modulation corresponding to the signal being recorded or played-back;
- apparatus and machines for recording or playback, and parts thereof such as heads;
- record carriers for use with such apparatus and machines;
- associated working of other apparatus with such apparatus and machines;
- {relative positioning or movement of transducers and record carriers before, during or after transducing operation, e.g. for accessing record carriers or parts thereof, or for track change, selection or acquisition or for track following or for accessing parts of tracks;}
- {driving or moving of heads or record carriers or both heads and record carriers for increasing, maintaining or decreasing the relative speed before, during or after transducing operation}

2. In this subclass, the following terms or expressions are used with the meanings indicated :

- "head" includes any means for converting sinusoidal or non-sinusoidal electric wave-forms into variations of the physical condition of at least the adjacent surface of the record carrier, or vice versa;
- "record carrier" means a body, such as a cylinder, disc, card, tape, or wire, capable of permanently holding information, which can be read-off by a sensing element movable relatively to the record carrier.

3. Documents concerning relative positioning or movement of transducers and record carriers are classified in groups [G11B 3/00](#) - [G11B 7/00](#) and [G11B 21/00](#) when only the transducer is controlled and in groups [G11B 15/00](#), [G11B 17/00](#) and [G11B 19/00](#) when only the record carrier is controlled. When both record carrier and head are controlled, the documents are classified in [G11B 15/1808](#), [G11B 15/1816](#), [G11B 19/00](#) and [G11B 27/002](#).

When a plurality of record carriers are controlled, the documents are classified in [G11B 15/68](#), [G11B 17/08](#), [G11B 17/22](#) and [G11B 27/002](#).

4. By "access" is meant an operation including a relative movement for positioning between record carrier and head before, during or after transducing; this operation including "seek", "select", "change", "acquire" and "follow"

functions for at least a part of a track on at least one record carrier. By "programmed access" is meant a sequence of access operations the result of the sequence being to acquire a wanted sequence of parts of tracks or a wanted sequence of tracks. Relative movement between head and record carrier also covers the movement of a coupling beam such as a light beam between the head and a stationary record carrier.

5. "Movement of the head" also covers any virtual movement or any physical movement such as obtained by switching between successive transducing parts of the head or by moving the transducing zone of the head, i.e. by "scanning". If different transducing parts of the head are switchable, the number of transducing parts should be much smaller than the number of individual storage areas of the record carrier.

6. Attention is drawn to the notes of subclass [G11C](#).

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups *is*are classified in the following CPC groups:

G11B 5/65	covered by	G11B 5/64 - G11B 5/656
G11B 5/667	covered by	G11B 5/66
G11B 5/673	covered by	G11B 5/66
G11B 7/16 G11B 5/738	covered by	G11B 7/135 G11B 5/73 , G11B 5/733 , G11B 5/7334 , and G11B 5/736 - G11B 5/737
G11B 7/18	covered by	G11B 7/135
G11B 7/30	covered by	G11B 7/00
G11B 9/12 - G11B 9/14	covered by	G11B 9/00
G11B 11/24 - G11B 11/26	covered by	G11B 11/00
G11B 13/08	covered by	G11B G11B 13/00

2. In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Project: MP0404 (G11B)

- U G11B 3/00 **Recording by mechanical cutting, deforming or pressing, e.g. of grooves or pits; Reproducing by mechanical sensing; Record carriers therefor ([G11B 11/00](#), {[G11B 13/00](#)} take precedence; {recording by cutting or deforming using laser beam [G11B 7/00](#), using electron beam [G11B 9/10](#)})**
- U G11B 3/02 · Arrangements of heads (styli [G11B 3/44](#))
- M G11B 3/04 · · Multiple, convertible, or alternative transducing arrangements ~~{{contains no documents see [G11B 3/42](#)}}~~
- U G11B 3/44 · Styli, e.g. sapphire, diamond
- U G11B 3/46 · · Constructions or forms {Disposition or mounting}, e.g. attachment of point to shank {(attachment of stylus directly to transducer [H04R 1/16](#))}
- M G11B 3/48 · · · Needles ~~{{contains no documents}}~~

Project: RP0100 (G11B)

- U G11B 5/00 **Recording by magnetisation or demagnetisation of a record carrier; Reproducing by magnetic means; Record carriers therefor ([G11B 11/00](#) {and [G11B 13/00](#)} take precedence)**

NOTE

Subgroups [G11B 5/02 - G11B 5/86](#) take precedence over subgroups [G11B 5/004 - G11B 5/016](#)

- U G11B 5/62
- Record carriers characterised by the selection of the material (selection of magnetic materials in general [H01F 1/00](#); thin magnetic films [H01F 10/00](#))
- NOTE
This group does not cover compositions, materials or processes, per se, which are covered by the relevant subclasses of section [B](#) or [C](#).
- C G11B 5/73
- Base layers {, i.e. all *non-magnetic* layers lying under ~~the~~ *a lowermost magnetic recording layer, e.g. including any non-magnetic layer in between a first magnetic recording layer and either an underlying substrate or a soft magnetic underlayer*}
- WARNING
Group G11B 5/73 is incomplete pending reclassification of documents from group G11B 5/7305.
Group G11B 5/73 is also impacted by reclassification into groups G11B 5/733, G11B 5/7334, G11B 5/736 - G11B 5/7377 and G11B 5/739 - G11B 5/73937.
All groups listed in this warning should be considered in order to perform a complete search.
- F G11B 5/7305
(Frozen)
- {with bonding agent in the material}
- WARNING
Group G11B 5/7305 is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups G11B 5/73, G11B 5/733, G11B 5/7334, G11B 5/736 - G11B 5/7377 and G11B 5/739 - G11B 5/73937.
All groups listed in this warning should be considered in order to perform a complete search.
- F G11B 5/731
(Frozen)
- {without bonding agent in the material}
- WARNING
Group G11B 5/731 is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups G11B 5/736 - G11B 5/7377 and G11B 5/739 - G11B 5/73937.
All groups listed in this warning should be considered in order to perform a complete search.
- F G11B 5/7315
(Frozen)
- {substrates}
- WARNING
Group G11B 5/7315 is no longer used for the classification of documents as of May 1, 2019.
The content of this group is being reclassified into groups G11B 5/739 - G11B 5/73937.
All groups listed in this warning should be considered in order to perform a complete search.
- D G11B 5/732
- {seed layers}
- <administratively transferred to [G11B 5/7379](#)>
- F G11B 5/7325
(Frozen)
- {layers between substrate and first magnetic recording layer other than soft magnetic layers and seed layers}
- WARNING
Group G11B 5/7325 is no longer used for the classification of documents as of May 1, 2019.

*The content of this group is being reclassified into groups [G11B 5/736 - G11B 5/7377](#) and [G11B 5/739 - G11B 5/73937](#).
All groups listed in this warning should be considered in order to perform a complete search.*

- C G11B 5/733 . . . characterised by the addition of non-magnetic particles *{{base layers having a non-magnetic layer under a soft magnetic layer [G11B 5/736](#); magnetic recording media substrates [G11B 5/739](#)}}*

NOTES

1. *{This subgroup covers: non-magnetic base layer structures characterised by the addition of non-magnetic particles.}*
2. *{This subgroup does not cover: magnetic layer structures comprising one or more layers of magnetisable material homogeneously mixed with a bonding agent (even when also containing non-magnetic particles), which are covered by [G11B 5/68](#) (in particular, [G11B 5/708](#) and [G11B 5/7085](#)).}*

WARNING

Group [G11B 5/733](#) is incomplete pending reclassification of documents from groups [G11B 5/73](#) and [G11B 5/7305](#).

Group [G11B 5/733](#) is also impacted by reclassification into groups [G11B 5/7334](#), [G11B 5/736 - G11B 5/7377](#) and [G11B 5/739 - G11B 5/73937](#).

All groups listed in this warning should be considered in order to perform a complete search.

- N G11B 5/7334 . . . {Base layer characterised by composition or structure}

WARNING

Group [G11B 5/7334](#) is incomplete pending reclassification of documents from groups [G11B 5/73](#), [G11B 5/7305](#), and [G11B 5/733](#).

All groups listed in this warning should be considered in order to perform a complete search.

- C G11B 5/735 . . . characterised by the back layer *{{magnetic recording media substrates [G11B 5/739](#)}}*

WARNING

Group [G11B 5/735](#) is impacted by reclassification into groups [G11B 5/7353 - G11B 5/7358](#) and [G11B 5/739 - G11B 5/73937](#).

All groups listed in this warning should be considered in order to perform a complete search.

- N G11B 5/7353 . . . {for a thin film medium where the magnetic recording layer structure has no bonding agent}

WARNING

Group [G11B 5/7353](#) is incomplete pending reclassification of documents from group [G11B 5/735](#).

Groups [G11B 5/735](#) and [G11B 5/7353](#) should be considered in order to perform a complete search.

- N G11B 5/7356 . . . {comprising non-magnetic particles in the back layer, e.g. particles of TiO₂, ZnO or SiO₂}

WARNING

Groups [G11B 5/7356](#) and [G11B 5/7358](#) are incomplete pending reclassification of documents from group [G11B 5/735](#).

All groups listed in this warning should be considered in order to perform a complete search.

- N G11B 5/7358 {specially adapted for achieving a specific property, e.g. average roughness [Ra]}
- N G11B 5/736 . . . {Non-magnetic layer under a soft magnetic layer, e.g. between a substrate and a soft magnetic underlayer [SUL] or a keeper layer (magnetic recording media substrates [G11B 5/739](#))}
- WARNING
Groups [G11B 5/736](#), [G11B 5/7361](#), [G11B 5/7362](#), [G11B 5/7363](#), [G11B 5/7364](#), [G11B 5/7365](#), [G11B 5/7366](#), and [G11B 5/7367](#) are incomplete pending reclassification of documents from groups [G11B 5/73](#), [G11B 5/7305](#), [G11B 5/731](#), [G11B 5/7325](#), and [G11B 5/733](#). All groups listed in this warning should be considered in order to perform a complete search.
- N G11B 5/7361 {Two or more non-magnetic layers}
- N G11B 5/7362 {Physical structure of underlayer, e.g. texture}
- N G11B 5/7363 {Non-magnetic single underlayer comprising nickel}
- N G11B 5/7364 {Non-magnetic single underlayer comprising chromium}
- N G11B 5/7365 {Non-magnetic single underlayer comprising a polymeric structure, e.g. polymeric adhesion layer or plasma-polymerized carbon layer}
- N G11B 5/7366 {for heat-assisted or thermally-assisted magnetic recording [HAMR, TAMR]}
- N G11B 5/7367 {Physical structure of underlayer, e.g. texture}
- N G11B 5/7368 {Non-polymeric layer under the lowermost magnetic recording layer (base layers having a non-magnetic layer under a soft magnetic layer [G11B 5/736](#); magnetic recording media substrates [G11B 5/739](#))}
- WARNING
Groups [G11B 5/7368](#), [G11B 5/7369](#), [G11B 5/737](#), [G11B 5/7371](#), [G11B 5/7373](#), [G11B 5/7375](#), and [G11B 5/7377](#) are incomplete pending reclassification of documents from groups [G11B 5/73](#), [G11B 5/7305](#), [G11B 5/731](#), [G11B 5/7325](#), and [G11B 5/733](#). All groups listed in this warning should be considered in order to perform a complete search.
- N G11B 5/7369 {Two or more non-magnetic underlayers, e.g. seed layers or barrier layers}
- N G11B 5/737 {Physical structure of underlayer, e.g. texture}
- N G11B 5/7371 {Non-magnetic single underlayer comprising nickel}
- N G11B 5/7373 {Non-magnetic single underlayer comprising chromium}
- N G11B 5/7375 {for heat-assisted or thermally-assisted magnetic recording [HAMR, TAMR]}
- N G11B 5/7377 {Physical structure of underlayer, e.g. texture}
- N G11B 5/7379 {Seed layer, e.g. at least one non-magnetic layer is specifically adapted as a seed or seeding layer}
- D G11B 5/738 characterised by the intermediate layer <administratively transferred to [G11B 5/73](#)>
- N G11B 5/739 {Magnetic recording media substrates}
- WARNING
Groups [G11B 5/739](#), [G11B 5/73911](#), [G11B 5/73913](#), [G11B 5/73915](#), [G11B 5/73917](#), [G11B 5/73919](#), [G11B 5/73921](#), [G11B 5/73923](#), [G11B 5/73925](#), [G11B 5/73927](#), [G11B 5/73929](#), [G11B 5/73931](#), [G11B 5/73933](#), [G11B 5/73935](#), and [G11B 5/73937](#) are incomplete pending reclassification of documents from groups [G11B 5/73](#),

[G11B 5/7305](#), [G11B 5/731](#), [G11B 5/7315](#), [G11B 5/7325](#), [G11B 5/733](#),
and [G11B 5/735](#).

All groups listed in this warning should be considered in order to perform a complete search.

- N G11B 5/73911 {Inorganic substrates}
- N G11B 5/73913 {Composites or coated substrates}
- N G11B 5/73915 {Silicon compound based coating}
- N G11B 5/73917 {Metallic substrates, i.e. elemental metal or metal alloy substrates}
- N G11B 5/73919 {Aluminium or titanium elemental or alloy substrates}
- N G11B 5/73921 {Glass or ceramic substrates}
- N G11B 5/73923 {Organic polymer substrates}
- N G11B 5/73925 {Composite or coated non-esterified substrates}
- N G11B 5/73927 {Polyester substrates, e.g. polyethylene terephthalate}
- N G11B 5/73929 {comprising naphthalene ring compounds, e.g. polyethylene naphthalate substrates}
- N G11B 5/73931 {Two or more layers, at least one layer being polyester}
- N G11B 5/73933 {Surface treated layers, e.g. treated by corona discharge}
- N G11B 5/73935 {characterised by roughness or surface features, e.g. by added particles}
- N G11B 5/73937 {Substrates having an organic polymer comprising a ring structure}

Project: MP0404 (G11C)

- U G11C 11/00 **Digital stores characterised by the use of particular electric or magnetic storage elements; Storage elements therefor ([G11C 14/00](#) - [G11C 21/00](#) take precedence)**
- U G11C 11/02 . using magnetic elements {(using multibit magnetic storage elements [G11C 11/5607](#); counters with magnetic elements [H03K 23/76](#); pulse generators, static switches, logic circuits with such elements [H03K 3/45](#), [H03K 17/80](#), [H03K 19/16](#); measurement of magnetic variables [G01R 33/00](#))}
- M G11C 11/04 . . using **rod-type** storage elements **{having cylindrical form, e.g. rod, wire (contains no documents; see [G11C 11/06085](#), [G11C 11/14](#), [G11C 11/155](#){[G11C 11/06085](#),} [G11C 11/12](#), [G11C 11/14](#) take precedence)}**
- M G11C 11/19 . using non-linear reactive devices in resonant circuits **{(contains no documents; see [G11C 11/20](#))}**

Project: RP0585 (G99)

- N G99 **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

Project: RP0585 (G99Z)

- N G99Z **SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION**

NOTE

This subclass *covers* subject matter that:

- a. Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and
- b. Is not explicitly covered by any subclass of another section.

- N G99Z 99/00 **Subject matter not otherwise provided for in this section**

Project: RP0461 (H01F)

- U H01F 1/00 Magnets or magnetic bodies characterised by the magnetic materials therefor; Selection of materials for their magnetic properties**
- U H01F 1/0018 · {Diamagnetic or paramagnetic materials, i.e. materials with low susceptibility and no hysteresis ([H01F 1/0036](#) takes precedence)}
- M H01F 1/0027 · {Thick magnetic films (forming thick magnetic films [H01F 41/16](#); ~~magnetic record carriers G11B 5/70~~)}
- NOTE**
~~Group {In H01F 1/0036 takes precedence over~~ groups [H01F 1/09](#), [H01F 1/11](#), [H01F 1/20](#), [H01F 1/33](#), and [H01F 1/36](#), ~~the group H01F 1/0036 takes precedence}~~
- U H01F 41/00 Apparatus or processes specially adapted for manufacturing or assembling magnets, inductances or transformers; Apparatus or processes specially adapted for manufacturing materials characterised by their magnetic properties**
- M H01F 41/14 · for applying magnetic films to substrates (~~covering metals, or materials with metals, in general G23C; manufacturing record carriers G11B 5/84~~)
- NOTE**
~~Group In H01F 41/30 takes precedence over~~ groups [H01F 41/16](#) - [H01F 41/24](#), and ~~over group H01F 41/32, the group H01F 41/30 takes precedence~~
- M H01F 41/16 · · the magnetic material being applied in the form of particles, e.g. by serigraphy {, i.e. ~~forming to form~~ thick magnetic films ~~and/or~~ precursors therefor, ~~e.g. magnetisable pastes, inks, glass frits~~} ([H01F 41/18](#) - {~~-H01F 41/24~~} take precedence; ~~thick magnetic films H01F 1/0027~~)}

Project: MP0405 (H01G)

- U H01G 9/00 Electrolytic capacitors, rectifiers, detectors, switching devices, light-sensitive or temperature-sensitive devices; Processes of their manufacture**
- U H01G 9/004 · Details
- U H01G 9/04 · · Electrodes {or formation of dielectric layers thereon}
- U H01G 9/048 · · · characterised by their structure ([H01G 11/22](#) takes precedence)
- M H01G 2009/05 · · · · {~~IPC5~~-consisting of tantalum, niobium, or sintered material; Combinations of such electrodes with solid semiconductive electrolytes, e.g. manganese dioxide ~~not used, see subgroups~~}

Project: MP0405 (H01J)

- U H01J 9/00 Apparatus or processes specially adapted for the manufacture, {installation, removal, maintenance} of electric discharge tubes, discharge lamps, or parts thereof (manufacture of vessels or containers from metal [B21](#), e.g. [B21D 51/00](#), from glass [C03B](#)); Recovery of material from discharge tubes or lamps**
- U H01J 9/20 · Manufacture of screens on or from which an image or pattern is formed, picked up, converted or stored; Applying coatings to the vessel
- M H01J 9/233 · · Manufacture of photoelectric screens or charge-storage screens ~~{(no documents, see H01J 29/36)}~~
- U H01J 19/00 Details of vacuum tubes of the types covered by group [H01J 21/00](#)**

- M H01J 19/66 · Means forming part of the tube for the purpose of providing electrical connection to it ~~{{(construction of connectors H01R {no documents, see H01J 5/46 - H01J 5/62}; H01J 5/46 - H01J 5/62 take precedence)}~~
- U H01J 27/00 **Ion beam tubes (H01J 25/00, H01J 33/00, H01J 37/00 take precedence; particle accelerators H05H)**
- U H01J 27/02 · Ion sources; Ion guns (for examination or processing discharge tubes H01J 37/08; ion sources, ion guns for particle spectrometer or separator tubes H01J 49/10; ion propulsion F03H 1/00); arrangements for handling particles, e.g. focusing, {charge exchanging, polarising} , G21K 1/00; generating ions to be introduced into non-enclosed gases H01T 23/00; generating plasma H05H 1/24)
- U H01J 27/08 · · using arc discharge
- M H01J 27/10 · · · Duoplasmatrons ~~{{(for use in particle accelerators H05H 7/00 (H05H 7/00 not used therefor; Duopigatrons)}~~; Duopigatrons}

Project: RP0292 (H01J)

- M H01J 35/00 **X-ray tubes (X-ray lasers H01S 4/00; X-ray technique in general H05G; {e.g. apparatus or processes specially adapted for producing X-rays, not involving X-ray tubes, e.g. involving generation of a plasma H05G 2/00})**
- U H01J 35/02 · Details
- M H01J 35/04 · · *Electrodes {; Mutual position thereof; Electrodes {mutual position thereof and constructional Constructional adaptations of the electrodes therefor}*
- C H01J 35/06 · · · Cathodes ~~{{(electron guns in general H01J 3/02)}~~
- WARNING**
Group H01J 35/06 is impacted by reclassification into groups H01J 35/064 and H01J 35/066.
Groups H01J 35/06 and H01J 35/064 and H01J 35/066 should be considered in order to perform a complete search.
- N H01J 35/064 · · · {Details of the emitter, e.g. material or structure (H01J 35/065 takes precedence)}
- WARNING**
Group H01J 35/064 is incomplete pending reclassification of documents from group H01J 35/06.
Groups H01J 35/06 and H01J 35/064 should be considered in order to perform a complete search.
- U H01J 35/065 · · · · {Field emission, photo emission or secondary emission cathodes}
- N H01J 35/066 · · · · {Details of electron optical components, e.g. cathode cups}
- WARNING**
Group H01J 35/066 is incomplete pending reclassification of documents from group H01J 35/06.
Groups H01J 35/06 and H01J 35/066 should be considered in order to perform a complete search.
- C H01J 35/08 · · · Anodes; Anti cathodes ~~{{(anti-cathodes serving as windows H01J 35/18)}~~
- WARNING**
Group H01J 35/08 is impacted by reclassification into groups H01J 35/112 and H01J 35/116.
Groups H01J 35/08 and H01J 35/112 and H01J 35/116 should be considered in order to perform a complete search.
- U H01J 35/10 · · · · Rotary anodes; Arrangements for rotating anodes; Cooling rotary anodes

- C H01J 35/101 {Arrangements for rotating anodes, e.g. supporting means, *means for greasing, means for sealing the axle or means for shielding or protecting the driving*}; ~~greasing; sealing the axle; shielding or protecting the driving means~~
- WARNING
Group [H01J 35/101](#) is impacted by reclassification into groups [H01J 35/1017](#), [H01J 35/1024](#) and [H01J 35/104](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H01J 35/1017 {Bearings for rotating anodes}
- WARNING
Groups [H01J 35/1017](#), [H01J 35/1024](#) and [H01J 35/104](#) are incomplete pending reclassification of documents from group [H01J 35/101](#).
Groups [H01J 35/101](#), [H01J 35/1017](#), [H01J 35/1024](#) and [H01J 35/104](#) should be considered in order to perform a complete search
- N H01J 35/1024 {Rolling bearings}
- M H01J 35/103 {~~Rotating anodes with a magnetic bearing~~ *Magnetic bearings*}
- N H01J 35/104 {Fluid bearings}
- C H01J 35/105 {Cooling of rotating ~~anode~~ *anodes*, e.g. heat emitting layers or structures}
- WARNING
Group [H01J 35/105](#) is impacted by reclassification into group [H01J 35/107](#).
Groups [H01J 35/105](#) and [H01J 35/107](#) should be considered in order to perform a complete search.
- C H01J 35/106 {Active cooling, e.g. fluid flow, heat pipes}
- WARNING
Group [H01J 35/106](#) is impacted by reclassification into group [H01J 35/107](#).
Groups [H01J 35/106](#) and [H01J 35/107](#) should be considered in order to perform a complete search.
- N H01J 35/107 {Cooling of the bearing assemblies}
- WARNING
Group [H01J 35/107](#) is incomplete pending reclassification of documents from groups [H01J 35/105](#) and [H01J 35/106](#).
Groups [H01J 35/105](#), [H01J 35/106](#) and [H01J 35/107](#) should be considered in order to perform a complete search.
- U H01J 35/108 {Substrates for and bonding of emissive target, e.g. composite structures}
- N H01J 35/112 {Non-rotating anodes ([H01J 35/12](#) takes precedence)}
- WARNING
Group [H01J 35/112](#) is incomplete pending reclassification of documents from group [H01J 35/08](#).
Groups [H01J 35/08](#) and [H01J 35/112](#) should be considered in order to perform a complete search.

- N H01J 35/116 {Transmissive anodes (acting as a window [H01J 35/186](#))}
- WARNING
Group [H01J 35/116](#) is incomplete pending reclassification of documents from group [H01J 35/08](#).
Groups [H01J 35/08](#) and [H01J 35/116](#) should be considered in order to perform a complete search.
- C H01J 35/12 Cooling non-rotary anodes ~~{(mounting the tube within a closed housing, e.g. for cooling purposes H05G 1/04)}~~
- WARNING
Group [H01J 35/12](#) is impacted by reclassification into group [H01J 35/13](#).
Groups [H01J 35/12](#) and [H01J 35/13](#) should be considered in order to perform a complete search.
- N H01J 35/13 {Active cooling, e.g. fluid flow, heat pipes}
- WARNING
Group [H01J 35/13](#) is incomplete pending reclassification of documents from group [H01J 35/12](#).
Groups [H01J 35/12](#) and [H01J 35/13](#) should be considered in order to perform a complete search.
- C H01J 35/14 . . Arrangements for concentrating, focusing, or directing the cathode ray ~~{(for cathode ray tubes in general H01J 29/46)}~~
- WARNING
Group [H01J 35/14](#) is impacted by reclassification into groups [H01J 35/147](#) and [H01J 35/153](#).
Groups [H01J 35/14](#) and [H01J 35/147](#) and [H01J 35/153](#) should be considered in order to perform a complete search.
- N H01J 35/147 . . . {Spot size control}
- WARNING
Group [H01J 35/147](#) is incomplete pending reclassification of documents from group [H01J 35/14](#).
Groups [H01J 35/14](#) and [H01J 35/147](#) should be considered in order to perform a complete search.
- N H01J 35/153 . . . {Spot position control}
- WARNING
Group [H01J 35/153](#) is incomplete pending reclassification of documents from group [H01J 35/14](#).
Groups [H01J 35/14](#) and [H01J 35/153](#) should be considered in order to perform a complete search.
- M H01J 35/16 . . Vessels; Containers; Shields associated therewith ~~{(vessels for high tension operation in general H01J 5/06; mounting the tube within a closed housing H05G 1/04)}~~
- C H01J 35/18 . . . Windows
- WARNING
Group [H01J 35/18](#) is impacted by reclassification into group [H01J 35/186](#).
Groups [H01J 35/18](#) and [H01J 35/186](#) should be considered in order to perform a complete search.

- N H01J 35/186 {used as targets or X-ray converters}
- WARNING
Group [H01J 35/186](#) is incomplete pending reclassification of documents from group [H01J 35/18](#).
Groups [H01J 35/18](#) and [H01J 35/186](#) should be considered in order to perform a complete search.

- M H01J 35/20 . . Selection of substances for gas fillings; Means for obtaining or maintaining the desired pressure within the tube, e.g. by gettering ~~{for gas-discharge tubes in general H01J 7/02 - H01J 61/76; evacuating, filling, gettering in general H01J 9/38}~~

Project: MP0405 (H01J)

- U H01J 41/00 **Discharge tubes for measuring pressure of introduced gas {or for detecting presence of gas}; Discharge tubes for evacuation by diffusion of ions**
- U H01J 41/02 . Discharge tubes for measuring pressure of introduced gas {or for detecting presence of gas}
- M H01J 41/10 . . of particle spectrometer type (particle spectrometers per se [H01J 49/00](#) ~~{not used, see G01L 21/30}~~)

Project: RP0292 (H01J)

- U H01J 2235/00 **X-ray tubes**
- U H01J 2235/08 . Targets (anodes) and X-ray converters
- U H01J 2235/086 . . Target geometry
- D H01J 2235/087 . . . Transmission type
<administratively transferred to [H01J 35/116](#)>
- U H01J 2235/18 . Windows, e.g. for X-ray transmission
- D H01J 2235/186 . . used as target or X-ray converter, e.g. transmission type
<administratively transferred to [H01J 35/186](#)>

Project: MP0428 (H01L)

- U H01L 2924/00 **Indexing scheme for arrangements or methods for connecting or disconnecting semiconductor or solid-state bodies as covered by [H01L 24/00](#)**
- U H01L 2924/19 . Details of hybrid assemblies other than the semiconductor or other solid state devices to be connected
- U H01L 2924/191 . . Disposition
- U H01L 2924/19101 . . . of discrete passive components
- U H01L 2924/19102 in a stacked assembly with the semiconductor or solid state device
- M H01L 2924/19103 interposed between the semiconductor or ~~solid~~solid-state device and the die mounting substrate ~~[, i.e. chip-on-passive]~~
- M H01L 2924/19104 on the semiconductor or ~~solid~~solid-state device ~~[, i.e. passive-on-chip]~~

Project: N/A (H01R)

- U H01R 13/00 **Details of coupling devices of the kinds covered by groups [H01R 12/70](#) or [H01R 24/00](#) - [H01R 33/00](#)**

H01R 13/646

- specially adapted for high-frequency, e.g. structures providing an impedance match or phase match (non-coaxed protective earth or shield arrangements [H01R 13/648](#) -[H01R 13/6599](#); coaxed connectors specifically adapted for high frequency [H01R 24/40](#)- [H01R 24/56](#))

WARNING

This group and its subgroups are not complete pending completion of a reclassification, see also [H01R 9/035](#), [H01R 13/6658](#), [H01R 24/44](#), [H01R 24/00](#)-, [H01R 12/00](#)

Project: RP0377-F (H02S)

U H02S 10/00

PV power plants; Combinations of PV energy systems with other systems for the generation of electric power

WARNING

Groups [H02S 10/10](#) - [H02S 10/40](#) are incomplete pending reclassification of documents from group [H02S 10/00](#).

Until reclassification is complete, groups [H02S 10/00](#) should be considered in order to perform a complete search.

U H02S 10/10

- including a supplementary source of electric power, e.g. hybrid diesel-PV energy systems (combinations with gas-turbine plants [F02C 6/00](#))

M H02S 10/12

- Hybrid wind-PV energy systems

WARNING

~~Group H02S 10/12 is incomplete pending reclassification of documents from groups F03D 9/00, F03D 9/007, F03D 9/008, F03D 9/10, F03D 9/11, F03D 9/13, F03D 9/14, F03D 9/16, F03D 9/17, F03D 9/22, F03D 9/25, F03D 9/255, F03D 9/257 and F03D 9/28.~~

~~All groups listed in this Warning should be considered in order to perform a complete search.~~

Project: N/A (H03M)

H03M 1/00

Analogue/digital conversion; Digital/analogue conversion (conversion of analogue values to or from differential modulation [H03M 3/00](#))

NOTES

~~1. {Documents published prior to 1990 have been classified using the indexing scheme of group H03M 2201/00; these documents have not been classified in groups H03M 1/001 - H03M 1/88.}~~

~~2. {In this main group, additional information has been classified systematically for documents published from 01-01-1990 on.}~~

Project: RP0162 (H03M)

U H03M 3/00

Conversion of analogue values to or from differential modulation

U H03M 3/30

- {Delta-sigma modulation}

NOTE

{In group branch [H03M 3/30](#), in the absence of an indication to the contrary, classification is made in the first appropriate place.}

U H03M 3/322

- {Continuously compensating for, or preventing, undesired influence of physical parameters (periodically, e.g. by using stored correction values, [H03M 3/378](#))}

- U H03M 3/324 . . . {characterised by means or methods for compensating or preventing more than one type of error at a time, e.g. by synchronisation or using a ratiometric arrangement}
- U H03M 3/326 {by averaging out the errors}
- U H03M 3/328 {using dither}
- N H03M 3/3283 {the dither being in the time domain}
- N H03M 3/3287 {the dither being at least partially dependent on the input signal}
- U H03M 3/33 {the dither being a random signal}
- D H03M 3/334 {the dither being at least partially dependent on the input signal} <administratively transferred to [H03M 3/3287](#)>
- D H03M 3/336 {the dither being in the time domain} <administratively transferred to [H03M 3/3283](#)>
- U H03M 3/39 . . {Structural details of delta-sigma modulators, e.g. incremental delta-sigma modulators (of digital delta-sigma modulators [H03M 7/3004](#))}
- U H03M 3/436 . . . {characterised by the order of the loop filter, e.g. error feedback type}

NOTE

In this group branch the order of the loop filters is considered to be the number of integrators for a baseband modulator and the number of resonators for a bandpass modulator respectively

- U H03M 3/438 {the modulator having a higher order loop filter in the feedforward path}
- M H03M 3/44 {with provisions for rendering the modulator inherently stable}

NOTE

In this subgroup, classification is made both here and in H03M 3/478 if both subgroups are relevant

- U H03M 3/458 . . {Analogue/digital converters using delta-sigma modulation as an intermediate step}
- M H03M 3/478 . . . {Means for controlling the correspondence between the range of the input signal and the range of signals the converter can handle; Means for out-of-range indication}

NOTE

In this ~~group-branch~~ **subgroup**, classification is made both ~~in-group~~ **here and branch** ~~in H03M 3/44 and in-group branch~~ **H03M 3/448** if ~~both~~ **both** ~~of these sets of groups~~ **subgroups** are relevant

Project: RP0160 (H03M)

- U H03M 13/00 **Coding, decoding or code conversion, for error detection or error correction; Coding theory basic assumptions; Coding bounds; Error probability evaluation methods; Channel models; Simulation or testing of codes (error detection or error correction for analogue/digital, digital/ analogue or code conversion [H03M 1/00](#) – [H03M 11/00](#) specially adapted for digital computers [G06F 11/08](#), for information storage based on relative movement between record carrier and transducer [G11B](#), e.g. [G11B 20/18](#), for static stores [G11C](#))**
- D H03M 13/005 . {using punctured codes} <administratively transferred to [H03M 13/6362](#)>
- U H03M 13/37 . Decoding methods or techniques, not specific to the particular type of coding provided for in groups [H03M 13/03](#) - [H03M 13/35](#)
- U H03M 13/39 . . Sequence estimation, i.e. using statistical methods for the reconstruction of the original codes

- T H03M 13/3905 . . . {Maximum a posteriori probability [MAP] decoding or approximations thereof based on trellis or lattice decoding, e.g. forward-backward algorithm, log-MAP decoding, max-log-MAP decoding}
- WARNING*
Group [H03M 13/3905](#) is incomplete pending reclassification of documents from group [H03M 13/42](#).
Groups [H03M 13/42](#) and [H03M 13/3905](#) should be considered in order to perform a complete search.
- M H03M 13/3911 . . . {Correction factor, e.g. approximations of the $\exp(1+x)$ function}
- WARNING*
Group [H03M 13/3911](#) is incomplete pending reclassification of documents from group [H03M 13/42](#).
Groups [H03M 13/42](#) and [H03M 13/3911](#) should be considered in order to perform a complete search.
- M H03M 13/3916 . . . {for block codes using a trellis or lattice}
- WARNING*
Group [H03M 13/3916](#) is incomplete pending reclassification of documents from group [H03M 13/42](#).
Groups [H03M 13/42](#) and [H03M 13/3916](#) should be considered in order to perform a complete search.
- M H03M 13/3922 . . . {Add-Compare-Select [ACS] operation in forward or backward recursions}
- WARNING*
Group [H03M 13/3922](#) is incomplete pending reclassification of documents from group [H03M 13/42](#).
Groups [H03M 13/42](#) and [H03M 13/3922](#) should be considered in order to perform a complete search.
- M H03M 13/3927 . . . {Log-Likelihood Ratio [LLR] computation by combination of forward and backward metrics into LLRs}
- WARNING*
Group [H03M 13/3927](#) is incomplete pending reclassification of documents from group [H03M 13/42](#).
Groups [H03M 13/42](#) and [H03M 13/3927](#) should be considered in order to perform a complete search.
- M H03M 13/3933 . . . {Decoding in probability domain}
- WARNING*
Group [H03M 13/3933](#) is incomplete pending reclassification of documents from group [H03M 13/42](#).
Groups [H03M 13/42](#) and [H03M 13/3933](#) should be considered in order to perform a complete search.
- M H03M 13/3938 . . . {Tail-biting ([H03M 13/2996](#) takes precedence)}
- WARNING*
Group [H03M 13/3938](#) is incomplete pending reclassification of documents from group [H03M 13/42](#).
Groups [H03M 13/42](#) and [H03M 13/3938](#) should be considered in order to perform a complete search.

- F H03M 13/42
(Frozen)
- • • {MAP decoding or approximations thereof based on trellis or lattice decoding, e.g. forward-backward algorithm, log-MAP decoding, max-log-MAP decoding}

WARNING

Group H03M 13/42 is no longer used for the classification of documents as of MAY 1, 2019.

The content of this group is being reclassified into groups [H03M 13/3905](#), [H03M 13/3911](#), [H03M 13/3916](#), [H03M 13/3922](#), [H03M 13/3927](#), [H03M 13/3933](#) and [H03M 13/3938](#)

All groups listed in this Warning should be considered in order to perform a complete search.

Project: RP0162 (H03M)**D H03M 2201/00 Indexing scheme relating to A/D or D/A conversion**

- D H03M 2201/01 • First edition
- D H03M 2201/02 • Second edition
- D H03M 2201/03 • Third edition
- D H03M 2201/10 • Conversion systems
- D H03M 2201/11 • • A/D conversion systems
- D H03M 2201/1109 • • • Servo-systems for A/D conversion
- D H03M 2201/1118 • • • • without D/A converter in feedback [3]
- D H03M 2201/1127 • • • • in which the digital generator is adjusted in a predetermined direction regardless of the sign of the error
- D H03M 2201/1136 • • • • with auxiliary A/D conversion of the error signal
- D H03M 2201/1145 • • • • with intermediate conversion of the error to frequency [2]
- D H03M 2201/1154 • • • • using a counter as digital generator
- D H03M 2201/1163 • • • • • the counter being a reversible one
- D H03M 2201/1172 • • • Subranging, i.e. conversion in steps each delivering plural digits of the output signal [2]
- D H03M 2201/1181 • • • • with scaling between the steps [2]
- D H03M 2201/119 • • • • using an auxiliary D/A converter [2]
- D H03M 2201/12 • • D/A conversion systems
- D H03M 2201/122 • • • Servo-systems for D/A conversion
- D H03M 2201/124 • • • • in which the analogue generator is adjusted in a predetermined direction regardless of the sign of the error
- D H03M 2201/126 • • • • with auxiliary D/A conversion of the error signal
- D H03M 2201/128 • • • • using a servomotor as analogue generator
- D H03M 2201/13 • • A/D convertible into D/A
- D H03M 2201/14 • • Scale factor modification
- D H03M 2201/145 • • • using an auxiliary D/A or A/D converter [2]
- D H03M 2201/16 • • Coarse and fine conversions
- D H03M 2201/162 • • • by interpolation other than subranging [2]
- D H03M 2201/165 • • • • Vernier or Nonius type interpolation [3]
- D H03M 2201/167 • • • with overlapping ranges
- D H03M 2201/17 • • Multiplexing
- D H03M 2201/173 • • • Timesharing, i.e. using a single converter or part for multiple channels [3]
- D H03M 2201/176 • • • Interleaving, i.e. using multiple converters or parts for one channel [3]

- D H03M 2201/19 . . Applications [H]
- D H03M 2201/192 . . . Measuring systems
- D H03M 2201/194 . . . Control systems
- D H03M 2201/196 . . . Communications systems
- D H03M 2201/198 . . . Computing systems
- D H03M 2201/20 . A/D converters
- D H03M 2201/21 . . Digital pattern reading type
- D H03M 2201/2103 . . . Characteristics of the coding [H]
- D H03M 2201/2107 Providing an absolute position [3]
- D H03M 2201/2111 using a pure representation
- D H03M 2201/2114 with denominational arrangement
- D H03M 2201/2118 on one track [3]
- D H03M 2201/2122 with plural readers per track [2]
- D H03M 2201/2125 Providing an incremental position
- D H03M 2201/2129 with additional synchronisation marks
- D H03M 2201/2133 with directional discrimination
- D H03M 2201/2137 Providing real and complementary signals
- D H03M 2201/214 Anti-ambiguity arrangements
- D H03M 2201/2144 V-arrangement of readers [2]
- D H03M 2201/2148 . . . Characteristics of the pattern carriers of readers [H]
- D H03M 2201/2151 Type of pattern carrier or reader means
- D H03M 2201/2155 Mechanical
- D H03M 2201/2159 Switches; commutators
- D H03M 2201/2162 formed by a printed circuit pattern
- D H03M 2201/2166 Cathodes ray tubes
- D H03M 2201/217 Capacitive
- D H03M 2201/2174 Magnetic
- D H03M 2201/2177 using a recorded pattern
- D H03M 2201/2181 using variable reluctance
- D H03M 2201/2185 Photoelectric
- D H03M 2201/2188 by generating an interference pattern [2]
- D H03M 2201/2192 Radiation other than visible light
- D H03M 2201/2196 Constructional details
- D H03M 2201/22 . . Analogue comparing type
- D H03M 2201/2208 . . . with separate comparison for each quantization level
- D H03M 2201/2216 with parallel operation, i.e. flash type [2]
- D H03M 2201/2225 . . . with separate comparison for each denomination [3]
- D H03M 2201/2233 with serial operation, i.e. successive approximation type
- D H03M 2201/2241 using a single stage
- D H03M 2201/225 using plural stages
- D H03M 2201/2258 with free-running operation [2]
- D H03M 2201/2266 in which the reference is modified at each step or stage
- D H03M 2201/2275 in which the input is modified at each step or stage
- D H03M 2201/2283 with scaling between the steps or stages

- D H03M 2201/2291 with auxiliary D/A converter
- D H03M 2201/23 . . Intermediate conversion to time interval type
- D H03M 2201/2305 . . . in which a reference signal sweeps through the range of possible values
- D H03M 2201/2311 using a continuously varying analogue reference signal, e.g. a sawtooth signal
- D H03M 2201/2316 in which the digital signal is produced from the reference signal by an auxiliary A/D converter
- D H03M 2201/2322 using a stepwise varying analogue reference signal, e.g. a staircase signal
- D H03M 2201/2327 in which the reference signal is produced by stepwise charging or discharging a capacitor
- D H03M 2201/2333 in which the reference signal is produced from the digital generator using an auxiliary D/A converter
- D H03M 2201/2338 . . . in which the input signal or a signal derived therefrom is reduced or increased until a predetermined reference value is reached
- D H03M 2201/2344 the input signal or its derivative varying continuously
- D H03M 2201/235 Single slope type [3]
- D H03M 2201/2355 Dual slope type, i.e. charge balancing type [3]
- D H03M 2201/2361 the input signal or its derivative varying stepwise
- D H03M 2201/2366 . . . with intermediate conversion to pulse width [3]
- D H03M 2201/2372 . . . with intermediate conversion to phase or time of phase reversal
- D H03M 2201/2377 . . . Input sampling without holding [3]
- D H03M 2201/2383 . . . Input sampling combined with integration [2]
- D H03M 2201/2388 . . . the time interval consisting of multiple subintervals [2]
- D H03M 2201/2394 . . . Interval or phase digitising without counting [2]
- D H03M 2201/24 . . Intermediate conversion to pulse frequency type
- D H03M 2201/241 . . . using a free running oscillator [2]
- D H03M 2201/243 . . . using a reset integrator [2]
- D H03M 2201/245 . . . using a unit discharge integrator, i.e. charge balancing type [2]
- D H03M 2201/246 . . . using a clock operated generator [2]
- D H03M 2201/248 . . . using a reversible counter [2]
- D H03M 2201/30 . . D/A converters
- D H03M 2201/31 . . Selection, addition or subtraction of quantisation values
- D H03M 2201/3105 . . . Successive addition or subtraction of selected values
- D H03M 2201/311 with plural stages
- D H03M 2201/3115 . . . Simultaneous addition or subtraction of selected values
- D H03M 2201/3121 the values having different weights [3]
- D H03M 2201/3126 the values having equal weights [3]
- D H03M 2201/3131 . . . Direct selection from all possible values
- D H03M 2201/3136 . . . Specific network arrangement
- D H03M 2201/3142 Series network
- D H03M 2201/3147 Parallel network [3]
- D H03M 2201/3152 Comb network, e.g. R-2R ladder [3]
- D H03M 2201/3157 . . . Specific kinds of quantisation values
- D H03M 2201/3163 Impedances [H]
- D H03M 2201/3168 Resistors

- D H03M 2201/3173 Inductors
- D H03M 2201/3178 Capacitors
- D H03M 2201/3184 Phase-shifters
- D H03M 2201/3189 Voltage sources [3]
- D H03M 2201/3194 Current sources [3]
- D H03M 2201/32 . . . Intermediate conversion to time interval type
- D H03M 2201/322 . . . characterised by the way in which the time interval is generated [H]
- D H03M 2201/324 using a digital comparator for generating the time interval [2]
- D H03M 2201/326 Time interval generation without counting [2]
- D H03M 2201/328 the time interval consisting of multiple subintervals [2]
- D H03M 2201/33 . . . Intermediate conversion to pulse frequency type [2]
- D H03M 2201/40 . . Information representation [H]
- D H03M 2201/41 . . . Analogue signals
- D H03M 2201/4105 . . . Positive/negative indication
- D H03M 2201/411 . . . Ensemble of signals belonging together [3]
- D H03M 2201/4115 . . . Position signals
- D H03M 2201/412 representing linear position
- D H03M 2201/4125 representing angular position
- D H03M 2201/413 . . . Electrical signals
- D H03M 2201/4135 Momentary value
- D H03M 2201/414 Random pulses [2]
- D H03M 2201/4145 Modulated carrier [H]
- D H03M 2201/415 Amplitude modulated carrier
- D H03M 2201/4155 Phase modulated carrier
- D H03M 2201/416 Frequency modulated carrier
- D H03M 2201/4165 Modulated pulses [H]
- D H03M 2201/417 Amplitude modulated pulses
- D H03M 2201/4175 Time modulated pulses
- D H03M 2201/418 Width modulated pulses
- D H03M 2201/4185 Frequency modulated pulses
- D H03M 2201/419 . . . Light signals [2]
- D H03M 2201/4195 . . . Temperature signals [2]
- D H03M 2201/42 . . . Digital signals [H]
- D H03M 2201/4204 . . . positive/negative indication
- D H03M 2201/4208 . . . Temporal or spatial distribution [H]
- D H03M 2201/4212 Serial
- D H03M 2201/4216 Serial-parallel
- D H03M 2201/422 Parallel-serial
- D H03M 2201/4225 Parallel
- D H03M 2201/4229 . . . Elementary signals [H]
- D H03M 2201/4233 Bivalued
- D H03M 2201/4237 Multivalued
- D H03M 2201/4241 other than amplitude, e.g. frequency, phase [2]
- D H03M 2201/4245 . . . Denominational arrangements [H]

- D H03M 2201/425 Non-denominational
- D H03M 2201/4254 One-bit information [2]
- D H03M 2201/4258 Denominational
- D H03M 2201/4262 Binary radix
- D H03M 2201/4266 Decimal radix
- D H03M 2201/427 Floating-point representation [2]
- D H03M 2201/4275 . . . Coding [H]
- D H03M 2201/4279 Pure
- D H03M 2201/4283 x-out-of-n code, i.e. value $x, x=0, \dots, n$, is represented by x bits being ONE within a total of n bits [2]
- D H03M 2201/4287 Combination code other than those forming a straight power series
- D H03M 2201/4291 Unit distance code
- D H03M 2201/4295 Pattern shifting code
- D H03M 2201/50 . Additional conversions [H]
- D H03M 2201/51 . . Analogue conversions
- D H03M 2201/512 . . . Mechanical/electrical
- D H03M 2201/514 . . . Electrical/other electrical
- D H03M 2201/516 Impedance/voltage or current [2]
- D H03M 2201/518 . . . with analogue feedback
- D H03M 2201/52 . . Digital conversions
- D H03M 2201/521 . . . Bivalued/multivalued
- D H03M 2201/522 . . . Non-denominational/denominational; Pure/combination code
- D H03M 2201/523 . . . between different combination codes; between different radices
- D H03M 2201/524 Binary/decimal
- D H03M 2201/525 Normal/reflected
- D H03M 2201/526 . . . Parallel/serial
- D H03M 2201/527 . . . Rounding
- D H03M 2201/528 . . . Complementing or inverting [3]
- D H03M 2201/53 . . Non-linear conversions
- D H03M 2201/531 . . . outside the actual A/D or D/A [2]
- D H03M 2201/532 . . . Specific type of non-linearity
- D H03M 2201/533 Goniometric
- D H03M 2201/534 Logarithmic, exponential
- D H03M 2201/535 Maximum, minimum
- D H03M 2201/536 Average
- D H03M 2201/537 Integration
- D H03M 2201/538 Differentiation
- D H03M 2201/539 Hyperbolic
- D H03M 2201/60 . Fidelity improvement
- D H03M 2201/61 . . Adjustment or control means [H]
- D H03M 2201/6107 . . . Operation method [H]
- D H03M 2201/6114 Manual
- D H03M 2201/6121 Automatic
- D H03M 2201/6128 in feedforward mode [3]

- D H03M 2201/6135 in feedback mode [3]
- D H03M 2201/6142 . . . Means used [H]
- D H03M 2201/615 Compensation [3]
- D H03M 2201/6157 with auxiliary D/A or A/D conversion [2]
- D H03M 2201/6164 using stored correction values (for previous editions, see provisionally H03M 2201/72)[3]
- D H03M 2201/6171 using a computer for more than just storing (for previous editions, see provisionally H03M 2201/72)[3]
- D H03M 2201/6178 Dither [3]
- D H03M 2201/6185 Interpolation (for fine conversions H03M 2201/1172, H03M 2201/162)[3]
- D H03M 2201/6192 Redundancy [3]
- D H03M 2201/62 . . Precision improvement; Layout optimisation [2]
- D H03M 2201/622 . . . Accuracy improvement [3]
- D H03M 2201/625 . . . Resolution enhancement [3]
- D H03M 2201/627 using an n-bit converter for obtaining a resolution of more than n bits [3]
- D H03M 2201/63 . . Calibration; Deviation correction [2]
- D H03M 2201/6309 . . . Timing [H]
- D H03M 2201/6318 in-between normal conversions [3]
- D H03M 2201/6327 during normal conversions [3]
- D H03M 2201/6336 periodically [3]
- D H03M 2201/6345 . . . Type of correction [H]
- D H03M 2201/6354 Component mismatch correction [3]
- D H03M 2201/6363 Mechanical alignment [3]
- D H03M 2201/6372 Linearisation of non-linear characteristic [3]
- D H03M 2201/6381 Gain, i.e. slope deviation correction [3]
- D H03M 2201/639 Offset or drift correction (for the second edition, see provisionally H03M 2201/64)[3]
- D H03M 2201/64 . . Noise reduction [2]
- D H03M 2201/641 . . . Type of noise [H]
- D H03M 2201/642 Quantisation noise [3]
- D H03M 2201/643 Power supply variations, e.g. ripple [3]
 <administratively transferred to [H03M 1/0845](#)>
- D H03M 2201/644 Switching transients, e.g. glitches [3]
- D H03M 2201/645 . . . Method [3]
- D H03M 2201/646 Filtering [H]
- D H03M 2201/647 on input [3]
- D H03M 2201/648 Output smoothing
- D H03M 2201/65 . . Error detection or correction [2]
- D H03M 2201/652 . . . out-of-range indication [3]
- D H03M 2201/655 . . . Power failure [3]
- D H03M 2201/657 . . . Testing [3]
- D H03M 2201/70 . Additional functions
- D H03M 2201/71 . . Sampling; Holding [3]
- D H03M 2201/711 . . . Place [H]
- D H03M 2201/712 at input

- D H03M 2201/713 at-output [2]
- D H03M 2201/714 . . . Means [H]
- D H03M 2201/715 Electrical
- D H03M 2201/716 Mechanical
- D H03M 2201/717 Optical [3]
- D H03M 2201/718 Digital latching, e.g. of bits applied to a D/A converter [3]
- D H03M 2201/72 . . Computing
- D H03M 2201/721 . . . Multiplying, e.g. MDAC [3]
- D H03M 2201/722 . . . Dividing, e.g. ratiometric [3]
- D H03M 2201/723 . . . Pre- or post-treatment [3]
- D H03M 2201/725 Numerical [3]
- D H03M 2201/726 Analogue [3]
- D H03M 2201/727 . . . Computer as part of converter [3]
- D H03M 2201/728 Conversion partially by software [3]
- D H03M 2201/73 . . Accelerated conversion [2]
- D H03M 2201/75 . . Synchronisation [3]
- D H03M 2201/76 . . Pipelining [3]
- D H03M 2201/77 . . Feedback means not provided for elsewhere [3]
- D H03M 2201/78 . . Prediction [3]
- D H03M 2201/79 . . Time recording
- D H03M 2201/80 . Components, circuits or devices used with or within A/D or D/A converters but not disclosed in detail and not provided for elsewhere [H]

NOTE

The indexing codes of group branch H03M 2201/80 have been allocated only insofar as the component, circuit or device concerned is not usual for the type of converter concerned, e.g. an intermediate time interval type A/D converter usually has a counter which therefore has not separately been indexed in this group branch.

- D H03M 2201/81 . . Electrical components
- D H03M 2201/8104 . . . Discharge tubes
- D H03M 2201/8108 Vacuum tubes
- D H03M 2201/8112 Gaseous tubes
- D H03M 2201/8116 Counting tubes; Beam switching tubes
- D H03M 2201/812 Cathode ray tubes
- D H03M 2201/8124 . . . Semiconductor devices
- D H03M 2201/8128 Diodes
- D H03M 2201/8132 Transistors
- D H03M 2201/8136 bipolar [3]
- D H03M 2201/814 FET (varistors H03M 2201/8156)[2]
- D H03M 2201/8144 Zener diodes
- D H03M 2201/8148 Tunnel diodes
- D H03M 2201/8152 . . . Capacitive devices [H]
- D H03M 2201/8156 Varistors
- D H03M 2201/816 Ferro-electric capacitors
- D H03M 2201/8164 Switched capacitors [3]

- D H03M 2201/8168 Charge-coupled devices [3]
- D H03M 2201/8172 . . . Magnetic devices [H]
- D H03M 2201/8176 Magnetic cores
- D H03M 2201/818 Magnetic film devices [2]
- D H03M 2201/8184 Hall-effect devices
- D H03M 2201/8188 Parametrons
- D H03M 2201/8192 . . . Photoelectric devices
- D H03M 2201/8196 . . . Superconductive devices
- D H03M 2201/82 . . Basic electrical circuits [H]
- D H03M 2201/822 . . . Bridge circuits [3]
- D H03M 2201/825 . . . Delay lines [2]
- D H03M 2201/827 Travelling-wave guides [3]
- D H03M 2201/83 . . Basic logic components [H]
- D H03M 2201/831 . . . Counters [2]
- D H03M 2201/832 bidirectional [2]
- D H03M 2201/834 . . . Look-up tables, e.g. ROM [2]
- D H03M 2201/835 . . . (Pseudo-)random generators [2]
- D H03M 2201/837 . . . Shift registers [2]
- D H03M 2201/838 . . . Microprocessors (as an application system H03M 2201/198, for fidelity improvement H03M 2201/6171, for computing as part of the conversion process H03M 2201/72, for testing H03M 2201/657 [3])
- D H03M 2201/84 . . Electro-mechanical components [H]
- D H03M 2201/841 . . . Dynamo-electric machines
- D H03M 2201/842 Synchro
- D H03M 2201/843 Resolvers
- D H03M 2201/844 Servomotors
- D H03M 2201/845 Stepping motors [3]
- D H03M 2201/846 . . . Switching circuits [H]
- D H03M 2201/847 Switches
- D H03M 2201/848 Relays
- D H03M 2201/849 Choppers
- D H03M 2201/85 . . Mechanical components [H]
- D H03M 2201/853 . . . Reduction gearings
- D H03M 2201/856 . . . Shaft couplings
- D H03M 2201/90 . . Miscellaneous [H]
- D H03M 2201/91 . . Theory
- D H03M 2201/915 . . . Code theory
- D H03M 2201/93 . . Constructional details
- D H03M 2201/931 . . . Symmetrical configuration [2]
- D H03M 2201/932 . . . of electrical parts or components [3]
- D H03M 2201/933 Processing circuitry [3]
- D H03M 2201/934 on one chip, e.g. A/D and muP [3]
- D H03M 2201/935 Battery powered [3]
- D H03M 2201/936 . . . of mechanical parts or components [3]
- D H03M 2201/937 Housing [3]

D H03M 2201/938 . . . of optical parts or components [3]

Project: RP0114-F (H04B)

U H04B 1/00 **Details of transmission systems, not covered by a single one of groups [H04B 3/00](#) - [H04B 13/00](#); Details of transmission systems not characterised by the medium used for transmission (tuning resonant circuits [H03J](#))**

NOTE

In this group, group [H04B 1/0003](#) takes precedence over groups [H04B 1/005](#) - [H04B 1/76](#)

U H04B 1/38 . Transceivers, i.e. devices in which transmitter and receiver form a structural unit and in which at least one part is used for functions of transmitting and receiving

U H04B 1/3816 . . Mechanical arrangements for accommodating identification devices, e.g. cards or chips; with connectors for programming identification devices

M H04B 1/3818 . . . Arrangements for facilitating insertion or removal of identification devices

WARNING

Group H04B 1/3818 is incomplete pending reclassification of documents from group H04B 1/3816

Until reclassification is complete, groups H04B 1/3816 and H04B 1/3818 should be considered in order to perform a complete search

Project: MP0405 (H04B)

U H04B 2203/00 **Indexing scheme relating to line transmission systems**

M H04B 2203/54 . Aspects of powerline communications not already covered by [H04B 3/54](#) and its subgroups **(not used)**

Project: MP0405 (H04L)

U H04L 9/00 **{Cryptographic mechanisms or cryptographic} arrangements for secret or secure communication {(network architectures or network communication protocols for network security [H04L 63/00](#) or for wireless network security [H04W 12/00](#); security arrangements for protecting computers or computer systems against unauthorized activity [G06F 21/00](#))}**

NOTES

1. This group covers:

1.1 Cryptographic mechanisms including cryptographic protocols and cryptographic algorithms, whereby a cryptographic protocol is a distributed cryptographic algorithm defined by a sequence of steps precisely specifying the actions required of two or more entities to achieve specific security objectives (e.g. cryptographic protocol for key agreement), and whereby a cryptographic algorithm is specifying the steps followed by a single entity to achieve specific security objectives (e.g. cryptographic algorithm for symmetric key encryption).

1.2 [H04L 9/00](#) focuses on cryptographic mechanisms such as encryption schemes, digital signatures, hash functions, random number generation, key management, said cryptographic mechanisms providing information security such as privacy or confidentiality, data integrity, message authentication, entity authentication, authorization, validation, certification, time-stamping, anonymity, revocation, non-repudiation.

1.3 [H04L 9/00](#) covers also countermeasures against attacks on cryptographic mechanisms.

2. This group does not cover:

- 2.1 Networking architectures or network communication protocols for securing the traffic flowing through data packet networks and providing secure exchanges among applications communicating through data packet networks, which are covered by [H04L 63/00](#). Attention is drawn to the Note 1. after group [H04L 63/00](#)
- 2.2 Security arrangements for protecting computers or computer systems against unauthorised activity, which are covered by [G06F 21/00](#)
- 3. In subgroups [H04L 9/001](#) - [H04L 9/38](#), the last place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the last appropriate place.

- M H04L 9/10
 - with particular housing, physical features or manual controls ~~{(not used; see H04L 9/00)}~~
- U H04L 12/00** **Data switching networks (interconnection of, or transfer of information or other signals between, memories, input/output devices or central processing units [G06F 13/00](#))**
- U H04L 12/02
 - Details
- M H04L 12/16
 - · Arrangements for providing special services to substations ~~{contains provisionally no documents}~~

Project: MP0428 (H04L)

- U H04L 12/28
 - characterised by path configuration, e.g. local area networks [LAN], wide area networks [WAN]
- U H04L 12/2803
 - · {Home automation networks}
- M H04L 12/2807
 - · · {Exchanging configuration information on appliance services in a home automation network (~~address allocation H04L 29/12207~~; ~~address allocation H04L 29/12207~~; arrangements for maintenance or administration involving network analysis for automatically determining the actual topology of a network [H04L 41/12](#); hardware or software tools for network management using graphical user interfaces [H04L 41/22](#))}

Project: MP0405 (H04L)

- M H04L 29/00** **Arrangements, apparatus, circuits or systems, not covered by a single one of groups [H04L 1/00](#) - [H04L 27/00](#) (~~interconnection of, or transfer of information or other signals between, memories, input/output devices or central processing units [G06F 13/00](#)~~)~~{contains provisionally no documents}~~**
- M H04L 29/02
 - Communication control ~~{(in satellite networks [H04B 7/185](#))}~~; Communication processing ([H04L 29/12](#), [H04L 29/14](#) take precedence)~~{contains provisionally no documents}~~
- M H04L 29/04
 - · for plural communication lines ~~{contains provisionally no documents}~~
- M H04L 29/10
 - · characterised by an interface, e.g. the interface between the data link level and the physical level ~~{contains provisionally no documents}~~
- M H04L 29/12
 - characterised by the data terminal ~~{contains provisionally no documents}~~

Project: MP0428 (H04L)

- U H04L 45/00** **{Routing or path finding of packets in data switching networks (specially adapted for wireless routing [H04W 40/00](#))}**
- U H04L 45/12
 - {Shortest path evaluation}
- M H04L 45/122
 - · {Minimizing distance, e.g. ~~?~~ number of hops}

Project: MP0405 (H04M)

- U H04M 3/00 Automatic or semi-automatic exchanges {(constructional details of telephone exchanges [H04Q 1/02](#))}**
- U H04M 3/42 · Systems providing special services or facilities to subscribers
 - M H04M 3/42025 · · {Calling or Called party identification service ~~(not used)~~}
 - M H04M 3/42034 · · · {Calling party identification service ~~(not used)~~}
 - M H04M 3/42085 · · · {Called party identification service ~~(not used)~~}

Project: MP0405 (H04N)

- U H04N 1/00 Scanning, transmission or reproduction of documents or the like, e.g. facsimile transmission; Details thereof**
- U H04N 1/23 · Reproducing arrangements
 - M H04N 1/31 · · Mechanical arrangements for picture transmission, e.g. adaptation of clutches, gearing, gear transmissions ~~{contains no documents}~~

Project: N/A (H04N)

- U H04N 5/00 Details of television systems (scanning details or combination thereof with generation of supply voltages [H04N 3/00](#))**
- U H04N 5/222 · Studio circuitry; Studio devices; Studio equipment {; Cameras comprising an electronic image sensor, e.g. digital cameras, video cameras, TV cameras, video cameras, camcorders, webcams, camera modules for embedding in other devices, e.g. mobile phones, computers or vehicles}
 - U H04N 5/225 · · Television cameras {; Cameras comprising an electronic image sensor, e.g. digital cameras, video cameras, camcorders, webcams, camera modules specially adapted for being embedded in other devices, e.g. mobile phones, computers or vehicles (constructional details of electronic still picture cameras or digital still picture cameras not peculiar to the presence or use of the electronic image sensor [G03B](#))}
 - H04N 5/232 · · · Devices for controlling television cameras, e.g. remote control {; Control of cameras comprising an electronic image sensor} ([H04N 5/235](#) takes precedence {; Mountings, adjusting means, or light-tight connections, for optical elements [G02B 7/00](#))}

WARNING

Group [H04N 5/232](#) is impacted by reclassification into groups [H04N 5/23218](#), [H04N 5/23227](#), and [H04N 5/23299](#).

All groups listed in this Warning should be considered in order to perform a complete search.

Project: MP0405 (H04N)

- U H04N 2201/00 Indexing scheme relating to scanning, transmission or reproduction of documents or the like, and to details thereof**
- M H04N 2201/0008 · Connection or combination of a still picture apparatus with another apparatus ~~(not used)~~
 - U H04N 2201/024 · deleted
 - M H04N 2201/028 · · for picture information pick-up ~~(not used)~~
 - M H04N 2201/04 · Scanning arrangements ~~(not used)~~
 - M H04N 2201/0402 · · Arrangements not specific to a particular one of the scanning methods covered by groups [H04N 1/04](#) - [H04N 1/207](#) ~~(not used)~~
 - M H04N 2201/047 · · Detection, control or error compensation of scanning velocity or position ~~(not used)~~

- M H04N 2201/04701 · · · Detection of scanning velocity or position ~~(not used)~~
- M H04N 2201/04753 · · · Control or error compensation of scanning position or velocity ~~(not used)~~
- M H04N 2201/21 · Intermediate information storage ~~(not used)~~
- M H04N 2201/32 · Circuits or arrangements for control or supervision between transmitter and receiver or between image input and image output device ~~(not used)~~
- M H04N 2201/3285 · · using picture signal storage, e.g. at transmitter ~~(not used)~~
- M H04N 2201/333 · · Mode signalling or mode changing; Handshaking therefor ~~(not used)~~
- M H04N 2209/00** **Details of colour television systems ~~(not used)~~**
- M H04N 2209/04 · Picture signal generators ~~(not used)~~
- M H04N 2209/041 · · using solid-state devices ~~(not used)~~
- M H04N 2213/00** **Details of stereoscopic systems ~~(not used, see subgroups)~~**

Project: MP0405 (H04Q)

- U H04Q 11/00** **Selecting arrangements for multiplex systems (multiplex systems [H04J](#))**
- U H04Q 11/04 · for time-division multiplexing ~~{([H04Q 11/0001](#) takes precedence)}~~
- U H04Q 11/0428 · · {Integrated services digital network, i.e. systems for transmission of different types of digitised signals, e.g. speech, data, telecentral, television signals}
- U H04Q 11/0478 · · · {Provisions for broadband connections}
- M H04Q 11/0485 · · · · {Circuit arrangements therefor ~~(contains no documents, see provisionally [H04Q-11/0492](#))}~~}

Project: MP0428 (H04Q)

- U H04Q 2213/00** **Indexing scheme relating to selecting arrangements in general and for multiplex systems**
- M H04Q 2213/214 · Phase shifted ~~impulses~~*impulses*; Clock signals; Timing

Project: RP0249 (H04R)

- M H04R 25/00** **Deaf-aid sets ~~{providing an auditory perception, i.e. electro-acoustic or electro-mechanical hearing aids}~~; Electric tinnitus maskers providing an auditory perception} (constructions of transducers ~~per se~~ [H04R 9/00](#) - [H04R 23/00](#); ~~{non-electric hearing aids [A61F 11/008](#); replacing direct auditory perception by another kind of perception [A61F 11/04](#); electrical stimulation of auditory nerves to promote the auditory function [A61N 1/36036](#)[A61N 1/36038](#)~~}; structural combination with spectacle frames [G02C 11/06](#); ~~optical stimulation of auditory nerves to promote the auditory function [A61N 5/0622](#); processing of speech signals [G10L 21/00](#))}~~**
- NOTE**
- Classification should be directed to groups [H04R 25/02](#), [H04R 25/04](#) or [H04R 25/50](#) and its subgroups, if and only if the technical subject in consideration cannot be classified elsewhere under the main group [H04R 25/00](#)
- M H04R 25/30 · {Monitoring or testing of hearing aids, e.g. functioning, settings, battery power ~~(testing arrangements for electro-acoustic transducers in general [H04R 29/00](#); battery testing in general [G01R 31/36](#))}~~}
- U H04R 25/45 · {Prevention of acoustic reaction, i.e. acoustic oscillatory feedback}
- M H04R 25/453 · · {electronically ~~(in general [H04R 3/02](#))}~~}
- M H04R 25/48 · {using constructional means for obtaining a desired frequency response ([H04R 25/652](#) takes precedence; ~~in general [H04R 1/22](#))}~~}
- U H04R 25/55 · {using an external connection, either wireless or wired}

- M H04R 25/554
- {using a wireless connection, e.g. between microphone and amplifier or using ~~T-coils~~ ~~Tcoils~~ ~~(near-field transmission in general H04B 5/00)~~}
- C H04R 25/556
- {External connectors, e.g. plugs or modules ~~(H04R 25/607 takes precedence)~~}
- WARNING**
Group H04R 25/556 is impacted by reclassification into group H04R 25/607. Groups H04R 25/556 and H04R 25/607 should be considered in order to perform a complete search.
- M H04R 25/558
- {Remote control, e.g. of amplification, frequency ~~(remote control of amplifications, tone, or bandwidth H03G 1/02; remote control, e.g. for Hi-Fi systems or audio/video combinations H04B 1/202; remote control in general G05F)~~}
- C H04R 25/60
- {Mounting or interconnection of hearing aid parts, e.g. inside tips ~~,~~ ~~housings~~ or ~~housing~~ to ossicles (ear wax retarders, e.g. ~~their~~ mounting ~~thereof~~ [H04R 25/654](#))}
- WARNING**
Group H04R 25/60 is impacted by reclassification into groups [H04R 25/603](#), [H04R 25/607](#), [H04R 25/609](#), and [H04R 2225/57](#). All groups listed in this Warning should be considered in order to perform a complete search.
- M H04R 25/602
- {~~Arrangements for mounting of~~ batteries ~~(batteries in general H01M 2/02)~~}
- N H04R 25/603
- {of mechanical or electronic switches or control elements}
- WARNING**
Group [H04R 25/603](#) is incomplete pending reclassification of documents from groups [H04R 25/60](#) and [H04R 2225/61](#). Groups [H04R 25/60](#), [H04R 2225/61](#), and [H04R 25/603](#) should be considered in order to perform a complete search.
- M H04R 25/604
- {~~Arrangements for mounting of~~ ~~acoustic or vibrational~~ transducers}
- U H04R 25/606
- • {acting directly on the eardrum, the ossicles or the skull, e.g. mastoid, tooth, maxillary or mandibular bone, or mechanically stimulating the cochlea, e.g. at the oval window}
- N H04R 25/607
- {of earhooks}
- WARNING**
Group [H04R 25/607](#) is incomplete pending reclassification of documents from groups [H04R 25/556](#), [H04R 25/60](#), and [H04R 2225/021](#). All groups listed in this Warning should be considered in order to perform a complete search.
- D H04R 25/608
- {Apparatus or processes specially adapted for mounting, assembling or interconnecting hearing aid parts inside tips, moulds or housings} <administratively transferred to [H04R 25/60](#)>
- N H04R 25/609
- {of circuitry (of electronic switches or control elements [H04R 25/603](#))}
- WARNING**
Group [H04R 25/609](#) is incomplete pending reclassification of documents from group [H04R 25/60](#). Groups [H04R 25/60](#) and [H04R 25/609](#) should be considered in order to perform a complete search.

- M H04R 25/65 · {Housing parts, e.g. shells, tips or moulds, or their manufacture}
- NOTE*
Housing parts for mechanical mounting or interconnection of hearing aid parts covered by [H04R 25/60](#) are to be classified in [H04R 25/60](#)
- C H04R 25/652 · {Ear tips; Ear moulds (*hybrid ear moulds or post-processing thereof for their customisation* [H04R 25/659](#))}
- WARNING*
Group [H04R 25/652](#) is impacted by reclassification into group [H04R 25/659](#). Groups [H04R 25/652](#) and [H04R 25/659](#) should be considered in order to perform a complete search.
- C H04R 25/658 · {Manufacture of housing parts}
- N [H04R 25/659](#) · · {Post-processing of hybrid ear moulds for customisation, e.g. in-situ curing}
- WARNING*
Group [H04R 25/659](#) is incomplete pending reclassification of documents from groups [H04R 25/652](#) and [H04R 25/658](#). Groups [H04R 25/652](#), [H04R 25/658](#), and [H04R 25/659](#) should be considered in order to perform a complete search.

Project: MP0405 (H04R)

- M H04R 2201/00 Details of transducers, loudspeakers or microphones covered by [H04R 1/00](#) but not provided for in any of its subgroups (~~not used, see subgroups~~)
- M H04R 2203/00 Details of circuits for transducers, loudspeakers or microphones covered by [H04R 3/00](#) but not provided for in any of its subgroups (~~not used, see subgroups~~)
- M H04R 2205/00 Details of stereophonic arrangements covered by [H04R 5/00](#) but not provided for in any of its subgroups (~~not used, see subgroups~~)
- M H04R 2207/00 Details of diaphragms or cones for electromechanical transducers or their suspension covered by [H04R 7/00](#) but not provided for in [H04R 7/00](#) or in [H04R 2307/00](#) (~~not used, see subgroup~~)
- M H04R 2209/00 Details of transducers of the moving-coil, moving-strip, or moving-wire type covered by [H04R 9/00](#) but not provided for in any of its subgroups (~~not used, see subgroups~~)
- M H04R 2217/00 Details of magnetostrictive, piezo-electric, or electrostrictive transducers covered by [H04R 15/00](#) or [H04R 17/00](#) but not provided for in any of their subgroups (~~not used, see subgroup~~)

Project: RP0249 (H04R)

- U H04R 2225/00 Details of deaf aids covered by [H04R 25/00](#), not provided for in any of its subgroups
- C H04R 2225/021 · Behind the ear [BTE] hearing aids (~~H04R 2225/63 takes precedence~~)
- WARNING*
Group [H04R 2225/021](#) is impacted by reclassification into groups [H04R 2225/0213](#), [H04R 2225/0216](#), and [H04R 25/607](#). All groups listed in this Warning should be considered in order to perform a complete search.

- N H04R 2225/0213
- • *Constructional details of earhooks, e.g. shape, material*
- WARNING
Group [H04R 2225/0213](#) is incomplete pending reclassification of documents from group [H04R 2225/021](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- N H04R 2225/0216
- • *BTE hearing aids having a receiver in the ear mould*
- WARNING
Group [H04R 2225/0216](#) is incomplete pending reclassification of documents from group [H04R 2225/021](#).
Groups [H04R 2225/021](#) and [H04R 2225/0216](#) should be considered in order to perform a complete search.
- M H04R 2225/51
- Aspects of antennas **and/or** their circuitry in **and/or** for hearing aids
- U H04R 2225/55
- Communication between hearing aids and external devices via a network for data exchange
- N H04R 2225/57
- *Aspects of electrical interconnection between hearing aid parts*
- WARNING
Group [H04R 2225/57](#) is incomplete pending reclassification of documents from group [H04R 25/60](#).
Groups [H04R 25/60](#) and [H04R 2225/57](#) should be considered in order to perform a complete search.
- C H04R 2225/61
- Aspects relating to mechanical or electronic switches or control elements **in hearing aids**, e.g. **functioning** (**H04R 2225/43 takes precedence**)
- WARNING
Group [H04R 2225/61](#) is impacted by reclassification into group [H04R 25/603](#).
Groups [H04R 2225/61](#) and [H04R 25/603](#) should be considered in order to perform a complete search.
- D H04R 2225/63
- Aspects relating to ear hooks or their connection to the hearing aid housing or ear mould
<administratively transferred to [H04R 2225/0213](#) ADD>

Project: MP0405 (H04S)

- M H04S 2400/00
- Details of stereophonic systems covered by [H04S](#) but not provided for in its groups **(not used, see subgroups)**
- M H04S 2420/00
- Techniques used stereophonic systems covered by [H04S](#) but not provided for in its groups **(not used, see subgroups)**

Project: MP0428 (H05B)

- U H05B 41/00
- Circuit arrangements or apparatus for igniting or operating discharge lamps {(circuit elements structurally associated with discharge lamps [H01J 7/44](#), [H01J 19/78](#); discharge lamps per se [H01J 61/00](#) - [H01J 65/00](#); arc lamps with consumable electrodes [H05B 31/00](#); transformers or chokes for supplying discharge lamps [H01F 38/08](#)}
- U H05B 41/14
- Circuit arrangements
- U H05B 41/26
- • in which the lamp is fed by power derived from dc by means of a converter, e.g. by high-voltage dc
- U H05B 41/28
- • • using static converters
- U H05B 41/282
- • • with semiconductor devices ({[H05B 41/2806](#)}, [H05B 41/288](#), [H05B 41/295](#) take precedence)

- U H05B 41/285 Arrangements for protecting lamps or circuits against abnormal operating conditions
- M H05B 41/2858 {for protecting the lamp against abnormal operating ~~conditons~~conditions}

Project: MP0428 (H05G)

- U H05G 1/00 X-ray apparatus involving X-ray tubes; Circuits therefor**
- U H05G 1/08 . Electrical details
- M H05G 1/58 . . Switching arrangements for changing-over from one mode of operation to another, e.g. from radioscopy to radiography, from radioscopy to irradiation {or from one tube voltage to ~~an-other~~another}

Project: MP0405 (H05K)

- U H05K 1/00 Printed circuits**
- U H05K 1/02 . Details
- M H05K 1/0277 . . {Bendability or stretchability details (~~not used, see subgroups; H05K 1/038, H05K 3/4691~~ take precedence)}

Project: MP0428 (H05K)

- U H05K 1/0286 . . {Programmable, customizable or modifiable circuits (by programmable non-printed jumper connections [H05K 3/222](#))}
- U H05K 1/0287 . . . {having an universal lay-out, e.g. pad or land grid patterns or mesh patterns}
- M H05K 1/0289 {having a matrix lay-out, i.e. having ~~slectively~~selectively interconnectable sets of X-conductors and Y-conductors in different planes}
- U H05K 9/00 Screening of apparatus or components against electric or magnetic fields (devices for absorbing radiation from an antenna [H01Q 17/00](#))**
- U H05K 9/0007 . {Casings (standardised racks [H05K 9/0062](#))}
- M H05K 9/0047 . . {being rigid plastic containers having conductive particles, fibres or mesh ~~embdded~~embedded therein}

Project: RP0585 (H99)

N H99 SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION

Project: RP0585 (H99Z)

N H99Z SUBJECT MATTER NOT OTHERWISE PROVIDED FOR IN THIS SECTION

NOTE

This subclass covers subject matter that:

- a. *Is not provided for, but is most closely related to, the subject matter covered by the subclasses of this section, and*
- b. *Is not explicitly covered by any subclass of another section.*

N H99Z 99/00 Subject matter not otherwise provided for in this section

Project: RP0042 (Y10T)

- U Y10T 29/00 Metal working**
- D Y10T 29/41 . Barrier-layer or semiconductor device-making
- D Y10T 29/413 . . Barrier-layer device-making

D Y10T 29/417 . . . Electrolytic device making [e.g., capacitor]