COOPERATIVE PATENT CLASSIFICATION

PERFORMING OPERATIONS; TRANSPORTING

NOTES omitted

SHAPING

GRINDING; POLISHING

NOTE omitted

TOOLS FOR GRINDING, BUFFING, OR SHARPENING

(tools for grinding or polishing optical surfaces on lenses or surfaces of similar shape B24B 13/01; grinding heads B24B 41/00; manufacture of abrasive or friction articles or shaped materials containing macromolecular substances C08J5/14; polishing compositions C09G 1/00; abrasives C09K 3/14)

NOTES

1. This subclass covers grinding tools for working on any material
2. Tools for grinding, buffing or sharpening, specially designed for a particular purpose, which purpose is provided for in a single other place, are classified in that place, e.g. B23F 21/02

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.

Physical features of abrasive bodies, or sheets, e.g. abrasive surfaces of special nature; Abrasive bodies or sheets characterised by their constituents

3/00

3/01 . (the constituent being used as supporting member)
3/02 . . . (Flexible supporting members, e.g. paper, woven, plastic materials)
3/04 . . . . with special coatings
3/05 . . . . (the constituent being used during pre- or after-treatment (B24D 3/348 takes precedence))
3/07 . . . . . (the constituent being used as bonding agent between different parts of an abrasive tool)
3/08 . . . . (Abrasive bodies without external bonding agent)
3/02 . . the constituent being used as bonding agent
3/04 . . . and being essentially inorganic
3/06 . . . metallic [or mixture of metals with ceramic materials, e.g. hard metals, "cermets", cements]
3/08 . . . . for close-grained structure, e.g. using metal with low melting point
3/10 . . . . for porous or cellular structure, e.g. for use with diamonds as abrasives
3/12 . . . . water-setting, e.g. concrete
3/14 . . . . ceramic, i.e. vitrified bondings [(mixture with metals B24D 3/06)]
3/16 . . . for close-grained structure, i.e. of high density
3/18 . . . . for porous or cellular structure
3/20 . . . and being essentially organic
3/22 . . . Rubbers [synthetic or natural]
3/24 . . . . for close-grained structure (B24D 3/002 takes precedence)
3/26 . . . . for porous or cellular structure
3/28 . . . Resins [or natural or synthetic macromolecular compounds (B24D 3/22 takes precedence)]

Bonded abrasive wheels

5/00 Bonded abrasive wheels, or wheels with inserted abrasive blocks, designed for acting only by their periphery; Bushings or mountings therefor

5/02 . Wheels in one piece
5/04 . . with reinforcing means
5/06 . . with inserted abrasive blocks, e.g. segmental (zonally graded B24D 5/14)
5/063 . . (with segments embedded in a matrix which is rubbed away during the grinding process)
5/066 . . (with segments mounted axially one against the other)
5/08 . . with reinforcing means
5/10 . . with cooling provisions, e.g. with radial slots
5/12 . Cut-off wheels
5/123 . . (having different cutting segments)
5/126 . . (having an internal cutting edge)
5/14 . Zonally-graded wheels; Composite wheels comprising different abrasives
5/16 . Bushings; Mountings
Bonded abrasive wheels

5/165 . . . {Balancing means}

7/00 Bonded abrasive wheels, or wheels with inserted abrasive blocks, designed for acting otherwise than only by their periphery, e.g. by the front face; Bushings or mountings therefor

7/005 . . . (for cutting spherical surfaces)
7/002 . . . Wheels in one piece
7/004 . . . with reinforcing means
7/006 . . . with inserted abrasive blocks, e.g. segmental (zonally-graded B24D 7/14)
7/003 . . . with segments embedded in a matrix which is rubbed away during the grinding process
7/006 . . . (Grinding blocks; their mountings or supports)
7/008 . . . with reinforcing means
7/10 . . . with cooling provisions
7/12 . . . with apertures for inspecting the surface to be abraded
7/14 . . . Zonally-graded wheels; Composite wheels comprising different abrasives
7/16 . . . Bushings; Mountings
7/18 . . . Wheels of special form (if specially designed for a particular purpose provided for in a single other class, that class takes precedence; {saw cylinders having their cutting rim equipped with abrasive particles for working stone or glass B28D 1/04})

9/00 Wheels or drums supporting in exchangeable arrangement a layer of flexible abrasive material, e.g. sandpaper (wheels or drums as machine elements F16)

9/003 . . . (Wheels having flaps of flexible abrasive material supported by a flexible material)
9/006 . . . (Tools consisting of a rolled strip of flexible material)
9/002 . . . Expansible drums for carrying flexible material in tubular form, e.g. expanded by centrifugal force
9/004 . . . Rigid drums for carrying flexible material
9/008 . . . able to be stripped-off from a built-in delivery spool
9/005 . . . Circular back-plates for carrying flexible material
9/004 . . . (Devices for mounting sheets on a backing plate)
9/10 . . . with suction means for securing the material

11/00 Constructional features of flexible abrasive materials; Special features in the manufacture of such materials

11/001 . . . {Manufacture of flexible abrasive materials}
11/003 . . . {without embedded abrasive particles (B24D 11/005 takes precedence)}
11/005 . . . {Making abrasive webs}
11/006 . . . {without embedded abrasive particles}
11/008 . . . {Finishing manufactured abrasive sheets, e.g. cutting, deforming}
11/02 . . . Backings, e.g. foils, webs, mesh fabrics
11/04 . . . Zonally-graded surfaces
11/06 . . . Connecting the ends of materials, e.g. for making abrasive belts
11/065 . . . {Treatment of the ends of flexible abrasive materials before connecting them}
11/08 . . . Equipment for after-treatment of the coated backings, e.g. for flexing the coating

13/00 Wheels having flexibly-acting working parts, e.g. buffing wheels; Mountings therefor

13/02 . . . acting by their periphery
13/04 . . . comprising a plurality of flaps or strips arranged around the axis
13/045 . . . {comprising flaps not covering the entire periphery of the wheel}
13/06 . . . the flaps or strips being individually attached
13/08 . . . comprising annular or circular sheets packed side by side
13/085 . . . {comprising flaps with a circular sheet on each side}
13/10 . . . comprising assemblies of brushes
13/12 . . . comprising assemblies of felted or spongy material, e.g. felt, steel wool, foamed latex
13/14 . . . acting by the front face
13/142 . . . {Wheels of special form}
13/145 . . . {having a brush-like working surface}
13/147 . . . {comprising assemblies of felted or spongy material; comprising pads surrounded by a flexible material}
13/16 . . . comprising pleated flaps or strips
13/18 . . . with cooling provisions
13/20 . . . Mountings for the wheels

15/00 Hand tools or other devices for non-rotary grinding, polishing, or stropping

15/02 . . . rigid; with rigidly-supported operative surface
15/023 . . . {using in exchangeable arrangement a layer of flexible material}
15/026 . . . {able to be stripped-off from a built-in delivery spool}
15/04 . . . resilient; with resiliently-mounted operative surface
15/045 . . . {Glove-shaped abrasive devices}
15/06 . . . specially designed for sharpening cutting edges
15/061 . . . {for electric shaving blades}
15/063 . . . {for grinding shears, scissors}
15/065 . . . {for sharpening both knives and scissors}
15/066 . . . {for sharpening skate blades, i.e. blades having two sharp edges defined by three surfaces intersecting in pairs at an angle of substantially 90°}
15/068 . . . {for sharpening ski edges, i.e. sharp edges defined by two surfaces intersecting at an angle of substantially 90°}
15/08 . . . of knives; of razors
15/081 . . . {with sharpening elements in interengaging or in mutual contact}
15/082 . . . . . . {the elements being rotatable}
15/084 . . . {the sharpening elements being fitted to knife sheaths, holders or handles}
15/085 . . . {with reciprocating whetstones}
15/087 . . . {having a crank handle}
15/088 . . . {with whetting leather}
15/10 . . . of safety-razor blades (devices with mechanically-operated parts B24B 3/50)
15/105 . . . . . . {Holders therefor}

18/00 Manufacture of grinding tools (or other grinding devices), e.g. wheels, not otherwise provided for

18/0009 . . . {using moulds or presses}
18/0018 . . . {by electrolytic deposition}
18/0027 . . . {by impregnation}
18/0036 . . . {by winding up abrasive bands}
18/0045 . . . {by stacking sheets of abrasive material}
18/0054 . . . {by impressing abrasive powder in a matrix}
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