

CPC COOPERATIVE PATENT CLASSIFICATION

A HUMAN NECESSITIES

AGRICULTURE

A01 AGRICULTURE; FORESTRY; ANIMAL HUSBANDRY; HUNTING; TRAPPING; FISHING

A01B SOIL WORKING IN AGRICULTURE OR FORESTRY; PARTS, DETAILS, OR ACCESSORIES OF AGRICULTURAL MACHINES OR IMPLEMENTS, IN GENERAL (making or covering furrows or holes for sowing, planting, or manuring [A01C 5/00](#); soil working for engineering purposes [E01](#), [E02](#), [E21](#); {measuring areas for agricultural purposes [G01B](#)})

WARNINGS

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

| | | |
|----------------------------|------------|-----------------------------|
| A01B 69/04 | covered by | A01B 69/008 |
| A01B 69/06 | covered by | A01B 69/005 |
| A01B 69/08 | covered by | A01B 69/006 |
- 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.

| 1/00 | Hand tools (edge trimmers for lawns A01G 3/06 {; machines for working soil A01B 35/00 ; making hand tools B21D }) | Ploughs | 3/00 | Ploughs with fixed plough-shares |
|-------------|--|----------------|-------------|--|
| 1/02 | . Spades; Shovels {(hand-operated dredgers E02F 3/02)} | | 3/02 | . Man-driven ploughs |
| 1/022 | . . {Collapsible; extensible; combinations with other tools} | | 3/04 | . Animal-drawn ploughs |
| 1/024 | . . {Foot protectors attached to the blade} | | 3/06 | . . without alternating possibility, i.e. incapable of making an adjacent furrow on return journey {, i.e. conventional ploughing} |
| 1/026 | . . {with auxiliary handles for facilitating lifting} | | 3/08 | . . . Swing ploughs |
| 1/028 | . . {with ground abutment shoes or earth anchors for facilitating lifting} | | 3/10 | . . . Trussed-beam ploughs; Single-wheel ploughs |
| 1/04 | . . with teeth | | 3/12 | . . . Two-wheel beam ploughs |
| 1/06 | . Hoes; Hand cultivators {(rakes A01D 7/00 ; forks A01D 9/00 ; picks B25D)} | | 3/14 | . . . Frame ploughs |
| 1/065 | . . {powered} | | 3/16 | . . Alternating ploughs, i.e. capable of making an adjacent furrow on return journey |
| 1/08 | . . with a single blade | | 3/18 | . . . Turn-wrest ploughs |
| 1/10 | . . with two or more blades | | 3/20 | . . . Balance ploughs |
| 1/12 | . . with blades provided with teeth | | 3/22 | . . . with parallel plough units used alternately |
| 1/14 | . . with teeth only | | 3/24 | . Tractor-drawn ploughs (A01B 3/04 takes precedence) |
| 1/16 | . Tools for uprooting weeds | | 3/26 | . . without alternating possibility |
| 1/165 | . . {adapted for extracting a substantially cylindrical plug out of the earth} | | 3/28 | . . Alternating ploughs |
| 1/18 | . . Tong-like tools | | 3/30 | . . . Turn-wrest ploughs |
| 1/20 | . Combinations of different kinds of hand tools | | 3/32 | . . . Balance ploughs |
| 1/22 | . Attaching the blades or the like to handles (handles for tools, or their attachment, in general B25G); Interchangeable or adjustable blades | | 3/34 | . . . with parallel plough units used alternately |
| 1/222 | . . {Adjustable blades} | | 3/36 | . Ploughs mounted on tractors |
| 1/225 | . . . {around a substantially horizontal axis} | | 3/38 | . . without alternating possibility |
| 1/227 | . . {Interchangeable blades} | | 3/40 | . . Alternating ploughs |
| 1/24 | . for treating meadows or lawns | | 3/42 | . . . Turn-wrest ploughs |
| 1/243 | . . {for aerating} | | 3/421 | with a headstock frame made in one piece |
| 1/246 | . . {for cutting sods or turves} | | 3/4215 | {the headstock being provided with two or more hydraulic cylinders} |
| | | | 3/426 | with a headstock frame made of two or more parts |
| | | | 3/44 | with parallel plough units used alternately |
| | | | 3/46 | . Ploughs supported partly by tractor and partly by their own wheels |

- 3/462 . . {Alternating ploughs with frame rotating about a vertical axis}
- 3/464 . . {Alternating ploughs with frame rotating about a horizontal axis, e.g. turn-wrest ploughs}
- 3/466 . . . {the frame comprising an articulated beam}
- 3/468 . . {the plough wheels being actively driven}
- 3/50 . Self-propelled ploughs
- 3/52 . . with three or more wheels, or endless tracks
- 3/54 . . . without alternating possibility
- 3/56 . . . Alternating ploughs {; Balance ploughs}
- 3/58 . . with two wheels
- 3/60 . . . Alternating ploughs
- 3/62 Balance ploughs
- 3/64 . Cable ploughs; Indicating or signalling devices for cable plough systems {(vehicles towed by cable [B60D](#))}
- 3/66 . . with motor-driven winding apparatus mounted on the plough
- 3/68 . . Cable systems with one or two engines {; e.g. electrically-driven or with diesel generating set}
- 3/70 . . . Systems with one engine for working uphill
- 3/72 . . Means for anchoring the cables
- 3/74 . Use of electric power for propelling ploughs {for rotary cultivators or the like (electric current collectors [B60L 5/00](#))}
- 5/00 Ploughs with rolling non-driven tools, e.g. discs (with rotary driven tools [A01B 9/00](#))**
- 5/02 . drawn by animals
- 5/04 . drawn by tractors
- 5/06 . . without alternating possibility {, e.g. with rotary counters provided with scrapers}
- 5/08 . . Alternating ploughs
- 5/10 . mounted or partly-mounted on tractors
- 5/12 . . without alternating possibility
- 5/14 . . Alternating ploughs
- 5/16 . Self-propelled disc or like ploughs
- 7/00 Disc-like soil-working implements usable either as ploughs or as harrows, or the like**
- 9/00 Ploughs with rotary driven tools (tilling implements with rotary driven tools [A01B 33/00](#))**
- 9/003 . {with tools on horizontal shaft transverse to direction of travel}
- 9/006 . {with tools on horizontal shaft parallel to direction of travel}
- 11/00 Ploughs with oscillating, digging or piercing tools {driven or not}**
- 13/00 Ploughs or like machines for special purposes (for drainage [E02B 11/02](#)); Ditch diggers, trench ploughs, forestry ploughs, ploughs for land or marsh reclamation (machines for aerating meadows [A01B 45/02](#); making furrows [A01C 5/00](#); dredging machines in general [E02F](#))**
- 13/02 . for making or working ridges, e.g. with symmetrically arranged mouldboards {, e.g. ridging plough}
- 13/025 . . {with passively driven rotating disc-like elements for forming the ridge}
- 13/04 . for working in vineyards, orchards, or the like
- 13/06 . . Arrangements for preventing damage to the vines, or the like {, e.g. hydraulic (machines specially adapted for working in vineyards [A01B 39/16](#))}
- 13/08 . for working subsoil
- 13/10 . . Special implements for lifting subsoil layers
- 13/12 . . . Means for distributing the layers on the surface
- 13/14 . for working soil in two or more layers
- 13/16 . Machines for combating erosion, e.g. basin-diggers, furrow-dammers
- 15/00 Elements, tools, or details of ploughs**
- 15/02 . Plough blades; Fixing the blades
- 15/025 . . {specially adapted for working subsoil}
- 15/04 . . Shares {(making ploughshares by rolling [B21H](#))}
- 15/06 . . . Interchangeable or adjustable shares
- 15/08 . . Mouldboards
- 15/10 . . . Interchangeable or adjustable mouldboards
- 15/12 . Beams; Handles (handles for tools or their attachment in general [B25G](#))
- 15/125 . . {Articulated beams}
- 15/14 . Frames (means or arrangements to facilitate transportation [A01B 73/00](#))
- 15/145 . . {the plough blades being connected to the plough beam for unisono adjustment of the furrow width}
- 15/16 . Discs (bearings therefor [A01B 71/04](#)); Scrapers for cleaning discs; Sharpening attachments (sharpening in general [B24](#))
- 15/18 . Coulters
- 15/20 . Special adjusting means for tools of ploughs drawn by, or mounted on tractors working on hillsides or slopes
- 17/00 Ploughs with special additional arrangements, e.g. means for putting manure under the soil, clod-crushers ([A01B 49/00](#) takes precedence); {Means for breaking the subsoil}**
- 17/002 . {Means for putting manure, debris, straw or the like under the soil (to plough-in weeds [A01B 39/18](#))}
- 17/004 . {Clod-crushers}
- 17/006 . . {with driven tools}
- 17/008 . . . {rotating about a vertical or steeply inclined axis}
- Harrows**
- 19/00 Harrows with non-rotating tools {(harrows for working in vineyards [A01B 39/16](#))}**
- 19/02 . with tools rigidly or elastically attached to a tool-frame
- 19/04 . . with two or more tool-frames
- 19/06 . . with tools or tool-frames moved to-and-fro mechanically
- 19/08 . with link network supporting tooth-like tools
- 19/10 . Lifting or cleaning apparatus
- 21/00 Harrows with rotary non-driven tools (tilling implements with rotary driven tools [A01B 33/00](#))**
- 21/02 . with tooth-like tools
- 21/04 . . on horizontally-arranged axles
- 21/06 . . on vertically-arranged axles
- 21/08 . with disc-like tools
- 21/083 . . {of the type comprising four individual disk groups each pivotally connected at fixed locations to a substantially rigid frame}
- 21/086 . . {of the type in which the disc-like tools are individually mounted}
- 23/00 Elements, tools, or details of harrows**

| | | | |
|--------------|---|--------------|--|
| 23/02 | • Teeth; Fixing the teeth | 33/10 | • • Structural or functional features of the tools {; Theoretical aspects of the cutting action} |
| 23/04 | • Frames (means or arrangements to facilitate transportation A01B 73/00); Drawing-arrangements | 33/103 | • • • {the rotating shaft being oriented horizontally} |
| 23/043 | • • {specially adapted for harrows with non-rotating tools} | 33/106 | • • • {the rotating shaft being oriented vertically or steeply inclined} |
| 23/046 | • • {Specially adapted for harrows with rotating tools} | 33/12 | • • Arrangement of the tools; Screening of the tools |
| 23/06 | • Discs (A01B 15/16 takes precedence; bearings therefor A01B 71/04); Scrapers for cleaning discs; Sharpening attachments; {Lubrication of bearings}(sharpening in general B24) | 33/125 | • • • {screening of tools rotating about a vertical shaft} |
| 25/00 | Harrows with special additional arrangements, e.g. means for distributing fertilisers; Harrows for special purposes (A01B 39/00 takes precedence {; fertiliser distributors A01C 15/00) | 33/14 | • • Attaching the tools to the rotating shaft, e.g. resiliently {or flexibly}-attached tools |
| | | 33/142 | • • • {the rotating shaft being oriented horizontally} |
| | | 33/144 | • • • • {with spring tools or resiliently-attached rigid tools} |
| | | 33/146 | • • • {the rotating shaft being oriented vertically or steeply inclined} |
| | | 33/148 | • • • • {with spring tools or resiliently-attached rigid tools} |
| | | 33/16 | • with special additional arrangements (A01B 49/00 takes precedence; for sowing or fertilising A01B 49/06) |
| | | 35/00 | Other machines for working soil {not specially adapted for working soil on which crops are growing}(A01B 37/00, A01B 39/00, A01B 77/00 take precedence {; hand tools A01B 1/00) |
| 27/00 | Clod-crushers | 35/02 | • with non-rotating tools |
| 27/005 | • {comprising roller-type tools moving on the ground} | 35/04 | • • drawn by animal or tractor {or man-power} |
| 29/00 | Rollers {(rollers for roads E01C)} | 35/06 | • • • with spring tools {or with resiliently- or flexibly-attached rigid tools} |
| 29/02 | • with smooth surface | 35/08 | • • • with rigid tools |
| 29/04 | • with non-smooth surface formed of rotatably-mounted rings or discs or with projections or ribs on the roller body; Land packers | 35/10 | • • mounted on tractors |
| 29/041 | • • {of "Cambridge"-type, i.e. the soil-pressing rings being stacked on a shaft} | 35/12 | • • • with spring tools {or with resiliently- or flexibly-attached rigid tools} |
| 29/043 | • • • {Tire-packers} | 35/14 | • • • with rigid tools |
| 29/045 | • • {the soil-pressing body being a drum} | 35/16 | • with rotating or circulating non-propelled tools |
| 29/046 | • • {the soil-pressing body being a helical coil} | 35/18 | • with both rotating and non-rotating tools |
| 29/048 | • • {Bar cage rollers} | 35/20 | • Tools; Details |
| 29/06 | • with special additional arrangements | 35/22 | • • Non-rotating tools; {Resilient or flexible mounting of rigid tools} |
| 31/00 | Drags {graders for field cultivators (graders in general E02F)} | 35/225 | • • • {the tools being adapted to allow the chisel point to be easily fitted or removed from the shank} |
| 33/00 | Tilling implements with rotary driven tools {, e.g. in combination with fertiliser distributors or seeders, with grubbing chains, with sloping axles, with driven discs} | 35/24 | • • • Spring tools |
| 33/02 | • with tools on horizontal shaft transverse to direction of travel | 35/26 | • • • Rigid tools |
| 33/021 | • • {with rigid tools} | 35/28 | • • Rotating tools; Mounting rotating tools |
| 33/022 | • • • {with helicoidal tools} | 35/30 | • • Undercarriages (A01B 23/04 takes precedence) |
| 33/024 | • • • {with disk-like tools} | 35/32 | • with special additional arrangements |
| 33/025 | • • {with spring tools, i.e. resiliently- or flexibly-attached rigid tools} | 37/00 | Devices for loosening soil compacted by wheels or the like |
| 33/027 | • • {Operator supported tools, e.g. using a harness for supporting the tool or power unit} | 39/00 | Other machines specially adapted for working soil on which crops are growing |
| 33/028 | • • {of the walk-behind type (walk-type tractors B62D 51/04)} | 39/02 | • with non-rotating tools |
| 33/04 | • with tools on horizontal shaft parallel to direction of travel | 39/04 | • • drawn by animal or tractor |
| 33/06 | • with tools on vertical or steeply-inclined shaft | 39/06 | • • Self-propelled machines |
| 33/065 | • • {comprising a plurality of rotors carried by an elongate, substantially closed transmission casing, transversely connectable to a tractor} | 39/08 | • with rotating tools {such as weeding machines} |
| 33/08 | • Tools; Details, e.g. adaptations of transmissions or gearings | 39/085 | • • {the rotating tools being actively driven} |
| 33/082 | • • {Transmissions; Gearings; Power distribution} | 39/10 | • with oscillating tools {driven or not} |
| 33/085 | • • • {specially adapted for tools on a vertical shaft} | 39/12 | • for special purposes {, e.g. for special culture} |
| 33/087 | • • {Lifting devices; Depth regulation devices; Mountings} | 39/14 | • • for working ridges {, e.g. for rows of plants and/or furrows} |

- 39/16 . . for working in vineyards, orchards, or the like
{; Arrangements for preventing damage to vines
(ploughs adapted for working in vineyards
[A01B 13/06](#))}
- 39/163 . . . {comprising rotating tools}
- 39/166 {actively driven}
- 39/18 . . for weeding
- 39/19 . . . Rod weeders, i.e. weeder with rotary rods
propelled beneath the soil surface
- 39/20 . Tools; Details
- 39/22 . . Tools; Mounting tools
- 39/24 . . Undercarriages ([A01B 23/04](#) takes precedence)
- 39/26 . . Arrangements for protecting plants {, e.g.
fenders}
- 39/28 . with special additional arrangements ([A01B 49/00](#)
takes precedence)
- 41/00 Thinning machines**
- 41/02 . with oscillating tools
- 41/04 . with rotating tools
- 41/06 . with electric, e.g. photo-electric control of thinning
operations
- 43/00 Gatherers for removing stones, undesirable roots
or the like from the soil, e.g. tractor-drawn rakes**
- 43/005 . {Windrower-type machines}
- 45/00 Machines for treating meadows or lawns {, e.g. for
sports grounds}**
- 45/02 . for aerating
- 45/023 . . {Perforators comprising spiking tools actively
driven in a reciprocating movement through a
crankshaft or eccentric mechanism}
- 45/026 . . {Scarifiers comprising a knife reel actively driven
around a substantially horizontal shaft}
- 47/00 Soil-working with electric potential applied
between tools and soil**
- 49/00 Combined machines (auxiliary devices attached to
machines of a different kind, e.g. harrows attached to
ploughs, see the relevant groups for the machines)**
- 49/02 . with two or more soil-working tools of different
kind
- 49/022 . . {at least one tool being actively driven}
- 49/025 . . . {about a substantially vertical axis}
- 49/027 . . {with a rotating, soil working support element,
e.g. a roller}
- 49/04 . Combinations of soil-working tools with non-soil-
working tools, e.g. planting tools
- 49/06 . . for sowing or fertilising
- 49/065 . . . {the soil-working tools being actively driven}
- Parts, details or accessories of agricultural machines or
implements, in general (seat constructions [A47C](#); wheels [B60B](#);
shelters for drivers [B60J](#); seats specially adapted for vehicles
[B60N 2/00](#); wheel scrapers [B60S 1/68](#))**
- 51/00 Undercarriages specially adapted for mounting-
on various kinds of agricultural tools or apparatus
(general vehicle aspects, see the relevant subclass of
class [B60](#) or [B62](#))**
- 51/02 . propelled by a motor
- 51/023 . . {of the Gantry-type}
- 51/026 . . {of the automotive vehicle type, e.g. including
driver accommodation ([A01B 51/023](#) takes
precedence)}
- 51/04 . drawn by animal or tractor
- 51/045 . . {drawn by animals}
- 59/00 Devices specially adapted for connection between
animals or tractors and agricultural machines or
implements ([A01B 63/00](#) takes precedence; vehicle
connections in general [B60D](#); draught assemblies for
animal drawn vehicles, in general [B62C 5/00](#))**
- 59/002 . {Details, component parts}
- 59/004 . . {Length-adjustable links}
- 59/006 . . {Latched hooks}
- 59/008 . . {Link connectors with spherical surfaces}
- 59/02 . for animal-drawn machines
- 59/04 . for machines pulled or pushed by a tractor
- 59/041 . . preventing or limiting side-play of implements
(preventing overstrain [A01B 61/00](#))
- 59/0415 . . . {by hydraulic or pneumatic means acting on
the lower draft links}
- 59/042 . . having pulling means arranged on the rear part of
the tractor
- 59/043 . . . supported at three points, e.g. by quick-release
couplings ([A01B 59/06](#) takes precedence)
- 59/044 . . having pulling means arranged on the middle part
of the tractor
- 59/046 . . having pulling or pushing means arranged on the
side of the tractor
- 59/048 . . having pulling or pushing means arranged on the
front part of the tractor
- 59/06 . for machines mounted on tractors
- 59/061 . . {specially adapted for enabling connection or
disconnection controlled from the driver's seat
(not used, see subgroups)}
- 59/062 . . . {the connection comprising a rigid interface
frame on the tractor}
- 59/063 . . . {the connection comprising longitudinally
oriented tang-and-sheath elements}
- 59/064 . . {for connection to the front of the tractor}
- 59/065 . . {for ploughs or like implements ([A01B 59/061](#)
and subgroups take precedence)}
- 59/066 . . {of the type comprising at least two lower arms
and one upper arm generally arranged in a
triangle (e.g. three-point hitches)}
- 59/067 . . . {the lower arms being lifted or lowered by
power actuator means internally incorporated in
the tractor}
- 59/068 . . . {the lower arms being lifted or lowered by
power actuator means provided externally on
the tractor}
- 59/069 . . {with means for weighing the implement}
- 61/00 Devices for, or parts of, agricultural machines or
implements for preventing overstrain (preventing
overstrain in vehicle connections, in general [B60D](#);
preventing overstrain in couplings per se [F16D](#))**
- 61/02 . of the coupling devices between tractor and machine
- 61/025 . . {the driving connections}
- 61/04 . of the connection between tools and carrier beam or
frame
- 61/042 . . {with shearing devices}
- 61/044 . . {the connection enabling a yielding pivoting
movement around a substantially horizontal and
transverse axis}
- 61/046 . . . {the device including an energy accumulator
for restoring the tool to its working position}

- 61/048 {the connection or the energy accumulator being active in two opposite directions, e.g. for reversible plows}
- 63/00 Lifting or adjusting devices or arrangements for agricultural machines or implements**
(lifting mechanisms for the cutter-bar of a mower [A01D 34/24](#); adjusting devices for the cutter-bar of a mower [A01D 34/28](#); constructional features of lifting devices *per se* [B66F](#))
- 63/002 . {Devices for adjusting or regulating the position of tools or wheels (preventing overstrain [A01B 61/00](#); wheels adjustable relatively to the frame for drawn implements [A01B 3/16](#); tools or tool holders adjustable relatively to the frame for drawn implements [A01B 63/24](#))}
- 63/004 . . {Lateral adjustment of tools}
- 63/006 . . {Lateral adjustment of wheels}
- 63/008 . . {Vertical adjustment of tools ([A01B 63/10](#) takes precedence)}
- 63/02 . for implements mounted on tractors
- 63/023 . . {Lateral adjustment of their tools}
- 63/026 . . {Lateral adjustment of their wheels}
- 63/04 . . Hand devices; Hand devices with mechanical accumulators, e.g. springs
- 63/045 . . . {for vertically adjusting wheels or similar rotary supporting elements}
- 63/06 . . operated mechanically by tractor motor
- 63/08 . . operated by the movement of the tractor
- 63/10 . . operated by hydraulic or pneumatic means
- 63/1006 . . . {the hydraulic or pneumatic means structurally belonging to the tractor}
- 63/1013 {and being located inside the tractor body}
- 63/102 . . . characterised by the location of the mounting on the tractor, e.g. on the rear part
- 63/104 on the middle part, i.e. between front and rear wheels
- 63/106 on the side
- 63/108 on the front part
- 63/11 . . . for controlling weight transfer between implements and tractor wheels
- 63/111 . . . regulating working depth of implements
- 63/1112 {using a non-tactile ground distance measurement, e.g. using reflection of waves}
- 63/1115 {using a mechanical ground contact sensor}
- 63/1117 {using a hitch position sensor}
- 63/112 to control draught load, i.e. tractive force
- 63/114 to achieve a constant working depth
- 63/1145 {for controlling weight transfer between implements and tractor wheels}
- 63/118 . . . Mounting implements on power-lift linkages ([A01B 59/043](#) takes precedence; preventing or limiting side-play of implements [A01B 59/041](#); preventing overstrain [A01B 61/00](#))
- 63/12 . . operated by an electric motor
- 63/14 . for implements drawn by animals or tractors
- 63/145 . . {for controlling weight transfer between implements and tractor wheels}
- 63/16 . . with wheels adjustable relatively to the frame
- 63/163 . . . {laterally adjustable}
- 63/166 . . . {manually adjustable}
- 63/18 . . . with clutch between Z-type axle and wheel
- 63/20 . . . with gear and rack
- 63/22 . . . operated by hydraulic or pneumatic means
- 63/24 . . Tools or tool-holders adjustable relatively to the frame
- 63/245 . . . {laterally adjustable}
- 63/26 . . . by man-power
- 63/28 . . . operated by the machine or implement
- 63/30 . . . operated by motor power through a mechanical transmission
- 63/32 . . . operated by hydraulic or pneumatic means {without automatic control}
- 67/00 Devices for controlling the tractor motor by resistance of tools** (preventing overstrain [A01B 61/00](#))
- 69/00 Steering of agricultural machines or implements; Guiding agricultural machines or implements on a desired track**
- NOTE**
- In this group it is obligatory to classify subject-matter in the first appropriate place. It is however allowed to apply multiple classification where considered useful for search
- 69/001 . {Steering by means of optical assistance, e.g. television cameras (steering devices for road marking vehicles [E01C 23/163](#))}
- 69/002 . {Steering or guiding on a substantially circular or spiral path}
- 69/003 . {Steering or guiding of machines or implements pushed or pulled by or mounted on agricultural vehicles such as tractors, e.g. by lateral shifting of the towing connection}
- 69/004 . . {automatic}
- 69/005 . . {by an additional operator}
- 69/006 . . {derived from the steering of the tractor}
- 69/007 . {Steering or guiding of agricultural vehicles, e.g. steering of the tractor to keep the plough in the furrow}
- 69/008 . . {automatic}
- 69/02 . Ridge-marking or like devices; Checkrow wires; Accessories therefor
- 69/022 . . {Ridge marking by deposition of a chemical substance, e.g. foam, on the surface of the soil}
- 69/024 . . {adapted to cut and form a ridge or furrow in the soil surface, e.g. with a disc}
- 69/026 . . {Checkrow wires}
- 69/028 . . . {the wire being located above the ground}
- 71/00 Construction or arrangement of setting or adjusting mechanisms, of implement or tool drive or of power take-off; Means for protecting parts against dust, or the like; Adapting machine elements to or for agricultural purposes** {(adjusting mechanisms in general [G05G](#))}
- 71/02 . Setting or adjusting mechanisms
- 71/04 . Bearings of rotating parts, e.g. for soil-working discs ({discs [A01B 15/16](#), [A01B 23/06](#)}; bearings in general [F16C](#))
- 71/06 . Special adaptations of coupling means between power take-off and transmission shaft to the implement or machine (couplings for transmitting rotation [F16D](#))
- 71/063 . . {for enabling transmission coupling and connection between tractor and implements to be controlled from the driver's seat}

- 71/066 . . {for enabling pitch, roll or yaw movements of trailed implements or machines }
- 71/08 . Means for protecting against dust, or the like, or for cleaning agricultural implements ([A01B 15/16](#), [A01B 19/10](#) and [A01B 23/06](#) take precedence; screening of rotary driven tilling tools [A01B 33/12](#); screening of rotary parts in general [F16P 1/00](#))
- 73/00 Means or arrangements to facilitate transportation of agricultural machines or implements, e.g. folding frames to reduce overall width**
(arrangements of lifting devices for soil working implements [A01B 63/00](#); {carriers for harvesters or mowers [A01D 75/002](#); arrangements or carriers for haymakers [A01D 78/1007](#), [A01D 80/005](#); } vehicles adapted for load transportation or to transport, to carry or to comprise special loads or objects [B60P](#); motor vehicles, trailers [B62D](#))
- 73/005 . {for endwise transportation, i.e. the direction of transport being substantially perpendicular to the direction of agricultural operation ([A01B 73/02](#) takes precedence)}
- 73/02 . Folding frames
- 73/04 . . foldable about a horizontal axis
- 73/042 . . . {specially adapted for actively driven implements }
- 73/044 . . . {the axis being oriented in a longitudinal direction ([A01B 73/042](#) takes precedence)}
- 73/046 {each folding frame part being foldable in itself }
- 73/048 . . . {the axis being oriented in transverse direction ([A01B 73/042](#) takes precedence)}
- 73/06 . . foldable about a vertical axis
- 73/062 . . . {of the type comprising four vertical folding axes each disposed at a substantially fixed location of a supporting frame }
- 73/065 . . . {to a position essentially forward of the axis, in relation to the direction of travel }
- 73/067 . . . {to a position essentially rearward of the axis, in relation to the direction of travel }
- 75/00 Carriers for supporting persons when working in the field, e.g. while thinning beet**
- 76/00 Parts, details or accessories of agricultural machines or implements, not provided for in groups [A01B 51/00](#) - [A01B 75/00](#)**
- 77/00 Machines for lifting and treating soil (biocides, pest repellants or attractants, plant growth regulators [A01N 25/00](#) - [A01N 65/00](#); fertilisers [C05](#); soil-conditioning or soil-stabilising materials [C09K 17/00](#))**
- 79/00 Methods for working soil**
- 79/005 . {Precision agriculture }
- 79/02 . combined with other agricultural processing, e.g. fertilising, planting