

# 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:  

<a href="#">A01B 69/04</a>	covered by	<a href="#">A01B 69/008</a>
<a href="#">A01B 69/06</a>	covered by	<a href="#">A01B 69/005</a>
<a href="#">A01B 69/08</a>	covered by	<a href="#">A01B 69/006</a>
- 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.

<b>1/00</b>	<b>Hand tools</b> (edge trimmers for lawns <a href="#">A01G 3/06</a> ; machines for working soil <a href="#">A01B 35/00</a> ; making hand tools <a href="#">B21D</a> ))	<b>Ploughs</b>	
1/02	. Spades; Shovels {(hand-operated dredgers <a href="#">E02F 3/02</a> )}	<b>3/00</b>	<b>Ploughs with fixed plough-shares</b>
1/022	. . {Collapsible; extensible; combinations with other tools}	3/02	. Man-driven ploughs
1/024	. . {Foot protectors attached to the blade}	3/04	. Animal-drawn ploughs
1/026	. . {with auxiliary handles for facilitating lifting}	3/06	. . without alternating possibility, i.e. incapable of making an adjacent furrow on return journey {, i.e. <b>conventional ploughing</b> }
1/028	. . {with ground abutment shoes or earth anchors for facilitating lifting}	3/08	. . . Swing ploughs
1/04	. . with teeth	3/10	. . . Trussed-beam ploughs; Single-wheel ploughs
1/06	. Hoes; Hand cultivators {(rakes <a href="#">A01D 7/00</a> ; forks <a href="#">A01D 9/00</a> ; picks <a href="#">B25D</a> )}	3/12	. . . Two-wheel beam ploughs
1/065	. . {powered}	3/14	. . . Frame ploughs
1/08	. . with a single blade	3/16	. . Alternating ploughs, i.e. capable of making an adjacent furrow on return journey
1/10	. . with two or more blades	3/18	. . . Turn-wrest ploughs
1/12	. . with blades provided with teeth	3/20	. . . Balance ploughs
1/14	. . with teeth only	3/22	. . . with parallel plough units used alternately
1/16	. Tools for uprooting weeds	3/24	. Tractor-drawn ploughs ( <a href="#">A01B 3/04</a> takes precedence)
1/165	. . {adapted for extracting a substantially cylindrical plug out of the earth}	3/26	. . without alternating possibility
1/18	. . Tong-like tools	3/28	. . Alternating ploughs
1/20	. Combinations of different kinds of hand tools	3/30	. . . Turn-wrest ploughs
1/22	. Attaching the blades or the like to handles ( <a href="#">handles for tools, or their attachment, in general B25G</a> ); Interchangeable or adjustable blades	3/32	. . . Balance ploughs
1/222	. . {Adjustable blades}	3/34	. . . with parallel plough units used alternately
1/225	. . . {around a substantially horizontal axis}	3/36	. Ploughs mounted on tractors
1/227	. . {Interchangeable blades}	3/38	. . without alternating possibility
1/24	. for treating meadows or lawns	3/40	. . Alternating ploughs
1/243	. . {for aerating}	3/42	. . . Turn-wrest ploughs
1/246	. . {for cutting sods or turves}	3/421	. . . . with a headstock frame made in one piece
		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}	13/08	. for working subsoil
3/464	. . {Alternating ploughs with frame rotating about a horizontal axis, e.g. turn-wrest ploughs}	13/10	. . Special implements for lifting subsoil layers
3/466	. . . {the frame comprising an articulated beam}	13/12	. . . Means for distributing the layers on the surface
3/468	. . {the plough wheels being actively driven}	13/14	. for working soil in two or more layers
3/50	. Self-propelled ploughs	13/16	. Machines for combating erosion, e.g. basin-diggers, furrow-dammers
3/52	. . with three or more wheels, or endless tracks	<b>15/00</b>	<b>Elements, tools, or details of ploughs</b>
3/54	. . . without alternating possibility	15/02	. Plough blades; Fixing the blades
3/56	. . . Alternating ploughs {; Balance ploughs}	15/025	. . {specially adapted for working subsoil}
3/58	. . with two wheels	15/04	. . Shares {(making ploughshares by rolling <a href="#">B21H</a> )}
3/60	. . . Alternating ploughs	15/06	. . . Interchangeable or adjustable shares
3/62	. . . . Balance ploughs	15/08	. . Mouldboards
3/64	. Cable ploughs; Indicating or signalling devices for cable plough systems {(vehicles towed by cable <a href="#">B60D</a> )}	15/10	. . . Interchangeable or adjustable mouldboards
3/66	. . with motor-driven winding apparatus mounted on the plough	15/12	. Beams; Handles (handles for tools or their attachment in general <a href="#">B25G</a> )
3/68	. . Cable systems with one or two engines {; e.g. electrically-driven or with diesel generating set}	15/125	. . {Articulated beams}
3/70	. . . Systems with one engine for working uphill	15/14	. Frames (means or arrangements to facilitate transportation <a href="#">A01B 73/00</a> )
3/72	. . Means for anchoring the cables	15/145	. . {the plough blades being connected to the plough beam for unisono adjustment of the furrow width}
3/74	. Use of electric power for propelling ploughs {for rotary cultivators or the like (electric current collectors <a href="#">B60L 5/00</a> )}	15/16	. Discs (bearings therefor <a href="#">A01B 71/04</a> ); Scrapers for cleaning discs; Sharpening attachments (sharpening in general <a href="#">B24</a> )
<b>5/00</b>	<b>Ploughs with rolling non-driven tools, e.g. discs (with rotary driven tools <a href="#">A01B 9/00</a>)</b>	15/18	. Coulters
5/02	. drawn by animals	15/20	. Special adjusting means for tools of ploughs drawn by, or mounted on tractors working on hillsides or slopes
5/04	. drawn by tractors	<b>17/00</b>	<b>Ploughs with special additional arrangements, e.g. means for putting manure under the soil, clod-crushers (<a href="#">A01B 49/00</a> takes precedence); {Means for breaking the subsoil}</b>
5/06	. . without alternating possibility {, e.g. with rotary counters provided with scrapers}	17/002	. {Means for putting manure, debris, straw or the like under the soil (to plough-in weeds <a href="#">A01B 39/18</a> )}
5/08	. . Alternating ploughs	17/004	. {Clod-crushers}
5/10	. mounted or partly-mounted on tractors	17/006	. . {with driven tools}
5/12	. . without alternating possibility	17/008	. . . {rotating about a vertical or steeply inclined axis}
5/14	. . Alternating ploughs		
5/16	. Self-propelled disc or like ploughs		
<b>7/00</b>	<b>Disc-like soil-working implements usable either as ploughs or as harrows, or the like</b>	<b>Harrows</b>	
<b>9/00</b>	<b>Ploughs with rotary driven tools (tilling implements with rotary driven tools <a href="#">A01B 33/00</a>)</b>	<b>19/00</b>	<b>Harrows with non-rotating tools {(harrows for working in vineyards <a href="#">A01B 39/16</a>)}</b>
9/003	. {with tools on horizontal shaft transverse to direction of travel}	19/02	. with tools rigidly or elastically attached to a tool-frame
9/006	. {with tools on horizontal shaft parallel to direction of travel}	19/04	. . with two or more tool-frames
<b>11/00</b>	<b>Ploughs with oscillating, digging or piercing tools {driven or not}</b>	19/06	. . with tools or tool-frames moved to-and-fro mechanically
<b>13/00</b>	<b>Ploughs or like machines for special purposes (for drainage <a href="#">E02B 11/02</a>); {Ditch diggers, trench ploughs, forestry ploughs, ploughs for land or marsh reclamation (machines for aerating meadows <a href="#">A01B 45/02</a>; making furrows <a href="#">A01C 5/00</a>; dredging machines in general <a href="#">E02F</a>)}</b>	19/08	. with link network supporting tooth-like tools
13/02	. for making or working ridges, e.g. with symmetrically arranged mouldboards {, e.g. ridging plough}	19/10	. Lifting or cleaning apparatus
13/025	. . {with passively driven rotating disc-like elements for forming the ridge}	<b>21/00</b>	<b>Harrows with rotary non-driven tools (tilling implements with rotary driven tools <a href="#">A01B 33/00</a>)</b>
13/04	. for working in vineyards, orchards, or the like	21/02	. with tooth-like tools
13/06	. . Arrangements for preventing damage to the vines, or the like {, e.g. hydraulic (machines specially adapted for working in vineyards <a href="#">A01B 39/16</a> )}	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}
		<b>23/00</b>	<b>Elements, tools, or details of harrows</b>

- 23/02 . Teeth; Fixing the teeth
- 23/04 . Frames (means or arrangements to facilitate transportation [A01B 73/00](#)); Drawing-arrangements
- 23/043 . . {specially adapted for harrows with non-rotating tools}
- 23/046 . . {Specially adapted for harrows with rotating 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](#))
- 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](#))}**

**Other machines for working soil**

- 27/00 Clod-crushers**
- 27/005 . {comprising roller-type tools moving on the ground}
- 29/00 Rollers {(rollers for roads [E01C](#))}**
- 29/02 . with smooth surface
- 29/04 . with non-smooth surface formed of rotatably-mounted rings or discs or with projections or ribs on the roller body; Land packers
- 29/041 . . {of "Cambridge"-type, i.e. the soil-pressing rings being stacked on a shaft}
- 29/043 . . . {Tire-packers}
- 29/045 . . {the soil-pressing body being a drum}
- 29/046 . . {the soil-pressing body being a helical coil}
- 29/048 . . {Bar cage rollers}
- 29/06 . with special additional arrangements
- 31/00 Drags {graders for field cultivators (graders in general [E02F](#))}**
- 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}**
- 33/02 . with tools on horizontal shaft transverse to direction of travel
- 33/021 . . {with rigid tools}
- 33/022 . . . {with helicoidal tools}
- 33/024 . . . {with disk-like tools}
- 33/025 . . {with spring tools, i.e. resiliently- or flexibly-attached rigid tools}
- 33/027 . . {Operator supported tools, e.g. using a harness for supporting the tool or power unit}
- 33/028 . . {of the walk-behind type ([walk-type tractors \[B62D 51/04\]\(#\)](#))}
- 33/04 . with tools on horizontal shaft parallel to direction of travel
- 33/06 . with tools on vertical or steeply-inclined shaft
- 33/065 . . {comprising a plurality of rotors carried by an elongate, substantially closed transmission casing, transversely connectable to a tractor}
- 33/08 . Tools; Details, e.g. adaptations of transmissions or gearings
- 33/082 . . {Transmissions; Gearings; Power distribution}
- 33/085 . . . {specially adapted for tools on a vertical shaft}
- 33/087 . . {Lifting devices; Depth regulation devices; Mountings}

- 33/10 . . Structural or functional features of the tools {; Theoretical aspects of the cutting action}
- 33/103 . . . {the rotating shaft being oriented horizontally}
- 33/106 . . . {the rotating shaft being oriented vertically or steeply inclined}
- 33/12 . . Arrangement of the tools; Screening of the tools
- 33/125 . . . {screening of tools rotating about a vertical shaft}
- 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](#))}**

- 35/02 . with non-rotating tools
- 35/04 . . drawn by animal or tractor {or man-power}
- 35/06 . . . with spring tools {or with resiliently- or flexibly-attached rigid tools}
- 35/08 . . . with rigid tools
- 35/10 . . mounted on tractors
- 35/12 . . . with spring tools {or with resiliently- or flexibly-attached rigid tools}
- 35/14 . . . with rigid tools
- 35/16 . with rotating or circulating non-propelled tools
- 35/18 . with both rotating and non-rotating tools
- 35/20 . Tools; Details
- 35/22 . . Non-rotating tools; {Resilient or flexible mounting of rigid tools}
- 35/225 . . . {the tools being adapted to allow the chisel point to be easily fitted or removed from the shank}
- 35/24 . . . Spring tools
- 35/26 . . . Rigid tools
- 35/28 . . Rotating tools; Mounting rotating tools
- 35/30 . . Undercarriages ([A01B 23/04](#) takes precedence)
- 35/32 . with special additional arrangements

**37/00 Devices for loosening soil compacted by wheels or the like****39/00 Other machines specially adapted for working soil on which crops are growing**

- 39/02 . with non-rotating tools
- 39/04 . . drawn by animal or tractor
- 39/06 . . Self-propelled machines
- 39/08 . with rotating tools {such as weeding machines}
- 39/085 . . {the rotating tools being actively driven}
- 39/10 . with oscillating tools {driven or not}
- 39/12 . for special purposes {, e.g. for special culture}
- 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 <a href="#">A01B 13/06</a> )}	51/04	. drawn by animal or tractor
39/163	. . . {comprising rotating tools}	51/045	. . {drawn by animals}
39/166	. . . . {actively driven}	<b>59/00</b>	<b>Devices specially adapted for connection between animals or tractors and agricultural machines or implements (<a href="#">A01B 63/00</a> takes precedence; vehicle connections in general <a href="#">B60D</a>; draught assemblies for animal drawn vehicles, in general <a href="#">B62C 5/00</a>)</b>
39/18	. . for weeding	59/002	. {Details, component parts}
39/19	. . . Rod weeders, i.e. weeder with rotary rods propelled beneath the soil surface	59/004	. . {Length-adjustable links}
39/20	. Tools; Details	59/006	. . {Latched hooks}
39/22	. . Tools; Mounting tools	59/008	. . {Link connectors with spherical surfaces}
39/24	. . Undercarriages ( <a href="#">A01B 23/04</a> takes precedence)	59/02	. for animal-drawn machines
39/26	. . Arrangements for protecting plants {, e.g. fenders}	59/04	. for machines pulled or pushed by a tractor
39/28	. with special additional arrangements ( <a href="#">A01B 49/00</a> takes precedence)	59/041	. . preventing or limiting side-play of implements (preventing overstrain <a href="#">A01B 61/00</a> )
<b>41/00</b>	<b>Thinning machines</b>	59/0415	. . . {by hydraulic or pneumatic means acting on the lower draft links}
41/02	. with oscillating tools	59/042	. . having pulling means arranged on the rear part of the tractor
41/04	. with rotating tools	59/043	. . . supported at three points, e.g. by quick-release couplings ( <a href="#">A01B 59/06</a> takes precedence)
41/06	. with electric, e.g. photo-electric control of thinning operations	59/044	. . having pulling means arranged on the middle part of the tractor
<b>43/00</b>	<b>Gatherers for removing stones, undesirable roots or the like from the soil, e.g. tractor-drawn rakes</b>	59/046	. . having pulling or pushing means arranged on the side of the tractor
43/005	. {Windrower-type machines}	59/048	. . having pulling or pushing means arranged on the front part of the tractor
<b>45/00</b>	<b>Machines for treating meadows or lawns {, e.g. for sports grounds}</b>	59/06	. for machines mounted on tractors
45/02	. for aerating	59/061	. . {specially adapted for enabling connection or disconnection controlled from the driver's seat (not used, see subgroups)}
45/023	. . {Perforators comprising spiking tools actively driven in a reciprocating movement through a crankshaft or eccentric mechanism}	59/062	. . . {the connection comprising a rigid interface frame on the tractor}
45/026	. . {Scarifiers comprising a knife reel actively driven around a substantially horizontal shaft}	59/063	. . . {the connection comprising longitudinally oriented tang-and-sheath elements}
<b>47/00</b>	<b>Soil-working with electric potential applied between tools and soil</b>	59/064	. . {for connection to the front of the tractor}
<b>49/00</b>	<b>Combined machines (auxiliary devices attached to machines of a different kind, e.g. harrows attached to ploughs, see the relevant groups for the machines)</b>	59/065	. . {for ploughs or like implements ( <a href="#">A01B 59/061</a> and subgroups take precedence)}
49/02	. with two or more soil-working tools of different kind	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)}
49/022	. . {at least one tool being actively driven}	59/067	. . . {the lower arms being lifted or lowered by power actuator means internally incorporated in the tractor}
49/025	. . . {about a substantially vertical axis}	59/068	. . . {the lower arms being lifted or lowered by power actuator means provided externally on the tractor}
49/027	. . {with a rotating, soil working support element, e.g. a roller}	59/069	. . {with means for weighing the implement}
49/04	. Combinations of soil-working tools with non-soil-working tools, e.g. planting tools	<b>61/00</b>	<b>Devices for, or parts of, agricultural machines or implements for preventing overstrain (preventing overstrain in vehicle connections, in general <a href="#">B60D</a>; preventing overstrain in couplings per se <a href="#">F16D</a>)</b>
49/06	. . for sowing or fertilising	61/02	. of the coupling devices between tractor and machine
49/065	. . . {the soil-working tools being actively driven}	61/025	. . {the driving connections}
		61/04	. of the connection between tools and carrier beam or frame
<b>51/00</b>	<b>Undercarriages specially adapted for mounting-on various kinds of agricultural tools or apparatus (general vehicle aspects, see the relevant subclass of class <a href="#">B60</a> or <a href="#">B62</a>)</b>	61/042	. . {with shearing devices}
51/02	. propelled by a motor	61/044	. . {the connection enabling a yielding pivoting movement around a substantially horizontal and transverse axis}
51/023	. . {of the Gantry-type}	61/046	. . . {the device including an energy accumulator for restoring the tool to its working position}
51/026	. . {of the automotive vehicle type, e.g. including driver accommodation ( <a href="#">A01B 51/023</a> takes precedence)}		

**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](#))



- 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 (essentially requiring the use of particular machines, [see](#) the relevant groups for the machines)**
- 79/005 . {Precision agriculture}
- 79/02 . combined with other agricultural processing, e.g. fertilising, planting