

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