

SECTION A – HUMAN NECESSITIES

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; machines for harvesting root crops A01D; mowers convertible to soil working apparatus or capable of soil working A01D 42/04; mowers combined with soil working implements A01D 43/12; soil working for engineering purposes E01, E02, E21)

HAND TOOLS.....	1/00	IMPLEMENTS USABLE EITHER AS	
PLOUGHS		PLOUGHS OR AS HARROWS OR THE	
General construction.....	3/00, 5/00, 9/00, 11/00	LIKE	7/00
Special adaptations	13/00, 17/00	OTHER MACHINES	27/00 45/00, 49/00, 77/00
Details	15/00	ELEMENTS OR PARTS OF MACHINES OR	
HARROWS		IMPLEMENTS.....	59/00 71/00
General construction.....	19/00, 21/00	TRANSPORT IN AGRICULTURE	51/00, 73/00, 75/00
Special applications	25/00	OTHER PARTS, DETAILS OR	
Details	23/00	ACCESSORIES OF AGRICULTURAL	
		MACHINES OR IMPLEMENTS	76/00
		PARTICULAR METHODS FOR WORKING	
		SOIL.....	47/00, 79/00

1/00 Hand tools (edge trimmers for lawns A01G 3/06)	3/30 . . .	Turn-wrest ploughs
1/02 . Spades; Shovels	3/32 . . .	Balance ploughs
1/04 . . with teeth	3/34 . . .	with parallel plough units used alternately
1/06 . Hoes; Hand cultivators	3/36 .	Ploughs mounted on tractors
1/08 . . with a single blade	3/38 . .	without alternating possibility
1/10 . . with two or more blades	3/40 . .	Alternating ploughs
1/12 . . with blades provided with teeth	3/42 . . .	Turn-wrest ploughs
1/14 . . with teeth only	3/421	with a headstock frame made in one piece [2]
1/16 . Tools for uprooting weeds	3/426	with a headstock frame made of two or more parts [2]
1/18 . . Tong-like tools	3/44 . . .	with parallel plough units used alternately
1/20 . Combinations of different kinds of hand tools	3/46 .	Ploughs supported partly by tractor and partly by their own wheels
1/22 . Attaching the blades or the like to handles (handles for tools, or their attachment, in general B25G); Interchangeable or adjustable blades	3/50 .	Self-propelled ploughs
1/24 . for treating meadows or lawns [2]	3/52 . .	with three or more wheels, or endless tracks
	3/54 . . .	without alternating possibility
	3/56 . . .	Alternating 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
	3/66 . .	with motor-driven winding apparatus mounted on the plough
	3/68 . .	Cable systems with one or two engines
	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 (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

Ploughs

3/00 Ploughs with fixed plough-shares
3/02 . Man-driven ploughs
3/04 . Animal-drawn ploughs
3/06 . . without alternating possibility, i.e. incapable of making an adjacent furrow on return journey
3/08 . . . Swing ploughs
3/10 . . . Trussed-beam ploughs; Single-wheel ploughs
3/12 . . . Two-wheel beam ploughs
3/14 . . . Frame ploughs
3/16 . . Alternating ploughs, i.e. capable of making an adjacent furrow on return journey
3/18 . . . Turn-wrest ploughs
3/20 . . . Balance ploughs
3/22 . . . with parallel plough units used alternately
3/24 . Tractor-drawn ploughs (A01B 3/04 takes precedence)
3/26 . . without alternating possibility
3/28 . . Alternating ploughs

- 5/06 . . without alternating possibility
- 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)
- 11/00 Ploughs with oscillating, digging or piercing tools**
- 13/00 Ploughs or like machines for special purposes** (for drainage E02B 11/02)
 - 13/02 . for making or working ridges, e.g. with symmetrically arranged mouldboards
 - 13/04 . for working in vineyards, orchards, or the like
 - 13/06 . . Arrangements for preventing damage to the vines, or the like
 - 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
 - 15/04 . . Shares
 - 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)
 - 15/14 . Frames (means or arrangements to facilitate transportation A01B 73/00) [4]
 - 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; ploughs for working subsoil A01B 13/08) [2]

Harrows

- 19/00 Harrows with non-rotating tools**
 - 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

- 23/00 Elements, tools, or details of harrows**
 - 23/02 . Teeth; Fixing the teeth
 - 23/04 . Frames (means or arrangements to facilitate transportation A01B 73/00); Drawing-arrangements [4]
 - 23/06 . Discs (A01B 15/16 takes precedence; bearings therefor A01B 71/04); Scrapers for cleaning discs; Sharpening attachments (sharpening in general B24) [2]
- 25/00 Harrows with special additional arrangements, e.g. means for distributing fertilisers; Harrows for special purposes** (A01B 39/00 takes precedence)

Other machines for working soil

- 27/00 Clod-crushers**
- 29/00 Rollers**
 - 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
 - 29/06 . with special additional arrangements
- 31/00 Drags**
- 33/00 Tilling implements with rotary driven tools**
 - 33/02 . with tools on horizontal shaft transverse to direction of travel
 - 33/04 . with tools on horizontal shaft parallel to direction of travel
 - 33/06 . with tools on vertical or steeply-inclined shaft
 - 33/08 . Tools; Details, e.g. adaptations of transmissions or gearings
 - 33/10 . . Structural or functional features of the tools
 - 33/12 . . Arrangement of the tools; Screening of the tools
 - 33/14 . . Attaching the tools to the rotating shaft, e.g. resiliently-attached tools
 - 33/16 . with special additional arrangements (A01B 49/00 takes precedence; for sowing or fertilising A01B 49/06) [2]
- 35/00 Other machines for working soil** (A01B 37/00, A01B 39/00, A01B 77/00 take precedence)
 - 35/02 . with non-rotating tools
 - 35/04 . . drawn by animal or tractor
 - 35/06 . . . with spring tools
 - 35/08 . . . with rigid tools
 - 35/10 . . mounted on tractors
 - 35/12 . . . with spring 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; Mounting non-rotating tools
 - 35/24 . . . Spring tools
 - 35/26 . . . Rigid tools
 - 35/28 . . Rotating tools; Mounting rotating tools
 - 35/30 . . Undercarriages (A01B 23/04 takes precedence) [2]
 - 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
- 39/10 . with oscillating tools
- 39/12 . for special purposes
- 39/14 . . for working ridges
- 39/16 . . for working in vineyards, orchards, or the like
- 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) [2]
- 39/26 . . Arrangements for protecting plants
- 39/28 . with special additional arrangements (A01B 49/00 takes precedence) [2]
- 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 [4]**
- 45/00 Machines for treating meadows or lawns**
- 45/02 . for aerating
- 45/04 . for cutting sods or turves
- 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
- 49/04 . Combinations of soil-working tools with non-soil-working tools, e.g. planting tools
- 49/06 . . for sowing or fertilising
- 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, arrangement or mounting of seats in vehicles B60N 2/00; wheel scrapers B60S 1/68) [3]
- 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
- 51/04 . drawn by animal or tractor
- 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) [3]
- 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) [2]
- 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
- 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) [3]
- 61/02 . of the coupling devices between tractor and machine
- 61/04 . of the connection between tools and carrier beam or frame
- 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) [3]
- 63/02 . for implements mounted on tractors
- 63/04 . . Hand devices; Hand devices with mechanical accumulators, e.g. springs
- 63/06 . . operated mechanically by tractor motor
- 63/08 . . operated by the movement of the tractor
- 63/10 . . operated by hydraulic or pneumatic means
- 63/102 . . . 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 [2]
- 63/111 . . . regulating working depth of implements
- 63/112 to control draught load, i.e. tractive force [2]
- 63/114 to achieve a constant working depth [2]
- 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) [2]
- 63/12 . . operated by an electric motor
- 63/14 . for implements drawn by animals or tractors
- 63/16 . . with wheels adjustable relatively to the frame
- 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
- 63/26 . . . 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
- 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 [3]**
- 69/02 . Ridge-marking or like devices; Checkrow wires; Accessories therefor
- 69/04 . Special adaptations of automatic tractor steering, e.g. electric system for contour ploughing

A01B

- 69/06 . Lateral steering of machines by an additional operator
- 69/08 . Lateral steering of machines derived from the lateral movement of tractor
- 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**
- 71/02 . Setting or adjusting mechanisms
- 71/04 . Bearings of rotating parts, e.g. for soil-working discs (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)
- 71/08 . Means for protecting against dust or the like, or for cleaning agricultural implements (A01B 15/16, A01B 19/10, A01B 23/06 take precedence; screening of rotary driven tilling tools A01B 33/12; screening of rotary parts in general F16P 1/00) [2]

- 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; vehicles adapted for load transportation or to transport, to carry or to comprise special loads or objects B60P; motor vehicles, trailers B62D) [4]

- 73/02 . Folding frames [4]
- 73/04 . . foldable about a horizontal axis [4]
- 73/06 . . foldable about a vertical axis [4]

- 75/00 Carriers for supporting persons when working in the field, e.g. while thinning beet**
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- 76/00 Parts, details or accessories of agricultural machines or implements, not provided for in groups A01B 51/00 A01B 75/00 [8]**

- 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)

- 79/02 . combined with other agricultural processing, e.g. fertilising, planting