

CPC COOPERATIVE PATENT CLASSIFICATION

A HUMAN NECESSITIES

AGRICULTURE

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

A01D HARVESTING; MOWING {(parts, details or accessories of agricultural machines or implements in general [A01B 51/00](#) - [A01B 75/00](#))}

NOTES

1. This subclass covers the shredding or pulverising of stubble, e.g. for the purpose of producing mulch, but does not cover other mechanical destruction of unwanted vegetation, which is covered by group [A01M 21/02](#)
2. In this subclass, in groups [A01D 34/00](#), [A01D 42/00](#), [A01D 43/00](#), [A01D 57/00](#), [A01D 67/00](#), [A01D 69/00](#) and [A01D 75/00](#), it is desirable to add the indexing code of group [A01D 2101/00](#)

Hand implements (devices for picking apples or like fruit [A01D 46/24](#); soil-working implements not specially adapted for harvesting [A01B 1/00](#))

1/00 Hand-cutting implements for harvesting (hedge trimming means [A01G 3/04](#); {hand-cutting in general [B26](#); making from sheet metal [B21D 53/72](#); making by rolling [B21H 7/10](#)})

- 1/02 . Scythes
- 1/04 . Sickles
- 1/06 . Knives
- 1/08 . Attaching means for blades
- 1/10 . . with fastening by means of eccentric levers
- 1/12 . . with blades adjustable in several ways
- 1/14 . Handles; Accessories, e.g. scythe baskets, safety devices

3/00 Non-abrasive sharpening devices for scythes, sickles or the like (abrasive or similar sharpening devices [B24D 15/06](#))

- 3/02 . with percussive tools
- 3/04 . with pressing jaws
- 3/06 . with pressing rollers or pressing discs
- 3/08 . Details, e.g. scythe anvils, scythe guides

5/00 Containers for whetstones for use during harvesting (whetting implements [B24D 15/00](#))

7/00 Rakes (mowers convertible to rakes or capable of raking [A01D 42/02](#); mowers combined with rakes [A01D 43/02](#); haymakers, crop conditioners [A01D 76/00](#) - [A01D 84/00](#); {making rakes from sheet metal [B21D 53/68](#); making rakes by rolling [B21H 7/08](#)})

- 7/02 . with tines rigidly connected to the rake-bar
- 7/04 . with adjustable rake-bar
- 7/06 . with tines specially shaped or attached
- 7/08 . with exchangeable tines
- 7/10 . combined with strippers, grippers or the like

9/00 Forks {(making forks from sheet metal [B21D 53/68](#); making forks by rolling [B21H 7/08](#))}

- 9/02 . with tines rigidly connected to the handle

9/04 . with exchangeable tines

9/06 . combined with strippers, grippers or the like

11/00 Other hand implements {(for maize [A01D 45/026](#), for cotton [A01D 46/087](#))}

11/02 . for lifting or cropping beet, potatoes or other root crops

11/025 . . {Knives for topping beets}

11/04 . for handling root crops, e.g. shovels, fork-like shovels

11/06 . Combined implements, e.g. fork and rake

Machines for harvesting root crops

13/00 Diggers, e.g. potato ploughs

15/00 Digging machines with sieve graters but without conveying mechanisms

- 15/02 . with rigid graters
- 15/04 . with moving or vibrating graters

17/00 Digging machines with sieving and conveying mechanisms

- 17/02 . with conveyors arranged above the sieving device
- 17/04 . with conveyors arranged below the sieving device
- 17/06 . with rollers or disc screens
- 17/08 . with shaker type screens
- 17/10 . with smooth conveyor belts, lath bands or rake bands

17/101 . . {with two superposed conveyor belts}

2017/103 . . {Constructional details of conveyor belts}

2017/105 . . {Driving means for the belt}

2017/106 . . {Belts with fingers mounted on them}

2017/108 . . {Belts with paddles mounted on them}

17/12 . with bucket conveyors

17/14 . with cylindrical screens

17/16 . . with a conveyor spiral

17/18 . . without a conveyor spiral

17/20 . . with several co-operating screens

17/22 . . with several co-operating sifter bands

19/00 Digging machines with centrifugal wheels, drums or spinners

19/02	• with working tools rotating around a horizontal axis arranged transverse to the direction of travel	33/14	• Lifting or lowering mechanisms for the tools
19/04	• with working tools rotating around a horizontal axis arranged parallel to the direction of travel	Harvesters or mowers for grass, cereals, or other crops (component parts thereof A01D 57/00 - A01D 69/00 ; accessories therefor A01D 75/00)	
19/06	• . with scoop wheels or drums	34/00	Mowers (combined with apparatus performing additional operations while mowing A01D 37/00 - A01D 41/00 , A01D 43/00 ; convertible to apparatus for purposes other than mowing or capable of performing operations other than mowing A01D 42/00); Mowing apparatus of harvesters
19/08	• . with scoop tine chains	34/001	• {Accessories not otherwise provided for}
19/10	• . with receiving screens; Implements for depositing the root crops	34/003	• . {Means for cleaning the machine}
19/12	• with working tools arranged on an approximately vertical axis	34/005	• . {Mulching means}
19/14	• . with one screening wheel	34/006	• {Control or measuring arrangements}
19/16	• . with several screening wheels	34/008	• . {for automated or remotely controlled operation}
19/18	• . with screen tine chains	34/01	• characterised by features relating to the type of cutting apparatus
21/00	Digging machines with potato-picking implements	34/015	• . {Cutting mechanisms not covered by another group}
21/02	• with picking tools moved up-and-down	34/02	• . having reciprocating cutters
21/04	• with rotating picking tools	34/03	• . . . mounted on a vehicle, e.g. a tractor, or drawn by an animal or a vehicle
23/00	Topping machines	34/032	• {drawn by an animal or a vehicle}
23/02	• cutting the tops before being lifted	34/035	• {with cutter bars driven by a power take-off from the vehicle}
2023/022	• . {Rotatable cleaning devices, e.g. brushes, for removing the rests of vegetal material on the root-crops not yet harvested (with cutters A01D 2023/026)}	34/037	• {with additional power-supply}
2023/024	• . {Devices with fix blades for topping}	34/04	• with cutters at the front
2023/026	• . {Devices with movable knives for topping, e.g. rotatable cutting disks}	34/043	• {for cutting at the side}
2023/028	• . . . {Cutters rotating around a shaft forming a cutting rotor}	34/046	• {drawn by an animal or a vehicle}
23/04	• cutting the tops after being lifted (processing of harvested produce in bulk A01F 29/00 , A23N)	34/06	• with cutters at the side
23/06	• with collecting and depositing devices for the tops; Devices for protecting the tops against damage	34/065	• {drawn by an animal or a vehicle}
25/00	Lifters for beet or like crops	34/07	• with cutters at the back
25/005	• {Auxiliary devices for the lifters}	34/08	• . . . hand-guided by a walking operator
25/02	• Machines with rigid tools	34/10	• with motor driven cutters or wheels
25/04	• Machines with moving or rotating tools	34/125	• . . . with means for discharging mown material (A01D 57/26 - A01D 57/30 take precedence; combined with means for gathering or loading mown material A01D 43/06)
25/042	• . {with driven tools}	34/13	• . . . Cutting apparatus
25/044	• . . {with driven rotating tools}	34/135	• having oppositely movable cooperating knife-bars
25/046	• . . . {with oscillating tools}	34/14	• Knife-bars
25/048	• . . . {with endless chains}	34/145	• {Devices for connecting the knife-bars to the driving mechanism}
27/00	Machines with both topping and lifting mechanisms	34/16	• Guides for the knife-bar in the ledger-plate
27/02	• with rigid tools	34/17	• Holding-down devices for the knife
27/04	• with moving or rotating tools	34/18	• Guard fingers; Ledger-plates
29/00	Harvesters for peanuts	34/20	• Ledger-plate bars
31/00	Other digging harvesters {(for harvesting asparagus A01D 45/007)}	34/22	• Shoes therefor
31/02	• combined with other agricultural machines, e.g. drilling, planting, hay-harvesting machines	34/23	• with additional vertical cutter-bar
33/00	Accessories for digging harvesters	34/24	• . . . Lifting devices for the cutter-bar
2023/005	• {Yield crop determination mechanisms for root-crop harvesters}	34/243	• {Mechanical lifting devices (A01D 34/26 takes precedence)}
33/02	• Foliage-separating mechanisms	34/246	• {Hydraulic lifting devices}
33/04	• Stone-separating mechanisms	34/26	• manually actuated
33/06	• Haulm-cutting mechanisms	34/27	• Devices for disengaging the knife-driving mechanisms during the lifting of the cutter-bar
33/08	• Special sorting and cleaning mechanisms	34/28	• . . . Adjusting devices for the cutter-bar
33/10	• Crop collecting devices, with or without weighing apparatus	34/283	• {Adjustment of the cutter bar in a vertical plane, i.e. to adjust the angle between the cutter bar and the soil}
33/105	• . {Devices for gathering the crop in a row}		
33/12	• Driving mechanisms, with or without motor		

34/286	. . . . {Adjustment of the cutter bar on a horizontal plane, i.e. to adjust the angle between the cutter bar and the tractor}	34/662	. . . . . {to the front of the vehicle}
34/30	. . . Driving mechanisms for the cutters	34/664	. . . . . {Disc cutter bars}
34/305	. . . . {Balancing}	34/665	. . . . . {modular}
34/32	. . . . Connecting-rods for knife-driving mechanisms	34/667	. . . . . {Means for directing the cut crop}
34/33	. . . . . Devices for connecting the rod to the knife-bar	34/668	. . . . . {rotating}
34/34	. . . . . Devices for connecting the rod to the crank-pin of the driving mechanism	34/67	. . . . hand-guided by a walking operator
34/36	. . . . actuated by advance of the machine	34/68	. . . . . with motor driven cutters or wheels
34/37	. . . . electric	34/6806	. . . . . {Driving mechanisms (for the cutters A01D 34/76)}
34/38	. . . . fluid	34/6812	. . . . . {Braking or clutching mechanisms}
34/40	. . . Other details	34/6818	. . . . . {Motor starting mechanisms}
34/404	. . having cutters driven to oscillate in a horizontal plane	2034/6825	. . . . . {being tire driven}
34/408	. . . and cooperating with counter-cutters	2034/6831	. . . . . {being fluid driven}
34/412	. . having rotating cutters	2034/6837	. . . . . {Drive connections}
34/416	. . . Flexible line cutters	2034/6843	. . . . . {Control levers on the handle of the mower}
34/4161	. . . . {Means for feeding cutter line}	34/685	. . . . . with two or more cutters
34/4162	. . . . {automatically}	34/69	. . . . . with motor driven wheels
34/4163	. . . . {by triggered line feedout, e.g. bump-feeding}	34/695	. . . . supported by an air cushion
34/4165	. . . . {Mounting of the cutter head}	34/71	. . . . with means for discharging mown material (A01D 57/26 - A01D 57/30 take precedence; combined with means for gathering or loading mown material A01D 43/06)
34/4166	. . . . {Mounting or replacement of the lines}	34/73	. . . . Cutting apparatus
34/4167	. . . . {Protection devices}	34/733	. . . . . {Cutting-blade mounting means}
34/4168	. . . . {Constructional details of the flexible lines}	34/736	. . . . . {Flail type}
34/42	. . . having cutters rotating about a horizontal axis, e.g. cutting-cylinders	34/74	. . . . Cutting-height adjustment
34/43	. . . . mounted on a vehicle, e.g. a tractor, or drawn by an animal or a vehicle	34/76	. . . . Driving mechanisms for the cutters
34/435	. . . . . {Flail harvesters or mowers (cutting flails A01D 34/535)}	34/77	. . . . . actuated by advance of the machine
34/44	. . . . . with two or more cutters	34/78	. . . . . electric
34/46	. . . . hand-guided by a walking operator (A01D 34/43 takes precedence)	34/80	. . . . . fluid
34/47	. . . . . with motor driven cutters or wheels	34/81	. . . . Casings; Housings (A01D 34/71 takes precedence)
34/475	. . . . . {Driving mechanisms (for the cutters A01D 34/56)}	34/82	. . . . Other details
34/49	. . . . with means for discharging mown material (A01D 57/26 - A01D 57/30 take precedence; combined with means for gathering or loading mown material A01D 43/06)	34/822	. . . . . {Devices for guiding or supporting cables}
34/52	. . . . Cutting apparatus	34/824	. . . . . {Handle arrangements}
34/53	. . . . . Helically shaped cutting members	34/826	. . . . . {Noise reduction means}
34/535	. . . . . with cutting members pivotally attached to the rotating axle, e.g. flails	34/828	. . . . . {Safety devices}
34/54	. . . . Cutting-height adjustment	34/83	. . having cutting members on endless belts or sprocket chains
34/56	. . . . Driving mechanisms for the cutters	34/831	. . . . {with blades on endless belts}
34/57	. . . . . actuated by advance of the machine	34/833	. . . . {with blades on endless sprocket chains}
34/58	. . . . . electric	34/835	. . specially adapted for particular purposes
34/60	. . . . . fluid	34/8355	. . {for cutting up or crushing remaining standing stalks, e.g. stubble (mowers combined with means for cutting up, crushing or bruising, the mown crop A01D 43/08, A01D 43/10; apparatus for crushing or bruising mown stalks A01D 82/00; apparatus for cutting up the mown crop A01F 29/00)}
34/62	. . . . Other details	34/84	. . for edges of lawns or fields, e.g. for mowing close to trees or walls ({for embankments A01D 34/86 takes precedence; } hand-held edge trimmers A01G 3/06)
34/63	. . . having cutters rotating about a vertical axis	34/86	. . for use on sloping ground, e.g. on embankments {or in ditches} (undercarriages or frames specially adapted for harvesters or mowers A01D 67/00; control mechanisms for harvesters or mowers when moving on slopes A01D 75/28)
34/64	. . . . mounted on a vehicle, e.g. a tractor, or drawn by an animal or a vehicle (A01D 34/695 takes precedence)	34/863	. . . {and for mowing around obstacles, e.g. posts, trees, fences or the like (A01D 34/866 takes precedence)}
2034/645	. . . . . {Lifting means for the cutter of the lawnmower mounted at the front of the vehicle for inspection and maintenance}	34/866	. . . {Mounting means}
34/66	. . . . . with two or more cutters		
34/661	. . . . . {Mounting means}		

34/90	. . for carrying by the operator	42/00	Mowers convertible to apparatus for purposes other than mowing; Mowers capable of performing operations other than mowing (mowers combined with apparatus performing additional operations while mowing A01D 43/00)
34/902	. . . {Ergonomic provisions}	42/005	. {Mulching (shredders or like cutting implements for comminuting plant waste <i>per se</i> A01G 3/002)}
34/905	. . . {Vibration dampening means}	42/02	. Raking
2034/907	. . . {Control levers for portable mowing machines}	42/04	. Soil working
37/00	Reaper-binders (features relating to mowing only A01D 34/00 , to binding only A01D 39/00 ; equipment thereon for binding harvested produce, e.g. knotters, A01D 59/00 ; {bundling articles B65B 13/00 })	42/06	. Sweeping or cleaning lawns or other surfaces {(sweeping apparatus for lawns <i>per se</i> A01G 20/43)}
37/02	. with receiving platform and binding apparatus but without elevating canvases {(knotting D04G)}	42/08	. . Sweeping snow
37/04	. conveying the stalks in vertical position {(delivering devices for standing stalks A01D 57/22)}	43/00	Mowers combined with apparatus performing additional operations while mowing (A01D 37/00 , A01D 39/00 , A01D 41/00 , take precedence)
37/06	. binding with stalks or straw bands {(implements for laying-out bands for sheaves A01D 75/16)}	43/003	. {with devices for drying or burning}
39/00	Independent binders, e.g. for hay; Binders attachable to mowers (equipment thereon for binding harvested produce, e.g. knotters, A01D 59/00 ; stationary apparatus or hand tools for forming or binding hay or straw into bundles A01F 1/00 ; {bundling articles B65B 13/00 ; knotting D04G })	43/006	. {with devices for pressing or compacting}
39/005	. {Binders combined with devices for picking-up the harvest}	43/02	. with rakes
41/00	Combines, i.e. harvesters or mowers combined with threshing devices (threshing devices for combines A01F 7/00 - A01F 12/00)	43/04	. with haymakers, e.g. tedders
41/02	. Self-propelled combines	43/06	. with means for collecting, gathering or loading mown material {(A01D 43/086 takes precedence; for hay or the like A01D 87/00)}
41/04	. Tractor-driven combines	43/063	. . in or into a container carried by the mower; Containers therefor (A01D 43/077 takes precedence)
41/06	. Combines with headers	43/0631	. . . {Control devices specially adapted therefor}
41/08	. Combines with thresh before the stalk is cut	43/0633	. . . {with compacting means}
41/10	. Field threshers with windrow pick-up apparatus	43/0635	. . . {with emptying means}
41/12	. Details of combines	43/0636	. . . {Flexible containers}
41/1208	. . {Tanks for grain or chaff (for threshing machines A01F 12/60)}	43/0638	. . . {Rigid containers}
41/1217	. . . {Unloading mechanisms}	43/07	. . in or into a trailer (A01D 43/077 takes precedence)
41/1226	. . . {Extension mechanisms}	43/073	. . . with controllable discharge spout
41/1235	. . {Platforms for sacking}	43/077	. . with auxiliary means, e.g. fans, for transporting the mown crop
41/1243	. . {Devices for laying-out or distributing the straw}	43/0775	. . . {for airborne lawn-mowers}
41/1252	. . {Anti-dust devices}	43/08	. with means for cutting up the mown crop {, e.g. forage harvesters (threshing machines having chaff-cutters A01F 12/40 ; cutting apparatus of chaff-cutters or of apparatus for cutting up mown crop A01F 29/00)}
41/1261	. . {Access devices for personnel}	43/081	. . {specially adapted for ensilage of maize}
41/127	. . Control or measuring arrangements specially adapted for combines	43/082	. . . {Gathering units}
41/1271	. . . {for measuring crop flow}	43/083	. . . . {with belts or chains}
41/1272	. . . . {for measuring grain flow}	43/085	. . {Control or measuring arrangements specially adapted therefor}
41/1273	. . . . . {for measuring grain loss}	43/086	. . {and means for collecting, gathering or loading mown material}
41/1274	. . . {for drives}	43/087	. . . {with controllable discharge spout}
41/1275	. . . {for the level of grain in grain tanks}	43/088	. . {Mounting means}
41/1276	. . . {for cleaning mechanisms}	43/10	. with means for crushing or bruising the mown crop {(stalk crushers or bruisers <i>per se</i> for standing stalks or stubbles A01D 34/8355 , for mown crop A01D 82/00 , for straw A01F 12/40)}
41/1277	. . . {for measuring grain quality}	43/102	. . {Bruising control devices}
41/1278	. . . {for automatic steering}	43/105	. . {Driving mechanisms}
41/133	. . Drying devices	43/107	. . {Mounting means}
41/14	. . Mowing tables	43/12	. with soil-working implements, e.g. ploughs
41/141	. . . {Automatic header control}	43/14	. with dispensing apparatus, e.g. for fertilisers, herbicides or preservatives
41/142	. . . {Header drives}	43/16	. with lawn edgers
41/144	. . . {Foldable headers}		
41/145	. . . {Header lifting devices}		
41/147	. . . {Sunflower header attachments}		
41/148	. . . {Telescopic headers}		
41/16	. . . Devices for coupling mowing tables to conveyors		

44/00	Harvesting of underwater plants, e.g. harvesting of seaweed	46/18	. . . . mounted on rotary carrier
44/02	. of laver	46/20	. Platforms with lifting and lowering devices
45/00	Harvesting of standing crops (A01D 44/00 takes precedence; threshing machines adapted for special crops, threshing devices for combines adapted for special crops A01F 11/00; harvesting of mushrooms A01G 18/70)	46/22	. Baskets or bags attachable to the picker
45/001	. {with arrangements for transport of personnel}	46/24	. Devices for picking apples or like fruit (A01D 46/28 {and A01D 46/005 } takes precedence)
45/002	. {of pineapples}	46/243	. . {Accessories specially adapted for manual picking, e.g. ladders, carts}
45/003	. {of millet, sorghum}	46/247	. . Manually operated fruit-picking tools (A01D 46/26 takes precedence)
45/006	. {of tomatoes}	46/253	. . Portable motorised fruit pickers
45/007	. {of asparagus}	46/26	. Devices for shaking trees or shrubs; Fruit catching devices to be used therewith (A01D 46/28 takes precedence)
45/008	. {of cucumbers}	2046/262	. . {Collecting surfaces extended around a tree in order to catch the fruit}
45/02	. of maize {, i.e. kernel harvesting (for ensilage maize A01D 43/081)}	46/264	. . {Devices for beating or vibrating the foliage; Fruit catching devices to be used therewith}
45/021	. . {Cornheaders}	2046/266	. . {Portable devices to shake branches}
45/023	. . . {Gathering chains of belts}	2046/268	. . {Devices to shake the branches pneumatically powered}
45/025	. . . {Snapping rolls}	46/28	. Vintaging machines, i.e. grape harvesting machines
45/026	. . {Hand implements}	46/285	. . {with means for separating leaves and grapes, e.g. pneumatical means like blowing or aspirating devices}
45/028	. . {Harvesting devices mounted to a vehicle}	46/30	. Robotic devices for individually picking crops
45/04	. of rice	47/00	Headers {for topping of plants, e.g. stalks with ears}
45/06	. of flax {or similar fibrous plants}	51/00	Apparatus for gathering together crops spread on the soil, e.g. apples, beets, nuts, potatoes {, cotton, cane sugar}
45/065	. . {of fibrous plants other than flax, e.g. ramie, sisal, hemp, jute, Spanish grass, raffia}	51/002	. {for apples or nuts}
45/10	. of sugar cane {(for digging sugar cane A01D 31/00)}	51/005	. {Loaders for beets, beetleaf or potatoes}
45/16	. of tobacco	51/007	. {for grains}
45/22	. of beans	Components of harvesters or mowers for grass or cereals (mowing apparatus A01D 34/00 ; wheels B60B ; wheel scrapers B60S 1/68)	
45/24	. of peas	57/00	Delivering mechanisms for harvesters or mowers
45/26	. of cabbage or lettuce	57/01	. Devices for leading crops to the mowing apparatus
45/263	. . {of lettuce}	57/02	. . using reels
45/266	. . {of Brussels sprouts}	57/025	. . . {with synchronised driving means}
45/28	. of spinach	57/03	. . . with supplementary controlled movement of the crop-engaging members, e.g. of the tines {(A01D 57/025 takes precedence)}
45/30	. of grass-seeds or like seeds	57/04	. . . Arrangements for changing the position of the reels
46/00	Picking of fruits, vegetables, hops, or the like; Devices for shaking trees or shrubs	57/05	. . . Detachable reels for converting a mower into a harvester
NOTE	In this group, group A01D 46/30 takes precedence over groups A01D 46/02 - A01D 46/28	57/06	. . using endless conveyors
46/005	. {picking or shaking pneumatically (of cotton A01D 46/10)}	57/08	. . using swinging rakes
46/02	. of hops	57/10	. . using fans
46/04	. of tea	57/12	. Rotating rakes
46/06	. of coffee	57/14	. Single-platform rakes
46/08	. of cotton	57/16	. Tilting tables
46/081	. . {with harvesters characterised by transversally adjustable row units}	57/18	. Bunching devices, e.g. with tipping bars
46/082	. . {with harvesters characterised by basket means}	57/20	. with conveyor belts
46/084	. . . {with compacting means}	57/22	. for standing stalks
46/085	. . {Control or measuring arrangements specially adapted for cotton harvesters}	57/24	. Grass-boards
46/087	. . {Hand implements}	57/26	. Plates arranged behind the cutter-bar for guiding the cut grass or straw
46/088	. . {with harvesters characterised by the lubricant distribution systems}	57/28	. Windrower attachments with tines
46/10	. . pneumatically {(A01D 46/081 - A01D 46/088 take precedence)}		
46/12	. . using boll-from-plant strippers		
46/14	. . using lint-from-plant pickers		
46/16	. . . using rotary or oscillating spindles		

57/30	• Rotating attachments for forming windrows	75/006	• • {for lawn-mowers}
59/00	Equipment for binding harvested produce (specially adapted for baling presses A01F 15/14 ; bundling articles for packaging in general B65B 13/00)	75/008	• {Tool-carrying means}
59/02	• Packers	75/02	• Implements for collecting grain crop
59/04	• Knotters	75/04	• Sheaf carriers
59/06	• Needles	75/06	• Sheaf shockers or stokers
59/08	• Discharge arms	75/065	• • {hand-operated}
59/10	• Devices for separating cohering sheaves	75/08	• Sharpening apparatus fixed to the harvester or mower (sharpening machines or devices per se B24B, B24D)
59/12	• Containers for the twine (twine balls or their manufacture B65H)	75/10	• Devices for reconditioning the knife-bar, e.g. removing the knife from its backing
59/14	• Sheaf counters	75/12	• Instruments for removing the knife-bar from the cutter
61/00	Elevators or conveyors for binders or combines {(conveying in general B65G ; hoisting, lifting in general B66)}	75/16	• Implements for laying-out bands for sheaves
61/002	• {transversal conveying devices}	75/18	• Safety devices for parts of the machines (safety devices in general F16P)
61/004	• • {with cylindrical tools}	75/182	• • {Avoiding overload}
61/006	• • {with rollers, e.g. adjustable}	75/185	• • {Avoiding collisions with obstacles}
61/008	• {for longitudinal conveying, especially for combines}	75/187	• • {Removing foreign objects}
61/02	• Endless belts	75/20	• Devices for protecting men or animals (safety devices in general F16P)
61/04	• Chains	2075/203	• • {by stopping driving when lifting frames, e.g. for haymakers}
63/00	Outside dividers	75/206	• • {for mowers carried by operator}
63/02	• Rotating dividers	75/24	• Special devices for harvesters or mowers drawn by animals
63/04	• Non-rotating dividers	75/243	• • {Poles}
65/00	Grain-crop lifters	75/246	• • {Devices for harnessing}
65/02	• Lifting fingers	75/26	• Front trucks; Axle-pivot steering of front trucks
65/04	• with revolving staffs	75/265	• • {Support wheels for poles or supporting devices}
65/06	• Lifting devices arranged on the inner side of the cutter-bar	75/28	• Control mechanisms for harvesters or mowers when moving on slopes; Devices preventing lateral pull
65/08	• Guard attachments for the wheels	75/282	• • {acting on the grain cleaning and separating device (grain cleaners, separators per se A01F 12/44)}
67/00	Undercarriages or frames specially adapted for harvesters or mowers (coupling arrangements between animal or tractor and harvester or mower A01B 59/00); Mechanisms for adjusting the frame (adjusting devices for the cutter-bar A01D 34/28); Platforms	75/285	• • {with arrangements for holding the harvesting or mowing apparatus in a horizontal position}
67/005	• {Arrangements of coupling devices}	75/287	• • {acting on the mowing table (A01D 75/285 takes precedence)}
67/02	• Protection against weather	75/30	• Arrangements for trailing two or more mowers
67/04	• Seats	75/303	• • {for mowers positioned one behind the other or side by side}
69/00	Driving mechanisms or parts thereof for harvesters or mowers (driving mechanisms for the cutters of mowers or harvesters A01D 34/00)	75/306	• • {for lawn mowers positioned one behind the other or side by side}
69/002	• {driven by power take-off}		
69/005	• {Non electric hybrid systems, e.g. comprising mechanical and/or hydraulic and/or pneumatic drives}		
69/007	• {with separate hand drive for cutting tools}		
69/02	• electric		
69/025	• • {Electric hybrid systems}		
69/03	• fluid		
69/06	• Gearings		
69/08	• Clutches		
69/10	• Brakes		
69/12	• Lubrication		
75/00	Accessories for harvesters or mowers		
75/002	• {Carriers for the transport of harvesters or mowers}		
75/004	• • {for mowers}		

Haymakers (combined with mowers [A01D 43/04](#)); **Crop Conditioners**

NOTE

In groups [A01D 76/00](#) - [A01D 87/00](#), the following terms are used with the meanings indicated:

- "hay" includes all mowed forage crop in a dry or partially dry state;
- "haymakers" covers all apparatus working on mowed forage cropping on the ground with the intention to make hay, with the exception of "rakes" which are covered by group [A01D 7/00](#)

76/00 Haymakers with tines that are stationary with respect to the machine during operation but that may be liftable for dumping

- {Hand-operated wheeled rakes ([hand-operated rakes A01D 7/00](#))}

- 76/006 . {Hay-sweeps (rakes for making stacks [A01D 85/001](#); sweep rakes [A01D 87/08](#))}
- 78/00 Haymakers with tines moving with respect to the machine**
- 78/001 . {Side-delivery rakes ([A01D 78/04](#) takes precedence)}
- 78/002 . . {Drum-turner-tedders with lateral discharge}
- 78/003 . . {Drum-turner-tedders with throwing wheel}
- 78/005 . {Turners; Tedders}
- 78/006 . . {Rotating turners}
- 78/007 . . . {Control mechanisms therefor}
- 78/008 . . {with forks}
- 78/02 . with tine-carrying bars or equivalent members which interconnect heads rotating about horizontal axes, e.g. of rotary-drum type
- 78/04 . . the tine-carrying members moving obliquely or at right angles to the direction of travel of the machine
- 78/06 . with tine-carrying endless chains or belts
- 78/08 . with tine-carrying rotary heads or wheels
- 78/10 . . the tines rotating about a substantially vertical axis
- 78/1007 . . . {Arrangements to facilitate transportation specially adapted therefor ([A01D 78/1021](#) takes precedence; for other agricultural machines or implements [A01B 73/00](#); carriers [A01D 80/005](#))}
- 78/1014 {Folding frames}
- 78/1021 . . . {Telescopic frames}
- 78/1028 . . . {Pivotable rotor support arms ([A01D 78/1007](#) takes precedence)}
- 78/1035 {pivotable by orientation of the support wheels}
- 78/1042 . . . {Steering devices}
- 78/105 . . . {Ground support for rotors}
- 78/1057 . . . {Drive mechanisms}
- 78/1064 . . . {Arrangements of tines ([A01D 78/1007](#) takes precedence)}
- 78/1071 . . . {Having only one rotor}
- 78/1078 . . . {Having only one row of rotors arranged on the same horizontal line perpendicular to the advance direction of the machine}
- 78/1085 . . . {Having two rows of rotors on two different horizontal lines perpendicular to the advance direction of the machine}
- 78/1092 . . . {Having more than two rows of rotors on more than two different horizontal lines perpendicular to the advance direction of the machine}
- 78/12 . . the tines having an additional movement superimposed upon their rotary movement
- 78/125 {by a guiding track}
- 78/14 . . the tines rotating about a substantially horizontal axis
- 78/142 . . . {Arrangements for transport by movement of the heads carrying rake arms}
- 78/144 {in a vertical plane}
- 78/146 {in a horizontal plane}
- 78/148 . . . {Rakes having only one heads carrying arm}
- 78/16 . . . with positive drive of the heads or wheels
- 78/18 . of the reciprocating tine type

- 78/20 . . the tines reciprocating in a direction parallel to the direction of travel of the machine
- 80/00 Parts or details of {, or accessories for,} haymakers (parts or details specific for one type of machine, [see the relevant groups for these machines](#))**
- 80/005 . {Carriers for the transport of haymakers (arrangements of the haymaker to facilitate transportation [A01D 78/1007](#))}
- 80/02 . Tines; Attachment of tines
- 82/00 Crop conditioners, i.e. machines for crushing or bruising stalks (combined with harvesters [A01D 43/10](#))**
- 82/02 . Rollers for crop conditioners
- 84/00 Haymakers not provided for in a single one of groups [A01D 76/00](#) - [A01D 82/00](#)**
- 84/02 . with flexible tools
- 85/00 Arrangements for making or setting stacks**
- 85/001 . {making or setting stacks of cereals or grass, e.g. rack formers, fixed haystacks (rakes for making windrows, haysweeps [A01D 76/006](#); drying racks [A01F 25/12](#))}
- 85/002 . . {with binding equipment, e.g. binding groups of bales}
- 85/004 . . {with pressing equipment, e.g. vehicles for forming stacks}
- 85/005 . {Forming groups of bales, e.g. bale sledges (loaders for bales [A01D 87/12](#); vehicles for loading bales [A01D 90/08](#))}
- 2085/007 . . {Machines directly attached to a baler}
- 2085/008 . . {Making groups of bales just at horizontal level for leaving them on the field}
- 87/00 Loaders for hay or like field crops (combined with mowers [A01D 43/06](#); {loading in forage silos [A01F 25/18](#); } ; loading in general [B65G](#), [B66](#))**
- 87/0007 . {with chopping devices (harvesters with loaders [A01D 43/06](#); forage harvesters [A01D 43/08](#); special adaptations of cutting machines for hay, straw or fodder [A01F 29/00](#))}
- 87/0015 . {Arrangements for making a strand (forming round bales [A01F 15/07](#))}
- 87/0023 . {Coupling arrangements between tractors, loaders or vehicles (for harvesters [A01D 67/005](#))}
- 87/003 . {with gripping or clamping devices (manure loaders [A01C 3/04](#))}
- 87/0038 . {Dumpboxes or metering devices for loading or unloading}
- 87/0046 . {Distributing devices at the delivery side of loaders}
- 87/0053 . {Tractor-mounted loaders (buck-rakes, transporting rakes [A01D 87/08](#); manure loaders [A01C 3/04](#); fork loaders, fork lifts [B66F](#); earth-moving machines [E02F](#))}
- 87/0061 . . {mounted on the three-point lifting system of the tractor}
- 87/0069 . . {mounted on the tractor but having their own lifting device}
- 87/0076 . . . {Front loaders}
- 87/0084 . . . {Rear loaders}
- 87/0092 . . {Accessories}
- 87/02 . with conveyor belts {or conveyor chains, with or without pick-up means}
- 87/04 . . with rakes feeding crop to the conveyor

87/06	• with oscillating or reciprocating rake-bars
87/08	• with sweep rakes {, i.e. buck-rakes, e.g. transporting rakes (gripping or clamping devices A01D 87/003 ; fork loaders A01D 87/0053)}
87/10	• with blowers {(blowing and conveying B65G 53/00 ; loading or distributing arrangements in forage silos A01F 25/18)}
87/12	• Loaders for sheaves, stacks or bales
87/121	• • {for sheaves, stacks}
87/122	• • {for bales on the ground (vehicles for loading A01D 90/08)}
2087/123	• • • {Manual trolleys for bales}
87/125	• • {mounted on the press without laying down the bales}
87/126	• • {Loaders for stacks or groups of bales}
87/127	• • {Apparatus for handling, loading or unrolling round bales}
2087/128	• • • {Devices for unrolling or breaking round bales}
89/00	Pick-ups for loaders, chaff-cutters, balers, field-threshers, or the like {, i.e. attachments for picking-up hay or the like field crops (field threshers with windrow pick-up apparatus A01D 41/10)}
89/001	• {Pick-up systems}
89/002	• • {Rotors}
89/003	• • {Endless belts}
89/004	• {Mountings, e.g. height adjustment, wheels, lifting devices}
89/005	• {Drives}
89/006	• {Accessories (feeding devices for baling presses A01F 15/10 ; for cutting machines A01F 29/10)}
89/007	• • {Devices for preparing the picking-up of the windrow}
89/008	• • {Devices cooperating with the pick-up}
90/00	Vehicles for carrying harvested crops with means for selfloading or unloading (combined with mowers A01D 43/06; load transporting vehicles modified to facilitate loading in general B60P; bucket cars, i.e. having scraper bowls E02F 3/64)
2090/005	• {Vehicles for transporting bunches of bananas}
90/02	• Loading means {(loaders A01D 87/00 ; pick-ups A01D 89/00)}
90/04	• • with additional cutting means
90/06	• • • with chaff cutters, {i.e. choppers} used as loading and cutting means (A01D 43/08 takes precedence)
90/08	• • with bale-forming means additionally used for loading; with means for picking-up bales and transporting them into the vehicle
90/083	• • • {Round-bale trailers (trailers in general B62D)}
2090/086	• • • {Taking loose material, i.e. before having been baled, into the vehicle}
90/10	• Unloading means {(manure distributors A01C 3/06)}
90/105	• • {Automatic side-emptying forage wagons}
90/12	• with additional devices or implements (arrangements of coupling devices A01B 59/00)
90/14	• Adaptations of gearing for driving, loading or unloading means
90/16	• self-propelled

91/00	Methods for harvesting agricultural products (essentially requiring the use of particular machines, see the relevant groups for the machines)
91/02	• Products growing in the soil
91/04	• Products growing above the soil (fruit, hops A01D 46/00)
93/00	Harvesting apparatus not provided for in other groups of this subclass

2101/00 **Lawn-mowers**