

SECTION A – HUMAN NECESSITIES

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

A01D HARVESTING; MOWING

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. [7]

HAND IMPLEMENTS

Cutting implements, rakes, forks,
others..... 1/00, 7/00,
9/00, 11/00
Accessories 3/00, 5/00

MACHINES FOR HARVESTING ROOT CROPS

Diggers..... 13/00 19/00, 27/00
Topping 23/00, 27/00
For specific products 13/00, 21/00,
25/00, 29/00
Other machines 31/00
Accessories 33/00

HARVESTING OR MOWING CEREALS OR GRASS

Harvesters or mowers 34/00, 37/00,
41/00, 42/00, 43/00

Binders.....37/00, 39/00
Headers47/00
For specific products44/00, 45/00
Components.....57/00 69/00
Accessories75/00, 85/00

HAYMAKERS76/00 84/00

HARVESTING OTHER CROPS

Underwater plants 44/00
Standing crops45/00
Picking or gathering fruits,
vegetables, or the like.....46/00, 51/00

GATHERING, LOADING, TRANSPORT51/00, 85/00 90/00

GENERAL METHODS91/00

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)

- 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)

- 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

- 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

- 11/02 . for lifting or cropping beet, potatoes, or other root crops
- 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 conveyers arranged above the sieving device
- 17/04 . with conveyers 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
- 17/12 . with bucket conveyers
- 17/14 . with cylindrical screens
- 17/16 . . with a conveyer spiral
- 17/18 . . without a conveyer 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
- 19/04 . with working tools rotating around a horizontal axis arranged parallel to the direction of travel
- 19/06 . . with scoop wheels or drums
- 19/08 . . with scoop tine chains
- 19/10 . . with receiving screens; Implements for depositing the root crops
- 19/12 . with working tools arranged on an approximately vertical axis
- 19/14 . . with one screening wheel
- 19/16 . . with several screening wheels
- 19/18 . . with screen tine chains

21/00 Digging machines with potato-picking implements

- 21/02 . with picking tools moved up-and-down
- 21/04 . with rotating picking tools

23/00 Topping machines

- 23/02 . cutting the tops before being lifted
- 23/04 . cutting the tops after being lifted (processing of harvested produce in bulk A01F 29/00, A23N)
- 23/06 . with collecting and depositing devices for the tops; Devices for protecting the tops against damage

25/00 Lifters for beet or like crops

- 25/02 . Machines with rigid tools
- 25/04 . Machines with moving or rotating tools

27/00 Machines with both topping and lifting mechanisms

- 27/02 . with rigid tools
- 27/04 . with moving or rotating tools

29/00 Harvesters for peanuts**31/00 Other digging harvesters**

- 31/02 . combined with other agricultural machines, e.g. drilling, planting, hay-harvesting machines

33/00 Accessories for digging harvesters

- 33/02 . Foliage-separating mechanisms
- 33/04 . Stone-separating mechanisms
- 33/06 . Haulm-cutting mechanisms
- 33/08 . Special sorting and cleaning mechanisms
- 33/10 . Crop collecting devices, with or without weighing apparatus
- 33/12 . Driving mechanisms, with or without motor
- 33/14 . Lifting or lowering mechanisms for the tools

Harvesters or mowers for grass, cereals or other crops

(component parts thereof A01D 57/00 A01D 69/00; accessories therefor A01D 75/00)

- 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** [4]

In this group, it is desirable to add the indexing code of group A01D 101/00, relating to the use of mowers. [8]

- 34/01 . characterised by features relating to the type of cutting apparatus [7]
- 34/02 . . having reciprocating cutters [4,7]
- 34/03 . . . mounted on a vehicle, e.g. a tractor, or drawn by an animal or a vehicle [4]
- 34/04 with cutters at the front [4]
- 34/06 with cutters at the side [4]
- 34/07 with cutters at the back [4]
- 34/08 . . . hand-guided by a walking operator [4,7]
- 34/10 with motor driven cutters or wheels [4]
- 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) [7]
- 34/13 . . . Cutting apparatus [4]
- 34/135 having oppositely movable cooperating knife-bars [7]
- 34/14 Knife-bars [4]
- 34/16 Guides for the knife-bar in the ledger-plate [4]
- 34/17 Holding-down devices for the knife [4]
- 34/18 Guard fingers; Ledger-plates [4]
- 34/20 Ledger-plate bars [4]
- 34/22 Shoes therefor [4]
- 34/23 with additional vertical cutter-bar [4]
- 34/24 . . . Lifting devices for the cutter-bar [4]
- 34/26 manually actuated [4]
- 34/27 Devices for disengaging the knife-driving mechanisms during the lifting of the cutter-bar [4]
- 34/28 . . . Adjusting devices for the cutter-bar [4]
- 34/30 . . . Driving mechanisms for the cutters [4]
- 34/32 Connecting-rods for knife-driving mechanisms [4]
- 34/33 Devices for connecting the rod to the knife-bar [4]
- 34/34 Devices for connecting the rod to the crank-pin of the driving mechanism [4]
- 34/36 actuated by advance of the machine [4]
- 34/37 electric [4]
- 34/38 fluid [4]
- 34/40 . . . Other details [4]
- 34/404 . . having cutters driven to oscillate in a horizontal plane [7]
- 34/408 . . . and cooperating with counter-cutters [7]
- 34/412 . . having rotating cutters [7]
- 34/416 . . . Flexible line cutters [7]
- 34/42 . . . having cutters rotating about a horizontal axis, e.g. cutting-cylinders [4,7]

- 34/43 mounted on a vehicle, e.g. a tractor, or drawn by an animal or a vehicle [4]
- 34/44 with two or more cutters [4]
- 34/46 hand-guided by a walking operator [4,7]
- 34/47 with motor driven cutters or wheels [4]
- 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) [7]
- 34/52 Cutting apparatus [4]
- 34/53 Helically shaped cutting members [4]
- 34/535 with cutting members pivotally attached to the rotating axle, e.g. flails [7]
- 34/54 Cutting-height adjustment [4]
- 34/56 Driving mechanisms for the cutters [4]
- 34/57 actuated by advance of the machine [4]
- 34/58 electric [4]
- 34/60 fluid [4]
- 34/62 Other details [4]
- 34/63 . . . having cutters rotating about a vertical axis [4,7]
- 34/64 mounted on a vehicle, e.g. a tractor, or drawn by an animal or a vehicle (A01D 34/695 takes precedence) [4,7]
- 34/66 with two or more cutters [4]
- 34/67 hand-guided by a walking operator [4,7]
- 34/68 with motor driven cutters or wheels [4]
- 34/685 with two or more cutters [7]
- 34/69 with motor driven wheels [7]
- 34/695 . . . supported by an air cushion [7]
- 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) [7]
- 34/73 Cutting apparatus [4]
- 34/74 Cutting-height adjustment [4]
- 34/76 Driving mechanisms for the cutters [4]
- 34/77 actuated by advance of the machine [4]
- 34/78 electric [4]
- 34/80 fluid [4]
- 34/81 Casings; Housings (A01D 34/71 takes precedence) [7]
- 34/82 Other details [4]
- 34/83 . . having cutting members on endless belts or sprocket chains [4]
- 34/835 . specially adapted for particular purposes [7]
- 34/84 . . for edges of lawns or fields, e.g. for mowing close to trees or walls (edge trimmers A01G 3/00) [4]
- 34/86 . . for use on sloping ground, e.g. on embankments (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) [4,7]
- 34/90 . . for carrying by the operator [7]
- 37/00 Reaper-binders** (features relating to mowing only A01D 34/00, to binding only A01D 39/00; equipment thereon for binding harvested or mown produce, e.g. knotters, A01D 59/00)
 - 37/02 . with receiving platform and binding apparatus but without elevating canvases
 - 37/04 . conveying the stalks in vertical position
 - 37/06 . binding with stalks or straw bands
- 39/00 Independent binders, e.g. for hay; Binders attachable to mowers** (equipment thereon for binding harvested or mown produce, e.g. knotters, A01D 59/00; stationary apparatus or hand tools for forming or binding straw or hay into bundles A01F 1/00)
- 41/00 Combines, i.e. harvesters or mowers combined with threshing devices** (threshing devices for combines A01F 7/00 A01F 12/00)
 - 41/02 . Self-propelled combines
 - 41/04 . Tractor-driven combines
 - 41/06 . Combines with headers
 - 41/08 . Combines which thresh before the stalk is cut
 - 41/10 . Field threshers with windrow pick-up apparatus
 - 41/12 . Details of combines
 - 41/127 . . Control or measuring arrangements specially adapted for combines [7]
 - 41/133 . . Drying devices [7]
 - 41/14 . . Mowing tables [2]
 - 41/16 . . . Devices for coupling mowing tables to conveyers [7]
- 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) [7]
 - 42/02 . Raking [7]
 - 42/04 . Soil working [7]
 - 42/06 . Sweeping or cleaning lawns or other surfaces [7]
 - 42/08 . . Sweeping snow [7]
- 43/00 Mowers combined with apparatus performing additional operations while mowing** (A01D 37/00, A01D 39/00, A01D 41/00 take precedence) [3]
 - 43/02 . with rakes
 - 43/04 . with haymakers, e.g. tedders
 - 43/06 . with means for collecting, gathering or loading mown material [1,7]
 - 43/063 . . in or into a container carried by the mower; Containers therefor (A01D 43/077 takes precedence) [7]
 - 43/07 . . in or into a trailer (A01D 43/077 takes precedence) [7]
 - 43/073 . . . with controllable discharge spout [7]
 - 43/077 . . with auxiliary means, e.g. fans, for transporting the mown crop [7]
 - 43/08 . with means for cutting up the mown crop
 - 43/10 . with means for crushing or bruising the mown crop
 - 43/12 . with soil-working implements, e.g. ploughs
 - 43/14 . with dispensing apparatus, e.g. for fertilisers, herbicides or preservatives [7]
 - 43/16 . with lawn edgers [7]
- 44/00 Harvesting of underwater plants, e.g. harvesting of seaweed** [2]
 - 44/02 . of laver [2]
- 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) [2]
 - 45/02 . of maize
 - 45/04 . of rice
 - 45/06 . of flax
 - 45/10 . of sugar cane
 - 45/16 . of tobacco
 - 45/22 . of beans

A01D

- 45/24 . of peas
- 45/26 . of cabbage or lettuce [2]
- 45/28 . of spinach
- 45/30 . of grass-seeds or like seeds

46/00 Picking of fruits, vegetables, hops, or the like; Devices for shaking trees or shrubs [2,3]

Group A01D 46/30 takes precedence over groups
A01D 46/02 A01D 46/28 [7]

- 46/02 . of hops [2]
 - 46/04 . of tea [2]
 - 46/06 . of coffee [2]
 - 46/08 . of cotton [2]
 - 46/10 . . pneumatically [2]
 - 46/12 . . using boll-from-plant strippers [2]
 - 46/14 . . using lint-from-plant pickers [2]
 - 46/16 . . . using rotary or oscillating spindles [2]
 - 46/18 mounted on rotary carrier [2]
 - 46/20 . Platforms with lifting and lowering devices [2]
 - 46/22 . Baskets or bags attachable to the picker [2]
 - 46/24 . Devices for picking apples or like fruit (A01D 46/26 takes precedence) [2,7]
 - 46/247 . . Manually operated fruit-picking tools (A01D 46/253 takes precedence) [7]
 - 46/253 . . Portable motorised fruit pickers [7]
 - 46/26 . Devices for shaking trees or shrubs; Fruit catching devices to be used therewith (A01D 46/28 takes precedence) [3,7]
 - 46/28 . Vintaging machines, i.e. grape harvesting machines [3]
 - 46/30 . Robotic devices for individually picking crops [7]
- ### 47/00 Headers
- ### 51/00 Apparatus for gathering together crops spread on the soil, e.g. apples, beets, nuts, potatoes

Components of harvesters or mowers for grass or cereals

(mowing apparatus A01D 34/00; wheels B60B; wheel scrapers B60S 1/68) [7]

- ### 57/00 Delivering mechanisms for harvesters or mowers
- 57/01 . Devices for leading crops to the mowing apparatus [7]
 - 57/02 . . using reels
 - 57/03 . . . with supplementary controlled movement of the crop-engaging members, e.g. of the tines [3]
 - 57/04 . . . Arrangements for changing the position of the reels
 - 57/05 . . . Detachable reels for converting a mower into a harvester [7]
 - 57/06 . . using endless conveyers
 - 57/08 . . using swinging rakes
 - 57/10 . . using fans
 - 57/12 . Rotating rakes
 - 57/14 . Single-platform rakes
 - 57/16 . Tilting tables
 - 57/18 . Bunching devices, e.g. with tipping bars
 - 57/20 . with conveyer belts
 - 57/22 . for standing stalks
 - 57/24 . Grass-boards
 - 57/26 . Plates arranged behind the cutter-bar for guiding the cut grass or straw

- 57/28 . Windrower attachments with tines
- 57/30 . Rotating attachments for forming windrows

59/00 Equipment for binding harvested or mown produce (specially adapted for baling presses A01F 15/14; bundling articles for packaging in general B65B 13/00)

- 59/02 . Packers
- 59/04 . Knotters
- 59/06 . Needles
- 59/08 . Discharge arms
- 59/10 . Devices for separating cohering sheaves
- 59/12 . Containers for the twine (twine balls or their manufacture B65H)
- 59/14 . Sheaf counters

61/00 Elevators or conveyers for binders or combines (conveying in general B65G; hoisting, lifting, in general B66)

- 61/02 . Endless belts
- 61/04 . Chains

63/00 Outside dividers

- 63/02 . Rotating dividers
- 63/04 . Non-rotating dividers

65/00 Grain-crop lifters

- 65/02 . Lifting fingers
- 65/04 . with revolving staffs
- 65/06 . Lifting devices arranged on the inner side of the cutter-bar
- 65/08 . Guard attachments for the wheels

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 [3]

- 67/02 . Protection against weather
- 67/04 . Seats

69/00 Driving mechanisms or parts thereof for harvesters or mowers (driving mechanisms for the cutters of mowers or harvesters A01D 34/00)

- 69/02 . electric
- 69/03 . fluid [4]
- 69/06 . Gearings
- 69/08 . Clutches
- 69/10 . Brakes
- 69/12 . Lubrication

75/00 Accessories for harvesters or mowers

- 75/02 . Implements for collecting grain crop
- 75/04 . Sheaf carriers
- 75/06 . Sheaf shockers or stookers
- 75/08 . Sharpening apparatus fixed to the harvester or mower (sharpening machines or devices per se B24B, B24D)
- 75/10 . Devices for reconditioning the knife-bar, e.g. removing the knife from its backing
- 75/12 . Instruments for removing the knife-bar from the cutter
- 75/16 . Implements for laying-out bands for sheaves
- 75/18 . Safety devices for parts of the machines (safety devices in general F16P)
- 75/20 . Devices for protecting men or animals (safety devices in general F16P)
- 75/24 . Special devices for harvesters or mowers drawn by animals

- 75/26 . Front trucks; Axle-pivot steering of front trucks
- 75/28 . Control mechanisms for harvesters or mowers when moving on slopes; Devices preventing lateral pull
- 75/30 . Arrangements for trailing two or more harvesters or mowers

Haymakers (combined with mowers A01D 43/04); **Crop conditioners** [3]

In groups A01D 76/00 A01D 87/00, the following terms are used with the meanings indicated:

- “hay” includes all mown forage crop in a dry or partially dry state;
- “haymakers” covers all apparatus working on mown forage crop lying on the ground with the intention to make hay, with the exception of “rakes” which are covered by group A01D 7/00. [3]

- 76/00 Haymakers with tines that are stationary with respect to the machine during operation but that may be liftable for dumping [3]**
- 78/00 Haymakers with tines moving with respect to the machine [3]**
 - 78/02 . with tine-carrying bars or equivalent members which interconnect heads rotating about horizontal axes, e.g. of rotary-drum type [3]
 - 78/04 . . the tine-carrying members moving obliquely or at right angles to the direction of travel of the machine [3]
 - 78/06 . with tine-carrying endless chains or belts [3]
 - 78/08 . with tine-carrying rotary heads or wheels [3]
 - 78/10 . . the tines rotating about a substantially vertical axis [3]
 - 78/12 . . . the tines having an additional movement superimposed upon their rotary movement [3]
 - 78/14 . . the tines rotating about a substantially horizontal axis [3]
 - 78/16 . . . with positive drive of the heads or wheels [3]
 - 78/18 . of the reciprocating tine type [3]
 - 78/20 . . the tines reciprocating in a direction parallel to the direction of travel of the machine [3]
- 80/00 Parts or details of haymakers** (parts or details specific for one type of machine, see the relevant groups for these machines) [3]
 - 80/02 . Tines; Attachment of tines [3]

- 82/00 Crop conditioners, i.e. machines for crushing or bruising stalks** (mowers combined with means for crushing or bruising the mown crop A01D 43/10) [3]
 - 82/02 . Rollers for crop conditioners [6]
- 84/00 Haymakers not provided for in a single one of groups A01D 76/00 A01D 82/00**
 - 84/02 . with flexible tools [6]

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- 85/00 Arrangements for making or setting stacks**
 - 87/00 Loaders for hay or like field crops** (combined with mowers A01D 43/06; loading in general B65G, B66)
 - 87/02 . with conveyer belts
 - 87/04 . . with rakes feeding the crop to the conveyer
 - 87/06 . with oscillating or reciprocating rake-bars
 - 87/08 . with sweep rakes
 - 87/10 . with blowers
 - 87/12 . Loaders for sheaves, stacks, or bales
 - 89/00 Pick-ups for loaders, chaff-cutters, balers, field-threshers, or the like**
 - 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) [2]
 - 90/02 . Loading means [2]
 - 90/04 . . with additional cutting means [2]
 - 90/06 . . . with chaff-cutters used as loading and cutting means (A01D 43/08 takes precedence) [2]
 - 90/08 . . with bale-forming means additionally used for loading; with means for picking-up bales and transporting them into the vehicle [2]
 - 90/10 . Unloading means [2]
 - 90/12 . with additional devices or implements (arrangements of coupling devices, A01B 59/00) [2]
 - 90/14 . Adaptations of gearing for driving, loading or unloading means [2]
 - 90/16 . self-propelled [2]
 - 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)

Indexing scheme associated with group A01D 34/00, relating to the use of mowers. [6]

- 101/00 Lawn-mowers [6]**