A01F PROCESSING OF HARVESTED PRODUCE; HAY OR STRAW PRESSES; DEVICES FOR STORING AGRICULTURAL OR HORTICULTURAL PRODUCE (devices for topping or skinning onions or flower bulbs A23N 15/08)

WARNING
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.

1/00 Stationary apparatus or hand tools for forming or binding straw, hay or the like into bundles (baling apparatus or presses A01F 13/00, A01F 15/00; mobile binders for use in the field A01D 37/00, A01D 39/00)
- 1/02 Hand-operated tools
- 1/04 Fastening or tying devices
- 1/06 Ties for bundles

3/00 Hand-operated implements for cutting-up straw, hay or the like (mechanically-driven straw cutters A01F 29/00; cutting in general B26)

Threshing

5/00 Hand-operated implements for threshing
- 7/00 Threshing apparatus
  - 7/02 with rotating tools (threshing cylinders or concaves A01F 12/18)
  - 7/04 with axles transverse to the feeding direction
  - 7/06 with axles in line with the feeding direction (Axial threshing machines)
  - 7/062 with a rotating cage
  - 7/065 with cage sweep mechanisms
  - 7/067 with material-flow influencing means
  - 7/70 with flails

2009/00 Threshing machines with flails; Threshing devices with flails for combines

11/00 Threshing apparatus specially adapted for maize; Threshing apparatus specially adapted for particular crops other than cereals
- 11/02 for flax
- 11/04 for clover or like seeds, e.g. lucerne
- 11/06 for maize, e.g. removing kernels from cobs
- 11/08 for palm fruit, e.g. releasing the fruit from the stalk

12/00 Parts or details of threshing apparatus (devices, other than safety devices for feeders, for protecting human beings A01D 75/20, A01F 21/00)
- 12/10 Feeders
- 12/12 without band-cutters
12/54 . Arrangements for collecting or removing dust
12/56 . Driving mechanisms for the threshing parts
12/58 . Control devices; Brakes; Bearings
12/60 . Grain tanks { (for combines A01D 41/1208) }

Baling straw or the like (baling presses in general, briquetting presses B30B)

13/00 Hand-operated baling apparatus
15/00 Baling presses for straw, hay or the like { (making compressed stacks A01D 85/00) }
15/0005 . (for conditioning bales, e.g. rebaling)
15/02 . with press-boxes { (A01F 15/046 takes precedence) }
15/04 . Plunger presses
15/042 . (Plungers)
15/044 . (with open pressing chambers)
15/046 . (with press-boxes)
2015/048 . (Anti-return systems for the material in the pressing chamber when the plunger moves backwards)
15/06 . with double-action plunger
15/07 . Rotobalers, i.e. machines for forming cylindrical bales by winding and pressing
15/0705 . (Arrangements for continuous operation)
15/071 . (Wrapping devices (tying devices A01F 15/141) )
15/0715 . (Wrapping the bale in the press chamber before opening said chamber)
2015/072 . . . . (Braking means for the film roll in balers which wrap the bale before opening the pressing chamber in order to stretch the film while wrapping)
2015/0725 . . . . (Film dispensers for film rollers in a satellite type wrapper, e.g. holding and tensioning means for the film roller (the rotating arm itself A01F 2015/0725) )
2015/073 . . . . (Features related to the horizontal rotating arm of a wrapping device of the satellite type (features of film dispensers A01F 2015/0725) )
2015/0735 . . . . (Combined machines that include a press bale and a wrapping device in a further step, e.g. turning table, not in the same closed pressing chamber)
2015/074 . . . . (Mechanisms for discharging a bale from the wrapping machine)
2015/0745 . . . . (Special features of the wrapping material for wrapping the bale)
2015/075 . . . . (Opening the pressing chamber before wrapping, and then wrapping by rotating the bale without displacing it out of the open pressing chamber)
2015/0755 . . . . (Configuration of support surfaces which can move in order to rotate a bale around at least one axis while wrapping)
2015/076 . . . . (Wrapping device incorporating sensors)
15/0765 . . . . (Rolling bales on the ground)
15/077 . . . . (Pressing chamber formed by belts and rollers)
15/0775 . . . . (Pressing chambers with fix volume)
15/078 . . . . (Pressing chamber formed exclusively by flexible elements, e.g. belts)
15/0785 . . . . (Latching or locking means for the tailgate of the rotobaler)
15/079 . . . . (Sledge for rollers of the pressing chamber)
15/0795 . . . . (Pressing chamber with variable volume)
15/08 . Details

2015/0808 . . . . (Balers incorporate an inclinometer)
15/0816 . . . . (Devices for dispensing chemicals in bales during formation)
15/0825 . . . . (Regulating or controlling density or shape of the bale)
15/0833 . . . . (for round balers)
15/0841 . . . . (Drives for balers)
15/085 . . . . (for round balers)
15/0858 . . . . (for the tying devices or needles)
2015/0866 . . . . (Clutching means for the knotting process; Bale length measuring means for triggering the clutching mean)
15/0875 . . . . (Discharge devices)
15/0883 . . . . (for round balers)
2015/0891 . . . . (Weighing the finished bale before falling to ground)
15/10 . . . . (Feeding devices for the crop material , e.g. precompression devices (pick-ups A01D 89/00) )
15/101 . . . . (Feeding at right angles to the compression stroke (A01F 15/106 takes precedence) )
2015/102 . . . . (the pressing chamber is fed from the bottom side)
2015/103 . . . . (the pressing chamber is fed from a lateral side)
2015/105 . . . . (the pressing chamber is fed from the top side)
15/106 . . . . (for round balers)
2015/107 . . . . (Means for withdrawing knives, rotor or walls of the feeding chamber in case of plugging or congestion)
2015/108 . . . . (Cutting devices comprising cutter and counter-cutter)
15/12 . . . . (Feeding devices for the ties)
15/14 . . . . (Tying devices specially adapted for baling presses (independent binders A01D 39/00) )
15/141 . . . . (for round balers (wrapping devices A01F 15/071) )
2015/143 . . . . (Guiding fingers for twines in order to avoid the slippage of twines to the sides of the bale when tying it)
15/145 . . . . (Twine knotters)
15/146 . . . . (Wire twisters)
15/148 . . . . (Monitoring the tying, e.g. mistie detectors)
15/16 . . . . (Division blocks)
15/18 . . . . (Endless belts, rolls or the like)
2015/183 . . . . (Constructional details of belts of the press chamber)
2015/186 . . . . (Constructional details of rollers or the bearings of the rollers of the press chamber)

Accessories for threshing machines or baling presses (loaders for sheaves, stacks or bales A01D 87/12; trailers B62D 63/06)

17/00 Straw conveyors for threshing machines or baling presses
17/02 . Mechanical conveyors
17/04 . Pneumatic conveyors
19/00 Devices for securing threshing machines or baling presses to the ground, e.g. for compensating for unevenness of the ground
Accessories for threshing machines or baling presses

21/00 Devices for protecting human beings for threshing machines or baling presses (in combines A01D 75/20; for feeders for threshing apparatus A01F 12/16)

25/00 Storing agricultural or horticultural produce; Hanging-up harvested fruit (maturing fruit A23N 15/06; arrangements in barns for preparatory treatment of tobacco A24B 1/02; packing or storing hops C12C 3/04)

25/02 . Clamps; Pits
25/04 . Stacks, ricks or the like
25/045 . . {Distributing arrangements in haystacks}
25/08 . . Ventilating means
25/10 . . Shelters {; Open sheds or similar structures}
25/12 . Racks for drying purposes
25/125 . . {Transport devices for hay racks}
25/13 . Coverings (A01F 25/14 takes precedence)
25/14 . Containers specially adapted for storing
2025/142 . . {Machinery for making sausage-like groups of bales by wrapping or bagging (for bagging of loose material A01F 2025/145)}
2025/145 . . {Bagging machines for loose materials making some kind of “sausage” on the field (making sausage-like groups of bales A01F 2025/142)}
2025/147 . . . {the containers are specially adapted for storing or drying the products in vacuum}
25/16 . Arrangements in forage silos
25/163 . . [in tower silos]
25/166 . . [in trench silos]
25/18 . . Loading or distributing arrangements
25/183 . . . [Loading arrangements]
25/186 . . . . [Distributing arrangements (for haystacks A01F 25/045)]
25/20 . . Unloading arrangements
25/209 . . . . [Top unloading units for tower silos]
25/2018 . . . [Bottom unloading units for tower silos]
25/2027 . . . [for trench silos]
25/2036 . . . . . [Cutting or handling arrangements for silage blocks]
2025/2045 . . . . . . [Unloading arrangements including a conveyor belt for transferring the material to a hopper]
2025/2054 . . . . . . [Machinery for cutting successive parallel layers of material in a trench silo (for shredding A01F 2025/2063)]
2025/2063 . . . . . . [Machinery for shredding successive parallel layers of material in a trench silo]
2025/2072 . . . . . . [Scoops with an extracting tool mounted inside or in the vicinity of said scoop]
2025/2081 . . . . . . [Hydraulic features of the trench silos unloading devices, e.g. hydraulic circuits]
2025/209 . . . . . . . [Manual portable tools for unloading a silo, e.g. for cutting out a block]
25/22 . . Ventilating arrangements
29/00 Cutting apparatus specially adapted for cutting hay, straw or the like (mowers combined with means for cutting up the mown crop A01D 43/08)

29/005 . . [for disintegrating and cutting up bales of hay, straw or fodder (for unrolling round bales A01D 87/127)]
29/01 . . specially adapted for being mounted on or drawn by a tractor, e.g. field choppers