

ECLA**EUROPEAN CLASSIFICATION****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 [A23N15/08](#))

A01F1/00

Stationary apparatus or hand tools for forming or binding straw, hay or the like into bundles (baling apparatus or presses [A01F13/00](#), [A01F15/00](#); mobile binders for use in the field [A01D37/00](#), [A01D39/00](#)) [\[C0910\]](#)

[A01F1/02](#)

- . Hand-operated tools

[A01F1/04](#)

- . Fastening or tying devices [\[N0311\]](#)

[A01F1/06](#)

- . Ties for bundles [\[C0910\]](#)

A01F3/00

Hand-operated implements for cutting-up straw, hay or the like (mechanically-driven straw cutters [A01F29/00](#); cutting in general [B26](#)) [\[C0910\]](#)

Guide heading:**Threshing****A01F5/00**

Hand-operated implements for threshing

A01F7/00

Threshing apparatus [\[C0910\]](#)

[A01F7/02](#)

- . with rotating tools (threshing cylinders or concaves [A01F12/18](#)) [\[N0311\]](#) [\[C0910\]](#)

[A01F7/04](#)

- . . with axles transverse to the feeding direction [\[N0311\]](#) [\[C0910\]](#)

[A01F7/06](#)

- . . with axles in line with the feeding direction; [\[N: Axial threshing machines\]](#) [\[C0910\]](#)

[A01F7/06A](#)

- . . . [\[N: with a rotating cage\]](#) [\[N9502\]](#)

[A01F7/06B](#)

- . . . [\[N: with cage sweep mechanisms\]](#) [\[N9502\]](#)

[A01F7/06C](#)

- . . . [\[N: with material-flow influencing means\]](#) [\[N9502\]](#)

[A01F7/70](#)

- . with flails [\[N0910\]](#)

A01F11/00

Threshing apparatus specially adapted for maize; Threshing apparatus specially adapted for particular crops other than cereals [\[C0910\]](#)

[A01F11/02](#)

- . for flax

[A01F11/04](#)

- . for clover or like seeds, e.g. lucerne

[A01F11/06](#)

- . for maize, e.g. removing kernels from cobs

[A01F11/08](#)

- . for palm fruit, e.g. releasing the fruit from the stalk

A01F12/00

Parts or details of threshing apparatus (devices, other than safety devices for feeders, for protecting human beings [A01D75/20](#), [A01F21/00](#)) [[C0910](#)]

- A01F12/10 . Feeders
- A01F12/12 . . without band-cutters
- A01F12/14 . . with band-cutters
- A01F12/16 . . Safety devices
- A01F12/18 . Threshing devices
- A01F12/18A . . [[N: Adjustable threshing mechanisms](#)] [[N9502](#)]
- A01F12/18B . . [[N: Stripper beaters after the threshing drum](#)] [[N9502](#)]
- A01F12/18C . . [[N: Cleaning means](#)] [[N9502](#)]
- A01F12/18D . . [[N: Mounting means](#)] [[N9502](#)]
- A01F12/18E . . [[N: Vibratory threshing mechanisms](#)] [[N9502](#)]
- A01F12/20 . . Threshing cylinders with ribs
- A01F12/22 . . Threshing cylinders with teeth
- A01F12/24 . . One-part threshing concaves
- A01F12/26 . . Multi-part threshing concaves [[N9411](#)]
- A01F12/28 . . Devices for adjusting the concaves
- A01F12/30 . Straw separators [[N: , i.e. straw walkers, for separating residual grain from the straw \(grain cleaning \[A01F12/44\]\(#\)\)](#)][[C0311](#)]
- A01F12/30S . . [[N: combined with additional grain extracting means](#)][[N0311](#)]
- A01F12/32 . . with shaker screens or sieves
- A01F12/34 . . . Sieve elements; Linings for shakers
- A01F12/36 Sieve elements specially adapted for handling short straw [[N0311](#)] [[C0910](#)]
- A01F12/38 . . with juxtaposed and independently-moved shaker bars or the like
- A01F12/385 . . with endless straw-conveying surface
- A01F12/39 . . with straw carriers in the form of rotors or drums
- A01F12/395 . . Conical or cylindrical straw separators with internal working surface
- A01F12/40 . Arrangements of straw crushers or cutters [[C0910](#)]
- A01F12/42 . Apparatus for removing awns from the grain [[C0910](#)]
- A01F12/44 . Grain cleaners; Grain separators [[C0910](#)]
- A01F12/44A . . [[N: Rotary cleaners](#)]
- A01F12/44B . . [[N: Fanning means](#)]
- A01F12/44C . . [[N: Sieving means](#)]
- A01F12/44C2 . . . [[N: Sieve adjusting means](#)]
- A01F12/46 . Mechanical grain conveyers [[C0910](#)]
- A01F12/48 . Air conduits or blowers for grain [[C0910](#)]

- A01F12/50 . Sack-filling devices; Counting or weighing devices [C0910]
- A01F12/52 . Arrangements for returning unthreshed grain to the threshing device
- A01F12/54 . Arrangements for collecting or removing dust [C0910]
- A01F12/56 . Driving mechanisms for the threshing parts
- A01F12/58 . Control devices; Brakes; Bearings [C0910]
- A01F12/60 . Grain tanks [N: (for combines [A01D41/12D](#))]

Guide heading: **Baling straw or the like (baling presses in general, briquetting presses B30B)**[C0311]

A01F13/00 **Hand-operated baling apparatus**

A01F15/00 **Baling presses for straw, hay or the like** [N: making compressed stacks [A01D85/00](#)] [C0910]

- A01F15/00C . [N: for conditioning bales, e.g. rebaling]
- A01F15/02 . with press-boxes [N: ([A01F15/04D](#) takes precedence)]
- A01F15/04 . Plunger presses
 - A01F15/04B . . [N: Plungers]
 - A01F15/04C . . [N: with open pressing chambers]
 - A01F15/04D . . [N: with press-boxes]
 - A01F15/06 . . with double-action plunger [C9411]
- A01F15/07 . Rotobalers, i.e. machines for forming cylindrical bales by winding and pressing
 - A01F15/07B . . [N: Arrangements for continuous operation]
 - A01F15/07D . . [N: Wrapping devices (tying devices [A01F15/14B](#))]
 - A01F15/07D1 . . . [N: Wrapping the bale in the press chamber before opening said chamber] [N0104]
 - A01F15/07E . . [N: Rolling bales on the ground]
- A01F15/08 . Details [C0910]
 - A01F15/08B . . [N: Devices for dispensing chemicals in bales during formation]
 - A01F15/08C . . [N: Regulating or controlling density or shape of the bale]
 - A01F15/08C1 . . . [N: for round balers]
 - A01F15/08E . . [N: Drives for balers]
 - A01F15/08E1 . . . [N: for round balers]
 - A01F15/08E2 . . . [N: for the tying devices or needles]
 - A01F15/08F . . [N: Discharge devices]

- A01F15/08F1 . . . [N: for round balers]
- A01F15/10 . . Feeding devices for the crop material, [N: e.g. precompression devices (pick-ups [A01D89/00](#))]
- A01F15/10B . . . [N: Feeding at right angles to the compression stroke ([A01F15/10C](#) takes precedence)]
- A01F15/10C . . . [N: for round balers]
- A01F15/12 . . Feeding devices for the ties
- A01F15/14 . . Tying devices specially adapted for baling presses [N: independent binders [A01D39/00](#)] [C0910]
- A01F15/14B . . . [N: for round balers (wrapping devices [A01F15/07D](#))]
- A01F15/14C . . . [N: Twine knotters]
- A01F15/14D . . . [N: Wire twisters]
- A01F15/14E . . . [N: Monitoring the tying, e.g. mistie detectors]
- A01F15/16 . . Division blocks
- A01F15/18 . . Endless belts, rolls or the like [C9607]

Guide heading: **Accessories for threshing machines or baling presses** (loaders for sheaves, stacks or bales [A01D87/12](#); trailers [B62D63/06](#))

A01F17/00 **Straw conveyers for threshing machines or baling presses** [C0910]

- A01F17/02 . Mechanical conveyers
- A01F17/04 . Pneumatic conveyers

A01F19/00 **Devices for securing threshing machines or baling presses to the ground, e.g. for compensating for unevenness of the ground**

A01F21/00 **Devices for protecting human beings for threshing machines or baling presses** (in combines [A01D75/20](#); for feeders for threshing apparatus [A01F12/16](#)) [C0910]

A01F25/00 **Storing agricultural or horticultural produce; Hanging-up harvested fruit** (maturing fruit [A23N15/06](#); arrangements in barns for preparatory treatment of tobacco [A24B1/02](#); packing or storing hops [C12C3/04](#)) [C0910]

- A01F25/02 . Clamps; Pits
- A01F25/04 . Stacks, ricks or the like
- A01F25/04B . . [N: Distributing arrangements in haystacks]
- A01F25/08 . . Ventilating means
- A01F25/10 . . Shelters; [N: Open sheds or similar structures]
- A01F25/12 . Racks for drying purposes
- A01F25/12B . . [N: Transport devices for hay racks]
- A01F25/13 . Coverings ([A01F25/14](#) takes precedence) [C0910]

- A01F25/14 . Containers specially adapted for storing [C0910]
- A01F25/16 . Arrangements in forage silos [C0910]
- A01F25/16E . . [N: in tower silos]
- A01F25/16F . . [N: in trench silos]
- A01F25/18 . . Loading or distributing arrangements
- A01F25/18B . . . [N: Loading arrangements]
- A01F25/18C . . . [N: Distributing arrangements (for haystacks [A01F25/04B](#))]
- A01F25/20 . . Unloading arrangements
- A01F25/20B . . . [N: Top unloading units for tower silos]
- A01F25/20C . . . [N: Bottom unloading units for tower silos]
- A01F25/20D . . . [N: for trench silos]
- A01F25/20D1 [N: Cutting or handling arrangements for silage blocks]
- A01F25/22 . . Ventilating arrangements
- A01F29/00** **Cutting apparatus specially adapted for cutting hay, straw or the like (mowers combined with means for cutting up the mown crop [A01D43/08](#)) [C0312]**
- A01F29/00B . [N: for disintegrating and cutting up bales of hay, straw or fodder (for unrolling round bales [A01D87/12G](#))] [C0311]
- A01F29/01 . specially adapted for being mounted on or drawn by a tractor, e.g. field choppers [N0311] [C0910]
- A01F29/02 . having rotating knives with their cutting edges in a plane perpendicular to their rotational axis
- A01F29/02B . . [N: with feeding direction parallel to axis]
- A01F29/04 . . with feeding direction transverse to axis
- A01F29/06 . having rotating knives with their cutting edges on a cylinder surface, e.g. of the helical-type [C0311]
- A01F29/08 . having reciprocating knives
- A01F29/09 . Details [N0910]
- A01F29/09B . . [N: Mounting or adjusting of knives] [N1001]
- A01F29/10 . . Feeding devices [C0910]
- A01F29/12 . . Discharge means (loaders for hay or like field crop having blowers [A01D87/10](#)) [C0910]
- A01F29/14 . . Drives [C0910]
- A01F29/16 . . Safety devices, e.g. emergency brake arrangements [C0910]
- A01F29/18 . . . for protecting human beings [C0910]
- A01F29/22 . . Arrangement of knife sharpening devices [N1206]