CPC COOPERATIVE PATENT CLASSIFICATION

B07B SEPERATING SOLIDS FROM SOLIDS BY SIEVING, SCREENING, OR SIFTING OR BY USING GAS CURRENTS; OTHER SEPARATING BY DRY METHODS APPLICABLE TO BULK MATERIAL, e.g. LOOSE ARTICLES FIT TO BE HANDLED LIKE BULK MATERIAL (combinations of dry separating apparatus with wet separating apparatus B03B ; hand sorting, postal sorting, sorting by switching or other devices actuated in responce to detection or measurement of some feature of articles or samples of material B07C)

NOTE

In this subclass any sorting or grading of bulk material or loose articles fit to be handled like bulk material results automatically from the construction of the apparatus and properties of the material, e.g. by a trap opening under an object of a certain minimum weight, by an aperture of graduated size. Sorting of articles is included in so far as the same conditions apply, e.g. sorting of timber by passing it over successively longer openings; the articles may or may not be orientated for the purpose of sorting.

Guidance heading:

B07B 1/00 Sieving, screening, sifting, or sorting solid materials using networks, gratings, grids, or the like { (ash-sifters for domestic stoves or ranges F24B 15/007) }

B07B 1/005 . {Transportable screening plants }

B07B 1/02 . Hand screens

B07B 1/04 . Stationary flat screens

B07B 1/06 . Cone or disc shaped screens

B07B 1/08 . Screens rotating within their own plate

B07B 1/10 . Screens in the form of endless moving bands

B07B 1/12 . Apparatus having only parallel elements

B07B 1/14 . . Roller screens

B07B 1/145 . . . { the material to be screened moving along the axis of the parallel elements }

B07B 1/15 . . . using corrugated, grooved or ribbed rollers

B07B 1/155 . . . . { the rollers having a star shaped cross section }

B07B 1/16 . . the elements being movable and in other than roller form

B07B 1/18 . Drum screens

B07B 1/185 . . { provided with exchangeable sieve panels }

B07B 1/20 . . Stationary drums with moving interior agitators

B07B 1/22 . . Revolving drums

B07B 1/24 . . . with fixed or moving interior agitators

B07B 1/26 . . . with additional axial or radial movement of the drum

B07B 1/28 . Moving screens not otherwise provided for, e.g. swinging, reciprocating, rocking, tilting or wobbling screens

B07B 1/282 . . {their jigging movement being a closed or open curvilinear path in a plane perpendicular to the plane of the screen and parrallel or transverse to the direction of conveyance }

B07B 1/284 . . {with unbalanced weights }

B07B 1/286 . . {with excentric shafts }

NOTE

Group B07B 1/40 takes precedence over groups B07B 1/30-B07B 1/38

B07B 1/288 . . { Tumbling screens }

B07B 1/30 . . jigging or moving to-and-fro {within their own plane } in or approximately in {or transverse to } the direction of conveyance

B07B 1/34 . . jigging or moving to-and-fro perpendicularly or approximately perpendiculary to the plane of the screen

B07B 1/343 . . . {with mechanical drive elements other than electromagnets }

B07B 1/346 . . . {with electromagnets }

B07B 1/36 . . jigging or moving to-and-fro in more than one direction

B07B 1/38 . . oscillating in a circular arc in their own plane; plansifters

B07B 1/40 . . Resonant vibration screens

B07B 1/42 . Drive mechanisms, regulating or controlling devices, or balancing devices, specially adapted for screens

B07B 1/44 . . Balancing devices

B07B 1/46 . Constructional details of screens in general; Cleaning or heating of screens

B07B 1/4609 . . {constructional details of screening surfaces or meshes }

B07B 1/4618 . . . { Manufacturing of screening surfaces }

B07B 1/4627 . . . { Repairing of screening surfaces }

B07B 1/4636 . . . { Regulation of screen apertures }

B07B 1/4645 . . . { Screening surfaces built up of modular elements }

B07B 1/4654 . . . { Corrugated Screening surfaces }

B07B 1/4663 . . . { Multi-layer screening surfaces }

B07B 1/4672 . . . { Woven mesches }

B07B 1/4681 . . . { Meshes of intersecting, non-woven, elements }

B07B 1/469 . . . { Perforated sheet-like material }

B07B 1/48 . . Stretching devices for screens

B07B 1/485 . . . {Devices for alternately stretching and sagging screening surfaces }

B07B 1/49 . . . stretching more than one screen of screen section by the same or different stretching means

B07B 1/50 . . Cleaning

B07B 1/52 . . . with brushes or scrapers
B07B 1/522 . . . . { with brushes }
B07B 1/524 . . . . . { the brushes being rotating }
B07B 1/526 . . . . { with scrapers }
B07B 1/528 . . . . . { the scrapers being rotating }
B07B 1/54 . . . with beating devices
B07B 1/55 . . . with fluid jets
B07B 1/56 . . Heated screens
B07B 1/58 . . . heated by heated fluid
B07B 1/60 . . . heated by flame heating
B07B 1/62 . . . heated by direct electric heating

Guidance heading: **Separating solids from solids using gas currents**

B07B 4/00 **Separating solids from solids by subjecting their mixture to gas currents** (using tables or jigs B03B 4/00)

B07B 4/02 . while the mixtures fall
B07B 4/025 . . {the material being slingered or fled out horizontally before falling, e.g. by dispersing elements }
B07B 4/04 . . in cascades
B07B 4/06 . . using revolving drums

B07B 4/08 . while the mixtures are supported by sieves, screens, or like mechanical elements

B07B 7/00 **Selective separation of solid materials carried by, or dispersed in, gas currents** (sieves of filters for separating dispersed particles from gases or vapours B01D)

B07B 7/01 . using gravity

B07B 7/02 . by reversal of direction of flow

B07B 7/04 . by impingement against baffle separators

B07B 7/06 . by impingement against sieves

B07B 7/08 . using centrifugal force (centrifuges B04B ; cyclones B04C)
B07B 7/083 . . generated by rotating vanes, discs, drums, or brushes
B07B 7/086 . . generated by the winding course of the gas stream
B07B 7/0865 . . . { using the coanda effect of the moving gas stream }
B07B 7/10 . . having air recirculating within the apparatus

B07B 7/12 . with pulsating air currents

B07B 9/00 **Combinations of apparatus for screening or sifting or for separating solids from solids using gas currents; General arrangement of plant, e.g. flow sheets**

B07B 9/02 . Combinations of similar or different apparatus for separating solids from solids using gas currents

B07B 11/00 Arrangement of accessories in apparatus for separating solids from solids using gas currents

B07B 11/02 . Arrangement of air or material conditioning accessories

B07B 11/04 . Control arrangements

B07B 11/06 . Feeding or discharging arrangements

B07B 11/08 . Cleaning arrangements

Guidance heading: Other separating, e.g. grading, resulting automatically from the construction of the apparatus used and properties of the material concerned; Combinations

B07B 13/00 Grading or sorting solid materials by dry methods, not otherwise provided for; Sorting articles otherwise than by indirectly controlled devices (grading eggs A01K 43/04)

B07B 13/003 . {Separation of articles by differences in their geometrical form or by difference in their physical properties, e.g. elasticity, compressibility, hardness }

B07B 13/006 . {Sorting molded pieces and runners }

B07B 13/02 . Apparatus for grading using pockets for taking out particles from aggregates

B07B 13/04 . according to size

B07B 13/05 . . using material mover cooperating with retainer, deflector or discharger (B07B 13/065 to B07B 13/075 take precedence)

B07B 13/065 . . Apparatus for grading or sorting using divergent conveyer belts or cables

B07B 13/07 . . Apparatus in which aggregates or articles are moved along or past openings which increase in size in the direction of movement

B07B 13/072 . . . { the openings being rollers with a divergent axis and the material moving substantially along the rollers axis }

B07B 13/075 . . Apparatus comprising moving article - receiving openings, the size of which varies as they move

B07B 13/08 . according to weight (B07B 13/10 takes precedence)

B07B 13/10 . using momentum effects

B07B 13/11 . . involving travel of particles over surfaces which separate by centrifugal force or by relative friction between particles and such surfaces, e.g. helical sorters

B07B 13/113 . . . { shaking tables (for wet separatingB03B 5/04; tables with water impulseB03B 5/70; pneumatic tablesB03B 4/02; moving screensB07B 1/28) }

B07B 13/116 . . . {stratification of dry granular material on a continuously travelling surface, e.g. belt conveyer (vanner for wet separation B03B 5/08) }

B07B 13/14 . Details or accessories

B07B 13/16 . . Feed or discharge arrangements

B07B 13/18 . . Control

B07B 15/00 **Combinations of apparatus for separating solids from solids by dry methods applicable to bulk material, e.g. loose articles fit to be handled like bulk material** (using wet methods B03B 7/00; using gas currents B07B 9/00)

Guidance heading:

B07B 2200/00 **Dummy title**

Guidance heading:

B07B 2201/00 **Details applicable to machines for screening using sieves or gratings**

B07B 2201/02 . Fastening means for fastening screens to their frames which do not stretch or sag the screening surfaces

B07B 2201/04 . Multiple deck screening devices comprising one or more superimposed screens

B07B 2220/00 **Type of materials being separated**

B07B 2220/02 . Plastics

B07B 2220/04 . Batteries

B07B 2230/00 **Specific aspects relating to the whole B07B subclass**

B07B 2230/01 . Wet separation

B07B 2230/04 . The screen or the screened materials being subjected to ultrasonic vibration