

ECLA**EUROPEAN 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 response 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.

B07B1/00

Sieving, screening, sifting, or sorting solid materials using networks, gratings, grids, or the like [N: (ash-sifters for domestic stoves or ranges [F24B15/00C](#))] [C9607]

B07B1/00T

- . [N: Transportable screening plants] [N9805]

B07B1/02

- . Hand screens

B07B1/04

- . Stationary flat screens

B07B1/06

- . Cone or disc shaped screens

B07B1/08

- . Screens rotating within their own plate

B07B1/10

- . Screens in the form of endless moving bands

B07B1/12

- . Apparatus having only parallel elements

B07B1/14

- . . Roller screens

B07B1/14B

- . . . [N: the material to be screened moving along the axis of the parallel elements] [N1204]

B07B1/15

- . . . using corrugated, grooved or ribbed rollers

B07B1/15B

- [N: the rollers having a star shaped cross section] [N1204]

B07B1/16

- . . the elements being movable and in other than roller form

B07B1/18

- . Drum screens

B07B1/18B

- . . [N: provided with exchangeable sieve panels] [N1204]

B07B1/20

- . . Stationary drums with moving interior agitators

B07B1/22

- . . Revolving drums

B07B1/24

- . . . with fixed or moving interior agitators

B07B1/26

- . . . with additional axial or radial movement of the drum

- B07B1/28 . Moving screens not otherwise provided for, e.g. swinging, reciprocating, rocking, tilting or wobbling screens
- B07B1/28B . . [N: their jiggling movement being a closed or open curvilinear path in a plane perpendicular to the plane of the screen and parallel or transverse to the direction of conveyance]
- B07B1/28C . . [N: with unbalanced weights]
- B07B1/28D . . [N: with excentric shafts]
- Note**
Group [B07B1/40](#) takes precedence over groups [B07B1/30](#)-[B07B1/38](#)
- B07B1/28T . . [N: Tumbling screens] [N1204]
- B07B1/30 . . jiggling or moving to-and-fro [N: within their own plane] in or approximately in [N: or transverse to] the direction of conveyance [C9602]
- B07B1/34 . . jiggling or moving to-and-fro perpendicularly or approximately perpendicular to the plane of the screen
- B07B1/34B . . . [N: with mechanical drive elements other than electromagnets]
- B07B1/34C . . . [N: with electromagnets]
- B07B1/36 . . jiggling or moving to-and-fro in more than one direction
- B07B1/38 . . oscillating in a circular arc in their own plane; plansifters
- B07B1/40 . . Resonant vibration screens
- B07B1/42 . Drive mechanisms, regulating or controlling devices, or balancing devices, specially adapted for screens
- B07B1/44 . . Balancing devices
- B07B1/46 . Constructional details of screens in general; Cleaning or heating of screens
- B07B1/46B . . [N: constructional details of screening surfaces or meshes]
- B07B1/46B2 . . . [N: Manufacturing of screening surfaces] [N0602]
- B07B1/46B4 . . . [N: Repairing of screening surfaces] [N0602]
- B07B1/46B6 . . . [N: Regulation of screen apertures] [N0602]
- B07B1/46B8 . . . [N: Screening surfaces built up of modular elements] [N0602]
- B07B1/46B10 . . . [N: Corrugated Screening surfaces] [N0602]
- B07B1/46B12 . . . [N: Multi-layer screening surfaces] [N0602]
- B07B1/46B14 . . . [N: Woven meshes] [N0602]
- B07B1/46B16 . . . [N: Meshes of intersecting, non-woven, elements] [N0602]
- B07B1/46B18 . . . [N: Perforated sheet-like material] [N0602]
- B07B1/48 . . Stretching devices for screens
- B07B1/48B . . . [N: Devices for alternately stretching and sagging screening surfaces]
- B07B1/49 . . . stretching more than one screen of screen section by the same or different stretching means
- B07B1/50 . . Cleaning
- B07B1/52 . . . with brushes or scrapers
- B07B1/52B [N: with brushes] [N0602]
- B07B1/52B2 [N: the brushes being rotating] [N0602]
- B07B1/52D [N: with scrapers] [N0602]

- B07B1/52D2 [N: the scrapers being rotating] [N0602]
- B07B1/54 . . . with beating devices
- B07B1/55 . . . with fluid jets
- B07B1/56 . . Heated screens
- B07B1/58 . . . heated by heated fluid
- B07B1/60 . . . heated by flame heating
- B07B1/62 . . . heated by direct electric heating

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

B07B4/00 **Separating solids from solids by subjecting their mixture to gas currents** (using tables or jigs [B03B4/00](#))

- B07B4/02 . while the mixtures fall
- B07B4/02B . . [N: the material being slingered or fled out horizontally before falling, e.g. by dispersing elements]
- B07B4/04 . . in cascades
- B07B4/06 . . using revolving drums
- B07B4/08 . while the mixtures are supported by sieves, screens, or like mechanical elements

B07B7/00 **Selective separation of solid materials carried by, or dispersed in, gas currents** (sieves or filters for separating dispersed particles from gases or vapours [B01D](#))

- B07B7/01 . using gravity
- B07B7/02 . by reversal of direction of flow
- B07B7/04 . by impingement against baffle separators
- B07B7/06 . by impingement against sieves
- B07B7/08 . using centrifugal force ([centrifuges B04B](#); [cyclones B04C](#))
- B07B7/083 . . generated by rotating vanes, discs, drums, or brushes
- B07B7/086 . . generated by the winding course of the gas stream
- B07B7/086B . . . [N: using the coanda effect of the moving gas stream] [N1204]
- B07B7/10 . . having air recirculating within the apparatus
- B07B7/12 . with pulsating air currents

B07B9/00 **Combinations of apparatus for screening or sifting or for separating solids from solids using gas currents; General arrangement of plant, e.g. flow sheets**

- B07B9/02 . Combinations of similar or different apparatus for separating solids from solids using gas currents

B07B11/00 **Arrangement of accessories in apparatus for separating solids from solids using**

gas currents

- B07B11/02 . Arrangement of air or material conditioning accessories
- B07B11/04 . Control arrangements
- B07B11/06 . Feeding or discharging arrangements
- B07B11/08 . Cleaning arrangements

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

- B07B13/00** **Grading or sorting solid materials by dry methods, not otherwise provided for; Sorting articles otherwise than by indirectly controlled devices** ([grading eggs A01K43/04](#)) [C9602]
- B07B13/00B . [N: Separation of articles by differences in their geometrical form or by difference in their physical properties, e.g. elasticity, compressibility, hardness]
- B07B13/00C . [N: Sorting molded pieces and runners]
- B07B13/02 . Apparatus for grading using pockets for taking out particles from aggregates
- B07B13/04 . according to size
- B07B13/05 . . using material mover cooperating with retainer, deflector or discharger ([B07B13/065 to B07B13/075 take precedence](#))
- B07B13/065 . . Apparatus for grading or sorting using divergent conveyer belts or cables
- B07B13/07 . . Apparatus in which aggregates or articles are moved along or past openings which increase in size in the direction of movement
- B07B13/07B . . . [N: the openings being rollers with a divergent axis and the material moving substantially along the rollers axis] [N1204]
- B07B13/075 . . Apparatus comprising moving article - receiving openings, the size of which varies as they move
- B07B13/08 . according to weight ([B07B13/10 takes precedence](#))
- B07B13/10 . using momentum effects
- B07B13/11 . . involving travel of particles over surfaces which separate by centrifugal force or by relative friction between particles and such surfaces, e.g. helical sorters
- B07B13/11B . . . [N: shaking tables([for wet separatingB03B5/04](#); [tables with water impulseB03B5/70](#); [pneumatic tablesB03B4/02](#); [moving screensB07B1/28](#))] [C9602]
- B07B13/11C . . . [N: stratification of dry granular material on a continuously travelling surface, e.g. belt conveyer ([vanner for wet separation B03B5/08](#))]
- B07B13/14 . Details or accessories
- B07B13/16 . . Feed or discharge arrangements

B07B13/18

. . Control

B07B15/00

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 [B03B7/00](#); using gas currents [B07B9/00](#))