

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 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.

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

[B07B 1/32](#)

covered by

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)}	1/288	. . {Tumbling screens}
		1/30	. . jiggling or moving to-and-fro {within their own plane} in or approximately in {or transverse to} the direction of conveyance
1/005	. {Transportable screening plants}	1/34	. . jiggling or moving to-and-fro perpendicularly or approximately perpendicular to the plane of the screen
1/02	. Hand screens	1/343	. . . {with mechanical drive elements other than electromagnets}
1/04	. Stationary flat screens	1/346	. . . {with electromagnets}
1/06	. Cone or disc shaped screens	1/36	. . jiggling or moving to-and-fro in more than one direction
1/08	. Screens rotating within their own plate	1/38	. . oscillating in a circular arc in their own plane; plansifters
1/10	. Screens in the form of endless moving bands	1/40	. . Resonant vibration screens
1/12	. Apparatus having only parallel elements	1/42	. Drive mechanisms, regulating or controlling devices, or balancing devices, specially adapted for screens
1/14	. . Roller screens	1/44	. . Balancing devices
1/145	. . . {the material to be screened moving along the axis of the parallel elements}	1/46	. Constructional details of screens in general; Cleaning or heating of screens
1/15	. . . using corrugated, grooved or ribbed rollers	1/4609	. . {constructional details of screening surfaces or meshes}
1/155 {the rollers having a star shaped cross section}	1/4618	. . . {Manufacturing of screening surfaces}
1/16	. . the elements being movable and in other than roller form	1/4627	. . . {Repairing of screening surfaces}
1/18	. Drum screens	1/4636	. . . {Regulation of screen apertures}
1/185	. . {provided with exchangeable sieve panels}	1/4645	. . . {Screening surfaces built up of modular elements}
1/20	. . Stationary drums with moving interior agitators	1/4654	. . . {Corrugated Screening surfaces}
1/22	. . Revolving drums	1/4663	. . . {Multi-layer screening surfaces}
1/24	. . . with fixed or moving interior agitators	1/4672	. . . {Woven meshes}
1/26	. . . with additional axial or radial movement of the drum	1/4681	. . . {Meshes of intersecting, non-woven, elements}
1/28	. Moving screens not otherwise provided for, e.g. swinging, reciprocating, rocking, tilting or wobbling screens	1/469	. . . {Perforated sheet-like material}
1/282	. . {their jiggling 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}	1/48	. . Stretching devices for screens
1/284	. . {with unbalanced weights}	1/485	. . . {Devices for alternately stretching and sagging screening surfaces}
1/286	. . {with excentric shafts}	1/49	. . . stretching more than one screen of screen section by the same or different stretching means

NOTE

Group [B07B 1/40](#) takes precedence over groups [B07B 1/30](#)-[B07B 1/38](#)

- 1/50 . . . Cleaning
- 1/52 . . . with brushes or scrapers
- 1/522 {with brushes}
- 1/524 {the brushes being rotating}
- 1/526 {with scrapers}
- 1/528 {the scrapers being rotating}
- 1/54 . . . with beating devices
- 1/55 . . . with fluid jets
- 1/56 . . Heated screens
- 1/58 . . . heated by heated fluid
- 1/60 . . . heated by flame heating
- 1/62 . . . heated by direct electric heating

Separating solids from solids using gas currents

- 4/00** **Separating solids from solids by subjecting their mixture to gas currents (using tables or jigs [B03B 4/00](#))**
 - 4/02 . while the mixtures fall
 - 4/025 . . {the material being slingered or fled out horizontally before falling, e.g. by dispersing elements}
 - 4/04 . . in cascades
 - 4/06 . . using revolving drums
 - 4/08 . while the mixtures are supported by sieves, screens, or like mechanical elements
- 7/00** **Selective separation of solid materials carried by, or dispersed in, gas currents (sieves or filters for separating dispersed particles from gases or vapours [B01D](#))**
 - 7/01 . using gravity
 - 7/02 . by reversal of direction of flow
 - 7/04 . by impingement against baffle separators
 - 7/06 . by impingement against sieves
 - 7/08 . using centrifugal force ([centrifuges B04B](#); [cyclones B04C](#))
 - 7/083 . . generated by rotating vanes, discs, drums, or brushes
 - 7/086 . . generated by the winding course of the gas stream
 - 7/0865 . . . {using the coanda effect of the moving gas stream}
 - 7/10 . . having air recirculating within the apparatus
 - 7/12 . with pulsating air currents
- 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**
 - 9/02 . Combinations of similar or different apparatus for separating solids from solids using gas currents
- 11/00** **Arrangement of accessories in apparatus for separating solids from solids using gas currents**
 - 11/02 . Arrangement of air or material conditioning accessories
 - 11/04 . Control arrangements
 - 11/06 . Feeding or discharging arrangements
 - 11/08 . Cleaning arrangements

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

- 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](#))**
- 13/003 . {Separation of articles by differences in their geometrical form or by difference in their physical properties, e.g. elasticity, compressibility, hardness}
- 13/006 . {Sorting molded pieces and runners}
- 13/02 . Apparatus for grading using pockets for taking out particles from aggregates
- 13/04 . according to size
- 13/05 . . using material mover cooperating with retainer, deflector or discharger ([B07B 13/065](#) - [B07B 13/075](#) take precedence)
- 13/065 . . Apparatus for grading or sorting using divergent conveyor belts or cables
- 13/07 . . Apparatus in which aggregates or articles are moved along or past openings which increase in size in the direction of movement
- 13/072 . . . {the openings being rollers with a divergent axis and the material moving substantially along the rollers axis}
- 13/075 . . Apparatus comprising moving article - receiving openings, the size of which varies as they move
- 13/08 . according to weight ([B07B 13/10](#) takes precedence)
- 13/10 . using momentum effects
- 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
- 13/113 . . . {shaking tables (for wet separating [B03B 5/04](#); tables with water impulse [B03B 5/70](#); pneumatic tables [B03B 4/02](#); moving screens [B07B 1/28](#))}
- 13/116 . . . {stratification of dry granular material on a continuously travelling surface, e.g. belt conveyor ([vanner for wet separation B03B 5/08](#))}
- 13/14 . Details or accessories
- 13/16 . . Feed or discharge arrangements
- 13/18 . . Control
- 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](#))**

2200/00 **Dummy title**

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

- 2201/02 . Fastening means for fastening screens to their frames which do not stretch or sag the screening surfaces
- 2201/04 . Multiple deck screening devices comprising one or more superimposed screens

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

- 2220/02 . Plastics

B07B

2220/04 . Batteries

2230/00 Specific aspects relating to the whole [B07B](#)
subclass

2230/01 . Wet separation

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