

## SECTION B — PERFORMING OPERATIONS; TRANSPORTING

**B03 SEPARATION OF SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS; MAGNETIC OR ELECTROSTATIC SEPARATION OF SOLID MATERIALS FROM SOLID MATERIALS OR FLUIDS; SEPARATION BY HIGH-VOLTAGE ELECTRIC FIELDS**

**B03B SEPARATING SOLID MATERIALS USING LIQUIDS OR USING PNEUMATIC TABLES OR JIGS** (removing fluids from solids B01D; magnetic or electrostatic separation of solid materials from solid materials or fluids, separation by high voltage electric fields B03C; flotation, differential sedimentation B03D; separating by dry methods B07; screening or sifting B07B; by picking B07C; separating peculiar to particular materials and provided for in other single classes, see the relevant classes)

**Subclass index**

|  |                   |
|--|-------------------|
| PRETREATMENT.....  | 1/00              |
| WASHING, WET SEPARATING, SEPARATING BY PNEUMATIC JIGS; FEEDING AND DISCHARGING PRODUCTS TREATED THEREBY..... | 4/00, 5/00, 11/00 |
| COMBINATIONS OF PROCESSES OR APPARATUS.....  | 7/00              |
| ARRANGEMENTS OF PLANT.....   | 9/00              |
| CONTROL BY PHYSICAL EFFECTS.....   | 13/00             |

|             |   |             |   |
|-------------|---|-------------|---|
| <b>1/00</b> | <b>Conditioning for facilitating separation by altering physical properties of the matter to be treated</b><br>(pretreatment of ores in general C22B) | 5/30        | • • using heavy liquids or suspensions [2]  |
| 1/02        | • Preparatory heating   | 5/32        | • • • using centrifugal force (centrifuges B04B; cyclones B04C) [2]   |
| 1/04        | • by additives  | 5/34        | • • • • Applications of hydrocyclones [2]   |
| 1/06        | • by varying ambient atmospheric pressure   | 5/36        | • • • Devices therefor, other than using centrifugal force (jigs B03B 5/10) [2]   |
| <b>4/00</b> | <b>Separating by pneumatic tables or by pneumatic jigs</b><br>(sink-float separation using dry heavy media B03B 5/46) [2]                             | 5/38        | • • • • of conical receptacle type [2]  |
| 4/02        | • using swinging or shaking tables [6]  | 5/40        | • • • • of trough type [2]  |
| 4/04        | • using rotary tables or tables formed by travelling belts (separating solids from solids using gas currents and revolving drums B07B 4/06) [6]       | 5/42        | • • • • of drum or lifting wheel type [2]   |
| 4/06        | • using fixed and inclined tables [6]   | 5/44        | • • • Application of particular media therefor [2]  |
| <b>5/00</b> | <b>Washing granular, powdered or lumpy materials; Wet separating</b> (separating by pneumatic tables or by pneumatic jigs B03B 4/00) [2]              | 5/46        | • • using dry heavy media; Devices therefor [2]   |
| 5/02        | • using shaken, pulsated or stirred beds as the principal means of separation (B03B 5/28, B03B 5/48 take precedence) [2]                              | 5/48        | • by mechanical classifiers (sink-float separation aspects B03B 5/28) [2]   |
| 5/04        | • • on shaking tables (on vanners B03B 5/08) [2]  | 5/50        | • • Rake classifiers [2]  |
| 5/06        | • • • Constructional details of shaking tables, e.g. riffling [2]   | 5/52        | • • Spiral classifiers [2]  |
| 5/08        | • • on vanners [2]  | 5/54        | • • Drag classifiers [2]  |
| 5/10        | • • on jigs [2]   | 5/56        | • • Drum classifiers [2]  |
| 5/12        | • • • using pulses generated mechanically in fluid [2]  | 5/58        | • • Bowl classifiers [2]  |
| 5/14        | • • • • Plunger jigs [2]  | 5/60        | • by non-mechanical classifiers, e.g. slime tanks (using shaken, pulsated or stirred beds as the principal means of separation B03B 5/02; hydraulic classifiers B03B 5/62; water impulse classifiers B03B 5/68) [2] |
| 5/16        | • • • • Diaphragm jigs [2]  | 5/62        | • by hydraulic classifiers, e.g. of launder, tank, spiral or helical chute concentrator type [2]  |
| 5/18        | • • • • Moving-sieve jigs [2]   | 5/64        | • • of the free settling type [2]   |
| 5/20        | • • • using pulses generated by air injection [2]   | 5/66        | • • of the hindered settling type [2]   |
| 5/22        | • • • using pulses generated by liquid injection [2]  | 5/68        | • by water impulse (shaking tables B03B 5/04; jigs B03B 5/10; hydraulic classifiers B03B 5/62) [2]  |
| 5/24        | • • • Constructional details of jigs, e.g. pulse control devices [2]  | 5/70        | • • on tables or strakes [2]  |
| 5/26        | • • in sluices [2]  | 5/72        | • • • which are movable [2]   |
| 5/28        | • by sink-float separation [2]  | 5/74        | • • • • Revolving tables [2]  |
|             |   | <b>7/00</b> | <b>Combinations of wet processes or apparatus with other processes or apparatus, e.g. for dressing ores or garbage</b>  |

## B03B

### 9/00 **General arrangement of separating plant, e.g. flow sheets**

- 9/02 • specially adapted for oil-sand, oil-chalk, oil-shales, ozokerite, bitumen, or the like
- 9/04 • specially adapted for furnace residues, smeltings, or foundry slags
- 9/06 • specially adapted for refuse

### 11/00 **Feed or discharge devices integral with washing or wet-separating equipment** (filling or emptying devices per se B65G 65/30)

### 13/00 **Control arrangements specially adapted for wet-separating apparatus or for dressing plant, using physical effects** (detecting, measuring, or analysing devices G01)

- 13/02 • using optical effects
- 13/04 • using electrical or electromagnetic effects
- 13/06 • using absorption or reflection of radioactive emanation