

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### SEPARATING; MIXING

**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** (separating isotopes [B01D 59/00](#); crushing or disintegrating [B02C](#); centrifuges or vortex apparatus for carrying out physical processes [B04](#))

**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](#))

|             |   |          |  |
|-------------|---|----------|--|
| <b>1/00</b> | <b>Conditioning for facilitating separation by altering physical properties of the matter to be treated</b> (pretreatment of ores in general <a href="#">C22B</a> {; pretreatment prior to magnetic separation <a href="#">B03C 1/00</a> }) | 5/16     | . . . . Diaphragm jigs   |
|             |   | 5/18     | . . . . Moving-sieve jigs  |
|             |   | 5/20     | . . . . using pulses generated by air injection  |
| 1/02        | . Preparatory heating   | 5/22     | . . . . using pulses generated by liquid injection   |
| 1/04        | . by additives  | 5/24     | . . . . Constructional details of jigs, e.g. pulse control devices   |
| 1/06        | . by varying ambient atmospheric pressure   | 5/26     | . . . in sluices   |
| <b>4/00</b> | <b>Separating by pneumatic tables or by pneumatic jigs</b> (sink-float separation using dry heavy media <a href="#">B03B 5/46</a> )   | 5/28     | . by sink-float separation   |
|             |   | 5/30     | . . using heavy liquids or suspensions   |
|             |   | 5/32     | . . . using centrifugal force ( <a href="#">centrifuges B04B</a> ; <a href="#">cyclones B04C</a> )   |
|             | <b>NOTE</b>   | 5/34     | . . . . Applications of hydrocyclones  |
|             | Group <a href="#">B03B 4/005</a> takes precedence over groups <a href="#">B03B 4/02</a> - <a href="#">B03B 4/065</a>  | 5/36     | . . . Devices therefor, other than using centrifugal force ( <a href="#">jigs B03B 5/10</a> )  |
| 4/005       | . {the currents being pulsating, e.g. pneumatic jigs; combination of continuous and pulsating currents}   | 5/38     | . . . . of conical receptacle type   |
| 4/02        | . using swinging or shaking tables  | 5/40     | . . . . of trough type   |
| 4/04        | . using rotary tables or tables formed by travelling belts (separating solids from solids using gas currents and revolving drums <a href="#">B07B 4/06</a> )  | 2005/405 | . . . . . {using horizontal currents}  |
|             |   | 5/42     | . . . . of drum or lifting wheel type  |
| 4/06        | . using fixed and inclined tables {; using stationary pneumatic tables, e.g. fluidised beds}  | 5/44     | . . . Application of particular media therefor   |
| 4/065       | . . {having inclined portions}  | 5/442    | . . . . {composition of heavy media}   |
|             |   | 5/445    | . . . . . {composition of dry heavy media}   |
|             |   | 5/447    | . . . . . {recovery of heavy media}  |
| <b>5/00</b> | <b>Washing granular, powdered or lumpy materials; Wet separating</b> (separating by pneumatic tables or by pneumatic jigs <a href="#">B03B 4/00</a> )   | 5/46     | . . using dry heavy media; Devices therefor  |
|             |   | 5/48     | . by mechanical classifiers ( <a href="#">sink-float separation aspects B03B 5/28</a> )  |
| 5/02        | . using shaken, pulsated or stirred beds as the principal means of separation ( <a href="#">B03B 5/28</a> , <a href="#">B03B 5/48</a> take precedence)  | 5/50     | . . Rake classifiers   |
|             |   | 5/52     | . . Spiral classifiers   |
| 5/04        | . . on shaking tables ( <a href="#">on vanners B03B 5/08</a> )  | 5/54     | . . Drag classifiers   |
| 5/06        | . . . Constructional details of shaking tables, e.g. riffling   | 5/56     | . . Drum classifiers   |
|             |   | 5/58     | . . Bowl classifiers   |
| 5/08        | . . on vanners  | 5/60     | . by non-mechanical classifiers, e.g. slime tanks (using shaken, pulsated or stirred beds as the principal means of separation <a href="#">B03B 5/02</a> ; hydraulic classifiers <a href="#">B03B 5/62</a> ; water impulse classifiers <a href="#">B03B 5/68</a> ) |
| 5/10        | . . on jigs   |          |  |
| 5/12        | . . . using pulses generated mechanically in fluid  | 5/62     | . by hydraulic classifiers, e.g. of launder, tank, spiral or helical chute concentrator type   |
| 5/14        | . . . . Plunger jigs  |          |  |

- 5/623 . . {Upward current classifiers}
- 5/626 . . {Helical separators}
- 5/64 . . of the free settling type
- 5/66 . . of the hindered settling type
- 5/68 . . by water impulse ([shaking tables B03B 5/04](#); [jigs B03B 5/10](#); [hydraulic classifiers B03B 5/62](#))
- 5/70 . . on tables or strakes
- 5/72 . . . which are movable
- 5/74 . . . . Revolving tables
- 7/00** **Combinations of wet processes or apparatus with other processes or apparatus, e.g. for dressing ores or garbage**
- 9/00** **General arrangement of separating plant, e.g. flow sheets**
- 9/005 . {specially adapted for coal}
- 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
- 9/061 . . {the refuse being industrial}
- 9/062 . . . {the refuse being glass}
- 9/063 . . . {the refuse being concrete slurry}
- 9/065 . . . {the refuse being building rubble}
- 2009/066 . . {the refuse being batteries}
- 2009/067 . . {the refuse being carpets}
- 2009/068 . . {Specific treatment of shredder light fraction}
- 11/00** **Feed or discharge devices integral with washing or wet-separating equipment ([filling or emptying devices per se B65G 65/30](#))**
- 2011/002 . {Rotary feeding devices}
- 2011/004 . {Lifting wheel dischargers}
- 2011/006 . {Scraper dischargers}
- 2011/008 . {Screw dischargers}
- 13/00** **Control arrangements specially adapted for wet-separating apparatus or for dressing plant, using physical effects ([detecting, measuring, or analysing devices G01](#); [control devices in general G05](#))**
- 13/005 . {Methods or arrangements for controlling the physical properties of heavy media ([in relation with groups B03B 5/30 - B03B 5/46](#)), e.g. density, concentration, viscosity}
- 13/02 . using optical effects
- 13/04 . using electrical or electromagnetic effects
- 13/06 . using absorption or reflection of radioactive emanation