

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

LIGHTING; HEATING

F23 COMBUSTION APPARATUS; COMBUSTION PROCESSES (NOTE omitted)

F23K FEEDING FUEL TO COMBUSTION APPARATUS (fuel feeders specially adapted for fluidised-bed combustion apparatus [F23C 10/22](#); regulating or controlling combustion [F23N](#))

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|-------|---|-----------|---|
| 1/00 | Preparation of lump or pulverulent fuel in readiness for delivery to combustion apparatus (filtration B01D ; mixing B01F ; pulverising B02C ; drying F26B) | 5/20 | . . . Preheating devices (in burners using a direct spraying action of liquid droplets or vaporised liquid into the combustion space F23D 11/44) |
| 1/02 | . Mixing solid fuel with a liquid, e.g. preparing slurries | 5/22 | . . . Vaporising devices (in burners using a direct spraying action of liquid droplets or vaporised liquid into the combustion space F23D 11/44) |
| 1/04 | . Heating fuel prior to delivery to combustion apparatus | | |
| 3/00 | Feeding or distributing of lump or pulverulent fuel to combustion apparatus (conveying in general B65G) | 2200/00 | Pretreatment and supply of solid fuel |
| 3/02 | . Pneumatic feeding arrangements, i.e. by air blast | 2201/00 | Pretreatment of solid fuel |
| 3/04 | . for locomotive boiler furnaces | 2201/10 | . Pulverizing |
| 3/06 | . for shaft-type furnaces | 2201/1003 | . . Processes to make pulverulent fuels |
| 3/08 | . for furnaces having movable grate bars | 2201/1006 | . . Mills adapted for use with furnaces |
| 3/10 | . Under-feed arrangements | 2201/101 | . . to a specific particle size |
| 3/12 | . . feeding by piston | 2201/103 | . . with hot gas supply |
| 3/14 | . . feeding by screw | 2201/20 | . Drying |
| 3/16 | . Over-feed arrangements | 2201/30 | . Separating |
| 3/18 | . . Spreader stokers | 2201/50 | . Blending |
| 3/20 | . . . with moving hoppers | 2201/501 | . . with other fuels or combustible waste |
| 3/22 | . Controlling thickness of fuel bed | 2201/503 | . . with non-combustible liquids to prepare slurries |
| 5/00 | Feeding or distributing other fuel to combustion apparatus | 2201/505 | . . with additives |
| 5/002 | . {Gaseous fuel} | 2203/00 | Feeding arrangements |
| 5/005 | . . {from a central source to a plurality of burners} | 2203/002 | . Feeding devices for steam boilers, e.g. in locomotives |
| 5/007 | . . {Details} | 2203/004 | . Feeding devices with reciprocating members |
| 5/02 | . Liquid fuel | 2203/006 | . Fuel distribution and transport systems for pulverulent fuel |
| 5/04 | . . Feeding or distributing systems using pumps (F23K 5/06 takes precedence) | 2203/008 | . Feeding devices for pulverulent fuel |
| 5/06 | . . from a central source to a plurality of burners | 2203/10 | . Supply line fittings |
| 5/08 | . . Preparation of fuel | 2203/101 | . . Wear protection devices |
| 5/10 | . . . Mixing with other fluids | 2203/102 | . . Flashback safety, e.g. inertizing devices |
| 5/12 | Preparing emulsions (spraying an emulsion of water and fuel into the combustion space of burners F23D 11/16) | 2203/103 | . . Storage devices |
| 5/14 | . . Details thereof | 2203/104 | . . Metering devices |
| 5/142 | . . . {Fuel pumps (pumps in general F04)} | 2203/105 | . . Flow splitting devices to feed a plurality of burners |
| 5/145 | {combined with fans} | 2203/20 | . Feeding/conveying devices |
| 5/147 | . . . {Valves} | 2203/201 | . . using pneumatic means |
| 5/16 | . . . Safety devices (F23K 5/18 takes precedence; safety arrangements for combustion chambers F23M 11/00) | 2203/202 | . . using screws |
| 5/18 | . . . Cleaning or purging devices, e.g. filters | 2203/203 | . . using pistons or rams |
| | | 2300/00 | Pretreatment and supply of liquid fuel |
| | | 2301/10 | . Pretreatment |
| | | 2301/101 | . . Application of magnetism or electricity |
| | | 2301/103 | . . Mixing with other fluids |
| | | 2301/20 | . Supply line arrangements |
| | | 2301/201 | . . Pumps |

- 2301/202 . . Filtering
- 2301/203 . . Purging
- 2301/204 . . Preheating
- 2301/205 . . Vaporising
- 2301/206 . . Control devices

2400/00 Pretreatment and supply of gaseous fuel

- 2401/10 . Pretreatment
- 2401/20 . Supply line arrangements
- 2401/201 . . Control devices

2900/00 Special features of, or arrangements for fuel supplies

- 2900/00001 . Treating the fuel, either liquid or gaseous, with sound waves to enhance fuel properties
- 2900/00002 . Treating the fuel, either liquid or gaseous, with far-infrared radiations [FIR] to enhance fuel properties
- 2900/01001 . Cleaning solid fuel before combustion to achieve reduced emissions
- 2900/01002 . Treating solid fuel with electromagnetic fields before combustion
- 2900/01003 . Pulverizing solid fuel in vacuum or a reduced pressure environment
- 2900/01041 . Heating by using exhaust gas heat
- 2900/03001 . Airlock sections in solid fuel supply lines
- 2900/05001 . Control or safety devices in gaseous or liquid fuel supply lines
- 2900/05002 . Valves for gaseous fuel supply lines
- 2900/05003 . Non-continuous fluid fuel supply
- 2900/05004 . Mixing two or more fluid fuels
- 2900/05081 . Treating the fuel with catalyst to enhance combustion
- 2900/05082 . Removing gaseous substances from liquid fuel line, e.g. oxygen
- 2900/05083 . Separating watery fractions from liquid fuel
- 2900/05084 . Creating a combustible foam of liquid fuels and air
- 2900/05141 . Control or safety devices in liquid fuel supply line
- 2900/05142 . Special materials for liquid fuel supply lines