

SECTION C — CHEMISTRY; METALLURGY

C10 PETROLEUM, GAS OR COKE INDUSTRIES; TECHNICAL GASES CONTAINING CARBON MONOXIDE; FUELS; LUBRICANTS; PEAT**C10J PRODUCTION OF GASES CONTAINING CARBON MONOXIDE AND HYDROGEN FROM SOLID CARBONACEOUS MATERIALS BY PARTIAL OXIDATION PROCESSES INVOLVING OXYGEN OR STEAM (underground gasification of minerals E21B 43/295); CARBURETTING AIR OR OTHER GASES [5]**

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| 1/00 | Production of fuel gases by carburetting air or other gases (for internal-combustion engines F02M) | 3/20 | • • Apparatus; Plants |
| 1/02 | • Carburetting air | 3/22 | • • • Arrangements or dispositions of valves or flues |
| 1/04 | • • Controlling supply of air | 3/24 | • • • • to permit flow of gases or vapours other than upwardly through the fuel bed |
| 1/06 | • • with materials which are liquid at ordinary temperatures | 3/26 | • • • • • downwardly |
| 1/08 | • • • by passage of air through or over the surface of the liquid | 3/28 | • • • • fully automatic |
| 1/10 | • • • • with the liquid absorbed on carriers | 3/30 | • • • Fuel charging devices |
| 1/12 | • • • by atomisation of the liquid | 3/32 | • • • Devices for distributing fuel evenly over the bed for stirring-up the fuel bed |
| 1/14 | • • • Controlling the supply of liquid in accordance with the air supply | 3/34 | • • • Grates; Mechanical ash-removing devices |
| 1/16 | • • with solid hydrocarbons (C10J 1/207, C10J 1/213 take precedence) | 3/36 | • • • • Fixed grates |
| 1/18 | • • in rotary carburettors | 3/38 | • • • • • with stirring beams |
| 1/20 | • Carburetting gases other than air | 3/40 | • • • • Movable grates |
| 1/207 | • Carburetting by pyrolysis of solid carbonaceous material in a fuel bed (C10J 3/66 takes precedence) [2012.01] | 3/42 | • • • • • Rotary grates |
| 1/213 | • Carburetting by pyrolysis of solid carbonaceous material in a carburettor [2012.01] | 3/44 | • • • adapted for use on vehicles |
| 1/22 | • Adding materials to prevent vapour deposition | 3/46 | • Gasification of granular or pulverulent fuels in suspension |
| 1/24 | • Controlling humidity of the air or gas to be carburetted | 3/48 | • • Apparatus; Plants |
| 1/26 | • using raised temperatures or pressures (C10J 1/207, C10J 1/213 take precedence) | 3/50 | • • • Fuel charging devices |
| 1/28 | • Odourising air gas | 3/52 | • • • Ash-removing devices |
| 3/00 | Production of gases containing carbon monoxide and hydrogen, e.g. synthesis gas or town gas, from solid carbonaceous materials by partial oxidation processes involving oxygen or steam | 3/54 | • • Gasification of granular or pulverulent fuels by the Winkler technique, i.e. by fluidisation |
| 3/02 | • Fixed-bed gasification of lump fuel | 3/56 | • • • Apparatus; Plants |
| 3/04 | • • Cyclic processes, e.g. alternate blast and run | 3/57 | • Gasification using molten salts or metals (C10J 3/02, C10J 3/46 take precedence) [4] |
| 3/06 | • • Continuous processes | 3/58 | • combined with pre-distillation of the fuel |
| 3/08 | • • • with ash-removal in liquid state | 3/60 | • • Processes |
| 3/10 | • • • using external heating | 3/62 | • • • with separate withdrawal of the distillation products |
| 3/12 | • • • using solid heat-carriers | 3/64 | • • • with decomposition of the distillation products |
| 3/14 | • • • using gaseous heat-carriers | 3/66 | • • • • by introducing them into the gasification zone |
| 3/16 | • • • simultaneously reacting oxygen and water with the carbonaceous material | 3/72 | • Other features |
| 3/18 | • • • using electricity | 3/74 | • • Construction of shells or jackets |
| | | 3/76 | • • • Water jackets; Steam boiler jackets |
| | | 3/78 | • • High-pressure apparatus |
| | | 3/80 | • • with arrangements for preheating the blast or the water vapour |
| | | 3/82 | • • Gas withdrawal means |
| | | 3/84 | • • • with means for removing dust or tar from the gas |
| | | 3/86 | • • combined with waste-heat boilers |