

CPC COOPERATIVE PATENT CLASSIFICATION

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

LIGHTING; HEATING

F22 STEAM GENERATION (NOTE omitted)

F22G SUPERHEATING OF STEAM

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| 1/00 | Steam superheating characterised by heating method | 5/08 | . . preventing furnace gas backflow through recirculating fan |
| 1/005 | . {the heat being supplied by steam} | 5/10 | . by displacing superheater sections |
| 1/02 | . with heat supply by hot flue gases from the furnace of the steam boiler | 5/12 | . by attenuating the superheated steam, e.g. by injected water sprays |
| 1/04 | . . by diverting flow or hot flue gases to separate superheaters operating in reheating cycle, e.g. for reheating steam between a high-pressure turbine stage and an intermediate turbine stage | 5/123 | . . {Water injection apparatus} |
| 1/06 | . with heat supply predominantly by radiation | 5/126 | . . . {in combination with steam-pressure reducing valves} |
| 1/08 | . . from heated brickwork or the like | 5/14 | . . by live steam |
| 1/10 | . with provision for superheating by throttling | 5/16 | . by indirectly cooling or heating the superheated steam in auxiliary enclosed heat-exchanger |
| 1/12 | . by mixing steam with furnace gases or other combustion products | 5/18 | . by by-passing steam around superheater sections |
| 1/14 | . using heat generated by chemical reactions | 5/20 | . by combined controlling procedures |
| 1/16 | . by using a separate heat source independent from heat supply of the steam boiler, e.g. by electricity, by auxiliary combustion of fuel oil | 7/00 | Steam superheaters characterised by location, arrangement, or disposition |
| 1/165 | . . {by electricity} | 7/005 | . {for locomotive boilers (F22G 7/065 , F22G 7/105 take precedence)} |
| 3/00 | Steam superheaters characterised by constructional features; Details or component parts thereof | 7/02 | . in fire tubes |
| 3/001 | . {Steam tube arrangements not dependent of location} | 7/04 | . in jackets around fire tubes |
| 3/002 | . . {with helical steam tubes} | 7/06 | . in furnace tubes |
| 3/003 | . {Superheater drain arrangements} | 7/065 | . . {for locomotive boilers} |
| 3/004 | . {Steam tubes with steam flowing in opposite directions in one pipe, e.g. Field tubes (F22G 3/005 takes precedence)} | 7/08 | . in fire-boxes |
| 3/005 | . {Annular steam tubes, i.e. the steam being heated between concentric tubes with the heating fluid flowing in inner and around outer tube} | 7/10 | . in smoke-boxes |
| 3/006 | . {Steam superheaters with heating tubes (F22G 3/005 takes precedence)} | 7/105 | . . {for locomotive boilers} |
| 3/007 | . {Headers; Collectors, e.g. for mixing} | 7/12 | . in flues |
| 3/008 | . {Protection of superheater elements, e.g. cooling superheater tubes during starting-up periods, water tube screens} | 7/14 | . in water-tube boilers, e.g. between banks of water tubes |
| 3/009 | . {Connecting or sealing of superheater or reheater tubes with collectors or distributors} | 7/145 | . . {of inclined type, i.e. the water-tube sets being inclined with respect to the horizontal plane} |
| 5/00 | Controlling superheat temperature | | |
| 5/02 | . Applications of combustion-control devices, e.g. tangential-firing burners, tilting burners | | |
| 5/04 | . by regulating flue gas flow, e.g. by proportioning or diverting | | |
| 5/06 | . by recirculating flue gases | | |