CPC COOPERATIVE PATENT CLASSIFICATION

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

ENGINES OR PUMPS

F01 MACHINES OR ENGINES IN GENERAL; ENGINE PLANTS IN GENERAL; STEAM **ENGINES**

F01K STEAM ENGINE PLANTS; STEAM ACCUMULATORS; ENGINE PLANTS NOT OTHERWISE PROVIDED FOR; ENGINES USING SPECIAL WORKING FLUIDS OR **CYCLES** (gas-turbine or jet-propulsion plants <u>F02</u>; nuclear power plants, engine arrangements therein G21D)

NOTE

Attention is drawn to the notes preceding class F01, especially as regards the definitions of "steam" and "special vapour".

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00	Steam accumulators (use of accumulators in steam	3/08	Use of accumulators and the plant being specially
1/00	engine plants <u>F01K 3/00</u>)	3/00	adapted for a specific use
1/02	. for storing steam otherwise than in a liquid	3/10	for vehicle drive, e.g. for accumulator
1/04	• for storing steam in a liquid, e.g. Ruth's type (in		locomotives
	alkali to increase steam pressure F22B 1/20)	3/12	 having two or more accumulators
1/06	• Internal fittings facilitating steam distribution, steam formation, or circulation (acting during charging or discharging F01K 1/08; fittings	3/14	 having both steam accumulator and heater, e.g. superheating accumulator (steam superheaters per se F22G)
	facilitating circulation through multiple	3/16	Mutual arrangement of accumulator and heater
1 /00	accumulators <u>F01K 1/14</u>)	3/18	 having heaters (having both steam accumulator and
1/08	• Charging or discharging of accumulators with steam		heater F01K 3/14; steam heaters per se F22)
1/10	(peculiar to multiple accumulators <u>F01K 1/12</u>)	3/181	• • {using nuclear heat (<u>F01K 3/26</u> takes
1/10	specially adapted for superheated steam	2/102	precedence)}
1/12	• Multiple accumulators; Charging, discharging or	3/183	• • • {one heater being a fired superheater}
1/14	control specially adapted therefor	3/185	• • {using waste heat from outside the plant
1/14	. Circulation	2/10/	(F02G 5/00 takes precedence)}
1/16	. Other safety or control means	3/186	{using electric heat}
1/18	for steam pressure	3/188	• • {using heat from a specified chemical reaction}
1/20	. Other steam-accumulator parts, details, or	3/20	with heating by combustion gases of main boiler
	accessories	3/205	• • • {more than one circuit being heated by one boiler}
<u> </u>	Steam engine plants		• • Controlling, e.g. starting, stopping (<u>F01K 7/00</u> , <u>F01K 13/02</u> take precedence)
3/00	Plants characterised by the use of steam or heat	3/24	• with heating by separately-fired heaters
	accumulators, or intermediate steam heaters, therein (regenerating exhaust steam F01K 19/00)	3/242	• • {delivering steam to a common mains}
3/002	• {Steam conversion}	3/245	{delivering steam at different pressure levels
		3/243	(F01K 3/247 takes precedence))
3/004	• {Accumulation in the liquid branch of the circuit}	3/247	• • • {one heater being an incinerator}
3/006 3/008	 {Accumulators and steam compressors} {Use of steam accumulators of the Ruth type for 	3/26	• • with heating by steam
3/008	storing steam in water; Regulating thereof (Ruth	3/262	• • {by means of heat exchangers}
	accumulators per se F01K 1/04)}	3/265	• • • {using live steam for superheating or
3/02	 Use of accumulators and specific engine types; 		reheating}
	Control thereof	3/267	• • • {by mixing with steam, e.g. LOFFLER-boiler}
3/04	• • the engine being of multiple-inlet-pressure type	5/00	Plants characterised by use of means for storing
3/06	 the engine being of extraction or non-condensing type {(<u>F01K 3/004</u> takes precedence)} 	2,00	steam in an alkali to increase steam pressure, e.g. of Honigmann or Koenemann type

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5/02	• used in regenerative installation	9/00	Plants characterised by condensers arranged or modified to co-operate with the engines
7/00	Steam engine plants characterised by the use of specific types of engine (F01K 3/02 takes		(by condensers structurally combined with
	precedence); Plants or engines characterised		engines <u>F01K 11/00</u> ; steam condensers <u>per se</u>
	by their use of special steam systems, cycles or	0./002	F28B)(F01K 23/04 takes precedence)
	processes (reciprocating-piston engines using uniflow	9/003	• {condenser cooling circuits}
	principle F01B 17/04); Control means specially	9/006	• {Vacuum-breakers}
	adapted for such systems, cycles or processes; Use	9/02	Arrangements or modifications of condensate or air
	of withdrawn or exhaust steam for feed-water	0/022	pumps (Control thousef)
	heating	9/023	• • {Control thereof}
7/02	• the engines being of multiple-expansion type (the	9/026	• • {Returning condensate by capillarity}
	engines being only of turbine type F01K 7/16;	9/04	. with dump valves to by-pass stages
	the engines using steam of critical or overcritical pressure <u>F01K 7/32</u> ; the engines being of extraction	11/00	Plants characterised by the engines being
	or non-condensing type $F01K 7/34$)		structurally combined with boilers or condensers
7/025	• • {Consecutive expansion in a turbine or a positive	11/02	 the engines being turbines
11023	displacement engine}	11/04	 the boilers or condensers being rotated in use
7/04	Control means specially adapted therefor	13/00	General layout or general methods of operation of
7/06	the engines being of multiple-inlet-pressure type	15/00	complete plants
,, 00	(F01K 7/02 takes precedence; the engines being	13/003	• {Arrangements for measuring or testing (in general
	only of turbine type <u>F01K 7/16</u> ; the engines using	15,005	G01)}
	steam of critical or over-critical pressure F01K 7/32;	13/006	• {Auxiliaries or details not otherwise provided for}
	the engines being of extraction or non-condensing	13/02	• Controlling, e.g. stopping or starting
	type <u>F01K 7/34</u>)	13/025	• • {Cooling the interior by injection during idling or
7/08	 Control means specially adapted therefor 		stand-by}
7/10	 characterised by the engine exhaust pressure (the 	4.7.00	
	engines being only of turbine type F01K 7/16;	15/00	Adaptations of plants for special use {(<u>F01K 7/02</u>
	the engines using steam of critical or over-critical	15/02	takes precedence)}
	pressure <u>F01K 7/32</u> ; the engines being of extraction	15/02	• for driving vehicles, e.g. locomotives
7/10	or non-condensing type <u>F01K 7/34</u>)	15/025	• • {the vehicle being a steam locomotive}
7/12	of condensing type	15/04	• the vehicles being waterborne vessels
7/14	Control means specially adapted therefor	15/045	• • • {Control thereof (<u>F01K 3/22</u> , <u>F01K 7/00</u> ,
7/16	 the engines being only of turbine type (the engines using steam of critical or overcritical pressure 		<u>F01K 13/02</u> take precedence)}
	F01K 7/32; the engines being of extraction or non-	17/00	Using steam or condensate extracted or exhausted
	condensing type F01K 7/34)		from steam engine plant (for heating feed-water
7/165	• • {Controlling means specially adapted therefor}		<u>F01K 7/34</u> ; returning condensate to boiler <u>F22D</u>
7/18	 the turbine being of multiple-inlet-pressure type 		$\{\underline{\text{F01K 7/36}} \text{ takes precedence}\}\)$
7/20	Control means specially adapted therefor	17/005	• {by means of a heat pump (heat pumps systems <u>per</u>
7/22	the turbines having inter-stage steam heating		<u>se F25B</u>)}
7/223	• • • {Inter-stage moisture separation}	17/02	• for heating purposes, e.g. industrial, domestic
7/226	• • {Inter-stage Monotone Separation}		(F01K 17/06 takes precedence; domestic- or space-
7/24	Control or safety means specially adapted		heating systems, e.g. central-heating systems, in
772.	therefor	17/025	general F24D 1/00, F24D 3/00, F24D 9/00) • • {in combination with at least one gas turbine, e.g.
7/26	the turbines having inter-stage steam	17/023	a combustion gas turbine}
	accumulation	17/04	• for specific purposes other than heating
7/28	Control means specially adapted therefor	17/04	(F01K 17/06 takes precedence)
7/30	• the turbines using exhaust steam only	17/06	Returning energy of steam, in exchanged form, to
7/32	• the engines using steam of critical or overcritical	17700	process, e.g. use of exhaust steam for drying solid
	pressure		fuel or plant
7/34	 the engines being of extraction or non-condensing 	10/00	
	type; Use of steam for feed-water heating (feed-	19/00	Regenerating or otherwise treating steam
	water heaters in general <u>F22D</u>)		exhausted from steam engine plant ({F01K 3/006
7/345	• • {Control or safety-means particular thereto}		takes precedence} plants characterised by use of
7/36	• • the engines being of positive-displacement type		means for storing steam in an alkali to increase steam pressure <u>F01K 5/00</u> ; returning condensate to boiler
7/38	the engines being of turbine type		F22D)
7/40	Use of two or more feed-water heaters in series	19/02	Regenerating by compression
7/42	Use of desuperheaters for feed-water heating	19/02	 Regenerating by compression in combination with cooling or heating
7/44	Use of steam for feed-water heating and another	19/04 19/06	 in combination with cooling or neating in engine cylinder
	purpose		-
		19/08	compression done by injection apparatus, jet blower, or the like
			blower, or the fixe

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Steam engine plants F01K

Steam caginc plants not otherwise provided for 23/14 23/16 23/18 23/	19/10	. Cooling exhaust steam other than by condenser;	23/12	the engines being mechanically coupled
Steam eignine plants not of order vise provided for continuous of a liquid by expansion of the liquid and steam and gase. Plants generating or hearing steam by hydringing water or steam into a seg set turbine plant (EDEX 25005; 142.8 47.92 has been generations in general EZB) of the liquid expansion of steam into as a gas turbine plant (EDEX 25015; 142.8 47.92 has been generations in general EZB) of the liquid expansion to a shigher tort through the motor, e.g. adminston to a shadje rotor through expansion to a shigher tort through expansion to the liquid plant expansion to a shigher tort through experiment portions of the liquid plant exp		Rendering exhaust steam invisible	22/14	
21/102 with steam, generation in egine-cylinders 23/18 with steam, generation in engine-cylinders 23/18 with steam, generation in engine-cylinders 23/18 25/00 Plants or engines characterised by use of special working fluids, not otherwise provided for steam into a regime path help fluid [12,538]; direct-contact steam generators in general [12,28] direct-contact steam generators in	21/00	Steam engine plants not otherwise provided for		
2.104 with steam generation in engine cylinders 2.105 using mixtures of steam and gas. Plants generating or heating steam by bringing water or steam into a a gas are untiled for plants or engines characterised by use of special working fluids, not otherwise provided for. Plants or engines characterised by use of special more are gas are untiled for plants or engines characterised by use of special more and gas must with hor gas (1618 £3085. FOLB 4702 (alse precedence)) 2.1042 . (Introducing gas and steam separately into the motor, e.g. admission to a single rotor through separate nonzles) 2.1045 . (Introducing gas and steam separately into the motor, e.g. admission to a single rotor through separate nonzles) 2.1046 . (Invited alters on combustion gas turbine) 2.1047 . (having at least one combustion gas turbine) 2.1049 . (Invited and steam separately into the motor, e.g. admission to a fill great turbine) 2.1049 . (Pants characterized by more than one engine delivering power external to the plant, the engine cycles being thermally coupled fluid in another cycle 2.1040 . (with combustion in a fluidised bed (plants with a fluidised-bed embustor experts of the engine cycles being thermally coupled apparatus per as [BULKH]; fluidised-bed enphases FOCK 2.305; Invited apparatus per as [BULKH]; fluidised-bed enphases FOCK 2.305; Invited combustors per as [BULKH]; fluidised-bed enphases FOCK 2.305; Invited combustors per as [BULKH]; fluidised-bed enphases for a mixture stream boliers [223064] . (the combustion back being pressured (pressured fluid bac combustors per as [BULKH]; fluidised-bed enphases for a gasification or prytolysis process, e.g. coal gasification (pas turbines with fluid in another cycle [BULK, 12305]; bulk 23-108 . (the combustion with an industrial process, e.g. coal gasification or prytolysis process, e.g. coal gasifi	21/005		23/10	
suing mixtures of steam and gas, Plants generating or heating steam by bringing water or steam into direct contact with hot gas (1F01K 25905, F02B 4702 take precedence; injecting water or steam into as a gas turbine plant E00C 33051; direct-contact steam generators in	21/02		23/18	 characterised by adaptation for specific use
or heating steam by bringing water or steam into to drect contact with 60 gas (180 K 25005, FOOB 3702 lake precedence; injecting water or steam into as agas turnine plant (FOOK 2305); direct-contact steam generators in general F22B) 21/042			25/00	Plants or engines characterised by use of special
21/04 2 [pure steam beling expanded in a motor somewhere in the plant (FDIK 21/045 takes precedence)] 21/04 3 [Introducing gas and steam separately into the motor, e.g. admission to a single rotor through separate hozzles] 21/04 7 . [having at least one combustion gas turbine] 21/06 1. Treating live steam, other than thermodynamically, e.g. for fighting deposits in engine delivering power external to the plant, the engine cycles being thermally coupled 23/06 23/06 2. (ondersation beat from one cycle heating the fluid in another cycle 23/06 . (with combustion in a fluidised bed (plans with a fluidised-bed combustor experised fluid bed combustors PSZ 10/06) fluidised-bed combustors PSZ 10/06 indised bed (plans with a fluidised-bed combustor psison engine, e.g. a diesel engine) 23/062 . (the combustion bact coming from a gasification or pyrolysis process, e.g. colagasification gas turbine with an engine, e.g. a diesel engine) 23/063 . (the combistion taking place in an internal combustion piston engine, e.g. a diesel engine) 23/064 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/065 . (the combistion taking place in an internal combustion prison engine, e.g. a diesel engine) 23/068 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/076 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/080 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/081 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/081 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/082 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/083 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/085 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/086 . (in combination with an oxygen producing plant, e.g. an air separation plant) 23/086 . (or heating steam by bringing water or steam into direct contact with hot gas ({F01K 25/005, F02B 47/02 take precedence; injecting water or steam into a as gas turbine plant F02C 3/305};		working fluids, not otherwise provided for; Plants operating in closed cycles and not otherwise provided for
somewhere in the plant (FOIK 21.045 takes precedence) 21/045 . [Introducing gas and steam separately into the motor, e.g. admission to a single rotor through separate nozzles] 21/047 . [having at least one combustion gas turbine) 21/06 . Treating live steam, other than thermodynamically, e.g. for fighting deposits in orgine 23/00 Plants characterised by more than one engine delivering power external to the plant, the engines being driven by different fluids process being demand to engine delivering power external to the plant, the engines being driven by different fluids an other cycle 23/00 . (combustion heat from one cycle heating the fluid in another cycle 23/00 . (with combustion in a fluidised bed of plants with a fluidised-bed combustor comprising only gas-turbines POZ 3/205; fluidised-bed supparatus par se BDII 3/18/18 (midised-bed combustors PZB 3/10007)) 23/062 . (In combination with an industrial process, e.g. chemical, metallurgical) 23/063 . (In combination with an industrial process, e.g. chemical, metallurgical) 23/064 . (In combination with an industrial process, e.g. chemical, metallurgical) 23/065 . (In combination with an oxygen producing plant, e.g. an air separation plant) 23/067 . (In combination with an oxygen producing plant, e.g. an air separation plant) 23/068 . (In combination with an oxygen producing plant, e.g. an air separation plant) 23/069 . (In combination with an oxygen producing plant, e.g. an air separation plant) 23/060 . (In combination with an oxygen producing plant, e.g. an air separation plant) 23/061 . (Regulating means specially adapted therefor (FOIK 23/108, FOIK 23/108 take precedence)) 23/105 . (Regulating means specially adapted therefor (FOIK 23/108, FOIK 23/108 take precedence)) 23/106 . (with water evaporated or preheated at different pressures in exhaust boiler) 23/108 . (Regulating means specially adapted therefor) 23/108 . (Regulating means specially adapted therefor)	21/042			
21/045 . (Introducing gas and steam separately into the motor, e.g. admission to a single rotor through sparate nozzles) 21/047 . (having at least one combustion gas turbine) 21/06 . (Treating live steam, other than thermodynamically, e.g. for fighting deposits in engine 23/06 . (Treating lives isteam, other than thermodynamically, e.g. for fighting deposits in engine 23/06 . (Treating power external to the plant, the engine delivering power external to the plant, the engine gridenty of the fluid in another cycle 23/06 . (Combustion heaf from one cycle heating the fluid in another cycle 23/06 . (with combustion in a fluidised bed (plants with a fluidised-bed combustor) pass-turbines FDZC 3/205; fluidised-bed combustors per se BOIL 39/18; fluidised-bed seam-boilers; F236 1000;	21/042			
21/045 . (Introducing gas and steam separately into the motor, e.g. admission to a single rotor through separate nozzles) 21/047 . (having at least one combustion gas turbine) 21/06 . Treating live steam, other than thermodynamically, e.g. for fighting deposits in engine 23/08 Plants characterised by more than one engine delivering power external to the plant, the engines being driven by different fluids 23/02 . the engine cycles being thermally coupled 23/04 . condensation heat from one cycle heating the fluid in another cycle 23/06 (with combustion in a fluidised bed (plants with a fluidised-bed combustor exportsine FOC2 3/205; fluidised-bed apparatus per se Boll J& 18. fluidised-bed combustor F220 1.006. Individed-bed combustors F220 1.006. Individed-bed sumboilers E220 3.100007) 23/062 (the combustion heat from per se F23C 10/20. Individed-bed sumboilers E220 3.100007) 23/063 (the combustion bed being pressurised (pressurised fluid bed combustor place in an internal combustion piston engine, e.g. a diesel engine) 23/065 (the combustion heat from gasification or pyrolysis process, e.g. coal gasification or pyrolysis process, e.g. coal gasification or pyrolysis process, e.g. coal gasification (gas turbines with fuel gasifiers TOCZ 3/28) 23/068 (in combination with an industrial process, e.g. chemical, metallurgical) 23/079 (the combustion heat coming from a gasification or pyrolysis process, e.g. coal gasification or pyrolysis process, e.g. coal gasification (gas turbines with fuel gasifiers TOCZ 3/28) 23/061 (in combination with an oxygen producing plant, e.g. an air separation plant) 23/0702 (in combination with an oxygen producing plant, e.g. an air separation plant) 23/0703 (flee formulation with an oxygen producing plant, e.g. an air separation plant) 23/0703 (flee formulation with an industrial process, e.g. coal gasification (gas turbines with fuel gasifiers plant) 23/0704 (in combination with an oxygen producing plant, e.g. an air separation plant) 23/0705				
separate nozzles) 21/047 . (having at least one combustion gas turbine) 21/06 . Treating live steam, other than thermodynamically, e.g. for fighting deposits in engine 23/00 Plants characterised by more than one engine delivering power external to the plant, the engines being driven by different fluids 23/02 . the engine cycles being thermally coupled 23/04 . condensation heat from one cycle heating the fluid in another cycle 23/06 . combustion heat from one cycle heating the fluid in another cycle 23/06 (with combustion in a fluidised bed (plants with a fluidised-bed combustor p232 fluidised-bed apparatus per se B011 k18; fluidised-bed combustor p232 fluidised-bed steamboliers P22B 31/0007) 23/062 . (the combustion the being pressurised (pressurised fluid bed combustion per se P232 fluid bed combustion per se P232 fluidised-bed substitution of the combustion pixton engine, e.g. a diesel engine) 23/063 . (the combustion taking place in an internal combustion pixton engine, e.g. a diesel engine) 23/064 . (in combination with an industrial process, e.g. coal gasification (gas turbines with fuel gasifiers FC0C_3.28) 23/065 . (the combustion bed being pressurised fluid in another cycle 23/101 . (with exhaust fluid of one cycle heating the fluid in another cycle (F01K 17/025 takes precedence) 23/101 . (with exhaust fluid of one cycle heating the fluid in another cycle (F01K 13/035, F01K 23/108 take precedence) 23/102 . (Regulating means specially adapted therefor (F01K 23/105, F01K 23/108 take precedence) 23/103 . (with afterburner in exhaust boiler) 23/105 . (Regulating means specially adapted therefor (F01K 23/105, F01K 23/108 take precedence)) 23/105 . (Regulating means specially adapted therefor) 23/106 . (with water evaporated or preheated at different pressures in exhaust boiler) 23/106 . (with water evaporated or preheated at different pressures in exhaust boiler) 23/107 . (with water evaporated or preheated at different pressures in exhaust boiler) 23/108 . (with water evaporated or preheated at differen	21/045	{Introducing gas and steam separately into the	25/00	mixtures of steam and gas F01K 21/04)
23/00 23/00 Plants characterised by more than one engine delivering power external to the plant, the engines being driven by different fluids 23/02 23/02 23/04 23/06 23/06 23/06 23/06 23/06 23/06 23/06 23/07 23/06 23/07 23/06 23/07 23/06 23/08 23/0	21/047	separate nozzles}	25/065	partly in the liquid state, e.g. water for ammonia
e.g. for fighting deposits in engine 23/00 Plants characterised by more than one engine diversing power external to the plant, the engines being driven by different fluids 23/02 the engine cycles being thermally coupled 23/03 23/06 1. condensation heat from one cycle heating the fluid in another cycle 23/06			25/08	The state of the s
23/00 Plants characterised by more than one engine delivering power external to the plant, the engines being driven by different fluids 23/01 the engine eycles being thermally coupled 23/04 combustion heat from one cycle heating the fluid in another cycle 23/06 combustion heat from one cycle heating the fluid in another cycle 23/06 combustion heat from one cycle heating the fluid in another cycle 23/06 combustion heat from one cycle heating the fluid in another sycle 23/06 in the experiment of the various process, e.g., and the combustions F23C 10/00 (pitudised-bed apparatus per se B01J.8/18; fluidised-bed combustors F23C 10/00 (pitudised-bed apparatus per se B01J.8/18; fluidised-bed combustors F23C 10/00 (pitudised-bed apparatus per se B01J.8/18; fluidised-bed combustors F23C 10/00 (pitudised-bed apparatus per se B01J.8/18; fluidised-bed combustors F23C 10/00 (pitudised-bed apparatus per se B01J.8/18; fluidised-bed combustors F23C 10/00 (pitudised-bed stamboliers F23C 10/16) (pitudised-bed stamboliers F23C 10/16) (pitudised-bed combustion pixton engine, e.g., a diesel engine) 23/062 (pitudised-bed combustion per se F23C 10/16) (pitudised-bed combustion pixton engine, e.g., a diesel engine) 23/063 (pitudised-bed combustion per se F23C 10/16) (pitudised-bed combustion pixton engine, e.g., a diesel engine) 23/064 (pitudised-bed combustion per se F23C 10/16) (pitudised-bed combustion per se f21/16) (pitudised-bed combustion per se f21/16) (pitudised-bed combustion per se f21/16) (pitu				
delivering power external to the plant, the engines being driven by different fluids 3202 the engine cycles being thermally coupled 2304 condensation heat from one cycle heating the fluid in another cycle 2306 combustion heat from one cycle heating the fluid in another cycle 2306 combustion in a fluidised bed (plants with a fluidised bed combustor comprising only gas-turbines FD2C 3/205; fluidised-bed combustors F22G 1000; fluidised-bed combustors F22G 1000; fluidised-bed combustors F22G 1000; fluidised-bed combustors F22G 10000; fluidised-bed combustors F	23/00	Plants characterised by more than one engine		
23/02 the engine cycles being thermally coupled 23/04 condensation heat from one cycle heating the fluid in another cycle 23/06 combustion heat from one cycle heating the fluid in another cycle 23/06 combustion heat from one cycle heating the fluid in another cycle 23/06 combustion heat from one cycle heating the fluid in another cycle 23/061 combustion in a fluidised bed (plants with a fluidised-bed combustor comprising only gas-turbines FD2C 32/05; fluidised-bed apparatus per se B011 8/18; fluidised-bed combustors F22A 10/00; fluidised-bed steamboilers F22B 31/0007) 23/062 combustors F22A 10/00; fluidised-bed steamboilers F22B 31/0007) 23/063 combustion bed being pressurised (pressurised fluid bed combustion per se F22B 10/16) 23/064 combustion taking place in an internal combustion piston engine, e.g. a diesel engine) 23/065 combustion taking place in an internal combustion paint e.g. an air separation plant 23/068 combustion with an oxygen producing plant, e.g. an irreparation plant 23/08 combustion with an oxygen producing plant, e.g. an irreparation plant 23/08 combustion with an oxygen producing plant, e.g. an irreparation plant 23/10 combustion heat combustion hea	20,00			
23/04 . condensation heat from one cycle heating the fluid in another cycle 23/06 . combustion heat from one cycle heating the fluid in another cycle 23/061 . (with combustion in a fluidised bed (plants with a fluidised-bed combustor comprising only gas-turbines F02C 3/205; fluidised-bed apparatus per se B011 8/18; fluidised-bed combustors P23C 1000; fluidised-bed steam-boilers F22B 31/0007) 23/062 . (the combustion bed being pressurised (pressurised fluid bed combustion piston engine, e.g. a diesel engine) 23/063 . (the combustion hair place in an internal combustion piston engine, e.g. a diesel engine) 23/064 . (the combustion heat coming from a gasification or pyrolysis process, e.g. coal gasification (gas turbines with fuel gasifiers F02C 3/28) 23/065 . (the combustion with an oxygen producing plant, e.g. an air separation plant) 23/08 . with working fluid of one cycle heating the fluid in another cycle (F01K 17/025 takes precedence) 23/101 . (Regulating means specially adapted therefor (F01K 23/105, F01K 23/108 take precedence) 23/103 . (with afterburner in exhaust boiler) 23/105 . (Regulating means specially adapted different pressures in exhaust boiler) 23/106 . (with water evaporated or preheated at different pressures in exhaust boiler) 23/108 . (Regulating means specially adapted)			25/103	
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