

CPC**COOPERATIVE PATENT CLASSIFICATION****F02W****INDEXING SCHEME RELATING TO TURBINES; GAS TURBINES****NOTE**

This subclass constitutes an internal scheme for indexing only, associated with subclasses [F01D](#), [F01K](#), [F02C](#) and [F02K](#), relating to turbines and gas turbines

F02W 2746/00

Indexing scheme associated with former IdT class <ref scheme="idt">46F

F02W 2746/00006

- Turbines; Gas turbines

F02W 2746/00013

- • Turbines with combustion chamber whose inlet and outlet open and close periodically; Explosion turbines

F02W 2746/00019

- • Methods for improving the efficiency, special cycles, refrigeration by means of turbines, gas turbine plants with heat pumps ([R02C746/00F8](#) takes precedence), indirect heating by circulation of an auxiliary fluid (gas turbine plants comprising separators for ashes consisting of matters put in circulation and being used at the same time for heat transfer [R02C746/00F30N](#))

F02W 2746/00026

- • • using combustion gas, gas turbines functioning by means of exhaust gas

F02W 2746/00032

- • • using magnetohydrodynamic generators

F02W 2746/00039

- • Turbines with special provisions for the compression of fuel gas or of its components, plants in which the compressor and the turbine form a unit, groups of compression of charge or complement for gas turbine cycles, compression by shock waves ([burners with pulsatory combustion](#) [R02C746/00F1](#), [R02C746/00F30N6](#))

F02W 2746/00046

- • • Compression in the rotor for the turbine blades, turbines also functioning as compressor, cell compressors ([plants with cellular wheel](#) [R02C746/00F40A](#))

F02W 2746/00052

- • Turbines using a single driven special gas, use of catalysts, use of oxyhydric gas or detonating gas, use of air or liquid oxygen, using of gas generating cartridges, use of compressed air tanks, air turbines, provisions for preventing the formation of snow or frost in the turbine, turbines for hand-held tools

F02W 2746/00059

- • Turbines using mixtures of gas and steam as driving medium, also if the gas and steam currents only mix after the turbine, water injection

F02W 2746/00065

- • Turbines using an auxiliary liquid

F02W 2746/00072

- • • the auxiliary liquid making a to-and-fro movement

F02W 2746/00078

- • • the auxiliary liquid being circulated in a close circuit

F02W 2746/00085

- • Turbines using several gases or steams with separate action ([R02C746/00F13](#) takes precedence)

F02W 2746/00092

- • Turbines other than those according to groups [R02C746/00F1](#) to [R02C746/00F15](#), counter-rotating turbines

F02W 2746/00098

- • • Turbines using fluid friction

F02W 2746/00105

- • • Special kinds of reaction turbines; Turbines with blades having channels passing through the rotor

F02W 2746/00111

- • • Explosion turbines, i.e. internal combustion

- F02W 2746/00118 . . . Turbines with saw-tooth or ratchet-wheel shaped rotor
- F02W 2746/00125 . . . Propeller and similar turbines driven by reaction, e.g. fluids issuing from the rotor
- F02W 2746/00131 . . . Turbines with radial entry ([gas turbines driven by exhaust gas R02C746/00F5A](#))
- F02W 2746/00138 . . . Cooling
- F02W 2746/00144 . . . Cooling of gas; Cooling of oil
- F02W 2746/00151 . . . Components and control; Inversion of rotation; Turbines with forward and reverse rotation
- F02W 2746/00157 . . . Blades and blade carrying members
- F02W 2746/00164 Turbine rotors, e.g. multistage; Assembly; Shafts
- F02W 2746/00171 . . . Safety and control devices; Test benches
- F02W 2746/00177 . . . Starting devices, e.g. quick-starting devices
- F02W 2746/00184 using starting cartridges
- F02W 2746/0019 . . . Elements specifically intended for combustion turbines, pulverulent and solid fuel turbines; Separation of ashes
- F02W 2746/00197 Fuel supply and feeding devices, e.g. pre-processing of fuel, pumps, valves, draining of the fuel system
- F02W 2746/00203 Combustion chambers with admission valves, control, scavenging and filling
- F02W 2746/0021 . . . Plants with specific use of turbines; Construction of power stations with gas turbines
- F02W 2746/00217 . . . Plants comprising a turbine of a special kind, plants with cellular wheel; Grouping of the various parts of a plant
- F02W 2746/00223 . . . Turbo-compressor plants for providing compressed air or gases, hot gases or steam, control of these plants
- F02W 2746/0023 . . . Propulsion plants, e.g. marine turbines
- F02W 2746/00236 Turbine plants for gas-turbine locomotives
- F02W 2746/00243 Control of the gas turbines in propulsion plants, e.g. for ships or turbo-propulsion ([control of gas turbines in general R02C746/00F30](#), [control of fuel supply R02C746/00F45 to R02C746/00F48](#))
- F02W 2746/0025 Gas turbine plants for marine propulsion
- F02W 2746/00256 . . . Turbines supplied by other gas generators than those consisting in a combination of combustion chambers and axial or centrifugal compressors
- F02W 2746/00263 Turbines supplied by piston gas generators
- F02W 2746/00269 Plants consisting of pistons gas generators, e.g. with free pistons bringing a driving gas to separately assembled turbines, control of such plants
- F02W 2746/00276 Plants consisting of a piston gas generator forming a unit with a turbine
- F02W 2746/00282 Turbines supplied by other gas generators than those according to group [R02C746/00F40D1](#)

- F02W 2746/00289 . . Control systems for the fuel supply to the combustors of gas turbines plants (control of gas turbines in general [R02C746/00F30A](#), control of gas turbines in propulsion plants except for the jet propulsion [R02C746/00F40C2](#), fuel supply systems [R02C746/00F30N1](#))
- F02W 2746/00296 . . . using a fuel pump with adjustable flow ([R02C746/00F45C](#) to [R02C746/00F45F](#) take precedence)
- F02W 2746/00302 with control according to one parameter
- F02W 2746/00309 with control according to one or several speeds
- F02W 2746/00315 with control according to one or several pressures
- F02W 2746/00322 with control according to one or several temperatures
- F02W 2746/00328 with control according to two parameters
- F02W 2746/00335 with control according to one or several speeds and of one or several pressures
- F02W 2746/00342 with control according to one or several speeds and of one or several temperatures
- F02W 2746/00348 with control according to one or several pressures and of one or several temperatures
- F02W 2746/00355 with control according to at least three parameters
- F02W 2746/00361 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- F02W 2746/00368 . . . using a fuel pump with adjustable flow and at least one adjustable valve between pump and burners ([R02C746/00F45F](#) takes precedence)
- F02W 2746/00375 with control according to one parameter
- F02W 2746/00381 with control according to one or several speeds
- F02W 2746/00388 with control according to one or several pressures
- F02W 2746/00394 with control according to one or several temperatures
- F02W 2746/00401 with control according to two parameters
- F02W 2746/00407 with control according to one or several speeds and of one or several pressures
- F02W 2746/00414 with control according to one or several speeds and of one or several temperatures
- F02W 2746/00421 with control according to one or several pressures and of one or several temperatures
- F02W 2746/00427 with control according to at least three parameters
- F02W 2746/00434 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- F02W 2746/0044 . . . using a fuel pump with adjustable flow and at least one adjustable by-pass valve ([R02C746/00F45F](#) takes precedence)
- F02W 2746/00447 with control according to one parameter
- F02W 2746/00453 with control according to one or several speeds
- F02W 2746/0046 with control according to one or several pressures
- F02W 2746/00467 with control according to one or several temperatures
- F02W 2746/00473 with control according to two parameters

F02W 2746/0048	. . . . .	with control according to one or several speeds and of one or several pressures
F02W 2746/00486	. . . . .	with control according to one or several speeds and of one or several temperatures
F02W 2746/00493	. . . . .	with control according to one or several pressures and of one or several temperatures
F02W 2746/005	. . . . .	with control according to at least three parameters
F02W 2746/00506	. . . . .	with control according to one or several speeds, of one or several pressures and of one or several temperatures
F02W 2746/00513	. . . . .	using a fuel pump with adjustable flow and at least one adjustable valve between pump and burners, and also at least one adjustable by-pass valve
F02W 2746/00519	. . . . .	with control according to one parameter
F02W 2746/00526	. . . . .	with control according to one or several speeds
F02W 2746/00532	. . . . .	with control according to one or several pressures
F02W 2746/00539	. . . . .	with control according to one or several temperatures
F02W 2746/00546	. . . . .	with control according to two parameters
F02W 2746/00552	. . . . .	with control according to one or several speeds and of one or several pressures
F02W 2746/00559	. . . . .	with control according to one or several speeds and of one or several temperatures
F02W 2746/00565	. . . . .	with control according to one or several pressures and of one or several temperatures
F02W 2746/00572	. . . . .	with control according to at least three parameters
F02W 2746/00578	. . . . .	with control according to one or several speeds, of one or several pressures and of one or several temperatures
F02W 2746/00585	. . . . .	using a fuel pump with non-adjustable flow and at least one adjustable valve between pump and burners (R02C746/00F45J takes precedence)
F02W 2746/00592	. . . . .	with control according to one parameter
F02W 2746/00598	. . . . .	with control according to one or several speeds
F02W 2746/00605	. . . . .	with control according to one or several pressures
F02W 2746/00611	. . . . .	with control according to one or several temperatures
F02W 2746/00618	. . . . .	with control according to two parameters
F02W 2746/00625	. . . . .	with control according to one or several speeds and of one or several pressures
F02W 2746/00631	. . . . .	with control according to one or several speeds and of one or several temperatures
F02W 2746/00638	. . . . .	with control according to one or several pressures and of one or several temperatures
F02W 2746/00644	. . . . .	with control according to at least three parameters
F02W 2746/00651	. . . . .	with control according to one or several speeds, of one or several pressures and of one or several temperatures
F02W 2746/00657	. . . . .	using a fuel pump with non-adjustable flow and at least one adjustable by-pass valve (R02C746/00F45J takes precedence)
F02W 2746/00664	. . . . .	with control according to one parameter

F02W 2746/00671	. . . . .	with control according to one or several speeds
F02W 2746/00677	. . . . .	with control according to one or several pressures
F02W 2746/00684	. . . . .	with control according to one or several temperatures
F02W 2746/0069	. . . . .	with control according to two parameters
F02W 2746/00697	. . . . .	with control according to one or several speeds and of one or several pressures
F02W 2746/00703	. . . . .	with control according to one or several speeds and of one or several temperatures
F02W 2746/0071	. . . . .	with control according to one or several pressures and of one or several temperatures
F02W 2746/00717	. . . . .	with control according to at least three parameters
F02W 2746/00723	. . . . .	with control according to one or several speeds, of one or several pressures and of one or several temperatures
F02W 2746/0073	. . . . .	using a fuel pump with non-adjustable flow, at least one adjustable valve between pump and burners, and at least one adjustable by-pass valve
F02W 2746/00736	. . . . .	with control according to one parameter
F02W 2746/00743	. . . . .	with control according to one or several speeds
F02W 2746/0075	. . . . .	with control according to one or several pressures
F02W 2746/00756	. . . . .	with control according to one or several temperatures
F02W 2746/00763	. . . . .	with control according to two parameters
F02W 2746/00769	. . . . .	with control according to one or several speeds and of one or several pressures
F02W 2746/00776	. . . . .	with control according to one or several speeds and of one or several temperatures
F02W 2746/00782	. . . . .	with control according to one or several pressures and of one or several temperatures
F02W 2746/00789	. . . . .	with control according to at least three parameters
F02W 2746/00796	. . . . .	with control according to one or several speeds, of one or several pressures and of one or several temperatures
F02W 2746/00802	. . . . .	Components and parts of control systems according to <u>R02C746/00F45B</u> to <u>R02C746/00F45J</u>
F02W 2746/00809	. . . . .	with control according to one parameter
F02W 2746/00815	. . . . .	with control according to one or several speeds
F02W 2746/00822	. . . . .	with control according to one or several pressures
F02W 2746/00828	. . . . .	with control according to one or several temperatures
F02W 2746/00835	. . . . .	with control according to two parameters
F02W 2746/00842	. . . . .	with control according to one or several speeds and of one or several pressures
F02W 2746/00848	. . . . .	with control according to one or several speeds and of one or several temperatures
F02W 2746/00855	. . . . .	with control according to one or several pressures and of one or several temperatures
F02W 2746/00861	. . . . .	with control according to at least three parameters

- F02W 2746/00868 with control according to one or several speeds, of one or several pressures and of one or several temperatures
- F02W 2746/00875 Construction of adjustable valves
- F02W 2746/00881 Control systems for the fuel supply to the main burners as well as to the after-burners of a single gas turbine, or with regulation of another adjustable component of the gas turbine (control systems for the fuel supply only to the main burners or only to the after-burners **R02C746/00F45**, **R02C746/00F48**)
- F02W 2746/00888 of additional fuel injection between the after-burners to ignite them, e.g. "hot-shot", programming devices for the ignition of after-burners
- F02W 2746/00894 of the fuel supply to the main burners and to the after-burners (**R02C746/00F46G** takes precedence)
- F02W 2746/00901 of the fuel supply to the main burners and to the nozzle (**R02C746/00F46G** takes precedence)
- F02W 2746/00907 of the fuel supply to the after-burners and to the nozzle (**R02C746/00F46G** takes precedence)
- F02W 2746/00914 of the fuel supply to the main burners, to the after-burners and to the nozzle
- F02W 2746/00921 of the fuel supply to the main burners and of the adjustable stator vanes of the gas turbine
- F02W 2746/00927 Systems for controlling the fuel supply to the injectors and a variable-pitch propeller driven by the gas turbine
- F02W 2746/00934 Systems for controlling the fuel supply to the injectors and the by-passing of the driving fluid
- F02W 2746/0094 Systems for controlling the fuel supply to the burners of gas turbine plants not foreseen in **R02C746/00F45** or **R02C746/00F46**
- F02W 2746/00947 specially adapted to the use of a special fuel or a plurality of fuels
- F02W 2746/00953 using two pumps or more
- F02W 2746/0096 for the combined control of two gas turbine plants or more
- F02W 2746/00967 for dividing the fuel between the main burners or between the after-burners of a single gas turbine (division of fuel between main burners and after-burners **R02C746/00F46**)
- F02W 2746/00973 specially adapted for aircraft gas turbine engines, in which the control is a function of the speed of the aircraft; Mach number control, optimisation of fuel consumption
- F02W 2746/0098 Control systems provided with an additional control system which can take over in case of a breakdown of the normal system, safety devices
- F02W 2746/00986 specially adapted for gas turbine plants with intermittent fuel injection
- F02W 2746/00993 Mechanical control devices linked to the throttle lever