Title (en)

AIRSHIP/SPACECRAFT

Title (de)

LUFTSCHIFF/RAUMFAHRZEUG

Title (fr)

DIRIGEABLE/ENGIN SPATIAL

Publication

EP 1175332 A2 20020130 (EN)

Application

EP 00953628 A 20000411

Priority

- US 0009617 W 20000411
- US 30113999 A 19990428
- US 32179699 A 19990527

Abstract (en)

[origin: WO0066425A2] An airship/spacecraft, which, in a preferred embodiment, uses its lifting gas as fuel for thrusters, which may be of the turbo-type or rocket type, or both, to achieve transition to space flight. The airship aspect has gas retaining structures that can withstand internal and external pressure and can change in volume and shape. The gas retaining structures may be compartmentalized with a folded diaphragm membrane and also configured as pressure vessels. The spacecraft aspect provides control, power, services, and space for missions of the airship/spacecraft. The best mode includes a turbo-rocket thruster in which the turbine compressor is used to intake and compress a gaseous fuel for combustion with a stored oxidizer injected into the compressed gaseous fuel stream. The compressor stage is driven by the turbine stage, which is driven by burning gaseous fuel passing across the turbine blades. The burned gases are then expanded through an exhaust nozzle and thereby ejected to produce reaction thrust.

[origin: WO0066425A2] An airship/spacecraft, which, in a preferred embodiment, uses its lifting gas (64) as fuel for thrusters, which may be of the turbo-type or rocket type, or both, to achieve transition to space flight. The airship aspect has gas retaining structures (61) that can withstand internal and external pressure and can change in volume and shape. The gas retaining structures (61) may be compartmentalized with a folded diaphragm membrane (63) and also configured as pressure vessels. The spacecraft aspect provides control, power, services, and space for missions of the airship/spacecraft. The best mode includes a turbo-rocket thruster in which the turbine compressor is used to intake and compress a gaseous fuel for combustion with a stored oxidizer injected into the compressed gaseous fuel stream. The compressor stage (6) is driven by the turbine stage (7), which is driven by burning gaseous fuel passing across the turbine blades (13). The burned gases are then expanded through an exhaust nozzle and thereby ejected to produce reaction thrust.

IPC 1-7

B64B 1/58

IPC 8 full level

B64B 1/08 (2006.01); **B64B 1/58** (2006.01); **B64C 39/00** (2006.01); **B64G 1/40** (2006.01); B64G 1/00 (2006.01)

CPC (source: EP US)

B64B 1/08 (2013.01 - EP); **B64B 1/58** (2013.01 - EP); **B64C 39/001** (2013.01 - EP US); **B64G 1/401** (2013.01 - EP); **B64G 1/4021** (2023.08 - EP); B64B 2201/00 (2013.01 - EP); B64G 1/002 (2013.01 - EP); B64G 1/005 (2013.01 - EP)

Cited by

US9638111B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

WO 0066425 A2 20001109; **WO 0066425 A3 20010907**; AU 6604500 A 20001117; CA 2370423 A1 20001109; EP 1175332 A2 20020130; EP 1175332 A4 20031022; NZ 514076 A 20030228

DOCDB simple family (application)

US 0009617 W 20000411; AU 6604500 A 20000411; CA 2370423 A 20000411; EP 00953628 A 20000411; NZ 51407600 A 20000411