

CPC COOPERATIVE PATENT CLASSIFICATION

B64D EQUIPMENT FOR FITTING IN OR TO AIRCRAFT; FLYING SUITS; PARACHUTES; ARRANGEMENTS OR MOUNTING OF POWER PLANTS OR PROPULSION TRANSMISSIONS IN AIRCRAFT

WARNING

The following IPC groups are not used in the CPC scheme. Subject matter covered by these groups is classified in the following CPC groups:

B64D 15/18	covered by	B64D 15/16
B64D 25/102	covered by	B64D 25/10
B64D 25/105	covered by	B64D 25/10
B64D 25/108	covered by	B64D 25/10
B64D 25/11	covered by	B64D 25/10
B64D 25/112	covered by	B64D 25/10
B64D 25/115	covered by	B64D 25/10
B64D 25/118	covered by	B64D 25/10

1/00	Dropping, ejecting, releasing, or receiving articles, liquids, or the like, in flight (with respect to weapon sights devices F41G takes precedence, parachutes per se B64D 17/00; ejectable seats B64D 25/10; ejectable capsules B64D 25/12; refuelling during flight B64D 39/00; launching apparatus for projecting projectiles or missiles F41F 1/00, F41F 7/00; rocket or torpedo launchers F41F 3/00)	7/08	. Arrangements of rocket launchers {or releasing means} (rocket launchers per se , e.g. rocket pods, F41F 3/06)
1/02	. Dropping, ejecting, or releasing articles (jettisonable fuel reservoirs B64D 37/12)	9/00	Equipment for handling freight; Equipment for facilitating passenger embarkation or the like (emergency equipment B64D 17/00, B64D 19/00, B64D 25/00; structures integral with fuselage to facilitate loading, fuselage floors specially adapted for freight, steps mounted on and retractable within aircraft B64C; ground installations B64F)
1/04	. . the articles being explosive, e.g. bombs (arming or setting bomb fuzes F42C)	9/003	. {Devices for retaining pallets or freight containers (securing freight containers on vehicles B60P 7/00)}
1/06	. . . Bomb releasing; Bombs doors	2009/006	. {Rollers or drives for pallets of freight containers, e.g. PDU}
1/08	. . the articles being load-carrying devices	10/00	Flying suits (helmets in general A42B 3/00; breathing helmets A62B 18/00)
1/10	. . . Stowage arrangements for the devices in aircraft	2010/002	. {Anti-g suits or garments}
1/12	. . . Releasing	2010/005	. {High altitude suits or garments, e.g. partial or total pressure}
1/14	. . . Absorbing landing shocks	2010/007	. {Suits with cooling or heating means}
1/16	. Dropping or releasing powdered, liquid, or gaseous matter, e.g. for fire-fighting (jettisoning fuel B64D 37/26)	11/00	Passenger or crew accommodation; Flight-deck installations not otherwise provided for
1/18	. . by spraying, e.g. insecticides (spraying apparatus per se B05B)	11/0007	. {Devices specially adapted for food or beverage distribution services}
1/20	. . for sky-writing	11/0015	. {Arrangements for entertainment or communications, e.g. radio, television}
1/22	. Taking-up articles from earth's surface		WARNING
3/00	Aircraft adaptations to facilitate towing or being towed (B64D 39/00 takes precedence)		Groups B64D 11/00151 - B64D 11/00155 are incomplete pending reclassification of documents from group B64D 11/0015 .
3/02	. for towing targets		Until reclassification is complete, groups B64D 11/00151 - B64D 11/00155 and B64D 11/0015 should be considered in order to perform a complete search.
5/00	Aircraft transported by aircraft, e.g. for release or reberthing during flight (flying units formed by separate aircraft B64C 37/02)		
7/00	Arrangements of military equipment, e.g. armaments, armament accessories, or military shielding, in aircraft; Adaptations of armament mountings for aircraft (dropping bombs or the like B64D 1/00; armaments or mountings therefor per se F41)	11/00151	. . {Permanently mounted seat back monitors}
7/02	. the armaments being firearms	11/00152	. . {Seat back fixtures for removable monitors, e.g. tablet computers}
7/04	. . fixedly mounted	11/00153	. . {Monitors mounted on or in the seat other than the seat back}
7/06	. . movably mounted	11/00154	. . {Loudspeakers mounted in the seat back}

- 11/00155 . . {Individual entertainment or communication system remote controls therefor, located in or connected to seat components, e.g. to seat back or arm rest}
- 11/0023 . {Movable or removable cabin dividers, e.g. for class separation ([bulkheads B64C 1/10](#))}
- 11/003 . {Stowage devices for passengers' personal luggage}
- 2011/0038 . {Illumination systems for cabins as a whole}
- 2011/0046 . {Modular or preassembled units for creating cabin interior structures}
- 2011/0053 . {Cabin passenger reading lights}
- 2011/0061 . {Windows displaying outside view, artificially generated}
- 2011/0069 . {Rest berths, beds or the like}
- 2011/0076 . . {for crew members, e.g. for sleeping during flight}
- 2011/0084 . . {Bed units for passengers attached to the ceiling of the fuselage}
- 2011/0092 . . {Arrangements for mounting stretchers in aircraft cabins}
- 11/02 . Toilet fittings ([of general application A47K](#))
- 11/04 . Galleys
- 11/06 . {Arrangements of seats, or adaptations or details specially adapted for aircraft seats ([crew seat constructions for emergency purposes B64D 25/04](#))}

WARNING

Groups [B64D 11/0601](#) - [B64D 11/0698](#) are incomplete pending reclassification of documents from group [B64D 11/06](#).

Until reclassification is complete, groups [B64D 11/0601](#) - [B64D 11/0698](#) and [B64D 11/06](#) should be considered in order to perform a complete search.

- 11/0601 . . {Arrangement of seats for non-standard seating layouts, e.g. seats staggered horizontally or vertically, arranged in an angled or fishbone layout, or facing in other directions than the direction of flight}
- 11/0602 . . {Seat modules, i.e. seat systems including furniture separate from the seat itself}
- 11/0604 . . . {including a bed, e.g. cocoon type passenger seat modules}
- 11/0605 . . . {including tables or desks}
- 11/0606 . . {with privacy shells, screens, separators or the like ([class dividers B64D 11/0023](#))}
- 11/0607 . . {with devices specially adapted for exercising during travel; with devices specially adapted to prevent thrombosis}
- 11/0611 . . {with means for holding the passenger in a standing position}
- 11/0612 . . {specially adapted for children}
- 11/0616 . . {with ejection means}
- 11/0619 . . {with energy absorbing means specially adapted for mitigating impact loads for passenger seats, e.g. at a crash}
- 11/062 . . {Belts or other passenger restraint means for passenger seats}
- 11/06205 . . . {Arrangements of airbags}
- 11/0621 {Airbag initiation or activation means}
- 11/0624 . . {Arrangements of electrical connectors, e.g. for earphone, internet or electric supply}

- 11/0626 . . {with individual temperature or ventilation control}
- 11/0627 . . {Seats combined with storage means}
- 11/0629 . . . {the storage means being specially adapted for emergency equipment}

WARNING

Groups [B64D 11/0631](#) - [B64D 11/0633](#) is/are incomplete pending reclassification of documents from group [B64D 11/0629](#).

Until reclassification is complete, groups [B64D 11/0631](#) - [B64D 11/0633](#) and [B64D 11/0629](#) should be considered in order to perform a complete search.

- 11/0631 {for life vests}
- 11/0632 {for breathing apparatus}
- 11/0633 {for devices other than life vests and intended for external use, e.g. parachutes or life rafts}
- 11/0636 . . . {Personal storage means or waste disposal bags}
- 11/0638 . . {with foldable tables, trays or cup holders}
- 11/0639 . . {with features for adjustment or converting of seats}
- 11/06395 . . . {characterised by the arrangement of electric motors for adjustment}
- 11/064 . . . {Adjustable inclination or position of seats}
- 11/0641 . . . {Seats convertible into beds}
- 11/0642 . . . {Adjustable headrests}
- 11/0643 . . . {Adjustable foot or leg rests}
- 11/0644 . . . {Adjustable arm rests}
- 11/0646 . . {Seats characterised by special features of stationary arms, foot or head rests}
- 11/0647 . . {Seats characterised by special upholstery or cushioning features}
- 11/0648 . . {Lower frame constructions}
- 11/0649 . . {Seats characterised by special features for reducing weight}
- 11/0689 . . {specially adapted for pilots}
- 11/0691 . . {specially adapted for cabin crew}
- 11/0693 . . {Width modification of seat assemblies, e.g. for class modification}
- 11/0696 . . {Means for fastening seats to floors, e.g. to floor rails}
- 11/0697 . . {Seats suspended from aircraft ceiling}
- 11/0698 . . {Seats suspended from aircraft walls}

13/00 Arrangements or adaptations of air-treatment apparatus for aircraft crew or passenger, or freight space; {or structural parts of the aircraft} ([treatment rooms with artificial climate for medical purposes A61G 10/02](#); [respiratory apparatus in general A62B](#); for for vehicles in general [B60H](#))

- 2013/003 . {Cabin ventilation nozzles}
- 13/006 . {the air being used to cool structural parts of the aircraft}
- 13/02 . the air being pressurised
- 13/04 . . Automatic control of pressure
- 13/06 . the air being conditioned ([pressurising B64D 13/02](#))
- 2013/0603 . . {Environmental Control Systems}
- 2013/0607 . . . {providing hot air or liquid for deicing aircraft parts, e.g. aerodynamic surfaces or windows}
- 2013/0611 . . . {combined with auxiliary power units (APU's)}

2013/0614	. . . {with subsystems for cooling avionics}	17/06	. . . formed with two or more canopies arranged in a cluster
2013/0618	. . . {with arrangements for reducing or managing bleed air, using another air source, e.g. ram air}	17/08	. . . Secondary or shock-absorbing canopies attached to load line
2013/0622	. . . {used in combination with boundary layer control systems}	17/10	. . . Ribbon construction or the like
2013/0625	. . . {comprising means for distribution effusion of conditioned air in the cabin}	17/12	. . . constructed to provide variable or non-uniform porosity over area of canopy
2013/0629	. . . {with subsystems for cooling food, catering or special loads}	17/14	. . . with skirt or air-deflecting panels
2013/0633	. . . {including chemical reaction-based thermal management systems}	17/16	. . . . secured to hem of main canopy
2013/0637	. . . {with CO ₂ removers}	17/18	. . . Vent arrangement or construction
2013/064	. . . {comprising more than one system, e.g. dual systems}	17/20	. . . . variable in area
2013/0644	. . . {including electric motors or generators}	17/22	. . . Load suspension
2013/0648	. . . {with energy recovery means, e.g. using turbines}	17/24	. . . Rigging lines
2013/0651	. . . {comprising filters, e.g. dust filters}	17/26	. . . . attached to hem of canopy
2013/0655	. . . {with zone or personal climate controls}	17/28	. . . . attached to apex of canopy
2013/0659	. . . {comprising provisions for cooling fuel systems}	17/30	. . . Harnesses (harnesses per se A62B)
2013/0662	. . . {with humidity control}	17/32	. . . . Construction of quick-release box
2013/0666	. . . {with means for preventing icing within the ECS components}	17/34	. . . adapted to control direction or rate of descent
2013/067	. . . {with air ionizers}	17/343	. . . . {by reefing means}
2013/0674	. . . {comprising liquid subsystems}	17/346	. . . . {by anti-squid lines}
2013/0677	. . . {comprising on board oxygen generator systems}	17/36	. . . incorporating friction devices or frangible connections to reduce shock loading of canopy {(B64D 17/343 , B64D 17/346 take precedence)}
2013/0681	. . . {with oxygen control}	17/38	. . . Releasable fastening devices between parachute and load or pack
2013/0685	. . . {with ozone control}	17/383	. . . . {Cargo release hooks}
2013/0688	. . . {with means for recirculating cabin air}	17/386	. . . . {Devices adapted to cut lines or straps}
2013/0692	. . . {with special provisions against smoke from cigarettes}	17/40	. . . Packs
2013/0696	. . . {with provisions for starting power plants}	17/42	. . . rigid
13/08	. . . the air being heated or cooled	17/44	. . . . forming part of load
15/00	De-icing or preventing icing on exterior surfaces of aircraft (motor vehicles specially adapted for carrying de-icing equipment B60P)	17/46	. . . Closing means
15/02	. . by ducted hot gas or liquid	17/48	. . . with separate pack for extractor of auxiliary parachute
15/04	. . Hot gas application	17/50	. . . formed with separate compartments for main canopy, rigging lines, or auxiliary parachute
15/06	. . Liquid application (in general B05)	17/52	. . . Opening, e.g. manual
15/08	. . . exuded from surface	17/54	. . . . automatic
15/10	. . . sprayed over surface	17/56	. . . . . responsive to barometric pressure
15/12	. . by electric heating (electric heating elements in general H05B)	17/58	. . . . . responsive to time-delay mechanism
15/14	. . controlled cyclically along length of surface	17/60	. . . . . by static line
15/16	. . by mechanical means	17/62	. . . Deployment
15/163	. . {using electro-impulsive devices}	17/64	. . . by extractor parachute
15/166	. . {using pneumatic boots}	17/66	. . . . attached to hem of main canopy
15/20	. . Means for detecting icing or initiating de-icing	17/68	. . . . attached to apex of main canopy
15/22	. . Automatic initiation by icing detector	17/70	. . . by springs
17/00	Parachutes (non canopied parachutes B64D 19/00)	17/72	. . . by explosive or inflatable means
17/02	. . Canopy arrangement or construction	17/725	. . . . {by explosive means}
	NOTE	17/74	. . . Sequential deployment of a plurality of canopies
	B64D 17/025 takes precedence over B64D 17/04 - B64D 17/18	17/76	. . . facilitated by method of folding or packing
17/025	. . {for gliding chutes}	17/78	. . . in association with other load-retarding apparatus
17/04	. . formed with two or more canopies arranged about a common axis	17/80	. . . in association with aircraft, e.g. for braking thereof
		19/00	Non-canopied parachutes
		19/02	. . Rotary-wing parachutes
		21/00	Testing of parachutes
		23/00	Training of parachutists

25/00	Emergency apparatus or devices, not otherwise provided for (parachutes B64D 17/00 , B64D 19/00 ; jettisoning of fuel tanks or fuel per se B64D 37/00 ; {specially adapted for protection against criminal attack, e.g. anti-hijacking systems B64D 45/0015 } ; safety belts or body harnesses in general A62B 35/00 ; safety belts or body harnesses for land vehicles B60R 22/00 ; jettisonable parts of fuselage facilitating emergency escape B64C)	31/00	Power plant control; Arrangement thereof (F02 takes precedence) flying controls B64C)
25/02	. Supports or holding means for living bodies	31/02	. Initiating means
25/04	. . Seat modifications	31/04	. . actuated personally
25/06	. . Harnessing	31/06	. . actuated automatically
25/08	. Ejecting or escaping means (escape apertures B64C)	31/08	. . . for keeping cruising speed constant (conjoint control of power plant and propeller B64C)
25/10	. . Ejector seats	31/10	. . . for preventing asymmetric thrust upon failure of one power plant
25/12	. . Ejectable capsules	31/12	. . . for equalising or synchronising power plants
25/14	. . Inflatable escape chutes	31/14	. Transmitting means between initiating means and power plants
25/16	. . Dinghy stowage		
25/18	. . Flotation gear (aircraft alighting gear B64C)	33/00	Arrangements in aircraft of power plant parts or auxiliaries not otherwise provided for
25/20	. . Releasing of crash position indicators	33/02	. of combustion air intakes (air intakes for gas-turbine plants or jet-propulsion plants per se F02C 7/04 ; air intakes for combustion engines in general F02M 35/00)
27/00	Arrangement or mounting of power plant in aircraft; Aircraft characterised thereby (attitude, flight direction, or altitude control of aircraft by jet reaction B64C)	2033/0206	. . {comprising noise reduction means, e.g. acoustic liners}
2027/005	. {Aircraft with an unducted turbofan comprising contra-rotating rotors, e.g. contra-rotating open rotors [CROR]}	2033/0213	. . {specially adapted for auxiliary power units (APU's)}
27/02	. Aircraft characterised by the type or position of power plant (fuselages or wings adapted for mounting power plant B64C)	2033/022	. . {comprising bird or foreign object protections}
27/023	. . {of rocket type, e.g. for assisting taking-off or braking}	2033/0226	. . {comprising boundary layer control means}
2027/026	. . {comprising different types of power plants, e.g. combination of an electric motor and a gas-turbines}	2033/0233	. . {comprising de-icing means}
27/04	. . of piston type	2033/024	. . {comprising cooling means}
27/06	. . . within or attached to wing	2033/0246	. . {comprising particle separators}
27/08	. . . within or attached to fuselage	2033/0253	. . {specially adapted for particular type of aircraft}
27/10	. . of gas-turbine type (B64D 27/16 takes precedence)	2033/026	. . . {for supersonic or hypersonic aircraft}
27/12	. . . within or attached to wing	2033/0266	. . {specially adapted for particular type of power plants}
27/14	. . . within or attached to fuselage	2033/0273	. . . {for jet engines}
27/16	. . of jet type	2033/028	. . . {for piston engines}
27/18	. . . within or attached to wing	2033/0286	. . . {for turbofan engines}
27/20	. . . within or attached to fuselage	2033/0293	. . . {for turboprop engines}
27/22	. . using atomic energy	33/04	. of exhaust outlets or jet pipes (exhaust outlets for combustion engines in general F01N ; jet pipes or nozzles for jet-propulsion plants per se F02K ; plants characterised by the form or arrangement of the jet pipe or nozzle F02K {attitude, flight direction, or altitude control by jet reaction B64C })
27/24	. . using steam, electricity, or spring force (B64D 27/16 takes precedence)	2033/045	. . {comprising infrared suppressors}
27/26	. Aircraft characterised by construction of power-plant mounting	33/06	. . {Silencing exhaust or propulsion jets (ground installations B64F)}
2027/262	. . {Engine support arrangements or elements}	33/08	. of power plant cooling systems (cooling of internal-combustion engines per se F01P ; cooling of gas-turbine plants or jet-propulsion plants per se F02C, F02K)
2027/264	. . . {comprising box like supporting frames}	33/10	. . Radiator arrangement
2027/266	. . . {comprising suspension arrangements for supporting vertical loads}	33/12	. . . of retractable type
2027/268	. . . {comprising thrust links}	35/00	Transmitting power from power plant to propellers or rotors; Arrangements of transmissions (propellers or rotors per se , helicopter transmissions B64C)
29/00	Power-plant nacelles, fairings, or cowlings (nacelles not otherwise provided for B64C)	35/02	. characterised by the type of power plant
29/02	. associated with wings (wings adapted for mounting power plant B64C)	35/04	. characterised by the transmission driving a plurality of propellers or rotors
29/04	. associated with fuselages	35/06	. . the propellers or rotors being counter-rotating
29/06	. Attaching of nacelles, fairings or cowlings	35/08	. characterised by the transmission being driven by a plurality of power plants
29/08	. Inspection panels for power plants	37/00	Arrangements in connection with fuel supply for power plant (refuelling during flight B64D 39/00)

37/005	. {Accessories not provided for in the groups B64D 37/02 - B64D 37/28 }	2045/005	. . {by protecting cabin or luggage from bombs}
37/02	. Tanks (tanks constructed integrally with aircraft wings B64C ; shape or construction of tanks per se B65D)	2045/0055	. . {by overriding pilot's controls, or by directing aircraft from ground control to avoid certain paths or zones}
37/04	. . Arrangement thereof in or on aircraft	2045/006	. . {by avoiding the use of electronic equipment during flight, e.g. of mobile phones or laptops}
37/06	. . Constructional adaptations thereof	2045/0065	. {Black boxes, devices automatically broadcasting distress signals}
37/08	. . . Internal partitioning	2045/007	. {Indicators or signs in the cabin, e.g. exit signs or seat numbering}
37/10	. . . to facilitate fuel pressurisation	2045/0075	. {Adaptations for use of electronic flight bags in aircraft; Supports therefor in the cockpit}
37/12	. . . jettisonable	2045/008	. {Devices for detecting or indicating hard landing}
37/14	. . Filling or emptying (transferring fuels to adjust aircraft trim B64C)	2045/0085	. {Devices for aircraft health monitoring, e.g. monitoring flutter or vibration}
37/16	. . . Filling systems (ground installations for fuelling aircraft B64F)	2045/009	. {Fire detection or protection; Erosion protection, e.g. from airborne particles}
37/18	. . . . Conditioning fuel during filling	2045/0095	. {Devices specially adapted to avoid bird strike}
37/20	. . . Emptying systems	45/02	. Lightning protectors; Static dischargers (in general H01T)
37/22	. . . . facilitating emptying in any position of tank	45/04	. Landing aids; Safety measures to prevent collision with earth's surface
37/24	. . . . using gas pressure	45/06	. . mechanical
37/26	. . . . Jettisoning of fuel	45/08	. . optical
37/28	. . . . Control thereof	47/00	Equipment not otherwise provided for
37/30	. Fuel systems for specific fuels	47/02	. Arrangements or adaptations of signal or lighting devices
37/32	. Safety measures not otherwise provided for, e.g. preventing explosive conditions (extinguishing or preventing fires in aircraft A62C)	47/04	. . the lighting devices being primarily intended to illuminate the way ahead
2037/325	. . {Fuel tanks with provisions for reduction hydraulic ram shocks due to projectile impacts}	47/06	. . for indicating aircraft presence
37/34	. Conditioning fuel, e.g. heating (during filling B64D 37/18)	47/08	. Arrangements of cameras
39/00	Refuelling during flight (filling or emptying fuel tanks B64D 37/14)	2201/00	Airbags mounted in aircraft for any use
39/02	. Means for paying-in or out hose	2203/00	Aircraft or airfield lights using LEDs
39/04	. Adaptations of hose construction (pipes in general F16L)	2205/00	Aircraft with means for ground manoeuvring, such as taxiing, using an auxiliary thrust system, e.g. jet-engines, propellers or compressed air
39/06	. Connecting hose to aircraft; Disconnecting hose therefrom	2211/00	Arrangements of solar panels on aircraft
41/00	Power installations for auxiliary purposes	2221/00	Electric power distribution systems onboard aircraft
2041/002	. {Mounting arrangements for auxiliary power units (APU's)}	2231/00	Emergency oxygen systems
2041/005	. {Fuel cells}	2231/02	. Supply or distribution systems
41/007	. {Ram air turbines}	2231/025	. . Oxygen masks; Mask storages (seats combined with storage means, said storage means being specially adapted for emergency equipment B64D 11/0629); Features related to mask deployment
43/00	Arrangements or adaptations of instruments (arrangements of cameras B64D 47/08; aeronautical measuring instruments per se G01C)	2241/00	NACA type air intakes
43/02	. for indicating aircraft speed or stalling conditions		
45/00	Aircraft indicators or protectors not otherwise provided for (camouflage F41H 3/00)		
45/0005	. {Devices specially adapted to indicate the position of a movable element of the aircraft, e.g. landing gear}		
2045/001	. . {for indicating symmetry of flaps deflection}		
45/0015	. {Devices specially adapted for the protection against criminal attack, e.g. anti-hijacking systems}		
2045/002	. . {by disabling or restraining attackers}		
2045/0025	. . . {by spraying gases in cabins, or by shooting darts with anesthetic effects}		
2045/003	. . {by monitoring cabins}		
2045/0035	. . . {using cameras}		
2045/004	. . . {detecting passenger or pilot behaviors by sensors, e.g. biometrics}		
2045/0045	. . {by communicating emergency situations to ground control, or between crew members}		