

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B64 AIRCRAFT; AVIATION; COSMONAUTICS

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

WARNINGS

- The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

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|-------------|------------|----------------------------|
| 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 |
- 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.

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| <p>1/00 Dropping, ejecting, releasing, or receiving articles, liquids, or the like, in flight (with respect to weapon sights devices F41G takes precedence, parachutes <i>per se</i> 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)</p> <p>1/02 . Dropping, ejecting, or releasing articles (jettisonable fuel reservoirs B64D 37/12)</p> <p>1/04 . . the articles being explosive, e.g. bombs (arming or setting bomb fuzes F42C)</p> <p>1/06 . . . Bomb releasing; Bombs doors</p> <p>1/08 . . the articles being load-carrying devices</p> <p>1/10 . . . Stowage arrangements for the devices in aircraft</p> <p>1/12 . . . Releasing</p> <p>1/14 . . . Absorbing landing shocks</p> <p>1/16 . Dropping or releasing powdered, liquid, or gaseous matter, e.g. for fire-fighting (jettisoning fuel B64D 37/26)</p> <p>1/18 . . by spraying, e.g. insecticides (spraying apparatus <i>per se</i> B05B)</p> <p>1/20 . . for sky-writing</p> <p>1/22 . Taking-up articles from earth's surface</p> <p>3/00 Aircraft adaptations to facilitate towing or being towed (B64D 39/00 takes precedence)</p> <p>3/02 . for towing targets</p> <p>5/00 Aircraft transported by aircraft, e.g. for release or reberthing during flight (flying units formed by separate aircraft B64C 37/02)</p> | <p>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 <i>per se</i> F41)</p> <p>7/02 . the armaments being firearms</p> <p>7/04 . . fixedly mounted</p> <p>7/06 . . movably mounted</p> <p>7/08 . Arrangements of rocket launchers {or releasing means}(rocket launchers <i>per se</i>, e.g. rocket pods, F41F 3/06)</p> <p>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)</p> <p>9/003 . {Devices for retaining pallets or freight containers (securing freight containers on vehicles B60P 7/00)}</p> <p>2009/006 . {Rollers or drives for pallets of freight containers, e.g. PDU}</p> <p>10/00 Flight suits (helmets in general A42B 3/00; breathing helmets A62B 18/00)</p> <p>2010/002 . {Anti-g suits or garments}</p> <p>2010/005 . {High altitude suits or garments, e.g. partial or total pressure}</p> <p>2010/007 . {Suits with cooling or heating means}</p> <p>11/00 Passenger or crew accommodation; Flight-deck installations not otherwise provided for</p> |
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| 11/0007 | . {Devices specially adapted for food or beverage distribution services} | 11/0626 | . . {with individual temperature or ventilation control} |
| 11/0015 | . {Arrangements for entertainment or communications, e.g. radio, television} | 11/0627 | . . {Seats combined with storage means} |
| 11/00151 | . . {Permanently mounted seat back monitors} | 11/0629 | . . . {the storage means being specially adapted for emergency equipment} |
| 11/00152 | . . {Seat back fixtures for removable monitors, e.g. tablet computers} | 11/0631 | {for life vests} |
| 11/00153 | . . {Monitors mounted on or in the seat other than the seat back} | 11/0632 | {for breathing apparatus} |
| 11/00154 | . . {Loudspeakers mounted in the seat back} | 11/0633 | {for devices other than life vests and intended for external use, e.g. parachutes or life rafts} |
| 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} | 11/0636 | . . . {Personal storage means or waste disposal bags} |
| 11/0023 | . {Movable or removable cabin dividers, e.g. for class separation (bulkheads B64C 1/10)} | 11/0638 | . . {with foldable tables, trays or cup holders} |
| 11/003 | . {Stowage devices for passengers' personal luggage} | 11/0639 | . . {with features for adjustment or converting of seats} |
| 2011/0038 | . {Illumination systems for cabins as a whole} | 11/06395 | . . . {characterised by the arrangement of electric motors for adjustment} |
| 2011/0046 | . {Modular or preassembled units for creating cabin interior structures} | 11/064 | . . . {Adjustable inclination or position of seats} |
| 2011/0053 | . {Cabin passenger reading lights} | 11/0641 | . . . {Seats convertible into beds} |
| 2011/0061 | . {Windows displaying outside view, artificially generated} | 11/0642 | . . . {Adjustable headrests} |
| 2011/0069 | . {Rest berths, beds or the like} | 11/0643 | . . . {Adjustable foot or leg rests} |
| 2011/0076 | . . {for crew members, e.g. for sleeping during flight} | 11/0644 | . . . {Adjustable arm rests} |
| 2011/0084 | . . {Bed units for passengers attached to the ceiling of the fuselage} | 11/0646 | . . {Seats characterised by special features of stationary arms, foot or head rests} |
| 2011/0092 | . . {Arrangements for mounting stretchers in aircraft cabins} | 11/0647 | . . {Seats characterised by special upholstery or cushioning features} |
| 11/02 | . Toilet fittings (of general application A47K) | 11/0648 | . . {Lower frame constructions} |
| 11/04 | . Galleys | 11/0649 | . . {Seats characterised by special features for reducing weight} |
| 11/06 | . {Arrangements of seats, or adaptations or details specially adapted for aircraft seats (crew seat constructions for emergency purposes B64D 25/04)} | 11/0689 | . . {specially adapted for pilots} |
| 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} | 11/0691 | . . {specially adapted for cabin crew} |
| 11/0602 | . . {Seat modules, i.e. seat systems including furniture separate from the seat itself} | 11/0693 | . . {Width modification of seat assemblies, e.g. for class modification} |
| 11/0604 | . . . {including a bed, e.g. cocoon type passenger seat modules} | 11/0696 | . . {Means for fastening seats to floors, e.g. to floor rails} |
| 11/0605 | . . . {including tables or desks} | 11/0697 | . . {Seats suspended from aircraft ceiling} |
| 11/0606 | . . {with privacy shells, screens, separators or the like (class dividers B64D 11/0023)} | 11/0698 | . . {Seats suspended from aircraft walls} |
| 11/0607 | . . {with devices specially adapted for exercising during travel; with devices specially adapted to prevent thrombosis} | 13/00 | Arrangements or adaptations of air-treatment apparatus for aircraft crew or passengers, 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 vehicles in general B60H) |
| 11/0611 | . . {with means for holding the passenger in a standing position} | 2013/003 | . {Cabin ventilation nozzles} |
| 11/0612 | . . {specially adapted for children} | 13/006 | . {the air being used to cool structural parts of the aircraft} |
| 11/0616 | . . {with ejection means} | 13/02 | . the air being pressurised |
| 11/0619 | . . {with energy absorbing means specially adapted for mitigating impact loads for passenger seats, e.g. at a crash} | 13/04 | . . Automatic control of pressure |
| 11/062 | . . {Belts or other passenger restraint means for passenger seats} | 13/06 | . the air being conditioned (pressurising B64D 13/02) |
| 11/06205 | . . . {Arrangements of airbags} | 2013/0603 | . . . {Environmental Control Systems} |
| 11/0621 | {Airbag initiation or activation means} | 2013/0607 | . . . {providing hot air or liquid for deicing aircraft parts, e.g. aerodynamic surfaces or windows} |
| 11/0624 | . . {Arrangements of electrical connectors, e.g. for earphone, internet or electric supply} | 2013/0611 | . . . {combined with auxiliary power units (APU's)} |
| | | 2013/0614 | . . . {with subsystems for cooling avionics} |
| | | 2013/0618 | . . . {with arrangements for reducing or managing bleed air, using another air source, e.g. ram air} |
| | | 2013/0622 | . . . {used in combination with boundary layer control systems} |
| | | 2013/0625 | . . . {comprising means for distribution effusion of conditioned air in the cabin} |
| | | 2013/0629 | . . . {with subsystems for cooling food, catering or special loads} |

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| 2013/0633 | . . . {including chemical reaction-based thermal management systems} | 17/20 | . . . variable in area |
| 2013/0637 | . . . {with CO ₂ removers} | 17/22 | . Load suspension |
| 2013/064 | . . . {comprising more than one system, e.g. dual systems} | 17/24 | . . Rigging lines |
| 2013/0644 | . . . {including electric motors or generators} | 17/26 | . . . attached to hem of canopy |
| 2013/0648 | . . . {with energy recovery means, e.g. using turbines} | 17/28 | . . . attached to apex of canopy |
| 2013/0651 | . . . {comprising filters, e.g. dust filters} | 17/30 | . . Harnesses (harnesses per se A62B) |
| 2013/0655 | . . . {with zone or personal climate controls} | 17/32 | . . . Construction of quick-release box |
| 2013/0659 | . . . {comprising provisions for cooling fuel systems} | 17/34 | . . adapted to control direction or rate of descent |
| 2013/0662 | . . . {with humidity control} | 17/343 | . . . {by reefing means} |
| 2013/0666 | . . . {with means for preventing icing within the ECS components} | 17/346 | . . . {by anti-squid lines} |
| 2013/067 | . . . {with air ionizers} | 17/36 | . . incorporating friction devices or frangible connections to reduce shock loading of canopy |
| 2013/0674 | . . . {comprising liquid subsystems} | | { B64D 17/343 , B64D 17/346 take precedence } |
| 2013/0677 | . . . {comprising on board oxygen generator systems} | 17/38 | . . Releasable fastening devices between parachute and load or pack |
| 2013/0681 | . . . {with oxygen control} | 17/383 | . . . {Cargo release hooks} |
| 2013/0685 | . . . {with ozone control} | 17/386 | . . . {Devices adapted to cut lines or straps} |
| 2013/0688 | . . . {with means for recirculating cabin air} | 17/40 | . Packs |
| 2013/0692 | . . . {with special provisions against smoke from cigarettes} | 17/42 | . . rigid |
| 2013/0696 | . . . {with provisions for starting power plants} | 17/44 | . . . forming part of load |
| 13/08 | . . the air being heated or cooled | 17/46 | . . Closing means |
| 15/00 | De-icing or preventing icing on exterior surfaces of aircraft (motor vehicles specially adapted for carrying de-icing equipment B60P) | 17/48 | . . with separate pack for extractor of auxiliary parachute |
| 15/02 | . by ducted hot gas or liquid | 17/50 | . . formed with separate compartments for main canopy, rigging lines, or auxiliary parachute |
| 15/04 | . . Hot gas application | 17/52 | . . Opening, e.g. manual |
| 15/06 | . . Liquid application (in general B05) | 17/54 | . . . automatic |
| 15/08 | . . . exuded from surface | 17/56 | responsive to barometric pressure |
| 15/10 | . . . sprayed over surface | 17/58 | responsive to time-delay mechanism |
| 15/12 | . by electric heating (electric heating elements in general H05B) | 17/60 | by static line |
| 15/14 | . . controlled cyclically along length of surface | 17/62 | . Deployment |
| 15/16 | . by mechanical means | 17/64 | . . by extractor parachute |
| 15/163 | . . {using electro-impulsive devices} | 17/66 | . . . attached to hem of main canopy |
| 15/166 | . . {using pneumatic boots} | 17/68 | . . . attached to apex of main canopy |
| 15/20 | . Means for detecting icing or initiating de-icing | 17/70 | . . by springs |
| 15/22 | . . Automatic initiation by icing detector | 17/72 | . . by explosive or inflatable means |
| 17/00 | Parachutes (non canopied parachutes B64D 19/00) | 17/725 | . . . {by explosive means} |
| 17/02 | . Canopy arrangement or construction | 17/74 | . . Sequential deployment of a plurality of canopies |
| | NOTE | 17/76 | . . facilitated by method of folding or packing |
| | B64D 17/025 takes precedence over B64D 17/04 - B64D 17/18 | 17/78 | . in association with other load-retarding apparatus |
| 17/025 | . . {for gliding chutes} | 17/80 | . in association with aircraft, e.g. for braking thereof |
| 17/04 | . . formed with two or more canopies arranged about a common axis | 19/00 | Non-canopied parachutes |
| 17/06 | . . formed with two or more canopies arranged in a cluster | 19/02 | . Rotary-wing parachutes |
| 17/08 | . . Secondary or shock-absorbing canopies attached to load line | 21/00 | Testing of parachutes |
| 17/10 | . . Ribbon construction or the like | 23/00 | Training of parachutists |
| 17/12 | . . constructed to provide variable or non-uniform porosity over area of canopy | 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) |
| 17/14 | . . with skirt or air-deflecting panels | 25/02 | . Supports or holding means for living bodies |
| 17/16 | . . . secured to hem of main canopy | 25/04 | . . Seat modifications |
| 17/18 | . . Vent arrangement or construction | 25/06 | . . Harnessing |
| | | 25/08 | . Ejecting or escaping means (escape apertures B64C) |
| | | 25/10 | . . Ejector seats |
| | | 25/12 | . . Ejectable capsules |

- 25/14 . . Inflatable escape chutes
- 25/16 . . Dinghy stowage
- 25/18 . . Flotation gear ([aircraft alighting gear B64C](#))
- 25/20 . . Releasing of crash position indicators

27/00 Arrangement or mounting of power plants in aircraft; Aircraft characterised by the type or position of power plants

- 2027/005 . { Aircraft with an unducted turbofan comprising contra-rotating rotors, e.g. contra-rotating open rotors [CROR]}
- 27/02 . Aircraft characterised by the type or position of power plants ([fuselages specially adapted for mounting power plants B64C 1/16](#); [wings specially adapted for power plants B64C 3/32](#))

WARNING

Group [B64D 27/02](#) is impacted by reclassification into groups [B64D 27/026](#), [B64D 27/33](#), [B64D 27/357](#), [B64D 27/359](#), [B64D 31/16](#), [B64D 31/18](#) and [B64D 35/021 - B64D 35/025](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 27/023 . . {of rocket type, e.g. for assisting taking-off or braking}
- 27/026 . . {comprising different types of power plants, e.g. combination of a piston engine and a gas-turbine ([Hybrid electric aircraft B64D 27/33](#))}

WARNING

Group [B64D 27/026](#) is incomplete pending reclassification of documents from group [B64D 27/02](#).

Groups [B64D 27/026](#) and [B64D 27/02](#) should be considered in order to perform a complete search.

- 27/04 . . of piston type
- 27/06 . . . within, or attached to, wings
- 27/08 . . . within, or attached to, fuselages
- 27/10 . . of gas-turbine type ([jet aircraft B64D 27/16](#))
- 27/12 . . . within, or attached to, wings
- 27/14 . . . within, or attached to, fuselages
- 27/16 . . of jet type
- 27/18 . . . within, or attached to, wings
- 27/20 . . . within, or attached to, fuselages
- 27/22 . . using atomic energy
- 27/24 . . using steam or spring force ([jet aircraft B64D 27/16](#))

WARNING

Group [B64D 27/24](#) is impacted by reclassification into groups [B64D 27/30](#), [B64D 27/31](#), [B64D 27/32](#), [B64D 27/33](#), [B64D 27/34](#), [B64D 27/35](#), [B64D 27/351](#), [B64D 27/353](#), [B64D 27/355](#), [B64D 27/357](#), [B64D 27/359](#), [B64D 31/16](#), [B64D 31/18](#) and [B64D 35/021 - B64D 35/025](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 27/30 . . Aircraft characterised by electric power plants

WARNING

Groups [B64D 27/30](#), [B64D 27/31](#), [B64D 27/32](#), [B64D 27/34](#), [B64D 27/35](#), [B64D 27/351](#) and [B64D 27/355](#) are incomplete pending reclassification of documents from group [B64D 27/24](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 27/31 . . . within, or attached to, wings
- 27/32 . . . within, or attached to, fuselages
- 27/33 . . . Hybrid electric aircraft

WARNING

Group [B64D 27/33](#) is incomplete pending reclassification of documents from groups [B64D 27/02](#) and [B64D 27/24](#).

Groups [B64D 27/33](#), [B64D 27/02](#) and [B64D 27/24](#) should be considered in order to perform a complete search.

- 27/34 . . . All-electric aircraft
- 27/35 . . . Arrangements for on-board electric energy production, distribution, recovery or storage
- 27/351 using energy recovery
- 27/353 using solar cells

WARNING

Group [B64D 27/353](#) is incomplete pending reclassification of documents from group [B64D 27/24](#).

Group [B64D 27/353](#) is also impacted by reclassification into group [B64U 50/31](#).

Groups [B64D 27/353](#), [B64D 27/24](#) and [B64U 50/31](#) should be considered in order to perform a complete search.

- 27/355 using fuel cells
- 27/357 using batteries

WARNING

Group [B64D 27/357](#) is incomplete pending reclassification of documents from groups [B64D 27/02](#) and [B64D 27/24](#).

Groups [B64D 27/357](#), [B64D 27/02](#), [B64D 27/24](#) should be considered in order to perform a complete search.

- 27/359 using capacitors

WARNING

Group [B64D 27/359](#) is incomplete pending reclassification of documents from groups [B64D 27/02](#) and [B64D 27/24](#).

Groups [B64D 27/359](#), [B64D 27/02](#) and [B64D 27/24](#) should be considered in order to perform a complete search.

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| <p>27/40</p> <ul style="list-style-type: none"> • Arrangements for mounting power plants in aircraft <p>WARNING</p> <p>Group B64D 27/40 is impacted by reclassification into groups B64D 27/402, B64D 27/404 and B64D 27/406.</p> <p>All groups listed in this Warning should be considered in order to perform a complete search.</p> | <p>31/06</p> <ul style="list-style-type: none"> • . . . actuated automatically <p>WARNING</p> <p>Group B64D 31/06 is impacted by reclassification into group B64D 31/09.</p> <p>Groups B64D 31/06 and B64D 31/09 should be considered in order to perform a complete search.</p> |
| <p>27/402</p> <ul style="list-style-type: none"> • . . {comprising box like supporting frames, e.g. pylons or arrangements for embracing the power plant} <p>WARNING</p> <p>Group B64D 27/402 is incomplete pending reclassification of documents from group B64D 27/40.</p> <p>Groups B64D 27/402 and B64D 27/40 should be considered in order to perform a complete search.</p> | <p>31/08</p> <ul style="list-style-type: none"> • . . . for keeping cruising speed constant <p>31/09</p> <ul style="list-style-type: none"> • . . . in response to power plant failure <p>WARNING</p> <p>Group B64D 31/09 is incomplete pending reclassification of documents from group B64D 31/06.</p> <p>Groups B64D 31/09 and B64D 31/06 should be considered in order to perform a complete search.</p> |
| <p>27/404</p> <ul style="list-style-type: none"> • . . {Suspension arrangements specially adapted for supporting vertical loads} <p>WARNING</p> <p>Group B64D 27/404 is incomplete pending reclassification of documents from group B64D 27/40.</p> <p>Groups B64D 27/404 and B64D 27/40 should be considered in order to perform a complete search.</p> | <p>31/10</p> <ul style="list-style-type: none"> • for preventing asymmetric thrust <p>31/12</p> <ul style="list-style-type: none"> • . . . for equalising or synchronising power plants <p>31/14</p> <ul style="list-style-type: none"> • Transmitting means between initiating means and power plants <p>31/16</p> <ul style="list-style-type: none"> • for electric power plants <p>WARNING</p> <p>Groups B64D 31/16 and B64D 31/18 are incomplete pending reclassification of documents from groups B64D 27/02, B64D 27/24 and B64D 31/00.</p> <p>All groups listed in this Warning should be considered in order to perform a complete search.</p> |
| <p>27/406</p> <ul style="list-style-type: none"> • . . {Suspension arrangements specially adapted for supporting thrust loads, e.g. thrust links} <p>WARNING</p> <p>Group B64D 27/406 is incomplete pending reclassification of documents from group B64D 27/40.</p> <p>Groups B64D 27/406 and B64D 27/40 should be considered in order to perform a complete search.</p> | <p>31/18</p> <ul style="list-style-type: none"> • . . for hybrid-electric power plants <p>33/00 Arrangements in aircraft of power plant parts or auxiliaries not otherwise provided for</p> <p>33/02</p> <ul style="list-style-type: none"> • 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) |
| <p>29/00 Power-plant nacelles, fairings, or cowlings (nacelles not otherwise provided for B64C)</p> <p>29/02</p> <ul style="list-style-type: none"> • associated with wings (wings adapted for mounting power plant B64C) <p>29/04</p> <ul style="list-style-type: none"> • associated with fuselages <p>29/06</p> <ul style="list-style-type: none"> • Attaching of nacelles, fairings or cowlings <p>29/08</p> <ul style="list-style-type: none"> • Inspection panels for power plants | <p>2033/0206</p> <ul style="list-style-type: none"> • . . {comprising noise reduction means, e.g. acoustic liners} <p>2033/0213</p> <ul style="list-style-type: none"> • . . {specially adapted for auxiliary power units (APU's)} <p>2033/022</p> <ul style="list-style-type: none"> • . . {comprising bird or foreign object protections} <p>2033/0226</p> <ul style="list-style-type: none"> • . . {comprising boundary layer control means} <p>2033/0233</p> <ul style="list-style-type: none"> • . . {comprising de-icing means} <p>2033/024</p> <ul style="list-style-type: none"> • . . {comprising cooling means} <p>2033/0246</p> <ul style="list-style-type: none"> • . . {comprising particle separators} <p>2033/0253</p> <ul style="list-style-type: none"> • . . {specially adapted for particular type of aircraft} <p>2033/026</p> <ul style="list-style-type: none"> • . . . {for supersonic or hypersonic aircraft} <p>2033/0266</p> <ul style="list-style-type: none"> • . . {specially adapted for particular type of power plants} <p>2033/0273</p> <ul style="list-style-type: none"> • . . . {for jet engines} <p>2033/028</p> <ul style="list-style-type: none"> • . . . {for piston engines} <p>2033/0286</p> <ul style="list-style-type: none"> • . . . {for turbofan engines} <p>2033/0293</p> <ul style="list-style-type: none"> • . . . {for turboprop engines} |
| <p>31/00 Power plant control systems; Arrangement of power plant control systems in aircraft</p> <p>WARNING</p> <p>Group B64D 31/00 is impacted by reclassification into groups B64D 31/16 and B64D 31/18.</p> <p>Groups B64D 31/00, B64D 31/16 and B64D 31/18 should be considered in order to perform a complete search.</p> | <p>33/04</p> <ul style="list-style-type: none"> • 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}) |
| <p>31/02</p> <ul style="list-style-type: none"> • Initiating means <p>31/04</p> <ul style="list-style-type: none"> • . . actuated personally | |

- 2033/045 . . {comprising infrared suppressors}
- 33/06 . . {Silencing exhaust or propulsion jets (ground installations [B64F](#))}
- 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](#))
- 33/10 . . Radiator arrangement
- 33/12 . . . of retractable type
- 35/00 Transmitting power from power plants to propellers or rotors; Arrangements of transmissions**
- 35/02 . specially adapted for specific power plants
- WARNING**
- Group [B64D 35/02](#) is impacted by reclassification into groups [B64D 35/021](#), [B64D 35/022](#), [B64D 35/023](#), [B64D 35/024](#), [B64D 35/025](#) and [B64D 35/026](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 35/021 . . for electric power plants
- WARNING**
- Groups [B64D 35/021](#), [B64D 35/022](#), [B64D 35/023](#), [B64D 35/024](#) and [B64D 35/025](#) are incomplete pending reclassification of documents from groups [B64D 27/02](#), [B64D 27/24](#) and [B64D 35/02](#).
- All groups listed in this Warning should be considered in order to perform a complete search.
- 35/022 . . . of hybrid-electric type
- 35/023 of series-parallel type
- 35/024 of series type
- 35/025 of parallel type
- 35/026 . . . the electric power plant being integral with the propeller or rotor
- WARNING**
- Group [B64D 35/026](#) is incomplete pending reclassification of documents from group [B64D 35/02](#).
- Groups [B64D 35/026](#) and [B64D 35/02](#) should be considered in order to perform a complete search.
- 35/04 . characterised by the transmission driving a plurality of propellers or rotors
- 35/06 . . the propellers or rotors being counter-rotating
- 35/08 . characterised by the transmission being driven by a plurality of 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](#)}
- 37/02 . Tanks (tanks constructed integrally with aircraft wings [B64C](#); shape or construction of tanks [per se B65D](#))
- 37/04 . . Arrangement thereof in or on aircraft
- 37/06 . . Constructional adaptations thereof
- 37/08 . . . Internal partitioning
- 37/10 . . . to facilitate fuel pressurisation
- 37/12 . . . jettisonable
- 37/14 . . Filling or emptying (transferring fuels to adjust aircraft trim [B64C](#))
- 37/16 . . . Filling systems (ground installations for fuelling aircraft [B64F](#))
- 37/18 Conditioning fuel during filling
- 37/20 . . . Emptying systems
- 37/22 facilitating emptying in any position of tank
- 37/24 using gas pressure
- 37/26 Jettisoning of fuel
- 37/28 Control thereof
- 37/30 . Fuel systems for specific fuels
- 37/32 . Safety measures not otherwise provided for, e.g. preventing explosive conditions (extinguishing or preventing fires in aircraft [A62C](#))
- 2037/325 . . {Fuel tanks with provisions for reduction hydraulic ram shocks due to projectile impacts}
- 37/34 . Conditioning fuel, e.g. heating (during filling [B64D 37/18](#))
- 39/00 Refuelling during flight (filling or emptying fuel tanks [B64D 37/14](#))**
- 39/02 . Means for paying-in or out hose
- 39/04 . Adaptations of hose construction (pipes in general [F16L](#))
- 39/06 . Connecting hose to aircraft; Disconnecting hose therefrom
- 41/00 Power installations for auxiliary purposes**
- 2041/002 . {Mounting arrangements for auxiliary power units (APU's)}
- 2041/005 . {Fuel cells}
- 41/007 . {Ram air turbines}
- 43/00 Arrangements or adaptations of instruments (arrangements of cameras [B64D 47/08](#); aeronautical measuring instruments [per se G01C](#))**
- 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}
- 45/0018 . . {means on aircraft for restricting unauthorized access to the aircraft}
- 45/0021 . . {means for restricting access to flight deck}
- 45/0026 . . . {by creating a secure space between the flight deck and cabin}
- 45/0028 . . . {doors or door arrangements specially adapted to restrict unauthorized access}
- 45/0029 {electrically actuated}
- 45/0031 . . {means for overriding or restricting access to flight controls}
- 45/0034 . . . {by ground-control override}
- 45/0036 . . {by disabling or restraining attackers}
- 45/0039 . . . {by electrical shock}
- 45/0042 . . . {by spraying or injecting chemicals}
- 45/0044 . . . {by restraining within seats}

B64D

- 45/0048 . . . {by harnesses, nets, ropes, or the like
([B64D 45/0044](#) takes precedence)}
- 45/0051 . . {by monitoring passengers or crew on aircraft}
- 45/0053 . . . {using visual equipment, e.g. cameras}
- 45/0056 . . . {detecting passenger or crew behavior by
sensors, e.g. biometrics}
- 45/0059 . . {by communicating emergency situations to
ground control or between crew members}
- 45/0061 . . {by protecting cabin or cargo hold from bombs}
- 45/0063 . . {by avoiding the use of electronic equipment
during flight, e.g. of mobile phones or laptops}
- 2045/0065 . {Black boxes, devices automatically broadcasting
distress signals}
- 2045/007 . {Indicators or signs in the cabin, e.g. exit signs or
seat numbering}
- 2045/0075 . {Adaptations for use of electronic flight bags in
aircraft; Supports therefor in the cockpit}
- 2045/008 . {Devices for detecting or indicating hard landing}
- 2045/0085 . {Devices for aircraft health monitoring, e.g.
monitoring flutter or vibration}
- 2045/009 . {Fire detection or protection; Erosion protection,
e.g. from airborne particles}
- 2045/0095 . {Devices specially adapted to avoid bird strike}
- 45/02 . Lightning protectors; Static dischargers ([in general
H01T](#))
- 45/04 . Landing aids; Safety measures to prevent collision
with earth's surface
- 45/06 . . mechanical
- 45/08 . . optical
- 47/00 Equipment not otherwise provided for**
- 47/02 . Arrangements or adaptations of signal or lighting
devices
- 47/04 . . the lighting devices being primarily intended to
illuminate the way ahead
- 47/06 . . for indicating aircraft presence
- 47/08 . Arrangements of cameras

WARNING

Group [B64D 47/08](#) is impacted by reclassification into group [B64U 20/87](#).

Groups [B64D 47/08](#) and [B64U 20/87](#) should be considered in order to perform a complete search.

- 2201/00 Airbags mounted in aircraft for any use**
- 2203/00 Aircraft or airfield lights using LEDs**
- 2205/00 Aircraft with means for ground manoeuvring, such as taxiing, using an auxiliary thrust system, e.g. jet-engines, propellers or compressed air**
- 2221/00 Electric power distribution systems onboard aircraft**
- 2231/00 Emergency oxygen systems**
- 2231/02 . Supply or distribution systems
- 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
- 2241/00 NACA type air intakes**