

# 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

##### WARNING

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

B64D 15/18	covered by	<a href="#">B64D 15/16</a>
B64D 25/102	covered by	<a href="#">B64D 25/10</a>
B64D 25/105	covered by	<a href="#">B64D 25/10</a>
B64D 25/108	covered by	<a href="#">B64D 25/10</a>
B64D 25/11	covered by	<a href="#">B64D 25/10</a>
B64D 25/112	covered by	<a href="#">B64D 25/10</a>
B64D 25/115	covered by	<a href="#">B64D 25/10</a>
B64D 25/118	covered by	<a href="#">B64D 25/10</a>

<b>1/00</b>	<b>Dropping, ejecting, releasing or receiving articles, liquids, or the like, in flight (refuelling during flight <a href="#">B64D 39/00</a>; launching apparatus for projecting projectiles or missiles <a href="#">F41F 1/00</a>, <a href="#">F41F 7/00</a>; rocket or torpedo launchers <a href="#">F41F 3/00</a>; weapon sights or aiming <a href="#">F41G</a>)</b>	7/06	. . movably mounted
		7/08	. Arrangement of rocket launchers
		<b>9/00</b>	<b>Equipment for handling freight; Equipment for facilitating passenger embarkation or the like</b>
		9/003	. {Devices for retaining pallets or freight containers}
1/02	. Dropping, ejecting, or releasing articles ( <a href="#">jettisonable fuel reservoirs <a href="#">B64D 37/12</a></a> )	2009/006	. {Rollers or drives for pallets of freight containers, e.g. PDU}
1/04	. . the articles being explosive, e.g. bombs	<b>10/00</b>	<b>Flight suits</b>
1/06	. . . Bomb releasing; Bomb doors	2010/002	. {Anti-g suits or garments}
1/08	. . the articles being load-carrying devices	2010/005	. {High altitude suits or garments, e.g. partial or total pressure}
1/10	. . . Stowage arrangements for the devices in aircraft	2010/007	. {Suits with cooling or heating means}
1/12	. . . Releasing		
1/14	. . . Absorbing landing shocks	<b>11/00</b>	<b>Passenger or crew accommodation; Flight-deck installations not otherwise provided for</b>
1/16	. Dropping or releasing powdered, liquid, or gaseous matter, e.g. for fire-fighting ( <a href="#">jettisoning fuel <a href="#">B64D 37/26</a></a> )	11/0007	. {Devices specially adapted for food or beverage distribution services}
1/18	. . by spraying, e.g. insecticides	11/0015	. {Arrangements for entertainment or communications, e.g. radio, television}
1/20	. . for sky-writing	11/00151	. . {Permanently mounted seat back monitors}
1/22	. Taking-up articles from earth's surface	11/00152	. . {Seat back fixtures for removable monitors, e.g. tablet computers}
<b>3/00</b>	<b>Aircraft adaptations to facilitate towing or being towed</b>	11/00153	. . {Monitors mounted on or in the seat other than the seat back}
3/02	. for towing targets	11/00154	. . {Loudspeakers mounted in the seat back}
<b>5/00</b>	<b>Aircraft transported by aircraft, e.g. for release or reberthing during flight</b>	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}
<b>7/00</b>	<b>Arrangement of military equipment, e.g. armaments, armament accessories or military shielding, in aircraft; Adaptations of armament mountings for aircraft (<a href="#">dropping bombs or the like <a href="#">B64D 1/00</a></a>)</b>	11/0023	. {Movable or removable cabin dividers, e.g. for class separation}
7/02	. the armaments being firearms	11/003	. {Stowage devices for passengers' personal luggage}
7/04	. . fixedly mounted	2011/0038	. {Illumination systems for cabins as a whole}

2011/0046	. {Modular or preassembled units for creating cabin interior structures}	11/0641	. . . {Seats convertible into beds}
2011/0053	. {Cabin passenger reading lights}	11/0642	. . . {Adjustable headrests}
2011/0061	. {Windows displaying outside view, artificially generated}	11/0643	. . . {Adjustable foot or leg rests}
2011/0069	. {Rest berths, beds or the like}	11/0644	. . . {Adjustable arm rests}
2011/0076	. . {for crew members, e.g. for sleeping during flight}	11/0646	. . {Seats characterised by special features of stationary arms, foot or head rests}
2011/0084	. . {Bed units for passengers attached to the ceiling of the fuselage}	11/0647	. . {Seats characterised by special upholstery or cushioning features}
2011/0092	. . {Arrangements for mounting stretchers in aircraft cabins}	11/0648	. . {Lower frame constructions}
11/02	. Toilet fittings	11/0649	. . {Seats characterised by special features for reducing weight}
11/04	. Galleys	11/0689	. . {specially adapted for pilots}
11/06	. {Arrangements of seats, or adaptations or details specially adapted for aircraft seats ( <a href="#">crew seat constructions for emergency purposes B64D 25/04</a> )}	11/0691	. . {specially adapted for cabin crew}
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}	11/0693	. . {Width modification of seat assemblies, e.g. for class modification}
11/0602	. . {Seat modules, i.e. seat systems including furniture separate from the seat itself}	11/0696	. . {Means for fastening seats to floors, e.g. to floor rails}
11/0604	. . . {including a bed, e.g. cocoon type passenger seat modules}	11/0697	. . {Seats suspended from aircraft ceiling}
11/0605	. . . {including tables or desks}	11/0698	. . {Seats suspended from aircraft walls}
11/0606	. . {with privacy shells, screens, separators or the like ( <a href="#">class dividers B64D 11/0023</a> )}	<b>13/00</b>	<b>Arrangements or adaptations of air-treatment apparatus for aircraft crew or passengers, or freight space</b>
11/0607	. . {with devices specially adapted for exercising during travel; with devices specially adapted to prevent thrombosis}	2013/003	. {Cabin ventilation nozzles}
11/0611	. . {with means for holding the passenger in a standing position}	13/006	. {the air being used to cool structural parts of the aircraft}
11/0612	. . {specially adapted for children}	13/02	. the air being pressurised
11/0616	. . {with ejection means}	13/04	. . Automatic control of pressure
11/0619	. . {with energy absorbing means specially adapted for mitigating impact loads for passenger seats, e.g. at a crash}	13/06	. the air being conditioned ( <a href="#">pressurising B64D 13/02</a> )
11/062	. . {Belts or other passenger restraint means for passenger seats}	2013/0603	. . {Environmental Control Systems}
11/06205	. . . {Arrangements of airbags}	2013/0607	. . . {providing hot air or liquid for deicing aircraft parts, e.g. aerodynamic surfaces or windows}
11/0621	. . . . {Airbag initiation or activation means}	2013/0611	. . . {combined with auxiliary power units (APU's)}
11/0624	. . {Arrangements of electrical connectors, e.g. for earphone, internet or electric supply}	2013/0614	. . . {with subsystems for cooling avionics}
11/0626	. . {with individual temperature or ventilation control}	2013/0618	. . . {with arrangements for reducing or managing bleed air, using another air source, e.g. ram air}
11/0627	. . {Seats combined with storage means}	2013/0622	. . . {used in combination with boundary layer control systems}
11/0629	. . . {the storage means being specially adapted for emergency equipment}	2013/0625	. . . {comprising means for distribution effusion of conditioned air in the cabin}
11/0631	. . . . {for life vests}	2013/0629	. . . {with subsystems for cooling food, catering or special loads}
11/0632	. . . . {for breathing apparatus}	2013/0633	. . . {including chemical reaction-based thermal management systems}
11/0633	. . . . {for devices other than life vests and intended for external use, e.g. parachutes or life rafts}	2013/0637	. . . {with CO <sub>2</sub> removers}
11/0636	. . . {Personal storage means or waste disposal bags}	2013/064	. . . {comprising more than one system, e.g. dual systems}
11/0638	. . {with foldable tables, trays or cup holders}	2013/0644	. . . {including electric motors or generators}
11/0639	. . {with features for adjustment or converting of seats}	2013/0648	. . . {with energy recovery means, e.g. using turbines}
11/06395	. . . {characterised by the arrangement of electric motors for adjustment}	2013/0651	. . . {comprising filters, e.g. dust filters}
11/064	. . . {Adjustable inclination or position of seats}	2013/0655	. . . {with zone or personal climate controls}
		2013/0659	. . . {comprising provisions for cooling fuel systems}
		2013/0662	. . . {with humidity control}
		2013/0666	. . . {with means for preventing icing within the ECS components}
		2013/067	. . . {with air ionizers}
		2013/0674	. . . {comprising liquid subsystems}
		2013/0677	. . . {comprising on board oxygen generator systems}
		2013/0681	. . . {with oxygen control}
		2013/0685	. . . {with ozone control}

- 2013/0688 . . . {with means for recirculating cabin air}
- 2013/0692 . . . {with special provisions against smoke from cigarettes}
- 2013/0696 . . . {with provisions for starting power plants}
- 13/08 . . the air being heated or cooled
- 15/00 De-icing or preventing icing on exterior surfaces of aircraft**
  - 15/02 . by ducted hot gas or liquid
  - 15/04 . . Hot gas application
  - 15/06 . . Liquid application
  - 15/08 . . . exuded from surface
  - 15/10 . . . sprayed over surface
  - 15/12 . by electric heating (heating arrangements specially adapted for transparent or reflecting areas [H05B 3/84](#))
  - 15/14 . . controlled cyclically along length of surface
  - 15/16 . by mechanical means, e.g. pulsating mats or shoes attached to, or built into, surface
  - 15/163 . . {using electro-impulsive devices}
  - 15/166 . . {using pneumatic boots}
  - 15/20 . Means for detecting icing or initiating de-icing
  - 15/22 . . Automatic initiation by icing detector
- 17/00 Parachutes (non-canopied parachutes [B64D 19/00](#))**
  - 17/02 . Canopy arrangement or construction
- NOTE**
  - {[B64D 17/025](#) takes precedence over [B64D 17/04](#) - [B64D 17/20](#)}
- 17/025 . . {for gliding chutes}
- 17/04 . . formed with two or more canopies arranged about a common axis
- 17/06 . . formed with two or more canopies arranged in a cluster
- 17/08 . . Secondary or shock-absorbing canopies attached to load line
- 17/10 . . Ribbon construction or the like
- 17/12 . . constructed to provide variable or non-uniform porosity over area of canopy
- 17/14 . . with skirt or air-deflecting panels
- 17/16 . . . secured to hem of main canopy
- 17/18 . . Vent arrangement or construction
- 17/20 . . . variable in area
- 17/22 . Load suspension
- 17/24 . . Rigging lines
- 17/26 . . . attached to hem of canopy
- 17/28 . . . attached to apex of canopy
- 17/30 . . Harnesses
- 17/32 . . . Construction of quick-release box
- 17/34 . . adapted to control direction or rate of descent
- 17/343 . . . {by reefing means}
- 17/346 . . . {by anti-squid lines}
- 17/36 . . incorporating friction devices or frangible connections to reduce shock loading of canopy ({[B64D 17/343](#), [B64D 17/346](#) take precedence})
- 17/38 . . Releasable fastening devices between parachute and load or pack
- 17/383 . . . {Cargo release hooks}
- 17/386 . . . {Devices adapted to cut lines or straps}
- 17/40 . Packs
- 17/42 . . rigid
- 17/44 . . . forming part of load

- 17/46 . . Closing means
- 17/48 . . with separate pack for extractor of auxiliary parachute
- 17/50 . . formed with separate compartments for main canopy, rigging lines, or auxiliary parachute
- 17/52 . . Opening, e.g. manual
- 17/54 . . . automatic
- 17/56 . . . . responsive to barometric pressure
- 17/58 . . . . responsive to time-delay mechanism
- 17/60 . . . . by static line
- 17/62 . Deployment
- 17/64 . . by extractor parachute
- 17/66 . . . attached to hem of main canopy
- 17/68 . . . attached to apex of main canopy
- 17/70 . . by springs
- 17/72 . . by explosive or inflatable means
- 17/725 . . . {by explosive means}
- 17/74 . . Sequential deployment of a plurality of canopies
- 17/76 . . facilitated by method of folding or packing
- 17/78 . in association with other load-retarding apparatus
- 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**

- 25/02 . Supports or holding means for living bodies
- 25/04 . . Seat modifications
- 25/06 . . Harnessing
- 25/08 . Ejecting or escaping means
- 25/10 . . Ejector seats
- 25/12 . . Ejectable capsules
- 25/14 . . Inflatable escape chutes
- 25/16 . . Dinghy stowage
- 25/18 . . Flotation gear
- 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

**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.

- 27/40 . . Arrangements for mounting power plants in aircraft

**WARNING**

Group [B64D 27/40](#) is impacted by reclassification into groups [B64D 27/402](#), [B64D 27/404](#) and [B64D 27/406](#).

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

- 27/402 . . {comprising box like supporting frames, e.g. pylons or arrangements for embracing the power plant}

**WARNING**

Group [B64D 27/402](#) is incomplete pending reclassification of documents from group [B64D 27/40](#).

Groups [B64D 27/402](#) and [B64D 27/40](#) should be considered in order to perform a complete search.

- 27/404 . . {Suspension arrangements specially adapted for supporting vertical loads}

**WARNING**

Group [B64D 27/404](#) is incomplete pending reclassification of documents from group [B64D 27/40](#).

Groups [B64D 27/404](#) and [B64D 27/40](#) should be considered in order to perform a complete search.

- 27/406 . . {Suspension arrangements specially adapted for supporting thrust loads, e.g. thrust links}

**WARNING**

Group [B64D 27/406](#) is incomplete pending reclassification of documents from group [B64D 27/40](#).

Groups [B64D 27/406](#) and [B64D 27/40](#) should be considered in order to perform a complete search.

**29/00 Power-plant nacelles, fairings or cowlings**

- 29/02 . associated with wings  
29/04 . associated with fuselages  
29/06 . Attaching of nacelles, fairings or cowlings  
29/08 . Inspection panels for power plants

**31/00 Power plant control systems; Arrangement of power plant control systems in aircraft****WARNING**

Group [B64D 31/00](#) is impacted by reclassification into groups [B64D 31/16](#) and [B64D 31/18](#).

Groups [B64D 31/00](#), [B64D 31/16](#) and [B64D 31/18](#) should be considered in order to perform a complete search.

- 31/02 . Initiating means  
31/04 . . actuated personally  
31/06 . . actuated automatically

**WARNING**

Group [B64D 31/06](#) is impacted by reclassification into group [B64D 31/09](#).

Groups [B64D 31/06](#) and [B64D 31/09](#) should be considered in order to perform a complete search.

- 31/08 . . . for keeping cruising speed constant  
31/09 . . . in response to power plant failure

**WARNING**

Group [B64D 31/09](#) is incomplete pending reclassification of documents from group [B64D 31/06](#).

Groups [B64D 31/09](#) and [B64D 31/06](#) should be considered in order to perform a complete search.

- 31/10 . . . . for preventing asymmetric thrust  
31/12 . . . for equalising or synchronising power plants  
31/14 . Transmitting means between initiating means and power plants

- 31/16 . for electric power plants

**WARNING**

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](#).

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

- 31/18 . . for hybrid-electric power plants

**33/00 Arrangement in aircraft of power plant parts or auxiliaries not otherwise provided for**

- 33/02 . of combustion air intakes  
2033/0206 . . {comprising noise reduction means, e.g. acoustic liners}  
2033/0213 . . {specially adapted for auxiliary power units (APU's)}  
2033/022 . . {comprising bird or foreign object protections}  
2033/0226 . . {comprising boundary layer control means}  
2033/0233 . . {comprising de-icing means}  
2033/024 . . {comprising cooling means}  
2033/0246 . . {comprising particle separators}  
2033/0253 . . {specially adapted for particular type of aircraft}  
2033/026 . . . {for supersonic or hypersonic aircraft}  
2033/0266 . . {specially adapted for particular type of power plants}  
2033/0273 . . . {for jet engines}  
2033/028 . . . {for piston engines}  
2033/0286 . . . {for turbofan engines}  
2033/0293 . . . {for turboprop engines}  
33/04 . of exhaust outlets or jet pipes  
2033/045 . . {comprising infrared suppressors}  
33/06 . . {Silencing exhaust or propulsion jets}  
33/08 . of power plant cooling systems  
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

**WARNING**

Group [B64D 35/022](#) is incomplete pending reclassification of documents from group [B64D 35/08](#).

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

35/023 . . . . of series-parallel type

**WARNING**

Group [B64D 35/023](#) is incomplete pending reclassification of documents from group [B64D 35/08](#).

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

35/024 . . . . of series type

**WARNING**

Group [B64D 35/024](#) is incomplete pending reclassification of documents from group [B64D 35/08](#).

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

35/025 . . . . of parallel type

**WARNING**

Group [B64D 35/025](#) is incomplete pending reclassification of documents from group [B64D 35/08](#).

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

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 ([for hybrid-electric power plants B64D 35/022](#))

**WARNING**

Group [B64D 35/08](#) is impacted by reclassification into groups [B64D 35/023](#), [B64D 35/025](#), [B64D 35/024](#) and [B64D 35/022](#).

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

**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 3/34](#))

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 17/10](#))

37/16 . . . Filling systems ([ground installations for fuelling aircraft B64F 1/28](#))

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

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**

39/02 . Means for paying-in or out hose

39/04 . Adaptations of hose construction

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**

43/02 . for indicating aircraft speed or stalling conditions

**45/00 Aircraft indicators or protectors not otherwise provided for**

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](#)}

## B64D

- 45/0042 . . . {by spraying or injecting chemicals}
- 45/0044 . . . {by restraining within seats}
- 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
- 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
- 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; Features related to  
mask deployment
- 2241/00 NACA type air intakes**