

B64D

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

Definition statement

This place covers:

- Dropping, ejecting, releasing or receiving articles in flight;
- Arrangements of military equipment;
- Equipment for handling freight;
- Flight suits;
- Passenger or crew accommodation; arrangements of seats:
- Air-treatment:
- De-icing;
- Parachutes;
- Emergency apparatus;
- Mounting power plant in aircraft, nacelles fairings, arrangement of power plants;
- Power plant control
- Transmitting power from power plants to propellers or rotors;
- Fuel supply;
- Fuel tanks;
- Refuelling during flight;
- Arrangements of instruments;
- Indicators.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Equipment for UAVs	B64U
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B64D 1/04

the articles being explosive, e.g. bombs

Definition statement

This place covers:

- Ejector systems for missiles;
- Devices for separating bombs from fuselage.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Rocket launchers	B64D 7/08
Bombs, Missiles	F42B

Arming or setting bomb fuzes	F42C
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B64D 1/06

Bomb releasing; Bomb doors

Definition statement

This place covers:

Bomb bays in fuselages

Bomb doors of bomb bays.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Bombs	F42B
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B64D 1/10

Stowage arrangements for the devices in aircraft

Definition statement

This place covers:

Arrangements for holding the load in the aircraft fuselage or means adapted to release the load.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Retaining devices for pallets or freight containers	B64D 9/003
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B64D 1/12

Releasing

Definition statement

This place covers:

Extractor parachutes

Ejector devices.

B64D 1/14

Absorbing landing shocks

Definition statement

This place covers:

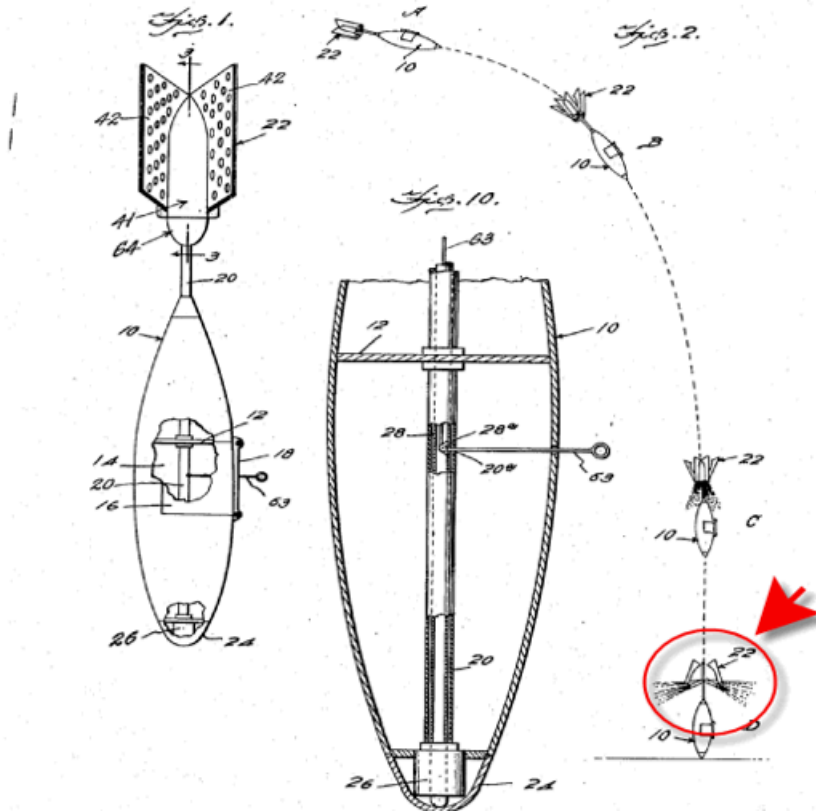
Rockets used as braking devices.

Definition statement

Cushioning devices; shock absorbers, springs, etc. for absorbing landing chocks on load-carrying articles dropped/ejected/released from an aircraft.

Illustrative example of subject matter classified in this group:

One or more rocket could be positioned on the load and ignited just prior to touch-down, such that the rocket thrust brakes/cushions the arrival on the ground, as shown in this example (ignited rockets (22) circled in red):



B64D 1/16

Dropping or releasing powdered, liquid, or gaseous matter, e.g. for fire-fighting (jettisoning fuel [B64D 37/26](#))

Definition statement

This place covers:

Fire fighting aircraft

Water baskets hanging below helicopters.

References

Limiting references

This place does not cover:

Jettisoning fuel	B64D 37/26
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fire fighting or fire prevention	A62C 3/00
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B64D 1/22**Taking-up articles from earth's surface****Definition statement**

This place covers:

Devices adapted on aircraft for hanging loads

Helicopter devices for transporting hanging loads

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Repair of electric lines	H02G 1/02
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B64D 3/00**Aircraft adaptations to facilitate towing or being towed****References****Limiting references**

This place does not cover:

Refuelling during flight	B64D 39/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Ground installations for launching or towing aircraft	B64F
Towing ropes per se	D07B

B64D 3/02**for towing targets****Definition statement**

This place covers:

Devices mounted on aircraft for towing targets.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Towed targets per se	F41J
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B64D 5/00

Aircraft transported by aircraft, e.g. for release or reberthing during flight

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Flying units formed by separate aircraft	B64C 37/02
Space shuttles	B64G 1/14

B64D 7/00

Arrangement 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](#))

Definition statement

This place covers:

Stealth structures

Armoured structures.

References

Limiting references

This place does not cover:

Dropping bombs or the like	B64D 1/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Armoured garments	F41H 1/00
Camouflage	F41H 3/00

B64D 7/08

Arrangement of rocket launchers

Definition statement

This place covers:

Rail systems for rockets.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Ejector systems for missiles	B64D 1/04
Rocket launchers per se, e.g. rocket pods	F41F 3/06

B64D 9/00

Equipment for handling freight; Equipment for facilitating passenger embarkation or the like

Definition statement

This place covers:

Loading systems and methods

Cargo handling.

References

Limiting references

This place does not cover:

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

Informative references

Attention is drawn to the following places, which may be of interest for search:

Securing or forwarding containers in vehicles	B60P 7/13
Aircraft floors adapted for freight	B64C 1/20
Aircraft ramps for loading	B64C 1/22
Containers	B65D 1/00
Roller ways	B65G 13/00
Weighing aircraft	G01G 19/07
Determining centre of gravity in aircraft	G01M 1/125

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Power Drive Unit (PDU)	Powered rollers and drives to move containers and pallets within aircraft fuselages or cargo bays
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B64D 9/003**{Devices for retaining pallets or freight containers}****References****Informative references***Attention is drawn to the following places, which may be of interest for search:*

Securing freight containers on vehicles	B60P 7/13
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B64D 10/00**Flight suits****Definition statement***This place covers:*

- Garments for pilots, e.g. g-suits, trousers or bladders;
- Helmets;
- Oxygen supply, e.g. valves, pilots' masks or controllers.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Helmets in general	A42B 3/00
Respiratory or breathing apparatus	A62B 7/00
High-altitude pressure suits	A62B 17/008
Breathing helmets	A62B 18/00

B64D 11/00**Passenger or crew accommodation; Flight-deck installations not otherwise provided for****Definition statement***This place covers:*

Cabin layouts

Passengers' oxygen masks.

B64D 11/0007**{Devices specially adapted for food or beverage distribution services}****Definition statement***This place covers:*

Food and beverage distribution systems

Interaction between trolley and cabin.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Trolleys adapted to be used in vehicles	A47B 31/06
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B64D 11/0015

{Arrangements for entertainment or communications, e.g. radio, television}

Definition statement

This place covers:

Aircraft cabin layouts characterised by arrangements of components for amusement or media, e.g. arrangements of monitors, speakers or control means therefor

Arrangements of communication means for cabin crew or passenger use

Display of navigation data on monitors for passenger information

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Accessories for chairs, adaptations for incorporating lamps, radio sets, bars, telephones, ventilation, heating or cooling arrangements or the like	A47C 7/72
Arrangements or adaptations of other passenger fittings (of radio sets, television sets, telephones, stowing or holding appliances) in land-type vehicles	B60N 3/00
Furniture for vessels	B63B 29/04
Combined measuring instruments indicating more than one navigational value, e.g. for aircraft	G01C 23/00

Special rules of classification

Documents concerning only the data transfer between components of an aircraft cabin entertainment/communication system are attributed the symbol [B64D 11/0015](#) as additional information only.

B64D 11/0023

{Movable or removable cabin dividers, e.g. for class separation}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Aircraft bulkheads	B64C 1/10
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B64D 11/06

{Arrangements of seats, or adaptations or details specially adapted for aircraft seats (crew seat constructions for emergency purposes [B64D 25/04](#))}

Definition statement

This place covers:

Arrangements, configurations or modifications of seats or chairs, or particular seat or chair structures for aeronautic passengers. For passengers only, unless otherwise stated (Seats specially adapted for pilots [B64D 11/0689](#) and Seats specially adapted for cabin crew [B64D 11/0691](#)).

References

Limiting references

This place does not cover:

Crew seat constructions for emergency purposes	B64D 25/04
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Chairs adapted for special (ground) purposes	A47C 1/00
Theatre, auditorium, or similar chairs	A47C 1/12
Vehicle seats	B60N 2/00
Arrangement or mounting of seats in vehicles	B60N 2/005
Vehicle seat accessories	B60N 3/00
Railway seats	B61D 33/00
Marine vessel seats	B63B 2029/043

Special rules of classification

A document will be considered as disclosing an aircraft seat if:

- this use is explicitly mentioned,
- it is evident from the drawings that it is such a seat, or
- if the document originates from the aircraft industry or an airline.

B64D 11/0604

{including a bed, e.g. cocoon type passenger seat modules}

Definition statement

This place covers:

- Seat or chair units combined with a generally horizontal surface for a reclining person and can include a canopy-type structure substantially enclosing the occupant(s)
- Additional and separate surfaces or parts to form a bed

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Crew member rest berths	B64D 2011/0076
Passenger bed units attached to the fuselage ceiling	B64D 2011/0084
Arrangements of stretchers in aircraft cabins	B64D 2011/0092
Aircraft passenger seats convertible to a bed	B64D 11/0641

B64D 11/0605

{including tables or desks}

Definition statement

This place covers:

Seat or chair units combined with a generally horizontal surface above a floor and can include storage space

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Arrangements or adaptations of other passenger fittings, of table or tray	B60N 3/002
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B64D 11/0606

{with privacy shells, screens, separators or the like (class dividers [B64D 11/0023](#))}

Definition statement

This place covers:

Seat or chair units combined with visual obstructions to other passengers

References

Limiting references

This place does not cover:

Class dividers	B64D 11/0023
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B64D 11/0607

{with devices specially adapted for exercising during travel; with devices specially adapted to prevent thrombosis}

Definition statement

This place covers:

Seats or chairs combined with appliances for a person's conditioning, muscle development, or anticlotting

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Stools or chairs having exercising means or having special therapeutic or ergonomic effects	A47C 9/002
Pneumatic or hydraulic massage	A61H 9/00
Pneumatic massage with intermittent or alternately inflated bladders or cuffs	A61H 9/0078
Physical therapy devices for anti-thrombosis or anti-clotting	A61H 2209/00
Vehicle seats with massaging systems	B60N 2/976

B64D 11/0611

{with means for holding the passenger in a standing position}

Definition statement

This place covers:

Seats or chairs combined with a structure to steady an upright person

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Safety belts or body harnesses in vehicles	B60R 22/00
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B64D 11/0612

{specially adapted for children}

Definition statement

This place covers:

Seat or chair modifications or accessories for accommodating a pre-adult aircraft passenger

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vehicle passenger seats for children	B60N 2/26
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B64D 11/0616

{with ejection means}

Definition statement

This place covers:

Seats combined with a device to propel a passenger away from the seat

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Pilot type ejection seats	B64D 25/10
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Ejecting or escaping means	B64D 25/08
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B64D 11/0619

{with energy absorbing means specially adapted for mitigating impact loads for passenger seats, e.g. at a crash}

Definition statement

This place covers:

Seats or chairs combined with a device or special design to dissipate deceleration

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Seat modifications for pilots	B64D 25/04
Seat constructed to protect the occupant from the effect of abnormal g-forces	B60N 2/42
Arrangements or fittings on vehicles for protecting or preventing injuries to occupants	B60R 21/00

B64D 11/062**{Belts or other passenger restraint means for passenger seats}****Definition statement**

This place covers:

Seats or chairs combined with a torso or limb encircling device, or a device to hold an aircraft passenger in place

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Harnessing for pilots	B64D 25/06
Safety belts or body harnesses in general	A62B 35/00
Safety belts or body harnesses in vehicles	B60R 22/00

B64D 11/06205**{Arrangements of airbags}****Definition statement**

This place covers:

Seats or chairs combined with a device to hold a passenger in place including an inflatable confining device

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Inflatable occupant restraints or confinements designed to inflate upon impact or impending impact, e.g. air bags	B60R 21/16
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B64D 11/0624**{Arrangements of electrical connectors, e.g. for earphone, internet or electric supply}****Definition statement**

This place covers:

Seats or chairs combined with a configuration of mated conductors used to transmit sound, images, or current

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Arrangement of elements of electric or fluid circuits specially adapted for vehicles	B60R 16/00
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B64D 11/0626**{with individual temperature or ventilation control}****Definition statement***This place covers:*

Seats or chairs combined with personal heating, cooling, or air circulation means

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Cabin ventilation nozzles	B64D 2013/003
Heating or ventilating devices for a vehicle	B60N 2/56

B64D 11/0627**{Seats combined with storage means}****Definition statement***This place covers:*

Seats or chairs combined with a cabinet or cabinet-type structure

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Stowage devices for passengers' personal luggage in aircraft	B64D 11/003
Personal storage means or waste disposal bags	B64D 11/0636
Stowing or holding appliances inside vehicle primarily intended for personal property smaller than a suitcase	B60R 7/00

B64D 11/0636**{Personal storage means or waste disposal bags}****Definition statement***This place covers:*

Seats or chairs with storage means for a passenger's carry-on belongings or for garbage disposal

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Stowage devices for passengers' personal luggage in aircraft	B64D 11/003
Seats combined with cabinet-type storage means	B64D 11/0627

Stowing or holding appliances inside vehicle primarily intended for personal property smaller than a suitcase	B60R 7/00
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B64D 11/0639

{with features for adjustment or converting of seats}

Definition statement

This place covers:

Seats or chairs having structures permitting repositioning seat or chair portions or altering the configuration

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Reclining or easy chairs	A47C 1/02
Vehicle seat or part thereof being movable, e.g. adjustable	B60N 2/02

B64D 11/06395

{characterised by the arrangement of electric motors for adjustment}

Definition statement

This place covers:

Arrangement of powered devices to reposition or alter a seat portion

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Reclining or easy chairs adjustable via electric motor	A47C 1/0242
Vehicle seat or part thereof being movable or adjustable via an electric motor	B60N 2/02246

B64D 11/064

{Adjustable inclination or position of seats}

Definition statement

This place covers:

Seat or chair tilt or position configuration

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Reclining or easy chairs	A47C 1/02
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Vehicle seat or part thereof being movable, e.g. adjustable	B60N 2/02
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B64D 11/0642

{Adjustable headrests}

Definition statement

This place covers:

Seats or chairs with a repositionable support for a passenger's portion above the torso, including the neck and/or the head

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chairs with head rest	A47C 7/46
Vehicle seat with movable or adjustable head rest	B60N 2/806

B64D 11/0643

{Adjustable foot or leg rests}

Definition statement

This place covers:

Seats or chairs with a repositionable support for a passenger's lower body, including legs and/or feet

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chairs with leg or foot rest	A47C 1/034 , A47C 7/506
Seats for vehicle with leg or foot rest	B60N 2/995 , B60N 3/06

B64D 11/0644

{Adjustable arm rests}

Definition statement

This place covers:

Seats or chairs with a repositionable passenger upper body extremity support, such as one or both arms

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chairs with adjustable arm rest	A47C 1/03 , A47C 7/541
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Vehicle seat with adjustable arm rests	B60N 2/763
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B64D 11/0646

{Seats characterised by special features of stationary arms, foot or head rests}

Definition statement

This place covers:

Seats or chairs with particular characteristic of fixed supports for body parts other than the torso

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chairs with head rest	A47C 7/36
Chairs with leg or foot rests	A47C 7/50
Chairs with stationary arm rests	A47C 7/54
Seats for vehicle with arm rests	B60N 2/75
Seats for vehicles with fixed head rest	B60N 2/803
Seats for vehicle with leg or foot rests	B60N 2/995 , B60N 3/06

B64D 11/0647

{Seats characterised by special upholstery or cushioning features}

Definition statement

This place covers:

Seats or chairs with particular characteristic of a soft covering or padding

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Chair of special materials	A47C 5/00
Vehicle seat with upholstery	B60N 2/70

B64D 11/0648

{Lower frame constructions}

Definition statement

This place covers:

Seat or chair frames, understructure or substructure between seat pan and fastening means to a floor

References

Application-oriented references

Examples of places where the subject matter of this place is covered when specially adapted, used for a particular purpose, or incorporated in a larger system:

Crash frames	B64D 11/0619
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Vehicle seat constructed to protect the occupant from the effect of abnormal-forces, e.g. crash or safety seats	B60N 2/42
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B64D 11/0649

{Seats characterised by special features for reducing weight}

Definition statement

This place covers:

Seat or chair design or components therefore minimizing the weight

- Designs without a frame, e.g. using a back plate
- Use of materials such as plastic, aluminum, composites, etc. with the objective task to reduce weight
- Pneumatic elements
- One piece design, i.e. integral back and bottom
- Hollow pieces, e.g. tubular frame members

B64D 11/0691

{specially adapted for cabin crew}

Definition statement

This place covers:

Seats or chairs designed to be deployed during take-off and landing and stowed during flight, e.g. foldable seats on a wall or bulkhead specifically for a purser or flight attendant

B64D 11/0693

{Width modification of seat assemblies, e.g. for class modification}

Definition statement

This place covers:

Seats or chairs with means for transverse adjustment, e.g. to accommodate an additional person

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Vehicle seats with transverse adjustment of arm rests	B60N 2/777
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B64D 11/0696**{Means for fastening seats to floors, e.g. to floor rails}****Definition statement***This place covers:*

Seat-side structures to attach a seat or chair to receiving means of a cabin floor

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Vehicle seat positioning and locking mechanism	B60N 2/919
Floors specially adapted for fixing freight	B64C 1/20

B64D 11/0697**{Seats suspended from aircraft ceiling}****Definition statement***This place covers:*

Structure to attach seats or chairs to the passenger cabin overhead surface

B64D 11/0698**{Seats suspended from aircraft walls}****Definition statement***This place covers:*

Structure to attach seats or chairs to the passenger cabin side or generally vertical surface

- Hammock type seats
- Seats used in troop transport aircraft

B64D 13/00**Arrangements or adaptations of air-treatment apparatus for aircraft crew or passengers, or freight space****Definition statement***This place covers:*

Accessories for air-conditioning systems, e.g. valves, nozzles, air mixing chambers.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Treatment rooms with artificial climate for medical purposes	A61G 10/02
Respiratory apparatus in general	A62B

For vehicles in general	B60H
Valves	F16K 1/00

B64D 13/006

{the air being used to cool structural parts of the aircraft}

Definition statement

This place covers:

Arrangements and devices to direct cooling air from air-conditioning to structural parts of the aircraft.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Conditioning fuel	B64D 37/34
Fuselage structures adapted to reduce the effects of aerodynamic or other external heating	B64C 1/38
Aircraft heat insulation	B64C 1/40
Wing constructions adapted to reduce effects of aerodynamic or other external heating	B64C 3/36

B64D 13/02

the air being pressurised

Definition statement

This place covers:

Cabin pressurising valves

Security devices.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Valves	F16K 1/00
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B64D 13/04

Automatic control of pressure

Definition statement

This place covers:

Cabin pressurising systems.

B64D 13/06**the air being conditioned (pressurising [B64D 13/02](#))****Definition statement***This place covers:*

Air conditioning systems, e.g. air cycle machines.

References**Limiting references***This place does not cover:*

Cabin pressurising systems	B64D 13/02
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Informative references*Attention is drawn to the following places, which may be of interest for search:*

Air cycle machines in general	F25B 9/004
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Glossary of terms*In this place, the following terms or expressions are used with the meaning indicated:*

ECS	Environmental control system
OBOGS	On-Board Oxygen Generation System

B64D 13/08**the air being heated or cooled****Definition statement***This place covers:*

Systems for cooling or heating cabin air, e.g. using heat from radiator.

Heaters

Cabin ventilation systems.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Heating, cooling or ventilating devices in vehicles	B60H 1/00
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B64D 15/00

De-icing or preventing icing on exterior surfaces of aircraft

References

Limiting references

This place does not cover:

Motor vehicles specially adapted for carrying de-icing equipment	B60P
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Ground-installations for de-icing aircraft	B64F 5/20
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B64D 25/00

Emergency apparatus or devices, not otherwise provided for

Definition statement

This place covers:

Fire extinguishing

Safety airbags.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Parachutes	B64D 17/00 , B64D 19/00
Jettisoning of fuel tanks	B64D 37/00
Protection against criminal attack	B64D 45/0015
Safety belts or body harnesses in general	A62B 35/00
Fire prevention, containment or extinguishing	A62C 3/00
Safety belts or body harnesses for vehicles	B60R 22/00
Jettisonable parts of fuselage facilitating emergency escape	B64C

B64D 25/02

Supports or holding means for living bodies

Definition statement

This place covers:

Restraining means for pilot's legs, head or arms in ejection seats.

B64D 25/04

Seat modifications

Definition statement

This place covers:

Crashworthy seats

Adapted or integrated swimming vests.

B64D 27/00

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

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Attitude, flight direction or altitude control of aircraft by jet reaction	B64C 15/00
Propulsion or power supply in UAVs	B64U 50/00

B64D 27/02

Aircraft characterised by the type or position of power plants

Definition statement

This place covers:

Aircraft characterised by particular disposition or arrangement of power plants.

Aircraft characterised by the type of power plants.

References

Limiting references

This place does not cover:

Fuselages adapted for mounting power plants	B64C 1/16
Wings adapted for power plants	B64C 3/32

Informative references

Attention is drawn to the following places, which may be of interest for search:

Drive of rotors by means, e.g. propellers, mounted on rotor blades	B64C 27/16
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B64D 27/04**of piston type****Definition statement**

This place covers:

Structures for mounting piston type power plants in aircraft, independently of the position of the same.

B64D 27/06**within, or attached to, wings****Definition statement**

This place covers:

Structures for mounting piston type power plant at the wing of the aircraft.

B64D 27/08**within, or attached to, fuselages****Definition statement**

This place covers:

Structures for mounting piston type power plant at the fuselage of the aircraft.

B64D 27/10**of gas-turbine type (jet aircraft [B64D 27/16](#))****Definition statement**

This place covers:

Aircraft with power plants characterised by the use of gas turbines with negligible thrust from the turbine exhaust, e.g. by using turboshaft or turboprop powerplants.

References**Limiting references**

This place does not cover:

Jet aircraft	B64D 27/16
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Hybrid electric aircraft	B64D 27/33
Auxiliary power units [APUs]	B64D 41/00

B64D 27/12**within, or attached to, wings****Definition statement***This place covers:*

Structures for mounting turboprop type power plants at the wing of the aircraft.

B64D 27/14**within, or attached to, fuselages****Definition statement***This place covers:*

Structures for mounting turboprop type power plants at the fuselage of the aircraft.

B64D 27/16**of jet type****Definition statement***This place covers:*

Aircraft with power plants characterised by the use of exhaust jets for thrust, e.g. by using turbojet, turbofan, propfan or ramjet powerplants.

B64D 27/18**within, or attached to, wings****Definition statement***This place covers:*

Structures for mounting turbofan type power plants at the wing of the aircraft.

B64D 27/20**within, or attached to, fuselages****Definition statement***This place covers:*

Structures for mounting turbofan type power plants at the fuselage of the aircraft.

B64D 27/24**using steam or spring force (jet aircraft [B64D 27/16](#))****References****Limiting references***This place does not cover:*

Jet aircraft	B64D 27/16
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B64D 27/40

Arrangements for mounting power plants in aircraft

Definition statement

This place covers:

Devices and arrangements for mounting power plants to aircraft wings, fuselages or the like, e.g. elastomeric joints for mounting power plants.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Frames and supporting elements for piston engines	F01C 21/007
Mounting arrangements for non-displacement engines, e.g. for turbine casings	F01D 25/28
Mounting of gas turbines	F02C 7/20

B64D 29/00

Power-plant nacelles, fairings or cowlings

Definition statement

This place covers:

Fairings, seals or liners.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Aerodynamic aspects of nacelles	B64C 7/02
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B64D 29/02

associated with wings

Definition statement

This place covers:

Aerodynamic aspects of connection elements between engine nacelle and wing.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Wings adapted for mounting power plant	B64C
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B64D 29/04**associated with fuselages****Definition statement***This place covers:*

Aerodynamic aspects of connection elements between engine nacelle and fuselage.

B64D 29/06**Attaching of nacelles, fairings or cowlings****Definition statement***This place covers:*

Operating mechanisms for cowlings or panels

Latches

Supports for thrust reversers.

References**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Panels or cowls per se	B64D 29/08
Latches	E05B 9/00
Thrust reversers for turbine engines	F02K 1/70

B64D 29/08**Inspection panels for power plants****Definition statement***This place covers:*

Panels

Cowls.

References**Limiting references***This place does not cover:*

Operating mechanisms for cowlings or panels	B64D 29/06
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B64D 31/00

Power plant control systems; Arrangement of power plant control systems in aircraft

Relationships with other classification places

Control specific to combustion engines or components thereof is classified in [F02](#).

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Aeroplane control systems for actuating flying-control surfaces	B64C 13/00
Mechanisms for controlling blade adjustment or movement relative to rotor head in rotorcraft	B64C 27/54

B64D 31/08

for keeping cruising speed constant

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Propeller blade pitch-changing mechanisms characterised by being influenced by power plant control systems	B64C 11/305
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B64D 31/16

for electric power plants

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Control of electric motors	H02P
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B64D 33/00

Arrangement in aircraft of power plant parts or auxiliaries not otherwise provided for

Definition statement

This place covers:

Power plant starting systems.

B64D 33/02**of combustion air intakes****Definition statement**

This place covers:

Air intakes.

References**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Air intakes for gas-turbine power plants or jet propulsion plants per se	F02C 7/04
Combustion engines in general	F02M 35/00

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

APU	Auxiliary Power Unit
ECS	Environmental Control System

B64D 33/04**of exhaust outlets or jet pipes****References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Attitude, flight direction or altitude control of aircraft by jet reaction	B64C
Exhaust nozzles for combustion engines	F01N
Jet pipes or nozzles	F02K 1/00

B64D 33/06**{Silencing exhaust or propulsion jets}****References****Informative references**

Attention is drawn to the following places, which may be of interest for search:

Ground installations for reducing engine or jet noise	B64F 1/26
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B64D 35/00

Transmitting power from power plants to propellers or rotors; Arrangements of transmissions

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Propellers	B64C 11/00
Helicopter transmissions	B64C 27/12
Rotors	B64C 27/32

B64D 37/00

Arrangements in connection with fuel supply for power plant (refuelling during flight [B64D 39/00](#))

Definition statement

This place covers:

Fuel supply systems

Gauging.

References

Limiting references

This place does not cover:

Refuelling during flight	B64D 39/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Fuel tanks for vehicles	B60K 15/00
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B64D 37/005

{Accessories not provided for in the groups [B64D 37/02](#) - [B64D 37/28](#)}

Definition statement

This place covers:

Plugs for fuel tanks

Other accessories for fuel supply.

B64D 37/32

Safety measures not otherwise provided for, e.g. preventing explosive conditions

Definition statement

This place covers:

- Inerting systems;
- Fire extinguishing;
- Ram shock protection.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Extinguishing or preventing fires in aircraft	A62C
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B64D 39/00

Refuelling during flight

Definition statement

This place covers:

Controlling the position of the refuelling boom or hose.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Filling or emptying tanks	B64D 37/14
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Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

Refuelling boom	rigid pipe for refuelling
Refuelling house	flexible house for refuelling; normally rolled on a reel

B64D 39/02

Means for paying-in or out hose

Definition statement

This place covers:

Reels for refuelling hoses

Telescopic arrangements for refuelling booms.

B64D 39/04

Adaptations of hose construction

Definition statement

This place covers:

Constructional details or accessories for refuelling booms or hoses.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Pipes in general	F16L
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B64D 39/06

Connecting hose to aircraft; Disconnecting hose therefrom

Definition statement

This place covers:

Valves for refuelling booms or hoses

Connection devices for booms or hoses

Connection devices for the receiving aircraft.

B64D 41/00

Power installations for auxiliary purposes

Definition statement

This place covers:

Mounting Auxiliary Power Units (APU) in aircraft.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Auxiliary Power Units (APU)	F02K
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Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

APU	Auxiliary Power Unit
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B64D 43/00

Arrangements or adaptations of instruments

Definition statement

This place covers:

Cockpit dashboards.

References

Limiting references

This place does not cover:

Arrangement of cameras	B64D 47/08
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Aircraft instruments	G01C 23/00
Head Up Displays (HUD)	G02B 27/01

Glossary of terms

In this place, the following terms or expressions are used with the meaning indicated:

HUD	Head Up Display
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B64D 43/02

for indicating aircraft speed or stalling conditions

Definition statement

This place covers:

Arrangement of Pitot tubes.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Flight data probes	G01P 13/025
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B64D 45/00

Aircraft indicators or protectors not otherwise provided for

Definition statement

This place covers:

Mounting and arrangements of crash recorders

Miscellaneous indicators.

References

Limiting references

This place does not cover:

Camouflage	F41H 3/00
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Informative references

Attention is drawn to the following places, which may be of interest for search:

Stealth or armoured structures	B64D 7/00
Crash recorders casings	H05K 5/00

Synonyms and Keywords

In patent documents, the following words/expressions are often used as synonyms:

- "crash recorder" and "black box"

B64D 45/0005

{Devices specially adapted to indicate the position of a movable element of the aircraft, e.g. landing gear}

Definition statement

This place covers:

Asymmetric flap detection systems

Landing gear deployment detection systems.

B64D 45/0015

{Devices specially adapted for the protection against criminal attack, e.g. anti-hijacking systems}

Definition statement

This place covers:

Protection systems against hijacking.

B64D 45/0028

{doors or door arrangements specially adapted to restrict unauthorized access}

Relationships with other classification places

Doors or door arrangements specially adapted to restrict unauthorized access are classified in this place ([B64D 45/0028](#)) and in [B64C 1/1469](#) (multiple classification).

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Locks	E05B
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B64D 45/0061

{by protecting cabin or cargo hold from bombs}

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Armour; Armour plates	F41H 5/00
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B64D 45/02

Lightning protectors; Static dischargers

Definition statement

This place covers:

Conductive rivets

Making composite structures conductive.

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Lightning protectors in general	H01T
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B64D 2231/025

Oxygen masks; Mask storages; Features related to mask deployment

References

Informative references

Attention is drawn to the following places, which may be of interest for search:

Aircraft seats combined with storage means, said storage means being specially adapted for emergency equipment	B64D 11/0629
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