

## 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	<a href="#">B64U</a>
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## B64D 1/04

the articles being explosive, e.g. bombs (arming or setting bomb fuzes [F42C](#))

#### 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	<a href="#">B64D 7/08</a>
Bombs, Missiles	<a href="#">F42B</a>

Arming or setting bomb fuzes	<a href="#">F42C</a>
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### **Special rules of classification**

Reference [F42C](#) is non-limiting in the subgroup [B64D 1/04](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

## **B64D 1/06**

### **Bomb releasing; Bombs 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	<a href="#">F42B</a>
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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	<a href="#">B64D 9/003</a>
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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

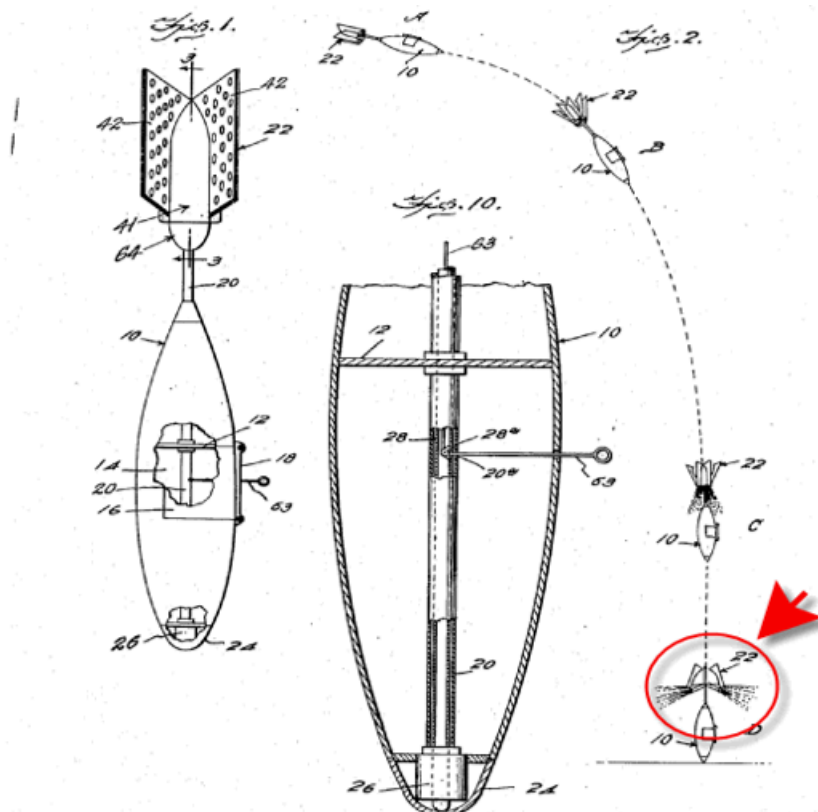
*This place covers:*

Rockets used as braking devices.

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	<a href="#">B64D 37/26</a>
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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	<a href="#">A62C 3/00</a>
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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	<a href="#">H02G 1/02</a>
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## B64D 3/00

### Aircraft adaptations to facilitate towing or being towed ([B64D 39/00](#) takes precedence)

## References

### Limiting references

*This place does not cover:*

Refuelling during flight	<a href="#">B64D 39/00</a>
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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	<a href="#">B64F</a>
Towing ropes per se	<a href="#">D07B</a>

## 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	<a href="#">F41J</a>
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## B64D 5/00

**Aircraft transported by aircraft, e.g. for release or reberthing during flight (flying units formed by separate aircraft [B64C 37/02](#))**

#### References

##### Informative references

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

Flying units formed by separate aircraft	<a href="#">B64C 37/02</a>
Space shuttles	<a href="#">B64G 1/14</a>

## B64D 7/00

**Arrangements of military equipment, e.g. armaments, armament accessories, or military shielding, in aircraft; Adaptations of armament mountings for aircraft (dropping bombs or the like [B64D 1/00](#); armaments or mountings therefor per se [F41](#))**

#### Definition statement

*This place covers:*

Stealth structures

Armoured structures.

#### References

##### Limiting references

*This place does not cover:*

Dropping bombs or the like	<a href="#">B64D 1/00</a>
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**Informative references**

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

Armoured garments	<a href="#">F41H 1/00</a>
Camouflage	<a href="#">F41H 3/00</a>

**B64D 7/08**

Arrangements of rocket launchers {or releasing means} (rocket launchers per se, e.g. rocket pods, [F41F 3/06](#))

**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	<a href="#">B64D 1/04</a>
Rocket launchers per se, e.g. rocket pods	<a href="#">F41F 3/06</a>

**B64D 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](#))

**Definition statement**

*This place covers:*

Loadings systems and methods

Cargo handling.

**References****Limiting references**

*This place does not cover:*

Emergency equipment	<a href="#">B64D 17/00</a> , <a href="#">B64D 19/00</a> , <a href="#">B64D 25/00</a>
Structures integral with fuselage to facilitate loading, fuselage floors specially adapted for freight, steps mounted on and retractable within aircraft	<a href="#">B64C</a>
Ground installations	<a href="#">B64F</a>

**Informative references**

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

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

**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 10/00**

Flight suits (helmets in general [A42B 3/00](#); breathing helmets [A62B 18/00](#))

**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****Limiting references**

This place does not cover:

Helmets in general	<a href="#">A42B 3/00</a>
Breathing helmets	<a href="#">A62B 18/00</a>

**Informative references**

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

Respiratory or breathing apparatus	<a href="#">A62B 7/00</a>
High-altitude pressure suits	<a href="#">A62B 17/008</a>

**Special rules of classification**

References [A42B 3/00](#) and [A62B 18/00](#) are non-limiting in the main group [B64D 10/00](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

**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	<a href="#">A47B 31/06</a>
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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	<a href="#">A47C 7/72</a>
Arrangements or adaptations of other passenger fittings (of radio sets, television sets, telephones, stowing or holding appliances) in land-type vehicles	<a href="#">B60N 3/00</a>
Furniture for vessels	<a href="#">B63B 29/04</a>



Combined measuring instruments indicating more than one navigational value, e.g. for aircraft	<a href="#">G01C 23/00</a>
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### 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 11/06

{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	<a href="#">B64D 25/04</a>
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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	<a href="#">A47C 1/00</a>
Theatre, auditorium, or similar chairs	<a href="#">A47C 1/12</a>
Vehicle seats	<a href="#">B60N 2/00</a>
Arrangement or mounting of seats in vehicles	<a href="#">B60N 2/005</a>
Vehicle seat accessories	<a href="#">B60N 3/00</a>
Railway seats	<a href="#">B61D 33/00</a>
Marine vessel seats	<a href="#">B63B 2029/043</a>

### Special rules of classification

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

- this use is explicitly mentioned,
- it is evident from e.g. 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	<a href="#">B64D 2011/0076</a>
Passenger bed units attached to the fuselage ceiling	<a href="#">B64D 2011/0084</a>
Arrangements of stretchers in aircraft cabins	<a href="#">B64D 2011/0092</a>
Aircraft passenger seats convertible to a bed	<a href="#">B64D 11/0641</a>

**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	<a href="#">B60N 3/002</a>
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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	<a href="#">B64D 11/0023</a>
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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	<a href="#">A47C 9/002</a>
Pneumatic or hydraulic massage	<a href="#">A61H 9/00</a>
Pneumatic massage with intermittent or alternately inflated bladders or cuffs	<a href="#">A61H 9/0078</a>
Physical therapy devices for anti-thrombosis or anti-clotting	<a href="#">A61H 2209/00</a>
Vehicle seats with massaging systems	<a href="#">B60N 2/976</a>

**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	<a href="#">B60R 22/00</a>
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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	<a href="#">B60N 2/26</a>
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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	<a href="#">B64D 25/10</a>
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### Informative references

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

Ejecting or escaping means	<a href="#">B64D 25/08</a>
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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	<a href="#">B64D 25/04</a>
Seat constructed to protect the occupant from the effect of abnormal g-forces	<a href="#">B60N 2/42</a>
Arrangements or fittings on vehicles for protecting or preventing injuries to occupants	<a href="#">B60R 21/00</a>

**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	<a href="#">B64D 25/06</a>
Safety belts or body harnesses in general	<a href="#">A62B 35/00</a>
Safety belts or body harnesses in vehicles	<a href="#">B60R 22/00</a>

**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	<a href="#">B60R 21/16</a>
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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	<a href="#">B60R 16/00</a>
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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	<a href="#">B64D 2013/003</a>
Heating or ventilating devices for a vehicle	<a href="#">B60N 2/56</a>

**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	<a href="#">B64D 11/003</a>
Personal storage means or waste disposal bags	<a href="#">B64D 11/0636</a>
Stowing or holding appliances inside vehicle primarily intended for personal property smaller than a suitcase	<a href="#">B60R 7/00</a>

**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	<a href="#">B64D 11/003</a>
Seats combined with cabinet-type storage means	<a href="#">B64D 11/0627</a>

Stowing or holding appliances inside vehicle primarily intended for personal property smaller than a suitcase	<a href="#">B60R 7/00</a>
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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	<a href="#">A47C 1/02</a>
Vehicle seat or part thereof being movable, e.g. adjustable	<a href="#">B60N 2/02</a>

## 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	<a href="#">A47C 1/0242</a>
Vehicle seat or part thereof being movable or adjustable via an electric motor	<a href="#">B60N 2/02246</a>

## 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	<a href="#">A47C 1/02</a>
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Vehicle seat or part thereof being movable, e.g. adjustable	<a href="#">B60N 2/02</a>
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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	<a href="#">A47C 7/46</a>
Vehicle seat with movable or adjustable head rest	<a href="#">B60N 2/806</a>

## 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	<a href="#">A47C 1/034</a> , <a href="#">A47C 7/506</a>
Seats for vehicle with leg or foot rest	<a href="#">B60N 2/995</a> , <a href="#">B60N 3/06</a>

## 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	<a href="#">A47C 1/03</a> , <a href="#">A47C 7/541</a>
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Vehicle seat with adjustable arm rests	<a href="#">B60N 2/763</a>
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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	<a href="#">A47C 7/36</a>
Chairs with leg or foot rests	<a href="#">A47C 7/50</a>
Chairs with stationary arm rests	<a href="#">A47C 7/54</a>
Seats for vehicle with arm rests	<a href="#">B60N 2/75</a>
Seats for vehicles with fixed head rest	<a href="#">B60N 2/803</a>
Seats for vehicle with leg or foot rests	<a href="#">B60N 2/995</a> , <a href="#">B60N 3/06</a>

## 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	<a href="#">A47C 5/00</a>
Vehicle seat with upholstery	<a href="#">B60N 2/70</a>

## 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	<a href="#">B64D 11/0619</a>
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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	<a href="#">B60N 2/42</a>
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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	<a href="#">B60N 2/777</a>
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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	<a href="#">B60N 2/919</a>
Floors specially adapted for fixing freight	<a href="#">B64C 1/20</a>

**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 {, 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](#))****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	<a href="#">A61G 10/02</a>
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Respiratory apparatus in general	<a href="#">A62B</a>
For vehicles in general	<a href="#">B60H</a>
Valves	<a href="#">F16K 1/00</a>

### Special rules of classification

References [A61G 10/02](#), [A62B](#) and [B60H](#) are non-limiting in the main group [B64D 13/00](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

Looping references between [B64D 13/00](#) and [A61G 10/02](#) in CPC have been identified. Until the above title inconsistency is resolved in IPC, the current classification practice in CPC is as follows: [A61G 10/02](#) is informative.

## 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	<a href="#">B64D 37/34</a>
Fuselage structures adapted to reduce the effects of aerodynamic or other external heating	<a href="#">B64C 1/38</a>
Aircraft heat insulation	<a href="#">B64C 1/40</a>
Wing constructions adapted to reduce effects of aerodynamic or other external heating	<a href="#">B64C 3/36</a>

## 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	<a href="#">F16K 1/00</a>
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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

##### Informative references

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

Cabin pressurizing systems	<a href="#">B64D 13/02</a>
Air cycle machines in general	<a href="#">F25B 9/004</a>

#### Special rules of classification

Reference [B64D 13/02](#) is non-limiting in the subgroup [B64D 13/06](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

#### 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	<a href="#">B60H 1/00</a>
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## B64D 15/00

De-icing or preventing icing on exterior surfaces of aircraft (motor vehicles specially adapted for carrying de-icing equipment [B60P](#))

## References

### Limiting references

This place does not cover:

Motor vehicles specially adapted for carrying de-icing equipment	<a href="#">B60P</a>
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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	<a href="#">B64F 5/20</a>
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## B64D 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](#))

## 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	<a href="#">B64D 17/00</a> , <a href="#">B64D 19/00</a>
Jettisoning of fuel tanks	<a href="#">B64D 37/00</a>
Protection against criminal attack	<a href="#">B64D 45/0015</a>
Safety belts or body harnesses in general	<a href="#">A62B 35/00</a>
Fire prevention, containment or extinguishing	<a href="#">A62C 3/00</a>
Safety belts or body harnesses for vehicles	<a href="#">B60R 22/00</a>

Jettisonable parts of fuselage facilitating emergency escape	<a href="#">B64C</a>
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## 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	<a href="#">B64C 15/00</a>
Propulsion or power supply in UAVs	<a href="#">B64U 50/00</a>

## B64D 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](#))

#### 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	<a href="#">B64C 1/16</a>
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Wings adapted for power plants	<a href="#">B64C 3/32</a>
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**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	<a href="#">B64C 27/16</a>
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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	<a href="#">B64D 27/16</a>
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**Informative references**

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

Hybrid electric aircraft	<a href="#">B64D 27/33</a>
Auxiliary power units [APUs]	<a href="#">B64D 41/00</a>

**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	<a href="#">B64D 27/16</a>
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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	<a href="#">F01C 21/007</a>
Mounting arrangements for non-displacement engines, e.g. for turbine casings	<a href="#">F01D 25/28</a>
Mounting of gas turbines	<a href="#">F02C 7/20</a>

**B64D 29/00**

Power-plant nacelles, fairings, or cowlings (nacelles not otherwise provided for [B64C](#))

**Definition statement**

*This place covers:*

Fairings

Seals

Liners.

**References****Limiting references**

*This place does not cover:*

Aerodynamic aspects of nacelles	<a href="#">B64C 7/02</a>
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**B64D 29/02**

associated with wings (wings adapted for mounting power plant [B64C](#))

**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	<a href="#">B64C</a>
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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	<a href="#">B64D 29/08</a>
Latches	<a href="#">E05B 9/00</a>
Thrust reversers for turbine engines	<a href="#">F02K 1/70</a>

**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	<a href="#">B64D 29/06</a>
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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	<a href="#">B64C 13/00</a>
Mechanisms for controlling blade adjustment or movement relative to rotor head in rotorcraft	<a href="#">B64C 27/54</a>

## 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	<a href="#">B64C 11/305</a>
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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	<a href="#">H02P</a>
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## B64D 33/00

Arrangements 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 (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](#))

### 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	<a href="#">F02C 7/04</a>
Combustion engines in general	<a href="#">F02M 35/00</a>

### 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 (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](#)})

### Definition statement

*This place covers:*

Exhaust outlets

Turbine exhaust nozzles.

## References

### Limiting references

*This place does not cover:*

Attitude, flight direction or altitude control of aircraft by jet reaction	<a href="#">B64C</a>
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### Informative references

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

Exhaust nozzles for combustion engines	<a href="#">F01N</a>
Jet pipes or nozzles	<a href="#">F02K 1/00</a>

### Special rules of classification

References [F01N](#) and [F02K](#) are non-limiting in the subgroup [B64D 33/04](#). CPC will be updated/ corrected once this inconsistency is resolved in IPC.

## 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	<a href="#">B64C 11/00</a>
Helicopter transmissions	<a href="#">B64C 27/12</a>
Rotors	<a href="#">B64C 27/32</a>

## 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	<a href="#">B64D 39/00</a>
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**Informative references**

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

Fuel tanks for vehicles	<a href="#">B60K 15/00</a>
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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 (extinguishing or preventing fires in aircraft [A62C](#))**

**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	<a href="#">A62C</a>
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**Special rules of classification**

Reference [A62C](#) is non-limiting in the subgroup [B64D 37/32](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

**B64D 39/00**

**Refuelling during flight (filling or emptying fuel tanks [B64D 37/14](#))**

**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	<a href="#">B64D 37/14</a>
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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 (pipes in general [F16L](#))

#### 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	<a href="#">F16L</a>
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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)	<a href="#">F02K</a>
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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 (arrangements of cameras [B64D 47/08](#); aeronautical measuring instruments per se [G01C](#))

#### Definition statement

*This place covers:*

Cockpit dashboards.

#### References

##### Limiting references

*This place does not cover:*

Arrangement of cameras	<a href="#">B64D 47/08</a>
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##### Informative references

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

Aircraft instruments	<a href="#">G01C 23/00</a>
Head Up Displays (HUD)	<a href="#">G02B 27/01</a>

#### 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	<a href="#">G01P 13/025</a>
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## B64D 45/00

### Aircraft indicators or protectors not otherwise provided for (camouflage [F41H 3/00](#))

#### Definition statement

*This place covers:*

Mounting and arrangements of crash recorders

Miscellaneous indicators.

#### References

##### *Limiting references*

*This place does not cover:*

Camouflage	<a href="#">F41H 3/00</a>
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##### *Informative references*

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

Stealth or armoured structures	<a href="#">B64D 7/00</a>
Crash recorders casings	<a href="#">H05K 5/00</a>

#### 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	<a href="#">E05B</a>
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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	<a href="#">F41H 5/00</a>
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## **B64D 45/02**

### **Lightning protectors; Static dischargers (in general [H01T](#))**

#### **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	<a href="#">H01T</a>
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