

62 Aeronautics

62a	Airships, balloons
62a1	(IPC: B64B) Lighter-than-air aircraft
62a2	(IPC: B64C) Aeroplanes; Helicopters
62a3	(IPC: B64D) Equipment for fitting in or to aircraft; Parachutes; Arrangements or mounting of power plants or propulsion transmissions
62a4	(IPC: B64F) Ground or aircraft-carrier-deck installations
62b	Aeroplanes, power-driven aircraft, air cushion vehicles
62c	General aeronautical equipment
62d	Space vehicles
62d	(IPC: B64G) Cosmonautics; Vehicles or equipment therefor

62a	Airships, balloons
	Balloons without engines
62a-1	Captive balloons
62a-2	Free balloons
	Pressure-type airships
62a-3	Pressure-type airships without envelope stiffening, non-rigid airships
62a-4/01	Pressure-type airships with envelope stiffening, semi-rigid airships
62a-4/02	Pressure jacket outer covers
	Rigid airships
62a-5	Structural elements (for airplanes 62b-24/01)
62a-6	Skeleton structures, outer cover forms
62a-7	Tail assembly (internal structure of tail plane stabilisers and control surfaces 62a-34, 62a-35)
62a-8	Outer covers and gas cells, also netting wires (62a-25 – 62a-29)
62a-9	Gas shafts and gas exhausts (62a-22 – 62a-24)
62a-10	Cabins and cars in conjunction with frame (62a-36 – 62a-39)
62a-11	Mounting of power plant (62a-32; 62a-33)
62a-12	Other equipment of rigid airships
	Airships with dynamic lifting means
62a-13/01	Airships with wings
62a-13/02	Airplanes, weight diminished by buoyant gas
62a-14	Airships with lifting rotors and other power-source driven lifting means
	Miscellaneous airship outer cover structures
62a-15	Outer cover forms, general
62a-16	Outer covers of variable shape
62a-17	Outer covers of variable position
	Gas filling
62a-18/01	Lifting gas types, including hot air and air rarefaction
62a-18/02	Power gas types
62a-19/01	Means for changing the buoyancy of lifting gases; heating, cooling

62a-19/02	Airships with buoyancy derived from vacuum
62a-20	Fire protection, protective gases
62a-21	Gas filling installations and processes
	Means for discharging lifting gas
62a-22	Valves (62a-9)
62a-23	Rip panels (62a-9)
62a-24	Gas shafts, exhaust devices (62a-9)
	Envelope materials and rigging
62a-25	Materials for rigid envelopes (62a-8)
62a-26	Fabric envelopes: rubberised, impregnated, metalised (62a-3; 62a-4)
62a-27	Hide envelopes
62a-28	Other envelopes
62a-29	Rigging and fastening means
	Ballast and water recovery
62a-30	Ballast containers
62a-31	Water recovery
	Airship power plants (for other aircraft 62c-1 – 62c-15)
62a-32	Arrangement and installation of engines
62a-33/01	Propeller arrangement (propellers 62c-1 – 62c-11)
62a-33/02	Rotary lifting bodies with propelling surfaces mounted on periphery; propeller airships (propellers with full thread 62c-8)
62a-33/03	Tubular airships (propellers with airflow guiding housing 62c-9)
	Airship control and balance regulation means (for airplanes 62b-11 – 62b-16)
62a-34	Controls
62a-35	Balance regulation
	Car arrangement and substructure
62a-36	Cars, general
62a-37	Movable cars: pivotable, retractable, lowerable, droppable
62a-38	Car spring systems, protective devices, landing and floating gears
62a-39	Cabins
	Airship mooring and transporting devices
62a-40	Airship anchors
62a-41/01	Mooring masts and auxiliary devices for mooring in the open, mooring vehicles
62a-41/02	Means for moving airships into or out of hangars (airship hangars 37f-8)
62a-42	Auxiliary mooring and transporting devices
	Other devices on airships
62a-43	Airships for special purposes, e.g. for land surveying and irrigation; safety devices on outer covers
62a-44	Air trajectories with gas-filled outer covers
62a-46	Miscellaneous
62a1	(IPC: B64B) Lighter-than-air aircraft
62a1-1/00	Lighter-than-air aircraft
62a1-1/02	. Non-rigid airships (62a1-1/58 takes precedence; balloons 62a1-1/40)
62a1-1/04	. . the profile being maintained by ties or cords connecting opposite surfaces
62a1-1/06	. Rigid airships; Semi-rigid airships (62a1-1/58 takes precedence)
62a1-1/08	. . Framework construction
62a1-1/10	. . Tail unit construction (62a1-1/12 takes precedence)
62a1-1/12	. . Movable control surfaces

- 62a1-1/14 . . . Outer covering
- 62a1-1/16 rigid
- 62a1-1/18 Attachment to structure
- 62a1-1/20 . . . provided with wings or stabilising surfaces
- 62a1-1/22 . . . Arrangement of cabins or gondolas
- 62a1-1/24 . . . Arrangement of propulsion plant (62a1-1/34 takes precedence)
- 62a1-1/26 housed in ducts
- 62a1-1/28 housed in nacelles
- 62a1-1/30 Arrangement of propellers
- 62a1-1/32 surrounding hull
- 62a1-1/34 of lifting propellers
- 62a1-1/36 . . . Arrangement of jet reaction apparatus for propulsion or directional control
- 62a1-1/38 . . . Controlling position of centre of gravity
- 62a1-1/40 . . . Balloons (62a1-1/58 takes precedence; toy balloons 77f-27/10)
- 62a1-1/42 . . . Construction or attachment of stabilising surfaces
- 62a1-1/44 . . . adapted to maintain predetermined altitude
- 62a1-1/46 . . . associated with apparatus to cause bursting
- 62a1-1/48 to enable load to be dropped by parachute
- 62a1-1/50 . . . Captive balloons
- 62a1-1/52 attaching trailing entanglements
- 62a1-1/54 connecting two or more balloons in superimposed relationship
- 62a1-1/56 stabilised by rotary motion
- 62a1-1/58 . . . Arrangements or construction of gas-bags; Filling arrangements
- 62a1-1/60 . . . Gas-bags surrounded by separate containers of inert gas
- 62a1-1/62 . . . Controlling gas pressure, heating, cooling, or discharging gas
- 62a1-1/64 . . . Gas-valve operating mechanisms
- 62a1-1/66 . . . Mooring attachments (mooring masts 62a4)
- 62a1-1/68 . . . Water flotation gear
- 62a1-1/70 . . . Ballasting arrangements

62a2 (IPC: B64C) Aeroplanes; Helicopters (air-cushion vehicles 62b)

Aircraft structures or fairings (boundary-layer controls 62a2-21/00)

- 62a2-1/00 Fuselages; Constructional features common to fuselages, wings, stabilising surfaces, and the like (aerodynamic features common to fuselages, wings, stabilising surfaces, and the like 62a2-23/00; flight-deck installations 62a3)**
- 62a2-1/02 . . . Multiple fuselages; Tail booms
- 62a2-1/04 . . . constructed as flying-boat hulls
- 62a2-1/06 . . . Frames; Stringers; Longerons
- 62a2-1/08 Geodetic or other open-frame structures
- 62a2-1/10 Bulkheads
- 62a2-1/12 Construction or attachment of skin panels
- 62a2-1/14 . . . Windows; Doors; Hatch covers or access panels; Surrounding frame structures; Canopies; Windscreens (fairings movable in conjunction with undercarriage elements 62a2-25/16; bomb doors 62a3-1/06)
- 62a2-1/16 . . . specially adapted for mounting power plant
- 62a2-1/18 . . . Floors
- 62a2-1/20 specially adapted for freight
- 62a2-1/22 . . . Other structures integral with fuselages to facilitate loading
- 62a2-1/24 . . . Steps mounted on, and retractable within, fuselages (readily removable 62a3-9/00)
- 62a2-1/26 . . . Attaching the wing or tail units or stabilising surfaces
- 62a2-1/28 . . . Parts of fuselage relatively movable to improve pilots view
- 62a2-1/30 . . . Parts of fuselage relatively movable to reduce overall size for storage
- 62a2-1/32 . . . Severable or jettisonable parts of fuselage facilitating emergency escape (ejector seats 62a3-25/10)
- 62a2-1/34 . . . comprising inflatable structural components
- 62a2-1/36 . . . adapted to receive aerals or radomes (aerals or radomes per se 21a4)
- 62a2-1/38 . . . Constructions adapted to reduce effects of aerodynamic or other external heating
- 62a2-1/40 . . . Sound or heat insulation

62a2-3/00	Wings (ornithopter wings 62a2-33/02)
62a2-3/02	. of all-wing aircraft
62a2-3/04	. of supersonic aircraft
62a2-3/06	. Multiplane wings
62a2-3/08	. . Tandem plane wings
62a2-3/10	. Shape of wings
62a2-3/12	. . Disc or ring shape
62a2-3/14	. . Aerofoil profile
62a2-3/16	. . Frontal aspect
62a2-3/18	. Spars; Ribs; Stringers (attaching wing unit to fuselage 62a2-1/26)
62a2-3/20	. Integral or sandwich constructions
62a2-3/22	. Geodetic or other open-frame structures
62a2-3/24	. Moulded or cast structures
62a2-3/26	. Construction, shape, or attachment of separate skins, e.g. panels
62a2-3/28	. Leading or trailing edges attached to primary structures, e.g. forming fixed slots
62a2-3/30	. comprising inflatable structural components
62a2-3/32	. specially adapted for mounting power plant
62a2-3/34	. Integrally-constructed tanks, e.g. for fuel (other aircraft fuel tanks or fuel systems 62a3)
62a2-3/36	. Structures adapted to reduce effects of aerodynamic or other external heating
62a2-3/38	. Adjustment of complete wings or parts thereof (adjustable stabilising surfaces 62a2-5/00)
62a2-3/40	. . Varying angle of sweep
62a2-3/42	. . Adjusting about chordwise axes
62a2-3/44	. . Varying camber
62a2-3/46	. . . by inflatable elements
62a2-3/48	. . . by relatively-movable parts of wing structures
62a2-3/50	. . . by leading or trailing edge flaps (ailerons 62a2-9/00)
62a2-3/52	. . Warping
62a2-3/54	. . Varying in area (flaps extendable to increase camber 62a2-3/44)
62a2-3/56	. . Folding or collapsing to reduce overall dimensions of aircraft
62a2-3/58	. provided with fences or spoilers (adjustable for control purposes 62a2-9/00)
62a2-5/00	Stabilising surfaces
62a2-5/02	. Tailplanes (fins 62a2-5/06)
62a2-5/04	. Noseplanes
62a2-5/06	. Fins (specially for wings 62a2-5/08)
62a2-5/08	. mounted on, or supported by, wings
62a2-5/10	. adjustable
62a2-5/12	. . for retraction against or within fuselage or nacelle
62a2-5/14	. . Varying angle of sweep
62a2-5/16	. . about spanwise axes
62a2-5/18	. . in area (attaching stabilising surfaces to fuselage 62a2-1/26)
62a2-7/00	Structures or fairings not otherwise provided for
62a2-7/02	. Nacelles
62a2-9/00	Adjustable control surfaces or members, e.g. rudders (trimming stabilising surfaces 62a2-5/10)
62a2-9/02	. Mounting or supporting thereof
62a2-9/04	. with compound dependent movements
62a2-9/06	. with two or more independent movements
62a2-9/08	. bodily displaceable (varying camber of wings 62a2-3/44)
62a2-9/10	. one surface adjusted by movement of another, e.g. servo tabs (62a2-9/04 takes precedence; adjusting surfaces of different type or function 62a2-9/12)
62a2-9/12	. surfaces of different type or function being simultaneously adjusted
62a2-9/14	. forming slots (boundary-layer control 62a2-21/00)
62a2-9/16	. . at the rear of the wing
62a2-9/18	. . . by single flaps
62a2-9/20	. . . by multiple flaps
62a2-9/22	. . at the front of the wing

- 62a2-9/24 . . . by single flap
 - 62a2-9/26 . . . by multiple flaps
 - 62a2-9/28 . . by flaps at both the front and rear of the wing operating in unison
 - 62a2-9/30 . Balancing hinged surfaces, e.g. dynamically
 - 62a2-9/32 . Air braking surfaces (braking by parachutes 62a3-17/80)
 - 62a2-9/34 . collapsing or retracting against or within other surfaces or other members
 - 62a2-9/36 . . the members being fuselages or nacelles
 - 62a2-9/38 . Jet flaps
- 62a2-11/00 Propellers, e.g. of ducted type; Features common to propellers and rotors for rotorcraft (rotors specially adapted for rotorcraft 62a2-27/32)**
- 62a2-11/02 . Hub construction
 - 62a2-11/04 . . Blade mountings
 - 62a2-11/06 . . . for variable-pitch blades
 - 62a2-11/08 . . . for non-adjustable blades
 - 62a2-11/10 rigid
 - 62a2-11/12 flexible
 - 62a2-11/14 . . Spinners
 - 62a2-11/16 . Blades
 - 62a2-11/18 . . Aerodynamic features
 - 62a2-11/20 . . Constructional features
 - 62a2-11/22 . . . Solid blades
 - 62a2-11/24 . . . Hollow blades
 - 62a2-11/26 . . . Fabricated blades
 - 62a2-11/28 . . . Collapsible or foldable blades
 - 62a2-11/30 . Blade pitch-changing mechanisms
 - 62a2-11/32 . . mechanical
 - 62a2-11/34 . . . automatic
 - 62a2-11/36 . . . non-automatic
 - 62a2-11/38 . . fluid, e.g. hydraulic
 - 62a2-11/40 . . . automatic
 - 62a2-11/42 . . . non-automatic
 - 62a2-11/44 . . electric
 - 62a2-11/46 . Arrangements of, or constructional features peculiar to, multiple propellers
 - 62a2-11/48 . . Units of two or more coaxial propellers
 - 62a2-11/50 . . Phase synchronisation between multiple propellers
- 62a2-13/00 Control systems or transmitting systems for actuating flying-control surfaces, lift-increasing flaps, air brakes, or spoilers**
- 62a2-13/02 . Initiating means
 - 62a2-13/04 . . actuated personally
 - 62a2-13/06 . . . adjustable to suit individual persons
 - 62a2-13/08 . . . Trimming zero positions
 - 62a2-13/10 . . . comprising warning devices
 - 62a2-13/12 . . . Dual control apparatus
 - 62a2-13/14 . . . lockable (locking in position to suit individual persons 62a2-13/06)
 - 62a2-13/16 . . actuated automatically, e.g. responsive to gust detectors
 - 62a2-13/18 . . . using automatic pilot
 - 62a2-13/20 . . . using radiated signals
 - 62a2-13/22 . . . readily revertible to personal control
 - 62a2-13/24 . Transmitting means
 - 62a2-13/26 . . without power amplification or where power amplification is irrelevant
 - 62a2-13/28 . . . mechanical
 - 62a2-13/30 using cable, chain, or rod mechanisms
 - 62a2-13/32 using cam mechanisms
 - 62a2-13/34 using toothed gearing
 - 62a2-13/36 . . . fluid
 - 62a2-13/38 . . with power amplification
 - 62a2-13/40 . . . using fluid pressure
 - 62a2-13/42 having duplication or stand-by provisions
 - 62a2-13/44 overriding of personal controls; with automatic return to inoperative position

62a2-13/46	. . . . with artificial feel
62a2-13/48	. . . . characterised by the fluid being gaseous
62a2-13/50	. . . . using electrical energy
62a2-15/00	Attitude, flight direction, or altitude control by jet reaction
62a2-15/02	. the jets being propulsion jets
62a2-15/04	. . the jet-stream being deflected
62a2-15/06	. . . by means of movable elements, e.g. flaps
62a2-15/08	. . . . the elements being adjustable nozzles
62a2-15/10	. . . by means of additional jets
62a2-15/12	. . the power plant being tiltable
62a2-15/14	. the jets being other than main propulsion jets (jet flaps 62a2-9/38)
62a2-17/00	Aircraft stabilisation not otherwise provided for
62a2-17/02	. by gravity or inertia-actuated apparatus
62a2-17/04	. . by pendular bodies
62a2-17/06	. . by gyroscopic apparatus (automatic-pilot control 62a2-13/18)
62a2-17/08	. by ballast supply or discharge (for lighter-than-air aircraft 62a1)
62a2-17/10	. Transferring fuel to adjust trim
62a2-19/00	Aircraft control not otherwise provided for
62a2-19/02	. Conjoint controls
<u>Influencing air-flow over aircraft surfaces, not otherwise provided for</u>	
62a2-21/00	Influencing air-flow over aircraft surfaces by affecting boundary-layer flow (boundary-layer control in general 60c)
62a2-21/02	. by use of slot, ducts, porous areas, or the like
62a2-21/04	. . for blowing (62a2-21/08 takes precedence)
62a2-21/06	. . for sucking (62a2-21/08 takes precedence)
62a2-21/08	. . adjustable
62a2-21/10	. using other surface properties, e.g. roughness
62a2-23/00	Influencing air-flow over aircraft surfaces, not otherwise provided for
62a2-23/02	. by means of rotating members of cylindrical or similar form
62a2-23/04	. by generating shock waves
62a2-23/06	. by generating vortices
62a2-23/08	. using Magnus effect
62a2-25/00	Alighting gear (air-cushion alighting gear 62b)
62a2-25/02	. Undercarriages
62a2-25/04	. . Arrangement or disposition on aircraft
62a2-25/06	. . fixed
62a2-25/08	. . non-fixed, e.g. jettisonable
62a2-25/10	. . . retractable, foldable, or the like
62a2-25/12	. . . . sideways
62a2-25/14	. . . . fore-and-aft
62a2-25/16	. . . . Fairings movable in conjunction with undercarriage elements
62a2-25/18	. . . . Operating mechanisms
62a2-25/20	. . . . . mechanical
62a2-25/22	. . . . . fluid
62a2-25/24	. . . . . electric
62a2-25/26	. . . . . Control or locking systems therefor
62a2-25/28	. . . . . with indicating or warning devices
62a2-25/30	. . . . . emergency actuated
62a2-25/32	. characterised by the ground or like engaging elements (arrester hooks 62a2-25/68)
62a2-25/34	. . wheeled type, e.g. multi-wheeled bogies
62a2-25/36	. . . Arrangements or adaptations of wheels, tyres, or axles in general (construction of wheels or axles 63d; construction of tyres in general 63e-1/01)
62a2-25/38	. . Endless-track type
62a2-25/40	. . the elements being rotated before touch-down
62a2-25/42	. . Arrangements or adaptations of brakes
62a2-25/44	. . . Actuating mechanisms

- 62a2-25/46 Brake regulators for preventing skidding or aircraft somersaulting
- 62a2-25/48 differentially operated for steering purposes
- 62a2-25/50 . . Steerable undercarriages; Shimmy-damping (steering devices applicable to land vehicles 63c-47)
- 62a2-25/52 . . Skis or runners
- 62a2-25/54 . . Floats
- 62a2-25/56 . . . inflatable
- 62a2-25/58 . . Arrangements or adaptations of shock-absorbers or springs (shimmy-dampers 62a2-25/50; vehicle suspension arrangements in general 20d, 63c; shock-absorbers per se 47a3)
- 62a2-25/60 . . . Oleo legs
- 62a2-25/62 . . . Spring shock-absorbers; Springs
- 62a2-25/64 using rubber or like elements
- 62a2-25/66 . . Convertible alighting gear; Combinations of different kinds of ground or like engaging elements
- 62a2-25/68 . . Arrester hooks (arresting gear, e.g. on aircraft carriers 62a4)

Aircraft kinds and components not otherwise provided for

- 62a2-27/00 Rotorcraft; Rotors peculiar thereto (alighting gear 62a2-25/00)**
- 62a2-27/02 . Gyroplanes
- 62a2-27/04 . Helicopters
- 62a2-27/06 . . with single rotor
- 62a2-27/08 . . with two or more rotors
- 62a2-27/10 . . . arranged coaxially
- 62a2-27/12 . . Rotor drives
- 62a2-27/14 . . . Direct drive between power plant and rotor hub
- 62a2-27/16 . . . Drive of rotors by means, e.g. propellers, mounted on rotor blades
- 62a2-27/18 the means being jet-reaction apparatus
- 62a2-27/20 . Rotorcraft characterised by having shrouded rotors, e.g. flying platforms
- 62a2-27/22 . Compound rotorcraft, i.e. aircraft using in flight the features of both aeroplane and rotorcraft
- 62a2-27/24 . . with rotor blades fixed in flight to act as lifting surfaces
- 62a2-27/26 . . characterised by provision of fixed wings
- 62a2-27/28 . . with forward-propulsion propellers pivotable to act as lifting rotors
- 62a2-27/30 . . with provision for reducing drag of inoperative rotor
- 62a2-27/32 . Rotors (features common to rotors and propellers 62a2-11/00)
- 62a2-27/34 . . rigid
- 62a2-27/36 . . of see-saw type
- 62a2-27/38 . . having provision for flapping or lag-lead movements of blades
- 62a2-27/40 . . . characterised by flapping movements (62a2-27/44 takes precedence)
- 62a2-27/42 . . . characterised by lag-lead movements (62a2-27/44 takes precedence)
- 62a2-27/44 . . . producing simultaneous change of pitch
- 62a2-27/46 . . Blades
- 62a2-27/48 . . . Root attachment to rotor head
- 62a2-27/50 . . Blades foldable to facilitate stowage of aircraft
- 62a2-27/52 . Tilting of rotor bodily relative to fuselage (of see-saw type construction 62a2-27/36)
- 62a2-27/54 . Mechanisms for controlling blade adjustment or movement relative to rotor head, e.g. lag-lead movement
- 62a2-27/56 . . Initiating means, e.g. actuated personally
- 62a2-27/58 . . Transmitting means
- 62a2-27/60 . . . without power amplification
- 62a2-27/62 . . . with power amplification
- 62a2-27/64 using fluid pressure
- 62a2-27/66 under automatic control
- 62a2-27/68 using electrical energy
- 62a2-27/70 under automatic control
- 62a2-27/72 . . Means acting on blades
- 62a2-27/74 . . . for adjusting cyclic pitch
- 62a2-27/76 . . . for adjusting collective pitch
- 62a2-27/78 . . in association with pitch adjustment of blades of anti-torque rotor

62a2-27/80	. . for differential adjustment of blade pitch between two or more lifting rotors
62a2-27/82	. characterised by the provision of an auxiliary rotor or fluid-jet device for counterbalancing lifting-rotor torque or changing direction of rotorcraft
62a2-29/00	Aircraft capable of landing or taking-off vertically (attitude, flight direction, or altitude control by jet reaction 62a2-15/00; rotorcraft 62a2-27/00; air-cushion vehicles 62b)
62a2-29/02	. having its flight directional axis vertical when grounded
62a2-29/04	. . characterised by jet-reaction propulsion
62a2-31/00	Non-power-driven aircraft
62a2-31/02	. Gliders; Sailplanes
62a2-31/04	. Man-power aircraft (ornithopters 62a2-33/00)
62a2-31/06	. Kites (toy aspects 77f-27/08; towed targets 72e)
62a2-33/00	Ornithopters
62a2-33/02	. Wings; Actuating mechanisms therefor
62a2-35/00	Flying-boats; Seaplanes (fuselages constructed as flying-boat hulls 62a2-1/04; other alighting-gear aspects 62a2-25/00)
62a2-37/00	Convertible aircraft (amphibious aircraft 62a2-35/00)
62a2-37/02	. Flying units formed by separate aircraft (towing, air-refuelling, or aircraft-carrying aircraft 62a3)
62a2-39/00	Other aircraft
62a2-39/02	. characterised by special use
62a3	(IPC: B64D) Equipment for fitting in or to aircraft; Parachutes; Arrangements or mounting of power plants or propulsion transmissions
62a3-1/00	Dropping, releasing, or receiving articles, liquids, etc., in flight (with respect to sighting devices 72f takes precedence; parachutes per se 62a3-17/00; refuelling during flight 62a3-39/00)
62a3-1/02	. Dropping or releasing articles (jettisonable fuel reservoirs 62a3-37/12)
62a3-1/04	. . the articles being explosive, e.g. bombs
62a3-1/06	. . . Bomb releasing; Bomb doors
62a3-1/08	. . the articles being load-carrying devices
62a3-1/10	. . . Stowage arrangements for the devices in aircraft
62a3-1/12	. . . Releasing
62a3-1/14	. . . Absorbing landing shocks
62a3-1/16	. Dropping powdered, liquid or gaseous matter (jettisoning fuel 62a3-37/26)
62a3-1/18	. . by spraying, e.g. insecticides (spraying in general 85g)
62a3-1/20	. . for sky-writing
62a3-1/22	. Taking-up articles from earth's surface
62a3-3/00	Aircraft adaptations to facilitate towing or being towed (62a3-39/00 takes precedence; ground installations for launching or towing aircraft 62a4; towing ropes per se 73)
62a3-3/02	. for towing targets (towed targets per se 72e)
62a3-5/00	Aircraft transported by aircraft, e.g. for release or re-berthing during flight (flying units formed by separate aircraft 62a2)
62a3-7/00	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 62a3-1/00; armaments or mountings therefor per se 72)
62a3-7/02	. the armaments being firearms
62a3-7/04	. . fixedly mounted
62a3-7/06	. . movably mounted
62a3-7/08	. the armaments being rockets

62a3-9/00	Equipment for handling freight; Equipment for facilitating passenger embarkation or the like (emergency equipment 62a3-17/00, 62a3-19/00, 62a3-25/00; structures integral with fuselage to facilitate loading, fuselage floors specially adapted for freight, steps mounted on, and retractable within, aircraft 62a2; ground installations 62a4)
62a3-11/00	Passenger or crew accommodation; Flight-deck installations not otherwise provided for
62a3-11/02	. Toilet fittings (of general application 34k)
62a3-11/04	. Galleys
62a3-11/06	. Arrangements or adaptations of seats (seat constructions for emergency purposes 62a3-25/04)
62a3-13/00	Arrangements or adaptations of air-treatment apparatus for aircraft crew or passenger, or freight space (respiratory apparatus or component parts thereof for high-altitude aircraft 61a; for vehicles in general 20c)
62a3-13/02	. the air being pressurised
62a3-13/04	. . Automatic control of pressure
62a3-13/06	. the air being conditioned (pressurising 62a3-13/02)
62a3-13/08	. . the air being heated or cooled
62a3-15/00	De-icing or preventing icing on exterior surfaces of aircraft (motor vehicles specially adapted for carrying de-icing equipment 63c-58/20)
62a3-15/02	. by ducted hot gas or liquid
62a3-15/04	. . Hot gas application
62a3-15/06	. . Liquid application (in general 85)
62a3-15/08	. . . exuded from surface
62a3-15/10	. . . sprayed over surface
62a3-15/12	. by electric heating (electric heating elements in general 21h)
62a3-15/14	. . controlled cyclically along length of surface
62a3-15/16	. by mechanical means, e.g. pulsating mats or shoes attached to, or built into, surface
62a3-15/18	. . the surface being an aerofoil, rotor, or propeller
62a3-15/20	. Means for detecting icing or initiating de-icing
62a3-15/22	. . Automatic initiation by icing detector
62a3-17/00	Parachutes (non-canopied parachutes 62a3-19/00)
62a3-17/02	. Canopy arrangement or construction
62a3-17/04	. . formed with two or more canopies arranged about a common axis
62a3-17/06	. . formed with two or more canopies arranged in a cluster
62a3-17/08	. . Secondary or shock-absorbing canopies attached to load line
62a3-17/10	. . Ribbon construction
62a3-17/12	. . constructed to provide variable or non-uniform porosity over area of canopy
62a3-17/14	. . with skirt or air-deflecting panels
62a3-17/16	. . . secured to hem of main canopy
62a3-17/18	. . Vent arrangement or construction
62a3-17/20	. . . variable in area
62a3-17/22	. Load suspension
62a3-17/24	. . Rigging lines
62a3-17/26	. . . attached to hem of canopy
62a3-17/28	. . . attached to apex of canopy
62a3-17/30	. . Harness
62a3-17/32	. . . Construction of quick-release box
62a3-17/34	. . adapted to control direction or rate of descent
62a3-17/36	. . incorporating friction devices or frangible connections to reduce shock loading of canopy
62a3-17/38	. . Releasable fastening devices between parachute and load or pack
62a3-17/40	. Packs
62a3-17/42	. . rigid
62a3-17/44	. . . forming part of load
62a3-17/46	. . Closing means
62a3-17/48	. . with separate pack for extractor of auxiliary parachute

62a3-17/50	. . . formed with separate compartments for main canopy, rigging lines, or auxiliary parachute
62a3-17/52	. . . Opening, e.g. manual
62a3-17/54	. . . . automatic
62a3-17/56	. . . . responsive to barometric pressure
62a3-17/58	. . . . responsive to time-delay mechanism
62a3-17/60	. . . . by static line
62a3-17/62	. Deployment
62a3-17/64	. . . by extractor parachute
62a3-17/66	. . . . attached to hem of main canopy
62a3-17/68	. . . . attached to apex of main canopy
62a3-17/70	. . . by springs
62a3-17/72	. . . by explosive or inflatable means
62a3-17/74	. . . Sequential deployment of a plurality of canopies
62a3-17/76	. . . facilitated by method of folding or packing
62a3-17/78	. . . in association with other load-retarding apparatus
62a3-17/80	. . . in association with aircraft, e.g. for braking thereof
62a3-19/00	Non-canopied parachutes
62a3-19/02	. Rotary-wing parachutes
62a3-21/00	Testing of parachutes
62a3-23/00	Training of parachutists
62a3-25/00	Emergency apparatus or devices, not otherwise provided for (parachutes 62a3-17/00, 62a3-19/00; jettisoning of fuel 62a3-37/26; severable or jettisonable parts of fuselage facilitating emergency escape 62a2)
62a3-25/02	. Supports or holding means for living bodies
62a3-25/04	. . . Seat modifications
62a3-25/06	. . . Harnessing
62a3-25/08	. . . Ejecting or escaping means (escape apertures 62a2)
62a3-25/10	. . . Ejector seats
62a3-25/12	. . . Ejectable capsules
62a3-25/14	. . . Inflatable escape chutes
62a3-25/16	. . . Dinghy stowage
62a3-25/18	. . . Flotation gear (aircraft alighting gear 62a2)
62a3-25/20	. . . Releasing of crash-position indicators
62a3-27/00	Arrangement or mounting of power plant in aircraft; Aircraft characterised thereby (attitude, flight-direction, or altitude control of aircraft by jet reaction 62a2)
62a3-27/02	. Aircraft characterised by the type or position of power plant (fuselages or wings adapted for mounting power plant 62a2)
62a3-27/04	. . . of piston type
62a3-27/06	. . . . within, or attached to, wing
62a3-27/08	. . . . within, or attached to, fuselage
62a3-27/10	. . . of gas-turbine type (62a3-27/16 takes precedence)
62a3-27/12	. . . . within, or attached to, wing
62a3-27/14	. . . . within, or attached to, fuselage
62a3-27/16	. . . of jet type
62a3-27/18	. . . . within, or attached to, wing
62a3-27/20	. . . . within, or attached to, fuselage
62a3-27/22	. . . using atomic energy
62a3-27/24	. . . using steam, electricity, or spring force (62a3-27/16 takes precedence)
62a3-27/26	. Aircraft characterised by construction of power-plant mounting
62a3-29/00	Power-plant nacelles, fairings, or cowlings (nacelles not otherwise provided for 62a2)
62a3-29/02	. . . associated with wings (wings adapted for mounting power plant 62a2)
62a3-29/04	. . . associated with fuselages
62a3-29/06	. . . Attaching of nacelles, fairings, or cowlings

62a3-29/08	. Inspection panels for power plants
62a3-31/00	Power plant control; Arrangement thereof (flying controls 62a2)
62a3-31/02	. Initiating means
62a3-31/04	. . actuated personally
62a3-31/06	. . actuated automatically
62a3-31/08	. . . for keeping cruising speed constant (conjoint control of power plant and propeller 62a2)
62a3-31/10	. . . for preventing asymmetric thrust upon failure of one power plant
62a3-31/12	. . . for equalising or synchronising power plants
62a3-31/14	. Transmitting means between initiating means and power plants
62a3-33/00	Arrangements in aircraft of power plant parts or auxiliaries not otherwise provided for
62a3-33/02	. Combustion air intakes
62a3-33/04	. Exhaust outlets; jet pipes (attitude, flight direction, or altitude control by jet reaction 62a2)
62a3-33/06	. . Silencing exhaust or propulsion jets (ground installations 62a4)
62a3-33/08	. Cooling of power plant
62a3-33/10	. . Radiator arrangement
62a3-33/12	. . . of retractable type
62a3-35/00	Transmitting power from power plant to propellers or rotors; Arrangements of transmissions (propellers or rotors per se, helicopter transmissions 62a2)
62a3-35/02	. characterised by the type of power plant
62a3-35/04	. characterised by the transmission driving a plurality of propellers or rotors
62a3-35/06	. . the propellers or rotors being counter-rotating
62a3-35/08	. characterised by the transmission being driven by a plurality of power plants
62a3-37/00	Aircraft modifications or fittings in connection with fuel supply for power plant (refuelling during flight 62a3-39/00)
62a3-37/02	. Tanks (tanks constructed integrally with aircraft wings 62a2; shape or construction of tanks per se 81c)
62a3-37/04	. . Arrangement thereof in or on aircraft
62a3-37/06	. . Constructional adaptations thereof
62a3-37/08	. . . Internal partitioning
62a3-37/10	. . . to facilitate fuel pressurisation
62a3-37/12	. . . jettisonable
62a3-37/14	. . Filling or emptying (transferring fuels to adjust aircraft trim 62a2)
62a3-37/16	. . . Filling systems (ground installations for fuelling aircraft 62a4)
62a3-37/18	. . . . Conditioning fuel during filling
62a3-37/20	. . . Emptying systems
62a3-37/22	. . . . facilitating emptying in any position of tank
62a3-37/24	. . . . using gas pressure
62a3-37/26	. . . . Jettisoning of fuel
62a3-37/28	. . . . Control thereof
62a3-37/30	. Fuel systems for specific fuels
62a3-37/32	. Safety measures not otherwise provided for, e.g. preventing explosive conditions (extinguishing or preventing fires in aircraft 61a)
62a3-37/34	. Conditioning fuel, e.g. heating (during filling 62a3-37/18)
62a3-39/00	Refuelling during flight (filling or emptying fuel tanks 62a3-37/14)
62a3-39/02	. Means for paying-in or out hose
62a3-39/04	. Adaptations of hose construction (pipes in general 47f1)
62a3-39/06	. Connecting hose to aircraft; Disconnecting hose therefrom
62a3-41/00	Power installations for auxiliary purposes
62a3-43/00	Arrangements or adaptations of instruments (arrangements of cameras 62a3-47/08; aeronautical measuring instruments per se 42c)
62a3-43/02	. for indicating aircraft speed or stalling conditions

62a3-45/00 Aircraft indicators or protectors not otherwise provided for
 62a3-45/02 . Lightning protectors; Static dischargers (in general 21c)
 62a3-45/04 . Landing aids; Safety measures to prevent collision with earth's surface
 62a3-45/06 . . mechanical
 62a3-45/08 . . optical

62a3-47/00 Equipment not otherwise provided for
 62a3-47/02 . Arrangements or adaptations of signal or lighting devices
 62a3-47/04 . . the lighting devices being primarily intended to illuminate the way ahead
 62a3-47/06 . . for indicating aircraft presence
 62a3-47/08 . Arrangements of cameras

62a4 (IPC: B64F) Ground or aircraft-carrier-deck installations

Note:

The term "installations" in this subclass embraces equipment, peculiar to use in connection with aircraft and not fitted in aircraft.

62a4-1/00 Ground or aircraft-carrier-deck installations (specially adapted for captive aircraft 62a4-3/00; aircraft-carriers per se 65g; fog-dispersal installations 19b-13/00; wind tunnels 42k-20; grounded flight trainers 62c-27/03)
 62a4-1/02 . Arresting gear; Liquid barriers
 62a4-1/04 . Launching or towing gear (railway aspects 20; aircraft towing aircraft 62a3-3/00; weapon launching gear 72b-6/01)
 62a4-1/06 . . using catapults
 62a4-1/08 . . using winches
 62a4-1/10 . . using self-propelled vehicles
 62a4-1/12 . Anchoring
 62a4-1/14 . . Towers or masts for mooring airships or balloons (building aspects 37f-15/22)
 62a4-1/16 . . Pickets or ground anchors; Wheel chocks
 62a4-1/18 . Visual or acoustic landing aids (optical or acoustic signalling in general 74d)
 62a4-1/20 . . Arrangement of optical beacons
 62a4-1/22 . installed for handling aircraft
 62a4-1/24 . . Adaptations of turntables
 62a4-1/26 . for reducing engine or jet noise; Protecting aerodromes from jet erosion
 62a4-1/28 . Liquid-handling installations specially adapted for fuelling stationary aircraft (liquid handling in general 64a)
 62a4-1/30 . for embarking or disembarking passengers
 62a4-1/32 . for handling freight
 62a4-1/34 . for starting propulsion plant
 62a4-1/36 . Other aerodrome installations (construction of, and surfacing for, airfields 19c)

62a4-3/00 Ground installations specially adapted for captive aircraft (railway aspects 20)

62a4-3/02 . with means for supplying electricity to aircraft during flight

62a4-5/00 Designing, manufacturing, assembling, cleaning, maintaining, or repairing aircraft, not otherwise provided for

62b Aeroplanes, power-driven aircraft (kites and toy aircraft 77f-28, 77f-27/00), **air cushion vehicles**

Aircraft without power drive

62b-1/01 Kites
 62b-1/02 Kite fastenings
 62b-1/03 Kite frames
 62b-2 Gliders and sailplanes, general (elements 62b-3 – 62b-24, 62b-40 – 62b-47)

Airframes and control arrangements for power-driven aircraft (power plants 62c-1 – 62c-15)

62b-3/01 Fuselage shapes
 62b-3/02 Fuselage arrangements

- 62b-3/03 Fuselage structures (62b-4/09; 62b-24/01; 62b-24/02; 62b-43/01; 62b-45/02)
- 62b-3/04 Fuselages with folding and detachable parts
- 62b-3/05 Pressurised cabins for high-altitude aircraft (power plants for high-altitude aircraft 62c-12/03)
- 62b-3/10 Other devices on fuselages
- 62b-4/01 Wing shapes
- 62b-4/02 Tail-less aircraft, general (controls 62b-15)
- 62b-4/03 Wing with nozzle-shaped slots (62b-15/02)
- 62b-4/04 Wings with devices for sucking in and blowing off the boundary layer (65f1-6)
- 62b-4/08 Other devices on wings to control the air flow, including lift flaps, lift flaps serving as ailerons and actuating rods therefor (63b-37/01; braking surfaces 62b-47/03)
- 62b-4/09 Wing structures (62b-3/03; 62b-24/01; 62b-24/02)
- 62b-4/10 Wings and fuselage coverings (62b-24/04)
- 62b-4/20 Other devices on wings
- 62b-5/01 Wing arrangements, general
- 62b-5/02 Wing arrangement in direction of flight
- 62b-5/03 Connections between fuselages and wings, general (flexible suspension of wings 62b-6/06)
- 62b-5/04 Folding and detachable wings
- 62b-5/05 Rigid braces (non-rigid braces 62b-24/03)
- 62b-5/06 Airframe structure auxiliary devices
- 62b-6/01 Wings adjustable about axes transverse to the flight direction
- 62b-6/02 Wings adjustable about axes lying in the flight direction
- 62b-6/03 Wings adjustable about vertical axes
- 62b-6/04 Wings adjustable about several axes
- 62b-6/05 Interdependent adjustment of wings and tail assembly elements
- 62b-6/06 Flexible suspended wings
- 62b-6/07 Sliding wings
- 62b-7/01 Wings whose size may be altered during flight
- 62b-7/02 Aircraft, the number of wings of which may be changed in flight
- 62b-8/01 Wings whose camber may be altered by hand during flight
- 62b-8/02 Wings with automatically variable camber
- 62b-8/03 Warping wings
- 62b-11/01 Direct stabilising by means of oscillating or shifting masses (65a2-58)
- 62b-11/02 Automatic control by means of oscillating masses acting directly on the shaft-sliding mechanism
- 62b-11/03 Automatic control by means of oscillating masses acting directly on a servomotor (inclinometers 42c-25/01)
- 62b-12/01 Direct stabilisation by means of inertia masses (42c-25; 65a2-55)
- 62b-12/02 Automatic control by means of gyroscope acting directly or indirectly on the shaft-sliding mechanism (gyroscope structures 42c-25/50; radio navigation 21a4-48/41 – 21a4-48/55)
- 62b-13/01 Direct automatic stabilising by use of special auxiliary surfaces (manual control surfaces 62b-15)
- 62b-13/02 Automatic control by means of flow sensitive elements acting directly or indirectly on the shaft-sliding mechanism, e.g. wind sensitive surfaces, pressure sensitive cells, and the like (structure of devices 42c)

Other automatic controls (landing 62c-25; remote control 62c-29) with reference to
- 62b-14/01 the use of special control indicators or of their special elements, magnetic compass and accelerometer controls or the like (structure of instruments 42c)
- 62b-14/02 simultaneous action of several impulses on control devices
- 62b-14/03 arbitrary displacements of the standard position, e.g. during turns

- 62b-14/04 recovery
- 62b-14/09 unmanned aircraft, such as towed craft, aerial torpedoes, gliders, or the like (gliders, general 62b-2; towed aircraft in general 62c-30/20; water torpedoes 65d, attack missile structure 72d)
- 62b-14/10 Miscellaneous, e. g. automatic trimming, automatic piloting with simultaneous manual control
- 62b-15/01 Control arrangements, general
- 62b-15/02 Wing-mounted airfoils for lateral and elevator control and their actuation (62b-4/03)
- 62b-15/03 Rudder and fin structure and mounting, adjustable fins (62b-4/09)
- 62b-15/04 Flexible and warping control surfaces
- 62b-15/05 Rudder with auxiliary surfaces to facilitate rudder motion
- 62b-15/06 Canard aircraft
- 62b-15/10 Other tail assembly devices
- 62b-16/01 Control sticks, control columns, pedals
- 62b-16/02 Control gears for tail assemblies and ailerons serving as landing flaps, also adjustable by servomotor
- 62b-16/03 Several rudders moved by one control member pivotable in several directions
- 62b-16/04 Dual controls, also for instructional purposes (other devices for flight instruction 62c-27/03)
- 62b-22/01 Arrangement and mounting of weapons (synchronisation devices for guns firing through the propeller 72h-7/02)
- 62b-22/02 Revolving gun mounts for aircraft armament
- 62b-24/01 Structural details and connections (37b-3/01; 37b-3/02; 62a-5; 62b-3/03; 62b-4/09; 62b-5/05)
- 62b-24/02 Skeleton structure joints and bracing members (37b-3/01; 37b-3/02; 62a-5; 62b-3/03; 62b-4/09; 62b-5/03; 62b-5/05; 62b-24/03)
- 62b-24/03 Non-rigid bracing members (rigid bracing members 62b-5/05; turnbuckles 47d-12)
- 62b-24/04 Materials for the manufacture of aircraft parts; means for preventing corrosion of structural elements, etc.
- 62b-24/05 Inspection hole covers
- Rotary-wing aircraft**
- 62b-25/01 Helicopters: rotary-wing aircraft with mechanically driven propeller
- 62b-25/02 Gyroplanes: rotary-wing aircraft with propellers driven by the air stream during flight, general structure
- 62b-25/03 Other equipment of gyroplanes
- 62b-25/04 Helicopters with wings lockable in position as airfoils
- 62b-26/01 Helicopters with variable wing pitch and shape
- 62b-26/02 Helicopters with periodic motion relative to the air
- 62b-26/03 Helicopters with means to prevent restoring moment
- 62b-27 Helicopters with tilting rotor
- 62b-28 Helicopters with rotating power plants
- 62b-29/01 Helicopters with airfoils and parachutes
- 62b-29/02 Muscle-power driven helicopters
- Flapping-wing aircraft and ornithopters**
- 62b-31/01 Aircraft with flapping wings, general
- 62b-31/02 Aircraft with linearly movable flapping wings, general
- 62b-31/03 Muscle-power driven flapping wing aircraft and ornithopters
- 62b-32 Flapping wing aircraft and ornithopters with periodically changing surface area, e.g. by means of flaps, slides, valves, fans, screens, bird-feather-like structures
- 62b-33 Flapping wing aircraft and ornithopters with adjustable flap or stroke amplitude
- 62b-34 Flapping wing aircraft and ornithopters with periodically changing flapping wing adjustment, fishtail propellers

Aircraft with rotary propelling wings, excluding screw propellers (62c-1 – 62c-15; 62b-25 – 62b-29)

- 62b-35/01 Paddle wheels, general, especially with non-rotary driving wings and covering caps
- 62b-35/02 Propelling wings, periodically rotatable around an axis parallel or at a slight angle to the axis of rotation: rolling wings
- 62b-35/03 Propelling wings with periodically variable area
- 62b-35/04 Propelling wings with periodically variable speed of stroke
- 62b-36 Propelling wings periodically rotatable about an axis lying at an angle to the axis of rotation: turning wings

Reaction propulsion for aircraft

- 62b-37/01 Reaction derived from air forced in tubes and accelerated by means of blowers or the like (tubular airships 62a-33/03; propellers with airflow guiding housing 62c-9/02)
- 62b-37/02 Reaction derived from gases produced by the combustion of liquid fuels (combustion chamber structures and accessories, general 46g)
- 62b-37/03 Reaction derived from explosive charges: rockets (46g-1 – 46g-3; retro-rockets 62b-47/01; firework rockets and rocket mixtures 78d; rocket projectiles 72d-19/01; signal rockets 74d-7)
- 62b-37/04 Driving devices, e.g. propellers with reaction propulsion (hollow propellers 62c-8)

Transverse force generation by means of rotors (rotor drives for ships 65f1-6)

- 62b-38 Cylinders or wing systems with Magnus effect, driven mechanically or by relative wind

Other devices for generating lift or propulsion

- 62b-39 Aerodynamic force production by various means, e. g. turbulence, generation of vacuum inertia and centrifugal force devices

Landing gear

- 62b-40/01 Aircraft wheels
- 62b-40/02 Skids
- 62b-40/03 Tail skids
- 62b-40/04 Endless belts instead of wheels
- 62b-40/10 Landing gear spring suspension
- 62b-40/11 Air springs
- 62b-40/12 Means for the prevention of nosing over
- 62b-40/15 Aircraft pneumatic tyres
- 62b-41/01 Fixed landing gear
- 62b-41/02 Retractable landing gear (62b-46/02)
- 62b-41/03 Droppable landing gear

Flotation gear

- 62b-43/01 Floats, general
- 62b-43/02 Collapsible and inflatable floats
- 62b-43/03 Additional float accessories
- 62b-43/04 Float arrangements
- 62b-44 Aircraft with non-displacing gliding surfaces
- 62b-45/01 Flying boat shapes
- 62b-45/02 Structural elements of flying boats
- 62b-45/03 Equipment for increasing stability on water
- 62b-46/01 Aircraft for water and land: amphibious aircraft
- 62b-46/02 Amphibious aircraft with retractable wheels
- 62b-46/03 Roller floats

Braking devices (47c-17; 47c-18)

- 62b-47/01 Stopping and braking devices

62b-47/02	Wheel brakes
62b-47/03	Braking surfaces
62b-47/04	Ground brakes
62b-47/05	Ground feelers
62b-47/06	Aircraft buoys

Other devices on aircraft

62b-48	Aircraft for use as an automobile, motorcycle, and the like
62b-49	Means for preventing ice formation
62b-50	Miscellaneous
62b-60	Air-cushion vehicles

62c General aeronautical equipment**Propellers**

62c-1	Propeller shapes and blade arrangements
62c-2/01	Wooden propellers, general
62c-2/02	Wooden propellers with edge protection, protective cover or metal reinforcement
62c-3	Metal propellers
62c-4/01	Propeller hubs, general
62c-4/02	Propeller hubs, with blades adjustable while the propeller is motionless (adjustable pitch propellers 62c-5/01)
62c-4/03	Spinners
62c-5/01	Propellers with devices for changing blade pitch or rake during operation: variable-pitch propellers
62c-5/02	Propellers with adjustable blade flaps, with hydraulic ally, pneumatically or electrically controlled adjusting devices, with variable propeller diameter
62c-6/01	Propellers with automatic blade adjustment
62c-6/02	Propellers with non-rigid blades
62c-7	Tilting propellers (tilting power plants 62c-12/02; helicopters with tilting rotors 62b-27)
62c-8	Other propellers: turbo-propellers, steering propellers, propellers with axial blade movement, propellers with folding blades, brake propellers, planetary propellers, propellers with hollow blades for gas and air passage, propellers with complete threads (62a-33/02), propellers made of materials other than wood and metal
62c-9/01	Additional devices on propellers to improve their effectiveness, including silencing; propellers with cross ribs on the blades, with auxiliary blades or seating surfaces, with nozzle-like perforations, with control surfaces, or counter-rotating propellers
62c-9/02	Propellers with annular airflow guiding housing (tubular airships 62a-33/03; tubular aircraft 62b-37/01)
62c-11	Processes and devices for the manufacture, treatment, testing, etc. of propellers (42k-29/01)
	Power plants: power source with propellers; power transmissions between engine and propeller; connections between power plant and airframe; power plant accessories (for airships 62a, 32, 33; for other aircraft 62b, 25-39; engine structure 46; piston steam engines 14a; steam turbines 14c)
62c-12/01	Fixed power plants and their installation in airframes; engine cowlings; devices for the conveyance of cooling air to the engine
62c-12/02	Tiltable power plants and power plants droppable from the airframe during flight
62c-12/03	Power plants and equipment for high-altitude aircraft, general (pressurised cabins for high-altitude aircraft 62b-3/05)
62c-12/04	Power transmission between power sources and propellers: gears; fixed and detachable connections (47)

- 62c-12/05 Propulsion engine attachments, including devices for adjusting to the altitude of flight, other power plant arrangements and power transmissions: pneumatic, electric, hydraulic and steam-driven, muscle power and rubber drives, propulsion methods
- 62c-12/06 Engine frames or bases, with rigid or elastic intermediate members, fastenings
- 62c-12/07 Exhaust manifolds; insofar as modified by, or affecting, the structure of the aircraft; mounting of exhaust manifolds (46c6)
- 62c-13/01 Radiators and cooling arrangements, preferably for aircraft; additional compensating devices, radiator cowlings; equipment for guiding the relative wind or compressed air to radiators; other fuel cooling devices (17f; 46c4)
- 62c-13/02 Condenser arrangements for steam and similar power plants (condenser structures 17d)
- 62c-14/01 Fuel tanks, fuel installations and their arrangement in the airframe; devices for rapidly draining tanks or installations; accessories (fuel pumps driven by impellers 62c-15/02)
- 62c-14/02 Fuel tanks droppable from the airframe, and detachable connections therefor
- 62c-14/03 Fuel tanks with protective covers against projectile and other damage
- 62c-14/04 Other fuel tanks and their arrangement in the airframe
- 62c-15/01 Equipment: electric and compressed-air plants (driven by impellers 62c-15/02). (stored) engine turning devices; apparatus for releasing drive pulses for remotely controlled devices-fuel and ignition switches with levers and rods; heating and ventilation; means for increasing aircraft safety, e.g. fire extinguishing equipment (61a-17/02); service tools; antenna reels (navigation lights and landing lights 62c-25; installation of measuring and photographic instruments 62c-26; parachutes 62c-21 – 62c-23; means to prevent ice formation (62b-49)
- 62c-15/02 Other auxiliary engine drives, also impeller driven
- Release devices for combat weapons; aircraft-dropped parachute load carriers; equipment reversal (aerial bombs, torpedoes and other aerial projectiles 72d-19/07, 72d-19/08)**
- 62c-18/01 Releasing mechanisms for bombs, torpedoes and other weapons, insofar as they are integral with the aircraft
- 62c-18/02 Illuminating flares, mail or cargo bags and the like, droppable from aircraft, especially parachute load carriers, their arrangement aboard the aircraft and releasing devices
- 62c-20/01 Devices for loading and unloading cargo, e.g. mail, freight, unloading aircraft fuel during flight
- 62c-20/02 Aircraft-carried devices for pest control, artificial irrigation, fog dispersal, etc. (45f-10; 45k-4/50; 61b-1/03; 62c-20/02; 65a2-72; 65a2-73; 72g-7/04; 78d-1/02)
- Parachutes and other lifesaving devices**
- 62c-21 Frameless parachutes opened by relative speed with means for opening shock reduction, for regulation of the rate of fall and descent, and for guiding; arrangement of parachutes in aircraft
- 62c-22 Parachutes rapidly unfolded by special auxiliary means, such as rods, springs, compressed air; arrangement of such parachutes in aircraft
- 62c-23/01 Aircraft convertible into parachute-like devices
- 62c-23/02 Ejection seats and cabins equipped with parachutes
- 62c-23/03 Parachute packs or containers; parachute lift webs; straps on pilot and passenger seats; strap fasteners
- 62c-23/04 Other lifesaving devices: flying suits as lifesaving devices and the like (flying clothes 3b-7, 3b-13/00; harness, packs 33d)
- Other aeronautical devices**
- 62c-24 Arrangement and use of devices for landing and for the prevention of collisions by day, night, and in ground fogs, in water, in the air, or in aircraft, airport installations, airway installations, obstacle indicators (structure of instruments, transmitters and receivers, and general treatment of the following physical problems: optics, heat radiation, acoustics, electricity and especially high-frequency engineering and the like 4b, 21a4-48, 42, 54h, 62b-11 – 62b-14, 62c-29, 74d)

- Arrangement and structure of optical equipment
- 62c-25/01 In the aircraft
 - 62c-25/02 On or above ground
 - 62c-25/03 Fog and smoke generators in aircraft (signalling in general 74d-10/03; fog dispersal 45f-10, 62c-20/02)
 - 62c-25/04 Fog and smoke generators on the ground (signalling in general, 74d-10/03; fog dispersal 45f-10, 62c-20/02)
 - 62c-25/05 Airport wind-direction indicators (74d-10/04)
- Devices and methods for facilitating landing and preventing collisions
- 62c-25/06 by optical means (position determination from the ground 42c-39/15, 42c-39/20; see also 42c-40, 74d-8)
 - 62c-25/07 by acoustic means (74d-5; 74d-6)
 - 62c-25/08 by electric means (equipment structure class 21, particularly 21a4-48)
 - 62c-25/10 Miscellaneous, e.g. mechanical land feelers (brake devices 62b-47)
 - 62c-26 Mounting of measuring instruments, photographic apparatus, and the like (instrument structures 42; 72f)
 - 62c-27/01 Devices for facilitating take-off and landing of aircraft: aircraft catapults, etc ; tractors, mother aircraft; fixed braking devices (brakes installed in aircraft 62b-47; aircraft carriers, floating platforms 65a1-6)
 - 62c-27/02 Auxiliary airport devices; tail skid trucks, auxiliary and float frames and other equipment for the aircraft recovery or moving to water; fixed or mobile engine turning devices; fuel draining devices and the like (salvage devices on ships 65a1-6; transport vehicles for aircraft 63a-36; aircraft docks 65b-3)
 - 62c-27/03 Flight training devices (dual controls for instruction purposes 62b-16/04; testing vehicle drivers 30a-4/10)
 - 62c-28 Aerial railways: aircraft guided on rails and the like
- Remote control, including for unmanned aircraft** (position determination and instruments, general, in class 21, especially 21a4-48; 21c-47/52; 42c; 74d; stabilisation 62b-11 – 62b-14; landing 62c-25; water torpedoes 65d-3; missile structures 72d)
- Arbitrary control from a radio control station
- 62c-29/01 by means of electromagnetic devices
 - 62c-29/02 by means of optical or acoustic beams
- Control determined by the target, target approach flight
- 62c-29/05 by means of electromagnetic equipment
 - 62c-29/06 by means of optical acoustic beams
 - 62c-29/10 by other means e.g. by mechanical connection with towed torpedoes or the like (towed craft in general 62c-30/20)
- 62c-30/01 Barrage nets against aerial attack
 - 62c-30/10 Means for removal of barrage nets (barrage net destroying projectiles 72d-19/12)
 - 62c-30/20 Air trains, including towed objects, bombs and other means of attack and suspension and releasing devices (bomb structures 72d-19/07; detonator structures 72i; mine structures 65e)
- 62c-32 Miscellaneous
- 62d Space vehicles**
- 62d-1 Space vehicles
 - 62d-2 Equipment for space vehicles

62d (IPC: B64G) Cosmonautics; Vehicles or equipment therefor**Notes:**

(1) The term "cosmonautics" in this subclass, includes all transport outside the earth's atmosphere, and thus includes artificial earth satellites, and interplanetary and interstellar travel.

(2) This subclass deals only with vehicles, equipment, etc., which are peculiarly adapted for cosmonautics. Thus, vehicles and equipment applicable to both cosmonautics and aeronautics are classified in the appropriate aeronautical subclass of class 62.

62d-1/00	Cosmonautic vehicles; Propelling or controlling thereof; Equipment for use therein; Equipment for crews thereof (cosmonautical measuring instruments, see the relevant classes; protective clothing 3b-13/00)
62d-1/10	. Artificial satellites; Systems of such satellites (radio transmission relay systems 21a)
62d-1/20	. Self-propelled vehicles; Propelling, steering or controlling vehicles (producing a reactive propulsive thrust 46g, 88e)
62d-1/30	. Protecting against or using radiation (62d-1/20 takes precedence)
62d-3/00	Observing or tracking cosmonautic vehicles (radio or analogous wave systems for navigating or tracking 42c, 21a4)
62d-5/00	Ground equipment for vehicles, e.g. starting towers, fuelling arrangements (62d-3/00 takes precedence)
62d-7/00	Simulating cosmonautic conditions, e.g. for conditioning or training crews
62d-9/00	Cosmonautics not otherwise provided for