

63 Vehicles travelling otherwise than on rails

- 63a Road vehicles drawn by animals**
 - 63b Handcarts, baby carriages, sleds**
 - 63c Motor vehicles and trailers, motor tricycles, superstructures and equipment required for the operation thereof**
 - 63d Wheels, bearings, axles for animal-drawn and motor vehicles, trailers and bicycles**
 - 63e Tyres, air pumps, valves for animal-drawn and motor vehicles, trailers and bicycles**
 - 63f Stands, racks, suspension devices, locks, fastening and training devices for bicycle and light motorcycles**
 - 63g Accessories for bicycles, motorcycles and sport vehicles**
 - 63h Bicycle and motorcycle frames, fuel tanks and cooling devices for motorcycles**
 - 63i Brakes for bicycles and motorcycles**
 - 63k Driving mechanisms for occupant-propelled or engine-propelled cycles with one or two wheels and sleds, and for occupant-propelled road vehicles with three or more wheels and sports vehicles**
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- 63a Road vehicles drawn by animals**
- Vehicle superstructures and accessories**
- Vehicle bodies in general, stakes, bolsters, and stake braces (20c-1; 20c-2; 20c-12; 63c-43)
- 63a-1/01 for passenger vehicles
- 63a-1/02 for goods or luggage vehicles
- 63a-1/03 for vehicles with stakes
- 63a-1/04 for vehicles with superstructures to increase load capacity
- Vehicle seats and seat arrangements (20c-41; 33d-6; 34g-7; 63c-43; 63c-46)
- 63a-2/01 Fixed seat arrangements
- 63a-2/02 Adjustable seat arrangements
- 63a-2/03 Collapsible seats, retractable seats
- 63a-2/04 Spring seats
- Tops with windshield arrangements, aprons, and protective covers (20c-29; 20c-30; 56c-7; 63b-14; 63c-45)
- 63a-3/01 Folding tops
- 63a-3/02 Collapsible tops with rigid roof or body elements
- 63a-3/03 Windshield arrangements, etc., and top connections therefor
- 63a-4 Lighting equipment (21c-52; 21c-53) and lamp holders (4a-26; 63g-11)
- 63a-5 Heating, cooling and ventilation (20c-21; 20c-22; 20c-23; 20l-3)
- Vehicle doors (20c-33; 63c-44)
- 63a-6/01 Rotating doors
- 63a-6/02 Vertically sliding doors

- 63a-6/03 Rigid flap doors with parallel and other movements
Vehicle windows (20c-39; 63c-44; 68b-27)
- 63a-7/01 Drop windows
- 63a-7/02 Other adjustable windows: rotary, flap, rolling and sliding windows
- 63a-8 Vehicle steps and foot rests (20c-37)
- 63a-9 Mud guards and devices for protection against dust (63b-19; 63c-58; 63d-24; 63g-15)

Vehicle undercarriages

- Vehicle undercarriages in general (63c-37)
- 63a-10/01 Undercarriages and poles
- 63a-10/02 Fore-carriages
- 63a-10/03 Manual steering for fore-carriages
- 63a-10/04 Special wheel arrangements including steering of four and multiple-axle undercarriages
- 63a-10/05 Axles, axle fastenings, axle and spring bearings
- Vehicle undercarriages with steering wheels and with steered front and rear axles (63c-23 – 63c-26)
- 63a-11/01 Undercarriages with steered fore and rear carriages
- 63a-11/02 Undercarriages with steering wheels
- 63a-11/03 Frames
- 63a-12 Turntables and kingbolts for vehicle undercarriages
- 63a-13 Spring arrangements for vehicle undercarriages (63c-40)
- 63a-14 Spring arrangements with auxiliary springs (63c-40)
- 63a-15 Details of spring structure-(20d-21; 47a-17)
- 63a-16 Shock-absorber attachments on vehicle springs (63c-42)
- 63a-17 Air cushions serving as springs (20d-11; 63c-41)
- 63a-18 Vehicle undercarriages with circular tracks, caterpillar tracks (45a-21; 45a-22; 45a-3/50 – 45a-3/62; 45a-51/02; 63d; 63c-29; 63c-30; 72c-6)

Poles and accessories

- 63a-19 Poles, pole supports, neck yoke bars mounted on the pole, pole holders for fastening harness elements
- 63a-20 Fastening of poles to vehicles
- 63a-21 Devices for prevention of pole breakage, e.g. flexible poles
- 63a-22 Devices for releasing the pole in case the animal should fall
- 63a-23 Whippetrees and draft equalisers for vehicles (45d-2; 46e-5)
- 63a-24 Trace fastening to whippetrees, whippetree hooks for vehicles (45h-3; 45h-1/08; 47d-15; 47d-16; 56b-23)

Protective devices for draft animals

- 63a-25 Unharnessing devices for vehicles in general (45d-2; 46e-5; 56b-18)
- 63a-26 Unharnessing devices for vehicles combined with brakes
- 63a-27 Devices on vehicles for preventing the animal from falling
- 63a-28 Devices on vehicles for stopping bolting animals (56b-17; 56b-18)
- 63a-29 Vehicle attachments to protect the animal (63a-23; 56b-24)
- 63a-30 Starting aids for vehicles (20h-2; 63a-54)

Convertible vehicles

- 63a-31 Road vehicles with arrangements for use on rails (20d-30; 63c-88); road vehicles with variable track
- 63a-32 Vehicles convertible for various purposes (20c-8; 63b-1 – 63b-5; 63b-11)
- 63a-33 Collapsible, dismountable and extensible vehicles (63b-1 – 63b-5; 63b-12)

Vehicles for various purposes

- 63a-34 Tip carts (20c-15; 20c-16; 63c-39; 81e-92 – 81e-103)
- 63a-35 Road vehicles with devices for loading and unloading (35d-1; 45e-30; 63a-43; 81e-104; 81e-108), road vehicles with pivoted or sliding dumping doors (20c-13; 81d-1; 81d-2), end gates for vehicles
- 63a-36 Buses, mail coaches, business, delivery and merchandise sale vehicles, hearses, livestock vehicles, agricultural vehicles, timber vehicles, vehicles for cable drums, for aircraft (20c-8; 21c-19; 54h-1; 62c-27/02; 72d-8)
- 63a-37 Vehicles for transporting liquids such as milk, oil, and foodstuffs (20c-9; 20c-10)
- 63a-38 Two-wheeled and one-wheeled vehicles: racing cars
- 63a-39 Two-wheeled vehicles with adjustable elements for relieving the draft animals, e.g. on grades, during braking; devices for maintaining vehicles in the horizontal position on uneven roads

Auxiliary devices for road vehicles

- 63a-40 Vehicle couplings and steering devices for vehicle trains (63c-3)
- 63a-41 Signalling and indicating devices for vehicles (74d; direction indicators 63c-69)
- 63a-42 Rein and whip holders (56b-13; 56b-27), rein supports and whipping devices on vehicles (45d-2; 46e-5)
- 63a-43 Axle supports, skid ramps (35d-1; 35d-2)
- 63a-44 Devices for supporting vehicle wheels, e.g. chocks; devices for cleaning vehicles (20g-5; 20h-8; 63c-91; 63g-23)

Braking devices for vehicles (for pushcarts 63b-7, for baby carriages 63b-15)

- 63a-45 General arrangement of braking devices, including rods and actuating devices, such as lever and screw brakes (20f-4; 63c-51/07)
- 63a-46 Vehicle brake blocks and brake beams (20f-1; 20f-2)
- 63a-47 Vehicle stopping devices actuated by means of obstacles between the spokes and similar arrangements; safety devices against unauthorised use of the vehicles (63c-71; 63f-8 – 63f-10; 63g-9; 63h-16; 68a-111; 74a-26)
- 63a-48 Drag-shoe type vehicle brakes
- 63a-49 Support brakes and devices for the prevention of lateral vehicle skidding (63c-60; 63d-22; 63e-19)
- 63a-50 Brakes with special braking surfaces on the wheels, such as brake disks, brake drums; hub and rim brakes (63a-51)
- 63a-51 Vehicle band brakes (63a-50)
- 63a-52 Automatic brakes, which operate upon discontinuation of the pull on the traces, e.g. on grades, upon pulling the draft animal
- 63a-53 Air pressure and hydraulic pressure brakes for vehicles (20f)
- 63a-54 Vehicle brakes with stored energy (20f-38; 20h-3; 63a-30; 63k-8)

63b Handcarts, baby carriages, sleds**Handcarts for load transport (81e-122; carts with motor drive 63b)**

- 63b-1 Handcarts, essentially with single axle and loading platform or load-engaging loading device on one side, tilting carts, sack carts
- 63b-2 Handcarts, essentially with single axle and central load arrangement
- 63b-3 Multi-axle handcarts, general
- 63b-4 Multi-axle handcarts with horizontal, rising platform: lift trucks (structure of lifting device 35d)
- 63b-5 Wheelbarrows, essentially with single wheel and distribution of load between the wheel and the handles (carts for mixing materials 80a-7)
- 63b-6 Device on pushcarts for facilitating the ascent or descent of stairs (63b-16)
- 63b-7 Brakes and arresting devices for pushcarts (63a-45 – 63a-54; 63b-15)
- 63b-8 Handcart elements, such as wheels, bearings, springs, supports, handles

Baby carriages and accessories (as toys 77f-16, 77f-7/00, 77f-17/00; driven by occupant 63k; toboggan wheels 63b-25)

General arrangements

- 63b-9 General baby carriage structures, nonadjustable
- 63b-10 Baby carriages adjustable in various ways, e.g. for different lengths, for sitting and reclining
- 63b-11 Convertible baby carriages, e.g. into sleds, cradles, swings (63b-1 – 63b-5; 63b-29; 63a-32)
- 63b-12 Collapsible baby carriages (63b-1 – 63b-5; 63a-33)

Elements

- 63b-13 Undercarriages, spring arrangements, steering arrangements, wheels of baby carriages
- 63b-14 Bodies, tops, handles and handle bars
- 63b-15 Braking and arresting devices for baby carriages (63a-45 – 63a-54; 63b-7)
- 63b-16 Devices on baby carriages for facilitating the ascent or descent of stairs (63b-6)
- 63b-17 Devices for rocking baby carriages (34h-3/02)
- 63b-18 Safety devices on baby carriages to prevent the child from-falling out (34h-2)
- 63b-19 Safety devices on wheels, mud guards, etc. (63a-9; 63c-80; 63g-15)
- 63b-20 Miscellaneous accessories, such as seating arrangement for accompanying person, detachable auxiliary seats, amusement and musical devices on baby carriages

Sleds pulled by animals, hand sleds and accessories (driver or engine-driven 63k-22, 63k-23; iceboats 63k-22)

- 63b-21 Sleds, general structure
- 63b-22 Single-track sleds
- 63b-23 Collapsible sleds
- 63b-24 Spring-mounted sleds
- 63b-25 Toboggans with wheels as substitute for sleds (63b-29; 63b-30)
- 63b-26 Braking devices
- 63b-27 Steering devices
- 63b-28 Devices against lateral skidding
- 63b-29 Devices for converting wheeled vehicles into sleds (63b-25)
- 63b-30 Devices for converting sleds into wheeled vehicles (63b-25)

63c Motor vehicles and trailers, motor tricycles, superstructures and equipment required for the operation thereof**Special motor vehicle structures**

Electric motor vehicles

- 63c-1/01 Arrangement of motors and transmissions (20l-21)
- 63c-1/02 Battery arrangement and suspension (20l-6/01)
- 63c-1/03 Electric drive with counter-rotating armature and field (20l-21/02)
- 63c-1/04 Dynamoelectric power transmission (21d1-41)
- 63c-1/05 Switching arrangements for purely electric drives (20l-22 – 20l-24)
- 63c-1/06 Switching arrangements for mixed electric drives (20l-7/02)
- 63c-1/07 Drive by means of several individually controlled motors
- 63c-1/08 Special devices and methods for electrically driven motor vehicles
- 63c-2 Motor vehicles with installations for steam or gas drive, insofar as the corresponding installations are influenced by the structure or operation of the vehicle or affect the same (steam boilers 13; steam engines 14; gas generators for vehicles 24e-3/05; cooling devices and cleaners therefor 26d-1/50)

- Tractors, lead vehicles, also for ploughs and agricultural machinery, insofar as their structure is not affected by the agricultural implements involved, trailers for motor vehicles and vehicle trains (45a-22; 45a-51/00; 20g-4)
- 63c-3/01 Tractors, lead vehicles
- 63c-3/02 Tractors and semitrailers as well as couplings; equipment for the transfer of a portion of the weight of multi-axle trailers onto the tractor, long load couplings
- 63c-3/03 Trailers and vehicle trains, trailer drives (63c-43/07)
- 63c-3/04 Steering devices for motor vehicle trailers, devices to prevent swinging of trailers (63c-47)
- 63c-3/05 Connections between vehicles, trailer couplings, service connections, trailer shafts, passages between vehicles
- 63c-3/06 Towing devices for motor vehicles and motorcycles (20e)
- 63c-3/07 Automatically actuated brakes for trailers
- 63c-3/08 Vehicle trains with multi-axle trailers and through load supports or loads, e.g., timber (63a-36)
- 63c-3/09 One or two-wheeled trailers for motor vehicles (semitrailers 63c-3/02)
- 63c-3/10 Engine chassis detachably connected abreast or behind a vehicle
- 63c-3/11 Vehicles travelling along a cable
- 63c-3/12 Transversely adjustable towing arrangements for trailers
- 63c-3/13 Vertically adjustable towing arrangements for trailers
- 63c-3/14 Devices for preventing tipping over of trailer
- 63c-3/15 Drive of a road vehicle by means of a motor vehicle located on the road vehicle
- Motor vehicles with devices for driving auxiliary machines situated adjacent to or on the vehicle, by means of the vehicle engine; drives operated by the spring action of the vehicle
- 63c-4/01 with devices for driving pumps, and equipment for the utilisation of an engine cylinder as a pump
- 63c-4/02 with arrangements for driving hoists or winches mounted on the vehicle (devices for lifting the vehicle 63c-85; jack structures 35)
- 63c-4/03 with devices for driving other auxiliary machinery
- 63c-4/10 Drive devices operated by the spring action of the vehicle
- 63c-5/01 Motor tricycles and motor vehicles with two side wheels (63h-10)
- 63c-5/02 Engine-driven hand trucks (electric drive 63c-1/08)
- 63c-6 Single track motor vehicles with superstructures
- 63c-7 Motor vehicles with motor built into wheel or axle (63k-24)
- Transmissions (63c-34; 47h), clutches**
- 63c-8/01 Gearshifts and reversing gears, generally
- 63c-8/30 Worm drives
- 63c-8/40 Devices for coupling gearshift gears and their shafts (engine couplings 63c-14 – 63c-16)
- 63c-8/41 Devices for synchronising gearshift gears or clutch members in gearshifts prior to engagement
- 63c-9 Friction gears
- 63c-10/01 Planetary gearing in general
- 63c-10/02 Planetary gearing combined with gearshifts
- 63c-11 Intermittent grip gearings; pawl, friction or clamp gearings
- 63c-12 Belt and chain drives (47d; 63k-13; 63k-14; 63k-28)
- 63c-13/01 Differentials, general
- 63c-13/02 Differentials with spur, bevel and worm gears
- 63c-13/03 Differentials with two meshing spur gears mounted on a rotary body
- 63c-13/04 Arrangement of the differential on the engine crankshaft
- 63c-13/05 Differentials with friction members

63c-13/06	Differentials with belt and chain drives
63c-13/07	Differential clutches
63c-13/08	Controllable hydraulic couplings for a driving gear
63c-13/09	Coupling of driving gears with rotary drive shafts by means of springs instead of differential
63c-13/10	Blocking devices for differentials
63c-14	Cone friction clutches between engine and driving gears, except couplings in gearshift (63c-8)
63c-15	Friction disk and multi-plate clutches between engine and driving gears, apart from clutches in gearshift (63c-8)
63c-16/01	Other clutches apart from 63c-14, 63c-15 and gearshift clutches (63c-8)
63c-16/02	Brakes for the disengageable clutch member
63c-16/03	Devices for engaging and disengaging clutches
63c-16/04	Damping devices for clutches
63c-16/05	Electromagnetic clutches only (built into the gear drive 63c 8)
63c-16/06	Hydraulic clutches (built into the gear drive 63c 8)
63c-16/07	Freewheel clutches
63c-16/08	Centrifugal clutches
63c-16/09	Synchronisation clutches
63c-16/10	Auxiliary power clutches
63c-16/11	Coil spring clutches
63c-17	Flexible transmissions for driving motor vehicles
63c-18	Universal drives, shafts, and joints, flexible shafts for motor vehicles (47c-4)
63c-19/01	Levers, locking devices for levers, and adjusting rods for clutches, brakes, fuel supply, and ignition, insofar as their structure is not conditioned by a special design of clutch and brake (63c-16; 63c-51 – 63c-57)
63c-19/40	Levers and adjusting rods for the common operation of several devices
63c-19/50	Adjusting devices influenced by pressure media
63c-19/60	Devices for disengaging the drive from several places and for disengaging the drive by means of movable seats or treadles
63c-20/01	Gearshift levers and gearshift rods for change gears
63c-20/20	Locking devices for gear levers and gear rods of change gears
63c-20/30	Automatic control gear for gearshifts, including preselection devices
63c-21	Auxiliary driving arrangements powered by hands or feet
63c-22	Multiple drives, transfer cases
	Drive mechanisms for directionally controllable wheels
63c-23	General (measuring devices for toe-in of motor vehicles 42b-26/03)
63c-24	Elements of drive mechanisms with universal joints
63c-25	Elements of drive mechanisms with bevel gearings
63c-27/01	Drive of non-steering driving wheels, general
63c-27/02	Drive of driving wheels with independently swinging axle elements
63c-27/03	Drive of driving wheels by means of parallel longitudinal shafts with bevel gearings
63c-27/04	Drive of one or two driving wheels situated close together
63c-27/05	Drive of driving wheels mounted on swinging levers
63c-27/06	Drive of one of two wheels on common axle
63c-27/07	Drive of wheels situated closely one behind the other, axle pairs
63c-27/08	Drive of dual wheels
63c-28	Intermediate gearing between drive shaft and drive wheel
63c-29/01	Devices for engaging driving wheel (antiskid) lugs from the driver's seat (lugs attached to wheel 63d-22/02)

- 63c-29/02 Drive by means of special driving wheels and screws to be pressed against the road surface (45a-21; 45a-22; 45a-3/50; 45a-51/02)
- 63c-29/03 Motor vehicles with circular tracks (45a-21; 45a-22; 45a-3/50; 45a-51/02; 63a-18; 72c-6)
- 63c-29/04 Devices attached to motor vehicle for overcoming obstacles, e.g. climbing rollers
- 63c-29/05 Drive by means of exhaust gases (rocket drive for aircraft 62b-37 for ships 65f1-6/30; structure of rockets 46g)
- 63c-29/06 Drive by means of flywheels
- 63c-29/07 Drive by means of springs or other types of stored energy (63c-1/02; 63c-29/06)
- 63c-30 Motor vehicles with chains or belt tracks, also motor vehicles convertible from wheel to track drive (45a-22; 45a-51/01; 63a-18; 72c-6; 84d-2; track structures 63d-23; electric drive 63c-1/07)
- 63c-31 Stepper drive
- 63c-32 Drive by means of sliding feet
- 63c-33 Drive by means of air propellers
- 63c-34/01 Hydraulic drives (so-called hydraulic clutches as pure clutches 47c-18; 63c-16/06)
- 63c-34/50 Air pressure drives
- 63c-35 Arrangement and suspension of drive gear, especially of engine, clutch and compensating gearing
- 63c-36 Connections of driving gear axles with the spring mounted support for the transmission of the motive power
- Chassis (wheels 63c) and superstructures**
- 63c-37 Chassis
- Axles (63d-18)
- 63c-38/01 Axle structures
- 63c-38/02 Pivotably mounted axles
- 63c-38/03 Axles and semi-axles formed by cross spring and guide rods
- 63c-39 Tilting vehicles, motor vehicles and trailers with loading and unloading devices (20c-15; 63a-34; 63a-35; tilting device structure, general 35d; movable tilting devices for cars and containers 81e-97, 81e-120; loading and unloading devices as such 81e-108)
- 63c-40 Spring mountings and lubricating devices for leaf springs (47e), spring housings (63a-13; 63a-14)
- 63c-41 Air springs
- 63c-42 Shock absorbers, stabilisers for vehicle-structure springs and supports
- Vehicle bodies and platforms for motor vehicles and motor vehicle trailers**
- 63c-43/01 Bodies for small passenger cars, except 63c-43/10
- 63c-43/04 Bodies for large passenger cars, buses, except 63c-43/10
- 63c-43/07 Bodies and platforms for delivery vans, trucks, tank trucks, and trucks for the transportation of vehicles and containers, except 63c-43/10
- 63c-43/10 Frameless vehicle bodies and bodies in which the frame is a part of the chassis
- 63c-43/15 Vehicle bodies made of special materials, e.g. plywood, synthetic resin, etc.
- Vehicle body assemblies and elements, and connections therefor**
- 63c-43/20 Floor assemblies, e.g. vehicle body frames
- 63c-43/25 Wall assemblies e.g. side panels, front wall, posts, pillars
- 63c-43/30 Other assemblies and elements, and connections therefor, e.g. roofs, fronts, rears, framework, ribs
- 63c-43/50 Flexible connections of body assemblies or elements, e.g. of body with chassis
- 63c-43/55 Fasteners for body assembly or element connections, e.g. wall fasteners
- 63c-43/65 Devices for fastening outer or inner body coverings, e.g. strips, push buttons, snaps, hooks, etc.

- 63c-43/68 Edge, cover and ornamental body strips
- 63c-43/70 Bodies for special purposes, e.g. sales trucks, passenger cars convertible into delivery vans, motor vehicles and trailers with housekeeping and sleeping equipment
- 63c-43/80 Streamlined motor vehicles and trailers
- 63c-44 Doors and windows (door locks 68a-91; sliding windows 68b-27)
- 63c-45 Tops, vehicle tarpaulins and their fastenings
- 63c-46 Seats

Steering devices

- 63c-47 Steering devices (for trailers 63c-3/04)
- 63c-48 Steering wheels, also with heating devices (switches on steering wheels 63c-19; 63c-20; 63c-64; 63c-67; 63c-69)
- 63c-49 Turning and revolving devices arranged on vehicle (63c-85; 63c-86)
- 63c-50 Inclining body and chassis while negotiating curves (stabilisers 63c-40; 63c-42)

Braking devices (for bicycles and motorcycles 63i)

- 63c-51/01 Braking devices in general (brake circuits of electric drives 63c-1)
- 63c-51/02 Brake member shapes, brake shoes, brake bands, wedge-shaped brake members, disk brakes.
- 63c-51/03 Brake drums
- 63c-51/04 Brake shoe carriers, brake band carriers
- 63c-51/05 Brake linings, mechanical part (general 47c-18; chemical part 39b)
- 63c-51/06 Brakes operated by electric or electromagnetic power (20l-29; 21d1-42)
- 63c-51/07 Linkage structure
- 63c-51/08 Transmission brakes
- 63c-51/09 Brakes operated by springs or weights
- 63c-51/10 Cooling devices
- 63c-51/11 Adjustment devices
- 63c-51/12 Brakes operated by various means, e.g. by the steering device, the movable seat
- 63c-51/13 Control linkages for engine brakes (engine structure 46b1-23)
- 63c-51/14 Expanding members
- 63c-51/15 Overrunning type trailer brakes
- 63c-52 Steering wheel brakes
- 63c-53/01 Pressure and air suction brakes in general
- 63c-53/02 Gaskets, cylinders, flexible coverings, bellows
- 63c-53/03 Pipe systems
- 63c-53/04 Expanding members
- 63c-53/05 Control valves
- 63c-53/06 Brakes operated jointly by several forces: spring actuation, pressure release
- 63c-53/07 Brake power regulators
- Liquid-operated brakes (chemical composition of brake fluid 23c-5)
- 63c-54/01 Brakes actuated by throttling a liquid flow
- 63c-54/02 Brakes actuated by raising the pressure in a liquid flow which acts on a brake piston
- 63c-54/03 Pipe systems
- 63c-54/04 Refill devices
- 63c-54/05 Special pumps and compressors
- 63c-54/06 Brakes with liquid as transmission medium
- 63c-54/07 Brakes with differential piston
- 63c-54/10 Miscellaneous
- Auxiliary braking devices
- 63c-55/01 in general
- 63c-55/02 utilising the servo-effect of the brake shoes

- 63c-55/03 with connection of moving auxiliary members to a brake expanding member
63c-55/04 with connection of a moving braking device to second braking device
63c-55/05 with auxiliary power derived from a moving vehicle element regulated by the driver and increased by the muscle power of the driver
- Equalisers for brakes**
- 63c-56/01 in general
63c-56/02 using Bowden cables
63c-56/03 using gearing
63c-56/04 using levers
63c-56/06 using liquid transmission or linkage
63c-56/07 using wedges and screw surfaces
63c-56/08 using cylinders and traction members
- Ground brakes**
- 63c-57/01 Raising wheels off the road surface
63c-57/02 Introducing brake shoes or members between wheel and road surface
63c-57/03 Other ground brakes
- Motor vehicle equipment**
- 63c-58/01 Windshields and windshield devices, general
63c-58/10 Windshield devices with protection against rain and sun
63c-58/20 Windshield with devices for preventing haze or icing, and heating devices for windshields (63c-82)
63c-58/30 Windshields with protection against glare
63c-58/40 Detachable sun visors within field of vision of driver
63c-59 Devices to prevent and resist dust formation while driving (63c 80)
63c-60 Devices to prevent skidding and side slipping, e.g. support wheels, friction rolls, insofar as they do not influence the friction between the treads of the regular wheels and the road surface by means of substances which increase friction or by means of [antiskid] lugs, and affect the drive or the brakes (63a-49; 63b-28; 63c-91; 63d-22; 63e-19)
63c-61 Devices to prevent skidding and increase friction of the road surface by application of substances which increase friction, e.g. sand, adhesive, etc., to the wheel tread or the road (20b-16; 20b-17)
- 63c-62/01 Headlamps and lamps for interior and exterior lighting, generals
63c-62/10 Lamps and headlamps for lighting curves or road turns, and the side and rear parts of the road
63c-62/20 Lamps and headlamps protected against theft
63c-62/30 Lamp holder and supports and other accessories
63c-63/01 Lighting installation and generator drives, general
63c-63/10 Safety devices for lighting equipment and for headlamps and lamps which are not visible to the driver
63c-63/20 Non-glare lighting equipment
63c-64 Switches and switching devices for lighting equipment
63c-65 Dimming devices for headlamps and lamps
63c-66/01 Pivoting and shifting devices for headlamps, lamps, light sources and reflectors, rotatably mounted on the vehicle, general
63c-66/10 Headlamp pivoting devices operated by steering the vehicle
63c-66/20 Headlamp pivoting devices operated by hand from the driver's seat
63c-66/30 Pivoting and shifting devices actuated by the centrifugal force generated by motion
63c-67 Devices for transmitting and receiving signals (74; 63c-64; 63c-69)
63c-68 Devices for indicating and limiting the speed
63c-69 Direction, stop, and passing indicators, also for bicycles and motorcycles (20i-24/30)

- 63c-70 Vehicle-mounted devices to prevent accidents and damage in case of collisions: buffers, road clearing devices, bumpers, and combinations thereof (20d-32; 20d-33)
- 63c-71 Safety devices for protection against theft of the vehicle (63c-78; 63c-79; 63h-16)
- 63c-72 Radiators and accessories, insofar only as they modify, or are modified by, the structure of the vehicle (general 46c4) radiator equipment, such as ornaments, flags, and the like (63h-21)
- 63c-73 Heating devices (63c-58; 63c-82; 20c-21; 20c-22; heat-producing substances 24n-2)
- 63c-74 Ventilating devices (20c-25)
- Lubrication devices permanently attached to vehicles (engine lubrication 46c1)
- 63c-75/01 Central lubricating devices (47e)
- 63c-75/02 Lubrication devices for individual elements (47e)
- 63c-76 Arrangement and installation of intake and exhaust pipes, mufflers (63c-37)
- 63c-78 Tanks for fuel and other power-generating materials, measuring devices (63h-20)
- 63c-79 Engine hoods and locks
- 63c-80 Mud guards (63c-59)
- 63c-81 Nail catchers and tread cleaners (63c-70)
- 63c-82 Windshield cleaners (63c-58)
- 63c-83 Running boards and steps
- 63c-84 Number plates and identification signs (63c-62)
- 63c-85 Devices for lifting vehicles, insofar as they modify, or are modified by, the structure of the vehicle
- 63c-86 Turntables (20g; 63c-49)
- 63c-87 Fire extinguishers, insofar as they modify, or are modified by, the structure of the vehicle (61a-17/02)
- 63c-88 Motor vehicles with arrangements permitting use on rails (20d-30; 63a-31)
- 63c-90 Holders and receptacles, e.g. for spare tubes, wheels and tyres, luggage, tools, ashtrays (44b-27)
- 63c-91 Other equipment, e.g. mirrors, dashboards, backstopping, cooking, washing and cleaning devices

63d Wheels, bearings, axles for animal-drawn and motor vehicles, trailers and bicycles

Wheels for carriages and motor vehicles

- 63d-1 Wooden spoked wheels (38f-7)
- 63d-2 Metal spoked wheels (7c-32; 31c-16; 31c-25; 49i-8)
- 63d-3 Wood, rubber, fibre disk wheels (54f-3)
- 63d-4 Metal disk wheels (7c-32; 31c-16; 31c-25; 49i-8)

Wheel construction

- 63d-5/01 Putting on metal tyres (7f-1)
- 63d-5/02 Tensioning and adjusting devices for wire spoke wheels (42k-32)
- 63d-5/03 Wheel lifting and removing devices (87a)
- 63d-6 Split rims
- 63d-7 Stretching tools for split rims
- 63d-8 Longitudinally divided and detachable rims
- 63d-9 Auxiliary rims and wheels
- 63d-10 Spokes
- 63d-11 Plain bearings, hubs, and axle bushings
- 63d-12 Axle seals
- 63d-13 Wheels easily removed from hub
- 63d-14 Cotters
- 63d-15 Wheels with resilient spokes
- 63d-16 Wheels with resilient hubs

- 63d-17 Wheels with resilient rims
- 63d-18 Axles, generally, and axles detachable together with the wheel (47b-1; 63a-10; 63h-8; 63h-13; 63c-38; linchpins 63k-37)
- 63d-19 Lubrication devices for axles
- 63d-20 Ball bearings
- 63d-21 Roller bearings
- 63d-22/01 Wheels with fixed lugs (45a-35; 45a-55/02)
- 63d-22/02 Wheels with jointly retractable lugs (63c-29)
- 63d-22/03 Single lugs and covering rings
- 63d-23 Endless tracks, general, and wheels with stepper feet (45a-22; 45a-51/02; 63a-18; 63c-30; 84d-2; 84d-9/02)
- 63d-24 Mud guards attached to wheel (63a-9; 63c-80; 63e-1/06; 63g-15)

Bicycle wheels

Rims

- 63d-25/01 made of metal (7c-33)
- 63d-25/02 made of wood
- 63d-25/03 with protective devices for the tyres
- 63d-26 Spokes (7d-11)
- 63d-27 Plain bearings and hubs
- 63d-28 Wheels with resilient spokes
- 63d-29 Wheels with resilient hubs
- 63d-30 Wheels with resilient rims
- 63d-31 Ball bearings
- 63d-32 Roller bearings
- 63d-33 Pedal bearings

63e Tyres, air pumps, valves for animal-drawn and motor vehicles, trailers and bicycles (tyres for aircraft wheels 62b; manufacture of inner tubes and tyre coverings 39a)

Tyres for vehicle wheels, especially for motor vehicle wheels and bicycle wheels

Pneumatic tyres

- 63e-1/01 General
- 63e-1/02 with inner tube enclosed by the rim
- 63e-1/03 with longitudinally divided air space or spare tubes and their valves, dual tyres
- 63e-1/04 with supporting tyres
- 63e-1/05 Tyre heat reducing devices, cooling
- 63e-1/06 Tyres with mud guards
- 63e-2 Tube tyres
- 63e-3/01 Inner tubes, generally
- 63e-3/02 Connections of ends to obtain endless tubes
- 63e-3/03 Double ended tubes
- 63e-4/01 Linings for tyre covers (manufacture 86c-4)
- 63e-4/01 General, fabric structure
- 63e-4/02 of various natural or synthetic fibres
- 63e-4/03 Of metallic wire
- 63e-5 Tyres with cord, string or similar linings
- 63e-5/01 Cord, string or similar linings for tyre covers
- 63e-5/02 Knitted or woven linings for tyre covers
- 63e-7 Securing tyres to rims, anti-creeping devices

63e-11	Leather tyre covers
63e-12	Tyre covers made of various materials, except leather and rubber
63e-13	Sectional tyres
63e-14	Tyres filled with balls
63e-15	Devices for protection against puncturing of inner tube
63e-16	Self-heating tyres or tubes
63e-17	Devices to indicate tyre pressure excess or deficiency (63c-91; 42k-10/02; manometers 42k, 63e-31/04)
	Repair of pneumatic tyres
63e-18/01	Devices for locating leaks
63e-18/02	Puncture sealing tools
63e-18/03	Patches
	Non-skid devices permanently fixed to tyre cover
63e-19/01	Non-skid covers
63e-19/02	Rivets, plates, etc,
63e-19/03	Antiskid attachments
	Detachable non-skid devices
63e-20/01	Chains straps and calk chains (47d-12 – 47d-15; 49k; 63c-60)
63e-20/02	Rubber straps and caps
63e-20/03	Leather caps
	Resilient solid rubber tyres
63e-21/01	Solid rubber tyres, general
63e-21/02	Cushion tyres
63e-21/03	Hollow and chambered tyres
63e-21/04	Tyres with liquid or resilient filling materials of all kinds: cork, sponge rubber etc.
	Mounting of rubber tyres
63e-23/01	by means of stretching devices
63e-23/02	by means of clamps and forcing devices
63e-23/03	by other means
63e-24	Tyres made of metal, wood, leather, and other materials
63e-25	Spring tyres
63e-26	Spring tyres for bicycles
63e-27	Levers and tong-type tools for mounting and demounting tyres
63e-28	Other tools for handling tyres, adjusting and stretching covers
	Air pumps and valves for pneumatic tyres (27b)
	Hand and foot-operated air pumps
63e-29/01	Air pumps in general
63e-29/02	Air pumps attached to the frame
63e-29/03	Connections between air pump with tyre valve
	Automatic air pumps and inflating devices
63e-30/01	Air pumps operated by wheel or tyre
63e-30/02	Air distributing installations in the vehicle, tyre filling cylinders
63e-30/03	Motor-driven pumps
63e-30/04	Air supply installations and air guns (47g-48)
	Valves (30d; 30e; 47g; 65a; 77f)
63e-31/01	in general
63e-31/02	Dust caps for valves
63e-31/03	Safety valves

63e-31/04 Excess pressure indicators integrated with valves (63e-17/02)

63f Stands, racks, suspension devices, locks, fastening and training devices for bicycle and light motorcycles

Bicycle and motorcycle stands, racks, etc.

63f-1 Stands mounted on the frame in general

Stands mounted on the frame in general

63f-1/01 Stands with brakes

63f-1/02 Starter stands

63f-1/03 Stands with telescopic legs

63f-2/01 Pedal stands

63f-2/02 Locking stands

63f-2/03 Stands which may be used as baggage carriers (63g-6)

63f-3 Stands with auxiliary wheels

63f-4/01 Trestle-type racks

63f-4/02 Horizontal racks

63f-4/03 Vertical racks

63f-4/04 Collapsible stands and racks

63f-4/05 Other stands and racks

63f-5 Suspension devices

63f-6 Holders and locking holders (68a)

63f-7 Sheds (37f)

Bicycle locks and fastenings (63c-71; 63g-9; 63h-16; 68a-111; 74a-26)

63f-8/01 Locks in general, including steering system locks

63f-8/02 Combination locks

63f-8/03 Safety means with alarm devices

63f-9/01 Locks and safety devices for pedals

63f-9/02 Locks and safety devices for chains and sprockets

63f-9/03 Locks and safety devices for wheels

63f-9/04 Locks and safety devices for saddles

63f-10 Brake locks

63f-11 Instruction devices (77e-18)

63g Accessories for bicycles, motorcycles and sport vehicles, such as saddles, acoustic signals and alarms, insofar as the structure is affected by that of the bicycle (signals and alarms in general 74a); lighting, baggage carriers, chain casings as individual elements, protective devices, etc.

Bicycle and motorcycle saddles and related elements

63g-1 Saddle arrangements in general

63g-2 Details of saddle structure

63g-3 Saddles with adjustable seats and saddles with two movable sections

63g-4 Saddle springs

63g-5 Saddle fastenings, especially saddle clamps (63g-22; saddle supports 63h-19)

63g-6 Pillion or rider seats with accessories, such as back supports, foot rests, handles (63f-2)

63g-7 Children's seats and accessories

Acoustic signals and alarms, illumination of bicycles and motorcycles, and other bicycle and motorcycle accessories

- 63g-8 Acoustic signalling devices and fastenings, e.g. devices actuated by a wheel, connected with the brakes, or electrically operated (bicycle bells 74a-9; direction indicators 63c-69)
- 63g-9 Alarm devices for bicycles and motorcycles against unauthorised use (63c-71; 63f-8 – 63f-10; 63h-16; 68a-111; 74a-26)
- 63g-10 Lighting for bicycles and motorcycles, insofar as their operation and attachment to the bicycle comes into consideration (4b-11; 21c-52; 21c-53; 21d1-12; 21f-60; 21f-61; 63c-62 – 63c-66)
- 63g-11 Lamp holders for bicycles and motorcycles (63a-4)
- 63g-12 Baggage carriers of a general nature, e.g. also on scooters
- 63g-13 Baggage carriers for special types of baggage, such as bags, umbrellas, canes, sabres, rifles and containers
- 63g-14 Chain casings as individual bicycle elements (63h-1), bicycle and motorcycle chain cleaning and lubrication
- 63g-15 Mudguards (63a-9; 63b-19; 63c-80)
- 63g-16 Shields, windshields, and body-type superstructures (63c 58)
- 63g-17 Body type superstructures [bodies] for sidecars of motorcycles (sidecar chassis 63h-12; bodies for single-track motor vehicles 63c-6; for motorcycles 63c-5)
- 63g-18 Garment protectors
- 63g-19 Map holder and devices for indicating speed, insofar as they modify, or are modified by, the bicycle or motorcycle frame structure (general 42o; location indicators and odometers 42p-11, 63c-91, 74b-6)
- 63g-20 Steps and footrests (63c-83)
- 63g-21 Nail catchers (63c-81)
- 63g-22 Fastening of loose accessories to bicycles and motorcycles, such as pump holders, watch holders, etc., fastening clamps (63g-5; 63g-13)
- 63g-23 Miscellaneous accessories apart from 63g-1 – 63g-22, such as lubricant containers, number plates, mirror arrangements, cleaning of wheels or parts thereof apart from chains, containers for spare tubes and arrangement of spare tyres, protective devices in the event of collision, knee and thigh supports, handles for carrying bicycles (63c-75 – 63c-78; 63c-82; 63c-84; 63c-90; 63c-91)

63h Bicycle and motorcycle frames, tube connections, handlebars and steering devices, chain casings as elements (63c-14), saddle supports, fuel tanks and cooling devices for motorcycles**Motorcycle frames and tube connections**

- 63h-1/01 Rigid frames for bicycles
- 63h-1/02 Frames with transporting devices
- 63h-1/03 Fork heads for front wheels
- 63h-1/04 Wheel fastening, detaching, adjusting, tools
- 63h-1/05 Chain casings as frame elements
- 63h-1/06 Special frame types
- 63h-1/07 Pressed sheet metal elements as frames
- 63h-1/08 Reinforced tube sections (63h-5)
- 63h-1/09 Fork structure
- 63h-1/10 Fork reinforcement, bracings, and safety devices for forks
- 63h-1/11 Bicycle frame elements with storage facilities for articles in the frame tubes
- 63h-1/12 Frames with several adjoining seats
- 63h-1/13 Frames for children's bicycles and for cyclists in the prone position
- Spring frames for bicycles
- 63h-2/01 Spring frames

- 63h-2/02 Front wheel spring suspension, lower part
- 63h-2/03 Front wheel spring suspension, upper part
- 63h-2/04 Rear wheel spring suspension
- 63h-2/05 Front and rear wheel spring suspension
- 63h-2/06 Wheel spring suspension: coil springs
- 63h-2/07 Resilient wheel forks, resiliently connected to fork tube and frame
- 63h-2/08 Leaf spring, pneumatic and rubber suspensions
- 63h-2/09 Spring suspensions of various kinds, friction shock absorbers
- 63h-2/10 Spring suspensions for miscellaneous purposes
- 63h-3 Collapsible bicycle frames
- Rigid and resilient frames for motorcycles
- 63h-4/01 Tube frames
- 63h-4/02 Carrier or box frames
- 63h-4/03 Miscellaneous frames
- Tube connections for bicycle and motorcycle frames
- 63h-5/01 Tube connections in general (63h-1)
- 63h-5/02 Tube connections made by casting or electric welding
- 63h-5/03 Detachable tube connections
- 63h-5/04 Detachable connections for saddles, handlebars, etc.
- Bicycles and motorcycles characterised by the type of frame**
- 63h-6 Monocycles
- 63h-7 Bicycles with special equipment for carrying passengers or loads
- 63h-8 Twin wheels, single-axle two-track cycles
- 63h-9 Tandems
- 63h-10 Cycles with three and more wheels (motor tricycles 63c-5)
- 63h-11 Bicycles, convertible into rail velocipedes (20c-20)
- Convertible bicycles and motorcycles, insofar as the frame is affected, except 63h-11
- 63h-12/01 Men's bicycles convertible into ladies' bicycles
- 63h-12/02 Bicycles convertible into motorcycles and vice versa
- 63h-12/10 Bicycles with sidecars, also collapsible or folding (sidecar superstructures 63g-17)
- 63h-12/20 Trailers, and additional cars attached to front of vehicle
- 63h-12/30 Double bicycles: one bicycle abreast another (30e-2)
- Handlebars and steering devices, saddle supports for bicycles and motorcycles**
- 63h-13 Steering devices in general
- 63h-14 Rigid handlebars
- 63h-15 Resilient handlebars
- 63h-16 Handlebars with arrangement facilitating removal, especially as protection against unauthorised use (63c-71; 63f-8; 63g-9; 68a-111; 74a-26)
- 63h-17 Adjustable handlebars
- 63h-18 Grips for handlebars: heating and ventilation; protection of hands against the weather; storing of articles inside grips (twist handles for motorcycles 63i-2)
- 63h-19 Saddle posts (63g-5)
- Accessories for motorcycles**
- 63h-20 Fuel tanks (63c-78; 63h-4)
- 63h-21 Cooling devices (63c-72)
- 63i Brakes for bicycles and motorcycles (63c-51 – 63c-57)**
- 63i-1 Brake shoe-type brakes

- 63i-2 Brakes operated by turning a grip or handlebar
- Hand or foot operated brakes
- 63i-3/01 acting on tyre cover or wheel rim
- 63i-3/02 not acting on tyre cover or wheel rim, e.g. jaw brakes
- 63i-3/03 acting on front and rear wheel
- 63i-4 Brakes actuated by compressed air or hydraulic pressure
- 63i-5 Brakes actuated by movement of the saddle
- 63i-6 Automatically actuated brakes
- 63i-7/01 Brake levers and linkages, locking devices therefor (63i-1 – 63i-4)
- 63i-7/02 Brake levers, etc., for double brakes acting on front and back wheel
- 63i-8 Non-free-wheeling back-peddalling brakes
- 63i-9 Coaster brakes with clutch cone, axially moved by means of a thread (free wheel 63k-34)
- 63i-10 Coaster brakes operated directly by the chain
- 63i-11/01 Other coaster brakes (63i-9; 63i-10)
- 63i-11/02 Coaster brakes in which the braking power is not transmitted by the chain
- 63i-11/03 Reaction brakes operated by hand
- 63i-12 Coaster brakes with gearshifts (gearshifts 63k-13 – 63k-21)
- 63i-13 Bicycle brakes actuated by simultaneous depression of both pedals or by turning them in opposite directions, and other pedal brakes

63k Driving mechanisms for occupant-propelled or engine-propelled cycles with one or two wheels and sleds, and for occupant-propelled road vehicles with three or more wheels and sports vehicles

Constant-ratio transmissions for occupant propelled bicycle, vehicles and sports vehicles (constant-ratio transmissions for motorcycles 63k-24)

Pedal drives

- 63k-1 with planetary gearing
- 63k-2 with spur gearing, without chain or connecting rods, apart from 63k-1
- 63k-3 with bevel gearing
- 63k-4 with pedals combined with connecting rod and crank
- 63k-5 with pedals combined with reciprocating chain or belt and ratchet mechanism
- 63k-6 with pedals combined with ratchet mechanism, apart from 63k-5
- 63k-7/01 with power transmission by crank and chain drive
- 63-7/02 with power transmission by friction wheels
- 63-7/03 with hydraulic power transmission or by compressed air
- 63-7/04 by walking motion on endless belt
- 63k-8 with auxiliary driving devices capable of storing and subsequently releasing energy, e.g. by means of springs, flywheels, balanced centrifugal devices, sails, wind wheels, propellers and elements adapted to be moved by the thighs of the driver (63a-54)
- 63k-9 Manual drives
- 63k-10 Combined manual and pedal drives
- 63k-11 Driving mechanisms, operated by movement of the seat
- Propulsion derived from reaction to roadway impact (63k-22)
- 63k-12/01 by means of push rods operated by the driver
- 63k-12/02 by means of the foot

Variable speed gearing for driver propelled bicycles and sports vehicles (variable-speed gearing for motorcycles 63k-25; for motor cars 63c-8 – 3c-12)

- 63k-13 Variable-speed sprocket gearing generally, apart from 63k-14 (47h-17)
- 63k-14 Variable-speed sprocket gearing with several sprockets and only one chain (47h-17)

- 63k-15 Variable-speed gearings with eccentrically mounted intermediate gear
- 63k-16 Variable-speed planetary gearings
- 63k-17 Spur gear variable-speed gearings, apart from 63k-15, 63k-16
- 63k-18 Bevel gear variable-speed gearings
- 63k-19 Pedal variable-speed gearings
- 63k-20 Variable-speed gearings with driving gears of variable diameter
- 63k-21 Other types of variable-speed gearings, apart from 63k-13 – 63k-20
- Driving mechanisms for sleds** (sled structures 63b-21 – 63b-30)
- 63k-22 Propulsion of sleds by means of kicking off with the foot, by means of crankshafts or similarly driven push rods and sails (63c-31; 63c-32; 63k-12)
- 63k-23 Propulsion of sleds by means of driving wheels, worm drives, and endless tracks (63c-29/01; 63c-29/02; 63c-30; 63d-22; 63d-23)
- Drives for motorcycles with one or two wheels, including the engine suspension**
- 63k-24 Constant-radio drives, belt, chain, gear or friction gear transmissions, also with engine located in the interior of a wheel
- 63k-25 Gearshifts
- 63k-26 Control devices for regulating the operation of the engine (63k-24; 63k-25), balanced centrifugal devices
- 63k-27 Auxiliary foot-power driven mechanisms for two-wheeled motorcycles in which the pedals serve as foot rests
- Chain and belt drives for bicycles** (in general 47d, 47h)
- 63k-28 Jockey pulleys and chain tightening devices cooperating with the bicycle fork (63c-12; 63k-5; 63k-14)
- 63k-29 Chains and sprockets, belts, belt-chains and belt-pulleys, including protective devices attached to the chains, insofar as they are particularly suited for bicycle drives (47d)
- Bicycle pedals**
- 63k-30 of constant length
- 63k-31 of adjustable length
- 63k-32 with length varying automatically during motion
- 63k-33 Foot rests for pedals
- Clutches**
- 63k-34 automatically operating for bicycles, particularly with free-wheel (63c-16/07; 63c-16/08; 63c-16/11; 63i-9 – 63i-12; 63k-5; 63k-6)
- 63k-35 mechanically engaged, for bicycles (47c-1 – 47c-16; 63c-14 – 63c-16)
- 63k-36 Flexible transmission means, inserted in the drive (63c-17; 63k-1 – 63k-28)
- 63k-37 Two-wheel drives with easily releasable couplings between sprocket and hub, and with linchpins (63d-27; 63d-31 – 63d-33)