

**ECLA****EUROPEAN CLASSIFICATION****B60K****ARRANGEMENT OR MOUNTING OF PROPULSION UNITS OR OF TRANSMISSIONS IN VEHICLES; ARRANGEMENT OR MOUNTING OF PLURAL DIVERSE PRIME-MOVERS; AUXILIARY DRIVES; INSTRUMENTATION OR DASHBOARDS FOR VEHICLES; ARRANGEMENTS IN CONNECTION WITH COOLING, AIR INTAKE, GAS EXHAUST, OR FUEL SUPPLY, OF PROPULSION UNITS, IN VEHICLES****Notes**

1. In this subclass, the following terms or expressions are used with the meanings indicated:
  - "conjoint control of drive units" includes such control for vehicles or of general applicability;
  - "auxiliary drives" means drives of auxiliary or external machines or devices from the propulsion unit, transmission, or other parts of the vehicle, and includes the control of such drives;
  - "transmission" means all propulsion parts linking propulsion units, e.g. engines, to ultimate propulsive elements, e.g. wheels;
  - "drive unit" means propulsion unit conjoint with transmission, a "drive unit" can additionally include the ultimate driven unit;
  - "sub-unit" means, e.g. propulsion unit, clutch, gearing or brake system;
  - "hybrid vehicle" means vehicles with plural diverse prime-movers for mutual or common propulsion
2. Attention is drawn to the Note following the title of class B60

**Guide heading:**

**Arrangement or mounting of propulsion units in vehicles** (of control devices for such units [B60K26/00](#); elastic mountings per se [F16F](#); propulsion units or their control per se, see the relevant classes)

**B60K1/00**

**Arrangement or mounting of electrical propulsion units** ([B60K7/00](#) takes precedence; arrangement or mounting of plural diverse prime-movers for mutual or common propulsion [B60K6/00](#); electric transmission arrangements [B60K17/12](#); electric equipment or propulsion of electrically-propelled vehicles per se [B60L](#); current-collectors for power supply lines of electrically-propelled vehicles [B60L5/00](#))

**B60K1/02**

- comprising more than one electric motor

**B60K1/04**

- of the electric storage means for propulsion (for auxiliary purposes only [B60R16/04](#); supplying batteries to, or removing batteries from, vehicles [B60S5/06](#)) [[C9511](#)]

**B60K3/00**

**Arrangement or mounting of steam or gaseous-pressure propulsion units** ([B60K7/00](#) takes precedence; arrangement or mounting of plural diverse prime-movers for mutual or common propulsion [B60K6/00](#); gaseous-pressure transmission arrangements [B60K17/10](#))

- B60K3/02 . of piston type
- B60K3/04 . of turbine type
- B60K5/00** **Arrangement or mounting of internal-combustion or jet-propulsion units** ([B60K7/00](#) takes precedence; arrangement or mounting of plural diverse prime-movers for mutual or common propulsion [B60K6/00](#))
- B60K5/02 . with the engine main axis, e.g. crankshaft axis, substantially in or parallel to the longitudinal centre line of the vehicle
- B60K5/04 . with the engine main axis, e.g. crankshaft axis, transversely to the longitudinal centre line of the vehicle
- B60K5/06 . . with the engine main axis substantially vertical
- B60K5/08 . comprising more than one engine
- B60K5/10 . providing for ready detachment of engine
- B60K5/12 . Arrangement of engine supports [(N: Supports comprising both a plastic spring and a fluid damper [F16F13/06](#))] [[C9709](#)]
- B60K5/12B . . [N: Resilient supports ([B60K15/12C](#) - [B60K15/12L](#) take precedence)]
- B60K5/12B2 . . . [N: characterised by the location of the supports relative to the motor or to each other ([B60K5/12B3](#) takes precedence)]
- B60K5/12B3 . . . [N: comprising resilient rings surrounding a part of the unit]
- B60K5/12B4 . . . [N: comprising protective elements, e.g. for protecting against heat, dust]
- B60K5/12C . . [N: Link-type support ([B60K5/12D](#), [B60K5/12H](#) take precedence)]
- B60K5/12D . . [N: Telescopic supports, e.g. telescopic dampers ([B60K5/12H](#) takes precedence)]
- B60K5/12F . . [N: Wire-type supports ([B60K5/12H](#) takes precedence)]
- B60K5/12G . . [N: Supports comprising friction damping devices ([B60K5/12D](#), [B60K5/12K](#) take precedence)]
- B60K5/12H . . [N: Plastically deformable supports]
- B60K5/12K . . [N: Adjustable supports, e.g. the mounting or the characteristics being adjustable]
- B60K5/12L . . [N: Supports comprising stoppers]
- B60K6/00** **Arrangement or mounting of plural diverse prime-movers for mutual or common propulsion, e.g. hybrid propulsion systems comprising electric motors and internal combustion engines** [N: ; Control systems therefor, i.e. systems controlling two or more prime movers, or controlling one of these prime movers and any of the transmission, drive or drive units (arrangement or mounting in vehicles of electrical gearing, in which an electrical machine serves only as reduction gearing and not as the prime mover and in which no electrical storing means are used [B60K17/12](#); control and regulation of purely electrical prime movers [B60L](#); prime-movers comprising electrical and internal combustion motors in a common engine block or housing per se [F02B65/00](#); electric motors or motor-generators used for starting the combustion engine [F02N11/04](#); electric motors for synchronising gearing [F16H3/12](#))] [[C0705](#)][N: Informative references: mechanical gearings with secondary electric drive [F16H3/72](#); arrangements for handling mechanical energy structurally associated with the dynamo-electric machine [H02K7/00](#); machines comprising structurally interrelated motor and generator parts [H02K51/00](#); dynamo-electric machines not otherwise provided for in [H02K](#) see [H02K57/00](#)][[N0204](#)]

**[N: Note**

In this subgroup, the following expressions are used, with the meanings indicated :

- "energy storing means" means apparatus for storing propulsive energy and providing stored energy to drive the prime mover or the ultimate propulsive elements
- "hybrid electric vehicle" (HEV) means a vehicle with an electrical prime mover and a combustion engine, in which the electrical prime mover and the combustion engine either singly or in combination, drive the ultimate propulsive elements, e.g. wheels
- "motor-generator" means an electric motor, or an electric generator, or an electrical machine which can be used for both functions, as a motor or a generator
- "prime mover" means a propulsion unit or source of motive power providing a mechanical output, e.g. via a rotating shaft

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- B60K6/08 . Prime-movers comprising combustion engines and mechanical or fluid energy storing means [C0705]
- B60K6/10 . . by means of a chargeable mechanical accumulator, e.g. flywheel
- B60K6/10B . . . [N: the accumulator being a flywheel]
- B60K6/12 . . by means of a chargeable fluidic accumulator
- B60K6/20 . the prime-movers consisting of electric motors and internal combustion engines, e.g. HEVs [N0705]

**[N: Notes**

When classifying in one of groups [B60K6/22](#), [B60K6/42](#) or [B60K6/50](#), further technical information, which is considered to represent information of interest for search, should also be classified in the other subgroups of main group [B60K6/00](#) to enable searching using a combination of classification symbols [C0705]

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- B60K6/22 . . characterised by apparatus, components or means specially adapted for HEVs [N0705]
- B60K6/24 . . . characterised by the combustion engines [N0705]
- B60K6/26 . . . characterised by the motors or the generators [N0705]
- B60K6/28 . . . characterised by the electric energy storing means, e.g. batteries or capacitors [N0705]
- B60K6/30 . . . characterised by chargeable mechanical accumulators, e.g. flywheels [N0705]
- B60K6/32 . . . characterised by the fuel cells [N0705]
- B60K6/34 . . . characterised by the absence of energy storing means [N0705]
- B60K6/36 . . . characterised by the transmission gearings [N0705]
- B60K6/365 . . . . with the gears having orbital motion [N0705]
- B60K6/38 . . . characterised by the driveline clutches (shift clutches within the gearing or transmission [B60K6/36](#), [N: [B60K6/54](#)]) [N0705] [C1201]
- B60K6/383 . . . . One-way clutches or freewheel devices [N0705]
- B60K6/387 . . . . Actuated clutches, i.e. clutches engaged or disengaged by electric, hydraulic or mechanical actuating means [N0705]
- B60K6/40 . . . characterised by the assembly or relative disposition of components [N0705]

- B60K6/405 . . . . Housings [N0705]
- B60K6/42 . . characterised by the architecture of the hybrid electric vehicle [N0705]
- B60K6/44 . . . Series-parallel type [N0705]
- B60K6/442 . . . . Series-parallel switching type [N0705]
- B60K6/445 . . . . Differential gearing distribution type [N0705]
- B60K6/448 . . . . Electrical distribution type [N0705]
- B60K6/46 . . . Series type [N0705]
- B60K6/48 . . . Parallel type [N0705]
- B60K6/485 . . . . Motor-assist type [N0705]
- B60K6/50 . . Architecture of the driveline characterised by arrangement or kind of transmission units [N0705]
- B60K6/52 . . . Driving a plurality of drive axles, e.g. four-wheel drive [N0705]
- B60K6/54 . . . Transmission for changing ratio [N0705]
- B60K6/543 . . . . the transmission being a continuously variable transmission [N0705]
- B60K6/547 . . . . the transmission being a stepped gearing [N0705]

**B60K7/00** **Disposition of motor in, or adjacent to, traction wheel** (roller-skate driving mechanisms [A63C17/12](#))

- B60K7/00E . [N: the motor being electric] [N9609]
- B60K7/00H . [N: the motor being hydraulic] [N9609]
- B60K7/00P . [N: the motor being pneumatic] [N1202]

**B60K8/00** **Arrangement or mounting of propulsion units not provided for in one of the preceding main groups**

**Guide heading:** **Arrangements in connection with cooling, air intake, gas exhaust, fuel supply, or power supply of propulsion units in vehicles**

**B60K11/00** **Arrangement in connection with cooling of propulsion units** (heating the interior space [B60H](#); cooling internal combustion engines per se [F01P](#)) [C9607]

- B60K11/02 . with liquid cooling
- B60K11/04 . . Arrangement or mounting of radiators, radiator shutters, or radiator blinds [N: ([B60K11/08B](#) takes precedence)]
- B60K11/06 . with air cooling
- B60K11/08 . Air inlets for cooling; Shutters or blinds therefor [N: ([radiator or grille guards B60R19/52](#))] [C9409]
- B60K11/08B . . [N: with adjustable shutters or blinds]

**B60K13/00** **Arrangement in connection with combustion air intake or gas exhaust of propulsion units** (extensions for melting snow or ice on roads or like surfaces [E01H5/00](#), [E01H6/00](#); forming part of the engine [F01N](#); supplying combustion engines with

combustible mixtures or constituents F02M) [C1204]

- B60K13/02 . concerning intake
  - B60K13/04 . concerning exhaust ([N: collecting exhaust gases with central suction systems not forming part of vehicles, e.g. in workshops or tunnels [B08B15/00C](#), otherwise along carriageways [E01C1/00C](#);) extensions for melting snow on roads [E01H5/00](#), [E01H6/00](#); exhaust or silencing apparatus for internal combustion engines per se [F01N](#); [N: pipes, joints or supports therefor [F16L](#)])
  - B60K13/06 . using structural parts of the vehicle as ducts, e.g. frame parts
- B60K15/00** **Arrangement in connection with fuel supply of combustion engines** [N: or other fuel consuming energy converters, e.g. fuel cells]; **Mounting or construction of fuel tanks** (tanks in general [B65D](#), [F17C](#); supplying combustion engines with combustible mixtures or constituents [F02M](#)) [C0307]
- B60K15/01 . Arrangement of fuel conduits (chassis frame forming fluid conduit means [B62D21/17](#))
  - B60K15/01B . . [N: of gas conduits]
  - B60K15/03 . Fuel tanks (chassis frame comprising fluid storage compartment [B62D21/16](#); [N: Details of the fuel feeding system related to the fuel tank [F02M37/00T](#)]) [C0707]
  - B60K15/03B . . [N: Gas tanks ([B60K15/07](#) takes precedence)]
  - B60K15/03P . . [N: made of non-metallic material, e.g. plastics, or of a combination of non-metallic and metallic material ([B60K15/03B](#) takes precedence)] [N9612]
  - B60K15/035 . . characterised by venting means
  - B60K15/035B . . . [N: adapted to avoid loss of fuel or fuel vapour, e.g. with vapour recovery systems]
  - B60K15/035C . . . [N: Valve arrangements in the vent line]
  - B60K15/04 . . Tank inlets ([B60K15/077](#) takes precedence) [C9805]
  - B60K15/04C . . . [N: Anti-siphoning devices]
  - B60K15/04F . . . [N: Filler caps for fuel tanks] [N9805]
  - B60K15/04F1 . . . . [N: Provided with a lock] [N9805]
  - B60K15/05 . . . Inlet covers
  - B60K15/06 . . characterised by fuel reserve systems
  - B60K15/06B . . . [N: with level control]
  - B60K15/063 . . Arrangement of tanks
  - B60K15/067 . . . Mounting of tanks
  - B60K15/07 . . . . of gas tanks
  - B60K15/073 . . Tank construction specially adapted to the vehicle ([B60K15/077](#) takes precedence)
  - B60K15/077 . . with means modifying or controlling distribution or motion of fuel, e.g. to prevent noise, surge, splash or fuel starvation
  - B60K15/10 . concerning gas-producing plants

**B60K16/00** **Arrangements in connection with power supply from force of nature, e.g. sun, wind** (electric propulsion with power supply from force of nature, e.g. sun, wind, [B60L8/00](#); effecting propulsion by wind motors driving water-engaging propulsive elements)

[B63H13/00](#))

**Guide heading:** **Arrangement or mounting of transmissions or their control in vehicles**  
([torque-transmitting axles B60B](#); [combined transmission and steering gear for steering non-deflectable wheels B62D](#))

- B60K17/00** **Arrangement or mounting of transmissions in vehicles** (clutches per se, e.g. construction thereof, [F16D](#); gearing per se, e.g. construction thereof, [F16H](#)) [[C9607](#)]
- [B60K17/02](#) . characterised by arrangement, location, or kind of clutch
- [B60K17/04](#) . characterised by arrangement, location, or kind of gearing ([electric equipment or propulsion of electrically-propelled vehicles B60L](#)) [[C9607](#)]
- [B60K17/04B](#) . . [N: Transmission unit disposed in on near the vehicle wheel, or between the differential gear unit and the wheel]
- [B60K17/04B1](#) . . . [N: with planetary gearing having orbital motion]
- [B60K17/06](#) . . of change-speed gearing ([B60K17/10 to B60K17/16 take precedence](#)) [[C9607](#)]
- [B60K17/08](#) . . . of mechanical type
- [B60K17/10](#) . . of fluid gearing (of fluid clutches [B60K17/02](#))
- [B60K17/10T](#) . . . [N: Units comprising at least a part of the gearing and a torque-transmitting axle, e.g. transaxles ([B60K17/14 takes precedence](#))]
- [B60K17/12](#) . . of electric gearing (of electrically-actuated clutches [B60K17/02](#))
- [B60K17/14](#) . . the motor of fluid or electric gearing being disposed in or adjacent to traction wheel ([B60K7/00 takes precedence](#))
- [B60K17/14B](#) . . . [N: the electric gearing being disposed in or adjacent to traction wheel]
- [B60K17/16](#) . . of differential gearing
- [B60K17/16B](#) . . . [N: provided between independent half axles ([B60K17/18, B60K17/20 take precedence](#))]
- [B60K17/18](#) . . . [N: IPC5] in which the differential movement is obtained by resilient means
- [B60K17/20](#) . . . [N: IPC5] in which the differential movement is limited
- [B60K17/22](#) . characterised by arrangement, location, or type of main drive shafting, e.g. cardan shaft
- [B60K17/24](#) . . Arrangements of mountings for shafting
- [B60K17/26](#) . characterised by arrangement, location, of type of freewheel device
- [B60K17/28](#) . characterised by arrangement, location, or type of power take-off
- [B60K17/30](#) . the ultimate propulsive elements, e.g. ground wheels, being steerable
- [B60K17/30B](#) . . [N: with a gearwheel on the steering knuckle or kingpin axis]
- [B60K17/30C](#) . . [N: with a universal joint in the axis of the steering knuckle]
- [B60K17/32](#) . the ultimate propulsive elements, e.g. ground wheels, being rockable about a horizontal pivot
- [B60K17/34](#) . for driving both front and rear wheels, e.g. four wheel drive vehicles ([arrangement or](#)

mounting of control devices for changing number of driven wheels [B60K23/08](#)  
[\[C9607\]](#)

- B60K17/342 . . having a longitudinal, endless element, e.g. belt or chain, for transmitting drive to wheels
- B60K17/344 . . having a transfer gear
- B60K17/346 . . . the transfer gear being a differential gear
- B60K17/346B . . . . [N: with means for changing distribution of torque between front and rear wheels]
- B60K17/346B1 . . . . . [N: self-actuated means, e.g. differential locked automatically by difference of speed]
- B60K17/346C . . . . . [N: combined with a change speed gearing, e.g. range gear]
- B60K17/348 . . having differential means for driving one set of wheels, e.g. the front, at one speed and the other set, e.g. the rear, at a different speed ([B60K17/346](#) takes precedence)
- B60K17/35 . . . including arrangements for suppressing or influencing the power transfer, e.g. viscous clutches ([differential gearing with locking devices](#) [N: [F16H1/44](#)])  
[\[C9607\]](#)
- B60K17/35B . . . . . [N: with self-actuated means, e.g. by difference of speed]
- B60K17/35B1 . . . . . [N: comprising a viscous clutch]
- B60K17/35C . . . . . [N: with a clutch adjacent to traction wheel, e.g. automatic wheel hub]
- B60K17/352 . . . . . [N: IPC5] manually operated
- B60K17/354 . . having separate mechanical assemblies for transmitting drive to the front or to the rear wheels or set of wheels [\[C9607\]](#)
- B60K17/356 . . having fluid or electric motor, for driving one or more wheels ([disposition of motor in, or adjacent to, traction wheel](#) [B60K7/00](#))
- B60K17/358 . . [N: IPC5] all driven wheels being steerable
- B60K17/36 . for driving tandem wheels

**B60K20/00 Arrangement or mounting of change-speed gearing control devices in vehicles (movable cabs having special adaptations of vehicle control devices [B62D33/06](#); such control devices per se [F16H](#)) [\[C0612\]](#)**

- B60K20/02 . of initiating means ([control mechanisms in general](#) [G05G](#))
- B60K20/04 . . floor mounted
- B60K20/06 . . mounted on steering column or the like
- B60K20/08 . . Dashboard means

[N: **WARNING**

1. The groups [F16H59/00](#) to [F16H63/00](#) were introduced on 1 May, 1988. These groups include the subject matter of [B60K20/14](#), which from this date is no longer used for the classification of new documents
2. Documents from the backlog of group [B60K20/14](#) are in the process of being systematically transferred to groups [F16H59/00](#) to [F16H63/00](#)

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- B60K20/14 . . [N: IPC4] fluid

- B60K23/00** Arrangement or mounting of control devices for vehicle transmissions, or parts thereof, not otherwise provided for (movable cabs having special adaptations of vehicle control devices [B62D33/06](#); such control devices per se F16D, F16H) [C0612]
- [B60K23/02](#) . for main transmission clutches
- [B60K23/04](#) . for differential gearing
- [B60K23/06](#) . for freewheel devices
- [B60K23/08](#) . for changing number of driven wheels, [N: for switching from driving one axle to driving two or more axles ([B60K17/35C](#) takes precedence)] [C9601]
- [B60K23/08B](#) . . [N: for varying torque distribution between driven axles, e.g. by transfer clutch] [N9506]
- B60K25/00** Auxiliary drives ([B60K16/00](#) takes precedence; arrangements of tyre-inflating pumps mounted on vehicles [B60C23/10](#); driving tyre-inflating pumps [B60C](#); driving engine auxiliaries [F02B](#)) [C9607]
- [B60K25/02](#) . directly from an engine shaft
- [B60K25/04](#) . from static or dynamic pressure or vacuum, developed by the engine
- [B60K25/06](#) . from the transmission power take-off (transmissions having power-take-off [B60K17/28](#))
- [B60K25/08](#) . from a ground wheel, e.g. engaging the wheel tread or rim
- [B60K25/10](#) . directly from oscillating movements due to vehicle running motion, e.g. suspension movement (resilient suspensions having dampers accumulating utilisable energy, e.g. compressing air, [B60G13/14](#)) [C9607]
- B60K26/00** Arrangements or mounting of propulsion unit control devices in vehicles
- [B60K26/02](#) . of initiating means or elements
- [B60K26/02B](#) . . [N: with means for providing feel, e.g. by changing pedal force characteristics]
- [B60K26/04](#) . of means connecting initiating means or elements to propulsion unit
- B60K28/00** Safety devices for propulsion-unit control, specially adapted for, or arranged in, vehicles, e.g. preventing fuel supply or ignition in the event of potentially dangerous conditions (for electrically-propelled vehicles [B60L3/00](#); road vehicle drive control systems for purposes not related to the control of a particular sub-units [B60W30/00](#)) [C0612]
- [B60K28/02](#) . responsive to conditions relating to the driver [N: (see provisionally also [B60K28/00](#))]
- [B60K28/04](#) . . responsive to presence or absence of the driver, e.g. to weight or lack thereof
- [B60K28/06](#) . . responsive to incapacity of driver
- [B60K28/06B](#) . . . [N: preventing starting of vehicles]

- B60K28/06D . . . [N: actuating a signalling device ([B60K28/06B](#) takes precedence)]
- B60K28/08 . responsive to conditions relating to the cargo, e.g. overload [N: (see provisionally also [B60K28/00](#))]
- B60K28/10 . responsive to conditions relating to the vehicle [N: (see provisionally also [B60K28/00](#))]
- B60K28/12 . . responsive to conditions relating to doors or doors locks, e.g. open door [N: (see provisionally also [B60K28/00](#))]
- B60K28/14 . . responsive to accident or emergency, e.g. deceleration, tilt of vehicle
- B60K28/16 . . responsive to, or preventing, skidding of wheels (brake control systems for vehicle drive stability B60T8/1755; arrangements responsive to a speed condition for adjusting wheel braking force B60T8/32; control of vehicle driving stability otherwise than by controlling the propulsion unit only B60W30/02; preventing wheel slippage by reducing power in rail vehicles B61C15/00) [C0612]
- B60K28/16T . . . [N: acting on elements of the vehicle drive train other than the propulsion unit and brakes, e.g. transmission, clutch, differential (acting on brakes [B60T8/17](#)) [N9710] [C0505]

**B60K31/00** **Vehicle fittings, acting on a single sub-unit only, for automatically controlling, i.e. preventing speed from exceeding an arbitrarily established velocity or maintaining speed at a particular velocity, as selected by the vehicle operator (fittings acting on two or more sub-units [B60W30/14](#); propulsion unit control in general, see the relevant classes or subclasses, e.g. F02D; speedometers G01P; systems or devices for controlling speed in general [G05D13/00](#);) [N: in traffic anti-collision system for road vehicles [G08G1/16](#)] [C0612]**

**Note**

In this group:

- the means ordinarily includes a device, e.g. a servomechanism, for operating a velocity-affecting element of the vehicle, e.g. the throttle;
- a means for preventing a vehicle from exceeding a particular speed is often referred to as a "governor", whereas a means for maintaining the vehicle within a relatively narrow speed range is generally designated as "speed control". Since these two functions are frequently interrelated, no attempt has been made to identify such means as being particularly adapted to perform only one, or the other of the functions.

- B60K31/00D . [N: including means for detecting potential obstacles in vehicle path]
- B60K31/00F . [N: responsive to externally generated signalling]
- B60K31/00G . [N: responsive to vehicle path curvature]
- B60K31/00G2 . . [N: responsive to vehicle steering angle]
- B60K31/00G4 . . [N: responsive to centrifugal force acting on vehicle due to the path it is following]
- B60K31/02 . including electrically actuated servomechanism [N: including an electric control system or a servomechanism in which the vehicle velocity affecting element is actuated electrically]
- B60K31/04 . . and means for comparing one electrical quantity, e.g. voltage, pulse, waveform, flux, or the like, with another quantity of a like kind, which comparison means is involved in the development of an electrical signal which is fed into the controlling

means

- B60K31/04B . . . [N: where at least one electrical quantity is set by the vehicle operator]
- B60K31/04B2 . . . . [N: in a memory, e.g. a capacitor]
- B60K31/04B2B . . . . . [N: the memory being digital]
  
- B60K31/06 . including fluid pressure actuated servomechanism [N: in which the vehicle velocity affecting element is actuated by fluid pressure]
- B60K31/08 . . and one or more electrical components for establishing or regulating input pressure
- B60K31/10 . . and means for comparing one electrical quantity, e.g. voltage, pulse, waveform, flux, or the like, with another quantity of a like kind, which comparison means is involved in the development of a pressure which is fed into the controlling means
- B60K31/10B . . . [N: where at least one electrical quantity is set by the vehicle operator]
- B60K31/10B2 . . . . [N: in a memory, e.g. a capacitor]
- B60K31/10B2B . . . . . [N: the memory being digital]
  
- B60K31/12 . including a device responsive to centrifugal forces [N: (centrifugal force acting on the vehicle due to the path it is following [B60K31/00G4](#), motor speed limiting by governors [G05D13/10](#))]
- B60K31/14 . . having an electrical switch which is caused to function by the centrifugal force
- B60K31/16 . having means to prevent or discourage unauthorised use or adjusting of the controlling means [N: (vehicle theft prevention in general [B60R25/00](#))]
- B60K31/18 . including a device to audibly, visibly, or otherwise signal the existence of unusual or unintended speed [N: to the driver of the vehicle (devices primarily intended for indicating speed to other traffic [B60Q1/54](#))]
- B60K31/18S . . [N: connected to the speedometer display, e.g. by sensors or switches responsive to the position of the indicator needle (arrangement of pointers in automobile speedometers for indicating predetermined speeds by the detection of the position of the indicator needle [G01P1/11](#))] [N9609]

**Guide heading:** **Arrangement of adaptations of instruments specially for vehicles; Dashboards**

**B60K35/00** **Arrangement of adaptations of instruments** (arrangements on dashboard [B60K37/02](#))

**B60K37/00** **Dashboards** (as road-vehicle superstructure sub-unit [B62D](#))

B60K37/02 . Arrangement of instruments (devices for lighting dashboard [B60Q](#))

B60K37/04 . Arrangement of fittings on dashboard (of instruments [B60K37/02](#))

B60K37/06 . . of control, e.g. control knobs

**B60K41/00** [N: IPC7] **Conjoint control of drive units; Conjoint control of at least two sub-units thereof (arrangement of plural diverse prime-movers for mutual or common propulsion B60K6/00)** [C9607]

[N: **WARNING**

This group and its subgroups are no longer used for the classification of new documents

as from January 1st, 2006. The backlog of these groups is being continuously reclassified to the relevant groups of B60W.

]

### **Notes**

1. The control of a single sub-unit is classified in the relevant class for the sub-unit. Where a single sub-unit is controlled by means of signals or commands from other sub-units the control of this single sub-unit is classified in the relevant class for this sub-unit. For instance, the control of variable-ratio gearing by means of signals from the engine or [N: from another sub-unit influenced by] the accelerator is classified in subclass F16H
2. Conjoint control of drive units, e.g. propulsion units, and variable-ratio gearing occurring only transiently during ratio shift and being also characterised by the control of the gearing is classified in subclass F16H

B60K41/00B . [N: Changing foot controls into hand controls, e.g. for invalid people]

B60K41/00E . [N: using electrical means] [N9707]

B60K41/00E3 . . [N: with analogue circuits, relays and switches] [N9707]

B60K41/00H . [N: using hydraulic or pneumatic means] [N9707]

B60K41/02 . [N: IPC7] of propulsion unit and clutch

B60K41/02E . . [N: using electrical means]

B60K41/02E3 . . . [N: with analogue circuits, relays and switches] [N9707]

B60K41/02H . . [N: using hydraulic or pneumatic means] [N9707]

B60K41/04 . [N: IPC7] of propulsion unit and gearing

B60K41/04E . . [N: using electrical means]

B60K41/04E3 . . . [N: with analogue circuits, relays and switches] [N9707]

B60K41/04H . . [N: using hydraulic or pneumatic means] [N9707]

B60K41/06 . . [N: IPC7] the gearing being stepped

B60K41/06E . . . [N: using electrical means]

B60K41/06E3 . . . . [N: with analogue circuits, relays and switches] [N9707]

B60K41/06H . . . [N: using hydraulic or pneumatic means] [N9707]

B60K41/08 . . . [N: IPC7] with interruption of the drive

B60K41/08E . . . . [N: using electrical means]

B60K41/08E3 . . . . . [N: with analogue circuits, relays and switches] [N9707]

B60K41/08H . . . . [N: using hydraulic or pneumatic means] [N9707]

B60K41/10 . . . [N: IPC7] without interruption of the drive

B60K41/10E . . . . [N: using electrical means]

B60K41/10E3 . . . . . [N: with analogue circuits, relays and switches] [N9707]

B60K41/10H . . . . [N: using hydraulic or pneumatic means] [N9707]

B60K41/12 . . [N: IPC7] the gearing being infinitely variable

B60K41/14	. . .	[N: IPC7] of mechanical type
B60K41/14E	. . . .	[N: using electrical means]
B60K41/14E3	. . . . .	[N: with analogue circuits, relays and switches] [N9707]
B60K41/14H	. . . .	[N: using hydraulic or pneumatic means] [N9707]
B60K41/16	. . .	[N: IPC7] of fluid type
B60K41/16E	. . . .	[N: using electrical means] [N9707]
B60K41/16E3	. . . . .	[N: with analogue circuits, relays and switches] [N9707]
B60K41/16H	. . . .	[N: using hydraulic or pneumatic means] [N9707]
B60K41/18	. . .	[N: IPC7] of electric type, e.g. electromagnetic
B60K41/20	. . .	[N: IPC7] of propulsion unit and brake system
B60K41/20E	. . .	[N: using electrical means]
B60K41/20E3	. . . .	[N: with analogue circuits, relays and switches] [N9707]
B60K41/20H	. . .	[N: using hydraulic or pneumatic means] [N9707]
B60K41/22	. . .	[N: IPC7] of clutch and gearing( <a href="#">control of torque converter lock-up clutchesF16H61/14</a> )
B60K41/22E	. . .	[N: using electrical means]
B60K41/22E3	. . . .	[N: with analogue circuits, relays and switches] [N9707]
B60K41/22H	. . .	[N: using hydraulic or pneumatic means] [N9707]
B60K41/24	. . .	[N: IPC7] of clutch and brake system
B60K41/24E	. . .	[N: using electrical means]
B60K41/24E3	. . . .	[N: with analogue circuits, relays and switches] [N9707]
B60K41/24H	. . .	[N: using hydraulic or pneumatic means] [N9707]
B60K41/26	. . .	[N: IPC7] of gearing and brake system
B60K41/26E	. . .	[N: using electrical means]
B60K41/26E3	. . . .	[N: with analogue circuits, relays and switches] [N9707]
B60K41/26H	. . .	[N: using hydraulic or pneumatic means] [N9707]
B60K41/28	. . .	[N: IPC7] of three or more sub-units
B60K41/28E	. . .	[N: using electrical means]
B60K41/28E1	. . . .	[N: the sub-units being engine, clutch and gearing] [N9604]
B60K41/28E3	. . . . .	[N: with analogue circuits, relays and switches] [N9707]
B60K41/28H	. . .	[N: using hydraulic or pneumatic means] [N9707]