## CPC COOPERATIVE PATENT CLASSIFICATION

### B PERFORMING OPERATIONS; TRANSPORTING

**NOTES omitted**

### TRANSPORTING

#### B60 VEHICLES IN GENERAL

**NOTE omitted**

### B60K ARRANGEMENT OR MOUNTING OF PROPULSION UNITS OR OF TRANSMISSIONS IN VEHICLES; ARRANGEMENT OR MOUNTING OF PLURAL DIVERSE PRIME-MOVERS IN VEHICLES; AUXILIARY DRIVES FOR VEHICLES; 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

#### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

### 1/00 Arrangement or mounting of electrical propulsion units (of control devices for such units B60K 26/00; elastic mountings per se F16F; propulsion units or their control per se, see the relevant classes)

#### 1/04 of the electric storage means for propulsion (exchanging batteries for electric propulsion of vehicles B60L 53/80; for auxiliary purposes only B60R 16/04; supplying batteries to, or removing batteries from, vehicles B60S 5/06)

#### WARNING

Group B60K 1/04 is impacted by reclassification into group B60L 53/80. Groups B60K 1/04 and B60L 53/80 should be considered in order to perform a complete search.

### Arrangement or mounting of propulsion units in vehicles

| 2001/001 | [one motor mounted on a propulsion axle for rotating right and left wheels of this axle] |
| 2001/003 | [with means for cooling the electrical propulsion units] |
| 2001/005 | [the electric storage means] |
| 2001/006 | [the electric motors] |
| 2001/008 | [with means for heating the electrical propulsion units] |
| 2001/009 | comprising more than one electric motor |

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Arrangement or mounting of propulsion units in vehicles

B60K

2001/0477 . . . [from the back]
2001/0483 . . . [from the front]
2001/0488 . . . [with arrangements for pivoting]
2001/0494 . . . [with arrangements for sliding]

3/00 Arrangement or mounting of steam or gaseous-pressure propulsion units (B60K 7/00) takes precedence; arrangement or mounting of plural diverse prime-movers for mutual or common propulsion B60K 6/00; gaseous-pressure transmission arrangements B60K 17/10)

3/02 . of piston type
3/04 . of turbine type

5/00 Arrangement or mounting of internal-combustion or jet-propulsion units (B60K 7/00) takes precedence; arrangement or mounting of plural diverse prime-movers for mutual or common propulsion B60K 6/00)

2005/0003 . [the internal combustion or jet propulsion unit is arranged between the front and the rear axle]
2005/0006 . [the internal combustion or jet propulsion unit is arranged behind the rear axle]

5/02 . with the engine main axis, e.g. crankshaft axis, substantially in or parallel to the longitudinal centre line of the vehicle
5/04 . with the engine main axis, e.g. crankshaft axis, transversely to the longitudinal centre line of the vehicle
5/06 . with the engine main axis substantially vertical
5/08 . comprising more than one engine
5/10 . providing for ready detachment of engine
5/12 . Arrangement of engine supports (supports comprising both a plastic spring and a fluid damper F16F 13/06)

5/1208 . . [Resilient supports (B60K 5/1241 - B60K 5/1291 take precedence)]
5/1216 . . . [characterised by the location of the supports relative to the motor or to each other (B60K 5/1225 takes precedence)]
5/1225 . . . [comprising resilient rings surrounding a part of the unit]
5/1233 . . . [comprising protective elements, e.g. for protecting against heat, dust]
5/1241 . . . [Link-type support (B60K 5/125, B60K 5/1275 take precedence)]
5/125 . . . [Telescopic supports, e.g. telescopic dampers (B60K 5/1275 takes precedence)]
5/1258 . . . [Wire-type supports (B60K 5/1275 (takse precedence)]
5/1266 . . [Supports comprising friction damping devices (B60K 5/125, B60K 5/283 take precedence)]
5/1275 . . [Plastically deformable supports]
5/1283 . . [Adjustable supports, e.g. the mounting or the characteristics being adjustable]
5/1291 . . [Supports comprising stoppers]

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

6/08 . Prime-movers comprising combustion engines and mechanical or fluid energy storing means
6/10 . by means of a chargeable mechanical accumulator, e.g. flywheel
6/105 . . . [the accumulator being a flywheel]
6/12 . by means of a chargeable fluidic accumulator
2006/123 . . . [for driving pneumatic motors]
2006/126 . . . [the hydraulic accumulator starts the engine]
6/20 . the prime-movers consisting of electric motors and internal combustion engines, e.g. HEVs

NOTE
When classifying in one of groups B60K 6/22, B60K 6/42 or B60K 6/50, further technical information, which is considered to represent information of interest for search, should also be classified in the other subgroups of main
Arrangement or mounting of propulsion units in vehicles

B60K 6/20

(continued)

<table>
<thead>
<tr>
<th>Group</th>
<th>Characters</th>
<th>Description</th>
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<tbody>
<tr>
<td>B60K</td>
<td>6/00</td>
<td>to enable searching using a combination of classification symbols</td>
</tr>
<tr>
<td>6/22</td>
<td>...</td>
<td>characterised by apparatus, components or means specially adapted for HEVs</td>
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<tr>
<td>6/24</td>
<td>...</td>
<td>characterised by the combustion engines</td>
</tr>
<tr>
<td>6/26</td>
<td>...</td>
<td>characterised by the motors or the generators</td>
</tr>
<tr>
<td>2006/262</td>
<td>...</td>
<td>[the motor or generator are used as clutch, e.g. between engine and drivetrain]</td>
</tr>
<tr>
<td>2006/264</td>
<td>...</td>
<td>[with outer rotor and inner stator]</td>
</tr>
<tr>
<td>2006/266</td>
<td>...</td>
<td>[with two coaxial motors or generators]</td>
</tr>
<tr>
<td>2006/268</td>
<td>...</td>
<td>[Electric drive motor starts the engine, i.e. used as starter motor]</td>
</tr>
<tr>
<td>6/28</td>
<td>...</td>
<td>characterised by the electric energy storing means, e.g. batteries or capacitors</td>
</tr>
<tr>
<td>6/30</td>
<td>...</td>
<td>characterised by chargeable mechanical accumulators, e.g. flywheels</td>
</tr>
<tr>
<td>6/32</td>
<td>...</td>
<td>characterised by the fuel cells</td>
</tr>
<tr>
<td>6/34</td>
<td>...</td>
<td>characterised by the absence of energy storing means</td>
</tr>
<tr>
<td>6/36</td>
<td>...</td>
<td>characterised by the transmission gearings</td>
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<tr>
<td>6/39</td>
<td>...</td>
<td>with the gears having orbital motion</td>
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<tr>
<td>6/38</td>
<td>...</td>
<td>characterised by the driveline clutches (shift clutches within the gearing or transmission B60K 6/36 [B60K 6/54])</td>
</tr>
</tbody>
</table>

2006/381 | ... | [characterized by driveline brakes (shift brakes in transmission B60K 6/54)] |
| 6/383 | ... | One-way clutches or freewheel devices |
| 6/387 | ... | Actuated clutches, i.e. clutches engaged or disengaged by electric, hydraulic or mechanical actuating means |
| 6/40 | ... | characterised by the assembly or relative disposition of components |
| 6/405 | ... | Housings |
| 6/42 | ... | characterised by the architecture of the hybrid electric vehicle |
| 6/44 | ... | Series-parallel type |
| 6/442 | ... | Series-parallel switching type |
| 6/445 | ... | Differential gearing distribution type |
| 6/448 | ... | Electrical distribution type |
| 6/46 | ... | Series type |
| 6/48 | ... | Parallel type |

2006/4808 | ... | [Electric machine connected or connectable to gearbox output shaft] |
| 2006/4816 | ... | [Electric machine connected or connectable to gearbox internal shaft] |
| 2006/4825 | ... | [Electric machine connected or connectable to gearbox input shaft] |
| 2006/4833 | ... | [Step up or reduction gearing driving generator, e.g. to operate generator in most efficient speed range] |
| 2006/4841 | ... | [the gear provides shifting between multiple ratios] |
| 6/485 | ... | Motor-assist type |
| 6/50 | ... | Architecture of the driveline characterised by arrangement or kind of transmission units |
| 6/52 | ... | Driving a plurality of drive axles, e.g. four-wheel drive |
| 6/54 | ... | Transmission for changing ratio |
| 2006/541 | ... | [without reverse ratio using instead electric reversing] |
| 2006/542 | ... | [with overdrive ratio] |
| 6/543 | ... | the transmission being a continuously variable transmission |

6/547 | ... | the transmission being a stepped gearing |

7/00 Disposition of motor in, or adjacent to, traction wheel (roller-skate driving mechanisms A63C 17/12)

7/0007 | ... | [the motor being electric] |
| 7/0015 | ... | [the motor being hydraulic] |
| 7/0023 | ... | [the motor being pneumatic] |
| 2007/0005 | ... | [with two or more motors driving a single wheel] |
| 2007/0038 | ... | [the motor moving together with the wheel axle] |
| 2007/0046 | ... | [the motor moving together with the vehicle body, i.e. moving independently from the wheel axle] |
| 2007/0053 | ... | [the motor moving relative to the vehicle body and to the wheel axle] |
| 2007/0061 | ... | [the motor axle being parallel to the wheel axle] |
| 2007/0069 | ... | [the motor axle being perpendicular to the wheel axle] |
| 2007/0076 | ... | [the motor axle being horizontal] |
| 2007/0084 | ... | [the motor axle being vertical] |
| 2007/0092 | ... | [the motor axle being coaxial to the wheel axle] |

8/00 Arrangement or mounting of propulsion units not provided for in one of the preceding main groups

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

11/00 Arrangement in connection with cooling of propulsion units (heating the interior space B60H; cooling internal combustion engines per se F01P)

11/02 | ... | with liquid cooling |
| 11/04 | ... | Arrangement or mounting of radiators, radiator shutters, or radiator blinds ([B60K 11/085 takes precedence]) |
| 11/06 | ... | with air cooling |
| 11/08 | ... | Air inlets for cooling; Shutters or blinds therefor ([radiator or grille guards B60R 19/52]) |
| 11/085 | ... | [with adjustable shutters or blinds] |

13/00 Arrangement in connection with combustion air intake or gas exhaust of propulsion units (extensions for melting snow on ice on roads or like surfaces E01H 5/00; E01H 6/00; forming part of the engine F01N; supplying combustion engines with combustible mixtures or constituents F02M)

13/02 | ... | concerning intake |
| 13/04 | ... | concerning exhaust ([collecting exhaust gases with central suction systems not forming part of vehicles, e.g. in workshops or tunnels B08B 15/002, otherwise along carriageways E01C 1/005; extensions for melting snow on roads E01H 5/00, E01H 6/00; exhaust or silencing apparatus for internal combustion engines per se F01N; [pipes, joints or supports therefor F16L]) |
| 13/06 | ... | using structural parts of the vehicle as ducts, e.g. frame parts |

15/00 Arrangement in connection with fuel supply of combustion engines (or other fuel consuming energy converters, e.g. fuel cells); Mounting or construction of fuel tanks (tanks in general B65D, E17C; supplying combustion engines with combustible mixtures or constituents F02M)

15/01 | ... | Arrangement of fuel conduits (chassis frame forming fluid conduit means B62D 21/17) |
| 15/013 | ... | [of gas conduits]
Arrangements in connection with cooling, air intake, gas exhaust, fuel supply, or power supply of propulsion units...

2015/0263 . . . [Ball valves]
2015/0269 . . . [Flap valves]
2015/0276 . . . [Valves with membranes]
2015/0282 . . . [Umbrella type valves]
2015/0289 . . . [Float valves; Floats therefor]
2015/0296 . . . [Pressure regulating valves]
2015/0302 . . . [Electromagnetic valves]
2015/0309 . . . [Tanks specially adapted for particular fuels]
2015/0315 . . . [for hydrogen]
2015/0322 . . . [for methanol]
2015/0328 . . . [Arrangements or special measures related to fuel tanks or fuel handling]
2015/0335 . . . [for fast filling of fuel tanks, e.g. specific filler pipes for pressurised fuelling]
2015/0342 . . . [to allow automatic or robotised filling of the tank]
2015/0348 . . . [for supplying additives to fuel]
2015/0355 . . . [for supplying different types of fuel]
2015/0361 . . . [for checking the quality or quantity of fuel during filling of fuel tank]
2015/0368 . . . [for preventing overfilling of tanks]
2015/0375 . . . [to improve security]
2015/0381 . . . [for preventing explosions]
2015/0388 . . . [in case of a roll over of the vehicle]
2015/0394 . . . [for preventing expulsion of fuel during filling of the tank]
2015/0401 . . . [for preventing electrostatic charges]
2015/0407 . . . [to protect tanks against projectiles]
2015/0414 . . . [associated with the fuel tank for cooling heated fuel]
2015/0421 . . . [to protect the fuel tank against heat]
2015/0427 . . . [for heating fuel, e.g. to avoid freezing]
2015/0434 . . . [for preventing theft of fuel (locks for filler caps B60K 15/0409; locking of the inlet cover B60K 2015/0561)]
2015/0444 . . . [comprising baffles]
2015/0447 . . . [for improving the sealing]
2015/0453 . . . [for fixing or mounting parts of the fuel tank together]
2015/0466 . . . [by welding]
2015/0467 . . . [by clip or snap fit fittings]
2015/0473 . . . [for draining or emptying a fuel tank]
2015/0488 . . . [for returning the fuel from the motor]
2015/0486 . . . [characterised by the materials the tank or parts thereof are essentially made from]
2015/0493 . . . [made of plastics]
15/035 . . . [characterised by venting means]
15/0304 . . . [adapted to avoid loss of fuel or fuel vapour, e.g. with vapour recovery systems]
2015/0509 . . . [with a droplet separator in the vent line]
2015/0514 . . . [with vapor recovery means]
15/0519 . . . [Valve arrangements in the vent line]
2015/0523 . . . [Arrangements of the venting tube]
2015/0528 . . . [Mounting of venting tubes]
2015/0533 . . . [the venting tube being movable with the fuel level]
2015/0538 . . . [the venting tube being connected with the filler tube]
2015/0542 . . . [Mounting of the venting means (mounting of venting tubes B60K 2015/0528)]
Arrangements in connection with cooling, air intake, gas exhaust, fuel supply, or power supply of propulsion units...

2015/03547 . . . . [the venting means are integrated in the fuel cap or inlet cover]
2015/03552 . . . . [the venting means are integrated into the fuel filler pipe]
2015/03557 . . . . [comprising elements of the venting device integrated in the fuel tank, e.g. vapor recovery means]
2015/03561 . . . . [Venting means working at specific times]
2015/03566 . . . . [comprising means for stopping the venting of fuel vapor, e.g. during refueling or engine stop]
2015/03571 . . . . [Venting during driving]
2015/03576 . . . . [Venting during filling the reservoir]
2015/0358 . . . . [the venting is actuated by specific signals or positions of particular parts]
2015/03585 . . . . [by gas pressure]
2015/0359 . . . . [by filler cap or inlet cover position]
2015/03595 . . . . [by filler nozzle]
15/04 . . . . Tank inlets (B60K 15/077 takes precedence)
15/0403 . . . . [Anti-siphoning devices]
15/0406 . . . . [Filler caps for fuel tanks]
15/0409 . . . . [Provided with a lock]
2015/0412 . . . . [the key can only be withdrawn when the cap is placed on the filler neck]
2015/0416 . . . . [electrically actuated]
2015/0419 . . . . [Self-sealing closure caps, e.g. that don’t have to be removed manually]
2015/0422 . . . . [actuated by the inlet cover]
2015/0425 . . . . [actuated by a motor]
2015/0429 . . . . [actuated by the nozzle]
2015/0432 . . . . [having a specific connection between the cap and the vehicle or tank opening]
2015/0435 . . . . [using a sliding connection]
2015/0438 . . . . [using screw or bayonet]
2015/0441 . . . . [with torque control]
2015/0445 . . . . [using hinges]
2015/0448 . . . . [comprising spherical valve type closures]
2015/0451 . . . . [Sealing means in the closure cap]
2015/0454 . . . . [combined closing of the fuel inlet and bodywork inlet by one element which is visible from outside]
2015/0458 . . . . [Details of the tank inlet]
2015/0461 . . . . [comprising a filler pipe shutter, e.g. trap, door or flap for fuel inlet]
2015/0464 . . . . [comprising a flexible or extendable filler pipes, e.g. corrugated, foldable or with bellows]
2015/0467 . . . . [Fuel tanks with more than one filler pipe]
2015/047 . . . . [Manufacturing of the fuel inlet or connecting elements to fuel inlet, e.g. pipes or venting tubes]
2015/0474 . . . . [Arrangement of fuel filler pipes in relation to vehicle body]
2015/0477 . . . . [Details of the filler neck tank side]
2015/048 . . . . [Arrangements for sealing the fuel inlet during filling]
2015/0483 . . . . [Means to inhibit the introduction of too small or too big filler nozzles]
2015/0487 . . . . [Means to shield vehicle bodywork from fuel, e.g. during filling]
2015/049 . . . . [Means for determining the position of the filler nozzle in the filler pipe]
2015/0493 . . . . [Means for checking absence or presence of closure cap]
2015/0496 . . . . [the fuel inlet being arranged on the top of the fuel tank]
15/05 . . . . Inlet covers
2015/0507 . . . . [Arrangements for adjusting the inlet cover]
2015/0515 . . . . [Arrangements for closing or opening of inlet cover (locking means B60K 2015/0561)]
2015/0523 . . . . [with sliding connection to the vehicle body]
2015/053 . . . . [with hinged connection to the vehicle body]
2015/0538 . . . . [with open or close mechanism automatically actuated]
2015/0546 . . . . [Arrangements for checking the position of the inlet cover]
2015/0553 . . . . [Details concerning the inlet box or bowl in the vehicle car body panel]
2015/0561 . . . . [Locking means for the inlet cover]
2015/0569 . . . . [with actuator fixed to the inlet cover]
2015/0576 . . . . [with actuator fixed to the vehicle body]
2015/0584 . . . . [the locking bolt is linearly moved to lock or unlock]
2015/0592 . . . . [with storage means for the cap]
15/06 . . . . characterised by fuel reserve systems
15/061 . . . . [with level control]
2015/062 . . . . [Arrangement for filling the fuel reserve systems]
15/063 . . . . Arrangement of tanks
2015/0631 . . . . [the fuel tank forming at least part of the vehicle floor]
2015/0632 . . . . [the fuel tank is arranged below the front seat]
2015/0633 . . . . [the fuel tank is arranged below the rear seat]
2015/0634 . . . . [the fuel tank is arranged below the vehicle floor]
2015/0635 . . . . [the fuel tank is arranged between the seats]
2015/0636 . . . . [the fuel tank being part of the chassis or frame]
2015/0637 . . . . [the fuel tank is arranged in the front of the vehicle]
2015/0638 . . . . [the fuel tank is arranged in the rear of the vehicle]
2015/0639 . . . . [the fuel tank is arranged near or in the roof]
15/067 . . . . Mounting of tanks
2015/0675 . . . . [allowing deflection movements of the tank in case of a crash]
15/07 . . . . of gas tanks
15/073 . . . . Tank construction specially adapted to the vehicle (B60K 15/077 takes precedence)
15/077 . . . . with means modifying or controlling distribution or motion of fuel, e.g. to prevent noise, surge, splash or fuel starvation
2015/0772 . . . . [Floats in the fuel tank (float valves B60K 2015/03289)]
2015/0775 . . . . [for reducing movement or slash noise of fuel]
2015/0777 . . . . [in-tank reservoirs or baffles integrally manufactured with the fuel Tank]
15/10 . . . . concerning gas-producing plants
Arrangements in connection with cooling, air intake, gas exhaust, fuel supply, or power supply of propulsion units...

17/00 Arrangements in connection with power supply of propulsion units in vehicles from force of nature, e.g. sun or wind (electric propulsion with power supply from force of nature, e.g. sun or wind, B60L 8/00; effecting propulsion by wind motors driving water-engaging propulsive elements B63H 13/00; wind motors specially adapted for installation on vehicles F03D 9/32)

17/02 characterised by arrangement, location, or kind of clutch

2016/003 . (solar power driven)

2016/006 . (wind power driven)

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)

17/00 Arrangements or mounting of transmissions in vehicles (clutches per se, e.g. construction thereof, F16D; gearing per se, e.g. construction thereof, F16H)

17/04 characterised by arrangement, location, or kind of gearing (electric equipment or propulsion of electrically-propelled vehicles B60L)

17/043 . [Transmission unit disposed in or near the vehicle wheel, or between the differential gear unit and the wheel]

17/046 . [with planetary gearing having orbital motion]

17/06 . of change-speed gearing (B60K 17/10 - B60K 17/16 take precedence)

17/08 . of mechanical type

17/09 . of fluid gearing (of fluid clutches B60K 17/02)

17/095 . [Units comprising at least a part of the gearing and a torque-transmitting axe, e.g. transaxles (B60K 17/14 takes precedence)]

17/12 . of electric gearing (of electrically-actuated clutches B60K 17/02)

17/14 . the motor of fluid or electric gearing being disposed in or adjacent to traction wheel (B60K 7/00 takes precedence)

17/145 . [the electric gearing being disposed in or adjacent to traction wheel]

17/16 . of differential gearing

17/165 . [provided between independent half axles (B60K 17/18, B60K 17/20 take precedence)]

17/17 . [in which the differential movement is obtained by resilient means]

17/18 . [in which the differential movement is limited]

17/19 . characterised by arrangement, location, or type of main drive shafting, e.g. cardan shaft

17/20 . Arrangements of mountings for shafting

17/22 . characterised by arrangement, location, of type of freewheel device

17/23 . characterised by arrangement, location, or type of power take-off

17/24 . the ultimate propulsive elements, e.g. ground wheels, being steerable

17/25 . with a gearwheel on the steering knuckle or kingpin axis

17/26 . [with a universal joint in the axis of the steering knuckle]

17/32 . the ultimate propulsive elements, e.g. ground wheels, being rockable about a horizontal pivot

2017/002 . . . 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 B60K 23/08)

2017/038 . . . having a longitudinal, endless element, e.g. belt or chain, for transmitting drive to wheels

2017/046 . . . having a transfer gear

2017/048 . . . the transfer gear being a differential gear

2017/049 . . . [with means for changing distribution of torque between front and rear wheels]

2017/050 . . . [self-actuated means, e.g. differential locked automatically by difference of speed]

2017/053 . . . [combined with a change speed gearing, e.g. range gear]

2017/057 . . . 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 (B60K 17/346 takes precedence)

2017/058 . . . including arrangements for suppressing or influencing the power transfer, e.g. viscous clutches (differential gearing with locking devices (F16H 48/201))

2017/059 . . . [with self-actuated means, e.g. by difference of speed]

2017/059 . . . [with self-actuated means, e.g. by difference of speed]

2017/060 . . . [with self-actuated means, comprising a viscous clutch]

2017/061 . . . [with a clutch adjacent to traction wheel, e.g. automatic wheel hub]

2017/062 . . . [manually operated]

2017/063 . . . having separate mechanical assemblies for transmitting drive to the front or to the rear wheels or set of wheels

2017/064 . . . having fluid or electric motor, for driving one or more wheels (disposition of motor in, or adjacent to, traction wheel B60K 7/00)

2017/065 . . . [all driven wheels being steerable]

2017/066 . . . for driving tandem wheels

20/00 Arrangement or mounting of change-speed gearing control devices in vehicles (movable cabs having special adaptations of vehicle control devices B62D 33/06; such control devices per se F16H)

20/01 . of initiating means (control mechanisms in general G05G)

20/02 . . . floor mounted

20/03 . . . mounted on steering column or the like

20/04 . . . Dashboard means

WARNINGS

1. The groups F16H 59/00 - F16H 63/00 were introduced on 1 May, 1988. These groups include the subject matter of B60K 20/14, which from this date is no longer used for the classification of new documents

2. Documents from the backlog of group B60K 20/14 are in the process of being systematically transferred to groups F16H 59/00 - F16H 63/00

20/05 . . . (fluid)

23/00 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 B62D 33/06; such control devices per se F16D, F16H)

23/01 . . . (movable cabs fabricated in two parts)

23/02 . . . (movable cabs fabricated in three or more parts)

23/03 . . . {movable cabs fabricated in a single part, with the movable part taking the form of a cab, and such cab being engaged through a rigidly fixed gantry structure and a trolley mechanism}
Arrangement or mounting of transmissions or their control in vehicles

2023/005 . . . [Adjusting multiple pedals, e.g. for their initial position]
23/02 . . . for main transmission clutches
2023/025 . . . . . [Adjusting of clutch pedal positions (clutch adjustment for removing slack F16D 13/75)]
23/04 . . . for differential gearing
2023/043 . . . . [Control means for varying left-right torque distribution, e.g. torque vectoring]
2023/046 . . . . . [Axle differential locking means]
23/06 . . . for freewheel devices
23/08 . . . for changing number of driven wheels (for switching from driving one axle to driving two or more axles (B60K 17/3515 takes precedence))
23/0808 . . . . [for varying torque distribution between driven axles, e.g. by transfer clutch]
2023/0816 . . . . [for varying front-rear torque distribution with a central differential]
2023/0825 . . . . . [for adding torque to the front wheels]
2023/0833 . . . . . . [for adding torque to the rear wheels]
2023/0841 . . . . . . . [for locking a central differential, e.g. by using a lock-up clutch]
2023/085 . . . . [automatically actuated]
2023/0858 . . . . . [with electric means, e.g. electro-hydraulic means]
2023/0866 . . . . . [with hydraulic means only]
2023/0875 . . . . . . [with mechanical means only]
2023/0883 . . . . . [manually actuated]
2023/0891 . . . . . [with actuator levers, e.g. shift levers or linkage for changing two-wheel to four-wheel drive]

25/00 Auxiliary drives (B60K 16/00) takes precedence; arrangements of tyre-inflating pumps mounted on vehicles B60C 23/10; driving tyre-inflating pumps B60C; driving engine auxiliaries B02B)
2025/005 . . . [driven by electric motors forming part of the propulsion unit]
25/02 . . . directly from an engine shaft
2025/022 . . . . [by a mechanical transmission]
2025/024 . . . . [with variable ratio]
2025/026 . . . . . [by a hydraulic transmission]
2025/028 . . . . . [by a pneumatic transmission]
25/04 . . . from static or dynamic pressure or vacuum, developed by the engine
25/06 . . . from the transmission power take-off (transmissions having power-take-off B60K 17/28)
2025/065 . . . . . [the transmission being fluidic, e.g. hydraulic]
25/08 . . . from a ground wheel, e.g. engaging the wheel tread or rim
25/10 . . . directly from oscillating movements due to vehicle running motion, e.g. suspension movement (resilient suspensions having dampers accumulating utilisable energy, e.g. compressing air, B60G 13/14)
2025/103 . . . . . [by electric means]
2025/106 . . . . . . [by fluid means]

26/00 Arrangements or mounting of propulsion unit control devices in vehicles
26/02 . . . . [of initiating means or elements]
26/021 . . . . . [with means for providing feel, e.g. by changing pedal force characteristics]
2026/022 . . . . . [with tactile feedback from a controller, e.g. vibrations]

2026/023 . . . . . [with electrical means to generate counter force or torque]
2026/024 . . . . [Adjustable consoles, e.g. for changing position of mounting casings]
2026/025 . . . . [Input devices for controlling electric drive motors]
2026/026 . . . . [Adjusting of accelerator pedal positions]
2026/027 . . . . [Acceleration input members mounted on a seat]
2026/028 . . . . . [Acceleration input members mounted on steering wheel or column]
2026/029 . . . . . [Joystick type control devices for acceleration]
26/04 . . . of means connecting initiating means or elements to propulsion unit
2026/043 . . . . . [with mechanical gearing]
2026/046 . . . . . [with electrical transmission means]

28/00 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 B60L 3/00; road vehicle drive control systems for purposes not related to the control of a particular sub-units B60W 3/000)
2028/003 . . . . . . . . [inhibiting the starter motor, e.g. by controlling ignition or park lock circuits]
2028/006 . . . . . . . . . [disconnecting the electric power supply, e.g. the vehicle battery]
28/02 . . . responsive to conditions relating to the driver (see provisionally also B60K 28/000)
28/04 . . . responsive to presence or absence of the driver, e.g. to weight or lack thereof
28/06 . . . responsive to incapacity of driver
28/063 . . . . . . . . [preventing starting of vehicles]
28/066 . . . . . . . . . [actuating a signalling device (B60K 28/063 takes precedence)]
28/08 . . . responsive to conditions relating to the cargo, e.g. overload (see provisionally also B60K 28/000)
28/10 . . . responsive to conditions relating to the vehicle (see provisionally also B60K 28/000)
28/12 . . . responsive to conditions relating to doors or doors locks, e.g. open door (see provisionally also B60K 28/000)
28/14 . . . responsive to accident or emergency, e.g. deceleration, tilt of vehicle
28/16 . . . responsive to, or preventing, skidding of wheels (brake control systems for vehicle drive stability B60T 8/1755; arrangements responsive to a speed condition for adjusting wheel braking force B60T 8/32; control of vehicle driving stability otherwise than by controlling the propulsion unit only B60W 3/002; preventing wheel slippage by reducing power in rail vehicles B61C 15/000)
28/165 . . . . . . . . . [acting on elements of the vehicle drive train other than the propulsion unit and brakes, e.g. transmission, clutch, differential (acting on brakes B60T 8/17)]
Arrangement or mounting of transmissions or their control in vehicles

31/00 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 B60W 30/12; propulsion unit control in general, see the relevant classes or subclasses, e.g. F02D; speedometers G01P; systems or devices for controlling speed in general G05D 13/00; [in traffic anti-collision system for road vehicles G08G 1/16])

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.

31/0008  \( \ldots \) (including means for detecting potential obstacles in vehicle path)

31/0009  \( \ldots \)  (arrangements on dashboard B60K 37/02)

31/0010  \( \ldots \)  (Arrangements, adaptations or methods for cruise controls)

31/0011  \( \ldots \)  (Operator actuated switches or levers for cruise control or speed limiting systems)

31/0012  \( \ldots \)  (Displays for target speed)

31/0013  \( \ldots \)  (Speed setting methods)

31/0014  \( \ldots \)  (setting initial target speed, e.g. initial algorithms)

31/0015  \( \ldots \)  (changing target speed or setting a new target speed, e.g. changing algorithms)

31/0016  \( \ldots \)  (releasing speed control, e.g. inhibiting speed control if a brake pedal is depressed)

31/0017  \( \ldots \)  (resuming speed control, e.g. returning to old target speed)

31/0018  \( \ldots \)  (Distance setting methods, e.g. determining target distance to target vehicle)

31/0019  \( \ldots \)  (setting initial distance to preceding vehicle, e.g. initial algorithms)

31/0020  \( \ldots \)  (changing distance, e.g. reducing the distance for overtaking)

31/0021  \( \ldots \)  (Arrangements, adaptations or methods for cruising, i.e. maintaining speed at a particular velocity, as selected by the vehicle operator (fittings acting on two or more sub-units B60W 30/12; propulsion unit control in general, see the relevant classes or subclasses, e.g. F02D; speedometers G01P; systems or devices for controlling speed in general G05D 13/00; [in traffic anti-collision system for road vehicles G08G 1/16])

NOTE
In this group:

- 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.

31/0022  \( \ldots \)  (Identification of obstacles; Selection of a target vehicle)

31/0023  \( \ldots \)  (Detecting position of target vehicle, e.g. vehicle driving ahead from host vehicle)

31/0024  \( \ldots \)  (Detecting longitudinal speed or acceleration of target vehicle)

31/0025  \( \ldots \)  (Selecting more than one target vehicle, e.g. using several preceding vehicles as target)

31/0026  \( \ldots \)  (responsive to externally generated signalling)

31/0027  \( \ldots \)  (responsive to vehicle path curvature)

31/0028  \( \ldots \)  (responsive to vehicle steering angle)

31/0029  \( \ldots \)  (responsive to centrifugal force acting on vehicle due to the path it is following)

31/0030  \( \ldots \)  (Speed limiters or speed cutters)

31/0031  \( \ldots \)  (including electrically actuated servomechanism [including an electric control system or a servomechanism in which the vehicle velocity affecting element is actuated electrically])

31/0032  \( \ldots \)  (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)

31/0033  \( \ldots \)  (where at least one electrical quantity is set by the vehicle operator)

31/0034  \( \ldots \)  (in a memory, e.g. a capacitor)

31/0035  \( \ldots \)  (the memory being digital)

31/0036  \( \ldots \)  (including fluid pressure actuated servomechanism [in which the vehicle velocity affecting element is actuated by fluid pressure])

31/0037  \( \ldots \)  (and one or more electrical components for establishing or regulating input pressure)

31/0038  \( \ldots \)  (arrangements on dashboard B60K 37/02)

31/0039  \( \ldots \)  (Dashboards (as road-vehicle superstructure sub-unit B62D))

31/0040  \( \ldots \)  (Arrangement of instruments (arrangement of lighting devices for dashboards B60Q 1/54))

31/0041  \( \ldots \)  (including a device responsive to centrifugal forces (centrifugal force acting on the vehicle due to the path it is following B60K 31/0083; motor speed limiting by governors G05D 13/10))

31/0042  \( \ldots \)  (having an electrical switch which is caused to function by the centrifugal force)

31/0043  \( \ldots \)  (having means to prevent or discourage unauthorised use or adjusting of the controlling means (vehicle theft prevention in general B60R 25/00))

31/0044  \( \ldots \)  (including a device to audibly, visibly, or otherwise signal the existence of unusual or unintended speed to the driver of the vehicle (devices primarily intended for indicating speed to other traffic B60Q 1/54))

31/0045  \( \ldots \)  ([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 G01P 1/11)])

Arrangement of adaptations of instruments specially for vehicles:

35/00 Arrangement of adaptations of instruments (arrangements on dashboard B60K 37/02)

37/00 Dashboards (as road-vehicle superstructure sub-unit B62D)

37/02 Arrangement of instruments (arrangement of lighting devices for dashboards B60Q 3/10)

37/04 Arrangement of fittings on dashboard (of instruments B60K 37/02)

37/06  \( \ldots \)  (of controls, e.g. controls knobs)
releasing distance control, e.g. inhibiting control if target vehicle lost or changing lane

resuming distance control, e.g. changing target vehicle

Following time setting methods, e.g. elapsed delay between preceding and host vehicle

Mode switching, e.g. changing from one cruise control mode to another

Arrangement or mounting of propulsion units in vehicles

Details of arrangements or adaptations of instruments specially adapted for vehicles, not covered by groups B60K 35/00, B60K 37/00

Input devices or features thereof

WARNING
Group B60K 2370/10 is impacted by reclassification into groups B60K 2370/18, B60K 2370/182, B60K 2370/191, B60K 2370/197 and B60K 2370/199.

All groups listed in this Warning should be considered in order to perform a complete search.

Graphical user interfaces or menu aspects

WARNING
Group B60K 2370/11 is impacted by reclassification into groups B60K 2370/111, B60K 2370/113, B60K 2370/115, B60K 2370/117 and B60K 2370/119.

All groups listed in this Warning should be considered in order to perform a complete search.

Graphical user interfaces or menu aspects

WARNING
Group B60K 2370/11 is impacted by reclassification into groups B60K 2370/111, B60K 2370/113, B60K 2370/115, B60K 2370/117 and B60K 2370/119.

All groups listed in this Warning should be considered in order to perform a complete search.

for controlling multiple devices

WARNING
Group B60K 2370/111 is incomplete pending reclassification of documents from group B60K 2370/11.

Groups B60K 2370/11 and B60K 2370/111 should be considered in order to perform a complete search.

Scrolling through menu items

WARNING
Group B60K 2370/113 is incomplete pending reclassification of documents from group B60K 2370/11.

Groups B60K 2370/11 and B60K 2370/113 should be considered in order to perform a complete search.

Selection of menu items

WARNING
Group B60K 2370/115 is incomplete pending reclassification of documents from group B60K 2370/11.

Groups B60K 2370/11 and B60K 2370/115 should be considered in order to perform a complete search.

Graphical user interfaces or menu aspects

WARNING
Group B60K 2370/117 is incomplete pending reclassification of documents from group B60K 2370/11.

Groups B60K 2370/11 and B60K 2370/117 should be considered in order to perform a complete search.

Icons

WARNING
Group B60K 2370/119 is incomplete pending reclassification of documents from group B60K 2370/11.

Groups B60K 2370/11 and B60K 2370/119 should be considered in order to perform a complete search.

Input devices or input features

WARNING
Group B60K 2370/12 is impacted by reclassification into groups B60K 2370/128, B60K 2370/131, B60K 2370/133, B60K 2370/137, B60K 2370/139 and B60K 2370/149.

All groups listed in this Warning should be considered in order to perform a complete search.

with reconfigurable control functions, e.g. reconfigurable menus

Rotatable input devices

Axially displaceable input devices

Pivotal input devices

WARNING
Group B60K 2370/131 is incomplete pending reclassification of documents from group B60K 2370/12.

Groups B60K 2370/12 and B60K 2370/131 should be considered in order to perform a complete search.
Arrangement or mounting of propulsion units in vehicles

2370/133 . . . Multidirectional input devices

**WARNING**

Group B60K 2370/133 is incomplete pending reclassification of documents from group B60K 2370/12.
Groups B60K 2370/12 and B60K 2370/133 should be considered in order to perform a complete search.

2370/135 . . . Joysticks
2370/137 . . . Jog-dials

**WARNING**

Group B60K 2370/137 is incomplete pending reclassification of documents from group B60K 2370/12.
Groups B60K 2370/12 and B60K 2370/137 should be considered in order to perform a complete search.

2370/139 . . . Clusters of input devices

**WARNING**

Group B60K 2370/139 is incomplete pending reclassification of documents from group B60K 2370/12.
Groups B60K 2370/12 and B60K 2370/139 should be considered in order to perform a complete search.

2370/141 . . . Activation by approaching fingers or pens
2370/143 . . . Touch sensitive input devices

**WARNING**

Group B60K 2370/143 is impacted by reclassification into group B60K 2370/143.
Groups B60K 2370/143 and B60K 2370/143 should be considered in order to perform a complete search.

2370/1434 . . . Touch panels

**WARNING**

Group B60K 2370/1434 is incomplete pending reclassification of documents from group B60K 2370/143.
Groups B60K 2370/143 and B60K 2370/1434 should be considered in order to perform a complete search.

2370/1438 . . . Touch screens
2370/1442 . . . Emulation of input devices
2370/1446 . . . Touch switches
2370/145 . . . Input by combination of touch screen and hardware input devices

2370/146 . . . Input by gesture

**WARNING**

Group B60K 2370/146 is impacted by reclassification into groups B60K 2370/146, B60K 2370/1468, B60K 2370/1472 and B60K 2370/1476.
All groups listed in this Warning should be considered in order to perform a complete search.

2370/1464 . . . 3D-gesture

**WARNING**

Group B60K 2370/1464 is incomplete pending reclassification of documents from group B60K 2370/146.
Groups B60K 2370/146 and B60K 2370/1464 should be considered in order to perform a complete search.

2370/1468 . . . Touch gesture

**WARNING**

Group B60K 2370/1468 is incomplete pending reclassification of documents from group B60K 2370/146.
Groups B60K 2370/146 and B60K 2370/1468 should be considered in order to perform a complete search.

2370/1472 . . . Multi-touch gesture

**WARNING**

Group B60K 2370/1472 is incomplete pending reclassification of documents from group B60K 2370/146.
Groups B60K 2370/146 and B60K 2370/1472 should be considered in order to perform a complete search.

2370/1476 . . . Handwriting

**WARNING**

Group B60K 2370/1476 is incomplete pending reclassification of documents from group B60K 2370/146.
Groups B60K 2370/146 and B60K 2370/1476 should be considered in order to perform a complete search.

2370/148 . . . Input by voice
2370/149 . . . Input by detecting viewing direction

**WARNING**

Group B60K 2370/149 is incomplete pending reclassification of documents from group B60K 2370/12.
Groups B60K 2370/12 and B60K 2370/149 should be considered in order to perform a complete search.
Arrangement or mounting of propulsion units in vehicles

Group B60K 2370/15 is impacted by reclassification into groups B60K 2370/156, B60K 2370/157, B60K 2370/155, and B60K 2370/158.

All groups listed in this Warning should be considered in order to perform a complete search.

Group B60K 2370/151 is impacted by reclassification into groups B60K 2370/1515, B60K 2370/152, B60K 2370/153, B60K 2370/1531, and B60K 2370/1534.

All groups listed in this Warning should be considered in order to perform a complete search.

Group B60K 2370/152 is impacted by reclassification into groups B60K 2370/1523, B60K 2370/1526, B60K 2370/1529, B60K 2370/1531, B60K 2370/1533, B60K 2370/1534 and B60K 2370/1537.

All groups listed in this Warning should be considered in order to perform a complete search.

Group B60K 2370/153 is impacted by reclassification of documents from group B60K 2370/156.

Groups B60K 2370/152 and B60K 2370/155 should be considered in order to perform a complete search.

Group B60K 2370/154 is impacted by reclassification of documents from group B60K 2370/157.

Groups B60K 2370/152 and B60K 2370/157 should be considered in order to perform a complete search.

Group B60K 2370/155 is impacted by reclassification of documents from group B60K 2370/156.

Groups B60K 2370/152 and B60K 2370/155 should be considered in order to perform a complete search.

Group B60K 2370/156 is impacted by reclassification of documents from group B60K 2370/154.

Groups B60K 2370/152 and B60K 2370/156 should be considered in order to perform a complete search.

Group B60K 2370/158 is impacted by reclassification of documents from group B60K 2370/157.

Groups B60K 2370/152 and B60K 2370/158 should be considered in order to perform a complete search.

Group B60K 2370/159 is impacted by reclassification of documents from group B60K 2370/156.

Groups B60K 2370/152 and B60K 2370/159 should be considered in order to perform a complete search.

Group B60K 2370/1510 is impacted by reclassification of documents from group B60K 2370/158.

Groups B60K 2370/152 and B60K 2370/1510 should be considered in order to perform a complete search.

Group B60K 2370/1511 is impacted by reclassification of documents from group B60K 2370/157.

Groups B60K 2370/152 and B60K 2370/1511 should be considered in order to perform a complete search.
Arrangement or mounting of propulsion units in vehicles

2370/158 . . Haptic output

**WARNING**

Group B60K 2370/158 is incomplete pending reclassification of documents from group B60K 2370/15.

Groups B60K 2370/15 and B60K 2370/158 should be considered in order to perform a complete search.

2370/16 . . Type of information

**WARNING**

Group B60K 2370/16 is impacted by reclassification into groups B60K 2370/162, B60K 2370/163, B60K 2370/165, B60K 2370/166, B60K 2370/168, B60K 2370/171, B60K 2370/172, B60K 2370/175, B60K 2370/176, and B60K 2370/178.

All groups listed in this Warning should be considered in order to perform a complete search.

2370/161 . . Explanation of functions, e.g. instructions

2370/162 . . Visual feedback on control action

**WARNING**

Group B60K 2370/162 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/162 should be considered in order to perform a complete search.

2370/163 . . Language

**WARNING**

Group B60K 2370/163 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/163 should be considered in order to perform a complete search.

2370/164 . . Infotainment

**WARNING**

Group B60K 2370/164 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/164 should be considered in order to perform a complete search.

2370/165 . . Videos and animations

**WARNING**

Group B60K 2370/165 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/165 should be considered in order to perform a complete search.

2370/166 . . Navigation

**WARNING**

Group B60K 2370/166 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/166 should be considered in order to perform a complete search.

2370/167 . . Vehicle dynamics information

**WARNING**

Group B60K 2370/167 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/167 should be considered in order to perform a complete search.

2370/168 . . Target or limit values

**WARNING**

Group B60K 2370/168 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/168 should be considered in order to perform a complete search.

2370/169 . . Remaining operating distance or charge

**WARNING**

Group B60K 2370/169 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/169 should be considered in order to perform a complete search.

2370/171 . . Vehicle or relevant part thereof displayed

**WARNING**

Group B60K 2370/171 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/171 should be considered in order to perform a complete search.

2370/172 . . Driving mode indication

**WARNING**

Group B60K 2370/172 is incomplete pending reclassification of documents from group B60K 2370/16.

Groups B60K 2370/16 and B60K 2370/172 should be considered in order to perform a complete search.

2370/173 . . Reversing assist

2370/174 . . Economic driving
Arrangement or mounting of propulsion units in vehicles

**WARNING**
Group B60K 2370/175 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/175 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/176 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/176 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/177 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/177 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/178 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/178 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/179 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/179 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/18 is incomplete pending reclassification of documents from group B60K 2370/10.
Groups B60K 2370/10 and B60K 2370/18 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/182 is incomplete pending reclassification of documents from group B60K 2370/10.
Groups B60K 2370/10 and B60K 2370/182 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/185 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/185 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/186 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/186 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/187 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/187 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/188 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/188 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/189 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/189 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/190 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/190 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/191 is incomplete pending reclassification of documents from group B60K 2370/10.
Groups B60K 2370/10 and B60K 2370/191 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/192 is incomplete pending reclassification of documents from group B60K 2370/10.
Groups B60K 2370/10 and B60K 2370/192 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/193 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/193 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/194 is incomplete pending reclassification of documents from group B60K 2370/10.
Groups B60K 2370/10 and B60K 2370/194 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/195 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/195 should be considered in order to perform a complete search.

**WARNING**
Group B60K 2370/196 is incomplete pending reclassification of documents from group B60K 2370/16.
Groups B60K 2370/16 and B60K 2370/196 should be considered in order to perform a complete search.
Arrangement or mounting of propulsion units in vehicles

2370/199 . . . for avoiding maloperation

WARNING
Group B60K 2370/199 is incomplete pending reclassification of documents from group B60K 2370/10.
Groups B60K 2370/10 and B60K 2370/199 should be considered in order to perform a complete search.

2370/20 . . . Optical features of instruments

WARNING
Group B60K 2370/20 is impacted by reclassification into group B60K 2370/23.
Groups B60K 2370/20 and B60K 2370/23 should be considered in order to perform a complete search.

2370/21 . . . using cameras
2370/23 . . . using reflectors

WARNING
Group B60K 2370/23 is incomplete pending reclassification of documents from group B60K 2370/20.
Groups B60K 2370/20 and B60K 2370/23 should be considered in order to perform a complete search.

2370/25 . . . using filters
2370/27 . . . using semi-transparent optical elements
2370/28 . . . for instruments which are not visible when inactive
2370/29 . . . Holographic features
2370/31 . . . Virtual images
2370/33 . . . Illumination features

WARNING
Group B60K 2370/33 is impacted by reclassification into groups B60K 2370/332, B60K 2370/336, B60K 2370/338, B60K 2370/341, B60K 2370/343, and B60K 2370/345.
All groups listed in this Warning should be considered in order to perform a complete search.

2370/331 . . . Electroluminescent elements
2370/332 . . . Light emitting diodes

WARNING
Group B60K 2370/332 is incomplete pending reclassification of documents from group B60K 2370/33.
Groups B60K 2370/33 and B60K 2370/332 should be considered in order to perform a complete search.

2370/333 . . . Lasers
2370/334 . . . Projection means

2370/336 . . . Light guides

WARNING
Group B60K 2370/336 is incomplete pending reclassification of documents from group B60K 2370/33.
Groups B60K 2370/33 and B60K 2370/336 should be considered in order to perform a complete search.

2370/338 . . . Light strips

WARNING
Group B60K 2370/338 is incomplete pending reclassification of documents from group B60K 2370/33.
Groups B60K 2370/33 and B60K 2370/338 should be considered in order to perform a complete search.

2370/339 . . . Translucent dashboard skins
2370/34 . . . Backlit symbols
2370/341 . . . Illumination of dials

WARNING
Group B60K 2370/341 is incomplete pending reclassification of documents from group B60K 2370/33.
Groups B60K 2370/33 and B60K 2370/341 should be considered in order to perform a complete search.

2370/343 . . . Illumination of matrix displays

WARNING
Group B60K 2370/343 is incomplete pending reclassification of documents from group B60K 2370/33.
Groups B60K 2370/33 and B60K 2370/343 should be considered in order to perform a complete search.

2370/345 . . . Illumination of controls

WARNING
Group B60K 2370/345 is incomplete pending reclassification of documents from group B60K 2370/33.
Groups B60K 2370/33 and B60K 2370/345 should be considered in order to perform a complete search.

2370/347 . . . Optical elements for superposition of display information
2370/349 . . . Adjustment of brightness
2370/35 . . . Fogging prevention
2370/37 . . . Glare prevention
2370/39 . . . Anti-reflection arrangements
Arrangement or mounting of propulsion units in vehicles

**WARNING**

Group B60K 2370/40 is impacted by reclassification into groups B60K 2370/47 and B60K 2370/48.

Groups B60K 2370/40, B60K 2370/47 and B60K 2370/48 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/50 is impacted by reclassification into groups B60K 2370/58, B60K 2370/583, B60K 2370/586, B60K 2370/594, B60K 2370/5905, B60K 2370/5911, B60K 2370/5915, B60K 2370/592 and B60K 2370/595.

All groups listed in this Warning should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/55 is impacted by reclassification into groups B60K 2370/56, B60K 2370/563, B60K 2370/566, B60K 2370/569, B60K 2370/573 and B60K 2370/577.

All groups listed in this Warning should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/577 is impacted by reclassification into groups B60K 2370/56, B60K 2370/563, B60K 2370/566, B60K 2370/569, B60K 2370/573 and B60K 2370/577.

All groups listed in this Warning should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

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Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

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Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

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Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

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Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/56 is incomplete pending reclassification of documents from group B60K 2370/56.

Groups B60K 2370/55 and B60K 2370/56 should be considered in order to perform a complete search.
Arrangement or mounting of propulsion units in vehicles

Group B60K 2370/58 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/58 should be considered in order to perform a complete search.

Group B60K 2370/583 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/583 should be considered in order to perform a complete search.

Group B60K 2370/586 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/586 should be considered in order to perform a complete search.

Group B60K 2370/589 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/589 should be considered in order to perform a complete search.

Group B60K 2370/5894 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/5894 should be considered in order to perform a complete search.

Group B60K 2370/5899 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/5899 should be considered in order to perform a complete search.

Group B60K 2370/5905 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/5905 should be considered in order to perform a complete search.

Group B60K 2370/5911 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/5911 should be considered in order to perform a complete search.

Group B60K 2370/5915 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/5915 should be considered in order to perform a complete search.

Group B60K 2370/592 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/592 should be considered in order to perform a complete search.

Group B60K 2370/594 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/594 should be considered in order to perform a complete search.

Group B60K 2370/595 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/595 should be considered in order to perform a complete search.

Group B60K 2370/599 is incomplete pending reclassification of documents from group B60K 2370/50. Groups B60K 2370/50 and B60K 2370/599 should be considered in order to perform a complete search.

Group B60K 2370/60 is impacted by reclassification into groups B60K 2370/61, B60K 2370/62, B60K 2370/63, B60K 2370/65, B60K 2370/654, B60K 2370/66, B60K 2370/68, B60K 2370/688, B60K 2370/691, and B60K 2370/692.

All groups listed in this Warning should be considered in order to perform a complete search.

Group B60K 2370/61 is incomplete pending reclassification of documents from group B60K 2370/60. Groups B60K 2370/60 and B60K 2370/61 should be considered in order to perform a complete search.
Arrangement or mounting of propulsion units in vehicles

2370/62 . . Anti-theft arrangements

**WARNING**

Group B60K 2370/62 is incomplete pending reclassification of documents from group B60K 2370/60.

Groups B60K 2370/60 and B60K 2370/62 should be considered in order to perform a complete search.

2370/63 . . Crash protection features

**WARNING**

Group B60K 2370/63 is incomplete pending reclassification of documents from group B60K 2370/60.

Groups B60K 2370/60 and B60K 2370/63 should be considered in order to perform a complete search.

2370/65 . . Features of dashboards

**WARNING**

Group B60K 2370/65 is incomplete pending reclassification of documents from group B60K 2370/60.

Groups B60K 2370/60 and B60K 2370/65 should be considered in order to perform a complete search.

2370/64 . . Dashboard panels

**WARNING**

Group B60K 2370/64 is incomplete pending reclassification of documents from group B60K 2370/60.

Groups B60K 2370/60 and B60K 2370/64 should be considered in order to perform a complete search.

2370/68 . . Arrangements to cover or hide instruments

2370/685 . . Instruments movable with steering column

2370/688 . . Frames or decorative parts

**WARNING**

Group B60K 2370/688 is incomplete pending reclassification of documents from group B60K 2370/60.

Groups B60K 2370/686 and B60K 2370/688 should be considered in order to perform a complete search.

2370/691 . . Housings

**WARNING**

Group B60K 2370/691 is incomplete pending reclassification of documents from group B60K 2370/60.

Groups B60K 2370/686 and B60K 2370/691 should be considered in order to perform a complete search.

2370/692 . . Seals

**WARNING**

Group B60K 2370/692 is incomplete pending reclassification of documents from group B60K 2370/60.

Groups B60K 2370/686 and B60K 2370/692 should be considered in order to perform a complete search.

2370/693 . . Cover plate features

2370/695 . . Dial features

2370/698 . . Pointers of combined instruments

2370/6985 . . with only part of pointer being visible

**WARNING**

Group B60K 2370/6985 is impacted by reclassification into groups B60K 2370/6985 and B60K 2370/6992.

Groups B60K 2370/685, B60K 2370/6985 and B60K 2370/6992 should be considered in order to perform a complete search.

2370/6992 . . Light conducting pointers

**WARNING**

Group B60K 2370/6992 is incomplete pending reclassification of documents from group B60K 2370/698.

Groups B60K 2370/698 and B60K 2370/6992 should be considered in order to perform a complete search.

2370/70 . . Arrangements of instruments in the vehicle

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**WARNING**

Group B60K 2370/73 is impacted by reclassification into groups B60K 2370/731, B60K 2370/741, and B60K 2370/744. All groups listed in this Warning should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/731 is incomplete pending reclassification of documents from group B60K 2370/73. Groups B60K 2370/73 and B60K 2370/731 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/741 is incomplete pending reclassification of documents from group B60K 2370/73. Groups B60K 2370/73 and B60K 2370/741 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/744 is incomplete pending reclassification of documents from group B60K 2370/73. Groups B60K 2370/73 and B60K 2370/744 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/77 is impacted by reclassification into groups B60K 2370/785, B60K 2370/788, B60K 2370/791, and B60K 2370/794. All groups listed in this Warning should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/794 is incomplete pending reclassification of documents from group B60K 2370/77. Groups B60K 2370/77 and B60K 2370/794 should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/797 is impacted by reclassification into groups B60K 2370/90, B60K 2370/91, B60K 2370/92, B60K 2370/95, and B60K 2370/98. All groups listed in this Warning should be considered in order to perform a complete search.

**WARNING**

Group B60K 2370/80 is impacted by reclassification into groups B60K 2370/84, B60K 2370/90, B60K 2370/91, B60K 2370/92, B60K 2370/95, and B60K 2370/98.
Arrangement or mounting of propulsion units in vehicles

2370/81 . . . Fastening of instruments, e.g. to dashboard

**WARNING**

Group B60K 2370/81 is impacted by reclassification into groups B60K 2370/816 and B60K 2370/822.

Groups B60K 2370/81, B60K 2370/816 and B60K 2370/822 should be considered in order to perform a complete search.

2370/816 . . . Fastening of displays or touch screens

**WARNING**

Group B60K 2370/816 is incomplete pending reclassification of documents from group B60K 2370/81.

Groups B60K 2370/81 and B60K 2370/816 should be considered in order to perform a complete search.

2370/822 . . . Adjustment of instruments during mounting

**WARNING**

Group B60K 2370/822 is incomplete pending reclassification of documents from group B60K 2370/81.

Groups B60K 2370/81 and B60K 2370/822 should be considered in order to perform a complete search.

2370/828 . . . Exchangeable modules

2370/834 . . . Docking

2370/84 . . . Mounting of dashboard components

**WARNING**

Group B60K 2370/84 is incomplete pending reclassification of documents from group B60K 2370/80.

Groups B60K 2370/80 and B60K 2370/84 should be considered in order to perform a complete search.

2370/87 . . . Fixation of dashboard to vehicle structure

2370/90 . . . Calibration, testing or manufacturing aspects

**WARNING**

Group B60K 2370/90 is incomplete pending reclassification of documents from group B60K 2370/80.

Groups B60K 2370/80 and B60K 2370/90 should be considered in order to perform a complete search.

2370/91 . . . Assembly of instruments

**WARNING**

Group B60K 2370/91 is incomplete pending reclassification of documents from group B60K 2370/80.

Groups B60K 2370/80 and B60K 2370/91 should be considered in order to perform a complete search.

2370/92 . . . Calibration of instruments

**WARNING**

Group B60K 2370/92 is incomplete pending reclassification of documents from group B60K 2370/80.

Groups B60K 2370/80 and B60K 2370/92 should be considered in order to perform a complete search.

2370/95 . . . Testing of instruments

**WARNING**

Group B60K 2370/95 is incomplete pending reclassification of documents from group B60K 2370/80.

Groups B60K 2370/80 and B60K 2370/95 should be considered in order to perform a complete search.

2370/98 . . . Manufacturing of instruments

**WARNING**

Group B60K 2370/98 is incomplete pending reclassification of documents from group B60K 2370/80.

Groups B60K 2370/80 and B60K 2370/98 should be considered in order to perform a complete search.

2700/00 Control mechanisms and elements applying a mechanical movement

2700/02 . . . regulating mechanisms combined with non-mechanical transmissions

2702/00 Control devices wherein the control is combined with or essentially influenced by the engine or coupling, e.g. in an internal combustion engine, the control device is coupled with a carburettor control device or influenced by carburettor depression

2702/02 . . . Automatic transmission with toothed gearing

2702/04 . . . Control dependent on speed

2702/06 . . . Control dependent on torque

2702/08 . . . Semi-automatic or non-automatic transmission with toothed gearing

2702/10 . . . without a preselection system

2702/12 . . . the control being mechanical

2702/14 . . . the control being hydraulic or pneumatic

2702/16 . . . the control being electric

2702/18 . . . with a preselection system, e.g. semi-automatic

2702/20 . . . using different control members for preselection and actuating, e.g. shift actuation is initiated by clutch pedal with elastic connection for energy accumulation

2704/00 Control devices, wherein the control is combined with or mainly influenced by the working of the engine or the main coupling, e.g. control device is linked to the carburettor control and is influenced by depression of pedal, for semi-automatic or non-automatic transmission having toothed wheels

2704/02 . . . without preselection system, the control being mechanical

2704/04 . . . with preselection system, e.g. for semi-automatic transmission