

CPC**COOPERATIVE PATENT CLASSIFICATION****B60S****SERVICING, CLEANING, REPAIRING, SUPPORTING, LIFTING, OR MANOEUVRING OF VEHICLES, NOT OTHERWISE PROVIDED FOR****NOTE**

Attention is drawn to the Note following the title of class [B60](#).

B60S 1/00

Cleaning of vehicles (by apparatus not integral with vehicle [B60S 3/00](#); cleaning in general [B08B](#); de-icing of aircraft [B64D](#); heating arrangements specially adapted for transparent or reflecting areas [H05B 3/84](#))

- B60S 1/02 . Cleaning windscreens, windows or optical devices {(wind deflectors specially adapted for preventing soiling of windows or windscreens [B60J 1/2002](#))}
- B60S 1/023 . . {including defroster or demisting means}
- B60S 1/026 . . . {using electrical means}
- B60S 1/04 . . Wipers or the like, e.g. scrapers
- B60S 1/0402 . . . {completely or partially concealed in a cavity}
- B60S 1/0405 {the cavity being equipped with a movable cover}
- B60S 1/0408 . . . {Means for influencing the aerodynamic quality of wipers, e.g. clip-on wind deflectors ([B60S 1/32](#) takes precedence)}
- B60S 1/0411 . . . {the windscreens, windows or optical devices being movable with respect to fixed wipers}
- B60S 1/0413 . . . {Modular wiper assembly}
- B60S 1/0416 {including other vehicle fittings}
- B60S 1/0419 {the support structure being integrally molded}
- B60S 1/0422 {having a separate transverse element}
- B60S 1/0425 {characterised by the attachment of the wiper shaft holders to the transverse element}
- B60S 1/0427 {characterised by the attachment of the wiper motor holder to the transverse element}
- B60S 1/043 . . . {Attachment of the wiper assembly to the vehicle}
- B60S 1/0433 {Attachement of a wiper modular assembly to the vehicle}
- B60S 1/0436 {Attachement of separate wiper shaft holders to the vehicle ([B60S 1/0425](#) takes precedence)}
- B60S 1/0438 {Attachement of separate wiper motor assembly to the vehicle}
- B60S 1/0441 {characterised by the attachment means}
- B60S 1/0444 {comprising vibration or noise absorbing means}
- B60S 1/0447 {non-screw fixation, (e.g. snap-in, bayonet-type..)}
- B60S 1/045 {having a pre-attachment device (i.e. to hold elements in position during mounting)}
- B60S 1/0452 . . . {Position of the wipers relative to the vehicle}

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| B60S 1/0455 | | {Device for lifting the wipers off the screen in its parking position or at extremes of wipe} |
| B60S 1/0458 | | {Arrangement wherein the windscreen frame cooperates with the wipers} |
| B60S 1/0461 | | {Arrangement of the side pillars} |
| B60S 1/0463 | | {Arrangement of the cow} |
| B60S 1/0466 | | {Arrangement of wipers on openable windows} |
| B60S 1/0469 | | {Devices for assisting the wiper positioning on the vehicle} |
| B60S 1/0472 | | {Arrangement of the wipers on right or left-hand drive vehicles} |
| B60S 1/0475 | | {Cleaning of wiper blades} |
| B60S 1/0477 | | {Arrangement for deicing or for removing debris from wiper blades (heated wiper blade B60S 1/3805)} |
| B60S 1/048 | | {with a heating device for the wiper parking position} |
| B60S 1/0483 | | {the cleaning device being separated from the vehicle (renovating blade rubbers B60S 2001/3846)} |
| B60S 1/0486 | | {the cleaning device being integrated with the vehicle} |
| B60S 1/0488 | | {Wiper arrangement for crash protection or impact absorption} |
| B60S 1/0491 | | {Additional elements being fixed on wipers or parts of wipers not otherwise provided for, e.g. covers, antennae or lights} |
| B60S 1/0494 | | {Wipers actuated by wind force only} |
| B60S 1/0497 | | {Wiper units as items separate from vehicle, e.g. for emergency use or retro-fittable} |
| B60S 1/06 | | characterised by the drive (producing other than swinging movement B60S 1/44) |
| B60S 1/08 | | electrically driven {(conjoint control of windscreen wiper motor and liquid supply of windscreen washer B60S 1/482 ; conjoint control of windscreen wiper motor and means for cleaning parts o parts other than windscreens or front windows B60S 1/56 , B60S 1/58 , B60S 1/606)} |
| B60S 1/0803 | | {Intermittent control circuits} |
| B60S 1/0807 | | {using electronic control means, e.g. tubes, semiconductors (B60S 1/0818 , B60S 1/0896 take precedence)} |
| B60S 1/0811 | | {combined with mechanical control means, e.g. thermal relays} |
| B60S 1/0814 | | {using several drive motors; motor synchronisation circuits} |
| B60S 1/0818 | | {including control systems responsive to external conditions, e.g. by detection of moisture, dirt or the like} |
| B60S 1/0822 | | {characterized by the arrangement or type of detection means} |
| B60S 1/0825 | | {Capacitive rain sensor} |
| B60S 1/0829 | | {Oscillator-resonator rain sensor} |
| B60S 1/0833 | | {Optical rain sensor} |
| B60S 1/0837 | | {with a particular arrangement of the optical elements} |
| B60S 1/084 | | {including a hologram} |
| B60S 1/0844 | | {including a camera} |

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| B60S 1/0848 | | {Cleaning devices for cameras on vehicle} |
| B60S 1/0851 | | {Resistive rain sensor} |
| B60S 1/0855 | | {Ultrasonic rain sensor} |
| B60S 1/0859 | | {Other types of detection of rain, e.g. by measuring friction or rain drop impact} |
| B60S 1/0862 | | {including additional sensors (vehicle speed sensors B60S 1/0896)} |
| B60S 1/0866 | | {including a temperature sensor (heating devices for windshield B60H)} |
| B60S 1/087 | | {including an ambient light sensor (control of vehicle lights B60Q)} |
| B60S 1/0874 | | {characterized by the position of the sensor on the windshield} |
| B60S 1/0877 | | {at least part of the sensor being positioned between layers of the windshield} |
| B60S 1/0881 | | {characterized by the attachment means on the windshield} |
| B60S 1/0885 | | {the sensor being integrated in a rear-view mirror module} |
| B60S 1/0888 | | {characterized by the attachment of the elements in a unit} |
| B60S 1/0892 | | {Testing and production of rain sensors} |
| B60S 1/0896 | | {including control systems responsive to a vehicle driving condition, e.g. speed} |
| B60S 1/10 | | pneumatically driven |
| B60S 1/105 | | {with means for stopping or setting the wipers at their limit of movement} |
| B60S 1/12 | | hydraulically driven |
| B60S 1/125 | | {with means for stopping or setting the wipers at their limit of movement} |
| B60S 1/14 | | personally driven |
| B60S 1/16 | | Means for transmitting drive |
| B60S 1/163 | | {with means for stopping or setting the wipers at their limit of movement} |
| B60S 1/166 | | {characterised by the combination of a motor-reduction unit and a mechanism for converting rotary into oscillatory movement} |
| B60S 1/18 | | mechanically {(B60S 1/166 takes precedence)} |
| B60S 1/185 | | {with means for stopping or setting the wipers at their limit of movement} |
| B60S 1/20 | | by cable drives; by flexible shafts |
| B60S 1/22 | | by rotary cams |
| B60S 1/24 | | by rotary cranks |
| B60S 1/245 | | {with particular rod arrangements between the motor driven axle and the wiper arm axle} |
| B60S 1/26 | | by toothed gearing |

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| B60S 1/28 | . . . | characterised by a plurality of wipers (B60S 1/06 takes precedence) |
| B60S 1/30 | | arranged both outside and inside |
| B60S 1/32 | . . . | characterised by constructional features of wiper blade arms {or blades} |
| B60S 1/34 | | Wiper arms; Mountings therefor {(wiper arms provided with liquid spreading means B60S 1/522 ; with gas spreading means B60S 1/544)} |
| B60S 1/3402 | | {with means for obtaining particular wiping patterns (by varying the effective length of the angularly oscillating arm B60S 1/365)} |
| B60S 1/3404 | | {the wiper blades being moved substantially parallel with themselves} |
| B60S 1/3406 | | {the wiper blades being rotated with respect to the wiper arms around an axis perpendicular to the wiped field (B60S 1/3404 takes precedence)} |
| B60S 1/3409 | | {the wiper arms consisting of two or more articulated elements} |
| B60S 1/3411 | | {with means for varying wiper-blade pressure on windshield during operation} |
| B60S 1/3413 | | {with means for holding the arm off the glass in an intermediate position between the working position and the fully folded back position} |
| B60S 1/3415 | | {with means for supplying cleaning fluid to windscreen cleaners, e.g. washers (arrangement of nozzles B60S 1/52)} |
| B60S 1/3418 | | {with means for additionally adjusting the wiper arm working position with respect to the surface to be wiped} |
| B60S 1/342 | | {with means for temporarily uncoupling the wiper arm from the drive} |
| B60S 1/3422 | | {Means arranged in the wiper structure to lift the arm at extremes of wipe (means arranged on the vehicle body B60S 1/0455)} |
| B60S 1/3425 | | {Constructional aspects of the arm} |
| B60S 1/3427 | | {Arm piece, link piece and mounting head formed as one element} |
| B60S 1/3429 | | {Arm pieces} |
| B60S 1/3431 | | {Link pieces} |
| B60S 1/3434 | | {Manufacturing details thereof} |
| B60S 1/3436 | | {Mounting heads} |
| B60S 1/3438 | | {Manufacturing details thereof} |
| B60S 1/344 | | {Flat-type mounting heads} |
| B60S 1/3443 | | {Wiper shafts} |
| B60S 1/3445 | | {Joints between elements} |
| B60S 1/3447 | | {the elements being an arm piece and a link piece} |
| B60S 1/345 | | {the elements being a link piece and a mounting head} |
| B60S 1/3452 | | {the joint being a snap fit pivot joint} |
| B60S 1/3454 | | {the joint being at end of mounting head furthest away from blade} |
| B60S 1/3456 | | {Locks or stays for holding arms in fully folded back position} |

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| B60S 1/3459 | | {the element being a mounting head and a shaft} |
| B60S 1/3461 | | {with means to adjust the orientation of the head relative to shaft} |
| B60S 1/3463 | | {Means to press blade onto screen} |
| B60S 1/3465 | | {with coil springs} |
| B60S 1/3468 | | {Mountings therefor} |
| B60S 1/347 | | {with adjustment means to adjust wiping pressure (during wiping B60S 1/3411)} |
| B60S 1/3472 | | {with adjustment means to keep wiping pressure constant (varying wiping pressure B60S 1/3411)} |
| B60S 1/3475 | | {with blade or leaf springs} |
| B60S 1/3477 | | {with elastomeric or rubber springs} |
| B60S 1/3479 | | {Means to cover the wiper parts} |
| B60S 1/3481 | | {for mounting head} |
| B60S 1/3484 | | {integral with arm or link piece} |
| B60S 1/3486 | | {Means to allow blade to follow curvature of the screen (i.e. rotation along longitudinal axis of the arm)} |
| B60S 1/3488 | | {Means for mounting wiper arms onto the vehicle} |
| B60S 1/349 | | {Means for mounting the wiper bearing to the vehicle body} |
| B60S 1/3493 | | {Means for mounting the wiper shaft in the wiper bearing} |
| B60S 1/3495 | | {Means for mounting the drive mechanism to the wiper shaft} |
| B60S 1/3497 | | {Additional means for guiding the blade other than the arm or blade joint} |
| B60S 1/36 | | Variable-length arms |
| B60S 1/365 | | {the effective length being automatically varied during angular oscillation of the arm} |
| B60S 1/38 | | Wiper blades {(provided with liquid spreading means B60S 1/524 ; provided with gas spreading means B60S 1/546)} |
| B60S 1/3801 | | {characterised by a blade support harness consisting of several articulated elements (B60S 1/3803 , B60S 1/3806 take precedence)} |
| B60S 1/3803 | | {heated wiper blades} |
| B60S 1/3805 | | {electrically} |
| B60S 1/3806 | | {Means, or measures taken, for influencing the aerodynamic quality of the wiper blades} |
| B60S 1/3808 | | {Spoiler integral with the squeegee} |
| B60S 1/381 | | {Spoilers mounted on the squeegee or on the vertebra} |
| B60S 2001/3812 | | {Means of supporting or holding the squeegee or blade rubber} |
| B60S 2001/3813 | | {characterised by a support harness consisting of several articulated elements} |
| B60S 2001/3815 | | {characterised by the joint between elements} |
| B60S 2001/3817 | | {characterised by a backing strip to aid mounting of squeegee in support} |

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| B60S 2001/3818 | | {the backing strip being a channel-like element, e.g. not continuous} |
| B60S 2001/382 | | {the backing strip being an essentially planar reinforcing strip, e.g. vertebra} |
| B60S 2001/3822 | | {characterised by additional means to prevent longitudinal sliding of squeegee in support, e.g. clips} |
| B60S 2001/3824 | | {the blade or squeegee pivoting about an axis parallel to blade longitudinal axis} |
| B60S 2001/3825 | | {the squeegee mounted directly to or in wiper blade arm} |
| B60S 2001/3827 | | {characterised by the squeegee or blade rubber or wiping element} |
| B60S 2001/3829 | | {characterised by the material of the squeegee or coating thereof} |
| B60S 2001/3831 | | {cleaning by scrubbing or abrasive action} |
| B60S 2001/3832 | | {cleaning by rigid or semi-rigid scraping elements, e.g. for removing ice} |
| B60S 2001/3834 | | {equipped with brush-like elements} |
| B60S 2001/3836 | | {characterised by cross-sectional shape} |
| B60S 2001/3837 | | {with more than one wiping edge or lip} |
| B60S 2001/3839 | | {with longitudinally split squeegee, with squeegee parts} |
| B60S 2001/3841 | | {Squeegee modifications to prevent longitudinally sliding of squeegee in support structure} |
| B60S 2001/3843 | | {equipped with removable cover or protective elements} |
| B60S 2001/3844 | | {equipped with means to indicate wear or usage of blade} |
| B60S 2001/3846 | | {Devices for renewing or renovating blade wiping edges, e.g. cutters} |
| B60S 1/3848 | | {Flat-type wiper blade, i.e. without harness} |
| B60S 1/3849 | | {Connectors therefor; Connection to wiper arm; Attached to blade} |
| B60S 1/3851 | | {Mounting of connector to blade assembly} |
| B60S 1/3853 | | {Snap-fit, e.g. elastic connection} |
| B60S 1/3855 | | {by welding, gluing or the like} |
| B60S 1/3856 | | {Gripping the blade} |
| B60S 1/3858 | | {with protrusions cooperating with holes} |
| B60S 1/386 | | {made in two halves} |
| B60S 1/3862 | | {Transport of liquid there through} |
| B60S 1/3863 | | {Connectors having a spoiler} |
| B60S 1/3865 | | {Connectors having an integral pivot pin for connection with the wiper arm} |
| B60S 1/3867 | | {pin formed on the interior of side walls} |
| B60S 1/3868 | | {pin formed on the exterior of side walls} |
| B60S 1/387 | | {the connector being suitable for receiving different types of adapter} |

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| B60S 1/3872 | | {without connector, e.g. connection to wiper arm via squeegee or vertebra} |
| B60S 1/3874 | | {with a reinforcing vertebra} |
| B60S 1/3875 | | {rectangular section} |
| B60S 1/3877 | | {embedded in the squeegee} |
| B60S 1/3879 | | {placed in side grooves in the squeegee} |
| B60S 1/3881 | | {in additional element, e.g. spoiler} |
| B60S 1/3882 | | {C-shape section} |
| B60S 1/3884 | | {Wire-shaped section} |
| B60S 1/3886 | | {End caps} |
| B60S 1/3887 | | {Mounting of end caps} |
| B60S 1/3889 | | {cooperating with holes in the vertebra} |
| B60S 1/3891 | | {with locking device} |
| B60S 1/3893 | | {cooperating with holes in the squeegee} |
| B60S 1/3894 | | {having a particular shape} |
| B60S 1/3896 | | {with openings at the longitudinal extremities} |
| B60S 2001/3898 | | {method for manufacturing wiper blades} |
| B60S 1/40 | | Connections between blades and arms |
| B60S 1/4003 | | {Multi-purpose connections for two or more kinds of arm ends} |

NOTE

Multi-aspect classification is applied for technical subjects relating to the arms and covered by subgroups
[B60S 1/4006](#) - [B60S 1/4083](#)

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| B60S 1/4006 | | {for arms provided with a hook-shaped end} |
| B60S 1/4009 | | {comprising a detachable intermediate element mounted on the hook-shaped end} |
| B60S 2001/4012 | | {the element being provided with bearing surfaces on its side walls} |
| B60S 1/4016 | | {the element being provided with retention means co-operating with the hook-shaped end of the arm} |
| B60S 1/4019 | | {the retention means being protrusions or holes} |
| B60S 2001/4022 | | {the element being provided with a locking element movable thereon} |
| B60S 2001/4025 | | {the element being able to receive pivot pins of different diameters} |
| B60S 2001/4029 | | {the element being able to receive arms of different widths} |
| B60S 2001/4032 | | {the element being able to receive arms with hooks of different radiuses} |
| B60S 2001/4035 | | {the connection being covered by a removable cover mounted on the blade} |
| B60S 1/4038 | | {for arms provided with a channel-shaped end} |

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| B60S 1/4041 | | {the channel-shaped end comprising a pivot pin mounted between the side walls} |
| B60S 1/4045 | | {comprising a detachable intermediate element mounted on the channel-shaped end} |
| B60S 1/4048 | | {the element being provided with retention means co-operating with the channel-shaped end of the arm} |
| B60S 2001/4051 | | {the intermediate element engaging the side walls of the arm} |
| B60S 2001/4054 | | {the intermediate element engaging the back part of the arm} |
| B60S 2001/4058 | | {comprising a separate locking element, e.g. in addition to an intermediate element} |
| B60S 2001/4061 | | {covered by a removable cover mounted on the blade} |
| B60S 1/4064 | | {the channel-shaped end being provided with protrusions on, or holes in, the side walls to create a pivot} |
| B60S 1/4067 | | {for arms provided with a side pin} |
| B60S 1/407 | | {with means provided on the arm for locking the side pin} |
| B60S 1/4074 | | {with means provided on the blade for locking the side pin} |
| B60S 1/4077 | | {characterised by the connecting part of, or an intermediate element mounted on, the wiper blade (means for locking the side pin B60S 1/4074)} |
| B60S 2001/408 | | {the connecting part or the intermediate element being provided with holes for different diameters of pivoting pin} |
| B60S 1/4083 | | {for arms provided with a flat end} |
| B60S 1/4087 | | {the end being provided with protrusions or holes} |
| B60S 2001/409 | | {characterised by the arm or connecting part mounted on the arm presenting a shaped opening for bearing the pivot axis} |
| B60S 2001/4093 | | {characterised by the mounting of the pivot on the main yoke of the blade} |
| B60S 2001/4096 | | {Connections between arm and blade not using a cylindrical pivot axis on the blade} |
| B60S 1/42 | | resilient |
| B60S 1/44 | . . . | the wiper blades having other than swinging movement, e.g. rotary {(the wiper blade support member, e.g. arm, having a swinging movement B60S 1/32)} |
| B60S 1/46 | . . | using liquid; Windscreen washers |
| B60S 1/48 | . . . | Liquid supply therefor |
| B60S 1/481 | | {the operation of at least part of the liquid supply being controlled by electric means (electrical washing liquid warming-up means B60S 1/488)} |
| B60S 1/482 | | {combined with the operation of windscreen wipers} |
| B60S 1/483 | | {using a supply pump driven by the windscreen-wiper motor} |
| B60S 1/485 | | {including control systems responsive to external conditions, e.g. by detection of moisture, dirt or the like} |

- B60S 1/486 {including control systems responsive to a vehicle driving condition, e.g. speed}
- B60S 1/487 {the liquid being heated (nozzles provided with heating means [B60S 1/52](#))}
- B60S 1/488 {electrically}
- B60S 1/50 Arrangement of reservoir
- B60S 1/52 Arrangement of nozzles; {Liquid spreading means} (nozzles per se [B05B](#))
- B60S 1/522 {moving liquid spreading means, e.g. arranged in wiper arms}
- B60S 1/524 {arranged in wiper blades}
- B60S 1/526 {according to vehicle movement characteristics, e.g. speed, or climatic conditions, e.g. wind}
- B60S 1/528 {the spreading means being moved between a rest position and a working position ([B60S 1/526](#) takes precedence)}
- B60S 1/54 using gas, e.g. hot air
- B60S 1/542 {using wiping devices}
- B60S 1/544 {moving gas spreading means, e.g. arranged in wiper arms}
- B60S 1/546 {arranged in wiper blades}
- B60S 1/548 {according to vehicle movement characteristics, e.g. speed, or climatic conditions, e.g. wind}
- B60S 1/56 specially adapted for cleaning other parts or devices than front windows or windscreens {(rear-view mirror arrangements mounted on vehicle exterior including cleaning devices [B60R 1/0602](#))}
- B60S 1/563 {for registration, licensing or like devices}
- B60S 1/566 {including wiping devices ([B60S 1/563](#), [B60S 1/583](#) take precedence)}
- B60S 1/58 for rear windows
- B60S 1/583 {including wiping devices}
- B60S 1/586 {including defroster or demisting means}
- B60S 1/60 for signalling devices, e.g. reflectors
- B60S 1/603 {the operation of at least a part of the cleaning means being controlled by electric means}
- B60S 1/606 {combined with the operation of windscreen or front window cleaning means}
- B60S 1/62 Other vehicle fittings for cleaning
- B60S 1/64 for cleaning vehicle interiors, e.g. built-in vacuum cleaners
- B60S 1/66 for cleaning vehicle exterior
- B60S 1/68 for freeing wheels or tyres from foreign matter, e.g. wheel scrapers
- B60S 1/685 {for two-wheeled vehicles}
- B60S 3/00** **Vehicle cleaning apparatus not integral with vehicles** (cleaning in general [B08B](#); cleaning peculiar to waterborne vessels [B63B 57/00](#), [B63B 59/00](#); ground equipment for cleaning aircraft [B64F 5/00](#); {multistage treatment applied to waste water from vehicle wash installations [C02F 9/00](#)})
- B60S 3/002 {Vehicle drying apparatus}

- B60S 3/004 . {Conveyors for vehicle cleaning apparatus}
- B60S 3/006 . {specially adapted for railway vehicles ([B60S 3/008](#) takes precedence)}
- B60S 3/008 . {for interiors of land vehicles}
- B60S 3/04 . for exteriors of land vehicles {([B60S 3/002](#), [B60S 3/004](#) take precedence; specially adapted for railway vehicles [B60S 3/006](#))}
- B60S 3/041 . . {specially adapted for two-wheeled vehicles}
- B60S 3/042 . . {Wheel cleaning devices (integral with vehicle [B60S 1/00](#))}
- B60S 3/044 . . {Hand-held cleaning arrangements with liquid or gas distributing means ([B60S 3/045](#) takes precedence)}
- B60S 3/045 . . {Other hand-held cleaning arrangements, e.g. with sponges, brushes, scrapers or the like (brushes per se [A46B](#))}
- B60S 3/047 . . . {using liquid or gas distributing means ([B60S 3/048](#) takes precedence)}
- B60S 3/048 . . . {with rotary or vibratory bodies contacting the vehicle}
- B60S 3/06 . . with rotary bodies contacting the vehicle {(hand-held [B60S 3/048](#))}
- B60S 3/063 . . . {the axis of rotation being approximately vertical}
- B60S 3/066 . . . {the axis of rotation being approximately horizontal}

B60S 5/00

Servicing, maintaining, repairing or refitting of vehicles ({collecting or removing exhaust gases in workshops [B08B 15/002](#); straightening vehicle body parts [B21D 1/12](#), [B21D 1/14](#); vehicles adapted to carry a workshop for servicing or maintenance [B60P 3/14](#); servicing rail locomotives [B61K](#); {registering or indicating the working of vehicles [G07C 5/00](#); testing of vehicles [G01M 17/00](#); arrangements for electrical testing [G01R 31/00](#); devices for monitoring or checking brake systems [B60T 17/22](#); filling or draining lubricant [F01M 11/04](#); means for collecting, retaining, or draining-off lubricant [F16N 31/00](#); draining of lubricant from gearing [F16H 57/0406](#); assembly or repair of springs or dampers [F16F 9/3271](#); tool, instrument or work supports or storage means used in association with vehicles [B25H 5/00](#))}

- B60S 5/02 . Supplying fuel to vehicles; General disposition of plant in filling stations (apparatus for transferring measured quantities of petrol, oil, or the like from storage space to vehicles [B67D](#))
- B60S 5/04 . Supplying air for tyre inflation (arrangement of tyre inflating devices on vehicles [B60C 23/00](#); tyre pressure gauges [G01L 17/00](#); {pumps actuated by muscle power [F04B 33/00](#))}
- B60S 5/043 . . {characterised by the inflation control means or the drive of the air pressure system}
- B60S 5/046 . . . {using electrical or electronical means}
- B60S 5/06 . Supplying batteries to, or removing batteries from, vehicles (circuit arrangements for charging batteries [H02J 7/00](#))

B60S 9/00

Ground-engaging vehicle fittings for supporting, lifting, or manoeuvring the vehicle, wholly or in part, e.g. built-in jacks ({props for vehicle draw bars [B60D 1/66](#); anti-theft devices acting on vehicle jacking means [B60R 25/001](#); lifting devices in general [B66F](#), supports in general [F16M](#))}

- B60S 9/02 . for only lifting or supporting
- B60S 9/04 . . mechanically
- B60S 9/06 . . . of screw-and-nut type

- B60S 9/08 the screw axis being substantially vertical
- B60S 9/10 . . by fluid pressure
- B60S 9/12 . . . of telescopic type
- B60S 9/14 . for both lifting and manoeuvring
- B60S 9/16 . . for operating only on one end of vehicle ([B60S 9/205](#) takes precedence)
- B60S 9/18 . . . mechanically
- B60S 9/20 . . . with fluid-pressure lift
- B60S 9/205 . . Power driven manoeuvring fittings, e.g. reciprocally driven steppers or rotatably driven cams ([vehicles with ground-engaging propulsion means, e.g. walking members, B62D 57/02](#))
- B60S 9/21 . . . comprising a rotatably driven auxiliary wheel or endless track, e.g. driven by ground wheel ([track vehicles with additional or alternative ground wheels B62D 55/02, B62D 55/04](#); auxiliary drives from a ground wheel [B60K 25/08](#))
- B60S 9/215 driven by an auxiliary motor
- B60S 9/22 . Means for attaching lifting, supporting, or manoeuvring devices to vehicles ([for separate devices B60S 11/00](#))
- B60S 11/00** **Vehicle modifications for receiving separate lifting, supporting, or manoeuvring devices**
- B60S 13/00** **Vehicle-manoeuving devices separate from the vehicle** ([vehicle lifting {e.g. liftable turntables}](#) or [pushing devices B66F](#); [workshop equipment B25H](#))
- B60S 13/02 . Turntables; Traversers ([incorporated in vehicle-storing garages E04H](#); [rotary display stands A47F 5/02](#))