

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](#) .

Guidance heading:**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 windcreens, windows or optical devices { (wind deflectors specially adapted for preventing soiling of windows or windcreens [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 windcreens, 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) }

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| B60S 1/0452 | ... | {Position of the wipers relative to the vehicle } |
| 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 } |
| B60S 1/0848 | | { Cleaning devices for cameras on vehicle } |
| B60S 1/0851 | | { Resistive rain sensor } |
| B60S 1/0855 | | { Ultrasonic rain sensor } |

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| 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 |
| 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) } |

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| 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 } |
| 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) } |

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| 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 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 } |
| 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 } |

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| 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 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](#) to [B60S 1/40J](#)

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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 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 1/4038 | ..... | { for arms provided with a channel-shaped end } |
| 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 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 1/4083 | ..... | { for arms provided with a flat end } |
| B60S 1/4087 | ..... | { the end being provided with protrusions or holes } |
| 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 } |

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| 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 . {Conveyers 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 }](#))

Guidance heading:

- B60S 2001/00** **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 2001/02 . . Cleaning windcreens, windows or optical devices { ([wind deflectors specially adapted for preventing soiling of windows or windcreens B60J 1/2002](#)) }
- B60S 2001/04 . . Wipers or the like, e.g. scrapers
- B60S 2001/32 . . . characterised by constructional features of wiper blade arms {[or blades](#) }
- B60S 2001/38 Wiper blades { ([provided with liquid spreading means B60S 1/524; provided with gas spreading means B60S 1/546](#)) }
- 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 2001/3898 | ..... | method for manufacturing wiper blades |
| B60S 2001/40 | ..... | Connections between blades and arms |
| B60S 2001/4006 | ..... | { for arms provided with a hook-shaped end } |
| B60S 2001/4009 | ..... | { 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 2001/4016 | ..... | { the element being provided with retention means co-operating with the hook-shaped end of the arm } |
| 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 2001/4038 | ..... | { for arms provided with a channel-shaped end } |
| B60S 2001/4045 | ..... | { comprising a detachable intermediate element mounted on the channel-shaped end } |
| B60S 2001/4048 | ..... | { 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 |

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|--------------------------------|-------|---|
| | | intermediate element |
| B60S 2001/4061 | | covered by a removable cover mounted on the blade |
| B60S 2001/4067 | ..... | { for arms provided with a side pin } |
| B60S 2001/4077 | ..... | { 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 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 |