

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING (NOTES omitted)

### TRANSPORTING

#### B60 VEHICLES IN GENERAL (NOTE omitted)

#### 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](#).

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.

<p><b>1/00</b>    <b>Cleaning of vehicles</b> (by apparatus not integral with vehicle <a href="#">B60S 3/00</a>; cleaning in general <a href="#">B08B</a>; de-icing of aircraft <a href="#">B64D</a>; heating arrangements specially adapted for transparent or reflecting areas <a href="#">H05B 3/84</a>)</p> <p>1/02    . Cleaning windscreens, windows or optical devices {(wind deflectors specially adapted for preventing soiling of windows or windscreens <a href="#">B60J 1/2002</a>)}</p> <p>1/023    . . {including defroster or demisting means}</p> <p>1/026    . . . {using electrical means}</p> <p>1/04    . . Wipers or the like, e.g. scrapers</p> <p>1/0402    . . . {completely or partially concealed in a cavity}</p> <p>1/0405    . . . . {the cavity being equipped with a movable cover}</p> <p>1/0408    . . . {Means for influencing the aerodynamic quality of wipers, e.g. clip-on wind deflectors (<a href="#">B60S 1/32</a> takes precedence)}</p> <p>1/0411    . . . {the windscreens, windows or optical devices being movable with respect to fixed wipers}</p> <p>1/0413    . . . {Modular wiper assembly}</p> <p>1/0416    . . . . {including other vehicle fittings}</p> <p>1/0419    . . . . {the support structure being integrally molded}</p> <p>1/0422    . . . . {having a separate transverse element}</p> <p>1/0425    . . . . . {characterised by the attachment of the wiper shaft holders to the transverse element}</p> <p>1/0427    . . . . . {characterised by the attachment of the wiper motor holder to the transverse element}</p> <p>1/043    . . . {Attachment of the wiper assembly to the vehicle}</p> <p>1/0433    . . . . {Attachement of a wiper modular assembly to the vehicle}</p> <p>1/0436    . . . . {Attachement of separate wiper shaft holders to the vehicle (<a href="#">B60S 1/0425</a> takes precedence)}</p> <p>1/0438    . . . . {Attachement of separate wiper motor assembly to the vehicle}</p> <p>1/0441    . . . . {characterised by the attachment means}</p>	<p>1/0444    . . . . . {comprising vibration or noise absorbing means}</p> <p>1/0447    . . . . . {non-screw fixation, (e.g. snap-in, bayonet-type..)}</p> <p>1/045    . . . . . {having a pre-attachment device (i.e. to hold elements in position during mounting)}</p> <p>1/0452    . . . {Position of the wipers relative to the vehicle}</p> <p>1/0455    . . . . {Device for lifting the wipers off the screen in its parking position or at extremes of wipe}</p> <p>1/0458    . . . . {Arrangement wherein the windscreen frame cooperates with the wipers}</p> <p>1/0461    . . . . . {Arrangement of the side pillars}</p> <p>1/0463    . . . . . {Arrangement of the cow}</p> <p>1/0466    . . . . {Arrangement of wipers on openable windows}</p> <p>1/0469    . . . . {Devices for assisting the wiper positioning on the vehicle}</p> <p>1/0472    . . . . {Arrangement of the wipers on right or left-hand drive vehicles}</p> <p>1/0475    . . . {Cleaning of wiper blades}</p> <p>1/0477    . . . . {Arrangement for deicing or for removing debris from wiper blades (<a href="#">heated wiper blade B60S 1/3805</a>)}</p> <p>1/048    . . . . . {with a heating device for the wiper parking position}</p> <p>1/0483    . . . . {the cleaning device being separated from the vehicle (<a href="#">renovating blade rubbers B60S 2001/3846</a>)}</p> <p>1/0486    . . . . {the cleaning device being integrated with the vehicle}</p> <p>1/0488    . . . {Wiper arrangement for crash protection or impact absorption}</p> <p>1/0491    . . . {Additional elements being fixed on wipers or parts of wipers not otherwise provided for, e.g. covers, antennae or lights}</p> <p>1/0494    . . . {Wipers actuated by wind force only}</p> <p>1/0497    . . . {Wiper units as items separate from vehicle, e.g. for emergency use or retro-fittable}</p>
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1/06	. . . characterised by the drive (producing other than swinging movement <a href="#">B60S 1/44</a> )	1/14	. . . . personally driven
1/08	. . . . electrically driven {(conjoint control of windscreen wiper motor and liquid supply of windscreen washer <a href="#">B60S 1/482</a> ; conjoint control of windscreen wiper motor and means for cleaning parts o parts other than windscreens or front windows <a href="#">B60S 1/56</a> , <a href="#">B60S 1/58</a> , <a href="#">B60S 1/606</a> )}	1/16	. . . . Means for transmitting drive
1/0803	. . . . . {Intermittent control circuits}	1/163	. . . . . {with means for stopping or setting the wipers at their limit of movement}
1/0807	. . . . . {using electronic control means, e.g. tubes, semiconductors ( <a href="#">B60S 1/0818</a> , <a href="#">B60S 1/0896</a> take precedence)}	1/166	. . . . . {characterised by the combination of a motor-reduction unit and a mechanism for converting rotary into oscillatory movement}
1/0811	. . . . . {combined with mechanical control means, e.g. thermal relays}	1/18	. . . . . mechanically {( <a href="#">B60S 1/166</a> takes precedence)}
1/0814	. . . . . {using several drive motors; motor synchronisation circuits}	1/185	. . . . . {with means for stopping or setting the wipers at their limit of movement}
1/0818	. . . . . {including control systems responsive to external conditions, e.g. by detection of moisture, dirt or the like}	1/20	. . . . . by cable drives; by flexible shafts
1/0822	. . . . . {characterized by the arrangement or type of detection means}	1/22	. . . . . by rotary cams
1/0825	. . . . . {Capacitive rain sensor}	1/24	. . . . . by rotary cranks
1/0829	. . . . . {Oscillator-resonator rain sensor}	1/245	. . . . . {with particular rod arrangements between the motor driven axle and the wiper arm axle}
1/0833	. . . . . {Optical rain sensor}	1/26	. . . . . by toothed gearing
1/0837	. . . . . {with a particular arrangement of the optical elements}	1/28	. . . characterised by a plurality of wipers ( <a href="#">B60S 1/06</a> takes precedence)
1/084	. . . . . {including a hologram}	1/30	. . . . arranged both outside and inside
1/0844	. . . . . {including a camera}	1/32	. . . characterised by constructional features of wiper blade arms {or blades}
1/0848	. . . . . {Cleaning devices for cameras on vehicle}	1/34	. . . . Wiper arms; Mountings therefor {(wiper arms provided with liquid spreading means <a href="#">B60S 1/522</a> ; with gas spreading means <a href="#">B60S 1/544</a> )}
1/0851	. . . . . {Resistive rain sensor}	1/3402	. . . . . {with means for obtaining particular wiping patterns (by varying the effective length of the angularly oscillating arm <a href="#">B60S 1/365</a> )}
1/0855	. . . . . {Ultrasonic rain sensor}	1/3404	. . . . . {the wiper blades being moved substantially parallel with themselves}
1/0859	. . . . . {Other types of detection of rain, e.g. by measuring friction or rain drop impact}	1/3406	. . . . . {the wiper blades being rotated with respect to the wiper arms around an axis perpendicular to the wiped field ( <a href="#">B60S 1/3404</a> takes precedence)}
1/0862	. . . . . {including additional sensors (vehicle speed sensors <a href="#">B60S 1/0896</a> )}	1/3409	. . . . . {the wiper arms consisting of two or more articulated elements}
1/0866	. . . . . {including a temperature sensor (heating devices for windshield <a href="#">B60H</a> )}	1/3411	. . . . . {with means for varying wiper-blade pressure on windshield during operation}
1/087	. . . . . {including an ambient light sensor (control of vehicle lights <a href="#">B60Q</a> )}	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}
1/0874	. . . . . {characterized by the position of the sensor on the windshield}	1/3415	. . . . . {with means for supplying cleaning fluid to windscreen cleaners, e.g. washers (arrangement of nozzles <a href="#">B60S 1/52</a> )}
1/0877	. . . . . {at least part of the sensor being positioned between layers of the windshield}	1/3418	. . . . . {with means for additionally adjusting the wiper arm working position with respect to the surface to be wiped}
1/0881	. . . . . {characterized by the attachment means on the windshield}	1/342	. . . . . {with means for temporarily uncoupling the wiper arm from the drive}
1/0885	. . . . . {the sensor being integrated in a rear-view mirror module}	1/3422	. . . . . {Means arranged in the wiper structure to lift the arm at extremes of wipe (means arranged on the vehicle body <a href="#">B60S 1/0455</a> )}
1/0888	. . . . . {characterized by the attachment of the elements in a unit}	1/3425	. . . . . {Constructional aspects of the arm}
1/0892	. . . . . {Testing and production of rain sensors}	1/3427	. . . . . {Arm piece, link piece and mounting head formed as one element}
1/0896	. . . . . {including control systems responsive to a vehicle driving condition, e.g. speed}	1/3429	. . . . . {Arm pieces}
1/10	. . . . pneumatically driven	1/3431	. . . . . {Link pieces}
1/105	. . . . . {with means for stopping or setting the wipers at their limit of movement}	1/3434	. . . . . {Manufacturing details thereof}
1/12	. . . . hydraulically driven		
1/125	. . . . . {with means for stopping or setting the wipers at their limit of movement}		

1/3436	. . . . .	{Mounting heads}	1/381	. . . . .	{Spoilers mounted on the squeegee or on the vertebra}
1/3438	. . . . .	{Manufacturing details thereof}	2001/3812	. . . . .	{Means of supporting or holding the squeegee or blade rubber}
1/344	. . . . .	{Flat-type mounting heads}	2001/3813	. . . . .	{characterised by a support harness consisting of several articulated elements}
1/3443	. . . . .	{Wiper shafts}	2001/3815	. . . . .	{characterised by the joint between elements}
1/3445	. . . . .	{Joints between elements}	2001/3817	. . . . .	{characterised by a backing strip to aid mounting of squeegee in support}
1/3447	. . . . .	{the elements being an arm piece and a link piece}	2001/3818	. . . . .	{the backing strip being a channel-like element, e.g. not continuous}
1/345	. . . . .	{the elements being a link piece and a mounting head}	2001/382	. . . . .	{the backing strip being an essentially planar reinforcing strip, e.g. vertebra}
1/3452	. . . . .	{the joint being a snap fit pivot joint}	2001/3822	. . . . .	{characterised by additional means to prevent longitudinal sliding of squeegee in support, e.g. clips}
1/3454	. . . . .	{the joint being at end of mounting head furthest away from blade}	2001/3824	. . . . .	{the blade or squeegee pivoting about an axis parallel to blade longitudinal axis}
1/3456	. . . . .	{Locks or stays for holding arms in fully folded back position}	2001/3825	. . . . .	{the squeegee mounted directly to or in wiper blade arm}
1/3459	. . . . .	{the element being a mounting head and a shaft}	2001/3827	. . . . .	{characterised by the squeegee or blade rubber or wiping element}
1/3461	. . . . .	{with means to adjust the orientation of the head relative to shaft}	2001/3829	. . . . .	{characterised by the material of the squeegee or coating thereof}
1/3463	. . . . .	{Means to press blade onto screen}	2001/3831	. . . . .	{cleaning by scrubbing or abrasive action}
1/3465	. . . . .	{with coil springs}	2001/3832	. . . . .	{cleaning by rigid or semi-rigid scraping elements, e.g. for removing ice}
1/3468	. . . . .	{Mountings therefor}	2001/3834	. . . . .	{equipped with brush-like elements}
1/347	. . . . .	{with adjustment means to adjust wiping pressure (during wiping <a href="#">B60S 1/3411</a> )}	2001/3836	. . . . .	{characterised by cross-sectional shape}
1/3472	. . . . .	{with adjustment means to keep wiping pressure constant (varying wiping pressure <a href="#">B60S 1/3411</a> )}	2001/3837	. . . . .	{with more than one wiping edge or lip}
1/3475	. . . . .	{with blade or leaf springs}	2001/3839	. . . . .	{with longitudinally split squeegee, with squeegee parts}
1/3477	. . . . .	{with elastomeric or rubber springs}	2001/3841	. . . . .	{Squeegee modifications to prevent longitudinally sliding of squeegee in support structure}
1/3479	. . . . .	{Means to cover the wiper parts}	2001/3843	. . . . .	{equipped with removable cover or protective elements}
1/3481	. . . . .	{for mounting head}	2001/3844	. . . . .	{equipped with means to indicate wear or usage of blade}
1/3484	. . . . .	{integral with arm or link piece}	2001/3846	. . . . .	{Devices for renewing or renovating blade wiping edges, e.g. cutters}
1/3486	. . . . .	{Means to allow blade to follow curvature of the screen (i.e. rotation along longitudinal axis of the arm)}	1/3848	. . . . .	{Flat-type wiper blade, i.e. without harness}
1/3488	. . . . .	{Means for mounting wiper arms onto the vehicle}	1/3849	. . . . .	{Connectors therefor; Connection to wiper arm; Attached to blade}
1/349	. . . . .	{Means for mounting the wiper bearing to the vehicle body}	1/3851	. . . . .	{Mounting of connector to blade assembly}
1/3493	. . . . .	{Means for mounting the wiper shaft in the wiper bearing}	1/3853	. . . . .	{Snap-fit, e.g. elastic connection}
1/3495	. . . . .	{Means for mounting the drive mechanism to the wiper shaft}	1/3855	. . . . .	{by welding, gluing or the like}
1/3497	. . . . .	{Additional means for guiding the blade other than the arm or blade joint}	1/3856	. . . . .	{Gripping the blade}
1/36	. . . . .	Variable-length arms	1/3858	. . . . .	{with protrusions cooperating with holes}
1/365	. . . . .	{the effective length being automatically varied during angular oscillation of the arm}	1/386	. . . . .	{made in two halves}
1/38	. . . . .	Wiper blades {(provided with liquid spreading means <a href="#">B60S 1/524</a> ; provided with gas spreading means <a href="#">B60S 1/546</a> )}	1/3862	. . . . .	{Transport of liquid there through}
1/3801	. . . . .	{characterised by a blade support harness consisting of several articulated elements ( <a href="#">B60S 1/3803</a> , <a href="#">B60S 1/3806</a> take precedence)}	1/3863	. . . . .	{Connectors having a spoiler}
1/3803	. . . . .	{heated wiper blades}	1/3865	. . . . .	{Connectors having an integral pivot pin for connection with the wiper arm}
1/3805	. . . . .	{electrically}			
1/3806	. . . . .	{Means, or measures taken, for influencing the aerodynamic quality of the wiper blades}			
1/3808	. . . . .	{Spoiler integral with the squeegee}			

1/3867	. . . . .	{pin formed on the interior of side walls}	1/4045	. . . . .	{comprising a detachable intermediate element mounted on the channel-shaped end}
1/3868	. . . . .	{pin formed on the exterior of side walls}	1/4048	. . . . .	{the element being provided with retention means co-operating with the channel-shaped end of the arm}
1/387	. . . . .	{the connector being suitable for receiving different types of adapter}	2001/4051	. . . . .	{the intermediate element engaging the side walls of the arm}
1/3872	. . . . .	{without connector, e.g. connection to wiper arm via squeegee or vertebra}	2001/4054	. . . . .	{the intermediate element engaging the back part of the arm}
1/3874	. . . . .	{with a reinforcing vertebra}	2001/4058	. . . . .	{comprising a separate locking element, e.g. in addition to an intermediate element}
1/3875	. . . . .	{rectangular section}	2001/4061	. . . . .	{covered by a removable cover mounted on the blade}
1/3877	. . . . .	{embedded in the squeegee}	1/4064	. . . . .	{the channel-shaped end being provided with protrusions on, or holes in, the side walls to create a pivot}
1/3879	. . . . .	{placed in side grooves in the squeegee}	1/4067	. . . . .	{for arms provided with a side pin}
1/3881	. . . . .	{in additional element, e.g. spoiler}	1/407	. . . . .	{with means provided on the arm for locking the side pin}
1/3882	. . . . .	{C-shape section}	1/4074	. . . . .	{with means provided on the blade for locking the side pin}
1/3884	. . . . .	{Wire-shaped section}	1/4077	. . . . .	{characterised by the connecting part of, or an intermediate element mounted on, the wiper blade (means for locking the side pin <a href="#">B60S 1/4074</a> )}
1/3886	. . . . .	{End caps}	2001/408	. . . . .	{the connecting part or the intermediate element being provided with holes for different diameters of pivoting pin}
1/3887	. . . . .	{Mounting of end caps}	1/4083	. . . . .	{for arms provided with a flat end}
1/3889	. . . . .	{cooperating with holes in the vertebra}	1/4087	. . . . .	{the end being provided with protrusions or holes}
1/3891	. . . . .	{with locking device}	2001/409	. . . . .	{characterised by the arm or connecting part mounted on the arm presenting a shaped opening for bearing the pivot axis}
1/3893	. . . . .	{cooperating with holes in the squeegee}	2001/4093	. . . . .	{characterised by the mounting of the pivot on the main yoke of the blade}
1/3894	. . . . .	{having a particular shape}	2001/4096	. . . . .	{Connections between arm and blade not using a cylindrical pivot axis on the blade}
1/3896	. . . . .	{with openings at the longitudinal extremities}	1/42	. . . . .	resilient
2001/3898	. . . . .	{method for manufacturing wiper blades}	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 <a href="#">B60S 1/32</a> )}
1/40	. . . . .	Connections between blades and arms	1/46	. . . . .	using liquid; Windscreen washers
1/4003	. . . . .	{Multi-purpose connections for two or more kinds of arm ends}	1/48	. . . . .	Liquid supply therefor
		<b>NOTE</b>	1/481	. . . . .	{the operation of at least part of the liquid supply being controlled by electric means (electrical washing liquid warming-up means <a href="#">B60S 1/488</a> )}
		Multi-aspect classification is applied for technical subjects relating to the arms and covered by subgroups <a href="#">B60S 1/4006</a> - <a href="#">B60S 1/4083</a>	1/482	. . . . .	{combined with the operation of windscreen wipers}
1/4006	. . . . .	{for arms provided with a hook-shaped end}	1/483	. . . . .	{using a supply pump driven by the windscreen-wiper motor}
1/4009	. . . . .	{comprising a detachable intermediate element mounted on the hook-shaped end}	1/485	. . . . .	{including control systems responsive to external conditions, e.g. by detection of moisture, dirt or the like}
2001/4012	. . . . .	{the element being provided with bearing surfaces on its side walls}	1/486	. . . . .	{including control systems responsive to a vehicle driving condition, e.g. speed}
1/4016	. . . . .	{the element being provided with retention means co-operating with the hook-shaped end of the arm}	1/487	. . . . .	{the liquid being heated (nozzles provided with heating means <a href="#">B60S 1/52</a> )}
1/4019	. . . . .	{the retention means being protrusions or holes}	1/488	. . . . .	{electrically}
2001/4022	. . . . .	{the element being provided with a locking element movable thereon}			
2001/4025	. . . . .	{the element being able to receive pivot pins of different diameters}			
2001/4029	. . . . .	{the element being able to receive arms of different widths}			
2001/4032	. . . . .	{the element being able to receive arms with hooks of different radiuses}			
2001/4035	. . . . .	{the connection being covered by a removable cover mounted on the blade}			
1/4038	. . . . .	{for arms provided with a channel-shaped end}			
1/4041	. . . . .	{the channel-shaped end comprising a pivot pin mounted between the side walls}			

- 1/50 . . . . Arrangement of reservoir
- 1/52 . . . . Arrangement of nozzles; {Liquid spreading means} (nozzles per se B05B)
- 1/522 . . . . . {moving liquid spreading means, e.g. arranged in wiper arms}
- 1/524 . . . . . {arranged in wiper blades}
- 1/526 . . . . . {according to vehicle movement characteristics, e.g. speed, or climatic conditions, e.g. wind}
- 1/528 . . . . . {the spreading means being moved between a rest position and a working position (B60S 1/526 takes precedence)}
- 1/54 . . . . using gas, e.g. hot air
- 1/542 . . . . {using wiping devices}
- 1/544 . . . . {moving gas spreading means, e.g. arranged in wiper arms}
- 1/546 . . . . {arranged in wiper blades}
- 1/548 . . . . {according to vehicle movement characteristics, e.g. speed, or climatic conditions, e.g. wind}
- 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)}
- 1/563 . . . . {for registration, licensing or like devices}
- 1/566 . . . . {including wiping devices (B60S 1/563, B60S 1/583 take precedence)}
- 1/58 . . . . for rear windows
- 1/583 . . . . {including wiping devices}
- 1/586 . . . . {including defroster or demisting means}
- 1/60 . . . . for signalling devices, e.g. reflectors
- 1/603 . . . . {the operation of at least a part of the cleaning means being controlled by electric means}
- 1/606 . . . . . {combined with the operation of windscreen or front window cleaning means}
- 1/62 . . . . Other vehicle fittings for cleaning
- 1/64 . . . . for cleaning vehicle interiors, e.g. built-in vacuum cleaners
- 1/66 . . . . for cleaning vehicle exterior
- 1/68 . . . . for freeing wheels or tyres from foreign matter, e.g. wheel scrapers
- 1/685 . . . . . {for two-wheeled vehicles}
- 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 5/30)
- 3/002 . . . . {Vehicle drying apparatus}
- 3/004 . . . . {Conveyors for vehicle cleaning apparatus}
- 3/006 . . . . {specially adapted for railway vehicles (B60S 3/008 takes precedence)}
- 3/008 . . . . {for interiors of land vehicles}
- 3/04 . . . . for exteriors of land vehicles {(B60S 3/002, B60S 3/004 take precedence; specially adapted for railway vehicles B60S 3/006)}
- 3/041 . . . . {specially adapted for two-wheeled vehicles}
- 3/042 . . . . {Wheel cleaning devices (integral with vehicle B60S 1/00)}
- 3/044 . . . . {Hand-held cleaning arrangements with liquid or gas distributing means (B60S 3/045 takes precedence)}
- 3/045 . . . . {Other hand-held cleaning arrangements, e.g. with sponges, brushes, scrapers or the like (brushes per se A46B)}
- 3/047 . . . . {using liquid or gas distributing means (B60S 3/048 takes precedence)}
- 3/048 . . . . {with rotary or vibratory bodies contacting the vehicle}
- 3/06 . . . . with rotary bodies contacting the vehicle {(hand-held B60S 3/048)}
- 3/063 . . . . {the axis of rotation being approximately vertical}
- 3/066 . . . . {the axis of rotation being approximately horizontal}
- 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})
- 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)
- 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})
- 5/043 . . . . {characterised by the inflation control means or the drive of the air pressure system}
- 5/046 . . . . {using electrical or electronical means}
- 5/06 . . . . Supplying batteries to, or removing batteries from, vehicles (exchanging batteries for electric propulsion of vehicles B60L 53/80)
- WARNING**
- Group B60S 5/06 is impacted by reclassification into group B60L 53/80.
- Groups B60S 5/06 and B60L 53/80 should be considered in order to perform a complete search.
- 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)
- 9/02 . . . . for only lifting or supporting
- 9/04 . . . . mechanically
- 9/06 . . . . of screw-and-nut type
- 9/08 . . . . . the screw axis being substantially vertical

## B60S

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