

## B60S

### SERVICING, CLEANING, REPAIRING, SUPPORTING, LIFTING, OR MANOEUVRING OF VEHICLES, NOT OTHERWISE PROVIDED FOR

## 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](#))**

### Definition statement

*This place covers:*

Cleaning devices used for cleaning any parts of the vehicle and being fixed to the vehicle, e.g. defogging devices, wipers for windscreen or rear windows, nozzles distributing washing liquid, scrapers fixed to the wheels.

### Relationships with other classification places

Heated wires embedded in the windshield are to be found in [H05B 3/84](#) and defrosting by deflecting air from the air-conditioning unit is classified in [B60H](#). [B60S 1/023](#) is therefore only concerned with the specific control of the defrosting (in particular automatic control using sensors for external conditions).

Hydrophobic films when applied to windscreens are both classified in [B60S 1/02](#) and [C09K 3/18](#).

The group [B60S 1/0818](#) and subgroups are concerned with rain sensors for automatic control of the windscreen wipers. The documents concerned with the type of detection should have both a classification in [B60S 1/0818](#) or subgroups and a classification in the corresponding type of detection (optical detection [G01N 21/45](#), by varying capacitance [G01N 27/22](#)). When the document is about a multi-functional camera, only a CPC symbol at additional information level (namely [B60S 1/0844](#)) but no inventive symbol is given to this document. The most relevant groups for those documents should be either stereoscopic detection [H04N 13/00](#) or image recognition [G06V 20/56](#).

The group [B60S 1/0848](#) concerns the cleaning of cameras when the camera is used as a rain sensor for controlling the wipers on the vehicle. Automatic cleaning of cameras is classified under [H04N](#). Cleaning of radars or external cameras installed on vehicles (by wipers or heating devices) are classified in [B60S 1/56](#).

The documents concerned with the electric wiper motors are normally classified in [H02K 7/116](#) but get a classification in [B60S 1/166](#) as well. The same rule applies to gearings [F16H 1/00](#), ball-joints [F16C](#), sealings [F16F](#) or other functional fields.

The cleaning devices being separate to the vehicle are to be found under [B60S 3/00](#).

The extrusion of the wiper rubber is classified in [B29C 48/00](#) and the indexing code [B29L 2031/305](#), only an Indexing Code ([B60S 2001/3898](#)) is given in our field. The same applies to the chemical composition of coatings for wiper blade rubbers, the relevant field being [C08J 7/00](#) and the Indexing Code [B60S 2001/3829](#).

Packaging for wiper blades are classified in both [B60S 1/38](#) (if applicable [B60S 1/3848](#)) and [B65D](#).

Washing liquid nozzles having specific features for creating a specific spray (e.g. fluidic oscillators) are classified in both [B60S 1/52](#) and [B05B](#).

Water heaters for heating washing liquid for windscreen washer reservoirs are both classified in [B60S 1/488](#) and [F24H 1/12](#). Documents showing reservoirs of washing liquid can also be classified

## Relationships with other classification places

in pumps ([F04D](#)), liquid level indicator ([G01F 23/00](#)), funnels ([B67C 11/00](#)) or front structure of car body ([B62D 25/08](#)). Some reservoirs are combined with cooling fluid expansion reservoirs for heating purposes, they should get both classifications [B60S 1/487](#) and [F01P 11/029](#).

The group [B60S 1/54](#) is concerned with cleaning by using air. However, defrosters for the windscreen deflecting air from the air-conditioning device are classified in [B60H](#).

The group [B60S 1/56](#) is concerned with cleaning of other part or devices than the front window. However, a specific group exist in [B60R 1/06](#) for cleaning rear-view mirrors. When cleaning is made using a wiper, a relevant classification for wipers in groups [B60S 1/04](#) - [B60S 1/44](#) is added.

## References

### Limiting references

*This place does not cover:*

By apparatus not integral with vehicle	<a href="#">B60S 3/00</a>
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### References out of a residual place

*Examples of places in relation to which this place is residual:*

Air-conditioning for vehicles	<a href="#">B60H</a>
Rear-view mirrors comprising means for cleaning or deicing	<a href="#">B60R 1/0602</a>
De-icing of aircraft	<a href="#">B64D</a>
Heating arrangements for transparent or reflecting areas	<a href="#">H05B 3/84</a>

### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Suction cleaners	<a href="#">A47L 9/00</a>
Spraying devices	<a href="#">B05B</a>
Cleaning in general	<a href="#">B08B</a>
Extrusion of wiper blades	<a href="#">B29C 48/00</a> , <a href="#">B29L 2031/305</a>
Packaging, e.g. for wiper blades	<a href="#">B65D</a>
Coatings, e.g. of wiper blades	<a href="#">C08J 7/00</a>
Hydrophobic films	<a href="#">C09K 3/18</a>
Casings of wiper motors	<a href="#">H02K</a>
Electric wiper motors	<a href="#">H02K 7/116</a>

## Special rules of classification

The groups [B60S 1/04](#) - [B60S 1/44](#) are concerned with windscreen wipers and their different consisting parts (mounting on the vehicle [B60S 1/04](#), electric control [B60S 1/08](#), motor-reduction units [B60S 1/166](#), transmissions [B60S 1/18](#) - [B60S 1/24](#), wiper arms [B60S 1/34](#), wiper blades\* [B60S 1/38](#), connection between wiper arm and wiper blade [B60S 1/40](#)).

\* The term "wiper blade" relates to the wiper squeegee (wiping lip) together with its support structure. The structure is either made of articulated elements ([B60S 1/3801](#)) or from a single flat element (flat-type wiper blade [B60S 1/3848](#)). A flat-type wiper blade should always be allocated a CPC symbol, either at inventive or additional level, under [B60S 1/3848](#) even if only visible on the figures. This

remark is particularly relevant for documents concerned with connectors for wiper blade and wiper arm.

The indexing codes [B60S 2001/3812](#) - [B60S 2001/3846](#) are break-down indexing codes. They are to be used when their titles correspond specifically to the wiper blades to be classified.

References [B08B](#), [B64D](#) and [H05B 3/84](#) are non-limiting in the main group/subgroup [B60S 1/00](#). CPC will be updated/corrected once this inconsistency is resolved in IPC.

## **B60S 1/0483**

**{the cleaning device being separate from the vehicle}**

### **References**

#### **Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Renovating blade rubbers	<a href="#">B60S 2001/3846</a>
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## **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 5/30](#))**

### **Definition statement**

*This place covers:*

Washing bays and separate hand-held devices specific for cleaning vehicles. The term vehicles has to be understood in its broad sense as cleaning devices for golf carts, shopping trolleys or wheelchairs are also classified here.

Cleaning of car structure (for example before painting) is not covered by this groups as it concerns only complete vehicle being in use. Cleaning of dismounted wheels can however be found under [B60S 3/042](#).

### **Relationships with other classification places**

Documents relating to cleaning in general are classified in [B08B](#).

Bicycle chain cleaners are classified in [B60S 3/041](#) and [B62J](#).

Documents showing ice-scrappers, mops or window-cleaning are only classified in [A47L](#) except if only used in combination with a vehicle (in this case the classification [B60S 3/045](#) is added).

When a document discloses the characteristics of a brush for car wash systems, it should be both classified in [B60S 3/06](#) and in [A46B](#).

Washing with textiles curtains strips should be classified in [B60S 3/04](#) and not in [B60S 3/06](#) (rotating brushes).

### **References**

#### **References out of a residual place**

*Examples of places in relation to which this place is residual:*

Cleaning peculiar to waterborne vessels	<a href="#">B63B 57/00</a> , <a href="#">B63B 59/00</a>
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Ground equipment for cleaning aircraft	<a href="#">B64F 5/30</a>
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### **Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Mops, ice scrapers	<a href="#">A47L</a>
Cleaning in general	<a href="#">B08B</a>
Bicycle chain cleaners	<a href="#">B62J</a>
Conveyors	<a href="#">B65G 19/02</a>
Multistage treatment applied to waste water	<a href="#">C02F 9/00</a>
Chemical mixing devices	<a href="#">C09K</a>
Cleaning or de-greasing metallic material	<a href="#">C23G 5/00</a>
Drying devices	<a href="#">F26B 21/00</a>

## **B60S 5/00**

**Servicing, maintaining, repairing, or refitting of vehicles (vehicles adapted to carry a workshop for servicing or maintenance [B60P 3/14](#); servicing rail locomotives [B61K](#))**

### **Definition statement**

*This place covers:*

Methods for servicing, maintaining, repairing or refitting of vehicles not otherwise provided for, e.g. the combination of services.

### **Relationships with other classification places**

Tools or bench devices : [B25B 1/00](#)

Under due consideration of the subclass title of [B60S](#), group [B60S 5/00](#) and its subgroup relate to servicing, maintaining, repairing or refitting of vehicles as far as they are not classifiable elsewhere. If within the CPC a better place to classify the aspects of servicing, maintaining, repairing or refitting of vehicles exists, then a disclosure is classified in that place and not in [B60S 5/00](#) or its subgroups. As a result, very few documents are present in this group.

### **References**

#### **References out of a residual place**

*Examples of places in relation to which this place is residual:*

Straightening vehicle body parts	<a href="#">B21D 1/12</a>
Devices for monitoring or checking brake systems	<a href="#">B60T 17/22</a>
Servicing rail locomotives	<a href="#">B61K</a>
Assembling motor vehicles	<a href="#">B62D 65/00</a>
Filling or draining lubricant	<a href="#">F01M 11/04</a>
Assembly or repair of springs or dampers	<a href="#">F16F 9/32</a>
Draining of lubricant from gearing	<a href="#">F16H 57/04</a>
Means for collecting, retaining, or draining-off lubricant	<a href="#">F16N 31/00</a>

References out of a residual place

Testing of vehicles	<a href="#">G01M 17/00</a>
Arrangements for electrical testing	<a href="#">G01R 31/00</a>
Administration of vehicle repair process	<a href="#">G06Q 10/00</a>
Registering or indicating the working of vehicles	<a href="#">G07C 5/00</a>

**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Collecting or removing exhaust gases in workshops	<a href="#">B08B 15/002</a>
Vices	<a href="#">B25B 1/00</a>
Tool, instrument or work supports or storage means used in association with vehicles	<a href="#">B25H 5/00</a>
Vehicles adapted to carry a workshop for servicing or maintenance	<a href="#">B60P 3/14</a>

**Special rules of classification**

References [B60P 3/14](#) and [B61K](#) are non-limiting in the main group [B60S 5/00](#). CPC will be updated/ corrected once this inconsistency is resolved in IPC.

**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](#))**

**Definition statement***This place covers:*

This group is only concerned with the exterior arrangement of service station plants but not with the dispensing of the fuel itself which is classified in subclass [B67D](#). Documents in this group are concerned with mobile fuel stations, arrangement of service or technical rooms, arrangement of other services like cleaning, tyre air refill or similar subject matter.

**References****Limiting references***This place does not cover:*

Transferring measured quantities of petrol, oil, or the like from storage space to vehicles	<a href="#">B67D</a>
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**Informative references***Attention is drawn to the following places, which may be of interest for search:*

Buildings or like structures	<a href="#">E04H 1/12</a>
Coin-freed apparatus	<a href="#">G07F</a>
Displaying, advertising	<a href="#">G09F 27/00</a>

**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](#)})

**Definition statement**

*This place covers:*

Air supply for vehicle tyre inflation.

**References****Limiting references**

*This place does not cover:*

Arrangement of tyre inflating devices on vehicles	<a href="#">B60C 23/00</a>
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**Informative references**

*Attention is drawn to the following places, which may be of interest for search:*

Mounting or dismounting of wheels	<a href="#">B60B 29/00</a>
Pumps actuated by muscle power	<a href="#">F04B 33/00</a>
Filling of containers with liquefied gases under pressure	<a href="#">F17C 5/06</a>
Tyre pressure gauges	<a href="#">G01L 17/00</a>

**B60S 5/06**

Supplying batteries to, or removing batteries from, vehicles (exchanging batteries for electric propulsion of vehicles [B60L 53/80](#))

**Definition statement**

*This place covers:*

- Battery exchange service stations
- Exchanging batteries in general for vehicles

**Relationships with other classification places**

Service stations with an automatic system for recharging batteries, without battery exchange, are classified in [B60L 53/50](#).

Exchanging batteries for electric propulsion of vehicles is covered by [B60L 53/80](#).

**References****Limiting references**

*This place does not cover:*

Exchanging batteries for electric propulsion of vehicles	<a href="#">B60L 53/80</a>
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**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Arrangement of batteries in the vehicle	<a href="#">B60K</a>
Charging batteries specially adapted for electric vehicles	<a href="#">B60L 53/00</a>
Arrangement of batteries in fork lift trucks	<a href="#">B66F 9/00</a>
Automatic payment	<a href="#">G07F</a>
Electrochemical generators	<a href="#">H01M</a>
Circuit arrangements for charging batteries	<a href="#">H02J 7/00</a>

**B60S 9/00**

**Ground-engaging vehicle fittings for supporting, lifting, or manoeuvring the vehicle, wholly or in part, e.g. built-in jacks (lifting devices in general [B66F](#); supports in general [F16M](#))**

**Definition statement**

*This place covers:*

Only supporting devices being fixed to the vehicle.

**Relationships with other classification places**

This groups covers only supporting, lifting or manoeuvring devices which are being fixed to the vehicle continuously. Devices which are not or only temporary fixed to the vehicle are classified elsewhere, e.g. in lifting devices [B66F](#), in supports in general [F16M](#) or in vehicle-manoeuving devices separate from the vehicle [B60S 13/00](#).

**References****References out of a residual place**

*Examples of places in relation to which this place is residual:*

Outriggers for mobile cranes	<a href="#">B66C 23/78</a>
Vehicles for placing portable bridges	<a href="#">E01D 15/127</a>
Outriggers for concrete pumps	<a href="#">E04G 21/00</a>

**Informative references**

Attention is drawn to the following places, which may be of interest for search:

Vehicle-manoeuving devices separate from the vehicle	<a href="#">B60S 13/00</a>
Root extracting machines	<a href="#">A01G 23/04</a>
Props for vehicle draw bars	<a href="#">B60D 1/66</a>
Auxiliary drives from a ground wheel	<a href="#">B60K 25/08</a>
Vehicles adapted for load transportation or to transport, to carry, or to comprise special loads or objects	<a href="#">B60P</a>
Anti-theft devices acting on vehicle jacking means	<a href="#">B60R 25/001</a>
Track vehicles with additional or alternative ground wheels	<a href="#">B62D 55/02</a>
Vehicles with ground-engaging propulsion means, e.g. walking members	<a href="#">B62D 57/02</a>

Lifting devices in general	<a href="#">B66F</a>
Vehicles for placing portable bridges	<a href="#">E01D 15/127</a>
Supports in general	<a href="#">F16M</a>

### Special rules of classification

References [B66F](#) and [F16M](#) are non-limiting in the main group [B60S 9/00](#). CPC will be updated/ corrected once this inconsistency is resolved in IPC.

## B60S 11/00

### Vehicle modifications for receiving separate lifting, supporting, or manoeuvring devices

#### Definition statement

*This place covers:*

Documents in that group are concerned with vehicles presenting supporting elements for receiving separate lifting devices i.e. devices which are not an integral part of the vehicle (like the classical scissors jack for example).

## B60S 13/00

Vehicle-manoeuving devices separate from the vehicle (vehicle lifting {, e.g. liftable turntables} or pushing devices [B66F](#); {workshop equipment [B25H](#)})

#### Definition statement

*This place covers:*

Only turntables or traverses specifically designed to move vehicles

#### References

##### Limiting references

*This place does not cover:*

Conveyors for vehicles	<a href="#">B62D 65/18</a>
Vehicle lifting or pushing device	<a href="#">B66F 3/00</a>
Equipment fixed to parking garages	<a href="#">E04H 6/40</a>

##### Informative references

*Attention is drawn to the following places, which may be of interest for search:*

Workshop equipment	<a href="#">B25H</a>
Castors for vehicles	<a href="#">B62B 5/00</a>
Conveyors in general	<a href="#">B65G</a>