

SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B60 VEHICLES IN GENERAL

B60B VEHICLE WHEELS (making wheels or wheel parts by rolling B21H 1/00, by forging, hammering or pressing B21K 1/28); CASTORS; AXLES FOR WHEELS OR CASTORS; INCREASING WHEEL ADHESION

Note(s)

Attention is drawn to the Note following the title of class B60.

Subclass index

WHEELS

| | |
|--|---------------------------|
| General structure..... | 1/00, 3/00 |
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| Ornamental characteristics..... | 7/00 |
| Particular structures: highly- resilient; multiple or multi-tyred; adhesion-increasing; rail-engaging..... | 9/00, 11/00, 15/00, 17/00 |
| Component parts | |
| spokes; rims..... | 1/00, 21/00, 23/00, 25/00 |
| hubs..... | 27/00 |
| Other wheels..... | 19/00 |
| AXLES; WHEEL-AXLE COMBINATIONS..... | 35/00, 37/00 |
| INCREASING WHEEL ADHESION, OTHERWISE THAN BY WHEEL STRUCTURE..... | 39/00 |
| MOUNTING, HOLDING OR ASSEMBLING WHEELS..... | 29/00, 30/00, 31/00 |
| CASTORS IN GENERAL..... | 33/00 |

Wheels

1/00 Spoked wheels; Spokes thereof (non-metallic B60B 5/00) [1, 2, 2006.01]

- 1/02 • Wheels with wire or other tension spokes [1, 2006.01]
- 1/04 • • Attaching spokes to rim or hub [1, 2006.01]
- 1/06 • Wheels with compression spokes (wheels of high resiliency B60B 9/00) [1, 2006.01]
- 1/08 • • formed by casting [1, 2006.01]
- 1/10 • • fabricated from sheet metal (B60B 1/12, B60B 3/08 take precedence) [1, 2006.01]
- 1/12 • • with tubular spokes (B60B 1/08 takes precedence) [1, 2006.01]
- 1/14 • • Attaching spokes to rim or hub [1, 2006.01]

3/00 Disc wheels, i.e. wheels with load-supporting disc body (non-metallic B60B 5/00; wheel cover discs B60B 7/00) [1, 2006.01]

- 3/02 • with a single disc body integral with rim [1, 2006.01]
- 3/04 • with a single disc body not integral with rim [1, 2006.01]
- 3/06 • formed by casting [1, 2006.01]
- 3/08 • with disc body formed by two or more axially-spaced discs [1, 2006.01]
- 3/10 • apertured to simulate spoked wheels [1, 2006.01]
- 3/12 • Means of reinforcing disc bodies [1, 2006.01]
- 3/14 • Attaching disc body to hub (resiliently B60B 9/00; attaching rim to wheel body B60B 23/00) [1, 2006.01]

- 3/16 • • by bolts or the like [1, 2006.01]

- 3/18 • • by circlips or the like [1, 2006.01]

5/00 Wheels, spokes, disc bodies, rims, hubs, wholly or predominantly made of non-metallic material (wheel cover discs B60B 7/00; wheels of high resiliency B60B 9/00) [1, 2006.01]

- 5/02 • made of synthetic material [1, 2006.01]
- 5/04 • made of wood [1, 2006.01]

7/00 Wheel cover discs, rings, or the like, for ornamenting, protecting, or obscuring, wholly or in part, the wheel body, rim, hub, or tyre sidewall [1, 2, 5, 2006.01]

- 7/01 • Rings specially adapted for covering only the wheel rim or the tyre sidewall, e.g. removable tyre sidewall trim rings [5, 2006.01]
- 7/02 • made essentially in one part (B60B 7/01 takes precedence) [1, 5, 2006.01]
- 7/04 • built-up of several main parts (B60B 7/01, B60B 7/20 take precedence) [1, 5, 2006.01]
- 7/06 • Fastening arrangements therefor (B60B 7/01, B60B 7/16 take precedence) [1, 5, 2006.01]
- 7/08 • • having gripping elements consisting of formations integral with the cover [5, 2006.01]
- 7/10 • • comprising a plurality of spaced spring clips individually mounted on the cover, e.g. riveted, welded or readily releasable [5, 2006.01]

- 7/12 • • comprising an annular spring or gripping element mounted on the cover (B60B 7/08 takes precedence) [5, 2006.01]
- 7/14 • • comprising screw-threaded means [5, 2006.01]
- 7/16 • Anti-theft devices [5, 2006.01]
- 7/18 • simulating spoked or wire wheel [5, 2006.01]
- 7/20 • having an element mounted for rotation independently of wheel rotation [5, 2006.01]

9/00 **Wheels of high resiliency [1, 2006.01]**

- 9/02 • using springs (wheels comprising resilient spokes B60B 9/26) [1, 2006.01]
- 9/04 • • in leaf form [1, 2006.01]
- 9/06 • • in helical form [1, 2006.01]
- 9/08 • • in flat coiled form [1, 2006.01]
- 9/10 • • of rubber or the like [1, 2006.01]
- 9/12 • • • in the form of sleeves or rings concentric with wheel axis [1, 2006.01]
- 9/14 • • • with means limiting relative lateral movements between hub and remainder of wheel [1, 2006.01]
- 9/16 • • • modified to ensure electric conductivity [1, 2006.01]
- 9/18 • using fluid (within spokes B60B 9/26) [1, 2006.01]
- 9/20 • • in rings concentric with wheel axis [1, 2006.01]
- 9/22 • • • inflatable [1, 2006.01]
- 9/24 • • with pistons and cylinders [1, 2006.01]
- 9/26 • comprising resilient spokes [1, 2006.01]
- 9/28 • • with telescopic action [1, 2006.01]

11/00 **Units comprising multiple wheels arranged side by side; Wheels having more than one rim or capable of carrying more than one tyre [1, 2006.01]**

- 11/02 • Units of separate wheels mounted for independent or coupled rotation [1, 2006.01]
- 11/04 • Wheels with a rim capable of carrying more than one tyre [1, 2006.01]
- 11/06 • Wheels with more than one rim mounted on a single wheel body [1, 2006.01]
- 11/08 • Arrangements of balancing mechanisms enabling a uniform distribution of load to the tyres [1, 2006.01]
- 11/10 • Emergency wheels (tyres collapsible into storage or non-use condition B60C 3/08; tyres characterised by means enabling restricted operation in damaged or deflated condition B60C 17/00) [5, 2006.01]

15/00 **Wheels or wheel attachments designed for increasing traction (vehicle tyres B60C; non-skid devices temporarily attachable to resilient tyres or resiliently-tyred wheels B60C 27/00) [1, 2006.01]**

- 15/02 • Wheels with spade lugs [1, 2006.01]
- 15/04 • • with resiliently-mounted spade lugs [1, 2006.01]
- 15/06 • • with pivotally-mounted spade lugs [1, 2006.01]
- 15/08 • • with spade lugs axially displaced relatively to the tread surface of the tyre [1, 2006.01]
- 15/10 • • with radially-adjustable spade lugs; Control mechanisms therefor [1, 2006.01]
- 15/12 • • • involving cams or eccentric hoops [1, 2006.01]
- 15/14 • • • involving an axially-displaceable cone [1, 2006.01]
- 15/16 • • • involving gearing, e.g. gear pinions acting upon threaded shafts on the spade lugs [1, 2006.01]
- 15/18 • Wheels with ground-engaging plate-like shoes [1, 2006.01]
- 15/20 • • with resiliently-mounted shoes, e.g. on a spider [1, 2006.01]
- 15/22 • • connected by links to the hub [1, 2006.01]

- 15/24 • Tread bands or rings for fairing lugs when travelling on the road [1, 2006.01]
- 15/26 • Auxiliary wheels or rings with traction-increasing surface attachable to the main wheel body [1, 2006.01]
- 15/28 • Wheel-ballasting weights; Their attachment [1, 2006.01]

17/00 **Wheels characterised by rail-engaging elements (of model railways A63H 19/22) [1, 2, 2006.01]**

- 17/02 • with elastic tyres [1, 2006.01]

19/00 **Wheels not otherwise provided for or having characteristics specified in one of the subgroups of this group [1, 2006.01]**

- 19/02 • convertible, e.g. from road wheel to rail wheel; Wheels specially designed for alternative use on road and rail [1, 2006.01]
- 19/04 • expandable [1, 2006.01]
- 19/06 • with compartments for fluid, packing, or loading material; Buoyant wheels [1, 2006.01]
- 19/08 • with lubricating passages, channels, or reservoirs [1, 2006.01]
- 19/10 • with cooling fins [1, 2006.01]
- 19/12 • Roller-type wheels (B60B 19/06 takes precedence) [1, 2006.01]
- 19/14 • Ball-type wheels (B60B 19/06 takes precedence) [1, 2006.01]

Rims; Hubs

21/00 **Rims (non-metallic B60B 5/00; of high resiliency B60B 9/00; capable of carrying more than one tyre B60B 11/04; multiple rims on single wheel body B60B 11/06; of multi-part type B60B 25/00; metal tyres B60C) [1, 2006.01]**

- 21/02 • characterised by transverse section [1, 2006.01]
- 21/04 • • with substantially-radial flanges (with rail-engaging flanges B60B 17/00) [1, 2006.01]
- 21/06 • characterised by means for attaching spokes [1, 2006.01]
- 21/08 • characterised by having braking surfaces [1, 2006.01]
- 21/10 • characterised by the form of tyre-seat or flange, e.g. corrugated (B60B 21/02 takes precedence) [1, 2006.01]
- 21/12 • Accessories, e.g. lining bands [1, 2006.01]

23/00 **Attaching rim to wheel body (attaching spokes to rim B60B 1/04, B60B 1/14; attaching rims resiliently to wheel body B60B 9/00) [1, 2006.01]**

Note(s)

Group B60B 23/12 takes precedence over groups B60B 23/02-B60B 23/06.

- 23/02 • by split or other expandable ring devices [1, 2006.01]
- 23/04 • by bayonet-joint, screw-thread, or like attachments [1, 2006.01]
- 23/06 • by screws, bolts, pins, or clips [1, 2006.01]
- 23/08 • • arranged radially [1, 2006.01]
- 23/10 • • arranged axially [1, 2006.01]
- 23/12 • by devices arranged to permit variation of axial position of rim relative to wheel body for track-width adjustment [1, 2006.01]

25/00 **Rims built-up of several main parts (tools for assembling divided rims B60B 31/04) [1, 2006.01]**

| | | | |
|--|---|-------|--|
| 25/02 | <ul style="list-style-type: none"> Segmented rims, e.g. with segments arranged in sections; Connecting equipment, e.g. hinges; Insertable flange rings therefor [1, 2006.01] | 33/02 | <ul style="list-style-type: none"> with disengageable swivel action [1, 2006.01] |
| 25/04 | <ul style="list-style-type: none"> Rims with dismountable flange rings, seat rings, or lock rings [1, 2006.01] | 33/04 | <ul style="list-style-type: none"> adjustable [1, 2006.01] |
| 25/06 | <ul style="list-style-type: none"> Split flange rings, e.g. transversely split; Connecting equipment for overlapping the slot [1, 2006.01] | 33/06 | <ul style="list-style-type: none"> mounted retractably [1, 2006.01] |
| 25/08 | <ul style="list-style-type: none"> Continuous flange rings; Arrangement of recesses enabling the flange ring to be slipped over the rim body [1, 2006.01] | 33/08 | <ul style="list-style-type: none"> Ball castors [1, 2006.01] |
| 25/10 | <ul style="list-style-type: none"> Seat rings for the tyre bead part, e.g. split [1, 2006.01] | 35/00 | Axle units; Parts thereof (resilient suspension of a rigid axle or axle housing B60G 9/00; steerable vehicle stub-axles B62D) [1, 2006.01] |
| 25/12 | <ul style="list-style-type: none"> with integral flange part [1, 2006.01] | 35/02 | <ul style="list-style-type: none"> Dead axles, i.e. not transmitting torque (axle housings for torque transmitting elements B60B 35/16) [1, 2006.01] |
| 25/14 | <ul style="list-style-type: none"> Locking means for flange rings or seat rings [1, 2006.01] | 35/04 | <ul style="list-style-type: none"> straight [1, 2006.01] |
| 25/16 | <ul style="list-style-type: none"> Arrangement of bayonet catches [1, 2006.01] | 35/06 | <ul style="list-style-type: none"> cranked [1, 2006.01] |
| 25/18 | <ul style="list-style-type: none"> Arrangement of split rings [1, 2006.01] | 35/08 | <ul style="list-style-type: none"> of closed hollow section [1, 2006.01] |
| 25/20 | <ul style="list-style-type: none"> Arrangement of screw, bolts, or shouldered pins [1, 2006.01] | 35/10 | <ul style="list-style-type: none"> adjustable for varying track [1, 2006.01] |
| 25/22 | <ul style="list-style-type: none"> Other accessories, e.g. for sealing the component parts enabling the use of tubeless tyres [1, 2006.01] | 35/12 | <ul style="list-style-type: none"> Torque-transmitting axles [1, 2006.01] |
| 27/00 | Hubs (non-metallic B60B 5/00; of high resiliency B60B 9/00) [1, 2006.01] | 35/14 | <ul style="list-style-type: none"> composite or split, e.g. half-axles; Couplings between axle parts or sections (B60G 3/24 takes precedence) [1, 2006.01] |
| 27/02 | <ul style="list-style-type: none"> adapted to be rotatably arranged on axle [1, 2006.01] | 35/16 | <ul style="list-style-type: none"> characterised by the axle housings for the torque transmitting elements, e.g. for shafts [1, 2006.01] |
| 27/04 | <ul style="list-style-type: none"> housing driving means, e.g. sprockets [1, 2006.01] | 35/18 | <ul style="list-style-type: none"> characterised by the arrangement of the bearings for the torque transmitting elements in the axle housings [1, 2006.01] |
| 27/06 | <ul style="list-style-type: none"> adapted to be fixed on axle [1, 2006.01] | 37/00 | Wheel-axle combinations, e.g. wheel sets (units comprising multiple wheels arranged side by side B60B 11/00; rail-vehicle axle-boxes B61F) [1, 2006.01] |
| Apparatus or tools for mounting, holding or assembling wheels | | 37/02 | <ul style="list-style-type: none"> the wheels being integral with solid axles [1, 2006.01] |
| 29/00 | Apparatus or tools for mounting or dismounting wheels (characterised by the means for holding the wheels B60B 30/00) [1, 5, 2006.01] | 37/04 | <ul style="list-style-type: none"> the wheels being rigidly attached to solid axles [1, 2006.01] |
| 30/00 | Means for holding wheels or parts thereof (spare wheel stowing, holding or mounting arrangements on vehicles B62D 43/00) [5, 2006.01] | 37/06 | <ul style="list-style-type: none"> the wheels being integral with, or rigidly attached to, hollow axles [1, 2006.01] |
| 30/02 | <ul style="list-style-type: none"> engaging the tyre, e.g. the tyre being mounted on the wheel rim [5, 2006.01] | 37/08 | <ul style="list-style-type: none"> the hollow axles being rotatable around fixed axles [1, 2006.01] |
| 30/04 | <ul style="list-style-type: none"> the tyre not being mounted on a rim, i.e. holders or supports for tyres alone [5, 2006.01] | 37/10 | <ul style="list-style-type: none"> the wheels being individually rotatable around the axles [1, 2006.01] |
| 30/06 | <ul style="list-style-type: none"> engaging the wheel body, e.g. the rim [5, 2006.01] | 37/12 | <ul style="list-style-type: none"> Axles with a fixed wheel and a loose wheel [1, 2006.01] |
| 30/08 | <ul style="list-style-type: none"> the central part of the wheel body [5, 2006.01] | 39/00 | Increasing wheel adhesion (wheels or wheel attachments designed for increasing traction B60B 15/00; vehicle tyres B60C; non-skid devices temporarily attachable to resilient tyres or resiliently-tyred wheels B60C 27/00; road surface conditioning to prevent slipperiness E01C) [1, 2006.01] |
| 30/10 | <ul style="list-style-type: none"> characterised by being provided on a dolly [5, 2006.01] | 39/02 | <ul style="list-style-type: none"> Vehicle fittings for scattering or dispensing material in front of its wheels [1, 2006.01] |
| 31/00 | Apparatus or tools for assembling or disassembling wheels [1, 2006.01] | 39/04 | <ul style="list-style-type: none"> the material being granular, e.g. sand (combined control of sanding apparatus and brakes of rail vehicles B61H) [1, 2006.01] |
| 31/02 | <ul style="list-style-type: none"> for tightening or straightening wire spokes <u>in situ</u>; for extracting spokes from wheels [1, 2006.01] | 39/06 | <ul style="list-style-type: none"> the dispensing being effected by mechanical means [1, 2006.01] |
| 31/04 | <ul style="list-style-type: none"> for assembling divided rims [1, 2006.01] | 39/08 | <ul style="list-style-type: none"> the dispensing being effected by fluid means [1, 2006.01] |
| 31/06 | <ul style="list-style-type: none"> for removing or attaching cover discs, hub caps, or the like [1, 2, 2006.01] | 39/10 | <ul style="list-style-type: none"> the dispensing being controlled electrically or electromagnetically [1, 2006.01] |
| 33/00 | Castors in general (castors for large containers B65D 90/18) [1, 2006.01] | 39/12 | <ul style="list-style-type: none"> the material being sheet-like or web-like [1, 2006.01] |