

B60 VEHICLES IN GENERAL

B60C VEHICLE TYRES (manufacture, repairing B29); **TYRE INFLATION; TYRE CHANGING; CONNECTING VALVES TO INFLATABLE ELASTIC BODIES IN GENERAL; DEVICES OR ARRANGEMENTS RELATED TO TYRES** (testing of tyres G01M 17/02) [5]

- (1) In this subclass, the following term is used with the meaning indicated:
- “tyre” means a separate ground-engaging, continuous element outside the periphery of the wheel rim and includes the tyre casing, cover, or jacket and any insert, e.g. inner tube. In group B60C 29/00, relating to connection of valves, the term “tyre” also includes inflatable elastic bodies other than tyres or inner tubes.
- (2) Attention is drawn to the Note following the title of class B60.

TYRES	Particular devices17/00, 27/00
Characterised by material 1/00	MOUNTING, INFLATION
Characterised by transverse section 3/00	Inflating devices, pressure or
General structure..... 5/00, 7/00, 19/00	temperature control23/00, 29/00
Parts; reinforcements; treads; walls; beads; other parts 9/00; 11/00; 13/00; 15/00; 19/00	Apparatus or tools 25/00
	SUBJECT MATTER NOT PROVIDED FOR IN OTHER GROUPS OF THIS SUBCLASS99/00

1/00 Tyres characterised by the chemical composition or the physical arrangement or mixture of the composition [4]	5/16 . . Sealing means between beads and rims, e.g. bands
	5/18 . Sectional casings, e.g. comprising replaceable arcuate parts
	5/20 . having multiple separate inflatable chambers (with additional tubes which become load supporting in emergence B60C 17/02) [4]
Tyres characterised by the compositions only, i.e. having no significant tyre structure, are classified only with the compositions, e.g. in C08K, C08L. [4]	5/22 . . the chambers being annular [4]
	5/24 . . the walls of the chambers extending transversely of the tyre [4]
3/00 Tyres characterised by transverse section (characterised by rail-engaging elements B60B 17/00) [4]	7/00 Non-inflatable or solid tyres (B60C 1/00 takes precedence; tyres or rims characterised by rail-engaging elements B60B 17/00) [2]
3/02 . Closed, e.g. toroidal, tyres [4]	7/02 . made from ropes or bristles
3/04 . characterised by the relative dimensions of the section, e.g. low profile (B60C 3/06 takes precedence) [4]	7/04 . made of wood or leather
3/06 . asymmetric [4]	7/06 . made of metal
3/08 . collapsible into storage or non-use condition, e.g. space-saving spare tyres (run-flat tyres B60C 17/08) [4]	7/08 . built-up from a plurality of arcuate parts
	7/10 . characterised by means for increasing resiliency (highly resilient wheels B60B 9/00)
5/00 Inflatable pneumatic tyres or inner tubes (B60C 1/00, B60C 9/00 B60C 17/00 take precedence) [4]	7/12 . . using enclosed chambers, e.g. gas-filled (inflatable tyres B60C 5/00) [4]
5/01 . without substantial cord reinforcement, e.g. cordless tyres, cast tyres [4]	7/14 . . using springs
5/02 . having separate inflatable inserts, e.g. with inner tubes; Means for lubricating, venting, preventing relative movement between tyre and inner tube (B60C 5/20 takes precedence) [4]	7/16 . . . of helical or flat coil form
5/04 . . Shape or construction of inflatable inserts (B60C 5/10 takes precedence) [4]	7/18 disposed radially relative to wheel axis
5/08 . . . having reinforcing means	7/20 disposed circumferentially relative to wheel axis
5/10 . formed as a single discontinuous ring with contiguous ends which may be connected together [4]	7/22 . having inlays other than for increasing resiliency, e.g. for armouring
5/12 . without separate inflatable inserts, e.g. tubeless tyres with transverse section open to the rim (B60C 5/20 takes precedence) [4]	7/24 . characterised by means for securing tyres on rim or wheel body
5/14 . . with impervious liner or coating on the inner wall of the tyre [4]	7/26 . . using bolts
	7/28 . . using straps or the like, e.g. vulcanised into the tyre
	9/00 Reinforcements or ply arrangement of pneumatic tyres (inserts having reinforcing means B60C 5/08; bead structure, e.g. turnout or overlap construction, B60C 15/00; tyre cords <u>per se</u> D02G 3/48; fabrics <u>per se</u> D03D, D04H; metal ropes or cables, <u>per se</u> D07B 1/06) [4]

When classifying in this group, classification is also made in subclass B32B insofar as any layered product is concerned. [4]

- 9/02 . Carcasses
- 9/04 . . the reinforcing cords of each carcass ply arranged in a substantially parallel relationship
- 9/06 . . . the cords extend diagonally from bead to bead and run in opposite directions in each successive carcass ply, i.e. bias angle ply (B60C 9/07, B60C 9/09 take precedence) [4]
- 9/07 . . . the cords curve from bead to bead in plural planes, e.g. S-shaped cords [4]
- 9/08 . . . the cords extend transversely from bead to bead, i.e. radial ply (B60C 9/07 takes precedence) [4]
- 9/09 combined with other carcass plies having cords extending diagonally from bead to bead, i.e. combined radial ply and bias angle ply [4]
- 9/10 . . the reinforcing cords within each carcass ply arranged in a crossing relationship
- 9/11 . . . Woven, braided, or knitted plies [4]
- 9/12 . . built-up with rubberised layers of discrete fibres or filaments
- 9/13 . . . with two or more differing cord materials [4]
- 9/14 . . built-up with sheets, webs, or films of homogeneous material, e.g. synthetics, sheet metal, rubber
- 9/16 . . built-up with metallic reinforcing inlays
- 9/17 . . asymmetric to the midcircumferential plane of the tyre [4]
- 9/18 . Structure or arrangement of belts or breakers, crown-reinforcing or cushioning layers
- 9/20 . . built-up from rubberised plies each having all cords arranged substantially parallel
- 9/22 . . . the plies being arranged with all cords disposed along the circumference of the tyre
- 9/24 . . built-up of arcuate parts
- 9/26 . . Folded plies [4]
- 9/28 . . characterised by the belt or breaker dimensions or curvature relative to carcass (B60C 9/30 takes precedence) [4]
- 9/30 . . asymmetric to the midcircumferential plane of the tyre [4]
- 11/00 Tyre tread bands; Tread patterns; Anti-skid inserts**
- 11/01 . Shape of the shoulders between tread and sidewall, e.g. rounded, stepped, cantilevered (arrangements of grooves or ribs on the sidewalls B60C 13/02) [4]
- 11/02 . Replaceable treads
- 11/03 . Tread patterns [4]
- 11/04 . . in which the raised area of the pattern consists only of continuous circumferential ribs, e.g. zig-zag (B60C 11/12, B60C 11/13 take precedence) [4,6]
- 11/11 . . in which the raised area of the pattern consists only of isolated elements, e.g. blocks (B60C 11/12, B60C 11/13 take precedence) [4]
- 11/113 . . in which the raised area of the pattern consists only of projections extending continuously across the tread from one edge to the other [6]
- 11/117 . . formed only by isolated recesses, e.g. grooves, slots or holes (B60C 11/12, B60C 11/13 take precedence) [6]

- 11/12 . . characterised by the use of narrow slits or incisions, e.g. sipes [4]
- 11/13 . . characterised by the groove cross-section, e.g. for buttressing or preventing stone-trapping [6]
- 11/14 . Anti-skid inserts, e.g. vulcanised into the tread band
- 11/16 . . of plug form, e.g. made from metal, textile
- 11/18 . . or strip form, e.g. metallic combs, rubber strips of different wear resistance (B60C 11/20 takes precedence)
- 11/20 . . in coiled form
- 11/22 . Tread rings between dual tyres [4]
- 11/24 . Wear-indicating arrangements [4]
- 13/00 Tyre sidewalls; Protecting, decorating, marking, or the like, thereof** (B60C 17/08 takes precedence; tyre shoulders B60C 11/01; removable tyre sidewall trim rings B60B 7/01) [4,5]
- 13/02 . Arrangement of grooves or ribs [4]
- 13/04 . having annular inlays or covers, e.g. white sidewalls [4]
- 15/00 Tyre beads, e.g. ply turn-up or overlap**
- 15/02 . Seating or securing beads on rims (sealing means between beads and rims of tubeless tyres B60C 5/16; means for securing solid tyres on rims B60C 7/24; rims B60B 21/00) [4]
- 15/024 . . Bead contour, e.g. lips, grooves, or ribs [4]
- 15/028 . . Spacers between beads (emergency load-supporting means B60C 17/00) [4]
- 15/032 . . . inflatable [4]
- 15/036 . . Tyres permanently fixed to the rim, e.g. by adhesive, by vulcanisation [4]
- 15/04 . Bead cores (producing bead-rings or bead-cores for tyres B29D 30/48) [4]
- 15/05 . . multiple, i.e. with two or more cores in each bead [4]
- 15/06 . Flipper strips, fillers, or chafing strips
- 17/00 Tyres characterised by means enabling restricted operation in damaged or deflated condition; Accessories therefor** (having multiple separate inflatable chambers B60C 5/20)
- 17/01 . utilising additional inflatable supports which become load-supporting in emergency [4]
- 17/02 . . inflated or expanded in emergency only [4]
- 17/04 . utilising additional non-inflatable supports which become load-supporting in emergency
- 17/06 . . resilient [4]
- 17/08 . Means facilitating folding of sidewalls, e.g. run-flat sidewalls (for storage purposes B60C 3/08) [4]
- 17/10 . Internal lubrication [4]
- 19/00 Tyre parts or constructions not otherwise provided for**
- 19/04 . Tyre with openings closeable by means other than the rim; Closing means therefor
- 19/08 . Electric-charge-dissipating arrangements
- 19/12 . Puncture preventing arrangements (B60C 9/00 takes precedence; inflatable inserts having reinforcing means B60C 5/08) [4]

- 23/00 Devices for measuring, signalling, controlling, or distributing tyre pressure or temperature, specially adapted for mounting on vehicles** (measuring in general G01, e.g. G01L 17/00; remote signalling in general G08); **Arrangement of tyre inflating devices on vehicles, e.g. of pumps, of tanks** (air pumps per se F04; tanks per se F17C); **Tyre cooling arrangements** [3]
- 23/02 . Signalling devices actuated by tyre pressure
 - 23/04 . . mounted on the wheel or tyre
 - 23/06 . Signalling devices actuated by deformation of the tyre (wear-indicating arrangements B60C 11/24)
 - 23/08 . . by touching the ground
 - 23/10 . Arrangement of tyre-inflating pumps mounted on vehicles
 - 23/12 . . operated by a running wheel
 - 23/14 . . operated by the prime mover of the vehicle
 - 23/16 . Arrangement of air tanks mounted on vehicles
 - 23/18 . Tyre cooling arrangements [3,4]
 - 23/19 . . for dissipating heat [4]
 - 23/20 . Devices for measuring or signalling tyre temperature [3]
- 25/00 Apparatus or tools adapted for mounting, removing or inspecting tyres** (apparatus or tools characterised by the means for holding wheels or parts thereof B60B 30/00) [5]
- 25/01 . for removing tyres from, or mounting tyres on, wheels [5]
 - 25/02 . . Tyre levers or the like, e.g. hand-held (machine operated B60C 25/05) [5]
 - 25/04 . . . pivotal about the wheel axis, or movable along the rim edge, e.g. rollable [5]
 - 25/05 . . Machines [5]
 - 25/12 . . . for only seating the beads [5]
 - 25/122 acting on the tyre tread [5]
 - 25/125 for only breaking the beads [5]
 - 25/128 acting axially on the whole circumference of the bead or side wall [5]
 - 25/13 acting axially at localised regions of the bead or side wall [5]
 - 25/132 for removing and mounting tyres (for only seating the beads B60C 25/12; for only breaking the beads B60C 25/125) [5]
 - 25/135 having a tyre support or a tool, movable along wheel axis [5]
 - 25/138 with rotary motion of tool or tyre support [5]
 - 25/14 . Apparatus or tools for spreading tyre beads (B60C 25/12 takes precedence) [5]
 - 25/15 . . with means for inverting the tyre [5]
 - 25/18 . Tools for mounting or demounting air valves
 - 25/20 . Tools for attaching metallic tyres, e.g. iron tyres upon wooden rims
- 27/00 Non-skid devices temporarily attachable to resilient tyres or resiliently-tyred wheels**
- 27/02 . extending over restricted arcuate part of tread (B60C 27/20 takes precedence)
 - 27/04 . . the ground-engaging part being rigid
 - 27/06 . extending over the complete circumference of tread, e.g. made of chains (B60C 27/20 takes precedence)
 - 27/08 . . involving lugs or rings taking up wear
 - 27/10 . . having tensioning means
 - 27/12 . . . resilient
 - 27/14 . . automatically attachable
 - 27/16 . . formed of close material, e.g. leather
 - 27/18 . . . the material being fabric, e.g. woven wire
 - 27/20 . having ground-engaging plate-like elements
 - 27/22 . for tandem tyres (endless-track features B62D)
- 29/00 Arrangements of tyre-inflating valves to tyres or rims; Accessories for tyre-inflating valves, not otherwise provided for** (tools for mounting or demounting valves B60C 25/18; valves per se, valve dust caps F16K) [4,5]
- 29/02 . Connection to rims [4]
 - 29/04 . Connection to tyres [4]
 - 29/06 . Accessories for tyre-inflating valves, e.g. housings, guards, covers for valve caps, locks, not otherwise provided for [5]
- 99/00 Subject matter not provided for in other groups of this subclass** [8]