

SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B62 LAND VEHICLES FOR TRAVELLING OTHERWISE THAN ON RAILS

B62M RIDER PROPULSION OF WHEELED VEHICLES OR SLEDGES; POWERED PROPULSION OF SLEDGES OR CYCLES; TRANSMISSIONS SPECIALLY ADAPTED FOR SUCH VEHICLES (arrangements or mounting of transmissions in vehicles in general B60K; transmission elements *per se* F16)

Note(s)

In this subclass, the following term is used with the meaning indicated:

- "transmission" means all parts between the prime mover or the part to which a rider immediately applies propulsive effort, e.g. pedal cranks, and a driven ground wheel.

Subclass index

PROPULSION

Of wheeled vehicles by hand, foot or with additional source of power: kinds of mechanisms;
 construction of propulsion cranks or levers.....1/00, 3/00, 5/00, 6/00
 Of single-track vehicles by motor, characterised by position of engine.....7/00
 Of sledges or the like.....27/00
 Of wheeled vehicles or sledges, by ground-engaging means not otherwise provided for.....29/00

TRANSMISSIONS

Characterised by rigid mechanical parts thereof
 chain or belt; toothed or friction wheel; friction roller.....9/00, 11/00, 13/00
 crankshaft or coupling- rods; rotary shaft.....15/00, 17/00
 Characterised by non-mechanical or non-rigid parts thereof.....19/00, 21/00, 23/00
 Gearing speed-change actuators.....25/00

Rider propulsion of wheeled vehicles

1/00 Rider propulsion of wheeled vehicles (rider propulsion with additional source of power B62M 6/00; propulsion by ground-engaging rods B62M 29/02) **[1, 2010.01]**

1/10 • involving devices which enable the mechanical storing and releasing of energy occasionally, e.g. arrangement of flywheels **[1, 2010.01]**

1/12 • operated by both hand and foot power

1/14 • operated exclusively by hand power

1/16 • • by means of a to-and-fro movable handlebar

1/18 • by movement of rider's saddle

1/20 • • with additional rider propulsion means

1/24 • with reciprocating levers, e.g. foot levers (levers which can be immobilised as foot rests B62M 5/00) **[2013.01]**

1/26 • • characterised by rotary cranks combined with reciprocating levers **[2013.01]**

1/28 • • characterised by the use of flexible drive members, e.g. chains **[2013.01]**

1/30 • • characterised by the use of intermediate gears **[2013.01]**

1/32 • • characterised by directly driving the wheel axle, e.g. by using a ratchet wheel **[2013.01]**

1/34 • by walking on an endless belt **[2013.01]**

1/36 • with rotary cranks, e.g. with pedal cranks (B62M 1/34 takes precedence; combined with reciprocating levers B62M 1/26; cranks which can be immobilised as foot rests B62M 5/00) **[2013.01]**

1/38 • • for directly driving the wheel axle **[2013.01]**

3/00 Construction of cranks operated by hand or foot

3/02 • of adjustable length

3/04 • • automatically adjusting

3/06 • with elliptical or other non-circular rotary movement

3/08 • Pedals

3/10 • • All-metal pedals

3/12 • • with reflectors

3/14 • Hand-grips for hand-operated cranks

3/16 • Accessories

5/00 Foot-driven levers as pedal cranks which can be immobilised as foot-rests (immobilising against theft B62H 5/10)

6/00 Rider propulsion of wheeled vehicles with additional source of power, e.g. combustion engine or electric motor [2010.01]

Note(s) [2010.01]

In this main group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place

B62M

- 6/10 • Rider propelled cycles with auxiliary combustion engine **[2010.01]**
- 6/15 • • Control or actuating devices therefor **[2010.01]**
- 6/20 • • power-driven at crank shaft parts **[2010.01]**
- 6/25 • • power-driven at axle parts **[2010.01]**
- 6/30 • • power-driven at single endless flexible member, e.g. chain, between cycle crankshaft and wheel axle, the engine engaging the endless flexible member **[2010.01]**
- 6/35 • • power-driven by friction rollers or gears engaging the ground wheel **[2010.01]**
- 6/40 • Rider propelled cycles with auxiliary electric motor **[2010.01]**
- 6/45 • • Control or actuating devices therefor **[2010.01]**
- 6/50 • • • characterised by detectors or sensors, or arrangement thereof **[2010.01]**
- 6/55 • • power-driven at crank shafts parts **[2010.01]**
- 6/60 • • power-driven at axle parts **[2010.01]**
- 6/65 • • • with axle and driving shaft arranged coaxially **[2010.01]**
- 6/70 • • power-driven at single endless flexible member, e.g. chain, between cycle crankshaft and wheel axle, the motor engaging the endless flexible member **[2010.01]**
- 6/75 • • power-driven by friction rollers or gears engaging the ground wheel **[2010.01]**
- 6/80 • Accessories, e.g. power sources; Arrangements thereof **[2010.01]**
- 6/85 • • Solar cells **[2010.01]**
- 6/90 • • Batteries **[2010.01]**

7/00 **Motorcycles characterised by position of motor or engine** (rider propulsion with addition source of power, e.g. auxiliary combustion engine or electric motor B62M 6/00; frames characterised by position of engine B62K 11/00) **[1, 2010.01]**

- 7/02 • with engine between front and rear wheels
- 7/04 • • below the frame
- 7/06 • • directly under the saddle or seat
- 7/08 • with the engine over the rear wheel
- 7/10 • with the engine over the front wheel
- 7/12 • with the engine beside or within the driven wheel
- 7/14 • with the engine on an auxiliary wheeled unit, e.g. trailer, sidecar (trailers B60P, B62D; sidecars B62K 27/00)

Transmissions

9/00 **Transmissions characterised by use of an endless chain, belt, or the like** (cycle chain guards B62J 13/00)

Note(s) [2010.01]

In this main group, at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place.

- 9/02 • of unchangeable ratio
- 9/04 • of changeable ratio
- 9/06 • • using a single chain, belt, or the like
- 9/08 • • • involving eccentrically-mounted or elliptically-shaped driving or driven wheel; with expansible driving or driven wheel
- 9/10 • • • involving different-sized wheels selectively engaged by the chain, belt, or the like
- 9/12 • • • the chain, belt, or the like being laterally shiftable
- 9/121 • • • • Rear derailleurs **[2010.01]**

- 9/122 • • • • • electrically or fluid actuated; Controls thereof **[2010.01]**
- 9/123 • • • • • changing gears automatically **[2010.01]**
- 9/124 • • • • • Mechanisms for shifting laterally **[2010.01]**
- 9/1242 • • • • • • characterised by the linkage mechanisms **[2010.01]**
- 9/1244 • • • • • • limiting or positioning the movement **[2010.01]**
- 9/1246 • • • • • • • using cams or plates **[2010.01]**
- 9/1248 • • • • • • characterised by the use of biasing means, e.g. springs; Arrangements thereof **[2010.01]**
- 9/125 • • • • • Mounting the derailleur on the frame **[2010.01]**
- 9/126 • • • • • Chain guides; Mounting thereof **[2010.01]**
- 9/127 • • • • • Mounting or guiding of cables **[2010.01]**
- 9/128 • • • • • Accessories, e.g. protectors **[2010.01]**
- 9/131 • • • • • Front derailleurs **[2010.01]**
- 9/132 • • • • • electrically or fluid actuated; Controls thereof **[2010.01]**
- 9/133 • • • • • changing gears automatically **[2010.01]**
- 9/134 • • • • • Mechanisms for shifting laterally **[2010.01]**
- 9/1342 • • • • • • characterised by the linkage mechanisms **[2010.01]**
- 9/1344 • • • • • • limiting or positioning the movement **[2010.01]**
- 9/1346 • • • • • • • using cams or plates **[2010.01]**
- 9/1348 • • • • • • characterised by the use of biasing means, e.g. springs; Arrangements thereof **[2010.01]**
- 9/135 • • • • • Mounting the derailleur on the frame **[2010.01]**
- 9/136 • • • • • Chain guides; Mounting thereof **[2010.01]**
- 9/137 • • • • • Mounting or guiding of cables **[2010.01]**
- 9/138 • • • • • Accessories, e.g. protectors **[2010.01]**
- 9/14 • • • • the wheels being laterally shiftable
- 9/16 • Tensioning or adjusting equipment for chains, belts, or the like

11/00 **Transmissions characterised by use of interengaging toothed wheels or frictionally-engaging wheels** (with roller engaging the periphery of ground wheel B62M 6/35, B62M 6/75, B62M 13/00)

- 11/02 • of unchangeable ratio
- 11/04 • of changeable ratio
- 11/06 • • with spur gear wheels (B62M 11/14 takes precedence)
- 11/10 • • with bevel gear wheels (B62M 11/14 takes precedence)
- 11/12 • • with frictionally-engaging wheels (B62M 11/14 takes precedence)
- 11/14 • • with planetary gears
- 11/16 • • • built in, or adjacent to, the ground-wheel hub
- 11/18 • • • with a plurality of planetary gear units

13/00 **Transmissions characterised by use of friction rollers engaging the periphery of the ground wheel** (for rider propelled cycles with additional source of power B62M 6/35, B62M 6/75) **[1, 2010.01]**

- 13/02 • with changeable ratio, e.g. with roller of varying diameter
- 13/04 • with means for moving roller into driving contact with ground wheel
- 15/00 Transmission characterised by use of crankshafts and coupling-rods**
- 17/00 Transmissions characterised by use of rotary shaft, e.g. cardan shaft**
- 19/00 Transmissions characterised by use of non-mechanical gearing, e.g. fluid gearing**
- 21/00 Transmissions characterised by use of resilient elements therein**
- 23/00 Transmissions characterised by use of other elements; Other transmissions**
- 23/02 • characterised by the use of two or more dissimilar sources of power, e.g. transmissions for hybrid motorcycles (transmissions for wheeled vehicles using rider propulsion with additional source of power B62M 6/00) **[1, 2010.01]**

25/00 Actuators for gearing speed-change mechanisms specially adapted for cycles (rider-operated controls for cycles in general B62K 23/00; gearing speed-change mechanisms F16H)

- 25/02 • with mechanical transmitting systems, e.g. cables, levers
 - 25/04 • • hand actuated
 - 25/06 • • foot actuated
 - 25/08 • with electrical or fluid transmitting systems
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27/00 Propulsion devices for sledges or the like (pushed or pulled by persons or animals B62B, B62C; wind propulsion B62B 15/00)

- 27/02 • power driven

29/00 Ground-engaging propulsion devices for cycles, sledges, or rider-propelled wheeled vehicles, not otherwise provided for

- 29/02 • using ground-engaging rods