

ECLA EUROPEAN CLASSIFICATION

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

Note

In this subclass, the term "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.>

Guide heading: Rider propulsion of wheeled vehicles (propulsion by ground-engaging rods B62M29/02)

B62M1/00 Rider propulsion of wheeled vehicles (rider propulsion with additional source of power B62M6/00; propulsion by ground-engaging rods B62M29/02) [C0906]

[N: **Note** [N1108]

Groups [B62M1/12-B62M1/34](#) correspond to IPC2013.01

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- B62M1/10 . involving devices which enable the mechanical storing and releasing of energy occasionally, e.g. arrangement of flywheels [C0906]
- B62M1/10B . . [N: using elastic elements]
- B62M1/12 . operated by both hand and foot power [M1108]
- B62M1/14 . operated exclusively by hand power [M1108]
- B62M1/16 . . by means of a to-and-fro movable handle-bar
- B62M1/18 . by movement of rider`s saddle
- B62M1/20 . . with additional rider propulsion means
- B62M1/24 . with reciprocating levers, e.g. foot levers (levers with can be immobilised as foot rests [B62M5/00](#)) [N1108]
- B62M1/26 . . characterised by rotary cranks combined with reciprocating levers [N1108]
- B62M1/28 . . characterised by the use of flexible drive members, e.g. chains [N1108]
- B62M1/30 . . characterised by the use of intermediate gears [N1108]
- B62M1/32 . . characterised by directly driving the wheel axle, e.g. by using a ratchet wheel [N1108]
- B62M1/34 . by walking on an endless belt [N1108]
- B62M1/36 . with rotary cranks, e.g. with pedal cranks ([B62M1/34](#) takes precedence; combined with reciprocating levers [B62M1/26](#); cranks which can be immobilised as foot rests [B62M5/00](#)) [N1108]

- B62M1/38 . . . for directly driving the wheel axle [N1108]
- B62M3/00 Construction of cranks operated by hand or foot**
- B62M3/00B . [N: Combination of crank axles and bearings housed in the bottom bracket (bottom bracket frame details [B62K19/34](#))] [N9611]
- B62M3/02 . of adjustable length
- B62M3/04 . . . automatically adjusting
- B62M3/06 . with elliptical or other non-circular rotary movement
- B62M3/08 . Pedals
- B62M3/08B . . [N: Toe clip]
- B62M3/08C . . [N: Attachments between shoe and pedal other than toe clips, e.g. cleats (shoes for cyclists [A43B5/14](#))]
- B62M3/10 . . All-metal pedals
- B62M3/12 . . with reflectors
- B62M3/14 . Hand-grips for hand-operated cranks
- B62M3/16 . Accessories
- B62M5/00 Foot-driven levers as pedal cranks which can be immobilised as foot-rests (immobilising against theft [B62H5/10](#))**
- B62M6/00 Rider propulsion of wheeled vehicles with additional source of power, e.g. combustion engine or electric motor [N0906]**
- [N: **Notes** [N0906]
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
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- B62M6/10 . Rider propelled cycles with auxiliary combustion engine [N0906]
- B62M6/15 . . Control or actuating devices therefor [N0906]
- B62M6/20 . . power-driven at crank shaft parts [N0906]
- B62M6/25 . . power-driven at axle parts [N0906]
- B62M6/30 . . power-driven at single endless flexible member, e.g. chain, between cycle crankshaft and wheel axle, the engine engaging the endless flexible member [N0906]
- B62M6/35 . . power-driven by friction rollers or gears engaging the ground wheel [N0906]
- B62M6/40 . Rider propelled cycles with auxiliary electric motor [N0906]
- B62M6/45 . . Control or actuating devices therefor [N0906]
- B62M6/50 . . . characterised by detectors or sensors, or arrangement thereof [N0906]
- B62M6/55 . . power-driven at crank shafts parts [N0906]
- B62M6/60 . . power-driven at axle parts [N0906]

- B62M6/65 . . . with axle and driving shaft arranged coaxially [N0906]
- B62M6/70 . . power-driven at single endless flexible member, e.g. chain, between cycle crankshaft and wheel axle, the motor engaging the endless flexible member [N0906]
- B62M6/75 . . power-driven by friction rollers or gears engaging the ground wheel [N0906]
- B62M6/80 . Accessories, e.g. power sources; Arrangements thereof [N0906]
- B62M6/85 . . Solar cells [N0906]
- B62M6/90 . . Batteries [N0906]

- B62M7/00** **Motorcycles characterised by position of motor or engine** (rider propulsion with addition source of power, e.g. auxiliary combustion engine or electric motor [B62M6/00](#); frames characterised by position of engine [B62K11/00](#)) [C0906]

- B62M7/02 . with engine between front and rear wheels
- B62M7/04 . . below the frame
- B62M7/06 . . directly under the saddle or seat
- B62M7/08 . with the engine over the rear wheel
- B62M7/10 . with the engine over the front wheel
- B62M7/12 . with the engine beside or within the driven wheel
- B62M7/14 . with the engine on an auxiliary wheeled unit, e.g. trailer, sidecar (trailers [B60P](#), [B62D](#); sidecars [B62K27/00](#))
- B62M7/16 . . [N: IPC3] with wheel of unit driven by the engine

- Guide heading:** **Tranmissions** [N: (freewheels or freewheels clutches specially adapted for cycles [F16D41/24](#))] [C9505]

- B62M9/00** **Transmissions characterised by use of an endless chain, belt, or the like** (cycle chain guards [B62J13/00](#))

- Note** [N0908]
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.

- B62M9/02 . of unchangeable ratio
- B62M9/04 . of changeable ratio
- B62M9/06 . . using a single chain, belt, or the like
- B62M9/08 . . . involving eccentrically- mounted or elliptically-shaped driving or driven wheel; with expansible driving or driven wheel
- B62M9/08B [N: involving eccentrically mounted driving or driven wheel]
- B62M9/10 . . . involving different-sized wheels, [N: e.g. rear sprocket chain wheels] selectively engaged by the chain, belt, or the like [N: (bicycle hubs rotatably arranged on axle [B60B27/02B](#))] [C9611]
- B62M9/10B [N: involving front sprocket chain-wheels engaged by the chain, belt or the

- like] [N9611]
- B62M9/12 the chain, belt, or the like being laterally shiftable, [N: e.g. using a rear derailleur] [C9611]
- B62M9/121 Rear derailleurs [N0908]
- B62M9/122 electrically or fluid actuated; Controls thereof [N0908]
- B62M9/123 changing gears automatically [N0908]
- B62M9/124 Mechanisms for shifting laterally [N0908]
- B62M9/1242 {7 dots} characterised by the linkage mechanisms [N0908]
- B62M9/1244 {7 dots} limiting or positioning the movement [N0908]
- B62M9/1246 {8 dots} using cams or plates [N0908]
- B62M9/1248 {7 dots} characterised by the use of biasing means, e.g. springs; Arrangements thereof [N0908]
- B62M9/125 Mounting the derailleur on the frame [N0908]
- B62M9/126 Chain guides; Mounting thereof [N0908]
- B62M9/127 Mounting or guiding of cables [N0908]
- B62M9/128 Accessories, e.g. protectors [N0908]
- B62M9/131 Front derailleurs [N0908]
- B62M9/132 electrically or fluid actuated; Controls thereof [N0908]
- B62M9/133 changing gears automatically [N0908]
- B62M9/134 Mechanisms for shifting laterally [N0908]
- B62M9/1342 {7 dots} characterised by the linkage mechanisms [N0908]
- B62M9/1344 {7 dots} limiting or positioning the movement [N0908]
- B62M9/1346 {8 dots} using cams or plates [N0908]
- B62M9/1348 {8 dots} characterised by the use of biasing means, e.g. springs; Arrangements thereof [N0908]
- B62M9/135 Mounting the derailleur on the frame [N0908]
- B62M9/136 Chain guides; Mounting thereof [N0908]
- B62M9/137 Mounting or guiding of cables [N0908]
- B62M9/138 Accessories, e.g. protectors [N0908]
- B62M9/14 the wheels being laterally shiftable
- B62M9/16 Tensioning or adjusting equipment for chains, belts or the like
- B62M11/00** **Transmissions characterised by the use of inter-engaging toothed wheels or frictionally-engaging wheels (with roller engaging the periphery of ground wheel [B62M13/00](#))**
- B62M11/02 of unchangeable ratio
- B62M11/04 of changeable ratio
- B62M11/06 with spur gear wheels ([B62M11/14](#) takes precedence)
- B62M11/08 [N: IPC3] with a radially-shiftable intermediate gear wheel
- B62M11/10 with bevel gear wheels ([B62M11/14](#) takes precedence)
- B62M11/12 with frictionally-engaging wheels ([B62M11/14](#) takes precedence)

- B62M11/14 . . with planetary gears
- B62M11/14B . . . [N: built in, or adjacent to, the bottom bracket]
- B62M11/16 . . . built in, or adjacent to, the ground-wheel hub
- B62M11/18 . . . with a plurality of planetary gear units

- B62M13/00** **Transmissions characterised by use of friction rollers engaging the periphery of the ground wheel** (for rider propelled cycles with additional source of power [B62M6/35](#), [B62M6/75](#)) [C0905]
- B62M13/02 . with changeable ratio, e.g. with roller of varying diameter
- B62M13/04 . with means for moving roller into driving contact with ground wheel

- B62M15/00** **Transmissions characterised by use of crank shafts and coupling rods**

- B62M17/00** **Transmissions characterised by use of rotary shaft, e.g. cardan shaft**

- B62M19/00** **Transmissions characterised by use of non-mechanical gearing, e.g. fluid gearing**

- B62M21/00** **Transmissions characterised by use of resilient elements therein**

- B62M23/00** **Transmissions characterised by use of other elements; Other transmissions**
- B62M23/02 . 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 [B62M6/00](#)) [C0906]

- B62M25/00** **Actuators for gearing speed-change mechanisms specially adapted for cycles** (rider operated controls for cycles in general [B62K23/00](#); gearing speed change mechanisms [F16H](#))
- B62M25/02 . with mechanical transmitting systems, e.g. cables, levers
- B62M25/04 . . hand actuated
- B62M25/04B . . . [N: having single actuating means operating both front and rear derailleur] [N9709] [C9710]
- B62M25/06 . . foot actuated
- B62M25/08 . with electrical or fluid transmitting systems

- B62M27/00** **Propulsion devices for sledges or the like** (pushed or pulled by persons or animals [B62B](#), [B62C](#); wind propulsion [B62B15/00](#))
- B62M27/02 . power driven

- B62M29/00** **Ground engaging propulsion devices for cycles, sledges, or rider-propelled wheeled vehicles, not otherwise provided for** [N: (non-motorized scooters with skis or runners [B62K3/00B](#))] [C0201]

B62M29/02

- using ground-engaging rods