

CPC COOPERATIVE PATENT CLASSIFICATION

B62M RIDER PROPULSION OF WHEELED VEHICLES OR SLEDGES; POWERED PROPULSION OF SLEDGES OR {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.

Rider propulsion of wheeled vehicles (propulsion by ground-engaging rods B62M 29/02)

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)

NOTE

Groups B62M 1/12-B62M 1/34 correspond to IPC2013.01

- 1/10 . involving devices which enable the mechanical storing and releasing of energy occasionally, e.g. arrangement of flywheels
- 1/105 . . {using elastic elements}
- 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 handle-bar
- 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 with can be immobilised as foot rests B62M 5/00)
- 1/26 . . characterised by rotary cranks combined with reciprocating levers
- 1/28 . . characterised by the use of flexible drive members, e.g. chains
- 1/30 . . characterised by the use of intermediate gears
- 1/32 . . characterised by directly driving the wheel axle, e.g. by using a ratchet wheel
- 1/34 . by walking on an endless belt
- 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)
- 1/38 . . for directly driving the wheel axle

3/00 Construction of cranks operated by hand or foot

- 3/003 . {Combination of crank axles and bearings housed in the bottom bracket (bottom bracket frame details B62K 19/34)}
- 2003/006 . {Crank arrangements to overcome dead points}
- 3/02 . of adjustable length
- 3/04 . . automatically adjusting
- 3/06 . with elliptical or other non-circular rotary movement
- 3/08 . Pedals
- 3/083 . . {Toe clip}
- 3/086 . . {Attachments between shoe and pedal other than toe clips, e.g. cleats (shoes for cyclists A43B 5/14)}

- 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

NOTE

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

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

- 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](#))
- 2007/005 . {the cycle being equipped with a pneumatic motor}
- 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](#))
- 7/16 . . {with wheel of unit driven by the engine}

Transmissions {(freewheels or freewheels clutches specially adapted for cycles [F16D 41/24](#))}

- 9/00 Transmissions characterised by use of an endless chain, belt, or the like** (cycle chain guards [B62J 13/00](#))
- NOTE**
- 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.
- 2009/002 . {Non-circular chain rings or sprockets}
- 2009/005 . {Details of transmission chains specially adapted for bicycles}
- 2009/007 . {Guides to prevent chain from slipping off the sprocket}
- 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
- 9/085 {involving eccentrically mounted driving or driven wheel}
- 9/10 . . . involving different-sized wheels, {e.g. rear sprocket chain wheels} selectively engaged by the chain, belt, or the like {(bicycle hubs rotatably arranged on axle [B60B 27/023](#))}
- 9/105 {involving front sprocket chain-wheels engaged by the chain, belt or the like}
- 9/12 the chain, belt, or the like being laterally shiftable, {e.g. using a rear derailleur}
- 9/121 Rear derailleurs
- 9/122 electrically or fluid actuated; Controls thereof
- 9/123 changing gears automatically
- 9/124 Mechanisms for shifting laterally
- 2009/12406 {Rear derailleur comprising a rigid pivoting arm}
- 2009/12413 {Rear derailleur comprising telescoping mechanisms}
- 9/1242 characterised by the linkage mechanisms
- 9/1244 limiting or positioning the movement
- 9/1246 using cams or plates

- 9/1248 characterised by the use of biasing means, e.g. springs; Arrangements thereof
- 9/125 Mounting the derailleur on the frame
- 9/126 Chain guides; Mounting thereof
- 9/127 Mounting or guiding of cables
- 9/128 Accessories, e.g. protectors
- 9/131 Front derailleurs
- 9/132 electrically or fluid actuated; Controls thereof
- 9/133 changing gears automatically
- 9/134 Mechanisms for shifting laterally
- 9/1342 characterised by the linkage mechanisms
- 9/1344 limiting or positioning the movement
- 9/1346 using cams or plates
- 9/1348 characterised by the use of biasing means, e.g. springs; Arrangements thereof
- 9/135 Mounting the derailleur on the frame
- 9/136 Chain guides; Mounting thereof
- 9/137 Mounting or guiding of cables
- 9/138 Accessories, e.g. protectors
- 9/14 the wheels being laterally shiftable
- 9/16 . Tensioning or adjusting equipment for chains, belts or the like
- 11/00 Transmissions characterised by the use of inter-engaging toothed wheels or frictionally-engaging wheels** (with roller engaging the periphery of ground wheel [B62M 13/00](#))
- 11/02 . of unchangeable ratio
- 11/04 . of changeable ratio
- 11/06 . . with spur gear wheels ([B62M 11/14](#) takes precedence)
- 11/08 . . . {with a radially-shiftable intermediate gear wheel}
- 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
- 11/145 . . . {built in, or adjacent to, the bottom bracket}
- 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](#))
- 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 Transmissions characterised by use of crank shafts 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	<ul style="list-style-type: none"> 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) 	
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)	
2025/003	<ul style="list-style-type: none"> {with gear indicating means, e.g. a display} 	
2025/006	<ul style="list-style-type: none"> {with auxiliary shift assisting means} 	
25/02	<ul style="list-style-type: none"> with mechanical transmitting systems, e.g. cables, levers 	
25/04	<ul style="list-style-type: none"> hand actuated 	
25/045	<ul style="list-style-type: none"> {having single actuating means operating both front and rear derailleur} 	
25/06	<ul style="list-style-type: none"> foot actuated 	
25/08	<ul style="list-style-type: none"> with electrical or fluid transmitting systems 	
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	<ul style="list-style-type: none"> power driven 	
2027/021	<ul style="list-style-type: none"> {Snow bikes resembling conventional motorcycles} 	
2027/022	<ul style="list-style-type: none"> {Snow drive conversions for cycles with wheels} 	
2027/023	<ul style="list-style-type: none"> {Snow mobiles characterised by engine mounting arrangements} 	
2027/025	<ul style="list-style-type: none"> {Snow mobiles characterised by the skis} 	
2027/026	<ul style="list-style-type: none"> {Snow mobiles characterised by the suspension means} 	
2027/027	<ul style="list-style-type: none"> {Snow mobiles characterised by the tracks} 	
2027/028	<ul style="list-style-type: none"> {Snow mobiles characterised by chassis or bodywork} 	
29/00	Ground engaging propulsion devices for cycles, sledges, or rider-propelled wheeled vehicles, not otherwise provided for {(non-motorized scooters with skis or runners B62K 3/002)}	
29/02	<ul style="list-style-type: none"> using ground-engaging rods 	
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2700/00	Rider propulsion of bicycles or vehicles having transmission mainly of unchangeable ratio	
2700/001	<ul style="list-style-type: none"> Propulsion of bicycles and vehicles using planetary gears transmission 	
2700/003	<ul style="list-style-type: none"> Propulsion of bicycles and vehicles using toothed wheels transmission 	
2700/005	<ul style="list-style-type: none"> Propulsion of bicycles and vehicles using bevel/conical wheels transmission 	
2700/006	<ul style="list-style-type: none"> Propulsion of bicycles and vehicles using cranks having reciprocating levers 	
2700/008	<ul style="list-style-type: none"> Propulsion of bicycles and vehicles using other means 	
2701/00	Transmissions for motorcycles or motorised bicycles characterised by position of engine or gear box	
2701/0007	<ul style="list-style-type: none"> Construction details of gear box for motorcycles 	
2701/0015	<ul style="list-style-type: none"> Transmissions and/or engine attachment to frame 	
2701/0023	<ul style="list-style-type: none"> Transmissions using belt, chain and friction wheel 	
2701/003	<ul style="list-style-type: none"> Motorcycles or bicycles with engine besides or within driven wheel 	
2701/0038	<ul style="list-style-type: none"> Motorcycles or bicycles with engine over the front or rear wheel 	
2701/0046	<ul style="list-style-type: none"> Gear change control and other for motorcycles or bicycles 	
2701/0053	<ul style="list-style-type: none"> Control by means of a lever 	
2701/0061	<ul style="list-style-type: none"> Control of pulleys in transmission 	
2701/0069	<ul style="list-style-type: none"> Engine control 	
2701/0076	<ul style="list-style-type: none"> Chain and chainwheel 	
2701/0084	<ul style="list-style-type: none"> Clutch control by driver 	
2701/0092	<ul style="list-style-type: none"> Clutch arrangement in the transmission 	
2901/00	Rear derailleur supported by the chain-stay or rear fork of the bicycle	