

**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](#))

**B62M 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

**B62M 1/10**

- . involving devices which enable the mechanical storing and releasing of energy occasionally, e.g. arrangement of flywheels

**B62M 1/105**

- . . {using elastic elements}

**B62M 1/12**

- . operated by both hand and foot power

**B62M 1/14**

- . operated exclusively by hand power

**B62M 1/16**

- . . by means of a to-and-fro movable handle-bar

**B62M 1/18**

- . by movement of rider`s saddle

**B62M 1/20**

- . . with additional rider propulsion means

**B62M 1/24**

- . with reciprocating levers, e.g. foot levers (levers with can be immobilised as foot rests [B62M 5/00](#))

**B62M 1/26**

- . . characterised by rotary cranks combined with reciprocating levers

**B62M 1/28**

- . . characterised by the use of flexible drive members, e.g. chains

**B62M 1/30**

- . . characterised by the use of intermediate gears

**B62M 1/32**

- . . characterised by directly driving the wheel axle, e.g. by using a ratchet wheel

**B62M 1/34**

- . by walking on an endless belt

**B62M 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](#))

B62M 1/38 . . for directly driving the wheel axle

**B62M 3/00 Construction of cranks operated by hand or foot**

B62M 3/003 . {Combination of crank axles and bearings housed in the bottom bracket (bottom bracket frame details [B62K 19/34](#))}

B62M 3/02 . of adjustable length

B62M 3/04 . . automatically adjusting

B62M 3/06 . with elliptical or other non-circular rotary movement

B62M 3/08 . Pedals

B62M 3/083 . . {Toe clip}

B62M 3/086 . . {Attachments between shoe and pedal other than toe clips, e.g. cleats (shoes for cyclists [A43B 5/14](#))}

B62M 3/10 . . All-metal pedals

B62M 3/12 . . with reflectors

B62M 3/14 . Hand-grips for hand-operated cranks

B62M 3/16 . Accessories

**B62M 5/00 Foot-driven levers as pedal cranks which can be immobilised as foot-rests**  
(immobilising against theft [B62H 5/10](#))**B62M 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

B62M 6/10 . Rider propelled cycles with auxiliary combustion engine

B62M 6/15 . . Control or actuating devices therefor

B62M 6/20 . . power-driven at crank shaft parts

B62M 6/25 . . power-driven at axle parts

B62M 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

B62M 6/35 . . power-driven by friction rollers or gears engaging the ground wheel

B62M 6/40 . Rider propelled cycles with auxiliary electric motor

B62M 6/45 . . Control or actuating devices therefor

B62M 6/50 . . . characterised by detectors or sensors, or arrangement thereof

B62M 6/55	..	power-driven at crank shafts parts
B62M 6/60	..	power-driven at axle parts
B62M 6/65	...	with axle and driving shaft arranged coaxially
B62M 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
B62M 6/75	..	power-driven by friction rollers or gears engaging the ground wheel
B62M 6/80	.	Accessories, e.g. power sources; Arrangements thereof
B62M 6/85	..	Solar cells
B62M 6/90	..	Batteries
<b>B62M 7/00</b>		<b>Motorcycles characterised by position of motor or engine</b> (rider propulsion with addition source of power, e.g. auxiliary combustion engine or electric motor <a href="#">B62M 6/00</a> ; frames characterised by position of engine <a href="#">B62K 11/00</a> )
B62M 7/02	.	with engine between front and rear wheels
B62M 7/04	..	below the frame
B62M 7/06	..	directly under the saddle or seat
B62M 7/08	.	with the engine over the rear wheel
B62M 7/10	.	with the engine over the front wheel
B62M 7/12	.	with the engine beside or within the driven wheel
B62M 7/14	.	with the engine on an auxiliary wheeled unit, e.g. trailer, sidecar (trailers <a href="#">B60P</a> , <a href="#">B62D</a> ; sidecars <a href="#">B62K 27/00</a> )
B62M 7/16	..	with wheel of unit driven by the engine
		<b>Tranmissions</b> {(freewheels or freewheels clutches specially adapted for cycles <a href="#">F16D 41/24</a> )}
<b>B62M 9/00</b>		<b>Transmissions characterised by use of an endless chain, belt, or the like</b> (cycle chain guards <a href="#">B62J 13/00</a> )
		<b>NOTE</b>
		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 9/02	.	of unchangeable ratio
B62M 9/04	.	of changeable ratio
B62M 9/06	..	using a single chain, belt, or the like
B62M 9/08	...	involving eccentrically- mounted or elliptically-shaped driving or driven wheel; with expansible driving or driven wheel
B62M 9/085	....	{involving eccentrically mounted driving or driven wheel}

B62M 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 <a href="#">B60B 27/023</a> )}
B62M 9/105	....	{ involving front sprocket chain-wheels engaged by the chain, belt or the like}
B62M 9/12	....	the chain, belt, or the like being laterally shiftable, {e.g. using a rear derailleur}
B62M 9/121	.....	Rear derailleurs
B62M 9/122	.....	electrically or fluid actuated; Controls thereof
B62M 9/123	.....	changing gears automatically
B62M 9/124	.....	Mechanisms for shifting laterally
B62M 9/1242	.....	characterised by the linkage mechanisms
B62M 9/1244	.....	limiting or positioning the movement
B62M 9/1246	.....	using cams or plates
B62M 9/1248	.....	characterised by the use of biasing means, e.g. springs; Arrangements thereof
B62M 9/125	.....	Mounting the derailleur on the frame
B62M 9/126	.....	Chain guides; Mounting thereof
B62M 9/127	.....	Mounting or guiding of cables
B62M 9/128	.....	Accessories, e.g. protectors
B62M 9/131	.....	Front derailleurs
B62M 9/132	.....	electrically or fluid actuated; Controls thereof
B62M 9/133	.....	changing gears automatically
B62M 9/134	.....	Mechanisms for shifting laterally
B62M 9/1342	.....	characterised by the linkage mechanisms
B62M 9/1344	.....	limiting or positioning the movement
B62M 9/1346	.....	using cams or plates
B62M 9/1348	.....	characterised by the use of biasing means, e.g. springs; Arrangements thereof
B62M 9/135	.....	Mounting the derailleur on the frame
B62M 9/136	.....	Chain guides; Mounting thereof
B62M 9/137	.....	Mounting or guiding of cables
B62M 9/138	.....	Accessories, e.g. protectors
B62M 9/14	....	the wheels being laterally shiftable
B62M 9/16	.	Tensioning or adjusting equipment for chains, belts or the like
<b>B62M 11/00</b>		<b>Transmissions characterised by the use of inter-engaging toothed wheels or frictionally-engaging wheels</b> (with roller engaging the periphery of ground wheel <a href="#">B62M 13/00</a> )
B62M 11/02	.	of unchangeable ratio
B62M 11/04	.	of changeable ratio
B62M 11/06	..	with spur gear wheels ( <a href="#">B62M 11/14</a> takes precedence)
B62M 11/08	...	with a radially-shiftable intermediate gear wheel

- B62M 11/10 . . with bevel gear wheels ([B62M 11/14](#) takes precedence)
- B62M 11/12 . . with frictionally-engaging wheels ([B62M 11/14](#) takes precedence)
- B62M 11/14 . . with planetary gears
- B62M 11/145 . . . {built in, or adjacent to, the bottom bracket}
- B62M 11/16 . . . built in, or adjacent to, the ground-wheel hub
- B62M 11/18 . . . with a plurality of planetary gear units
  
- B62M 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](#))
  
- B62M 13/02 . with changeable ratio, e.g. with roller of varying diameter
- B62M 13/04 . with means for moving roller into driving contact with ground wheel
  
- B62M 15/00** **Transmissions characterised by use of crank shafts and coupling rods**
  
- B62M 17/00** **Transmissions characterised by use of rotary shaft, e.g. cardan shaft**
  
- B62M 19/00** **Transmissions characterised by use of non-mechanical gearing, e.g. fluid gearing**
  
- B62M 21/00** **Transmissions characterised by use of resilient elements therein**
  
- B62M 23/00** **Transmissions characterised by use of other elements; Other transmissions**
  
- B62M 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](#))
  
- B62M 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](#))
  
- B62M 25/02 . with mechanical transmitting systems, e.g. cables, levers
- B62M 25/04 . . hand actuated
- B62M 25/045 . . . {having single actuating means operating both front and rear derailleur}
- B62M 25/06 . . foot actuated
  
- B62M 25/08 . with electrical or fluid transmitting systems
  
- B62M 27/00** **Propulsion devices for sledges or the like** (pushed or pulled by persons or animals [B62B](#), [B62C](#); wind propulsion [B62B 15/00](#))
  
- B62M 27/02 . power driven

<b>B62M 29/00</b>	<b>Ground engaging propulsion devices for cycles, sledges, or rider-propelled wheeled vehicles, not otherwise provided for</b> {(non-motorized scooters with skis or runners <a href="#">B62K 3/002</a> )}
<a href="#">B62M 29/02</a>	. using ground-engaging rods
<b>B62M 2003/00</b>	<b>Construction of cranks operated by hand or foot</b>
<a href="#">B62M 2003/006</a>	. Crank arrangements to overcome dead points
<b>B62M 2007/00</b>	<b>Motorcycles characterised by position of motor or engine</b> (rider propulsion with addition source of power, e.g. auxiliary combustion engine or electric motor <a href="#">B62M 6/00</a> ; frames characterised by position of engine <a href="#">B62K 11/00</a> )
<a href="#">B62M 2007/005</a>	. the cycle being equipped with a pneumatic motor
<b>B62M 2009/00</b>	<b>Transmissions characterised by use of an endless chain, belt, or the like</b> (cycle chain guards <a href="#">B62J 13/00</a> )
	<b><u>NOTE</u></b>
	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.
<a href="#">B62M 2009/002</a>	. Non-circular chain rings or sprockets
<a href="#">B62M 2009/005</a>	. Details of transmission chains specially adapted for bicycles
<a href="#">B62M 2009/007</a>	. Guides to prevent chain from slipping off the sprocket
<a href="#">B62M 2009/04</a>	. of changeable ratio
<a href="#">B62M 2009/06</a>	.. using a single chain, belt, or the like
<a href="#">B62M 2009/10</a>	... 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 <a href="#">B60B 27/023</a> )}
<a href="#">B62M 2009/12</a>	.... the chain, belt, or the like being laterally shiftable, {e.g. using a rear derailleur}
<a href="#">B62M 2009/121</a>	..... Rear derailleurs
<a href="#">B62M 2009/124</a>	..... Mechanisms for shifting laterally
<a href="#">B62M 2009/12406</a>	..... Rear derailleur comprising a rigid pivoting arm
<a href="#">B62M 2009/12413</a>	..... Rear derailleur comprising telescoping mechanisms
<b>B62M 2025/00</b>	<b>Actuators for gearing speed-change mechanisms specially adapted for cycles</b> (rider operated controls for cycles in general <a href="#">B62K 23/00</a> ; gearing speed change mechanisms <a href="#">F16H</a> )

[B62M 2025/003](#) . with gear indicating means, e.g. a display

[B62M 2025/006](#) . with auxiliary shift assisting means

**B62M 2027/00** **Propulsion devices for sledges or the like** ([pushed or pulled by persons or animals B62B, B62C](#); [wind propulsion B62B 15/00](#))

[B62M 2027/02](#) . power driven

[B62M 2027/021](#) . . Snow bikes resembling conventional motorcycles

[B62M 2027/022](#) . . Snow drive conversions for cycles with wheels

[B62M 2027/023](#) . . Snow mobiles characterised by engine mounting arrangements

[B62M 2027/025](#) . . Snow mobiles characterised by the skis

[B62M 2027/026](#) . . Snow mobiles characterised by the suspension means

[B62M 2027/027](#) . . Snow mobiles characterised by the tracks

[B62M 2027/028](#) . . Snow mobiles characterised by chassis or bodywork

**B62M 2700/00** **Rider propulsion of bicycles or vehicles having transmission mainly of unchangeable ratio**

[B62M 2700/001](#) . Propulsion of bicycles and vehicles using planetary gears transmission

[B62M 2700/003](#) . Propulsion of bicycles and vehicles using toothed wheels transmission

[B62M 2700/005](#) . Propulsion of bicycles and vehicles using bevel/conical wheels transmission

[B62M 2700/006](#) . Propulsion of bicycles and vehicles using cranks having reciprocating levers

[B62M 2700/008](#) . Propulsion of bicycles and vehicles using other means

**B62M 2701/00** **Transmissions for motorcycles or motorised bicycles characterised by position of engine or gear box**

[B62M 2701/0007](#) . Construction details of gear box for motorcycles

[B62M 2701/0015](#) . Transmissions and/or engine attachment to frame

[B62M 2701/0023](#) . Transmissions using belt, chain and friction wheel

[B62M 2701/003](#) . . Motorcycles or bicycles with engine besides or within driven wheel

[B62M 2701/0038](#) . . Motorcycles or bicycles with engine over the front or rear wheel

[B62M 2701/0046](#) . Gear change control and other for motorcycles or bicycles

[B62M 2701/0053](#) . . Control by means of a lever

- B62M 2701/0061 . . Control of pulleys in transmission
- B62M 2701/0069 . Engine control
- B62M 2701/0076 . Chain and chainwheel
- B62M 2701/0084 . Clutch control by driver
- B62M 2701/0092 . Clutch arrangement in the transmission
- B62M 2901/00 Rear derailleur supported by the chain-stay or rear fork of the bicycle**