

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B62 LAND VEHICLES FOR TRAVELLING OTHERWISE THAN ON RAILS

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 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 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	9/123	. . . . . changing gears automatically
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	9/124	. . . . . Mechanisms for shifting laterally
6/75	. . power-driven by friction rollers or gears engaging the ground wheel	2009/12406	. . . . . {Rear derailleur comprising a rigid pivoting arm}
6/80	. Accessories, e.g. power sources; Arrangements thereof	2009/12413	. . . . . {Rear derailleur comprising telescoping mechanisms}
6/85	. . Solar cells	9/1242	. . . . . characterised by the linkage mechanisms
6/90	. . Batteries	9/1244	. . . . . limiting or positioning the movement
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)	9/1246	. . . . . using cams or plates
2007/005	. {the cycle being equipped with a pneumatic motor}	9/1248	. . . . . characterised by the use of biasing means, e.g. springs; Arrangements thereof
7/02	. with engine between front and rear wheels	9/125	. . . . . Mounting the derailleur on the frame
7/04	. . below the frame	9/126	. . . . . Chain guides; Mounting thereof
7/06	. . directly under the saddle or seat	9/127	. . . . . Mounting or guiding of cables
7/08	. with the engine over the rear wheel	9/128	. . . . . Accessories, e.g. protectors
7/10	. with the engine over the front wheel	9/131	. . . . . Front derailleurs
7/12	. with the engine beside or within the driven wheel	9/132	. . . . . electrically or fluid actuated; Controls thereof
7/14	. with the engine on an auxiliary wheeled unit, e.g. trailer, sidecar (trailers B60P, B62D ; sidecars B62K 27/00)	9/133	. . . . . changing gears automatically
7/16	. . {with wheel of unit driven by the engine}	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 interengaging toothed wheels or frictionally-engaging wheels (with roller engaging the periphery of ground wheel B62M 13/00)
2009/002	. {Non-circular chain rings or sprockets}	11/02	. of unchangeable ratio
2009/005	. {Details of transmission chains specially adapted for bicycles}	11/04	. of changeable ratio
2009/007	. {Guides to prevent chain from slipping off the sprocket}	11/06	. . with spur gear wheels (B62M 11/14 takes precedence)
9/02	. of unchangeable ratio	11/08	. . . {with a radially-shiftable intermediate gear wheel}
9/04	. of changeable ratio	11/10	. . with bevel gear wheels (B62M 11/14 takes precedence)
9/06	. . using a single chain, belt, or the like	11/12	. . with frictionally-engaging wheels (B62M 11/14 takes precedence)
9/08	. . . involving eccentrically- mounted or elliptically-shaped driving or driven wheel; with expansible driving or driven wheel	11/14	. . with planetary gears
9/085	. . . . {involving eccentrically mounted driving or driven wheel}	11/145	. . . {built in, or adjacent to, the bottom bracket}
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)}	11/16	. . . built in, or adjacent to, the ground-wheel hub
9/105	. . . . {involving front sprocket chain-wheels engaged by the chain, belt or the like}	11/18	. . . with a plurality of planetary gear units
9/12	. . . the chain, belt, or the like being laterally shiftable {, e.g. using a rear derailleur}	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)
9/121	. . . . Rear derailleurs	13/02	. with changeable ratio, e.g. with roller of varying diameter
9/122	. . . . . electrically or fluid actuated; Controls thereof	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	2700/006	. Propulsion of bicycles and vehicles using cranks having reciprocating levers
17/00	Transmissions characterised by use of rotary shaft, e.g. cardan shaft	2700/008	. Propulsion of bicycles and vehicles using other means
19/00	Transmissions characterised by use of non-mechanical gearing, e.g. fluid gearing	2701/00	Transmissions for motorcycles or motorised bicycles characterised by position of engine or gear box
21/00	Transmissions characterised by use of resilient elements therein	2701/0007	. Construction details of gear box for motorcycles
23/00	Transmissions characterised by use of other elements; Other transmissions	2701/0015	. Transmissions and/or engine attachment to frame
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)	2701/0023	. Transmissions using belt, chain and friction wheel
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)	2701/003	. . Motorcycles or bicycles with engine besides or within driven wheel
2025/003	. {with gear indicating means, e.g. a display}	2701/0038	. . Motorcycles or bicycles with engine over the front or rear wheel
2025/006	. {with auxiliary shift assisting means}	2701/0046	. Gear change control and other for motorcycles or bicycles
25/02	. with mechanical transmitting systems, e.g. cables, levers	2701/0053	. . Control by means of a lever
25/04	. . hand actuated	2701/0061	. . Control of pulleys in transmission
25/045	. . . {having single actuating means operating both front and rear derailleur}	2701/0069	. Engine control
25/06	. . foot actuated	2701/0076	. Chain and chainwheel
25/08	. with electrical or fluid transmitting systems	2701/0084	. Clutch control by driver
27/00	Propulsion devices for sledges or the like (pushed or pulled by persons or animals B62B, B62C; wind propulsion B62B 15/00)	2701/0092	. Clutch arrangement in the transmission
27/02	. power driven	2901/00	Rear derailleur supported by the chain-stay or rear fork of the bicycle
2027/021	. . {Snow bikes resembling conventional motorcycles}		
2027/022	. . {Snow drive conversions for cycles with wheels}		
2027/023	. . {Snow mobiles characterised by engine mounting arrangements}		
2027/025	. . {Snow mobiles characterised by the skis}		
2027/026	. . {Snow mobiles characterised by the suspension means}		
2027/027	. . {Snow mobiles characterised by the tracks}		
2027/028	. . {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	. using ground-engaging rods		
2700/00	Rider propulsion of bicycles or vehicles having transmission mainly of unchangeable ratio		
2700/001	. Propulsion of bicycles and vehicles using planetary gears transmission		
2700/003	. Propulsion of bicycles and vehicles using toothed wheels transmission		
2700/005	. Propulsion of bicycles and vehicles using bevel/conical wheels transmission		