

# 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.

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

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

- |             |   |             |  |
|-------------|---|-------------|--|
|             |   | 3/003       | . {Combination of crank axles and bearings housed in the bottom bracket (bottom bracket frame details <a href="#">B62K 19/34</a> )}  |
| <b>1/00</b> | <b>Rider propulsion of wheeled vehicles</b> (rider propulsion with additional source of power <a href="#">B62M 6/00</a> ; propulsion by ground-engaging rods <a href="#">B62M 29/02</a> )   | 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 <a href="#">A43B 5/14</a> )}   |
| 1/10        | . involving devices which enable the mechanical storing and releasing of energy occasionally, e.g. arrangement of flywheels   | 3/10        | . . All-metal pedals   |
| 1/105       | . . {using elastic elements}  | 3/12        | . . with reflectors  |
| 1/12        | . operated by both hand and foot power  | 3/14        | . Hand-grips for hand-operated cranks  |
| 1/14        | . operated exclusively by hand power  | 3/16        | . Accessories  |
| 1/16        | . . by means of a to-and-fro movable handlebar  |             |  |
| 1/18        | . by movement of rider's saddle   | <b>5/00</b> | <b>Foot-driven levers as pedal cranks which can be immobilised as foot-rests</b> (immobilising against theft <a href="#">B62H 5/10</a> )   |
| 1/20        | . . with additional rider propulsion means  |             |  |
| 1/24        | . with reciprocating levers, e.g. foot levers (levers with can be immobilised as foot rests <a href="#">B62M 5/00</a> )   | <b>6/00</b> | <b>Rider propulsion of wheeled vehicles with additional source of power, e.g. combustion engine or electric motor</b>  |
| 1/26        | . . characterised by rotary cranks combined with reciprocating levers   |             | <b><u>NOTE</u></b>   |
| 1/28        | . . characterised by the use of flexible drive members, e.g. chains   |             | In this main group, the first place priority rule is applied, i.e. at each hierarchical level, in the absence of an indication to the contrary, classification is made in the first appropriate place. |
| 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 ( <a href="#">B62M 1/34</a> takes precedence; combined with reciprocating levers <a href="#">B62M 1/26</a> ; cranks which can be immobilised as foot rests <a href="#">B62M 5/00</a> ) | 6/10        | . Rider propelled cycles with auxiliary combustion engine  |
| 1/38        | . . for directly driving the wheel axle   | 6/15        | . . Control or actuating devices therefor  |
|             |   | 6/20        | . . power-driven at crank shaft parts  |
|             |   | 6/25        | . . power-driven at axle parts   |
| <b>3/00</b> | <b>Construction of cranks operated by hand or foot</b>  |             |  |



- 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 . 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 . {with gear indicating means, e.g. a display}
    - 2025/006 . {with auxiliary shift assisting means}
    - 25/02 . with mechanical transmitting systems, e.g. cables, levers
    - 25/04 . . hand actuated
    - 25/045 . . . {having single actuating means operating both front and rear derailleur}
    - 25/06 . . foot actuated
    - 25/08 . 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 . power driven
    - 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
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- 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
    - 2700/006 . Propulsion of bicycles and vehicles using cranks having reciprocating levers
    - 2700/008 . 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 . Construction details of gear box for motorcycles
    - 2701/0015 . Transmissions and/or engine attachment to frame
    - 2701/0023 . Transmissions using belt, chain and friction wheel
    - 2701/003 . . Motorcycles or bicycles with engine besides or within driven wheel
    - 2701/0038 . . Motorcycles or bicycles with engine over the front or rear wheel
    - 2701/0046 . Gear change control and other for motorcycles or bicycles
    - 2701/0053 . . Control by means of a lever
    - 2701/0061 . . Control of pulleys in transmission
    - 2701/0069 . Engine control
    - 2701/0076 . Chain and chainwheel
    - 2701/0084 . Clutch control by driver
    - 2701/0092 . Clutch arrangement in the transmission
  - 2901/00** **Rear derailleur supported by the chain-stay or rear fork of the bicycle**