

**CPC****COOPERATIVE PATENT CLASSIFICATION****B61C**

**LOCOMOTIVES; MOTOR RAILCARS** (vehicles in general B60; frames or bogies B61F; special railroad equipment for locomotives B61J, B61K)

**NOTE**covers:

general design features or items of locomotives and motor railcars not otherwise provided for;

non-electric features of electric locomotives

**Locomotives or motor railcars in general or characterised by the types of motive power plant used**

**B61C 1/00**

**Steam locomotives or railcars** (engines F01; characterised by power transmissions [B61C 9/00](#); boilers F22B)

**B61C 1/02**

- of articulated construction; with two or more engines ([appliances of booster engines B61C 15/02](#))

**B61C 1/04**

- with steam accumulators ([steam accumulators F01K](#))

**B61C 1/06**

- Streamlining ([of coachwork B61D](#))

**B61C 1/08**

- Arrangement or disposition of combustion apparatus or accessories therefor

**B61C 1/10**

- Arrangement or disposition of steam generators

**B61C 1/12**

- Arrangement or disposition of condensers

**B61C 1/14**

- Arrangement or disposition of exhaust apparatus

**B61C 3/00**

**Electric locomotives or railcars** (characterised by power transmission [B61C 9/00](#); electrical features [B60L](#); [H02](#))

**B61C 3/02**

- with electric accumulators

**B61C 5/00**

**Locomotives or motor railcars with IC engines or gas turbines** (characterised by power transmission [B61C 9/00](#); engines F02)

**B61C 5/02**

- Arrangement or disposition of intakes and apparatus for supplying, circulating, and filtering air for combustion and engine-cooling purposes

**B61C 5/04**

- Arrangement or disposition of exhaust apparatus

**B61C 7/00****Other locomotives or motor railcars**

## B61C 7/02

- . Locomotives or motor railcars with pneumatic accumulators

## B61C 7/04

- . Locomotives or motor railcars with two or more different kinds or types of engine, e.g. steam and IC engines

**B61C 8/00****Filling stations for steam- or pneumatic-accumulator locomotives or motor railcars****B61C 9/00****Locomotives or motor railcars characterised by the type of transmission system used; Transmission systems specially adapted for locomotives or motor railcars (machine elements F16)**

## B61C 9/02

- . Transmission systems in or for locomotives or motor railcars with reciprocating piston steam engines

## B61C 9/04

- .. consisting of cranked axles and coupling rods

## B61C 9/06

- .. having toothed, chain, friction, or belt gearing

## B61C 9/08

- . Transmission systems in or for locomotives or motor railcars with IC reciprocating piston engines

## B61C 9/10

- .. mechanical (combined with hydraulic gearing [B61C 9/14](#))

## B61C 9/12

- ... with change-speed gearing

## B61C 9/14

- .. hydraulic, including combinations with mechanical gearing

## B61C 9/16

- ... using gearing of the hydrostatic type

## B61C 9/18

- ... using gearing of the hydrokinetic type

## B61C 9/20

- ... with mechanical change-speed gearing

## B61C 9/22

- .. pneumatic

## B61C 9/24

- .. electric ([B61C 9/38](#) takes precedence)

## B61C 9/26

- .. with transmission shafts at an angle to the driving axles

## B61C 9/28

- . Transmission systems in or for locomotives or motor railcars with rotary prime movers, e.g. turbines

## B61C 9/30

- .. mechanical (combined with hydraulic gearing [B61C 9/34](#))

## B61C 9/32

- ... with change-speed gearing

## B61C 9/34

- .. hydraulic, including combinations with mechanical gearing

## B61C 9/36

- .. electric ([B61C 9/38](#) takes precedence)

## B61C 9/38

- . Transmission systems in or for locomotives or motor railcars with electric motor propulsion ([electrical features B60L](#))

## B61C 9/40

- .. with cranked axles and coupling rods

## B61C 9/42

- .. hydraulic

## B61C 9/44

- .. with hollow transmission shaft concentric with wheel axis

## B61C 9/46

- .. with motors forming parts of wheels

## B61C 9/48

- .. with motors supported on vehicle frames and driving axles, e.g. axle or nose suspension

- B61C 9/50 . . . in bogies
- B61C 9/52 . . with transmission shafts at an angle to the driving axles

**Locomotives or motor railcars characterised by the type of means applying the tractive effort, or by their application to special railway systems or purposes**

**B61C 11/00** Locomotives or motor railcars characterised by the type of means applying the tractive effort; Arrangement or disposition of running gear other than normal driving wheel ([constructions wheels B60B](#))

- B61C 11/005 . {tractive effort applied by a transported road vehicle (railway wagons or vans adapted for carrying vehicles in general [B61D 3/18](#); vehicles for use both on rail and road, e.g. with rail and road wheels on the same axle [B60F](#))}
- B61C 11/02 . tractive effort applied to cables or chains
- B61C 11/04 . tractive effort applied to racks
- B61C 11/06 . tractive effort applied or supplied by aerodynamic force or fluid reaction, e.g. air-screws and jet or rocket propulsion

**B61C 13/00** Locomotives or motor railcars characterised by their application to special systems or purposes ([B61C 11/00](#) takes precedence; self-propelled scaffold cars, break-down cranes, inspection trolleys [B61D 15/00](#); general design of track recording vehicles [B61K 9/00](#))

- B61C 13/02 . for towing or transporting ships or for like special purposes
- B61C 13/04 . for elevated railways with rigid rails ([B61C 13/08](#) takes precedence)
- B61C 13/06 . for railways with suspended flexible tracks, i.e. rope railways
- B61C 13/08 . for saddle or like balanced type railways

**Details or accessories not otherwise provided for**

**B61C 15/00** Maintaining or augmenting the starting or braking power by auxiliary devices and measures; Preventing wheel slippage; Controlling distribution of tractive effort between driving wheels (propelling locomotives or motor railcars by special means [B61C 11/00](#); driving wheels with non-slipping devices [B60B](#); brakes [B61H](#); wetting or lubricating rails [B61K](#))

- B61C 15/02 . by auxiliary driving wheels; by temporary coupling or use of fly wheels or booster engines
- B61C 15/04 . by controlling wheel pressure, e.g. by movable weights or heavy parts or by magnetic devices ([magnetic brakes B61H](#))
- B61C 15/045 . . {Specially adapted for tunnel systems vehicles e.g. with pressure increasing arrangements}

- B61C 15/06 . . by displacing fuel, ballast, or the like
- B61C 15/08 . Preventing wheel slippage ([adjusting wheel-braking force to prevent wheel slippage B60T 8/00](#); [{removing undesirable matter from the permanent way of railways E01H 8/00}](#))
- B61C 15/085 . . {[by dispersion of a fluid, e.g. containing chemicals](#)}
- B61C 15/10 . . by depositing sand or like friction increasing materials ([for vehicles in general B60B](#); [combined control of sanding apparatus and brakes B61H](#))
- B61C 15/102 . . . {[with sanding equipment of mechanical or fluid type, e.g. by means of steam](#)}
- B61C 15/105 . . . {[with gravity activated sanding equipment](#)}
- B61C 15/107 . . . {[with electrically or electromagnetically controlled sanding equipment](#)}
- B61C 15/12 . . by reducing the driving power
- B61C 15/14 . controlling distribution of tractive effort between driving wheels
- B61C 17/00 Arrangement or disposition of parts; Details or accessories not otherwise provided for; Use of control gear and control systems**
- B61C 17/02 . Bunkers; Tanks; Tenders ([coachwork B61D](#)); Water or fuel pick-up or scoop apparatus; Water or fuel supply fittings ([track-side installations, e.g. bunkers, tanks, for filling locomotives with sand or water B61K 11/00](#))
- B61C 17/04 . Arrangement or disposition of driving cabins, footplates or engine rooms; Ventilation thereof ([driving cabins and accessories B61D](#))
- B61C 17/06 . Power storing devices
- B61C 17/08 . Lubrication systems ([in general F16N](#))
- B61C 17/10 . Connecting-rods for driving wheels; Arrangements of their bearings ([connection-rods or bearings, in general F16C 7/00, B61C 9/04](#))
- B61C 17/12 . Control gear; Arrangements for controlling locomotives from remote points in the train or when operating in multiple units ([control from points outside the train B61L 3/00](#); [fluid-actuated telemotors, servomotors F15B](#); [control devices in general G05](#))