

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B61 RAILWAYS

(NOTE omitted)

B61H BRAKES OR OTHER RETARDING DEVICES SPECIALLY ADAPTED FOR RAIL VEHICLES; ARRANGEMENT OR DISPOSITION THEREOF IN RAIL VEHICLES

(electrodynamic braking of vehicles [B60L](#), in general [H02K](#); arrangements in rail vehicles for adjusting wheel-braking force to meet varying vehicular or permanent-way conditions [B60T 8/00](#); transmitting braking action from initiating means to ultimate brake actuator with power assistance or drive, brake systems incorporating such transmitting means, e.g. air-pressure brake systems, [B60T 13/00](#); construction, arrangement or operation of valves incorporated in power brake systems [B60T 15/00](#); component parts, details or accessories of brake systems [B60T 17/00](#); brakes in general [F16D](#))

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.

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|-------|--|--------|---|
| 1/00 | Applications or arrangements of brakes with a braking member or members co-operating with the periphery of the wheel rim, a drum, or the like (self-applying brakes B61H 11/02 ; combinations of different types of brakes B61H 11/14 ; wheels B60B) | 9/00 | Brakes characterised by or modified for their application to special railway systems or purposes |
| 1/003 | . {with an actuator directly acting on a brake head} | 9/003 | . {for shunting operation or for narrow gauge trains} |
| 1/006 | . {Band brakes} | 9/006 | . {Brakes for locomotives} |
| 3/00 | Applications or arrangements of brakes with an outwardly movable braking member or members co-operating with the inner surface of a drum or the like (self-applying brakes B61H 11/02 ; combinations of different types of brakes B61H 11/14) | 9/02 | . for aerial, e.g. rope, railways |
| 5/00 | Applications or arrangements of brakes with substantially radial braking surfaces pressed together in axial direction, e.g. disc brakes (self-applying brakes B61H 11/02 ; combinations of different types of brakes B61H 11/14 ; {discs adapted for mounting on the wheel of a railway vehicle F16D 65/124 }) | 9/04 | . for preventing or controlling movement in one direction or, selectively, in either direction |
| 7/00 | Brakes with braking members co-operating with the track (positive railway stops or track brakes secured to permanent way B61K 7/00) | 9/06 | . for storing energy during braking action |
| 7/02 | . Scotch blocks, skids, or like track-engaging shoes | 11/00 | Applications or arrangements of braking or retarding apparatus not otherwise provided for; Combinations of apparatus of different kinds or types |
| 7/04 | . . attached to railway vehicles | 11/005 | . {in combination with rail sanding, door opening or the like} |
| 7/06 | . . . Skids | 11/02 | . of self-applying brakes |
| 7/08 | electromagnetically operated | 11/04 | . . with brake-applying force derived from rotation of axle |
| 7/083 | {working with eddy currents} | 11/06 | . of hydrostatic, hydrodynamic, or aerodynamic brakes |
| 7/086 | {Suspensions therefor} | 11/08 | . . comprising a pump or the like circulating fluid, braking being effected by throttling of the circulation |
| 7/10 | . . unattached | 11/10 | . . Aerodynamic brakes with control flaps, e.g. spoilers, attached to the vehicles |
| 7/12 | . Grippers co-operating frictionally with tracks | 11/14 | . Combinations of different types of brakes, e.g. brake blocks acting on wheel-rim combined with disc brakes |
| | | 11/16 | . Removable self-contained brake units |
| | | 13/00 | Actuating rail vehicle brakes ({actuators directly acting on a brake head B61H 1/003 ;} self-applying brakes B61H 11/02 ; wear-compensating mechanisms B61H 15/00) |
| | | 13/005 | . {Spring actuation} |

B61H

- 13/02 . Hand or other personal actuation
- 13/04 . . by mechanisms incorporating toothed gearing
- 13/06 . Actuating or influencing the brakes by backward pressure of buffers or coupling gear, e.g. buffer brakes
- 13/20 . Transmitting mechanisms ([wear-compensating mechanisms B61H 15/00](#))
- 13/22 . . for braking a single wheel or wheels at one side only, e.g. for locomotives or motor railcars
- 13/24 . . for cars with two axles or bogies with two axles and braking cylinder(s) for each bogie, the mechanisms at each side being interconnected
- 13/26 . . for cars or bogies with more than two axles or bogies, the mechanisms at each side being interconnected
- 13/28 . . with variable leverage or mechanical advantage to obtain quick take-up
- 13/30 . . adjustable to take account of variation of vehicle weight ([automatic adjustment B60T 8/18](#))
- 13/32 . . . by varying brake lever leverage
- 13/34 . Details
- 13/36 . . Beams; Suspension thereof
- 13/38 . . Suspension of transmitting mechanisms ([B61H 13/36 takes precedence](#))

15/00 Wear-compensating mechanisms, e.g. slack adjusters

- 15/0007 . {mechanical and self-acting in one direction}
- 15/0014 . . {by means of linear adjustment}
- 15/0021 . . . {with cams, by friction or clamping}
- 15/0028 . . . {with screw-thread and nut}
- 15/0035 . {mechanical and self-acting in both directions}
- 15/0042 . . {by means of linear adjustment}
- 15/005 . . . {with cams, by friction or clamping}
- 15/0057 . . . {with screw-thread and nut}
- 15/0064 . {mechanical and non-automatic}
- 15/0071 . . {by means of linear adjustment}
- 15/0078 . . . {with cams, by friction or clamping}
- 15/0085 . . . {with screw-thread and nut}
- 15/0092 . {hydraulic}