

CPC**COOPERATIVE PATENT CLASSIFICATION****B61H**

BRAKES OR OTHER RETARDING APPARATUS PECULIAR TO RAIL VEHICLES; ARRANGEMENTS OR DISPOSITIONS OF BRAKES OR OTHER RETARDING APPARATUS 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](#) to [B60T 17/00](#); brakes per se [F16D](#))

B61H 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](#))

B61H 1/003

- . { with an actuator directly acting on a brake head }

B61H 1/006

- . { [Band brakes](#) }

B61H 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](#))

B61H 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](#) })

B61H 7/00

Brakes with braking members co-operating with the track ([positive railway stops or track brakes secured to permanent way B61K 7/00](#))

B61H 7/02

- . Scotch blocks, skids, or like track-engaging shoes

B61H 7/04

- . . attached to railway vehicles

B61H 7/06

- . . . Skids

B61H 7/08

- electromagnetically operated

B61H 7/083

- { [working with eddy currents](#) }

B61H 7/086

- { [Suspensions therefor](#) }

B61H 7/10

- . . unattached

B61H 7/12

- . Grippers co-operating frictionally with tracks

B61H 9/00

Brakes characterised by or modified for their application to special railway systems or purposes

B61H 9/003

- . { [for shunting operation or for narrow gauge trains](#) }

- B61H 9/006 . { Brakes for locomotives }
- B61H 9/02 . for aerial, e.g. rope, railways
- B61H 9/04 . for preventing or controlling movement in one direction or, selectively, in either direction
- B61H 9/06 . for storing energy during braking action
- B61H 11/00 Applications or arrangements of braking or retarding apparatus not otherwise provided for; Combinations of apparatus of different kinds or types**
- B61H 11/005 . { in combination with rail sanding, door opening or the like }
- B61H 11/02 . of self-applying brakes
- B61H 11/04 . . with brake-applying force derived from rotation of axle
- B61H 11/06 . of hydrostatic, hydrodynamic, or aerodynamic brakes
- B61H 11/08 . . comprising a pump or the like circulating fluid, braking being effected by throttling of the circulation
- B61H 11/10 . . Aerodynamic brakes with control flaps, e.g. spoilers, attached to the vehicles
- B61H 11/14 . Combinations of different types of brakes, e.g. brake blocks acting on wheel-rim combined with disc brakes
- B61H 11/16 . Removable self-contained brake units
- B61H 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](#))**
- B61H 13/005 . { Spring actuation }
- B61H 13/02 . Hand or other personal actuation
- B61H 13/04 . . by mechanisms incorporating toothed gearing
- B61H 13/06 . Actuating or influencing the brakes by backward pressure of buffers or coupling gear, e.g. buffer brakes
- B61H 13/20 . Transmitting mechanisms ([wear-compensating mechanisms \[B61H 15/00\]\(#\)](#))
- B61H 13/22 . . for braking a single wheel or wheels at one side only, e.g. for locomotives or motor railcars
- B61H 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
- B61H 13/26 . . for cars or bogies with more than two axles or bogies, the mechanisms at each side being interconnected
- B61H 13/28 . . with variable leverage or mechanical advantage to obtain quick take-up
- B61H 13/30 . . adjustable to take account of variation of vehicle weight ([automatic adjustment \[B60T 8/18\]\(#\)](#))
- B61H 13/32 . . . by varying brake lever leverage

- B61H 13/34 . Details
- B61H 13/36 .. Beams; Suspension thereof
- B61H 13/38 .. Suspension or transmitting mechanisms ([B61H 13/36 takes precedence](#))

B61H 15/00 Wear-compensating mechanisms, e.g. slack adjusters

- B61H 15/0007 . { mechanical and self-acting in one direction }
- B61H 15/0014 .. { by means of linear adjustment }
- B61H 15/0021 ... { with cams, by friction or clamping }
- B61H 15/0028 ... { with screw-thread and nut }

- B61H 15/0035 . { mechanical and self-acting in both directions }
- B61H 15/0042 .. { by means of linear adjustment }
- B61H 15/005 ... { with cams, by friction or clamping }
- B61H 15/0057 ... { with screw-thread and nut }

- B61H 15/0064 . { mechanical and non-automatic }
- B61H 15/0071 .. { by means of linear adjustment }
- B61H 15/0078 ... { with cams, by friction or clamping }
- B61H 15/0085 ... { with screw-thread and nut }

- B61H 15/0092 . { hydraulic }