

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}

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| 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} |