

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}