

ECLA EUROPEAN 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 [B60T8/00](#); 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, [B60T13/00](#) to [B60T17/00](#); brakes per se [F16D](#))
- B61H1/00 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 [B61H11/02](#); combinations of different types of brakes [B61H11/14](#); wheels [B60B](#))
- [B61H1/00B](#) . [N: with an actuator directly acting on a brake head]
- [B61H1/00D](#) . [N: Band brakes] [[N9709](#)]
- B61H3/00 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 [B61H11/02](#); combinations of different types of brakes [B61H11/14](#))
- B61H5/00 Applications or arrangements of brakes with substantially radial braking surfaces pressed together in axial direction, e.g. disc brakes** (self-applying brakes [B61H11/02](#); combinations of different types of brakes [B61H11/14](#); [N: discs adapted for mounting on the wheel of a railway vehicle [F16D65/12D2](#)] [[C9505](#)])
- B61H7/00 Brakes with braking members co-operating with the track** (positive railway stops or track brakes secured to permanent way [B61K7/00](#))
- [B61H7/02](#) . Scotch blocks, skids, or like track-engaging shoes
- [B61H7/04](#) . . attached to railway vehicles
- [B61H7/06](#) . . . Skids
- [B61H7/08](#) electromagnetically operated
- [B61H7/08A](#) [N: working with eddy currents]
- [B61H7/08B](#) [N: Suspensions therefor]
- [B61H7/10](#) . . unattached
- [B61H7/12](#) . Grippers co-operating frictionally with tracks
- B61H9/00 Brakes characterised by or modified for their application to special railway systems or purposes**
- [B61H9/00B](#) . [N: for shunting operation or for narrow gauge trains] [[N9709](#)]
- [B61H9/00D](#) . [N: Brakes for locomotives] [[N9709](#)]

- B61H9/02 . for aerial, e.g. rope, railways
- B61H9/04 . for preventing or controlling movement in one direction or, selectively, in either direction
- B61H9/06 . for storing energy during braking action
- B61H11/00** **Applications or arrangements of braking or retarding apparatus not otherwise provided for; Combinations of apparatus of different kinds or types**
- B61H11/00B . [N: in combination with rail sanding, door opening or the like] [N9709]
- B61H11/02 . of self-applying brakes
- B61H11/04 . . with brake-applying force derived from rotation of axle
- B61H11/06 . of hydrostatic, hydrodynamic, or aerodynamic brakes
- B61H11/08 . . comprising a pump or the like circulating fluid, braking being effected by throttling of the circulation
- B61H11/10 . . Aerodynamic brakes with control flaps, e.g. spoilers, attached to the vehicles
- B61H11/14 . Combinations of different types of brakes, e.g. brake blocks acting on wheel-rim combined with disc brakes
- B61H11/16 . Removable self-contained brake units
- B61H13/00** **Actuating rail vehicle brakes** ([N: actuators directly acting on a brake head [B61H1/00B](#); self-applying brakes [B61H11/02](#); wear-compensating mechanisms [B61H15/00](#)])
- B61H13/00B . [N: Spring actuation] [N9709]
- B61H13/02 . Hand or other personal actuation
- B61H13/04 . . by mechanisms incorporating toothed gearing
- B61H13/06 . Actuating or influencing the brakes by backward pressure of buffers or coupling gear, e.g. buffer brakes
- B61H13/20 . Transmitting mechanisms (wear-compensating mechanisms [B61H15/00](#))
- B61H13/22 . . for braking a single wheel or wheels at one side only, e.g. for locomotives or motor railcars
- B61H13/24 . . for cars with two axles or bogies with two axles and braking cylinder(s) for each bogie, the mechanisms at each side being interconnected
- B61H13/26 . . for cars or bogies with more than two axles or bogies, the mechanisms at each side being interconnected
- B61H13/28 . . with variable leverage or mechanical advantage to obtain quick take-up
- B61H13/30 . . adjustable to take account of variation of vehicle weight (automatic adjustment [B60T8/18](#))
- B61H13/32 . . . by varying brake lever leverage
- B61H13/34 . Details

- B61H13/36 . . Beams; Suspension thereof
- B61H13/38 . . Suspension or transmitting mechanisms ([B61H13/36](#) takes precedence)

B61H15/00**Wear-compensating mechanisms, e.g. slack adjusters**

- B61H15/00A . [N: mechanical and self-acting in one direction]
- B61H15/00A1 . . [N: by means of linear adjustment]
- B61H15/00A1A . . . [N: with cams, by friction or clamping]
- B61H15/00A1B . . . [N: with screw-thread and nut]

- B61H15/00B . [N: mechanical and self-acting in both directions]
- B61H15/00B1 . . [N: by means of linear adjustment]
- B61H15/00B1A . . . [N: with cams, by friction or clamping]
- B61H15/00B1B . . . [N: with screw-thread and nut]

- B61H15/00C . [N: mechanical and non-automatic]
- B61H15/00C1 . . [N: by means of linear adjustment]
- B61H15/00C1A . . . [N: with cams, by friction or clamping]
- B61H15/00C1B . . . [N: with screw-thread and nut]

- B61H15/00D . [N: hydraulic]