

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