

⑫

EUROPEAN PATENT SPECIFICATION

④⑤ Date of publication of patent specification: **19.06.85**

⑤① Int. Cl.⁴: **B 61 H 15/00**

②① Application number: **82200948.6**

②② Date of filing: **23.07.82**

⑤④ **A device on a railway vehicle slack adjuster.**

③⑨ Priority: **02.09.81 SE 8105195**

④⑧ Date of publication of application:
09.03.83 Bulletin 83/10

④⑤ Publication of the grant of the patent:
19.06.85 Bulletin 85/25

⑧④ Designated Contracting States:
DE FR IT

⑤⑥ References cited:
FR-A-1 327 996
GB-A- 109 045
GB-A- 222 612
GB-A- 906 220

⑦③ Proprietor: **SAB INDUSTRI AB**
Legal Service P.O. Box 515
S-261 24 Landskrona (SE)

⑦② Inventor: **Adolfsson, Lars**
Kopparbergsvägen 18 c
S-722 13 Västerås (SE)
Inventor: **Blomqvist, Stefan**
Rudolf Johanssons väg 35
S-241 00 Eslöv (SE)
Inventor: **Olsson, Sten**
Bagaregatan 8
S-260 51 Ekeby (SE)
Inventor: **Svensson, Kenneth**
Trastvägen 10
S-222 31 Lund (SE)

⑦④ Representative: **Petri, Stellan**
c/o SAB NIFE AB Box 515
S-261 24 Landskrona (SE)

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid. (Art. 99(1) European patent convention).

Description

Technical field

This invention relates to a device for allowing manual rotation of an axial brake rigging slack adjuster of the type with non-rotating barrel during normal operation on a railway vehicle by linear operational movement.

Background art

A so called axial slack adjuster is normally incorporated in the brake rigging underneath a railway vehicle. Occasionally, for example the replacement of worn-out brake blocks, it is required to manually operate the adjuster for restoring its length to the original value.

This may normally be accomplished by manual rotation of the adjuster housing or barrel. As the adjuster is mounted underneath the vehicle, often in a position where it is difficult to reach, it is desired to effect the rotational movement from the side of the vehicle, preferably by linear movement back and forth of a handle of the like.

It is of course imperative that the normal function of the adjuster is not impaired in any way by a device for manual rotation.

Some slack adjusters have barrels rotating in normal operation. There is, however, a tendency towards a type where the adjuster barrel is not rotating, whereas the manual adjustment may be brought about by rotation after a certain rotational lock within the adjuster has been overcome.

The invention

A device for remote manual rotation of a slack adjuster of the type with non-rotating barrel consists according to the invention of a sleeve to be coaxially attached to the slack adjuster, a collar coaxially mounted on the sleeve for rotation only and provided with means for pivotal connection to an operational rod, and a locking spring coaxially mounted between the sleeve and the collar for allowing relative rotation of these members in one direction only.

The operational rod extends preferably to the side of the vehicle and may there be connected to a handle arrangement for easy operation, for example by pumping motion. The rod may, within the scope of the protection, be replaced by equivalent means, for example a wire with spring return.

Brief description of the drawing

The invention will be described in further detail below reference being made to the accompanying drawing, in which Fig. 1 is a side view, partly sectional, of a device according to the invention and Fig. 2 is an end view of the device, a slack adjuster being indicated with a dash-dotted line.

Description of a preferred embodiment

As is well known in the railway braking art, the

brake rigging underneath a railway vehicle generally includes a slack adjuster, in most cases of the so called axial type. Occasionally it is required to operate the adjuster manually, for example at the replacement of worn-out brake blocks, when the adjuster length is to be restored to its original value.

In many cases this is accomplished by manual rotation of the adjuster housing or barrel. As the slack adjuster is not readily accessible, it is often desirable to have an arrangement at the side of the vehicle, whereby the slack adjuster housing may be manually rotated without disturbing the normal function of the adjuster.

A device for this purpose consists according to the invention mainly of three coaxial parts: a sleeve 1, a collar 2 and a locking spring 3.

The sleeve 1 is to be attached coaxially on a housing or barrel of an axial slack adjuster. In the present case a slack adjuster 4, as indicated with dash-dotted lines in Fig. 2, has a cross-sectional shape with diametrically opposed rims 4'. The sleeve 1 has an inner cross-sectional shape corresponding thereto and is provided with screws 5 for its secure attachment to these rims 4'.

The collar 2 is rotatably arranged on the sleeve 1 but is held against axial movements by means of a locking ring 6. Towards its end, it is provided with sealing rings 7 for preventing the intrusion of dirt, moisture and the like. An ear 8 with a hole 9 is fixed to the collar 2.

The locking spring 3 is arranged as shown coaxially between the sleeve 1 and the collar 2 so as only to allow relative rotation between these two parts in one direction, as is well known to any person skilled in the art.

If as indicated in Fig. 2 the described device is attached to a slack adjuster 4, and a rod 10, extending to a handle (not shown) at the side of the railway vehicle, is pivotally attached to the hole 9 in the ear 8, it will be possible to accomplish a manual rotation of the slack adjuster 4 in the pre-determined direction by operating the handle for moving the rod 10 to and fro in its axial direction as indicated with an arrow in Fig. 2.

Claim

A device for allowing manual rotation of an axial brake rigging slack adjuster (4) of the type with non-rotating barrel during normal operation on a railway vehicle by linear operational movement, characterized by

a sleeve (1) to be coaxially attached to the slack adjuster (4),

a collar (2) coaxially mounted on the sleeve for rotation only and provided with means (8) for pivotal connection to an operational rod (10), and

a locking spring (3) coaxially mounted between the sleeve and the collar for allowing relative rotation of these members in one direction only.

Patentanspruch

Vorrichtung zum Zulassen einer von Hand aus erfolgenden Drehung einer axialen Bremsgestängespielnachstelleinrichtung (4) eines Typs mit nicht drehender Trommel während des normalen Betriebs an einem Schienenfahrzeug mittels einer linearen Betätigungsbewegung, gekennzeichnet durch eine Hülse (1), die coaxial an der Spielnachstelleinrichtung (4) anzubringen ist, einen Bund (2), der coaxial an der Hülse lediglich drehbar angebracht und mit Einrichtungen (8) zur Drehverbindung mit einer Betätigungsstange (10) versehen ist, und eine Sperrfeder (3), die coaxial zwischen der Hülse und dem Bund vorgesehen ist, um eine relative Drehung dieser Elemente nur in einer Richtung zuzulassen.

Revendication

Dispositif destiné à permettre une rotation manuelle d'un régleur axial (4) pour timonerie de frein du type à corps non tournant en service normal, monté sur un véhicule ferroviaire, par un mouvement linéaire de manoeuvre, caractérisé par

un manchon (1) destiné à être fixé coaxialement au régleur (4) de frein,

une douille (2) montée coaxialement sur le manchon afin de pouvoir seulement tourner et équipée de moyens (8) d'articulation à une tringle (10) de manoeuvre, et

un ressort (3) de verrouillage monté coaxialement entre le manchon et la douille afin de permettre une rotation relative de ces éléments dans un seul sens.

20

25

30

35

40

45

50

55

60

65

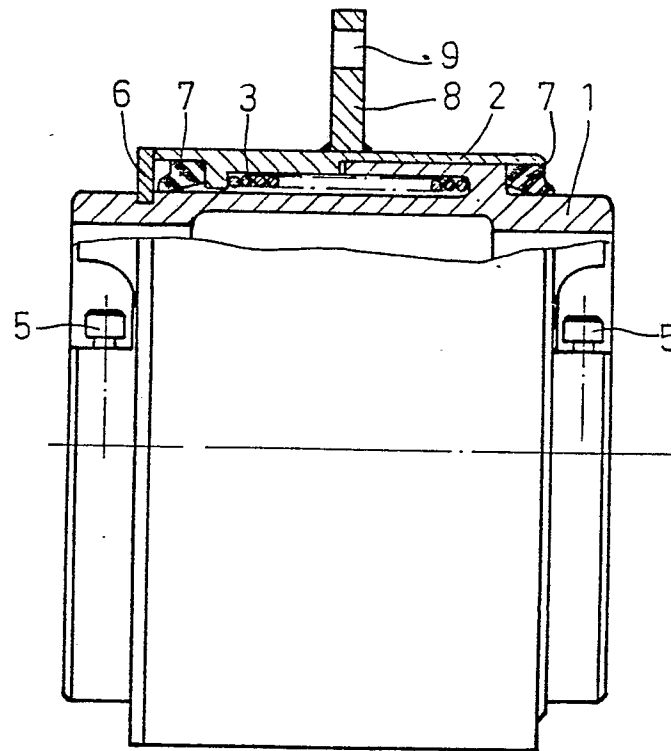


Fig 1

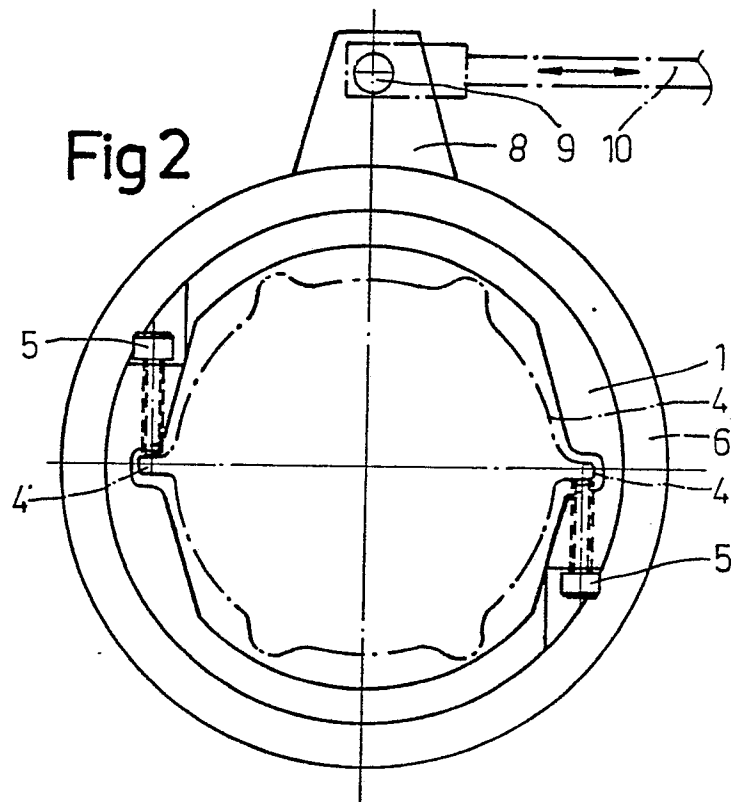


Fig 2