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(54) Benævnelse: **FALDSIKRINGSANORDNING TIL EN SPORLÆGNINGSMASKINE**

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DESCRIPTION

The invention relates to a track maintenance machine, having a machine frame mobile on on-track undercarriages, for carrying out track maintenance operations for execution of service work, wherein, in an upper end region - with respect to a vertical - of the track maintenance machine there are arranged a plurality of mounts spaced from one another in a longitudinal direction of the machine, and each mount has a lower end - with respect to the vertical - by which it is fastened to the track maintenance machine, while an upper end - spaced from the lower end - of each mount is connected to a safety line extending in the longitudinal direction of the machine.

Rail vehicles having a safety device are already known from US 2002/148680 A1 and US 44134. In this, lines installed on mounts are stretched in the roof region of the vehicles, which a person can hold on to or latch a strap to.

WO 2012/156417 A1 generally describes means for fall protection on a railway work vehicle.

Service work to be performed on track maintenance machines may become dangerous for the working personnel inasmuch as, on the one hand, the machines often are of great overall height and, on the other hand, a neighbouring track in operation poses a great danger to a person in the event of stumbling.

It is the object of the present invention to provide a track maintenance machine of the type mentioned at the beginning with increased safety for service work.

According to the invention, this object is achieved with a track maintenance machine of the specified kind by way of the features cited in the characterizing part of claim 1.

With this, the advantageous possibility exists of transferring

a safety line relatively quickly into a position transgressing the clearance profile, in which a fall of working personnel can be reliably prevented by latching on a safety leash. Since a longitudinal mobility of the worker between the adjacent mounts is possible without hindrance, the service work can continue to be performed without limitations.

Additional advantages of the invention become apparent from the dependent claims and the drawing description.

The invention will be described in more detail below with reference to embodiments represented in the drawing. Fig. 1 shows a side view of a track maintenance machine having a safety line extending in the longitudinal direction of the machine, and Figs. 2 to 4 each show an enlarged detail view of mounts connected to the safety line and to a machine frame.

A track maintenance machine 1 shown in Fig. 1 is composed of several vehicles 4, arranged one following the other in a longitudinal direction 2 of the machine and each having a machine frame 3. Said vehicles 4 are mobile by means of on-track undercarriages 5 on a track 6. The latter has a clearance gauge 7 delimiting the passable or usable space.

As can be seen in particular also in Figs. 2 to 4, a plurality of mounts 9, spaced from one another in the longitudinal direction 2 of the machine, is arranged in an upper end region 8 - with respect to a vertical - of the track maintenance machine 1.

Each mount 9 has a lower end 10 - with respect to the vertical - by which it is fastened to the track maintenance machine 1, while an upper end 11 - spaced from the lower end 10 - of each mount 9 is connected to a safety line12 extending in the longitudinal direction 2 of the machine.

Each mount 9 is pivotable from a passive position 13, situated within the clearance profile 7 prescribed for the track 6

travelled upon (see dash-and-dot lines), into an active position 14. In the latter, the upper end 11 of each mount 9 as well as the safety line 12 come to lie outside the clearance profile 7 with respect to the vertical.

In the embodiments shown, each mount 9 has a joint 15, situated within the clearance profile 7, for pivoting from the passive position 13 into the active position 14, wherein a joint lock (not further shown) is provided for each position 13, 14.

Each mount 9 may have a pivoting drive 16 for remote-controlled adjustment from the one to the other position 13, 14 (see arrow 17 in Fig. 4).

According to a variant of the invention visible in Fig. 3, two safety lines 12 are provided, spaced from one another with regard to a transverse direction 18 of the machine and extending parallel to one another, each of which is fastened to mounts 9 spaced from one another in the transverse direction 18 of the machine.

In a further variant, not shown, the mounts 9 can also be designed to be telescopically elongatable in their longitudinal direction in order to achieve the active position.

In order to perform service work on track maintenance machines, the safety line 12 extending in the longitudinal direction 2 of the machine or track and connected via the mounts 9 to the machine frame 3 is distanced with regard to a vertical from the machine frame 3 prior to the start of service work. Subsequently, a worker performing the service work has the possibility to latch a safety leash, fixed to the body, into the safety line 12. The worker can then move freely with maximum safety up to the next mount 9 for performing service works. To move further onward, the worker only needs to latch himself into the adjoining line section.

Patentkrav

1. Sporlægningsmaskine med en på skinneunderstel (5) bevægelig maskinramme (3) til gennemførelse af sporlægningsarbejder,
kendetegnet ved, at der i et - vertikalt betragtet - øvre slutområde (8) på sporlægningsmaskinen (1) i maskinens længderetning (2) med afstand til hinanden er placeret et antal beslag (9), og at hvert beslag (9) er fastgjort med en - vertikalt betragtet - nedre ende (10) på sporlægningsmaskinen (1), mens en øvre ende (11), som har afstand til en nedre ende (10), på hvert beslag (9) er forbundet med en i maskinens længderetning (2) forløbende sikkerhedswire (12), idet hvert beslag (9) fra en inden for en - til et befarent spor (6) foreskrevet frihøjdeprofil (7) - lagt passiv position (13) kan svinges til en aktiv position (14), hvor den øvre ende (11) på hvert beslag (9) samt sikkerhedswiren (12) vertikalt betragtet kommer til at ligge uden for frihøjdeprofilen (7).

2. Sporlægningsmaskine ifølge krav 1, kendetegnet ved, at hvert beslag (9) har et inden for frihøjdeprofilen (7) placeret led (15) til en drejning fra den passive til den aktive position (13, 14), idet der er tilvejebragt en ledspærre for hver position (13, 14).

3. Sporlægningsmaskine ifølge krav 2, kendetegnet ved, at hvert beslag (9) har et drejningsdrev (16) til en fjernstyret omskiftning af beslaget (9) fra den ene til den anden position (13, 14).

4. Sporlægningsmaskine ifølge et af kravene 1 til 3, kendetegnet ved, at der er tilvejebragt to i forhold til maskinens tværgående retning (18) fra hinanden distancerede og parallelt med hinanden forløbende sikkerhedswirer (12), som hver især i maskinens tværgående retning er fastgjort i beslag (9) med afstand til hinanden.

5. Sporlægningsmaskine ifølge et af kravene 1 til 4,

kendetegnet ved, at hvert beslag (9), der er dannet af et antal dele, kan forlænges teleskopisk.

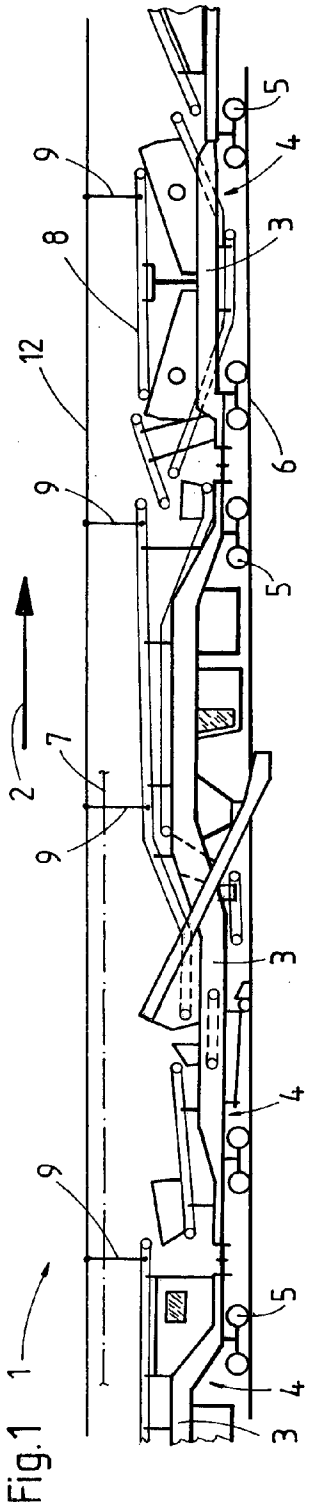


Fig.1

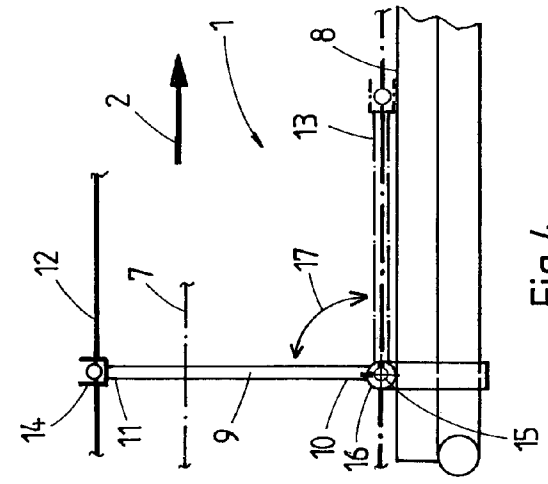


Fig.4

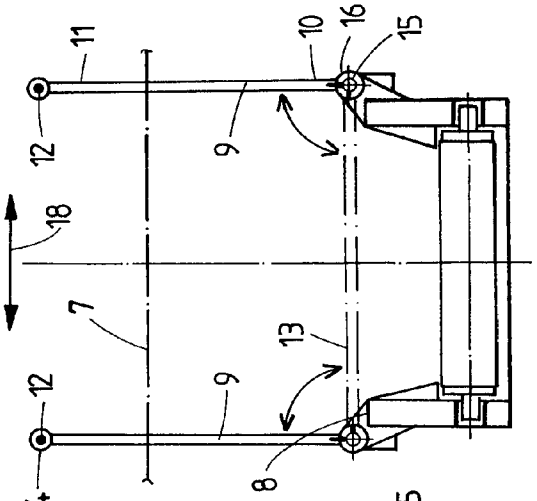


Fig.3

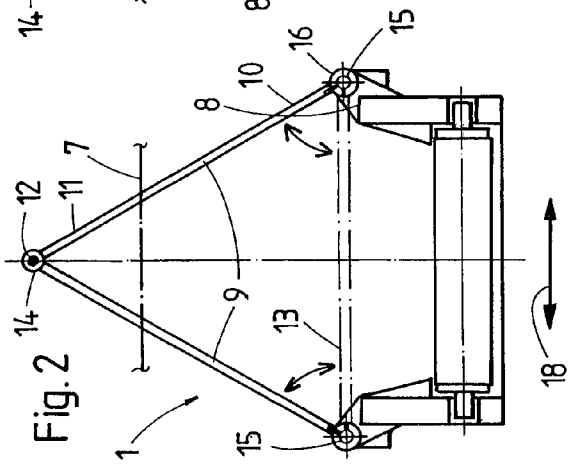


Fig.2