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Description

The invention relates to a method of placing a machine into operation, the machine having a first and a second clearing chain arranged between two on-track undercarriages for picking up ballast located underneath a track.

Known from US 6 672 398 is a cleaning machine for cleaning ballast of a track, which - for picking up ballast - is equipped with two clearing chains. Prior to starting work, ballast underneath the track must be removed by means of an auxiliary device in order to form a trench. A section of the clearing chain, extending transversely to the track, is inserted into said trench and connected to the adjoining parts. This is very time-consuming and laborious. On the other hand, it is also known to sever the rails of the track and to lift the latter to form a track gap. Subsequently, the clearing chain is lowered into said gap and moved forward together with the machine. This technique, however, is based on the prerequisite that the distance between the track gap and the front on-track undercarriage is sufficiently large to avoid unacceptable rail tensions.

It is the object of the present invention to provide a method of the type mentioned at the beginning which enables a machine, having two chains, to be placed into operation in a simplified manner.

According to the invention, this object is achieved with a method of the specified type by means of the features cited in the claim.

As a result of these method steps, it is possible - while refraining from using auxiliary devices - to form a trench with the aid of the second clearing chain and thereafter insert the first clearing chain into said trench. This is possible without problems even if the distance between the first clearing chain and the adjoining front on-track

undercarriage is relatively short. Thus, this method utilizes the greater distance of the second clearing chain from the front on-track undercarriage in order to reliably preclude any unacceptable flexural stress during the lifting of the front track end.

Additional advantages of the invention become apparent from the description of the drawing.

The invention will be described in more detail below with reference to an embodiment represented in the drawing in which

Figs. 1 to 4 each show a side view of a machine with two clearing chains during different stages of the method.

A machine 1, represented in Figs. 1 to 4, for taking up ballast 2 comprises an elongate machine frame 3 which is mobile on a track 5 by means of on-track undercarriages 4 positioned at the ends. A control device 7 is situated in a work cabin 6. For the purpose of lifting the track 5, a vertically adjustable lifting device 8 is fastened to the machine frame 3.

A front or first clearing chain 10 - with regard to a working direction 9 - and a following, second clearing chain 11 are articulatedly connected to the machine frame 3 and positioned between the two on-track undercarriages 4. Vertical adjustment drives 12 are associated with each clearing chain 10, 11. A screening installation 13 is provided for cleaning the picked-up ballast 2. A conveyor belt 14 serves for removing spoil.

The method steps according to the invention to place the machine 1 into operation will be described below:

As soon as the machine 1 has reached the construction site, both rails 15 of the track 5 are severed immediately in front of the second clearing chain 11. Then a front track end 16 - with regard to the working direction 9 - is lifted with the

aid of the lifting device 8, thus forming a track gap 17 (see Fig. 1).

5 Next, the second clearing chain 11 is inserted into the track gap 17 and, with slow advance of the machine 1, a trench 18 is formed by picking up the ballast 2. After the trench 18 has reached the intended size, the machine 1 is moved backwards opposite to the working direction 9, during which the second clearing chain 11 is automatically guided out of the track gap 10 17. The lifting device 8 is detached from the rails 15 which, if necessary, are connected to the adjoining rails 15 by means of a fish-plate connection.

The reverse travel of the machine 1 is stopped as soon as the 15 first clearing chain 10 comes to lie immediately behind the trench 18. After removal of the fish-plate connections, the front track end 16 is now lifted by means of an auxiliary lifting device 19 (see Fig. 2) in order to again form a track gap 17. The first clearing chain 10 is lowered into the latter 20 while the machine 1 advances in the working direction 9.

In further sequence, the front track end 16 is gripped by the lifting device 8 and lifted for insertion of the second clearing chain 11 (see Fig. 3). Then the rails 15 are 25 reconnected to one another, and the machine 1 is moved onward for continuous removal of a first and a second ballast layer 20, 21 (see Fig. 4).

Patentkrav

1. Fremgangsmåde til ibrugtagning af en maskine (1) med en første og en anden, mellem to skinneunderstel (4) placeret
- 5 afrømningskæde (10, 11) til optag af under et spor (5) liggende ballastskærver (2), kendetegnet ved følgende fremgangsmådetrin:
- a) skinner (15) på sporet (5) skilles ad, og en - i forhold til arbejdsretningen (9) - forreste sporende (16) løftes op,
- 10 idet der dannes et spormellemrum (17),
- b) den - i forhold til arbejdsretningen (9) - bageste anden afrømningskæde (11) føres ind i spormellemrummet (17), og der optages ballastskærver (2), idet der dannes en rende (18),
- c) efterfølgende køres maskinen (1) tilbage, idet den anden
- 15 afrømningskæde (11) løftes, den første afrømningskæde (10) føres til optag af ballastskærver (2) i et første ballastskærvelag (20) ind i renden (18), og maskinen (1) bevæges i arbejdsretningen (9),
- d) den anden afrømningskæde (11) sænkes, idet den forreste
- 20 sporende (16) løftes, ned under sporet (5) og tages i brug til optag af ballastskærver (2) i et andet ballastskærvelag (21).

Fig.1

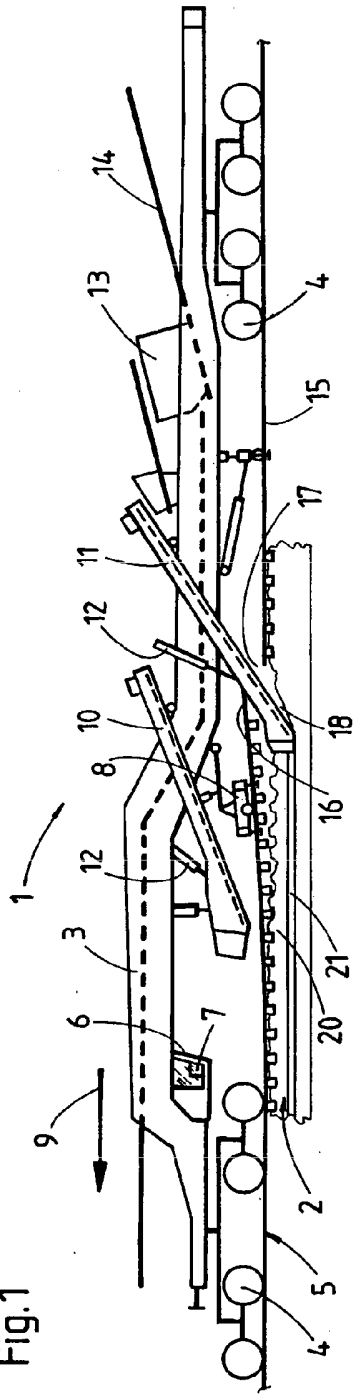


Fig.2

