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Commercial vehicle

The invention relates to a commercial vehicle comprising a chassis that can be supported on the ground by wheels and has longitudinal and transverse supports on which a loading platform can be supported.

Commercial vehicles used for deliveries often have to be tied to a parking space on particular transport routes in order to secure the commercial vehicle. This is the case for example when commercial vehicles are to be transported on ships or ferries. After loading on a ferry, the commercial vehicle has to be secured in place. This is usually done using lashing straps and lashing ropes, which have to be secured to the chassis of the commercial vehicle in order to anchor it to a loading area e.g. of a ship.

In many cases, there are no corresponding fastening receptacles available on the chassis of the commercial vehicle, and when they are present, they have to be secured to the chassis in a very complex manner.

DE 299 07 602 U1 discloses a universal subframe for commercial vehicles for fastening a tank along with associated units such as pumps and the like, but which does not allow commercial vehicles to be anchored e.g. to a loading area e.g. of a ship.

US 8,714,592 B1 discloses a pick-up vehicle having lateral chassis longitudinal supports on which loop-shaped holders are provided to which lashing straps can be secured. However, said holders have to be welded to the longitudinal supports in a complex manner and project outwardly beyond the transverse dimensions of the vehicle, and even if such hooks are provided on a front spoiler of the vehicle, they project beyond the longitudinal dimensions of the vehicle. This runs the risk of an accident.

The problem addressed by the present invention is that of developing a commercial vehicle of the kind mentioned at the outset such that fastening receptacles for attaching lashing straps and the like can be provided on the chassis using structurally simple means.

In order to solve this problem, the commercial vehicle of the kind mentioned at the outset is characterised in that the adjacent longitudinal supports have holes provided opposite one another and mutually associated in pairs, through each of which a fastening element passes, the fastening element having an end region which is bent down or bent at right angles and is arranged on an outer side of the longitudinal support while leaving a loop-shaped fastening space and the other end region pointing substantially to the associated other fastening element of the other associated hole, and the mutually associated two fastening elements cooperating in pairs and the mutually facing end regions being interconnected.

A commercial vehicle is thus provided in which corresponding holes are provided at a plurality of points on a longitudinal support during manufacture, into which holes corresponding fastening elements can be inserted from outside. Said fastening elements can be formed in a walking-stick-like manner and have a long, straight region which extends beneath the loading platform from one longitudinal support towards another, adjacent longitudinal support. The fastening element is bent or bent at right angles in one end region in such a way that, when the fastening element is inserted into the longitudinal support or into the hole in the longitudinal support, the end face of the end region that is bent at right angles abuts the outer wall of a longitudinal support. This results in a fastening receptacle in the shape of a loop. This fastening element can then be connected to the longitudinal support, for example by welding. It can also be connected to the associated identical fastening element provided opposite, in turn by corresponding welding, for example. It is also possible, however, to design the fastening elements such that the ends pointing to one another are screwed into a connection piece in the form of a socket, for example. In this way, it is also possible not only to receive lashing elements such as lashing straps in order, for example for transport on a ship, to securely connect the commercial vehicle to the body of the ship and secure the commercial vehicle, but also to transmit and introduce corresponding forces between the longitudinal support and the corresponding chassis.

Further embodiments can be found in the further, dependent claims, the following description and the drawings. The single figure in the drawings is a perspective view, obliquely from below, of a detail of a chassis.

Said chassis 1 comprises longitudinal supports 2 and has wheels 3, a rear transverse support 4 and a loading platform 5. The two longitudinal supports 2 are provided with holes 6 in opposite regions, which holes are arranged such that in each case a fastening element 7

can be inserted from outside from the outer wall 2.1 of a longitudinal support 2, as is shown in the figure. In addition, the holes 6 are offset with respect to one another on the two longitudinal supports 2 in such a way that, as shown in the figure, the end regions 7.1 of each fastening element can be arranged beside one another and can be welded. The other end regions 7.2 of each fastening element are bent at right angles or bent down such that each fastening element 7 is formed in a walking-stick-like manner in the unassembled state. In the assembled state and in the inserted state, said end region 7.2, which is bent down or bent at right angles, of each fastening element 7 forms a receiving loop for a lashing strap, for example. The bent-down regions 7.2 can also be welded to the relevant longitudinal support 2.

Attaching said fastening elements 7.2 and the relevant fastening to another or to the relevant longitudinal support can be carried out using structurally very simple means. A plurality of holes may even be provided in a longitudinal support during manufacture in order to provide the corresponding fastening elements 7.2 as required.

P A T E N T K R A V

1. Erhvervskøretøj med et chassis (1), der kan støttes på jorden ved hjælp af hjul (3) og frembyder længdedragere (2) og tværdragere (8), hvorpå en ladplatform (5) kan støttes, k e n d e t e g n e t ved, at de nabostillede længdedragere (2) har huludboringer (6) tilvejebragt over for hinanden og parvist tilordnet hinanden, som hver især er forsynet med et fastgørelseselement (7), hvor fastgørelseselementet (7) frembyder et endeafsnit (7.2), der er udformet ombøjet eller bøjet i rette vinkler og er anbragt på en yderside (21) af længdedrageren (2), idet der efterlades et øskenformet fastgørelsesrum, og det andet endeafsnit (7.1) vender i det væsentlige mod det tilordnede andet fastgørelseselement (7) i den anden tilordnede huludboring (6), og hvor de indbyrdes tilordnede to fastgørelseselementer samvirker parvist, og endeområderne (7.1), der vender mod hinanden, er forbundet med hinanden.

2. Erhvervskøretøj ifølge krav 1, k e n d e t e g n e t ved, at fastgørelseselementernes (7) endeområder (7.1), der vender mod hinanden, er svejset sammen.

3. Erhvervskøretøj ifølge krav 1 eller 2, k e n d e t e g n e t ved, at et fastgørelseselement (7) i ikke-monteret tilstand er udformet som en spadserestok.

4. Erhvervskøretøj ifølge et af kravene 1 til 3, k e n d e t e g n e t ved, at hvert fastgørelseselement (7) er svejset sammen med den tilordnede længdedrager (2).

5. Erhvervskøretøj ifølge et af kravene 1 til 4, k e n d e t e g n e t ved, at et fastgørelseselement (7) i tværsnit er udformet rundt.

