

Title (en)

Hydraulic push and pull device, especially for railway rails

Title (de)

Hydraulische Druck- und Ziehvorrichtung, insbesondere für Eisenbahnschienen

Title (fr)

Dispositif de poussée et de traction hydraulique, particulièrement pour voie ferrée

Publication

EP 0566941 B1 19960724 (DE)

Application

EP 93105903 A 19930410

Priority

DE 4213288 A 19920423

Abstract (en)

[origin: EP0566941A1] By means of the hydraulic push and pull device, a change in length of the rails (43, 44) is brought about, which corresponds to the deviation of the instantaneous rail temperature from the average temperature for the time of year. This happens by pushing apart or pulling together the rail ends (44, 43) to be welded together. Known combined hydraulic push and pull devices have the disadvantage that they work with free piston surfaces only in one of the two said operating states. This leads to unequal force ratios and to larger and heavier device units which are thus more expensive and more difficult to handle. The hydraulic push and pull device according to the invention is made in such a manner that the free piston surface (41), and specifically only the latter, comes into use in both operating states. This is achieved by the hydraulic cylinders (23, 24) being arranged turnably by 180 DEG, and thus in particular adjustably for pull or push operation, in the device. As a result, the free piston surface (41) of each cylinder (23, 24) is acted upon by the hydraulic medium both on pulling together of the rails (43, 44) and on pushing apart of the rails (43, 44). The result achieved is a light construction and identical operating conditions for the pulling together or for the pushing apart of railway rail ends (43, 44) to be welded together. <IMAGE>

IPC 1-7

E01B 29/46

IPC 8 full level

E01B 29/46 (2006.01)

CPC (source: EP)

E01B 29/46 (2013.01)

Citation (examination)

EP 0019555 A1 19801126 - DELACHAUX C [FR]

Cited by

FR2998310A1; US6637727B1; CN110709560A; EP3138959A1; CN107109806A; EA031641B1; AU2015327393B2; US10570573B2; WO2016050337A1; US11613853B2; WO2019007599A1

Designated contracting state (EPC)

CH DE GB IE IT LI NL

DOCDB simple family (publication)

EP 0566941 A1 19931027; EP 0566941 B1 19960724; DE 4213288 A1 19931104; DE 4213288 C2 19960222; DE 59303293 D1 19960829; FI 931825 A0 19930422; FI 931825 A 19931024; PL 170928 B1 19970228; PL 298657 A1 19931129

DOCDB simple family (application)

EP 93105903 A 19930410; DE 4213288 A 19920423; DE 59303293 T 19930410; FI 931825 A 19930422; PL 29865793 A 19930421