

Title (en)

Device for mechanically expanding a pipe or pipe section.

Title (de)

Vorrichtung zum mechanischen Spreizen eines Rohres oder Rohrteils.

Title (fr)

Dispositif pour écarter mécaniquement un tuyau ou section de tuyau.

Publication

**EP 0653256 A1 19950517 (EN)**

Application

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Priority

NL 9301960 A 19931112

Abstract (en)

A device for mechanically expanding a pipe or pipe section. The device comprises a housing (1) and an expansion head (2) which comprises an expansion mandrel (3) with a polygonal cross-section which increases from an end face thereof and is bounded by external faces, and expansion jaws (4) which interact with the expansion mandrel (3) and are guided in the housing (1). The device also comprises a hydraulic cylinder (10) whose cylinder wall rests against the housing (1), and the piston is connected by way of a rod to the expansion mandrel (3). The expansion mandrel (3) can thereby be moved in its lengthwise direction relative to the expansion jaws (4), in order to move the expansion jaws (4) essentially in the radial direction. According to a first aspect of the invention, at least the expansion mandrel (3), the rod and the cylinder are made of metal in which the ratio  $[\text{MPa}/(\text{kg}/\text{m}^3)]$  between the 0.2% yield limit [MPa] and the density  $[\text{kg}/\text{m}^3]$  is considerably greater than that of structural steel. The ratio between the 0.2% yield limit and the density is preferably greater than 0.100. <IMAGE>

IPC 1-7

**B21D 41/02**

IPC 8 full level

**B21D 41/02** (2006.01)

CPC (source: EP)

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Citation (search report)

- [XA] US 4494398 A 19850122 - SVOBODA EDWARD J [US]
- [XA] US 4934038 A 19900619 - CAUDILL MAURICE L [US]
- [A] US 3385087 A 19680528 - HUTH GERALD W
- [A] US 3466920 A 19690916 - PARKER GEORGE
- [A] US 4198844 A 19800422 - LOWE JEROME R [US], et al
- [A] US 4212186 A 19800715 - BLATTLER JOSEPH F [CA]
- [A] US 4308736 A 19820105 - LOWE JEROME R, et al

Cited by

EP2087951A3; CN102527862A; CN102023118A; EP1700648A1; CN103990729A; CN104384365A; CN104841786A; IT201800002195A1; EP1369188A1; EP0815981A3; CN101957293A; CN118372012A; US6672128B2; US8245750B2; US8474684B2

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