

Title (en)

Fixing and clamping tensioning device for a tow rope connected to a boring ram

Title (de)

Befestigungs- und Spannvorrichtung für ein mit einem Rammb Bohrgerät verbundenes Nachziehseil

Title (fr)

Dispositif de fixation et de maintien en tension d'un câble de traction fixé à un mouton de forage

Publication

**EP 0694675 B1 19991006 (DE)**

Application

**EP 95111830 A 19950728**

Priority

DE 4427119 A 19940730

Abstract (en)

[origin: EP0694675A1] The ram boring machine incorporates a clamping element (10). This has parallel clamping cheeks (11) guided on parallel linkage arms (12). The linkage arms are connected to an extension (9) of the pressure piece (5). A lever extension (13) is fitted to one of the parallel linkage arms for the release of the clamping cheeks. The lever extension is subject to the force of a spring (14), and the tensioning element (20) also has parallel clamping cheeks (16). <IMAGE>

IPC 1-7

**E21B 7/20**; **E21B 19/08**; **B21F 9/00**

IPC 8 full level

**E21B 1/02** (2006.01); **B21F 9/00** (2006.01); **E21B 1/00** (2006.01); **E21B 7/20** (2006.01); **E21B 7/26** (2006.01); **E21B 19/08** (2006.01); **E21B 19/084** (2006.01)

CPC (source: EP US)

**B21F 9/00** (2013.01 - EP US); **B21F 9/002** (2013.01 - EP US); **E21B 7/206** (2013.01 - EP US); **E21B 19/084** (2013.01 - EP US)

Cited by

US6672802B2; EP0792996A1; US5895176A; US8413311B2; WO2008011982A1; US8240638B2

Designated contracting state (EPC)

DE FR GB

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**EP 0694675 A1 19960131**; **EP 0694675 B1 19991006**; DE 4427119 A1 19960201; DE 4427119 C2 19980709; DE 59506976 D1 19991111; JP 2885667 B2 19990426; JP H08170479 A 19960702; US 5642786 A 19970701

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