

Title (en)

Method and apparatus for making tunnels by means of shield advancement

Title (de)

Verfahren und Vorrichtung zur Schildanfahrt für die Herstellung von Tunnelröhren mittels Schildvortrieb

Title (fr)

Procédé et dispositif pour la construction d'un tunnel en utilisant un bouclier

Publication

**EP 1650402 A1 20060426 (DE)**

Application

**EP 04030600 A 20041223**

Priority

- EP 04024878 A 20041020
- EP 04030600 A 20041223

Abstract (en)

The propulsion device has to be driven through a pilot opening in the wall (3). The forces resulting from the process are guided into a pressure ring (4) located behind the device by threaded pulling bars (7) arranged longitudinally along the outer surface of the device and joined with their outer ends to the wall (3), the pressure ring (4) respectively. A pressure element (5) with a hollow piston can be positioned between the pressure ring (4) and a securing nut (11).

IPC 8 full level

**E21D 9/00** (2006.01)

CPC (source: EP)

**E21D 9/0621** (2013.01)

Citation (search report)

- [A] DE 2020320 A1 19711118 - GEWERK EISENHUETTE WESTFALIA
- [X] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 19 5 June 2001 (2001-06-05)
- [X] PATENT ABSTRACTS OF JAPAN vol. 2000, no. 19 5 June 2001 (2001-06-05)
- [X] PATENT ABSTRACTS OF JAPAN vol. 1996, no. 05 31 May 1996 (1996-05-31)

Cited by

EP3626931A1; CN106640099A; CN103575529A; CN108755755A

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