

Title (en)

Drilling and pumping device and use of hydrodynamic retardersto compensate for reactive torque introduced by the driving system

Title (de)

Tiefbohrvorrichtung, Tiefbohrpumpenvorrichtung und Verwendung eines hydrodynamischen Retarders zur Kompensation der vom Antriebssystem ausgelösten Rückstellmomente

Title (fr)

Dispositif de forage et de pompe et utilisation de retardateurs hydrodynamiques pour compenser un couple de réaction introduit par le système d'entraînement

Publication

**EP 0819832 A3 19990331 (DE)**

Application

**EP 97111621 A 19970709**

Priority

DE 19628950 A 19960718

Abstract (en)

[origin: DE19628950A1] The deep drilling machine includes a drive turning a drilling spindle, with intervening compensation device. This accommodates torque reaction under varying operational states. The device is a hydrodynamic retarder, comprising the bladed wheels of a rotor and stator, together forming a torus-shaped working volume, the assembly resembling a torque converter. Throughout operation, the working volume is filled. Throughout operation, the rotor connection to the drive is continuous, and at least indirect. Blading of rotor and stator is inclined to their plane of separation, such that during operation the rotor essentially freewheels. Should there be any interruption of the flow of power, causing a torque backlash, a braking moment is exerted on the drilling spindle between rotor and stator. Also claimed is the use of the corresponding system in drilling or related drive trains.

IPC 1-7

**E21B 43/12**

IPC 8 full level

**E21B 3/02** (2006.01); **E21B 43/12** (2006.01)

CPC (source: EP US)

**E21B 3/02** (2013.01 - EP US); **E21B 43/126** (2013.01 - EP US)

Citation (search report)

- [E] US 5749416 A 19980512 - BELCHER IAIN RUSSELL [GB]
- [PA] GB 2299849 A 19961016 - MONO PUMPS LTD [GB]
- [A] US 3572480 A 19710330 - NAGEL WILLIAM S
- [A] DE 9302767 U1 19930527

Designated contracting state (EPC)

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DOCDB simple family (publication)

**DE 19628950 A1 19970515**; **DE 19628950 C2 19990923**; CA 2210421 A1 19980118; CA 2210421 C 20071002; DE 59712022 D1 20041125; EP 0819832 A2 19980121; EP 0819832 A3 19990331; EP 0819832 B1 20041020; US 6092595 A 20000725

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