

Title (en)

Method for adjusting the torque for force transmission of a magnetic drive agitator

Title (de)

Verfahren zur Drehmomenteinstellung für die Kraftübertragung eines Rührwerk mit magnetischem Antrieb

Title (fr)

Procédé du réglage du couple limite de transmission d'effort d'un agitateur à entraînement magnétique

Publication

EP 1023936 B1 20030108 (FR)

Application

EP 99420233 A 19991126

Priority

FR 9901130 A 19990128

Abstract (en)

[origin: EP1023936A1] The rotor can be moved in translation parallel to the X-X' axis inside the sleeve between a first position where the two means of coupling are matching to drive the helix in rotation and a second position where they do not interact or interact little, so the helix can be displaced relative to the sleeve without the two couplings interacting. The agitator comprises a union (5) which can be mounted in a sealed fashion in a wall (2a) of a receiver with a blind sleeve (10) inside which is fitted a rotor (20) supporting a first magnetic coupling (21). A helix (8) placed around the sleeve is equipped with a second magnetic coupling (17) to drive the helix around an axis (X-X') of rotation. The rotor can be moved in rotation around and parallel to the axis X-X' by a drive shaft (22) which is itself movable in rotation around and parallel to the X-X' axis between two positions corresponding to those of the rotor. The rotor has a central hollow to receive a screw for mounting the rotor on the shaft, with the screw placed along the X-X' axis. The rotor and/or shaft can be immobilized during their parallel movement in an intermediate position. The drive shaft is mounted to slide inside a hollow shaft which is the output from a reduction gear, with the two shafts fixed together in rotation. The hollow shaft has a screw which acts with a fillet fixed to the drive shaft. The parallel movement is controlled by a hydraulic or pneumatic jack. Process of controlling couple transmitted to a magnetic agitator as described above by controlling the position of the rotor along the X-X' axis.

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IPC 8 full level

B01F 13/08 (2006.01)

CPC (source: EP US)

B01F 33/453 (2022.01 - US); **B01F 33/4535** (2022.01 - EP)

Citation (examination)

- US 5470152 A 19951128 - RAINS ROBERT L [US]
- Einsatz eines Magnetrührwerks in der Lebensmittel- und Pharmaindustrie, D.Heibl, H.P: Meier und D. Jenny. 1996

Cited by

CN110098537A; FR2854663A1; EP1475566A3

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EP 1023936 A1 20000802; **EP 1023936 B1 20030108**; **EP 1023936 B2 20070307**; AT E230628 T1 20030115; CA 2291500 A1 20000728; CA 2291500 C 20080527; DE 69904803 D1 20030213; FR 2788995 A1 20000804; FR 2788995 B1 20010406; US 6206562 B1 20010327

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