

Title (en)

DEVICE FOR SAVING ENERGY

Title (de)

VORRICHTUNG ZUR ENERGIEEINSPARUNG

Title (fr)

DISPOSITIF POUR ECONOMISER DE L'ENERGIE

Publication

EP 0897480 B1 20020717 (DE)

Application

EP 97915466 A 19970329

Priority

- DE 19617950 A 19960504
- EP 9701613 W 19970329

Abstract (en)

[origin: US6266959B1] A device to save energy for hydraulically-operated tool shanks uses a piston-type accumulator having a housing in which at least two longitudinally displaceable pistons are arranged and are connected to by a coupling part. The coupling part is guided to be longitudinally displaceable in a partition wall of the housing which bounds two fluid chambers with the two pistons. At least one of the pistons bounds at least partially, a fluid chamber and a pre-loaded chamber with presettable internal gas pressure on the opposite sides. A wider range of possible applications is achieved for hydraulically-operated tool shanks using this energy saving device.

IPC 1-7

F15B 1/24

IPC 8 full level

F15B 1/02 (2006.01); **F15B 1/24** (2006.01); **F15B 21/14** (2006.01)

CPC (source: EP US)

F15B 1/24 (2013.01 - EP US); **F15B 2201/205** (2013.01 - EP US); **F15B 2201/312** (2013.01 - EP US); **F15B 2201/32** (2013.01 - EP US);
F15B 2201/411 (2013.01 - EP US); **F15B 2201/4155** (2013.01 - EP US)

Cited by

DE102013013690A1; DE102013006204A1; DE102012009670A1; WO2013164096A1; WO2013164073A1; WO2013164072A1;
DE102012009669B3; DE102012009668B3; CN105697434A; WO2015022054A1; WO0159309A1; EP2580439A1

Designated contracting state (EPC)

AT DE FR GB IT SE

DOCDB simple family (publication)

US 6266959 B1 20010731; AT E220766 T1 20020815; CZ 295658 B6 20050914; CZ 299298 A3 19981216; DE 19617950 A1 19971113;
DE 59707734 D1 20020822; EP 0897480 A1 19990224; EP 0897480 B1 20020717; JP 2000509477 A 20000725; JP 3857321 B2 20061213;
SK 148198 A3 19990312; SK 284792 B6 20051103; WO 9742417 A1 19971113

DOCDB simple family (application)

US 15548498 A 19980929; AT 97915466 T 19970329; CZ 299298 A 19970329; DE 19617950 A 19960504; DE 59707734 T 19970329;
EP 9701613 W 19970329; EP 97915466 A 19970329; JP 53946197 A 19970329; SK 148198 A 19970329