

Title (en)
HYDRAULIC GEAR MOTOR

Publication
EP 0062747 B1 19860129 (DE)

Application
EP 82101374 A 19820224

Priority
DE 3113939 A 19810407

Abstract (en)
[origin: US4455130A] A hydraulic gear machine which is particularly suited for use as a reversible hydraulic gear motor includes a pair of gear elements having externally meshing outer peripheral gear portions and stub shafts which are supported in an internal chamber of a housing on respective sleeve-shaped bearings. Two such bearings are arranged at each axial side of the gear elements, one for the stub shaft of each of the gear elements which extends to this axial side. The housing includes a circumferential wall and two end walls. Sealing elements having the configuration of the numeral three are arranged at the interfaces between the bearings and the end walls. The sealing elements are oppositely oriented with respect to a common plane including the axes of rotation of the gear elements at the respective axial sides. Depending on the direction of flow of pressurized hydraulic medium through the machine, a dominating pressure zone builds up at one or the other of the interfaces, the effect of the pressure of the pressurized medium on this pressure zone being to press the bearings in a sealing manner against the gear elements to eliminate gaps therebetween through which the pressurized hydraulic medium could otherwise escape without transferring its energy to the gear elements as useful mechanical energy.

IPC 1-7
F03C 2/08

IPC 8 full level
F03C 2/08 (2006.01); **F01C 1/18** (2006.01); **F04C 2/18** (2006.01); **F04C 15/00** (2006.01)

CPC (source: EP US)
F04C 15/0026 (2013.01 - EP US)

Cited by
GR1009196B

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0062747 A2 19821020; EP 0062747 A3 19831012; EP 0062747 B1 19860129; DE 3113939 A1 19821111; DE 3268735 D1 19860313; JP H0138164 B2 19890811; JP S57181902 A 19821109; US 4455130 A 19840619

DOCDB simple family (application)
EP 82101374 A 19820224; DE 3113939 A 19810407; DE 3268735 T 19820224; JP 5396782 A 19820402; US 35553582 A 19820308