

Title (en)

Horizontal shaft compressor with lubricating pump.

Title (de)

Verdichter mit horizontale Welle und Schmierpumpe.

Title (fr)

Compresseur avec arbre horizontal à pompe de graissage.

Publication

EP 0147928 A2 19850710 (EN)

Application

EP 84307383 A 19841026

Priority

US 55608483 A 19831129

Abstract (en)

A horizontal shaft oil pump (11) is provided for use in a compressor (10) comprising an outer housing (12) having an inlet (30), an outlet (24), an oil sump (48), and a crankcase (42) mounted therein. The crankcase has a generally vertically disposed passageway (46) therein in communication with the oil sump, and a crankshaft (52) is horizontally rotatably received in a bore (50) in the crankcase. A reduced diameter portion (84) of the crankshaft forms between the crankshaft and crankcase an annular chamber (86) in communication with the passageway, and a pair of oppositely angularly disposed helical grooves (88, 90) are disposed in the crankshaft on opposite sides of and in communication with the annular chamber. Upon rotation of the crankshaft, a low pressure area is developed in the annular chamber causing lubricant to be drawn upwardly through the crankcase passageway and into the annular chamber. The rotating helical grooves deliver lubricant from the annular chamber to opposite ends portions of the crankshaft for lubricating bearings and other moving parts.

IPC 1-7

F04C 29/02; **F16N 13/20**

IPC 8 full level

F04B 39/00 (2006.01); **F04B 39/02** (2006.01); **F04C 29/02** (2006.01)

CPC (source: EP KR)

F04B 39/02 (2013.01 - KR); **F04C 29/028** (2013.01 - EP)

Cited by

CN111836963A

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0147928 A2 19850710; **EP 0147928 A3 19870506**; **EP 0147928 B1 19891213**; AU 3588284 A 19850606; AU 560777 B2 19870416; BR 8405981 A 19850827; CA 1221070 A 19870428; DE 3480728 D1 19900118; IN 162764 B 19880709; JP S60119388 A 19850626; JP S6339797 B2 19880808; KR 850003947 A 19850629; KR 870000135 B1 19870212; MX 162760 A 19910625; SU 1482537 A3 19890523; ZA 847737 B 19850529

DOCDB simple family (application)

EP 84307383 A 19841026; AU 3588284 A 19841126; BR 8405981 A 19841126; CA 454923 A 19840523; DE 3480728 T 19841026; IN 785MA1984 A 19841018; JP 24253184 A 19841119; KR 840006777 A 19841030; MX 20352784 A 19841129; SU 3815501 A 19841128; ZA 847737 A 19841002