

Title (en)
Coating for a swash plate of a swash plate compressor

Title (de)
Beschichtung einer Schrägscheibe eines Kompressors

Title (fr)
Revêtement d'un plateau-came d'un compresseur

Publication
EP 1188923 A2 20020320 (EN)

Application
EP 01122238 A 20010917

Priority
JP 2000281698 A 20000918

Abstract (en)
A swash plate type compressor that has a pair of shoes (18A, 18B, 18C, 18D, 18E) between a swash plate (15) and a piston (17). The motion of the swash plate is transmitted to the piston through the shoes. Each piston reciprocates according to the transmitted motion. A coating (32, 33) is applied to each surface of the swash plate to contact the corresponding shoe. The surface (H) of each coating (32, 33) is flat. Each shoe (18A to 18E) includes a substantially flat surface (34), which contacts the swash plate (15), and a semi-spherical portion (35), which is fitted to the piston (17). Each substantially flat surface (34) includes a main chamfered portion (342) near the periphery. The inclination angle (θ 1) of each main chamfered portion (342) with respect to the corresponding coating is a predetermined angle or less. Each coating contacts one of the substantially flat surfaces (34). The maximum distance (β) between each main chamfered portion (342) and the corresponding coating is equal to or less than the thickness (D) of the corresponding coating (32, 33). <IMAGE>

IPC 1-7
F04B 27/08

IPC 8 full level
F04B 27/08 (2006.01); **F04B 27/10** (2006.01)

CPC (source: EP KR US)
F04B 27/08 (2013.01 - KR); **F04B 27/0886** (2013.01 - EP US); **F05C 2251/14** (2013.01 - EP US); **F05C 2253/12** (2013.01 - EP US); **F05C 2253/20** (2013.01 - EP US)

Citation (applicant)
• JP S611636 A 19860107 - TEIJIN LTD
• JP H11193780 A 19990721 - TOYODA AUTOMATIC LOOM WORKS
• JP H06336978 A 19941206 - TOYODA AUTOMATIC LOOM WORKS

Cited by
EP3438452A4; US11015586B2

Designated contracting state (EPC)
DE FR IT

DOCDB simple family (publication)
EP 1188923 A2 20020320; **EP 1188923 A3 20030618**; **EP 1188923 B1 20040616**; BR 0104725 A 20020604; CN 1138068 C 20040211; CN 1344863 A 20020417; DE 60103826 D1 20040722; DE 60103826 T2 20050714; JP 2002089438 A 20020327; JP 4292700 B2 20090708; KR 100441354 B1 20040723; KR 20020021979 A 20020323; US 2002155004 A1 20021024

DOCDB simple family (application)
EP 01122238 A 20010917; BR 0104725 A 20010914; CN 01140857 A 20010917; DE 60103826 T 20010917; JP 2000281698 A 20000918; KR 20010030186 A 20010530; US 95369101 A 20010917