

Title (en)
VARIABLE DISPLACEMENT LUBRICANT PUMP

Title (de)
SCHMIERMITTELVÉRSTELLPUMPE

Title (fr)
POMPE À LUBRIFIANT À DÉPLACEMENT VARIABLE

Publication
EP 3060807 B1 20170920 (EN)

Application
EP 13780121 A 20131021

Priority
EP 2013071941 W 20131021

Abstract (en)
[origin: WO2015058783A1] The invention refers to a variable displacement lubricant pump (10) for providing pressurized lubricant for an internal combustion engine (70), whereby a pump rotor with several slidable vanes (14) rotating in a shiftable control ring (12) is provided, the control ring (12) being actuated by a hydraulic pressure control including a control chamber (25) with a control ring plunger (24) directly actuating the control ring (12) to control the eccentricity of the control ring (12), the control ring plunger (24) is shiftable along a lateral control chamber wall (27), a first eccentricity limiting opening (26) is provided in the lateral control chamber wall (27), a second eccentricity limiting opening (31) is provided in the lateral control chamber wall (27), and an eccentricity limiting control system (30) is provided to connect or disconnect the eccentricity limiting openings (26,31) to atmospheric pressure dependent on the lubricant temperature T.

IPC 8 full level
F04C 2/344 (2006.01); **F01M 1/02** (2006.01); **F04C 14/22** (2006.01); **F04C 14/24** (2006.01)

CPC (source: EP US)
F01M 1/02 (2013.01 - EP US); **F04C 2/3442** (2013.01 - EP US); **F04C 2/3448** (2013.01 - US); **F04C 14/22** (2013.01 - US); **F04C 14/223** (2013.01 - EP US); **F04C 14/24** (2013.01 - EP US); **F01M 2001/0238** (2013.01 - EP US); **F01M 2001/0246** (2013.01 - US); **F04C 2240/10** (2013.01 - US); **F04C 2240/20** (2013.01 - US); **F04C 2270/185** (2013.01 - US); **F04C 2270/585** (2013.01 - US)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
WO 2015058783 A1 20150430; EP 3060807 A1 20160831; EP 3060807 B1 20170920; US 2016252090 A1 20160901

DOCDB simple family (application)
EP 2013071941 W 20131021; EP 13780121 A 20131021; US 201315030868 A 20131021