

Title (en)
Camshaft phaser

Title (de)
NOCKENWELLENVERSTELLER

Title (fr)
DÉPHASEUR D'ARBRE À CAMES

Publication
EP 2927440 A1 20151007 (EN)

Application
EP 15161161 A 20150326

Priority
US 201414242107 A 20140401

Abstract (en)
An internal combustion engine (10) includes a crankshaft (12) rotatable about a crankshaft axis (14) and a camshaft (16) rotatable by the crankshaft (12) about a camshaft axis (20). The internal combustion engine (10) also includes an oil supply (44), an engine cover (28,28',28"), and a drive member (26) disposed within the engine cover (28,28',28") for transferring rotational motion from the crankshaft (12) to the camshaft (16). A camshaft phaser (22) is disposed within the engine cover (28,28',28") for controllably varying the phase relationship between the crankshaft (12) and the camshaft (16) by using oil from the oil supply (44). A sealing arrangement defines a dry zone (110) to isolate the drive member (26) from oil used to rotate the output member (32) relative to the input member (30).

IPC 8 full level
F01L 1/02 (2006.01); **F01L 1/344** (2006.01)

CPC (source: EP US)
F01L 1/024 (2013.01 - EP US); **F01L 1/344** (2013.01 - EP US); **F01L 1/3442** (2013.01 - EP US); **F01L 2001/0476** (2013.01 - EP US); **F01L 2001/3443** (2013.01 - EP US); **F01L 2001/34433** (2013.01 - EP US); **F01L 2001/34479** (2013.01 - EP US)

Citation (applicant)
US 5361735 A 19941108 - BUTTERFIELD ROGER P [US], et al

Citation (search report)
• [XA] DE 102008051145 A1 20100415 - SCHAEFFLER KG [DE]
• [A] DE 19908146 A1 20000831 - SCHAEFFLER WAEELZLAGER OHG [DE]
• [A] WO 9923362 A1 19990514 - MECHADYNE INT PLC [GB], et al

Cited by
WO2020001683A1; FR3061930A1; DE102017116732A1; US11041411B2; WO2018206281A1; WO2017162233A1; DE102018115167A1

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

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2927440 A1 20151007; US 2015275707 A1 20151001

DOCDB simple family (application)
EP 15161161 A 20150326; US 201414242107 A 20140401