

Title (en)  
VARIABLE COMPRESSION-RATIO DEVICE

Title (de)  
VORRICHTUNG MIT VARIABLEM VERDICHTUNGSVERHÄLTNIS

Title (fr)  
DISPOSITIF À TAUX DE COMPRESSION VARIABLE

Publication  
**EP 4159989 A3 20230419 (EN)**

Application  
**EP 22195501 A 20220914**

Priority  
• JP 2021161719 A 20210930  
• JP 2021166512 A 20211008

Abstract (en)  
An object is to provide oil supply to a variable compression-ratio device. A variable compression-ratio device includes: a gear shaft (52) disposed inside a crankshaft (12) of an internal combustion engine (11) coaxially with the crankshaft (12) and configured to be rotationally driven by a power source (32); an input gear (51) connected to the gear shaft (52); an intermediate gear (50) supported by a crank web (16) of the crankshaft (12) and engaged with the input gear (51); an eccentric cam (31) disposed between a crank pin (17) of the crankshaft (12) and a large end (18a) of a connecting rod (18) and engaged with the intermediate gear (50); and a first oil channel (5) configured to supply lubricating oil to the input gear (51).

IPC 8 full level  
**F02B 75/04** (2006.01)

CPC (source: EP)  
**F02B 75/048** (2013.01)

Citation (search report)  
• [A] US 460642 A 18911006  
• [A] DE 164819 C 19051116  
• [A] US 2209012 A 19400723 - BARKEIJ JEAN A H  
• [A] DE 102008009869 A1 20090820 - AUDI AG [DE]  
• [A] WO 2017211727 A1 20171214 - GOMECSYS BV [NL]

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

Designated validation state (EPC)  
KH MA MD TN

DOCDB simple family (publication)  
**EP 4159989 A2 20230405; EP 4159989 A3 20230419; EP 4159989 B1 20240807; BR 102022018468 A2 20230411**

DOCDB simple family (application)  
**EP 22195501 A 20220914; BR 102022018468 A 20220915**