

Title (en)
INTERNAL COMBUSTION ENGINE AND METHOD OF CLEANING OF CRANKCASE GAS

Title (de)
VERBRENNUNGSMOTOR UND VERFAHREN ZUM REINIGEN VON KURBELGEHÄUSEGAS

Title (fr)
MOTEUR À COMBUSTION INTERNE ET PROCÉDÉ DE NETTOYAGE DES GAZ DE CARTER

Publication
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Application
EP 17195700 A 20171010

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EP 17195700 A 20171010

Abstract (en)
Herein an internal combustion engine, ICE, 30 is disclosed. The ICE 30 comprises a fluid pump, and a centrifugal separator 20 for cleaning of crankcase gas. The fluid pump 34 is driven by the ICE 30 for providing a pressurised fluid. The centrifugal separator 20 comprises a centrifugal rotor and a drive arrangement, the drive arrangement being configured to utilise the pressurised fluid for driving the centrifugal rotor. The fluid pump 34 is configured to vary a pressure of the pressurised fluid independently of a rotational speed of the ICE 30. A control unit 40 of the ICE 30 is configured to control the fluid pump 34 to regulate the pressure of the pressurised fluid towards a target pressure based on at least one operational parameter of the ICE 30. The target pressure corresponds to a target rotational speed of the centrifugal rotor.

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Citation (applicant)
• US 9322307 B2 20160426 - ANDERSSON AGINGER THOMAS [SE]
• SE 0502503 A 20051115
• US 7875098 B2 20110125 - HAELLGREN INGVAR [SE], et al

Citation (search report)
• [X] US 2004040442 A1 20040304 - FRANZEN PETER [SE], et al
• [X] EP 2886814 A1 20150624 - VOLKSWAGEN AG [DE]
• [X] DE 102015221194 A1 20170504 - MAHLE INT GMBH [DE]
• [Y] EP 2522431 A1 20121114 - ALFA LAVAL CORP AB [SE]
• [Y] EP 2638944 A1 20130918 - ALFA LAVAL CORP AB [SE]
• [Y] US 2016356188 A1 20161208 - HASHIMOTO MASANORI [JP], et al
• [Y] US 2013151113 A1 20130613 - CHUNG YOUNGROCK [KR]

Cited by
FR3112166A1; CN114786791A; CN112282895A; CN116146306A

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