

Title (en)

System and method for dosing cylinder lubrication oil into large diesel engine cylinders

Title (de)

System und Verfahren zur Dosierung von Schmieröl in große Dieselmotorzylinder

Title (fr)

Système et procédé de dosage d'huile de graissage de cylindre dans de grands cylindres de moteur diesel

Publication

**EP 2722500 A3 20170215 (EN)**

Application

**EP 13188526 A 20120316**

Priority

- DK PA201170129 A 20110318
- EP 12716211 A 20120316
- DK 2012050079 W 20120316

Abstract (en)

[origin: WO2012126473A2] There is disclosed dosing system and a method for cylinder lubrication oil in large diesel engine cylinders, e.g. in marine engines, including: - a lubricating oil supply that may be constituted by a pump station or an accumulator; - a supply line from the lubricating oil supply; - a number of injectors having an inlet, an opening/closing valve unit and one or more nozzle apertures for injecting cylinder lubricating oil into an associated cylinder, and which are connected with the supply line and corresponding to the number of cylinders in the engine or a multiple thereof; and - a control unit controlling each opening/closing valve unit. Furthermore, there is disclosed an injector for use in the system. In order to overcome the drawback of dependence on flow and viscosity in the supply pipes, the system is peculiar in that the dosing system includes a flow measuring unit for each injector and/or for each cylinder, and that the flow measuring units are connected with the control unit for use in a closed circuit regulation.

IPC 8 full level

**F01M 1/08** (2006.01); **F01M 1/16** (2006.01)

CPC (source: EP KR RU)

**F01M 1/08** (2013.01 - EP KR); **F01M 1/14** (2013.01 - KR); **F01M 1/16** (2013.01 - EP KR); **F01M 1/08** (2013.01 - RU); **F01M 1/14** (2013.01 - RU); **F01M 2001/083** (2013.01 - EP KR)

Citation (search report)

- [Y] EP 1582706 A2 20051005 - MITSUBISHI HEAVY IND LTD [JP]
- [Y] DE 2929580 A1 19810205 - MM A N MASCHINENFABRIK AUGSBURG
- [Y] JP H02271019 A 19901106 - NISSAN MOTOR
- [Y] US 4913108 A 19900403 - SOUGAWA MASAFUMI [JP], et al
- [Y] WO 2007057027 A1 20070524 - HANS JENSEN LUBRICATORS AS [DK], et al
- [A] US 2002144865 A1 20021010 - CLANCY STEPHEN M [US], et al
- [A] US 3958725 A 19760525 - REEVE PAUL H

Cited by

US2020080461A1; EP3724465A4; US11668404B2; EP3368751A4; EP3175094A4; EP3640441A1; WO2019114902A1; WO2020210651A1; US10731527B2; US10961881B2

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)

**WO 2012126473 A2 20120927; WO 2012126473 A3 20121108**; CN 103534447 A 20140122; CN 103534447 B 20160420; CN 103939174 A 20140723; CN 103939174 B 20170412; DK 177258 B1 20120827; DK 177494 B1 20130715; DK 201270125 A 20120919; DK 2686527 T3 20200817; DK 2722500 T3 20181105; EP 2686527 A2 20140122; EP 2686527 B1 20200506; EP 2722500 A2 20140423; EP 2722500 A3 20170215; EP 2722500 B1 20180801; EP 3434872 A1 20190130; EP 3434872 B1 20211110; HK 1197094 A1 20150102; JP 2014114808 A 20140626; JP 2014508890 A 20140410; JP 2018066383 A 20180426; JP 2018109409 A 20180712; JP 6359267 B2 20180718; JP 6682564 B2 20200415; KR 102002181 B1 20190719; KR 102138382 B1 20200728; KR 102247242 B1 20210503; KR 20140004212 A 20140110; KR 20140010432 A 20140124; KR 20200091495 A 20200730; RU 2013146520 A 20150427; RU 2013149826 A 20150520; RU 2586420 C2 20160610; RU 2638142 C2 20171211; SG 10201809580T A 20181129; SG 193531 A1 20131030

DOCDB simple family (application)

**DK 2012050079 W 20120316**; CN 201280017547 A 20120316; CN 201410133874 A 20120316; DK 12716211 T 20120316; DK 13188526 T 20120316; DK PA201170129 A 20110318; DK PA201270125 A 20120320; EP 12716211 A 20120316; EP 13188526 A 20120316; EP 18192829 A 20120316; HK 14110485 A 20141021; JP 2013247434 A 20131129; JP 2014500256 A 20120316; JP 2018018516 A 20180205; JP 2018018550 A 20180205; KR 20137026400 A 20120316; KR 20137027793 A 20120316; KR 20207021038 A 20120316; RU 2013146520 A 20120316; RU 2013149826 A 20131107; SG 10201809580T A 20120316; SG 2013070339 A 20120316