



(11) **EP 2 011 855 A3**

(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:
28.07.2010 Bulletin 2010/30

(51) Int Cl.:
C10M 169/04 (2006.01) **C10M 141/06** (2006.01)
C10N 40/25 (2006.01) **C10N 40/25** (2006.01)

(43) Date of publication A2:
07.01.2009 Bulletin 2009/02

(21) Application number: **08252215.2**

(22) Date of filing: **27.06.2008**

(84) Designated Contracting States:
**AT BE BG CH CY CZ DE DK EE ES FI FR GB GR
HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT
RO SE SI SK TR**
Designated Extension States:
AL BA MK RS

- **Muramatsu, Takahiro**
Shizuoka-Ken (JP)
- **Tamashita, Yoshito**
Tokyo, Japan 146-092 (JP)
- **Nakazato, Morikuni**
Shizuoka-Ken (JP)

(30) Priority: **28.06.2007 JP 2007170667**

(71) Applicant: **Chevron Texaco Japan Ltd.**
Tokyo, 101-0041 (JP)

(72) Inventors:
• **Takeuchi, Yoshitake**
Shizuoka-ken (JP)

(74) Representative: **Nash, David Allan**
Haseltine Lake LLP
Redcliff Quay
120 Redcliff Street
Bristol
BS1 6HU (GB)

(54) **Fuel economy lubricating oil compositon for lubricating diesel engines**

(57) A lubricating oil composition for internal combustion engines comprising a base oil having and lubricating viscosity and additives composed of a) a salt of an alkali metal or alkaline earth metal and an alkylsali-cylate and/or an alkylcarboxylate, b) a nitrogen atom-containing ashless dispersant and/or a nitrogen atom-containing dispersive viscosity index improver, c) a neu-

tral salt of a fatty acid and a fatty amine, and d) oxidation inhibitor, is effective for lubricating diesel engines using a low sulfur-content fuel, even though it has a low sulfated ash content, a low sulfur content and a low phosphorus content.

EP 2 011 855 A3



EUROPEAN SEARCH REPORT

Application Number
EP 08 25 2215

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
Y	EP 1 686 167 A1 (NIPPON OIL CORP [JP]) 2 August 2006 (2006-08-02) * paragraph [0001]; claims; tables *	1-14	INV. C10M169/04 C10M141/06
Y	EP 1 788 069 A1 (CHEVRON ORONITE CO [US]) 23 May 2007 (2007-05-23) * paragraphs [0001], [0092]; claims *	1-14	ADD. C10N40/25
A	US 2007/105730 A1 (BOONS CORNELIS H M [NL] ET AL) 10 May 2007 (2007-05-10) * paragraph [0159] *	1-14	
			TECHNICAL FIELDS SEARCHED (IPC)
			C10M
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 21 June 2010	Examiner Glod, Guy
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

1
EPO FORM 1503 03.92 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 25 2215

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

21-06-2010

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 1686167	A1	02-08-2006	WO 2005037967 A1 28-04-2005
			US 2006172900 A1 03-08-2006
EP 1788069	A1	23-05-2007	CA 2567216 A1 14-05-2007
			JP 2007138166 A 07-06-2007
			SG 132616 A1 28-06-2007
			US 2007111905 A1 17-05-2007
US 2007105730	A1	10-05-2007	NONE