

Title (en)

LUBRICATING OIL COMPOSITION FOR INTERNAL COMBUSTION ENGINE

Title (de)

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Title (fr)

COMPOSITION D'HUILE DE LUBRIFICATION POUR MOTEUR THERMIQUE

Publication

**EP 1439217 A4 20090902 (EN)**

Application

**EP 02770233 A 20021015**

Priority

- JP 0210679 W 20021015
- JP 2001315941 A 20011012
- JP 2002086145 A 20020326
- JP 2002086146 A 20020326
- JP 2002086147 A 20020326

Abstract (en)

[origin: EP1439217A1] A lubricating oil composition for internal combustion engine, comprising a lubricating base oil; (A) a triphosphate represented by formula (1) below in an amount of 0.01 to 0.2 percent by mass in terms of phosphorus; (B) succinimide and/or derivative thereof in an amount of 0.01 to 0.3 percent by mass in terms of nitrogen; (C) an alkali metal or alkaline earth metal detergent in an amount of 0.05 to 1 percent by mass in terms of metal; and (D) a phenol-based and/or amine-based anti-oxidants in an amount of 0.01 to 3 percent by mass: O = P(OR<1>)3 wherein the groups of R<1> are each independently a hydrocarbon group having 1 to 30 carbon atoms and are the same or different from each other. The lubricating oil composition is excellent in anti-wear properties, base number retaining properties, high temperature detergency, and low friction characteristics.

IPC 8 full level

**C10M 163/00** (2006.01); **C10M 129/10** (2006.01); **C10M 133/12** (2006.01); **C10M 133/16** (2006.01); **C10M 133/56** (2006.01);  
**C10M 135/00** (2006.01); **C10M 137/04** (2006.01); **C10M 159/20** (2006.01); **C10N 10/02** (2006.01); **C10N 10/04** (2006.01); **C10N 30/04** (2006.01);  
**C10N 30/06** (2006.01); **C10N 30/08** (2006.01); **C10N 40/12** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP US)

**C10M 163/00** (2013.01 - EP US); **C10M 2207/023** (2013.01 - EP US); **C10M 2207/026** (2013.01 - EP US); **C10M 2207/262** (2013.01 - EP US);  
**C10M 2207/289** (2013.01 - EP US); **C10M 2215/06** (2013.01 - EP US); **C10M 2215/064** (2013.01 - EP US); **C10M 2215/086** (2013.01 - EP US);  
**C10M 2215/28** (2013.01 - EP US); **C10M 2219/00** (2013.01 - EP US); **C10M 2219/044** (2013.01 - EP US); **C10M 2219/046** (2013.01 - EP US);  
**C10M 2223/04** (2013.01 - EP US); **C10M 2223/041** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10M 2227/09** (2013.01 - EP US);  
**C10N 2010/02** (2013.01 - EP US); **C10N 2010/04** (2013.01 - EP US); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US);  
**C10N 2030/08** (2013.01 - EP US); **C10N 2030/10** (2013.01 - EP US); **C10N 2030/43** (2020.05 - EP US); **C10N 2030/52** (2020.05 - EP US);  
**C10N 2040/12** (2013.01 - EP US); **C10N 2040/25** (2013.01 - EP US)

Citation (search report)

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US8481467B2; EP2675876B1; EP2141220B1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 1439217 A1 20040721; EP 1439217 A4 20090902; EP 1439217 B1 20120620;** US 2004242434 A1 20041202; WO 03033629 A1 20030424

DOCDB simple family (application)

**EP 02770233 A 20021015;** JP 0210679 W 20021015; US 82248004 A 20040412