

Title (en)
LUBRICATING OIL COMPOSITION AND METHOD OF IMPROVING EFFICIENCY OF EMISSIONS CONTROL SYSTEM

Title (de)
SCHMIERÖLZUSAMMENSETZUNG UND VERFAHREN ZUR ERHÖHUNG DER EFFIZIENZ EINES EMISSIONSSTEUERUNGSSYSTEMS

Title (fr)
COMPOSITION D'HUILE LUBRIFIANTE ET PROCÉDÉ D'AMÉLIORATION DE L'EFFICACITÉ D'UN SYSTÈME DE RÉDUCTION DES ÉMISSIONS

Publication
EP 2041247 A2 20090401 (EN)

Application
EP 07812891 A 20070713

Priority
• US 2007073426 W 20070713
• US 80754306 P 20060717

Abstract (en)
[origin: WO2008011338A2] The disclosed technology relates to a lubricating oil composition comprising at least one base oil and at least one overbased low molecular weight zinc dialkyldithiophosphate derived from one or more dithiophosphoric acids represented by the formula (I) and/or a metal salt thereof, wherein in formula (I), R¹ and R² are independently hydrocarbyl groups, the average total number of carbon atoms in R¹ and R² in formula (I) being in the range from 4 to 10, the metal ratio of the overbased low molecular weight zinc dialkyldithiophosphate being at least about 1.15:1, the lubricating oil composition being characterized by a phosphorus concentration of up to about 0.12% by weight. The disclosed technology also relates to a method of lubricating an internal combustion engine and improving the efficiency of the emissions control system of the engine.

IPC 8 full level
C10M 135/10 (2006.01); **C10M 163/00** (2006.01); **C10N 10/04** (2006.01); **C10N 30/02** (2006.01); **C10N 40/25** (2006.01); **C10N 60/00** (2006.01)

CPC (source: EP US)
C10M 135/10 (2013.01 - EP US); **C10M 163/00** (2013.01 - EP US); **C10M 2207/289** (2013.01 - EP US); **C10M 2215/064** (2013.01 - EP US); **C10M 2215/28** (2013.01 - EP US); **C10M 2219/022** (2013.01 - EP US); **C10M 2219/06** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10M 2227/062** (2013.01 - EP US); **C10N 2010/04** (2013.01 - EP US); **C10N 2030/02** (2013.01 - EP US); **C10N 2030/38** (2020.05 - EP US); **C10N 2040/25** (2013.01 - EP US)

Citation (search report)
See references of WO 2008011338A2

Designated contracting state (EPC)
DE FR GB

Designated extension state (EPC)
AL BA HR MK RS

DOCDB simple family (publication)
WO 2008011338 A2 20080124; **WO 2008011338 A3 20080410**; AU 2007275457 A1 20080124; CA 2657938 A1 20080124; CA 2657938 C 20150915; CN 101517047 A 20090826; EP 2041247 A2 20090401; JP 2009543939 A 20091210; US 2011245116 A1 20111006

DOCDB simple family (application)
US 2007073426 W 20070713; AU 2007275457 A 20070713; CA 2657938 A 20070713; CN 200780034276 A 20070713; EP 07812891 A 20070713; JP 2009520917 A 20070713; US 37352707 A 20070713