

Title (en)
LUBRICATING OIL COMPOSITION

Title (de)
SCHMIERÖLZUSAMMENSETZUNG

Title (fr)
COMPOSITION D'HUILE LUBRIFIANTE

Publication
EP 3178911 A1 20170614 (EN)

Application
EP 15830586 A 20150522

Priority
• JP 2014160395 A 20140806
• JP 2015064722 W 20150522

Abstract (en)
A lubricating oil composition of the invention contains: a base oil; at least one of acid phosphate represented by formulae (1) and (2) below; and an antioxidant. In the above formulae: R 1 , R 2 and R 3 are alkyl groups; and at least one of R 1 and R 2 has 20 to 30 carbon atoms while R 3 has 20 to 30 carbon atoms.

IPC 8 full level
C10M 169/04 (2006.01); **C10M 101/02** (2006.01); **C10M 129/10** (2006.01); **C10M 133/12** (2006.01); **C10M 137/04** (2006.01); **C10N 30/06** (2006.01); **C10N 30/10** (2006.01); **C10N 40/06** (2006.01)

CPC (source: EP KR US)
C10M 101/02 (2013.01 - KR US); **C10M 129/10** (2013.01 - KR US); **C10M 133/12** (2013.01 - KR); **C10M 137/04** (2013.01 - EP KR US); **C10M 169/04** (2013.01 - EP KR US); **C10M 2203/003** (2013.01 - US); **C10M 2203/1025** (2013.01 - EP US); **C10M 2207/023** (2013.01 - US); **C10M 2207/026** (2013.01 - EP US); **C10M 2223/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/10** (2013.01 - EP US); **C10N 2030/36** (2020.05 - EP US); **C10N 2040/04** (2013.01 - EP US)

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)
EP 3178911 A1 20170614; **EP 3178911 A4 20180221**; **EP 3178911 B1 20191030**; CN 106536695 A 20170322; CN 106536695 B 20201229; ES 2763299 T3 20200528; JP 2016037528 A 20160322; JP 6422260 B2 20181114; KR 20170032302 A 20170322; US 2017247630 A1 20170831; WO 2016021274 A1 20160211

DOCDB simple family (application)
EP 15830586 A 20150522; CN 201580040099 A 20150522; ES 15830586 T 20150522; JP 2014160395 A 20140806; JP 2015064722 W 20150522; KR 20177001081 A 20150522; US 201515329484 A 20150522