

Title (en)
ULTRA-LOW SAPS LUBRICANTS FOR INTERNAL COMBUSTION ENGINES

Title (de)
SCHMIERMITTEL MIT ULTRANIEDRIGER AUSLAUGUNG FÜR VERBRENNUNGSMOTOREN

Title (fr)
LUBRIFIANTS À ULTRA FAIBLE TENEUR EN CENDRES SULFATÉES, PHOSPHORE ET SOUFRE POUR DES MOTEURS À COMBUSTION INTERNE

Publication
EP 2938713 A4 20160127 (EN)

Application
EP 13867703 A 20131122

Priority
• US 201213729465 A 20121228
• US 2013071503 W 20131122

Abstract (en)
[origin: US2014187455A1] Disclosed is an ultra-low SAPS lubricating oil composition comprising: an oil of lubricating viscosity; an aromatic dicarboxylic acid treated dispersant supplying at least 0.30 wt % of the aromatic dicarboxylic acid to said lubricating oil composition; an ashless peroxide decomposer present at a treat rate of from about 0.4 to 5.0 wt %; a metal deactivator wherein the metal deactivator is present at a treat rate of greater than 0.08 wt %; wherein said lubricating oil composition contains less than 1000 ppm sulfur, less than 300 ppm phosphorus and less than 0.25 wt % sulfated ash.

IPC 8 full level
C10M 129/34 (2006.01); **C10M 141/12** (2006.01); **C10N 30/10** (2006.01); **C10N 30/12** (2006.01); **C10N 40/25** (2006.01); **C10N 60/00** (2006.01)

CPC (source: EP US)
C10M 141/06 (2013.01 - EP US); **C10M 2207/142** (2013.01 - EP US); **C10M 2215/066** (2013.01 - EP US); **C10M 2215/223** (2013.01 - EP US); **C10M 2215/28** (2013.01 - EP US); **C10N 2030/10** (2013.01 - EP US); **C10N 2030/12** (2013.01 - EP US); **C10N 2030/42** (2020.05 - EP US); **C10N 2030/43** (2020.05 - EP US); **C10N 2030/45** (2020.05 - EP US); **C10N 2040/25** (2013.01 - EP US); **C10N 2060/00** (2013.01 - EP US)

Citation (search report)
• [AD] US 3287271 A 19661122 - STUART FRANK A, et al
• [AD] US 2003224948 A1 20031204 - DAM WILLEM VAN [US], et al
• [A] US 2008188386 A1 20080807 - BURRINGTON JAMES D [US], et al
• [A] WO 2008027883 A2 20080306 - LUBRIZOL CORP [US], et al
• See references of WO 2014105311A2

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)
US 2014187455 A1 20140703; CA 2893850 A1 20140703; CA 2893850 C 20200804; CN 104884590 A 20150902; EP 2938713 A2 20151104; EP 2938713 A4 20160127; JP 2016505687 A 20160225; JP 6023353 B2 20161109; KR 20150099824 A 20150901; SG 11201505003R A 20150730; WO 2014105311 A2 20140703; WO 2014105311 A3 20141023

DOCDB simple family (application)
US 201213729465 A 20121228; CA 2893850 A 20131122; CN 201380067933 A 20131122; EP 13867703 A 20131122; JP 2015550392 A 20131122; KR 20157019772 A 20131122; SG 11201505003R A 20131122; US 2013071503 W 20131122