

Title (en)  
Lubricating oil composition

Title (de)  
Schmierölzusammensetzung

Title (fr)  
Composition d'huile lubrifiante

Publication  
**EP 2905323 A1 20150812 (EN)**

Application  
**EP 15153425 A 20150202**

Priority  
JP 2014016942 A 20140131

Abstract (en)  
[Problem] To provide a lubricating oil composition capable of attaining high-level fuel efficiency, durability and piston detergency in internal-combustion engines. [Means for Resolution] The lubricating oil composition according to the present invention contains a viscosity index improver and a metallic detergent in at least one base oil selected from mineral oils and synthetic oils therein, wherein the viscosity index improver contains a polymethacrylate viscosity index improver and an olefin copolymer viscosity index improver, the polymethacrylate viscosity index improver is contained in an amount of from 3.0% by mass to 9.5% by mass based on the total amount of the lubricating oil composition, the metallic detergent is at least one selected from calcium sulfonate, calcium phenate and calcium salicylate, the calcium amount derived from the metallic detergent is from 500 ppm to 1500 ppm based on the total amount of the lubricating oil composition, the high-temperature high-shear viscosity at 150°C of the lubricating oil composition is 2.6 mPa·s or more, the high-temperature high-shear viscosity at 80°C of the lubricating oil composition is 7.8 mPa·s or less, and the ratio of the high-temperature high-shear viscosity at 100°C of the lubricating oil composition to the high-temperature high-shear viscosity at 150°C thereof is 2.05 or less.

IPC 8 full level  
**C10M 169/04** (2006.01)

CPC (source: EP US)  
**C10M 161/00** (2013.01 - US); **C10M 169/048** (2013.01 - EP US); **C10M 2205/022** (2013.01 - EP US); **C10M 2205/026** (2013.01 - EP US); **C10M 2205/04** (2013.01 - EP US); **C10M 2207/026** (2013.01 - EP US); **C10M 2209/084** (2013.01 - EP US); **C10M 2215/221** (2013.01 - EP US); **C10M 2215/28** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10N 2030/02** (2013.01 - EP US); **C10N 2030/04** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP US); **C10N 2030/10** (2013.01 - EP US); **C10N 2030/42** (2020.05 - EP US); **C10N 2030/50** (2020.05 - EP US); **C10N 2030/54** (2020.05 - EP US); **C10N 2030/68** (2020.05 - EP US); **C10N 2030/74** (2020.05 - EP US); **C10N 2040/25** (2013.01 - EP US); **C10N 2040/252** (2020.05 - EP US); **C10N 2040/255** (2020.05 - EP US)

Citation (applicant)  
• JP 4965228 B2 20120704  
• JP 2010280821 A 20101216 - JX NIPPON OIL & ENERGY CORP  
• JP 2003252887 A 20030910 - ASAHI DENKA KOGYO KK  
• JP H0322438 B2 19910326  
• JP 2004002866 A 20040108 - CHEVRON ORONITE CO

Citation (search report)  
• [I] EP 2439256 A1 20120411 - JX NIPPON OIL & ENERGY CORP [JP]  
• [A] EP 2112217 A1 20091028 - NIPPON OIL CORP [JP]

Cited by  
EP3395931A4; US11312917B2

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 2905323 A1 20150812**; **EP 2905323 B1 20190724**; CN 104818081 A 20150805; JP 2015143304 A 20150806; JP 5952846 B2 20160713; US 2015218482 A1 20150806

DOCDB simple family (application)  
**EP 15153425 A 20150202**; CN 201510047376 A 20150129; JP 2014016942 A 20140131; US 201514607269 A 20150128