

Title (en)
LUBRICATING OIL COMPOSITION

Title (de)
SCHMIERÖLZUSAMMENSETZUNG

Title (fr)
COMPOSITION D'HUILE LUBRIFIANTE

Publication
EP 3766949 A4 20211201 (EN)

Application
EP 19768240 A 20190312

Priority
• JP 2018044412 A 20180312
• JP 2019010032 W 20190312

Abstract (en)
[origin: EP3766949A1] The present invention relates to a lubricating oil composition containing a base oil (A) and a viscosity index improver (B) such that in X-ray small-angle scattering spectra obtained through measurement at 40°C and 100°C, a ratio $[\Delta|\alpha(40)|/\Delta|\alpha(100)|]$ between $\Delta|\alpha(40)|$ and $\Delta|\alpha(100)|$ each of which is an absolute value of a slope of a straight line calculated in a range of the scattering vector q as the x axis of from 0.1 nm⁻¹ to 1 nm⁻¹ by the least-squares method, is 1.5 or more.

IPC 8 full level
C10M 169/04 (2006.01); **C10M 101/02** (2006.01); **C10M 143/12** (2006.01); **C10N 20/00** (2006.01); **C10N 20/04** (2006.01); **C10N 30/00** (2006.01); **C10N 30/08** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP US)
C10M 101/02 (2013.01 - US); **C10M 143/14** (2013.01 - US); **C10M 169/041** (2013.01 - US); **C10M 171/00** (2013.01 - EP); **C10M 2203/003** (2013.01 - US); **C10M 2203/1025** (2013.01 - EP); **C10M 2205/024** (2013.01 - EP); **C10M 2205/06** (2013.01 - EP); **C10M 2205/08** (2013.01 - US); **C10M 2207/026** (2013.01 - EP); **C10M 2207/262** (2013.01 - EP); **C10M 2209/084** (2013.01 - EP); **C10M 2215/064** (2013.01 - EP); **C10M 2215/223** (2013.01 - EP); **C10M 2215/28** (2013.01 - EP); **C10M 2219/068** (2013.01 - EP); **C10M 2223/045** (2013.01 - EP); **C10M 2229/02** (2013.01 - EP); **C10N 2020/04** (2013.01 - EP); **C10N 2020/071** (2020.05 - US); **C10N 2030/78** (2020.05 - EP); **C10N 2040/25** (2013.01 - EP US)

C-Set (source: EP)
1. **C10M 2205/06 + C10M 2209/04 + C10M 2209/084 + C10N 2060/02**
2. **C10M 2205/024 + C10M 2205/04 + C10M 2205/06**
3. **C10M 2205/06 + C10M 2209/04 + C10M 2209/084**
4. **C10M 2205/024 + C10M 2205/04**
5. **C10M 2203/1025 + C10N 2020/02**
6. **C10M 2219/068 + C10N 2010/12**
7. **C10M 2207/262 + C10N 2010/04**
8. **C10M 2215/28 + C10N 2060/14**
9. **C10M 2223/045 + C10N 2010/04**

Citation (search report)
• [X] JP 2015160951 A 20150907 - COSMO OIL LUBRICANTS CO LTD
• [X] US 2017096616 A1 20170406 - SUETSUGU YOSHIYUKI [JP]
• [X] US 2013196888 A1 20130801 - TRUONG-DINH NGUYEN [FR]
• [X] US 2017088789 A1 20170330 - GRISSO BRYAN A [US], et al
• [X] LI WEI ET AL: "Synthesis and characterisation of HSIBR used as viscosity index improver for lubricants : SYNTHESIS AND CHARACTERISATION OF HSIBR USED AS VII FOR LUBRICANTS", LUBRICATION SCIENCE, vol. 24, no. 4, 26 January 2012 (2012-01-26), US, pages 188 - 197, XP055854060, ISSN: 0954-0075, Retrieved from the Internet <URL:https://api.wiley.com/onlinelibrary/tdm/v1/articles/10.1002%2Fls.1174> DOI: 10.1002/lis.1174
• See references of WO 2019176944A1

Designated contracting state (EPC)
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DOCDB simple family (publication)
EP 3766949 A1 20210120; EP 3766949 A4 20211201; CN 111801407 A 20201020; JP 7341979 B2 20230911; JP WO2019176944 A1 20210225; US 2021047582 A1 20210218; WO 2019176944 A1 20190919

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