

Title (en)
LUBRICATING OIL COMPOSITION

Title (de)
SCHMIERÖLZUSAMMENSETZUNG

Title (fr)
COMPOSITION D'HUILE DE GRAISSAGE

Publication
EP 1516910 A4 20100127 (EN)

Application
EP 03736322 A 20030630

Priority

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- JP 2002191091 A 20020628
- JP 2002191092 A 20020628

Abstract (en)
[origin: EP1516910A1] Disclosed are lubricating oil compositions excellent in friction reducing effect and long drain properties and particularly suitable for internal combustion engines, which comprise a lubricating base oil, a specific phosphorus compound in an amount of 0.005 to 0.5 percent by mass in terms of phosphorus based on the total mass of the composition, and at least one additive selected from the group consisting of (C) metallic detergents, (D) ashless dispersants, and (E) anti-oxidants, and further contains (F) a sulfur-containing organic molybdenum complex and (G) an ashless friction modifier and which satisfy prescribed requirements and have a sulfated ash content not exceeding a specified level.

IPC 8 full level
C10M 163/00 (2006.01); **C10M 129/68** (2006.01); **C10M 135/18** (2006.01); **C10M 137/02** (2006.01); **C10M 141/10** (2006.01); **C10M 167/00** (2006.01); **C10M 169/04** (2006.01); **C10N 10/02** (2006.01); **C10N 10/04** (2006.01); **C10N 30/00** (2006.01); **C10N 30/06** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP)
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Citation (search report)

- [X] JP 2001342486 A 20011214 - TONENGENERAL SEKIYU KK
- [I] US 5744430 A 19980428 - INOUE KIYOSHI [JP], et al & US 2003013619 A1 20030116 - SATO TAKEHISA [JP], et al & US 6617286 B2 20030909 - SATO TAKEHISA [JP], et al
- See references of WO 2004003117A1

Cited by
EP2371933A1; EP1918357A3; EP1997871A4; FR3048977A1; GB2444131A; GB2444131B; EP2548939A4; US8361940B2; US8071518B2; US9347017B2; WO2007092724A3; WO2012097026A1; US7704928B2; US8722594B2; US9040470B2; WO2017157892A1; EP1835013A4; US9321981B2; EP1736529A4; EP1820840A4; EP1859013B1; EP2280057B2

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