

Title (en)
Lubricant oil composition with reduced friction coefficient

Title (de)
Schmieröl mit verringertem Reibungskoeffizienten

Title (fr)
Composition d'huile lubrifiante ayant un coefficient de friction réduit

Publication
EP 0737735 A3 19970122 (EN)

Application
EP 96302490 A 19960409

Priority
JP 11390395 A 19950414

Abstract (en)
[origin: EP0737735A2] A lubricant oil composition produced by blending (A) a molybdenum-containing friction conditioner, (B) a boron-containing compound and (C) an antioxidant if necessary, with a lubricant base oil, wherein the content of the molybdenum derived from the molybdenum-containing friction conditioner is 100 to 2,000 ppm (as the ratio by weight) and the content of the boron derived from the boron-containing compound is 0.01% by weight or more, to the total weight of the composition. The lubricant oil compositions of the present invention are the lubricant oil compositions blended with a molybdenum-containing friction conditioner and a boron-containing compound, and are capable of decreasing coking deposit in internal combustion engines such as automobile engines, which is advantageous for sustaining a fuel-efficiency property for a long term. Hence, the compositions can be used preferably for automobile lubricant oils.

IPC 1-7

C10M 141/12

IPC 8 full level

C10M 141/12 (2006.01); **C10N 10/12** (2006.01); **C10N 40/25** (2006.01)

CPC (source: EP)

C10M 129/10 (2013.01); **C10M 133/12** (2013.01); **C10M 135/18** (2013.01); **C10M 135/30** (2013.01); **C10M 137/10** (2013.01);
C10M 139/00 (2013.01); **C10M 141/12** (2013.01); **C10M 2207/023** (2013.01); **C10M 2207/024** (2013.01); **C10M 2207/026** (2013.01);
C10M 2207/027 (2013.01); **C10M 2215/06** (2013.01); **C10M 2215/064** (2013.01); **C10M 2215/065** (2013.01); **C10M 2215/066** (2013.01);
C10M 2215/067 (2013.01); **C10M 2215/068** (2013.01); **C10M 2219/066** (2013.01); **C10M 2219/068** (2013.01); **C10M 2219/087** (2013.01);
C10M 2219/088 (2013.01); **C10M 2219/089** (2013.01); **C10M 2223/045** (2013.01); **C10M 2227/00** (2013.01); **C10M 2227/06** (2013.01);
C10M 2227/061 (2013.01); **C10M 2227/062** (2013.01); **C10M 2227/063** (2013.01); **C10M 2227/065** (2013.01); **C10M 2227/066** (2013.01);
C10N 2010/12 (2013.01)

Citation (search report)

- [X] EP 0562172 A1 19930929 - IDEMITSU KOSAN CO [JP]
- [X] EP 0609623 A1 19940810 - ORONITE JAPAN LIMITED [JP]
- [PX] WO 9606904 A1 19960307 - TONEN CORP [JP], et al
- [Y] EP 0281992 A2 19880914 - IDEMITSU KOSAN CO [JP]
- [Y] WO 9321289 A1 19931028 - EXXON CHEMICAL PATENTS INC [US]
- [E] WO 9619551 A1 19960627 - EXXON RESEARCH ENGINEERING CO [US]
- [X] PATENT ABSTRACTS OF JAPAN vol. 012, no. 117 (C - 487) 13 April 1988 (1988-04-13)

Cited by

US5840672A; US7134427B2; US7648947B2; US7026273B2; WO2004020558A1; WO03102117A1; WO2010077757A2; US9303229B2;
US8299005B2; US8507417B2; US8791055B2; WO2010077755A2; EP2829596A1; US9193931B2; US9523061B2

Designated contracting state (EPC)

BE DE ES FR GB IT NL

DOCDB simple family (publication)

EP 0737735 A2 19961016; EP 0737735 A3 19970122; AU 5062796 A 19961024; CA 2173895 A1 19961015; JP H08283762 A 19961029;
SG 54284 A1 19981116

DOCDB simple family (application)

EP 96302490 A 19960409; AU 5062796 A 19960412; CA 2173895 A 19960411; JP 11390395 A 19950414; SG 1996007677 A 19960412