

Title (en)

Lubricating oil compositions having excellent thermal stability, extreme pressure resistance and anti-wear performance

Title (de)

Schmierölzusammensetzungen mit ausgezeichneten thermischen Eigenschaften, hohem Druckwiderstand und mit verbessertem Verschleisschutzverhalten

Title (fr)

Des compositions d'huile lubrifiante ayant une stabilité thermique excellente, une résistance à pression extrême et une activité anti-usure

Publication

EP 1148114 A2 20011024 (EN)

Application

EP 01303441 A 20010412

Priority

JP 2000116378 A 20000418

Abstract (en)

The present invention relates to a lubricating oil composition for use in industrial oils such as hydraulic oils, bearing oils, industrial gear oils and sliding surface lubricating oils. In its broadest aspect, the present invention comprises a lubricating oil composition having a major amount of a base oil of lubricating viscosity and a minor, but effective amount, of A. at least one a compound selected from the group consisting of a phosphoric acid ester, a thiophosphoric acid ester, and amine salts thereof; B. a phosphorus acid ester and/or an amine thereof; and C. at least one compound selected from the group consisting of an alkenyl succinimide, an alkenyl succinic acid ester, benzylamine, and derivatives thereof. The lubricating oil composition of the present invention provides excellent thermal stability, extreme pressure resistance and anti-wear performance.

IPC 1-7

C10M 141/10

IPC 8 full level

C10M 133/12 (2006.01); **C10M 133/56** (2006.01); **C10M 137/02** (2006.01); **C10M 137/04** (2006.01); **C10M 137/08** (2006.01); **C10M 137/10** (2006.01); **C10M 139/00** (2006.01); **C10M 141/10** (2006.01); **C10N 20/02** (2006.01); **C10N 30/04** (2006.01); **C10N 30/06** (2006.01); **C10N 30/08** (2006.01); **C10N 40/02** (2006.01); **C10N 40/04** (2006.01); **C10N 40/08** (2006.01)

CPC (source: EP US)

C10M 129/95 (2013.01 - EP US); **C10M 133/06** (2013.01 - EP US); **C10M 133/52** (2013.01 - EP US); **C10M 133/56** (2013.01 - EP US); **C10M 137/02** (2013.01 - EP US); **C10M 137/04** (2013.01 - EP US); **C10M 137/08** (2013.01 - EP US); **C10M 137/105** (2013.01 - EP US); **C10M 141/10** (2013.01 - EP US); **C10M 2203/10** (2013.01 - EP US); **C10M 2203/102** (2013.01 - EP US); **C10M 2207/287** (2013.01 - EP US); **C10M 2207/34** (2013.01 - EP US); **C10M 2215/04** (2013.01 - EP US); **C10M 2215/086** (2013.01 - EP US); **C10M 2215/24** (2013.01 - EP US); **C10M 2215/26** (2013.01 - EP US); **C10M 2215/28** (2013.01 - EP US); **C10M 2217/042** (2013.01 - EP US); **C10M 2217/043** (2013.01 - EP US); **C10M 2217/046** (2013.01 - EP US); **C10M 2217/06** (2013.01 - EP US); **C10M 2223/02** (2013.01 - EP US); **C10M 2223/04** (2013.01 - EP US); **C10M 2223/041** (2013.01 - EP US); **C10M 2223/042** (2013.01 - EP US); **C10M 2223/043** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10M 2223/047** (2013.01 - EP US); **C10M 2223/049** (2013.01 - EP US); **C10M 2223/10** (2013.01 - EP US); **C10M 2227/061** (2013.01 - EP US); **C10N 2010/04** (2013.01 - EP US); **C10N 2040/04** (2013.01 - EP US); **C10N 2040/042** (2020.05 - EP US); **C10N 2040/044** (2020.05 - EP US); **C10N 2040/046** (2020.05 - EP US); **C10N 2040/08** (2013.01 - EP US); **C10N 2070/02** (2020.05 - EP US)

Cited by

WO2006003119A1; EP4296338A1; KR20230174188A

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1148114 A2 20011024; **EP 1148114 A3 20021204**; CA 2344490 A1 20011018; JP 2001303086 A 20011031; SG 100670 A1 20031226; US 2002010103 A1 20020124

DOCDB simple family (application)

EP 01303441 A 20010412; CA 2344490 A 20010412; JP 2000116378 A 20000418; SG 200102166 A 20010417; US 82308601 A 20010329