

Title (en)

Lubricating composition containing ashfree antiwear agent based on hydroxypolycarboxylic acid derivative and a molybdenum compound

Title (de)

Schmiermittelzusammensetzung mit aschefreiem Verschleißschutzadditiv auf der Basis eines Hydroxypolycarboxylsäurederivats und einer Molybdänverbindung

Title (fr)

Composition de lubrification contenant un agent anti-usure sans cendres basé sur un dérivé d'acide hydroxypolycarboxylique et un composé de molybdène

Publication

EP 2463358 A1 20120613 (EN)

Application

EP 12158486 A 20080515

Priority

- EP 08755509 A 20080515
- US 93994907 P 20070524

Abstract (en)

The invention provides a lubricating composition containing an oil of lubricating viscosity, an oil soluble molybdenum compound, and an ashless antiwear agent. The invention further provides for a new antioxidant. The lubricating composition is suitable for lubricating an internal combustion engine.

IPC 8 full level

C10M 129/76 (2006.01); **C10M 141/12** (2006.01)

CPC (source: EP KR US)

C10M 129/72 (2013.01 - KR); **C10M 129/76** (2013.01 - KR); **C10M 141/12** (2013.01 - EP KR US); **C10M 2207/028** (2013.01 - EP US); **C10M 2207/10** (2013.01 - EP US); **C10M 2207/24** (2013.01 - EP US); **C10M 2207/262** (2013.01 - EP US); **C10M 2207/281** (2013.01 - EP US); **C10M 2207/289** (2013.01 - EP US); **C10M 2215/02** (2013.01 - EP US); **C10M 2215/08** (2013.01 - EP US); **C10M 2215/082** (2013.01 - EP US); **C10M 2215/086** (2013.01 - EP US); **C10M 2215/224** (2013.01 - EP US); **C10M 2215/28** (2013.01 - EP US); **C10M 2219/046** (2013.01 - EP US); **C10M 2219/062** (2013.01 - EP US); **C10M 2219/068** (2013.01 - EP US); **C10M 2219/089** (2013.01 - EP US); **C10M 2223/043** (2013.01 - EP US); **C10M 2223/045** (2013.01 - EP US); **C10N 2030/06** (2013.01 - EP KR US); **C10N 2030/10** (2013.01 - EP US); **C10N 2030/42** (2020.05 - EP US); **C10N 2030/43** (2020.05 - EP US); **C10N 2030/45** (2020.05 - EP US); **C10N 2040/25** (2013.01 - EP US)

Citation (applicant)

- WO 2005087904 A2 20050922 - CROMPTON CORP [US], et al
- WO 2006044411 A1 20060427 - LUBRIZOL CORP [US], et al
- US 5338470 A 19940816 - HIEBERT JOHN [US], et al
- US 4237022 A 19801202 - BARRER DANIEL E
- US 4952328 A 19900828 - DAVIS KIRK E [US], et al
- US 4326972 A 19820427 - CHAMBERLIN III WILLIAM B
- US 86753406 P 20061128
- CA 1183125 A 19850226 - LUBRIZOL CORP
- US 2005198894 A1 20050915 - MIGDAL CYRIL A [US], et al
- US 2006183647 A1 20060817 - KOCSIS JODY [US], et al
- US 2006079413 A1 20060413 - KOCSIS JODY [US], et al
- US 86740206 P 20061128
- GB 2105743 A 19830330 - LUBRIZOL CORP [US]
- WO 2004096957 A1 20041111 - LUBRIZOL CORP [US], et al
- US 3172892 A 19650309
- US 4234435 A 19801118 - MEINHARDT NORMAN A, et al
- EP 0035589 A1 19810916 - STALEY MFG CO A E [US]
- US 6559105 B2 20030506 - ABRAHAM WILLIAM D [US], et al
- US 4758362 A 19880719 - BUTKE BETSY J [US]
- US 4997969 A 19910305 - LUCIANI CARMEN V [US]
- US 5038319 A 19910806 - CARTER JEFF C [US], et al

Citation (search report)

- [I] EP 1116783 A1 20010718 - INFINEUM INT LTD [GB]
- [A] US 2002042348 A1 20020411 - MCNEIL HUGH A [US], et al
- [I] WO 2006044411 A1 20060427 - LUBRIZOL CORP [US], et al
- [A] WO 2005087904 A2 20050922 - CROMPTON CORP [US], et al

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2008147704 A1 20081204; CA 2688098 A1 20081204; CA 2688098 C 20160419; CN 101679900 A 20100324; EP 2152838 A1 20100217; EP 2152838 B1 20121017; EP 2463358 A1 20120613; EP 2463358 B1 20150715; JP 2010528156 A 20100819; KR 101496484 B1 20150309; KR 20100019539 A 20100218; US 2010197536 A1 20100805

DOCDB simple family (application)

US 2008063671 W 20080515; CA 2688098 A 20080515; CN 200880017335 A 20080515; EP 08755509 A 20080515; EP 12158486 A 20080515; JP 2010509454 A 20080515; KR 20097027028 A 20080515; US 59810408 A 20080515