

Title (en)  
USE FOR IMPROVING ENGINE FUEL EFFICIENCY

Title (de)  
VERWENDUNG ZUR VERBESSERUNG DER BRENNSTOFFEFFIZIENZ EINES MOTORS

Title (fr)  
UTILISATION POUR AMÉLIORER LE RENDEMENT D'UN CARBURANT POUR UN MOTEUR

Publication  
**EP 3087165 B1 20180523 (EN)**

Application  
**EP 14727103 A 20140401**

Priority  
• US 201361920130 P 20131223  
• US 201414219300 A 20140319  
• US 2014032474 W 20140401

Abstract (en)  
[origin: WO2015099820A1] A method for improving fuel efficiency and reducing frictional properties, while maintaining or improving deposit control, in an engine lubricated with a lubricating oil by using as the lubricating oil a formulated oil. The formulated oil has a composition including a lubricating oil base stock as a major component, and a combination of (i) a friction modifier mixture and (ii) a detergent, as a minor component. Fuel efficiency and friction reduction properties are improved and deposit control is maintained or improved as compared to friction reduction properties and deposit control achieved using a lubricating engine oil containing a minor component other than the combination of the friction modifier mixture and detergent. A lubricating engine oil having a composition including a lubricating oil base stock as a major component, and a combination of (i) a friction modifier mixture and (ii) a detergent, as a minor component.

IPC 8 full level  
**C10M 141/06** (2006.01); **C10M 129/76** (2006.01); **C10M 141/12** (2006.01); **C10M 161/00** (2006.01); **C10N 30/04** (2006.01); **C10N 40/25** (2006.01); **C10N 60/14** (2006.01)

CPC (source: EP)  
**C10M 141/06** (2013.01); **C10M 2203/1006** (2013.01); **C10M 2203/1025** (2013.01); **C10M 2205/02** (2013.01); **C10M 2205/0285** (2013.01); **C10M 2207/021** (2013.01); **C10M 2207/026** (2013.01); **C10M 2207/04** (2013.01); **C10M 2207/144** (2013.01); **C10M 2207/262** (2013.01); **C10M 2207/283** (2013.01); **C10M 2207/289** (2013.01); **C10M 2209/062** (2013.01); **C10M 2209/084** (2013.01); **C10M 2209/104** (2013.01); **C10M 2215/064** (2013.01); **C10M 2215/082** (2013.01); **C10M 2215/26** (2013.01); **C10M 2215/28** (2013.01); **C10M 2219/044** (2013.01); **C10M 2219/046** (2013.01); **C10M 2219/068** (2013.01); **C10M 2223/045** (2013.01); **C10M 2229/02** (2013.01); **C10N 2010/04** (2013.01); **C10N 2010/12** (2013.01); **C10N 2030/04** (2013.01); **C10N 2030/06** (2013.01); **C10N 2030/08** (2013.01); **C10N 2030/42** (2020.05); **C10N 2030/45** (2020.05); **C10N 2030/54** (2020.05); **C10N 2040/25** (2013.01); **C10N 2060/14** (2013.01)

Cited by  
WO2022099291A1; EP3279298B1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**WO 2015099820 A1 20150702**; EP 3087165 A1 20161102; EP 3087165 B1 20180523; SG 11201603480V A 20160530

DOCDB simple family (application)  
**US 2014032474 W 20140401**; EP 14727103 A 20140401; SG 11201603480V A 20140401