

Title (en)

METHOD FOR IMPROVING ENGINE FUEL EFFICIENCY

Title (de)

VERFAHREN ZUR VERBESSERUNG DER BRENNSTOFFEFFIZIENZ EINES MOTORS

Title (fr)

PROCÉDÉ D'AMÉLIORATION DU RENDEMENT DU CARBURANT POUR MOTEUR

Publication

EP 2780437 A1 20140924 (EN)

Application

EP 12791652 A 20121113

Priority

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Abstract (en)

[origin: WO2013074498A1] A method for improving fuel efficiency, while maintaining or improving wear protection, in an engine lubricated with a lubricating oil by using as the lubricating oil a formulated oil having a HTHS viscosity of less than 2.6 cP at 150°C. The formulated oil has a composition that comprises a lubricating oil base stock as a major component, and zinc dialkyl dithio phosphate, a mixture of (i) at least two alkali metal detergents, (ii) at least two alkaline earth metal detergents, or (iii) one or more alkali metal detergents and one or more alkaline earth metal detergents; and a viscosity index improver, as minor components. A lubricating engine oil having a composition comprising a lubricating oil base stock as a major component, and a zinc dialkyl dithio phosphate, a mixture of (i) at least two alkali metal detergents, (ii) at least two alkaline earth metal detergents, or (iii) one or more alkali metal detergents and one or more alkaline earth metal detergents, e.g., magnesium sulfonate and calcium salicylate; and a viscosity index improver, as minor components. The lubricating oil has a HTHS viscosity of less than 2.6 cP at 150°C. The composition contains less than 2 weight percent of the viscosity index improver, based on the total weight of the formulated oil or lubricating engine oil. The composition is sufficient for the formulated oil or lubricating engine oil to pass wear protection requirements of one or more engine tests selected from TU3M, Sequence IIIG, Sequence IVA and OM646LA.

IPC 8 full level

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See references of WO 2013074498A1

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