Title (en)

METHOD FOR IMPROVING DEPOSIT CONTROL AND CLEANLINESS PERFORMANCE IN AN ENGINE LUBRICATED WITH A LUBRICATING OIL

Title (de)

VERFAHREN ZUR VERBESSERUNG DER ABLAGERUNGSKONTROLLE UND DER SAUBERKEITSLEISTUNG IN EINEM MIT SCHMIERÖL GESCHMIERTEN MOTOR

Title (fr)

PROCÉDÉ POUR AMÉLIORER LA RÉGULATION DE DÉPÔTS ET LES PERFORMANCES DE PROPRETÉ DANS UN MOTEUR LUBRIFIÉ AVEC UNE HUILE LUBRIFIANTE

Publication

EP 3655510 A1 20200527 (EN)

Application

EP 18746440 A 20180709

Priority

- US 201762535433 P 20170721
- US 2018041214 W 20180709

Abstract (en)

[origin: WO2019018145A1] A method for improving deposit control and cleanliness performance in an engine lubricated with a lubricating oil by using as the lubricating oil a formulated oil. The formulated oil comprises a lubricating oil base stock as a major component, and a mixture of (i) at least one dispersant, and (ii) at least one viscosity modifier, as minor components. The at least one dispersant and the at least one viscosity modifier are present in an amount sufficient to have a critical dispersant thickening ratio of greater than 0.33. The critical dispersant thickening ratio is determined in accordance with the formula: ∑[Gn]*dV/d[Gn] /∑[Bm]*dV/d[Bm]; wherein [Gn] is the weight percent of each of n dispersants in the formulated oil, [Bm] is the weight percent of each of m viscosity modifiers in the formulated oil, dV/d[Gn] is the kinematic viscosity (Kv100) increase of the lubricating oil per the weight percent of each of n dispersants in the formulated oil, and dV/d[Bm] is the kinematic viscosity (Kvioo) increase of the lubricating oil per the weight percent of each of m viscosity modifiers in the formulated oil.

IPC 8 full level

C10M 161/00 (2006.01)

CPC (source: EP US)

C10M 101/02 (2013.01 - US); **C10M 107/02** (2013.01 - US); **C10M 129/34** (2013.01 - US); **C10M 129/72** (2013.01 - US); **C10M 133/16** (2013.01 - US); **C10M 143/10** (2013.01 - US); **C10M 143/12** (2013.01 - US); **C10M 145/14** (2013.01 - US); **C10M 161/00** (2013.01 - EP US); **C10M 169/044** (2013.01 - US); C10M 2203/1025 (2013.01 - US); C10M 2203/1065 (2013.01 - US); C10M 2205/0206 (2013.01 - US); C10M 2205/04 (2013.01 - US); C10M 2205/06 (2013.01 - EP US); C10M 2207/123 (2013.01 - US); C10M 2207/282 (2013.01 - US); C10M 2209/084 (2013.01 - US); C10M 2215/086 (2013.01 - EP US); C10N 2020/073 (2020.05 - EP US); C10N 2030/02 (2013.01 - EP US); C10N 2030/04 (2013.01 - EP US); C10N 2030/45 (2020.05 - EP US); C10N 2030/52 (2020.05 - EP US); C10N 2040/25 (2013.01 - US); C10N 2060/14 (2013.01 - EP US)

Citation (search report)

See references of WO 2019018145A1

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

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2019018145 A1 20190124; EP 3655510 A1 20200527; US 2019031975 A1 20190131

DOCDB simple family (application)

US 2018041214 W 20180709; EP 18746440 A 20180709; US 201816029897 A 20180709