Title (en)

COLD CRANKING SIMULATOR VISCOSITY BOOSTING BASE STOCKS AND LUBRICATING OIL FORMULATIONS CONTAINING THE SAME

Title (de)

SCHMIERBASIS ZUR ERHÖHUNG DER VISKOSITÄT FÜR EINEN KALTSTARTSIMULATOR UND SCHMIERÖLFORMULIERUNGEN DAMIT

Title (fr)

HUILES DE BASE AUGMENTANT LA VISCOSITÉ D'UN SIMULATEUR DE DÉMARRAGE À FROID ET FORMULATIONS D'HUILE LUBRIFIANTE LES CONTENANT

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Abstract (en)

[origin: SG11201908468PA] y = x 71' O N 00 O N C (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT) (19) World Intellectual Property Organization International Bureau (43) International Publication Date 27 September 2018 (27.09.2018) WIP0 I PCT 011101 V III o Ho ilom Inv VII IE (10) International Publication Number WO 2018/175046 Al (51) International Patent Classification: ClOM 171/02 (2006.01) (21) International Application Number: PCT/US2018/019631 (22) International Filing Date: 26 February 2018 (26.02.2018) (25) Filing Language: English (26) Publication Language: English (30) Priority Data: 62/476,017 24 March 2017 (24.03.2017) US 17174271.1 02 June 2017 (02.06.2017) EP (71) Applicant: EXXONMOBIL CHEMICAL PATENTS INC. [US/US]; 5200 Bayway Drive, Baytown, TX 77520 (US). (72) Inventors: LEWIS, Kyle, G.; 12726 Apple Bend Circle, Houston, TX 77044 (US). CHEN, Patrick, C.; 932 W. 26th St. Unit A, Houston, TX 77008 (US). HAGEMEISTER, Mark, P.; 210 Yorktown Drive, Mullica Hill, NJ 08062 (US). NAMJOSHI, Omkar, A.; 1613 Nagle Street, Hous- ton, TX 77003 (US). (74) Agent: CHEN, Siwen et al.; ExxonMobil Chemical Com- pany, Law Department, P.O. Box 2149, Baytown, TX 77522-2149 (US). (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW. (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG). (54) Title: COLD CRANKING SIMULATOR VISCOSITY BOOSTING BASE STOCKS AND LUBRICATING OIL FORMU- LATIONS CONTAINING THE SAME U U O -10 -9 -8 -7 -6 -5 4 -3 -2 -1 -10 1 2 3 4 5 6 7 8 9 10 FIG. 1 - 20 -30 - - 40 - • PAO-4 D(kv) (57) : This disclosure relates to cold cranking simulator viscosity (\"CCSV\") boosting base stocks that allow flexibility for engine oil formulations to meet both high and low temperature viscosity requirements while maximizing fuel efficiency. The CCSV- boosting base stocks can include C28-C60 hydrocarbon materials, linear esters, tertiary amides, dialkyl carbonates, aromatic alcohols, and aromatic ethers. This disclosure also relates to lubricating oil formulations containing the CCSV-boosting base stocks, and a method for improving fuel efficiency in an engine by using as engine oil a lubricating oil formulation containing one or more of the CCSV- boosting base stocks. [Continued on next page] WO 2018/175046 Al IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIV Declarations under Rule 4.17: as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(H)) as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) Published: — with international search report (Art. 21(3))

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