

Title (en)

METHOD FOR ISOMERIZING WAX TO LUBE BASE OILS

Publication

**EP 0321307 B1 19930421 (EN)**

Application

**EP 88311989 A 19881216**

Priority

US 13515087 A 19871218

Abstract (en)

[origin: EP0321307A2] Slack waxes and synthetic wax (1) are isomerized and processed into high viscosity index (VI) and very low pour point lube base stock oils and blending stocks (11) by the process comprising the steps of optionally hydrotreating (3) the wax, if necessary, to remove heteroatom and polynuclear aromatic compounds and/or optionally deoiling the wax , if necessary, to an oil content between about 5-20% oil, isomerizing (5, 7) the wax over a catalyst of Group VI-Group VIII metal on a halogenated refractory metal oxide support, said isomerization being conducted to a level of conversion such that about 40% or less unconverted wax remains in the 330 DEG C+ (preferably the 370 DEG C+) fraction sent to the dewaxer. The total isomerate from the isomerization unit is fractionated (8) into a lube oil fraction (9) boiling at 330 DEG C+, preferably 370 DEG C+. This oil fraction is solvent dewaxed (10), preferably using MEK/MIBK at 20/80 ratio, and unconverted wax (12) is recycled (12A, 12B) to the isomerization unit. Operating in this manner permits one to obtain isomerate oil (11) of very high VI (in excess of 130) possessing a low pour point (-21 DEG C, preferably -24 DEG C, most preferably -27 DEG C).

IPC 1-7

**C10G 67/04**

IPC 8 full level

**B01J 23/42** (2006.01); **B01J 23/88** (2006.01); **B01J 27/125** (2006.01); **B01J 27/13** (2006.01); **B01J 37/26** (2006.01); **C10G 57/00** (2006.01); **C10G 67/04** (2006.01); **C10M 101/02** (2006.01); **C10N 20/00** (2006.01); **C10N 20/02** (2006.01); **C10N 70/00** (2006.01)

CPC (source: EP)

**C10G 67/04** (2013.01)

Citation (examination)

BE 627517 A

Cited by

EP1054942A4; FR2718146A1; NL1025687C2; AU730150B2; US5275719A; EP1062305A4; EP1559769A1; US5720782A; EP0620264A3; EP0491536A1; US5149452A; US6096940A; EP1389635A1; US6103101A; FR2718145A1; US5834522A; US6475960B1; US6420618B1; US7198710B2; US6962651B2; WO9507960A1; US6506297B1; WO9721788A1; WO9527020A1

Designated contracting state (EPC)

BE DE ES FR GB IT NL

DOCDB simple family (publication)

**EP 0321307 A2 19890621; EP 0321307 A3 19890830; EP 0321307 B1 19930421;** AU 2694088 A 19890622; AU 610312 B2 19910516; CA 1333057 C 19941115; DE 3880455 D1 19930527; DE 3880455 T2 19930916; ES 2054835 T3 19940816; JP 2607284 B2 19970507; JP H01301788 A 19891205; MX 169698 B 19930719

DOCDB simple family (application)

**EP 88311989 A 19881216;** AU 2694088 A 19881216; CA 586204 A 19881216; DE 3880455 T 19881216; ES 88311989 T 19881216; JP 32030688 A 19881219; MX 1423388 A 19881216