

Title (en)
PROCESS FOR THE REGENERATION OF A USED OIL

Title (de)
VERFAHREN ZUR REGENERIERUNG VON ALTÖL

Title (fr)
PROCÉDÉ DE RÉGÉNÉRATION D'HUILE USAGÉE

Publication
EP 2024038 A4 20140910 (EN)

Application
EP 07748485 A 20070510

Priority
• SE 2007050324 W 20070510
• SE 0601110 A 20060518

Abstract (en)
[origin: WO2007136340A1] A process for the regeneration of a used oil by catalytic hydrogenation is disclosed, which process comprises: a) filtrating said used oil to remove sludge and insoluble in oil organometallic compounds in filters (1 and/or 2) whereafter pressurized hydrogen gas is added and the hydrogen-oil mixture thus obtained is subjected to a preheat-merit; b) passing the preheated mixture from step a) through a guard reactor (3, 4) in order to remove soluble in oil or-gano-metallic compounds primarily organo-copper and organo-iron compounds.c) subjecting the hydrogen-oil mixture from step b) to a catalytic hydrogenation in at least one hydrogenation fixed bed (5) at a temperature within the range of from 1000C to 4500C and at an elevated pressure. d) passing the effluent from step c) through an adsorbent bed (6, 7) to remove inorganic gases formed in step c); e) separating the stream from step d) in a warm high pressure separator (8) into a gas phase and a liquid hydrocarbon phase; f) subjecting the liquid hydrocarbon phase from the warm high pressure separator (8) to a stripping process in a stripper unit (10); and g) recovering the regenerated oil from the bottom of the stripper unit (10).

IPC 8 full level
A62D 3/00 (2007.01); **C10G 49/22** (2006.01); **C10G 67/06** (2006.01)

CPC (source: EP)
C10G 45/00 (2013.01); **C10G 67/06** (2013.01); **H01F 27/14** (2013.01)

Citation (search report)
• [X] US 4840721 A 19890620 - KALNES TOM N [US], et al
• [A] US 5354931 A 19941011 - JAN CHWU-CHING [US], et al
• [A] CZESLAW KAJDAS: "Major pathways for used oil disposal and recycling. Part 1", TRIBOTEST, vol. 7, no. 1, 1 September 2000 (2000-09-01), pages 61 - 74, XP055133449, ISSN: 1354-4063, DOI: 10.1002/tt.3020070107
• [A] CZESLAW KAJDAS: "Major pathways for used oil disposal and recycling. Part 2", TRIBOTEST, vol. 7, no. 2, 1 December 2000 (2000-12-01), pages 137 - 153, XP055133450, ISSN: 1354-4063, DOI: 10.1002/tt.3020070205
• See also references of WO 2007136340A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2007136340 A1 20071129; EP 2024038 A1 20090218; EP 2024038 A4 20140910; EP 2024038 B1 20160629

DOCDB simple family (application)
SE 2007050324 W 20070510; EP 07748485 A 20070510