

Title (en)
PROCESS FOR THE CONVERSION OF HEAVY FEEDSTOCKS SUCH AS HEAVY CRUDE OILS AND DISTILLATION RESIDUES

Title (de)
VERFAHREN ZUR UMWANDLUNG VON SCHWEREN EINSATZSTOFFEN WIE SCHWERÖL UND DESTILLATIONSRÜCKSTÄNDE

Title (fr)
PROCÉDÉ DE CONVERSION DE CHARGES LOURDES TELLES QUE DES HUILES LOURDES ET DES RÉSIDUS DE DISTILLATION

Publication
EP 1578891 B1 20180425 (EN)

Application
EP 02791874 A 20021230

Priority
EP 0214847 W 20021230

Abstract (en)
[origin: WO2004058922A1] Process for the conversion of heavy feedstocks such as heavy crude oils, tars from oil sands and distillation residues, by the combined use of the following three process units: hydroconversion with catalysts in slurry phase (HT), distillation or flash (D), deasphalting (SDA), characterized in that the three units operate on mixed streams consisting of fresh charge and recycled streams, by the use of the following steps: sending at least one fraction of the heavy feedstock to a deasphalting section (SDA) in the presence of hydrocarbon solvents obtaining two streams, one consisting of deasphalted oil (DAO), the other of asphalts; mixing the asphalt with a suitable hydrogenation catalyst and optionally with the remaining fraction of heavy charge not sent to the deasphalting section and sending the mixture obtained to a hydro-treatment reactor (HT) into which hydrogen or a mixture of hydrogen and H₂S is charged; sending the stream containing the hydro-treatment reaction product and the catalyst in dispersed phase to one or more distillation or flash steps (D) whereby the most volatile fractions are separated, among which the gases produced in the hydro-treatment reaction; recycling at least 60% by weight, preferably at least 80%, more preferably at least 95%, of the distillation residue (tar) or liquid leaving the flash unit, containing the catalyst in dispersed phase, rich in metallic sulfides produced by demetallation of the charge and possibly coke, to the deasphalting zone

IPC 8 full level
C10G 67/04 (2006.01)

CPC (source: EP)
C10G 67/0454 (2013.01)

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

DOCDB simple family (publication)
WO 2004058922 A1 20040715; AU 2002358182 A1 20040722; AU 2002358182 A8 20040722; AU 2002358182 B2 20090402;
AU 2002358182 B8 20090423; EC SP055872 A 20050920; EP 1578891 A1 20050928; EP 1578891 B1 20180425; ES 2679629 T3 20180829;
JP 2006510781 A 20060330; JP 4498929 B2 20100707; NO 20052951 D0 20050616; NO 20052951 L 20050930

DOCDB simple family (application)
EP 0214847 W 20021230; AU 2002358182 A 20021230; EC SP055872 A 20050620; EP 02791874 A 20021230; ES 02791874 T 20021230;
JP 2004562520 A 20021230; NO 20052951 A 20050616