

AU-A-55225/90

91-206786/28 H04 COAS-08.12.88
 COASTAL EAGLE POINT *US 4994-170-A

H(4-A1U, 4-B2, 4-D, 4-F2A, 4-F2B, 4-F2D) N(6-B)

08.12.88-US-282172 (19.02.91) C10g-65/10
 Catalytic dewaxing on shape-selective zeolite - in several stages with split hydrogen supply, giving lower catalyst ageing rates than one stage processes
 C91-089730

PREFERRED CONDITIONS

Part (esp. at least 10%) of the H₂ supply, i.e. recycle H₂, is diverted to the 2nd stage when the 1st-stage catalyst has become partially deactivated to the extent that it contains at least 5 wt.% coke.

The H₂ supplies to the 1st and 2nd stages are less than 2000 (esp. 750-1500) and 300-1500 (esp. 500-1500) scf/bbl respectively.

The catalyst comprises ZSM-5. The reactors are operated at 360-454°C and 100-1000 (esp. 400) psig. with a LHSV of 0.1-10. (10pp367SLDwgNo0/0).

Catalytic dewaxing of atmospheric and/or vacuum gas oil feeds is effected by passing the feed and 1000-5000 scf/bbl of H₂ over a shape-selective zeolite catalyst.

The process is effected in at least two stages, using at least 20% of the catalyst in the first stage and at least 20% of the catalyst in at least one second stage (sic). At least part of the H₂ is added downstream of the first-stage reactor, so that the total H₂ supply to the second-stage reactor is greater than that to the first-stage reactor.

Also claimed is a similar process for the selective cracking (sic) of a wax-contg. heavy feed (boiling above gasoline) to produce a dewaxed heavy feed and gasoline with a RON (clear) of at least 90.

ADVANTAGE

The process gives lower catalyst ageing rates than conventional one-stage processes.

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