

Title (en)  
Hydrotreating process.

Title (de)  
Hydrobehandlungsverfahren.

Title (fr)  
Procédé d'hydrotraitement.

Publication  
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Application  
**EP 93200165 A 19930121**

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Abstract (en)  
A hydrotreating process comprising: (i) further hydrotreating partly hydrotreated hydrocarbon oil in the presence of clean hydrogen containing gas, (ii) separating the effluent of step (i) into hydrotreated hydrocarbon oil and used hydrogen containing gas, which hydrotreated hydrocarbon oil is removed from the process, (iii) hydrotreating fresh hydrocarbon oil in the presence of used hydrogen containing gas obtained in step (ii), (iv) separating the effluent of step (iii) into partly hydrotreated hydrocarbon oil and contaminated hydrogen containing gas, which contaminated hydrogen containing gas is removed from the process, and (v) transporting partly hydrotreated hydrocarbon oil obtained in step (iv) to step (i). Further, the invention relates to a reactor vessel suitable for carrying out such process.

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CPC (source: EP)  
**C10G 49/002** (2013.01); **C10G 65/04** (2013.01)

Citation (search report)  
• US 4243519 A 19810106 - SCHORFHEIDE JAMES J  
• US 2971900 A 19610214 - WEEKMAN JR VERN W  
• BE 755266 A 19710201 - EVANS & SON LTD J

Cited by  
US5968347A; EP1151060A4; US5705052A; US5720872A; EP2280056A3; EP1352946A4; US6444865B1; US6623622B2; US7276150B2; EP0958245B1; WO0181510A2; WO0034416A1; EP0958245B2

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