

Title (en)
UNITARY REMOVAL OF ENGINE CYLINDER LINER, PISTON AND ROD

Publication
EP 0140894 B1 19870812 (EN)

Application
EP 83903719 A 19831024

Priority
US 49094283 A 19830502

Abstract (en)
[origin: WO8404358A1] To service an engine (10), it is frequently determined that a cylinder liner (16) and piston (26) must be replaced. Removal is difficult and time consuming if the piston (26) is first removed through the liner (16) and the liner (16) is then grasped from below and pulled from the block (14). A method includes inserting a tool (12) into a bore (18) of the liner (16) and expanding the tool (12) into a frictional fit against the liner (16). A force is applied on the tool (12) to forcibly move the liner (16). The piston (26) and associated rings (22) and rod (24) are held in place in the liner (16) by a partial vacuum for removal with the liner (16) as a complete unit (58).

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IPC 8 full level
B23P 19/04 (2006.01); **B25B 9/00** (2006.01); **B25B 27/06** (2006.01); **F02F 7/00** (2006.01)

CPC (source: EP)
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Cited by
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WO 8404358 A1 19841108; DE 3373007 D1 19870917; EP 0140894 A1 19850515; EP 0140894 B1 19870812; EP 0197563 A1 19861015; EP 0197563 B1 19890809; JP H0520234 B2 19930318; JP S60501199 A 19850801; MY 101108 A 19910716; MY 101662 A 19911231

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