

Title (en)  
DEVICE WITH FUEL INJECTION AND WITH A LUBRICANT-SUPPLY UNIT FOR INTERNAL-COMBUSTION ENGINES

Title (de)  
VORRICHTUNG MIT KRAFTSTOFFEINSPRITZUNG UND SCHMIERMITTELFÖRDEREINRICHTUNG FÜR VERBRENNUNGSMOTOREN

Title (fr)  
DISPOSITIF D'INJECTION DE CARBURANT ET D'ALIMENTATION EN LUBRIFIANT POUR MOTEURS A COMBUSTION INTERNE

Publication  
**EP 0786047 B1 20000607 (DE)**

Application  
**EP 96927669 A 19960802**

Priority  
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Abstract (en)  
[origin: US5787854A] PCT No. PCT/EP96/03424 Sec. 371 Date Apr. 10, 1997 Sec. 102(e) Date Apr. 10, 1997 PCT Filed Aug. 2, 1996 PCT Pub. No. WO97/06359 PCT Pub. Date Feb. 20, 1997In order to provide a device with fuel injection and lubricant feed means for internal combustion engines, preferably for manual guided equipment, such as chain saws, with a helical gear wheel (12) mounted on a crankshaft (11) or driven indirectly by the crankshaft (11), which is in engagement with a mating gear wheel (13) for driving the lubricant pump (16), wherein a piston (17) of the lubricant pump (16) forms a trunnion for the mating gear wheel (13) and possesses an oblique anterior surface (18) which bears against a lifting stud (20) adjustably retained in the housing, for aiding lubricant delivery adjustment of the lubricant pump (16), in a compact assembly, preferably a chain saw with several, lubrication circuits and a high-pressure fuel feed it is proposed that the helical gear wheel (12) be in engagement with two mating gear wheels (13,14), each connected with a drive shaft (17,26) for one lubricant pump (16,31) and/or one fuel pump (27).

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IPC 8 full level  
**B27B 17/12** (2006.01); **F01M 1/02** (2006.01); **F01M 3/00** (2006.01); **F02B 63/02** (2006.01); **F02B 67/04** (2006.01); **F02M 37/06** (2006.01); **F16N 13/04** (2006.01); **F02B 75/02** (2006.01)

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