

Title (en)
PORTABLE ROTARY POWER TOOL

Publication
EP 0320576 B1 19921202 (EN)

Application
EP 88115042 A 19880914

Priority
US 13424587 A 19871217

Abstract (en)
[origin: EP0320576A2] A gasoline engine driven flexible line trimmer is provided with a modularly constructed power head section which significantly facilitates the original manufacturing assembly, and subsequent service disassembly, of the power head. In a clutch drive embodiment thereof, the power head has four readily separable modules - an engine module comprising a main engine shroud to which the engine is internally secured; a fan housing module; a starter module comprising a starter housing and a recoil starter mechanism retained therein; and a coupling module comprising a clutch housing carrying therein structure for operatively interconnecting the engine's clutch to the flexible drive shaft disposed within the trimmer shaft. In a direct drive version thereof, the power head has two separable modules - the engine module and a combined fan housing, starter and coupling module defined by a single housing within which the starter and coupling structure is carried. The main shroud is provided with a specially designed wall section which supports the engine, defines a closure wall of its crankcase, forms an air-fuel mixture passage for a carburetor externally supported on the wall section and supports a reed valve within the crankcase. The shroud defines an external protective recess in which the carburetor is positioned and, in one embodiment, defines a portion of the engine's fuel tank. Pull rope installation in the starter mechanism is facilitated and made safer by pulley locking and retaining structure incorporated in the starter module, and improved air filter element sealing is provided by virtue of a specially designed air filter housing and choke plate assembly associated with the carburetor. Shaft vibration transmitted to the trimmer user through the supporting shoulder strap structure is significantly reduced by a specially designed resilient strap connector assembly securable to the trimmer shaft.

IPC 1-7
F02B 63/02

IPC 8 full level
A01D 34/68 (2006.01); **F01B 1/12** (2006.01); **F02B 63/02** (2006.01); **F02B 1/04** (2006.01); **F02B 75/02** (2006.01)

CPC (source: EP KR)
B25C 1/06 (2013.01 - KR); **F01B 1/12** (2013.01 - EP); **F02B 63/02** (2013.01 - EP); **F02B 1/04** (2013.01 - EP); **F02B 2075/025** (2013.01 - EP)

Cited by
CN108990550A; EP1739300A3; CN114986055A; EP0678162A4; EP1714015A4; FR2676504A1; AU2003200078B2; EP1329612A3; EP1384881A3; CN113950241A; FR2748520A1; US6062177A; FR2707078A1; DE4321862A1; US5483931A; US7036478B2; US11499506B2; US7516725B2

Designated contracting state (EPC)
AT BE DE ES FR GB IT NL SE

DOCDB simple family (publication)
EP 0320576 A2 19890621; EP 0320576 A3 19891123; EP 0320576 B1 19921202; AT E83043 T1 19921215; AU 2395688 A 19890622; AU 612709 B2 19910718; CA 1333160 C 19941122; DE 3876395 D1 19930114; DE 3876395 T2 19930527; ES 2037167 T3 19930616; JP 2714409 B2 19980216; JP H01171407 A 19890706; KR 890009544 A 19890802; KR 960005983 B1 19960506; MX 172007 B 19931129; NZ 226954 A 19910129; ZA 886972 B 19900530

DOCDB simple family (application)
EP 88115042 A 19880914; AT 88115042 T 19880914; AU 2395688 A 19881017; CA 581729 A 19881031; DE 3876395 T 19880914; ES 88115042 T 19880914; JP 28595688 A 19881114; KR 880016767 A 19881215; MX 1382288 A 19881116; NZ 22695488 A 19881114; ZA 886972 A 19880919