

Title (en)

STARTING DEVICE FOR AN INTERNAL COMBUSTION ENGINE, ESPECIALLY FOR A HAND-STARTED MOTOR OF A TOOL

Publication

**EP 0295398 A3 19891115 (DE)**

Application

**EP 88106626 A 19880426**

Priority

US 6212187 A 19870615

Abstract (en)

[origin: EP0295398A2] By means of the starting device, simple and reliable starting of the combustion engine of a tool, for example a motor chain saw (1), is achieved. For this purpose automatic operation of the choke valve (15) is provided by means of a vacuum which is produced in a housing part (5) of the tool on starting up. For this purpose the throttle valve (12) and the choke valve (15), which are arranged in succession in the intake duct (13) of the carburettor (3), are coupled in such a way that the throttle valve (12) remains in a partially opened position up to a predetermined opening angle of the choke valve (15). In this way over-lubrication of the petrol-air mixture is initially achieved when starting the still cold engine and, after starting, the engine briefly continues to air automatically receive in order to burn the over-lubricated mixture. The vacuum for operating the choke valve (15) is advantageously controlled as a function of the temperature of the tool (Fig.2). <IMAGE>

IPC 1-7

**F02M 1/10**

IPC 8 full level

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CPC (source: EP)

**F02M 1/10** (2013.01)

Citation (search report)

- [AD] DE 3445839 A1 19860619 - STIHL MASCHF ANDREAS [DE]
- [A] US 2957465 A 19601025 - WAGNER CHARLES L
- [A] GB 942234 A 19631120 - SIBE
- [A] EP 0088678 A1 19830914 - RENAULT [FR]
- [A] US 4643352 A 19870217 - DETWEILER CHARLES A [US]
- [A] US 4382899 A 19830510 - JOHNSON LEROY B

Cited by

US5882867A

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**EP 0295398 A2 19881221; EP 0295398 A3 19891115; EP 0295398 B1 19910918;** AU 1764688 A 19881215; AU 610185 B2 19910516; CA 1305376 C 19920721; DE 3864914 D1 19911024; JP S6419159 A 19890123

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