

Title (en)
Improvements in the control of the interruption of a vehicle engine starter

Title (de)
Verbesserungen in der Verwaltung des Abschaltens eines Fahrzeuganlassers

Title (fr)
Perfectionnements à la gestion de la coupure d'un démarreur de véhicule automobile

Publication
EP 0833052 B1 20030402 (FR)

Application
EP 97402219 A 19970924

Priority
FR 9611793 A 19960927

Abstract (en)
[origin: EP0833052A1] A microcomputer receives inputs from starter motor temperature sensors and a zener diode and filter circuits connected to the positive battery terminal. The battery voltage profile during starting is derived and then examined during three time windows. During a first time window (t0-t0+dT0) when the pinion is engaged, if the battery voltage falls below a preset value (Usdep) a contactor fault is assumed and the starting procedure is halted. A maximum value of the oscillatory voltage (Uosc) is measured during a second time window (t1-t2) and used with the initial voltage (Uinit) to produce a threshold (Useuil) which will terminate a correct starting cycle. If during a third time window (t1-t3) the oscillatory voltage (Uosc) does not rise sufficiently starter motor jamming is assumed and the starting cycle is stopped.

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F02N 11/08

IPC 8 full level
F02N 11/08 (2006.01)

CPC (source: EP US)
F02N 11/0848 (2013.01 - EP US); **F02N 11/106** (2013.01 - EP US); **F02N 2200/063** (2013.01 - EP US)

Cited by
CN112366656A; FR2986277A1

Designated contracting state (EPC)
DE ES GB IT

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EP 0833052 A1 19980401; **EP 0833052 B1 20030402**; DE 69720360 D1 20030508; DE 69720360 T2 20040304; FR 2754017 A1 19980403; FR 2754017 B1 19981218; US 5970936 A 19991026

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EP 97402219 A 19970924; DE 69720360 T 19970924; FR 9611793 A 19960927; US 93750897 A 19970925