

Title (en)

Combustion engine provided with a starter and a current generator.

Title (de)

Verbrennungsmotor mit Anlasser und Stromgenerator.

Title (fr)

Moteur à combustion interne muni d'un démarreur et d'un générateur de courant.

Publication

EP 0619427 A1 19941012 (EN)

Application

EP 94102473 A 19940218

Priority

IT TO930233 A 19930406

Abstract (en)

Internal combustion engine for motor vehicles provided with at least one starter and one current generator connected to the drive shaft in order to start the engine and to generate the necessary electric energy for the engine to work, wherein the starter and the current generator are replaced by a brushless permanent magnet electric motor. <IMAGE>

IPC 1-7

F02N 11/04

IPC 8 full level

F02N 11/04 (2006.01)

CPC (source: EP)

F02N 11/04 (2013.01)

Citation (search report)

- [A] US 4918323 A 19900417 - ASO HIROAKI [JP]
- [Y] PATENT ABSTRACTS OF JAPAN vol. 10, no. 356 (E - 459)<2412> 29 November 1986 (1986-11-29)
- [Y] PATENT ABSTRACTS OF JAPAN vol. 10, no. 227 (M - 505)<2283> 7 August 1986 (1986-08-07)

Cited by

EP1048845A1; GB2347401A; GB2347401B; EP1112885A1; FR2803251A1; ES2163994A1; CN1110625C; US10677212B2; US10330070B2; US10473081B1; US10293804B2; US10487791B1; US10724491B2; US10184442B2; US11015564B2; US10436167B1; US10886817B2; US10505415B2; US10574116B2; US10036359B2; US10408184B1; US10480476B2; US10544772B2; US10605217B2

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