

Title (en)  
NON-RAILBOUND VEHICLE WITH AN ELECTRIC MOTOR

Title (de)  
NICHT-SPURGEBUNDENES FAHRZEUG MIT ELEKTROMOTOR

Title (fr)  
VEHICULE NON GUIDE EQUIPE D'UN MOTEUR ELECTRIQUE

Publication  
**EP 0691907 A1 19960117 (DE)**

Application  
**EP 94908953 A 19940304**

Priority  
• DE 9400243 W 19940304  
• DE 4311229 A 19930402

Abstract (en)  
[origin: US5705859A] PCT No. PCT/DE94/00243 Sec. 371 Date Sep. 13, 1995 Sec. 102(e) Date Sep. 13, 1995 PCT Filed Mar. 4, 1994 PCT Pub. No. WO94/22688 PCT Pub. Date Oct. 13, 1994A non-railbound vehicle in which at least one driving wheel is coupled with an electric motor which is supplied with electric current via power electronics influenced by an electronic control depending on the power requirement selected by the driver via an accelerator pedal. The current is produced by a generator (2) which is coupled with an internal combustion engine. The current for driving the generator is supplied with an operating voltage in the medium-voltage range. Additionally, there is a vehicle power supply in the low-voltage range which ensures the supply of power to accessory electrical consumers. The low-voltage power supply has a vehicle battery and is supplied with current obtained by transforming a portion of the mechanical energy generated by the internal combustion engine. The generator can also be operated as an electric motor for starting the internal combustion engine. A DC-voltage intermediate circuit outfitted with capacitors is connected downstream of the generator, and powers the electric motors. The electronic control is programmed to provide for a charging of the capacitors of the DC-voltage intermediate circuit from the vehicle battery before starting the internal combustion engine, and the current for motor operation (starter operation) of the generator is drawn from the DC-voltage intermediate circuit.

IPC 1-7  
**B60L 11/02; B60L 11/12**

IPC 8 full level  
**B60K 6/04** (2006.01); **B60K 6/28** (2007.10); **B60K 6/46** (2007.10); **B60L 1/00** (2006.01); **B60L 11/00** (2006.01); **B60L 11/02** (2006.01); **B60L 11/12** (2006.01); **B60L 50/10** (2019.01); **B60L 50/15** (2019.01); **B60W 10/08** (2006.01); **B60W 10/26** (2006.01); **B60W 20/00** (2006.01); **F02N 11/04** (2006.01); **H02J 7/14** (2006.01); **H02P 9/08** (2006.01)

CPC (source: EP US)  
**B60K 1/02** (2013.01 - EP US); **B60K 6/26** (2013.01 - EP US); **B60K 6/28** (2013.01 - EP US); **B60K 6/46** (2013.01 - EP US); **B60L 1/00** (2013.01 - EP US); **B60L 50/10** (2019.01 - EP US); **B60L 50/40** (2019.01 - EP US); **B60L 50/61** (2019.01 - EP US); **B60W 10/08** (2013.01 - EP US); **B60W 10/26** (2013.01 - EP US); **B60W 20/10** (2013.01 - US); **F02N 11/04** (2013.01 - EP US); **H02J 7/14** (2013.01 - EP US); **H02J 7/1438** (2013.01 - EP US); **H02J 7/1492** (2013.01 - EP US); **H02P 9/08** (2013.01 - EP US); **B60K 2006/268** (2013.01 - EP); **B60L 2200/26** (2013.01 - EP US); **B60W 20/00** (2013.01 - EP); **B60Y 2400/112** (2013.01 - EP US); **B60Y 2400/114** (2013.01 - EP US); **H02P 2101/45** (2015.01 - EP US); **Y02T 10/62** (2013.01 - EP US); **Y02T 10/64** (2013.01 - EP US); **Y02T 10/70** (2013.01 - EP US); **Y02T 10/7072** (2013.01 - EP US); **Y10S 903/907** (2013.01 - EP US)

Citation (search report)  
See references of WO 9422688A1

Citation (examination)  
• VDI-BERICHTE 878, 26. April 1991, MÜNCHEN DE Seiten 611 - 622 P. EHRHARD 'DAS  
• ELEKTRISCHE GETRIEBE VON MAGNET-MOTOR FÜR PKW UND OMNIBUSSE' in der Anmeldung erw/hnt

Designated contracting state (EPC)  
ES FR GB IT

DOCDB simple family (publication)  
**US 5705859 A 19980106**; BR 9406205 A 19960206; DE 4311229 C1 19940901; EP 0691907 A1 19960117; JP 3190344 B2 20010723; JP H08508391 A 19960903; WO 9422688 A1 19941013

DOCDB simple family (application)  
**US 52228295 A 19950913**; BR 9406205 A 19940304; DE 4311229 A 19930402; DE 9400243 W 19940304; EP 94908953 A 19940304; JP 52151494 A 19940304