Title (en)

Coil device, method of manufacturing the same and fuel injection valve

Title (de)

Spuleneinrichtung, Verfahren zu ihrer Herstellung und Brennstoffeinspritzventil

Title (fr)

Dispositif de bobine, procédé de fabrication associé et injecteur de carburant

Publication

EP 1577542 B1 20070425 (EN)

Application

EP 05005904 A 20050317

Priority

JP 2004078855 A 20040318

Abstract (en)

[origin: EP1577542A1] A wire (36) is drawn outside of a coil (31), and is passed through a whole length of a pipe-shaped terminal (34). A tip end (34a) of the pipe-shaped terminal (34) is crimped, so that an insulating coating of a wire (36) can be broken, and the tip end (34a) of the pipe-shaped terminal (34) is electrically connected with the wire (36). The tip end (34a) of the pipe-shaped terminal (34) is once welded with the external terminal (35). Thereby, the wire (36), a pipe-shaped terminal (34), and an external terminal (35) can be electrically connected, and are steadily joined together. Thus, it is possible to reduce joining of the wire (36) in the vicinity of the coil (31), so that productivity can be enhanced. Besides, a region of joining is distant from the coil (31), so that heat generated at the time of welding is hard to be conducted to the coil (31).

IPC 8 full level

F02M 47/02 (2006.01); **F02M 51/00** (2006.01); **F02M 51/06** (2006.01); **F02M 59/46** (2006.01); **F02M 61/16** (2006.01); **F02M 63/00** (2006.01); **F02M 63/02** (2006.01); **H01F 5/02** (2006.01); **H01F 5/04** (2006.01); **H01F 5/06** (2006.01); **H01F 7/06** (2006.01); **H01F 41/04** (2006.01); **H01F 41/10** (2006.01); H01F 7/08 (2006.01)

CPC (source: EP)

F02M 47/027 (2013.01); **F02M 51/005** (2013.01); **F02M 63/0015** (2013.01); **H01F 5/04** (2013.01); **H01F 41/10** (2013.01); H01F 7/08 (2013.01); H01F 2007/062 (2013.01)

Cited by

EP1930916A3; US10107242B2; WO2009018954A1

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 1577542 A1 20050921; **EP 1577542 B1 20070425**; CN 100381740 C 20080416; CN 1670416 A 20050921; DE 602005000947 D1 20070606; DE 602005000947 T2 20080117; JP 2005268539 A 20050929; JP 4301047 B2 20090722

DOCDB simple family (application)

EP 05005904 A 20050317; CN 200510056383 A 20050318; DE 602005000947 T 20050317; JP 2004078855 A 20040318