

Title (en)
PLUG-AND-SOCKET CONNECTION DEVICE

Title (de)
STECKVERBINDUNGSEINRICHTUNG

Title (fr)
DISPOSITIF DE CONNEXION MALE-FEMELLE

Publication
EP 1713649 A1 20061025 (DE)

Application
EP 04804124 A 20041221

Priority
• EP 2004014526 W 20041221
• DE 202004000387 U 20040112

Abstract (en)
[origin: WO2005065972A1] The invention relates to a plug-and-socket connection device for the automatic, e.g. multipolar electrical connection of a vehicle trailer, particularly of a semitrailer, to a towing vehicle, particularly to a semitrailer unit. The plug-and-socket connection device comprises a socket (D) and a plug (S), which can be mounted on the vehicle trailer (e.g. the plug S) or on the towing vehicle (e.g. the socket D), they can be aligned with one another when coupling the vehicle trailer to the towing vehicle, and can be displaced while being guided by a drive (10) provided in the form of an, e.g. piston/cylinder assembly relative to one another between an (advanced) connecting position and a (retracted) position of rest. Preferably, an e.g. cover (5) of the socket (D) can be opened by displacing, with the aid of the drive (10), the contact insert (1), which is accommodated in the socket and which supports the contact sleeves (11, 12), in the direction of the connecting position, and can be closed once again when retracting the contact insert (1) into the position of rest. The invention is characterized in that the plug (S) is mounted so that it laterally yields in an elastic manner against the action of at least one retaining spring (213, 213') that is fixed, on one side, to the plug (S) and, on the other side, to a fastening flange (210) that can be fastened to a vehicle (towing vehicle or vehicle trailer).

IPC 8 full level
B60D 1/64 (2006.01); **H01R 13/631** (2006.01)

CPC (source: EP US)
H01R 13/6315 (2013.01 - EP US)

Citation (search report)
See references of WO 2005065972A1

Cited by
US11084342B2; US11491832B2; US10670479B2; US11135882B2; US10696109B2; US10940726B2; US11221262B2

Designated contracting state (EPC)
DE FR GB IT NL

DOCDB simple family (publication)
DE 202004000387 U1 20040401; CN 100506580 C 20090701; CN 1761585 A 20060419; DE 502004006223 D1 20080327;
EP 1713649 A1 20061025; EP 1713649 B1 20080213; EP 1713649 B9 20080625; US 2006240695 A1 20061026; US 7258559 B2 20070821;
WO 2005065972 A1 20050721

DOCDB simple family (application)
DE 202004000387 U 20040112; CN 200480007006 A 20041221; DE 502004006223 T 20041221; EP 04804124 A 20041221;
EP 2004014526 W 20041221; US 54453704 A 20041221