(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 May 2013 (16.05.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/070865 A3

(51) International Patent Classification:
*F16L 37/133* (2006.01) *F16L 37/10* (2006.01)

(21) International Application Number:
PCT/US2012/064079

(22) International Filing Date:
8 November 2012 (08.11.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
10 2011 118 099.4
10 November 2011 (10.11.2011) DE

(71) Applicant: **ILLINOIS TOOL WORKS INC.** [US/US]; 3600 West Lake Avenue, Glenview, Illinois 60026 (US).

(72) Inventor: **HAPPICH, Johannes**; c/o Illinois Tool Works Inc., 3600 West Lake Avenue, Glenview, Illinois 60026 (US).

(74) Agent: **HAUPTMAN, Benjamin J.**; Lowe Hauptman Ham & Berner, LLP, 1700 Diagonal Road, Suite 300, Alexandria, Virginia 22314 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17**:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

**Published**:

— *with international search report (Art. 21(3))*

— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

(88) Date of publication of the international search report:
15 August 2013

(54) Title: DEVICE FOR CONNECTING TWO CONDUIT SECTIONS

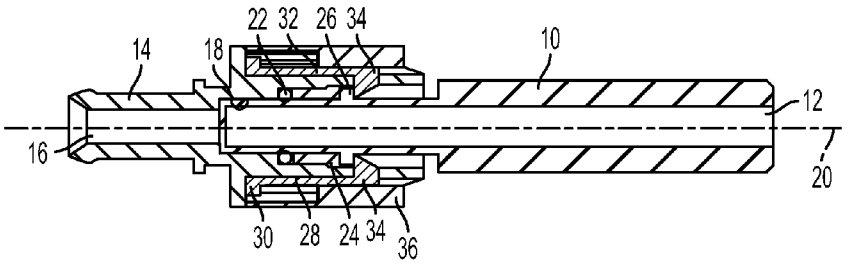



FIG. 2

(57) Abstract: The invention relates to a device for connecting two conduit sections of an automobile conduit, comprising a plug element (10) and a basic body (14) with a receptacle (18) for the plug element, wherein the plug element comprises at least one catch element (26) and the receptacle comprises at least one catch element (28) corresponding to the catch element of the plug element, wherein the catch elements releasably engage with one another upon insertion of the plug element into the receptacle and a locking mechanism is provided which impedes a release of the engagement of the catch elements in a locking position and which allows a release of the engagement of the catch elements in an unlocking position.

WO 2013/070865 A3

# INTERNATIONAL SEARCH REPORT

International application No
PCT/US2012/064079

A. CLASSIFICATION OF SUBJECT MATTER
INV. F16L37/133 F16L37/10
ADD.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
F16L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| X | DE 203 19 558 U1 (VOSS AUTOMOTIVE GMBH [DE]) 28 April 2005 (2005-04-28) the whole document | 1-4,12, 13 |
| X | US 2008/012314 A1 (HARGER KEITH R [US] ET AL) 17 January 2008 (2008-01-17) paragraph [0023] - paragraph [0042]; figures | 1-3,5,6, 12 |
| X | DE 20 2009 002464 U1 (VERITAS AG [DE]) 15 July 2010 (2010-07-15) the whole document | 1-3,12, 13 |
| X | EP 1 821 022 A1 (POLYMERES BARRE THOMAS SOC D [FR]) 22 August 2007 (2007-08-22) abstract; figures | 1-5,12 |

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

| Date of the actual completion of the international search | Date of mailing of the international search report |
|---|---|
| 4 June 2013 | 11/06/2013 |

| Name and mailing address of the ISA/ | Authorized officer |
|---|---|
| European Patent Office, P.B. 5818 Patentlaan 2<br>NL - 2280 HV Rijswijk<br>Tel. (+31-70) 340-2040,<br>Fax: (+31-70) 340-3016 | Dekker, Derk |

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2012/064079

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---|---|---|
| DE 20319558 U1 | 28-04-2005 | AT 426772 T | 15-04-2009 |
| | | CN 1894532 A | 10-01-2007 |
| | | DE 20319558 U1 | 28-04-2005 |
| | | EP 1567800 A1 | 31-08-2005 |
| | | EP 2050996 A1 | 22-04-2009 |
| | | ES 2322856 T3 | 30-06-2009 |
| | | KR 20060126706 A | 08-12-2006 |
| | | KR 20090024807 A | 09-03-2009 |
| | | WO 2005059426 A1 | 30-06-2005 |
| US 2008012314 A1 | 17-01-2008 | NONE | |
| DE 202009002464 U1 | 15-07-2010 | NONE | |
| EP 1821022 A1 | 22-08-2007 | EP 1821022 A1 | 22-08-2007 |
| | | FR 2897668 A1 | 24-08-2007 |