

Title (en)

SCREW PLUG MADE OF A METALLIC MATERIAL, METHOD FOR THE PRODUCTION THEREOF, CORRESPONDING BLANK, AND CORRESPONDING TOOL

Title (de)

VERSCHLUSSCHRAUBE AUS METALLISCHEN WERKSTOFF, VERFAHREN ZU DEREN HERSTELLUNG, ROHLING DAFÜR SOWIE WERKZEUG DAZU

Title (fr)

BOUCHON A VIS METALLIQUE, PROCEDE POUR LE PRODUIRE, EBAUCHE UTILISEE A CETTE FIN ET OUTIL CORRESPONDANT

Publication

EP 1572394 A1 20050914 (DE)

Application

EP 03813103 A 20031129

Priority

- DE 10258994 A 20021216
- DE 10321544 A 20030514
- EP 0313470 W 20031129

Abstract (en)

[origin: WO2004054739A1] Disclosed is a screw plug (10) for a liquid conduit, particularly an oil pipe or an oil container, comprising a cylindrical shaft (36) that is placed on a top plate (12) and is provided with an external thread (22). A pocket hole (28) having a polygonal cross section is centrally arranged on the top plate as a receiving member for a tool. The shaft (36) is embodied as a tubular butt (14) that is provided with the external thread (22). A pocket hole (18) which is arranged coaxial to the pocket hole (28) of the top plate (12) extends from the face (16) of the shaft. In order to produce said screw plug (10), a blank comprising the cylindrical tubular butt (36) that is connected to the top plate (12) in a molded-on manner is made, the inner diameter and outer diameter of said tubular butt (36) being smaller than the final corresponding diameters (e, f) of the screw plug (10). The tubular butt (36) of the blank is then enlarged by applying pressure to the inner wall surface of the pocket hole thereof. Also disclosed is a tool for carrying out the inventive method, in which one end of a pressure die is fixed as a mandrel-type tool while a supporting or holding head which is disposed so as to be movable relative thereto and encompasses a seat for a blank is associated with the free end thereof.

IPC 1-7

B21K 21/08; **B21J 5/12**; **F01M 11/04**

IPC 8 full level

B21J 5/12 (2006.01); **B21K 1/46** (2006.01); **B21K 21/08** (2006.01); **F01M 11/04** (2006.01)

CPC (source: EP US)

B21J 5/12 (2013.01 - EP US); **B21K 1/463** (2013.01 - EP US); **B21K 21/08** (2013.01 - EP US); **F01M 11/0408** (2013.01 - EP US)

Citation (search report)

See references of WO 2004054739A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004054739 A1 20040701; AU 2003303028 A1 20040709; EP 1572394 A1 20050914; EP 1572394 B1 20110720; PL 205265 B1 20100331; PL 375866 A1 20051212; US 2006153661 A1 20060713; US 2011314887 A1 20111229; US 9567882 B2 20170214

DOCDB simple family (application)

EP 0313470 W 20031129; AU 2003303028 A 20031129; EP 03813103 A 20031129; PL 37586603 A 20031129; US 201113184742 A 20110718; US 53992505 A 20050616