

Title (en)  
A shockproof protection device

Title (de)  
Stoßgeschützte Schutzvorrichtung

Title (fr)  
Dispositif de protection antichoc

Publication  
**EP 2685002 A1 20140115 (EN)**

Application  
**EP 13173873 A 20130626**

Priority  
IT MO20120176 A 20120709

Abstract (en)  
A shockproof protection device, comprising a barrier (2) and fixing means predisposed for fixing the barrier (2) to the ground. The fixing means comprise: a first fixing element (3), provided with a threaded seating (31) and a deformable portion (32) designed to deform and enter into contact with the walls of a housing seating (100); an annular body (4), designed to enter into contact with the deformable portion (32) of the first fixing element and with a rest base (21) of the barrier (2); a threaded bar (5), which, at a first end thereof, is designed to screw into the threaded seating (31) of the fixing element (3), while at a second end thereof, it is designed to screw into a lock nut (6); said threaded bar (5) is arranged through the barrier (2) in such a manner that the lock nut (6) locks in contact with an upper abutting surface (22) of the barrier (2), causing traction of the threaded bar (5), which presses the deformable portion (32) and the annular element (4) into contact.

IPC 8 full level  
**E01F 9/011** (2006.01); **E01F 15/14** (2006.01)

CPC (source: EP)  
**E01F 15/141** (2013.01)

Citation (applicant)  
JP H11159182 A 19990615 - SAIKON KOGYO KK

Citation (search report)  
• [XYI] JP H11159182 A 19990615 - SAIKON KOGYO KK  
• [Y] WO 8808066 A1 19881020 - LARSSON SVEN GOERAN [SE]  
• [X] DE 2901322 A1 19800731 - MAECHTLE WERKZEUGFAB FRITZ  
• [A] WO 9010133 A1 19900907 - DAMMEN PER [NO]  
• [A] JP 2010168897 A 20100805 - TOYO TIRE & RUBBER CO

Cited by  
WO2016016736A1; EP3519632A4; AU2015294987B2; WO2014076334A1; WO2020258342A1; US10066350B2

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
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**EP 13173873 A 20130626**; ES 13173873 T 20130626; IT MO20120176 A 20120709; PL 13173873 T 20130626