

Title (en)  
TURBO DEVICE

Title (de)  
TURBOVORRICHTUNG

Title (fr)  
TURBOMACHINE

Publication  
**EP 2679827 A4 20160309 (EN)**

Application  
**EP 12749591 A 20120221**

Priority  
• JP 2011034519 A 20110221  
• JP 2012054077 W 20120221

Abstract (en)  
[origin: EP2679827A1] In a turbomachinery (S1) that is provided with an impeller (1a) and a shaft (2) that are to be fastened, the impeller (1a) and the shaft (2) are fastened by a two-way screw (3) of which the turning direction of the screw thread that is formed on the impeller (1a) side and the turning direction of the screw thread that is formed on the shaft (2) side are opposite directions. As a result, it is possible to fasten the impeller (1a) to the shaft (2) without the need for a complicated and large equipment, and the amount of work during fastening is reduced.

IPC 8 full level  
**F04D 29/28** (2006.01)

CPC (source: EP KR US)  
**F01D 5/025** (2013.01 - US); **F04D 29/00** (2013.01 - KR); **F04D 29/266** (2013.01 - EP US); **F04D 29/28** (2013.01 - KR);  
**F04D 29/624** (2013.01 - EP US)

Citation (search report)  
• [XA] US 2010525 A 19350806 - MCHUGH ANTHONY L  
• [IA] US 6012901 A 20000111 - BAETTIG JOSEF [CH], et al  
• [A] US 3813038 A 19740528 - PRYOR R, et al  
• See references of WO 2012115086A1

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EP3757399A4; WO2016188524A1

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

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JP 5589889 B2 20140917; KR 101501761 B1 20150311; KR 20130129276 A 20131127; US 2013330193 A1 20131212;  
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