

Title (en)

Mounting device with a tie shaft and corresponding method for a rotor system of an axial turbomachine

Title (de)

Montagevorrichtung mit einem Zuganker und korrespondierendes Verfahren für ein Rotorsystem einer Axial-Strömungsmaschine

Title (fr)

Dispositif d'assemblage avec un tirant d'ancrage et procédé correspondant pour un système rotorique d'une turbomachine axiale

Publication

EP 2352905 B1 20150218 (DE)

Application

EP 09801389 A 20091202

Priority

- DE 2009001700 W 20091202
- DE 102008060571 A 20081204

Abstract (en)

[origin: CA2742868A1] The invention relates to a device (1) and to a method associated with an assembly mechanism for a rotor system of an axial turbo engine having a central tension anchor, as is particularly known from engine technology. To this end, the invention provides a tensioning tool that pre-tensions the tension anchor prior to and during the insertion of the same in the rotor assembly. After inserting the pre-tensioned tension anchor in the rotor assembly, the tension anchor is relaxed such that the same exerts a compressive force on the rotor assembly. According to a preferred embodiment, the rotor assembly is also pre-tensioned (compressed) and relaxed after assembling the tension anchor, so that a desired nominal pre-tension σ_{Nenn} can be particularly easily achieved. The use of a shaft lock nut is no longer necessary for the device according to the invention, thus avoiding the difficulties associated with the use of the same, such as complexity and safety problems. The invention further relates to a method for assembling a tension anchor (2) for a rotor system (6) using the assembly mechanism according to the invention.

IPC 8 full level

F01D 5/06 (2006.01)

CPC (source: EP US)

F01D 5/066 (2013.01 - EP US); **F05D 2230/60** (2013.01 - EP US); **F05D 2230/64** (2013.01 - EP US); **F05D 2260/30** (2013.01 - EP US); **Y10T 29/49316** (2015.01 - EP US); **Y10T 29/49321** (2015.01 - EP US); **Y10T 29/53** (2015.01 - EP US)

Designated contracting state (EPC)

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 SE SI SK SM TR

DOCDB simple family (publication)

DE 102008060571 A1 20100610; CA 2742868 A1 20100610; EP 2352905 A1 20110810; EP 2352905 B1 20150218; US 2011225822 A1 20110922; US 8764390 B2 20140701; WO 2010063272 A1 20100610

DOCDB simple family (application)

DE 102008060571 A 20081204; CA 2742868 A 20091202; DE 2009001700 W 20091202; EP 09801389 A 20091202; US 200913130730 A 20091202