

Title (en)  
Concentric drive shafts

Title (de)  
Konzentrische Antriebswellen

Title (fr)  
Arbres d'entraînement concentriques

Publication  
**EP 2960148 A1 20151230 (EN)**

Application  
**EP 14173593 A 20140624**

Priority  
EP 14173593 A 20140624

Abstract (en)  
An improved drive shaft (2) is described. The drive shaft (2) includes an inner shaft (4) having a first end (4a) that is adapted to be connectable to a first connecting shaft (14) that is rotated by torque applied by an external electrical machine, and a second end (4b) that is adapted to be connectable to a second connecting shaft (22). A hollow outer shaft (6), coaxial with the inner shaft (4), defines at least part of a rotor assembly (40) of an associated electrical machine (38). The outer shaft (6) is adapted to be releasably connected to the inner shaft (4) so that the drive shaft (2) is selectively configurable in a first arrangement for normal operating conditions where the outer shaft (6) is connected to the inner shaft (4) for rotation therewith, and a second arrangement where the outer shaft (6) is not connected to the inner shaft (4).

IPC 8 full level  
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CPC (source: EP US)  
**B63H 21/17** (2013.01 - EP US); **B63H 23/34** (2013.01 - EP US); **B63H 23/30** (2013.01 - EP US); **B63H 2023/342** (2013.01 - EP US); **B63H 2023/346** (2013.01 - EP US); **Y10T 74/19014** (2015.01 - EP US)

Citation (search report)

- [X] US 4127080 A 19781128 - LAKIZA ROSTISLAV I, et al
- [A] US 2011021095 A1 20110127 - SHUTO HIDEKI [JP], et al
- [A] DE 19630835 A1 19980205 - MAN B & W DIESEL GMBH [DK]

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)  
BA ME

DOCDB simple family (publication)  
**EP 2960148 A1 20151230**; **EP 2960148 B1 20160817**; CA 2894136 A1 20151224; CN 105202008 A 20151230; KR 20160000420 A 20160104; US 2015367927 A1 20151224

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**EP 14173593 A 20140624**; CA 2894136 A 20150611; CN 201510354288 A 20150624; KR 20150086441 A 20150618; US 201514748360 A 20150624