

Title (en)

Electronic safety system to avoid an over speed condition due to a shaft failure

Title (de)

Elektronisches Sicherheitssystem zur Vermeidung eines Überdrehzahlzustandes bei einem Wellenbruch

Title (fr)

Système électronique de contrôle pour éviter une condition de survitesse due à la rupture de l'arbre moteur

Publication

**EP 1457643 B1 20090708 (DE)**

Application

**EP 04090043 A 20040211**

Priority

DE 10310900 A 20030313

Abstract (en)

[origin: EP1457643A2] The electronic safety system to avoid an overspeed in the event of a shaft breakage has a longitudinally extending measuring optic light guide (13) rotating with the shaft, with a light source (18) provided on the input side, and an optic sensor (19) on the output side. An interruption of the optic light guide effected by a shaft breakage and the receiving of altered light signals at the optic sensor via an electronic computing and control unit (20,21) detects the shaft breakage and interrupts the energy supply to the driving side of the shaft.

IPC 8 full level

**F01D 21/04** (2006.01)

CPC (source: EP US)

**F01D 21/04** (2013.01 - EP US); **F01D 21/045** (2013.01 - EP US); **F05D 2270/09** (2013.01 - EP US); **F05D 2270/091** (2013.01 - EP US); **F05D 2300/614** (2013.01 - EP US)

Cited by

EP3435058A1; WO2005093221A1; WO2005083237A1; US10655493B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 1457643 A2 20040915; EP 1457643 A3 20070321; EP 1457643 B1 20090708**; DE 10310900 A1 20040923; DE 502004009705 D1 20090820; US 2005047913 A1 20050303; US 7002172 B2 20060221

DOCDB simple family (application)

**EP 04090043 A 20040211**; DE 10310900 A 20030313; DE 502004009705 T 20040211; US 79836704 A 20040312