

Title (en)  
APPARATUS FOR CONTROLLING A HYDRAULIC MACHINE

Title (de)  
VORRICHTUNG ZUM REGELN EINER HYDRAULISCHEN MASCHINE

Title (fr)  
DISPOSITIF DE RÉGULATION D'UNE MACHINE HYDRAULIQUE

Publication  
**EP 3601806 B1 20210106 (DE)**

Application  
**EP 18705121 A 20180208**

Priority  
• DE 102017106700 A 20170329  
• EP 2018053164 W 20180208

Abstract (en)  
[origin: CA3058355A1] Apparatus for controlling a hydraulic machine, e.g. a turbine, a pump or a pump-turbine, using constant-displacement pumps that are driven at variable rotational speeds, said apparatus comprising a device for performing an emergency closure, the device being characterized by low energy consumption and high efficiency while ensuring that all operation-relevant and safety-relevant requirements of a hydraulic machine are met.

IPC 8 full level  
**F15B 11/17** (2006.01)

CPC (source: EP US)  
**F15B 11/17** (2013.01 - EP US); **F15B 1/022** (2013.01 - US); **F15B 20/002** (2013.01 - EP US); **F15B 2211/20515** (2013.01 - EP US); **F15B 2211/20538** (2013.01 - EP US); **F15B 2211/20561** (2013.01 - EP US); **F15B 2211/20576** (2013.01 - EP US); **F15B 2211/212** (2013.01 - EP US); **F15B 2211/30505** (2013.01 - EP US); **F15B 2211/30515** (2013.01 - EP US); **F15B 2211/30525** (2013.01 - EP); **F15B 2211/3057** (2013.01 - EP); **F15B 2211/31582** (2013.01 - EP US); **F15B 2211/327** (2013.01 - EP); **F15B 2211/329** (2013.01 - EP); **F15B 2211/40507** (2013.01 - EP US); **F15B 2211/41572** (2013.01 - EP US); **F15B 2211/41581** (2013.01 - EP); **F15B 2211/625** (2013.01 - EP US); **F15B 2211/6355** (2013.01 - EP US); **F15B 2211/7053** (2013.01 - EP US); **F15B 2211/8623** (2013.01 - EP US); **F15B 2211/8752** (2013.01 - EP); **F15B 2211/8755** (2013.01 - EP US)

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

DOCDB simple family (publication)  
**DE 102017106700 B3 20180517**; CA 3058355 A1 20181004; CA 3058355 C 20240507; CN 110520634 A 20191129; CN 110520634 B 20200904; EP 3601806 A1 20200205; EP 3601806 B1 20210106; US 10962032 B2 20210330; US 2020096015 A1 20200326; WO 2018177641 A1 20181004

DOCDB simple family (application)  
**DE 102017106700 A 20170329**; CA 3058355 A 20180208; CN 201880021394 A 20180208; EP 18705121 A 20180208; EP 2018053164 W 20180208; US 201816497187 A 20180208