

Title (en)
ELECTRIC ENGINE BRAKING DEVICE

Title (de)
BRECHVORRICHTUNG FÜR EINEN ELEKTROMOTOR

Title (fr)
DISPOSITIF DE FREINAGE DE MOTEUR ÉLECTRIQUE

Publication
EP 3800332 B1 20220817 (EN)

Application
EP 19908081 A 20190829

Priority
• CN 201910758421 A 20190816
• CN 2019103248 W 20190829

Abstract (en)
[origin: EP3800332A1] An electric engine braking device comprises a control mechanism (8) and an electric driving mechanism (9), wherein the control mechanism (8) comprises a housing (81), an execution plunger (82) and a sliding assembly; the sliding assembly comprises a sliding block (83), a first elastic piece (84), a transfer plunger (85) and a second elastic piece (86); the transfer plunger (85) comprises a first position which is completely provided in the sliding block (83) and a second position which extends out of the sliding block (83) to connect the sliding block (83) and the housing (81) into a whole; and the electric driving mechanism (9) comprises an execution motor (91), a sliding plate frame (92), a sliding plate (93) and a contact leaf spring (94), the execution motor (91) can push the sliding plate (93) to slide along the sliding plate frame (92), drive the contact leaf spring (94) to push the execution plunger (82) to slide, and drive the transfer plunger (85) to move and keep the transfer plunger at the second position. The invention has the advantages that the electric driving mechanism (9) and the control mechanism (8) are provided, and the action is controlled by an execution motor (91) to replace the existing engine oil used as a working or driving control medium. The reliability risk caused by the engine oil is eliminated, the engine braking use area is increased, the engine braking entry and exit time is reduced, the fuel consumption is reduced, and the engine braking performance grading is more refined.

IPC 8 full level
F01L 13/06 (2006.01); **F01L 1/18** (2006.01); **F01L 1/26** (2006.01); **F01L 9/20** (2021.01); **F01L 1/053** (2006.01); **F01L 1/08** (2006.01); **F01L 1/46** (2006.01); **F01L 13/00** (2006.01)

CPC (source: CN EP)
F01L 1/181 (2013.01 - EP); **F01L 1/267** (2013.01 - EP); **F01L 9/20** (2021.01 - CN); **F01L 13/06** (2013.01 - CN); **F01L 13/065** (2013.01 - EP); **F01L 1/053** (2013.01 - EP); **F01L 1/08** (2013.01 - EP); **F01L 2001/467** (2013.01 - EP); **F01L 2013/103** (2013.01 - EP); **F01L 2305/00** (2020.05 - EP); **F01L 2800/05** (2013.01 - EP); **F01L 2800/06** (2013.01 - EP); **F01L 2800/10** (2013.01 - EP); **F01L 2820/01** (2013.01 - EP); **F01L 2820/031** (2013.01 - EP)

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)
EP 3800332 A1 20210407; **EP 3800332 A4 20211208**; **EP 3800332 B1 20220817**; CN 110344909 A 20191018; CN 110344909 B 20240426; WO 2021031230 A1 20210225

DOCDB simple family (application)
EP 19908081 A 20190829; CN 2019103248 W 20190829; CN 201910758421 A 20190816