

Title (en)
Drive unit and motor gear unit for cable window regulator

Title (de)
Getriebeeinheit und Motor-Getriebeeinheit für Seil-Fensterheber

Title (fr)
Unité d'entraînement et motoréducteur pour lève-vitre à câble

Publication
EP 1514989 A3 20090128 (DE)

Application
EP 04104063 A 20040824

Priority
DE 10342074 A 20030910

Abstract (en)
[origin: EP1514989A2] The window drive system has an electric motor with a worm engaging the teeth (11) of a worm wheel (10). The wheel has a central aperture (16) for a support shaft and apertures (13,14) accommodating drive claws (19,20) on a worm wheel (17). The wheel has a flange (23), a ribbed drum (18) and a curved portion (28) leading to a channel (27) with an end chamber (26) to accommodate the enlarged end of the window winding cable. The diameter of the drum may be between 22 and 30 mm and the worm gear reduction ratio may be between 1:38 and 1:51.

IPC 8 full level
E05F 11/48 (2006.01); **E05F 11/50** (2006.01); **B60J 1/17** (2006.01); **E05F 15/16** (2006.01)

CPC (source: EP US)
E05F 11/483 (2013.01 - EP US); **E05F 15/697** (2015.01 - EP US); **E05Y 2201/49** (2013.01 - EP US); **E05Y 2201/654** (2013.01 - EP US); **E05Y 2201/664** (2013.01 - EP US); **E05Y 2201/704** (2013.01 - EP US); **E05Y 2600/522** (2013.01 - EP US); **E05Y 2800/12** (2013.01 - EP US); **E05Y 2800/205** (2013.01 - EP US); **E05Y 2800/72** (2013.01 - EP US); **E05Y 2900/55** (2013.01 - EP US)

Citation (search report)
• [X] DE 20307885 U1 20030731 - KIEKERT AG [DE], et al
• [PX] GB 2387214 A 20031008 - MERITOR LIGHT VEHICLE SYS LTD [FR], et al

Cited by
CN113738221A; FR2969686A1; US8176679B2; WO2008101648A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)
AL HR LT LV MK

DOCDB simple family (publication)
EP 1514989 A2 20050316; **EP 1514989 A3 20090128**; CN 100480083 C 20090422; CN 1593967 A 20050316; DE 10342074 A1 20050407; DE 10342074 B4 20121122; EP 2230371 A2 20100922; EP 2230371 A3 20120222; EP 2230371 B1 20160406; ES 2581433 T3 20160905; JP 2005083192 A 20050331; JP 4563119 B2 20101013; US 2005067521 A1 20050331; US 2008093496 A1 20080424

DOCDB simple family (application)
EP 04104063 A 20040824; CN 200410074565 A 20040908; DE 10342074 A 20030910; EP 10167078 A 20040824; ES 10167078 T 20040824; JP 2004264010 A 20040910; US 93910604 A 20040910; US 95998207 A 20071219