

Title (en)  
Starter

Title (de)  
Anlasser

Title (fr)  
Démarreur

Publication  
**EP 2055937 A3 20100721 (EN)**

Application  
**EP 08017843 A 20081010**

Priority  
JP 2007285123 A 20071101

Abstract (en)  
[origin: EP2055937A2] A starter (1) has a built-in shock absorbing unit (9) in which gaps (A, A-1) are formed in an axial direction between an outer periphery of a ring drive (45) and an outer periphery of a ring spacer (47), and gaps (B, B-1) are formed in a diameter direction between the outer periphery of the ring spacer (47) and an outer periphery of a ring drive (46). Even if grease flows out toward the gaps (A, A-1) in the axial direction from a dumber space by centrifugal force of rotation of an output shaft (6) of the starter (1), it is possible to prevent the grease from being scattered or flying out to the outside of the unit (9) through the gap (A, A-1) because the outside in the diameter direction of the gaps (A, A-1) is covered with an outer peripheral wall (47a) of the ring spacer (47).

IPC 8 full level  
**F02N 15/06** (2006.01); **F02N 11/00** (2006.01)

CPC (source: EP)  
**F02N 15/063** (2013.01); **F02N 11/00** (2013.01)

Citation (search report)

- [X1] FR 2880076 A1 20060630 - DENSO CORP [JP]
- [XDI] JP 2006207573 A 20060810 - DENSO CORP
- [I] US 2343967 A 19440314 - FITZ GERALD MARY C
- [I] FR 1245046 A 19601104 - BENDIX AVIAT CORP
- [A] JP S5820962 A 19830207 - HITACHI LTD

Cited by  
EP2381086A1; FR2957637A1; CN102549256A; WO2011039357A1

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)  
AL BA MK RS

DOCDB simple family (publication)  
**EP 2055937 A2 20090506; EP 2055937 A3 20100721; EP 2055937 B1 20131211; JP 2009114860 A 20090528**

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