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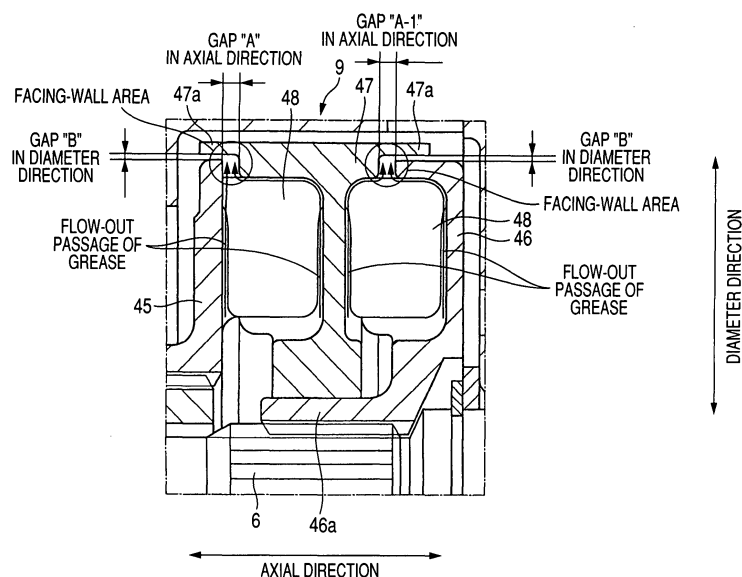
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(54) **Starter**

(57) 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).

FIG. 4





EUROPEAN SEARCH REPORT

Application Number
EP 08 01 7843

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (IPC)
X	FR 2 880 076 A1 (DENSO CORP [JP]) 30 June 2006 (2006-06-30) * figures 1-7 *	1-4	INV. F02N15/06 F02N11/00
X,D	JP 2006 207573 A (DENSO CORP) 10 August 2006 (2006-08-10) * abstract * * figures 1-7 *	1-4	
X	US 2 343 967 A (FITZ GERALD MARY C) 14 March 1944 (1944-03-14) * figures 1,2 *	1-2,4	
X	FR 1 245 046 A (BENDIX AVIAT CORP) 4 November 1960 (1960-11-04) * figure 1 * * page 1, column 2, paragraph 2 * * page 2, column 1, paragraph 4 *	1	
A	JP 58 020962 A (HITACHI LTD) 7 February 1983 (1983-02-07) * abstract *	1-4	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (IPC) F02N
Place of search		Date of completion of the search	Examiner
The Hague		31 March 2010	Parmentier, Hélène
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing claims for which payment was due.

☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due and for those claims for which claims fees have been paid, namely claim(s):

☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for those claims for which no payment was due.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

☐ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.

☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.

☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:

☒ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:

1-4

☐ The present supplementary European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims (Rule 164 (1) EPC).



**LACK OF UNITY OF INVENTION
SHEET B**

Application Number

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The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. claims: 1-4

Starter with shock absorbing unit having gaps between outer
periphery of the cases

2. claims: 5-12

Starter with shock absorbing unit having concave part in a
sliding surface of one of the cases

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 08 01 7843

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
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31-03-2010

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