

Title (en)  
Starting device for engines

Title (de)  
Anlassvorrichtung für Brennkraftmaschinen

Title (fr)  
Dispositif de démarrage pour moteurs à combustion

Publication  
**EP 2028365 A2 20090225 (EN)**

Application  
**EP 08014722 A 20080819**

Priority  
JP 2007213970 A 20070820

Abstract (en)  
A starting device for engines (1) comprises a first rotor (2), a second rotor (3) and a one-way clutch (4). The one-way clutch (4) comprises a clutch inner (41) independently or integrally formed with the first rotor (2) and fixed to the first rotor (2); a clutch outer (42) disposed in an outer circumference side of the clutch inner (41) and fixed to the second rotor (3); and a clutch engaging member (43) disposed in a space formed between the clutch inner (41) and the clutch outer (42). A seal member (5) is disposed between the clutch-engaging member (43) and the first rotor (2), and between the clutch outer (42) and the clutch inner (41). The seal member (5) comprises an outer circumference contacting an inner circumference of the clutch outer (42) and an inner circumference contacting an outer circumference of the clutch inner (41). Either the outer circumference side or the inner circumference side is fixed, while the other side is left free and provided with a lip portion (5a).

IPC 8 full level  
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CPC (source: EP)  
**F02N 15/023** (2013.01); **F02N 11/0814** (2013.01); **F02N 2250/08** (2013.01)

Citation (applicant)  
• JP 2000274337 A 20001003 - MITSUBISHI MOTORS CORP  
• DE 10343400 A1 20050414 - DAIMLER CHRYSLER AG [DE]

Cited by  
CN102428266A; DE102014202696A1; CN105849428A; DE102014202696B4; US10495154B2; WO2011113412A3

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DE FR

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