

Title (en)

DEVICE FOR DRIVING A MOTOR VEHICLE ACCESSORY GROUP, IN PARTICULAR THE RADIATOR FAN OF AN INTERNAL COMBUSTION ENGINE

Title (de)

VORRICHTUNG ZUM ANTRIEB EINES NEBENAGGREGATS EINES KRAFTFAHRZEUGS, INSBESONDERE EINES KÜHLERLÜFTERS EINER BRENNKRAFTMASCHINE

Title (fr)

DISPOSITIF D'ENTRAÎNEMENT D'UN GROUPE AUXILIAIRE D'UN VEHICULE A MOTEUR, NOTAMMENT DU VENTILATEUR DU RADIATEUR D'UN MOTEUR A COMBUSTION INTERNE

Publication

EP 0656990 B1 19961204 (DE)

Application

EP 93919186 A 19930826

Priority

- DE 9211473 U 19920826
- EP 9302305 W 19930826

Abstract (en)

[origin: WO9404801A2] A planetary gear (15b) mounted on a central shaft (29b) that turns together with the crankshaft (17b) drives an accessory group of a motor vehicle, in particular a radiator fan (1b) of an internal combustion engine temperature-dependent controllable by a hydraulic friction clutch (5b). The planetary gear has three gear components rotatable with respect to each other together with the shaft (29b) around a common axis of rotation (27b), which form a sun wheel (33b), a ring gear (35b) and a planet carrier (39b) provided with planet wheels (43b). The gear components are rotatively mounted with respect to each other on rolling bearings (49b, 51b, 59b) clamped between bearing members (167, 169) of the shaft (29b) in a common bearing force path together with parts of the gear components, in order to compensate axial play. Lubricant conveyor means (91b) associated to the planetary gear (15b) supply liquid lubricant to the rolling bearings (49b, 51b, 59b) when the gear components rotate with respect to each other. The planetary gear (15b) is designed as a gear whose speed of rotation can be changed-over, and locked in direct drive. In order to allow the rolling bearings (49b, 51b, 59b) exposed to the variable motion in direct drive to be lubricated in spite of being locked, the rolling bearings are arranged in radially inwardly open but radially outwardly tight lubricant pockets (129, 133, 141) which extend over the radially inner running races of the rolling bearings and which are filled with lubricant when the internal combustion engine is started by temporarily operating the planetary gear (15b) in a speed increasing mode.

IPC 1-7

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IPC 8 full level

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CPC (source: EP)

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DE 9211473 U1 19921029; BR 9306958 A 19990112; DE 59304694 D1 19970116; EP 0656990 A1 19950614; EP 0656990 B1 19961204; ES 2097535 T3 19970401; WO 9404801 A2 19940303; WO 9404801 A3 19940511

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