

Title (en)

STARTER DEVICE FOR INTERNAL COMBUSTION ENGINES

Title (de)

STARTVORRICHTUNG FÜR BRENNKRAFTMASCHINEN

Title (fr)

DISPOSITIF DE DEMARRAGE POUR DES MOTEURS A COMBUSTION INTERNE

Publication

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Application

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Priority

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- DE 10041999 A 20000826

Abstract (en)

[origin: WO0218780A1] The invention relates to a starter device for internal combustion engines. Said device comprises a starter motor (11), whose starter pinion meshes with the ring gear of an internal combustion engine by means of a solenoid switch (19) and also activates the starter motor towards the end of its travel using a switching contact (24). The solenoid switch (19) is also provided with a pull-in winding (22) and a hold-in winding (23). To prevent chatter or oscillation of the switching contact (24), caused in particular by a wobble or oscillation of the switch armature when the meshing spring (21) is tensioned as a result of a tooth-on-tooth position during the meshing operation, the replete pull-in force of the solenoid switch (19) is prolonged after the closing of the switching contact (24) by a timing element (29), whilst the pull-in winding (22) is connected in series to a control switch (28), which is reversed by means of the timing element (29) that is connected in parallel to the starter motor (11), from a conductive state to an off-state.

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