



Starter **Maladjusted ignition/injection pump** **Engine misfires.**

Damage

A maladjusted ignition or injection pump can lead to damage to the starter. Frequent patterns of damage are destroyed overrunning clutches and planetary gear sets, as well as broken armature shafts and bearing housings.

Causes

Due to misfires or incorrectly set injection timing/ignition timing, the engine may backfire during the starting procedure. At this point, the starter is subjected to a force contrary to its direction of rotation. As a result, the overrunning clutch is placed under load in the reverse direction. The overrunning clutch transmits the force via the armature shaft to the housing. As the starter can absorb these forces only to a limited extent, the above patterns of damage occur.

Effects

Due to the mechanical damage, considerable noise, or even total failure of the starter, occurs.

