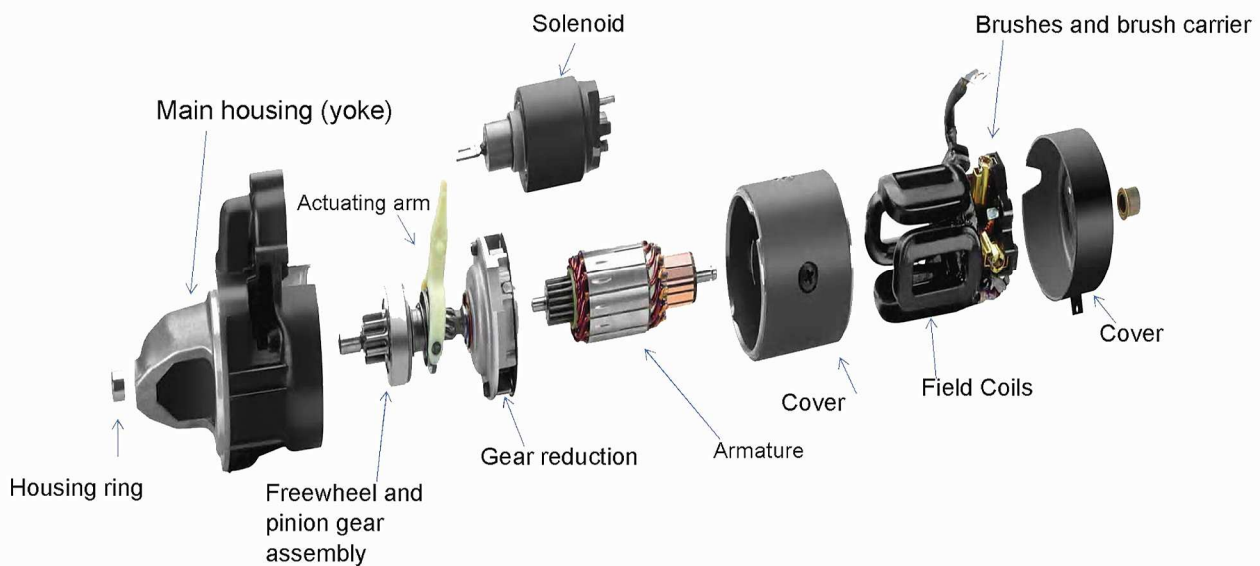


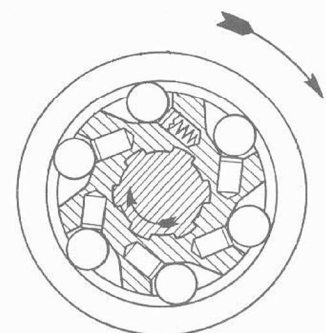
Electric Starter parts: Starter Drive (pinion gear)



On the above drawing, we can distinguish the parts of an electric starter. The solenoid moves the pinion gear through the actuating arm and it engages the flywheel ring gear, during the startup process. When the engine is running on its own, the pinion gear is retrieved to its initial position.

The Pinion gear is under stress during the engagement process and operation.

For the protection of the electric starter, the pinion gear assembly includes an overrunning clutch. This arrangement does not allow the starter shaft to rotate with higher revs when the engine starts. It consists of rollers (bearings) in passenger vehicles and light trucks, while large vehicles (trucks - buses) have an overrunning pulley with disks.



**Overrunning pulley
with rollers**