

Stator - The main function of the stator is to provide magnetic fields where the coil spins.

Rotor - A rotor in a DC machine includes slotted iron lamination with slots that are stacked to shape an armature core.

Yoke: The outer frame or yoke serves a dual purpose. Firstly, it provides mechanical support for the poles and acts as a protecting cover for the whole machine as shown in Fig 6. Secondly, it allows the magnetic circuit to complete through it.

In small generators where cheapness rather than weight is the main consideration, yokes are made of cast iron. But for large machines usually cast steel or rolled steel is used. The modern process of forming the yoke consists of rolling a steel slab round a cylindrical mandrel, and then welding it at the seams. The feet, the terminal box etc. are welded to the frame afterwards as shown in Fig 7. Such yokes possess sufficient mechanical strength and have high permeability.