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Field System of DC Generator - Stator

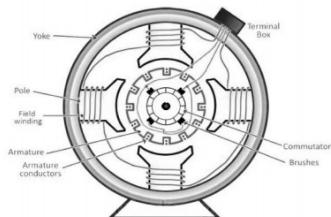
1. **Yoke or Magnetic Frame** : The yoke is the outer frame which is made from the silicon steel material.
- Its serves the following three functions:

 - (i) To provide mechanical support to the poles.
 - (ii) To acts as a protecting cover for the whole machine.
 - (iii) To provide the paths to the magnetic flux produced in the poles.

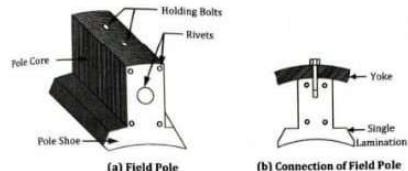
2. Field Poles

- The field poles are made from the silicon steel material to reduce the hysteresis losses.
- Also, the field poles are laminated to reduce the eddy current losses.
- The main function of the field pole is to carry the magnetic flux produced by the field windings.
- The field poles are fitted with the outer frame or yoke.

Main Parts of DC Generator



Field Pole



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3. Pole Shoe

- The main functions of the pole shoe are:

 - i. To distribute the magnetic flux uniformly in the air gap.
 - ii. To support the field windings.

4. Field Winding

- The field windings are placed on the poles.
- They are made from the copper wire.
- The main function of the field winding is to produce the main magnetic flux of the machine.