

**Name : Manthan Machhi**

**Enroll : 42502890501004**

### 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.

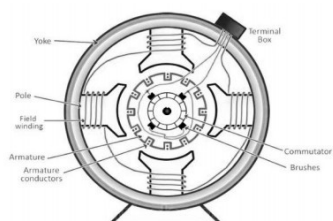
• Its serves the following three functions:

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

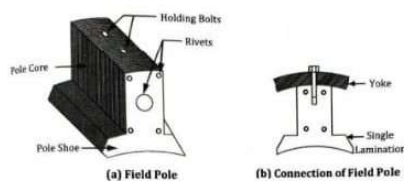
### 2. Field Poles

- 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:
  - To distribute the magnetic flux uniformly in the air gap.
  - 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.