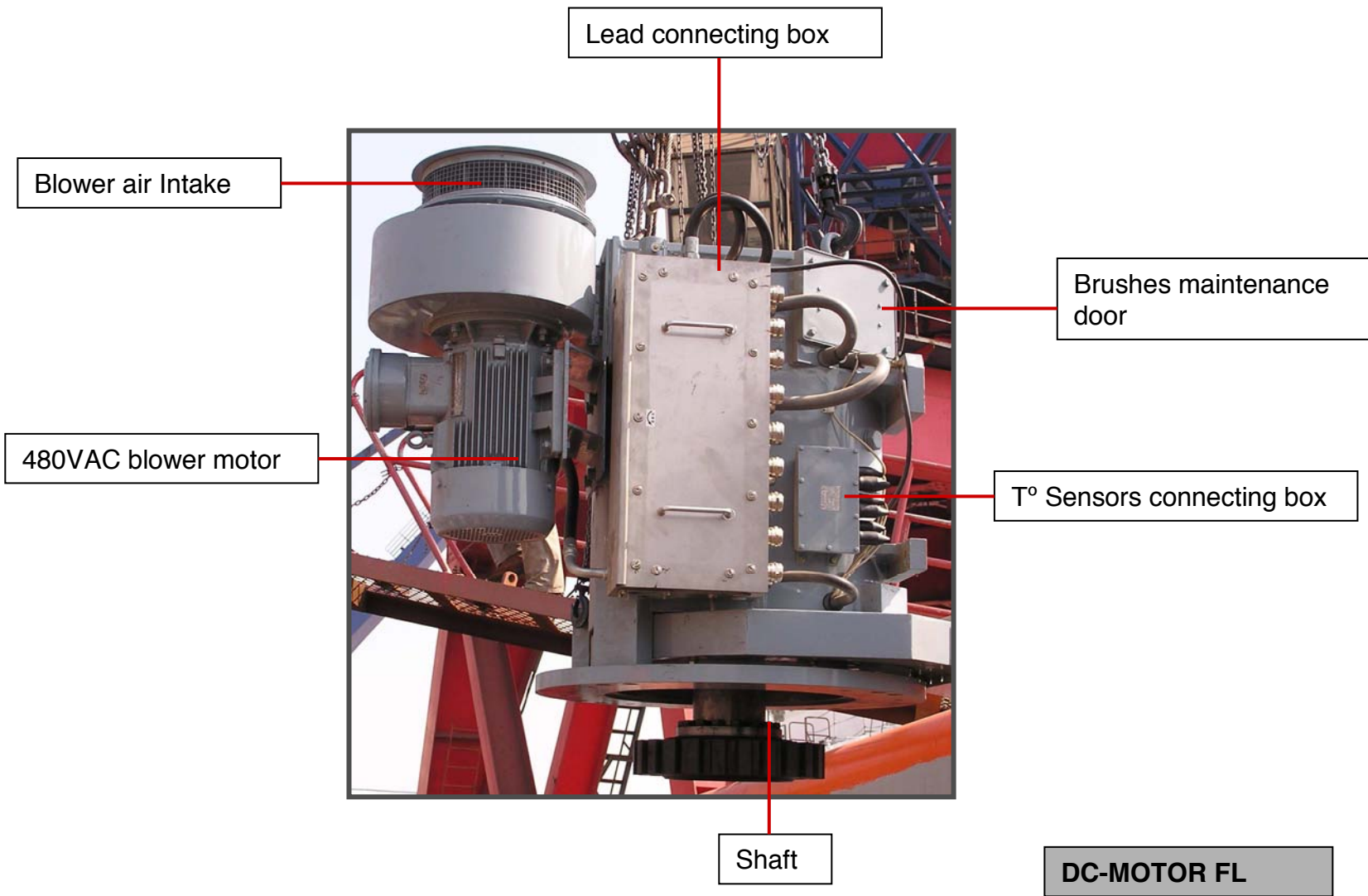
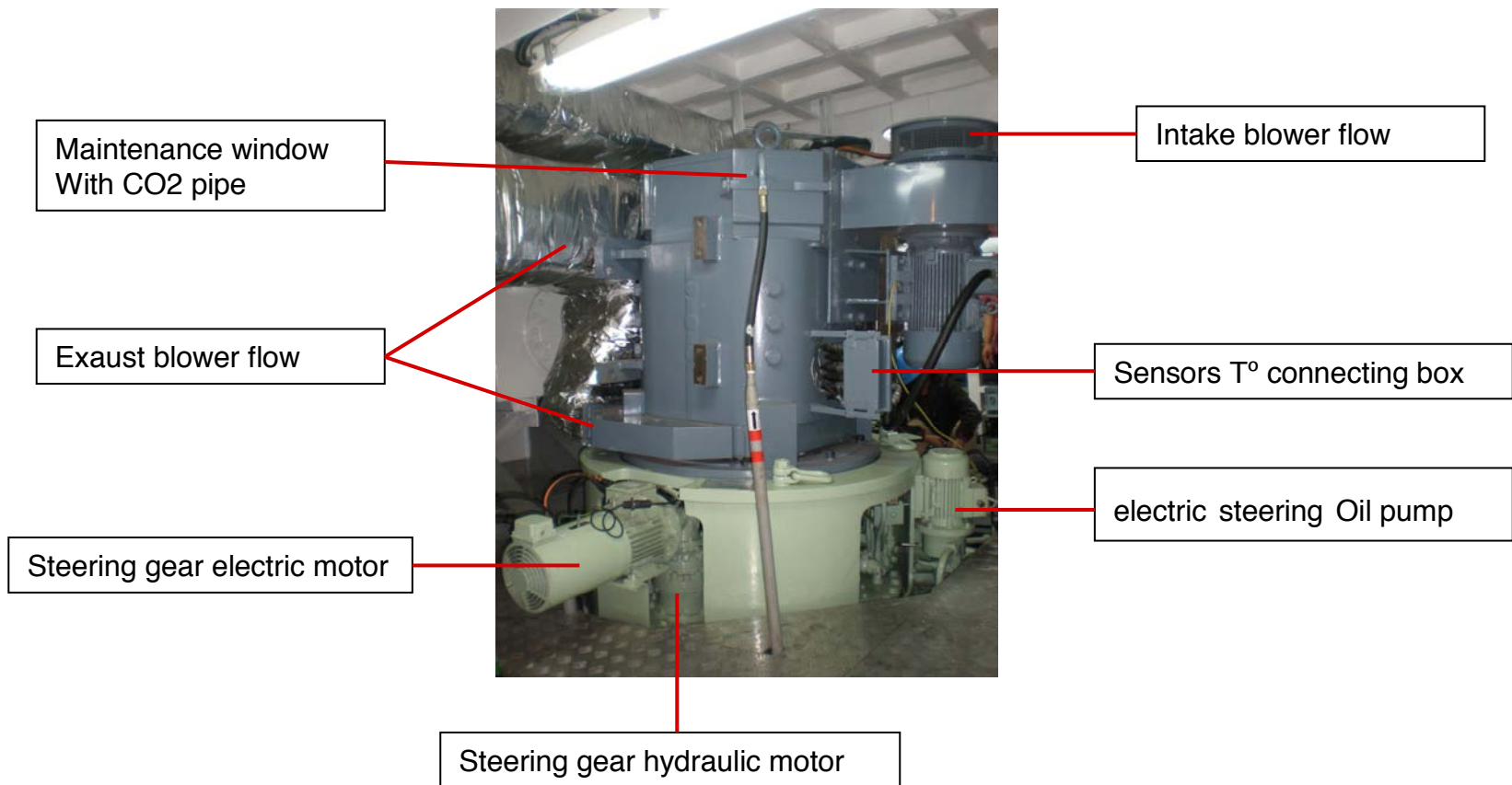


## DC-MOTOR YZC 800 DESCRIPTION

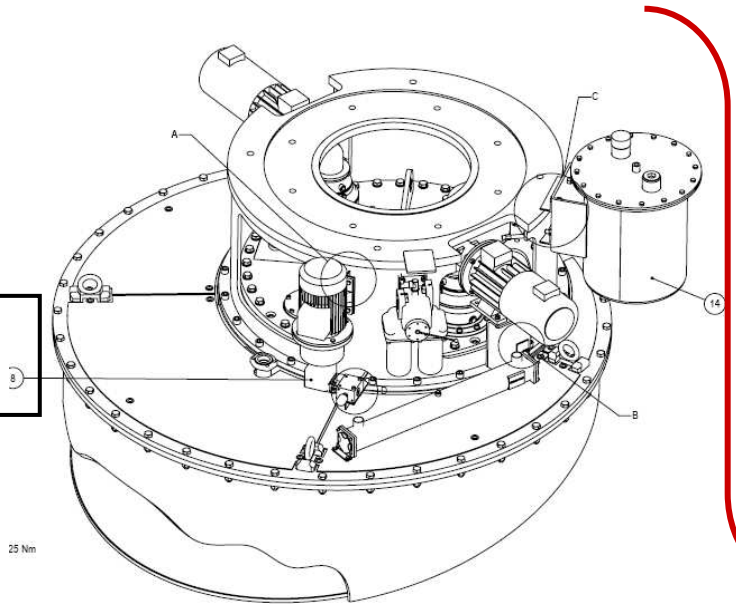




**Note :** Caution about vocabulary.  
 DC- motor is an electric Direct Current motor ( EPD)  
 L- drive is the kind of propulsion (STEERPROP)

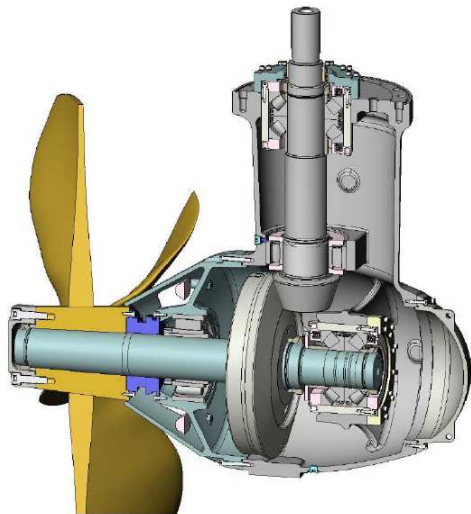
**DC-motor with L-drive**

**Steerprop:**  
steering-gear system



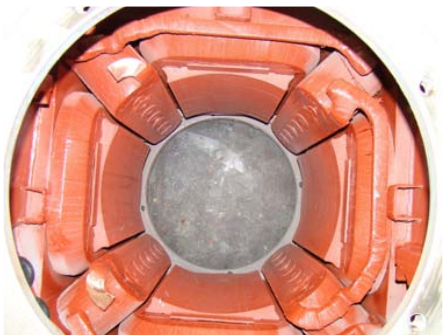
**L-DRIVE**

**Berg:** propeler system





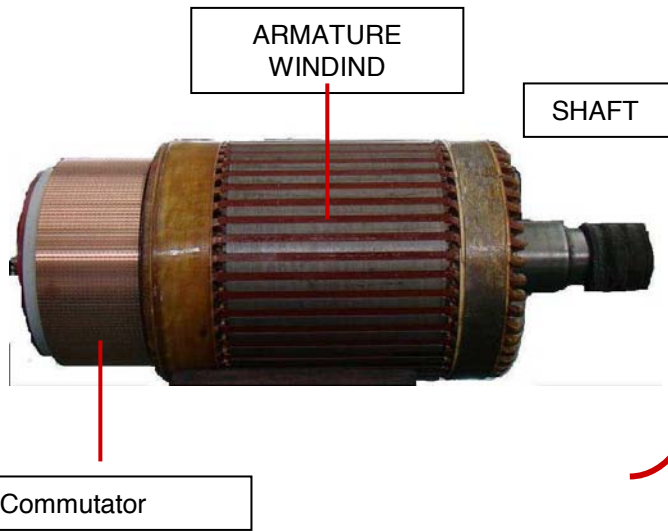
FRAME



FIELDS



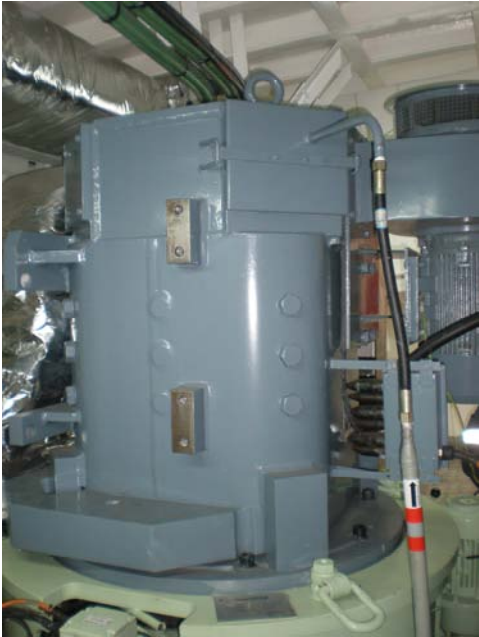
BRUSH HOLDER & BRUSHES



ARMATURE WINDING

SHAFT

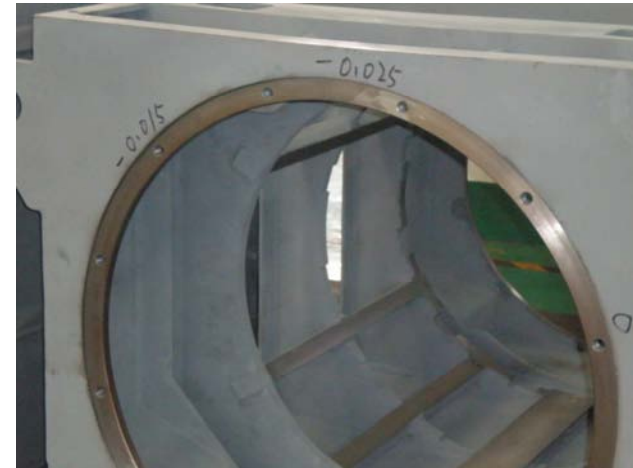
Commutator



DC- MOTOR

DC-MOTOR COMPONENTS





The motor's magnet frame is an octagon molded steel plate frame, which is a part of magnetic circuit and also it is the first component of the motor.

There are three inspection windows

- Support for field
- Support for bearings
- Support for DC-motor equipment.

**FRAME**

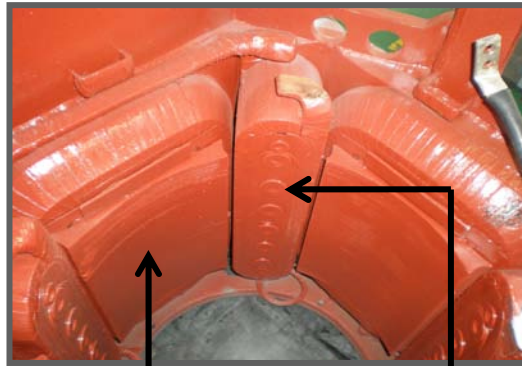


Main field coil before fitting

commutator field coil before fitting

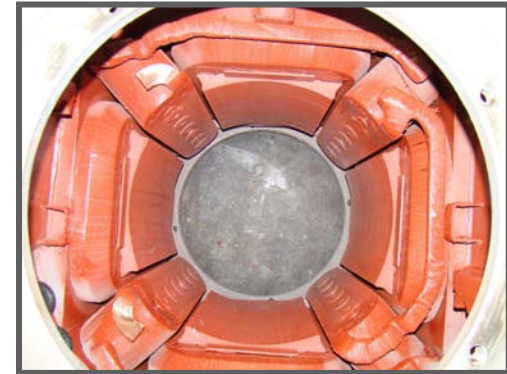


Field before painting



4 main coils  
2 north & 2 south  
in opposite position

4 commutator coils  
2 north & 2 south in  
opposit position



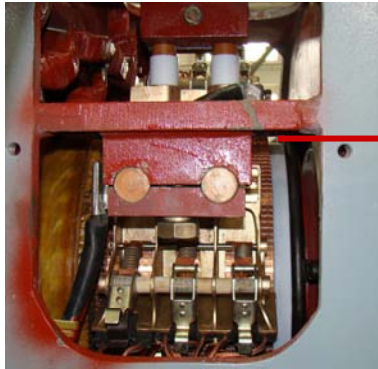
Excitating coil unspark paint

FIELD: 8 exciting coils are fixed inside the frame.

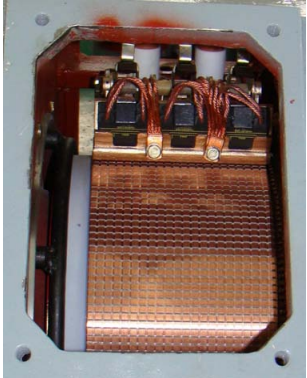
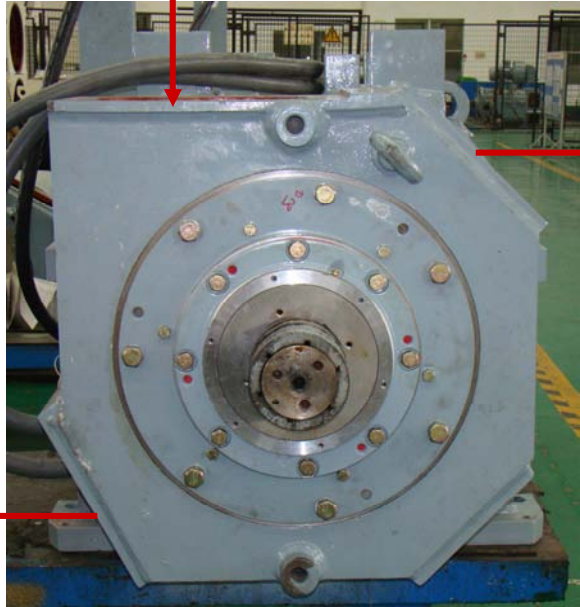
4 main coils 2 north poles and 2 south poles create the flux

4 commutator coils for lower the commutation & raise magnetic capacity

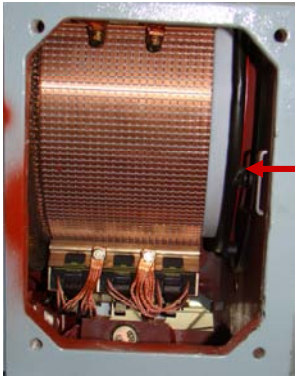
**FIELD**



To reach brush-holder open this door



To reach brushes and commutator open this door

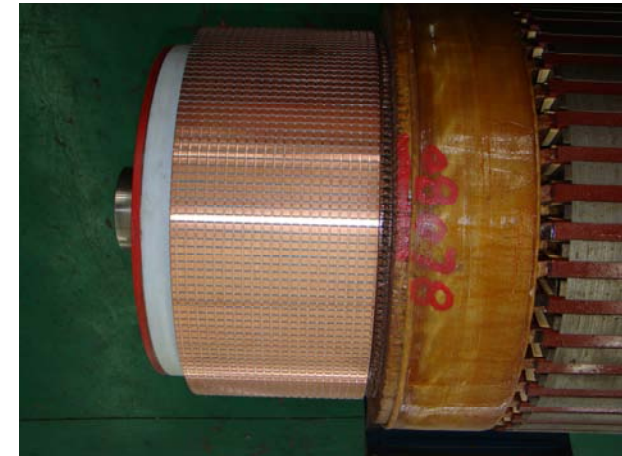
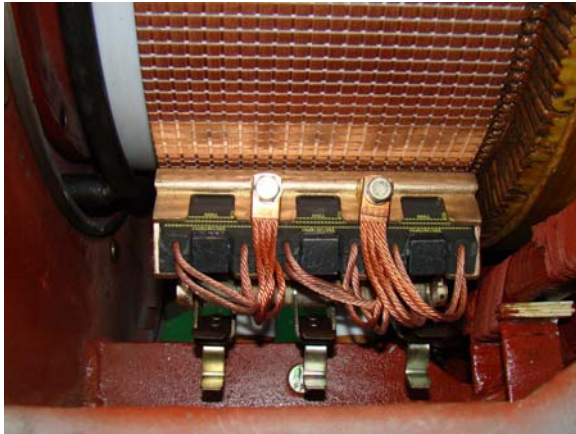


To reach brushes and commutator open this door

**BRUSH**



## COMMUTATOR-END

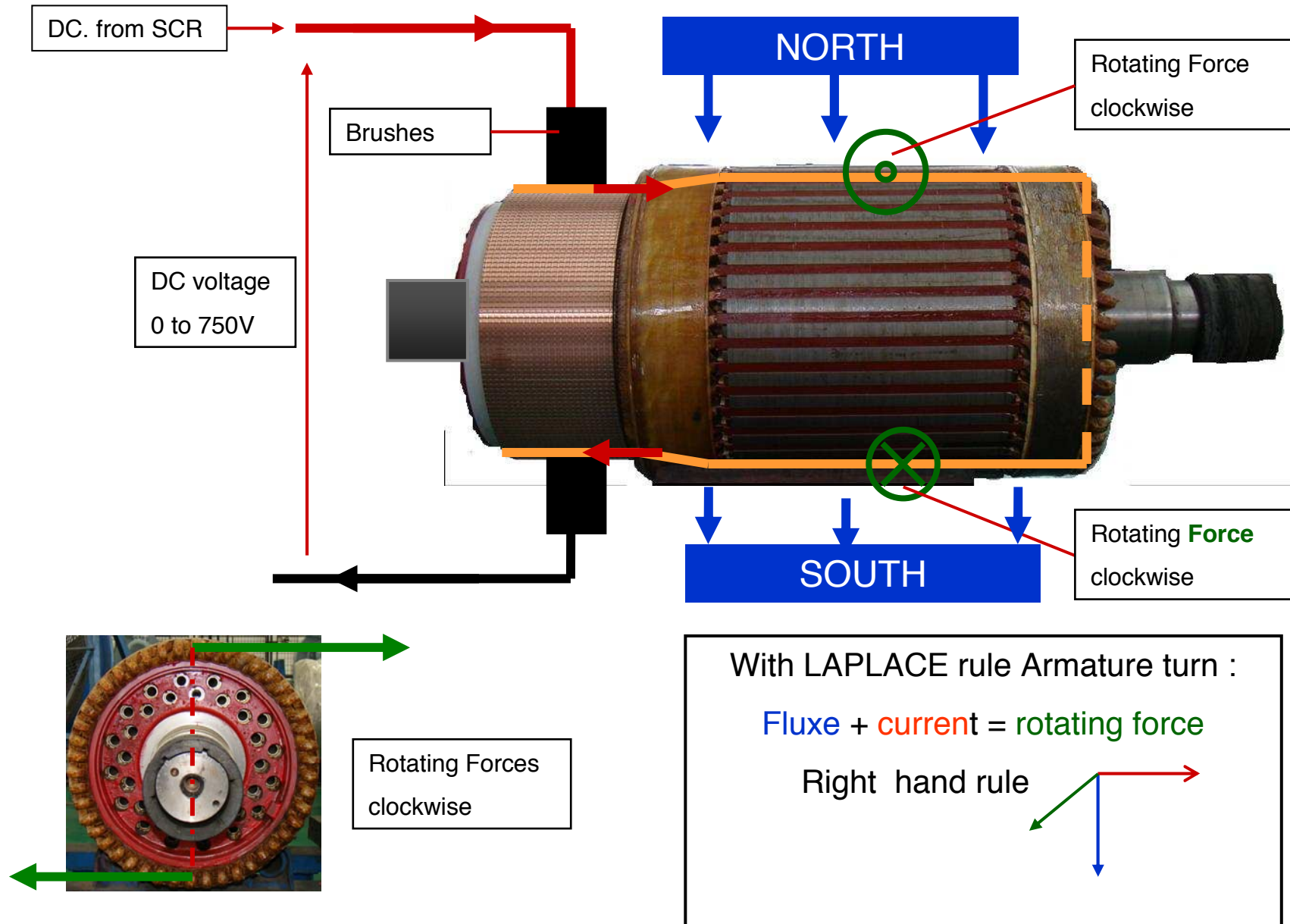


The commutator is a vital part of every DC motor, it deserves the best of care. The fact that a commutator usually shows signs of distress before trouble actually occurs, is a big help to the maintainer. If you can recognize these signs and know what to do, you can often correct the trouble before it becomes serious.

### Function

A commutator has three functions:

- 1) It provides the required sliding electric contact between the fixed brushes and the moving armature to remove or apply electrical energy to the machine.
- 2) It acts as a reversing switch as the ends of the armature coils pass the brush positions the commutator switches them from one circuit to another where the current is flowing in the opposite direction. Thus all the coils have current flowing through them in the proper direction at all time.
- 3) It also brings to the brush surface the voltage of each armature coil in the circuit. These voltages add up bar between brushes. As a result, the total operating voltage of the machine appears at the brushes



**brush characteristics**  
**T900 carbone/graphite**  
**lents : 900mm**  
**Use size max: 350mm**  
**Cut angle: 50° et 60°**  
**Contact area surface: minimum 80%**



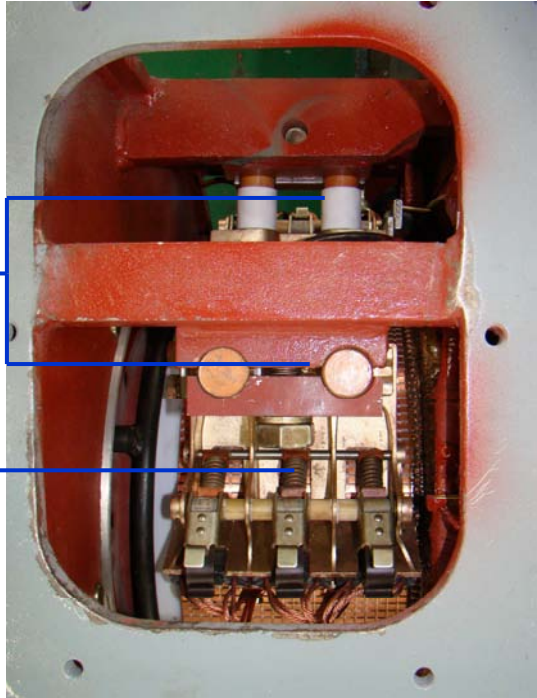
The quality of the contact between brushes and commutator are paramount to preserve a good fonctionnality of DC motor.

4 x 3  
BRUSHES

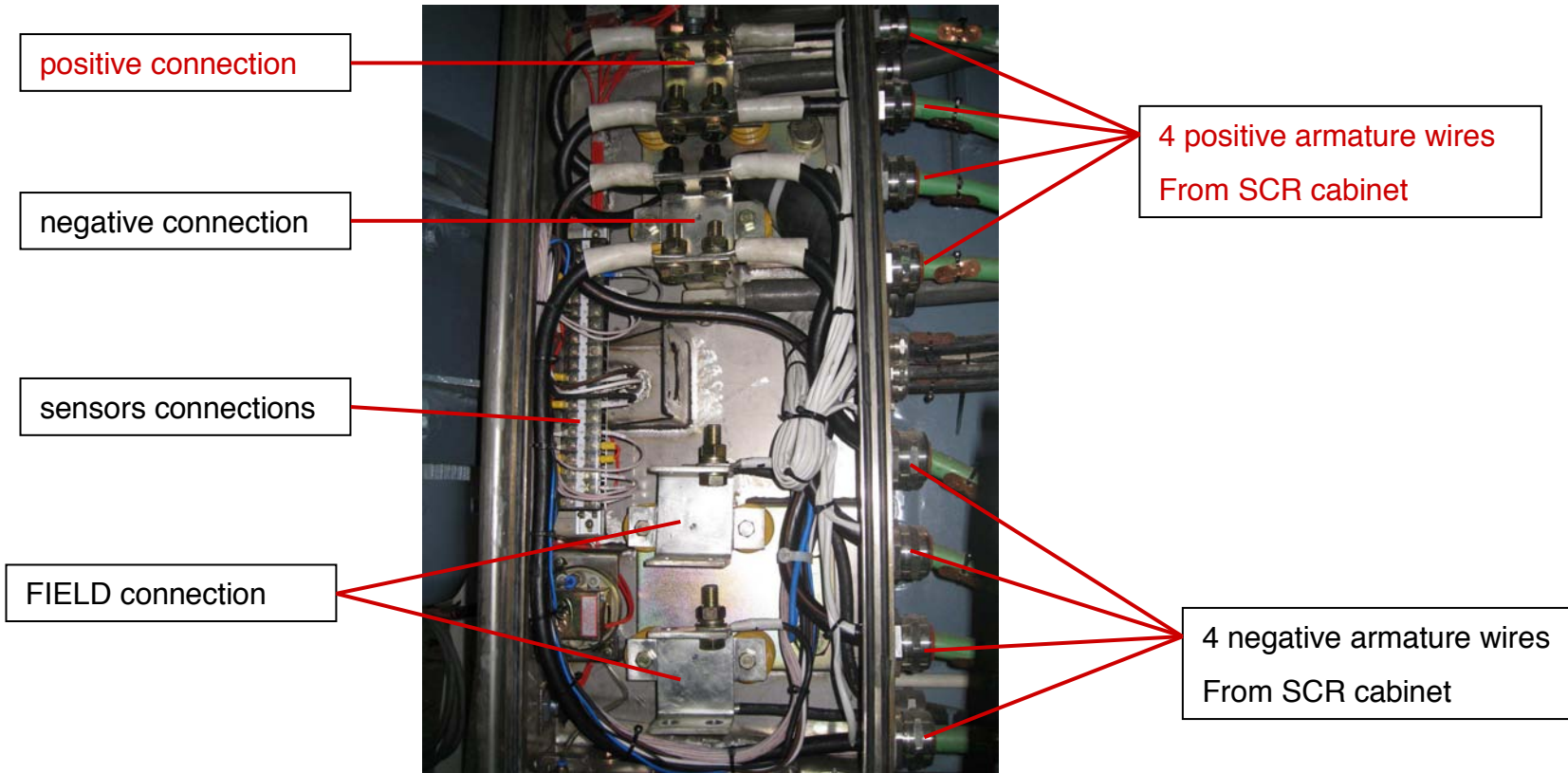


BRUSH- HOLDER

BRUSH-SPRING



LEAD CONNECTING BOX



YZC 800 FW/FW-1 LEAD CONNECTING BOX

