



MAINTENANCE INSTRUCTION FOR DC-MOTORS

Please keep attention to the fact, that working on the DC-Motors must be done from an electrical specialist per VDE with experience on DC-Motors and there dangers.

If the DC-Motor is used in explosive atmosphere keep attention to the appropriate regulations!!! Use original parts from the manufacturer only!!!

Maintenance

(5000 operational hours per year)

- **yearly:**
 - careful cleaning of the engine
 - detailed check of
 - bearings
 - windings
 - commutator
 - brushholder
 - brushes
 - measurement of the insulation resistance of windings
 - tighten all screws including wire connection screws

- **all 3 years:**
 - disassembly of the motor
 - cleaning, drying and impregnate windings
 - change of bearings – keep attention to correct bearing fit and grease type
 - check fits and rework, if necessary



- **Maintenance of brushes:**

- first check after operational 1000 hours, then all operational 3000 hours
- if necessary suck off brush dust; the brushes should move light up- and down in the brushholder and have a good connection to the commutator
- in case of brush change use the same brush type with the same dimensions
- the useable length is half of the total length of the brushes
- Do not use brushes from different manufacturers in one motor
- in case of not having the original brushes you can ask the manufacturer for another alternativ

Failures

- **causes and their repair**

- mechanical failures:
 - to prevent mechanical failures the bearings must be checked regularly and changed
- electrical failures:
 - the commutator surface must be checked regularly, if necessary turn and saw the commutator

ATTENTION

During disassembly and assembly of DC-Motors keep attention to big magnetic forces between the motor parts. These forces can create the danger of violation and the damage of motor parts.