

Replace motor on gear unit C, F, K, S

1 Overview

This document contains information about replacing a motor that is directly attached (without a motor adapter) to a C, F, K or S gear unit from STÖBER.

Users are allowed to carry out work in connection with the geared motors only if they have read and understood this document and the supporting technical documentation in their entirety.

You can find supporting technical documents for this product when you enter the serial number of the product at <https://id.stober.com> or scan the QR code on the product's nameplate.

You can also find applicable technical documentation at <http://www.stoeber.de/en/downloads/>. Enter the ID of the documentation in the Search... field.

Documentation	ID
Operating manual for C/F/K/S gear units and gear motors	443027_en
Operating manual for EZ synchronous servo motors	443032_en
Operating manual for LM Lean motors	443048_en
Operating manual for asynchronous motors	442577_en

Tools and aids required

- Lifting gear with appropriate fastening elements and sufficient carrying capacity, if required by the weight of the geared motor
- Torque wrench with hexagonal bits
- Cleaning agent or solvent

Transporting the geared motor

If the geared motor needs to be transported using lifting gear due to its weight, use appropriate eyebolts, which you screw into the available threaded holes in the gear unit and motor. If you cannot use eyebolts, guide hoist slings around the housing of the gear unit and motor directly and secure them from slipping.

ATTENTION! The plug connectors and fan hood can be damaged if the motor is fastened, transported or supported by them! Transport the motor as described in this document.

2 Removing the motor

Procedure

1. Position the geared motor so that the motor is aligned vertically upwards (see the following figure).
2. If eyebolts can be used, fasten the motor at opposing eyebolts 2 and 5.
3. Unscrew the four cylinder screws 9.
4. Lift the motor vertically upwards from the gear unit and store it in a suitable place.
5. Remove the flat seal between the motor and gear unit.

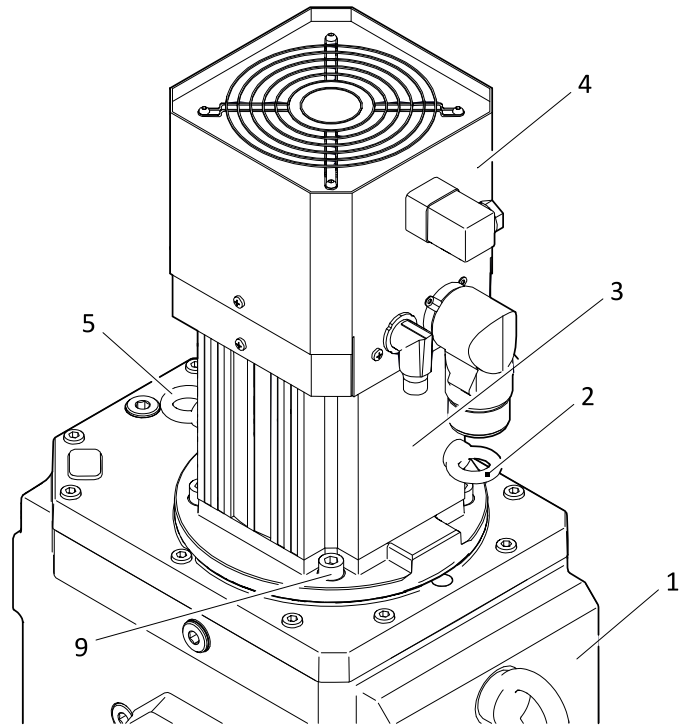


Fig. 1: Removing the motor from the gear unit (example figure)

- | | | | |
|---|-----------|---|----------------|
| 1 | Gear unit | 2 | Eyebolt |
| 3 | Motor | 4 | Fan hood |
| 5 | Eyebolt | 9 | Cylinder screw |

3 Mounting the motor

Required parts

- New flat seal
- New cylinder screws (strength class 8.8) with microencapsulation or liquid threadlocker

Procedure

1. For a new motor, completely remove the corrosion protection from the pinion and the contact surfaces of the motor flange.
2. Position a new flat seal 6 on the gear unit flange 11.
3. If eyebolts can be used, fasten the motor at opposing eyebolts 2 and 5.
4. Position the motor in a slightly tilted position on the gear unit flange so that the motor flange is only supported on the gear unit flange on one side and the toothing of the pinion 8 and gear 10 do not come into contact (see following figures).
5. Bring the toothing into contact (pinion teeth in the gaps of the gear) by releasing the lifted side of the motor flange slowly onto the gear unit flange. **ATTENTION! The toothing of the pinion and gear can be damaged by an incorrect procedure during assembly!** Adhere to the procedure described in this document.
6. Center the motor flange with the gear unit flange and turn the motor so that it can be mounted to the gear unit flange with the cylinder screws 9.
7. Check whether the motor flange rests on the gear unit flange without gaps.
8. Mount the motor to the gear unit with four new microencapsulated cylinder screws 9. As an alternative, you can also use normal cylinder screws with liquid threadlocker.
9. Tighten the cylinder screws crosswise with the tightening torque specified in the following table.

Thread	Tightening torque M_A [Nm]
M4	3.3
M5	6.5
M6	11.3
M8	27.3
M10	54
M12	93
M14	148
M16	230

Tab. 1: Tightening torques for screws (9) for fastening the motor (strength class 8.8)

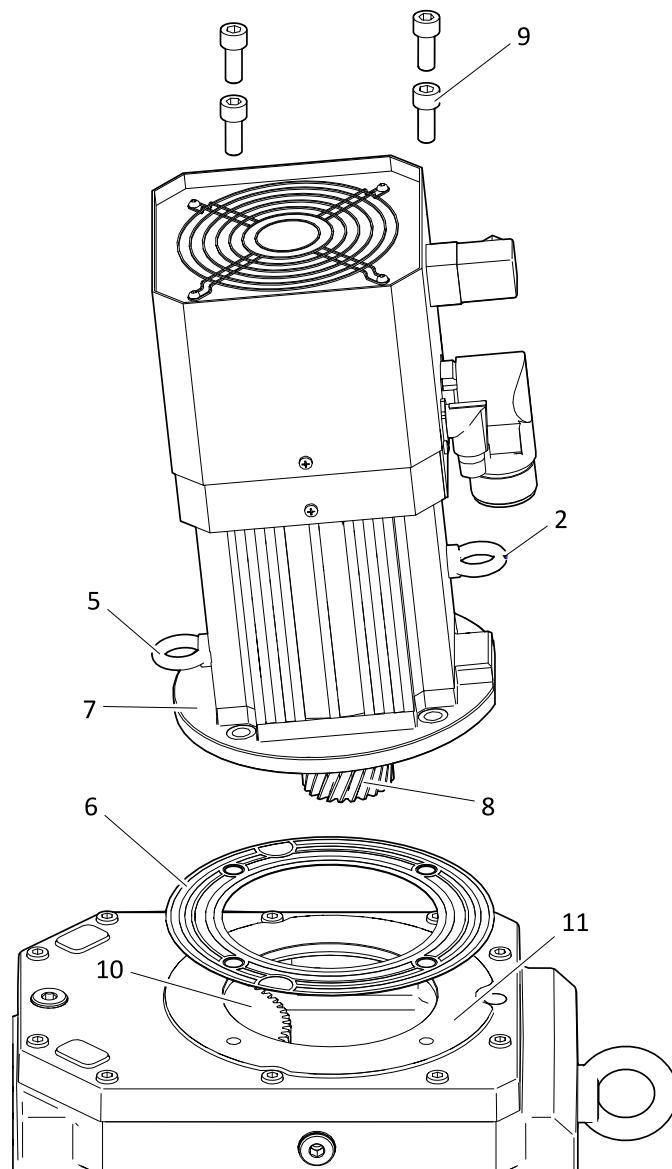


Fig. 2: Mounting the motor on a gear unit (example figure)

- | | |
|-------------|---------------------|
| 2 Eyebolt | 5 Eyebolt |
| 6 Flat seal | 7 Motor flange |
| 8 Pinion | 9 Cylinder screw |
| 10 Gear | 11 Gear unit flange |

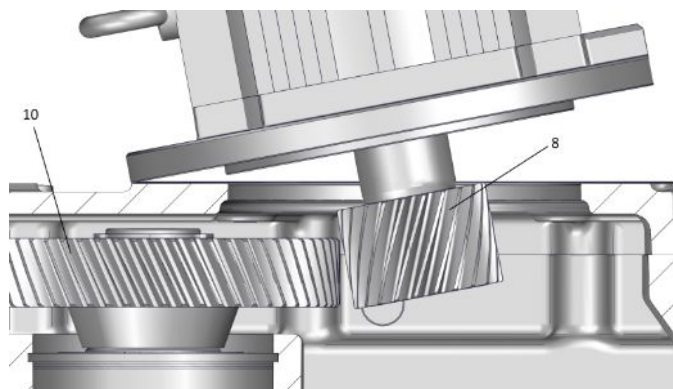


Fig. 3: Making contact between the toothing of the pinion and gear

- | | |
|----------|---------|
| 8 Pinion | 10 Gear |
|----------|---------|