

9. Maintenance

9.1 General references

After commissioning, check gearbox for damage to paint finish. Do a thorough touch-up to prevent corrosion. Original paint in small quantities can be supplied by AUMA.

AUMA gearboxes require only very little maintenance. To ensure that the gearbox is always ready to operate, we recommend – provided that on an average not more than 10 operations are performed per year – the following measures:

- Approximately six months after commissioning and then every year check bolts between multi-turn actuator, gearbox, and valve for tightness. If required, tighten applying the torques given in table 2, (page 9).
- Perform a test run as well as a visual inspection for grease leakage every six months.
- Carry out a detailed functional test for each gearbox every 5 years. Record the results for future reference.
- For gearboxes permanently exposed to ambient temperatures above 40 °C, maintenance must be performed at shorter intervals.
- For gearboxes with output drive type A: At intervals of approx. six months from commissioning, press in Lithium soap EP multi-purpose grease on mineral oil base at the grease nipple with grease gun (for quantity, refer to table 3, page 10).

Seals:

The seals must be changed when changing the grease. Seal kits may be obtained from AUMA.

Grease:

A grease and seal change is recommended after the following operation times:

- if operated seldom, after 10 – 12 years
- if operated frequently, after 6 – 8 years



- Only original AUMA grease must be used.
- For the grease type, refer to name plate.
- Lubricants should not be mixed.

Table 4: Grease quantities for bevel gearboxes

| GK | | 10.2 | 14.2 | 14.6 | 16.2 | 25.2 | 30.2 | 35.2 | 40.2 |
|----------------------|-----------------|------|------|------|------|------|------|------|------|
| Qty | dm ³ | 0.33 | 0.66 | 0.66 | 1.1 | 4.1 | 14.1 | 20.0 | 22.2 |
| Weight ¹⁾ | kg | 0.3 | 0.6 | 0.6 | 1.0 | 3.7 | 12. | 18.2 | 20.2 |

1) for ρ = approx. 0.9 kg/dm³



The removed lubricant and the cleaning agent used must be disposed of according to the relevant regulations.



For safe operation of explosion-proof products, the gear housing has to be lubricated in compliance with the manufacturer specifications. In the event of lubricant loss, repair measures have to be initiated without delay.

9.2 Change of grease

- For gearboxes with multi-turn actuator: Remove multi-turn actuator.
- Remove gearbox from valve:



During this time, the valve/pipeline must not be under pressure!

- Mark position of the gearbox on the valve, loosen connecting bolts to the valve and remove the gearbox.

Remove old grease:

Grease type, see name plate; grease quantities see page 13, table 4. The numbers used in the following text refer to the spare parts list(s) of these operation instructions.

- Remove bolts at bearing flange (002.1).
- Remove bearing flange with hollow shaft (002.2) from housing.
- Remove old grease completely from the housing and the individual parts and clean gear housing. For this purpose, kerosene or a similar cleaning agent may be used.
- Replace seals S1(008, 009, 012, 016 or 007, 008, 010, 013) by new ones.
- Clean mounting faces at housing and bearing flange and apply a small quantity of grease.
- Mount bearing flange (002.1) with hollow shaft (002.2) into housing, whilst paying attention to the O-ring S1(008 or 009) at bearing flange and O-ring S1(012 or 013) in the housing.
Screw in bolts with lock washers and fasten them evenly crosswise to the appropriate torque according to table 2, page 9.

Fill with new grease f:

- Remove screw plug (539.0) at housing.
- Fill with new grease.
- Clean mounting faces at housing and insert screw plug (539.0) with new sealing S1(014) and fasten them to the appropriate torque according to table 2, page 9.

After maintenance:

- Fasten gearbox to valve again.
- If applicable, mount multi-turn actuator.
- For gearboxes with multi-turn actuator, check the setting of the limit switching according to the operation instructions for multi-turn actuators; if required, re-set.
- Perform test run to ensure proper function.
- Check the gearbox for damage to paint finish. Do a thorough touch-up to prevent corrosion. Original paint in small quantities can be supplied by AUMA.