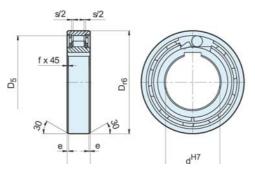
Installation and Maintenance Instructions Freewheel Type AS







To avoid premature failure of the freewheel or possible machine malfunction, installation of the freewheel should be carried out by suitably qualified personnel and according to the following instructions. STIEBER will not accept liability in cases of noncompliance with these instructions!

Prior to Installation:

The freewheels should be unpacked and installed in a clean dry working environment. Remove the corrosion inhibitor using flushing oil. The freewheeling direction should be checked prior to installation. Reverse unit on shaft to change freewheeling direction. The inner race should be fitted to a shaft of h6 or j6 tolerance. The outer housing should be to H7 tolerance. The concentricity and angular alignment of the shaft relative to the outer housing should be within the limits specified in the table below.

| Permissible run-out and a | squareness errors: |
|---------------------------|--------------------|
|---------------------------|--------------------|

| Bore Ø [mm] | Run-out TIR [mm] | Squareness TIR [mm] | Axial Clearance S [mm] |
|----------------|---------------------|------------------------|---------------------------|
| 6 | 0,020 | 0,020 | 0,8 |
| 8 | 0,020 | 0,030 | 1,3 |
| 10 | 0,020 | 0,030 | 1,3 |
| 12 | 0,020 | 0,030 | 1,3 |
| 15 | 0,020 | 0,030 | 1,4 |
| 20 | 0,035 | 0,030 | 2,4 |
| 25 | 0,035 | 0,030 | 2,4 |
| 30 | 0,035 | 0,030 | 2,4 |
| 35 | 0,060 | 0,030 | 2,5 |
| 40 | 0,060 | 0,030 | 2,5 |
| 45 | 0,060 | 0,030 | 2,5 |
| 50 | 0,060 | 0,030 | 2,5 |
| 55 | 0,100 | 0,045 | 2,5 |
| 60 | 0,100 | 0,045 | 2,5 |
| 80 | 0,100 | 0,045 | 2,5 |

We recommend ball bearings with normal bearing clearance are installed adjacent to the freewheel.

Installation:

Use a key to DIN 6885 sheet 1. The key should be the length of the freewheel hub. (Type AS 6 has no keyway, therefore the shaft should have a tolerance to n6)

The torque is transmitted at the outer race via a pressfit (H7/r6).

During installation, an evenly distributed axial load should be applied simultaneously to both the inner and outer races. Avoid localised axial loading on either the inner or outer race.

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After Installation:

After installation, ensure the unit rotates smoothly in the direction of freewheeling. Prior to use, 1/3 to 1/2 of the free space within the unit should be filled with oil of the recommended grade.

Lubrication and Maintenance:

• The lubricating oil should be changed after approximately 10 hours operation. Further oil changes should be made after every 2000 hours. (In arduous applications change oil every 1000 operating hours).

• With ambient temperatures above 80°C, check lubrication regularly.

• For operating temperatures below -20°C and above 100°C contact the technical department of your lubricant suppliers.

• Lubricants with slip additives such as graphite, Molykote or similar agents should be avoided.

• For indexing applications, oil types with a kinematic viscosity of about 10mm²/s at the normal operating temperature are recommended.

• If grease lubrication is to be used please consult your STIEBER stockist. Excessive grease may lead to malfunction of the freewheel. Only 30 to 40% of the free space between the races should be grease filled.

Recommended Lubricants

| | -40°C to- 15°C | -15°C to +15°C | +15°C to +30°C | +30°C to +50°C | | | |
|-----------------------|---|-------------------------|------------------------|--------------------|----------------|--|--|
| | | | | | | | |
| | -20°C to +20°C | +10°C to +50°C | +40°C to +70°C | +50°C to +85°C | | | |
| | Oil | | | | Grease | | |
| ISO - VG DIN 51519 | 10 | 22 | 46 | 100 | | | |
| ARAL | SUMOROL CM10 | SUMOROL CM22 | MOTANOL HK46 | DEGOL CL100T | ARALUB HL2 | | |
| BP | ENERGOL CS10 | ENERGOL CS22 | ENERGOL CS46 | ENERGOL RC100 | ENERGREASE LS2 | | |
| DEA | ASTRON HL10 | ASTRON HL22 | ASTRON HL46 | ASTRON HL100 | GLISSANDO 20 | | |
| ESSO | NUTO H10 SPINESSO 10 | NUTO H22 SPINESSO 22 | NUTO H46 TERESSO 46 | NUTO H100 | BEACON 2 | | |
| FUCHS | RENOLIN MR3 | RENOLIN DTA22 | RENOLIN DTA46 | RENOLIN MR30 | RENOLIT LZR2 | | |
| KLÜBER | CRUCOLAN 10 | CRUCOLAN 22 | CRUCOLAN 46 | CRUCOLAN 100 | POLYLUB WH2 | | |
| MOBIL | VELOCITE No6 | VELOCITE No10 | VACTRA MEDIUM VG46 | VACTRA HEAVY VG100 | MOBILUX 2 | | |
| SHELL | MORLINA 10 | MORLINA 22 | MORLINA 46 | MORLINA 100 | ALVANIA G2 | | |
| TOTAL | AZZOLA ZS10 | AZZOLA ZS22 | AZZOLA ZS46 | AZZOLA ZS100 | MULTIS 2 | | |
| | Alternatively we strongly recommend the use of multigrade oils SAE 10W-40 at working temperature between 0° and +80 $^\circ$ C. | | | | | | |

The ambient temperature is to be taken as a guide line. The operating temperature is determinant for the choice of the viscosity. Corrosion inhibitor: Rivolta KSP.

Time of protection: 6 to 12 months. Recommendation: Prior to use, remove corrosion inhibitor using flushing oil.

The maximum overrunning speeds given in our literature apply to oil lubricated units. For grease lubrication the quoted speeds must be halved.

Please refer to the 'Lubrication & Maintenance' section in our main catalogue.

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