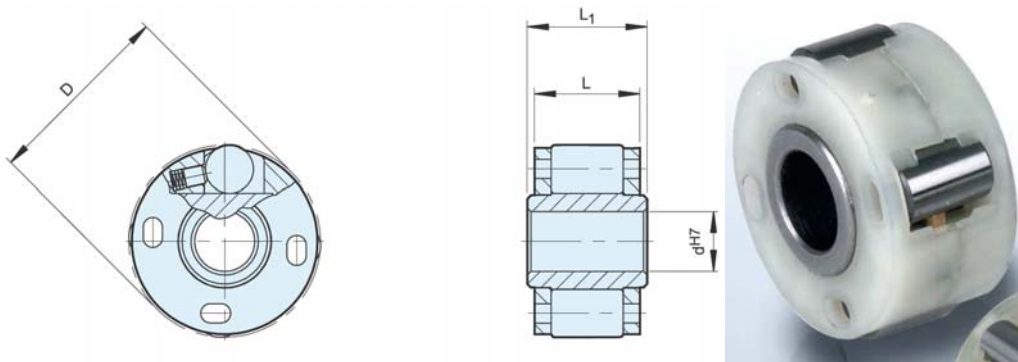


Installation and Maintenance Instructions Freewheel Type KI

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 non-compliance with these instructions!



Type	Size	Overrunning speeds			D ^{H7} (mm)	d ^{H7} (mm)	L ₁ (mm)	L (mm)	Weight (kg)
		T _{KI} ¹⁾ (Nm)	n _{max} ²⁾ (min ⁻¹)	n _{max} ³⁾ (min ⁻¹)					
Ki	164	0.8	8000	10000	16	4	10	9	0.008
	165	0.8	8000	10000	16	5	10	9	0.007
	194	0.9	7000	9000	19	4	10	9	0.012
	195	0.9	7000	9000	19	5	10	9	0.011
	196	0.9	7000	9000	19	6	10	9	0.010
	268*	2.9	5000	6000	26	8	14	13	0.023
	269*	2.9	5000	6000	26	9	14	13	0.021
	2610*	2.9	5000	6000	26	10	14	13	0.019

Prior to Installation:

The freewheels should be unpacked and installed in a clean, dry working environment.

Remove the corrosion inhibitor using flushing oil.

KI-freewheels have no outer race.

The freewheeling direction should be checked prior to installation.

Reverse unit on shaft to change direction of freewheeling.

The inner race should be fitted to a shaft of r6 tolerance if a press fit is to be used.

The inner diameter of the outer race should be to H7 tolerance.

Shaft to outer race concentricity tolerance should be within 0.02mm. Parallelism of shaft and outer race should be within 0.02 mm.

Installation:

During installation, axial loads should be applied exclusively to the inner race.

When installing outer race, slightly rotate the inner and shaft in freewheeling direction to ease fitting.

The plastic cage must not contact surrounding parts when installed.

Avoid distortion of the races axially or radially once installed.

After Installation:

After installation, ensure the unit freewheels in the required direction. 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.
- 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.

Lubricants with slip additives such as graphite, molykote or similar agents should be avoided!

Recommended Lubricants

	Ambient temperature				Grease
	-40°C to -15°C	-15°C to +15°C	+15°C to +30°C	+30°C to +50°C	
	Operating temperature				
	-20°C to +20°C	+10°C to +50°C	+40°C to +70°C	+50°C to +85°C	
	Oil				
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 ° 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.