



Klingenburg uses high-quality housing bearing units (insert bearings) of bearing clearance class 3 from NKE Bearings in its rotors.

All housing bearings are suitable for relubrication and are equipped with a conical grease nipple (Fig. 1) or have a hole in the housing suitable for this purpose (Fig. 2).

To relubricate, use, for example, a manual one-hand grease gun (Fig. 3), suitable for viscous greases up to NGLI class 3.

Common models work with an operating pressure of 400 bar and a delivery rate of 1 cm<sup>3</sup>/stroke and are suitable for standard grease cartridges of 400 g (DIN1284).

## **Note**

For relubrication, use **only** greases whose thickener and base oil are compatible with the grease filling of the bearings!

Here: Lithium soap grease based on mineral oil. In principle, the mixing of different types of grease should be avoided. There may be unforeseeable consequences for the lubrication condition of the bearing.



*Fig. 1: Conical grease nipple type H1/180°, M10, brass, DIN71412 A*



*Fig. 2: All housing bearings are prepared for relubrication*



*Fig. 3: Manual one-hand grease gun*

Therefore, use, for example, Shell Gadus® S2 V100 3 or comparable greases according to availability. For orientation of required filling quantities, note that a grease filling of the housing clearances of 80-90% is absolutely sufficient to ensure lubrication and protection of the seals, as rotors are very slowly rotating units.

Please refer to the adjacent table for the complete capacity of common bearings. Basically, all bearings are filled to 25-50% ex works, which is sufficient for the actual lubrication. The actual relubrication requirement is correspondingly low.

### Data sheet

Shell Gadus® S2 V100 3  
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Bearing designation	Filling quantity Bearing clearance [cm <sup>3</sup> ]
GAY30-NPPB/PASEY30-N	9,6
GAY40-NPPB/PASEY40-N	16,3
GYE45-KRRB / RASEY45	23,3
GYE60-KRRB-A/RASEY60-N	40,5

If in doubt, work with fresh grease stroke by stroke until grease is noticeably oozing from the seals of the bearing. Stop at the first sign so as not to damage seals/cover disks; this can happen especially during maintenance jams, as the viscosity of the lubricant changes with age.



### Note

In principle, overlubrication of the bearings should be avoided. During the running-in phase, a further slight leakage of grease may occur due to displacement/heating of the bearing.



### Note

We recommend relubrication no more than once a year, as the grease, in addition to the actual lubrication, primarily provides a sealing function against the ingress of contaminants.

Only at continuous temperatures above 70°C, constant condensation or chemicals in the ambient air does the lubricant age at a correspondingly accelerated rate, so that adjusted intervals may become necessary.