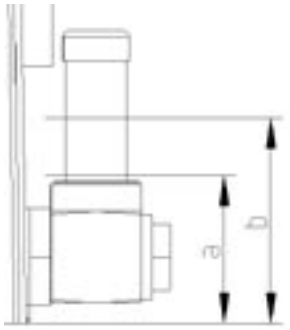
Important general data:

Shaft	Direct mounting	Bearing seating tolerance depends on the application. The same tolerance is used for the inner labyrinth ring. For the outer labyrinth ring tolerance h9/IT5 is used.
	Sleeve mounting	h9/IT5
Supporting	Flatness	IT7 - IT8
	Surface roughness	$R_a \leq$ 12,5 µm
Painting system	Alkyd RAL 9005	Pigment black
	Thickness	80µm
Coating	The colour is possible to coat. **Important to notice**.The colour is resistant to normally used low-alkalic detergents. Follow the recommendations from the detergent supplier.	

Mounting of bearing reference
SKF Bearing Maintenance Handbook (publication 4100 E) or SKF General Catalogue (publication 5000 E).

Table 1 **Minimum and maximum oil level when the application is not in operation.**

Housing Size	**Minimum oil level a** mm	**Maximum oil level b** mm
SONL 217-517	48	63
SONL 218-518	48	68
SONL 220-520	53	70
SONL 222-522	53	77
SONL 224-524	63	80
SONL 226-526	63	85
SONL 228-528	63	85
SONL 230-530	63	90
SONL 232-532	68	95



Note: Fill up the oil level to maximum before restarting after standstill

Table 2 **Housing**	**Cap bolts 8.8** **Recommended tightening torque**		**Attachment bolts 8.8** **Recommended tightening torque**	
		Nm		**Nm**
SONL 217-517	M 10	50	M 20	385
SONL 218-518	M 12	80	M 20	385
SONL 220-520	M 12	80	M 24	665
SONL 222-522	M 12	80	M 24	665
SONL 224-524	M 16	150	M 24	665
SONL 226-526	M 16	150	M 24	665
SONL 228-528	M 20	200	M 30	1 310
SONL 230-530	M 20	200	M 30	1 310
SONL 232-532	M 20	200	M 30	1 310

K nummer: K-623 version 5
SKF Mekan AB 2004

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Mounting instruction for oil lubricated SONL housings

Mounting SONL housings.

Before starting installation work, the following instructions should be carefully read.

1. Ensure that the environment is clean. Check the dimensional and form accuracy of the shaft seating. For bearings mounted on adapter sleeves seatings machined to tolerance h9, having a cylindricity tolerance to IT5/2 and a surface roughness $R_a \leq 3{,}2$ µm will be satisfactory. For bearings mounted on cylindrical seatings follow the guidelines in the General Catalogue. The inner labyrinth ring has tolerance F7 and fits normally used tolerance for the bearing seating. The outer labyrinth ring has tolerance H7 and is mounted on recommended shaft tolerance h9.

2. Check that the surface roughness of the support surface $R_a \leq$ 12,5 µm. The flatness (planicity) tolerance should be to IT7.

3. If the bearing is mounted on an adapter sleeve, determine the position of the housing.

4. Position the housing on the support surface. Fit the attachment bolts but do not tighten them. The side with the boss at the bearing seating must be placed to the inner side of the bearing arrangement. When oil bath is used install the oil level gauge (1) on the housing base. Whenever possible install the oil level gauge on the side opposite the oil pick up ring so that the reading is not effected by the eddies caused by the ring. Indicate the maximum and minimum oil level, according to **table 1**, on the oil level gauge.

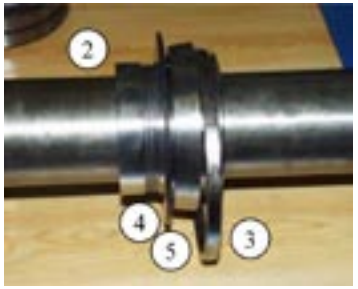
NB. To avoid oil leakage it is important that an oil-resistant sealant is applied on the connecting threads for attached components such as oil level gauge, oil pipes etc.

5. Mount the inner labyrinth ring (2) on the shaft and place the oil pick up ring (3) and seal ring (4) incl. o-ring (5) in position on the labyrinth ring.

NB. When circulating oil lubrication is used the oil pick up ring (3) is omitted from the assembly.

6. Mount the bearing on the shaft – either directly on a stepped shaft or using an adapter sleeve.

7. Mount the outer labyrinth ring (6) on the shaft and place the seal ring (7) incl. o-ring (8) in position on the labyrinth ring. If the housing is to be used on a shaft end, the second seal is omitted and the end cover is inserted in the housing base seal groove.



8. When an adapter sleeve is used tighten the labyrinth ring set screws. The recommended tightening torque is 18 Nm.

9. Lay the shaft with bearing and seal assemblies in the housing base.

NB. The oil pick up ring must be placed on the side of the bearing seat with the widest reservoir.

10. Put one locating ring (9) (when needed) at each side of the bearing.

NB. Locating rings are only used for locating bearing arrangements, except for CARB bearings which, although always non-locating, must always be mounted with locating rings.

11. Carefully align the housing base. Vertical markings at the middle of the ends of the housing base can facilitate this. Then lightly tighten the attachment bolts.

12. When circulating oil lubrication is used connect the oil inlet and outlet pipes to the housing.

NB. For circulating oil it is important that the outlet pipe/pipes can drain the housing in a proper way to avoid overfill of oil inside the housing.

13. When oil bath is used fill the housing with oil to the indicated maximum level. Cast markings inside the housing base indicate the maximum level.

NB. For oil bath it is important not to overfill the maximum level as this can cause oil leakage from the housing

14. Cover the mating surfaces of the housing with oil-resistant sealant Loctite or equal.

15. Place the housing cap over the base and tighten the cap bolts (to join cap and base) to the recommended torque according to table 2. Be careful not to damage the o-rings.

NB. The cap and base of one housing are not interchangeable with those of other housings. The cap and base should be checked to see that they bear the same identification.

16. Check the alignment and then fully tighten the attachment bolts in the housing base to the recommended tightening torque according to table 2.