

The SKF Drive-up Method considerably improves the reliability and ease in fitting bearings with a tapered bore and can be used for SKF spherical roller bearings, SKF CARB[®], and some SKF self-aligning ball bearings.

The correct fit is achieved by controlling the axial drive-up of the bearing from a predetermined position. The method incorporates the use of an SKF HMV E hydraulic nut fitted with a dial indicator, and a specially calibrated digital gauge, mounted on the selected pump.

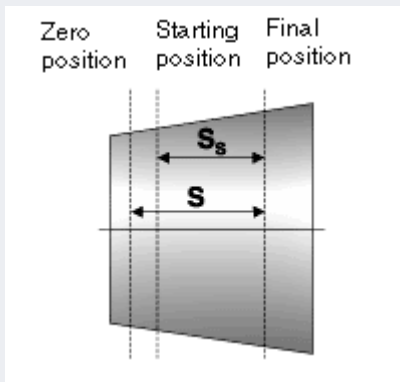


Fig. 1

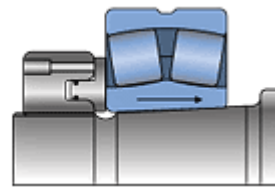


Fig. 2 One sliding surface

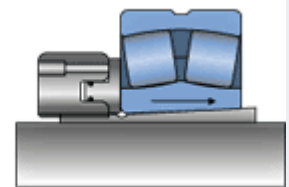


Fig. 3 One sliding surface

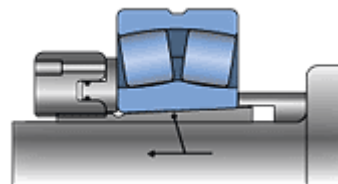


Fig. 4 Two sliding surfaces

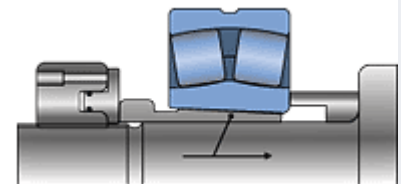


Fig. 5 Two sliding surfaces

Step by step mounting procedure

1. Ensure that the bearing size is equal to the HMV E-nut size. (Otherwise the pressure in the table must be adjusted).
2. Determine whether there are one or two sliding surfaces during mounting; see figures 2 - 5.
3. Lightly oil all mating surfaces with a thin oil e.g. SKF LHM 300 and carefully put the bearing on the shaft.
4. Drive the bearing up to the starting position by applying the recommended pressure found in the table to the HMV E-nut. Monitor the pressure by the gauge on the selected pump.
SKF Hydraulic Pump 729124 SRB is suitable for hydraulic nuts \leq HMV 54E.
SKF TMJL 100SRB is suitable for hydraulic nuts \leq HMV 92E, while TMJL 50SRB is suitable for nuts \leq HMV 200E.
As an alternative the SKF precision digital gauge TMJG 100D can be screwed directly into the hydraulic nut.
5. Drive the bearing up the taper the required distance s_s .
The axial drive-up is best monitored by a dial indicator. The SKF Hydraulic Nut HMV E has been prepared for dial indicators. See figure 6.

Normally, the bearing is now mounted with a suitable interference on the shaft and a suitable residual clearance.

For abnormal conditions such as a hollow shaft, very accurate residual clearance requirements etc. the drive-up distance must be adjusted.

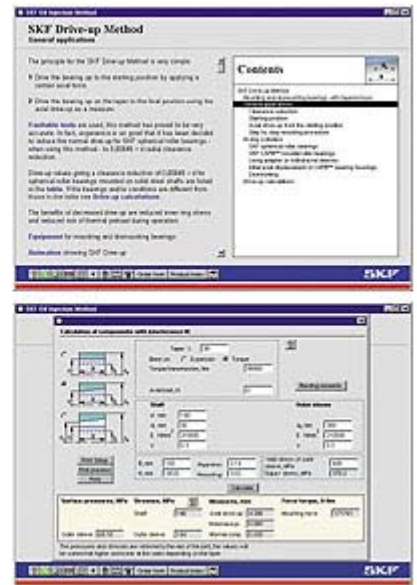
In such cases please contact SKF.

The standard interference fit is based on an internal clearance reduction of $0.000450 \times d$, although other values can be used based on the application.

The SKF Drive-up Method CD ROM (MP 3600) can be used to calculate the required pressure to reach the starting position (MPa or psi) and the axial drive up distance (mm and inch). It can be used for bearings mounted on solid or hollow shafts, shafts made of steel or other materials, direct on shafts or fitted on adapter or withdrawal sleeves and the internal clearance reduction can be user specified. The CD ROM is multi-lingual and includes English, German, Swedish, French, Italian, Spanish and Portuguese. In addition the CD ROM includes explanations of the method, videos, animations and application

examples.

A MP3600 version (without videos) can be downloaded by [clicking here](#).



The applicable tools are:

Designation	Description
729124 SRB	Hydraulic pump with precision gauge (for nuts <= HMV 54E)
TMJL 100SRB	Hydraulic pump with precision gauge (for nuts <= HMV 92E)
TMJL 50SRB	Hydraulic pump with precision gauge (for nuts <= HMV 200E)
TMJG 100D	Precision digital gauge (0 - 100 MPa)
TMCD 5P	Dial indicator (0 - 5 mm)
TMCD 10R	Dial indicator (0 - 10 mm)
TMCD 1/2R	Dial indicator (0 - 0.5 in)

