



SKF Drive-up Method

Accurate mounting of spherical roller and CARB bearings

The SKF Drive-up Method is a well-proven method, unique to SKF, of accurately achieving the adjustment of SKF spherical roller and CARB toroidal roller bearings mounted on tapered seatings.

The method incorporates the use of an SKF HMV ..E hydraulic nut fitted with a dial indicator, and a high accuracy digital pressure gauge, mounted on the selected pump. The correct fit is achieved by controlling the axial drive-up of the bearing from a pre-determined starting position, defined by the pressure in the SKF HMV ..E hydraulic nut. The second stage is monitored by driving the bearing up a calculated distance on the taper seating.

You can determine the starting position pressure and drive-up distance for most SKF bearings by using the SKF Drive-up Method PC program or iOS / Android apps.

In addition, SKF's unique information service for mounting and dismount bearings, skf.com/mount, also features the SKF Drive-up Method.

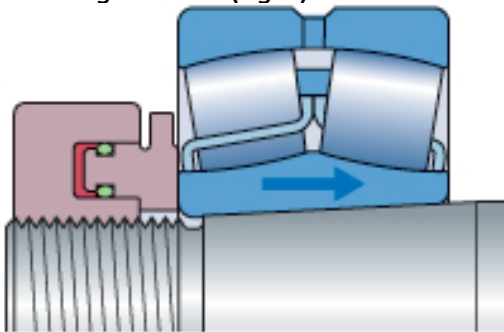
- Reduces the use of feeler gauges
- Greatly reduces the time to mount spherical roller and CARB toroidal roller bearings
- A reliable and accurate method of adjustment
- The only suitable way to mount sealed spherical roller and CARB bearings

The SKF Drive-up Method PC program or iOS or Android apps calculate the required values for the bearing and the mounting arrangement.

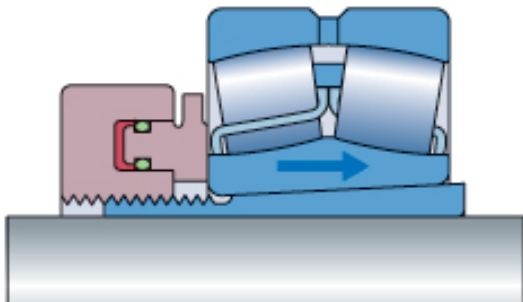
SKF Drive-up Method - Step by step procedure

1. Determine whether one or two surfaces slide during mounting; see figures below.
2. Lightly oil all mating surfaces with a thin oil, e.g. SKF LHM 300, and carefully place the bearing on the shaft.
3. Use the SKF Drive-up Method program or app, or use skf.com/mount to calculate the required values for the bearing and the mounting arrangement.
4. Drive the bearing up to the starting position by applying the required hydraulic nut pressure. Monitor the pressure using the gauge on the selected pump. SKF Hydraulic Pump 729124 DU is suitable for SKF Hydraulic Nuts \leq HMV 54E. SKF TMJL 100DU is suitable for SKF Hydraulic Nuts \leq HMV 92E while SKF TMJL 50DU is suitable for nuts \leq HMV 200E. As an alternative, the SKF Digital Pressure Gauge THGD 100 can be screwed directly into the hydraulic nut.
5. Drive the bearing up the taper by the required distance S_s .
The axial drive-up is best monitored by a dial indicator.
The SKF Hydraulic Nut HMV ..E is prepared for dial indicators. Normally, the bearing is now mounted with a suitable interference on the shaft and a suitable residual clearance.

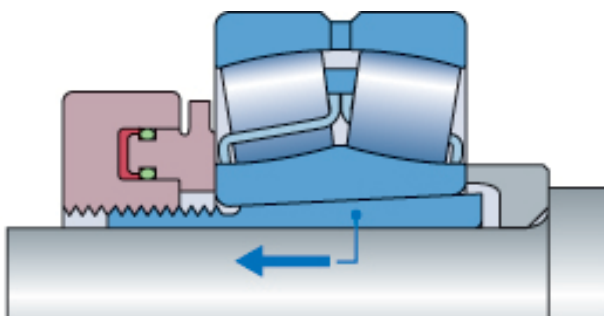
One sliding surface (fig 1)



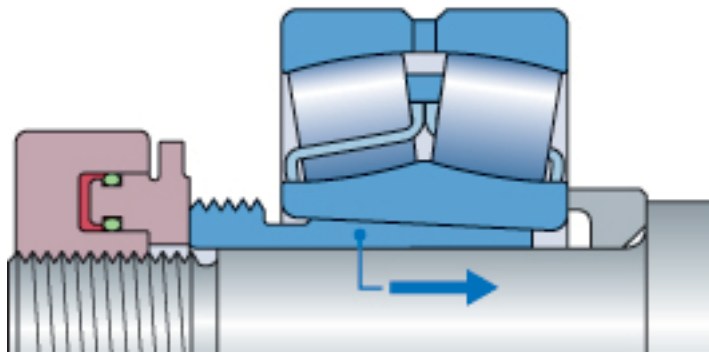
One sliding surface (fig 2)



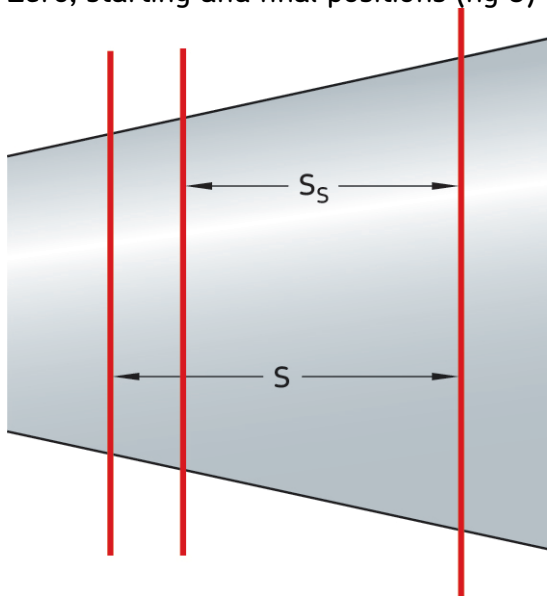
Two sliding surfaces (fig 3)



Two sliding surfaces (fig 4)



Zero, starting and final positions (fig 5)



Products for the SKF Drive-up Method	
Designation	Description
HMV ..E (e.g. HMV 54E)	Metric thread hydraulic nut
HMVC ..E (e.g. HMVC 54E)	Inch thread hydraulic nut
HMV ..E/A101 (e.g. HMV 54E/A101)	Unthreaded hydraulic nut
729124 DU (for nuts \leq HMV 54E)	Pump with digital gauge (MPa/psi)
TMJL 100DU (for nuts \leq HMV 92E)	Pump with digital gauge (MPa/psi)
TMJL 50DU (all sizes HMV ..E nuts)	Pump with digital gauge (MPa/psi)
THGD 100	Digital gauge only (MPa/psi)
TMCD 10R	Horizontal dial indicator (0–10 mm)
TMCD 5P	Vertical dial indicator (0–5 mm)
TMCD 1/2R	Horizontal dial indicator (0–0.5 in.)

Technical data – Hydraulic pumps			
Designation	729124 DU	TMJL 100DU	TMJL 50DU
Max. pressure	100 Mpa (14 500 psi)	100 Mpa (14 500 psi)	50 Mpa (7 250 psi)
Volume/stroke	0,5 cm ³ (0.03 in. ³)	1,0 cm ³ (0.06 in. ³)	3,5 cm ³ (0.21 in. ³)
Oil container capacity	250 cm ³ (15 in. ³)	800 cm ³ (48 in. ³)	2 700 cm ³ (165 in. ³)
Digital pressure gauge unit	Mpa/psi	MPa/psi	Mpa/psi
NOTE: All above pumps are supplied complete with digital pressure gauge, high pressure hose and quick connect coupling			