

## B. Taper-Roller Bearings

The bearing races and the taper-rollers together with the taper-roller bearing retainer should be checked for scoring and damage.

If it is necessary to replace the taper-roller bearings, they should be selected to yield the prescribed oversize fit of 0.010 to 0.015 mm between the inner race and the bearing bed of the steering worm.

**Dimensions and Tolerances of the Taper-Roller Bearings and Steering Worm**  
in mm

Taper-roller bearing				Steering worm	Steering housing
Part No.	Internal diameter	External diameter	Width	Bearing bed diameter	Base bore diameter
000 981 03 18	$\frac{19.590}{19.600}$	$\frac{44.475}{44.450}$	$\frac{14.180}{14.448}$	$\frac{19.615}{19.602}$	$\frac{44.470}{44.495}$

## C. Steering Shaft

The steering shaft should be examined for wear, distortion and damage.

The ball-cup in the steering shaft arm should be examined for scoring, cracks and damage. If necessary, the ball-cup can be pressed out. When installing a new ball-cup, care must be taken to ensure that the prescribed oversize fit of 0.01 mm is obtained.

Similarly, the two stop faces (a) at the side of the steering shaft arm should be checked for wear (Fig. 46 — 5/2).

If any damaged parts or considerable wear is found, the steering shaft should be replaced.

## D. Steering Housing

The steering housing should be checked for damage and the bearing bushings for wear. In doing this, particular care must be taken to check whether the housing is damaged at the steering shaft arm safety stop faces (b) (Fig. 46 — 5/2).

If this is the case, the steering housing should be replaced. The angle of left and right lock of the steering shaft, measured from the center position, is  $35^{\circ} 30'$  on each side (Fig. 46 — 5/2).

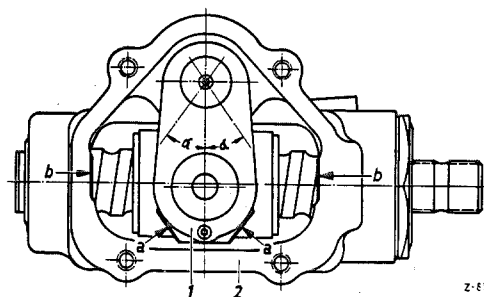
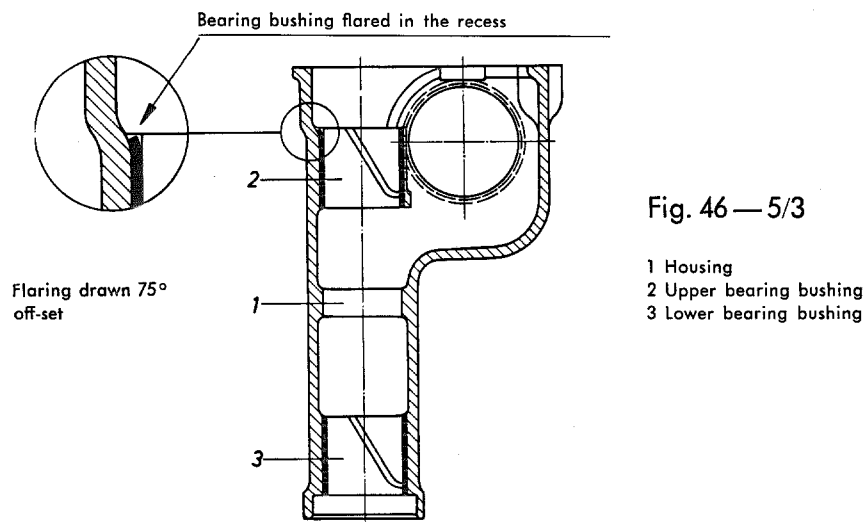


Fig. 46 — 5/2

- 1 Steering shaft arm
- 2 Steering housing
- a Stop faces at the steering shaft arm
- b Safety stop faces at the housing
- Angle of lock  $\alpha = 35^{\circ} 30'$

If wear or chafed spots are found at the bearing bushings, the bushings should be replaced. When installing the new bushings, care must be taken to ensure that the open end of the oil groove is facing upward. To prevent displacement the upper bearing bushing is locked by flaring (expanding) the upper edge (Fig. 46 — 5/3). When the bushings have been pressed in, they should be reamed out to the finished dimensions.



**Dimensions and Tolerances of the Steering Housing**  
in mm

Steering shaft	Upper and lower bearing bushing			Steering housing
Bearing surfaces diameter	Internal diameter Rough-turning dimension	Internal diameter Finished dimension	External diameter	Base bore diameter
$\frac{29.993}{29.980}$	$\frac{29.5}{29.6}$	$\frac{30.000}{30.013}$	$\frac{32.059}{32.043}$	$\frac{32.000}{32.025}$

### E. Pressure Block Assembly

Examine the pressure sleeve, compression spring and set screw to see whether they are still serviceable. As a rule, if the parts in question are damaged, they should be replaced. As an expedient, the pressure face of the pressure sleeve can be reground if slight scoring is found.

**Dimensions and Tolerances**  
in mm

#### Compression Spring

External diameter mm	Gage of wire mm	Free lenght mm	Length under load mm	kg
17.5	3.5	$23.6 \pm 0.2$	18.7	$80 \pm \frac{10}{5}$

#### Pressure Sleeve

External diameter	Internal diameter	Length
$\frac{22.048}{22.035}$	$\frac{17.5}{18.0}$	22

#### Set Screw

External diameter	Internal diameter	Tightening of set screw in cover
M 28 × 1.5	$\frac{22.2}{22.3}$	Screw in till tight and then turn out 3—4 mm, measured at the circumference of the set screw