

# **Repair and Replacement of Waring Parts on Double Jointed Shafts**

Repairs to double cardan shafts should be considered only in emergency cases when it is not possible to obtain replacement shafts.

 For safety reasons, repairs should be carried out only by authorized workshops.

## **4.1 Dismantling a Double Joint**

We strongly advise that individual damaged bearings should not be replaced, since in most instances the pin on the spider is damaged. For this reason, it is advisable only to replace complete double jointed shafts.

If the double jointed shaft is designed with forked shafts, the dismantling of the spider can be carried out as described under [3.2](#). The following description is usual for fist-designed shafts.

Remove the circlips from the outer drive ring, and press the spider, complete with the bushes, up against the drive ring. Take out the bush protruding from the drive ring. Remove the opposite bush in a similar manner and twist the shaft complete with spider out of the drive ring.

Remove circlips from the spider and withdraw both bushes from the spider. Press out the spider pin out of the shaft and spide, having first unscrewed the retaining screw for the spider pin.

## **4.2 Assembling a Double Joint**

Place the larger opening of the spider on the shaft and press in the new spider pin. Make sure that the spider pin is centred in the shaft boss. This is checked between centres or on prism blocks. The permissible tolerance is  $\pm 0.1$  mm. Screw the retaining screw for the spider pin.

Insert the bushes in the joint and press them in. Secure them in a centred position with circlips, preferably without any clearance. Permissible tolerance  $\pm 0.1$ mm.

Introduce the assembled shaft into the drive ring. Position the bushes in the drive ring and press them in. Secure them in a centred position with circlips. Permissible tolerance  $\pm 0.1$  mm.

Pack the double jointed shafts with grease through the grease nipple until grease comes out at the bearings.