Notes

The supporting joint (bottom) and the guide joint (top) of the steering knuckle bearing are ball joints seated in plastic ball shells (Figs. 1 and 2).

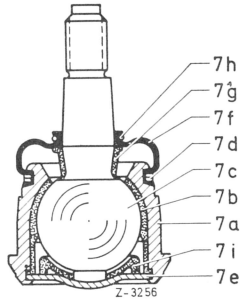

Fig. 1
Supporting joint

7a Housing
7b Ball socket
7c Ball pin 35 mm dia
7d Circlip
7e Washer
7f Boot
7g Support ring
7h Clamping ring
7i Lower ball socket

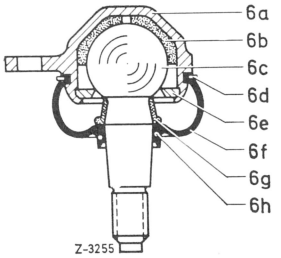

Fig. 2
Guide joint

6a Housing
6b Ball socket
6c Ball pin 27 mm dia
6d Circlip
6e Washer
6f Boot
6g Support ring
6h Clamping ring

The supporting joint housing is pressed into the lower control arm, while the guide joint is connected to the upper control arm by means of three round-head rivets (Figs. 4 and 5). The ball joints require no maintenance, i.e. they are filled with lubricant for life. On such a maintenance-free joint, sealing against the entry of dirt and sand is of vital importance for the service life. For this reason it is necessary to check the ball joints from time to time. If the boot is leaking, dirt is bound to enter during operation and will cause premature wear of the ball joint. A rubber boot which has been damaged during assembly, for example, must be replaced at once. A ball joint which has already been in operation with a leaking boot must always be replaced or the relevant control arm must be exchanged for another. If a guide joint becomes defective, the complete upper control arm must always be replaced, since subsequent riveting or screwing on of the ball joint is not possible.

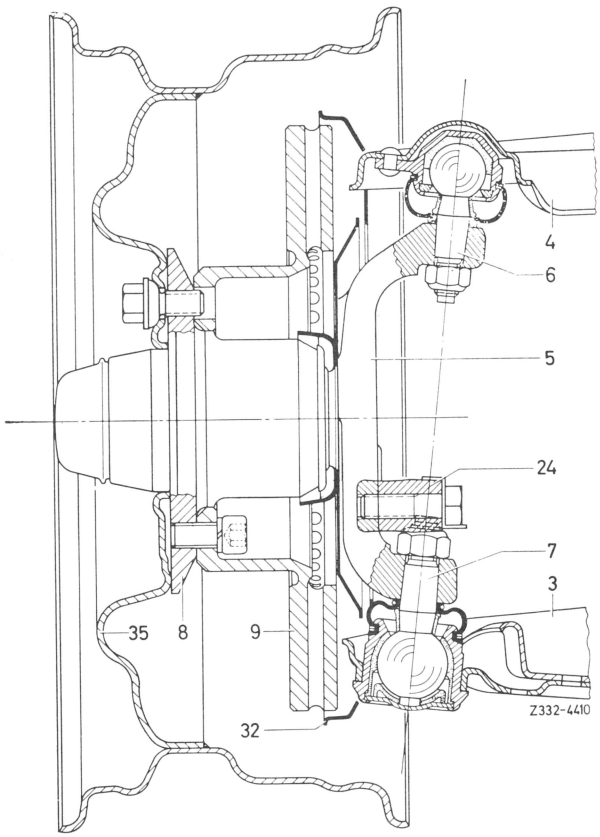

Fig. 3

3 Lower control arm
4 Upper control arm
5 Steering knuckle
6 Guide joint
7 Supporting joint
8 Front wheel hub
9 Brake disc
24 Steering knuckle arm
32 Cover plate
35 Disc wheel

In order to check the ball pins for distortion during accident repairs, see 33.1–560 or 33.1–570, "Checking upper and lower control arm".

33.1 Check supporting and guiding joint of steering knuckle

Checking

1 Push an approx. 150 mm long tube over the ball pin. If the joint is in good order, the ball pin can be moved back and forth smoothly without sticking. If there is too much free play, only jerky movement or a grinding noise, the joint or the control arm must be replaced.

2 Check supporting joint for tight seating in lower control arm, and connection of guide joint in upper control arm.

3 Check rubber boots (6f and 7f) for cracks and damage, check circlips (6d and 7d) and tension rings (6h and 7h) for correct seating (Figs. 4 and 5).

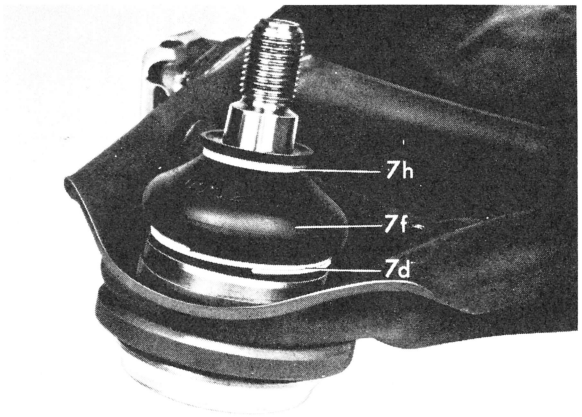

Fig. 4
Supporting joint

7d Circlip
7f Boot
7h Tension ring

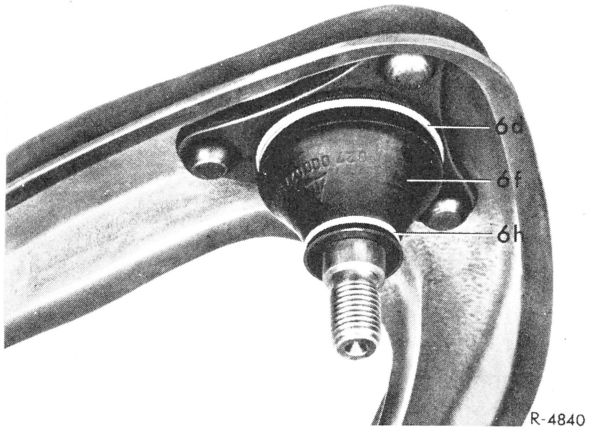

Fig. 5
Guide joint

6d Circlip
6f Boot
6h Tension ring