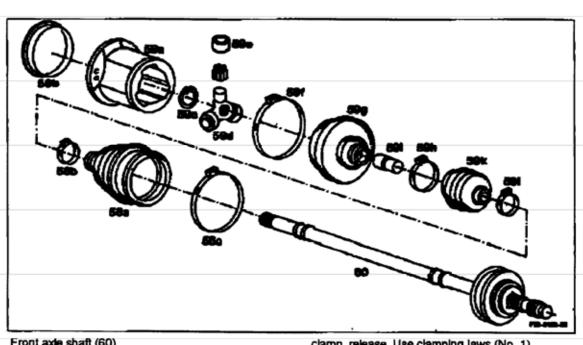## 33-0660 Replacing rubber bellows on front axle shaft

Preceding work:
33-0620 Removing and installing front axle shaft

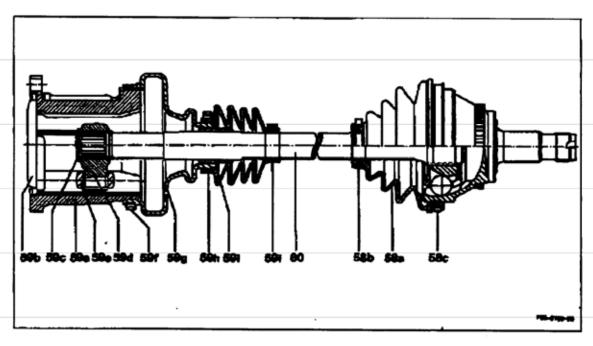Operation no. of operation texts and work units or standard texts
and flat rates

Front axle shaft (60)	clamp, release. Use clamping jaws (No. 1).
Hose clamp (59f)	detach, replace, tighten (No. 2).
	Mark position of joint casing (59e) in relation to tripod spider (59d) mark (No.3).
Joint casing (59e)	remove, install (Nos. 3 and 14).
Tripod joint rollers (59e)	secure to prevent falling out. Each joint roller supported with 32 needles (No. 5).
End cover (59b)	remove, install (Nos. 4 and 13).
Circlip (59c)	remove, replace and install (Nos. 6 and 11).
Tripod spider (59d)	remove, slide in up to the stop (Nos. 7 and 11).
Hose clamps (58b, 58c, 59h, 59l)	detach if required, replace, and tighten.
Rubber bellows (58a, 59g, 59k)	remove if required, replace, and install.
Bush (59l)	remove, install. Assemble rubber bellows (59g and 59k) in correct relationship and ensure correct seating (Nos. 8 and 10).
Test	all parts (No.9).

Lubricant

Rzeppa outer joint	120 g MB Low - viscosity grease	Part no. refer to parts microfilm
Tripod inner joint	390 g Tripod joint grease	

Commercially available tools

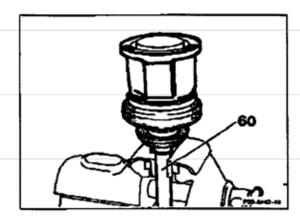| Designation	e.g. Company, order no.
Three-arm puller	Kukko, D-5630 Remscheid, 30-1
Assembly pliers for hose clamp	Hans Oettker GmbH, D-7833 Endingen 1, 1098i
Circlip pliers	Hazet D-5630 Remscheid 1

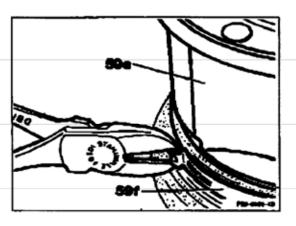|			
58a	Rubber bellows	59f	Hose clamp
58b	Hose clamp	59g	Rubber bellows
58c	Hose clamp	59h	Hose clamp
59a	Tripod joint casing	59i	Bush
59b	End cover	59k	Rubber bellows
59c	Circlip	59l	Hose clamp
59d	Tripod spider	60	Front axle shaft
59e	Tripod joint rollers		

Note
The rubber bellows on the outer joint can only be
replaced after stripping down the inner joint since it
is not possible to strip down the outer joint.
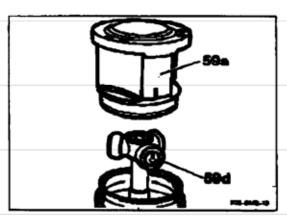
Dismantling
1   Clamp front axle shaft (60) vertically in the vise
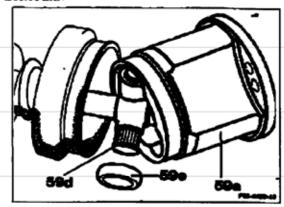using clamping jaws, with the tripod inner joint
upwards.

2   Remove hose clamp (59f) on tripod joint
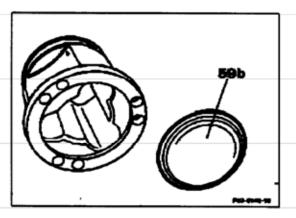casing (59a) using side cutters.

3   Mark position of tripod spiders (59d) in relation
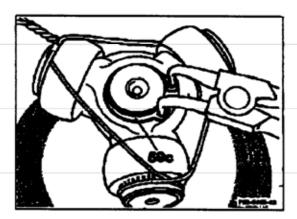to tripod joint casing (59a), remove joint casing.

M

Ensure that the tripod joint rollers, which are
supported on needle bearings, (59e) do not slip off
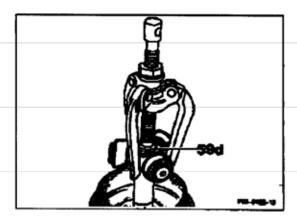the spigot on the tripod joint spider (59d).

4   Remove end cover (59b).

5   Clean grease off joint and use wire or adhesive
tape to secure the tripod joint rollers supported on
needle bearings, to prevent them falling out. Each
joint roller is supported on 32 needles.

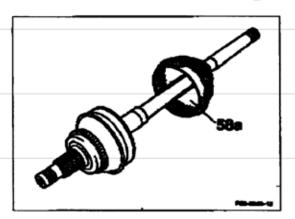6   Remove circlip (59c).

7   Extract tripod spider (59d) from front axle shaft
using three-arm puller.

8   If required remove additional hose clamps, detach relevant rubber bellows and bush and remove.
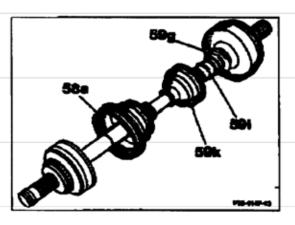Remove the outer rubber bellows (58a) via the dismantled side of the front axle shaft, if necessary. Ensure that none of the grease escapes and that no dirt gets into the inside of the joint. Wipe off the grease remaining in the inside of the rubber bellows and transfer to the joint.
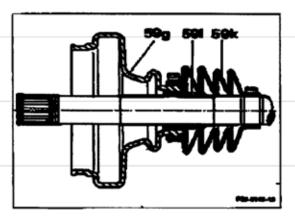
9   Check parts for damage or wear, replace if required.

Assembly
10   Push rubber bellows (58a, 59g, 59k) and bush (59l) onto front axle shaft.
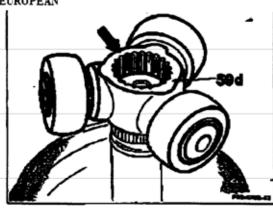
11   Assemble hose clamps.

M
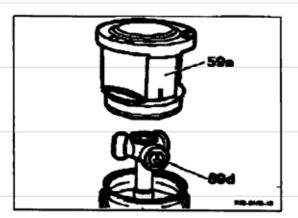Ensure correct seating of bush (59i) at the connection of both inner rubber bellows (59g, 59k).

12 Push tripod spider (59d) with the flat side
(arrow) towards the circlip up to the stop on the
spline section.

13 Detach circlip.

14 Press end cover (59b) onto the tripod joint
casing (59a).

15 Fill joint with grease.

M
Only use the specified quantity of approved
lubricants.

16 Insert joint casing (59a) on tripod spider (59d),
noting the applied marking.

17 Slide rubber bellows into correct position and
tighten hose clamp using assembly pliers. At the
same time ensure that the hose clamp contacts
evenly.