9 Driveaxle boots - replacement

Note:
If the CV joints are worn, indicating the need for an overhaul (usually due to torn boots and lost grease), explore all options before beginning the job. Complete rebuilt driveaxles are available on an exchange basis, which eliminates much time and labor.

1 Remove the driveaxle (see Section 8).

2 Clean the driveaxle and mount it in a vise.

3 Release the two inner joint boot-retaining clips and free the boot and dust cover from the joint **(see illustration)** .

9.3 Release the boot retaining clips and slide the boot down the driveaxle shaft

4 On E-series models pry off the sealing cover from the end of the inner constant velocity (CV) joint **(see illustration)** .

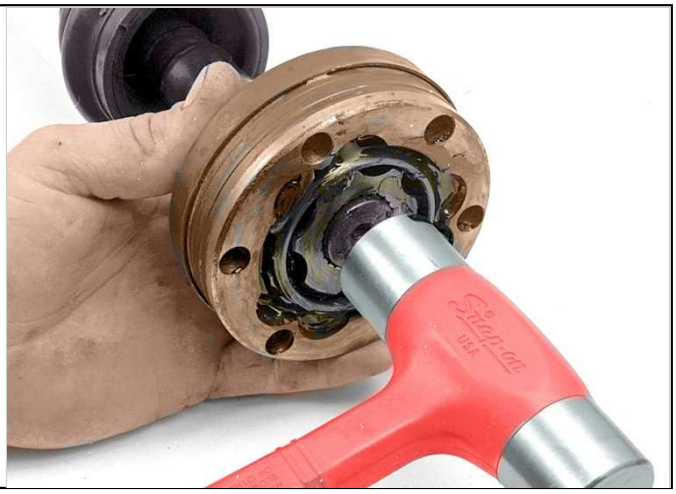
9.4 Carefully remove the sealing cover from the inner end of the joint (E-series only)

5 Scoop out excess grease and, on E-series models, remove the inner joint snap-ring from the end of the driveshaft **(see illustration)** .

9.5 Remove the inner joint snap-ring from the driveaxle (E-series only)

6 On E-series models securely support the joint inner member and tap the driveaxle out of position using a hammer and drift **(see illustration)** . If the joint is a tight fit, a puller will be required to draw off the joint. Do not disassemble the inner joint.

9.6 Support the inner joint member and tap out the driveaxle (E-series only)



Caution:
On F-series chassis models, don't attempt to separate the inner CV joint from the shaft.

7 With the joint removed, slide the inner boot and dust cover off from the end of the driveaxle **(see illustration)**
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9.7 Slide off the boot

8 Release the outer joint boot retaining clips, then slide the boot along the shaft and remove it.

9 Thoroughly clean the constant velocity joints using solvent, and dry thoroughly. Inspect the joints as follows.

10 Move the inner splined driving member from side-to-side to expose each ball in turn at the top of its track. Examine the balls for cracks, flat spots or signs of surface pitting.

11 Inspect the ball tracks on the inner and outer members. If the tracks have widened, the balls will no longer be a tight fit. At the same time, check the ball cage windows for wear or cracking between the windows.

12 If any of the constant velocity joint components are found to be worn or damaged, they must be replaced. The inner joint is available separately but if the outer joint is worn, it will be necessary to replace the complete joint and driveshaft assembly. If the joints are in satisfactory condition, obtain new boot repair kits which contain boots, retaining clips, an inner constant velocity joint snap-ring and the correct type and quantity of grease required.

13 Tape over the splines on the end of the driveaxle.

14 Slide the new outer boot onto the end of the driveaxle.

15 Pack the outer joint with the grease supplied in the boot kit. Work the grease well into the bearing tracks while twisting the joint, and fill the rubber boot with any excess.

16 Ease the boot over the joint and ensure that the boot lips are correctly located on both the driveshaft and constant velocity joint. Lift the outer sealing lip of the boot to equalize air pressure within the boot.

17 Fit the large metal retaining clip to the boot. Pull the retaining clip tight, then bend it back to secure it in position and cut off any excess. Secure the small retaining clip using the same procedure.

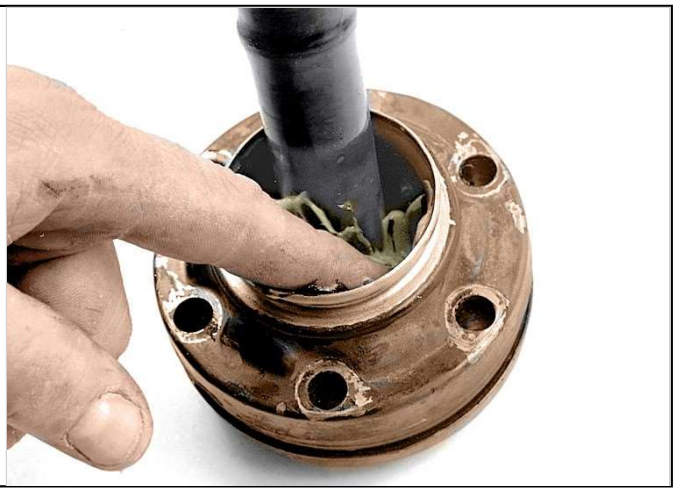
18 Engage the new inner boot with its dust cover and slide the assembly onto the driveaxle.

19 Remove the tape from the driveaxle splines and install the inner constant velocity joint. Press the joint fully onto the shaft and secure it in position with a new snap-ring.

20 Work the grease fully into the inner joint and fill the boot with any excess **(see illustrations)** .

9.20a Fill the inner joint with the grease supplied with the boot kit

9.20b Work the grease into the bearing tracks



21 Slide the inner boot into position and press the dust cover onto the joint, making sure the retaining bolt holes are correctly aligned. Lift the outer sealing lip of the boot to equalize air pressure within the boot, and secure it in position with the retaining clips.

22 Apply a smear of suitable sealant (BMW recommends BMW sealing gel) and press the new sealing cover fully onto the end of the inner joint.

23 Check that both constant velocity joints move freely and easily, then install the driveaxle (see Section 8).