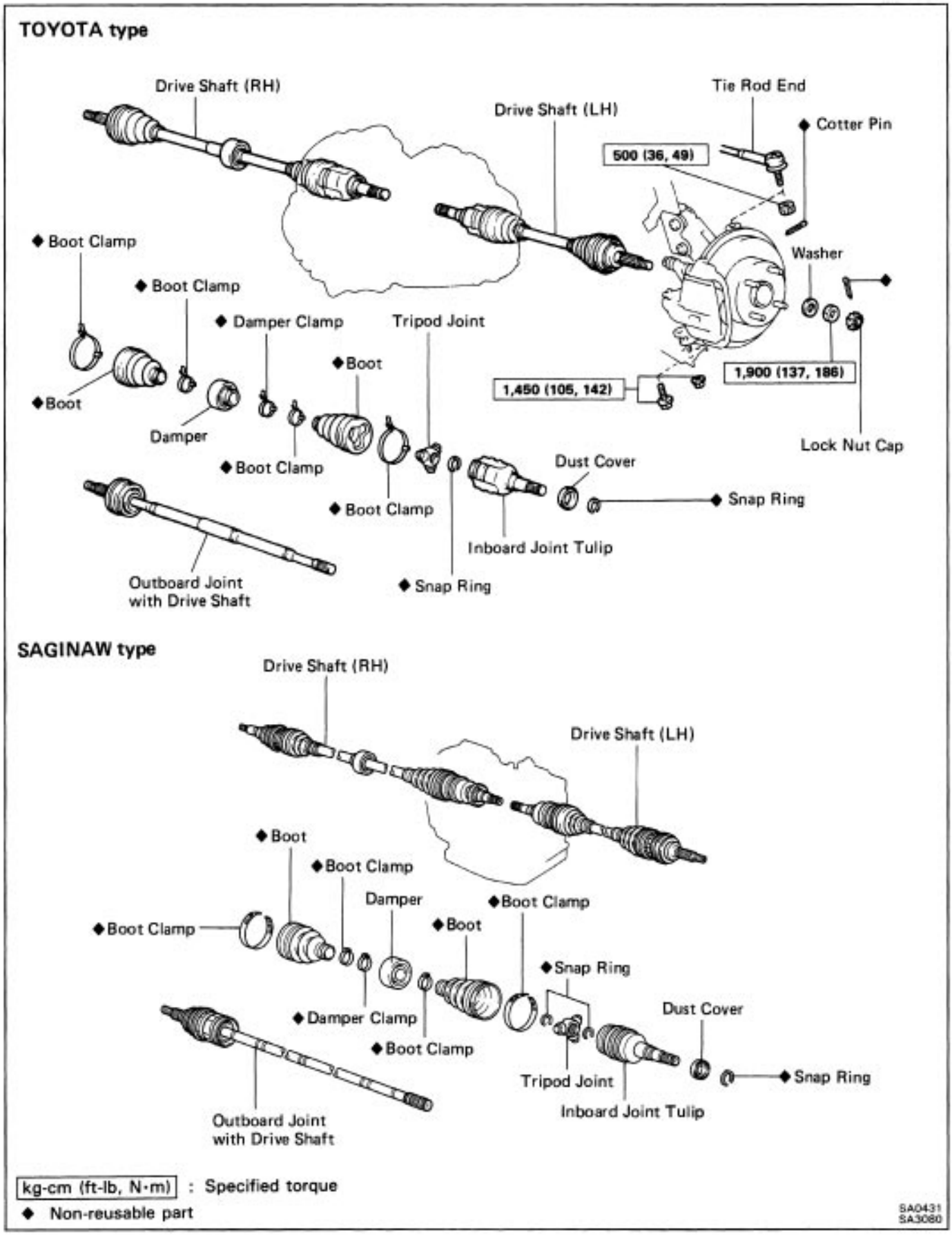
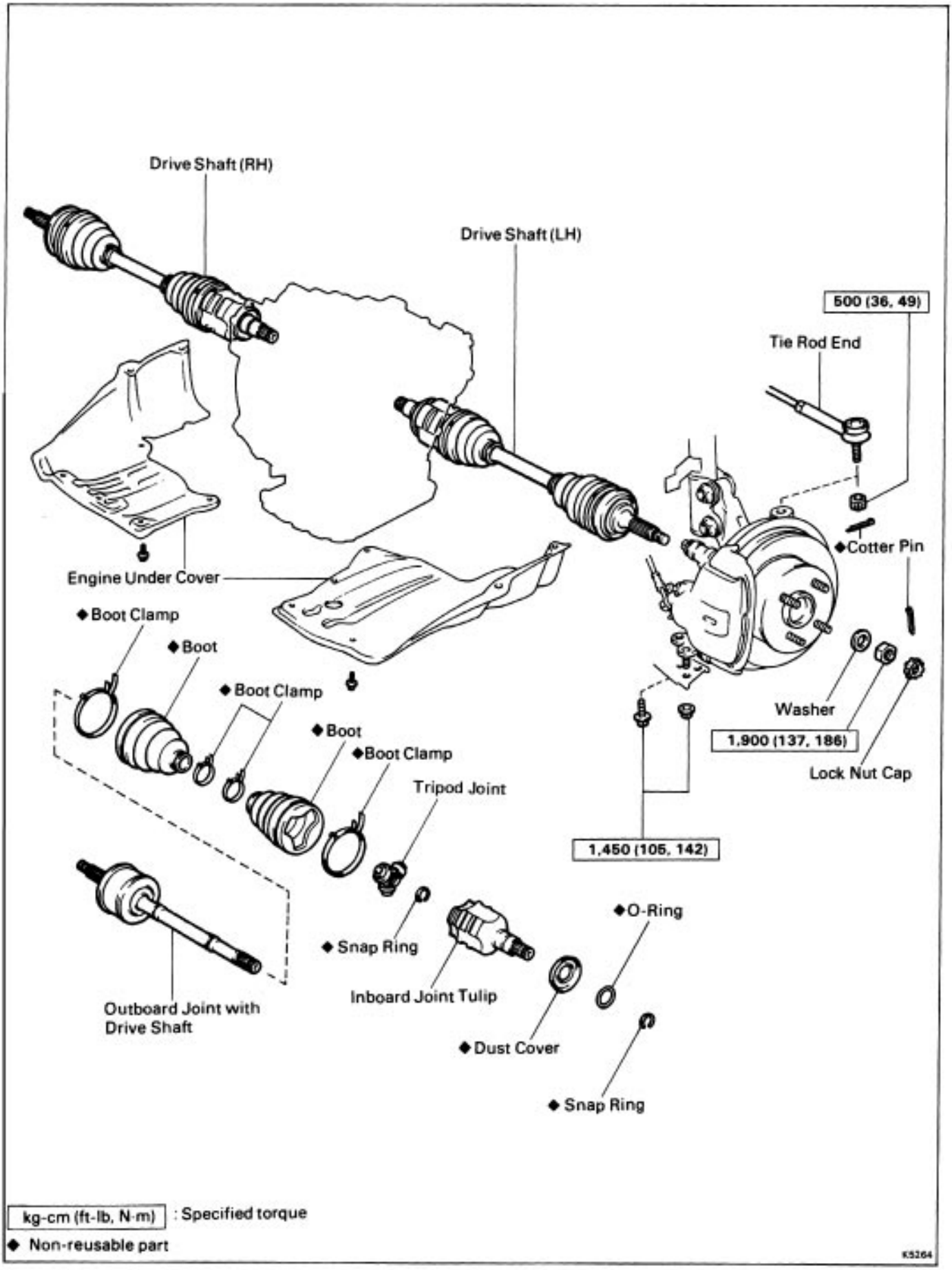
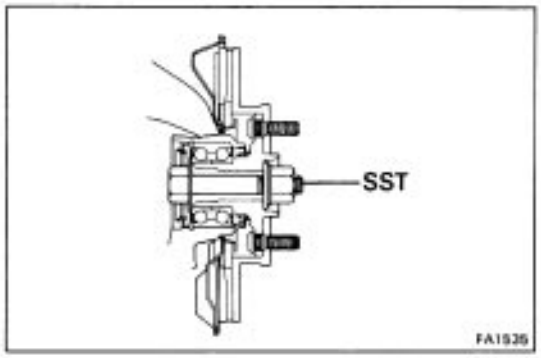
FRONT DRIVE SHAFT

COMPONENTS (2WD)



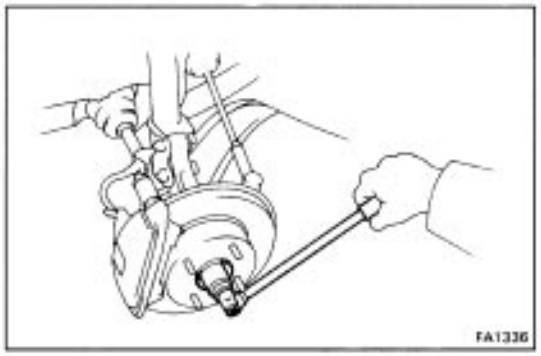
COMPONENTS (4WD)





NOTICE: The hub bearing could be damaged if it is subjected to the vehicle weight, such as when moving the vehicle with the drive shaft removed. Therefore, if it is absolutely necessary to place the vehicle weight on the hub bearing, first support it with SST.

SST 09608–16041 (09608–02020,09608–02040)



REMOVAL OF FRONT DRIVE SHAFT

(See pages SA–14, SA–15)

1. REMOVE COTTER PIN, LOCK NUT CAP AND BEARING LOCK NUT

(a) Remove the cotter pin and lock nut cap.

(b) Loosen the bearing lock nut while depressing the brake pedal.

2. REMOVE ENGINE UNDER COVERS

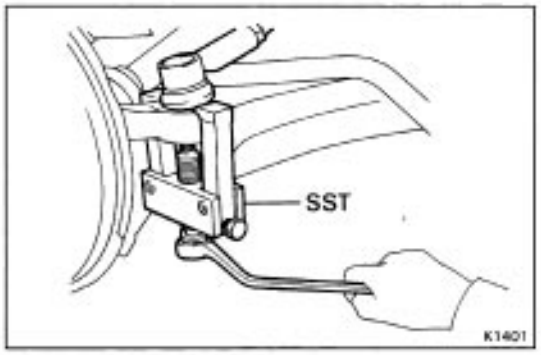
3. DRAIN OUT GEAR OIL OR FLUID

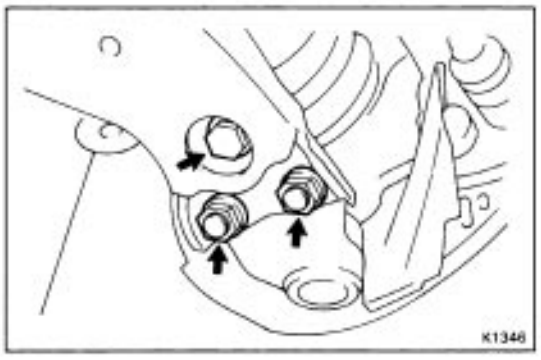
4. DISCONNECT TIE ROD END FROM STEERING KNUCKLE

(a) Remove the cotter pin and nut from the steering knuckle.

(b) Using SST, disconnect the tie rod end from the steering knuckle.

SST 09628–62011

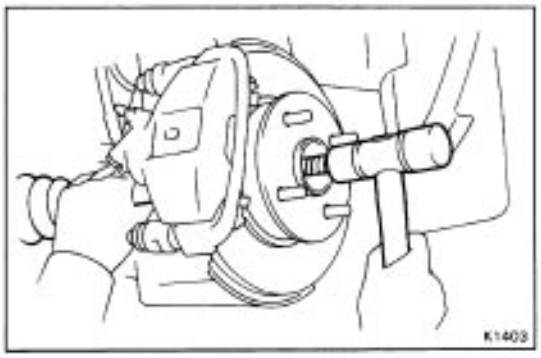




5. DISCONNECT STEERING KNUCKLE FROM LOWER ARM

(a) Remove the bolt and two nuts.

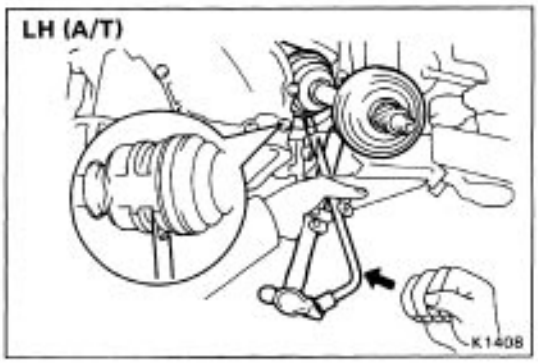
(b) Disconnect the lower arm from the steering knuckle.



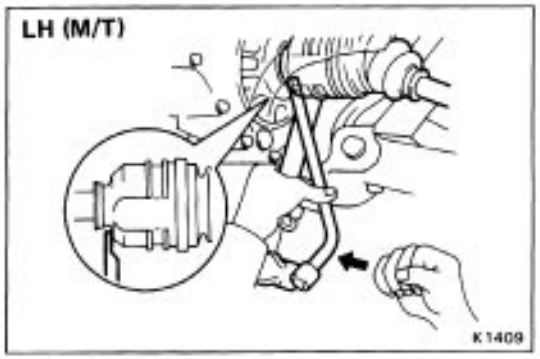
6. REMOVE FRONT DRIVE SHAFT

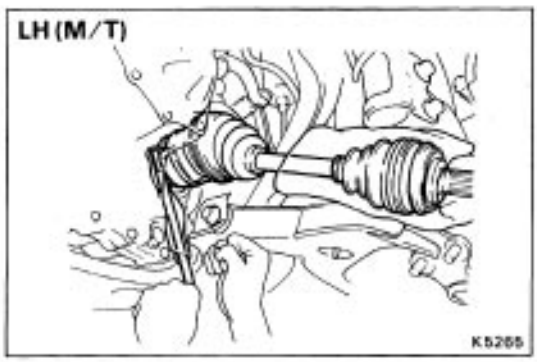
(a) Using a plastic hammer, disconnect the drive shaft from the axle hub.

NOTICE: Cover the drive shaft boot with cloth to protect it from damage.

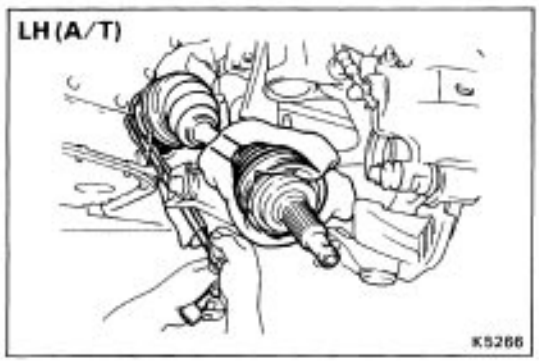


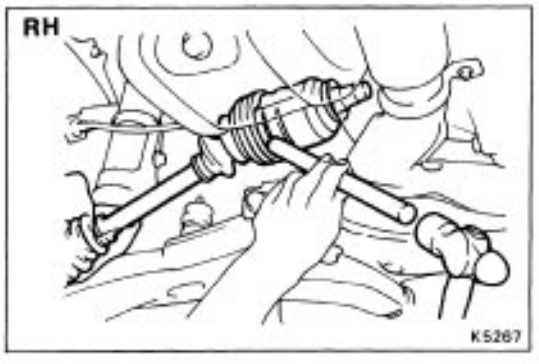
(b) (2WD)
Using hub nut wrench and hammer handle or an equivalent, remove the front drive shaft as shown.
HINT: Be careful not to damage the dust cover.



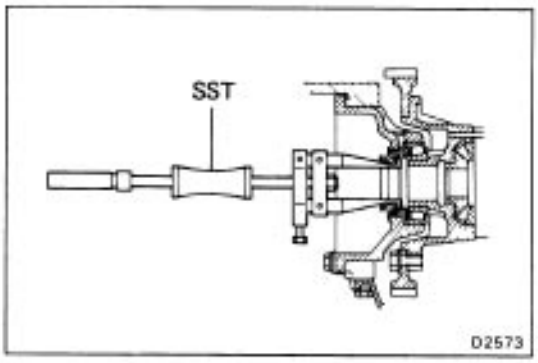


(c) (4WD)
Using hub nut wrench, remove the LH drive shaft as shown.
HINT: Be careful not to damage the dust cover.





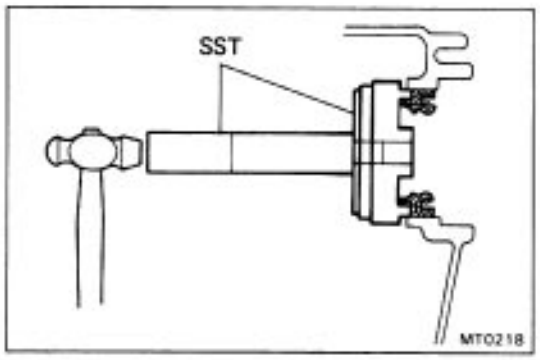
(d) Using a brass bar and a hammer, remove the RH drive shaft.



7. IF NECESSARY, REPLACE SIDE GEAR SHAFT OIL SEAL

(a) Using SST, pull out the oil seal.

SST 09308–00010



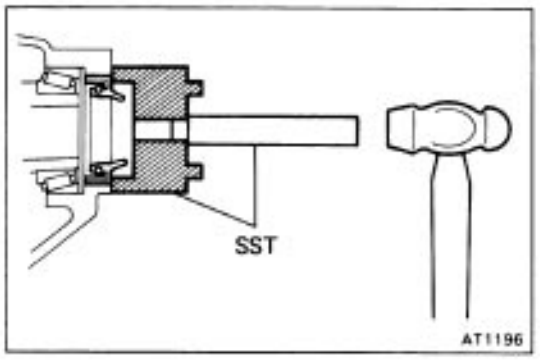
(b) Using SST and a hammer, tap in a new oil seal.

SST M/T –LH

A/T (A240L)–LH

09350–32014 (09351–32111, 09351–32130)

HINT: Coat the oil seal lip with MP grease.



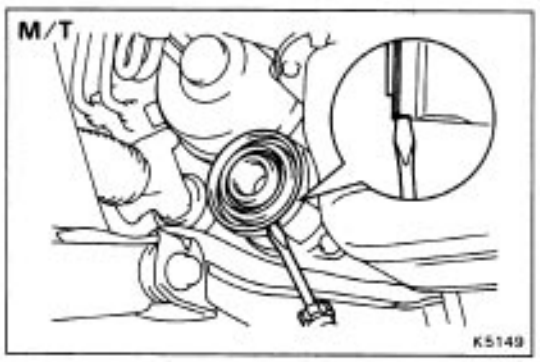
SST M/T – RH

A/T (A131L) – LH and RH

(A240L) – RH

09350–32014 (09351–32130, 09351–32150)

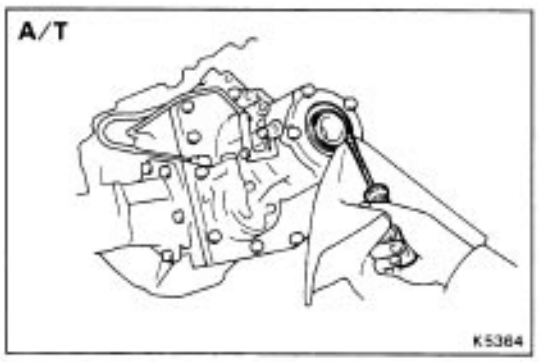
HINT: Coat the oil seal lip with MP grease.

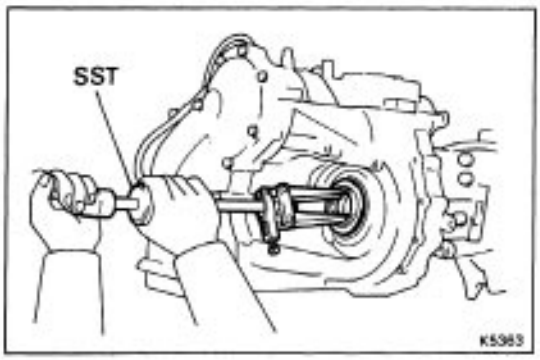


8. (4WD)

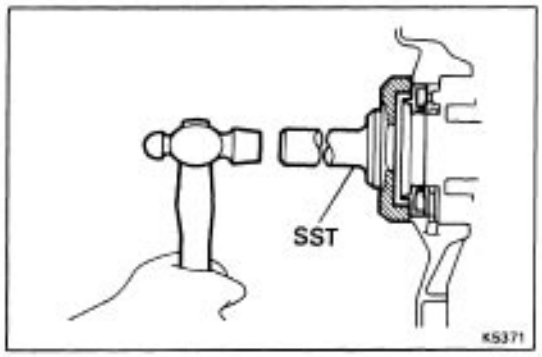
IF NECESSARY, REPLACE OIL SEAL

(a) Using a screwdriver, remove the RH oil seal.

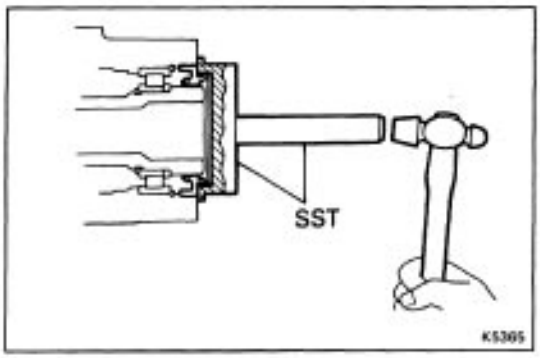




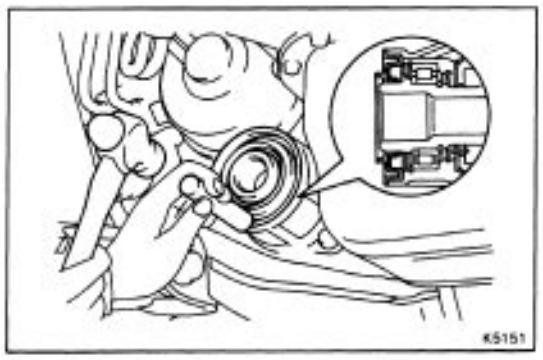
(b) Using SST, pull out the LH oil seal.
SST 09308–00010



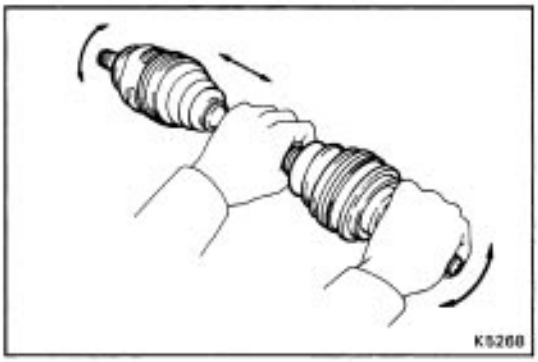
(c) Using SST and a hammer, tap in a new LH oil seal.
SST 09223–15010
HINT: Coat the oil seal lip with MP grease.



(d) (A/T)
Using SST and a hammer, tap in a new RH oil seal.
SST 09608–32010, 09608–35014 (09608–06020)
HINT: Coat the oil seal lip with MP grease.



(e) (M/T)
Using a brass bar and a hammer, tap in a new RH oil seal.
HINT: Coat the oil seal lip with MP grease.



DISASSEMBLY OF FRONT DRIVE SHAFT

(See pages SA–14, SA–15)

1. CHECK DRIVE SHAFT

(a) Check to see that there is no play in the outboard joint.

(b) Check to see that the inboard joint slides smoothly in the thrust direction.

(c) Check to see that there is no remarkable play in the radial direction of the inboard joint.

(d) Check for damage to boots.

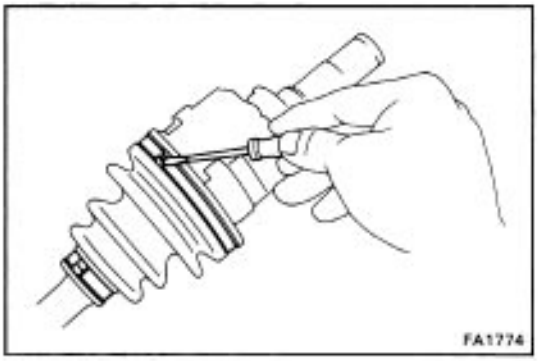
2. REMOVE SNAP RING FROM INBOARD JOINT SHAFT

3. (TOYOTA TYPE)

REMOVE INBOARD JOINT BOOT CLAMPS

(a) Using a screwdriver, remove the two boot clamps.

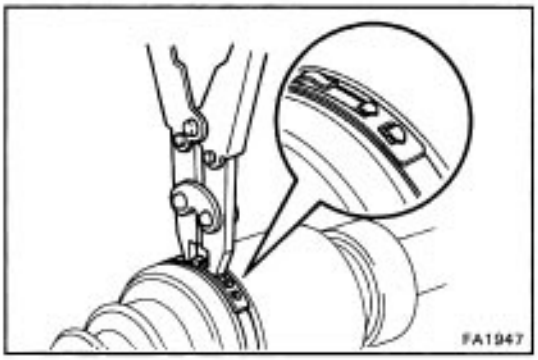
(b) Slide the inboard joint boot toward the outboard joint.



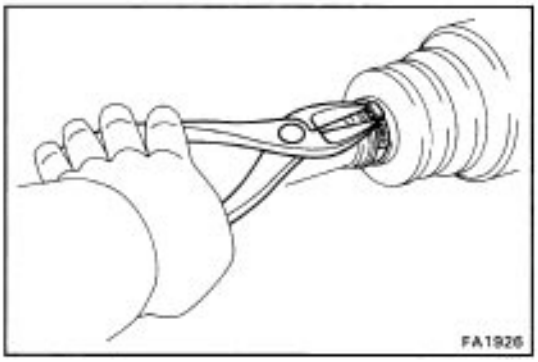
4. (SAGINAW TYPE)

REMOVE INBOARD JOINT BOOT CLAMPS

(a) Using a boot clamp tool, draw hooks together and remove the large clamp.



(b) Using side cutters, cut the small boot clamp and remove it.

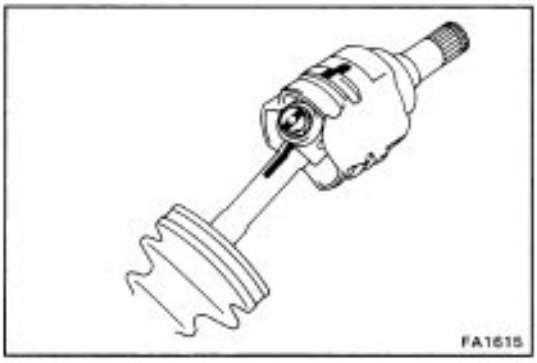


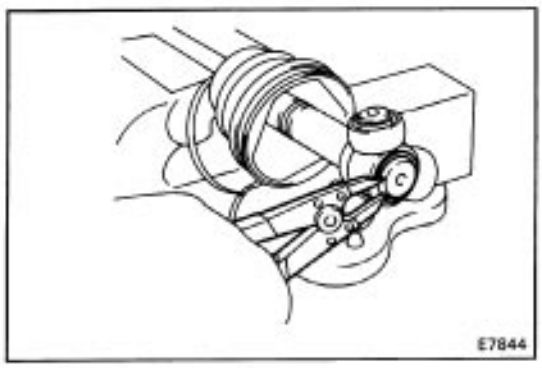
5. REMOVE INBOARD JOINT TULIP

(a) Place the matchmarks on the inboard joint tulip,tripod and drive shaft.

NOTICE: Do not punch the marks.

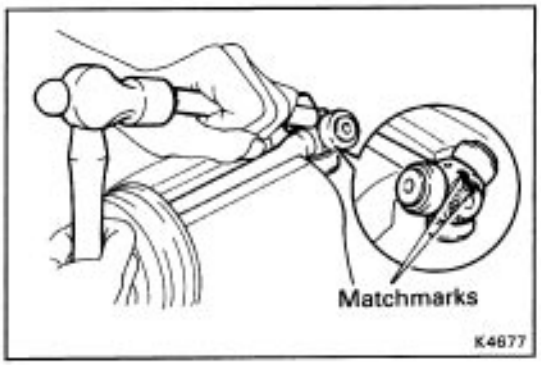
(b) Remove the inboard joint tulip from the drive shaft.





6. REMOVE TRIPOD JOINT

(a) Using snap ring pliers, remove the snap ring.



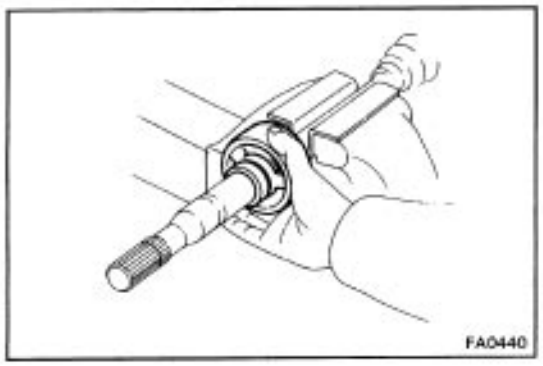
(b) Place the matchmarks on the drive shaft and tripod.

(c) Using a brass bar and a hammer, tap out the tripod joint from the drive shaft.

NOTICE: Do not tap the roller.

7. REMOVE INBOARD JOINT BOOT

Slide out the inboard joint boot.



8. (2WD RH DRIVE SHAFT)

REMOVE DAMPER

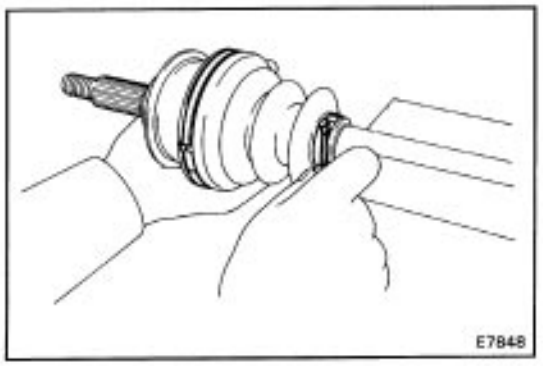
(a) (TOYOTA type)

Using a screwdriver, remove the damper clamp.

(b) (SAGINAW type)

Using side cutters, cut the damper clamp and remove it.

(c) Remove the damper.



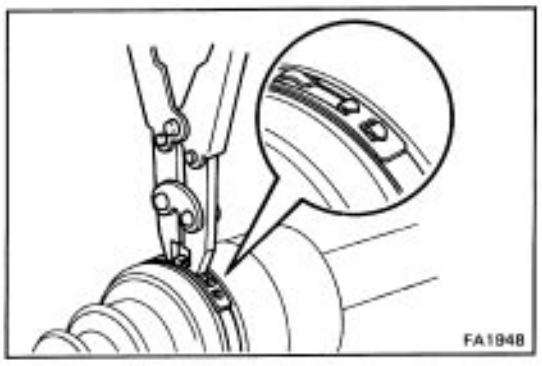
9. (TOYOTA TYPE)

REMOVE OUTBOARD JOINT BOOT

(a) Using a screwdriver, remove the two boot clamps of the outboard joint boot.

(b) Remove the boot from outboard joint.

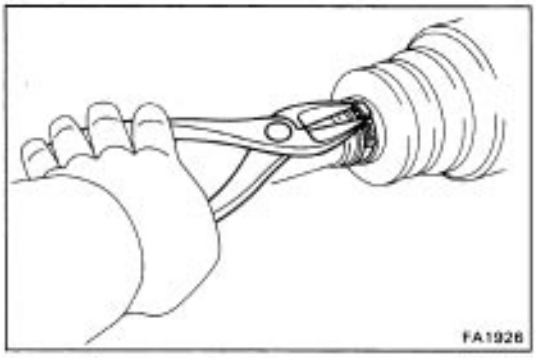
NOTICE: Do not ,disassemble the outboard joint.



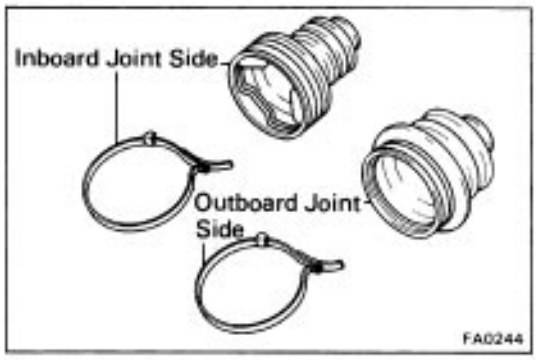
10. (SAGINAW TYPE)

REMOVE OUTBOARD JOINT BOOT

(a) Using a boot clamp tool, draw hooks together and remove the large clamp.



(b) Using side cutters, cut the small boot clamp and remove it.
(c) Remove the boot from the outboard joint.
NOTICE: Do not disassemble the outboard joint.

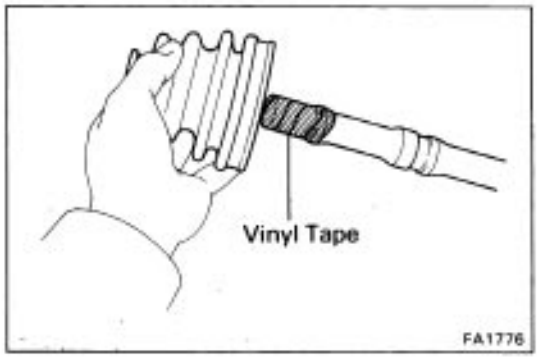


ASSEMBLY OF FRONT DRIVE SHAFT

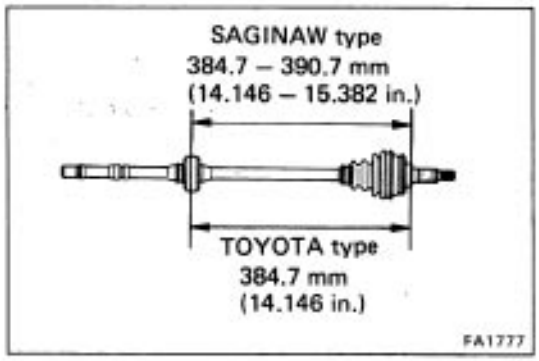
(See pages SA–14, SA–15)

1. TEMPORARILY INSTALL OUTBOARD JOINT BOOT AND NEW BOOT CLAMPS

NOTICE: The boot and clamp of the outboard joint are smaller than those of the inboard joint (TOYOTA type).

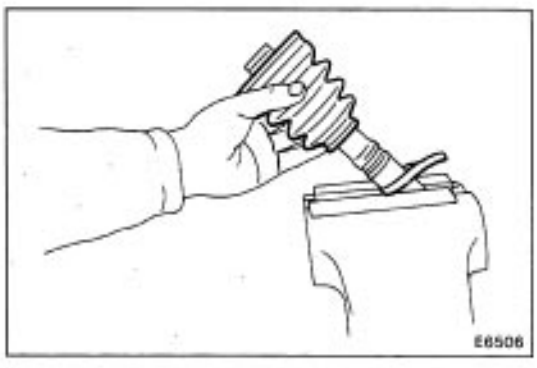


Temporarily install the boot and two new boot clamps for the outboard joint to the drive shaft.
HINT: Before installing the boot, wrap vinyl tape around the spline of the drive shaft to prevent damaging the boot.



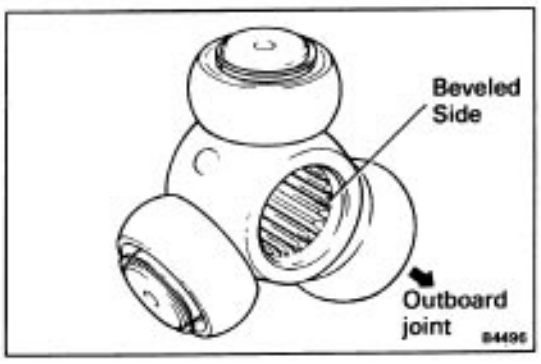
2. (2WD RH DRIVE SHAFT)
TEMPORARILY INSTALL DAMPER AND NEW DAMPER CLAMP

HINT: Fix the clamp position in line with the groove of the drive shaft.



3. TEMPORARILY INSTALL INBOARD JOINT BOOT AND NEW BOOT CLAMPS

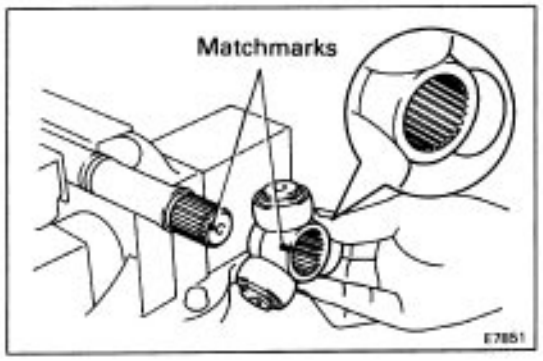
Temporarily install the boot and two new boot clamps for the inboard joint to the drive shaft.



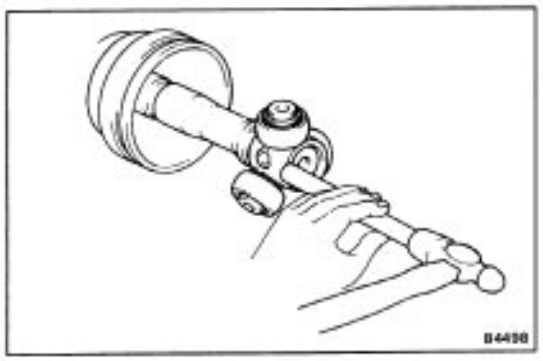
4. INSTALL TRIPOD JOINT

(a) Place the beveled side of the tripod joint axial spline toward the outboard joint (TOYOTA type).

HINT: The SAGINAW–type tripod joint can be installed facing either way.

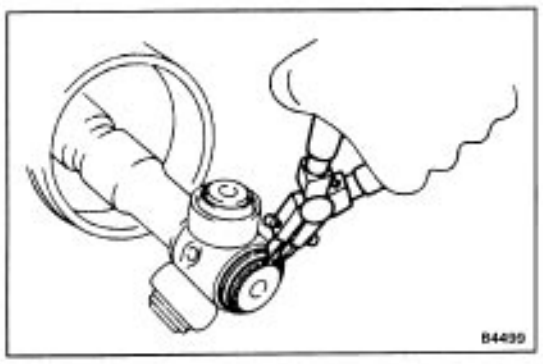


(b) Align the matchmarks placed before removal.



(c) Using a brass bar and a hammer, tap in the tripod joint to the drive shaft.

NOTICE: Do not tap the roller.



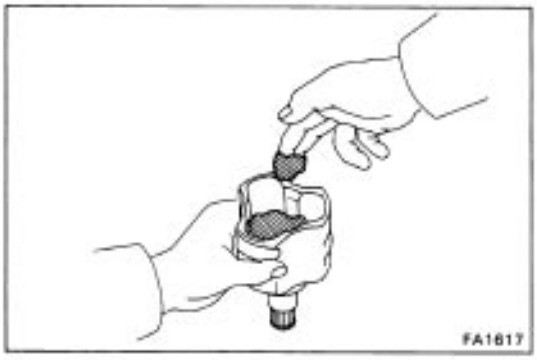
(d) Using snap ring pliers, install a new snap ring.

5. INSTALL BOOT TO OUTBOARD JOINT

Before assembling the boot, fill grease into the outboard joint and boot.

HINT: Use the grease supplied in the boot kit.

Grease capacity: TOYOTA type
120 – 130 g (0.26 – 0.29 lb)
SAGINAW type
130 – 150 g (0.29 – 0.33 lb)
Grease color: Black

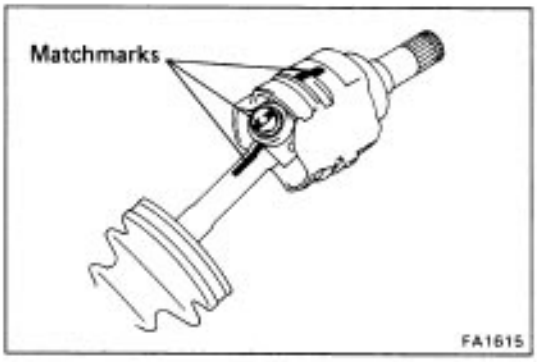


6. INSTALL INBOARD JOINT TULIP TO FRONT DRIVE SHAFT

(a) Pack in the grease to the inboard joint tulip and boot.

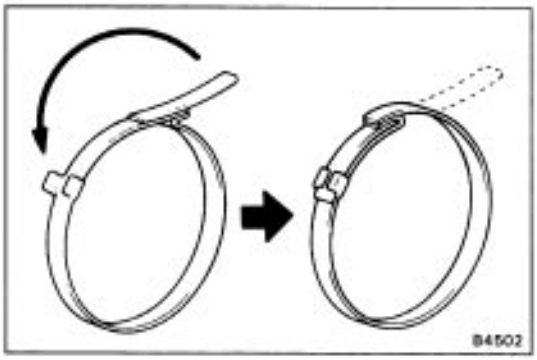
HINT: Use the grease supplied in the boot kit.

Grease capacity:
TOYOTA type 180 – 190 g (0.40 – 0.42 lb)
SAGINAW type 230 – 250 g (0.51 – 0.55 lb)
Grease color: Yellow ocher



(b) Align the matchmarks placed before remove, and install the inboard joint tulip to the drive shaft.

(c) Install the boot to the inboard joint tulip.

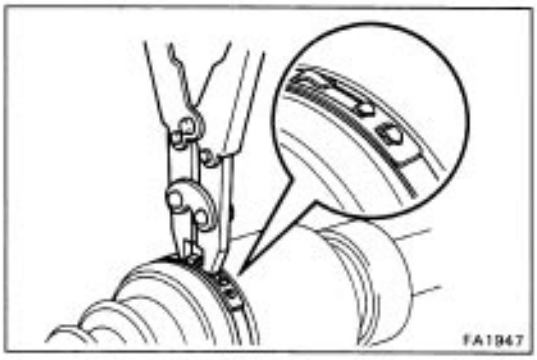


7. (TOYOTA TYPE)

ASSEMBLE BOOT CLAMPS AND DAMPER CLAMP

(a) Be sure the boot is on the shaft groove.

(b) Using a screwdriver, bend the band and lock it as shown in the illustration.



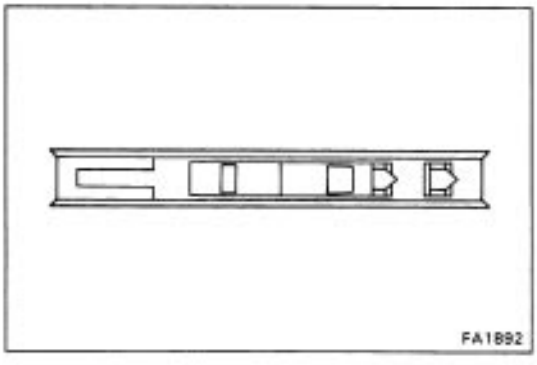
8. (SAGINAW TYPE)

ASSEMBLE BOOT CLAMPS AND DAMPER CLAMP

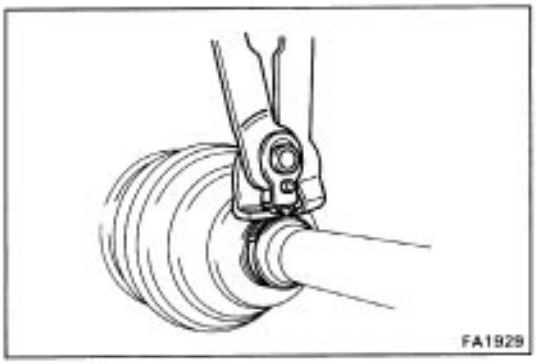
(a) Be sure the boot (large side) is on the shaft groove.

(b) Using a boot clamp tool, place pincer jaws in closing hooks of large clamp.

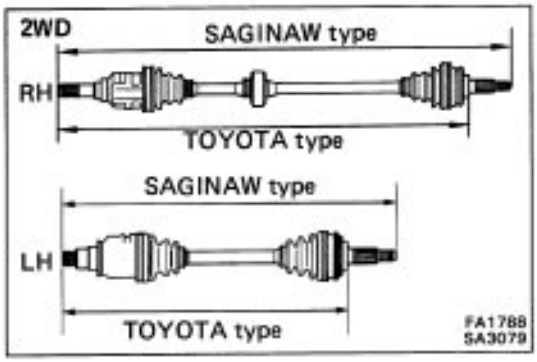
(c) Secure clamp by drawing closing hooks together.



(d) Check that the clamp at closed position is the same as in the illustration.

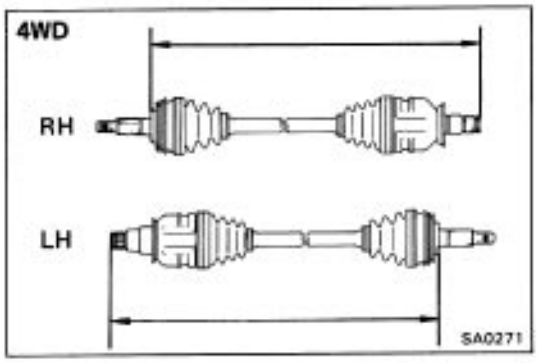


(e) Be sure the boot (small side) is on the shaft groove.
(f) Using a boot clamp tool, tighten the clamp.

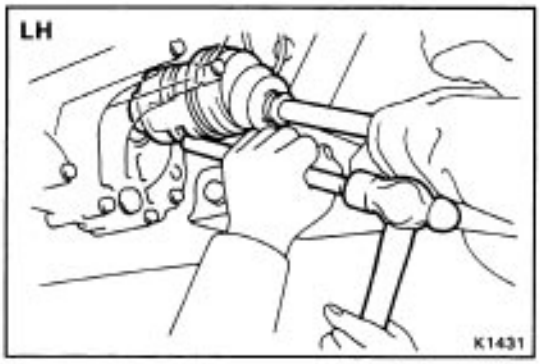


(g) Insure that the boot is not stretched or contracted when the drive shaft is at standard length.

Drive shaft standard length:
2WD
TOYOTA type
LH 523.2 – 533.2 mm (20.598 – 20.992 in.)
RH 837.7 – 847.7 mm (32.980 – 33.374 in.)
SAGINAW type
LH 623.6 mm (24.551 in.)
RH 938.1 mm (36.933 in.)
4WD
LH 501.0 – 511.0 mm (19.724 – 20.118 in.)
RH 504.2 – 514.2 mm (19.850 – 20.244 in.)



(h) Install the snap ring.



INSTALLATION OF FRONT DRIVE SHAFT

(See pages SA–14, SA–15)

1. INSTALL FRONT DRIVE SHAFT

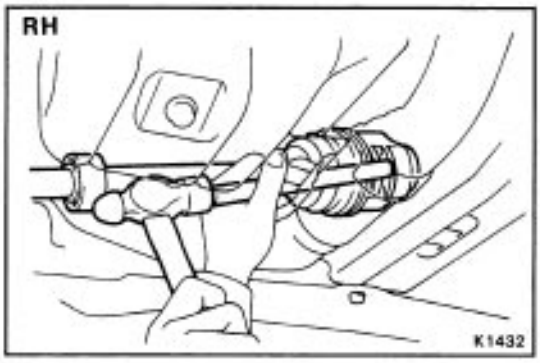
(a) Coat MP grease to the oil seal lip.

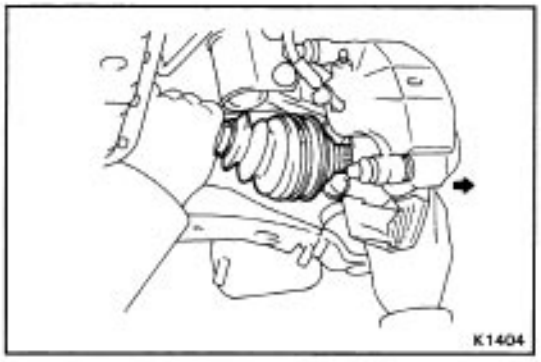
(b) Using a brass bar and hammer, tap in the drive shaft until it makes contact with the pinion shaft.

NOTICE: Be careful not to damage the boots.

HINT:

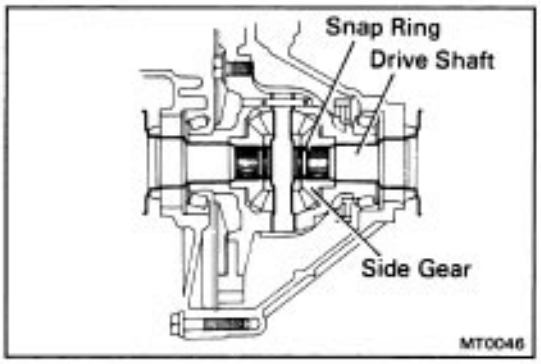
- Before installing the drive shaft, set the snap ring opening side facing downward.
- Whether or not the drive shaft is making contact with the pinion shaft can be known by the sound or feeling when driving it in.





(c) Install the outboard joint side of the drive shaft to the axle hub.

NOTICE: Be careful not to damage the boot.

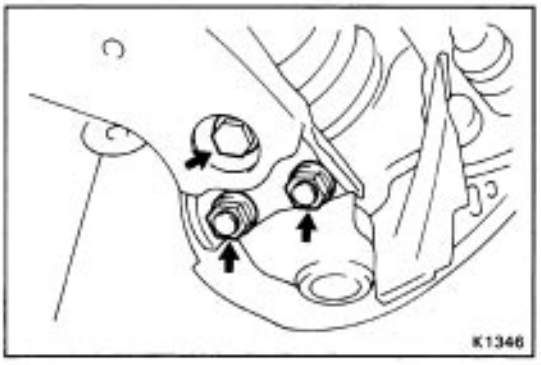


2. CHECK INSTALLATION OF FRONT DRIVE SHAFT

(a) Check that there is 2 – 3 mm (0.08 – 0.12 in.) of play in axial direction.

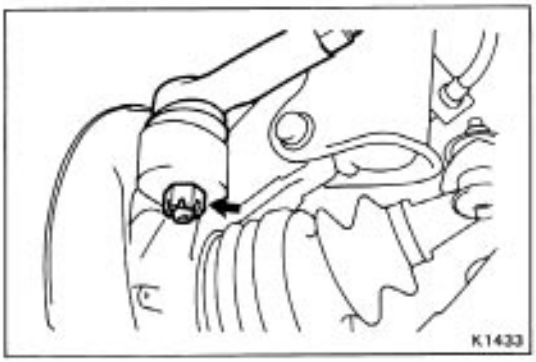
(b) Check that the drive shaft will not come out by trying to pull it completely out by hand.

HINT: When checking pull the inboard joint so as not to damage the boot.



3. CONNECT STEERING KNUCKLE TO LOWER ARM

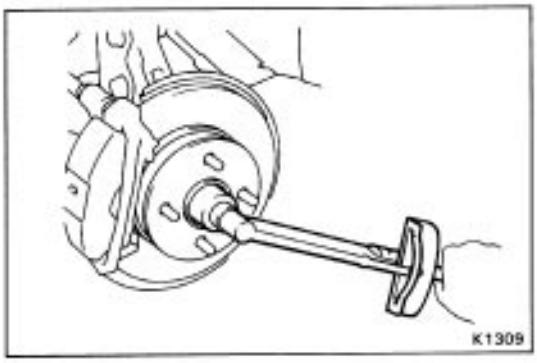
Torque: 1,450 kg–cm (105 ft–lb, 142 N–m)



4. CONNECT TIE ROD END TO STEERING KNUCKLE

Install and torque the nut, and secure it with a new cotter pin.

Torque: 500 kg–cm (36 ft–lb, 49 N–m)



5. INSTALL BEARING LOCK NUT, LOCK NUT CAP AND COTTER PIN

(a) Torque the bearing lock nut while depressing the brake pedal.

Torque: 1,900 kg–cm (137 ft–lb, 186 N–m)

(b) Install the lock nut cap and, using pliers, install a new cotter pin.

6. FILL TRANSAXLE WITH GEAR OIL OR FLUID

MT (2WD)

Oil grade: API GL–4 or GL–5

Viscosity: SAE 75W–90 or 80W–90

(4WD)

Oil. grade: API GL–5

Viscosity: Above –18˚C (0˚F) SAE 75W–90, 80W–90 or 90

Below –18˚C (0˚F) SAE 75W–90, 80W–90 or 80W

A/T Fluid type: ATF DEXRON® II

7. INSTALL ENGINE UNDER COVER

8. CHECK FRONT WHEEL ALIGNMENT

(See page SA–3)