

# 2007 Honda Element EX

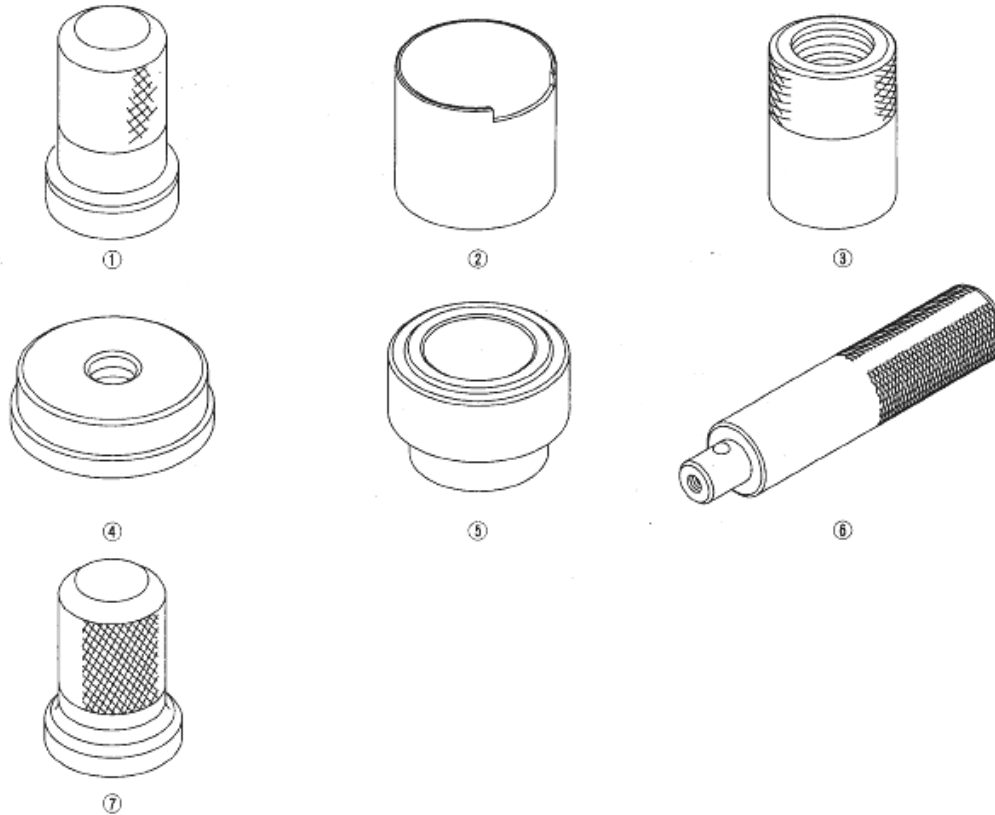
2007-08 DRIVELINE/AXLES Driveline/Axle - Element

## 2007-08 DRIVELINE/AXLES

### Driveline/Axle - Element

## SPECIAL TOOLS

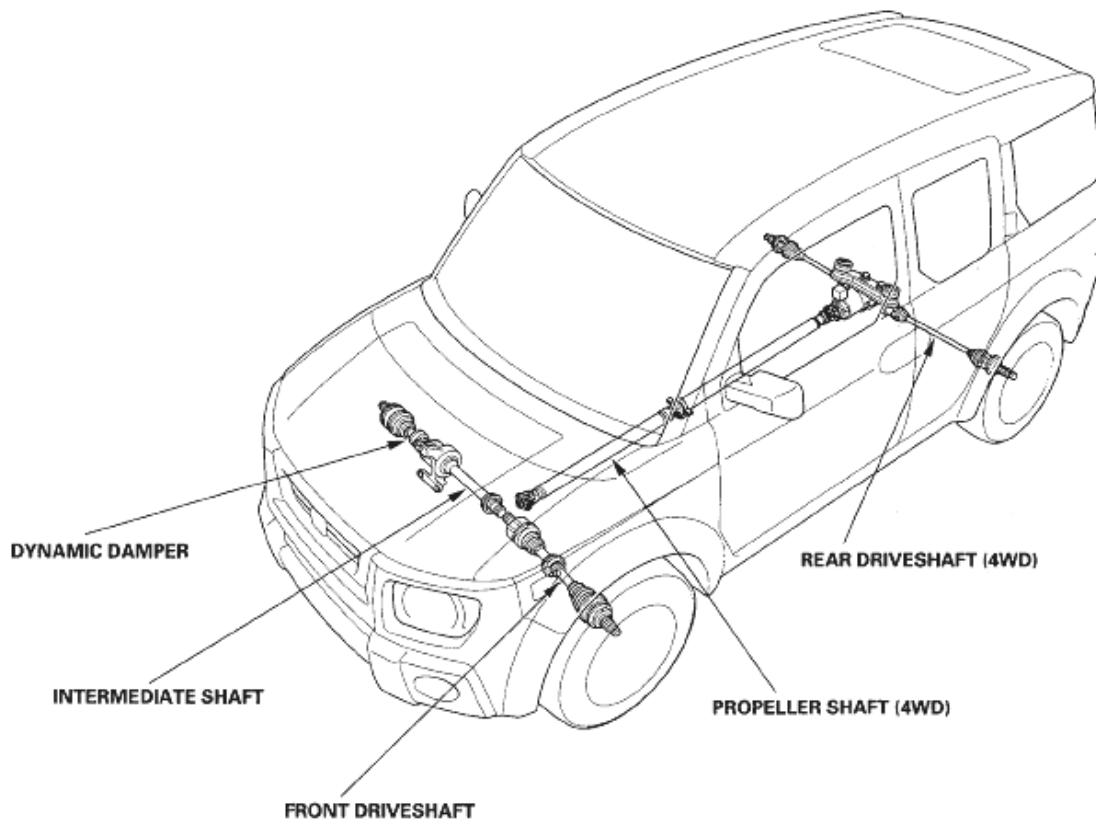
Ref. No.	Tool Number	Description	Qty
①	07GAD-PH70201	Oil Seal Driver	1
②	07NAF-SR30101	Half Shaft Base	1
③	07XAC-001020A	Threaded Adapter, 24 x 1.5 mm	1
④	07746-0010400	Attachment, 52 x 55 mm	1
⑤	07746-0030400	Attachment, 35 mm I.D.	1
⑥	07749-0010000	Driver	1
⑦	07947-SB00100	Oil Seal Driver	1



**Fig. 1: Identifying Special Tools**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

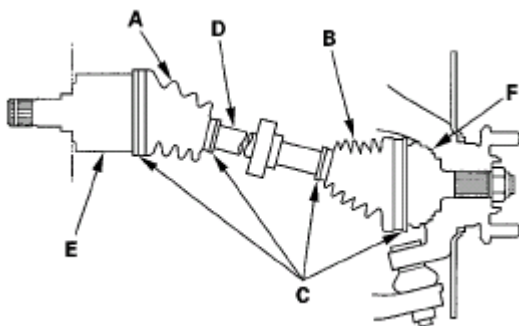
## COMPONENT LOCATION INDEX



**Fig. 2: Identifying Driveline/Axle Components Location**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

## DRIVESHAFT INSPECTION

1. Check the inboard boot (A) and the outboard boot (B) for cracks, damage, leaking grease, and loose boot bands (C). If any damage is found, replace the boot and boot bands.

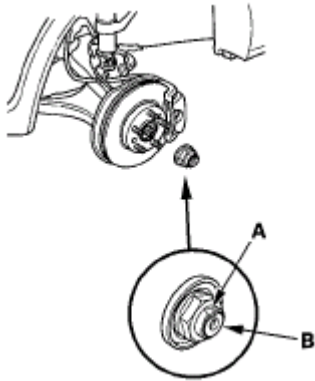


**Fig. 3: Identifying Driveshaft Parts Location**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Check the driveshaft (D) for cracks and damage. If any damage is found, replace the driveshaft.
3. Check the inboard joint (E) and the outboard joint (F) for cracks and damage. If any damage is found, replace the inboard joint or the outboard joint as an assembly.
4. Hold the inboard joint and turn the front wheel by hand, then make sure the joint is not excessively loose. If necessary, replace the inboard joint or the outboard joint as an assembly.

## FRONT DRIVESHAFT REMOVAL

1. Raise the vehicle on a lift.
2. Remove the front wheels.
3. Lift up the locking tab (A) on the spindle nut (B), then remove and discard the nut.

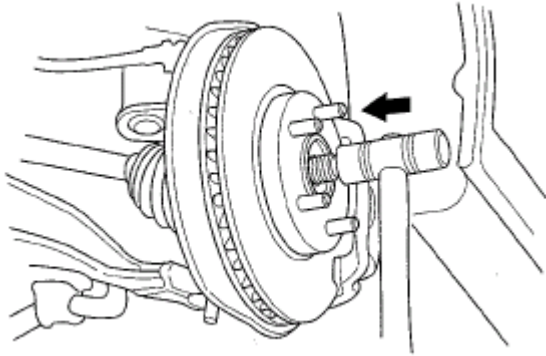


**Fig. 4: Identifying Front Driveshaft Parts Location**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Drain the transmission fluid. Reinstall the drain plug with a new washer:
  - Manual transmission (see **TRANSMISSION FLUID INSPECTION AND REPLACEMENT** )
  - Automatic transmission (see **ATF REPLACEMENT** )
5. Separate the front stabilizer link from the lower arm (see step 3 in **STABILIZER LINK REMOVAL/INSTALLATION** ).
6. Remove the lock pin from the lower arm ball joint castle nut, and remove the nut, then separate the ball joint from the lower arm using the ball joint thread protector and remover (see step 10 in **KNUCKLE/HUB/WHEEL BEARING REPLACEMENT** ).

### NOTE:

- To avoid damaging the ball joint, install the ball joint thread protector onto the threads of the ball joint.
  - Be careful not to damage the ball joint boot when installing the remover.
7. Pull the knuckle outward, and separate the driveshaft outboard joint from the front wheel hub using a plastic hammer.

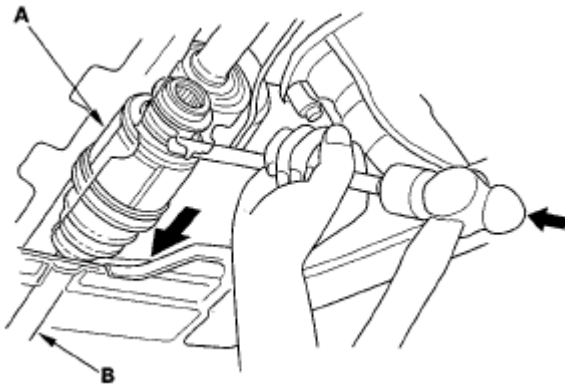


**Fig. 5: Pulling Front Wheel Hub**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. Right driveshaft: Drive the inboard joint (A) off of the intermediate shaft using a drift and a hammer. Remove the driveshaft as an assembly.

**NOTE:** Do not pull on the driveshaft (B) or the inboard joint may come apart.

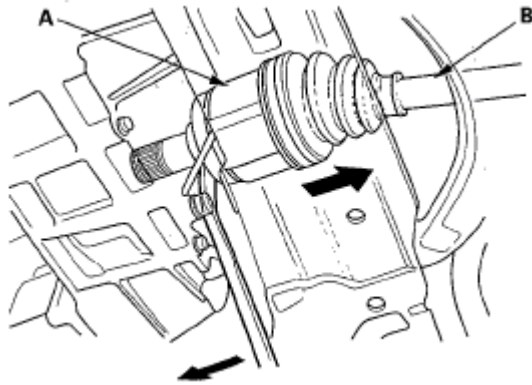


**Fig. 6: Pulling Driveshaft**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. Left driveshaft: Pry the inboard joint (A) from the transmission housing with a prybar. Remove the driveshaft as an assembly.

**NOTE:** Do not pull on the driveshaft (B) or the inboard joint may come apart. Pull the driveshaft straight out to avoid damaging the oil seal.



**Fig. 7: Prying Inboard Joint**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

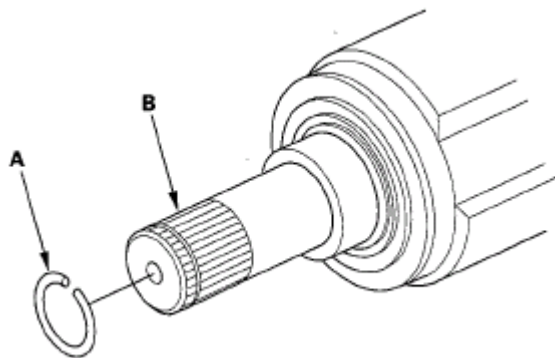
## FRONT DRIVESHAFTE DISASSEMBLY

### Special Tools Required

- Threaded adapter, 24 x 1.5 mm 07XAC-001020A
- Slide hammer, 5/8"-18 UNF, commercially available

### INBOARD JOINT SIDE

1. Remove the set ring (A) from the inboard joint (B) (left driveshaft).

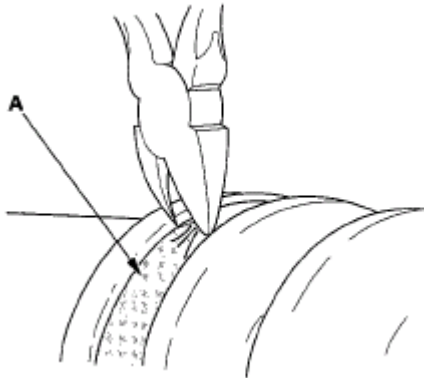


**Fig. 8: Identifying Set Ring And Inboard Joint (Left Driveshaft)**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

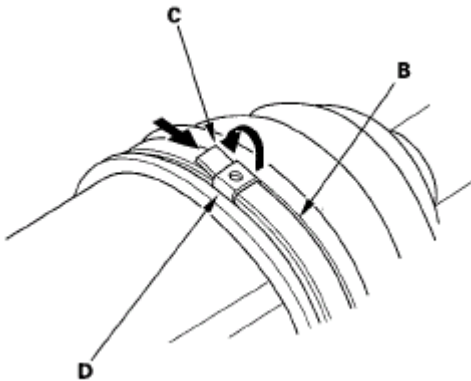
2. Remove the boot bands. Be careful not to damage the boot and dynamic damper.
  - If the boot band is a welded type (A), cut the boot band.
  - If the boot band is a double loop type (B), lift up the band end (C), and push it into the clip (D).
  - If the boot band is a low profile type (E), pinch the boot band using commercially available boot band pliers (F).

**Welded type**



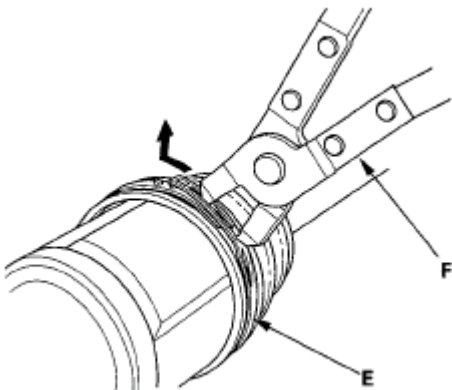
**Fig. 9: Identifying Boot Bands (Welded Type)**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

**Double loop type**



**Fig. 10: Identifying Boot Bands (Double Loop Type)**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

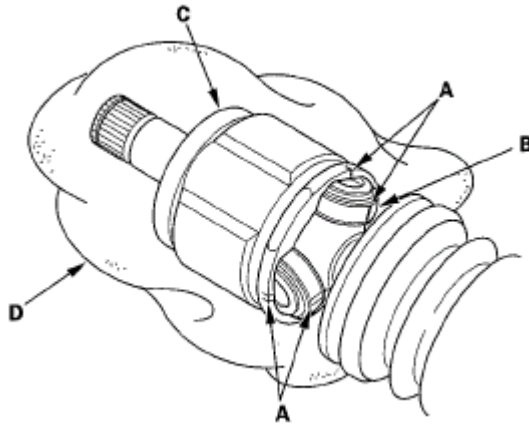
**Low profile type**



**Fig. 11: Identifying Boot Bands (Low Profile Type)**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

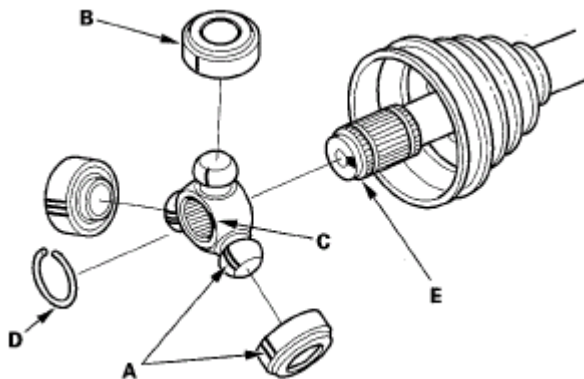
3. Make a mark (A) on each roller (B) and inboard joint (C) to identify the locations of rollers and grooves in the inboard joint. Then remove the inboard joint on the shop towel (D). Be careful not to drop the rollers when separating them from the inboard joint.

**Fig. 12: Identifying Mark On Roller And Inboard Joint**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

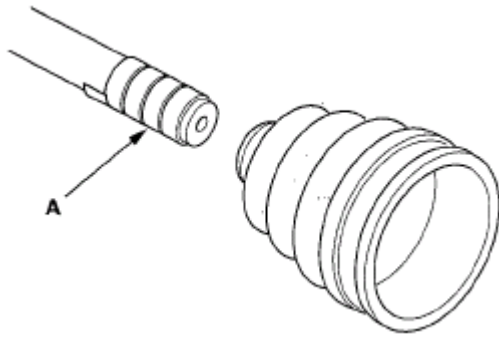
4. Make marks (A) on the rollers (B) and spider (C) to identify the locations of the rollers on the spider, then remove the rollers.

**NOTE:** Do not engrave or scribe any marks on the rolling surface.

**Fig. 13: Identifying Marks On Rollers And Spider**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Remove the circlip (D).
6. Mark the spider and driveshaft (E) to identify the position of the spider on the shaft.
7. Remove the spider.
8. Wrap the splines on the driveshaft with vinyl tape (A) to prevent damaging the boot.

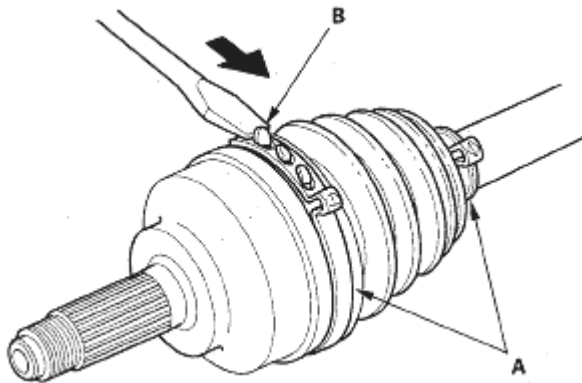


**Fig. 14: Identifying Driveshaft With Vinyl Tape**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. Remove the inboard boot. Be careful not to damage the boot.
10. Remove the vinyl tape.

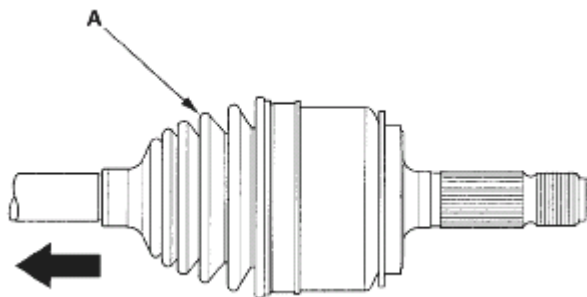
**OUTBOARD JOINT SIDE**

1. Remove the boot bands (A). Be careful not to damage the boot and dynamic damper. Lift up the three tabs (B) with a screwdriver.



**Fig. 15: Removing Boot Bands**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Slide the outboard boot (A) partially to the inboard joint side. Be careful not to damage the boot.

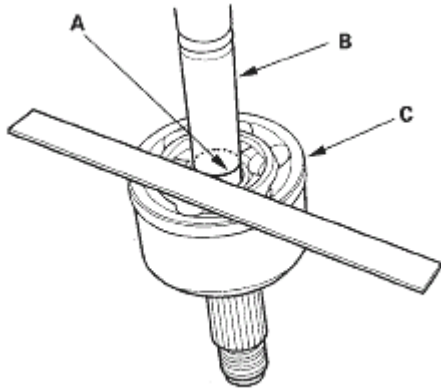




**Fig. 16: Sliding Outboard Boot**

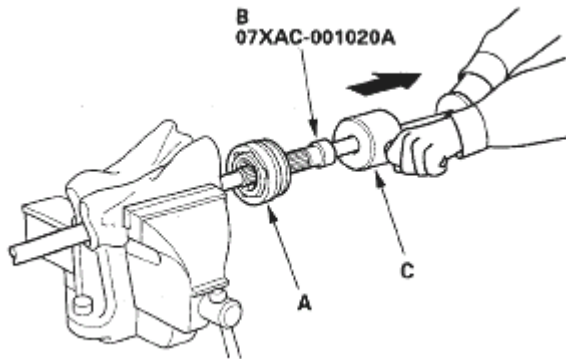
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. Wipe off the grease to expose the driveshaft and the outboard joint inner race.
4. Make a mark (A) on the driveshaft (B) at the same level as the outboard joint rim (C).

**Fig. 17: Identifying Mark On Driveshaft**

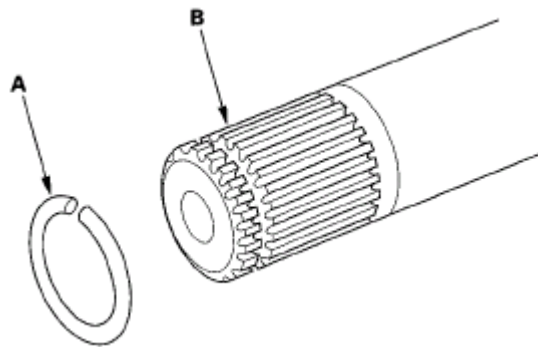
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Securely clamp the driveshaft in a bench vise with a shop towel.

**Fig. 18: Removing Outboard Joint With UNF Slide Hammer**

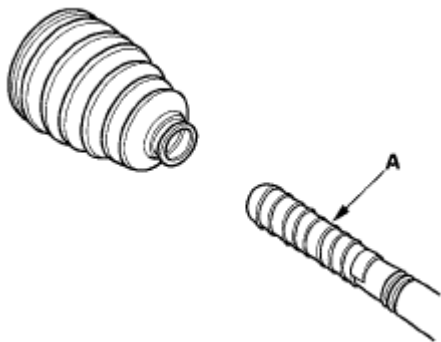
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. Remove the outboard joint (A) using the 24 x 1.5 mm threaded adapter (B) and a commercially available 5/8"-18 UNF slide hammer (C).
7. Remove the driveshaft from the bench vise.
8. Remove the stop ring (A) from the driveshaft (B).



**Fig. 19: Identifying Stop Ring And Driveshaft**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. Wrap the splines on the driveshaft with vinyl tape (A) to prevent damaging the boot.

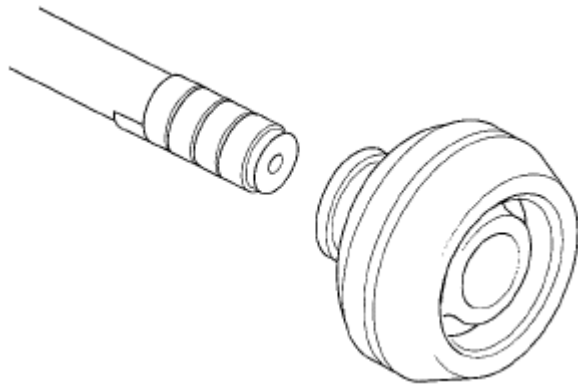


**Fig. 20: Identifying Driveshaft With Vinyl Tape**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. Remove the outboard boot. Be careful not to damage the boot.
11. Remove the vinyl tape.

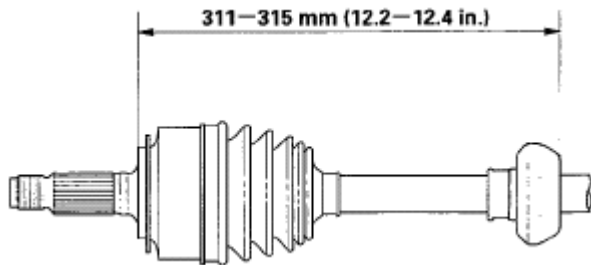
## DYNAMIC DAMPER REPLACEMENT

1. Remove the inboard joint (see **INBOARD JOINT SIDE** ).
2. Remove the dynamic damper bands (see step 2 ).
  - If the band is a welded type, cut the band.
  - If the band is a double loop type, lift up the band end, and push it into the clip.
  - If the band is a low profile type, pinch the band using commercially available boot band pliers.
3. Remove the dynamic damper.



**Fig. 21: Identifying Dynamic Damper**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Adjust the position of the new dynamic damper to these measurements.



**Fig. 22: Identifying Position Of Dynamic Damper**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

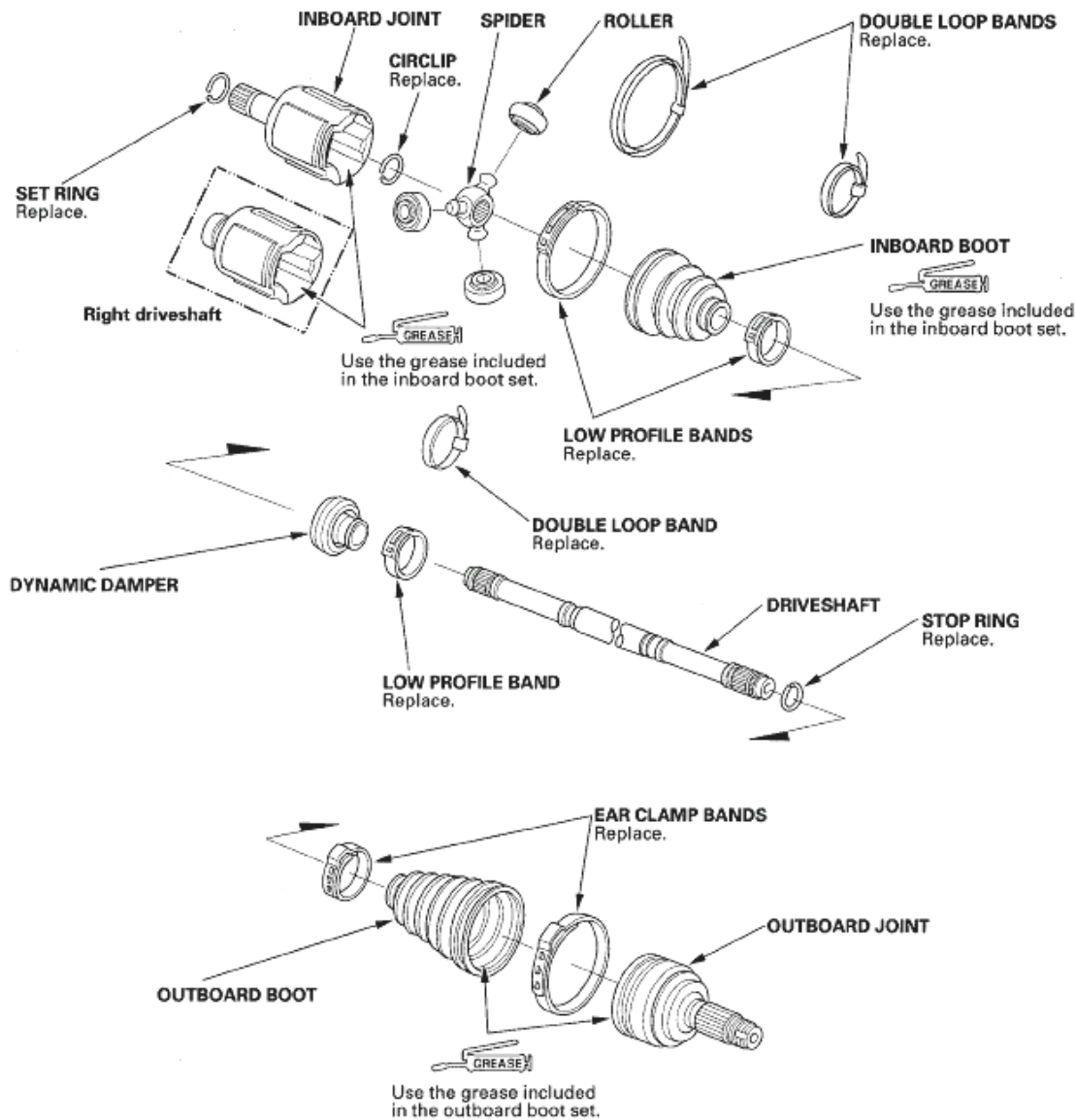
5. Install the dynamic damper band (see step 10 ).
6. Install the inboard joint (see **INBOARD JOINT SIDE** ).

## FRONT DRIVESHAFT REASSEMBLY

### EXPLODED VIEW

## 2007 Honda Element EX

2007-08 DRIVELINE/AXLES Driveline/Axle - Element



**Fig. 23: Exploded View Of Front Driveshaft**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

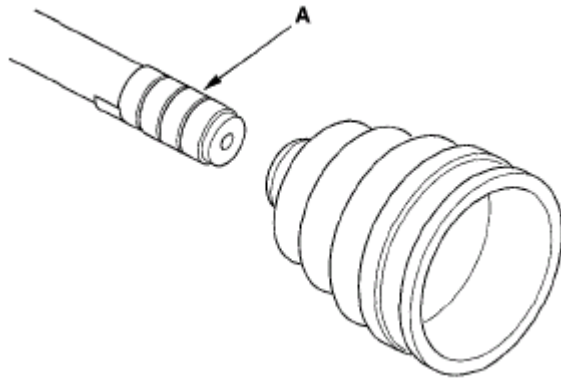
### Special Tools Required

- Boot band tool, KD-3191 or equivalent, commercially available
- Boot band pliers, Kent-Moore J-35910 or equivalent, commercially available

**NOTE:** Refer to the **EXPLODED VIEW**, as needed, during this procedure.

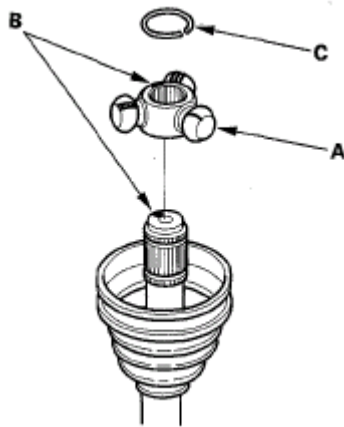
### INBOARD JOINT SIDE

1. Wrap the splines with vinyl tape (A) to prevent damage to the inboard boot.



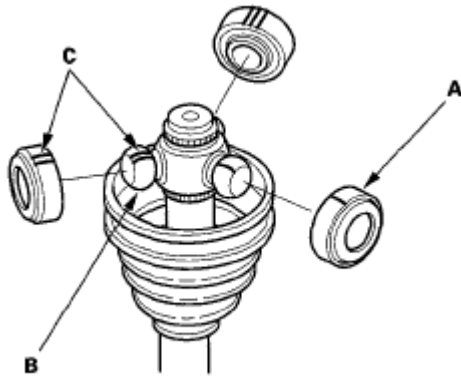
**Fig. 24: Identifying Splines With Vinyl Tape**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Install the inboard boot onto the driveshaft, then remove the vinyl tape. Be careful not to damage the inboard boot.
3. Install the spider (A) onto the driveshaft by aligning the marks (B) you made on the spider, and the end of the driveshaft.



**Fig. 25: Identifying Spider And Circlip**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

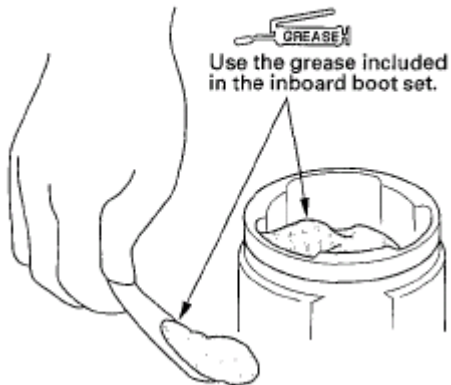
4. Install the new circlip (C) into the driveshaft groove. Always rotate the circlip in its groove to make sure it is fully seated.
5. Fit the rollers (A) onto the spider (B) with their high shoulders facing outward and note these items:
  - Reinstall the rollers in their original positions on the spider by aligning the marks (C) you made.
  - Hold the driveshaft pointed up to prevent the rollers from falling off.



**Fig. 26: Identifying Rollers And Spider**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

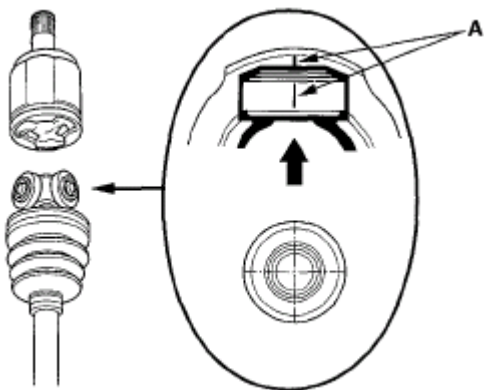
6. Pack the inboard joint with the joint grease included in the new inboard boot set.

**Grease quantity**  
Inboard joint: 150–160 g (5.3–5.6 oz)



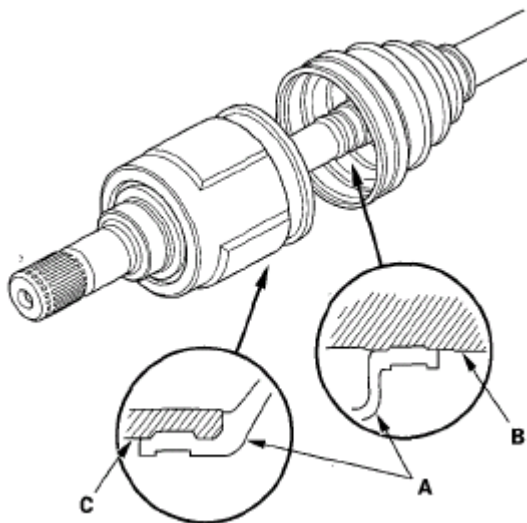
**Fig. 27: Applying Joint Grease On Inboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. Fit the inboard joint onto the driveshaft and note these items:
  - Reinstall the inboard joint onto the driveshaft by aligning the marks (A) you made on the inboard joint and the rollers.
  - Hold the driveshaft so the inboard joint is pointing up to prevent it from falling off.



**Fig. 28: Aligning Marks On Inboard Joint And Rollers**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. Fit the boot (A) ends onto driveshaft (B) and the inboard joint (C).

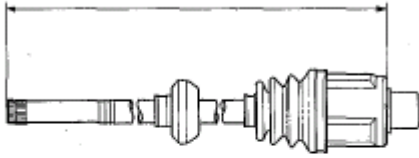


**Fig. 29: Identifying Boot, Ends Onto Driveshaft And Inboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

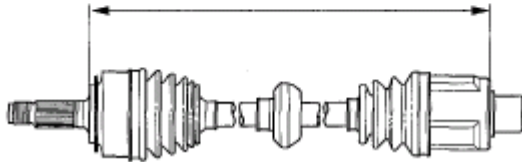
9. Adjust the length of the driveshaft to the figure as shown, then adjust the boots to halfway between full compression and full extension.

**Right driveshaft**

Without outboard joint: 511.4—516.4 mm (20.1—20.3 in.)



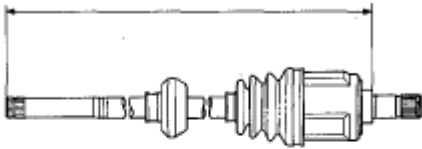
With outboard joint: 532.0—537.0 mm (20.9—21.1 in.)



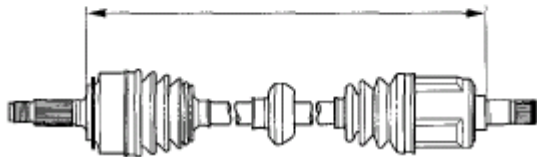
**Fig. 30: Identifying Length Of Driveshaft (Right Driveshaft)**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

### Left driveshaft

Without outboard joint: 533.4—538.4 mm (21.0—21.2 in.)



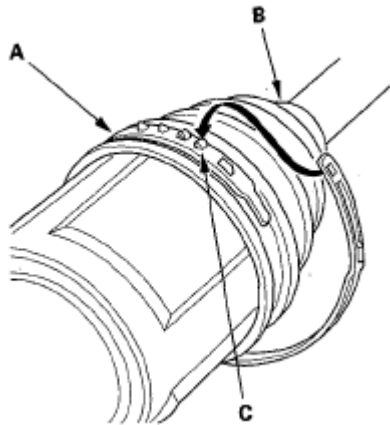
With outboard joint: 554.0—559.0 mm (21.8—22.0 in.)



**Fig. 31: Identifying Length Of Driveshaft (Left Driveshaft)**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

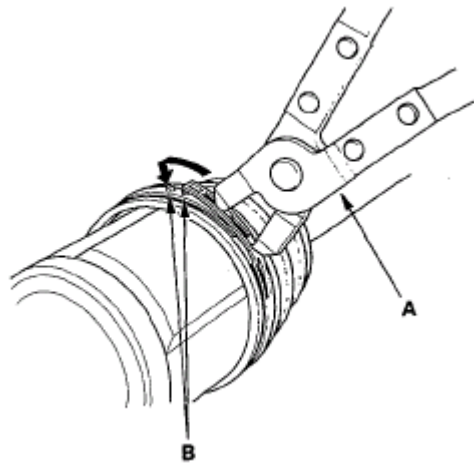
10. Install new boot bands.
  - For the low profile type, go to step 11.
  - For the double loop type, go to step 14. (Boot band replacement only)
11. Install the new low profile band (A) onto the boot (B), then hook the tab (C) of the band.





**Fig. 32: Installing Low Profile Band Onto Boot And Tab**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

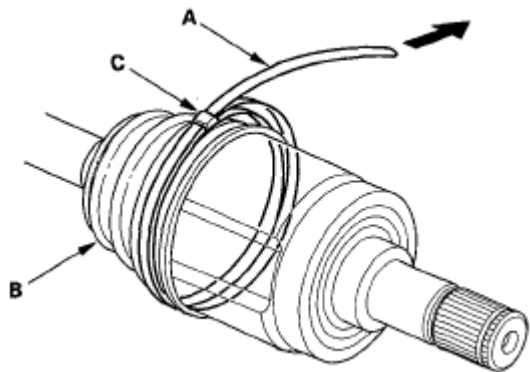
12. Close the hook portion of the band with a commercially available boot band pliers (A), then hook the tabs (B) of the band.



**Fig. 33: Installing Boot Band**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

13. Install the boot band on the other end of the boot, and repeat steps 11 through 12.
14. Fit the boot ends onto the driveshaft and the inboard joint, then install the new double loop band (A) onto the boot (B).

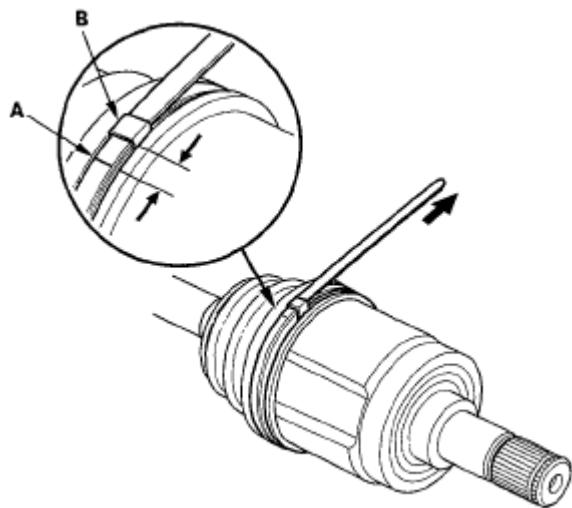
**NOTE:** Pass the end of the new double loop band through the clip (C) twice in the direction of the forward rotation of the driveshaft.



**Fig. 34: Pulling Slack**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

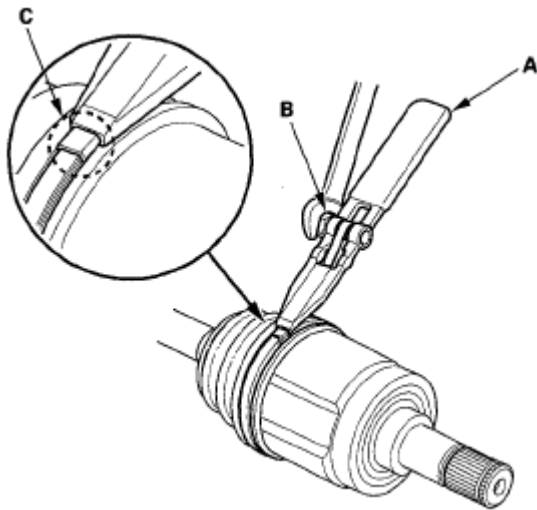
15. Pull up the slack in the band by hand.
16. Mark a position (A) on the band 10-14 mm (0.4-0.6 in.) from the clip (B).



**Fig. 35: Identifying Mark Position Of Band Clip**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

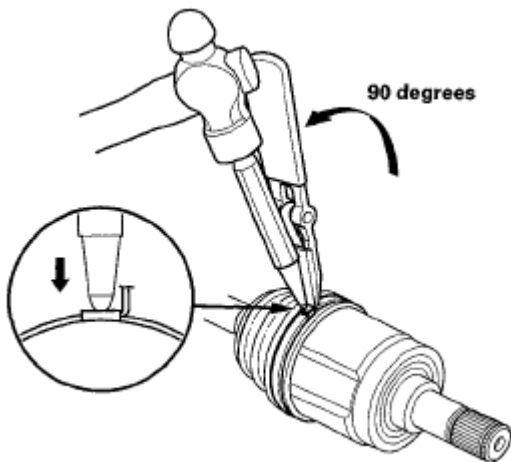
17. Thread the free end of the band through the nose section of the commercially available boot band tool KD-3191 or equivalent (A), and into the slot on the winding mandrel (B).



**Fig. 36: Tightening Boot Band**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

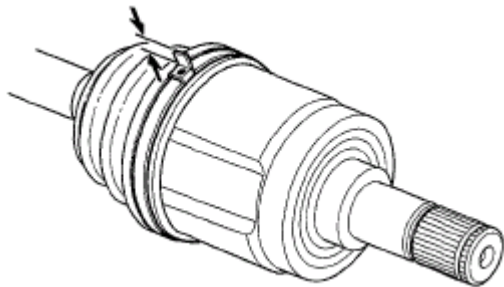
18. Using a wrench on the winding mandrel of the boot band tool, tighten the band until the marked spot (C) on the band meets the edge of the clip.
19. Lift up the boot band tool to bend the free end of the band 90 degrees to the clip. Center-punch the clip, then fold over the remaining tail onto the clip.



**Fig. 37: Lifting Boot Band**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

20. Unwind the boot band tool, and cut off the excess free end of the band to leave a 5-10 mm (0.2-0.4 in.) tail protruding from the clip.



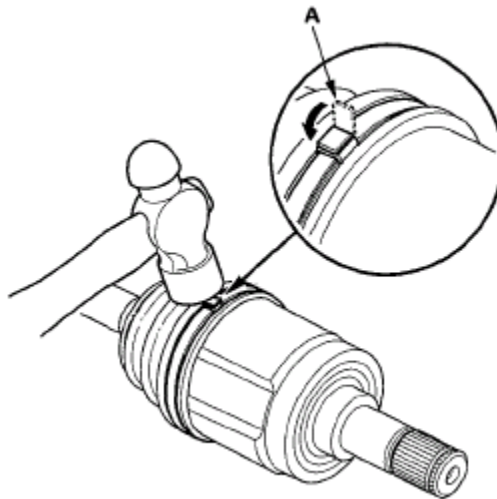
**Fig. 38: Identifying Free End Of Band**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

21. Bend the band end (A) by tapping it down with a hammer.

**NOTE:**

- Make sure the band and clip do not interfere with anything on the vehicle and the band does not move.
- Clean any grease remaining on the surrounding surfaces.



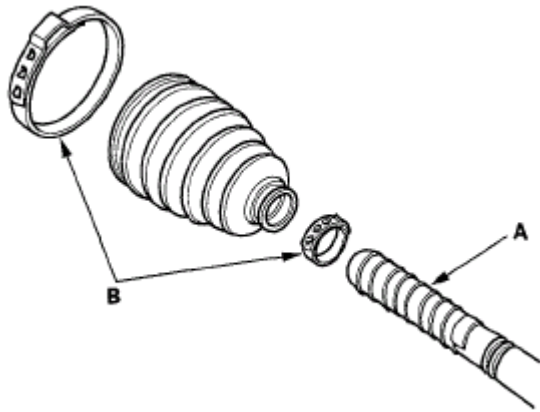
**Fig. 39: Bending Band End**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

22. Repeat steps 14 through 21 for the band on the other end of the boot.

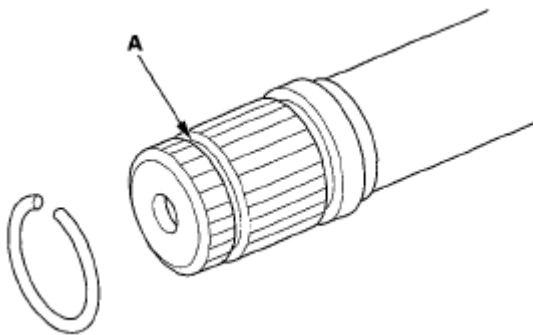
**OUTBOARD JOINT SIDE**

1. Wrap the splines with vinyl tape (A) to prevent damaging the outboard boot.



**Fig. 40: Identifying Splines With Vinyl Tape**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Install the new ear clamp bands (B) and the outboard boot, then remove the vinyl tape. Be careful not to damage the outboard boot.
3. Install the new stop ring into the driveshaft groove (A).



**Fig. 41: Identifying Stop Ring Into Driveshaft Groove**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

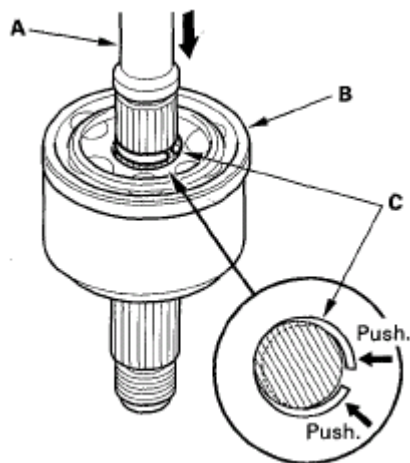
4. Pack about 35 g (1.2 oz) of the grease included in the new outboard boot set into the driveshaft hole in the outboard joint.

**NOTE:** If you are installing a new outboard joint, it comes packed with grease.



**Fig. 42: Applying Grease On Outboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

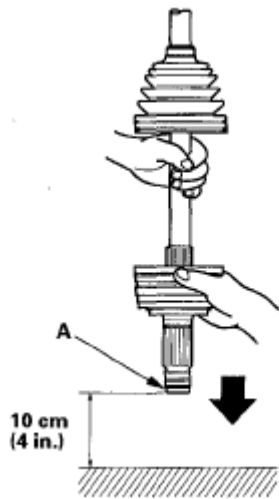
5. Insert the driveshaft (A) into the outboard joint (B) until the stop ring (C) is closed.



**Fig. 43: Inserting Driveshaft Into Outboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. To completely seat the outboard joint, pick up the driveshaft and joint, and tap or hit them from a height of about 10 cm (4 in.) onto a hard surface.

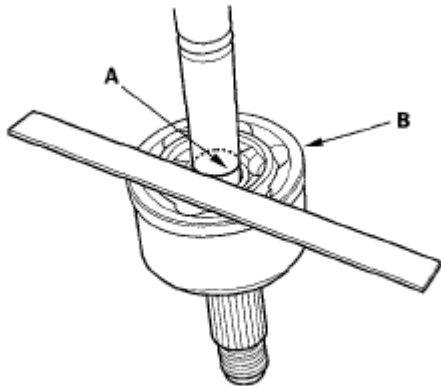
**NOTE:** Do not use a hammer as excessive force may damage the driveshaft. Be careful not to damage the threaded section (A) of the outboard joint.



**Fig. 44: Tapping Thread Section**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

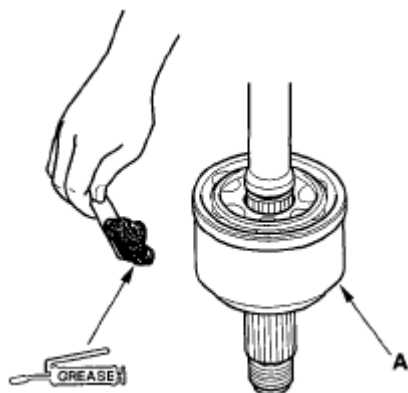
7. Check the alignment of the paint mark (A) you made with the outboard joint rim (B).



**Fig. 45: Checking Alignment Of Paint Mark And Outboard Joint Rim**

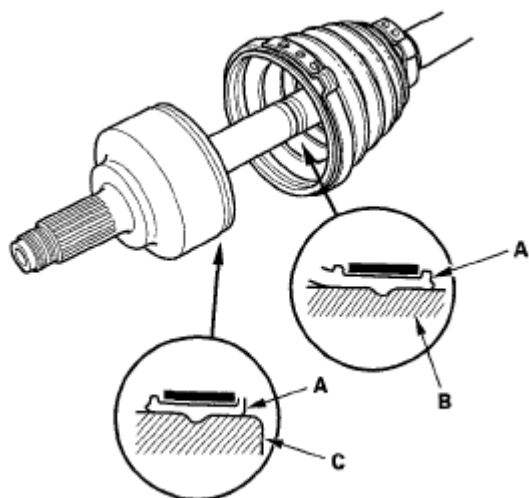
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. Pack the outboard joint (A) with the remaining joint grease included in the new outboard boot set.



**Fig. 46: Applying Grease On Outboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

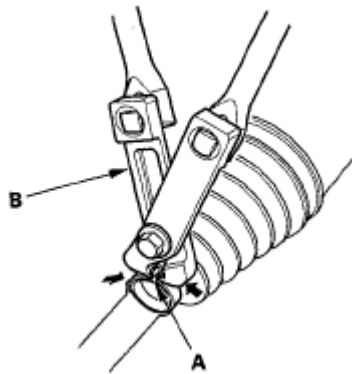
9. Fit the boot (A) ends onto the driveshaft (B) and the outboard joint (C).



**Fig. 47: Identifying Boot Ends Onto Driveshaft And Outboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. Close the ear portion (A) of the band with commercially available boot band pliers Kent-Moore J-35910 or equivalent (B).

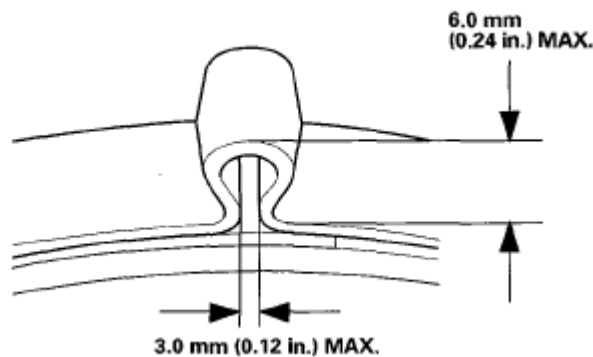




**Fig. 48: Banding Ear Portion**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

11. Check the clearance between the closed ear portion of the band. If the clearance is not within the standard, close the ear portion of the band tighter.



**Fig. 49: Checking Clearance Between Closed Ear Portion Of Band**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

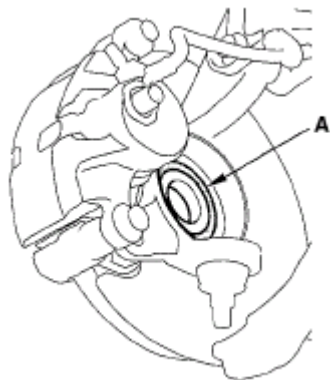
12. Repeat steps 10 and 11 for the band on the other end of the boot.

## FRONT DRIVESHAFT INSTALLATION

**NOTE:** Before starting installation, make sure the mating surfaces of the joint and the splined section are not dusty or dirty.

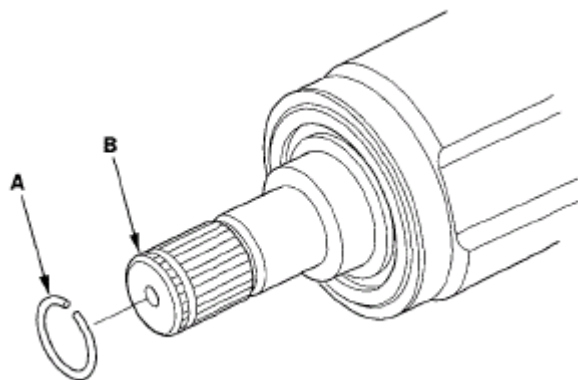
1. Apply grease about 5 g (0.18 oz) to the contact area (A) of the outboard joint and the front wheel bearing.

**NOTE:** The paste helps to prevent noise and vibration.



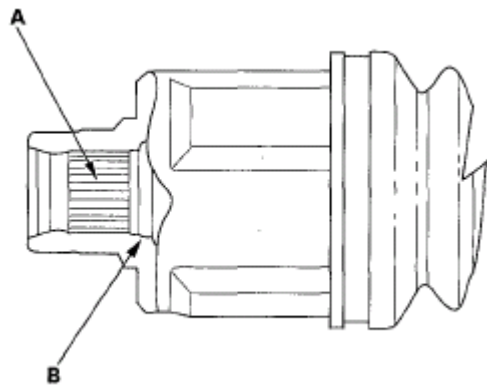
**Fig. 50: Identifying Contact Area Of Outboard Joint And Front Wheel Bearing**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Install a new set ring (A) onto the set ring groove of the driveshaft (left driveshaft) (B).



**Fig. 51: Identifying Set Ring And Driveshaft**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. Apply 0.5- 1.0 g (0.02-0.04 oz) of grease to the whole splined surface (A) of the right driveshaft. After applying grease, remove the grease from the splined grooves at intervals of 2-3 splines and from the set ring groove (B) so that air can bleed from the intermediate shaft.



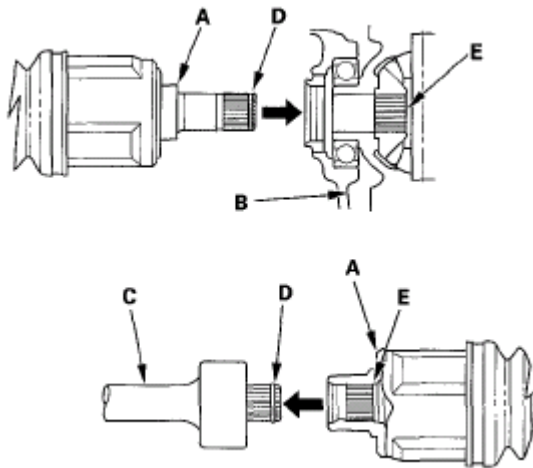
**Fig. 52: Identifying Splined Surface And Ring Groove**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- Clean the areas where the driveshaft contacts the differential thoroughly with solvent or brake cleaner, and dry with compressed air.

**NOTE:** Do not wash the rubber parts with solvent.

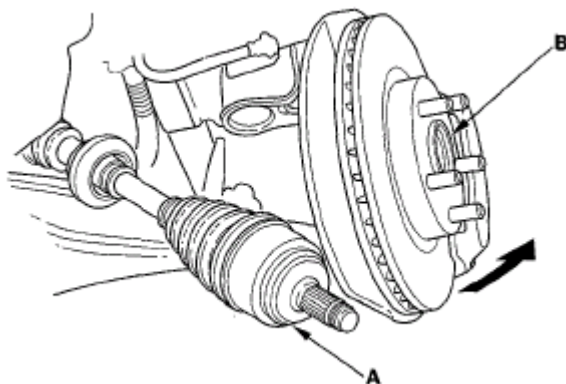
- Insert the inboard end (A) of the driveshaft into the differential (B) or intermediate shaft (C) until the set ring (D) locks in the groove (E).

**NOTE:** Insert the driveshaft horizontally to prevent damaging the differential oil seal.



**Fig. 53: Inserting Inboard End Of Driveshaft Into Differential**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- Install the outboard joint (A) into the front wheel hub (B).

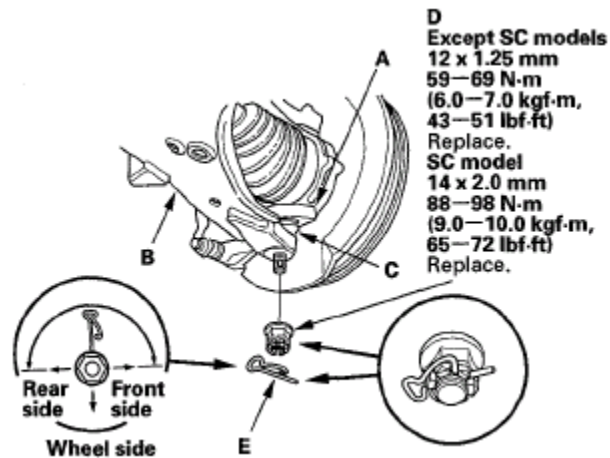


**Fig. 54: Installing Outboard Joint Into Front Wheel Hub**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- Clean off any grease contamination from the ball joint threads, then install the knuckle (A) onto the lower arm (B). Be careful not to damage the ball joint boot (C). Wipe off the grease before tightening the nut at the ball joint. Torque the new castle nut (D) to the lower torque specification, then tighten it only far enough to align the slot with the ball joint pin hole.

**NOTE:**

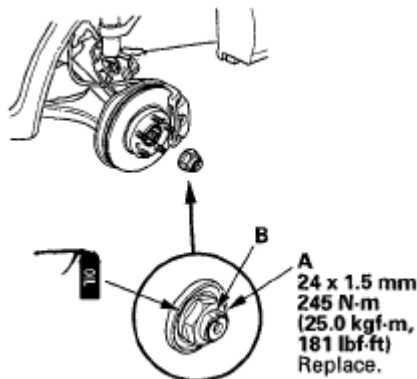
- Make sure the ball joint boot is not damaged or cracked.
- Do not align the nut by loosening it.



**Fig. 55: Identifying Knuckle Onto Lower Arm With Torque Specifications**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

- Install the new lock pin (E) into the ball joint pin hole as shown.
- Connect the front stabilizer link to the lower arm (see step 4 in **STABILIZER LINK REMOVAL/INSTALLATION** ).
- Apply a small amount of engine oil to the seating surface of the new spindle nut (A).



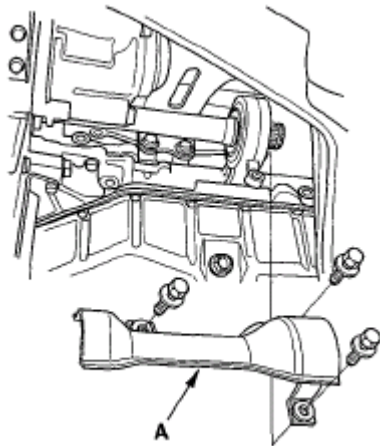
**Fig. 56: Applying Engine Oil To Seating Surface Of Spindle Nut With Specification**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

11. Install a new spindle nut, then tighten the nut. After tightening, use a drift to stake the spindle nut shoulder (B) against the driveshaft.
12. Clean the mating surfaces of the brake disc and the front wheel, then install the front wheel.
13. Turn the front wheel by hand, and make sure there is no interference between the driveshaft and surrounding parts.
14. Refill the transmission with the recommended transmission fluid:
  - Manual transmission (see **TRANSMISSION FLUID INSPECTION AND REPLACEMENT** )
  - Automatic transmission (see **ATF REPLACEMENT** )
15. Lower the vehicle on the lift.
16. Check the front wheel alignment, and adjust it if necessary (see **WHEEL ALIGNMENT** ).
17. Test-drive the vehicle.

## INTERMEDIATE SHAFT REMOVAL

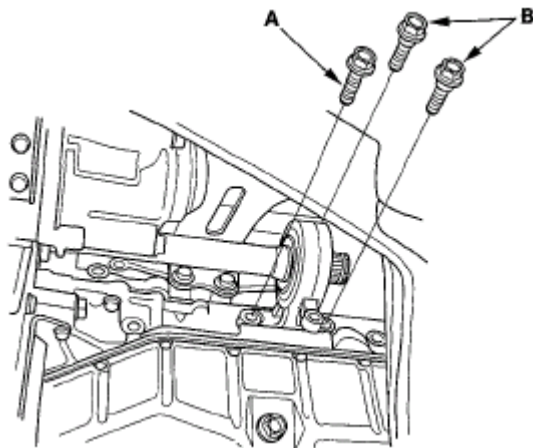
1. Drain the transmission fluid. Reinstall the drain plug with a new washer:
  - Manual transmission (see **TRANSMISSION FLUID INSPECTION AND REPLACEMENT** )
  - Automatic transmission (see **ATF REPLACEMENT** )
2. Remove the right driveshaft (see **FRONT DRIVESHAFT REMOVAL** ).
3. Remove the heat cover (A).



**Fig. 57: Identifying Heat Cover**

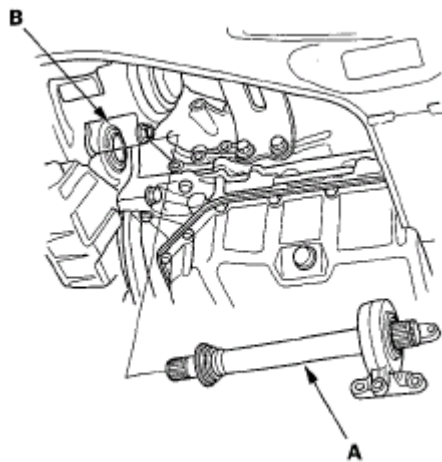
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Remove the flange bolt (A) and two dowel bolts (B).



**Fig. 58: Identifying Flange Bolt And Dowel Bolts**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Remove the intermediate shaft (A) from the differential. Hold the intermediate shaft horizontally until it is clear of the differential to prevent damaging the differential oil seal (B).



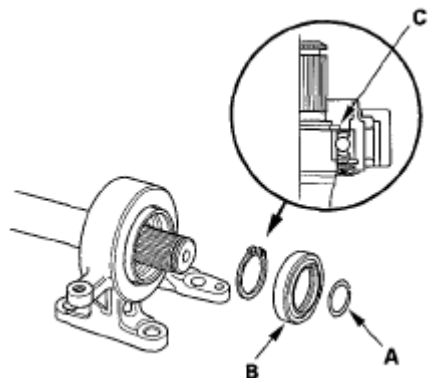
**Fig. 59: Identifying Intermediate Shaft And Differential Oil Seal**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

## INTERMEDIATE SHAFT DISASSEMBLY

### Special Tools Required

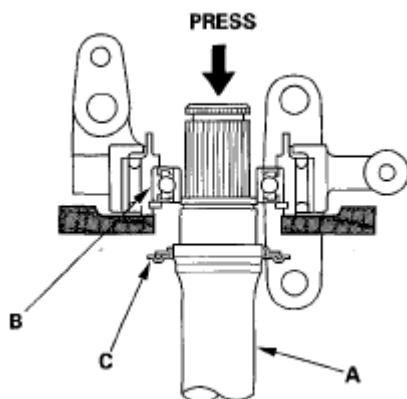
- Half shaft base 07NAF-SR30101
- Oil seal driver 07947-SB00100

1. Remove the set ring (A), outer seal (B), and external snap ring (C).



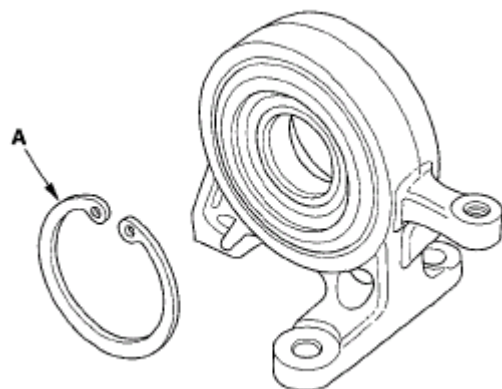
**Fig. 60: Identifying Set Ring, Outer Seal And External Snap Ring**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Press the intermediate shaft (A) out of the intermediate shaft bearing (B) using a press. Be careful not to damage the bearing support ring (C) on the intermediate shaft during disassembly.



**Fig. 61: Pressing Intermediate Shaft Of Intermediate Shaft Bearing**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

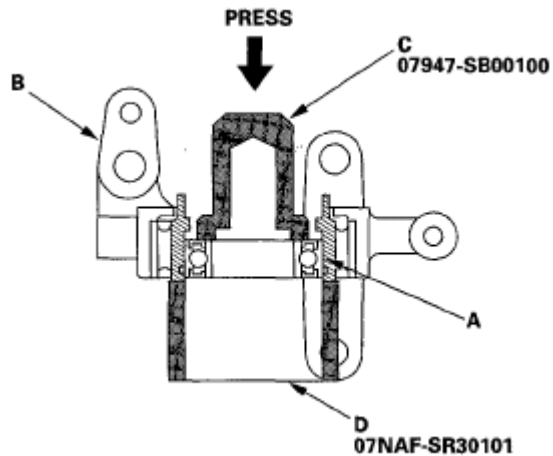
3. Remove the internal snap ring (A).



**Fig. 62: Identifying Internal Snap Ring**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Press the intermediate shaft bearing (A) out of the bearing support (B) using the oil seal driver (C), half shaft base (D), and a press.



**Fig. 63: Pressing Intermediate Shaft Bearing**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

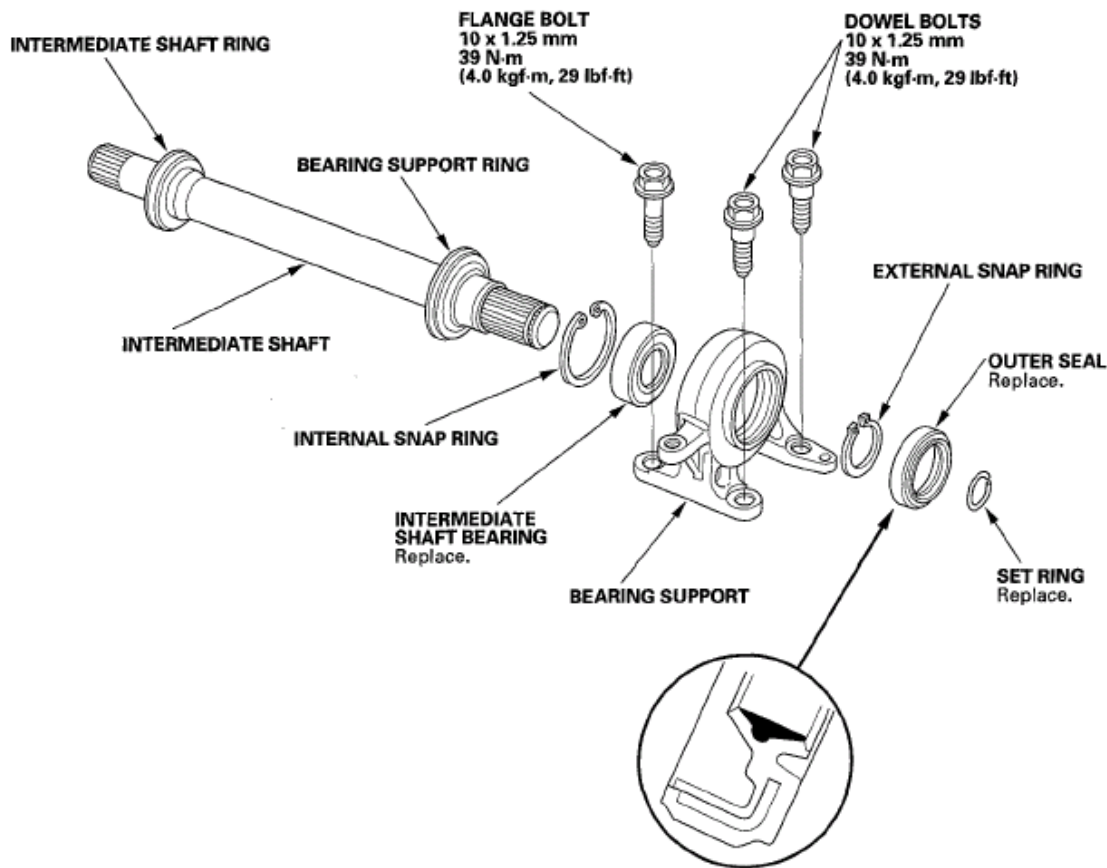
## INTERMEDIATE SHAFT REASSEMBLY

### EXPLODED VIEW



## 2007 Honda Element EX

2007-08 DRIVELINE/AXLES Driveline/Axle - Element



**Fig. 64: Exploded View Of Intermediate Shaft With Torque Specifications**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

### Special Tools Required

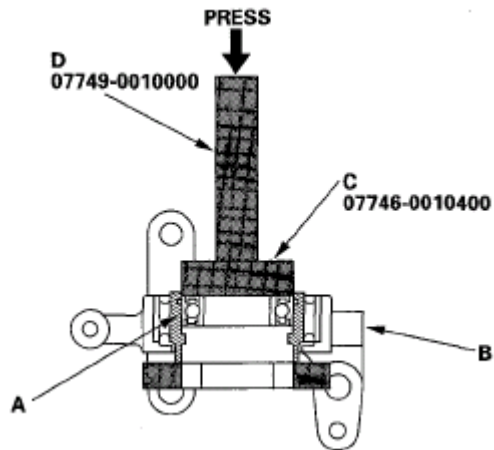
- Oil seal driver 07GAD-PH70201
- Attachment, 52 x 55 mm 07746-0010400
- Attachment, 35 mm I.D. 07746-0030400
- Driver 07749-0010000

**NOTE:** Refer to the **EXPLODED VIEW**, as needed, during this procedure.

1. Clean the disassembled parts with solvent, and dry them with compressed air.

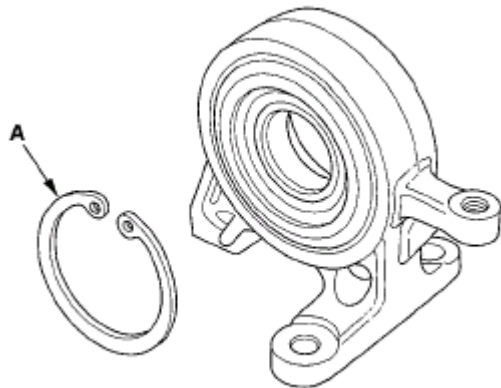
**NOTE:** Do not wash the rubber parts with solvent.

2. Press the intermediate shaft bearing (A) into the bearing support (B) using the 52 x 55 mm attachment (C), driver (D), and a press.



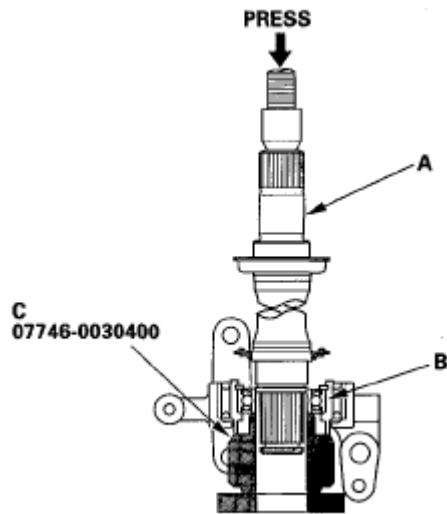
**Fig. 65: Pressing Intermediate Shaft Bearing**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. Seat the internal snap ring (A) into the groove of the bearing support.



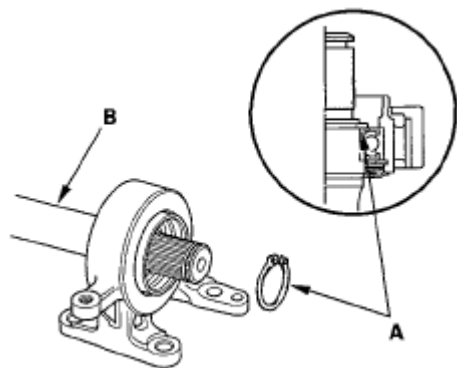
**Fig. 66: Identifying Internal Snap Ring Into Groove Of Bearing Support**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Press the intermediate shaft (A) into the shaft bearing (B) using the 35 mm I.D. attachment (C) and a press.



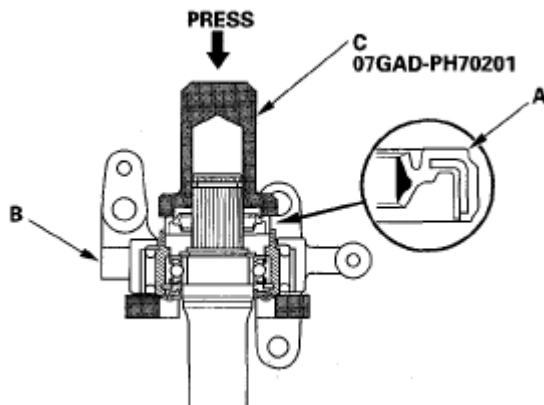
**Fig. 67: Pressing Intermediate Shaft Into Shaft Bearing**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Seat the external snap ring (A) into the groove of the intermediate shaft (B).



**Fig. 68: Identifying External Snap Ring And Intermediate Shaft**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. Install the new outer seal (A) into the bearing support (B) using the oil seal driver (C) and a press.

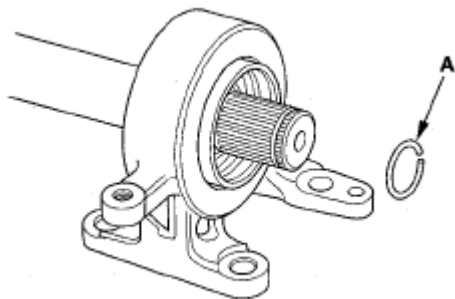


**Fig. 69: Pressing Oil Seal Driver**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

## INTERMEDIATE SHAFT INSTALLATION

1. Install the new set ring (A).



**Fig. 70: Identifying Set Ring**

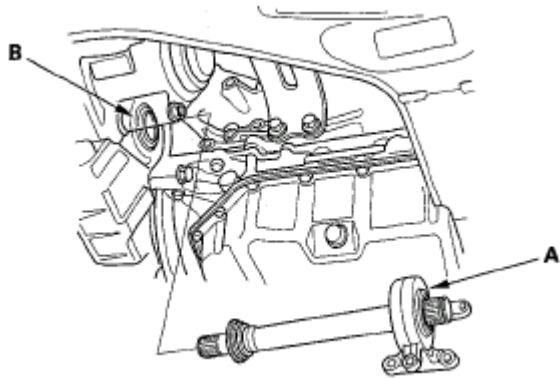
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Clean the areas where the intermediate shaft contacts the differential thoroughly with solvent or brake cleaner, and dry with compressed air.

**NOTE: Do not wash the rubber parts with solvent.**

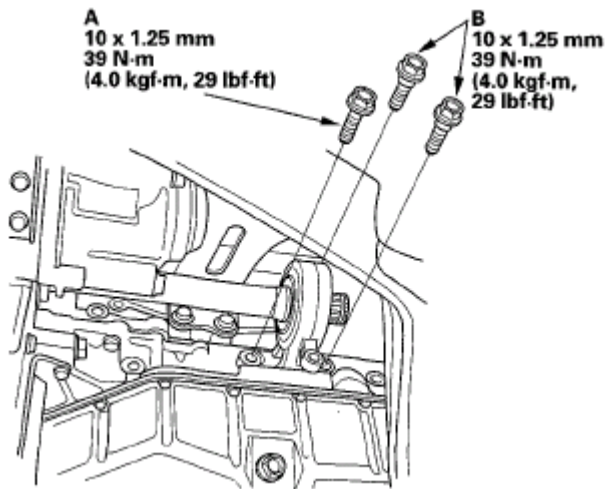
3. Insert the intermediate shaft assembly (A) into the differential until the set ring locks in the groove.

**NOTE: Insert the intermediate shaft horizontally to prevent damaging the differential oil seal (B).**



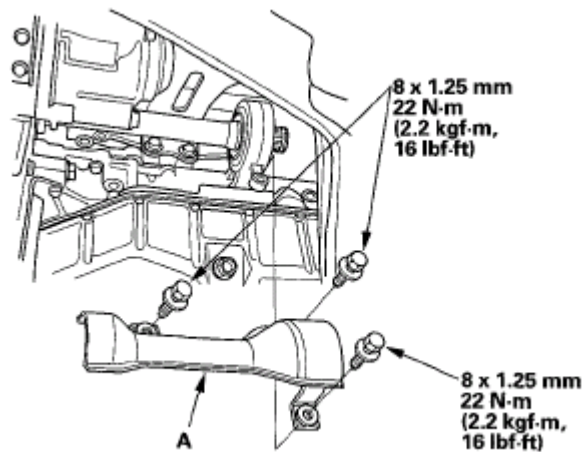
**Fig. 71: Identifying Intermediate Shaft Assembly**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Install the flange bolt (A) and two dowel bolts (B).



**Fig. 72: Identifying Flange Bolt And Dowel Bolts With Torque Specifications**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Install the heat cover (A), and tighten the three bolts.

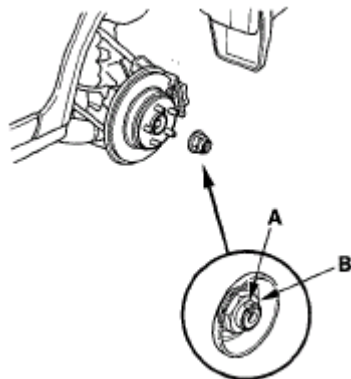


**Fig. 73: Identifying Heat Cover And Bolts With Torque Specifications**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. Install the right driveshaft (see **FRONT DRIVESHAFT INSTALLATION** ).
7. Refill the transmission with the recommended transmission fluid:
  - Manual transmission (see **TRANSMISSION FLUID INSPECTION AND REPLACEMENT** )
  - Automatic transmission (see **ATF REPLACEMENT** )
8. Test-drive the vehicle.

## REAR DRIVESHAFT REMOVAL

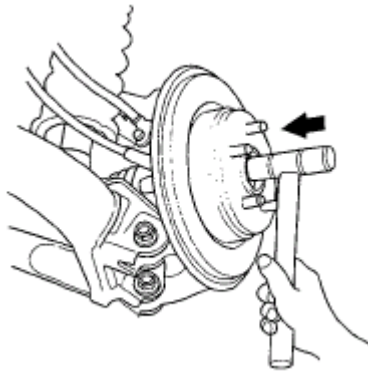
1. Raise the vehicle on a lift.
2. Remove the rear wheels.
3. Remove the rear differential assembly (see **REAR DIFFERENTIAL REMOVAL** ).
4. Lift up the locking tab (A) on the spindle nut (B), then remove and discard the nut.



**Fig. 74: Identifying Locking Tab, Spindle Nut And Nut**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Remove the rear driveshaft outboard joint from the rear wheel hub using a plastic hammer or a puller if

necessary.

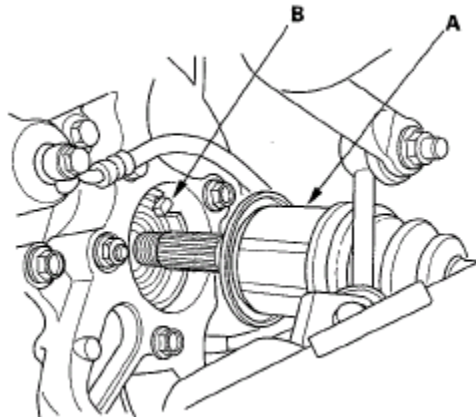


**Fig. 75: Removing Rear Driveshaft Outboard Joint Of Rear Wheel Hub**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. Remove the rear driveshaft (A).

**NOTE:**

- Be careful not to damage the wheel sensor (B).
- Pull on the outer joint. Do not pull on the driveshaft because the joint may come apart.



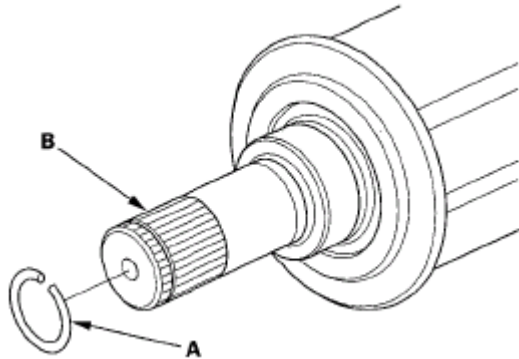
**Fig. 76: Identifying Rear Driveshaft And Wheel Sensor**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

## REAR DRIVESHAFT DISASSEMBLY

**NOTE:** Due to the amount of work required to replace one damaged boot, it is best to replace both boots at the same time.

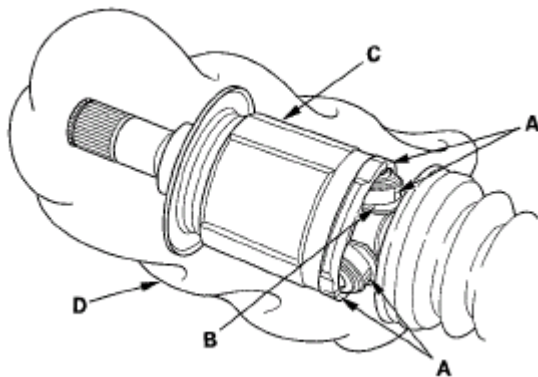
**INBOARD JOINT SIDE**

1. Remove the set ring (A) from the inboard joint (B).



**Fig. 77: Identifying Set Ring And Inboard Joint**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Remove the boot bands. Be careful not to damage the boot (see step 2 ).
  - If the boot band is a welded type, cut the boot band.
  - If the boot band is a double loop type, lift up the band end, and push it into the clip.
  - If the boot band is a low profile type, pinch the boot band using commercially available boot band pliers.
3. Make a mark (A) on each roller (B) and inboard joint (C) to identify the locations of rollers and grooves in the inboard joint. Then remove the inboard joint on the shop towel (D). Be careful not to drop the rollers when separating them from the inboard joint.

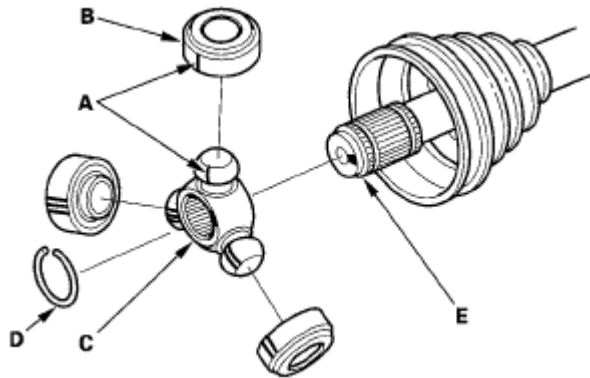


**Fig. 78: Identifying Rear Drive Shafts Parts**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Make marks (A) on the rollers (B) and spider (C) to identify the locations of the rollers on the spider, then remove the rollers.

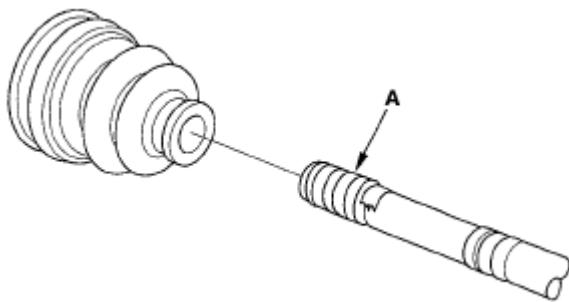
**NOTE:** Do not engrave or scribe any marks on the rolling surface.





**Fig. 79: Identifying Marks On Rollers And Spider**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Remove the circlip (D).
6. Mark the spider and driveshaft (E) to identify the position of the spider on the shaft.
7. Remove the spider.
8. Wrap the splines on the driveshaft with vinyl tape (A) to prevent damaging the boot.

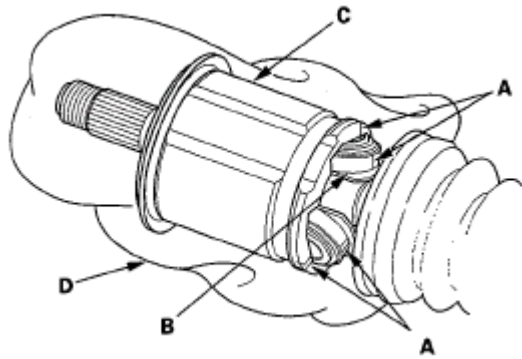


**Fig. 80: Identifying Splines On Driveshaft With Vinyl Tape**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. Remove the inboard boot. Be careful not to damage the boot.
10. Remove the vinyl tape.

## OUTBOARD JOINT SIDE

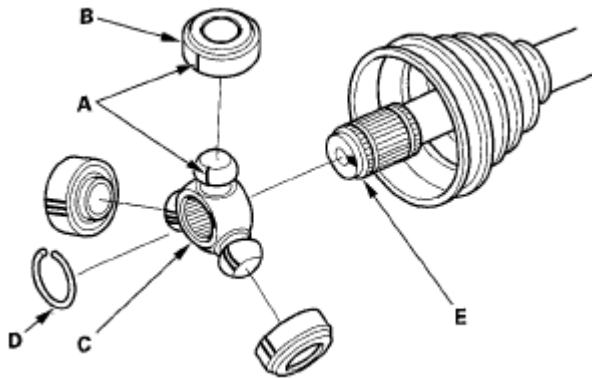
1. Remove the boot bands. Be careful not to damage the boot (see step 2 ).
  - If the boot band is a welded type, cut the boot band.
  - If the boot band is a double loop type, lift up the band end, and push it into the clip.
  - If the boot band is a low profile type, pinch the boot band using commercially available boot band pliers.
2. Make a mark (A) on each roller (B) and outboard joint (C) to identify the locations of rollers and grooves in the outboard joint. Then remove the outboard joint on the shop towel (D). Be careful not to drop the rollers when separating them from the outboard joint.



**Fig. 81: Identifying Mark On Roller And Outboard Joint**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

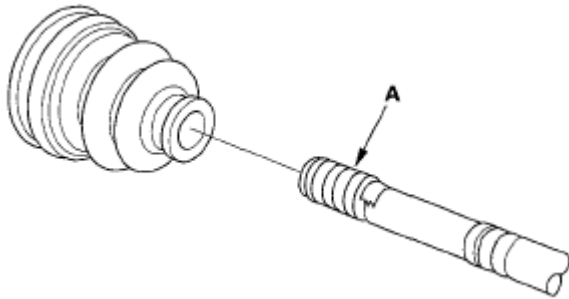
3. Make marks (A) on the rollers (B) and spider (C) to identify the locations of the rollers on the spider, then remove the rollers.

**NOTE:** Do not engrave or scribe any marks on the rolling surface.



**Fig. 82: Identifying Marks On Rollers And Spider**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Remove the circlip (D).
5. Make a mark the spider and driveshaft (E) to identify the position of the spider on the shaft.
6. Remove the spider.
7. Wrap the splines on the driveshaft with vinyl tape (A) to prevent damaging the boot.



**Fig. 83: Identifying Driveshaft With Vinyl Tape**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

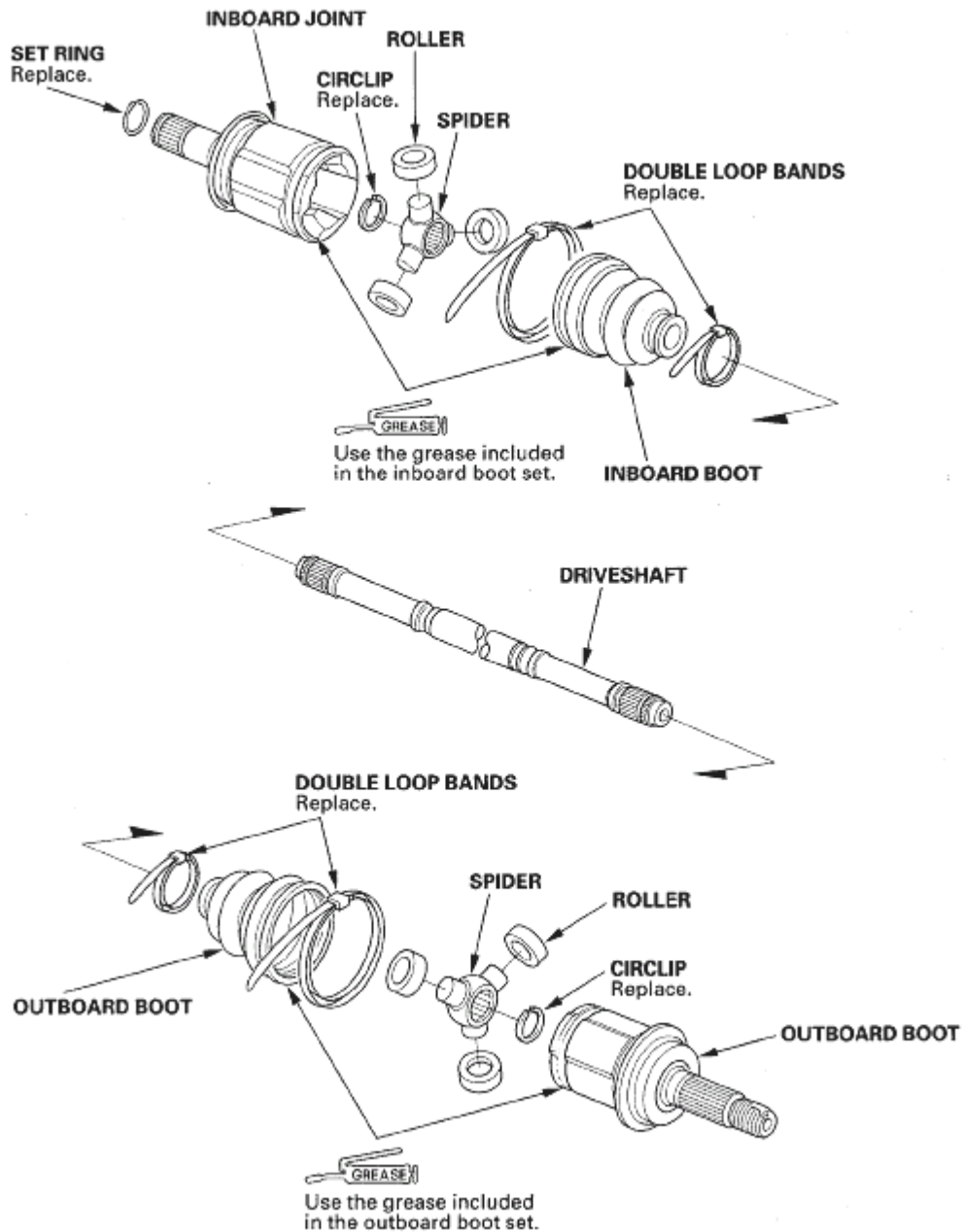
8. Remove the outboard boot. Be careful not to damage the boot.
9. Remove the vinyl tape.

## REAR DRIVESHAFT REASSEMBLY

### EXPLODED VIEW

## 2007 Honda Element EX

2007-08 DRIVELINE/AXLES Driveline/Axle - Element



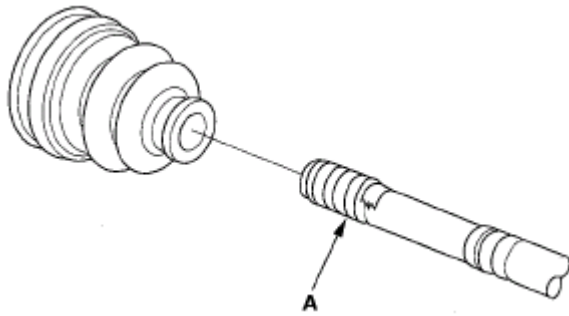
**Fig. 84: Exploded View Of Rear Driveshaft**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

**NOTE:** Refer to the EXPLODED VIEW, as needed, during this procedure.

### INBOARD JOINT SIDE

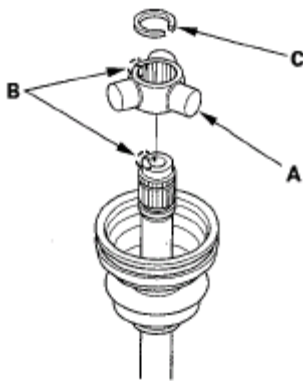
1. Wrap the splines with vinyl tape (A) to prevent damaging the inboard boot.



**Fig. 85: Identifying Splines With Vinyl Tape**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

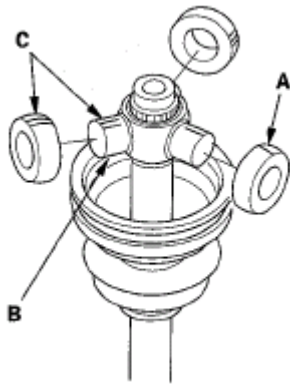
2. Install the inboard boot onto the driveshaft, then remove the vinyl tape. Be careful not to damage the inboard boot.
3. Install the spider (A) onto the driveshaft by aligning the marks (B) you made on the spider and the end of the driveshaft.

**NOTE:** If you are installing a new joint, install the spider aligning its position to differ by 60° from the position of the outboard side spider.



**Fig. 86: Identifying Mark On Spider**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Install the new circlip (C) into the driveshaft groove. Always rotate the circlip in its groove to make sure it is fully seated.
5. Fit the rollers (A) onto the spider (B) with their high shoulders facing outward and note these items:
  - Reinstall the rollers in their original positions on the spider by aligning the marks (C) you made.
  - Hold the driveshaft pointed up to prevent the rollers from falling off.



**Fig. 87: Identifying Mark On Rollers And Spider**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

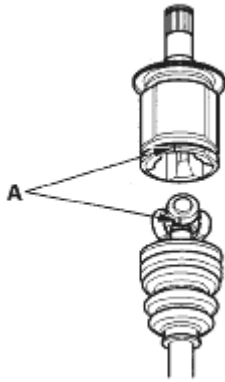
6. Pack the inboard joint with the joint grease included in the new inboard boot set.

**Grease quantity**  
**Inboard joint: 80–90 g (2.8–3.2 oz)**



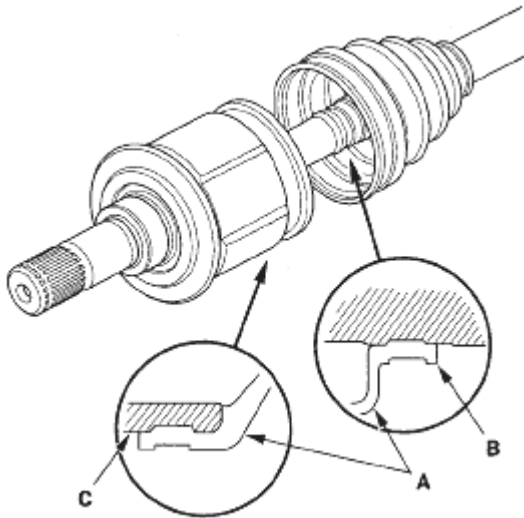
**Fig. 88: Applying Grease On Inboard Boot Set**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. Fit the inboard joint onto the driveshaft and note these items:
  - Reinstall the inboard joint onto the driveshaft by aligning the marks (A) you made on the inboard joint and the rollers.
  - Hold the driveshaft so the inboard joint is pointing up to prevent it from falling off.



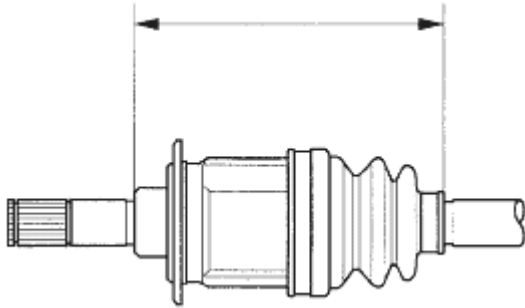
**Fig. 89: Identifying Marks On Inboard Joint And Rollers**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. Fit the boot (A) ends onto driveshaft (B) and the inboard joint (C).



**Fig. 90: Identifying Boot Ends Onto Driveshaft And Inboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. Adjust the length of the driveshafts to these measurements, then adjust the boots to halfway between full compression and full extension.

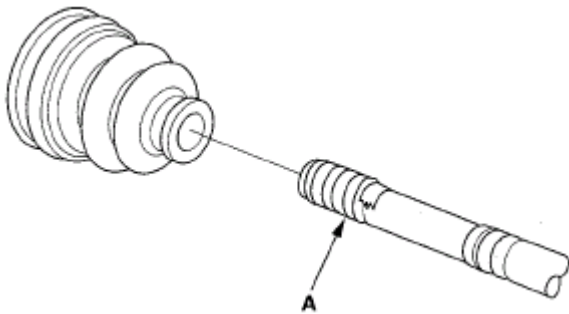


**Fig. 91: Identifying Length Of Driveshafts**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. Install the boot band (see step 10 ).

### OUTBOARD JOINT SIDE

1. Wrap the splines with vinyl tape (A) to prevent damaging the outboard boot.

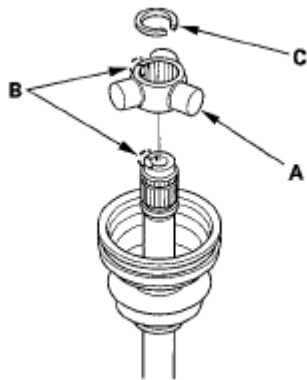


**Fig. 92: Identifying Splines With Vinyl Tape**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Install the outboard boot onto the driveshaft, then remove the vinyl tape. Be careful not to damage the outboard boot.
3. Install the spider (A) onto the driveshaft by aligning the marks (B) you made on the spider and the end of the driveshaft.

**NOTE:** If you are installing a new joint, install the spider aligning its position to differ by 60° from the position of the inboard side spider.

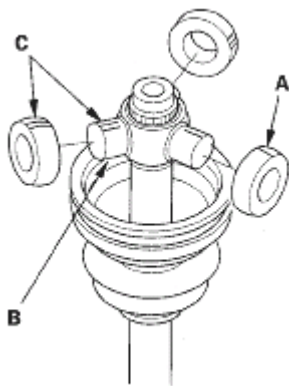




**Fig. 93: Aligning Mark Of Splines**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Install the new circlip (C) into the driveshaft groove. Always rotate the circlip in its groove to make sure it is fully seated.
5. Fit the rollers (A) onto the spider (B) with their high shoulders facing outward and note these items:
  - Reinstall the rollers in their original positions on the spider by aligning the marks (C) you made.
  - Hold the driveshaft pointed up to prevent the rollers from falling off.



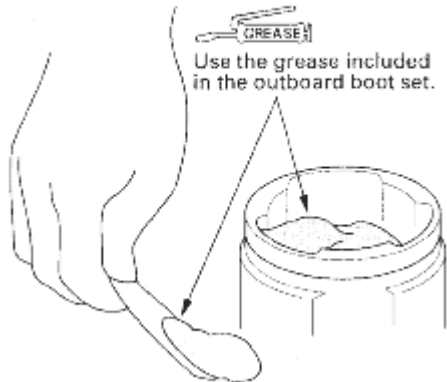
**Fig. 94: Identifying Mark Of Rollers And Spider**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. Pack the outboard joint with the joint grease included in the new outboard boot set.

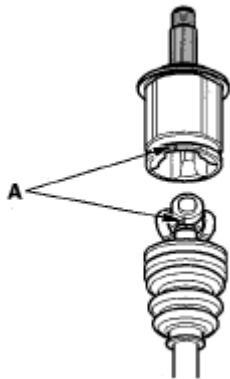
**Grease quantity**

**Outboard joint: 80–90 g (2.8–3.2 oz)**



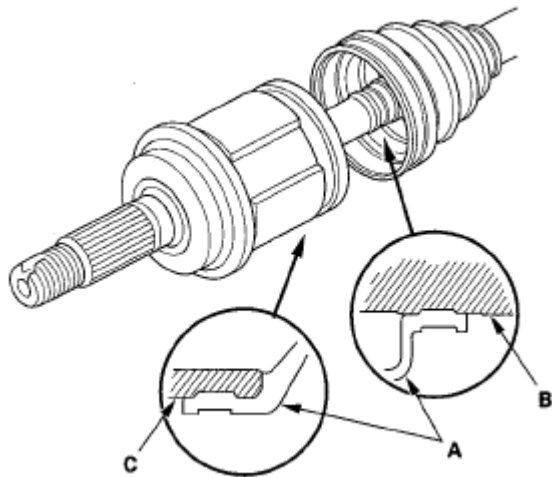
**Fig. 95: Applying Grease On Outboard Boot Set**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. Fit the outboard joint onto the driveshaft and note these items:
  - Reinstall the outboard joint onto the driveshaft by aligning the marks (A) you made on the outboard joint and the rollers.
  - Hold the driveshaft so the outboard joint is pointing up to prevent it from falling off.



**Fig. 96: Identifying Mark On Outboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

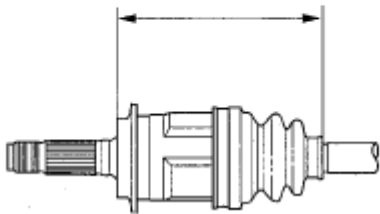
8. Fit the boot (A) ends onto driveshaft (B) and the outboard joint (C).



**Fig. 97: Identifying Boot, Driveshaft And Outboard Joint**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

9. Adjust the length of the driveshafts to these measurements, then adjust the boots to halfway between full compression and full extension.

**Outboard boot: 143—147 mm (5.63—5.79 in.)**



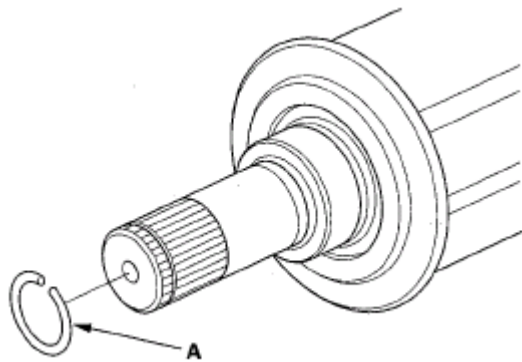
**Fig. 98: Identifying Length Of Driveshafts**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

10. Install the boot band (see step 10 ).

## REAR DRIVESHAFT INSTALLATION

**NOTE:** Before starting installation, make sure the mating surfaces of the joint and the splined section are free from dirt or dust.

1. Install the new set ring (A).

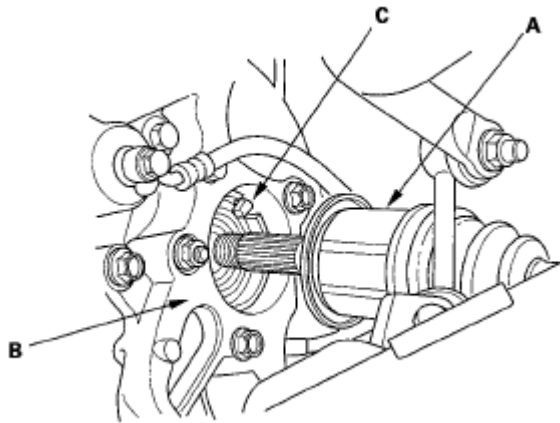


**Fig. 99: Identifying Set Ring**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

2. Install the outboard joint (A) into the rear wheel hub (B).

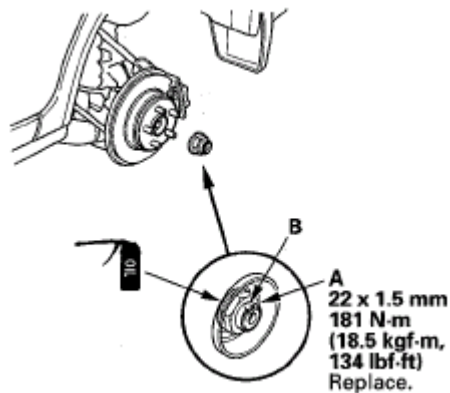
**NOTE:** Be careful not to damage the wheel sensor (C).



**Fig. 100: Identifying Outboard Joint And Rear Wheel Hub**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. Install the rear driveshafts into the rear differential assembly (see step 3 in **REAR DIFFERENTIAL INSTALLATION** ).
4. Apply a small amount of engine oil to the seating surface of the new spindle nut (A).



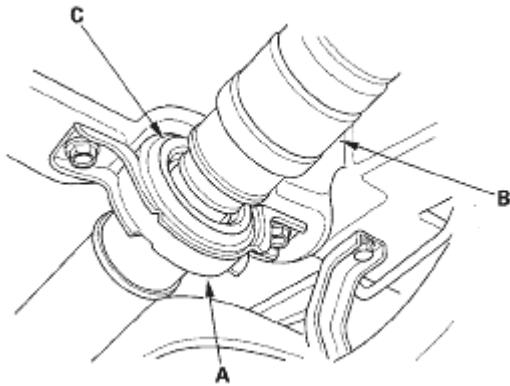
**Fig. 101: Identifying Spindle Nut With Torque Specification**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Install a new spindle nut, then tighten the nut. After tightening, use a drift to stake the spindle nut shoulder (B) against the driveshaft.
6. Clean the mating surfaces of the brake disc and the rear wheel, then install the rear wheel.
7. Turn the rear wheel by hand, and make sure there is no interference between the driveshaft and surrounding parts.
8. Refill the rear differential with the recommended fluid (see **REAR DIFFERENTIAL FLUID INSPECTION AND REPLACEMENT** ).
9. Lower the vehicle on the lift.
10. Test-drive the vehicle.

## **PROPELLER SHAFT INSPECTION**

### **UNIVERSAL JOINT AND BOOTS**

1. Shift the transmission to neutral (M/T model) or the N position (A/T model).
2. Raise the vehicle on a lift.
3. Check the center support bearing (A) for excessive play or rattle. If the center support has excessive play or rattle, replace the propeller shaft assembly (B).



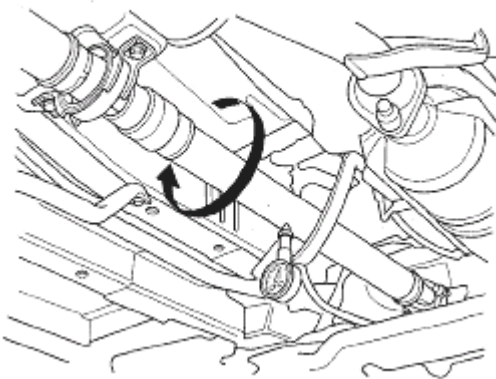
**Fig. 102: Identifying Universal Joint Boots, Center Support Bearing And Propeller Shaft Assembly**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

4. Check the universal joint boots (C) for damage and deterioration. If the boots are damaged or deteriorated, replace the propeller shaft assembly.
5. Check the universal joints for excessive play or rattle. If the universal joints have excessive play or rattle, replace the propeller shaft assembly.

### **Propeller Shaft Runout**

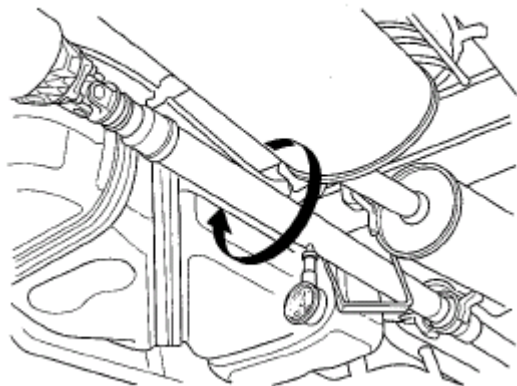
6. Install a dial indicator with its needle on the center of the No. 1 or No. 2 propeller shaft.
7. Turn the other propeller shaft slowly, and check the runout. Repeat this procedure for the other propeller shaft.

**No. 1 Propeller Shaft Runout**  
Service Limit: 1.5 mm (0.06 in.)



**Fig. 103: Measuring Propeller Shaft Runout**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

**No. 2 Propeller Shaft Runout**  
Service Limit: 1.5 mm (0.06 in.)

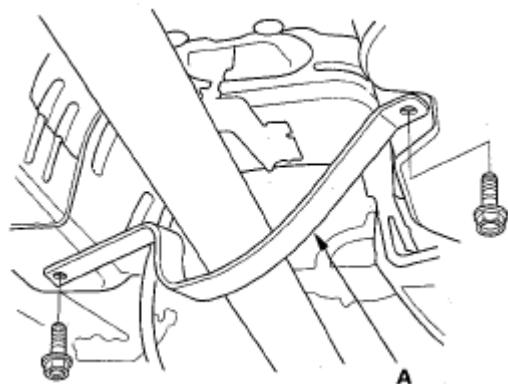


**Fig. 104: Measuring Propeller Shaft Runout**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

8. If the runout on either propeller shaft exceeds the service limit, replace the propeller shaft assembly.

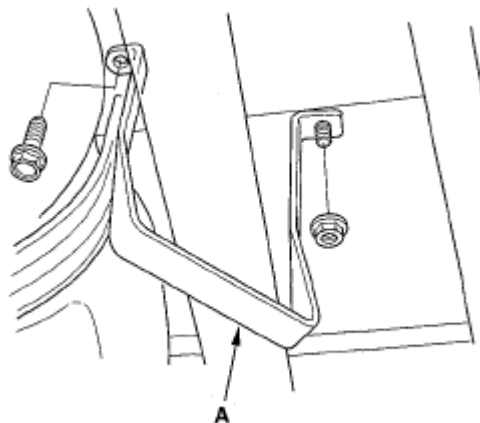
## PROPELLER SHAFT REMOVAL

1. Raise the vehicle on the lift.
2. Remove the No. 1 propeller shaft protector (A).



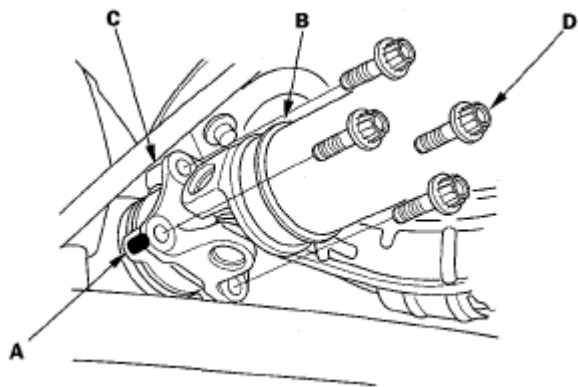
**Fig. 105: Identifying No. 1 Propeller Shaft Protector**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

3. Remove the No. 2 propeller shaft protector (A).



**Fig. 106: Identifying No. 2 Propeller Shaft Protector**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

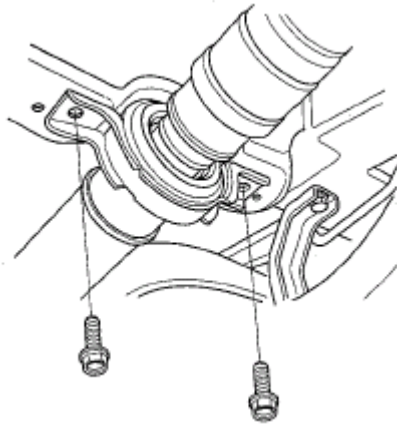
4. Make a reference mark (A) across the No. 1 propeller shaft (B) and transfer companion flange (C).



**Fig. 107: Identifying Reference Mark On No. 1 Propeller Shaft And Transfer Companion Flange**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

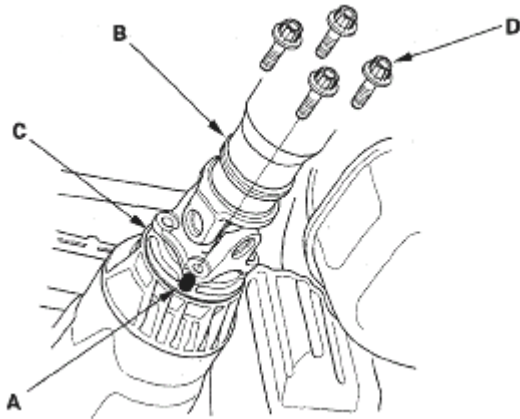
5. Remove the propeller shaft mounting bolts (D), then separate the No. 1 propeller shaft from the transfer assembly.
6. Remove the center support bearing mounting bolts.





**Fig. 108: Identifying Center Support Bearing Mounting Bolts**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

7. Make a reference mark (A) across the No. 2 propeller shaft (B) and rear differential companion flange (C).



**Fig. 109: Identifying Reference Mark On No. 2 Propeller Shaft And Rear Differential Companion Flange**  
Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

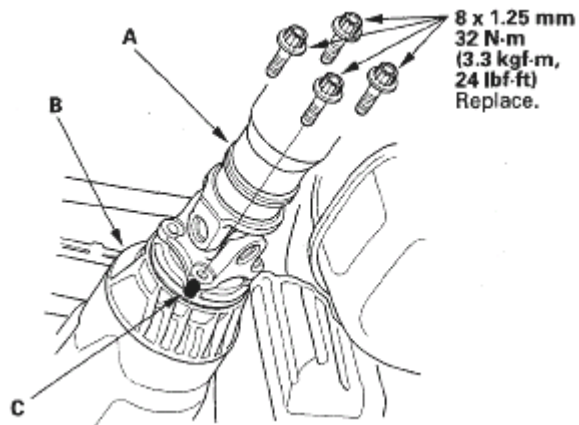
8. Remove the propeller shaft mounting bolts (D). Separate the No. 2 propeller shaft from the rear differential, then remove the propeller shaft assembly.

## PROPELLER SHAFT INSTALLATION

1. Install the No. 2 propeller shaft (A) onto the rear differential (B) by aligning the reference mark (C) you made, then install new propeller shaft mounting bolts.

## 2007 Honda Element EX

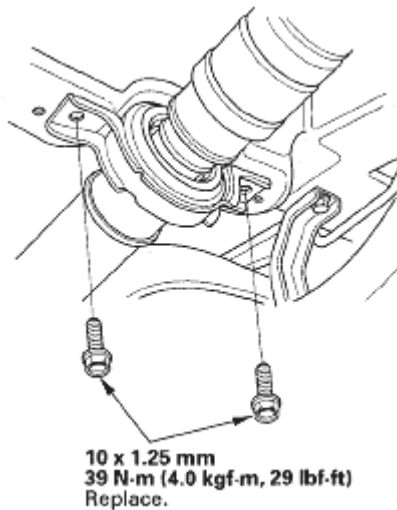
2007-08 DRIVELINE/AXLES Driveline/Axle - Element



**Fig. 110: Identifying Mark On No. 2 Propeller Shaft And Rear Differential With Torque Specification**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

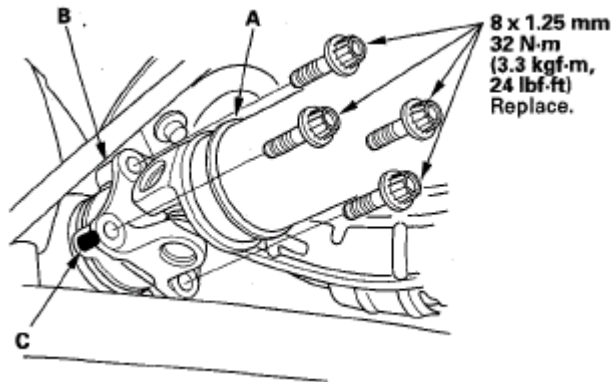
2. Install the new center support bearing mounting bolts.



**Fig. 111: Identifying Center Support Bearing Mounting Bolts With Torque Specification**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

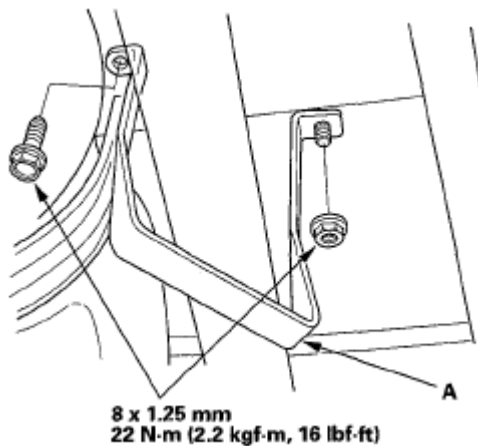
3. Install the No. 1 propeller shaft (A) onto the transfer assembly (B) by aligning the reference mark (C) you made, then install new propeller shaft mounting bolts.



**Fig. 112: Identifying Reference Mark On No. 1 Propeller Shaft And Transfer Assembly With Torque Specification**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

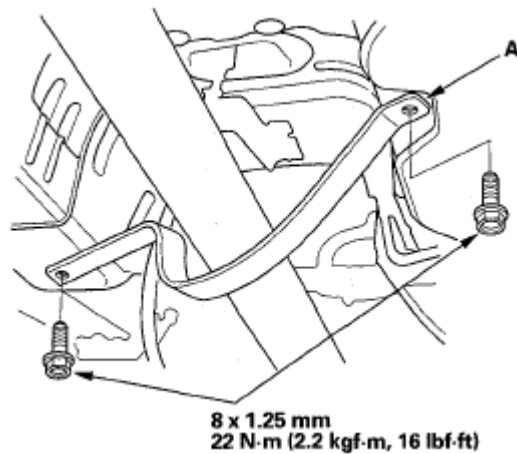
4. Install the No. 2 propeller shaft protector (A).



**Fig. 113: Identifying No. 2 Propeller Shaft Protector With Torque Specification**

Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

5. Install the No. 1 propeller shaft protector (A).



**Fig. 114: Identifying No. 1 Propeller Shaft Protector With Torque Specification**  
 Courtesy of TOYOTA MOTOR SALES, U.S.A., INC.

6. Test-drive the vehicle.

#### **SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (If steering maintenance is required)**

The ELEMENT SRS includes a driver's airbag in the steering wheel hub, a passenger's airbag in the dashboard above the glove box, seat belt tensioners in the front seat belt retractors, seat belt buckle tensioners in the front seat belt buckles, side curtain airbags in the sides of the roof, and side airbags in the front seat-backs. Information necessary to safely service the SRS is included in this Service Manual. Items marked with an asterisk (\*) on the contents page include or are located near SRS components. Servicing, disassembling, or replacing these items require special precautions and tools, and should be done only by an authorized Honda dealer.

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal or side collision, all SRS service work should be done by an authorized Honda dealer.
- Improper service procedures, including incorrect removal and installation of the SRS, could lead to personal injury caused by unintentional deployment of the airbags and/or side airbags.
- Do not bump or impact the SRS unit, front impact sensors, or side impact sensors when the ignition switch is ON (II), or for at least 3 minutes after the ignition switch is turned OFF; otherwise, the system may fail in a collision, or the airbags may deploy.
- SRS electrical connectors are identified by yellow color coding. Related components are located in the steering column, front console, dashboard, dashboard lower panel, in the dashboard above the glove box, in the front seats, and around the floor. Do not use electrical test equipment on these circuits.