

AXLE SHAFTS - 1.8L

1994 Toyota Celica

1994 DRIVE AXLES
Toyota FWD Axle Shafts

Celica 1.8L 4-Cyl

DESCRIPTION

Axle shafts transfer power from transaxle to the front wheels. Axle shaft consists of axle shaft and flexible Constant Velocity (CV) joint at each end. Inner CV joint is bolted or splined to transaxle. Outer CV joint is splined to the front hub assembly.

Inner and outer CV joints are enclosed by a CV joint boot. Boot maintains lubrication in CV joint and prevents contamination of CV lubricant. Boots must be replaced if cracked, torn or damaged. Inner CV joint can be repaired without replacing assembly as outer CV joint must be replaced as an assembly.

TROUBLE SHOOTING

NOTE: See TROUBLE SHOOTING - BASIC PROCEDURES article in GENERAL INFORMATION.

REMOVAL, DISASSEMBLY, REASSEMBLY & INSTALLATION

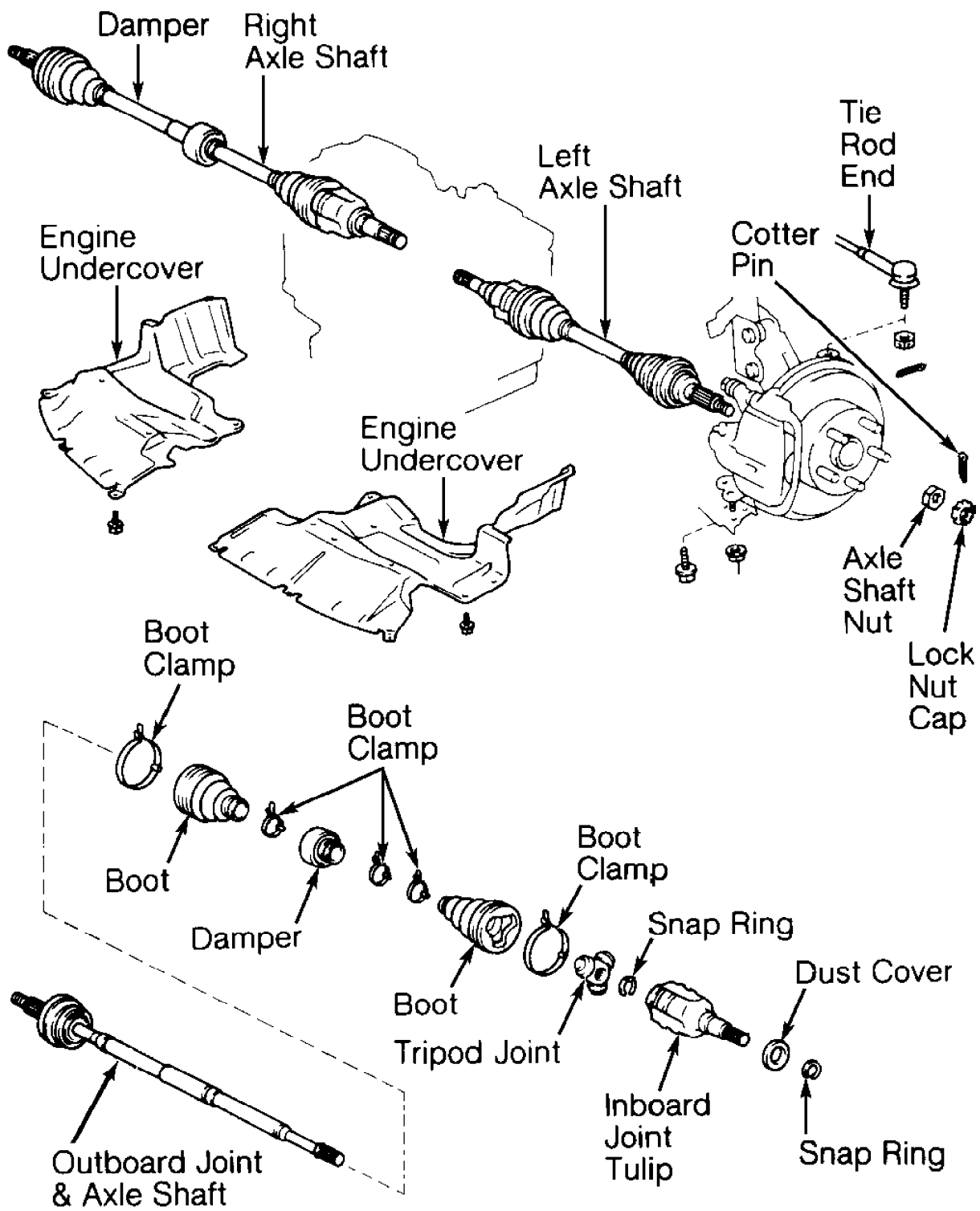
AXLE SHAFTS

Removal (1.8L 7A-FE)

1) Raise and support vehicle. Remove front wheels. Remove engine undercovers. See Fig. 1. Remove cotter pin and lock nut cap. Apply brakes and remove axle shaft nut. Release brakes. Drain transaxle fluid. Remove cotter pin and nut from tie rod end.

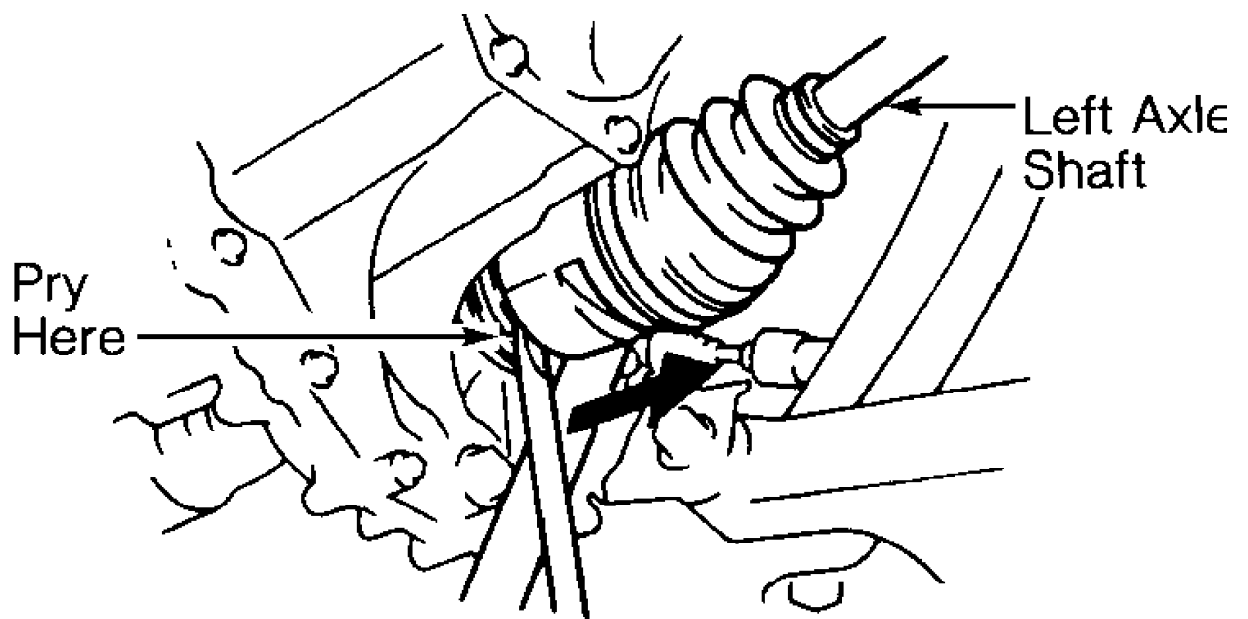
2) Disconnect tie rod end from steering knuckle. Disconnect stabilizer bar link from lower control arm. Remove lower control arm-to-ball joint bolts/nuts. Disconnect lower control arm from ball joint.

3) Using plastic hammer, tap axle shaft from front hub assembly. Pry axle shaft from transaxle. See Fig. 2. Remove snap ring for inner end of axle shaft.

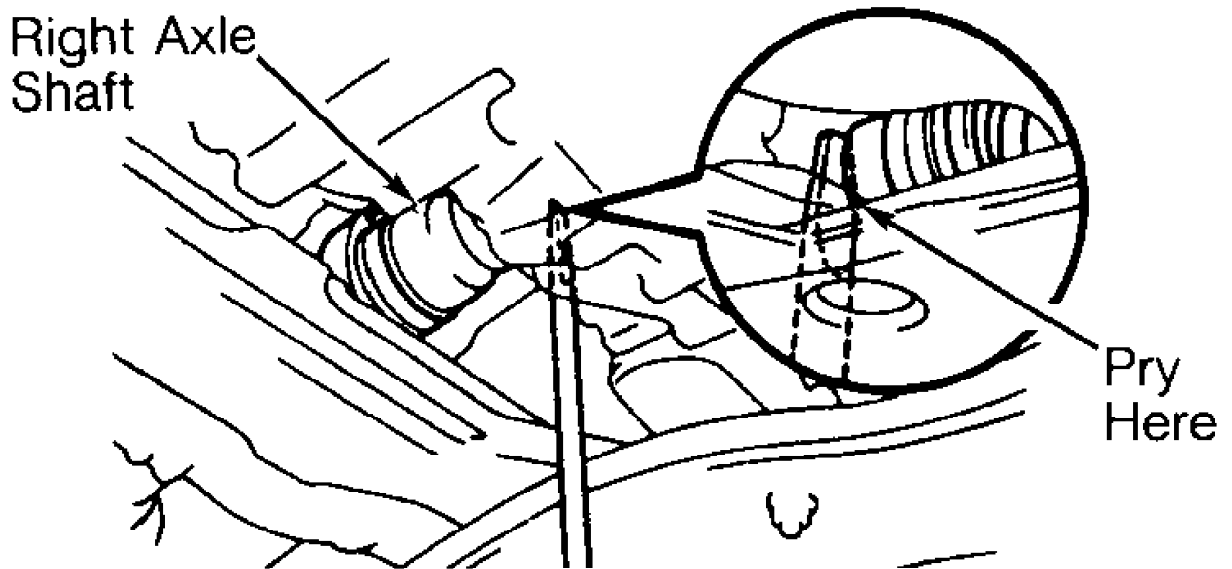


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Fig. 1: Identifying Typical Axle Shaft Components (1.8L 7A-FE)
 Courtesy of Toyota Motor Sales, U.S.A., Inc.



REMOVING LEFT AXLE SHAFT



REMOVING RIGHT AXLE SHAFT

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Fig. 2: Removing Axle Shafts (1.8L 7A-FE)
 Courtesy of Toyota Motor Sales, U.S.A., Inc.

Inspection

Ensure no play exists in inboard and outboard joints. Inboard joint must slide smoothly inward and outward and be free from excessive play in radial direction. Check for torn or damaged boots.

Disassembly

1) Remove boot clamps and slide boots away from joints. Paint reference marks inboard joint tulip, tripod joint and axle shaft for reassembly reference. See Fig. 1. Remove inboard joint tulip from axle shaft.

NOTE: Manufacturer does not recommend overhaul of outboard joint assembly.

2) Remove outer snap ring that retains tripod joint on axle shaft. Paint reference marks on tripod joint and axle shaft. Using hammer and brass drift, tap tripod joint from axle shaft. DO NOT tap on roller of tripod joint during removal.

3) On right axle shaft, remove boot and damper from axle shaft. See Fig. 1. On all axle shafts, remove boots from axle shaft. Using press and bearing splitter, press dust cover from inboard joint tulip.

Reassembly

1) Using press, press NEW dust cover on inboard joint tulip. Wrap splines on axle shaft with tape to prevent damage to boots during installation. Install NEW boots and NEW boot clamps on axle shaft.

2) On right axle shaft, install damper and clamp on axle shaft. On all axle shafts, install tripod joint on axle shaft with beveled side toward outboard joint. Ensure reference mark on tripod joint and axle shaft are aligned.

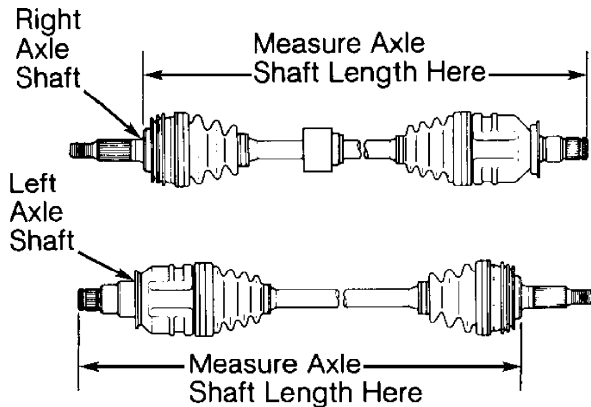
3) Using hammer and brass drift, tap tripod joint on axle shaft. Tap on center of tripod joint. DO NOT tap on rollers on tripod joint. Install NEW outer snap ring that retains tripod joint on axle shaft.

4) Apply 4.2-4.6 ounces of Black colored grease supplied with overhaul kit on outboard joint and boot. Pack 6.3-6.7 ounces of Yellow colored grease supplied with overhaul kit in the inboard joint tulip.

5) Install inboard joint tulip on axle shaft so reference marks are aligned. Install boots on inboard joint tulip and outboard joint. Ensure boots are seated in grooves on axle shaft.

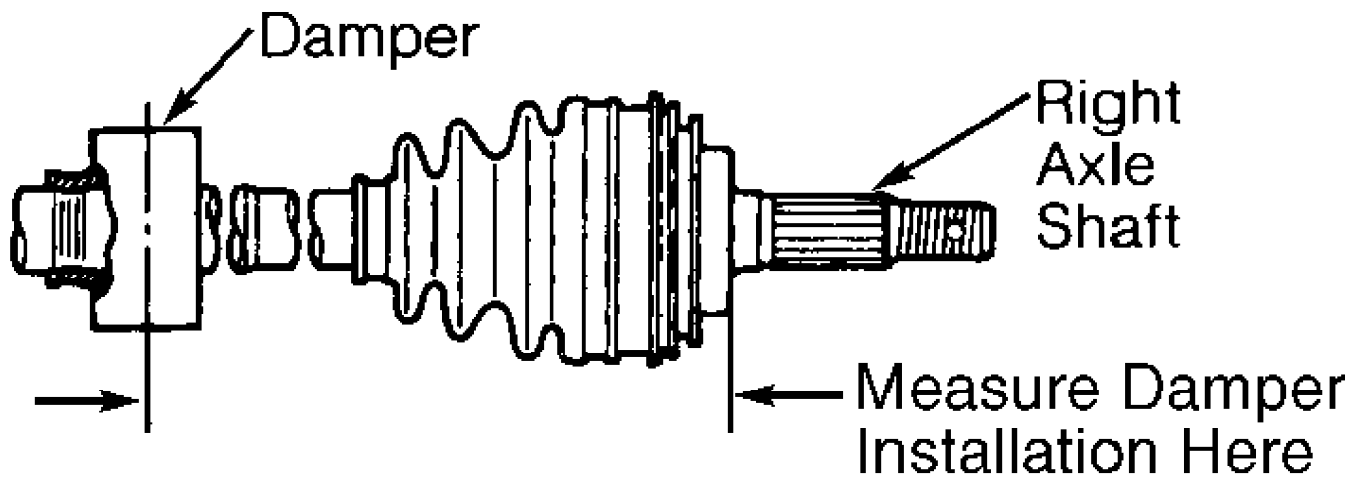
6) Adjust axle shaft to standard axle shaft length. See AXLE SHAFT LENGTH SPECIFICATIONS table. See Fig. 3. Install and tighten boot clamps. Install NEW snap ring on end of axle shaft.

7) On right axle shaft, position damper on axle shaft so damper installation distance on axle shaft is 16.26-16.46" (413.0-423.0 mm). See Fig. 4. Tighten clamp for damper.



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Fig. 3: Measuring Axle Shaft Length (1.8L 7A-FE)
Courtesy of Toyota Motor Sales, U.S.A., Inc.



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Fig. 4: Measuring Damper Installation Distance
 Courtesy of Toyota Motor Sales, U.S.A., Inc.

Installation

1) To install, reverse removal procedure. Before installing axle shafts, install NEW snap ring on end axle shaft. Coat axle shaft seals in transaxle with grease. Coat axle shaft splines and sliding surfaces with gear oil (M/T models) or Dexron-II (A/T models).

2) Install axle shaft by lightly tapping axle shaft into transaxle. Ensure axle shaft will move inward and outward approximately .079-.120" (2.00-3.00 mm) and cannot be pulled from transaxle.

3) To install remaining components, reverse removal procedure. Tighten bolts/nuts to specification. See TORQUE SPECIFICATIONS. Fill transaxle with Dexron-II (A/T models) or 75W-90 gear oil with API GL-4 or 5 rating (M/T models).

AXLE SHAFT LENGTH SPECIFICATIONS TABLE

Application	Length - In. (mm)
1.8L (7A-FE) Engine (1)	
Left Axle Shaft	21.82-22.21 (554.2-564.2)
Right Axle Shaft	33.46-33.85 (849.9-859.9)

(1) - For measuring location, see Fig. 3.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application	Ft. Lbs. (N.m)
Axle Shaft Nut	159 (216)
Lower Control Arm-To-Ball Joint Bolt/Nut	94 (127)
Stabilizer Bar Link-To-Lower Control Arm Nut	33 (45)
Tie Rod End Nut	36 (49)
Wheel Lug Nut	76 (103)