

SUSPENSION - REAR

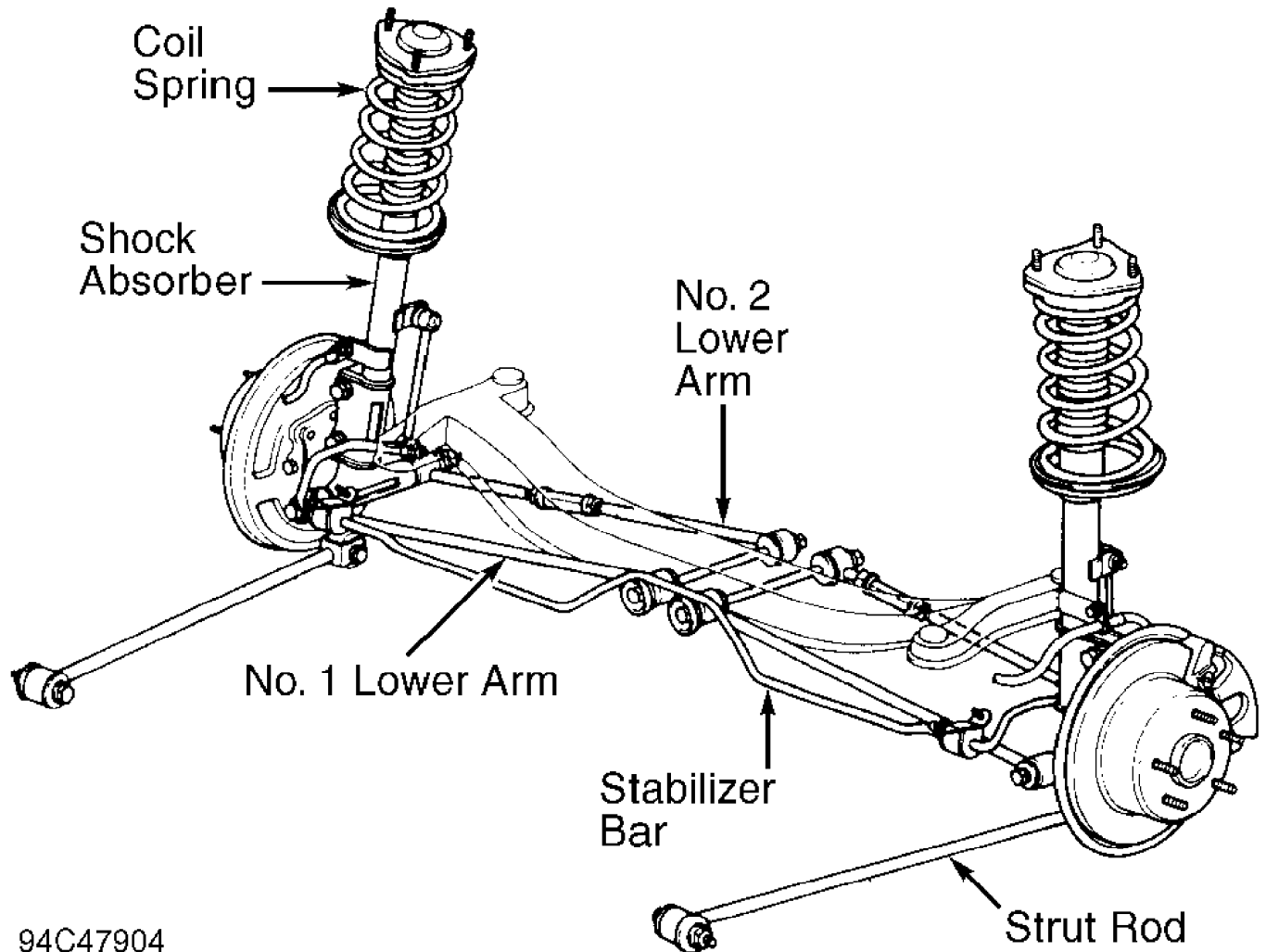
1994 Toyota Celica

1994 SUSPENSION
Toyota - Rear

Celica

DESCRIPTION & OPERATION

Major suspension components are MacPherson struts, connected between rear axle carrier and vehicle body. Wheel bearings are mounted in axle hub, bolted to rear axle carrier. See Fig. 1.



94C47904

Fig. 1: Rear Suspension Components ID
Courtesy of Toyota Motor Sales, U.S.A., Inc.

ADJUSTMENTS & INSPECTION

WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES

NOTE: See WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT section.

WHEEL BEARING INSPECTION

Raise and support vehicle. Remove wheel. Position dial indicator with stem against center of axle shaft. Move axle shaft in and out while observing dial indicator. Replace bearings if axial play exceeds 0.002" (0.05 mm). Measure hub axial runout. Replace bearings if runout exceeds 0.0028" (0.07 mm).

WHEEL BEARING ADJUSTMENT

Bearings must be replaced if axle shaft nut is tightened to specification and axial play exceeds 0.002" (0.05 mm). No adjustment is available.

REMOVAL & INSTALLATION

AXLE HUB, CARRIER & SHAFT

Removal

1) Raise and support vehicle. Remove rear wheels. On models with ABS, remove rear speed sensor. On drum brake models, disconnect brakeline (tube) at wheel cylinder. Plug openings. Remove brake drum. See Fig. 1.

2) On disc brake models, remove caliper, leaving hose attached, and hang aside. Remove rotor. Remove axle hub-to-axle carrier bolts, axle hub, and "O" ring.

CAUTION: Be careful not to damage ABS sensor rotor.

3) Remove nuts and bolts retaining axle carrier to strut assembly and suspension arms. Note position of nuts on suspension arms and strut rods for installation reference. Remove axle carrier.

Installation

To install, reverse removal procedure. Install new "O" ring. Tighten all fasteners to specification. See TORQUE SPECIFICATIONS. Check rear wheel alignment. Bleed brake system.

NOTE: Tighten axle carrier-to-strut assembly and suspension arms bolts to specification with vehicle at normal operating height. Bounce vehicle several times to stabilize suspension.

STRUT ASSEMBLY

Removal

1) Raise and support vehicle. On vehicles with ABS, detach speed sensor wire from strut. Remove clip and brake line at strut. On disc brake models, remove caliper, leaving hose attached, and hang aside.

2) Disconnect stabilizer bar link (if equipped) from strut. Support axle carrier with jack. Remove strut-to-axle carrier bolts. Remove strut-to-body nuts. Remove strut assembly.

NOTE: If strut is to be disassembled, loosen, but do not remove strut shaft nut before removing strut.

Inspection

Compress and extend shock rod to check for abnormal resistance or noise. Push shock absorber piston rod in fully and release. Piston rod should return at a constant speed throughout its travel. If shock is defective, replace as an assembly. If shock is

defective, replace as an assembly.

CAUTION: To prevent personal injury, discharge gas from old shock absorber prior to its disposal. Drill a hole 0.08-0.12" (2-3 mm) in diameter above lower mounting bracket on cylinder.

Installation

To install, reverse removal procedure. Tighten fasteners to specification. See TORQUE SPECIFICATIONS. Bleed brake system (if necessary).

SUSPENSION ARMS

Removal

Raise and support vehicle. On vehicles with ABS, detach speed sensor wire clamp from suspension arms. Remove strut rod. Remove fuel tank protector. Support suspension member. Mark cam plate, No. 2 (rear) suspension arm, and body for reassembly reference. Remove remaining suspension arm retaining bolts. Remove suspension arms.

NOTE: Note orientation of suspension arm installation for reassembly reference.

Installation

1) To install, reverse removal procedure. Take care to install components at original locations.

2) Temporarily install all bolts, leaving them loose. Install wheels. Lower vehicle. Bounce vehicle several times to stabilize suspension.

3) Align reference marks on cam plate, No. 2 (rear) suspension arm, and body. Tighten bolts to specification with vehicle weight on suspension. See TORQUE SPECIFICATIONS. Check rear wheel alignment. See WHEEL ALIGNMENT SPECIFICATIONS & PROCEDURES article in the WHEEL ALIGNMENT section.

STABILIZER BAR

Removal

Raise and support vehicle. Remove wheels. Use jack and wooden block to support fuel tank. Remove tank band bolts from body. Lower fuel tank slightly. Disconnect stabilizer bar from stabilizer bar link. Remove stabilizer brackets and stabilizer bar.

Installation

To install, reverse removal procedure. Tighten bolts to specification. See TORQUE SPECIFICATIONS.

WHEEL BEARINGS

Removal

1) Raise and support vehicle. Remove rear wheels. Remove axle hub-to-carrier bolts, axle hub, and "O" ring.

2) Loosen staked part of axle shaft nut. Remove axle nut. Using Puller (09950-20017), remove axle shaft from axle hub. Remove inner bearing race. Using puller, remove outer bearing inner race. Remove oil seal. Press bearing from axle hub.

Installation

1) Coat outside of new bearing with grease. Press new bearing into axle hub. Install outer bearing inner race.

2) Coat oil seal lip with grease. Drive oil seal into axle

hub. Install inner bearing inner race. Using Adapter (09636-20010), press inner races onto axle shaft. Tighten axle shaft nut to specification. Stake axle shaft nut. To install remaining components, reverse removal procedure. Tighten all bolts to specification. See TORQUE SPECIFICATIONS.

STRUT ROD

Removal & Installation

1) Raise and support vehicle. Remove wheels. Remove nuts and bolts holding strut rod to axle carrier and body. Remove strut rod.

2) Install strut rod, leaving it loose. Temporarily install all bolts, leaving them loose. Lower vehicle. Bounce vehicle to settle suspension. Tighten all bolts to specification with vehicle weight on suspension. See TORQUE SPECIFICATIONS.

TORQUE SPECIFICATIONS

TORQUE SPECIFICATIONS TABLE

Application	Ft. Lbs. (N.m)
Axle Hub-To-Axle Carrier Bolt	59 (80)
Axle Shaft Nut	90 (122)
Stabilizer Bar Link Nut	47 (64)
Stabilizer Bar Mount Bolt	14 (19)
Strut Rod Bolt	83 (113)
Strut-To-Axle Carrier Bolt	188 (255)
Strut-To-Body Nut	29 (39)
Suspension Arm-To-Axle Carrier Bolt	134 (182)
Suspension Arm-To-Body Bolt	
No. 1 (Front) Arm	83 (113)
No. 2 (Rear) Arm	64 (87)
Suspension Arm-To-Body Nut (No. 2 (Rear) Arm) ...	166 (226)
Wheel Lug Nut	76 (103)
	INCH Lbs. (N.m)
Speed Sensor Bolt	69 (7.8)