

# LOCKING HUBS

## Article Text

1995 Suzuki Sidekick

For XFaktor.NET

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### ARTICLE BEGINNING

1995-96 DRIVE AXLES  
Suzuki - Locking Hubs

Sidekick

### DESCRIPTION & OPERATION

Manual locking hubs engage and disengage front wheels from axle shafts on 4WD vehicles. These hubs are optional. When hubs are engaged in LOCK position, wheels and axle shafts rotate together. When hubs are disengaged or unlocked in FREE position, front wheels free-wheel on hub bearings.

Engagement is accomplished through action of a gear clutch and spring within hub. When hub is locked, hub clutch engages inner hub, which is always connected to axle shaft by inner splines of hub. Hub clutch is always connected by outer splines to hub body. Control knob applies or releases spring tension to control hub clutch position.

Automatic locking hubs are standard. Automatic hubs are engaged by rotational force of axle shaft when 4WD is selected at transfer case. Automatic hubs disengage when 2WD is selected and vehicle is driven in reverse. Cams, brakes and springs are used to lock or unlock automatic hubs. Automatic locking function will take place within 6.6 ft. (2 m) of vehicle travel.

Manual hubs have control knob marked with LOCK and FREE rotation direction. Outer edge of hub cover on manual hubs is marked with LOCK and FREE positions. Automatic hubs do not have an engagement knob on hub cover.

CAUTION: When operating vehicle with manual locking hubs, both hubs must be set in the same position. Never operate vehicle with one hub in FREE and the other in LOCK position.

### REMOVAL & INSTALLATION

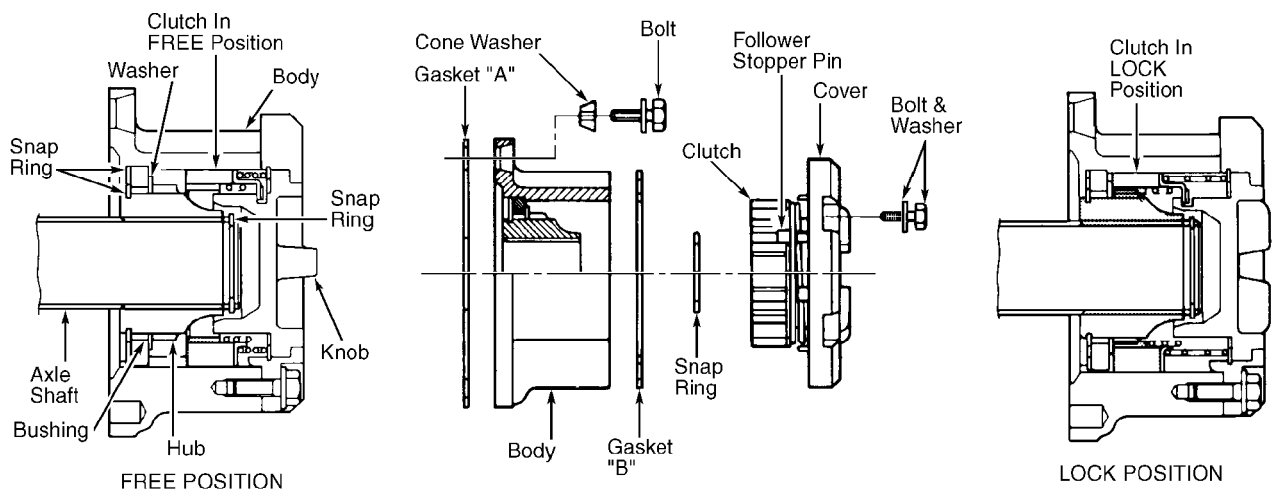
#### MANUAL LOCKING HUB

Removal

1) Position locking hub in FREE position. Remove cover-to-body retaining bolts. Remove cover assembly and gasket.

2) Remove snap ring from drive axle. Remove body-to-hub retaining bolts. Remove body and gasket. See Fig. 1.

CAUTION: Lubricate sliding surfaces with multipurpose grease, but DO NOT pack hub with grease.



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Fig. 1: Identifying Manual Locking Hub Components  
 Courtesy of Suzuki of America Corp.

#### Installation

1) Install gasket and body on hub. Tighten bolts to specification. See TORQUE SPECIFICATIONS. Install snap ring on drive axle. It may be necessary push drive axle from back of hub assembly and install snap ring.

2) Ensure drive axle snap ring is fully seated. Position cover knob in FREE position. Install cover and gasket on body. Ensure alignment pin on cover is aligned with groove in body. Install bolts and tighten to specification. See TORQUE SPECIFICATIONS.

### AUTOMATIC LOCKING HUBS

#### Removal

Use an oil filter wrench to remove hub cover from hub body. Remove snap ring from drive axle. Remove hub body mounting bolts. Remove hub assembly from drive hub.

#### Installation

1) To install hub, reverse removal procedure. Ensure "O" ring is fitted in groove of hub body. Align key in hub body with groove in drive hub. If hub body does not fit easily on drive hub, rotate wheel during assembly.

2) Install mounting bolts, and tighten to specification. See TORQUE SPECIFICATIONS. Install snap ring on drive axle. It may be necessary to push drive axle from back of hub assembly and install snap ring. Ensure drive axle snap ring is fully seated. Ensure "O" ring is installed in hub cover prior to reassembly. Apply grease and

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#### Post-Installation Inspection

1) After installation, check hub operation. Remove hub cover. With transfer lever in 4H or 4L position, drive vehicle forward 6.6 ft. (2 m). Ensure sliding gear is at outer edge of hub. See Fig. 2.

2) Place transfer lever in 2H position, and move vehicle rearward 6.6 ft. (2 m). Ensure sliding gear is in inward position and does not engage splines of hub body. Repeat process and ensure hubs operate correctly. If not, repeat installation process. Ensure "O" ring is in position, and install hub cover. Use oil filter wrench to tighten hub cover.

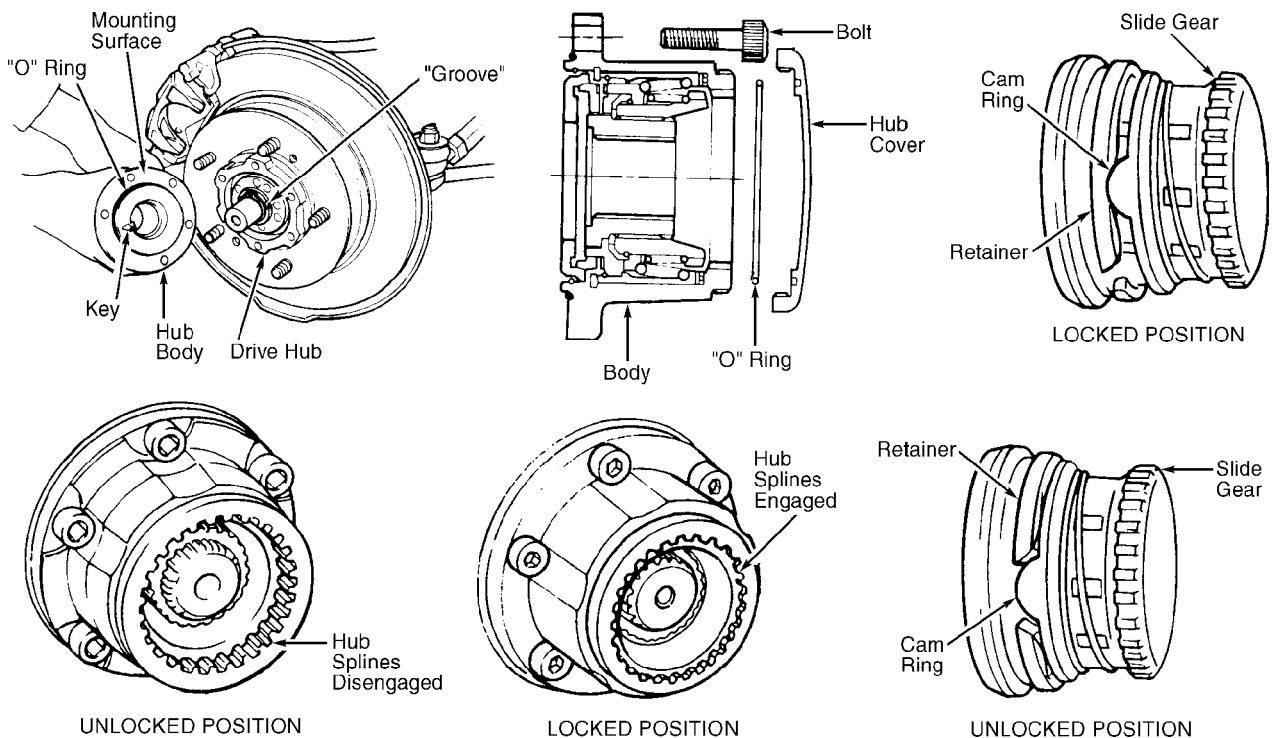
## OVERHAUL

NOTE: Manufacturer does not recommend disassembly or repair of locking hub body components. If hub function is faulty, replace hub.

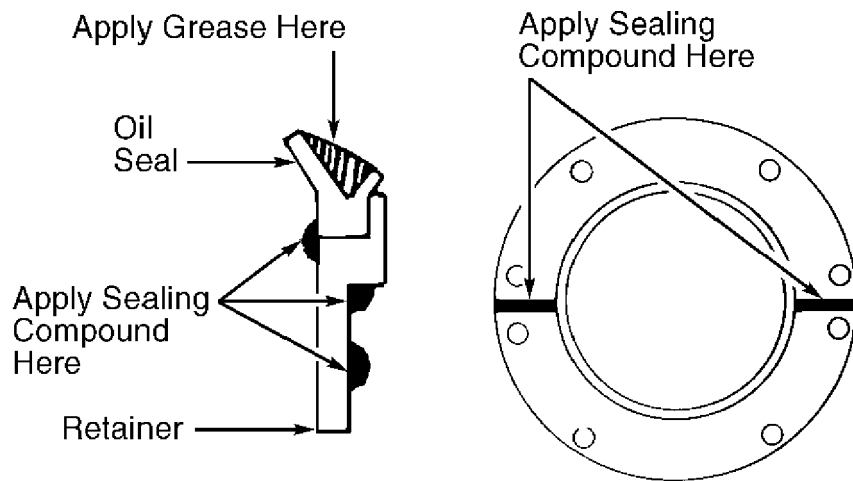
## TORQUE SPECIFICATIONS

### TORQUE SPECIFICATIONS TABLE

Application	Ft. Lbs. (N.m)
Automatic Locking Hub Body-To-Drive Hub Bolt .....	22-26 (30-35)
Manual Locking Hub Body-To-Drive Hub Bolt .....	15-22 (20-30)
Wheel Lug Nut .....	58-80 (79-108)
	INCH Lbs. (N.m)
Manual Hub Cover Bolt .....	71-106 (8-12)



90F021R1  
Fig. 2: Identifying Automatic Locking Hub Components  
Courtesy of Suzuki of America Corp.



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Fig. 3: Applying Grease & Sealing Compound To Oil Seal  
Courtesy of Suzuki of America Corp.

**END OF ARTICLE**