

Locking Hubs

SPICER (DANA) INTERNAL LOCKING HUB

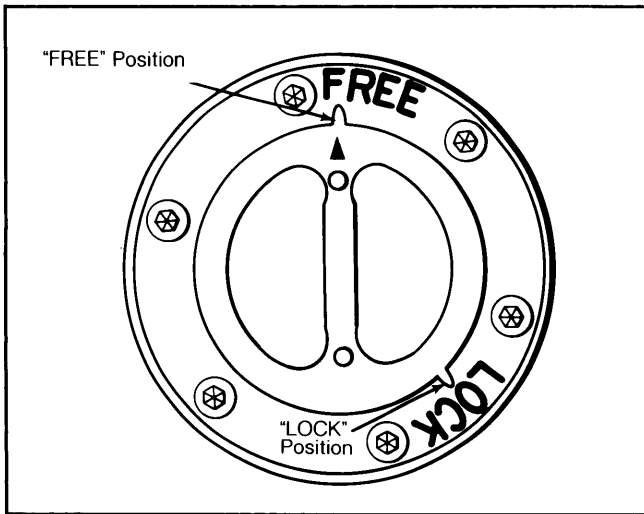
DESCRIPTION

Locking hubs provide a means of engagement and disengagement of wheels on front drive axles. When locking hubs are engaged, full power is transmitted to both front wheels.

When hubs are disengaged, front wheels are free to turn, and axle shafts and differential remain idle. Engagement is accomplished through the action of gears within hub.

With hub in engaged position, inner clutch ring and axle shaft sleeve act as 1 piece to connect axle shaft to wheel hub.

Fig. 1: Front View of Spicer (Dana) Locking Hub

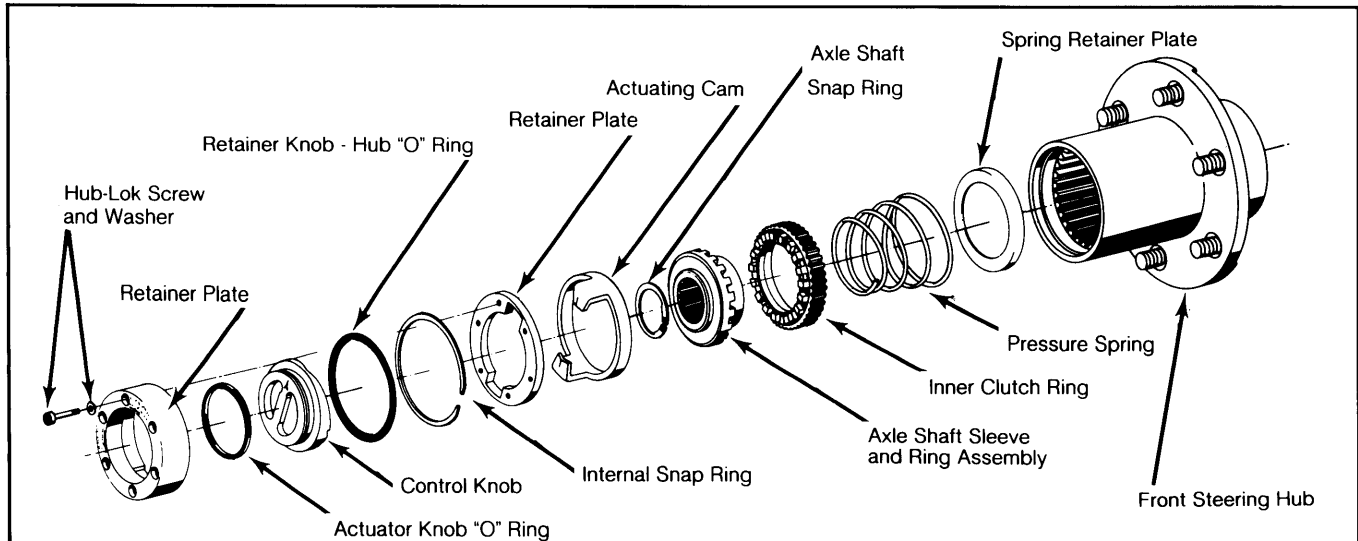


Notice "FREE" and "LOCK" positions.

IDENTIFICATION

Spicer (Dana) internal locking hubs are identified externally by a red plastic control knob, used to engage and disengage hub. They are identified internally by use of an actuating cam to engage and disengage hub.

Fig. 2: Exploded View of Spicer (Dana) Internal Locking Hub



REMOVAL & INSTALLATION

REMOVAL

1) With control knob set in "LOCK" position, remove retainer plate attaching bolts. Remove outer retainer plate assembly and separate knob from retainer.

2) Remove internal hub snap ring, and slide retainer ring and cam from hub. Relieve pressure on sleeve and ring assembly. Remove axle shaft snap ring.

3) Remove sleeve and ring assembly, inner clutch, pressure spring, and spring retainer plate.

INSTALLATION

1) Wash all parts in solvent, and dry with compressed air. Inspect all parts for wear, cracks, or broken teeth. Replace parts as necessary, using new gaskets and seal during reassembly.

2) Lubricate all parts with Moly X-L High-Speed Grease. Position spring retainer plate into hub bore, with flange side facing bearing.

3) Seat retainer against bearing cup. Install pressure spring in hub with large coils against retainer plate.

NOTE: Spring is an interference fit. When spring is seated it should extend past spindle nut approximately $\frac{7}{8}$ " (22.23 mm).

4) Place inner clutch ring into axle shaft sleeve and clutch ring assembly. Install as a unit onto axle shaft.

5) Force unit in against pressure spring, and install axle shaft snap ring. Position actuating cam, with cams facing outward and retainer ring in hub bore.

6) Install internal hub snap ring. Install control knob into retainer plate with knob in "LOCK" position. Install retainer plate, making sure grooves in knob engage actuating cam.

7) Install and tighten retainer plate attaching bolts. Turn knob to "FREE" position to check for proper operation.