

Locking Hubs

SPICER (DANA) INTERNAL LOCKING HUB

DESCRIPTION

Locking hubs provide a means of engagement of front wheels on vehicles with front driving axle. When hubs are engaged, full power is transmitted to both front wheels. When hubs are disengaged, front wheels are free to turn but axle shafts and differential will remain idle. Engagement is accomplished through action of gears within hub. With hub in engaged position, inner clutch ring and axle shaft sleeve act as one piece to connect axle shaft to wheel hub.

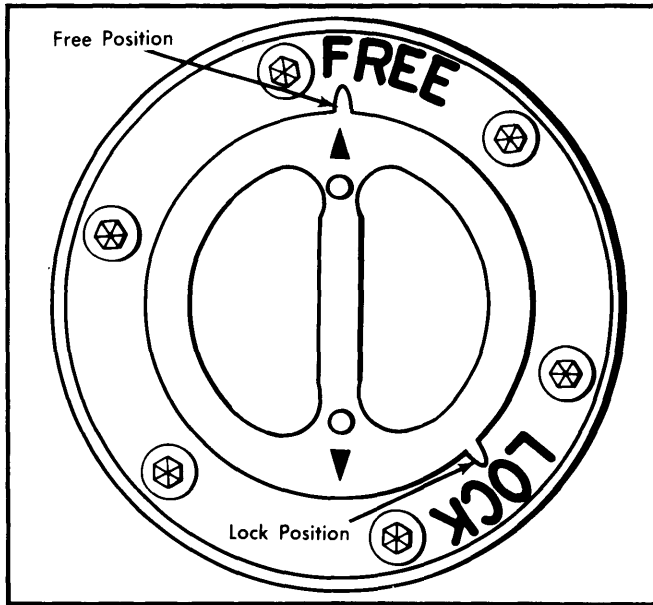


Fig. 1 Front View of Spicer (Dana) Locking Hub

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 actuating cam to engage and disengage hub.

REMOVAL & INSTALLATION

REMOVAL

With control knob set in "LOCK" position, remove retainer plate attaching bolts. Remove outer retainer plate assembly and separate knob from retainer. Remove internal hub snap ring and slide retainer ring and cam from hub. Relieve pressure on sleeve and ring assembly and remove axle shaft snap ring. Remove sleeve and ring assembly, inner clutch, pressure spring and spring retainer plate.

INSTALLATION

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

2) Lubricate all parts with Moly X-L Hi-Speed Grease. Position spring retainer plate into hub bore, flange side facing bearing, and 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 $\frac{7}{8}$ ".

3) Place inner clutch ring into axle shaft sleeve and clutch ring assembly and install as a unit onto axle shaft. Force unit in against pressure spring and install axle shaft snap ring. Position actuating cam, cams facing outward, and retainer ring in hub bore and install internal hub snap ring.

4) Install control knob into retainer plate with knob in "LOCK" position. Install retainer plate, making sure grooves in knob engage actuating cam. Install and tighten retainer plate attaching bolts. Turn knob to "FREE" position to check for proper operation.

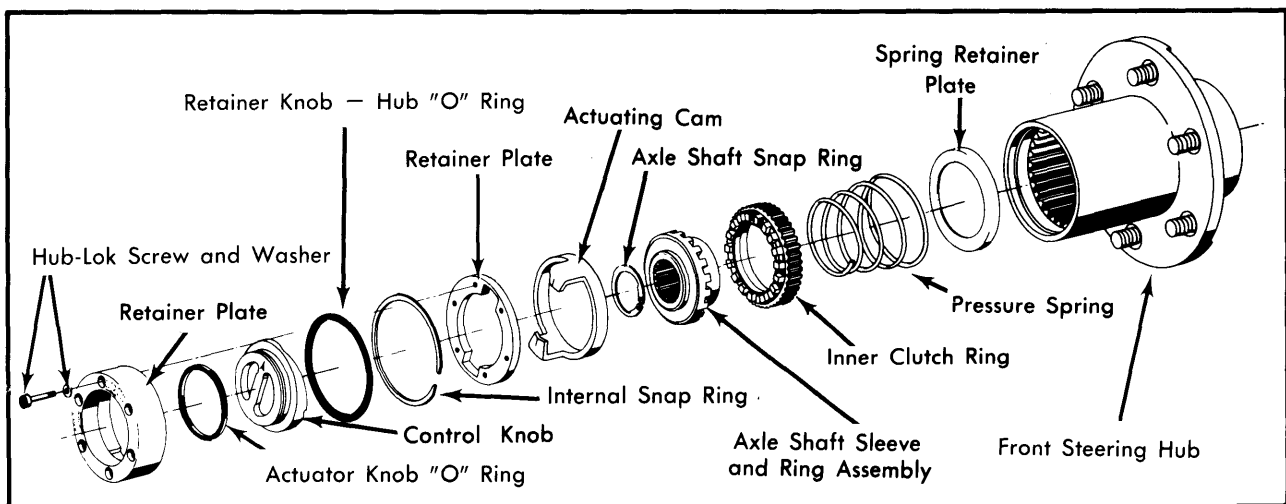


Fig. 2 Exploded View of Spicer (Dana) Internal Locking Hub