

Positive Traction Differentials

CHRYSLER CORP. SURE-GRIP DIFFERENTIAL

Dodge & Plymouth with
9 1/4" Ring Gear

DESCRIPTION

The cone clutch Sure-Grip is a limited slip type differential, similar in operation to the conventional type differential except for the helix grooved clutch cones that clutch the side gears to the differential case. These grooves assure maximum lubrication of the clutch surface during operation. The clutch cones and side gears are spring preloaded by 2 thrust plates and 4 coil springs to provide an internal resistance to differential action within the case itself. During torque application to axle, the initial spring preloading of the clutch cones is added to by the gear separating forces between side gears and differential pinions which progressively increases the internal resistance (friction) in the differential. This differential is not a positive or locking type unit and will release before excessive driving force can be applied to one wheel.

AXLE RATIO & IDENTIFICATION

Sure-Grip differential is optional on Chrysler axles with 9 1/4" ring gear. See *Chrysler Corp. 8 3/8" & 9 1/4" Ring Gear in this Section.*

LUBRICATION

Use only Mopar Hypoid Gear Lubricant (Part No. 3744994) or equivalent.

TESTING ON VEHICLE

- 1) With rear wheels raised off ground, engine off, automatic transmission in "P" or manual transmission in low and transfer case in "N" (if equipped); grip tread of tire and attempt to rotate wheel.
- 2) If rotation is extremely difficult or impossible, differential is performing correctly. If either wheel turns relatively easily or continuously, differential is not performing correctly and should be replaced.

REMOVAL & INSTALLATION

Same procedure is used to remove and install Sure-Grip differential as standard differential. See *Chrysler Corp. 8 3/8" & 9 1/4" Ring Gear in this Section.*

CAUTION — During removal and installation of axle shafts, DO NOT rotate one axle shaft unless both are in position. Rotation of one axle shaft without the other in place may result in misalignment of two spline segments with which axle shaft splines engage, and will necessitate difficult realignment procedures when shaft is reinstalled.

OVERHAUL

Sure-Grip differential is serviced as an assembly only.

CAUTION — Under no circumstances should Sure-Grip differential be disassembled, reassembled, and installed in vehicle.

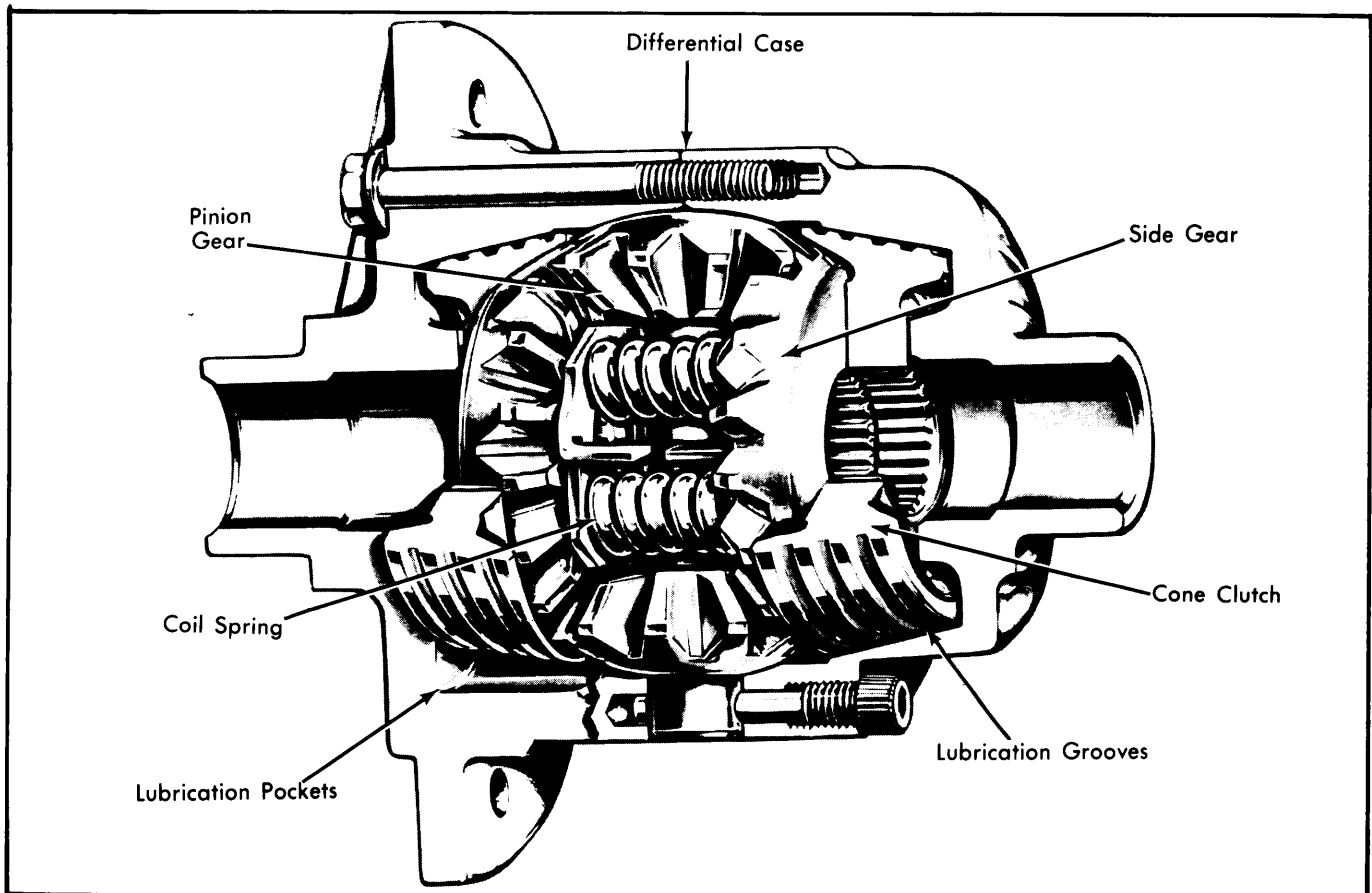


Fig. 1 Cutaway View of Chrysler Corp. Sure-Grip Differential Assembly