

# Positive Traction Differentials

## CHRYSLER CORP. SURE-GRIP DIFFERENTIAL

Chrysler Corp.

### DESCRIPTION

Positive traction type differential which directs major driving force to rear wheel with greatest amount of traction. This is accomplished by two spring-loaded thrust blocks bearing against differential side gears seated in tapered cone clutch members. Clutch members are located in differential case, one member in each half. Thrust block spring load is calibrated to permit some slippage under variable torque conditions (turning corners and other unbalanced tractive conditions), allowing torque created on one wheel by differential action to overcome thrust block spring load on differential side gears.

### AXLE RATIO & IDENTIFICATION

Axle ratio is stamped on a metal tag attached beneath one of the differential case cover screws. Sure-Grip differential may also be identified by raising vehicle and turning one of the rear wheels. If both rear wheels turn in same direction simultaneously, vehicle is equipped with Sure-Grip.

### LUBRICATION

In Sure-Grip differentials use a multi-purpose gear lubricant with standards of MIL-L-2105-B (API GL-5) or MOPAR Hypoid Lubricant (3744994). With either lubricant, four ounces of MOPAR Hypoid Gear Oil Additive Friction Modifier (4057100), or equivalent, must be added.

### TESTING ON CAR

With rear wheels raised off ground, engine off and automatic transmission in "Park" or manual transmission in "Low", grip tread of tire and attempt to rotate wheel. If rotation is extremely difficult or impossible, differential is performing satisfactorily. If either wheel turns easily, differential should be removed and replaced.

**NOTE** — Sure-Grip is not a locking differential. Extreme differences in traction conditions at the driving wheels may permit one wheel to spin.

### REMOVAL & INSTALLATION

See Chrysler Corp. 8 $\frac{1}{4}$ " & 9 $\frac{1}{4}$ " 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

**CAUTION** — Sure-Grip differential and internal parts are serviced as a complete assembly only. Under no circumstances should differential be removed and disassembled, and then be reinstalled.

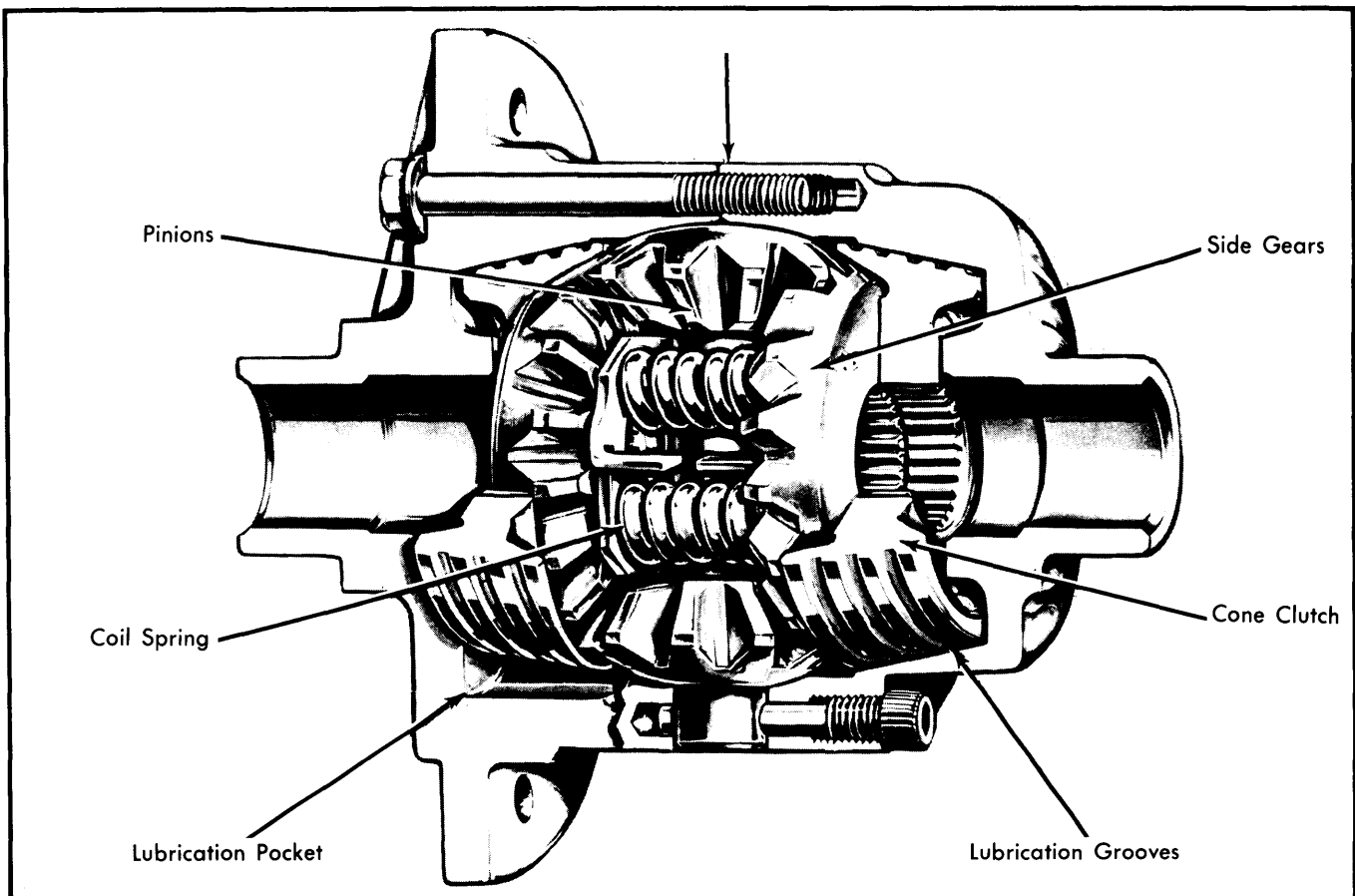


Fig. 1 Cutaway View of Chrysler Corp. Sure-Grip Differential Assembly