1958 Corvette: Service Bulletin: Positraction Axle Operation and Service

Subject: Positraction Axle Operation and Service
Model and Year: 1958 Passenger Cars and Trucks with Positraction
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TO: ALL CHEVROLET DEALERS

OPERATION

Under some operating conditions where one rear wheel is on an excessively slippery surface and the opposite wheel is on a good traction surface, it may be necessary to lightly apply the parking brake (usually 3 or 4 notches) to produce enough resistance to the spinning wheel to cause axle lock-up.

Lock-up is independent of acceleration; therefore, light throttle application on starting is recommended to provide maximum traction by preventing "break away" of the non-slip wheel.

TESTING FOR CORRECT OPERATION

The Positraction unit can be effectively tested for correct operation by placing one rear wheel on good dry pavement and the other on ice, mud, grease, etc.

It can be determined where or not the non-slipping wheel is providing pulling power. The procedure can then be repeated with opposite wheels on the dry and slippery surfaces.

CAUTION : The warning posted in the luggage compartment regarding operation of the unit while o a jack should not be interpreted as a means of testing. Its only intention is to point out that a possibility does exist that the axle could lock-up under certain conditions and force the vehicle off the jack.

SERVICE

- Chatter - In cases where chatter is experienced on turns it is usually the result of using the incorrect lubricant. Draining the axle, preferably after being driven and installing part No. 3758791 - "Positraction Special Hypoid Gear Lubricant" should eliminate most complaints

of chatter. In some extreme cases, a second change of lubricant may be necessary.

- Chatter - If chatter still exists, it will be necessary to disassemble the unit and thoroughly remove all traces of lubricant from the carrier and axle housing.

  CAUTION : Lubricant should be removed only by wiping with clean rags. Cleaning solvents of any kind are not recommended.

  Inspect clutch plates for scoring and uneven wear, replace as necessary.

- Replacement of Clutch Plates - The availability of a thicker clutch plate now makes it possible to correct clutch stack height without using shims as outlined in the Shop Manual.

  To correct for cross shaft to ramp clearance, proceed as follows:

  1. Check clearance as outlined in 1958 Shop Manual.
  2. Determine amount of clearance adjustment required. (limits (.010" to .035")
  3. Measure clutch plates with micrometer and replace with thicker or thinner plates as required.

     NOTE : A .002 change made in clutch stack height will be equial to approximately .003 in cross shaft clearance

     Example-

     .006" added to the clutch stack height will reduce the cross shaft clearance approximately .009".

PARTS DATA

	Dimensions	Part No.
Standard	.092" - .097"	*
Oversize	.096" - .101"	531403

* Part of unit #3745311.

- Identification - The Positraction axle can be identified by a cast letter "P" adjacent to the casting number on the carrier housing. This marking will appear on the right hand side of the carrier.

  Additional identification will be provided - (will enter production approximately May 1, 1958) to prevent accidental use of the incorrect lubricant. This will consist of a circular caution tag stating "Use Limited Slip Differential Lubricant Only" assembled to the filler plug.