Section X
STEERING
DATA AND SPECIFICATIONS

MODELS	MC-1	MC-2	MC-3	MY-1
Steering Type				
Manual	Worm and Three Tooth Roller	None	None	None
Power	Rack and Gear Sector, Recirculating Ball Nut			
Ratio				
Manual	20.4	....	....	....
Power	16.1	16.1	16.1	16.1
Turning Radius (Curb to Curb)	42.3	45.4	45.4	49.5
Number Wheel Turns				
Manual	5.6	....	....	....
Power	3.5	3.5	3.5	3.5
Tread—Front	61.0	61.0	61.2	61.8
Rear	59.8	59.8	60.0	62.4
Wheel Base	122.0	126.0	126.0	129.0
Camber				
Left	+ ¼ degree + or —¼ degree			
Right	0 degrees + or —¼ degree			
	Preferred Left + ⅜ degree, right 0 degree			
*Caster				
Manual	—¾ degree + or —¾ degree			
Power	+ ¾ degree + or —¾ degree			
Toe-in (outside thread inches)	⅛ + or —1/32 in. (⅛ in. preferred)			
Toe-Out on Turns	21 degrees 45 minutes + or —1 degree (inner wheel when outer wheel is 20 degrees)			
Steering Axis Inclination at Camber (Degree)	5 to 7 degrees at 0 degrees camber			
Steering Knuckle Type	Ball and Socket			
Front Wheel Bearing Type	Tapered Roller Bearing			
Inner Bearing Size	1.25	1.25	1.25	1.375
Outer Bearing Size	.75	.75	.75	.844
Spindle Thread Size	¾–16 (NF)			
Steering Linkage Type	Symmetric Idler Arm (Equal Length Tie Rods)			

*Caster should be equalized as near as possible on Left and Right wheel.

POWER STEERING PUMP SPECIFICATIONS

MODELS	Slipper Type
Fluid Capacity of Hydraulic System	64 Fluid ounces

POWER STEERING PUMP SPECIFICATIONS (Cont'd)

Type of Fluid	Automatic Transmission Fluid Type "A"
Maximum Pump Pressure—MC-1, MC-2, MC-3	850 to 950 psi
MY-1	950 to 1050 psi
Maximum Fluid Flow at 3,000 rpm	2.25 gal.

NEW ADDED SPECIAL TOOLS

Tool Number	Tool Name
C-3676	Worm Piston Ring—Remover and Installer

TIGHTENING REFERENCE

	Foot-Pounds Torque
Steering Wheel Nut	40
Steering Arm Nut	120
Steering Gear Housing to Frame Bolt	50
Steering Valve End Plug	50
Steering Valve Body Attaching Bolts	15
Steering Column Support Nut	135
Steering Gear Shaft Cover Nut	100
Steering Gear Shaft Adjusting Screw Lock Nut	50
Pressure Control Valve Body Screws	10

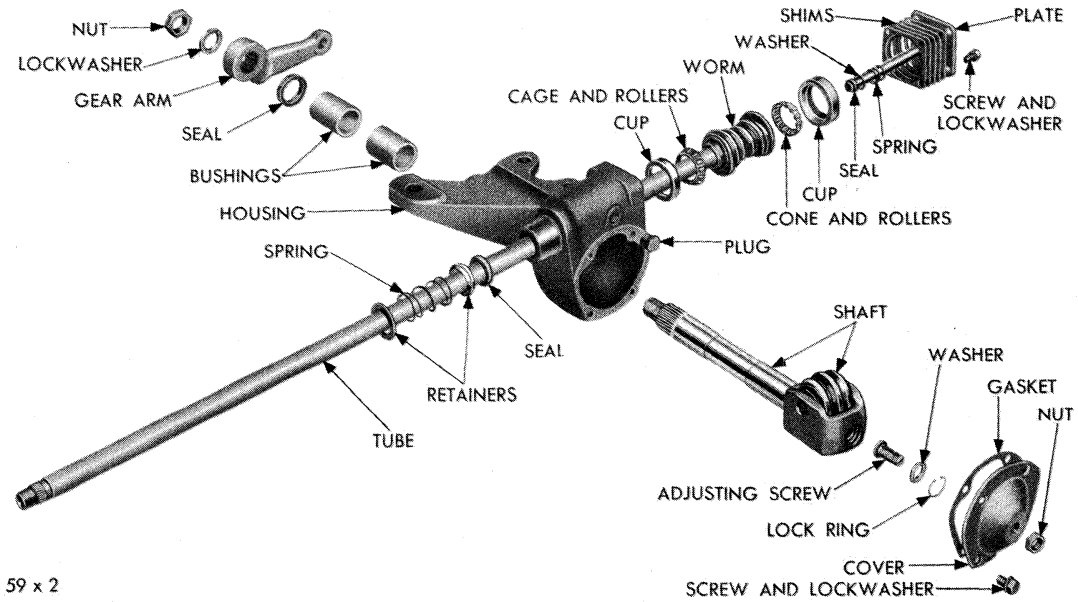

Fig. 112 — Manual Steering Gear Assembly (Disassembled View)

STEERING

MANUAL

The Manual Steering gear is somewhat different in appearance, as shown in Figure 112, however, the service procedures will remain the same as described in the 1958 Chrysler and Imperial Service Manual D-16350.

CONSTANT CONTROL FULL TIME POWER STEERING

The Constant Control Full Time Power Steering (Fig. 113) is the same as used on the 1958 Models with the following exceptions: The wormshaft is knurled for more positive locking of the wormshaft bearing adjusting nut. The piston is fitted with a cast iron ring backed up by a rubber "O" ring. These rings separate and seal the power chambers of the housing. The valve lever is held firmly seated in the center race and center race spacer by the lever spring load. A new steering column bearing and conical spacer are used to keep the bearing inner race tight on the steering tube.

The servicing procedure for the 1959 Constant Control Power Steering is the same as that described in the 1958 Chrysler and Imperial Service Manual except for the following operations:

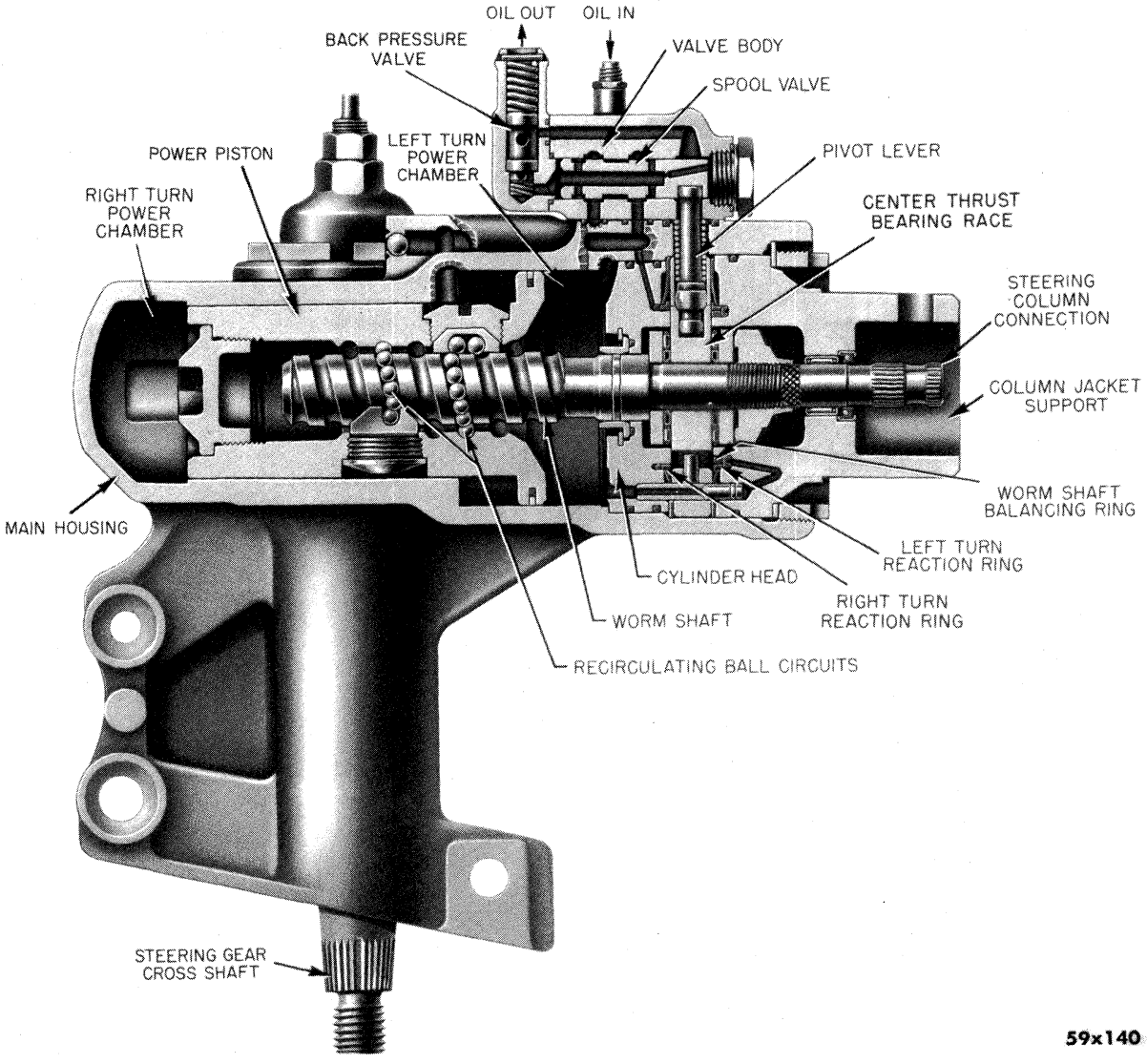

Fig. 113 — Power Steering Gear (Sectional View)

Installation of the Piston Ring:

Install the synthetic rubber "O" ring from the ring package in the piston ring groove. Install the cast iron piston ring in the ring groove. Locate the ring gap in line with the center of the recirculating ball guide hole plug nearest the piston flange. (The gap location will reduce pressure leakage to a minimum.)

Carefully hook the ends of the iron ring using Tool C-3676.

OPERATION 17—ASSEMBLY OF POWER TRAIN

Refer to Figure 30 in the Steering Section of the 1958 Chrysler and Imperial Service Manual and proceed as follows:

Place the piston assembly on the bench in a vertical position (worm shaft up).

Slide the cylinder head assembly (with ferrule up) on the worm shaft, check the worm shaft seal ring making sure the gap is closed to avoid breaking the ring as the cylinder head moves against the piston flange.

Lubricate and install the following components in order:

(a) Install the lower thrust bearing race (thick).

(b) Install the lower thrust bearing.

(c) Install the lower reaction spring (With small hole over ferrule).

(d) Install the lower reaction ring (flange up so ring protrudes through reaction spring).

(e) Install the center bearing race.

(f) Install the upper thrust bearing.

(g) Install the upper thrust bearing race (thin).

(h) Start the new worm shaft thrust bearing nut. (Do not tighten.)

Turn the worm shaft counter-clockwise one-half turn. **Caution, shaft must not be turned out more than one-half turn or the cylinder head seal will clear the oil ring on the worm shaft.** Hold the worm shaft in this position while tightening the nut to 10 foot-pounds torque.

Rotate the worm center bearing race several times to position the parts.

When installing a new nut, or reinstalling the old nut, the following procedure is recommended:

(a) Tighten the nut to 50 foot-pounds to pre-seat and stretch the threads.

(b) Loosen the nut and retighten to give a preload torque on center race of 8 to 16 inch ounces.

(c) Using a standard drift, having a flat point ¼" in diameter and with a sharp blow of a hammer, force the flanged section of the nut into the knurled section of the worm, as shown in Figure 114. The drift should be held on the centerline of the worm and perpendicular to the worm, but at a slight angle to the flange of the nut. The operation of seating the flange of the nut into the knurled section of the worm should be performed at a minimum of four locations spaced at approximately 90°. It is the first crimp that establishes the preload. It is advisable to check the 8 to 16 inch ounces preload after the first crimping operation is performed. If the preload has changed and is either too tight or too loose, it may be corrected by striking the No. 1 crimp a glancing blow in the right direction to either tighten or loosen the nut. When the center race torque is correct after the No. 1 crimp, the other 3 crimps may be completed with very little effect on the preload. The adequacy of the crimping should be checked by torquing the nut in either direction to 20 foot-pounds. If the center race torque remains unchanged, the crimping operation is considered satisfactory.

Install the center bearing spacer with the dowel pin in the slot of the center bearing race and the valve lever hole in the center bearing spacer and race aligned.

Install the inner and outer reaction rings (flange down). Install the upper reaction spring with cylinder head ferrule through the small hole and outer reaction ring protruding through the large hole.

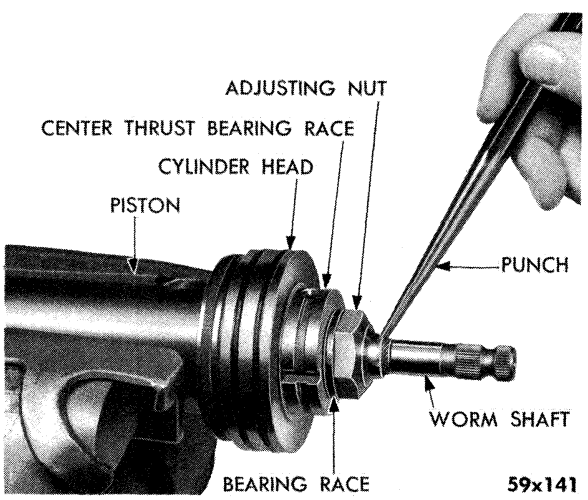

Fig. 114 — Staking Worm Shaft Bearing Adjusting Nut

Install the new "O" ring in the ferrule groove. Lubricate the small bore of the column jacket support (for cylinder head ferrule).

Install the jacket support assembly over the worm shaft carefully engaging the cylinder head ferrule and "O" ring, making sure the reaction rings enter the groove in the jacket support assembly.

Align the parts on power train so the valve lever hole in the center bearing spacer is 90° counterclockwise from the piston rack teeth and lock all parts to the worm shaft by entering a suitable drift through the jacket support and worm shaft groove.

Continue with Operation 18 — Reassembly of the Steering Gear as described in the Steering Section of the 1958 Chrysler and Imperial Service Manual, D-16350.

Section XI

TORQUEFLITE TRANSMISSION

The servicing of the 1959 TorqueFlite Transmission is the same as that of the 1958 Models as described in the 1958 Chrysler and Imperial Service Manual, with the following exceptions.

FRONT CLUTCH (8-LEVER) DISASSEMBLY (REFER TO FIG. 115)

Remove the input shaft fiber thrust washer (A). Remove snap ring (B). Remove input shaft (C) from retainer (R). Invert retainer (R), remove driving discs (D), plates (E), pressure plate (F) and hub (G).

Install spring compressor, Tool C-3533 and compress spring retainer (I). Using pliers, Tool C-3301, remove spring retainer snap ring (H).

After removing compressor, Tool C-3533, remove spring retainer (I), spring (J), levers (L), lever retainer (K), cushion spring washer (M), and cushion spring (N) from retainer (R). With a twisting motion, remove piston (Q) from retainer (R).

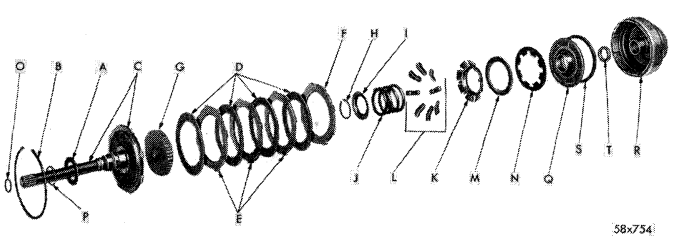

Fig. 115 — Front Clutch Assembly

1. Thrust Washer
2. Snap Ring—Large
3. Input Shaft
4. Driving Discs
5. Clutch Plates
6. Pressure Plate
7. Driving Disc Hub
8. Snap Ring—Small
9. Piston Return Spring Retainer
10. Piston Return Spring
11. Piston Lever Retainer
12. Piston Lever (8)
13. Cushion Spring Washer
14. Cushion Spring
15. Oil Seal Ring—Small
16. Oil Seal Ring—Large
17. Piston
18. Piston Retainer
19. Piston Seal Ring—Large
20. Piston Seal Ring—Small

Inspection (Fig. 115)

The inspection procedure is the same as for the 1958 model transmissions.

Assembly (Fig. 115)

Lubricate and install inner (rubber) seal ring (T) on hub of retainer (R). **Make sure lip of seal is facing rear of retainer and seal is seated in groove.**

Lubricate and install outer seal ring (S) on piston (Q) with lip of seal towards rear of piston.

Place piston assembly in retainer (R) using a twisting motion to seat piston in bottom of retainer.

Install cushion spring (N) with dished side (concave) facing piston (Q). (Fig. 116).

Place washer (M) with chamfer towards front of

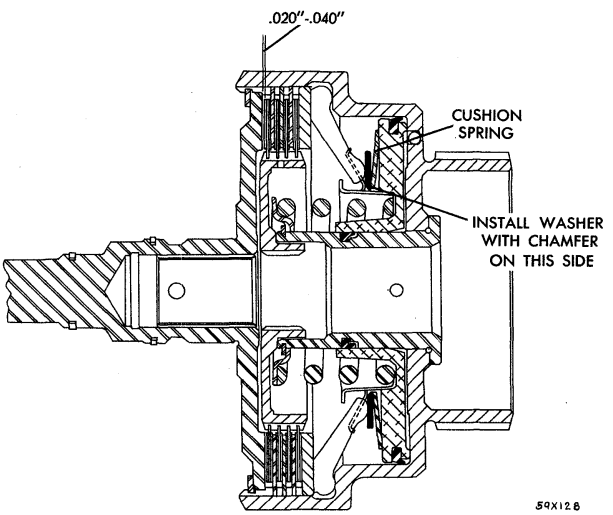

Fig. 116 — Installing Cushion Spring