

Fig. 22—Removing Gearshift Control Cable

(4) Remove push button control cable to transmission adjusting wheel lock screw.

(5) With a screwdriver inserted through the neutral starter switch opening, gently push against the upper projecting portion of the cable adapter lock-spring and pull outward on cable to remove cable assembly from case (Fig. 22).

(6) To install the cable, have an assistant engage the (R) button and hold it firmly engaged until the cable attachment operation is completed.

(7) Back the adjustment wheel off on the cable housing (counter-clockwise) until two or three threads are showing on the guide behind the wheel.

(8) Lubricate the cable housing with transmission fluid, insert cable in transmission case, push inward on cable making sure lock-spring engages cable. Adjust control cable as outlined in "Maintenance, Adjustments and Tests".

(9) Refill the transmission with Automatic Transmission Fluid (Type "A" Suffix "A") to proper level.

### MAINTENANCE, ADJUSTMENTS AND TESTS

While in the process of making adjustments and tests, do not stall test the torque converter. For safety reasons and because damage to the transmission may occur, wide open throttle stall operation must be avoided.

### LUBRICATION

#### Drain, Refill and Periodic Adjustments

The transmission adjustments, fluid and filter change should be made every 32,000 miles as outlined in the following steps.

**NOTE:** Police cars, taxicabs and cars which frequently tow trailers, operate in heavy traffic in hot weather or operate continuously with abnormal loads should have more frequent periodic maintenance. Transmissions should not be idled in gear for long periods.

(1) Remove the drain plug from the transmission oil pan and allow transmission to drain (Fig. 23).

(2) Remove the torque converter access plate and remove the converter drain plug and allow to drain (Fig. 23).

(3) Replace the torque converter drain plug. Tighten the plug to 14 foot-pounds torque.

(4) Remove the transmission oil pan. Clean the intake screen and pan.

(5) Adjust the reverse band. Refer to "Band Adjustments".

(6) Adjust the kickdown band. Refer to "Band Adjustments".

(7) Adjust the push button cable. Refer to "Gearshift Control Cable Adjustments".

(8) Reinstall the intake screen and oil pan. Be sure to use a new gasket.

(9) Install a new fluid filter. Run the engine for a few minutes and check filter and tube connections for leaks.

(10) Pour eight quarts of Automatic Transmission Fluid, Type "A" Suffix "A" into the transmission.

(11) Start the engine and allow to idle for at least

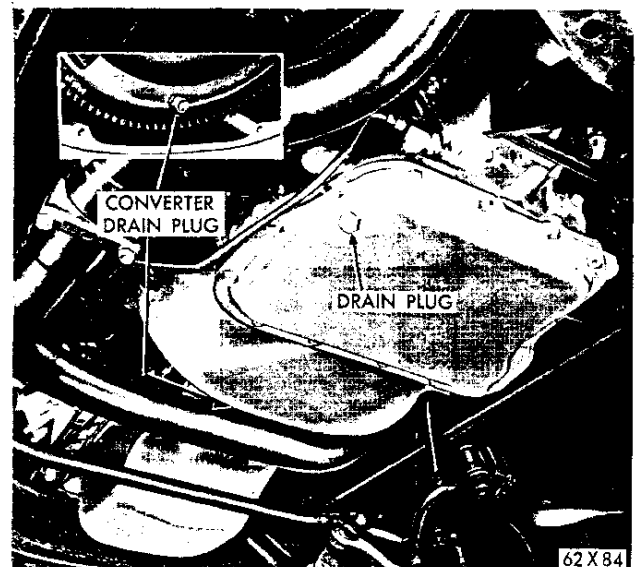


Fig. 23—Transmission and Converter Drain Plugs

two minutes. Then, with the parking brake on, depress each push button momentarily, ending with the N (neutral) button pushed in.

(12) Add sufficient fluid to bring the fluid level to the "ADD ONE PINT" mark, (approximately 1½ quarts).

Recheck the fluid level after the transmission is at normal operating temperature. The level should be at the "FULL" mark or slightly below.

(13) Adjust the transmission and carburetor throttle linkage to obtain the proper shift pattern. Refer to Paragraph "Transmission Maintenance".

#### CAUTION

To prevent dirt from entering the transmission, make certain that the dip stick cap is reseated properly onto the filler tube.

#### FLUID LEAKS

Leaks which can be Corrected with Transmission in the Vehicle

Transmission output shaft oil seal. Extension housing gasket. Speedometer pinion seal and cable seal. Oil filler tube seal. Oil pan gasket and drain plug gasket. Gearshift control cable seal. Throttle shaft seal. Neutral starting switch seal. Oil cooler line fittings and pressure take-off plugs.

#### CAUTION

If the oil filler tube is removed, every precaution must be taken to prevent dirt from falling into the transmission hole. If necessary remove oil pan and clean.

**NOTE:** The transmission fluid is colored with a red dye. The colored fluid will aid in determining the exact location of seepage should a fluid leak be encountered.

If oil is found inside torque converter housing, determine whether it is transmission fluid or engine oil. Inspect converter drain plug for tightness. Correct torque (14 foot-pounds) on this plug is very important.

Leaks at these locations should be corrected, regardless of how slight. Correct by tightening loose screws, nuts or plugs. Where this does not remedy the situation, replace faulty gaskets, seals, plugs or other parts as required.

#### Leaks Requiring Removal of Transmission

Porous transmission case. Sand hole in front oil pump housing. Front oil pump housing retaining screws or damaged sealing washers. Front oil pump housing seal (located on outside diameter of pump-

housing). Torque converter assembly and converter impeller hub oil seal (located in front pump housing).

Leaks at these locations may be corrected by tightening loose bolts or replacing damaged or faulty parts. Any sharp edges on the converter impeller hub which could contact the seal during installation should be removed by stoning with a fine stone.

#### GEARSHIFT CONTROL CABLE ADJUSTMENT

(1) Raise the car on a hoist. Have an assistant hold the R (reverse) button firmly depressed.

(2) Remove the push button control cable adjustment wheel lock screw at the left side of transmission (Fig. 22).

(3) Back the adjustment wheel off on the cable guide (turn counter-clockwise) until two or three threads are showing on the guide behind the wheel.

#### IMPORTANT

Test the wheel for free turning on the guide; remove any dirt or burrs in the threads of the cable guide that may interfere. Lubricate the cable guide threads with a few drops of transmission fluid.

(4) Hold the control cable guide centered in the hole of the transmission case and apply only enough inward force (approximately two pounds) to bottom the assembly at the reverse detent. While holding the cable bottomed, rotate the adjustment wheel clockwise until it just contacts the case squarely.

(5) Turn the wheel clockwise just enough to make the next adjustment hole in the wheel line up with the screw hole in the case.

(6) Counting this hole as number one, continue turning the wheel clockwise until the fifth hole lines up with the screw hole in the case.

(7) Install the lock screw, and tighten to 40 inch-pounds torque.

#### NEUTRAL STARTING SWITCH

##### Adjustment and Test

(1) With proper control cable adjustment assured, depress the N (neutral) push button.

(2) Raise vehicle and drain approximately two quarts of fluid from transmission.

(3) Unscrew neutral starting switch from transmission case and inspect to be sure that the switch operating lever is aligned in center of switch opening in the case.

(4) Place cupped washer and "O" ring over threads of the switch (Fig. 24), then screw switch

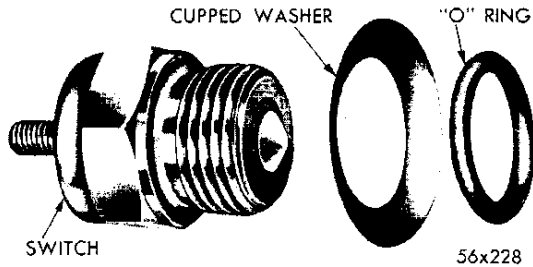


Fig. 24—Neutral Starting Switch (Disassembled)

into transmission case a few turns.

(5) Connect one lead of a test lamp to battery current and the other lead to the switch terminal. Screw switch into transmission case until the lamp lights, then tighten switch an additional  $\frac{1}{3}$  to  $\frac{1}{2}$  turn.

**NOTE:** The switch must be tight enough to prevent oil leakage. If not, add a thin washer and readjust the switch.

(6) Remove test lamp and connect wire to the switch.

(7) Add fluid to transmission to bring up to proper level.

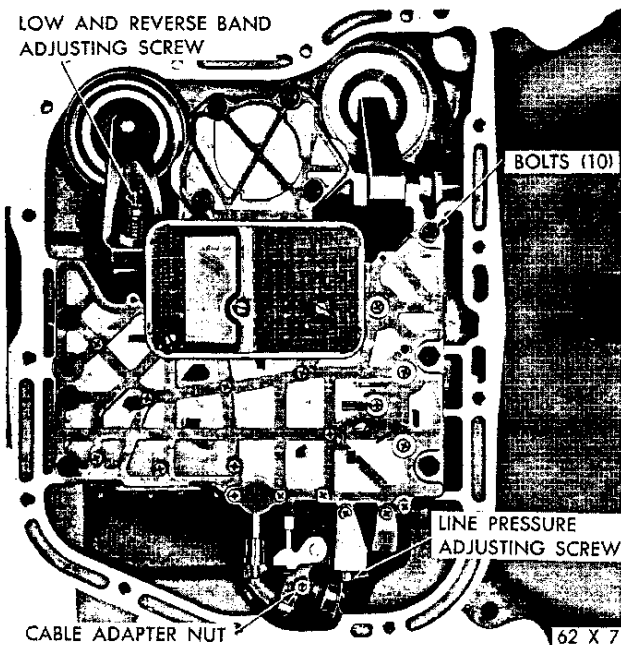


Fig. 25—Bottom View of Transmission (Pan Removed)

## BAND ADJUSTMENTS

### Kickdown Band

The kickdown band adjusting screw is located on the left side of the transmission case near the throttle lever shaft (Fig. 22).

(1) Loosen the lock nut and back off approximately five turns. Check adjusting screw for free turning in the transmission case.

(2) Using wrench, Tool C-3380 with adapter C-3705, tighten band adjusting screw to 47-50 inch-pounds torque. If adapter C-3705 is not used, tighten adjusting screw to 72 inch-pounds which is the true torque.

(3) Back off adjusting screw 2 turns. Hold adjusting screw in this position and tighten lock nut to 29 foot-pounds torque.

### Low and Reverse Band

(1) Raise vehicle, drain transmission fluid and remove the oil pan.

(2) Loosen the adjusting screw lock nut and back off nut approximately five turns (Fig. 25). Check adjusting screw for free turning in the lever.

(3) Using wrench, Tool C-3380 with adapter C-3705, tighten band adjusting screw to 47-50 inch-pounds torque. If adapter C-3705 is not used, tighten adjusting screw to 72 inch-pounds which is the true torque.

(4) Back off adjusting screw 3 turns. Hold the adjusting screw in this position and tighten lock nut to 35 foot-pounds torque.

(5) Reinstall oil pan using new gasket. Tighten the oil pan bolts to 150 inch-pounds torque.

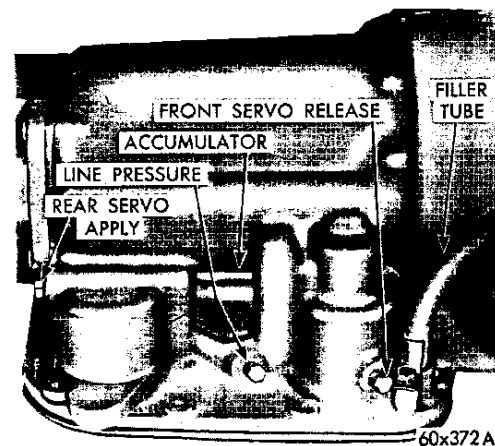


Fig. 26—Pressure Test Locations (Right Side of Case)