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ROD ACTION

Rod Action

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T-BUCKET HOW TO: TOP BOW

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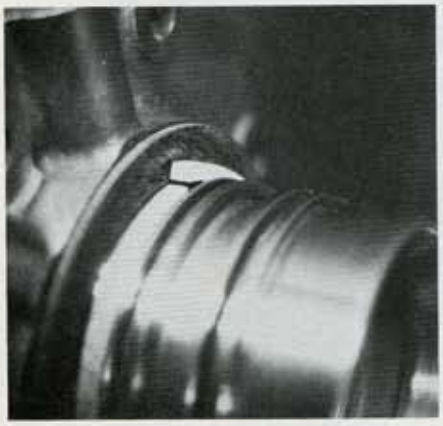
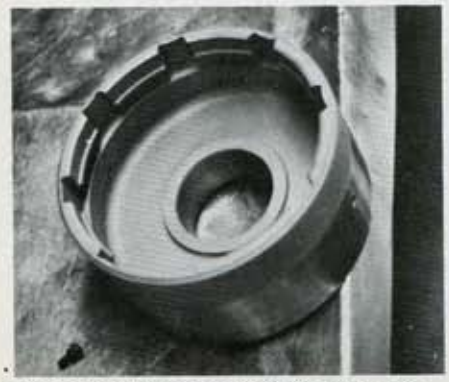
FUEL SAVINGS FOR TRANS

The completed Advanced Transmissions Super Heavy Duty 727 Torque Flite.



Installing a Teflon support ring on the reaction shaft housing.

Reaction shaft is machined to accept the Teflon ring.



The reverse drum is drilled to add more oil from the main shaft to the rear band.

Raybestos clutch material is used in the direct clutch.

Installing the sealing rings for the direct clutch drum.

MISSIONS

That's right transmissions can save you money.

Racing improves the breed they say, and when it comes to auto racing, many improvements have found their way to the highways from the racetracks.

One offshoot of the modified, firm shifting automatic transmission technology is, believe it or not, fuel savings. Factories send out transmissions that slip and slide and slowly go from one gear to the next. The result of the slip designed into the trans is wasted gas. The smooth shift may please a little old lady on her way to church, but a street rodder can live with a firmer shift, and will probably love it.

Jim Galatioto at Advanced Transmissions, 1156 W. Holt, Ontario, CA 91762, (714) 984-3418, has such modification dialed in. We have covered in detail his modifications of the Chevy 350 and 400 Turbos as he turned them into his well-known "Bulldog" in past issues of *Rod Action*, May 1977. This time we show you what happens inside a Mopar Torqueflite 727 when Jim, and his crew, Skip Roseberry and Johon Saltsmen, get into it.

Lots of changes for the better happen inside. The shuttle valve is blocked allowing faster up and down shifting. The 2nd to 3rd shift valve circuit is changed to allow perfect timing from 2nd gear to high. This allows the rear band to go off at the precise instant the front band goes on, instead of an overlap as per factory settings.

Next, the separater plate is changed to increase oil volume in the internal components. Oil volume into the rear servo is reduced, lessening the bang into gear which increased band life and rear sprag life.

Another area that gets attention is the throttle pressure circuit. Shifts are made at a slightly higher rpm than stock which keeps the engine on the power band, increasing performance and economy.

A step to improve 2nd to 3rd shifts is the use of a 3.8 2nd gear lever instead of the stock 2.9. The higher the number, the stronger the shift. The crew tailors this to each customer.

One of the biggest improvements, longevity wise, is the use of a bearing on the output shaft support housing. The factory makes units with an aluminum to steel mating surface which will go away long before a bearing.

Another longevity move has to do with the pump reaction shaft. A Teflon "O" ring is installed in the back of the shaft to act as a buffer supporting the high gear clutch drum. Without this, wobble develops which wears out and destroys the two sealing rings. The back of the reaction shaft is drilled with a 1/8" drill to add more lubricant to the shaft for longer life.

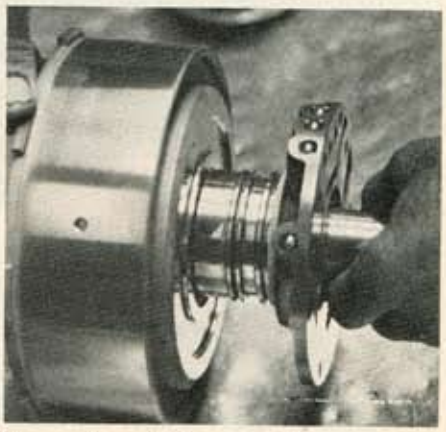
Finally, the high gear clutch drum-band surface is machined for better surface to improve band hookup and the I.D. of the drum is polished to reduce friction on the rings and Teflon "O" ring on the reaction shaft.

When the trans goes back together, Raybestos clutches are used instead of paper, which is a big improvement, and a Redline intermediate band is used.

When the tranny is back in the rod, we find better mileage, firmer shifting, and a longer living trans. With a 12,000 mile, 12 month warranty, what more could you ask for? ■

The support ring is hand shaped with a file.

Installed Teflon ring on reaction shaft.



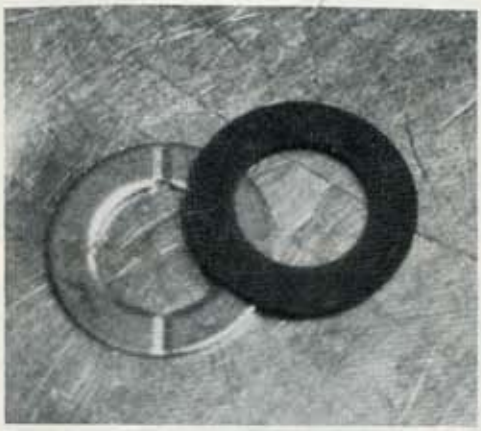
The reaction shaft support ring must fit the I.D. in the direct clutch drum within specs.

Pressure is used to test clutch position in the direct clutch.

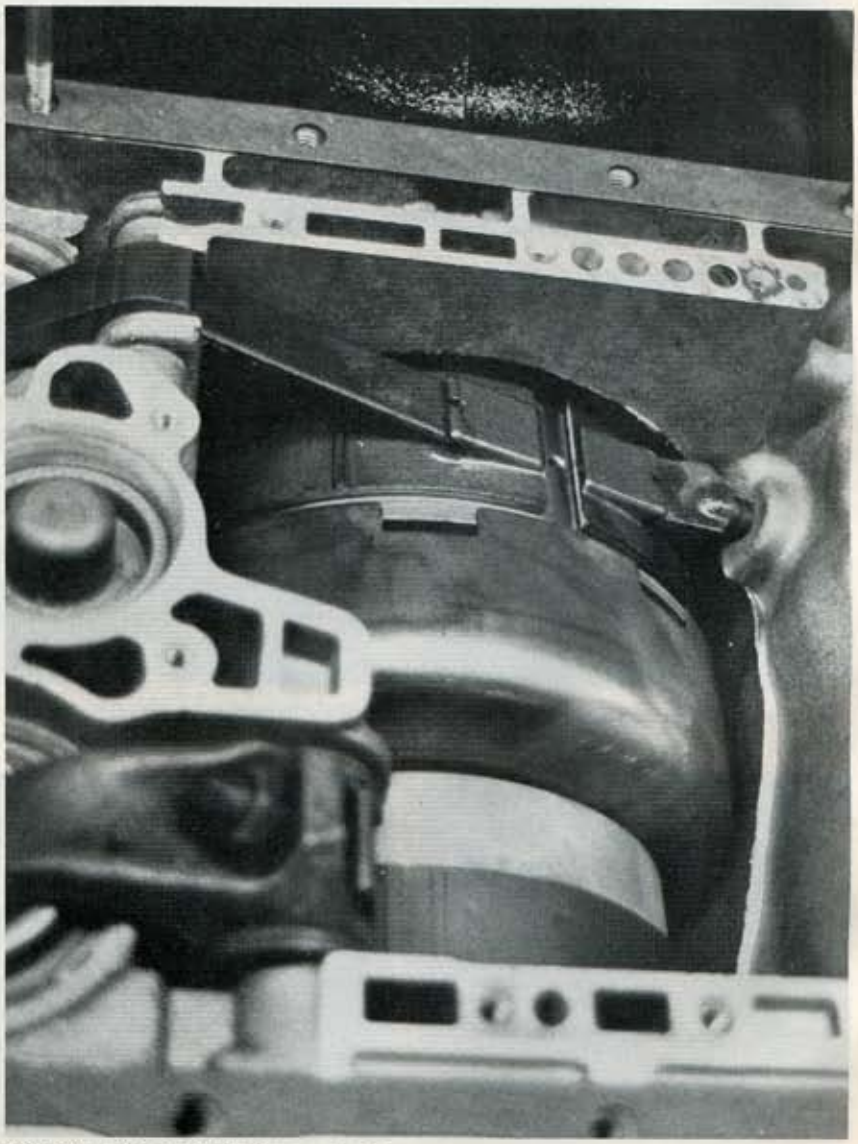
All clutch areas are pre-lubed.

Reverse band-apply piston before removing spring.

Reverse piston spring is removed to stop lock-up from manual low to 2nd gear.

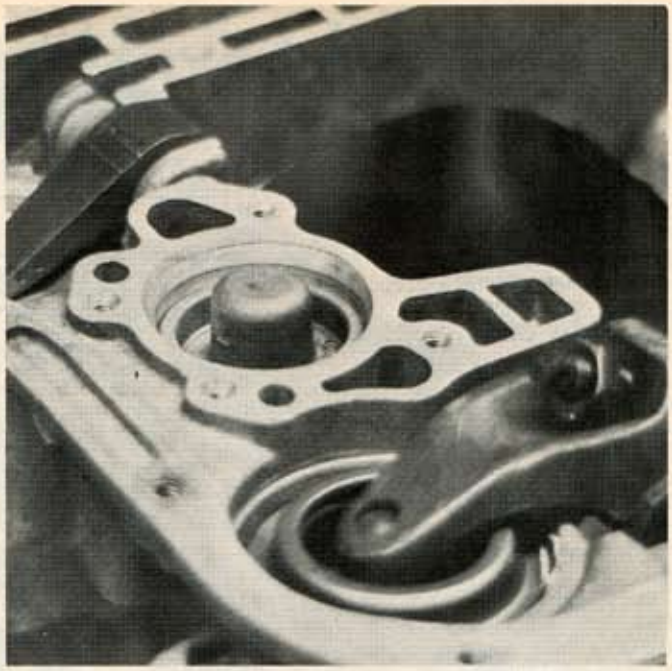


Brass washer on left replaces Teflon washer.



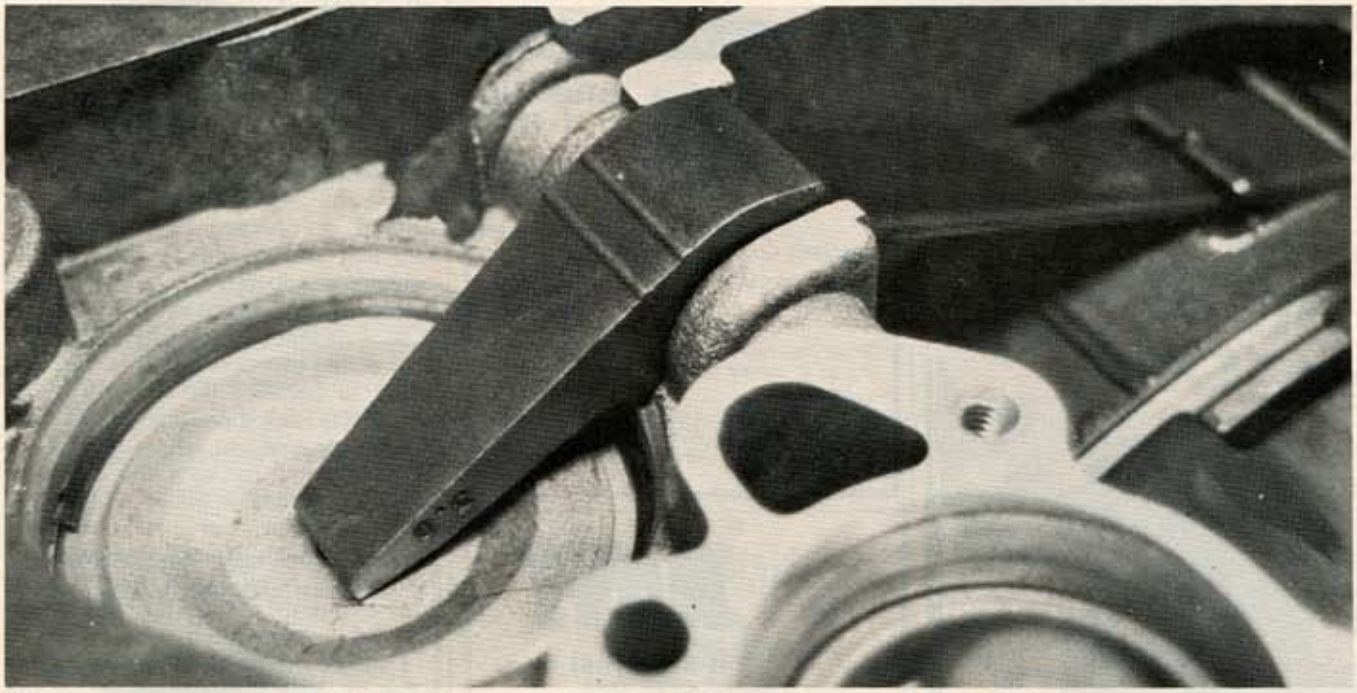
2nd gear, direct clutch drum and drive shell.

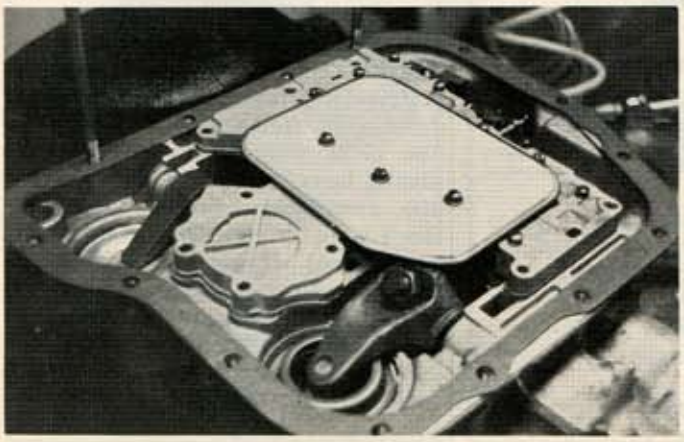
Reverse piston is drilled to release 25 percent of the pressure to prevent band breakage.



2nd gear servo and reverse band servo.

2nd gear servo lever and band.





Valve body when installed in transmission.

Each ADVANCED TRANSMISSION is tagged with information pertaining to what modifications were performed and when.