



Technical Service Information

ZF4HP22

NO OR SLIPPING 2ND GEAR

COMPLAINT: A: Vehicle slips in second gear and may, after one shift cycle, loose second gear entirely .
B: Unable to install snap ring into groove in case due to center support assembly not seated all the way into the case.

CAUSE: A: Incorrectly assembling the intermediate and intermediate overrun friction and steel plates into the front half of the center support assembly will create a space between the intermediate overrun clutches and the intermediate/intermediate overrun pressure plate, depending on where the assembly error was made, causing either of the clutch pistons to over extend its travel, thereby cutting the piston seal on the return travel of the piston. Refer to figure 1 for the correct order of assembly.

B: When installing the center support assembly into the case, an incorrect stack-up of the components will cause the intermediate overrun piston assembly to be located above the snap ring groove in the case, making it impossible to install the snap ring. (Refer to figure 3)

CORRECTION: A: Refer to the illustration in figure 68 and assemble the intermediate section as follows:

1. Install the intermediate one-way clutch onto the sun gear shaft. Make certain that the word "OBEN" stamped into the one-way clutch surface is facing UP. When checking sprag rotation, hold the intermediate clutch half of the sprag. The intermediate overrun clutch half must freewheel clockwise and lock counterclockwise as shown in figure 1. This check must be made with the sprag assembly in the vertical position because in the horizontal position it is normal for the sprag to slip. Checking the sprag assembly in the horizontal position could result in unnecessary replacement. Align the upper and lower halves of the intermediate one-way clutch.
2. Install the intermediate clutch pack, beginning with a steel plate and ending with a friction plate. The outside lugs of the intermediate steel plates index into the "Y" shaped slot "A" as shown in figure 2.
3. Index the outer lugs of the intermediate/intermediate overrun clutch pressure plate into the "Y" shaped slot "A" as shown in figure 2.
4. Install the intermediate overrun clutch pack, beginning with a friction plate and ending with a steel plate making certain that the outside lugs of the intermediate overrun steel plates index into the "SQUARE" shaped slot "B" as shown in figure 2.
5. Install the intermediate overrun piston housing onto the clutch drum, making certain to index the "V" shaped tab of the intermediate overrun piston housing into the "Y" shaped slot marked "A", checking to see that all 4 oil feed holes in the clutch drum and the intermediate overrun piston housing are aligned as shown in figure 2.

INTERMEDIATE/INTERMEDIATE OVERRUN CLUTCH ASSEMBLY

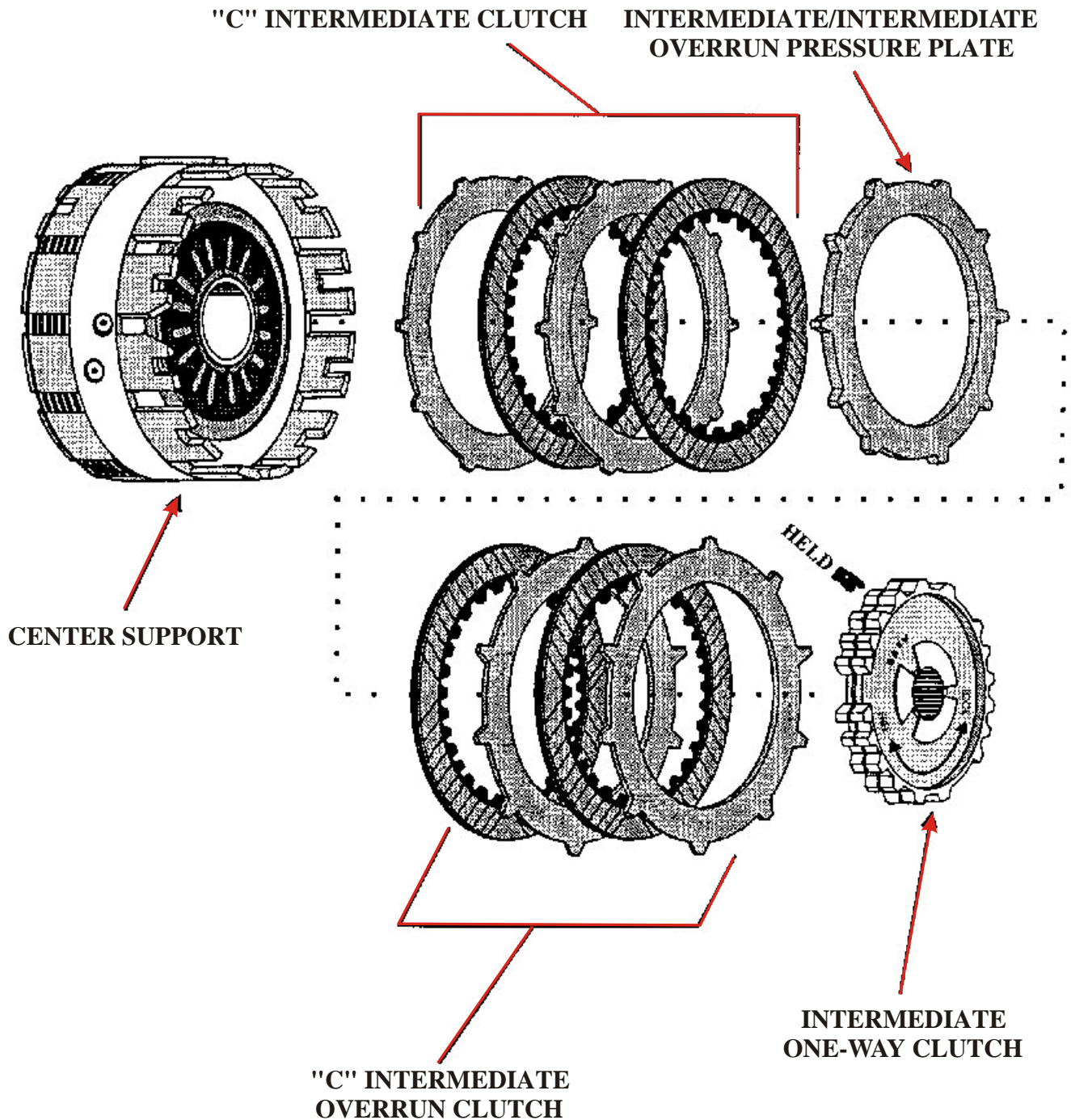


Figure 1

CENTER SUPPORT ASSEMBLY

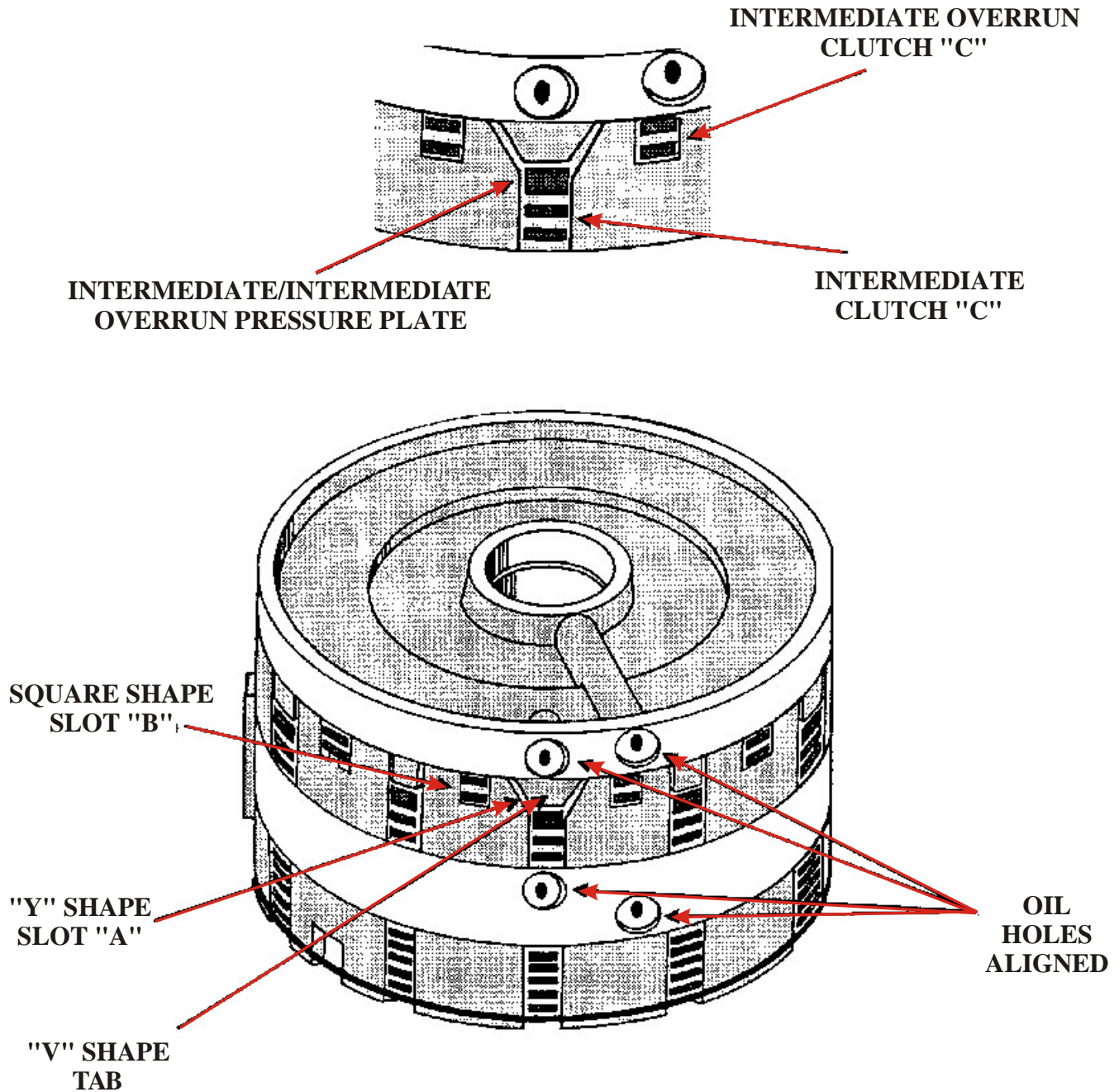


Figure 1

CENTER SUPPORT ASSEMBLY

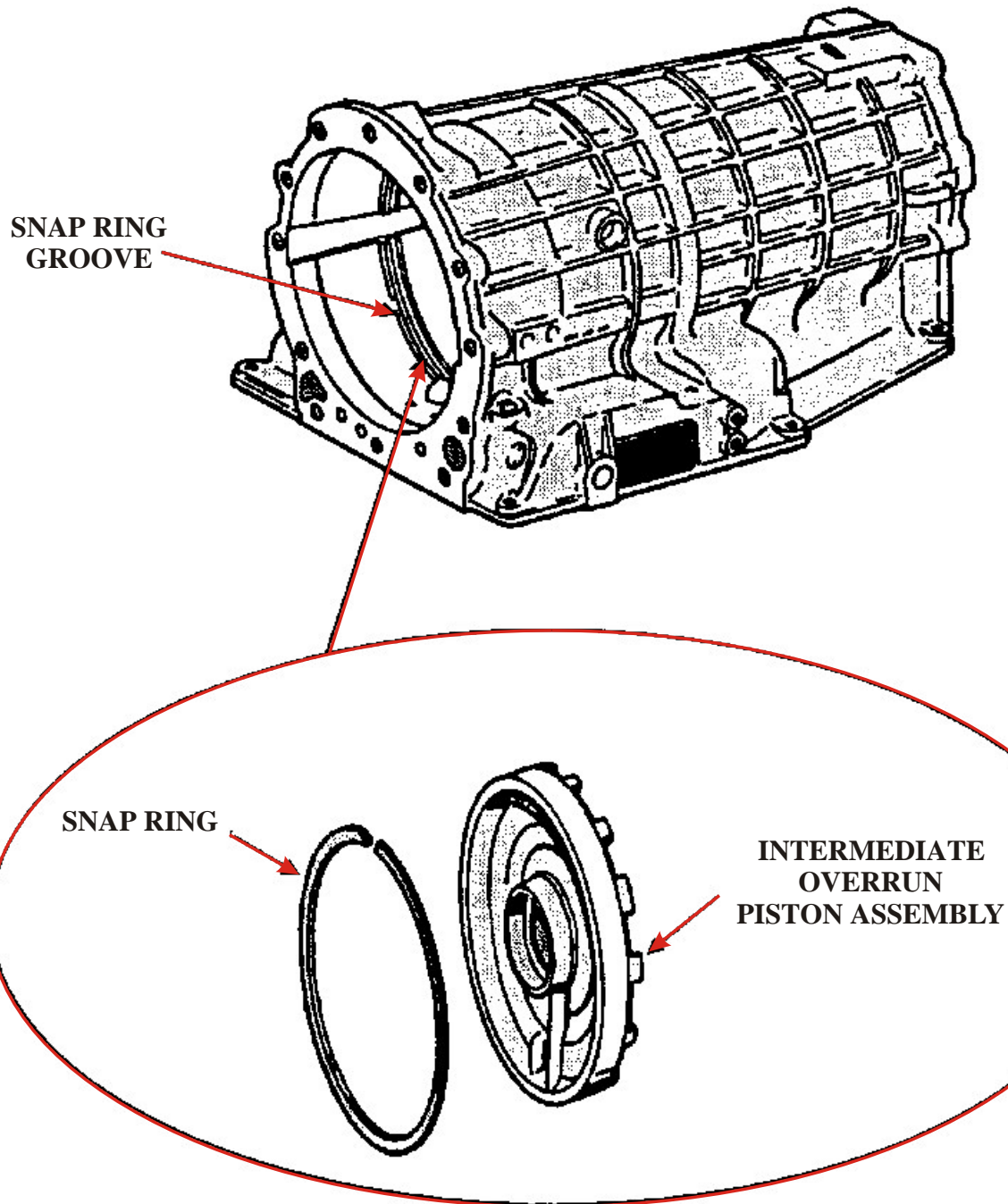


Figure 1