

3-2 [M6A0]

6. Low Clutch

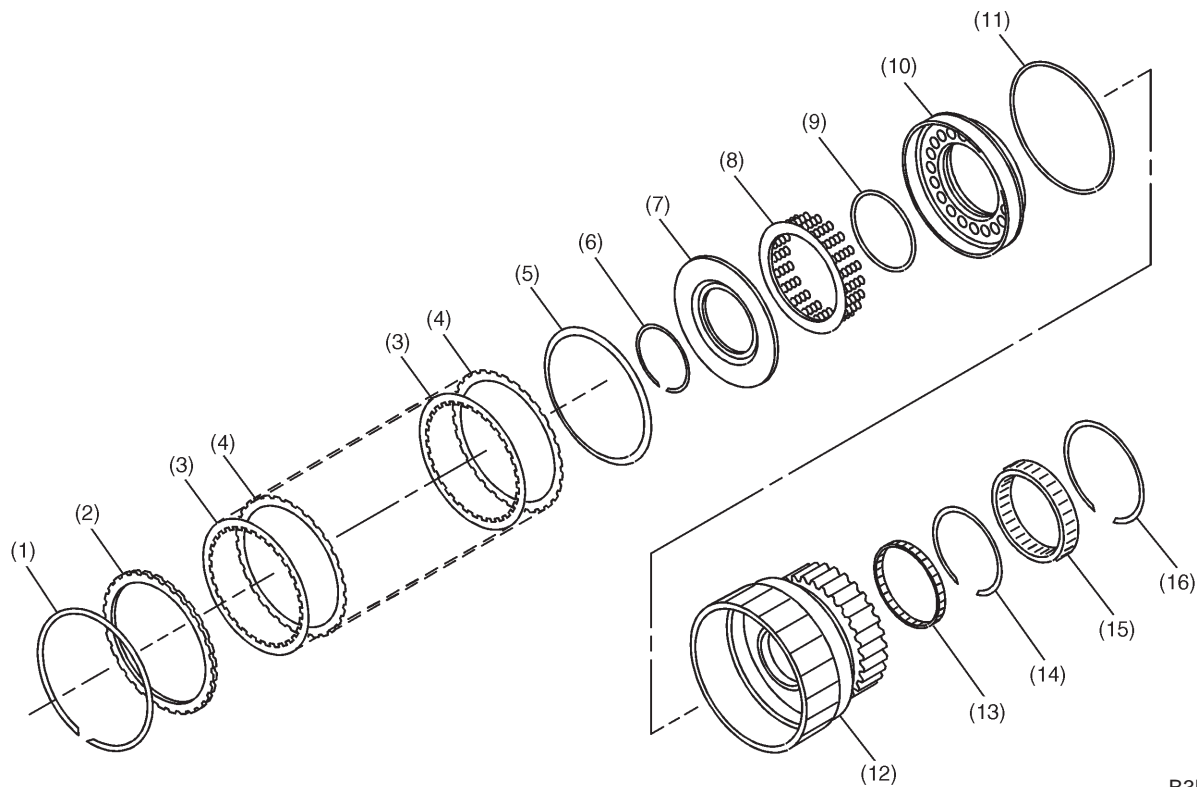
MECHANISM AND FUNCTION

6. Low Clutch

A: CONSTRUCTION

The low clutch consists of a clutch drum, clutch piston, return spring, cover, drive plates, driven plates, etc.

The low clutch drum is manufactured by pressing sheet metal. The clutch drum, outer race and sleeve are welded together by the electron beam welding technique.



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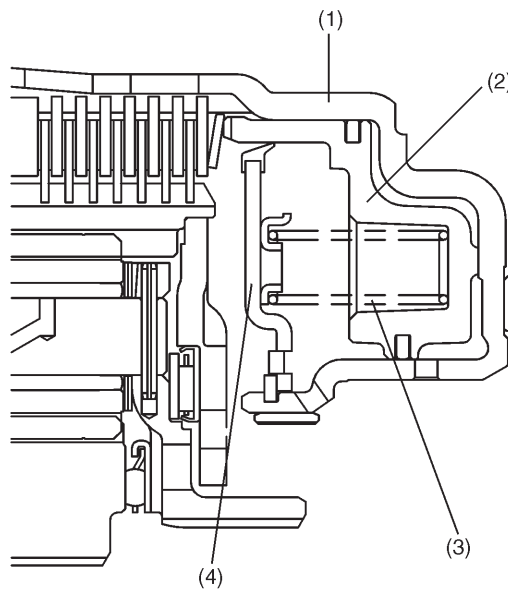
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|------------------|--------------------------|---------------------|
| (1) Snap ring | (7) Cover | (13) Needle bearing |
| (2) Retainer | (8) Spring retainer | (14) Snap ring |
| (3) Drive plate | (9) Lathe cut seal ring | (15) One-way clutch |
| (4) Driven plate | (10) Low clutch piston | (16) Snap ring |
| (5) Dish plate | (11) Lathe cut seal ring | |
| (6) Snap ring | (12) Low clutch drum | |

B: FUNCTION

The low clutch operates in "D" (1st, 2nd, 3rd speed), "3" (1st, 2nd, 3rd speed), "2" and "1" ranges. This clutch engages when the hydraulic pressure from the transmission control valve is applied to the low clutch piston, transmitting the power to the reduction drive shaft.

A cover is placed inside the piston, and the space between the low clutch piston and the cover is filled with ATF. The centrifugal force of this ATF, when the low clutch is not in engagement, acts to cancel the centrifugal force generated by ATF remaining in the oil chamber in the low clutch piston, which otherwise is likely to push the piston, preventing the clutch from being disengaged completely.

When the low clutch is in operation, the piston is not pushed back because a large hydraulic pressure is being applied on it, thereby the low clutch being kept engaged.



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- (1) Low clutch drum
- (2) Low clutch piston

- (3) Spring retainer
- (4) Cover