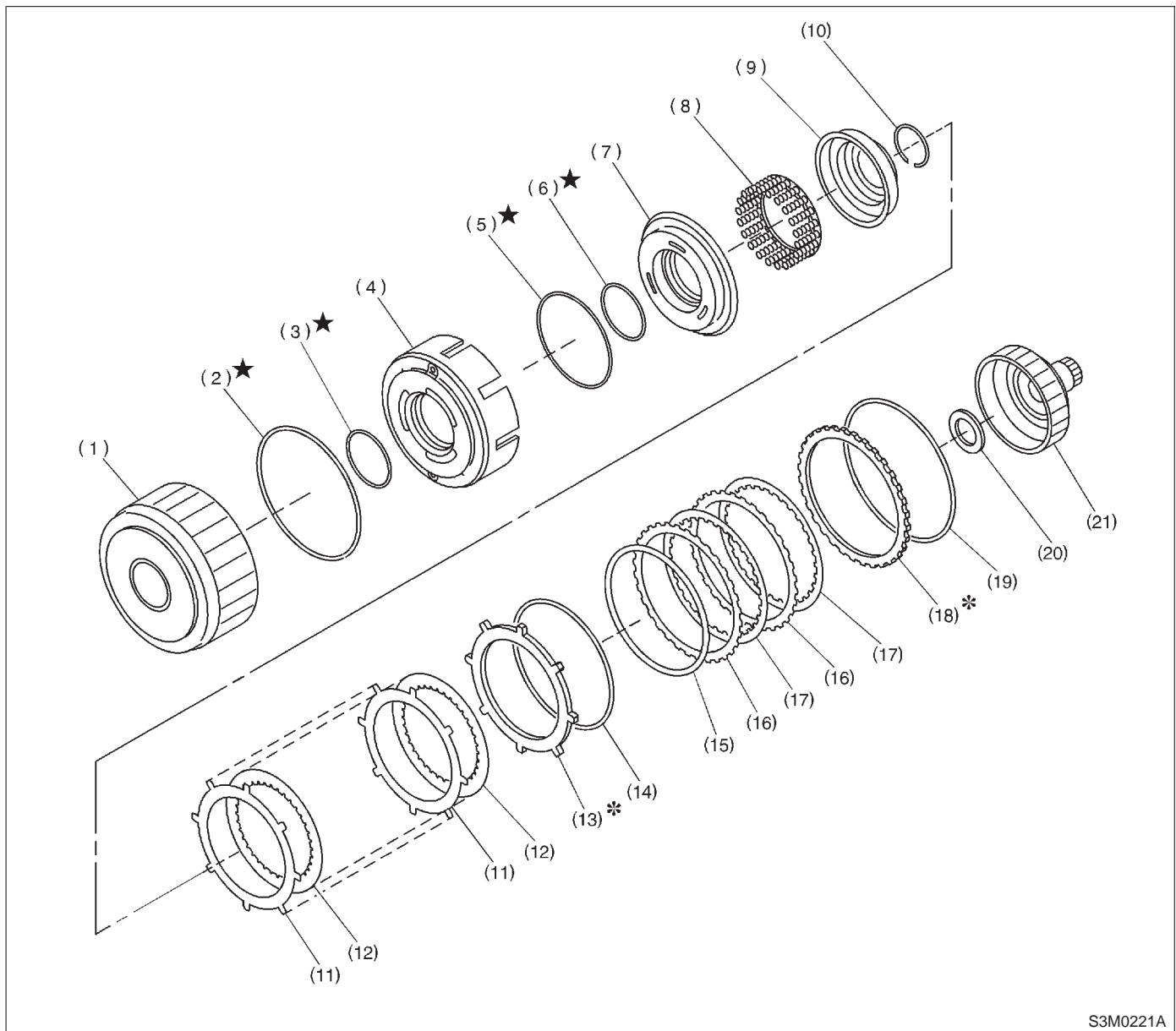


# 18. High Clutch and Reverse Clutch

## A: DISASSEMBLY



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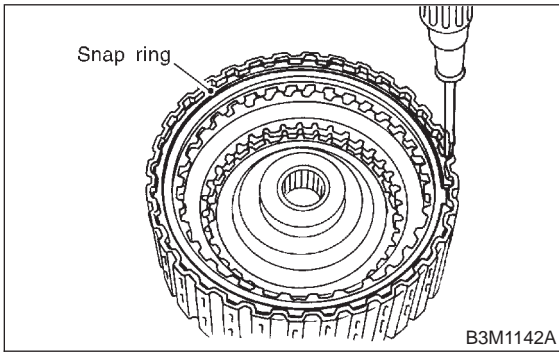
- (1) Reverse clutch drum
- (2) Lip seal
- (3) Lathe cut seal ring
- (4) Reverse clutch piston
- (5) Lathe cut seal ring
- (6) Lathe cut seal ring
- (7) High clutch piston

- (8) Spring retainer
- (9) Cover
- (10) Snap ring
- (11) Driven plate
- (12) Drive plate
- (13) Retaining plate
- (14) Snap ring

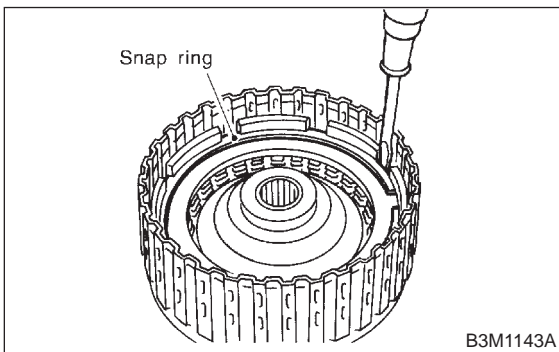
- (15) Dish plate
- (16) Driven plate
- (17) Drive plate
- (18) Retaining plate
- (19) Snap ring
- (20) Thrust needle bearing
- (21) High clutch hub

18. High Clutch and Reverse Clutch

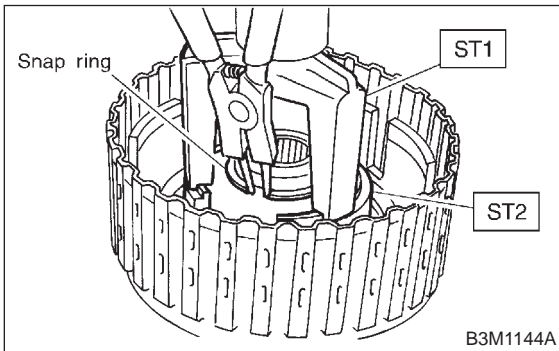
1) Remove the snap ring, and take out the retaining plate, drive plates, driven plates.



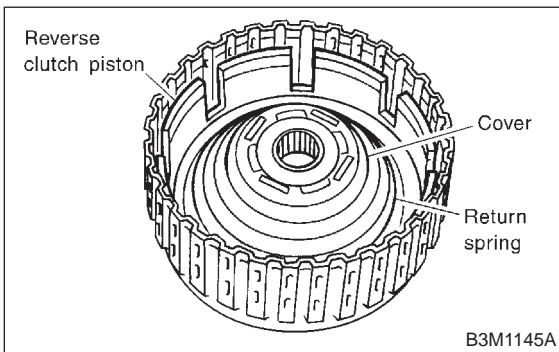
2) Remove snap ring, and take out the retaining plate, drive plates and driven plates.



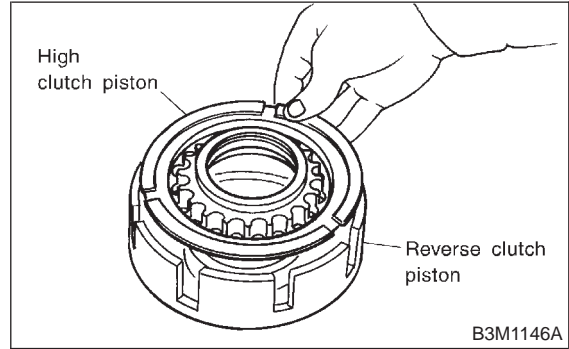
3) Using ST1 and ST2, remove snap ring.  
 ST1 398673600 COMPRESSOR  
 ST2 498627100 SEAT



4) Take out clutch cover, spring retainer, high clutch piston and reverse clutch piston.



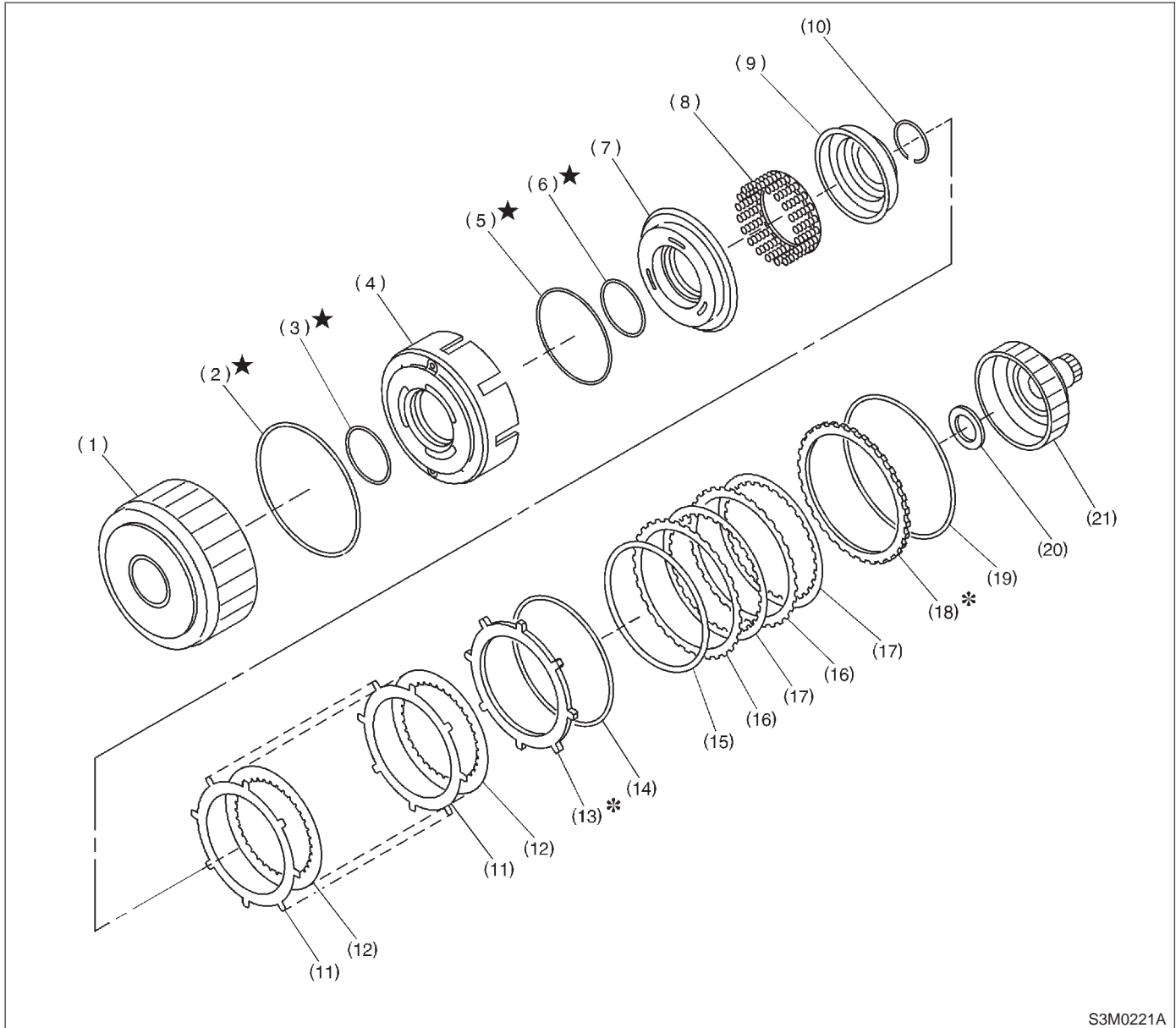
5) Remove seal rings and lip seal from high clutch piston and reverse clutch piston.



**B: INSPECTION**

- 1) Drive plate facing for wear and damage
- 2) Snap ring for wear, return spring for breakage or setting, and spring retainer for deformation
- 3) Lip seal and lathe cut seal ring for damage
- 4) Piston check ball for operation

C: ASSEMBLY

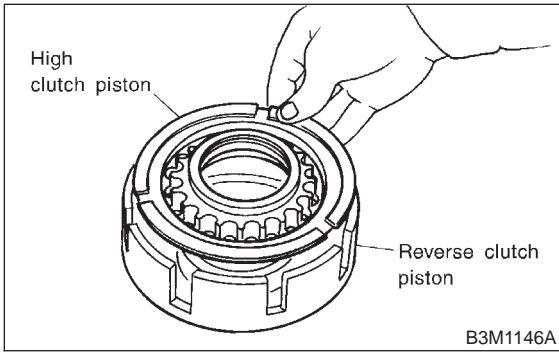


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- |                           |                      |                            |
|---------------------------|----------------------|----------------------------|
| (1) Reverse clutch drum   | (8) Spring retainer  | (15) Dish plate            |
| (2) Lip seal              | (9) Cover            | (16) Driven plate          |
| (3) Lathe cut seal ring   | (10) Snap ring       | (17) Drive plate           |
| (4) Reverse clutch piston | (11) Driven plate    | (18) Retaining plate       |
| (5) Lathe cut seal ring   | (12) Drive plate     | (19) Snap ring             |
| (6) Lathe cut seal ring   | (13) Retaining plate | (20) Thrust needle bearing |
| (7) High clutch piston    | (14) Snap ring       | (21) High clutch hub       |

18. High Clutch and Reverse Clutch

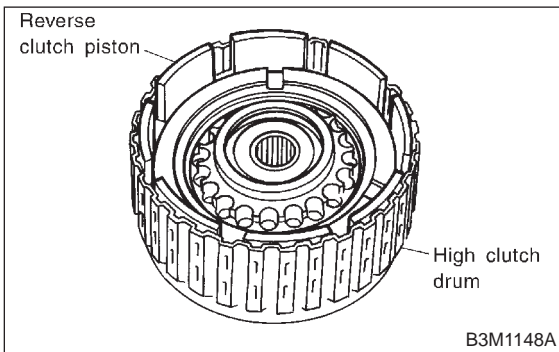
- 1) Install seal rings and lip seal to high clutch piston and reverse clutch piston.
- 2) Install high clutch piston to reverse clutch piston.



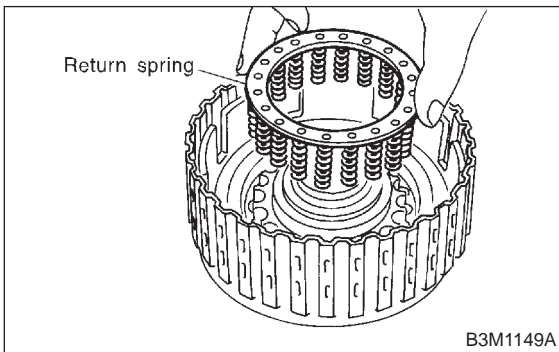
- 3) Install reverse clutch to high clutch drum.

NOTE:

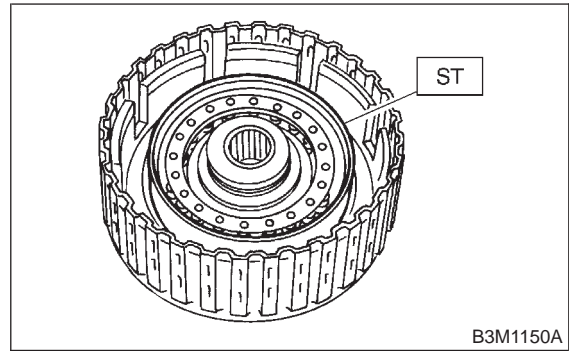
Align the groove on the reverse clutch piston with the groove on the high clutch drum during installation.



- 4) Install spring retainer to high clutch piston.



- 5) Install ST to high clutch piston.  
ST 498437000 HIGH CLUTCH PISTON GAUGE



- 6) Install cover to high clutch piston.

CAUTION:

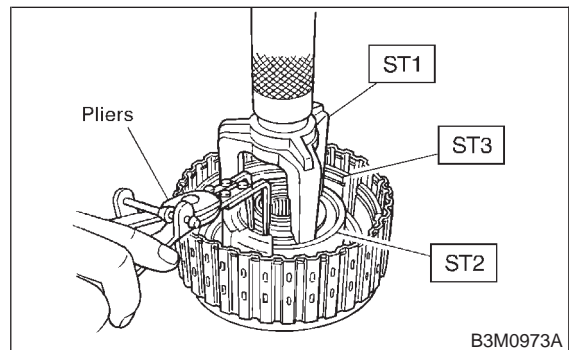
Be careful not to fold over the high clutch piston seal during installation.

- 7) Using ST1 and ST2, install snap ring.

NOTE:

After installing snap ring, remove STs.

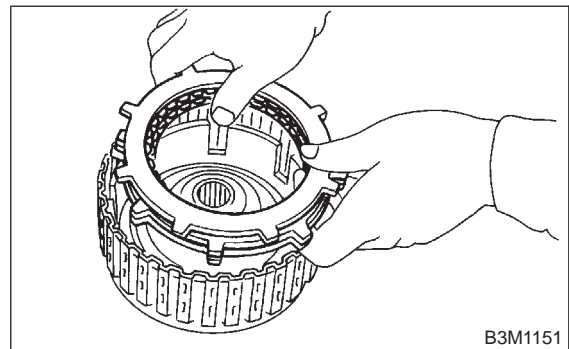
- |     |           |                          |
|-----|-----------|--------------------------|
| ST1 | 398673600 | COMPRESSOR               |
| ST2 | 498627100 | SEAT                     |
| ST3 | 498437000 | HIGH CLUTCH PISTON GAUGE |



- 8) Install driven plate, drive plate and retaining plate to high clutch drum.

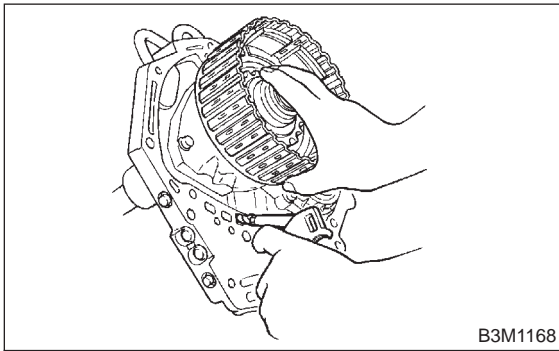
NOTE:

Install thicker driven plate on the piston side.



- 9) Install snap ring to high clutch drum.

10) Apply compressed air intermittently to check for operation.

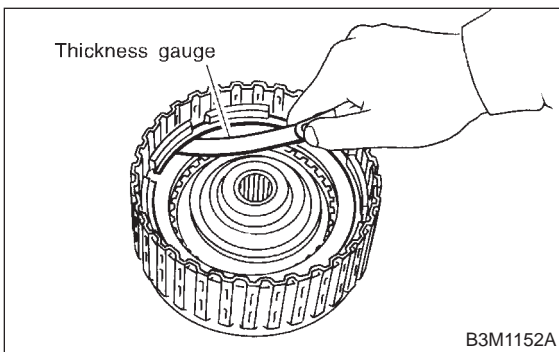


11) Measure the clearance between the retaining plate and snap ring.

**CAUTION:**  
Do not press down retaining plate during clearance measurements.

**Standard value:**  
0.8 — 1.1 mm (0.031 — 0.043 in)

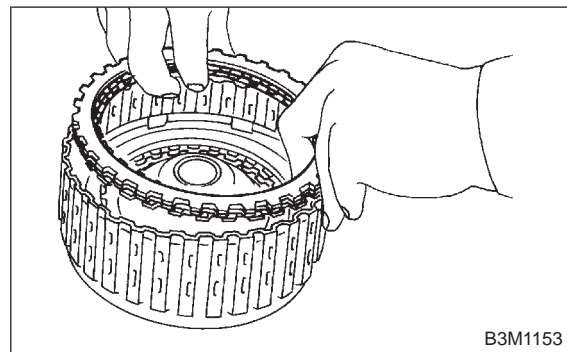
**Allowable limit:**  
1.5 mm (0.059 in)



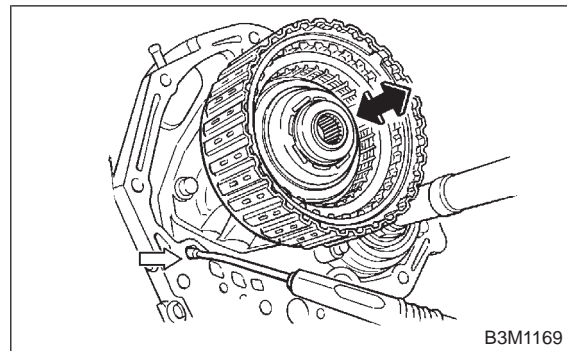
12) If specified tolerance limits are exceeded, select a suitable high clutch retaining plate.

High clutch retaining plate	
Part No.	Thickness mm (in)
31567AA710	4.7 (0.185)
31567AA720	4.8 (0.189)
31567AA730	4.9 (0.193)
31567AA740	5.0 (0.197)
31567AA670	5.1 (0.201)
31567AA680	5.2 (0.205)
31567AA690	5.3 (0.209)
31567AA700	5.4 (0.213)

13) Install driven plate, drive plate, retaining plate and snap ring.



14) Apply compressed air intermittently to check for operation.



15) Measure the clearance between the retaining plate and snap ring.

**CAUTION:**

**Do not press down retaining plate during clearance measurements.**

**Standard value:**

**0.5 — 0.8 mm (0.020 — 0.031 in)**

**Allowable limit:**

**1.2 mm (0.047 in)**

16) If specified tolerance limits are exceeded, select a suitable high clutch retaining plate.

Reverse clutch retaining plates	
Part No.	Thickness mm (in)
31567AA760	4.0 (0.157)
31567AA770	4.2 (0.165)
31567AA780	4.4 (0.173)
31567AA790	4.6 (0.181)
31567AA800	4.8 (0.189)

