

AUTOMATIC TRANSMISSION

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GENERAL DESCRIPTION

1. General Description S502001

A: SPECIFICATIONS S502001E49

1. TORQUE CONVERTER CLUTCH S502001E4901

Model	Non-turbo model	Turbo model
Type	Symmetric, 3 element, single stage, 2 phase torque converter	
Stall torque ratio	2.0 — 2.2	2.1 — 2.3
Nominal diameter	236 mm (9.29 in)	246 mm (9.69 in)
Stall speed (at sea level)	2,000 — 2,500 rpm	2,350 — 3,150 rpm
One-way clutch	Sprague type one-way clutch	

STALL TEST

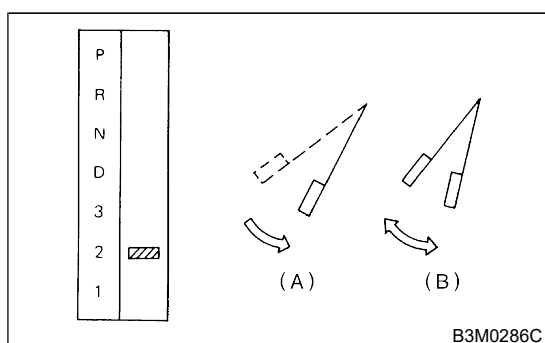
Automatic Transmission

5. Stall Test S502246

A: INSPECTION S502246A10

2. TEST METHODS S502246A1002

- 1) Preparations before test:
 - (1) Check that throttle valve opens fully.
 - (2) Check that engine oil level is correct.
 - (3) Check that coolant level is correct.
 - (4) Check that ATF level is correct.
 - (5) Check that differential gear oil level is correct.
 - (6) Increase ATF temperature to 50 to 80°C (122 to 176°F) by idling the engine for approximately 30 minutes (with select lever set to "N" or "P").
- 2) Install an engine tachometer at a location visible from the driver's compartment and mark the stall speed range on the tachometer scale.
- 3) Place the wheel chocks at the front and rear of all wheels and engage the parking brake.
- 4) Move the manual linkage to ensure it operates properly, and shift the select lever to the 2 range.
- 5) While forcibly depressing the foot brake pedal, gradually depress the accelerator pedal until the engine operates at full throttle.



- (A) Brake pedal
(B) Accelerator pedal

- 6) When the engine speed is stabilized, read that speed quickly and release the accelerator pedal.
- 7) Shift the select lever to Neutral, and cool down the engine by idling it for more than one minute.
- 8) Record the stall speed.
- 9) If stall speed in 2 range is higher than specifications, low clutch slipping and 2-4 brake slipping may occur. To identify it, conduct the same test as above in D range.
- 10) Perform the stall tests with the select lever in the R range.

NOTE:

- Do not continue the stall test for MORE THAN FIVE SECONDS at a time (from closed throttle, fully open throttle to stall speed reading). Failure to follow this instruction causes the engine oil and

ATF to deteriorate and the clutch and brake to be adversely affected.

Be sure to cool down the engine for at least one minute after each stall test with the select lever set in the P or N range and with the idle speed lower than 1,200 rpm.

- If the stall speed is higher than the specified range, attempt to finish the stall test in as short a time as possible, in order to prevent the automatic transmission from sustaining damage.

Stall speed (at sea level):

Non-turbo model: 2,000 — 2,500 rpm

Turbo model: 2,350 — 3,150 rpm

STALL TEST

Automatic Transmission

MEMO: