11. Multi-plate Clutch S510589

A: REMOVAL S510589A18

The multi-plate clutch is removed in the same way that the extension case is removed. <Ref. to AT-36 REMOVAL, Extension Case.>

B: INSTALLATION S510589A11

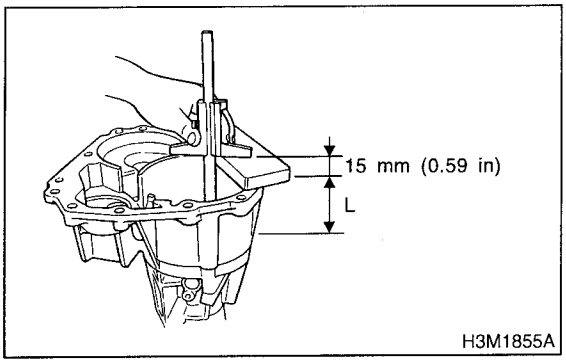
The multi-plate clutch is installed in the same way that the extension case is installed. <Ref. to AT-36 INSTALLATION, Extension Case.>

C: INSPECTION S510589A10

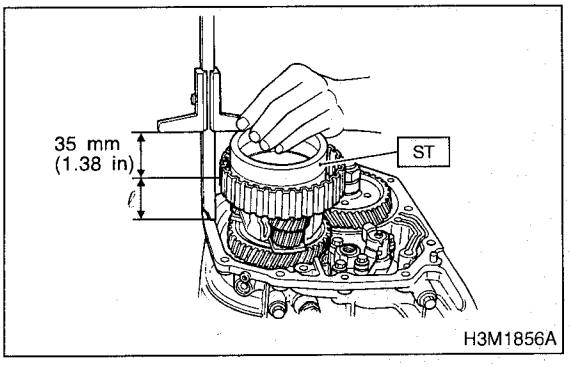
- Check the drive plate facing for wear and damage.
- Check the snap ring for wear, return spring for permanent set and breakage, and return spring for deformation.
- Check the lathe cut ring for damage.
- Measure the clearance of the multi-plate clutch and adjust it to within specifications. <Ref. to AT-46 ADJUSTMENT, Multi-plate Clutch.>

D: ADJUSTMENT S510589A01

1) Remove the drive plate and driven plate from the center differential carrier.
2) Measure the distance "L" from mating surface of extension case to multi-plate clutch (LSD) piston.
ST 399643600 GAUGE
L = Measured value – 15 mm
(L = Measured value – 0.59 in)



3) Measure the height "ℓ" from mating surface of the transmission case to end surface of the center differential clutch drum.
ST 499577000 GAUGE
ℓ = Measured value – 35 mm
(ℓ = Measured value – 1.38 in)



4) Calculation equation:
T = (L + 0.45) – ℓ
T: Measurements between end surface of clutch drum and multi-plate clutch (LSD) piston.
L: Distance from mating surface of extension case to multi-plate clutch (LSD) piston.
0.45: Gasket thickness
ℓ: Height from mating surface of transmission case to end surface of the center differential clutch drum.

NOTE:
Measure thickness of driven and drive plates of multi-plate clutch (LSD) and determine clearance between measured value and "T".

Standard value:
0.2 — 0.6 mm (0.008 — 0.024 in)

Allowable limit:
1.6 mm (0.063 in)

If out of specification, replace plate set (drive and driven plate) and select a multi-plate clutch (LSD) piston side adjusting plate to make it within specification.

Available driven plates	
Part No.	Thickness mm (in)
31589AA041	1.6 (0.063)
31589AA050	2.0 (0.079)
31589AA060	2.4 (0.094)
31589AA070	2.8 (0.110)