SERVICE SPECIFICATIONS

SERVICE DATE

AT05P-0F

Oil Pump

Body clearance	Standard	0.07 — 0.15 mm	0.0028 — 0.0059 in.
	Maximum	0.3 mm	0.012 in.
Tip clearance	Standard	0.11 — 0.14 mm	0.0043 — 0.0055 in.
	Maximum	0.3 mm	0.012 in.
Side clearance	Standard	0.02 — 0.05 mm	0.0008 — 0.0020 in.
	Maximum	0.1 mm	0.004 in.
Pump body bushing inside diameter	Maximum	38.19 mm	1.5035 in.
Stator shaft bushing inside diameter			
Front side	Maximum	21.58 mm	0.8496 in.
Rear side	Maximum	27.08 mm	1.0661 in.
Drive gear and driven gear thickness	Mark		
	1	9.440—9.449 (0.3717—0.3720)	
	2	9.450—9.459 (0.3720—0.3724)	
	3	9.460—9.470 (0.3724—0.3728)	
	4	9.471—9.480 (0.3720—0.3724)	
	5	9.481—9.490 (0.3729—0.3736)	

Overdrive Direct Clutch

Clutch drum bushing inside diameter	Maximum	27.11 mm	1.0673 in.
Overdrive direct clutch piston stroke		SUPRA	
		1.45 — 1.70 mm	0.0571 — 0.0669 in.
		OTHERS	
		1.85 — 2.15 mm	0.0728 — 0.0846 in.
Overdrive planetary gear bushing	Maximum	11.27 mm	0.4437 in.
Planetary pinion gear thrust clearance	Standard	0.20 — 0.60 mm	0.0079 — 0.0236 in.
	Maximum	1.00 mm	0.0394 in.
Flange thickness	No.16	3.6 mm	0.142 in.
	No.17	3.5 mm	0.138 in.
	No.18	3.4 mm	0.134 in.
	No.19	3.3 mm	0.130 in.
	No.20	3.2 mm	0.126 in.
	No.21	3.1 mm	0.122 in.

Overdrive Brake

Piston stroke		PREVIA	
		1.32 —1.62 mm	0.0520 — 0.0638 in.
		OTHERS	
		1.40 —1.70 mm	0.0551 — 0.0669 in.
Flange thickness	No.77	3.3 mm	0.130 in.
	No.78	3.5 mm	0.138 in.
	No.79	3.6 mm	0.142 in.
	No.80	3.7 mm	0.146 in.
	No.81	3.8 mm	0.150 in.
	No.82	3.9 mm	0.154 in.
	None	4.0 mm	0.157 in.

Direct Clutch

Piston stroke		1.37 – 1.60 mm	0.0359 – 0.0630 in.
Drum bushing inside diameter		53.99 mm	2.1256 in.
Flange thickness	No.33	3.0 mm	0.118 in.
	No.32	3.1 mm	0.122 in.
	No.31	3.2 mm	0.126 in.
	No.30	3.3 mm	0.130 in.
	No.29	3.4 mm	0.134 in.
	No.28	3.5 mm	0.138 in.
	No.27	3.6 mm	0.142 in.
	No.34	3.7 mm	0.146 in.

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Forward Clutch

Pack clearance		0.5 – 0.9 mm	0.020 – 0.035 in.
Drum bushing inside diameter		24.08 mm	0.9480 in.
Flange thickness	No.61	3.0 mm	0.118 in.
	No.60	3.2 mm	0.126 in.
	No.45	3.4 mm	0.134 in.
	No.62	3.6 mm	0.142 in.
	No.44	3.8 mm	0.150 in.
	No.42	4.0 mm	0.157 in.
	No.63	4.2 mm	0.165 in.
	No.64	4.4 mm	0.173 in.

Second Coast Brake

Piston stroke		1.5 – 3.0 mm	0.059 – 0.118 in.
Piston rod length		72.9 mm	2.870 in.
		71.4 mm	2.811 in.

Front Planetary Gear

Maximum inside diameter		24.08 mm	0.9480 in.
Planetary pinion gear thrust clearance	Standard	0.20 – 0.60 mm	0.0079 – 0.0236 in.
	Maximum	1.00 mm	0.0394 in.

Planetary Sun Gear

Sun gear bushing inside diameter	Maximum	27.08 mm	1.0661 in.

Second Brake

Pack clearance		0.62 – 1.98 mm	0.0244 – 0.0780 in.

First and Reverse Brake

Pack clearance		0.60 — 1.12 mm	0.0236 —0.0441 in.
Flange thickness	No.50	5.0 mm	0.197 in.
	No.51	4.8 mm	0.189 in.
	No.52	4.6 mm	0.181 in.
	No.53	4.4 mm	0.173 in.
	No.54	4.2 mm	0.165 in.
	No.55	4.0 mm	0.157 in.

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Rear Planetary Gear

Planetary pinion gear thrust clearance	Standard	0.20 — 0.60 mm	0.0079 — 0.0236 in.
	Maximum	1.00 mm	0.0394 in.

Valve Body Spring

Spring	Free length and Coil outer diameter mm (in.)		Total No. of coils and Color	
Upper valve body				
Secondary regulator valve	30.9 (1.217)	11.2 (0.441)	10.5	Blue
Lock—up relay valve	21.4 (0.843)	5.5 (0.217)	17.5	Light Gray
3 — 4 shift valve	30.8 (1.213)	9.7 (0.382)	10.5	Purple
Down shift plug	27.3 (1.075)	8.7 (0.343)	12.5	Yellow
Throttle valve	20.6 (0.811)	9.2 (0.362)	9.5	Blue
	or 23.3 (0.917)	9.2 (0.362)	9.5	White
SUPRA, PREVIA Second coast modulator valve	24.6 (0.967)	8.3 (0.327)	9.0	Orange
OTHERS Second coast modulator valve	25.3 (0.996)	8.6 (0.339)	9.5	Orange
Cut—back valve	21.8 (0.858)	6.0 (0.236)	13.5	Red
2 — 3 shift valve	30.8 (1.213)	9.7 (0.382)	10.5	Blue
SUPRA, PREVIA Low coast modulator valve	26.4 (1.039)	8.3 (0.327)	10.5	Yellow
OTHERS Low coast modulator valve	30.4 (1.197)	8.3 (0.327)	10.5	Yellow
Lower valve body				
Check valve	20.2 (0.796)	12.1 (0.476)	6.5	None
Pressure relief valve	11.2 (0.441)	6.4 (0.252)	7.5	None
1 — 2 shift valve	30.8 (1.213)	9.7 (0.382)	10.5	Purple
Primary regulator valve	62.3 (2.453)	18.6 (0.732)	12.5	Purple
SUPRA Accumulator control valve	36.1 (1.421)	8.9 (0.327)	14.0	White
OTHERS Accumulator control valve	33.9 (1.335)	8.8 (0.346)	12.0	Pink

Valve Body Key

Key	Height mm (in.)	Width mm (in.)	Thickness mm (in.)
Upper valve body			
Low coast modulator valve	14.5 (0.571)	5.0 (0.197)	3.2 (0.126)
2 – 3 shift valve	14.0 (0.551)	5.0 (0.197)	3.2 (0.126)
Cut–back valve	15.0 (0.591)	5.0 (0.197)	3.2 (0.126)
Secondary regulator valve	14.0 (0.551)	5.0 (0.197)	3.2 (0.126)
Lock–up relay valve	21.2 (0.835)	5.0 (0.197)	3.2 (0.126)
3 – 4 shift valve	16.5 (0.650)	5.0 (0.197)	3.2 (0.126)
2nd coast modulator valve	16.5 (0.650)	5.0 (0.197)	3.2 (0.126)
Lower valve body			
Accumulator control valve	21.2 (0.835)	5.0 (0.197)	3.2 (0.126)
1 – 2 shift valve	16.5 (0.650)	6.0 (0.236)	3.2 (0.126)
Primary regulator valve	16.2 (0.638)	5.0 (0.197)	3.2 (0.126)

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Transmission Case

Transmission case bushing	Maximum	38.19 mm	1.5035 in.

Extension Housing

Extension housing bushing	Maximum	40.09 mm	1.5783 in.

Output Shaft

Thrust play	0.27 – 0.86 mm	0.0106 – 0.0339 in.

Accumulator Spring

SUPRA:

Spring	(Color)	Free length mm (in.)	Outer diameter mm (in.)
B_2	(Red)	73.4 (2.890)	19.9 (0.783)
C_2 (Inner)	(Pink)	42.1 (1.657)	14.7 (0.579)
C_2 (Outer)	(Purple)	70.2 (2.764)	20.2 (0.795)
B_0	(White & Blue)	67.0 (2.638)	16.2 (0.638)
C_0 (Outer)	(Orange)	74.6 (2.397)	20.9 (0.823)
C_0 (Inner)	(Yellow)	46.0 (1.811)	14.0 (0.551)

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TRUCK, 4 RUNNER, T100:

Spring	(Color)	Free length mm (in.)	Outer diameter mm (in.)
B_2	(Yellow)	70.5 (2.776)	19.7 (0.776)
C_2 (Inner)	(Pink)	42.1 (1.657)	14.7 (0.579)
C_2 (Outer)	(Purple)	70.2 (2.764)	20.2 (0.795)
B_0	(Green)	62.0 (2.441)	16.0 (0.630)
C_0 (Outer)	(Orange)	74.6 (2.397)	20.9 (0.823)
C_0 (Inner)	(Yellow)	46.0 (1.811)	14.0 (0.551)

PREVIA:

Spring	(Color)	Free length mm (in.)	Outer diameter mm (in.)
B_2	(White & Red)	75.3 (2.965)	20.0 (0.787)
C_2 (Inner)	(Pink)	42.1 (1.657)	14.7 (0.579)
C_2 (Outer)	(Purple)	70.2 (2.764)	20.2 (0.795)
B_0	(White & Blue)	67.0 (2.638)	16.2 (0.638)
C_0 (Outer)	(Orange)	74.6 (2.397)	20.9 (0.823)
C_0 (Inner)	(Yellow)	46.0 (1.811)	14.0 (0.551)

TORQUE SPECIFICATION

AT05Q–05

Part tightened		N·m	kgf·cm	ft·lbf
Stator shaft x Oil pump body		10	100	7
Upper valve body x Lower valve body		6.4	65	56 in.·lbf
Detent spring x Valve body		10	100	7
Parking lock pawl bracket		7.4	75	65 in.·lbf
Overdrive support x Transmission case		25	260	19
Oil pump x Transmission case		22	220	16
Valve body x Transmission case		10	100	7
Oil strainer x Valve body		10	100	7
Solenoid x Valve body		10	100	7
Oil pan x Transmission case		7.4	75	65 in.·lbf
Extension housing x Transmission case		36	370	27
Transmission housing	10 mm bolt	34	345	25
	12 mm bolt	57	580	42
Union		29	300	22
Vehicle speed sensor		16	160	12
Park/Neutral position switch		6.9	70	61 in.·lbf
Park/Neutral position switch adjusting bolt		13	130	9
Control shaft lever		16	160	12

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