

# SERVICE SPECIFICATIONS

## SERVICE DATE

AT06P-08

### Oil Pump

|                                      |         |                |                     |
|--------------------------------------|---------|----------------|---------------------|
| Body clearance                       | STD     | 0.07 — 0.15 mm | 0.0028 — 0.0059 in. |
|                                      | Maximum | 0.3 mm         | 0.012 in.           |
| Tip clearance                        | STD     | 0.11 — 0.14 mm | 0.0043 — 0.0055 in. |
|                                      | Maximum | 0.3 mm         | 0.012 in.           |
| Side clearance                       | STD     | 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 | 23.10 mm       | 0.9094 in.          |

### Overdrive Direct Clutch

|                                        |         |                |                     |
|----------------------------------------|---------|----------------|---------------------|
| Clutch drum bushing inside diameter    | Maximum | 23.14 mm       | 0.9110 in.          |
| Overdrive direct clutch piston stroke  |         | 1.77 — 2.58 mm | 0.0697 — 0.1016 in. |
| Overdrive planetary gear bushing       | Maximum | 11.27 mm       | 0.4437 in.          |
| Planetary pinion gear thrust clearance | STD     | 0.20 — 0.50 mm | 0.0079 — 0.0197 in. |

### Overdrive Brake

|                |  |                |                     |
|----------------|--|----------------|---------------------|
| Pack clearance |  | 0.35 — 1.91 mm | 0.0138 — 0.0752 in. |
|----------------|--|----------------|---------------------|

### Front Clutch

|                  |  |                |                     |
|------------------|--|----------------|---------------------|
| Piston stroke    |  | 1.40 — 2.48 mm | 0.0551 — 0.0976 in. |
| Flange thickness |  | 1.8 mm         | 0.071 in.           |
|                  |  | 2.0 mm         | 0.079 in.           |

### Rear Clutch

|               |  |                |                     |
|---------------|--|----------------|---------------------|
| Piston stroke |  | 0.90 — 1.75 mm | 0.0354 — 0.0689 in. |
|---------------|--|----------------|---------------------|

### No.1 Brake

|                                        |         |                |                     |
|----------------------------------------|---------|----------------|---------------------|
| Piston stroke                          |         | 0.80 — 1.73 mm | 0.0315 — 0.0681 in. |
| Center support bushing inside diameter | Maximum | 36.46 mm       | 1.4354 in.          |

### No.2 Brake

|               |  |                |                     |
|---------------|--|----------------|---------------------|
| Piston stroke |  | 1.01 — 2.25 mm | 0.0398 — 0.0886 in. |
|---------------|--|----------------|---------------------|

### Planetary Sun Gear

|                         |  |          |            |
|-------------------------|--|----------|------------|
| Maximum inside diameter |  | 21.58 mm | 0.8496 in. |
|-------------------------|--|----------|------------|

### Front Planetary Gear

|                                        |  |                |                     |
|----------------------------------------|--|----------------|---------------------|
| Planetary pinion gear thrust clearance |  | 0.20 — 0.50 mm | 0.0079 — 0.0197 in. |
|----------------------------------------|--|----------------|---------------------|

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**Rear Planetary Gear**

|                                        |                |                     |
|----------------------------------------|----------------|---------------------|
| Planetary pinion gear thrust clearance | 0.20 — 0.50 mm | 0.0079 — 0.0197 in. |
|----------------------------------------|----------------|---------------------|

**No.3 Brake**

|                |                |                     |
|----------------|----------------|---------------------|
| Pack clearance | 0.61 — 2.64 mm | 0.0240 — 0.1039 in. |
|----------------|----------------|---------------------|

**Valve Body Spring**

| Spring                          | Free length and Coil outer diameter mm (in.) |              | Total No. of coils and Color |       |
|---------------------------------|----------------------------------------------|--------------|------------------------------|-------|
| Front upper valve body          |                                              |              |                              |       |
| Secondary regulator valve       | 71.3 (2.807)                                 | 17.4 (0.685) | 17.0                         | Green |
| Down shift plug                 | 39.6 (1.560)                                 | 10.9 (0.429) | 11.4                         | Green |
| Throttle valve                  | 21.9 (0.862)                                 | 8.6 (0.339)  | 10.0                         | None  |
| Cut-back valve                  | 23.0 (0.906)                                 | 6.9 (0.272)  | 12.5                         | Green |
| Rear upper valve body           |                                              |              |                              |       |
| 2-3 shift valve                 | 29.2 (1.150)                                 | 8.9 (0.350)  | 12.0                         | Blue  |
| 3-4 shift valve                 | 29.2 (1.150)                                 | 8.9 (0.350)  | 12.0                         | Blue  |
| 1-2 shift valve                 | 29.2 (1.150)                                 | 8.9 (0.350)  | 12.0                         | Blue  |
| Reverse clutch sequence valve   | 37.6 (1.480)                                 | 9.2 (0.362)  | 16.5                         | None  |
| Lower valve body                |                                              |              |                              |       |
| Low coast modulator valve       | 42.4 (1.669)                                 | 9.2 (0.362)  | 17.0                         | None  |
| Check ball (Cooler return)      | 13.7 (0.539)                                 | 10.5 (0.413) | 10.0                         | None  |
| Cooler by-pass valve            | 28.0 (1.102)                                 | 13.6 (0.535) | 8.0                          | Blue  |
| Check ball (Damping check ball) | 20.0 (0.787)                                 | 5.0 (0.196)  | 18.0                         | None  |
| Intermediate modulator valve    | 35.4 (1.394)                                 | 8.8 (0.346)  | 16.4                         | Red   |
| Lock-up relay valve             | 32.6 (1.283)                                 | 11.4 (0.449) | 10.3                         | Green |
| Pressure relief valve           | 32.1 (1.264)                                 | 13.1 (0.516) | 11.0                         | None  |
| Primary regulator valve         | 50.3 (1.980)                                 | 17.0 (0.669) | 12.5                         | Blue  |

**Valve Body Key**

| Retainer                | Height mm (in.) | Width mm (in.) | Thickness mm (in.) |
|-------------------------|-----------------|----------------|--------------------|
| Front upper valve body  |                 |                |                    |
| Cut-back valve          | 19.0 (0.748)    | 5.0 (0.197)    | 3.2 (0.126)        |
| Rear upper valve body   |                 |                |                    |
| 2-3 shift valve         | 10.0 (0.394)    | 5.0 (0.197)    | 3.2 (0.126)        |
| 3-4 shift valve         | 10.0 (0.394)    | 5.0 (0.197)    | 3.2 (0.126)        |
| Lower valve body        |                 |                |                    |
| Primary regulator valve | 17.5 (0.689)    | 14.0 (0.551)   | 3.2 (0.126)        |

**Transmission Case**

|                           |         |          |            |
|---------------------------|---------|----------|------------|
| Transmission case bushing | Maximum | 38.19 mm | 1.5035 in. |
|---------------------------|---------|----------|------------|

**Extension Housing**

|                           |         |          |            |
|---------------------------|---------|----------|------------|
| Extension housing bushing | Maximum | 38.09 mm | 1.4996 in. |
|---------------------------|---------|----------|------------|

**Output Shaft**

|                      |         |              |                   |
|----------------------|---------|--------------|-------------------|
| End play             |         | 0.3 — 0.9 mm | 0.012 — 0.035 in. |
| Output shaft bushing | Maximum | 18.08 mm     | 0.7118 in.        |

**Accumulator Spring**

| Spring         | Free length / Outer diameter<br>mm (in.) | Color  |
|----------------|------------------------------------------|--------|
| C <sub>1</sub> | 64.4 (2.535) / 17.5 (0.689)              | None   |
| C <sub>2</sub> | 57.4 (2.260) / 15.9 (0.626)              | None   |
| B <sub>2</sub> | 32.0 (1.260) / 15.4 (0.606)              | Yellow |

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**TORQUE SPECIFICATION**

| Part tightened                              | N·m        | kgf·cm | ft·lbf    |
|---------------------------------------------|------------|--------|-----------|
| Stator shaft x Oil pump body                | 7.4        | 75     | 65 in·lbf |
| Lower valve body x Front upper valve body   | 5.4        | 55     | 48 in·lbf |
| Lower valve body x Rear upper valve body    | 5.4        | 55     | 48 in·lbf |
| Center support x Transmission case          | 25         | 260    | 19        |
| Transmission housing x Transmission case    | 10 mm bolt | 34     | 25        |
|                                             | 12 mm bolt | 57     | 42        |
| Oil pump x Transmission case                | 21         | 215    | 18        |
| Parking lock pawl bracket                   | 7.4        | 75     | 65 in·lbf |
| Valve body x Transmission case              | 10         | 100    | 7         |
| Oil strainer x Valve body                   | 5.4        | 55     | 48 in·lbf |
| Oil pan x Transmission case                 | 4.4        | 45     | 39 in·lbf |
| Governor body lock plate                    | 3.9        | 40     | 35 in·lbf |
| Extension housing x Transmission case       | 34         | 345    | 25        |
| Union                                       | 34         | 345    | 25        |
| Park/Neutral position switch                | 3.9        | 40     | 35 in·lbf |
| Park/Neutral position switch adjusting bolt | 5.4        | 55     | 48 in·lbf |

