

U151F AUTOMATIC TRANSMISSION

SERVICE DATA

Automatic Transaxle Assembly

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| Line pressure (Wheel locked) AT stall (Throttle valve fully opened) | D position | 931 to 1,031 kPa (9.1 to 10.5 kgf/cm ² , 129 to 149 psi) |
| | R position | 1,768 to 1,968 kPa (18.0 to 20.0 kgf/cm ² , 284 to 256 psi) |
| Engine stall revolution | D positions | 2,030 to 2,330 rpm |
| Time lag | N → D position | Less than 1.2 seconds |
| | N → R position | Less than 1.5 seconds |
| Engine idle speed (A/C OFF) | N position | 600 to 700 rpm |
| Drive plate runout | Maximum. | 0.20 mm (0.0079 in.) |
| Differential side oil seal depth | | 0 +0.5 mm (0 +0.020 in.) |
| Shift point | | |
| D position (Throttle valve fully opened) | 1 → 2 | 50 to 58 km/h (31 to 36 mph) |
| | 2 → 3 | 99 to 108 km/h (62 to 67 mph) |
| | 3 → 4 | 161 to 176 km/h (100 to 109 mph) |
| | 4 → 5 | 239 to 257 km/h (149 to 160 mph) |
| | 5 → 4 | 230 to 247 km/h (143 to 153 mph) |
| | 4 → 3 | 154 to 169 km/h (96 to 105 mph) |
| | 3 → 2 | 94 to 102 km/h (58 to 63 mph) |
| | 2 → 1 | 35 to 42 km/h (22 to 26 mph) |
| D position (Throttle valve fully closed) | 4 → 5 | 68 to 75 km/h (42 to 47 mph) |
| | 5 → 4 | 40 to 47 km/h (25 to 29 mph) |
| 3 position (Throttle valve fully opened) | 1 → 2 | 50 to 58 km/h (31 to 36 mph) |
| | 2 → 3 | 99 to 108 km/h (62 to 67 mph) |
| | 4 → 3 | 154 to 169 km/h (96 to 105 mph) |
| | 3 → 2 | 94 to 102 km/h (58 to 63 mph) |
| | 2 → 1 | 35 to 42 km/h (22 to 26 mph) |
| 2 position (Throttle valve fully opened) | 1 → 2 | 50 to 58 km/h (31 to 36 mph) |
| | 3 → 2 | 94 to 102 km/h (58 to 63 mph) |
| | 2 → 1 | 35 to 42 km/h (22 to 26 mph) |
| L position (Throttle valve fully opened) | 2 → 1 | 35 to 42 km/h (22 to 26 mph) |
| Lock-up point | | |
| D position (Throttle valve opening 5 %) | Lock-up ON 5 → 5L | 66 to 74 km/h (41 to 46 mph) |
| | Lock-up OFF 5L → 5 | 64 to 72 km/h (40 to 45 mph) |
| | Lock-up ON 4 → 4L | 106 to 116 km/h (66 to 72 mph) |
| | Lock-up OFF 4L → 4 | 103 to 112 km/h (64 to 70 mph) |
| | Lock-up ON 3 → 3L | 64 to 73 km/h (40 to 45 mph) |
| | Lock-up OFF 3L → 3 | 62 to 70 km/h (39 to 43 mph) |
| Input shaft | | |
| End play | | 0.262 to 1.244 mm (0.0103 to 0.0490 in.) |

SS

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|---------------------------------|--|--|
| Multiple disc clutch clutch hub | | |
| Inside diameter | STD | 23.03 to 23.05 mm (0.9067 to 0.9075 in.) |
| | Max. | 23.09 mm (0.9091 in.) |
| Underdrive brake | | |
| Return spring free length | 13.24 mm (0.5213 in.) | |
| Pack clearance | 1.81 to 2.20 mm (0.0713 to 0.0866 in.) | |
| Flange thickness | Mark 1 | 3.0 mm (0.118 in.) |
| | Mark 2 | 3.2 mm (0.126 in.) |
| | Mark 3 | 3.4 mm (0.134 in.) |
| | Mark 4 | 3.1 mm (0.122 in.) |
| | Mark 5 | 3.3 mm (0.130 in.) |
| 2nd brake | | |
| Pack clearance | 0.62 to 0.91 mm (0.0244 to 0.0358 in.) | |
| Return spring free length | 16.61 mm (0.6539 in.) | |
| Flange thickness | Mark 1 | 3.0 mm (0.118 in.) |
| | Mark 2 | 3.1 mm (0.122 in.) |
| | Mark 3 | 3.2 mm (0.126 in.) |
| | Mark 4 | 3.3 mm (0.130 in.) |
| | Mark 5 | 3.4 mm (0.134 in.) |
| | Mark 6 | 3.5 mm (0.138 in.) |
| | Mark 7 | 3.6 mm (0.142 in.) |
| 1st and reverse brake | | |
| Pack clearance | 1.16 to 1.35 mm (0.0457 to 0.0531 in.) | |
| Return spring free length | 17.61 mm (0.6933 in.) | |
| Flange thickness | Mark 1 | 1.8 mm (0.071 in.) |
| | Mark 2 | 1.9 mm (0.075 in.) |
| | Mark 3 | 2.0 mm (0.079 in.) |
| | Mark 4 | 2.1 mm (0.083 in.) |
| | Mark 5 | 2.2 mm (0.087 in.) |
| | Mark 6 | 2.3 mm (0.091 in.) |
| | Mark 7 | 2.4 mm (0.094 in.) |
| | Mark 8 | 2.5 mm (0.098 in.) |

OIL PUMP

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|----------------------|--------|--|
| Body clearance | STD | 0.10 to 0.17 mm (0.0039 to 0.0067 in.) |
| | Max. | 0.17 mm (0.0067 in.) |
| Tip clearance | STD | 0.07 to 0.15 mm (0.0028 to 0.0059 in.) |
| | Max. | 0.15 mm (0.0059 in.) |
| Side clearance | STD | 0.02 to 0.05 mm (0.0008 to 0.0020 in.) |
| | Max. | 0.05 mm (0.0020 in.) |
| Drive gear thickness | Mark A | 11.690 to 11.699 mm (0.4602 to 0.4606 in.) |
| | Mark B | 11.700 to 11.709 mm (0.4606 to 0.4610 in.) |
| | Mark C | 11.710 to 11.720 mm (0.4610 to 0.4614 in.) |
| | Mark D | 11.721 to 11.730 mm (0.4615 to 0.4618 in.) |
| | Mark E | 11.731 to 11.740 mm (0.4619 to 0.4622 in.) |

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|--------------------------------------|--------|--|
| Driven gear thickness | Mark A | 11.690 to 11.699 mm (0.4602 to 0.4606 in.) |
| | Mark B | 11.700 to 11.709 mm (0.4606 to 0.4610 in.) |
| | Mark C | 11.710 to 11.720 mm (0.4610 to 0.4614 in.) |
| | Mark D | 11.721 to 11.730 mm (0.4615 to 0.4618 in.) |
| | Mark E | 11.731 to 11.740 mm (0.4619 to 0.4622 in.) |
| Pump body bushing inside diameter | STD | 38.113 to 38.138 mm (1.5005 to 1.5015 in.) |
| | Max. | 38.188 mm (1.5035 in.) |
| Stator shaft bushing inside diameter | STD | 21.500 to 21.526 mm (0.8465 to 0.8475 in.) |
| | Max | 21.57 mm (0.8492 in.) |



SECOND BRAKE PISTON

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|----------------------------------|-----------------------|
| Piston return spring free length | 16.61 mm (0.6539 in.) |
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FORWARD CLUTCH

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|----------------------------------|--|----------------------|
| Pack clearance | 1.00 to 1.25 mm (0.0394 to 0.4921 in.) | |
| Piston return spring free length | 26.74 mm (1.0528 in.) | |
| Flange thickness | No. 1 | 3.00 mm (0.1181 in.) |
| | No. 2 | 3.15 mm (0.1240 in.) |
| | No. 3 | 3.30 mm (0.1299 in.) |
| | No. 4 | 3.45 mm (0.1358 in.) |
| | No. 5 | 3.60 mm (0.1417 in.) |

DIRECT CLUTCH

| | | |
|----------------------------------|--|--------------------|
| Pack clearance | 0.61 to 0.83 mm (0.0240 to 0.0327 in.) | |
| Piston return spring free length | 25.91 mm (1.0201 in.) | |
| Flange thickness (Direct clutch) | Mark 1 | 3.0 mm (0.118 in.) |
| | Mark 2 | 3.1 mm (0.122 in.) |
| | Mark 3 | 3.2 mm (0.126 in.) |
| | Mark 4 | 3.3 mm (0.130 in.) |
| | Mark 5 | 3.4 mm (0.134 in.) |
| | Mark 6 | 3.5 mm (0.138 in.) |
| | Mark 7 | 3.6 mm (0.142 in.) |

UNDERDRIVE PLANETARY GEAR

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|----------------------------|--|
| Turning torque (at 60 rpm) | 0.50 to 1.42 N*m (5.1 to 14.5 kgf*cm, 4.4 to 12.6 in.*lbf) |
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UNDERDRIVE CLUTCH

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|--|--|--|
| Pack clearance | 1.51 to 1.71 mm (0.0594 to 0.0673 in.) | |
| Piston return spring free length | 17.14 mm (0.6752 in.) | |
| Flange thickness (Underdrive clutch)) | Mark 1 | 3.0 mm (0.118 in.) |
| | Mark 2 | 3.2 mm (0.126 in.) |
| | Mark 3 | 3.4 mm (0.134 in.) |
| | Mark 3 | 3.6 mm (0.122 in.) |
| | Mark 3 | 3.8 mm (0.130 in.) |
| Underdrive clutch drum bushing inside diameter | STD | 37.06 to 37.08 mm (1.4591 to 1.4598 in.) |
| | Max. | 37.13 mm (1.4618 in.) |

TRANSMISSION VALVE BODY ASSEMBLY

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| Valve body assembly installation bolt length | 25 mm (0.984 in.) for bolt A |
| | 57.0 mm (2.244 in.) for bolt B |
| | 41 mm (1.614 in.) for bolt C |
| Detente spring installation bolt length | 27 mm (1.063 in.) for bolt A |
| | 16 mm (0.630 in.) for bolt B |

DIFFERENTIAL

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|-------------------------------------|------------------------|--|
| Side gear backlash | | 0.05 to 0.20 mm (0.0020 to 0.0079 in.) |
| Thrust washer thickness | Mark - | 1.625 mm (0.0640 in.) |
| | Mark - | 1.725 mm (0.0679 in.) |
| | Mark - | 1.825 mm (0.0719 in.) |
| Preload (turning torque at 60 rpm)) | New bearing | 0.20 to 0.69 N*m (2.0 to 7.0 kgf*cm, 1.8 to 6.1 in.*lbf) |
| | Using bearing | 0.10 to 0.35 N*m (1.0 to 3.6 kgf*cm, 0.9 to 3.1 in.*lbf) |
| Shim thickness | Mark 0 | 2.00 mm (0.0787 in.) |
| | Mark 1 | 2.05 mm (0.0807 in.) |
| | Mark 2 | 2.10 mm (0.0827 in.) |
| | Mark 3 | 2.15 mm (0.0846 in.) |
| | Mark 4 | 2.20 mm (0.0866 in.) |
| | Mark 5 | 2.25 mm (0.0886 in.) |
| | Mark 6 | 2.30 mm (0.0906 in.) |
| | Mark 7 | 2.35 mm (0.0925 in.) |
| | Mark 8 | 2.40 mm (0.0945 in.) |
| | Mark 9 | 2.45 mm (0.0965 in.) |
| | Mark A | 2.50 mm (0.0984 in.) |
| | Mark B | 2.55 mm (0.1004 in.) |
| | Mark C | 2.60 mm (0.1024 in.) |
| | Mark D | 2.65 mm (0.1043 in.) |
| | Mark E | 2.70 mm (0.1063 in.) |
| | Mark F | 2.75 mm (0.1083 in.) |
| | Mark G | 2.80 mm (0.1102 in.) |
| | Mark H | 2.85 mm (0.1122 in.) |
| | Mark J | 2.025 mm (0.07972 in.) |
| | Mark K | 2.075 mm (0.08169 in.) |
| | Mark L | 2.125 mm (0.08366 in.) |
| | Mark M | 2.175 mm (0.08563 in.) |
| | Mark N | 2.225 mm (0.08760 in.) |
| | Mark P | 2.275 mm (0.08957 in.) |
| | Mark Q | 2.325 mm (0.09154 in.) |
| | Mark R | 2.375 mm (0.09350 in.) |
| Mark S | 2.425 mm (0.09547 in.) | |
| Mark T | 2.475 mm (0.09744 in.) | |
| Mark U | 2.525 mm (0.09941 in.) | |
| Mark V | 2.575 mm (0.10138 in.) | |
| Mark W | 2.625 mm (0.10335 in.) | |
| Mark X | 2.675 mm (0.10531 in.) | |
| Mark Y | 2.725 mm (0.10728 in.) | |
| Mark AA | 2.775 mm (0.10925 in.) | |
| Mark AB | 2.825 mm (0.11122 in.) | |