

GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

1. General Description

A: SPECIFICATIONS

1. TORQUE CONVERTER CLUTCH

Model	Non-turbo	Turbo
Type	Symmetric, 3 element, single stage, 2 phase torque converter	
Stall torque ratio	1.85 — 2.15	2.05 — 2.35
Nominal diameter	246 mm (9.69 in)	
Stall speed (at sea level)	2,100 — 2,600 rpm	2,600 — 3,400 rpm
One-way clutch	Sprague type one-way clutch	

2. OIL PUMP

Type	Paracoid constant-displacement pump	
Driving method	Driven by engine	
Number of teeth	Inner rotor	9
	Outer rotor	10

3. TRANSMISSION CONTROL ELEMENT

Type	4-forward, 1-reverse, double-row planetary gears
Multi-plate clutch	3 sets
Multi-plate brake	2 sets
One-way clutch (sprague type)	1 sets

4. TRANSMISSION GEAR RATIO

Model	Sedan (Non-turbo)	Except sedan (Non-turbo)
1st	3.027	2.785
2nd	1.619	1.545
3rd	1.000	
4th	0.694	
Rev	2.272	

5. PLANETARY GEAR AND PLATE

Model	Non-turbo		Turbo
	Sedan	Wagon	
Tooth number of front sun gear	33		
Tooth number of front pinion	21		
Tooth number of front internal gear	75		
Tooth number of rear sun gear	37	42	
Tooth number of rear pinion	19	17	
Tooth number of rear internal gear	75		
Drive plate number of high clutch	4		5
Drive plate number of low clutch	6		7
Drive plate number of reverse clutch	2		
Drive plate number of 2-4 brake	3		4
Drive plate number of low & reverse brake	6		7

6. SELECTOR POSITION

P (Park)	Transmission in neutral, output member immovable, and engine start possible
R (Reverse)	Transmission in reverse for backing
N (Neutral)	Transmission in neutral and engine start possible
D (Drive)	Automatic gear change 1st \leftarrow \rightarrow 2nd \leftarrow \rightarrow 3rd \leftarrow \rightarrow 4th
3 (3rd)	Automatic gear change 1st \leftarrow \rightarrow 2nd \leftarrow \rightarrow 3rd \leftarrow 4th
2 (2nd)	2nd gear locked (Deceleration possible 2nd \leftarrow 3rd \leftarrow 4th)
1 (1st)	1st gear locked (Deceleration possible 1st \leftarrow 2nd \leftarrow 3rd \leftarrow 4th)
Control method	Hydraulic remote control

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7. HYDRAULIC CONTROL AND LUBRICATION

Type	Electronic/hydraulic control [Four forward speed changes by electrical signals of vehicle speed and accelerator (throttle) opening]
Fluid	Dexron III type
Fluid capacity	9.3 — 9.6 ℓ (9.8 — 10.1 US qt, 8.2 — 8.4 Imp qt)
Lubrication system	Forced feed lubrication with oil pump
Oil	Automatic transmission fluid (above mentioned)

8. COOLING AND HARNESS

Cooling system	Liquid-cooled cooler incorporated in radiator
Inhibitor switch	12 poles
Transmission harness	20 poles

9. TRANSFER

Model	Non-turbo	Turbo
Transfer type	Multi-plate transfer (MPT)	Variable torque distribution (VTD)
Drive & driven plate number of transfer clutch	5	3
Control method	Electronic, hydraulic type	
Lubricant	The same Automatic transmission fluid used in automatic transmission	
1st reduction gear ratio	1.000 (53/53)	

10. FINAL REDUCTION

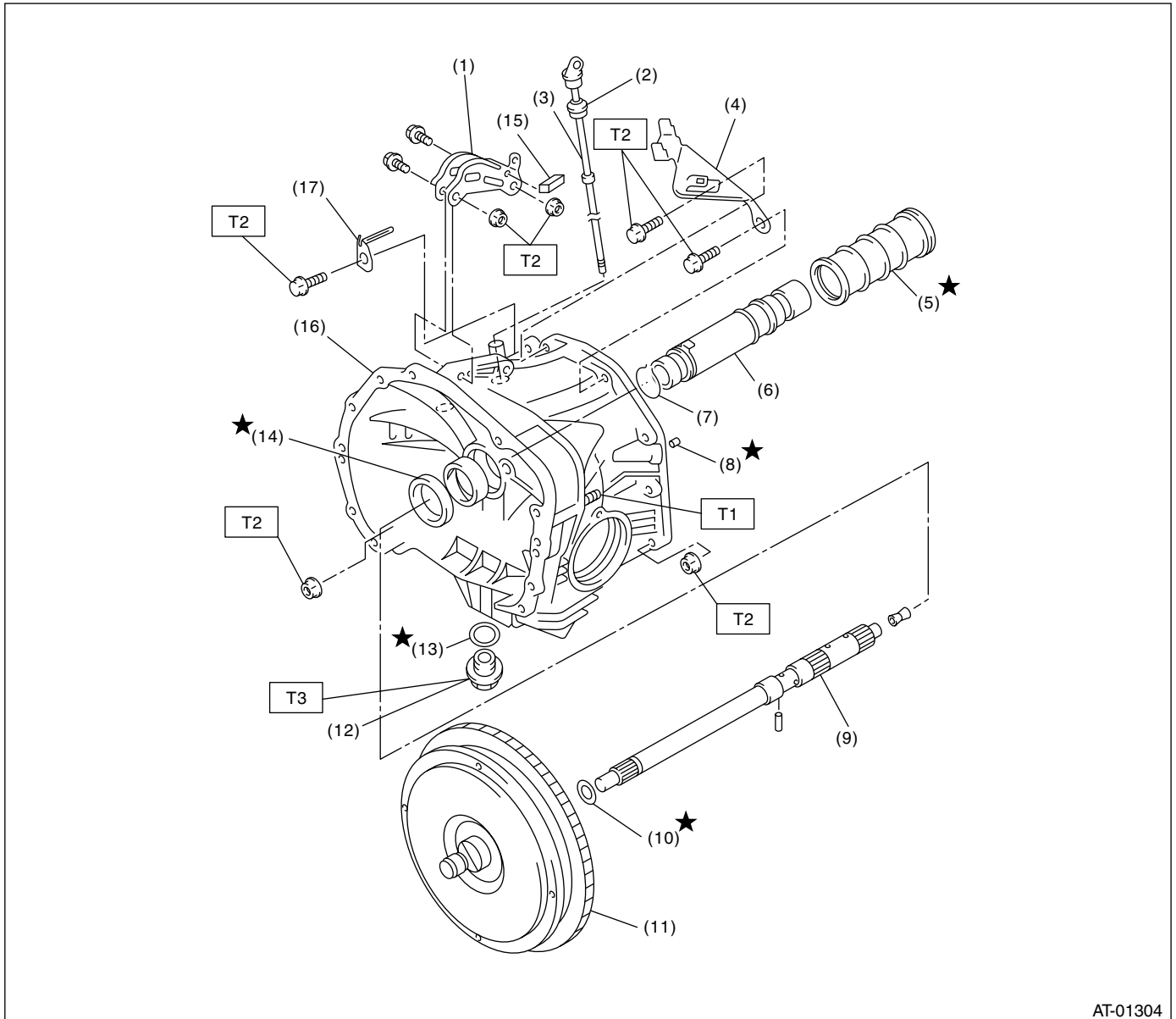
Model	Except Sedan (Non-turbo)	Sedan (Non-turbo)
Front final gear ratio	4.111 (37/9)	4.444 (40/9)
Lubrication oil	<p style="text-align: right;">AT-00001</p> <p>(1) Item (2) Front differential gear oil (3) API classification (4) SAE viscosity No. and applicable temperature</p>	
Front differential oil capacity	1.1 — 1.3 ℓ (1.2 — 1.4 US qt, 1.0 — 1.1 Imp qt)	

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B: COMPONENT

1. TORQUE CONVERTER CLUTCH AND CASE



AT-01304

- | | | |
|----------------------------------|-----------------------------------|-------------------------------------|
| (1) Pitching stopper bracket | (9) Input shaft | (17) Harness stay (Non-turbo model) |
| (2) O-ring | (10) O-ring | |
| (3) Differential oil level gauge | (11) Torque converter clutch ASSY | |
| (4) Stay | (12) Drain plug | |
| (5) Seal pipe | (13) Gasket | |
| (6) Oil pump shaft | (14) Oil seal | |
| (7) Clip | (15) Clip (Turbo model) | |
| (8) Oil drain pipe | (16) Torque converter clutch case | |

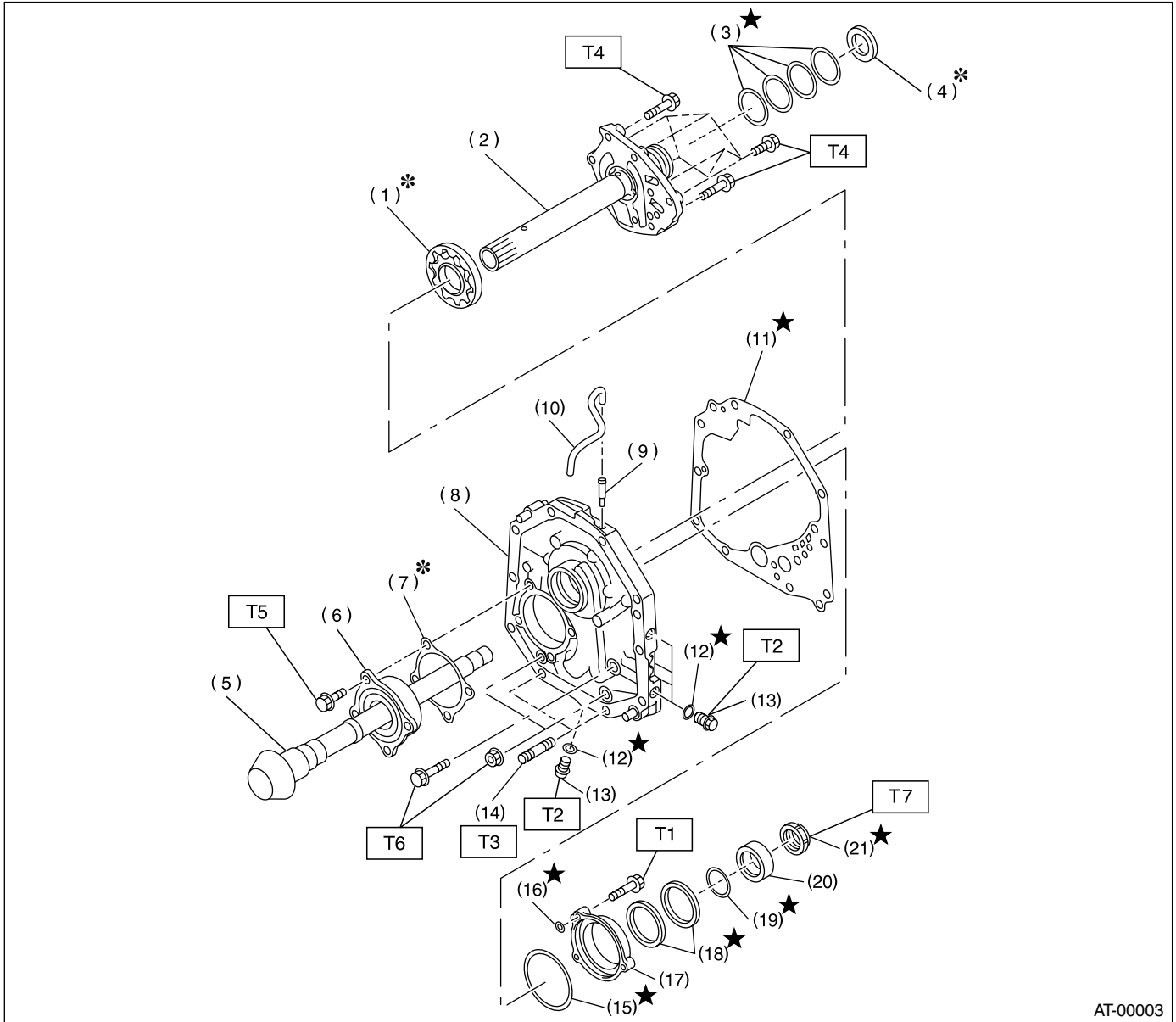
Tightening torque: N·m (kgf·m, ft·lb)

T1: 18 (1.8, 13.0)

T2: 41 (4.2, 30.4)

T3: 44 (4.5, 32.5)

2. OIL PUMP



AT-00003

- | | | |
|---------------------------|--------------------------|---------------|
| (1) Oil pump rotor | (11) Gasket | (21) Lock nut |
| (2) Oil pump cover | (12) O-ring | |
| (3) Seal ring | (13) Test plug | |
| (4) Thrust needle bearing | (14) Stud bolt | |
| (5) Drive pinion shaft | (15) O-ring | |
| (6) Roller bearing | (16) O-ring | |
| (7) Shim | (17) Oil seal retainer | |
| (8) Oil pump housing | (18) Oil seal | |
| (9) Nipple | (19) O-ring | |
| (10) Air breather hose | (20) Drive pinion collar | |

Tightening torque: N·m (kgf·m, ft·lb)

T1: 7 (0.7, 5.1)

T2: 13 (1.3, 9.4)

T3: 18 (1.8, 13.0)

T4: 25 (2.5, 18.1)

T5: 40 (4.1, 30)

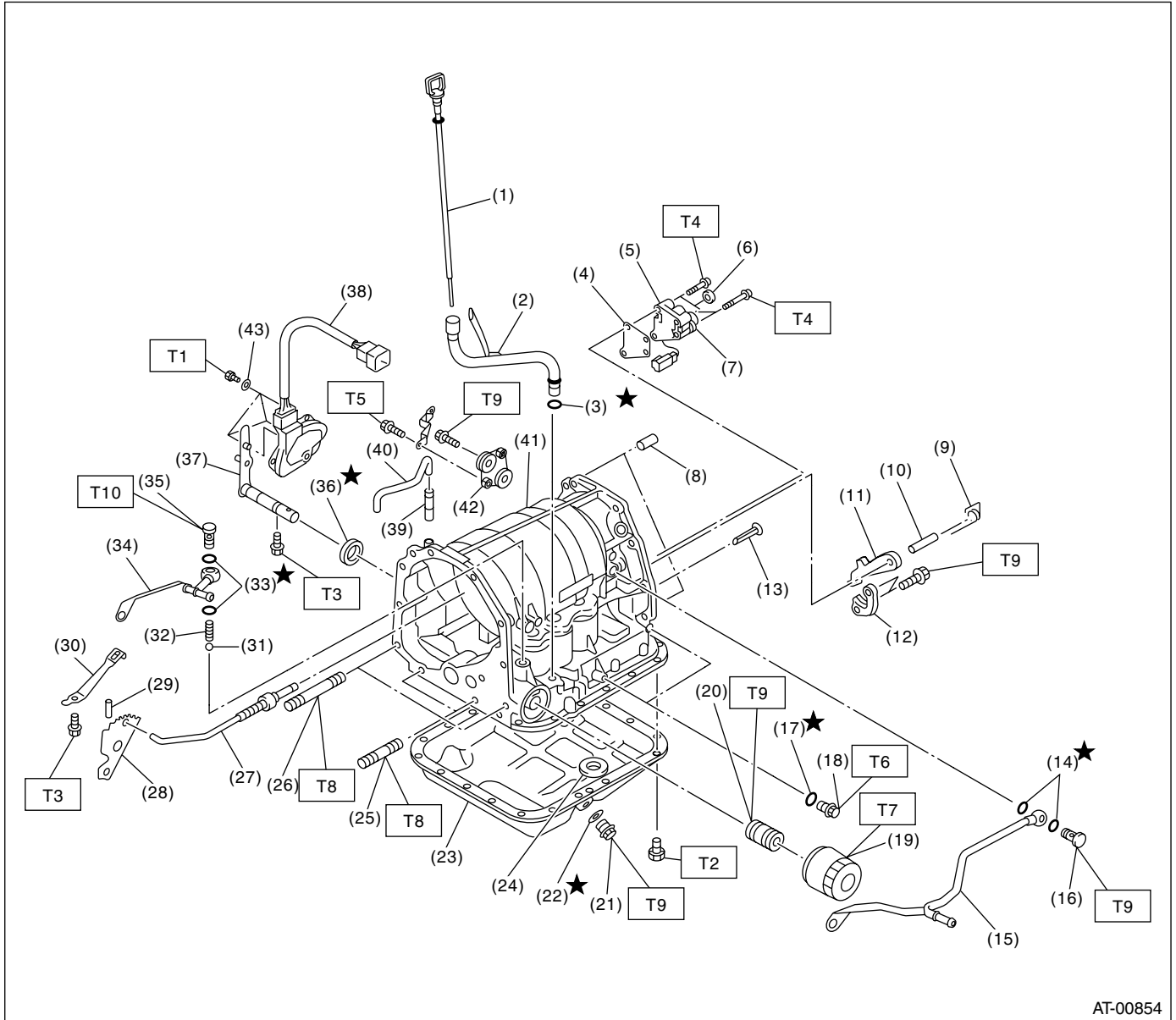
T6: 42 (4.3, 31)

T7: 116 (11.8, 85)

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3. TRANSMISSION CASE AND CONTROL DEVICE



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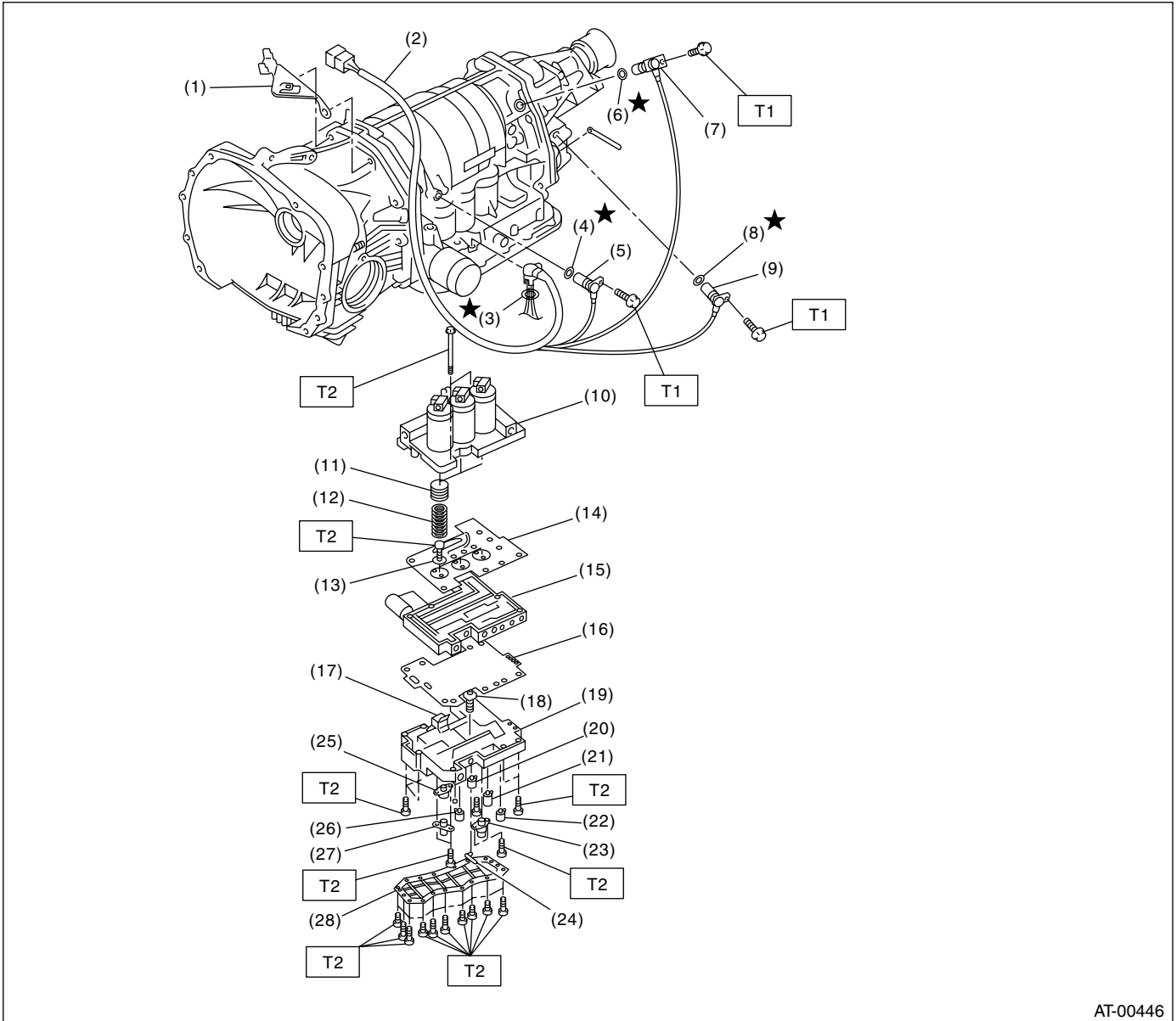
AUTOMATIC TRANSMISSION

(1) ATF level gauge	(20) Oil filter stud bolt	(39) Nipple
(2) ATF charger pipe	(21) Drain plug	(40) Air breather hose
(3) O-ring	(22) Gasket	(41) Transmission case
(4) Transfer valve plate	(23) Oil pan	(42) Plate ASSY
(5) Transfer valve ASSY	(24) Magnet	(43) Washer
(6) Transfer clutch seal	(25) Stud bolt (Short)	
(7) Transfer duty solenoid	(26) Stud bolt (Long)	<hr/> Tightening torque: N·m (kgf-m, ft-lb)
(8) Straight pin	(27) Parking rod	T1: 3.5 (0.36, 2.6)
(9) Return spring	(28) Manual plate	T2: 5 (0.5, 3.6)
(10) Shaft	(29) Spring pin	T3: 6 (0.6, 4)
(11) Parking pawl	(30) Detention spring	T4: 8 (0.8, 6)
(12) Parking support	(31) Ball	T5: 12 (1.2, 8.7)
(13) Inlet filter	(32) Spring	T6: 13 (1.3, 10)
(14) Gasket	(33) Gasket	T7: 14 (1.4, 10)
(15) Inlet pipe	(34) Outlet pipe	T8: 18 (1.8, 13)
(16) Union screw	(35) Union screw	T9: 25 (2.6, 18)
(17) O-ring	(36) Oil seal	T10: 44 (4.5, 32.5)
(18) Test plug	(37) Select lever	<hr/>
(19) Oil filter	(38) Inhibitor switch ASSY	

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4. CONTROL VALVE AND HARNESS ROUTING



- | | | |
|---|-------------------------|----------------------------------|
| (1) Stay | (11) Accumulator piston | (22) 2-4 brake timing solenoid |
| (2) Transmission harness | (12) Accumulator spring | (23) 2-4 brake duty solenoid |
| (3) O-ring | (13) Side plate | (24) ATF temperature sensor |
| (4) O-ring | (14) Separate plate | (25) Line pressure duty solenoid |
| (5) Torque converter turbine speed sensor | (15) Middle valve body | (26) Low clutch timing solenoid |
| (6) O-ring | (16) Separate plate | (27) Lock-up duty solenoid |
| (7) Front vehicle speed sensor | (17) Fluid filter | (28) Oil strainer |
| (8) O-ring | (18) Fluid filter | |
| (9) Rear vehicle speed sensor | (19) Lower valve body | |
| (10) Upper valve body | (20) Shift solenoid 2 | |
| | (21) Shift solenoid 1 | |

Tightening torque: N·m (kgf-m, ft-lb)

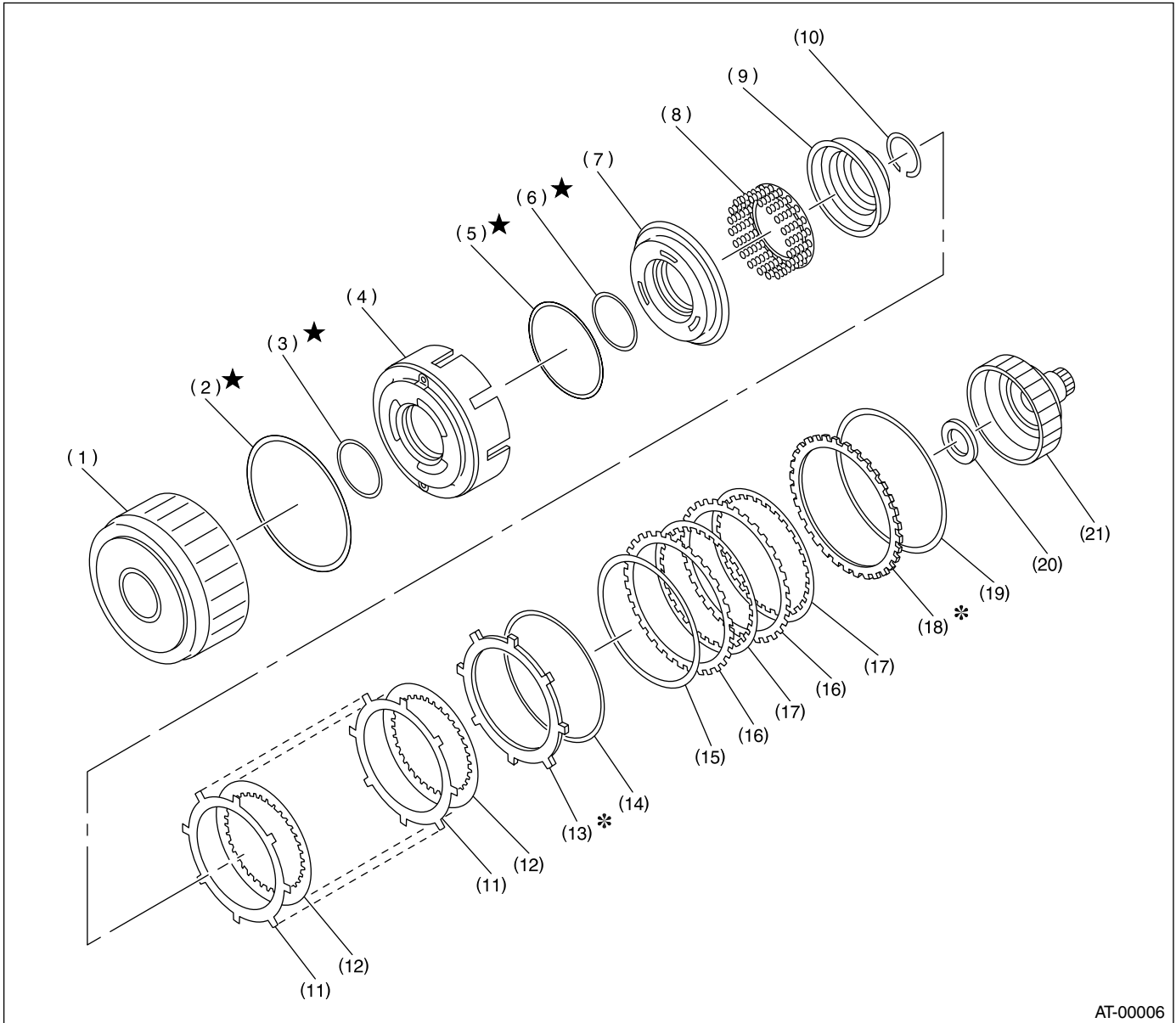
T1: 7 (0.7, 5.1)

T2: 8 (0.8, 5.8)

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5. HIGH CLUTCH AND REVERSE CLUTCH



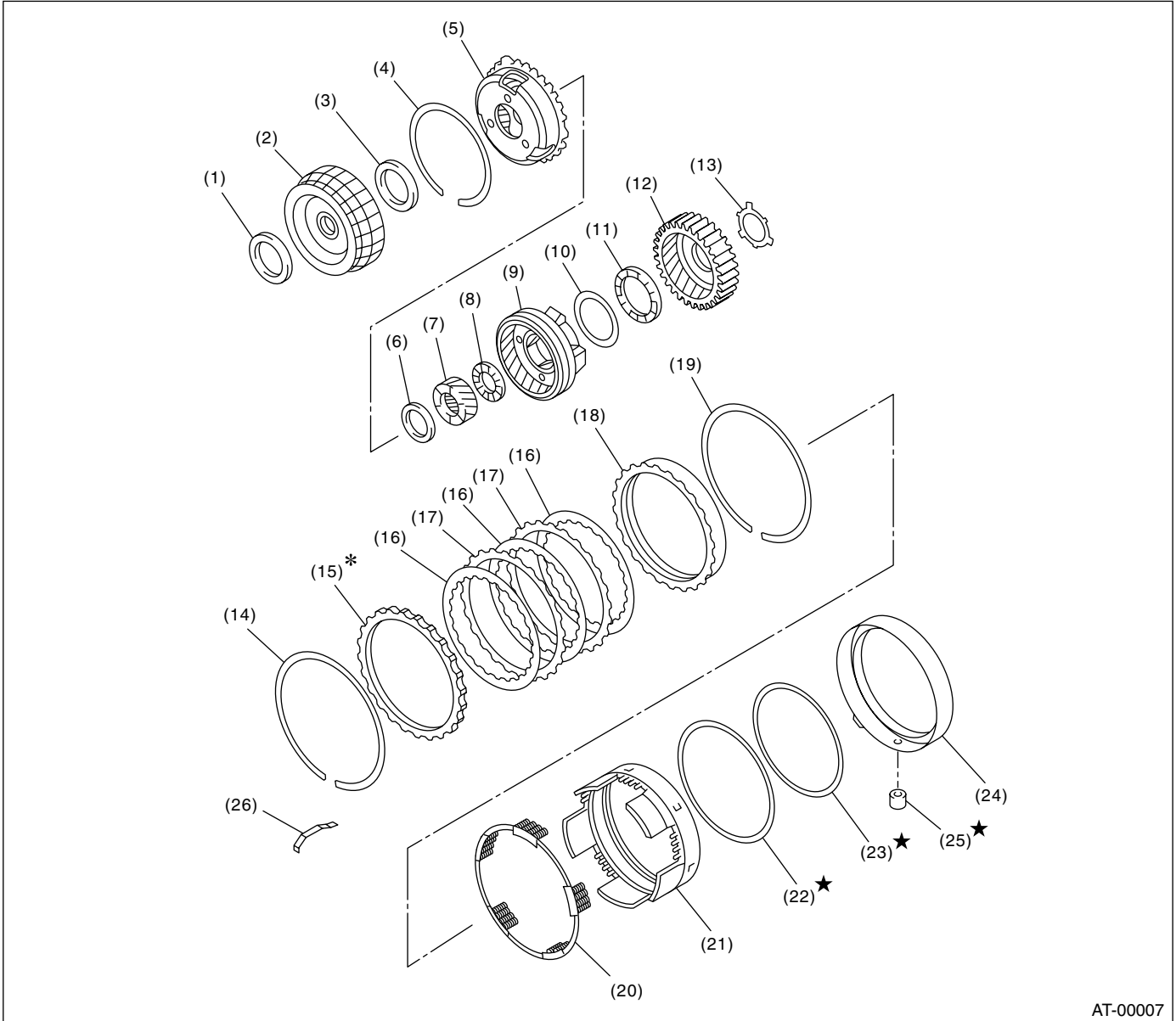
AT-00006

- | | | |
|---------------------------|----------------------|----------------------------|
| (1) High clutch drum | (8) Spring retainer | (15) Dish plate |
| (2) Lip seal | (9) Cover | (16) Driven plate |
| (3) D-ring | (10) Snap ring | (17) Drive plate |
| (4) Reverse clutch piston | (11) Driven plate | (18) Retaining plate |
| (5) D-ring | (12) Drive plate | (19) Snap ring |
| (6) D-ring | (13) Retaining plate | (20) Thrust needle bearing |
| (7) High clutch piston | (14) Snap ring | (21) High clutch hub |

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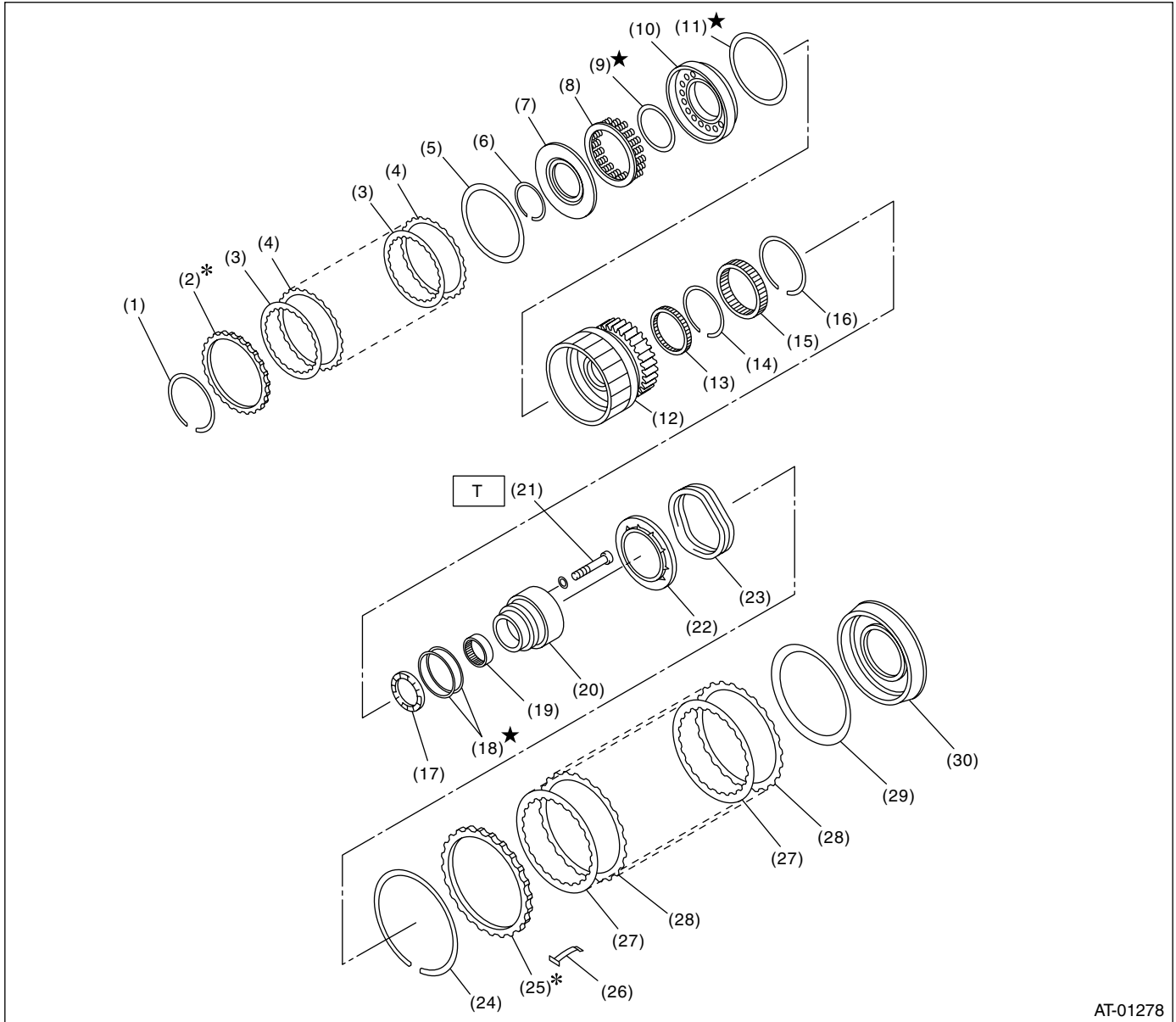
6. PLANETARY GEAR AND 2-4 BRAKE



AT-00007

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|-----------------------------|----------------------------|--------------------------------|
| (1) Thrust needle bearing | (10) Washer | (19) Snap ring |
| (2) Front sun gear | (11) Thrust needle bearing | (20) Spring retainer |
| (3) Thrust needle bearing | (12) Rear internal gear | (21) 2-4 brake piston |
| (4) Snap ring | (13) Washer | (22)* D-ring |
| (5) Front planetary carrier | (14) Snap ring | (23) D-ring |
| (6) Thrust needle bearing | (15)* Retaining plate | (24) 2-4 brake piston retainer |
| (7) Rear sun gear | (16) Drive plate | (25)* 2-4 brake seal |
| (8) Thrust needle bearing | (17) Driven plate | (26) Leaf spring |
| (9) Rear planetary carrier | (18) Pressure rear plate | |

7. LOW CLUTCH AND LOW & REVERSE BRAKE



AT-01278

- | | | |
|------------------------|--------------------------------|---------------------------------|
| (1) Snap ring | (12) Low clutch drum | (23) Return spring |
| (2) Retaining plate | (13) Needle bearing | (24) Snap ring |
| (3) Drive plate | (14) Snap ring | (25) Retaining plate |
| (4) Driven plate | (15) One-way clutch | (26) Leaf spring |
| (5) Dish plate | (16) Snap ring | (27) Drive plate |
| (6) Snap ring | (17) Thrust needle bearing | (28) Driven plate |
| (7) Cover | (18) Seal ring | (29) Dish plate |
| (8) Spring retainer | (19) Needle bearing | (30) Low & reverse brake piston |
| (9) D-ring | (20) One-way clutch inner race | |
| (10) Low clutch piston | (21) Socket bolt | |
| (11) D-ring | (22) Spring retainer | |

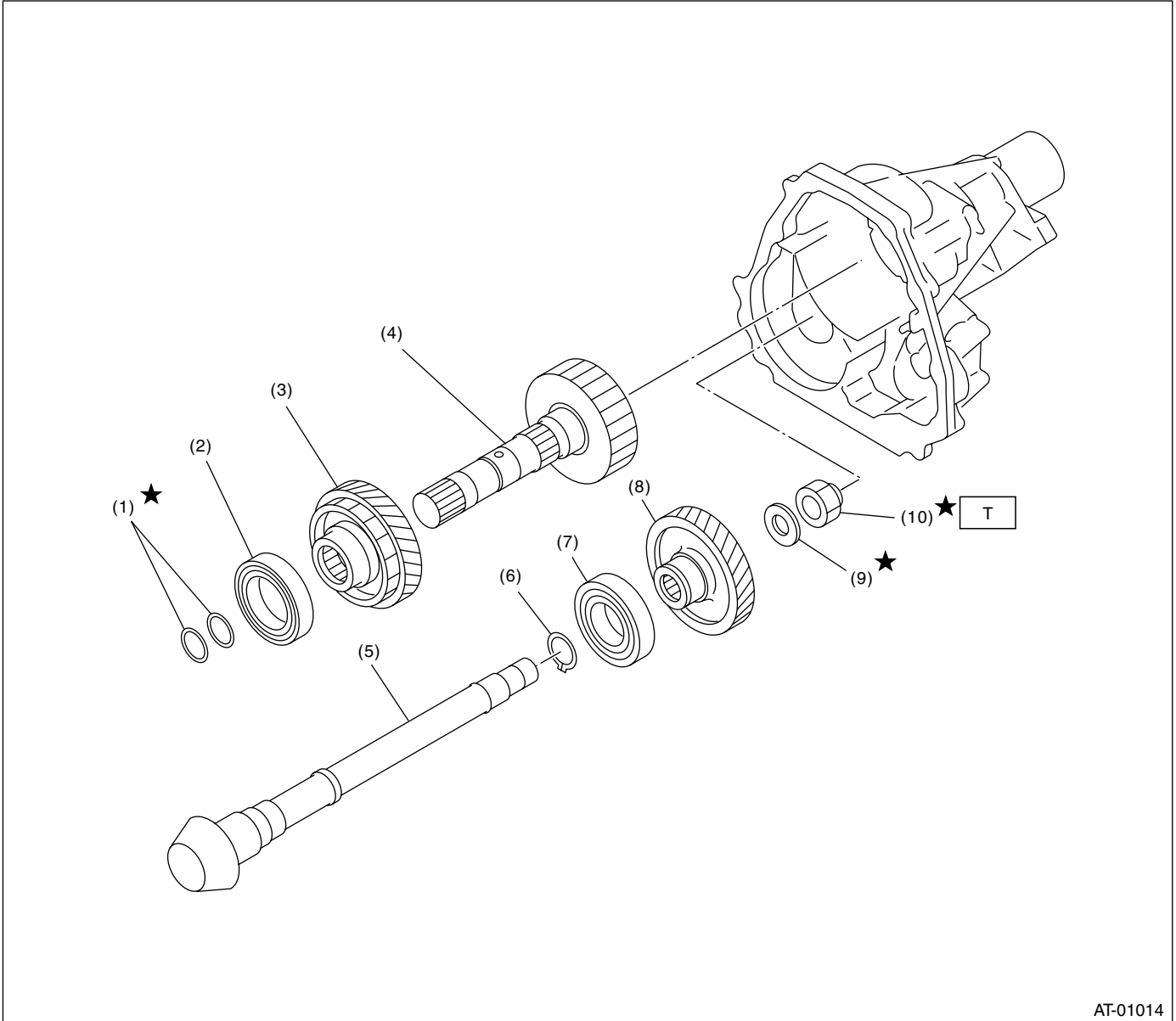
Tightening torque: N·m (kgf·m, ft·lb)

T: 25 (2.5, 18.1)

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8. REDUCTION GEAR WITH MPT

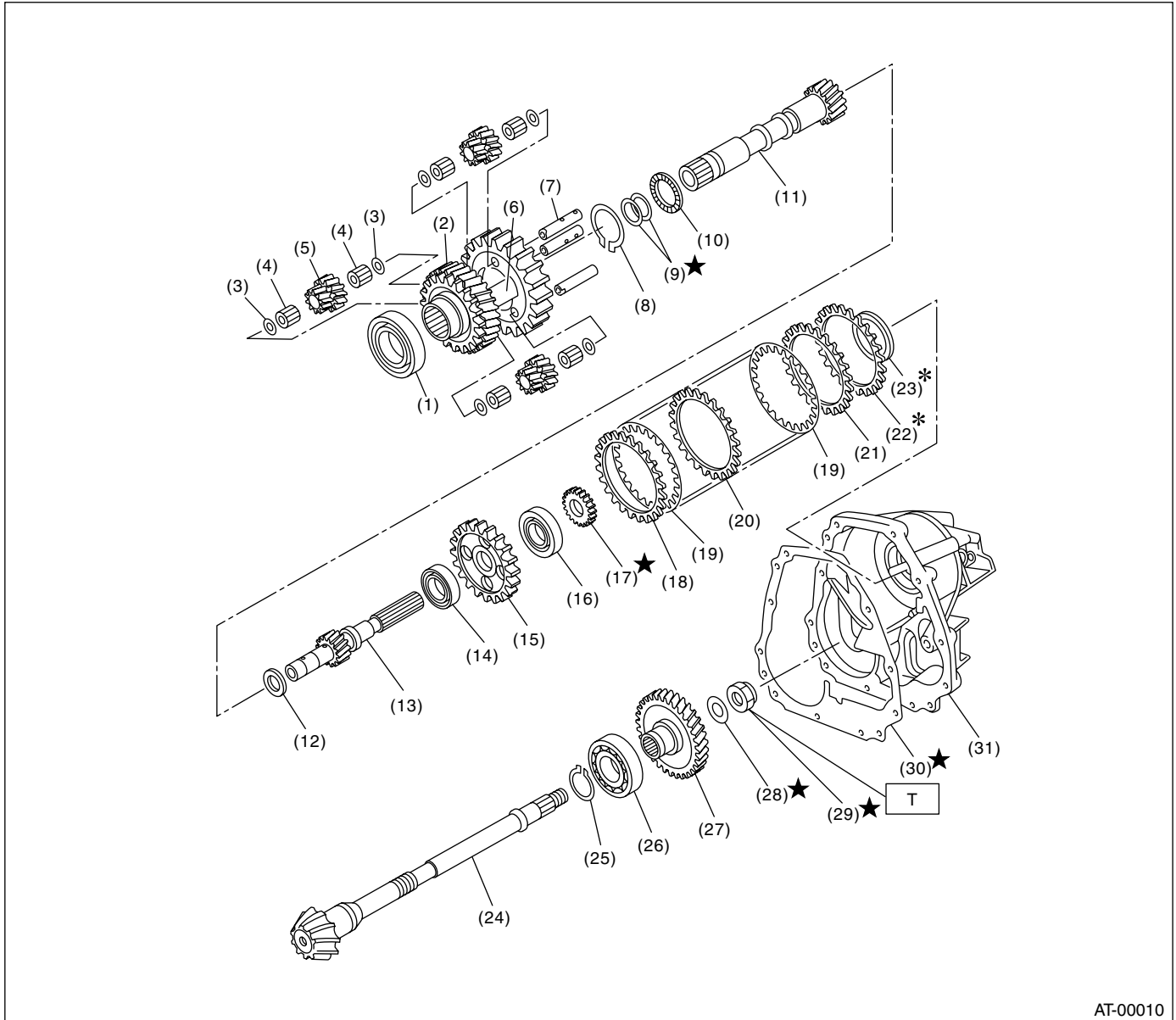


- | | |
|---------------------------|---------------------------|
| (1) Seal ring | (6) Snap ring |
| (2) Ball bearing | (7) Ball bearing |
| (3) Reduction drive gear | (8) Reduction driven gear |
| (4) Reduction drive shaft | (9) Washer |
| (5) Drive pinion shaft | (10) Lock nut |

Tightening torque: N·m (kgf·m, ft·lb)

T: 100 (10.2, 73.8)

9. REDUCTION GEAR WITH VTD



AT-00010

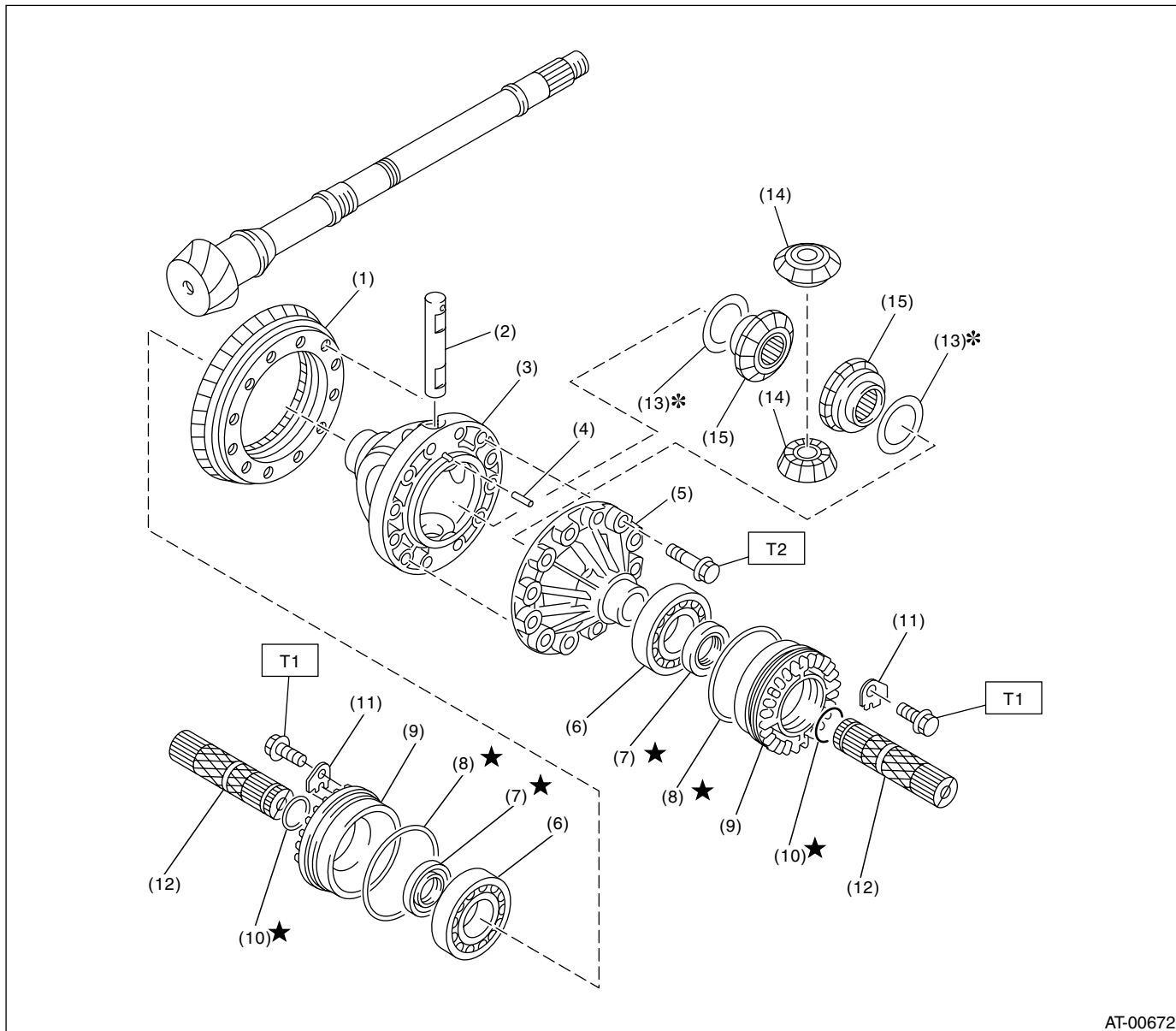
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|----------------------------|-----------------------------------|----------------------------|
| (1) Ball bearing | (13) Rear drive shaft | (25) Snap ring |
| (2) Reduction drive gear | (14) Ball bearing | (26) Ball bearing |
| (3) Washer | (15) Multi-plate clutch (LSD) hub | (27) Reduction driven gear |
| (4) Needle bearing | (16) Ball bearing | (28) Lock washer |
| (5) Pinion gear | (17) Revolution gear | (29) Lock nut |
| (6) Carrier | (18) Driven plate (Thick) | (30) Gasket |
| (7) Planetary pinion shaft | (19) Driven plate | (31) Extension case |
| (8) Snap ring | (20) Driven plate (Thin) | |
| (9) Seal ring | (21) Driven plate (Thick) | |
| (10) Thrust needle bearing | (22) Pressure plate | |
| (11) Intermediate shaft | (23) Rear drive shaft shim | |
| (12) Thrust washer | (24) Drive pinion shaft | |

Tightening torque: N·m (kgf-m, ft-lb)
T: 100 (10.2, 73.8)

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10. DIFFERENTIAL GEAR



AT-00672

- | | |
|----------------------------|--------------------------------|
| (1) Crown gear | (8) O-ring |
| (2) Pinion shaft | (9) Differential side retainer |
| (3) Differential case (RH) | (10) Circlip |
| (4) Straight pin | (11) Lock plate |
| (5) Differential case (LH) | (12) Axle shaft |
| (6) Taper roller bearing | (13) Washer |
| (7) Oil seal | (14) Differential bevel pinion |

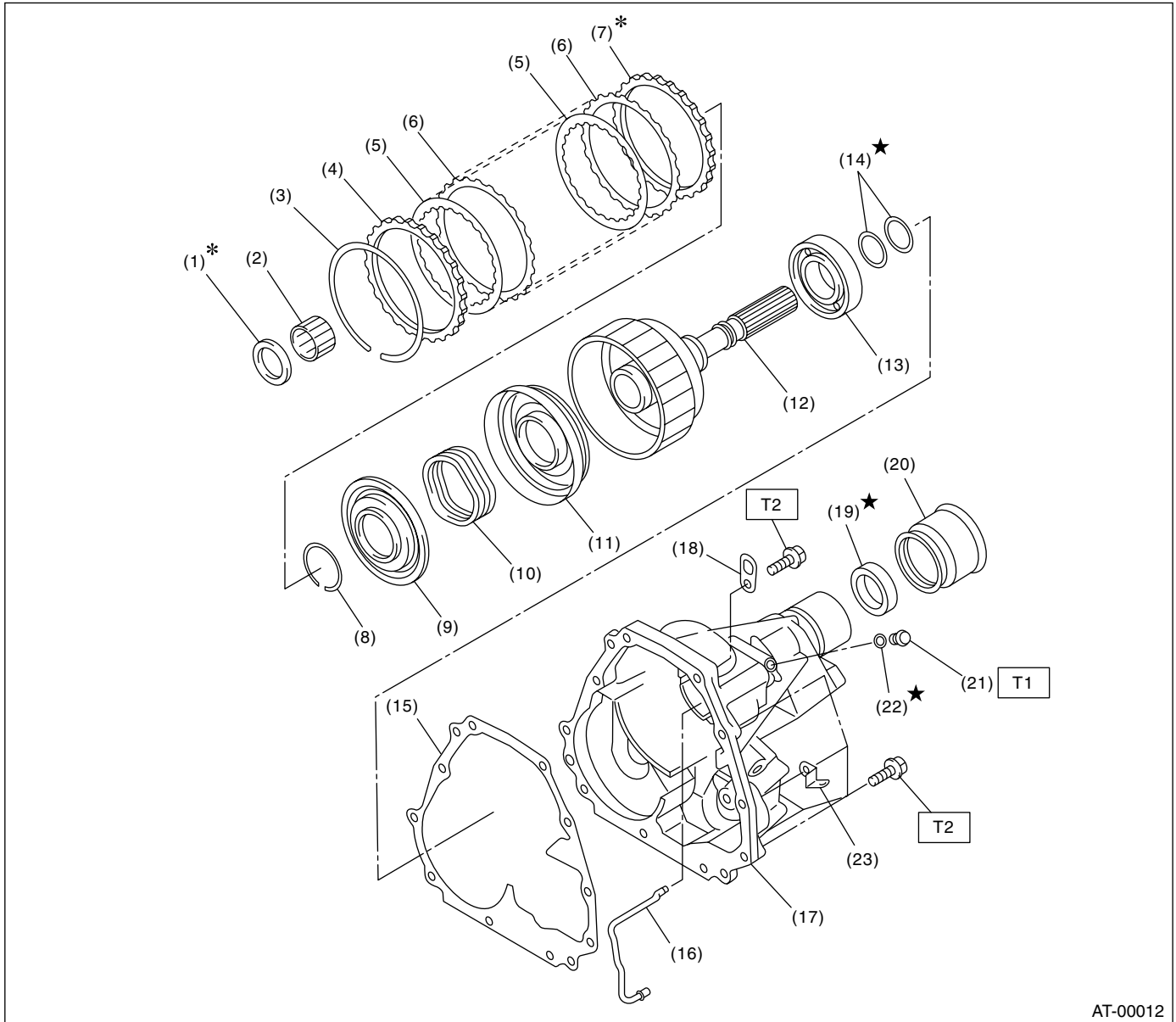
- (15) Differential bevel gear

Tightening torque: N·m (kgf·m, ft·lb)

T1: 25 (2.5, 18.1)

T2: 62 (6.3, 45.6)

11. TRANSFER AND EXTENSION CASE WITH MPT



AT-00012

- (1) Thrust needle bearing
- (2) Needle bearing
- (3) Snap ring
- (4) Pressure plate
- (5) Drive plate
- (6) Driven plate
- (7) Retaining plate
- (8) Snap ring
- (9) Transfer piston seal

- (10) Return spring
- (11) Transfer clutch piston
- (12) Rear drive shaft
- (13) Ball bearing
- (14) Seal ring
- (15) Gasket
- (16) Transfer clutch pipe
- (17) Extension case
- (18) Transmission hanger

- (19) Oil seal
- (20) Dust cover
- (21) Test plug
- (22) O-ring
- (23) Clip

Tightening torque: N·m (kgf·m, ft·lb)

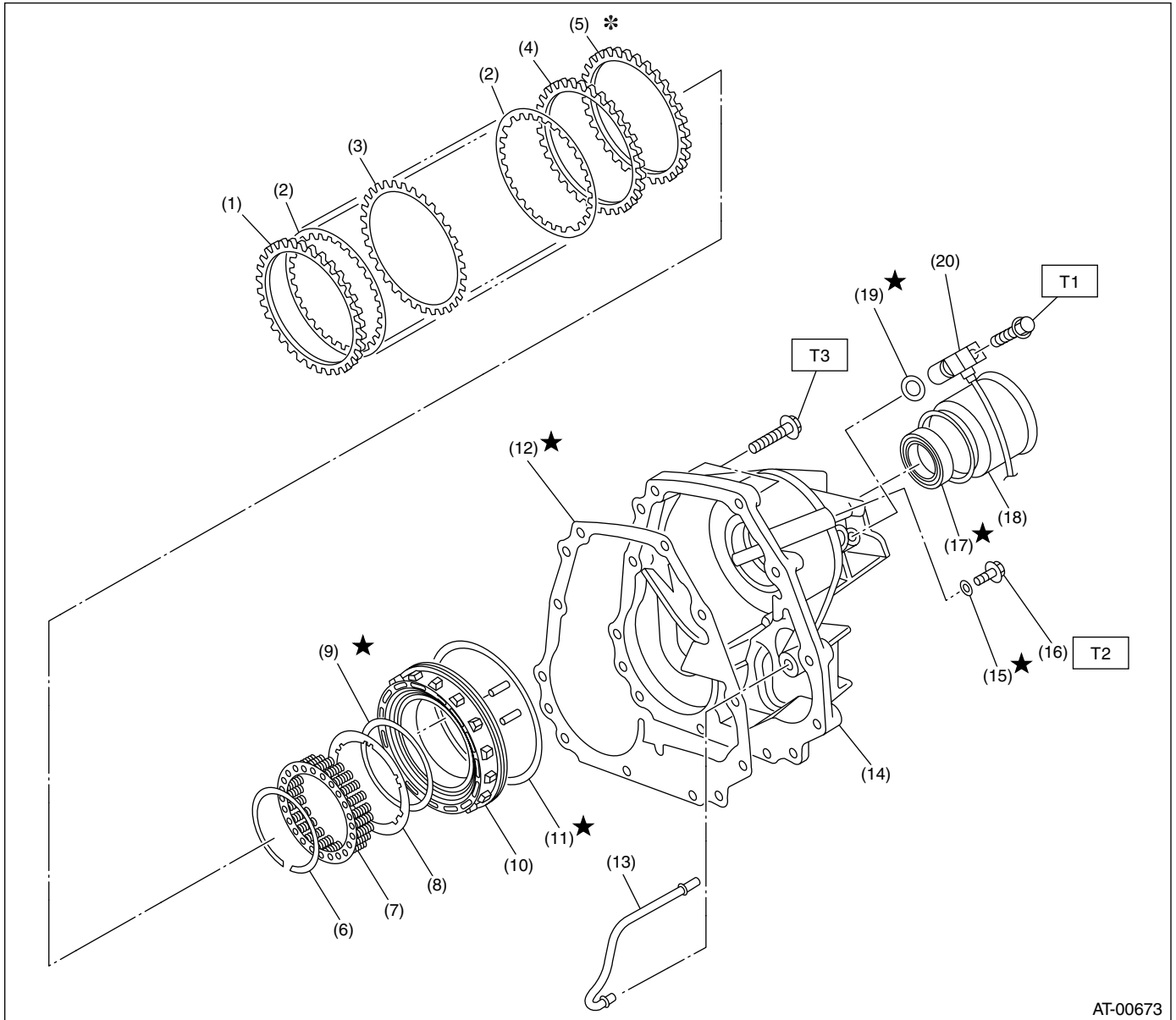
T1: 13 (1.3, 9.4)

T2: 25 (2.5, 18.1)

GENERAL DESCRIPTION

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12. TRANSFER AND EXTENSION CASE WITH VTD



AT-00673

- | | | |
|--------------------------|--------------------------------------|------------------------|
| (1) Driven plate (Thick) | (10) Multi-plate clutch (LSD) piston | (19) O-ring |
| (2) Driven plate | (11) D-ring | (20) Rear wheel sensor |
| (3) Driven plate (Thin) | (12) Gasket | |
| (4) Driven plate (Thick) | (13) Multi-plate clutch (LSD) pipe | |
| (5) Retaining plate | (14) Extension case | |
| (6) Snap ring | (15) O-ring | |
| (7) Spring retainer | (16) Test plug | |
| (8) Plate | (17) Oil seal | |
| (9) O-ring | (18) Dust cover | |

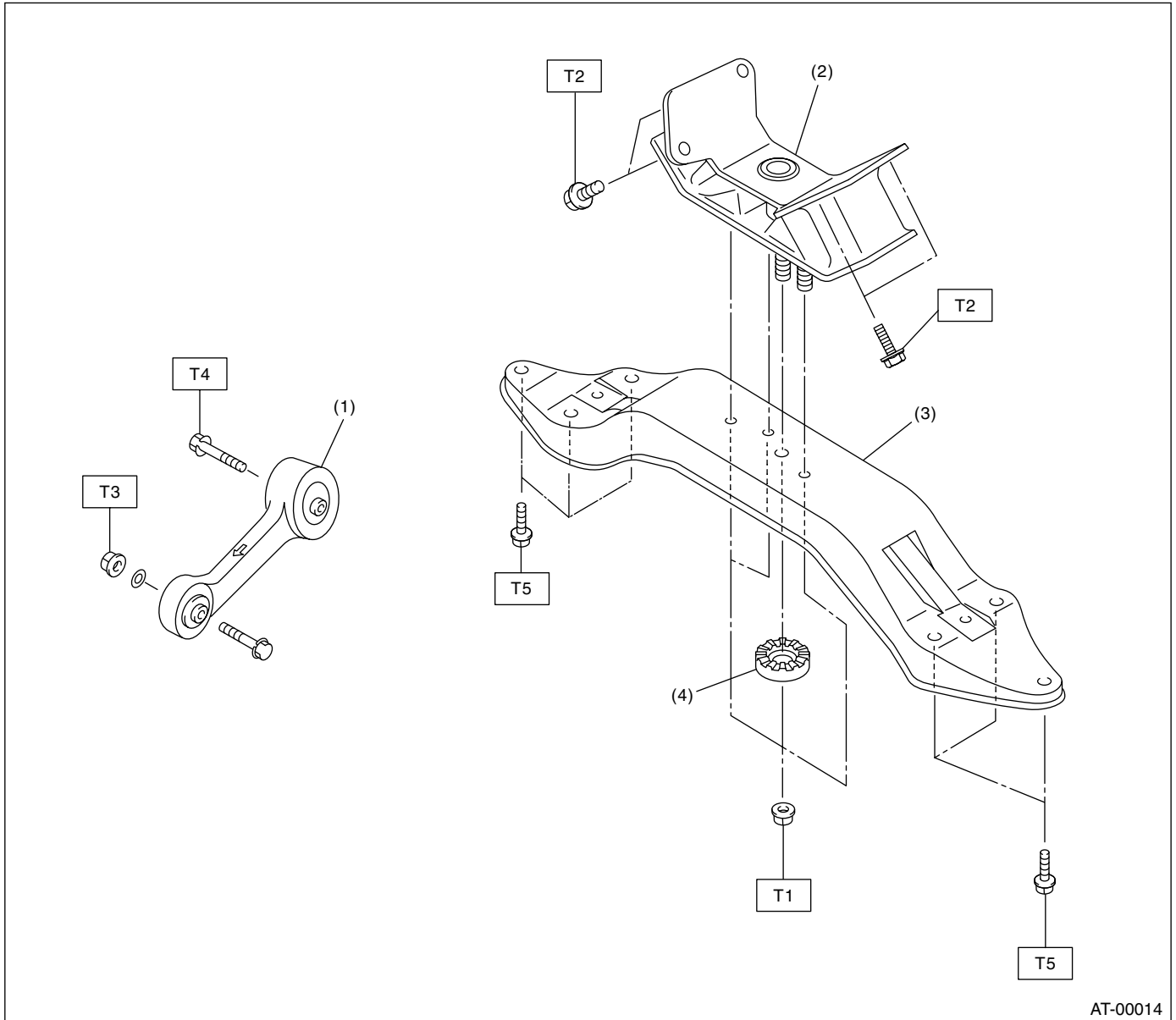
Tightening torque: N·m (kgf·m, ft·lb)

T1: 7 (0.7, 5.1)

T2: 13 (1.3, 9.4)

T3: 25 (2.5, 18.1)

13. TRANSMISSION MOUNTING



AT-00014

- | | |
|-------------------------|-----------------|
| (1) Pitching stopper | (3) Crossmember |
| (2) Rear cushion rubber | (4) Stopper |

Tightening torque: N-m (kgf-m, ft-lb)

T1: 35 (3.6, 26)

T2: 39 (4.0, 29)

T3: 50 (5.1, 37)

T4: 58 (5.9, 43)

T5: 70 (7.1, 51)

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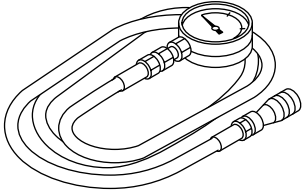
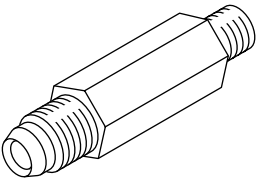
C: CAUTION

- Wear working clothing, including a cap, protective goggles, and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation, and disassembly.
- Keep the disassembled parts in order and protect them from dust or dirt.
- Until the oil pan is removed, do not place with the oil pan side facing up to prevent foreign matter from entering the valve body.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- When disassembling the case and other light alloy parts, use a plastic hammer to force it apart. Do not pry it apart with a screwdriver or other tool.
- Be careful not to burn your hands, because each part on the vehicle is hot after running.

- Use SUBARU genuine gear oil, grease etc. or the equivalent. Do not mix gear oil, grease etc. with that of another grade or from other manufacturers.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or safety stands at the specified points.
- Apply gear oil onto sliding or revolution surfaces before installation.
- Replace deformed or otherwise damaged snap rings with new ones.
- Before installing O-rings or oil seals, apply sufficient amount of ATF fluid to avoid damage and deformation.
- Be careful not to incorrectly install or fail to install O-rings, snap rings and other such parts.
- Before securing a part on a vise, place cushioning material such as wood blocks, aluminum plate, or shop cloth between the part and the vise.
- Avoid damaging the mating surface of the case.
- Before applying sealant, completely remove the old seal.

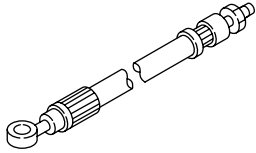
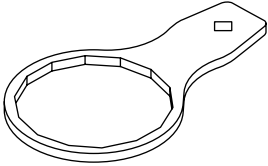
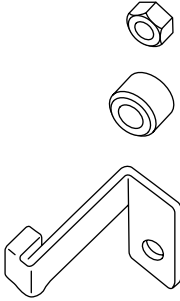
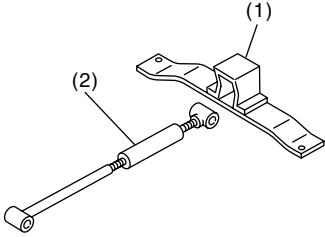
D: PREPARATION TOOL

1. SPECIAL TOOLS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-498575400</p>	498575400	OIL PRESSURE GAUGE ASSY	Used for measuring oil pressure.
 <p>ST-498897200</p>	498897200	ADAPTER	Used oil pump housing when measuring reverse clutch pressure and line pressure.

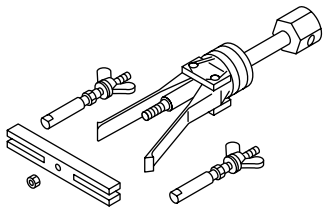
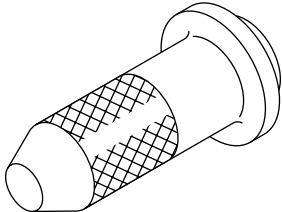
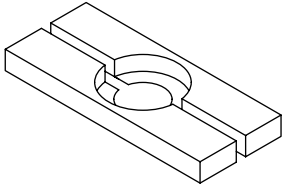
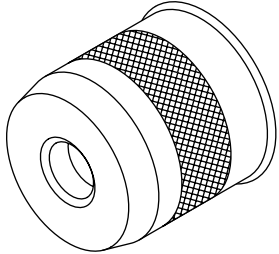
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ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-498897700</p>	498897700	ADAPTER SET	Used for measuring transfer clutch pressure.
 <p style="text-align: center;">ST-498545400</p>	498545400	FILTER WRENCH	Used for removing and installing ATF filter.
 <p style="text-align: center;">ST-498277200</p>	498277200	STOPPER SET	Used for removing and installing automatic transmission assembly to engine.
 <p style="text-align: center;">ST41099AA000</p>	41099AA000	ENGINE SUPPORT ASSY	Used for supporting engine. (1) ENGINE SUPPORT BRACKET (41099AA010) (2) ENGINE SUPPORT (41099AA020)

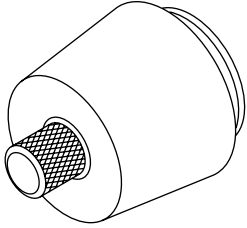
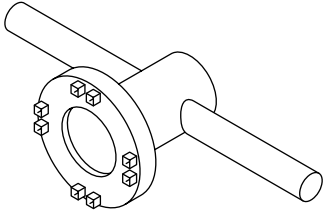
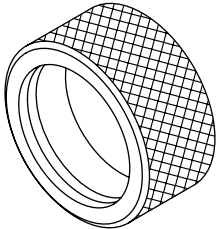
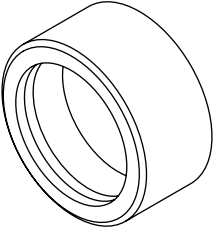
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ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-398527700</p>	398527700	PULLER ASSY	<ul style="list-style-type: none"> • Used for removing extension case roller bearing. • Used for removing extension oil seal. • Used for removing front differential side retainer bearing outer race. • Used for removing front differential side retainer bearing outer ball race.
 <p style="text-align: center;">ST-498057300</p>	498057300	INSTALLER	Used for installing extension oil seal.
 <p style="text-align: center;">ST-498077000</p>	498077000	REMOVER	Used for removing differential taper roller bearing.
 <p style="text-align: center;">ST-499247400</p>	499247400	INSTALLER	<ul style="list-style-type: none"> • Used for installing transfer outer snap ring. • Used with GUIDE (499257300).

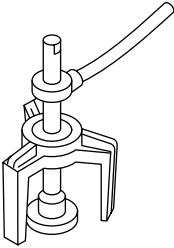
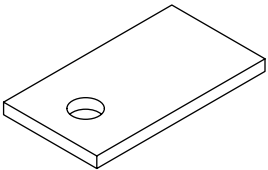
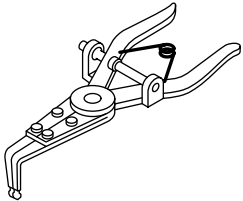
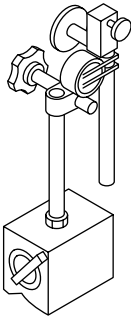
GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-499257300</p>	<p style="text-align: center;">499257300</p>	<p>SNAP RING OUTER GUIDE</p>	<ul style="list-style-type: none"> • Used for installing transfer outer snap ring. • Used with INSTALLER (499247400).
 <p style="text-align: center;">ST-499787000</p>	<p style="text-align: center;">499787000</p>	<p>WRENCH ASSY</p>	<p>Used for removing and installing differential side retainer.</p>
 <p style="text-align: center;">ST-398437700</p>	<p style="text-align: center;">398437700</p>	<p>DRIFT</p>	<p>Used for installing converter case oil seal.</p>
 <p style="text-align: center;">ST-398487700</p>	<p style="text-align: center;">398487700</p>	<p>INSTALLER</p>	<p>Used for installing taper roller bearing of front differential.</p>

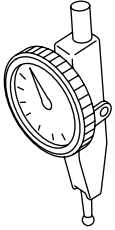
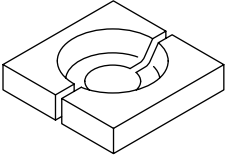
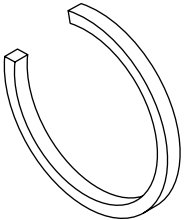
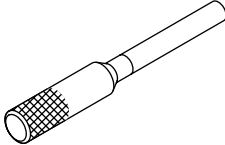
GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-398673600</p>	398673600	COMPRESSOR	Used for removing and installing clutch spring.
 <p style="text-align: center;">ST-498255400</p>	498255400	PLATE	Used for measuring backlash of hypoid gear.
 <p style="text-align: center;">ST-399893600</p>	399893600	PLIERS	Used for removing and installing clutch spring.
 <p style="text-align: center;">ST-498247001</p>	498247001	MAGNET BASE	<ul style="list-style-type: none"> • Used for measuring gear backlash. • Used with DIAL GAUGE (498247100).

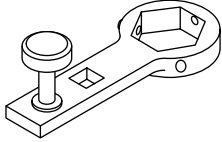
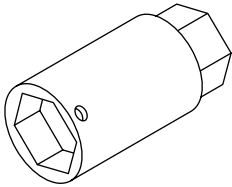
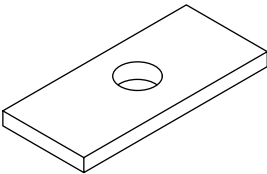
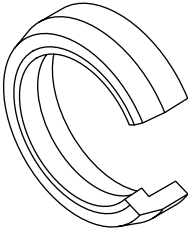
GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-498247100</p>	498247100	DIAL GAUGE	<ul style="list-style-type: none"> • Used for measuring gear backlash. • Used with MAGNET BASE (498247001).
 <p>ST-498517000</p>	498517000	REPLACER	Used for removing front roller bearing.
 <p>ST-398623600</p>	398623600	SEAT	Used for removing spring of transfer clutch piston.
 <p>ST-499267300</p>	499267300	STOPPER PIN	Used for installing inhibitor switch.

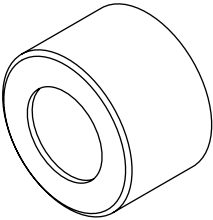
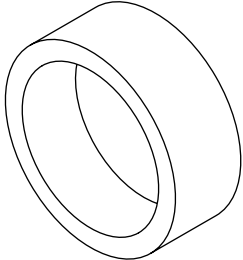
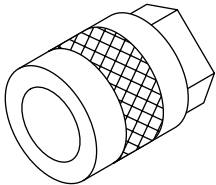
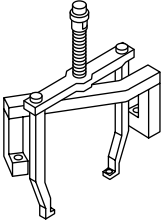
GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-499787700</p>	499787700	WRENCH	Used for removing and installing drive pinion lock nut.
 <p style="text-align: center;">ST-499787500</p>	499787500	ADAPTER	Used for removing and installing drive pinion lock nut.
 <p style="text-align: center;">ST-398643600</p>	398643600	GAUGE	Used for measuring total end play, extension end play and drive pinion height.
 <p style="text-align: center;">ST-498627100</p>	498627100	SEAT	Used for holding low clutch piston retainer spring when installing snap ring.

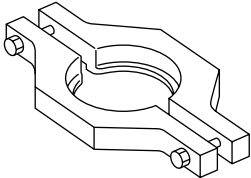
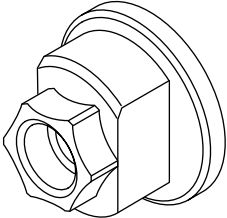
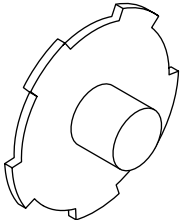
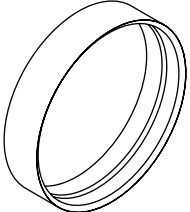
GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-499577000</p>	<p style="text-align: center;">499577000</p>	<p style="text-align: center;">GAUGE</p>	<ul style="list-style-type: none"> • Used for measuring the transmission case mating surface to the reduction gear end surface. • For MPT model.
 <p style="text-align: center;">ST-398744300</p>	<p style="text-align: center;">398744300</p>	<p style="text-align: center;">GAUGE</p>	<ul style="list-style-type: none"> • Use for measuring contact face between multi-plate clutch end and transmission. • For VTD model.
 <p style="text-align: center;">ST-499737000</p>	<p style="text-align: center;">499737000</p>	<p style="text-align: center;">PULLER</p>	<p>Used for removing reduction driven gear assembly.</p>
 <p style="text-align: center;">ST-499737100</p>	<p style="text-align: center;">499737100</p>	<p style="text-align: center;">PULLER SET</p>	<p>Used for removing reduction drive gear assembly.</p>

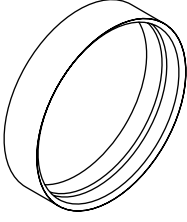
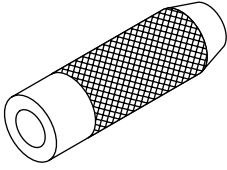
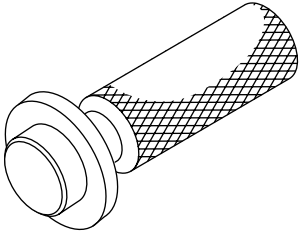
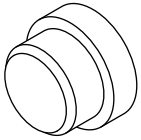
GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-498077600</p>	498077600	REMOVER	Used for removing ball bearing.
 <p style="text-align: center;">ST-498937110</p>	498937110	HOLDER	Used for removing and installing drive pinion lock nut.
 <p style="text-align: center;">ST-498677100</p>	498677100	COMPRESSOR	Used for installing 2-4 brake snap ring.
 <p style="text-align: center;">ST-498437000</p>	498437000	HIGH CLUTCH PIS- TON GUIDE	Used for installing high clutch piston.

GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-498437100</p>	<p style="text-align: center;">498437100</p>	<p>LOW CLUTCH PISTON GUIDE</p>	<p>Used for installing low clutch piston.</p>
 <p style="text-align: center;">ST-899580100</p>	<p style="text-align: center;">899580100</p>	<p>INSTALLER</p>	<p>Used for press-fitting the ball bearing for transfer clutch.</p>
 <p style="text-align: center;">ST-499797000</p>	<p style="text-align: center;">499797000</p>	<p>INSTALLER</p>	<p>Used for installing differential side retainer oil seal.</p>
 <p style="text-align: center;">ST-398497701</p>	<p style="text-align: center;">398497701</p>	<p>SEAT</p>	<p>Used for installing needle bearing.</p>

GENERAL DESCRIPTION

AUTOMATIC TRANSMISSION

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
<p style="text-align: center;">ST-899524100</p>	899524100	PULLER SET	<ul style="list-style-type: none"> • Using the bolt only. (1) Bolt • Used with PULLER SET (499737100). • Used with PULLER (499737000). (1) Puller (2) Cap
<p style="text-align: center;">ST24082AA230</p>	24082AA230 (Newly adapted tool)	CARTRIDGE	Troubleshooting for electrical systems.
<p style="text-align: center;">ST22771AA030</p>	22771AA030	SUBARU SELECT MONITOR KIT	Troubleshooting for electrical systems.

2. GENERAL PURPOSE TOOLS

TOOL NAME	REMARKS
Depth gauge	Used for measuring transmission end play.
Thickness gauge	Used for measuring clearances of clutch, brake and oil pump.
Micro meter	Used for measuring thickness of drive pinion.
Spring balance	Used for measuring starting torque of drive pinion.
Circuit tester	Used for measuring resistance and voltage.
TORX® T70	Used for removing and installing differential gear oil drain plug.