

# GENERAL DESCRIPTION

Manual Transmission and Differential

## 1. General Description S503001

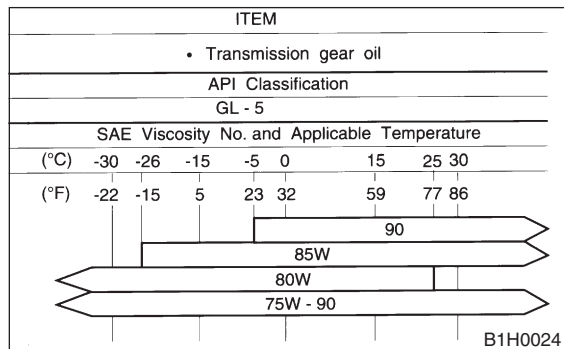
### A: SPECIFICATIONS S503001E49

#### 1. MANUAL TRANSMISSION AND DIFFERENTIAL S503001E4901

Item		Model	
		AWD	
		2200 cc	2500 cc
Type		5-forward speeds with synchromesh and 1-reverse	
Transmission gear ratio	1st	3.545	
	2nd	2.111	
	3rd	1.448	
	4th	1.088	
	5th	0.780	
	Reverse	3.333	
Front reduction gear	Final	Type of gear	Hypoid
		Gear ratio	3.900 4.111
Rear reduction gear	Transfer	Type of gear	Helical
		Gear ratio	1.000
	Final	Type of gear	Hypoid
		Gear ratio	3.900 4.111
Front differential	Type and number of gear		Straight bevel gear (Bevel pinion: 2, Bevel gear: 2)
Center differential	Type and number of gear		Straight bevel gear (Bevel pinion: 2, Bevel gear: 2 and viscous coupling)
Transmission gear oil		GL-5	
Transmission oil capacity		3.5 ℓ (3.7 US qt, 3.1 Imp qt)	

## 2. TRANSMISSION GEAR OIL S503001E4902

### Recommended oil



## 3. TRANSMISSION CASE ASSEMBLY S503001E4903

### Drive pinion shim adjustment

Drive pinion shim			
Part No.	Thickness mm (in)	Part No.	Thickness mm (in)
32295AA031	0.150 (0.0059)	32295AA071	0.250 (0.0098)
32295AA041	0.175 (0.0069)	32295AA081	0.275 (0.0108)
32295AA051	0.200 (0.0079)	32295AA091	0.300 (0.0118)
32295AA061	0.225 (0.0089)	32295AA101	0.500 (0.0197)

### Hypoid gear backlash

0.13 — 0.18 mm (0.0051 — 0.0071 in)

### Selection of main shaft rear plate

Main shaft rear plate		
Dimension "A" mm (in)	Part No.	Mark
4.00 — 4.13 (0.1575 — 0.1626)	32294AA041	1
3.87 — 3.99 (0.1524 — 0.1571)	32294AA051	2

## 4. DRIVE PINION ASSEMBLY S503001E4904

Preload adjustment of thrust bearing

Starting torque

0.3 — 0.8 N·m

(0.03 — 0.08 kgf-m, 0.2 — 0.6 ft-lb)

Adjusting washer No. 1	
Part No.	Thickness mm (in)
803025051	3.925 (0.1545)
803025052	3.950 (0.1555)
803025053	3.975 (0.1565)
803025054	4.000 (0.1575)
803025055	4.025 (0.1585)
803025056	4.050 (0.1594)
803025057	4.075 (0.1604)

Adjusting washer No. 2	
Part No.	Thickness mm (in)
803025059	3.850 (0.1516)
803025054	4.000 (0.1575)
803025058	4.150 (0.1634)

## 5. REVERSE IDLER GEAR S503001E4905

Adjustment of reverse idler gear position

Reverse idler gear to transmission case (LH) wall clearance

6.0 — 7.5 mm (0.236 — 0.295 in)

Reverse shifter lever		
Part No.	Mark	Remarks
32820AA070	7	Further from case wall
32820AA080	8	Standard
32820AA090	9	Closer to the case wall

After installing a suitable reverse shifter lever, adjust reverse idler gear to transmission case wall clearance to within 0 to 0.5 mm (0 to 0.020 in) using washers.

Washer (20.5 × 26 × t)			
Part No.	Thickness mm (in)	Part No.	Thickness mm (in)
803020151	0.4 (0.016)	803020154	1.9 (0.075)
803020152	1.1 (0.043)	803020155	2.3 (0.091)
803020153	1.5 (0.059)		

## 6. SHIFTER FORK AND ROD S503001E4906

Select suitable shifter forks so that both coupling sleeve and reverse driven gear are positioned in the center of their synchromesh mechanisms.

1st-2nd shifter fork		
Part No.	Mark	Remarks
32804AA060	1	Approach to 1st gear by 0.2 mm (0.008 in)
32804AA070	No mark	Standard
32804AA080	3	Approach to 2nd gear by 0.2 mm (0.008 in)

3rd-4th shifter fork		
Part No.	Mark	Remarks
32810AA061	1	Approach to 4th gear by 0.2 mm (0.008 in)
32810AA071	No mark	Standard
32810AA101	3	Approach to 3rd gear by 0.2 mm (0.008 in)

5th shifter fork		
Part No.	Mark	Remarks
32812AA201	7	Approach to 5th gear by 0.2 mm (0.008 in)
32812AA211	No mark	Standard
32812AA221	9	Become distant from 5th gear by 0.2 mm (0.008 in)

Rod end clearance

A: 1st-2nd — 3rd-4th

0.4 — 1.4 mm (0.016 — 0.055 in)

B: 3rd-4th — 5th

0.5 — 1.3 mm (0.020 — 0.051 in)

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## 7. TRANSFER CASE S503001E4907

Neutral position adjustment

Adjustment shim	
Part No.	Thickness mm (in)
32190AA000	0.15 (0.0059)
32190AA010	0.30 (0.0118)

Reverse accent shaft		
Part No.	Mark	Remarks
32188AA090	X	Neutral position is closer to 1st gear.
32188AA100	Y	Standard
32188AA110	Z	Neutral position is closer to reverse gear.

Reverse check plate adjustment

Reverse check plate			
Part No.	Mark	Angle $\theta$	Remarks
32189AA000	0	28°	Arm stops closer to 5th gear.
32189AA010	1	31°	Arm stops closer to 5th gear.
33189AA020	2	34°	Arm stops in the center.
32189AA030	3	37°	Arm stops closer to reverse gear.
32189AA040	4	40°	Arm stops closer to reverse gear.

## 8. EXTENSION ASSEMBLY S503001E4908

Thrust washer (52 × 61 × t) to ball bearing side clearance

0.05 — 0.30 mm (0.0020 — 0.0118 in)

Thrust washer (52 × 61 × t)	
Part No.	Thickness mm (in)
803052021	0.50 (0.0197)
803052022	0.75 (0.0295)
803052023	1.00 (0.0394)

Thrust washer to center differential side clearance

0.15 — 0.35 mm (0.0059 — 0.0138 in)

Thrust washer	
Part No.	Thickness mm (in)
803036050	0.9 (0.035)
803036054	1.0 (0.039)
803036051	1.1 (0.043)
803036055	1.2 (0.047)
803036052	1.3 (0.051)
803036056	1.4 (0.055)
803036053	1.5 (0.059)
803036057	1.6 (0.063)
803036058	1.7 (0.067)

## 9. FRONT DIFFERENTIAL S503001E4909

Bevel gear to pinion backlash

0.13 — 0.18 mm (0.0051 — 0.0071 in)

Washer (38.1 × 50 × t)			
Part No.	Thickness mm (in)	Part No.	Thickness mm (in)
803038021	0.925 — 0.950 (0.0364 — 0.0374)	803038023	1.025 — 1.050 (0.0404 — 0.0413)
803038022	0.975 — 1.000 (0.0384 — 0.0394)	—	—

Pinion shaft to axle drive shaft clearance

0 — 0.25 mm (0 — 0.0098 in)

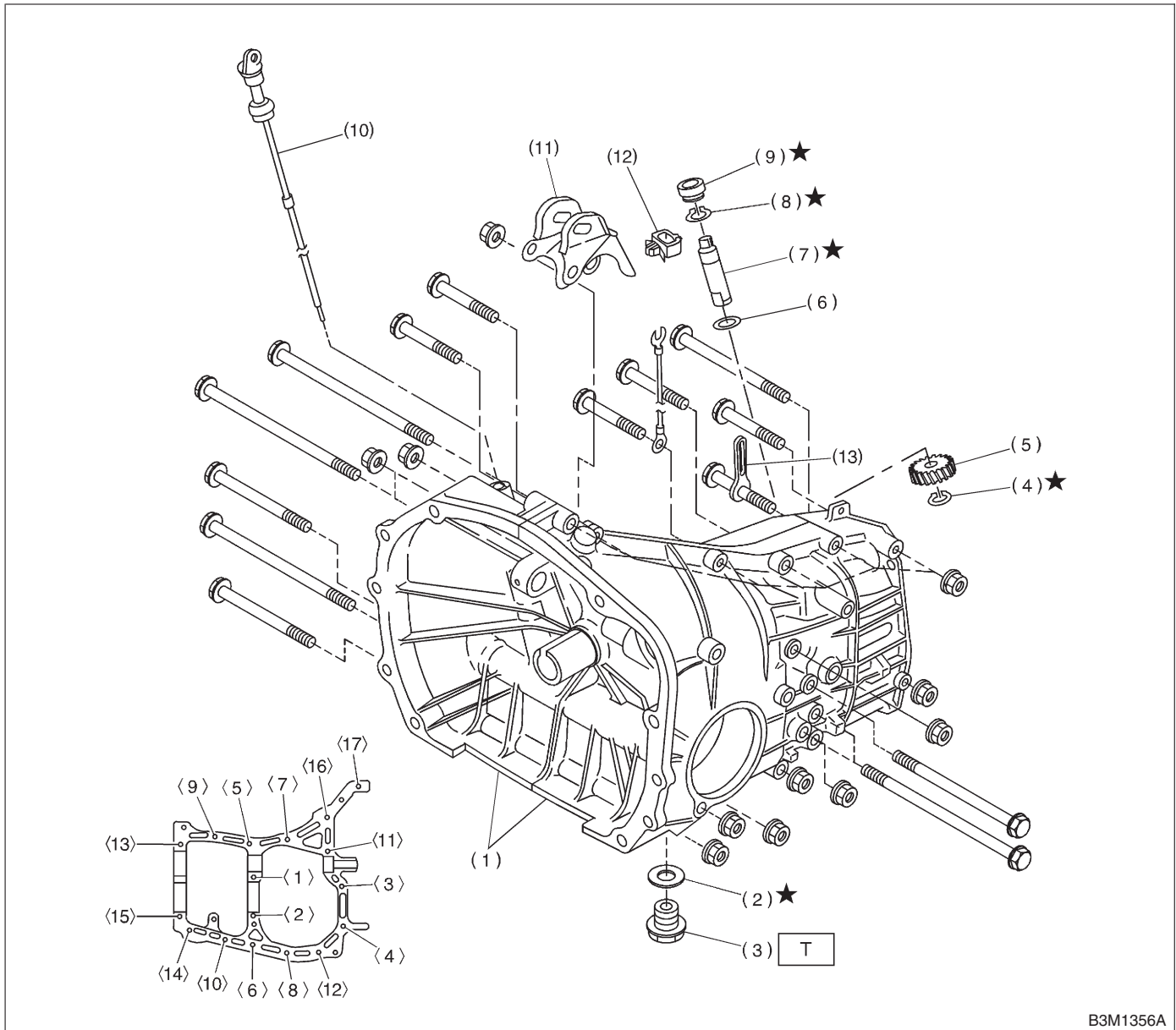
Snap ring (Outer-28)			
Part No.	Thickness mm (in)	Part No.	Thickness mm (in)
805028011	1.05 (0.0413)	805028012	1.20 (0.0472)

## B: COMPONENT

S503001A05

### 1. TRANSMISSION CASE

S503001A0501



- |                             |                               |
|-----------------------------|-------------------------------|
| (1) Transmission case ASSY  | (7) Speedometer shaft         |
| (2) Gasket                  | (8) Snap ring (Outer)         |
| (3) Drain plug              | (9) Oil seal                  |
| (4) Snap ring (Outer)       | (10) Oil level gauge          |
| (5) Speedometer driven gear | (11) Pitching stopper bracket |
| (6) Washer                  | (12) Clamp                    |

(13) Clip

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

**T: 44 (4.5, 32.5)**

Size	All models	Torque
8 mm bolt	<5> — <15>	25 N·m (2.5 kgf-m, 18.1 ft-lb)
10 mm bolt	<1> — <4> <16> — <17>	39 N·m (4.0 kgf-m, 28.9 ft-lb)

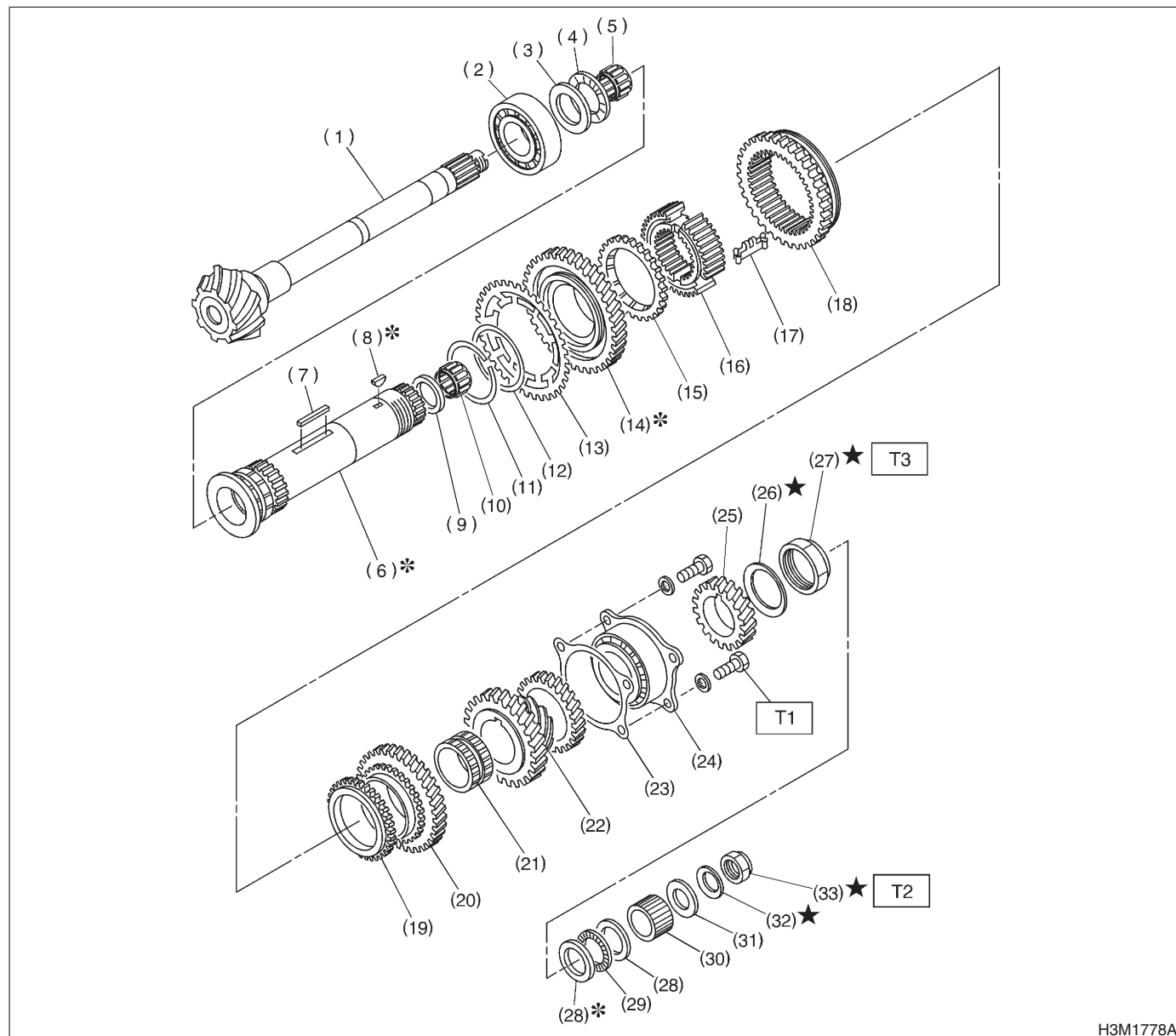
# GENERAL DESCRIPTION

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## 2. DRIVE PINION ASSEMBLY

S503001A0502

### ● 2200 cc Model



- (1) Drive pinion shaft
- (2) Roller bearing
- (3) Washer
- (4) Thrust bearing
- (5) Needle bearing
- (6) Driven shaft
- (7) Key
- (8) Woodruff key
- (9) Drive pinion collar
- (10) Needle bearing
- (11) Snap ring (Outer)
- (12) Washer
- (13) Sub gear

- (14) 1st driven gear
- (15) Baulk ring
- (16) 1st-2nd synchronizer hub
- (17) Insert key
- (18) Reverse driven gear
- (19) Baulk ring
- (20) 2nd driven gear
- (21) 2nd driven gear bush
- (22) 3rd-4th driven gear
- (23) Driven pinion shim
- (24) Roller bearing
- (25) 5th driven gear
- (26) Lock washer

- (27) Lock nut
- (28) Washer
- (29) Thrust bearing
- (30) Differential bevel gear sleeve
- (31) Washer
- (32) Lock washer
- (33) Lock nut

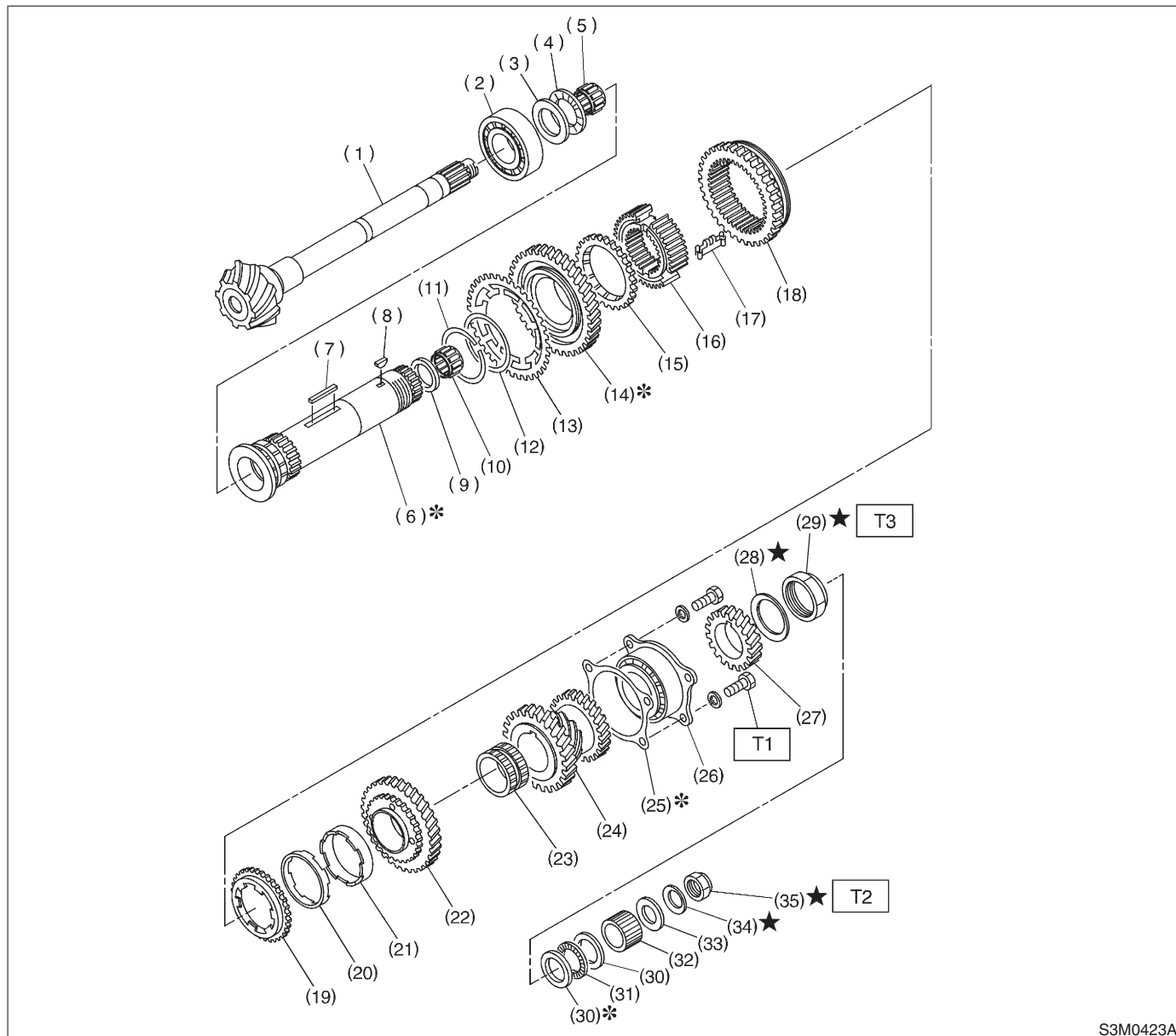
**Tightening torque: N·m (kgf-m, ft-lb)**

**T1: 29 (3.0, 21.7)**

**T2: 118 (12.0, 86.8)**

**T3: 265 (27, 195)**

## ● 2500 cc Model



S3M0423A

- (1) Drive pinion shaft
- (2) Roller bearing
- (3) Washer
- (4) Thrust bearing
- (5) Needle bearing
- (6) Driven shaft
- (7) Key
- (8) Woodruff key
- (9) Drive pinion collar
- (10) Needle bearing
- (11) Snap ring (Outer)
- (12) Washer
- (13) Sub gear
- (14) 1st driven gear

- (15) Baulk ring
- (16) 1st-2nd synchronizer hub
- (17) Insert key
- (18) Reverse driven gear
- (19) Outer baulk ring
- (20) Synchro cone
- (21) Inner baulk ring
- (22) 2nd driven gear
- (23) 2nd driven gear bush
- (24) 3rd-4th driven gear
- (25) Driven pinion shim
- (26) Roller bearing
- (27) 5th driven gear
- (28) Lock washer

- (29) Lock nut
- (30) Washer
- (31) Thrust bearing
- (32) Differential bevel gear sleeve
- (33) Washer
- (34) Lock washer
- (35) Lock nut

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

**T1: 29 (3.0, 21.7)**

**T2: 118 (12.0, 86.8)**

**T3: 265 (27, 195)**

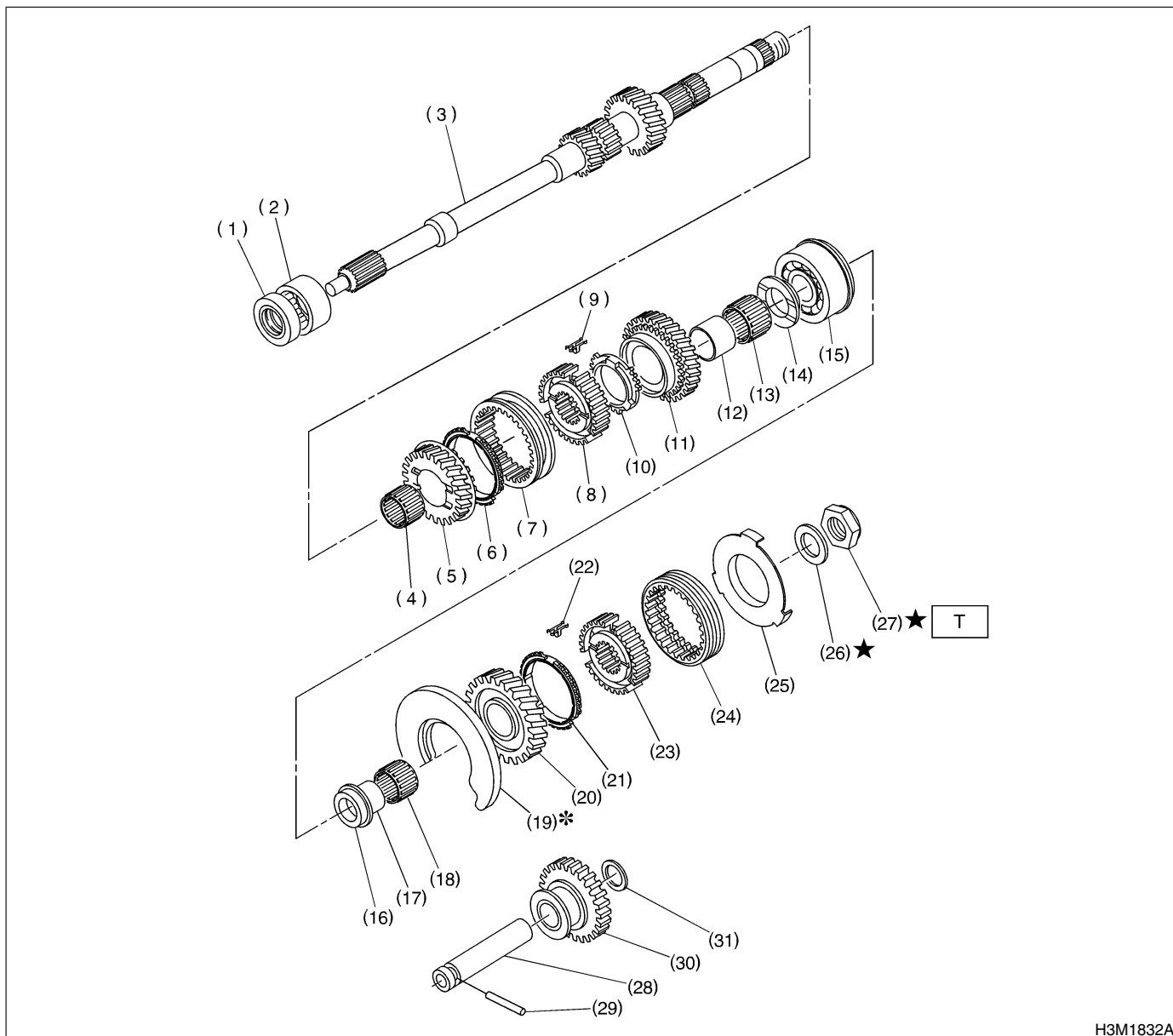
# GENERAL DESCRIPTION

Manual Transmission and Differential

## 3. MAIN SHAFT ASSEMBLY

S502001A0503

### ● 2200 cc Model



H3M1832A

- (1) Oil seal
- (2) Needle bearing
- (3) Transmission main shaft
- (4) Needle bearing
- (5) 3rd drive gear
- (6) 3rd baulk ring
- (7) Coupling sleeve
- (8) Synchronizer hub
- (9) Shifting insert key
- (10) 4th baulk ring
- (11) 4th drive gear
- (12) 4th needle bearing race

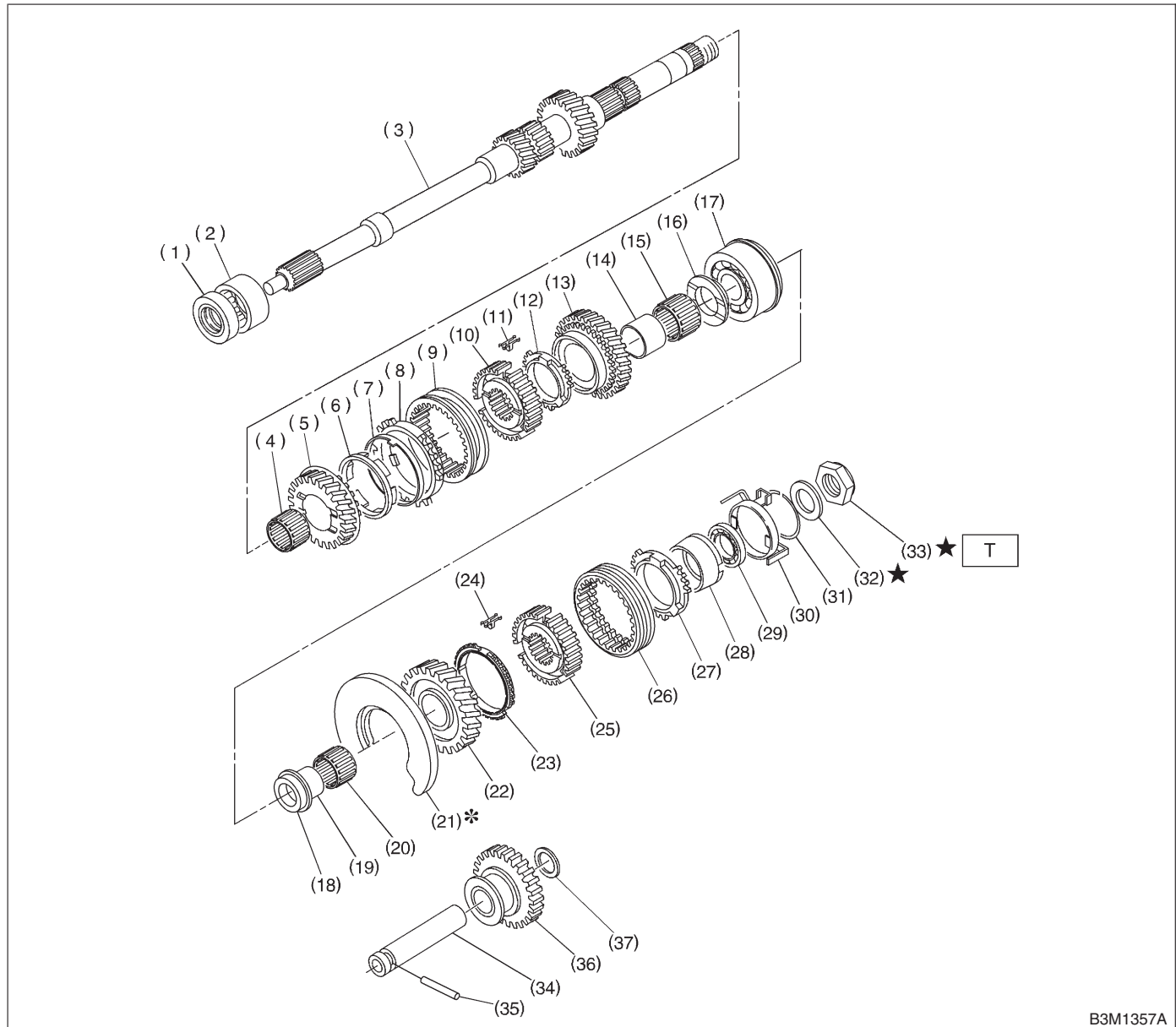
- (13) Needle bearing
- (14) 4th gear thrust washer
- (15) Ball bearing
- (16) 5th gear thrust washer
- (17) 5th needle bearing race
- (18) Needle bearing
- (19) Main shaft rear plate
- (20) 5th drive gear
- (21) 5th baulk ring
- (22) Shifting insert key (5th-Rev)
- (23) Synchronizer hub (5th-Rev)
- (24) Coupling sleeve (5th-Rev)

- (25) Insert stopper plate
- (26) Lock washer
- (27) Lock nut
- (28) Straight pin
- (29) Reverse idler gear shaft
- (30) Reverse idler gear
- (31) Washer

**Tightening torque: N·m (kgf-m, ft-lb)**  
**T: 118 (12.0, 86.8)**



## ● 2500 cc Model



B3M1357A

- |                                    |                                    |                               |
|------------------------------------|------------------------------------|-------------------------------|
| (1) Oil seal                       | (15) Needle bearing                | (29) Ball bearing             |
| (2) Needle bearing                 | (16) 4th gear thrust washer        | (30) Synchro cone stopper     |
| (3) Transmission main shaft        | (17) Ball bearing                  | (31) Snap ring                |
| (4) Needle bearing                 | (18) 5th gear thrust washer        | (32) Lock washer              |
| (5) 3rd drive gear                 | (19) 5th needle bearing race       | (33) Lock nut                 |
| (6) Inner baulk ring               | (20) Needle bearing                | (34) Reverse idler gear shaft |
| (7) Synchro cone (3rd)             | (21) Main shaft rear plate         | (35) Straight pin             |
| (8) Outer baulk ring               | (22) 5th drive gear                | (36) Reverse idler gear       |
| (9) Coupling sleeve (3rd-4th)      | (23) 5th baulk ring                | (37) Washer                   |
| (10) Synchronizer hub (3rd-4th)    | (24) Shifting insert key (5th-Rev) |                               |
| (11) Shifting insert key (3rd-4th) | (25) Synchronizer hub (5th-Rev)    |                               |
| (12) 4th baulk ring                | (26) Coupling sleeve (5th-Rev)     |                               |
| (13) 4th drive gear                | (27) Rev baulk ring                |                               |
| (14) 4th needle bearing race       | (28) Synchro cone (Rev)            |                               |

**Tightening torque: N·m (kgf-m, ft-lb)**  
**T: 118 (12.0, 86.8)**

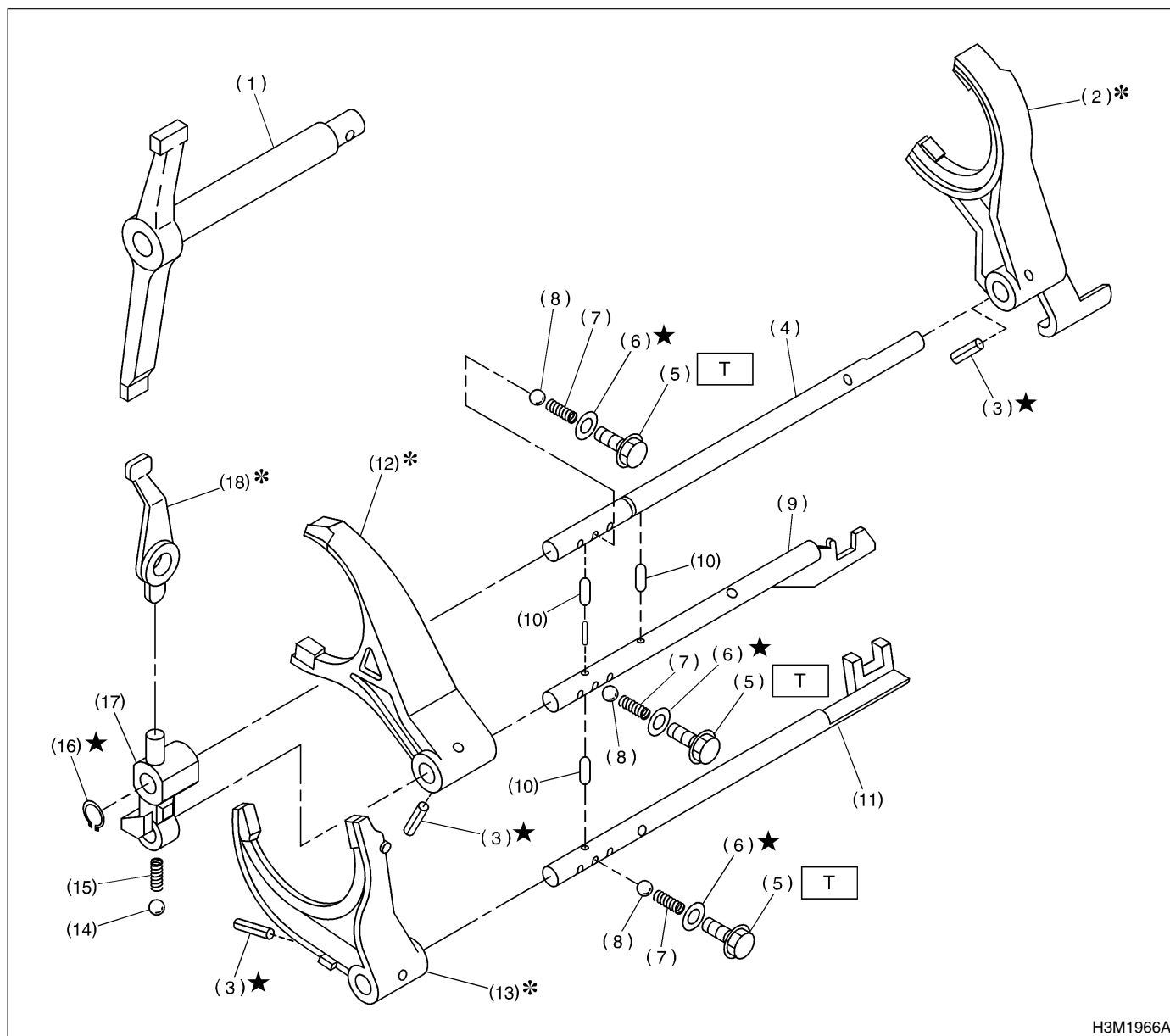


# GENERAL DESCRIPTION

Manual Transmission and Differential

## 4. SHIFTER FORK AND SHIFTER ROD

S503001A0504



H3M1966A

- |                          |                           |
|--------------------------|---------------------------|
| (1) Shifter arm          | (9) 3rd-4th fork rod      |
| (2) 5th shifter fork     | (10) Interlock plunger    |
| (3) Straight pin         | (11) 1st-2nd fork rod     |
| (4) Reverse fork rod     | (12) 3rd-4th shifter fork |
| (5) Checking ball plug   | (13) 1st-2nd shifter fork |
| (6) Gasket               | (14) Ball                 |
| (7) Checking ball spring | (15) Spring               |
| (8) Ball                 | (16) Snap ring (Outer)    |

- |                            |
|----------------------------|
| (17) Reverse fork rod arm  |
| (18) Reverse shifter lever |

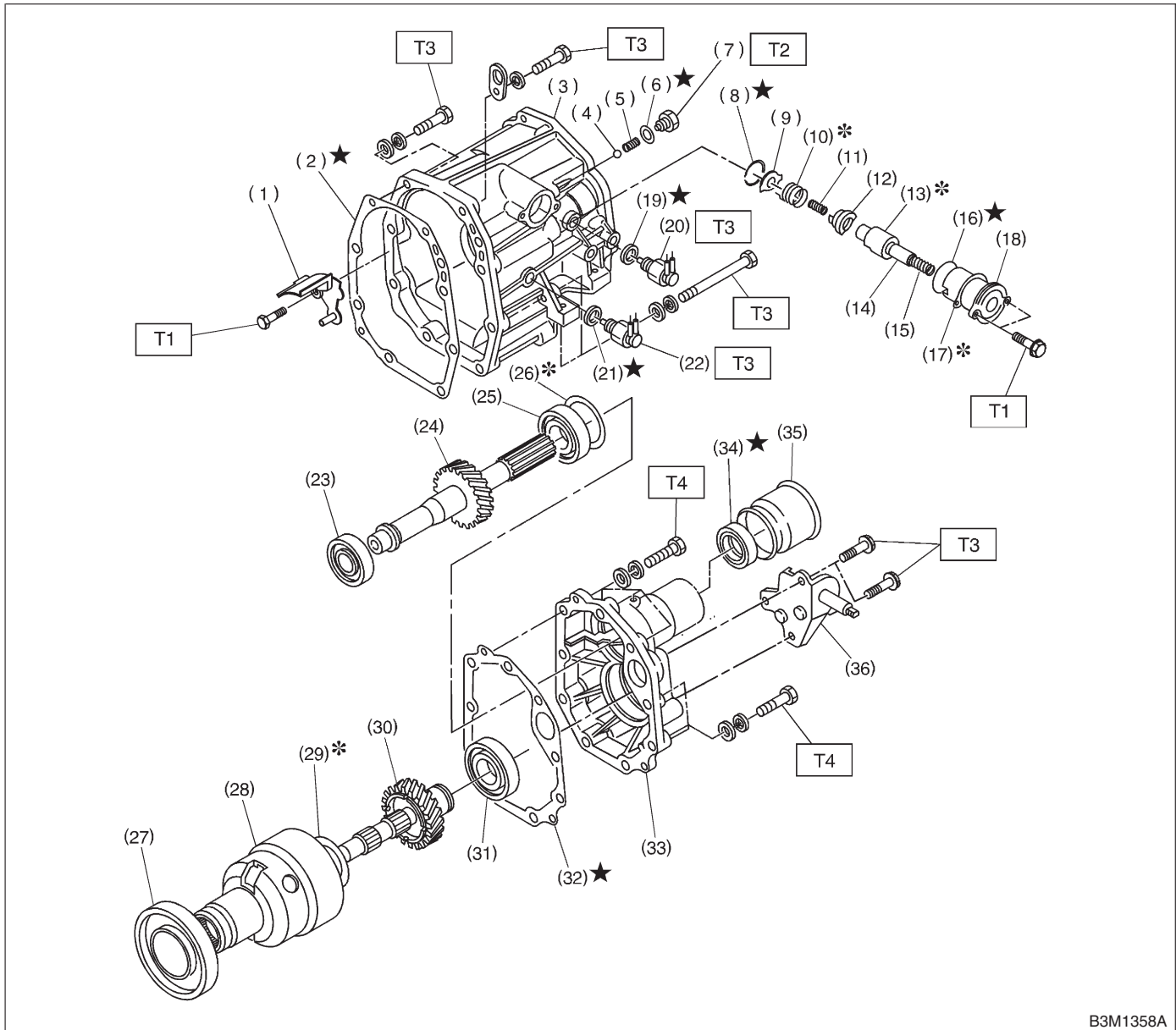
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**Tightening torque: N·m (kgf-m, ft-lb)**  
**T: 19.6 (2.00, 14.5)**

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## 5. TRANSFER CASE AND EXTENSION

S503001A0505



B3M1358A

- |                            |                            |                    |
|----------------------------|----------------------------|--------------------|
| (1) Oil guide              | (16) O-ring                | (31) Ball bearing  |
| (2) Gasket                 | (17) Adjusting select shim | (32) Gasket        |
| (3) Transfer case          | (18) Reverse check sleeve  | (33) Extension     |
| (4) Ball                   | (19) Gasket                | (34) Oil seal      |
| (5) Reverse accent spring  | (20) Neutral switch        | (35) Dust cover    |
| (6) Gasket                 | (21) Gasket                | (36) Shift bracket |
| (7) Plug                   | (22) Back-up light switch  |                    |
| (8) Snap ring (Inner)      | (23) Ball bearing          |                    |
| (9) Reverse check plate    | (24) Transfer driven gear  |                    |
| (10) Reverse check spring  | (25) Ball bearing          |                    |
| (11) Reverse return spring | (26) Adjusting washer      |                    |
| (12) Reverse check cam     | (27) Ball bearing          |                    |
| (13) Reverse accent shaft  | (28) Center differential   |                    |
| (14) Return spring cap     | (29) Adjusting washer      |                    |
| (15) Return spring         | (30) Transfer drive gear   |                    |

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

**T1: 6.4 (0.65, 4.7)**

**T2: 10 (1.0, 7.2)**

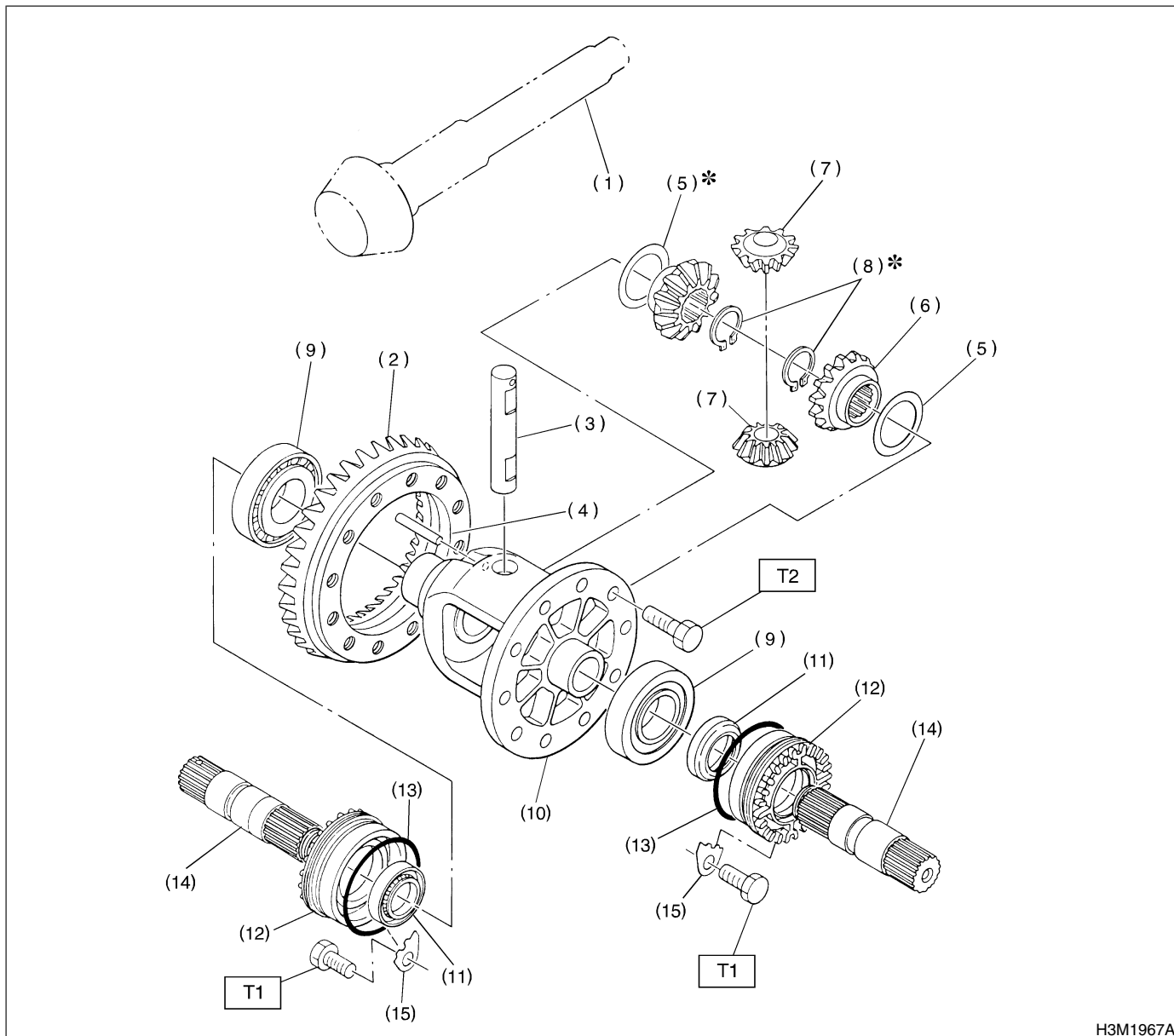
**T3: 25 (2.5, 18.1)**

**T4: 37 (3.8, 27.5)**

# GENERAL DESCRIPTION

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## 6. FRONT DIFFERENTIAL S503001A0506



- (1) Drive pinion shaft
- (2) Hypoid driven gear
- (3) Pinion shaft
- (4) Straight pin
- (5) Washer
- (6) Differential bevel gear
- (7) Differential bevel pinion

- (8) Snap ring (Outer)
- (9) Roller bearing
- (10) Differential case
- (11) Oil seal
- (12) Differential side retainer
- (13) O-ring
- (14) Axle drive shaft

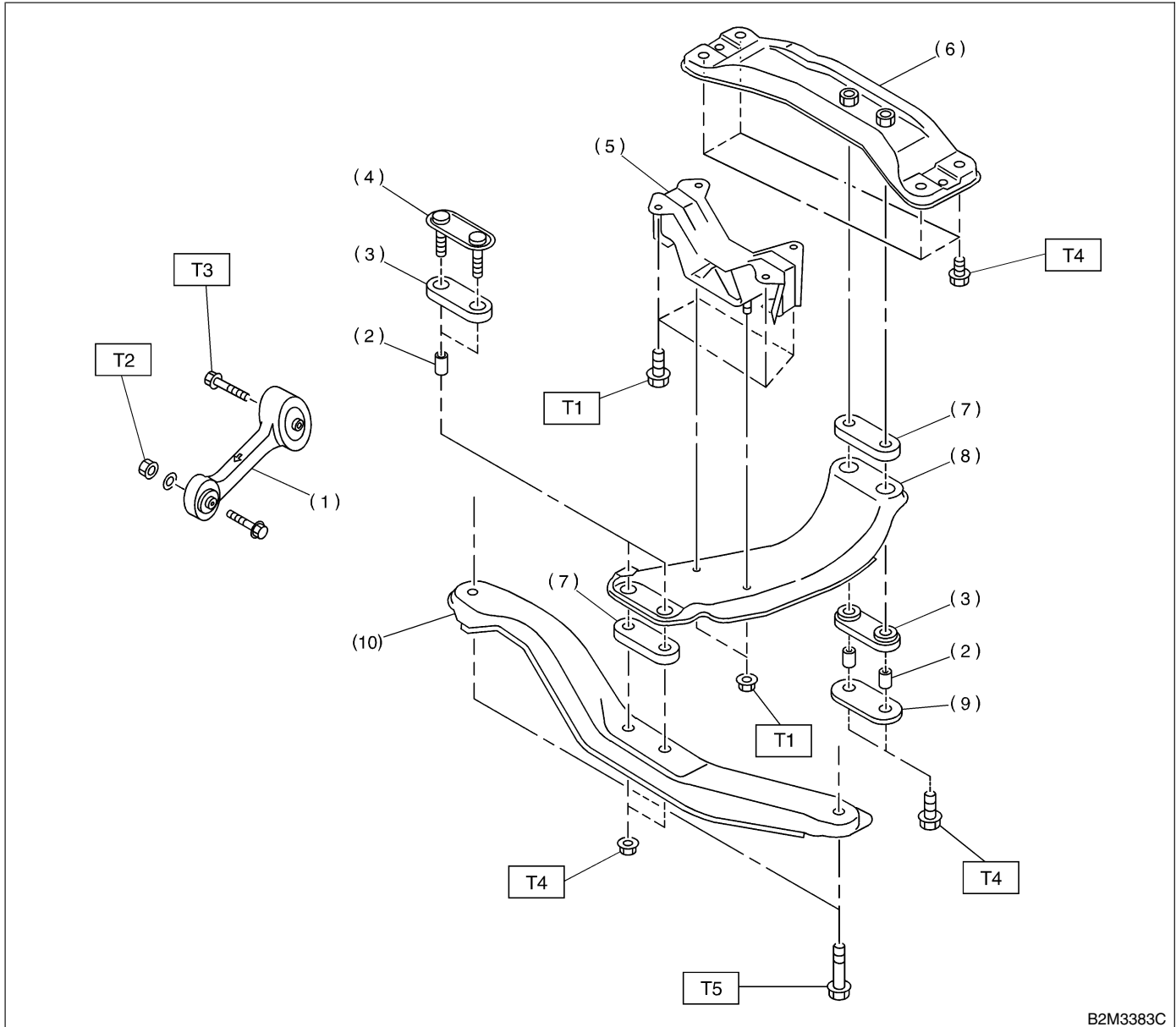
- (15) Retainer lock plate

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

**T1: 25 (2.5, 18.1)**

**T2: 62 (6.3, 45.6)**

## 7. TRANSMISSION MOUNTING SS03001A0507



- |                         |                        |
|-------------------------|------------------------|
| (1) Pitching stopper    | (7) Cushion D          |
| (2) Spacer              | (8) Center crossmember |
| (3) Cushion C           | (9) Rear plate         |
| (4) Front plate         | (10) Front crossmember |
| (5) Rear cushion rubber |                        |
| (6) Rear crossmember    |                        |

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

***T1: 34 (3.5, 25.3)***

***T2: 49 (5.0, 36.2)***

***T3: 57 (5.8, 42)***

***T4: 69 (7.0, 51)***

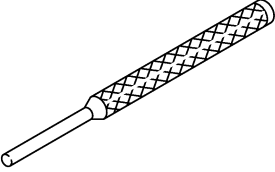
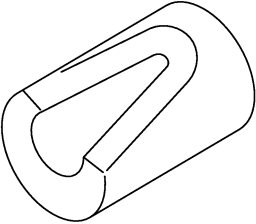
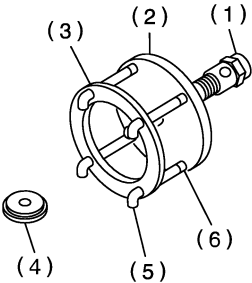
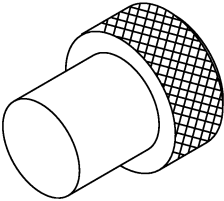
***T5: 137 (14, 101)***

### C: CAUTION SS03001A03

- 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.
- 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 gear oil 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 vice, place cushioning material such as wood blocks, aluminum plate, or shop cloth between the part and the vice.
- Avoid damaging the mating surface of the case.
- Before applying sealant, completely remove the old seal.

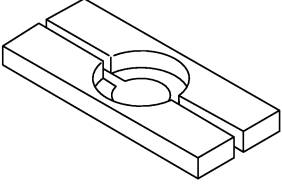
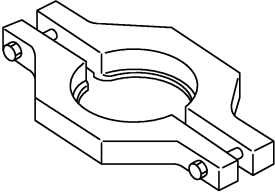
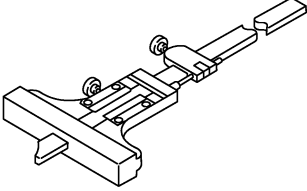
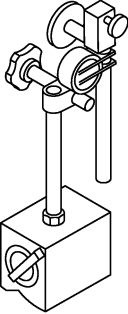
## D: PREPARATION TOOL S503001A17

### 1. SPECIAL TOOL S503001A1701

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1938</p>	398791700	REMOVER II	Used for removing and installing spring pin (6 mm).
 <p>B3M1939</p>	399411700	ACCENT BALL INSTALLER	Used for installing reverse shifter rail arm.
 <p>B3M1940A</p>	399527700	PULLER SET	Used for removing and installing roller bearing (Differential). (1) BOLT (899521412) (2) PULLER (399527702) (3) HOLDER (399527703) (4) ADAPTER (398497701) (5) BOLT (899520107) (6) NUT (021008000)
 <p>B3M1941</p>	399780104	WEIGHT	Used for measuring preload on roller bearing.

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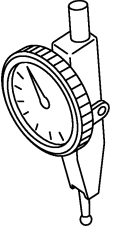
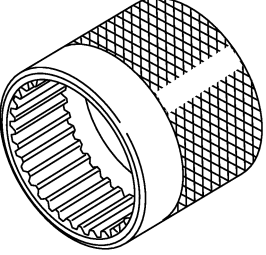
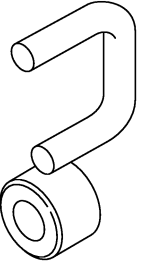
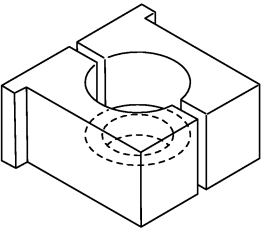
## Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1942</p>	498077000	5TH DRIVEN GEAR REMOVER	Used for removing roller bearing of drive pinion shaft.
 <p>B3M1943</p>	498077300	CENTER DIFFERENTIAL BEARING REMOVER	Used for removing the center differential cover ball bearing.
 <p>B3M1944</p>	498147000	DEPTH GAUGE	Used for adjusting main shaft axial end play.
 <p>B3M1945</p>	498247001	MAGNET BASE	<ul style="list-style-type: none"> <li>Used for measuring backlash between side gear and pinion, and hypoid gear.</li> <li>Used with DIAL GAUGE (498247100).</li> </ul>



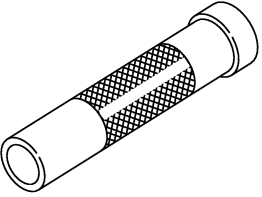
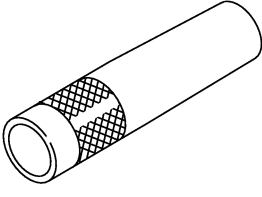
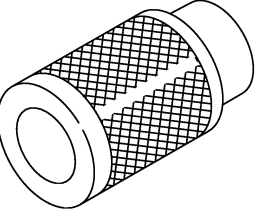
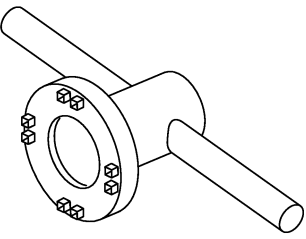
# GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1946</p>	498247100	DIAL GAUGE	<ul style="list-style-type: none"> <li>Used for measuring backlash between side gear and pinion, and hypoid gear.</li> <li>Used with MAGNET BASE (498247001).</li> </ul>
 <p>B3M1947</p>	498427100	STOPPER	Used for removing and installing drive pinion shaft assembly lock nut.
 <p>B3M1948</p>	498787100	MAIN SHAFT STOPPER	Used for removing and installing transmission main shaft.
 <p>B3M1949</p>	498937000	TRANSMISSION HOLDER	Used for removing and installing transmission main shaft lock nut.

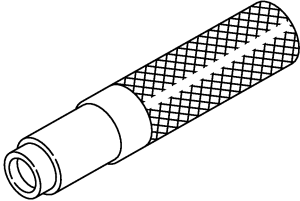
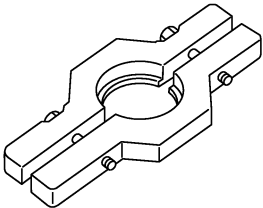
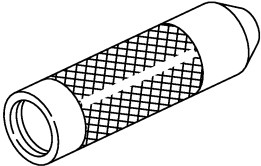
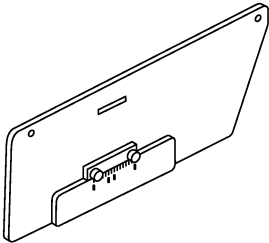
# GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1950</p>	499277100	BUSH 1-2 INSTALLER	Used for installing 1st driven gear thrust plate and 1st-2nd driven gear bush.
 <p>B3M1951</p>	499277200	INSTALLER	Used for press-fitting the 2nd driven gear, roller bearings, and 5th driven gear onto the driven shaft.
 <p>B3M1952</p>	499757002	SNAP RING PRESS	Used for installing snap ring (OUT 25), and ball bearing (25 x 26 x 17).
 <p>B3M1953</p>	499787000	WRENCH ASSY	Used for removing and installing differential side retainer.

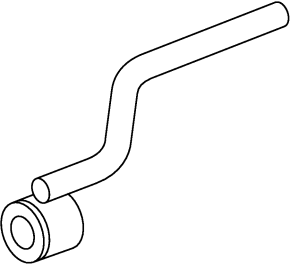
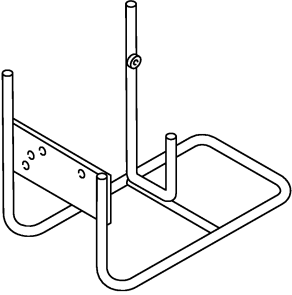
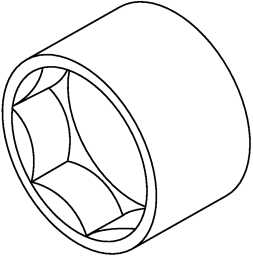
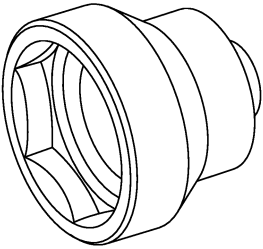
# GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1954</p>	499827000	PRESS	Used for installing speedometer oil seal when installing speedometer cable to transmission.
 <p>B3M1955</p>	499857000	5TH DRIVEN GEAR REMOVER	Used for removing 5th driven gear.
 <p>B3M1956</p>	499877000	RACE 4-5 INSTALLER	<ul style="list-style-type: none"> <li>• Used for installing 4th needle bearing race and ball bearing onto transmission main shaft.</li> <li>• Used with REMOVER (899714110).</li> </ul>
 <p>B3M1957</p>	499917500	DRIVE PINION GAUGE ASSY	Used for adjusting drive pinion shim.

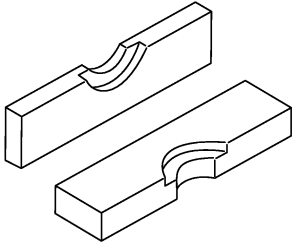
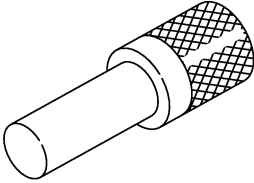
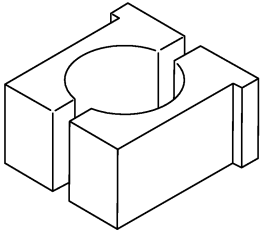
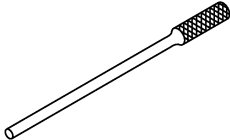
# GENERAL DESCRIPTION

## Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1958</p>	499927100	HANDLE	Used for fitting transmission main shaft.
 <p>B3M1959</p>	499937100	TRANSMISSION STAND	Stand used for transmission disassembly and assembly.
 <p>B3M1960</p>	499987003	SOCKET WRENCH (35)	Used for removing and installing driven pinion lock nut and main shaft lock nut.
 <p>B3M1961</p>	499987300	SOCKET WRENCH (50)	Used for removing and installing driven gear assembly lock nut.

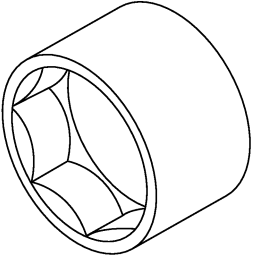
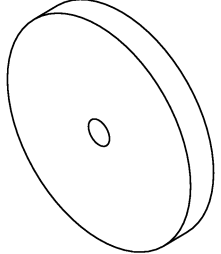
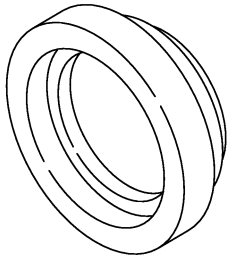
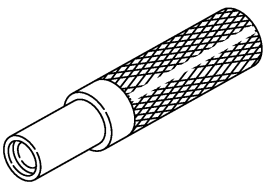
# GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1962</p>	899714110	REMOVER	Used for fixing transmission main shaft, drive pinion, rear drive shaft.
 <p>B3M1963</p>	899864100	REMOVER	Used for removing parts on transmission main shaft and drive pinion.
 <p>B3M1964</p>	899884100	HOLDER	Used for tightening lock nut on sleeve.
 <p>B3M1965</p>	899904100	REMOVER	Used for removing and installing straight pin.

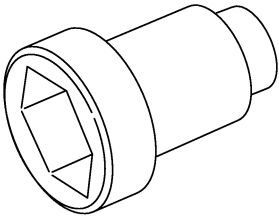
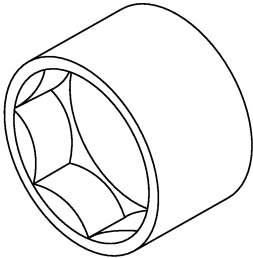
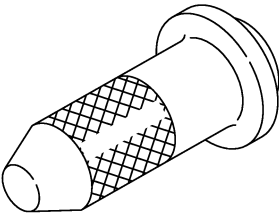
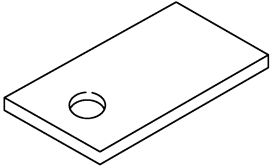
# GENERAL DESCRIPTION

## Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1966</p>	899988608	SOCKET WRENCH (27)	Used for removing and installing drive pinion lock nut.
 <p>B3M1967</p>	398497701	ADAPTER	<ul style="list-style-type: none"> <li>Used for installing roller bearing onto differential case.</li> <li>Used with INSTALLER (499277100).</li> </ul>
 <p>B3M1968</p>	499587000	INSTALLER	Used for installing driven gears to driven shaft.
 <p>B3M1969</p>	899824100	PRESS	Used for installing speedometer shaft oil seal.

# GENERAL DESCRIPTION

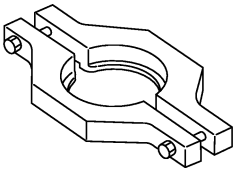
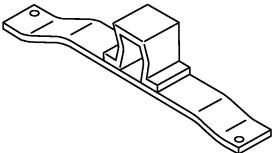
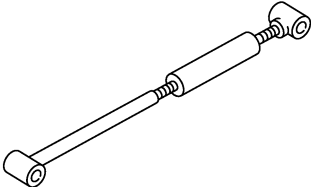
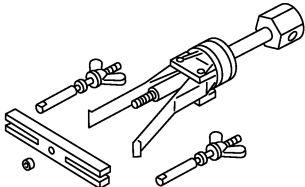
Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1970</p>	499987100	SOCKET WRENCH (35)	Used for removing and installing drive pinion lock nut.
 <p>B3M1971</p>	899984103	SOCKET WRENCH (35)	Used for removing and installing drive pinion lock nut.
 <p>B3M1972</p>	498057300	INSTALLER	Used for installing extension oil seal.
 <p>B3M1973</p>	498255400	PLATE	Used for measuring backlash.



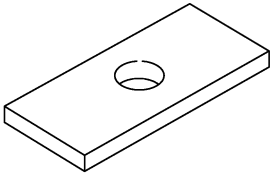
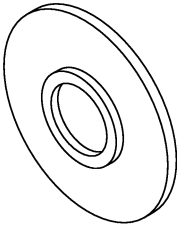
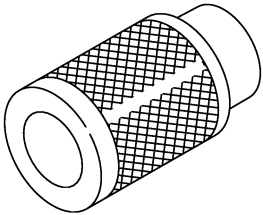
# GENERAL DESCRIPTION

## Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1974</p>	498077400	SYNCHRONIZER CONE REMOVER	<ul style="list-style-type: none"> <li>Used for removing synchronizer cone of main shaft.</li> <li>For 2500 cc engine.</li> </ul>
 <p>B3M1975</p>	41099AA010	ENGINE SUPPORT BRACKET	Used for supporting engine.
 <p>B3M1976</p>	41099AA020	ENGINE SUPPORT	Used for supporting engine.
 <p>B3M1977</p>	398527700	PULLER ASSY	Used for removing and installing extension case roller bearing.

# GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>B3M1978</p>	398643600	GAUGE	Used for measuring total end play, extension end play and drive pinion height.
 <p>B3M1905</p>	38177700	INSTALLER	Used for installing bearing cone of transfer driven gear (transfer case side).
 <p>B3M1952</p>	499757002	INSTALLER	Used for installing bearing cone of transfer driven gear (extension case side).

## 2. GENERAL TOOL S503001A1702

TOOL NAME	REMARKS
Circuit Tester	Used for measuring resistance, voltage and ampere.