

# GENERAL DESCRIPTION

Manual Transmission and Differential

## 1. General Description

S503001

### A: SPECIFICATIONS

S503001E49

#### 1. MANUAL TRANSMISSION AND DIFFERENTIAL

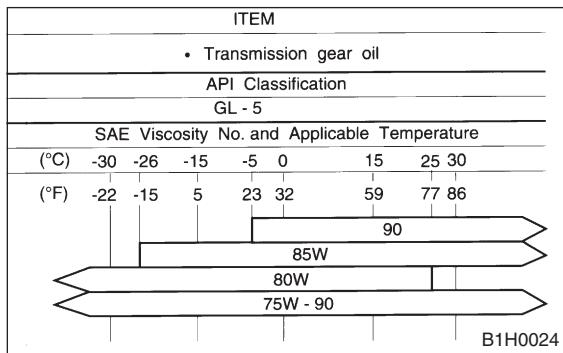
S503001E4901

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 ℥ (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

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## 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)

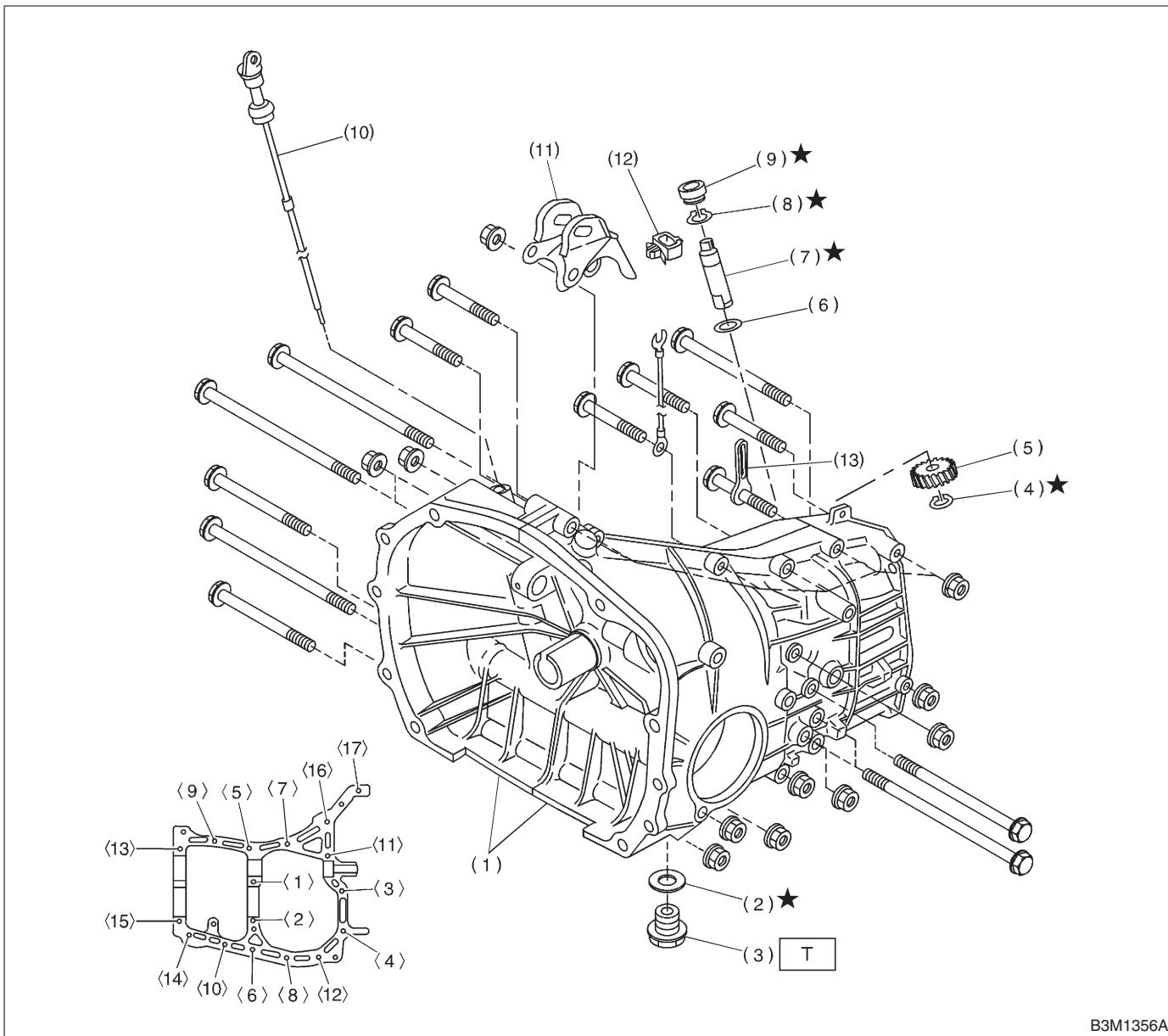
Snap ring (Outer-28)			
Part No.	Thickness mm (in)	Part No.	Thickness mm (in)
805028011	1.05 (0.0413)	805028012	1.20 (0.0472)

## B: COMPONENT

S503001A05

## 1. TRANSMISSION CASE

S503001A0501



B3M1356A

(1) Transmission case ASSY

(2) Gasket

(3) Drain plug

(4) Snap ring (Outer)

(5) Speedometer driven gear

(6) Washer

(7) Speedometer shaft

(8) Snap ring (Outer)

(9) Oil seal

(10) Oil level gauge

(11) Pitching stopper bracket

(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)

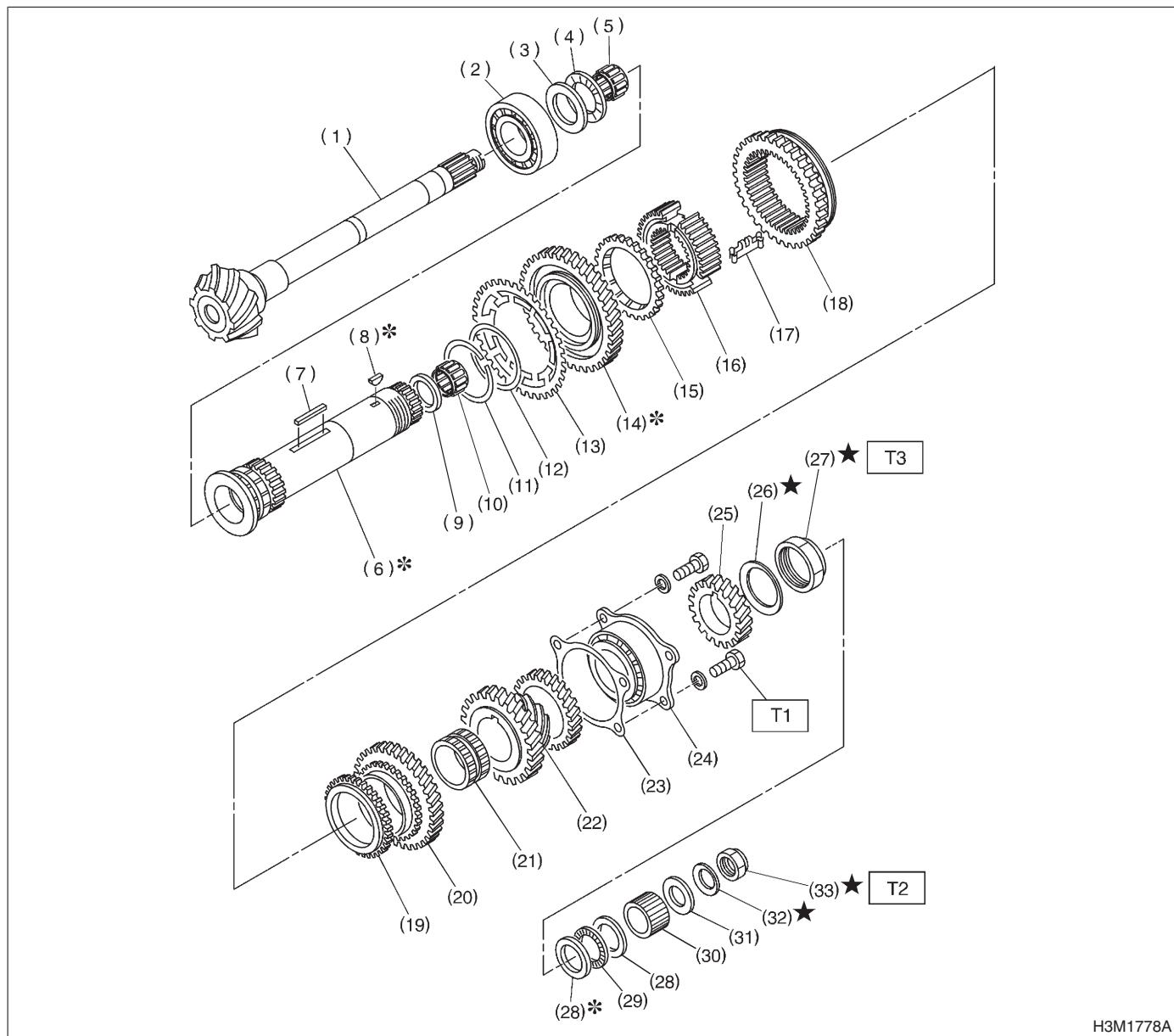
# GENERAL DESCRIPTION

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## 2. DRIVE PINION ASSEMBLY

S503001A0502

### ● 2200 cc Model



H3M1778A

- (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)

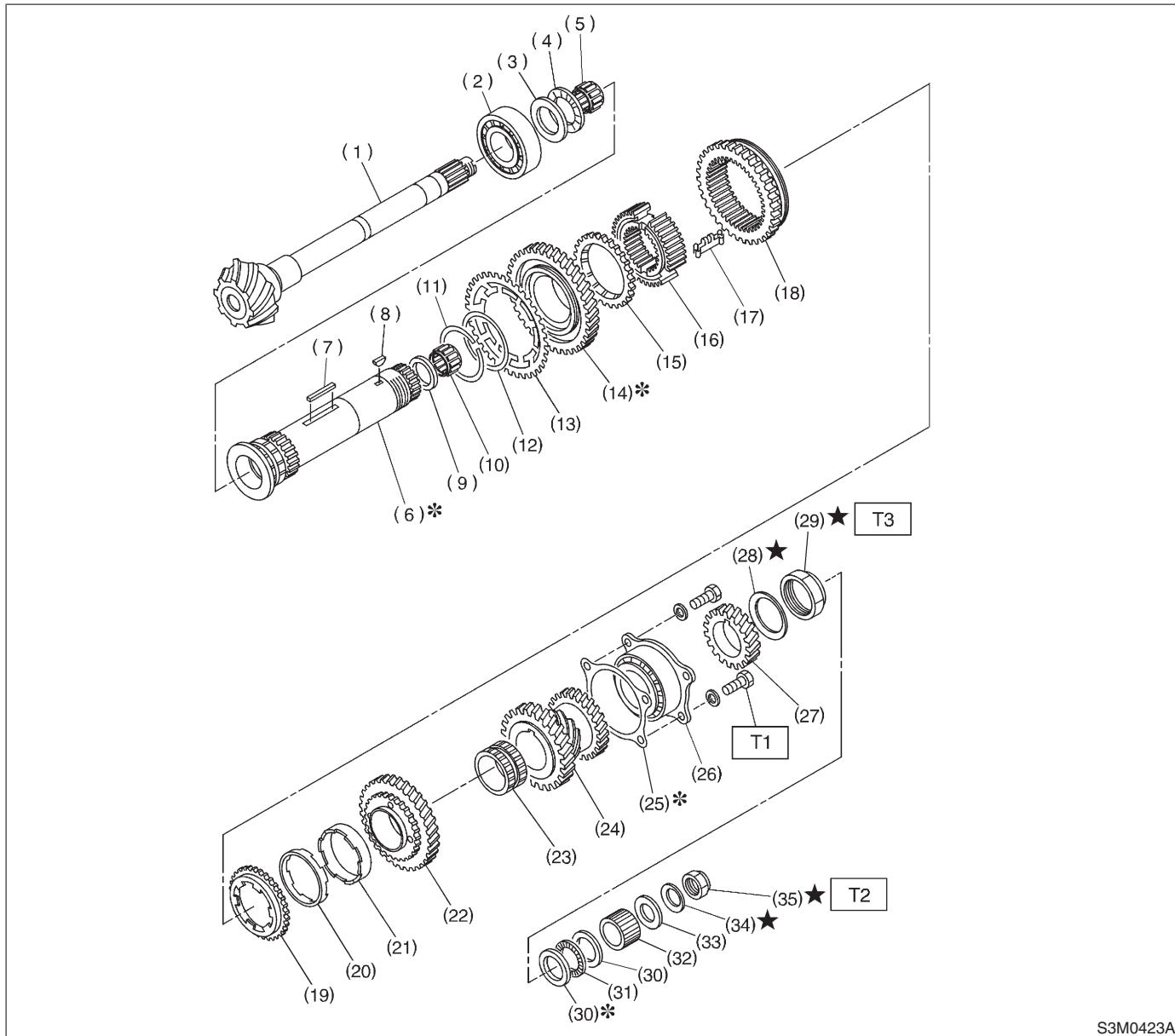
T2: 118 (12.0, 86.8)

T3: 265 (27, 195)

# GENERAL DESCRIPTION

Manual Transmission and Differential

## ● 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)**

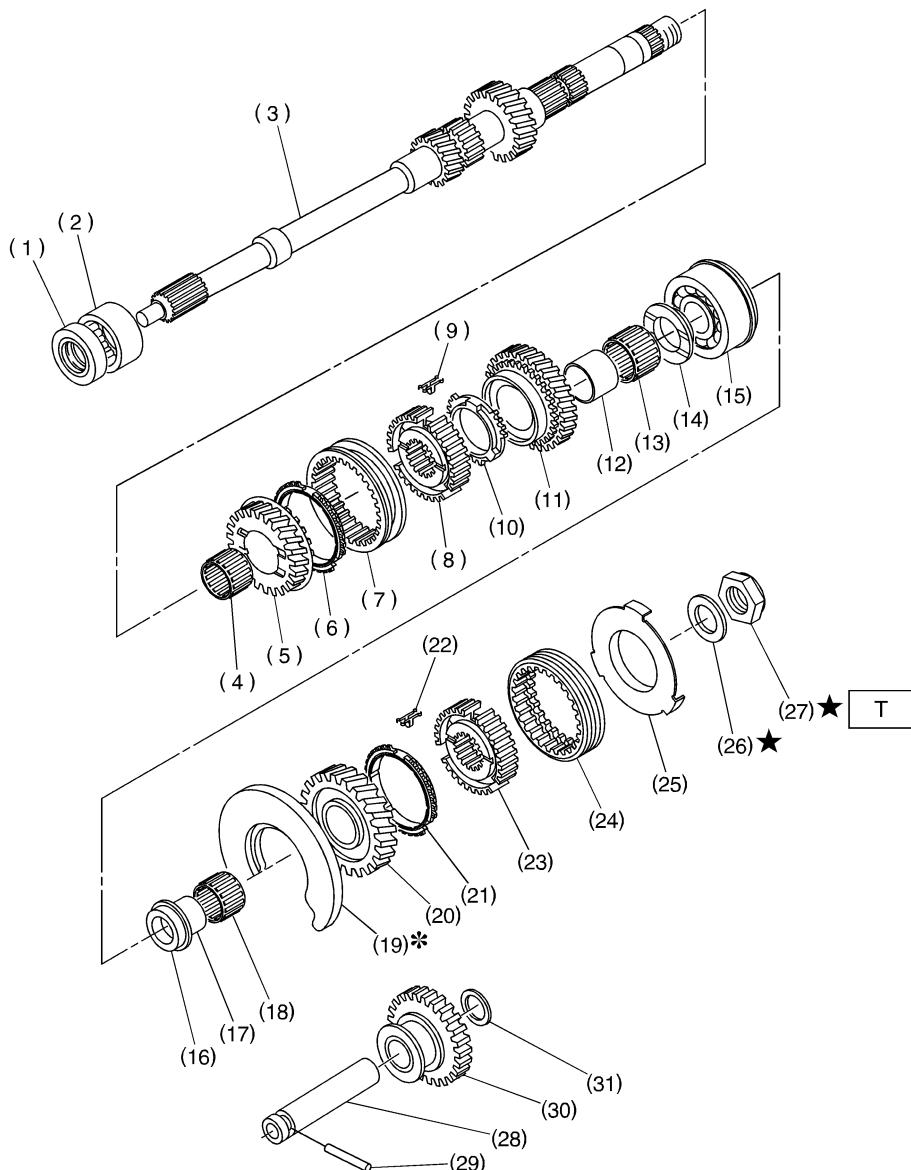
# GENERAL DESCRIPTION

## Manual Transmission and Differential

### 3. MAIN SHAFT ASSEMBLY

S502001A0503

#### ● 2200 cc Model



- (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)

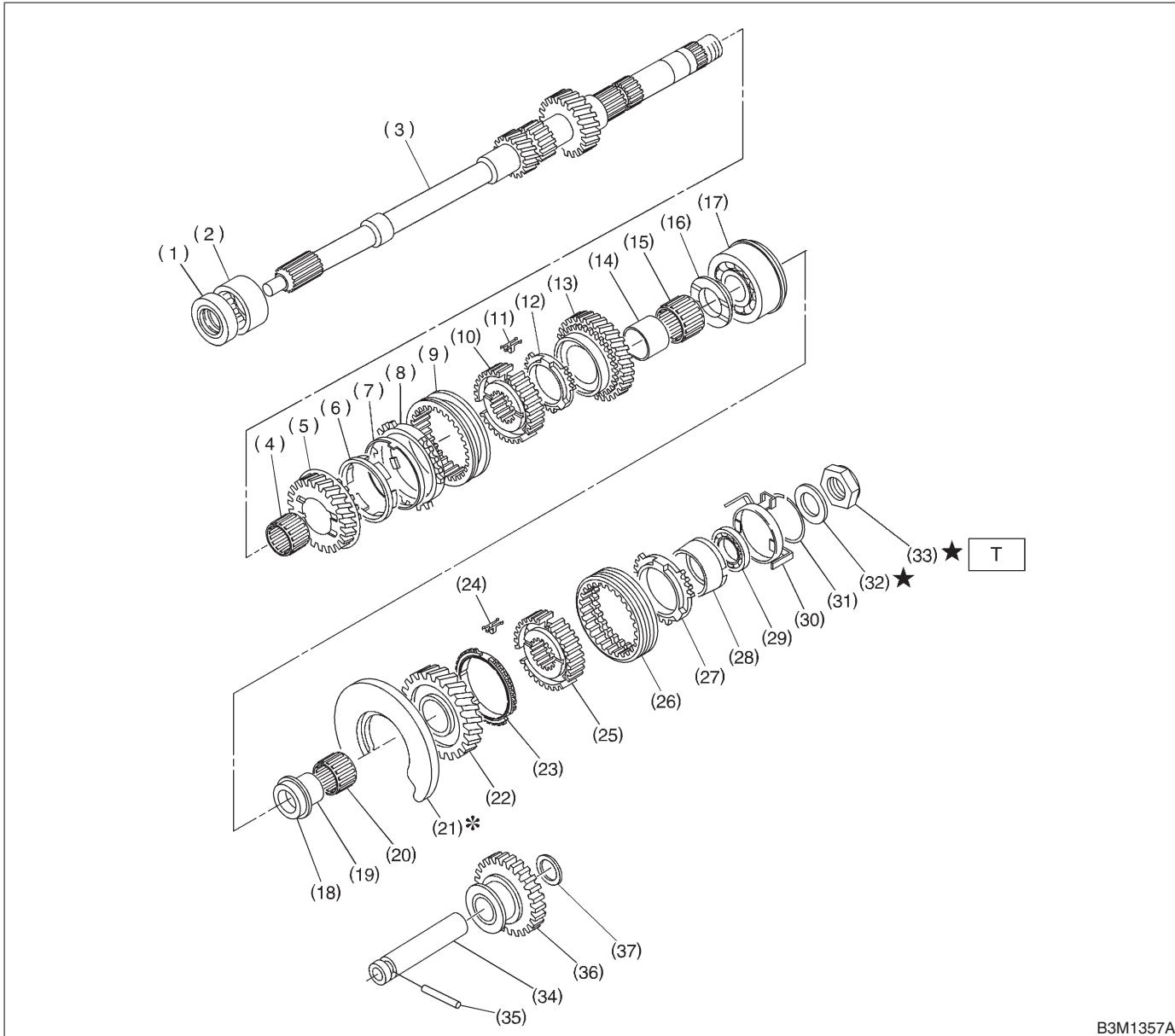
- (25) Insert stopper plate
- (26) Lock washer
- (27) Lock nut
- (28) Straight pin
- (29) Reverse idler gear shaft
- (30) Reverse idler gear
- (31) Washer

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

# GENERAL DESCRIPTION

Manual Transmission and Differential

## ● 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)**

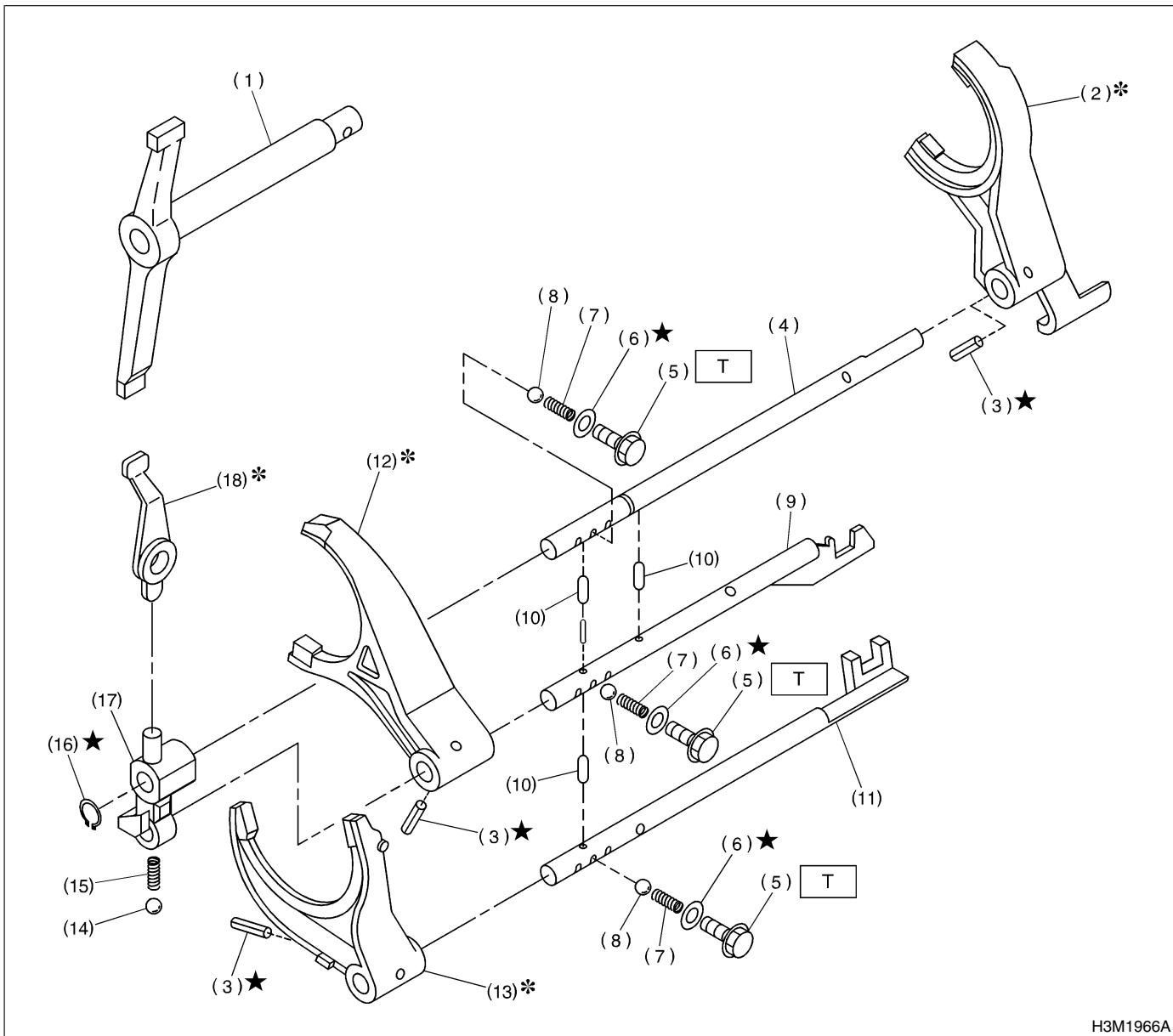
**T: 118 (12.0, 86.8)**

# GENERAL DESCRIPTION

## Manual Transmission and Differential

### 4. SHIFTER FORK AND SHIFTER ROD

S503001A0504



H3M1966A

(1) Shifter arm	(9) 3rd-4th fork rod	(17) Reverse fork rod arm
(2) 5th shifter fork	(10) Interlock plunger	(18) Reverse shifter lever
(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)	

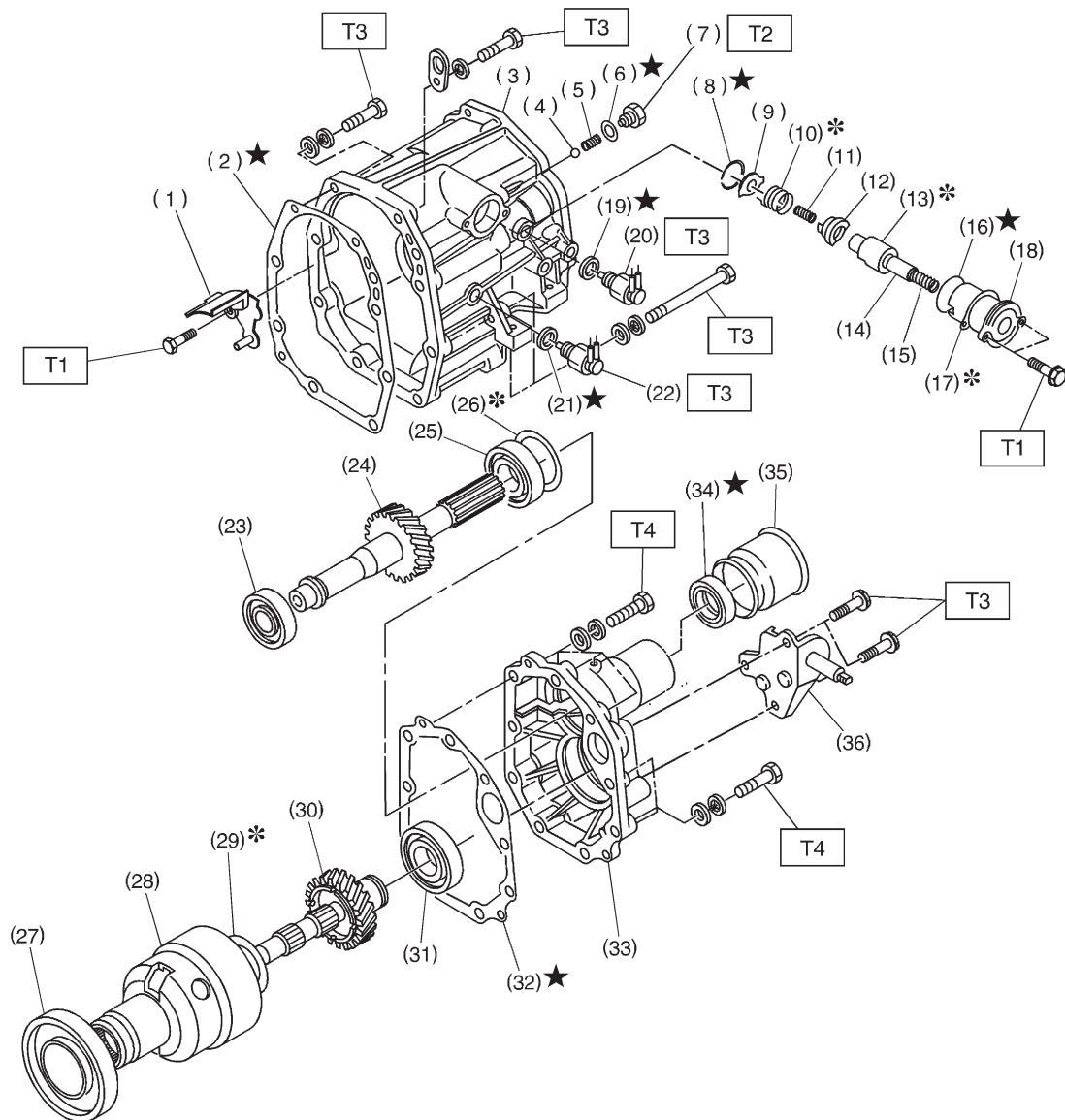
**Tightening torque: N·m (kgf·m, ft·lb)**  
**T: 19.6 (2.00, 14.5)**

# GENERAL DESCRIPTION

Manual Transmission and Differential

## 5. TRANSFER CASE AND EXTENSION

S503001A0505



B3M1358A

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

- (31) Ball bearing
- (32) Gasket
- (33) Extension
- (34) Oil seal
- (35) Dust cover
- (36) Shift bracket

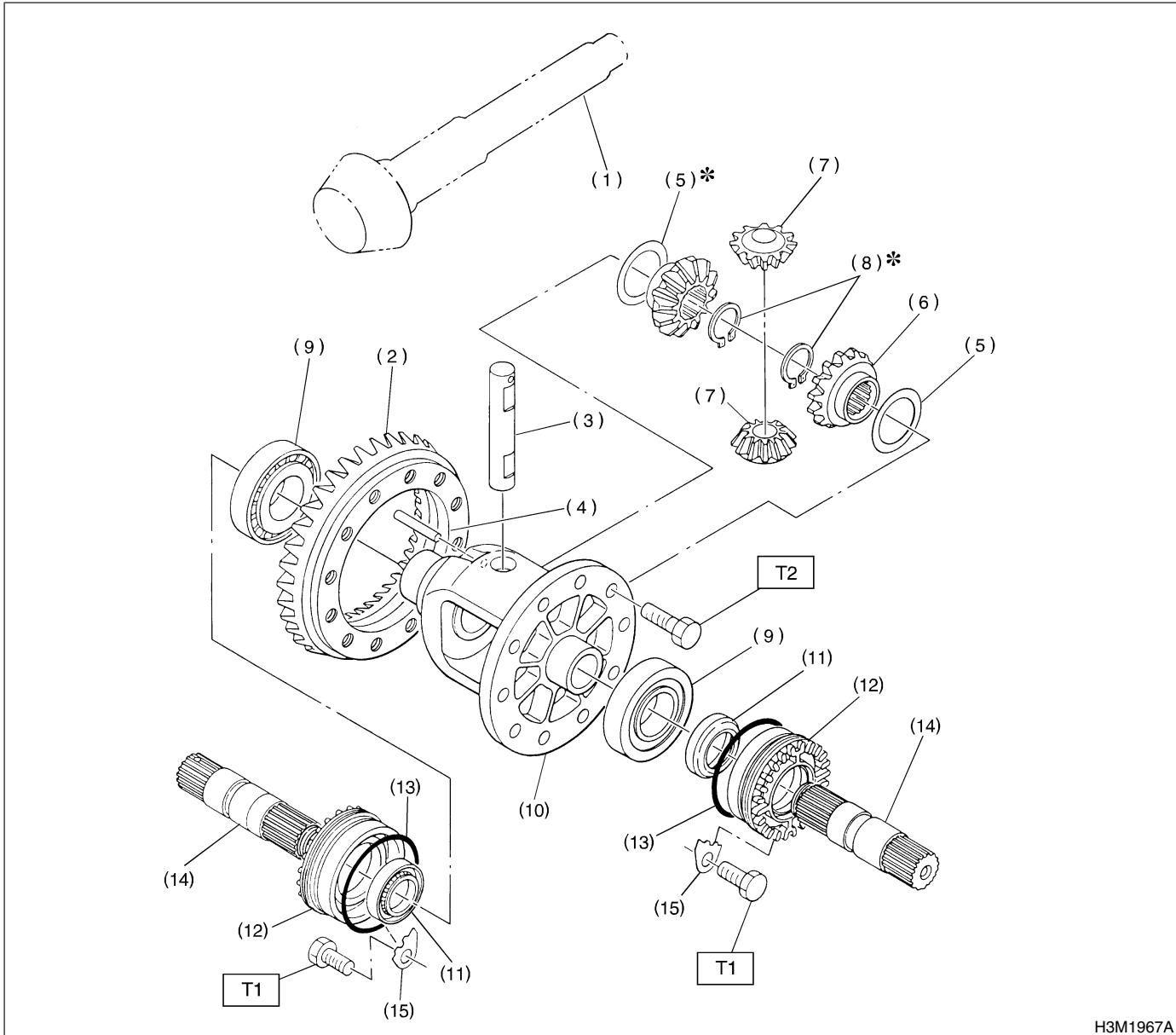
### Tightening torque: N·m (kgf·m, ft·lb)

- 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

Manual Transmission and Differential

## 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

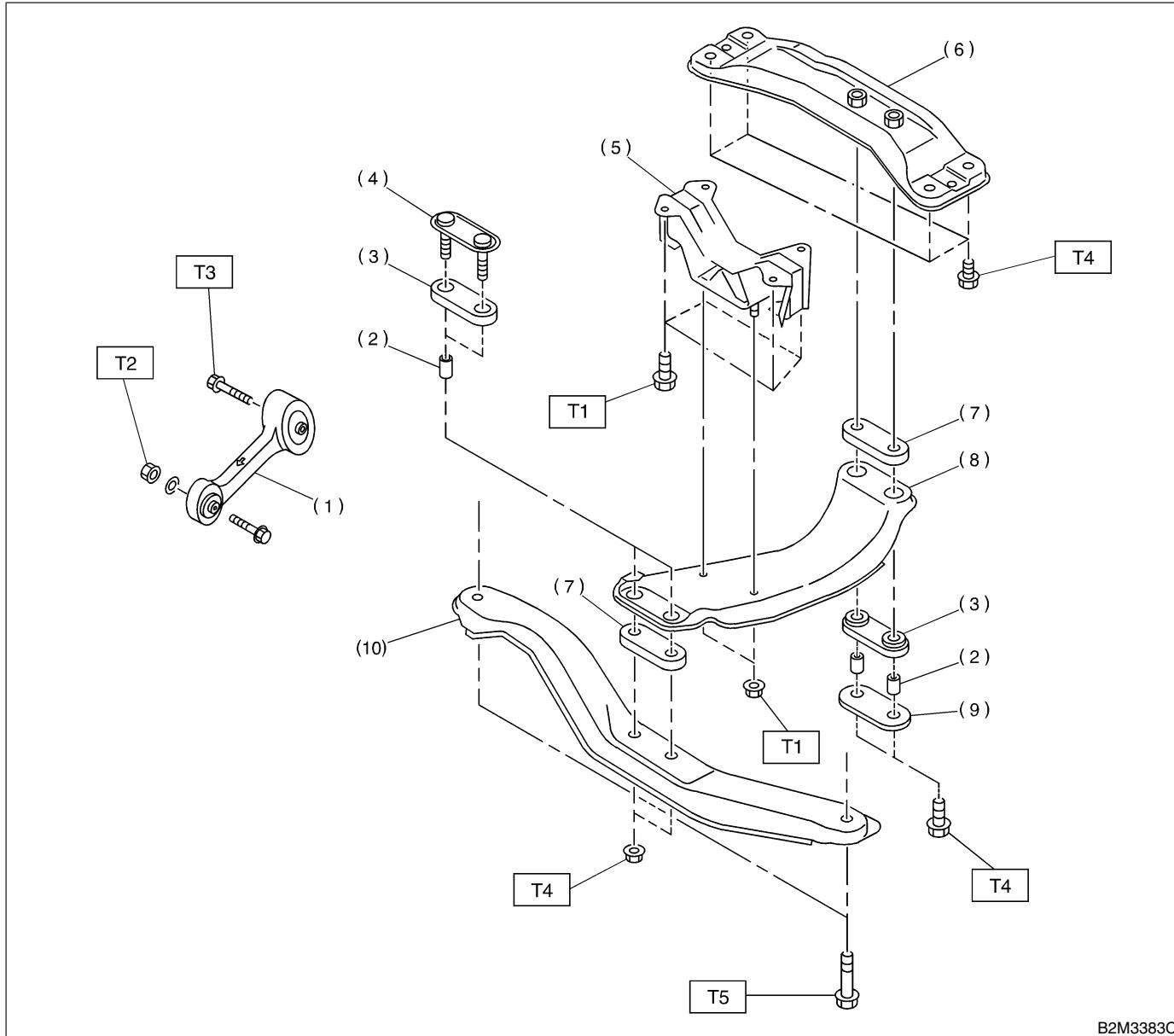
- (8) Snap ring (Outer)
- (9) Roller bearing
- (10) Differential case
- (11) Oil seal
- (12) Differential side retainer
- (13) O-ring
- (14) Axle drive shaft

- (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

S503001A0507



B2M3383C

(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)

# GENERAL DESCRIPTION

## Manual Transmission and Differential

### C: CAUTION

S503001A03

- 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.

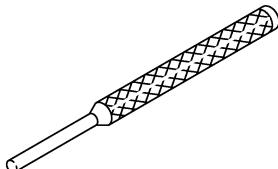
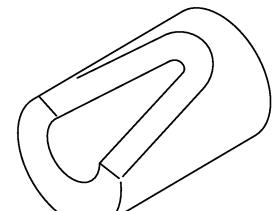
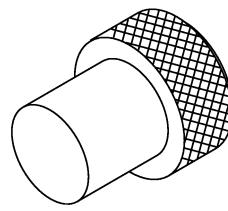
# GENERAL DESCRIPTION

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## D: PREPARATION TOOL

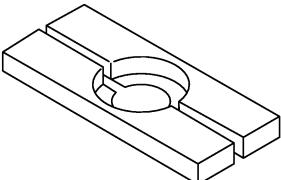
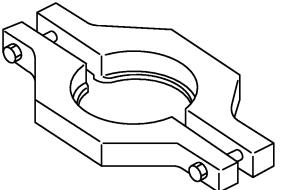
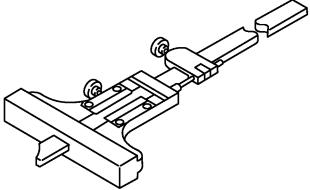
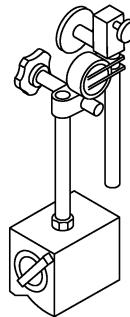
### 1. SPECIAL TOOL

S503001A1701

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 B3M1938	398791700	REMOVER II	Used for removing and installing spring pin (6 mm).
 B3M1939	399411700	ACCENT BALL INSTALLER	Used for installing reverse shifter rail arm.
 B3M1940A	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)
 B3M1941	399780104	WEIGHT	Used for measuring preload on roller bearing.

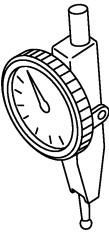
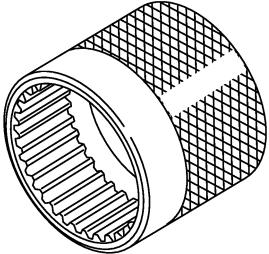
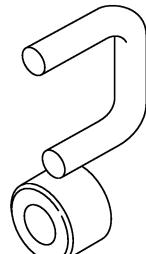
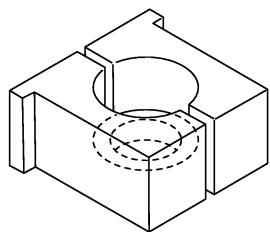
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ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 B3M1942	498077000	5TH DRIVEN GEAR REMOVER	Used for removing roller bearing of drive pinion shaft.
 B3M1943	498077300	CENTER DIFFERENTIAL BEARING REMOVER	Used for removing the center differential cover ball bearing.
 B3M1944	498147000	DEPTH GAUGE	Used for adjusting main shaft axial end play.
 B3M1945	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>

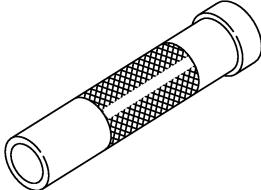
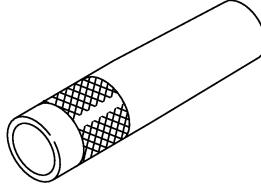
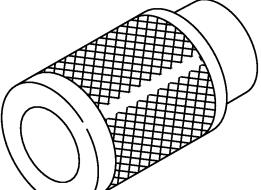
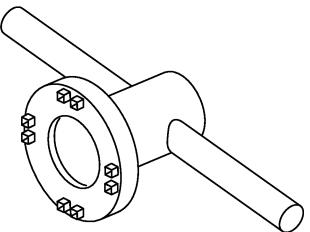
# GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 B3M1946	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>
 B3M1947	498427100	STOPPER	Used for removing and installing drive pinion shaft assembly lock nut.
 B3M1948	498787100	MAIN SHAFT STOPPER	Used for removing and installing transmission main shaft.
 B3M1949	498937000	TRANSMISSION HOLDER	Used for removing and installing transmission main shaft lock nut.

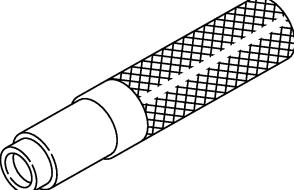
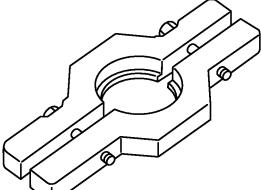
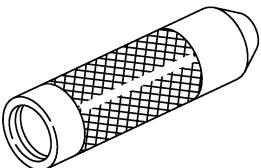
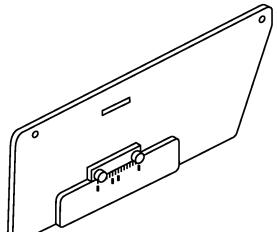
## GENERAL DESCRIPTION

Manual Transmission and Differential

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

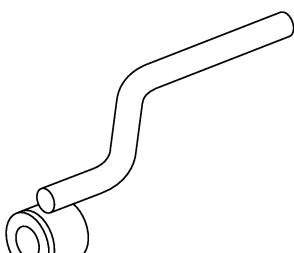
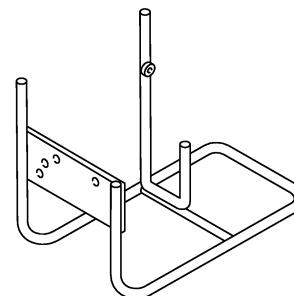
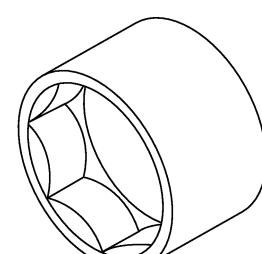
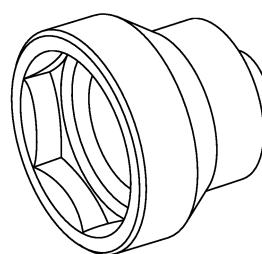
## GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 B3M1954	499827000	PRESS	Used for installing speedometer oil seal when installing speedometer cable to transmission.
 B3M1955	499857000	5TH DRIVEN GEAR REMOVER	Used for removing 5th driven gear.
 B3M1956	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>
 B3M1957	499917500	DRIVE PINION GAUGE ASSY	Used for adjusting drive pinion shim.

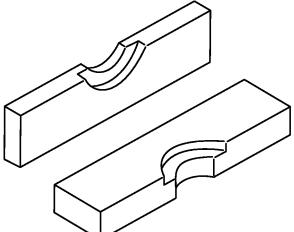
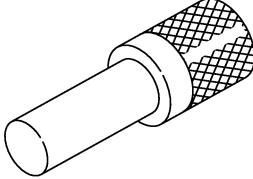
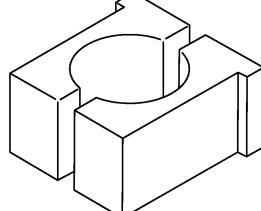
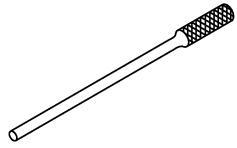
## GENERAL DESCRIPTION

Manual Transmission and Differential

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

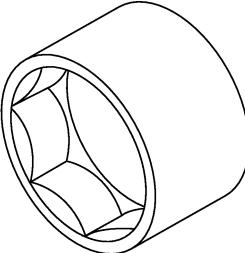
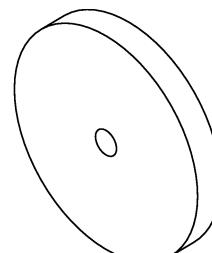
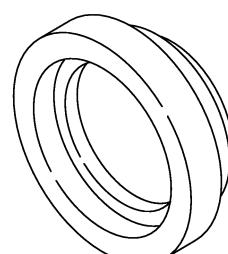
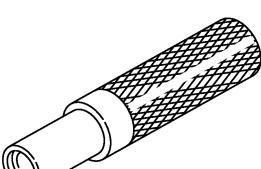
# GENERAL DESCRIPTION

Manual Transmission and Differential

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

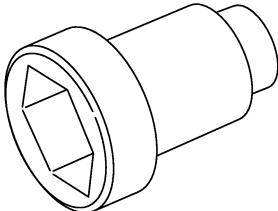
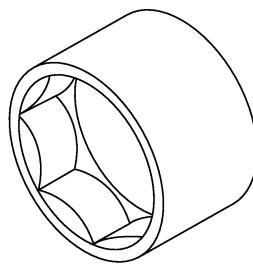
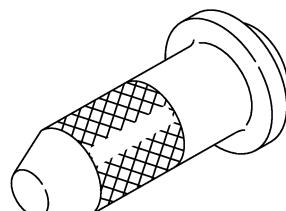
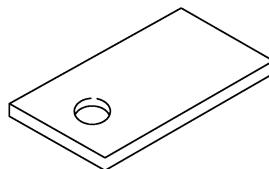
## GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 B3M1966	899988608	SOCKET WRENCH (27)	Used for removing and installing drive pinion lock nut.
 B3M1967	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>
 B3M1968	499587000	INSTALLER	Used for installing driven gears to driven shaft.
 B3M1969	899824100	PRESS	Used for installing speedometer shaft oil seal.

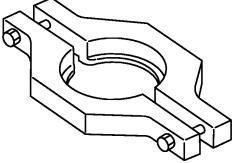
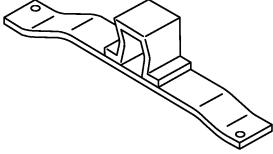
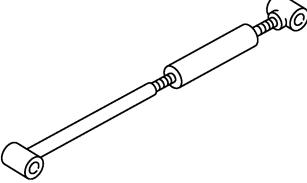
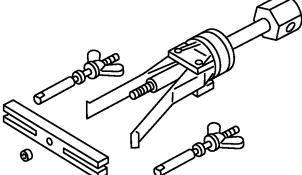
## GENERAL DESCRIPTION

Manual Transmission and Differential

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

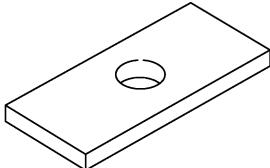
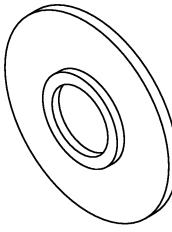
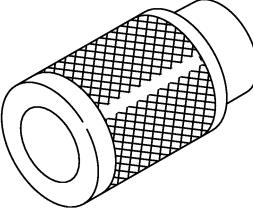
## GENERAL DESCRIPTION

Manual Transmission and Differential

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
	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>
	41099AA010	ENGINE SUPPORT BRACKET	Used for supporting engine.
	41099AA020	ENGINE SUPPORT	Used for supporting engine.
	398527700	PULLER ASSY	Used for removing and installing extension case roller bearing.

# GENERAL DESCRIPTION

Manual Transmission and Differential

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