

# General Description

## DIFFERENTIALS

### 1. General Description

#### A: SPECIFICATION

##### 1. REAR DIFFERENTIAL

When replacing a rear differential assembly, select the correct one according to the following table.

NOTE:

- Using the different rear differential assembly causes the drive line and tires to “drag” or emit noise.
- For option code, refer to “ID” section. <Ref. to ID-2, IDENTIFICATION, Identification.>

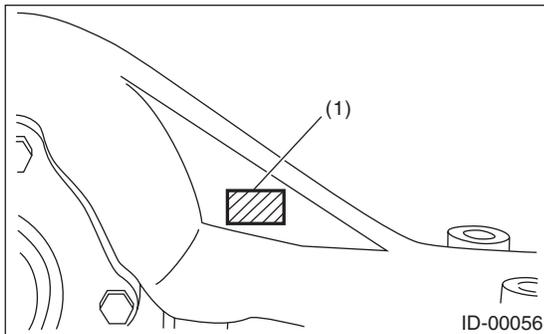
Model	Sedan, Wagon			
	2.5 L Non-turbo		2.5 L Turbo	
	MT	AT	MT	AT
Rear differential type	T-type	VA1-type	T-type	VA2-type
Classification	T1	XJ	JP	XU
LSD type	—		Viscous coupling	
Type of gear	Hypoid gear			
Gear ratio (Number of gear teeth)	3.900 (39/10)	4.111 (37/9)		3.272 (36/11)
Oil capacity	0.8 ℓ (0.8 US qt, 0.7 Imp qt)			
Rear differential gear oil	GL-5			

Model	OUTBACK				
	2.5 L Non-turbo		2.5 L Turbo		3.0 L
	MT	AT	MT	AT	
Rear differential type	T-type			VA2-type	
Classification	JE	CD	CF	XW	XU
LSD type	Viscous coupling				
Type of gear	Hypoid gear				
Gear ratio (Number of gear teeth)	4.111 (37/9)	4.444 (40/9)		3.583 (42/12)	3.272 (36/11)
Oil capacity	0.8 ℓ (0.8 US qt, 0.7 Imp qt)				
Rear differential gear oil	GL-5				

##### 2. CLASSIFICATION

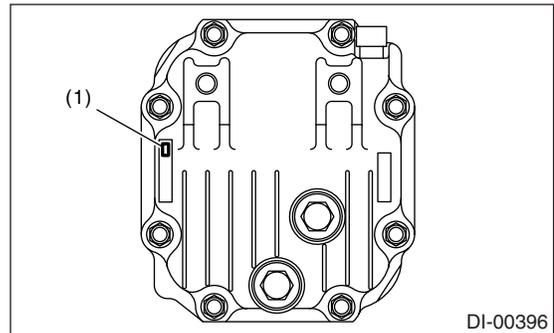
Identification label positions are shown in the following figures. For details concerning identification, refer to “ID” section.

- T-type



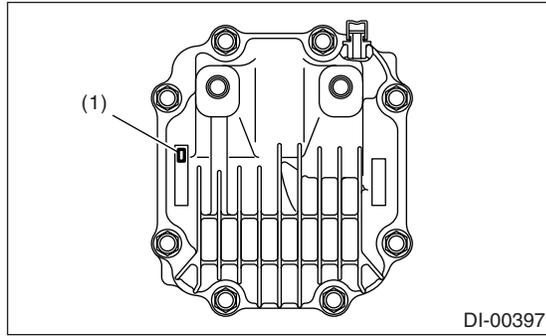
(1) Identification

- VA1-type



(1) Identification

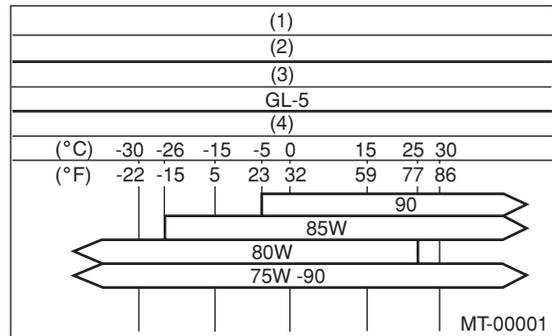
• VA2-type



(1) Identification

**NOTE:**

Each oil manufacturer has its base oil and additives. Thus, do not mix two or more brands.



### 3. REAR DIFFERENTIAL GEAR OIL

**Recommended gear oil:**  
**GL-5 (75W-90)**

- (1) Item
- (2) Rear differential gear oil
- (3) API classification
- (4) SAE viscosity No. and applicable temperature

### 4. SERVICE DATA

Drive pinion bearing preload (at companion flange bolt hole)	N (kgf, lb)	T-type	18.1 — 38.8 (1.8 — 4.0, 4.1 — 8.7)
		VA-type	12.7 — 32.4 (1.3 — 3.3, 2.9 — 7.3)
Side gear backlash	mm (in)	T-type	0.10 — 0.20 (0.0039 — 0.0079)
		VA1-type only	0.05 — 0.15 (0.0020 — 0.0059)
Side bearing standard width	mm (in)		20.00 (0.7874)
Hypoid driven gear to drive pinion backlash	mm (in)	T-type	0.10 — 0.20 (0.0039 — 0.0079)
		VA-type	0.10 — 0.15 (0.0039 — 0.0059)
Hypoid driven gear runout on its back surface	mm (in)	T-type only	0.05 (0.0020)

### 5. ADJUSTING PART

• T-type

Drive pinion bearing preload (at companion flange bolt hole)	N (kgf, lb)	18.1 — 38.8 (1.8 — 4.0, 4.1 — 8.7)	
Preload adjusting collar	Part No.		Length mm (in)
	383695201		56.2 (2.213)
	383695202		56.4 (2.220)
	383695203		56.6 (2.228)
	383695204		56.8 (2.236)
	383695205		57.0 (2.244)
	383695206		57.2 (2.252)

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Preload adjusting washer	Part No.	Length mm (in)
	383705200	2.59 (0.1020)
	383715200	2.57 (0.1012)
	383725200	2.55 (0.1004)
	383735200	2.53 (0.0996)
	383745200	2.51 (0.0988)
	383755200	2.49 (0.0980)
	383765200	2.47 (0.0972)
	383775200	2.45 (0.0965)
	383785200	2.43 (0.0957)
	383795200	2.41 (0.0949)
	383805200	2.39 (0.0941)
	383815200	2.37 (0.0933)
	383825200	2.35 (0.0925)
	383835200	2.33 (0.0917)
	383845200	2.31 (0.0909)
Pinion height adjusting washer	Part No.	Thickness mm (in)
	383495200	3.09 (0.1217)
	383505200	3.12 (0.1228)
	383515200	3.15 (0.1240)
	383525200	3.18 (0.1252)
	383535200	3.21 (0.1264)
	383545200	3.24 (0.1276)
	383555200	3.27 (0.1287)
	383565200	3.30 (0.1299)
	383575200	3.33 (0.1311)
	383585200	3.36 (0.1323)
	383595200	3.39 (0.1335)
	383605200	3.42 (0.1346)
	383615200	3.45 (0.1358)
	383625200	3.48 (0.1370)
	383635200	3.51 (0.1382)
	383645200	3.54 (0.1394)
	383655200	3.57 (0.1406)
383665200	3.60 (0.1417)	
383675200	3.63 (0.1429)	
383685200	3.66 (0.1441)	
Side gear backlash	mm (in)	0.1 — 0.2 (0.0039 — 0.0079)
Side gear thrust washer (Model without LSD)	Part No.	Thickness mm (in)
	383445201	0.75 — 0.80 (0.0295 — 0.0315)
	383445202	0.80 — 0.85 (0.0315 — 0.0335)
	383445203	0.85 — 0.90 (0.0335 — 0.0354)
Side bearing standard width	mm (in)	— 20.00 (0.7874)
Side bearing retainer shim	Part No.	Thickness mm (in)
	383475201	0.20 (0.0079)
	383475202	0.25 (0.0098)
	383475203	0.30 (0.0118)
	383475204	0.40 (0.0157)
	383475205	0.50 (0.0197)
Hypoid driven gear to drive pinion backlash	Limit mm (in)	0.10 — 0.20 (0.0039 — 0.0079)
Hypoid driven gear runout on its back surface		0.05 (0.0020)

# General Description

DIFFERENTIALS

• VA1-type

Drive pinion bearing preload (at companion flange bolt hole)	N (kgf, lb)	12.7 — 32.4 (1.3 — 3.3, 2.9 — 7.3)	
Preload adjusting collar		Part No.	Length mm (in)
		32288AA040	52.3 (2.059)
		32288AA050	52.5 (2.067)
		31454AA100	52.6 (2.071)
		32288AA060	52.7 (2.075)
		31454AA110	52.8 (2.079)
		32288AA070	52.9 (2.083)
		31454AA120	53.0 (2.087)
		32288AA080	53.1 (2.091)
		32288AA090	53.3 (2.098)
Preload adjusting washer		Part No.	Thickness mm (in)
		38336AA000	1.500 (0.0591)
		38336AA120	1.513 (0.0596)
		38336AA010	1.525 (0.0600)
		38336AA130	1.538 (0.0606)
		38336AA020	1.550 (0.0610)
		38336AA140	1.563 (0.0615)
		38336AA030	1.575 (0.0620)
		38336AA150	1.588 (0.0625)
		38336AA040	1.600 (0.0630)
		38336AA160	1.613 (0.0635)
		38336AA050	1.625 (0.0640)
		38336AA170	1.638 (0.0645)
		38336AA060	1.650 (0.0650)
		38336AA180	1.663 (0.0655)
		38336AA070	1.675 (0.0659)
		38336AA190	1.688 (0.0665)
		38336AA080	1.700 (0.0669)
		38336AA200	1.713 (0.0674)
		38336AA090	1.725 (0.0679)
	38336AA210	1.738 (0.0684)	
	38336AA100	1.750 (0.0689)	
	38336AA220	1.763 (0.0694)	
	38336AA110	1.775 (0.0699)	
Pinion height adjusting washer		Part No.	Thickness mm (in)
		32295AA200	0.150 (0.0059)
		32295AA210	0.175 (0.0069)
		32295AA220	0.200 (0.0079)
		32295AA230	0.225 (0.0089)
		32295AA240	0.250 (0.0098)
		32295AA250	0.275 (0.0108)
Side gear backlash	mm (in)	0.05 — 0.15 (0.0020 — 0.0059)	
Side gear thrust washer		803135011	0.925 — 0.950 (0.0364 — 0.0374)
		803135012	0.950 — 0.975 (0.0374 — 0.0384)
		803135013	0.975 — 1.000 (0.0384 — 0.0394)
		803135014	1.000 — 1.025 (0.0394 — 0.0404)
		803135015	1.025 — 1.050 (0.0404 — 0.0413)
Hypoid driven gear to drive pinion backlash		Limit mm (in)	0.10 — 0.15 (0.0039 — 0.0059)

# General Description

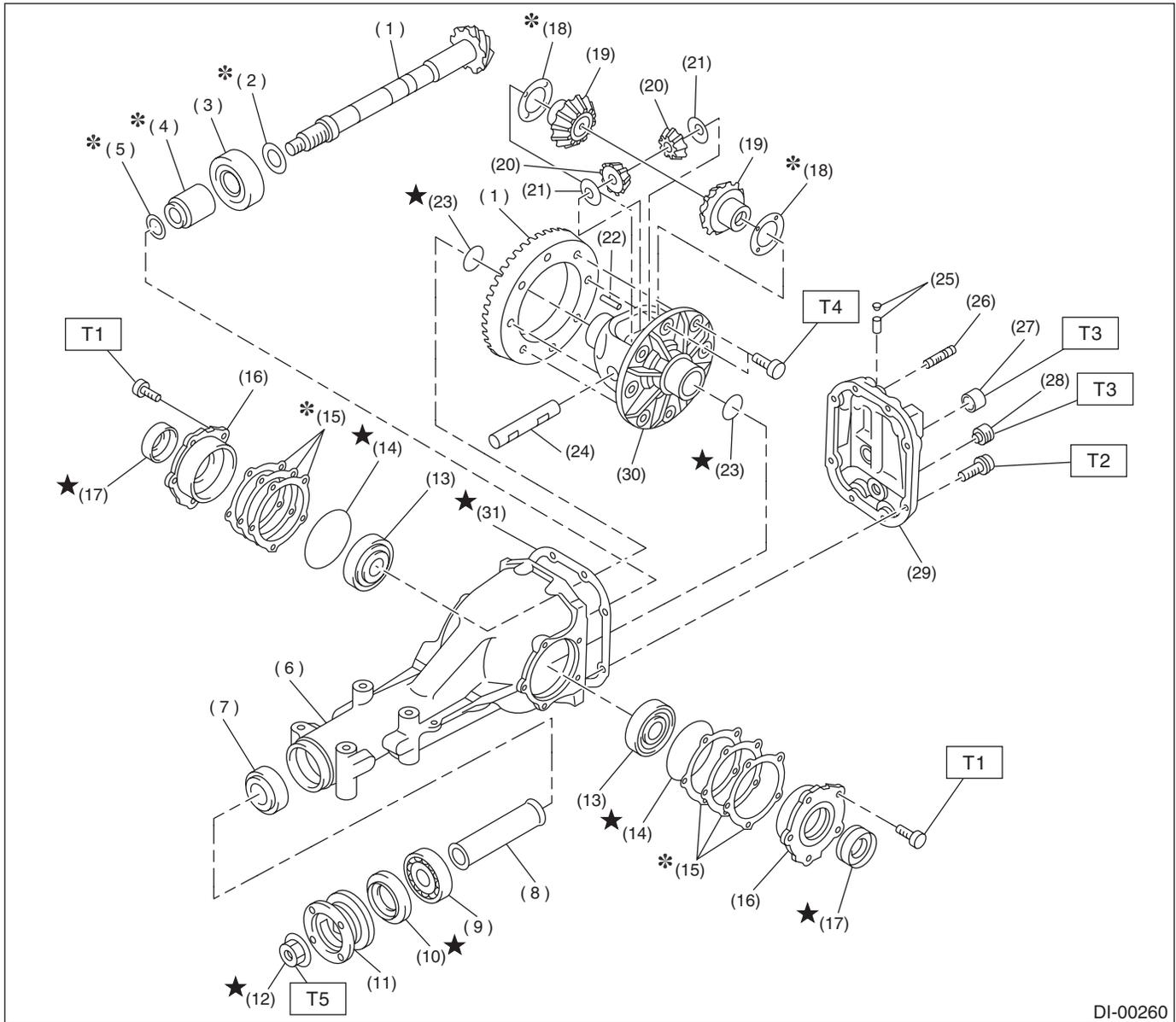
## DIFFERENTIALS

### • VA2-type

Drive pinion bearing preload (at companion flange bolt hole)	N (kgf, lb)	12.7 — 32.4 (1.3 — 3.3, 2.9 — 7.3)	
Preload adjusting collar	Part No.	Length mm (in)	
	31454AA250	51.05 (2.010)	
	31454AA260	51.25 (2.018)	
	31454AA270	51.35 (2.022)	
	31454AA280	51.45 (2.026)	
	31454AA290	51.55 (2.030)	
	31454AA300	51.65 (2.033)	
	31454AA310	51.75 (2.037)	
	31454AA320	51.85 (2.041)	
	31454AA330	52.05 (2.049)	
Preload adjusting washer	Part No.	Thickness mm (in)	
	38336AA430	1.500 (0.0591)	
	38336AA440	1.513 (0.0596)	
	38336AA450	1.525 (0.0600)	
	38336AA460	1.538 (0.0606)	
	38336AA470	1.550 (0.0610)	
	38336AA480	1.563 (0.0615)	
	38336AA490	1.575 (0.0620)	
	38336AA500	1.588 (0.0625)	
	38336AA510	1.600 (0.0630)	
	38336AA520	1.613 (0.0635)	
	38336AA530	1.625 (0.0640)	
	38336AA540	1.638 (0.0645)	
	38336AA550	1.650 (0.0650)	
	38336AA560	1.663 (0.0655)	
	38336AA570	1.675 (0.0659)	
	38336AA580	1.688 (0.0665)	
	38336AA590	1.700 (0.0669)	
	38336AA600	1.713 (0.0674)	
	38336AA610	1.725 (0.0679)	
38336AA620	1.738 (0.0684)		
38336AA630	1.750 (0.0689)		
38336AA640	1.763 (0.0694)		
38336AA650	1.775 (0.0699)		
Pinion height adjusting washer	Part No.	Thickness mm (in)	
	32295AA350	0.150 (0.0059)	
	32295AA360	0.175 (0.0069)	
	32295AA370	0.200 (0.0079)	
	32295AA380	0.225 (0.0089)	
	32295AA390	0.250 (0.0098)	
	32295AA400	0.275 (0.0108)	
Hypoid driven gear to drive pinion backlash	Limit mm (in)	0.10 — 0.15 (0.0039 — 0.0059)	

## B: COMPONENT

### 1. REAR DIFFERENTIAL WITHOUT LSD (T-TYPE)



DI-00260

- |   |                                 |                        |
|---|---------------------------------|------------------------|
| (1) Hypoid driven gear and drive pinion set | (13) Side bearing               | (26) Stud bolt         |
| (2) Pinion height adjusting washer          | (14) O-ring                     | (27) Oil filler plug   |
| (3) Rear bearing                            | (15) Side bearing retainer shim | (28) Oil drain plug    |
| (4) Bearing preload adjusting collar        | (16) Side bearing retainer      | (29) Rear cover        |
| (5) Bearing preload adjusting washer        | (17) Side oil seal              | (30) Differential case |
| (6) Differential carrier                    | (18) Side gear thrust washer    | (31) Gasket            |
| (7) Front bearing                           | (19) Side gear                  |                        |
| (8) Collar                                  | (20) Pinion mate gear           |                        |
| (9) Pilot bearing                           | (21) Pinion mate gear washer    |                        |
| (10) Front oil seal                         | (22) Pinion shaft lock pin      |                        |
| (11) Companion flange                       | (23) Snap ring                  |                        |
| (12) Self-locking nut                       | (24) Pinion mate shaft          |                        |
|   | (25) Air breather cap           |                        |

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

**T1: 10.3 (1.05, 7.6)**

**T2: 29 (3.0, 21.7)**

**T3: 49 (5.0, 36.2)**

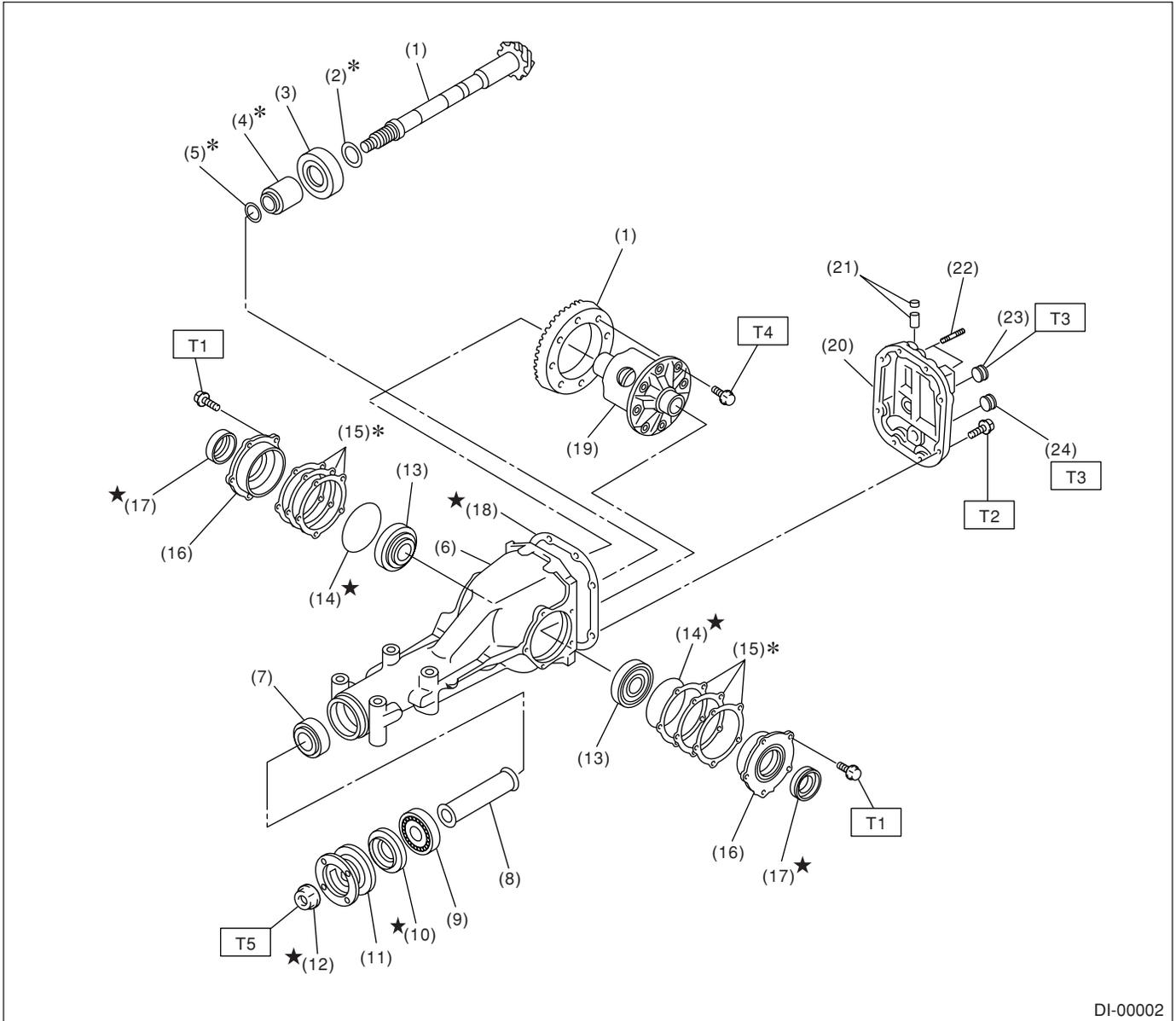
**T4: 105 (10.7, 77.4)**

**T5: 181 (18.5, 134)**

# General Description

## DIFFERENTIALS

### 2. REAR DIFFERENTIAL WITH LSD (T-TYPE)



DI-00002

- |   |                                 |
|---|---------------------------------|
| (1) Hypoid driven gear and drive pinion set | (11) Companion flange           |
| (2) Pinion height adjusting washer          | (12) Self-locking nut           |
| (3) Rear bearing                            | (13) Side bearing               |
| (4) Bearing preload adjusting collar        | (14) O-ring                     |
| (5) Bearing preload adjusting washer        | (15) Side bearing retainer shim |
| (6) Differential carrier                    | (16) Side bearing retainer      |
| (7) Front bearing                           | (17) Side oil seal              |
| (8) Collar                                  | (18) Gasket                     |
| (9) Pilot bearing                           | (19) Differential case ASSY     |
| (10) Front oil seal                         | (20) Rear cover                 |
|   | (21) Air breather cap           |

- |                      |
|----------------------|
| (22) Stud bolt       |
| (23) Oil filler plug |
| (24) Oil drain plug  |

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

**T1: 10.3 (1.05, 7.6)**

**T2: 29 (3.0, 21.7)**

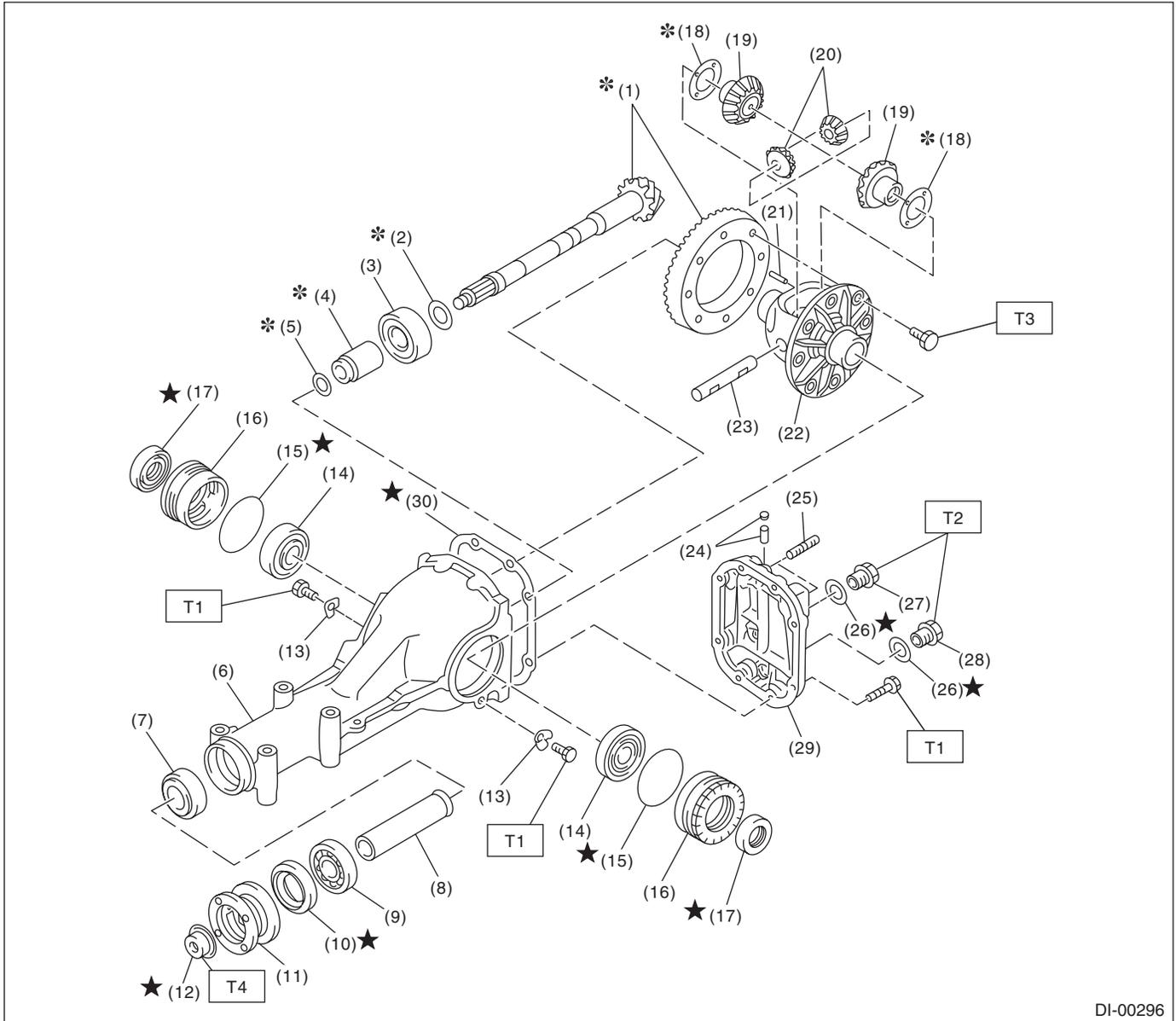
**T3: 49 (5.0, 36.2)**

**T4: 105 (10.7, 77.4)**

**T5: 181 (18.5, 134)**

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## 3. REAR DIFFERENTIAL (VA1-TYPE)



DI-00296

- |   |                              |                      |
|---|------------------------------|----------------------|
| (1) Hypoid driven gear and drive pinion set | (13) Lock plate              | (26) Gasket          |
| (2) Pinion height adjusting washer          | (14) Side bearing            | (27) Oil filler plug |
| (3) Rear bearing                            | (15) O-ring                  | (28) Oil drain plug  |
| (4) Bearing preload adjusting collar        | (16) Axle shaft holder       | (29) Rear cover      |
| (5) Bearing preload adjusting washer        | (17) Side oil seal           | (30) Gasket          |
| (6) Differential carrier                    | (18) Side gear thrust washer |                      |
| (7) Front bearing                           | (19) Side gear               |                      |
| (8) Collar                                  | (20) Pinion mate gear        |                      |
| (9) Pilot bearing                           | (21) Pinion shaft lock pin   |                      |
| (10) Front oil seal                         | (22) Differential case       |                      |
| (11) Companion flange                       | (23) Pinion mate shaft       |                      |
| (12) Self-locking nut                       | (24) Air breather cap        |                      |
|   | (25) Stud bolt               |                      |

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

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

**T2: 34 (3.5, 25.3)**

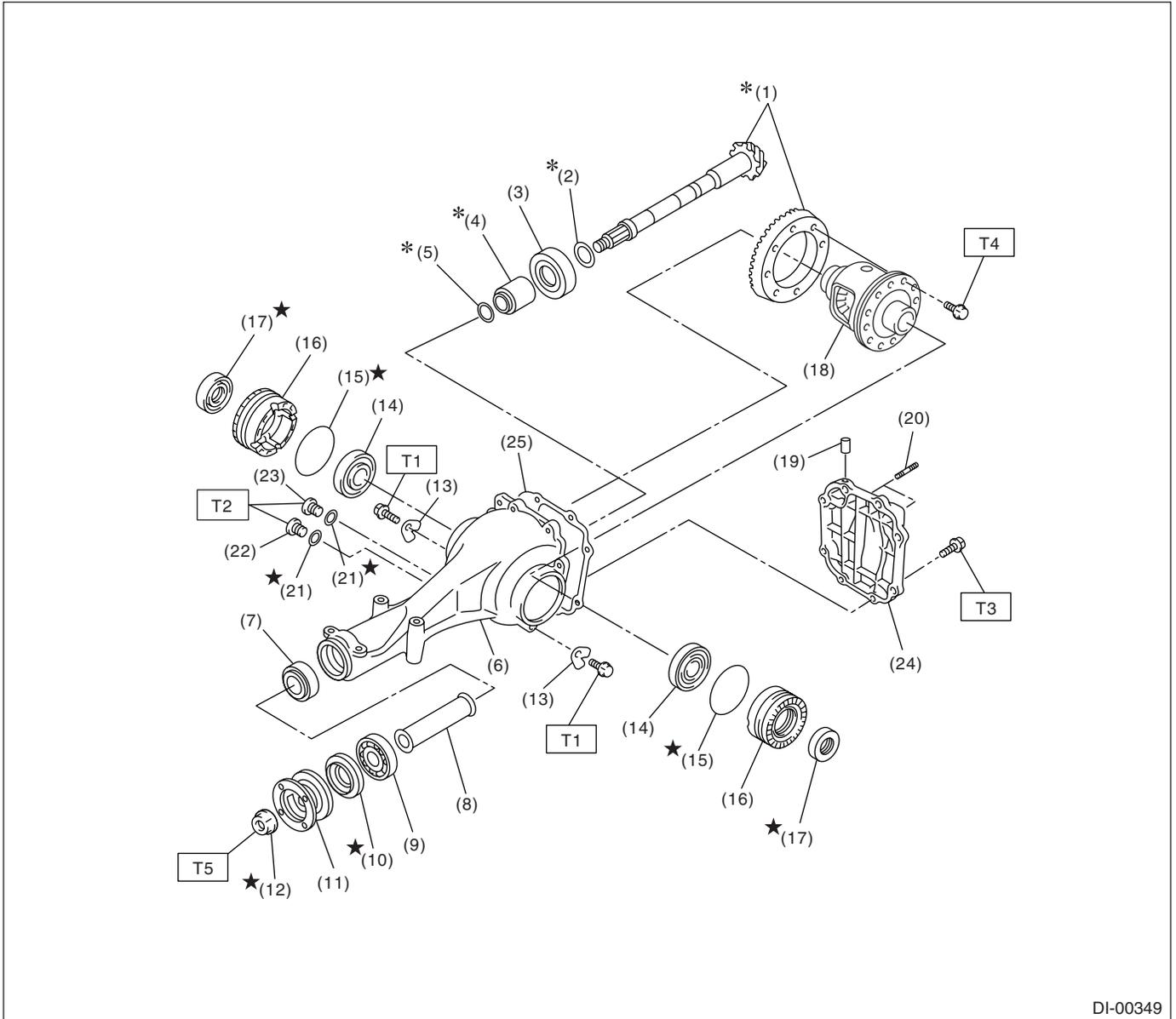
**T3: 62 (6.3, 45.6)**

**T4: 191 (19.5, 141)**

# General Description

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### 4. REAR DIFFERENTIAL (VA2-TYPE)



DI-00349

- |   |                             |
|---|-----------------------------|
| (1) Hypoid driven gear and drive pinion set | (11) Companion flange       |
| (2) Pinion height adjusting washer          | (12) Self-locking nut       |
| (3) Rear bearing                            | (13) Lock plate             |
| (4) Bearing preload adjusting collar        | (14) Side bearing           |
| (5) Bearing preload adjusting washer        | (15) O-ring                 |
| (6) Differential carrier                    | (16) Axle shaft holder      |
| (7) Front bearing                           | (17) Side oil seal          |
| (8) Collar                                  | (18) Differential case ASSY |
| (9) Pilot bearing                           | (19) Air breather cap       |
| (10) Front oil seal                         | (20) Stud bolt              |
|   | (21) Gasket                 |

- |                      |
|----------------------|
| (22) Oil filler plug |
| (23) Oil drain plug  |
| (24) Rear cover      |
| (25) Gasket          |

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

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

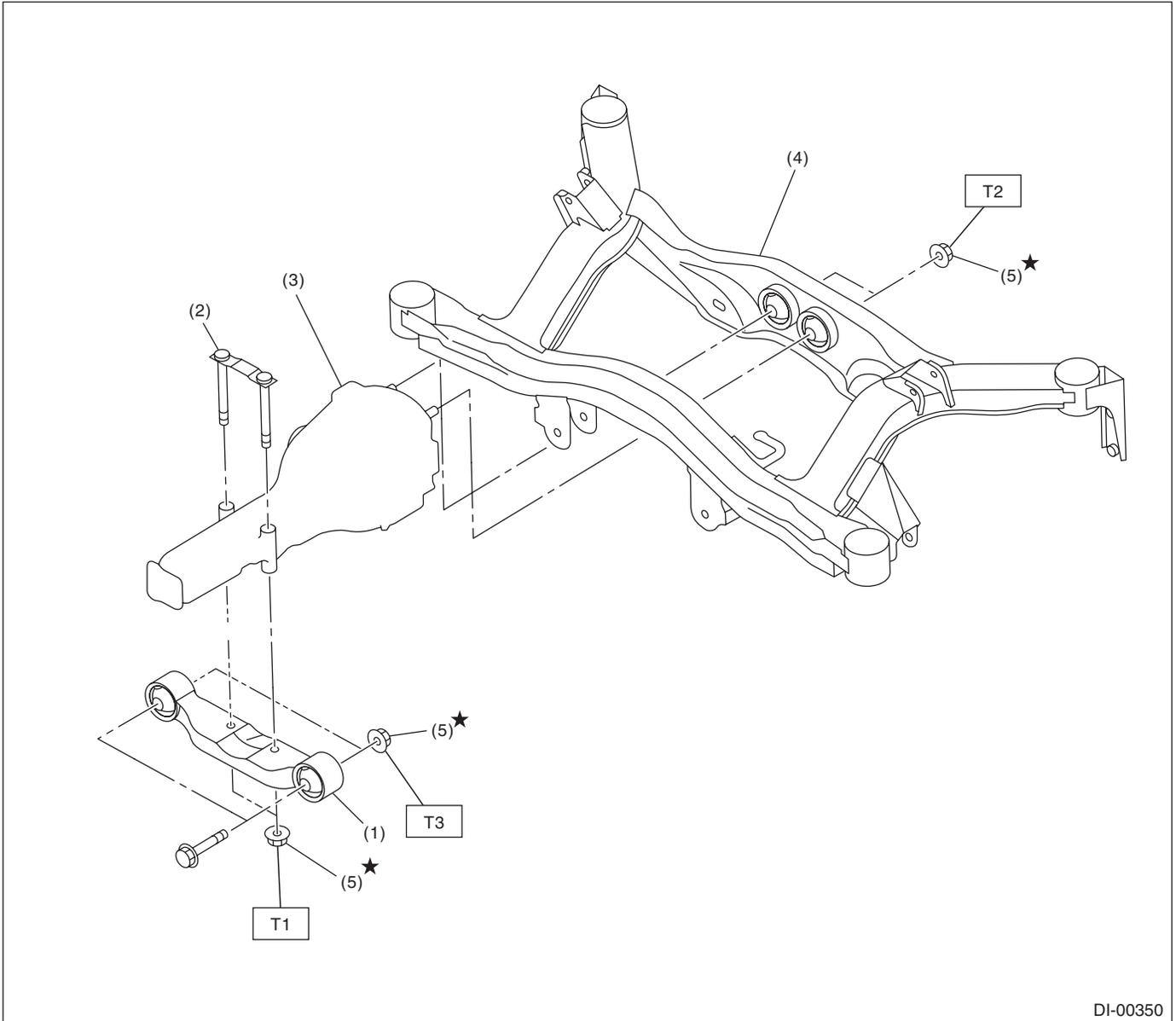
**T2: 29 (3.0, 21.4)**

**T3: 34 (3.5, 25.3)**

**T4: 62 (6.3, 45.6)**

**T5: 191 (19.5, 141)**

## 5. REAR DIFFERENTIAL MOUNTING SYSTEM



DI-00350

- |                                    |                      |
|------------------------------------|----------------------|
| (1) Rear differential front member | (4) Sub frame        |
| (2) Rear differential member plate | (5) Self-locking nut |
| (3) Rear differential ASSY         |                      |

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

**T1: 65 (6.6, 48)**

**T2: 70 (7.1, 51)**

**T3: 110 (11.2, 81)**

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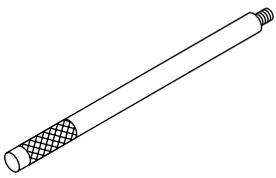
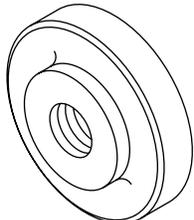
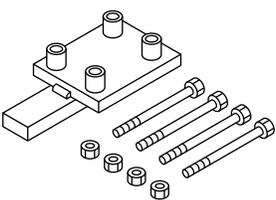
### C: CAUTION

- Wear work clothing, including a cap, protective goggles and protective shoes during operation.
- Remove contamination including dirt and corrosion before removal, installation or disassembly.
- Keep the disassembled parts in order and protect them from dust and dirt.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Be careful not to burn yourself, 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 rigid racks at the specified points.
- Apply gear oil onto sliding or revolution surfaces before installation.
- Before installing O-rings or snap rings, apply sufficient amount of gear oil to avoid damage and deformation.
- 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.

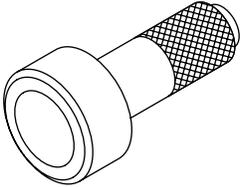
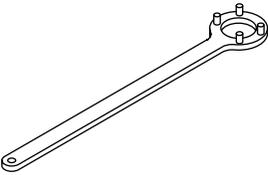
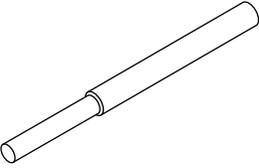
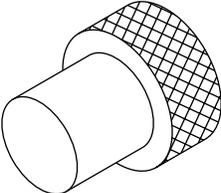
### D: PREPARATION TOOL

#### 1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-398477701</p>	398477701	HANDLE	Used for installing front and rear bearing cone.
 <p style="text-align: center;">ST-398477702</p>	398477702	DRIFT	<ul style="list-style-type: none"> <li>• Used for press-fitting the bearing cone of differential carrier (front).</li> <li>• For T-type</li> </ul>
 <p style="text-align: center;">ST-398217700</p>	398217700	ATTACHMENT SET	Stand for rear differential carrier disassembly and assembly.

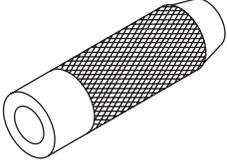
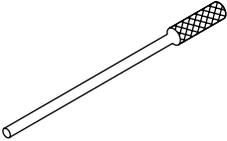
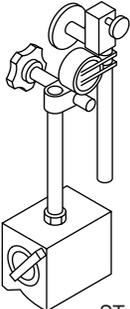
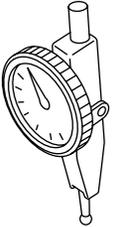
# General Description

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ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p data-bbox="334 537 464 562">ST-498447120</p>	498447120	INSTALLER	Used for installing front oil seal.
 <p data-bbox="334 919 464 945">ST-498427200</p>	498427200	FLANGE WRENCH	Used for stopping rotation of companion flange when removing and tightening self-locking nut.
 <p data-bbox="334 1297 464 1323">ST-398467700</p>	398467700	DRIFT	<ul style="list-style-type: none"> <li>• Used for removing pinion, pilot bearing and front bearing cone.</li> <li>• For T-type and VA1-type</li> </ul>
 <p data-bbox="334 1682 464 1707">ST-399780104</p>	399780104	WEIGHT	Used for installing front bearing cone and pilot bearing companion flange.

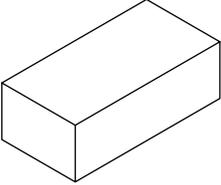
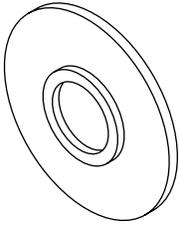
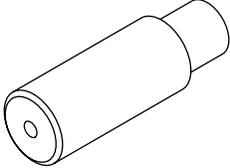
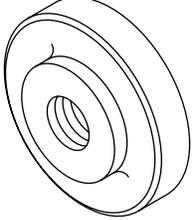
# General Description

## DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-899580100</p>	899580100	INSTALLER	Used for press-fitting front bearing cone and pilot bearing.
 <p style="text-align: center;">ST-899904100</p>	899904100	STRAIGHT PIN REMOVER	Used for driving out differential pinion shaft lock pin.
 <p style="text-align: center;">ST-498247001</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>
 <p style="text-align: center;">ST-498247100</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>

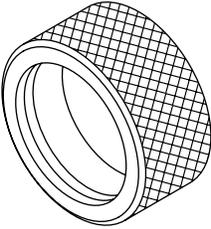
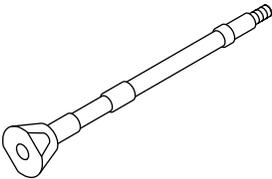
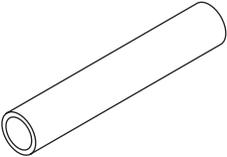
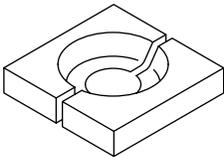
# General Description

DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-398507704</p>	398507704	BLOCK	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height and preload.</li> <li>• For T-type and VA1-type</li> </ul>
 <p style="text-align: center;">ST-398177700</p>	398177700	INSTALLER	<ul style="list-style-type: none"> <li>• Used for installing rear bearing cone.</li> <li>• For T-type and VA2-type</li> </ul>
 <p style="text-align: center;">ST-398457700</p>	398457700	ATTACHMENT	<ul style="list-style-type: none"> <li>• Used for removal of side bearing retainer.</li> <li>• For T-type</li> </ul>
 <p style="text-align: center;">ST-398477703</p>	398477703	DRIFT 2	<ul style="list-style-type: none"> <li>• Used for press-fitting bearing race (rear) of differential carrier.</li> <li>• For T-type and VA2-type</li> </ul>

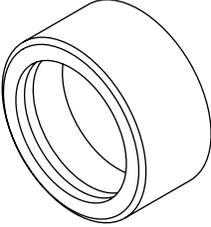
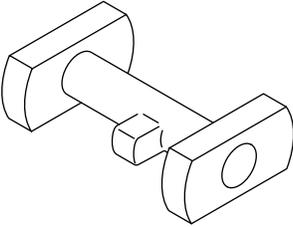
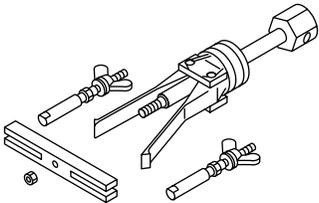
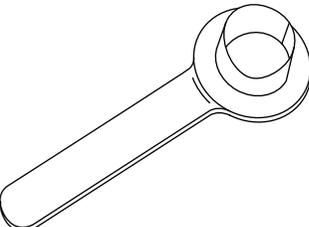
# General Description

## DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-398437700</p>	398437700	DRIFT	<ul style="list-style-type: none"> <li>• Used for installing side oil seal.</li> <li>• For T-type and VA2-type</li> </ul>
 <p style="text-align: center;">ST-398507702</p>	398507702	DUMMY SHAFT	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height and preload.</li> <li>• For T-type</li> </ul>
 <p style="text-align: center;">ST-398507703</p>	398507703	DUMMY COLLAR	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height and preload.</li> <li>• For T-type</li> </ul>
 <p style="text-align: center;">ST-398517700</p>	398517700	REPLACER	<ul style="list-style-type: none"> <li>• Used for removing rear bearing cone.</li> <li>• For T-type and VA2-type</li> </ul>

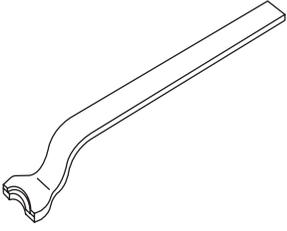
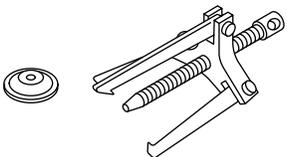
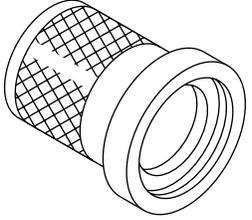
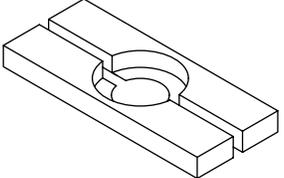
# General Description

DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST-398487700</p>	398487700	DRIFT	<ul style="list-style-type: none"> <li>• Used for press-fitting side bearing cone.</li> <li>• For T-type and VA2-type</li> </ul>
 <p>ST-398507701</p>	398507701	DIFFERENTIAL CARRIER GAUGE	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height.</li> <li>• For T-type</li> </ul>
 <p>ST-398527700</p>	398527700	PULLER ASSY	<ul style="list-style-type: none"> <li>• Used for removing front oil seal.</li> <li>• Used for removing side bearing cup. (T-type)</li> </ul>
 <p>ST28099PA090</p>	28099PA090	OIL SEAL PROTEC- TOR	<ul style="list-style-type: none"> <li>• Used for installing the rear drive shaft to rear differential.</li> <li>• For oil seal protection</li> </ul>

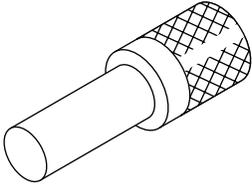
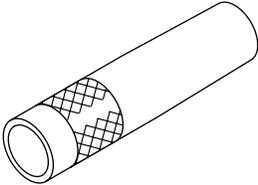
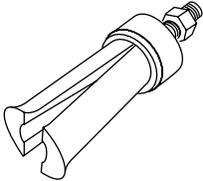
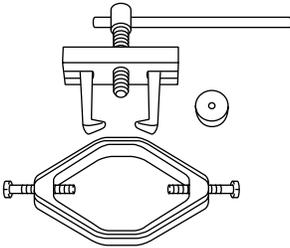
# General Description

## DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST28099PA100</p>	<p style="text-align: center;">28099PA100</p>	<p>DRIVE SHAFT REMOVER</p>	<ul style="list-style-type: none"> <li>• Used for removing rear drive shaft from rear differential.</li> <li>• For T-type</li> </ul>
 <p style="text-align: center;">ST-399703600</p>	<p style="text-align: center;">399703600</p>	<p>PULLER ASSY</p>	<p>Used for removing companion flange.</p>
 <p style="text-align: center;">ST-899874100</p>	<p style="text-align: center;">899874100</p>	<p>INSTALLER</p>	<p>Used for installing companion flange.</p>
 <p style="text-align: center;">ST-498077000</p>	<p style="text-align: center;">498077000</p>	<p>REMOVER</p>	<ul style="list-style-type: none"> <li>• Used for removing side bearing cone from differential.</li> <li>• For VA2-type</li> </ul>

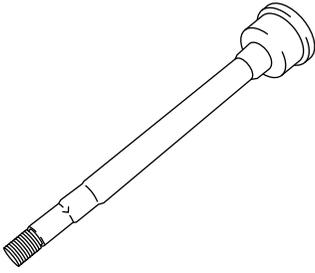
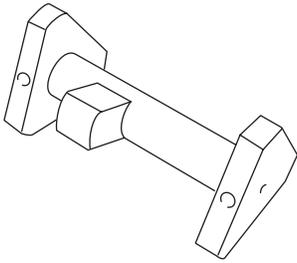
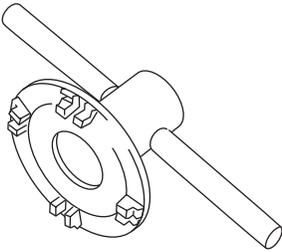
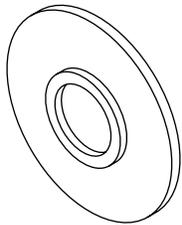
# General Description

DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p data-bbox="332 541 464 562">ST-899864100</p>	899864100	REMOVER	Used for removing differential side bearing.
 <p data-bbox="332 919 464 940">ST-499277200</p>	499277200	INSTALLER	<ul style="list-style-type: none"> <li>• Used for installing front bearing cone.</li> <li>• For VA2-type</li> </ul>
 <p data-bbox="321 1297 464 1318">ST18758AA000</p>	18758AA000	PULLER	<ul style="list-style-type: none"> <li>• Used for removing side bearing cup.</li> <li>• For VA2-type</li> </ul>
 <p data-bbox="321 1682 464 1703">ST18759AA000</p>	18759AA000	PULLER ASSY	<ul style="list-style-type: none"> <li>• Used for removing differential from side bearing cone.</li> <li>• For T-type</li> </ul>

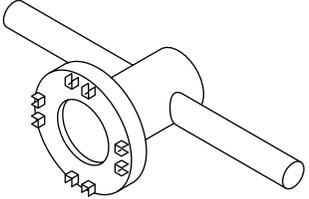
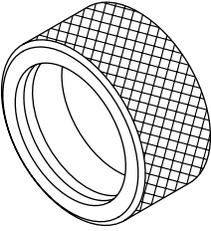
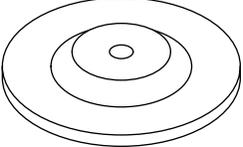
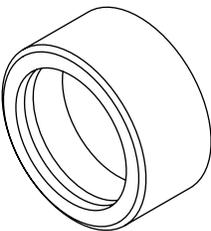
# General Description

## DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST18678AA000</p>	<p style="text-align: center;">18678AA000 (Newly adopted tool)</p>	<p style="text-align: center;">DUMMY SHAFT</p>	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height and preload.</li> <li>• For VA2-type</li> </ul>
 <p style="text-align: center;">ST18831AA010</p>	<p style="text-align: center;">18831AA010 (Newly adopted tool)</p>	<p style="text-align: center;">DIFFERENTIAL CARRIER GAUGE</p>	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height.</li> <li>• For VA2-type</li> </ul>
 <p style="text-align: center;">ST18630AA010</p>	<p style="text-align: center;">18630AA010 (Newly adopted tool)</p>	<p style="text-align: center;">WRENCH ASSY</p>	<ul style="list-style-type: none"> <li>• Used for removing and installing side oil seal holder.</li> <li>• For VA2-type</li> </ul> <p>NOTE: Also available for VA1-type.</p>
 <p style="text-align: center;">ST-498175500</p>	<p style="text-align: center;">498175500</p>	<p style="text-align: center;">INSTALLER</p>	<ul style="list-style-type: none"> <li>• Used for installing rear bearing cone.</li> <li>• For VA1-type</li> </ul>

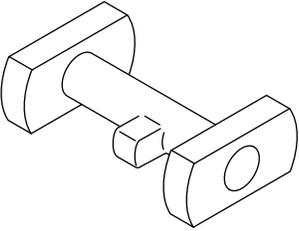
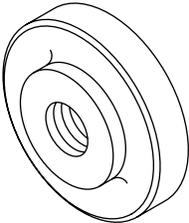
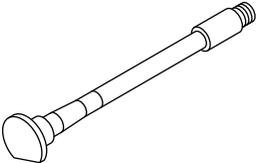
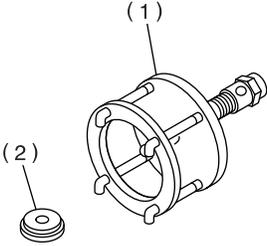
# General Description

DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-499785500</p>	<p style="text-align: center;">499785500</p>	<p>WRENCH ASSY</p>	<ul style="list-style-type: none"> <li>• Used for removing and installing side oil seal holder.</li> <li>• For VA1-type</li> </ul>
 <p style="text-align: center;">ST-498447100</p>	<p style="text-align: center;">498447100</p>	<p>INSTALLER</p>	<ul style="list-style-type: none"> <li>• Used for installing oil seal.</li> <li>• For VA1-type and T-type</li> </ul>
 <p style="text-align: center;">ST-399520105</p>	<p style="text-align: center;">399520105</p>	<p>SEAT</p>	<ul style="list-style-type: none"> <li>• Used for removing side bearing cone.</li> <li>• Used with PULLER SET (899524100).</li> <li>• For VA-type</li> </ul>
 <p style="text-align: center;">ST-498485400</p>	<p style="text-align: center;">498485400</p>	<p>DRIFT</p>	<ul style="list-style-type: none"> <li>• Used for installing side bearing cone.</li> <li>• For VA1-type</li> </ul>

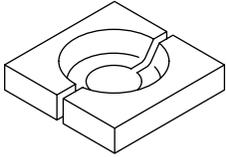
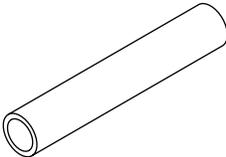
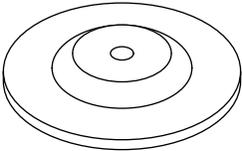
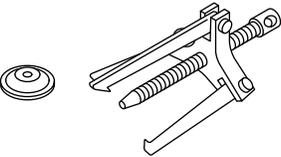
# General Description

## DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-498505501</p>	498505501	DIFFERENTIAL CARRIER GAUGE	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height.</li> <li>• For VA1-type</li> </ul>
 <p style="text-align: center;">ST-498447110</p>	498447110	DRIFT	<ul style="list-style-type: none"> <li>• Used for press-fitting the bearing race (front) of differential carrier.</li> <li>• For VA1-type</li> </ul>
 <p style="text-align: center;">ST-498447150</p>	498447150	DUMMY SHAFT	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height and preload.</li> <li>• For VA1-type</li> </ul>
 <p style="text-align: center;">ST-899524100</p>	899524100	PULLER SET	<p>Used for removing side bearing corn of differential.</p> <p>(1) Puller (2) Cap</p>

# General Description

DIFFERENTIALS

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p style="text-align: center;">ST-498515500</p>	<p style="text-align: center;">498515500</p>	<p>REPLACER</p>	<ul style="list-style-type: none"> <li>• Used for removing rear bearing cone.</li> <li>• For VA1-type</li> </ul>
 <p style="text-align: center;">ST32285AA000</p>	<p style="text-align: center;">32285AA000</p>	<p>DUMMY COLLAR</p>	<ul style="list-style-type: none"> <li>• Used for adjusting pinion height and preload.</li> <li>• For VA1-type</li> </ul>
 <p style="text-align: center;">ST-499705404</p>	<p style="text-align: center;">499705404</p>	<p>SEAT</p>	<ul style="list-style-type: none"> <li>• Used for removing side bearing race.</li> <li>• Used with PULLER ASSY (499705401).</li> <li>• For VA1-type</li> </ul>
 <p style="text-align: center;">ST-499705401</p>	<p style="text-align: center;">499705401</p>	<p>PULLER ASSY</p>	<ul style="list-style-type: none"> <li>• Used for removing side bearing race.</li> <li>• Used with SEAT (499705404).</li> <li>• For VA-type</li> </ul>

## General Description

DIFFERENTIALS

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### 2. GENERAL PURPOSE TOOL

TOOL NAME	REMARKS
Transmission jack	Used for assembly/disassembly of rear differential.
Puller	Used for removal of side bearing retainer.
Thickness gauge	Used for measuring clearance.
Hexagon wrench	Used for installing and removing filler and drain plug.
Tire lever	Used for removal of rear drive shaft. (VA-type)