

General Description

STARTING/CHARGING SYSTEMS

1. General Description

A: SPECIFICATION

1. NON-TURBO MODEL

Item		Specification	
Starter	Type	Reduction type	
	Vehicle model	MT	AT
	Model	M000T30475	M000T20175
	Manufacturer	Mitsubishi Electric	
	Voltage and output	12 V — 1.0 kW	12 V — 1.4 kW
	Direction of rotation	Counterclockwise (when observed from pinion)	
	Number of pinion teeth	8	9
	No-load characteristics	Voltage	11 V
		Current	95 A or less
		Rotating speed	2,500 rpm or more
	Load characteristics	Voltage	7.5 V
		Current	300 A
		Torque	8.84 N·m (0.9 kgf-m, 6.5 ft-lb) or more
		Rotating speed	870 rpm or more
	Lock characteristics	Voltage	4 V
		Current	680 A or less
		Torque	17 N·m (1.7 kgf-m, 12.5 ft-lb) or more
Generator	Type	Rotating-field three-phase type, voltage regulator built-in type, with load response control system	
	Model	A2TG0391	
	Manufacturer	Mitsubishi Electric	
	Voltage and output	12 V — 90 A	
	Polarity on ground side	Negative	
	Direction of rotation	Clockwise (when observed from pulley side)	
	Armature connection	3-phase Y-type	
	Output current	1,500 rpm — 40 A or more 2,500 rpm — 74 A or more 5,000 rpm — 84 A or more	
	Regulated voltage	14.1 — 14.8 V [20°C (68°F)]	
Battery	Type and capacity	12 V — 48 AH (55D 23L)	12 V — 52 AH (75D 23L)

General Description

STARTING/CHARGING SYSTEMS

2. TURBO MODEL

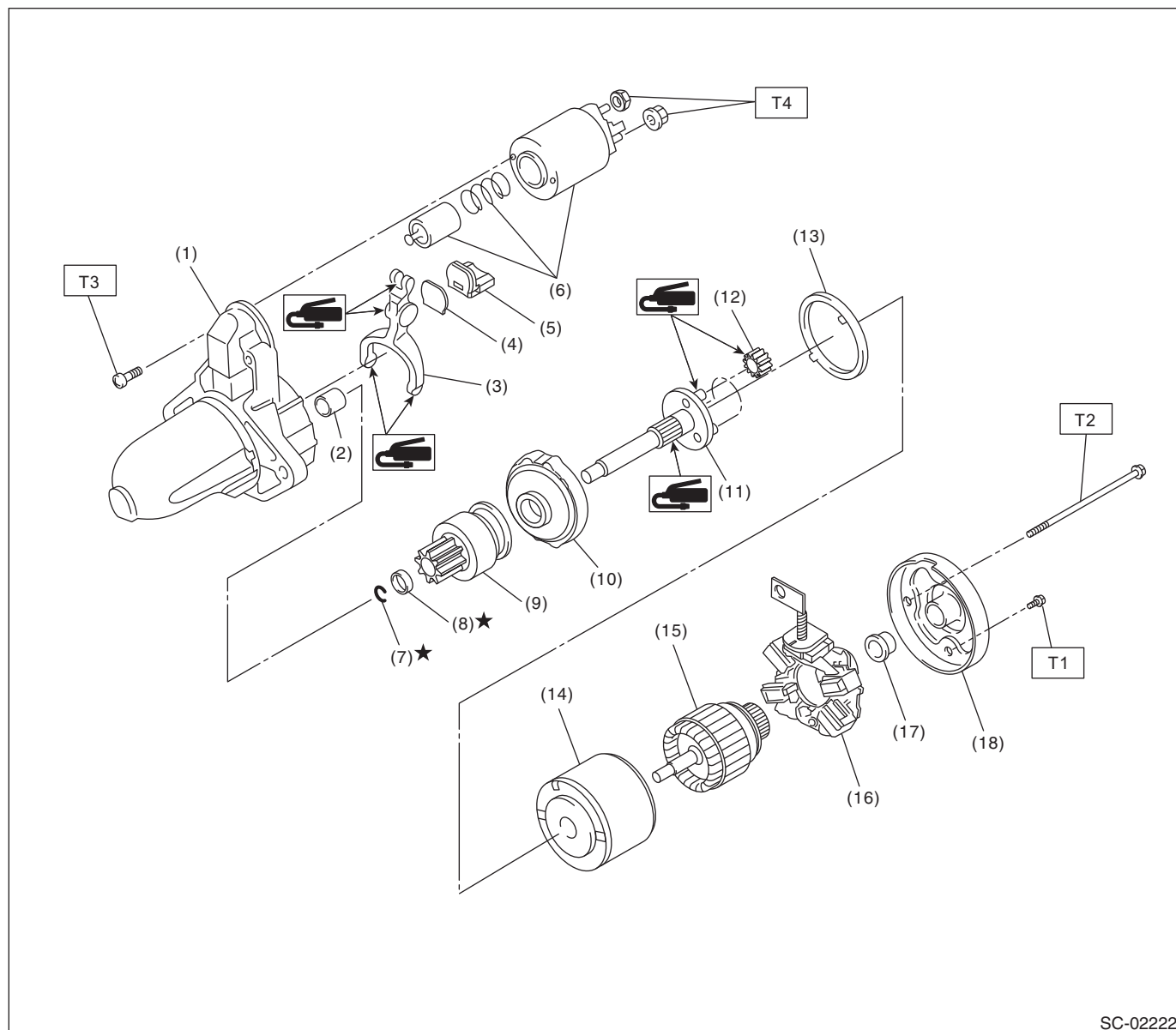
Item		Specification
Starter	Type	Reduction type
	Vehicle model	AT
	Model	M000T20175
	Manufacturer	Mitsubishi Electric
	Voltage and output	12 V — 1.4 kW
	Direction of rotation	Counterclockwise (when observed from pinion)
	Number of pinion teeth	9
	No-load characteristics	Voltage
		Current
		Direction of rotation
	Load characteristics	Voltage
		Current
		Torque
		Rotating speed
	Lock characteristics	Voltage
		Current
		Torque
Generator	Type	Rotating-field three-phase type, voltage regulator built-in type, with load response control system
	Model	A3TG0491
	Manufacturer	Mitsubishi Electric
	Voltage and output	12 V — 110 A
	Polarity on ground side	Negative
	Direction of rotation	Clockwise (when observed from pulley side)
	Armature connection	3-phase Y-type
	Output current	1,500 rpm — 50 A or more
		2,500 rpm — 91 A or more
		5,000 rpm — 105 A or more
Battery	Regulated voltage	14.1 — 14.8 V [20°C (68°F)]
	Type and capacity	12 V — 52 AH (75D 23L)

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B: COMPONENT

1. STARTER



SC-02222

- (1) Starter housing ASSY
- (2) Sleeve bearing
- (3) Shift lever
- (4) Plate
- (5) Seal rubber
- (6) Magnet switch ASSY
- (7) Snap ring
- (8) Stopper

- (9) Overrunning clutch
- (10) Internal gear ASSY
- (11) Shaft
- (12) Pinion gear
- (13) Seal rubber
- (14) Yoke ASSY
- (15) Armature ASSY
- (16) Brush holder ASSY

- (17) Sleeve bearing
- (18) Starter cover ASSY

Tightening torque: N·m (kgf-m, ft-lb)

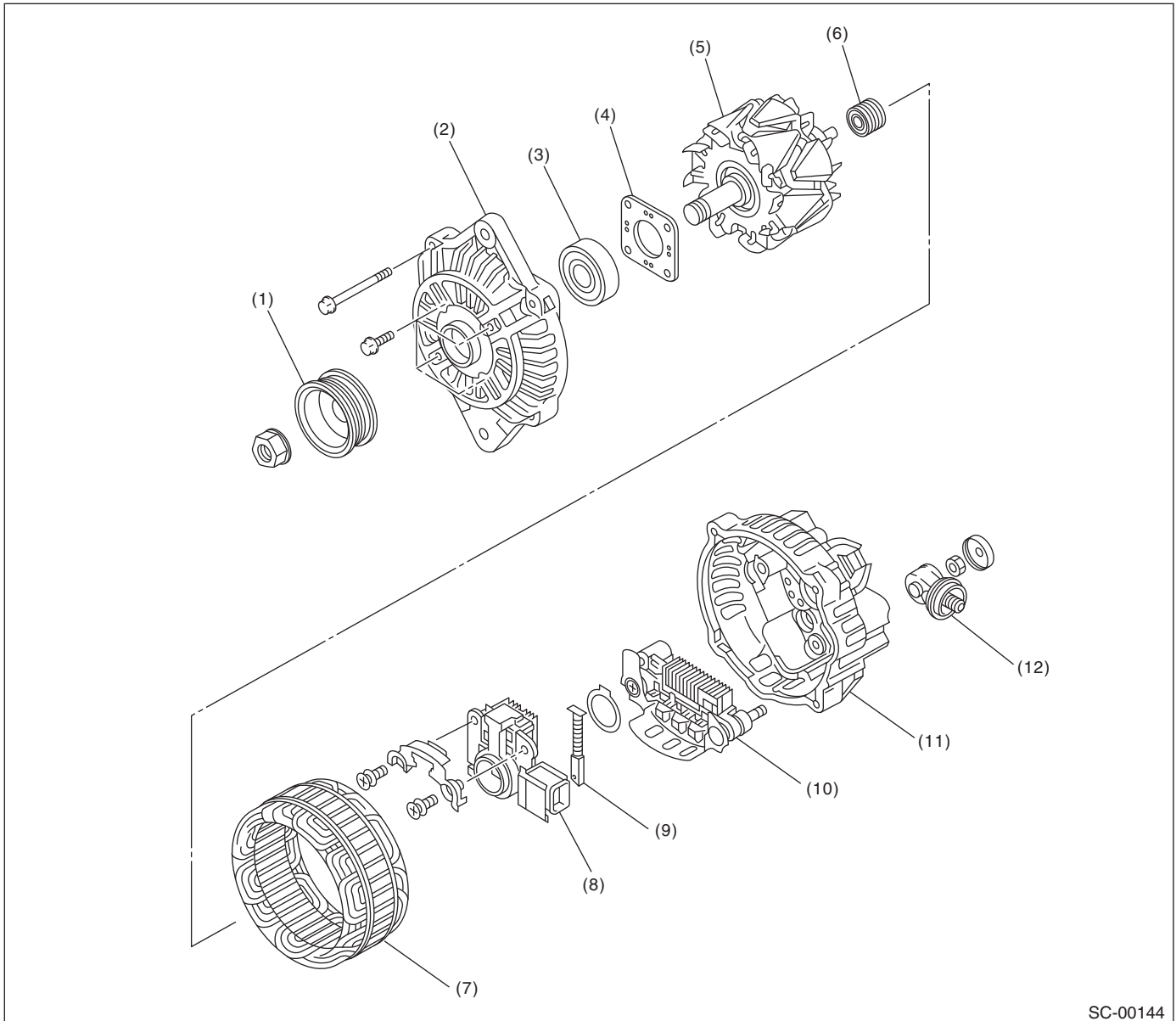
T1: 1.4 (0.1, 1.0)

T2: 6 (0.6, 4.4)

T3: 7.5 (0.8, 5.5)

T4: 10 (1.0, 7.4)

2. GENERATOR



SC-00144

- | | | |
|----------------------|-----------------------------|-----------------|
| (1) Pulley | (5) Rotor | (9) Brush |
| (2) Front cover | (6) Bearing | (10) Rectifier |
| (3) Ball bearing | (7) Stator coil | (11) Rear cover |
| (4) Bearing retainer | (8) IC regulator with brush | (12) Terminal |

C: CAUTION

- Wear appropriate work clothing, including a cap, protective goggles and protective shoes when performing any work.
- 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.
- Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from the battery.