

General Description

POWER ASSISTED SYSTEM (POWER STEERING)

1. General Description

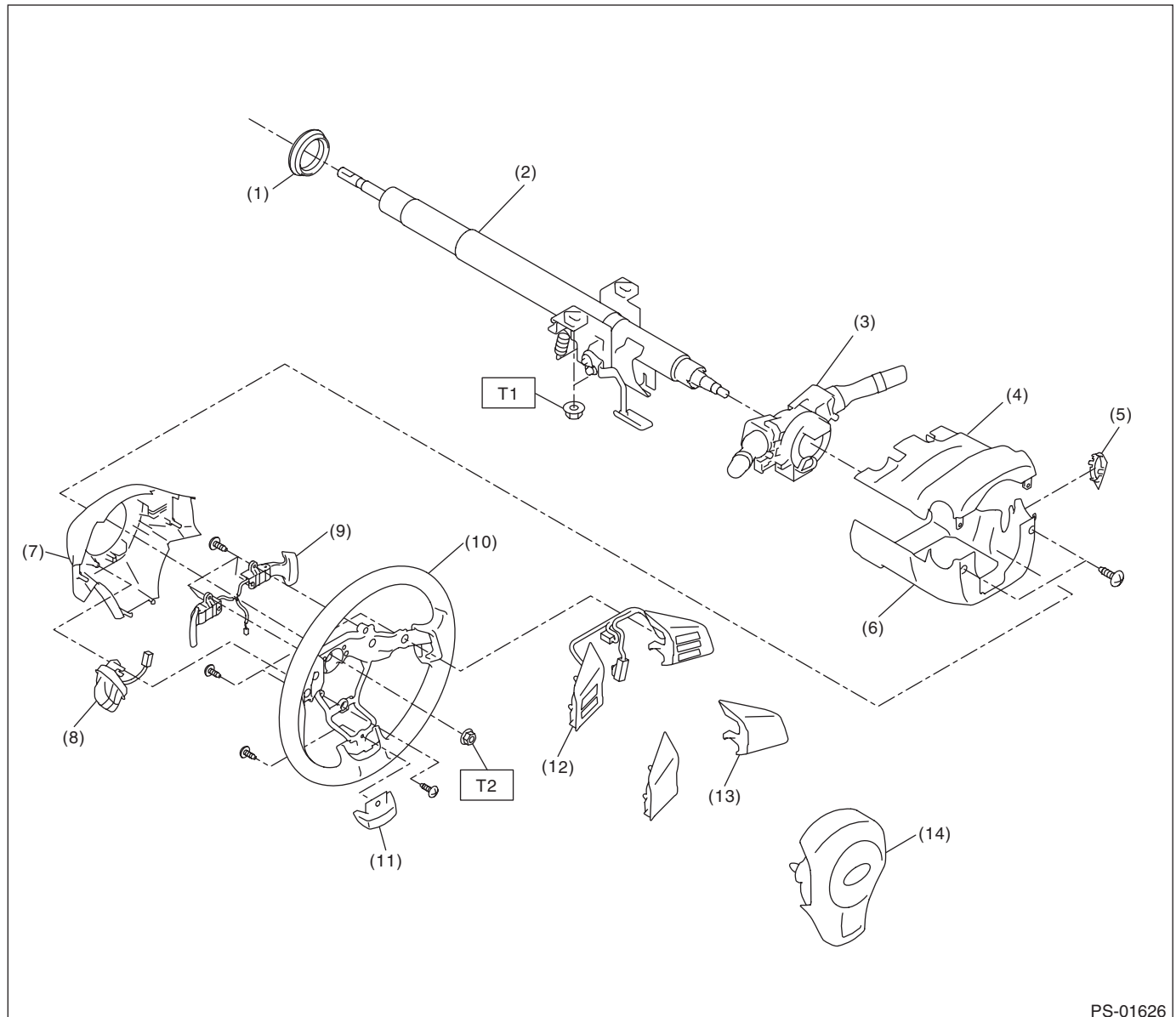
A: SPECIFICATION

Whole system	Minimum turning radius		m (ft)	5.3 (17.4)
	Steering angle	Inner wheel		38.4°±1.5°
		Outer wheel		33.8°±1.5°
	Steering wheel diameter		mm (in)	375 (14.76)
Gearbox	Lock-to-lock revolution number			3.1
	Type			Rack & pinion type
	Backlash			0 (automatic adjusting)
Motor (Temperature 20°C (68°F))	Rated voltage		V	12
	Rated torque		N·m (kgf-m, ft-lb)	4.5 (0.46, 3.31)
	Rated revolution speed		rpm	1,140
	Rated current		A	85
	Rated output		W	561

Steering wheel	Free play		mm (in)	17 (0.67) or less
Column assembly - steering	Clearance between the steering wheel and the cover assembly - column		mm (in)	4 — 6 (0.16 — 0.24)
Steering gearbox (Power steering system)	Sliding resistance		N (kgf, lbf)	350 (36, 79) or less Difference between right and left sliding resistance: 20% or less
	Rack shaft play in the radial direction	Right-turn steering	mm (in)	Horizontal play: 0.6 (0.024) or less Vertical play: 0.4 (0.016) or less
		Left-turn steering	mm (in)	0.4 (0.016) or less
	Input shaft play	In radial direction	mm (in)	0.18 (0.0071) or less
		In axial direction	mm (in)	0.27 (0.0106) or less
	Rotational resistance		N (kgf, lbf)	Maximum allowable value: 18.3 (1.9, 4.1) or less Difference between right and left sliding resistance: 20% or less
Steering wheel effort (Power steering system)	At standstill with engine idling on paved road		N (kgf, lbf)	29.4 (3.0, 6.6) or less
	At standstill with engine stalled on paved road		N (kgf, lbf)	294.2 (30, 66.2) or less

B: COMPONENT

1. STEERING WHEEL AND COLUMN



- | | |
|--------------------------------|-----------------------|
| (1) Bushing | (8) MFD switch |
| (2) Column ASSY - steering | (9) Paddle shift |
| (3) Switch ASSY - combination | (10) Steering wheel |
| (4) Cover ASSY - column UPR | (11) Cover - spoke |
| (5) Cap - key cylinder | (12) Satellite switch |
| (6) Cover ASSY - column LWR | (13) Cover - switch |
| (7) Cover - steering wheel LWR | (14) Airbag module |

Tightening torque: N·m (kgf-m, ft-lb)

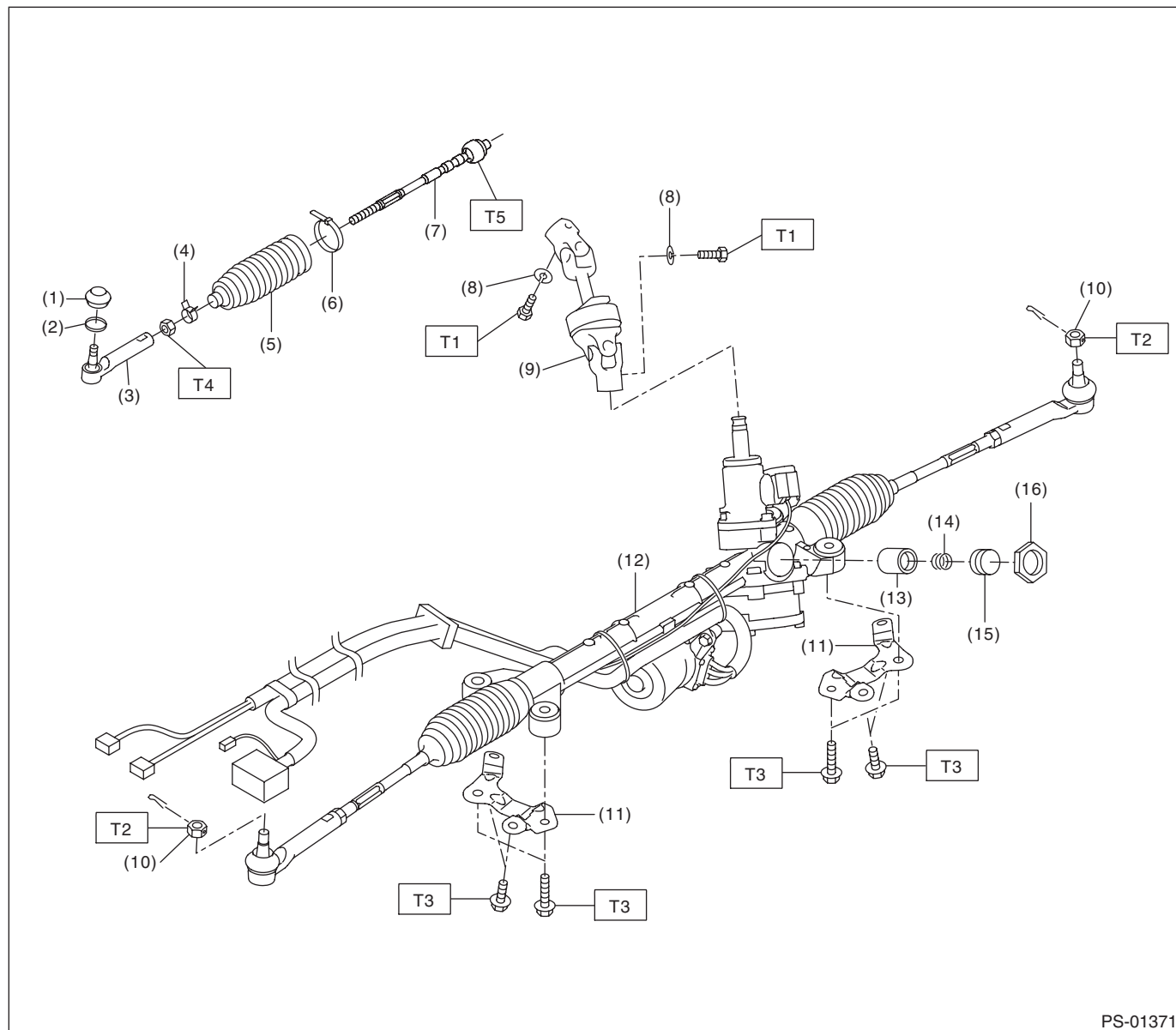
T1: 20 (2.04, 14.8)

T2: 39 (3.98, 28.8)

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2. STEERING GEARBOX



PS-01371

- | | |
|-------------------------------|-------------------------------------|
| (1) Dust seal | (9) Universal joint ASSY - steering |
| (2) Clip - boot tie-rod end B | (10) Castle nut |
| (3) Tie-rod end | (11) Stiffener |
| (4) Clip - boot tie-rod end A | (12) Steering gearbox ASSY |
| (5) Boot - steering gearbox | (13) Pad - pressure |
| (6) Band - boot | (14) Spring - gearbox |
| (7) Tie-rod | (15) Adjusting screw |
| (8) Spring washer | (16) Lock nut |

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

T1: 24 (2.45, 17.7)

T2: 27 (2.75, 19.9)

T3: 60 (6.12, 44.3)

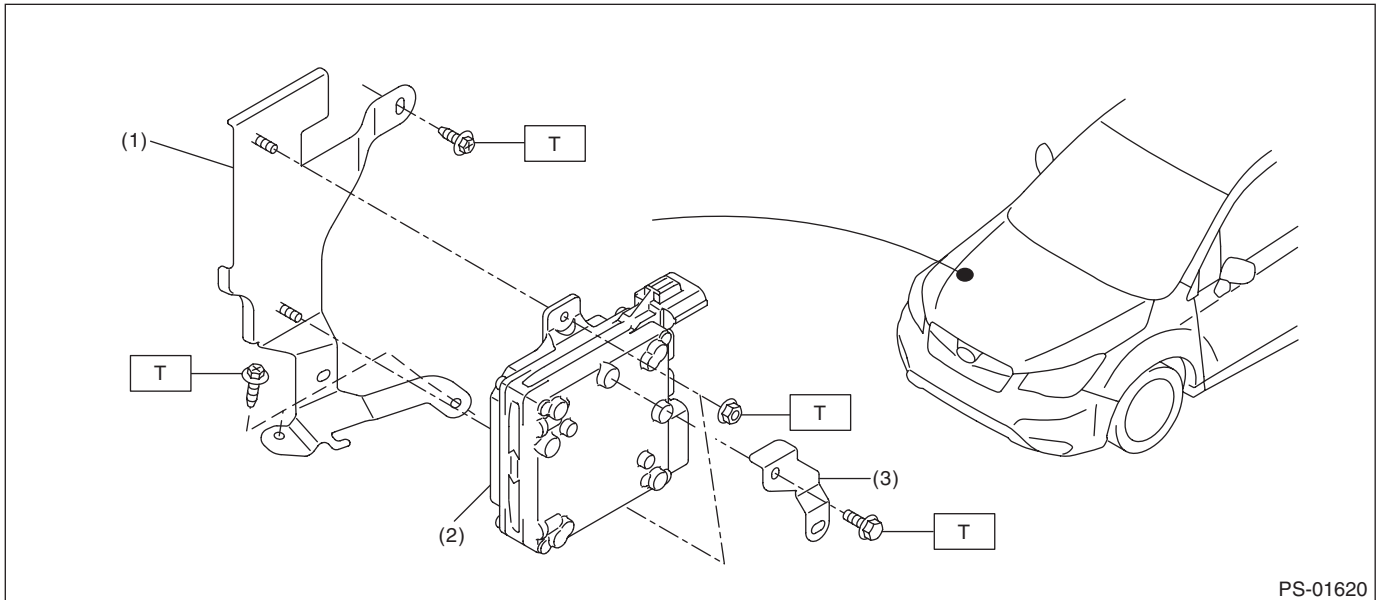
T4: 85 (8.67, 62.7)

T5: 90 (9.18, 66.4)

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3. ELECTRIC POWER STEERING CONTROL MODULE



(1) Bracket - control module

(3) Harness bracket

(2) Power steering control module

Tightening torque: N·m (kgf-m, ft-lb)

T: 7.5 (0.76, 5.5)

C: CAUTION

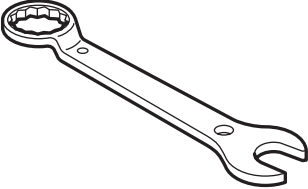
- Wear appropriate work clothing, including a helmet, protective goggles and protective shoes when performing any work.
- Before removal, installation or disassembly, be sure to clarify the failure. Avoid unnecessary removal, installation, disassembly and replacement.
- Vehicle components are extremely hot after driving. Be wary of receiving burns from heated parts.
- Use grease and oil of SUBARU genuine or the equivalent products. Do not mix them of different grades or manufacturers.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- Before securing a part on a vise, place cushioning material such as wooden blocks, aluminum plate or cloth between the part and the vise.
- If the steering wheel and steering angle sensor are removed, perform "VDC sensor midpoint setting mode" of the VDC. <Ref. to VDC-23, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

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D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST34099PA100	34099PA100	SPANNER	Used when measuring the rotating resistance of gearbox assembly.

2. GENERAL TOOL

TOOL NAME	REMARKS
Steering wheel puller	Used for removing the steering wheel.