

General Description

POWER ASSISTED SYSTEM (POWER STEERING)

1. General Description

A: SPECIFICATION

Model			Except for XV model	XV model	
				Gasoline engine model	HEV model
Whole system	Minimum turning radius		m (ft)	5.3 (17.39)	
	Steering angle	Inner wheel	38.3°±1.5°	38.2°±1.5°	
		Outer wheel	33.7°±1.5°	33.6°±1.5°	
	Steering wheel diameter		mm (in)	375 (14.76)	
Gearbox	Lock-to-lock revolution number			2.9	2.8
	Type			Rack & pinion type	
Motor (Temperature 20°C (68°F))	Backlash			0 (automatic adjusting)	
	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	

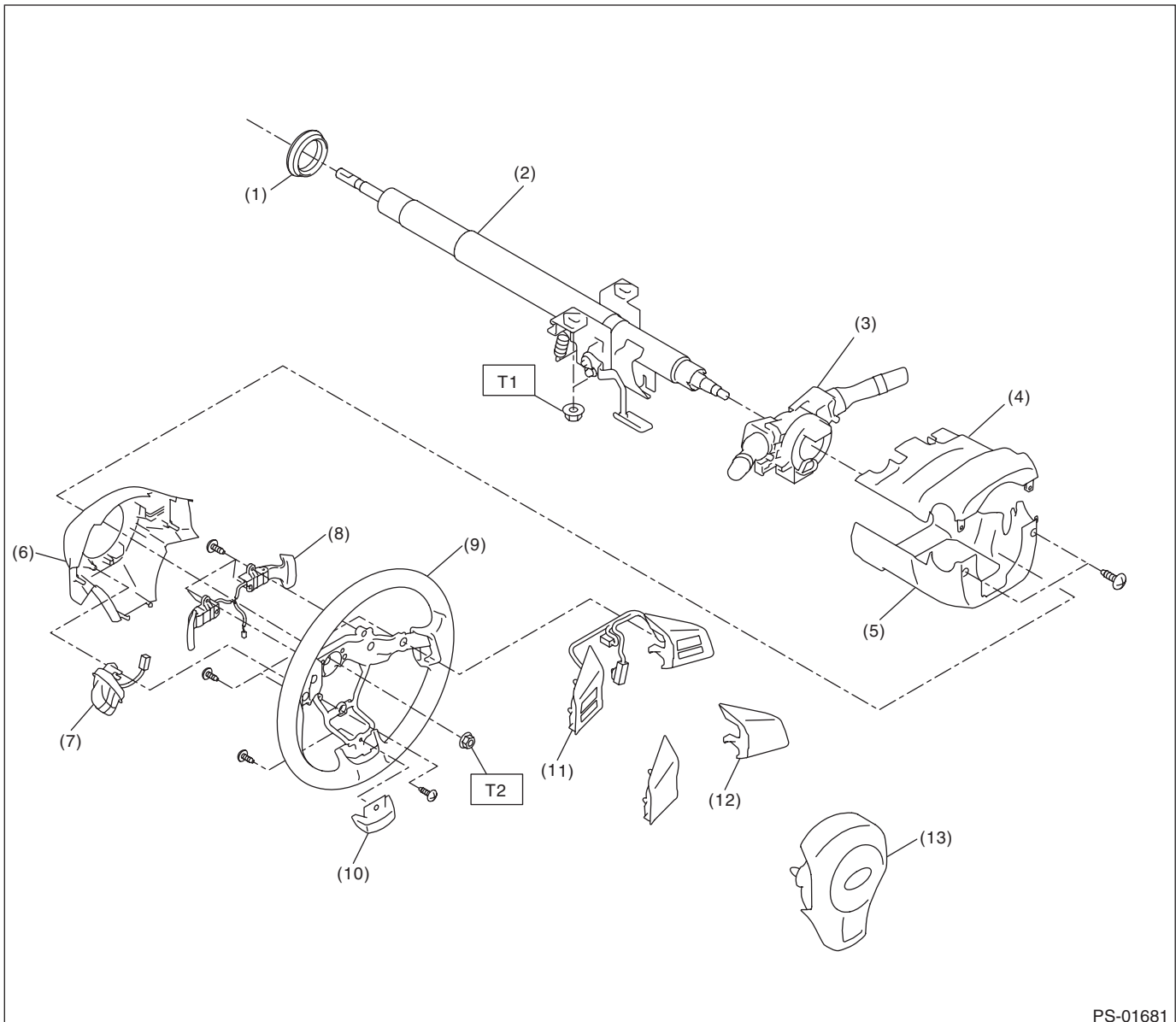
Model			Except for XV model	XV model	
				Gasoline engine model	HEV model
Steering wheel	Free play		mm (in)	17 (0.67) or less	
Steering shaft	Clearance between the steering wheel and column cover		mm (in)	4 — 6 (0.16 — 0.24)	
Steering gearbox (Power steering system)	Sliding resistance		N (kgf, lbf)	320 (33, 72) or less Difference between right and left sliding resistance: 20% or less	303 (31, 68) 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	Maximum allowable value: 18.0 (1.8, 4.0) 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	

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B: COMPONENT

1. STEERING WHEEL AND COLUMN



- | | |
|--------------------------------|-----------------------|
| (1) Bushing | (7) MID switch |
| (2) Column ASSY - steering | (8) Paddle shift |
| (3) Switch ASSY - combination | (9) Steering wheel |
| (4) Cover ASSY - column UPR | (10) Cover - spoke |
| (5) Cover ASSY - column LWR | (11) Satellite switch |
| (6) Cover - steering wheel LWR | (12) Cover - switch |

- (13) Airbag module

Tightening torque: N·m (kgf-m, ft-lb)

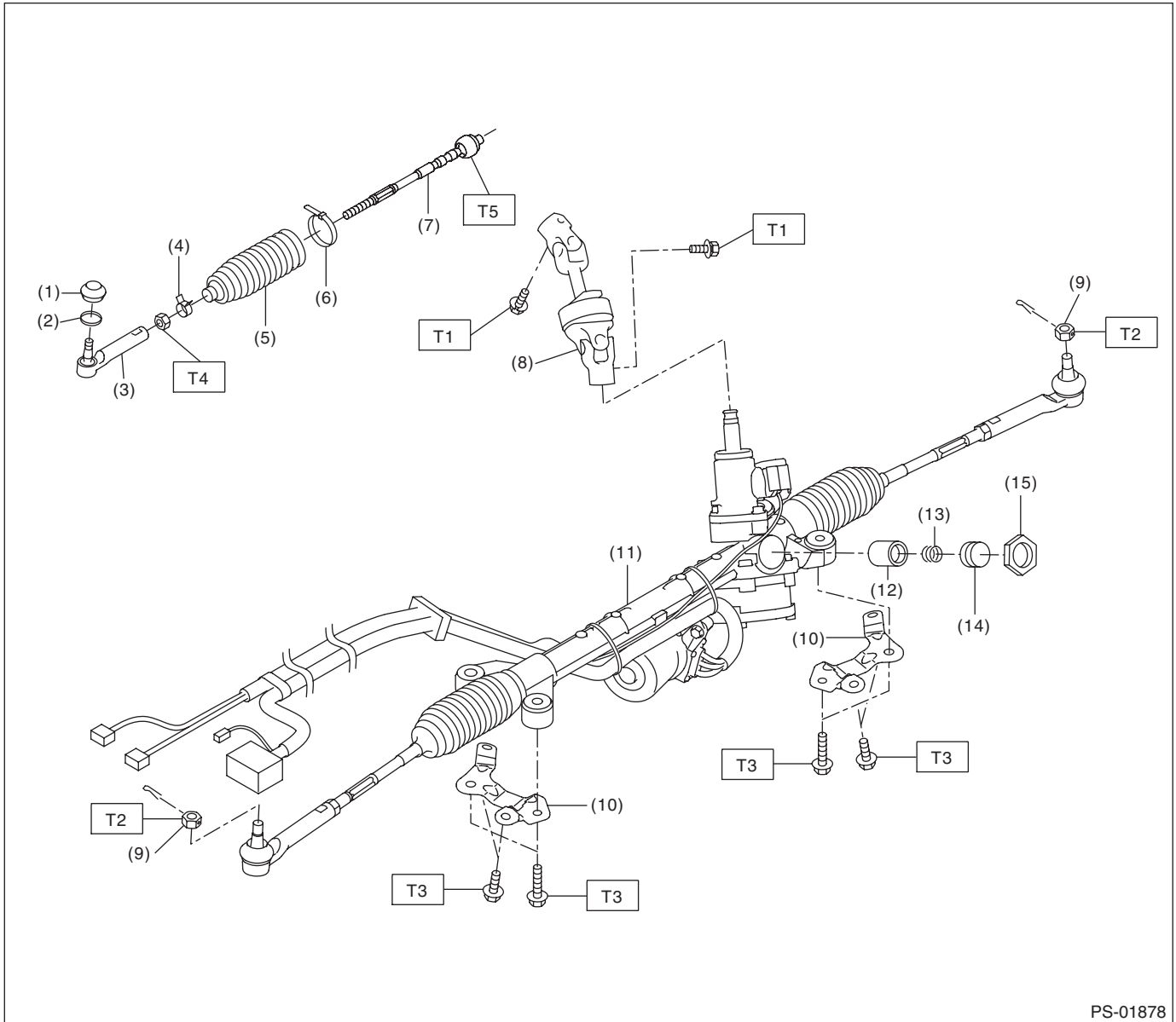
T1: 20 (2.04, 14.8)

T2: 39 (3.98, 28.8)

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2. STEERING GEARBOX



PS-01878

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

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)

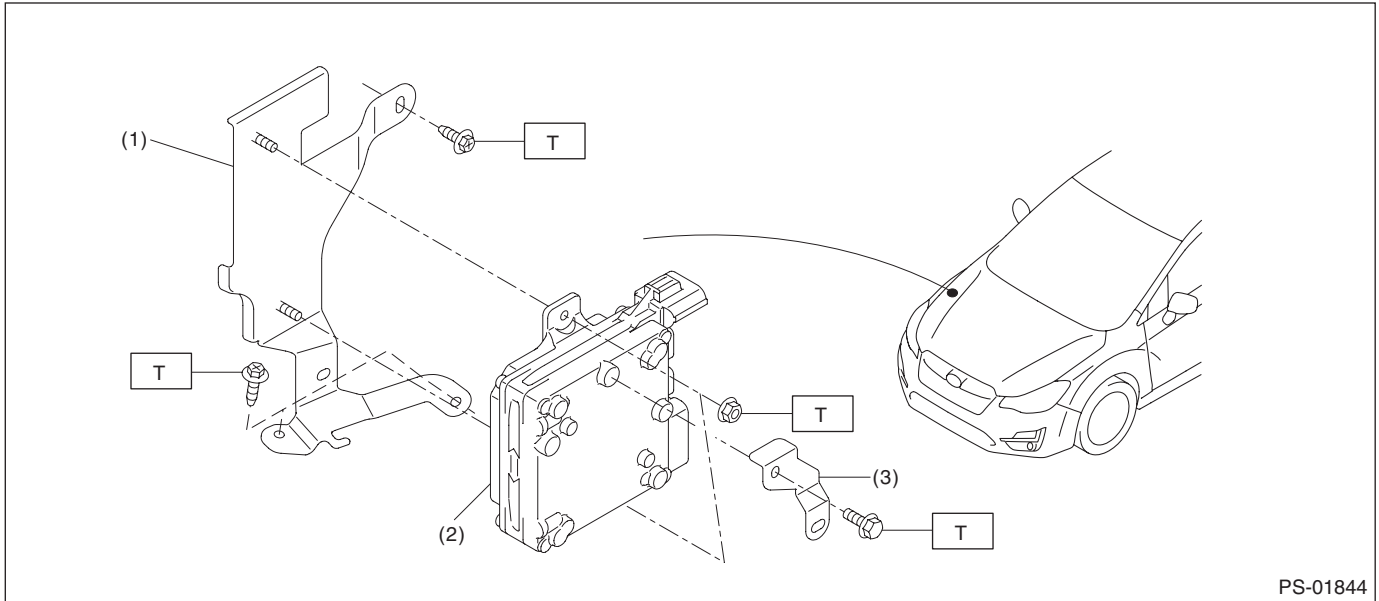
T4: 85 (8.67, 62.7)

T5: 90 (9.18, 66.4)

General Description

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3. ELECTRIC POWER STEERING CONTROL MODULE



PS-01844

(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)

General Description

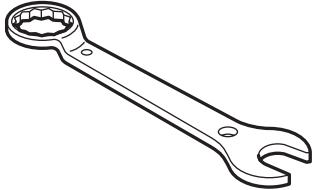
POWER ASSISTED SYSTEM (POWER STEERING)

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.

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.