1. General Description

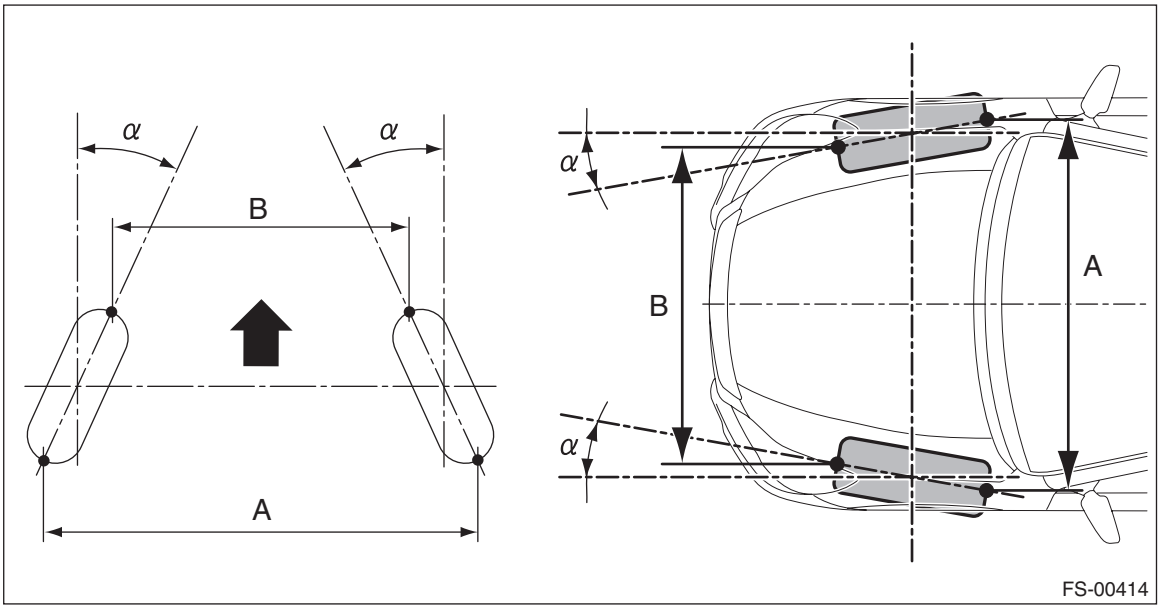
A: SPECIFICATION

Tire size			P205/60R16 P215/50R17	P225/50R17 P225/45R18	P225/60R17 P215/70R16
Front	Wheel arch height (Tolerance: $^{+12\ mm}_{-24\ mm}$ ($^{+0.47\ in}_{-0.94\ in}$)) mm (in)		403 (15.9)	395 (15.6)	469 (18.5)
	Camber (Tolerance: ±0°45′ Differences between RH and LH: 45′ or less)		–0°30′	–0°15′	0°00′
	Caster (Referential Value)		5°55′	6°00′	5°05′
	Steering angle (Tolerance: ±1.5°)	Inner wheel	37.6°	37.4°	38.4°
		Outer wheel	33.3°	33.0°	34.1°
	Toe-in mm (in)		1±3 (0.04±0.12) Toe angle (sum of both wheels): 0°05′±0°15′		
	Kingpin angle (Referential Value)		14°00′	14°15′	12°20′
Rear	Wheel arch height (Tolerance: $^{+12\ mm}_{-24\ mm}$ ($^{+0.47\ in}_{-0.94\ in}$)) mm (in)		392 (15.4)	387 (15.2)	474 (18.7)
	Camber (Tolerance: ±0°45′ Differences between RH and LH: 45′ or less)		–1°00′	–1°10′	0°00′
	Toe-in mm (in)		*2		*1
	Thrust angle (Tolerance: ±0°30′)		0°		

*1: OUTBACK model
2±3 mm (0.08 — 0.12 in) Toe angle (sum of both wheels): 0°10′±0°15′

*2: Except for OUTBACK model
0±3 mm (0±0.12 in) Toe angle (sum of both wheels): 0°±0°15′

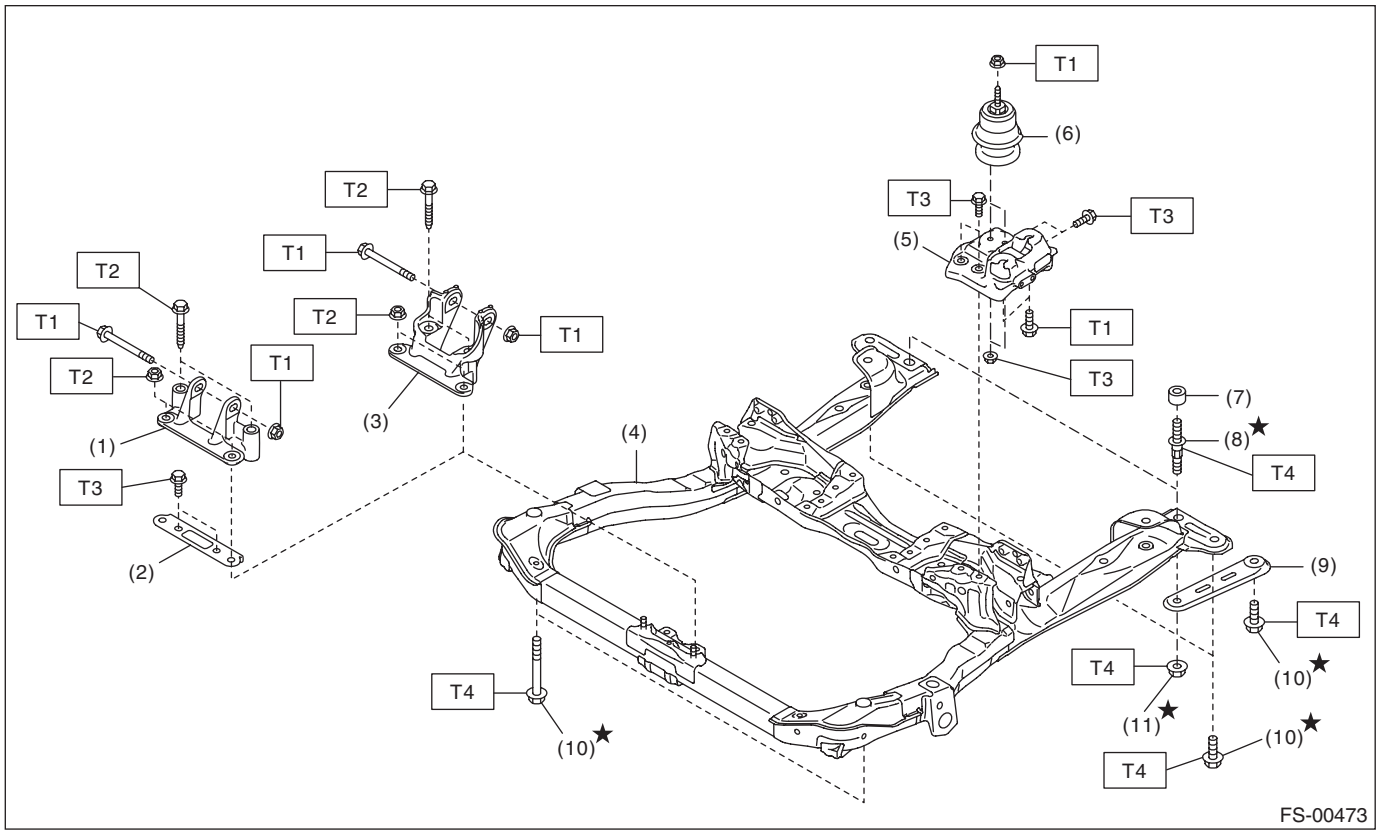
NOTE:
• Front and rear toe-in and front camber can be adjusted. Adjust if the toe-in or camber tolerance exceeds specifications.
• Other items indicated in the specifications is not equipped with adjustment mechanisms. If other items exceed specifications, check the suspension parts and connections for deformation. If defective, replace with new parts.



A – B = Positive: Toe-in, Negative: Toe-out

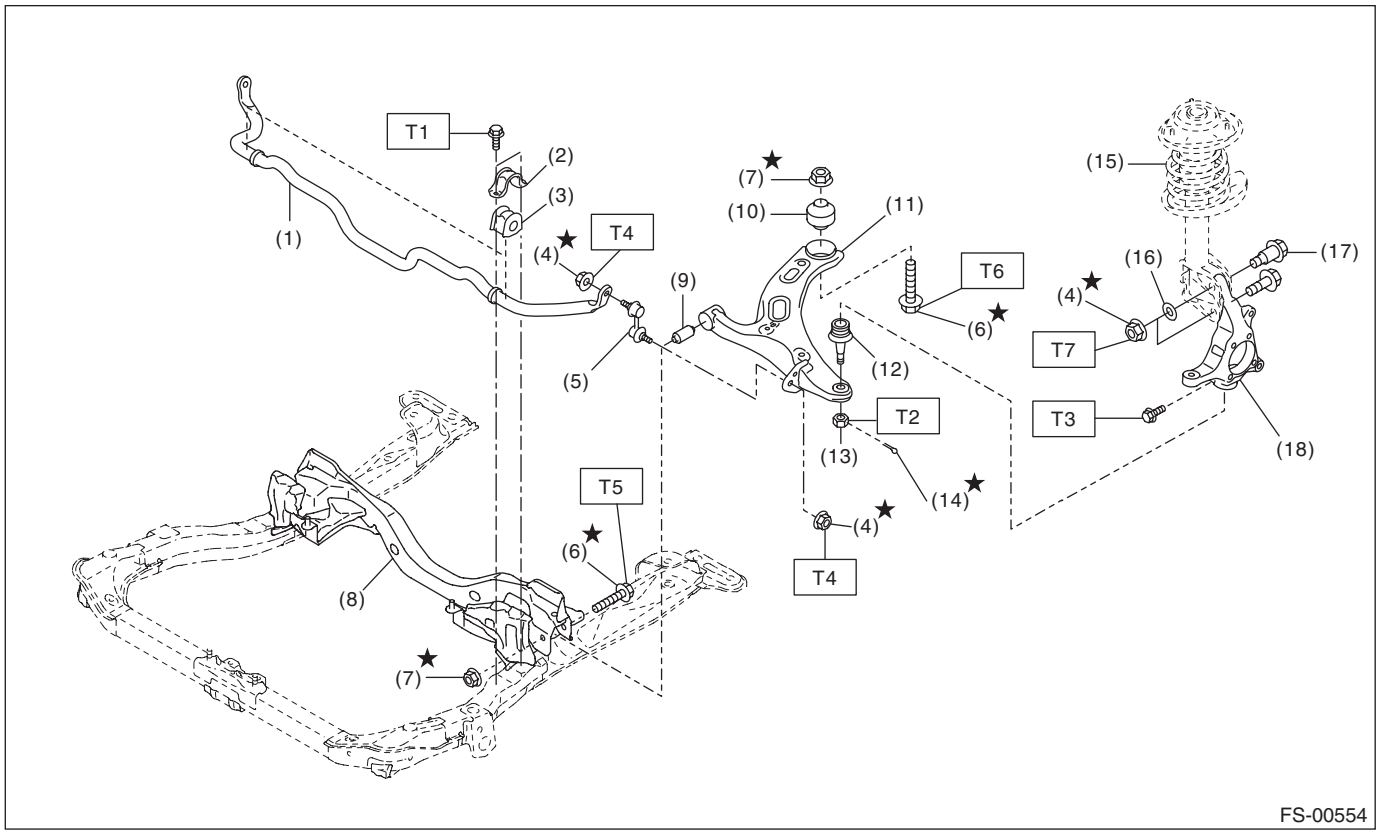
α = Individual toe angles

B: COMPONENT



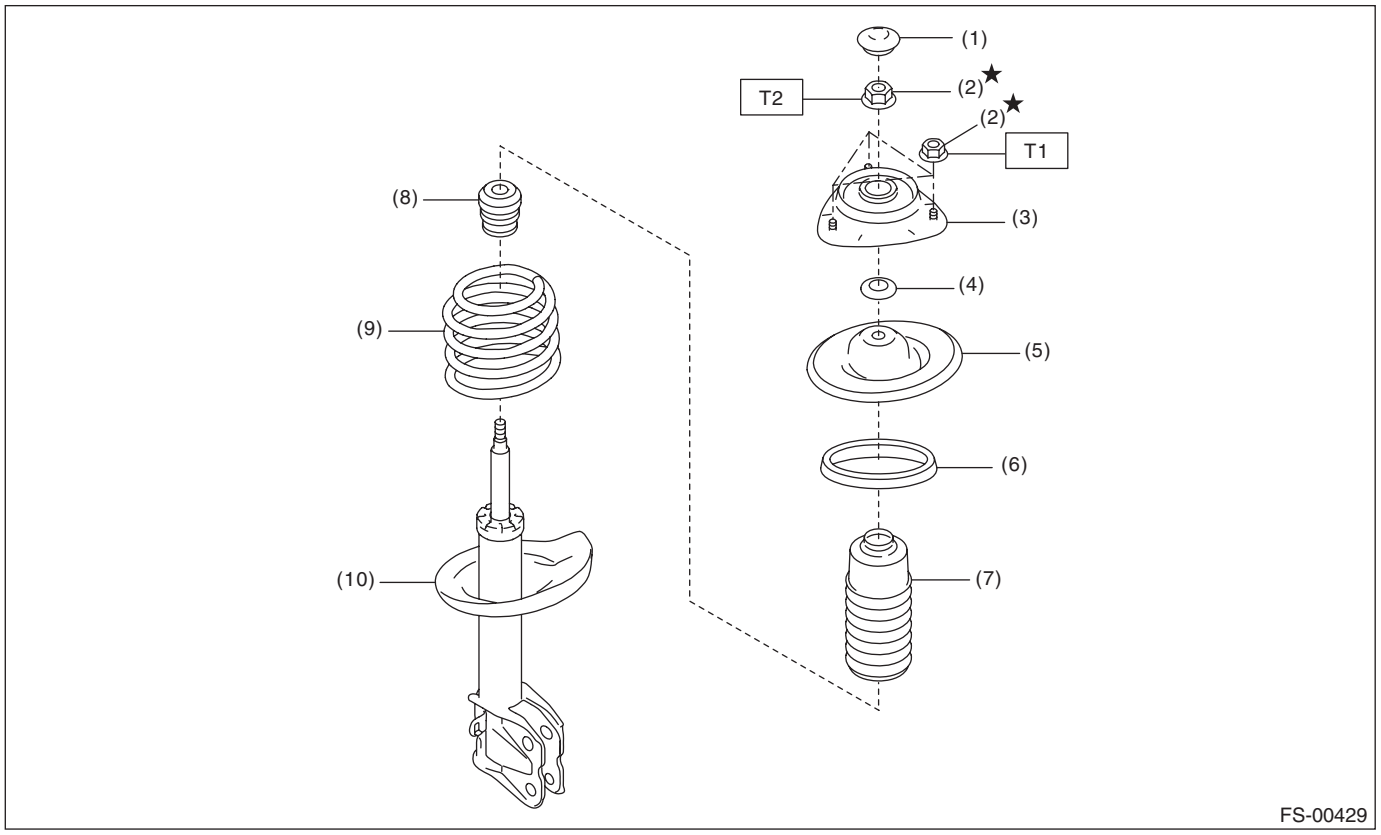
(1)	Front mounting bracket (H6 model)	(7)	Stopper (OUTBACK model only)	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Bracket	(8)	Stud bolt	***T1: 45 (4.59, 33.2)***
(3)	Front mounting bracket (H4 model)	(9)	Stiffener	***T2: 60 (6.12, 44.3)***
(4)	Cradle	(10)	Bolt	***T3: 65 (6.63, 47.9)***
(5)	Main mounting bracket	(11)	Self-locking nut	***T4: 75 (7.65, 55.3)***
(6)	Main cushion rubber			

FRONT SUSPENSION



(1)	Stabilizer	(10)	Rear bushing
(2)	Stabilizer bracket	(11)	Front arm
(3)	Stabilizer bushing	(12)	Ball joint
(4)	Flange nut	(13)	Castle nut
(5)	Stabilizer link	(14)	Cotter pin
(6)	Flange bolt	(15)	Front strut ASSY
(7)	Self-locking nut	(16)	Adjusting washer
(8)	Cradle	(17)	Adjusting bolt
(9)	Front bushing	(18)	Front axle housing

Tightening torque: N·m (kgf-m, ft-lb)
T1: 25 (2.55, 18.4)
T2: 39 (3.98, 28.8)
T3: 50 (5.10, 36.9)
T4: 60 (6.12, 44.3)
T5: 95 (9.69, 70.1)
T6: 140 (14.28, 103.3)
T7: 155 (15.81, 114.3)



(1)	Dust seal	(6)	Rubber seat (OUTBACK model only)	***Tightening torque: N·m (kgf-m, ft-lb)***
(2)	Self-locking nut	(7)	Dust cover	***T1: 20 (2.04, 14.8)***
(3)	Strut mount	(8)	Helper (except for Bilstein strut)	***T2: 55 (5.61, 40.6)***
(4)	Spacer	(9)	Coil spring	
(5)	Upper spring seat	(10)	Strut	

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.
- Use SUBARU genuine grease etc. or equivalent. Do not mix grease etc. of different grades or manufacturers.
- Before securing a part on a vise, place cushioning material such as wood blocks, aluminum plate, or cloth between the part and the vise.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Place shop jacks or rigid racks at the specified points.
- When the suspension-related components have been replaced, perform the adjustment of the steering angle sensor. <Ref. to VDC-20, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

D: PREPARATION TOOL

1. SPECIAL TOOL

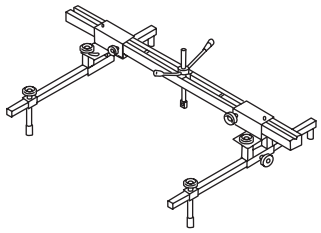
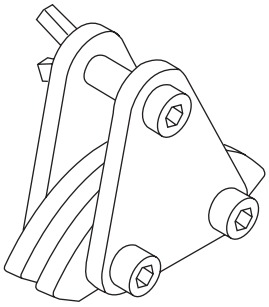
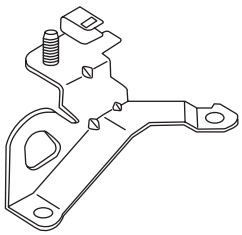
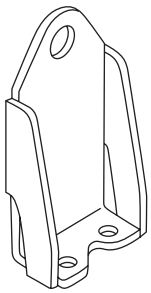
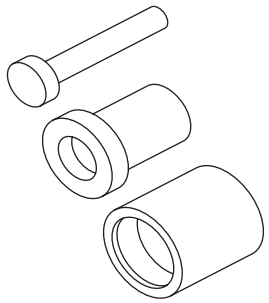
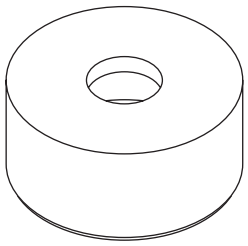
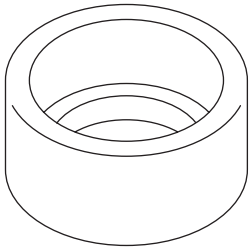
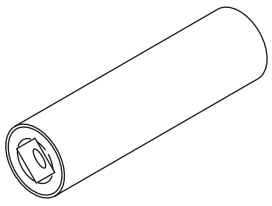
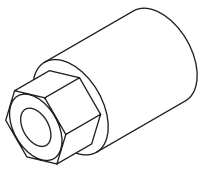
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST99099AJ000	99099AJ000	ENGINE HANGER	• Used for hanging power unit. • Used together with CHAIN BALANCER (99099AJ010).
 ST99099AJ010	99099AJ010	CHAIN BALANCER	• Used for hanging power unit. • Used together with ENGINE HANGER (99099AJ000).
 ST10004AA180	10004AA180 (SUBARU genuine part)	HANGER CP ENGINE RR	• Used for hanging power unit. • For H4 non-turbo model. • SUBARU genuine part
 ST18360AA020	18360AA020	HANGER	• Used for hanging power unit. • For H6 model.

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-927680000	927680000	INSTALLER & REMOVER SET	Used for replacing front arm front bushing.
 ST20299AG000	20299AG000	REMOVER	• Used for replacing front arm rear bushing. • Used together with BASE (20299AG010).
 ST20299AG010	20299AG010	BASE	• Used for replacing front arm rear bushing. • Used together with REMOVER (20299AG000).
 ST20299AG020	20299AG020	STUD BOLT SOCKET	Used for removing and installing the stud bolt for front arm installing portion.
 ST20399AG000	20399AG000	STRUT MOUNT SOCKET	Used for disassembling and assembling strut mount.

2. GENERAL TOOL

TOOL NAME	REMARKS
Alignment gauge	Used for measuring wheel alignment.
Alignment gauge adapter	Used for measuring wheel alignment.
Turning radius gauge	Used for measuring wheel alignment.
Toe-in gauge	Used for toe-in measurement.
Chain sling	• Used for hanging power unit. • Diameter: 6 mm (0.24 in) or 6.3 mm (0.25 in) • Length: 0.8 — 1 m (2.6 — 3.3 ft) • Chain inner width: 8.5 mm (0.33 in) or more • Chain external width: 23.5 mm (0.93 in) or less • Load capacity: 1.2 t (2,646 lb) or more
Shackle	• Two units used for hanging power unit. • Attached to both end of chain sling and connected to engine hook. • Load capacity: 250 kg (551 lb) or more
Sling belt	• Used to remove and install the cradle. • Width: 35 — 40 mm (1.38 — 1.57 in) • Length: 2 m (6.6 ft) • Load capacity: 1 t (2,205 lb) or more
Shackle	• Used to remove and install the cradle. • Load capacity: 500 kg (1,103 lb) or more
Tie-rod ball joint puller	Used for disconnecting tie-rod end.
Dial gauge	Used for damper strut measurement.
Coil spring compressor	Used for strut assembly/disassembly.

2. Wheel Alignment

A: INSPECTION

Check the following items before performing the wheel alignment measurement.

- Tire inflation pressure
- Uneven wear of RH and LH tires, or difference of sizes
- Tire runout
- Excessive play and wear of ball joint
- Excessive play and wear of tie-rod end
- Excessive play of wheel bearing
- Right and left wheel base imbalance
- Deformation and excessive play of steering link
- Deformation and excessive play of suspension parts

Check, adjust and measure the wheel alignment in accordance with the following procedures.

1	Wheel arch height (front and rear wheels)	Inspection: <Ref. to FS-12, REAR WHEEL TOE-IN, INSPECTION, Wheel Alignment.>
↓		
2	Camber (front and rear wheels)	Inspection: <Ref. to FS-11, CAMBER, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-13, FRONT CAMBER, ADJUSTMENT, Wheel Alignment.>
↓		
3	Caster (front wheel)	Inspection: <Ref. to FS-11, CASTER, INSPECTION, Wheel Alignment.>
↓		
4	Steering angle	Inspection: <Ref. to FS-12, FRONT WHEEL TOE-IN, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-15, STEERING ANGLE, ADJUSTMENT, Wheel Alignment.>
↓		
5	Front wheel toe-in	Inspection: <Ref. to FS-12, STEERING ANGLE, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-16, FRONT WHEEL TOE-IN, ADJUSTMENT, Wheel Alignment.>
↓		
6	Rear wheel toe-in	Inspection: <Ref. to FS-10, WHEEL ARCH HEIGHT, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-17, REAR WHEEL TOE-IN, ADJUSTMENT, Wheel Alignment.>
↓		
7	Thrust angle	Inspection: <Ref. to FS-13, THRUST ANGLE, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-18, THRUST ANGLE, ADJUSTMENT, Wheel Alignment.>