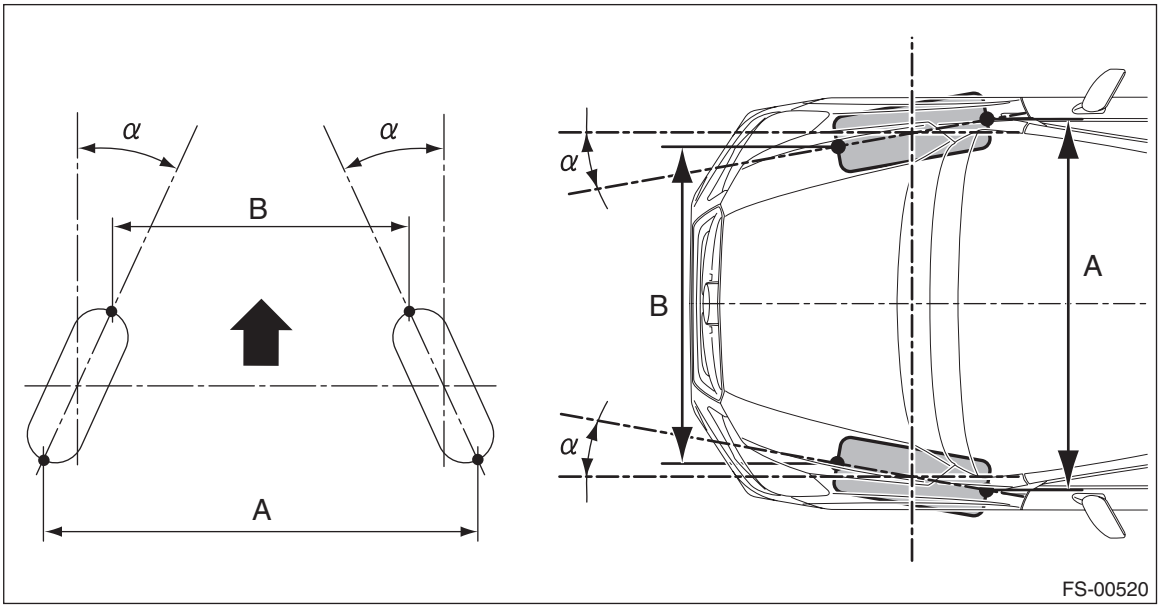
1. General Description

A: SPECIFICATION

			Except for XV model	XV model
Tire size			P195/65R15 P205/55R16 P205/50R17	P225/55R17 225/55R17
Front	Wheel arch height (Tolerance: $^{+12\ mm}_{-24\ mm}$ ($^{+0.47\ in}_{-0.94\ in}$)) mm (in)		387 (15.24)	452 (17.8)
	Camber (tolerance: ±0°45′ Differences between RH and LH: 45′ or less)		–0°20′	0°10′
	Caster (referential value)		6°01′	5°58′
	Steering angle (tolerance: ±1.5°)	Inner wheel	38.3°	38.5°
		Outer wheel	33.7°	34.0°
	Toe-in mm (in)		0±3 (0±0.12) Toe angle (sum of both wheels): 0°±0°12′	0±3 (0±0.12) Toe angle (sum of both wheels): 0°±0°10′
	Kingpin angle (referential value)		13°51′	13°06′
Rear	Wheel arch height (Tolerance: $^{+12\ mm}_{-24\ mm}$ ($^{+0.47\ in}_{-0.94\ in}$)) mm (in)		368 (14.49)	450 (17.72)
	Camber (tolerance: $^{+0°45′}_{-0°52′}$ Differences between RH and LH: 45′ or less)		–1°20′	–0°25′
	Toe-in mm (in)		IN 3±3 (IN 0.12±0.12) Toe angle (sum of both wheels): IN 0°12′±12′	IN 0±3 (IN 0±0.12) Toe angle (sum of both wheels): IN 0°00°±10′
	Thrust angle (tolerance: 0°00′±30′)		0°00′	

NOTE:
• Front toe-in, rear toe-in and front camber can be adjusted. Adjust if the value of toe-in or camber exceeds the tolerance range of the specification chart.
• Other items except for front toe-in, rear toe-in and front camber that are described in the specification chart cannot be adjusted. If other items exceed the tolerance range of the specification chart, check the suspension parts and connections for deformation. If defective, replace with new parts.

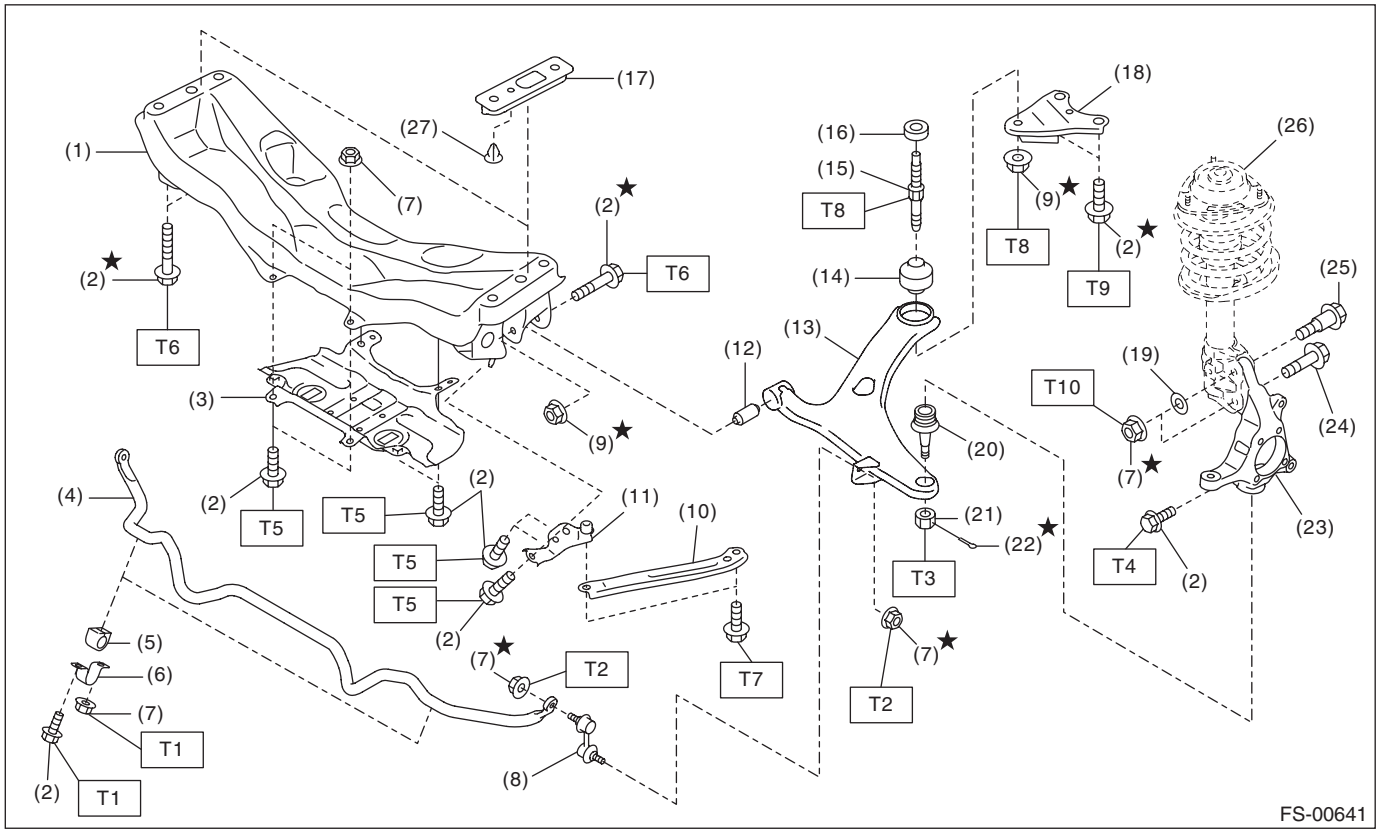


A – B = Positive: Toe-in, Negative: Toe-out

α = Individual toe angles

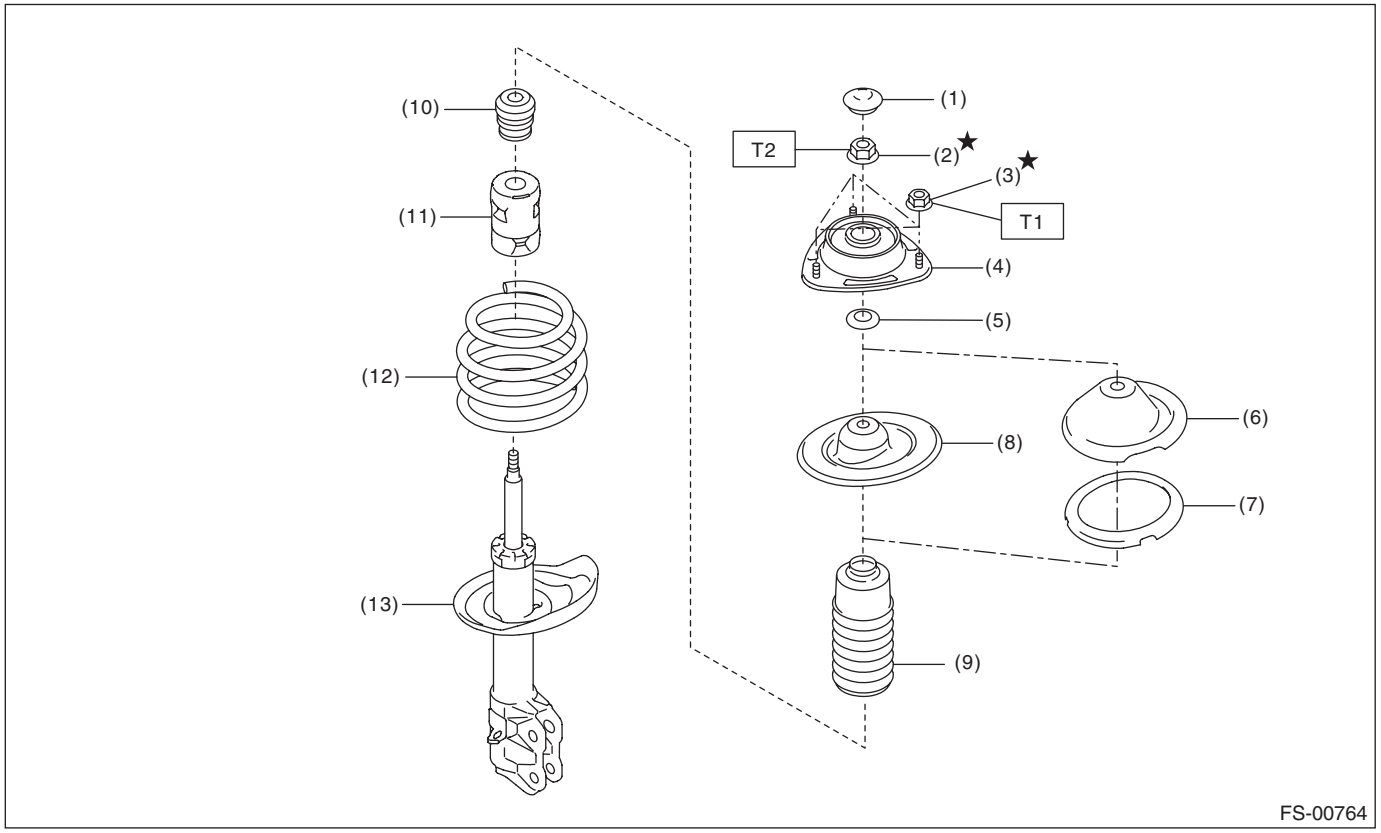
B: COMPONENT

1. FRONT SUSPENSION



(1)	Front crossmember COMPL	(14)	Bushing rear - front arm	(27)	Clip
(2)	Flange bolt	(15)	Stud bolt		
(3)	Front crossmember support	(16)	Stopper - front arm bushing rear	***Tightening torque: N·m (kgf-m, ft-lb)***	
(4)	Front stabilizer	(17)	Adapter (XV model)	***T1:***	***25 (2.55, 18.4)***
(5)	Bushing - stabilizer	(18)	Front arm rear plate	***T2:***	***Except for XV model: 38 (3.87, 28.0) XV model: 60 (6.12, 44.3)***
(6)	Clamp - stabilizer bushing	(19)	Adjusting washer	***T3:***	***39 (3.98, 28.8)***
(7)	Flange nut	(20)	Ball joint ASSY	***T4:***	***50 (5.10, 36.9)***
(8)	Stabilizer link ASSY	(21)	Castle nut	***T5:***	***60 (6.12, 44.3)***
(9)	Self-locking nut	(22)	Cotter pin	***T6:***	***95 (9.69, 70.1)***
(10)	Front support	(23)	Housing ASSY - front axle	***T7:***	***100 (10.20, 73.8)***
(11)	Support plate - front crossmember	(24)	Flange bolt	***T8:***	***110 (11.22, 81.1)***
(12)	Bushing front - front arm	(25)	Adjusting bolt	***T9:***	***150 (15.30, 110.6)***
(13)	Front arm ASSY	(26)	Front strut ASSY	***T10:***	***155 (15.81, 114.3)***

2. FRONT STRUT



(1) Dust seal - front strut
(2) Self-locking nut
(3) Flange nut
(4) Strut mount - front
(5) Spacer - front strut
(6) Spring seat - front strut UPR (XV model)
(7) Rubber seat (XV model)
(8) Spring seat - front strut UPR (except for XV model)
(9) Dust cover - front strut
(10) Helper - front strut
(11) Dust cover inner
(12) Coil spring - front
(13) Strut COMPL - front

Tightening torque: N·m (kgf-m, ft-lb)
T1: 20 (2.04, 14.8)
T2: 55 (5.61, 40.6)

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 following VDC setting mode.
– Model without EyeSight: VDC sensor midpoint setting mode <Ref. to VDC-26, VDC SENSOR MIDPOINT SETTING MODE (MODELS WITHOUT EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
– Model with EyeSight: Neutral of Steering Angle Sensor & Lateral G Sensor 0 point setting <Ref. to VDC-26, NEUTRAL OF STEERING ANGLE SENSOR & LATERAL G SENSOR 0 POINT SETTING (MODEL WITH EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
– Model with EyeSight: Longitudinal G sensor & lateral G sensor 0 point setting <Ref. to VDC-27, LONGITUDINAL G SENSOR & LATERAL G SENSOR 0 POINT SETTING MODE (MODEL WITH EyeSight), ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>

D: PREPARATION TOOL

1. SPECIAL TOOL

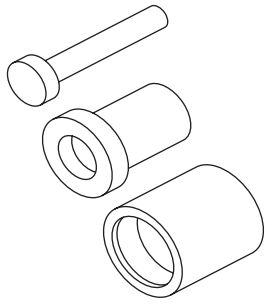
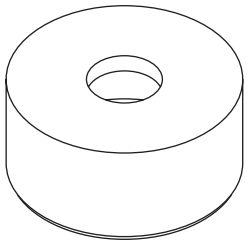
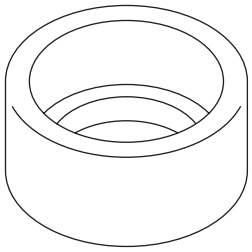
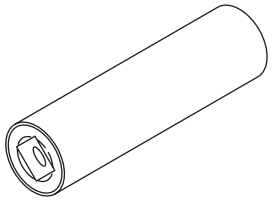
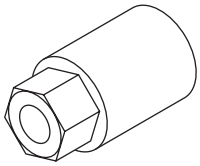
ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST-927680000	927680000	INSTALLER & REMOVER SET	Used for replacing the bushing front - front arm of front arm assembly.
 ST20299AG000	20299AG000	REMOVER	• Used for replacing the bushing rear - front arm of front arm assembly. • Used together with BASE (20299AG010).

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST20299AG010	20299AG010	BASE	• Used for replacing the bushing rear - front arm of front arm assembly. • Used together with REMOVER (20299AG000).
 ST20299AG020	20299AG020	STUD BOLT SOCKET	Used for removing and installing the stud bolt for front arm assembly 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.
Tie-rod end 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-10, REAR WHEEL TOE-IN, INSPECTION, Wheel Alignment.>
	↓	
2	Camber (front and rear wheels)	Inspection: <Ref. to FS-9, CAMBER, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-12, FRONT CAMBER, ADJUSTMENT, Wheel Alignment.>
	↓	
3	Caster (front wheel)	Inspection: <Ref. to FS-9, CASTER, INSPECTION, Wheel Alignment.>
	↓	
4	Steering angle	Inspection: <Ref. to FS-10, FRONT WHEEL TOE-IN, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-13, STEERING ANGLE, ADJUSTMENT, Wheel Alignment.>
	↓	
5	Front wheel toe-in	Inspection: <Ref. to FS-10, STEERING ANGLE, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-14, FRONT WHEEL TOE-IN, ADJUSTMENT, Wheel Alignment.>
	↓	
6	Rear wheel toe-in	Inspection: <Ref. to FS-8, WHEEL ARCH HEIGHT, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-15, REAR WHEEL TOE-IN, ADJUSTMENT, Wheel Alignment.>
	↓	
7	Thrust angle	Inspection: <Ref. to FS-11, THRUST ANGLE, INSPECTION, Wheel Alignment.> Adjustment: <Ref. to FS-16, THRUST ANGLE, ADJUSTMENT, Wheel Alignment.>