

General Description

REAR SUSPENSION

1. General Description

A: SPECIFICATION

1. WRX MODEL

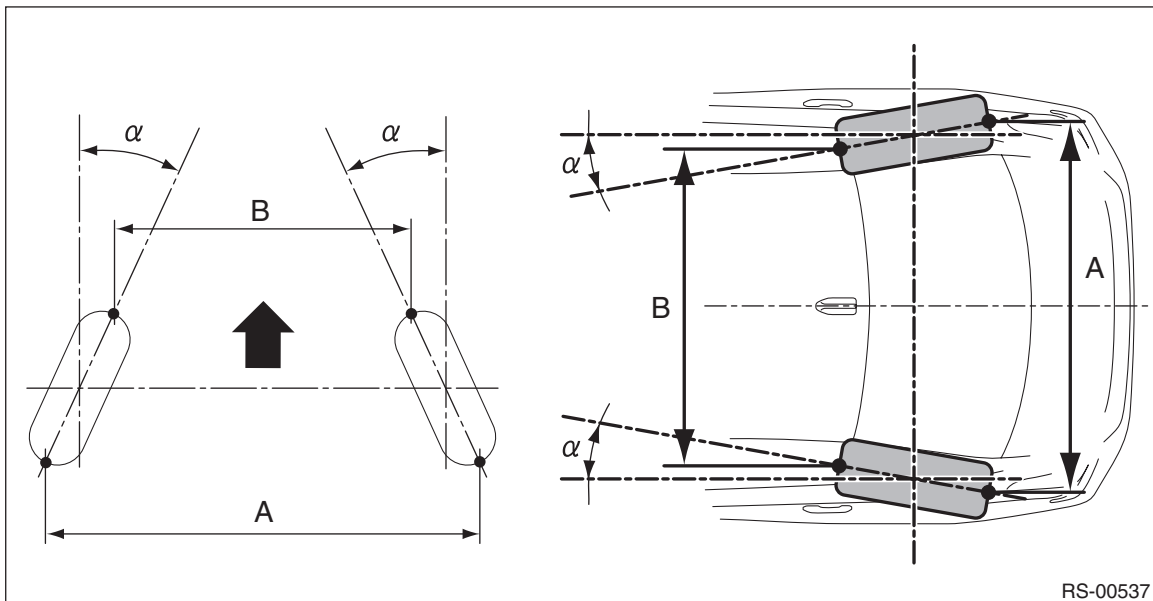
Tire size		235/45R17
Wheel arch height (Tolerance: +12 mm -24 mm (+0.47 in -0.94 in))	mm (in)	367 (14.45)
Camber (tolerance: ±0°45' Differences between RH and LH: 45' or less)		-1°30'
Toe-in	mm (in)	IN3±3 (IN0.12±0.12)
		Toe angle (sum of both wheels): IN0°16'±16'
Thrust angle (tolerance: 0°00'±30')		0°00'

2. STI MODEL

Tire size		245/40R18
Wheel arch height (Tolerance: +12 mm -24 mm (+0.47 in -0.94 in))	mm (in)	362 (14.25)
Camber (tolerance: ±0°45' Differences between RH and LH: 45' or less)		-1°40'
Toe-in	mm (in)	IN3±3 (IN0.12±0.12)
		Toe angle (sum of both wheels): IN0°16'±16'
Thrust angle (tolerance: 0°00'±30')		0°00'

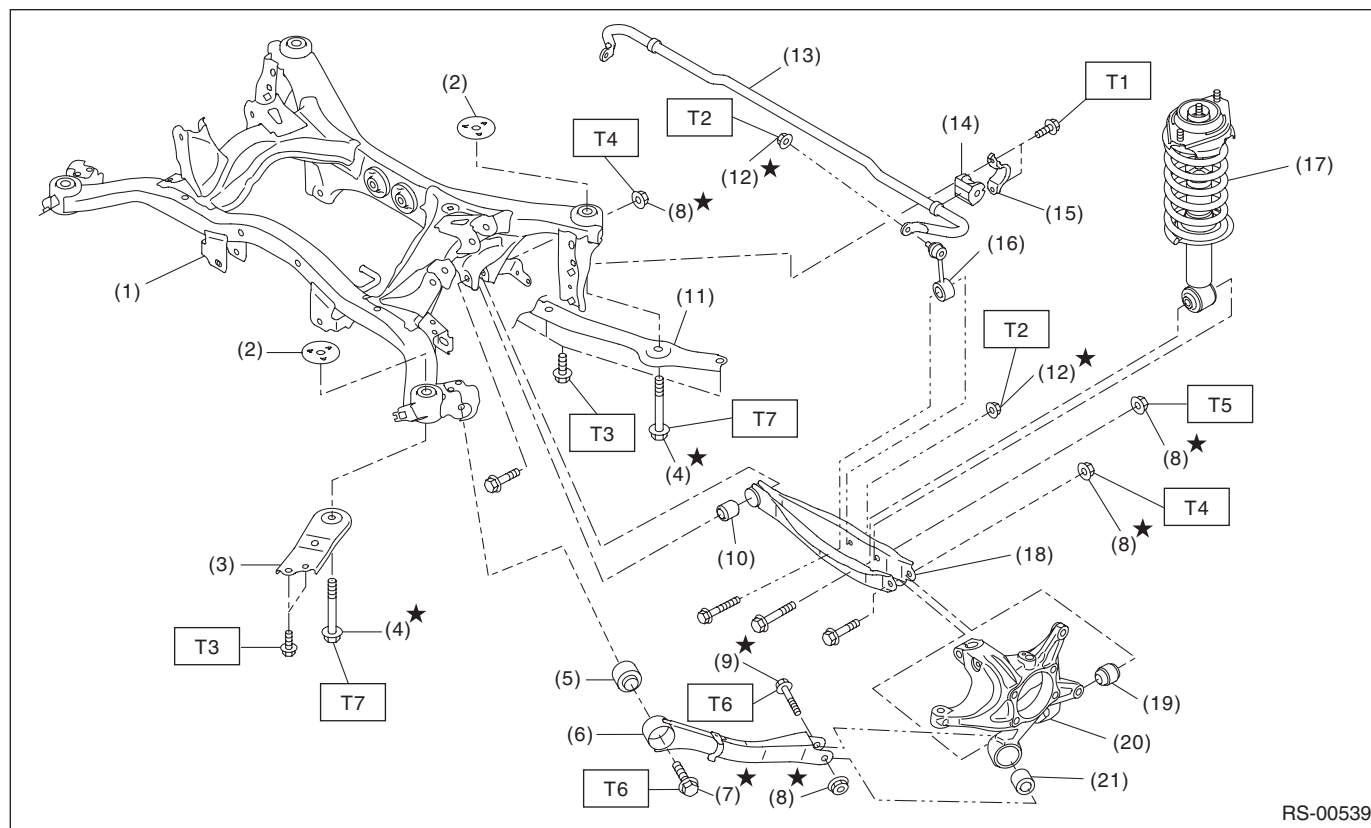
NOTE:

- 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.



$A - B = \text{Positive: Toe-in, Negative: Toe-out}$

$\alpha = \text{Individual toe angles}$

B: COMPONENT**1. REAR SUSPENSION**

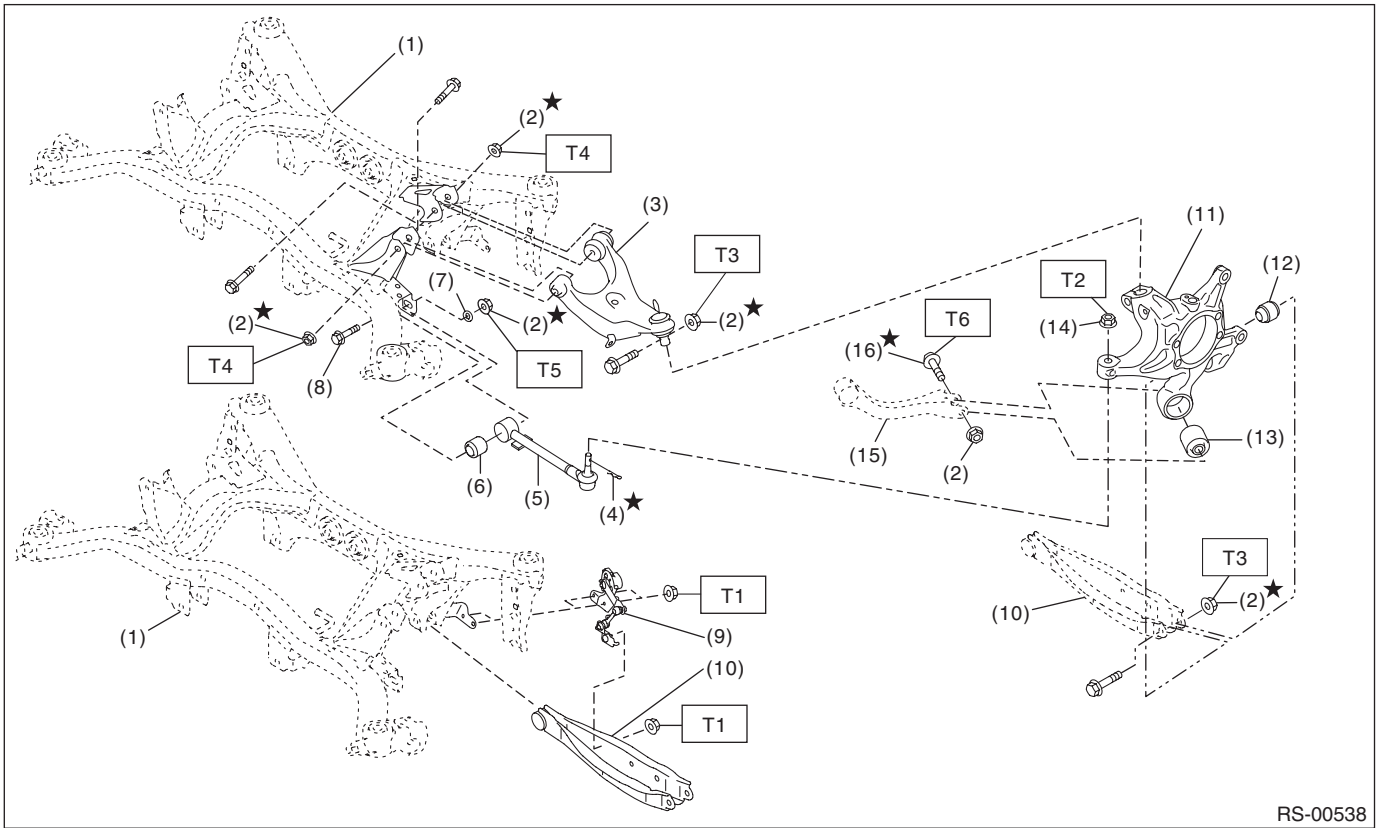
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- | | | |
|------------------------------------|----------------------------------|------------------------------|
| (1) Rear sub frame ASSY | (11) Rear support sub frame | (21) Bushing - trailing link |
| (2) Stopper UPR | (12) Flange nut | |
| (3) Support - sub frame | (13) Rear stabilizer | |
| (4) Flange bolt A | (14) Bushing - stabilizer | |
| (5) Bushing A - trailing link | (15) Clamp - stabilizer bushing | |
| (6) Trailing link | (16) Stabilizer link ASSY | |
| (7) Flange bolt B | (17) Rear shock absorber ASSY | |
| (8) Self-locking nut | (18) Rear lateral link ASSY | |
| (9) Flange bolt C | (19) Bushing - rear axle housing | |
| (10) Bushing C - lateral link rear | (20) Housing ASSY - rear axle | |

Tightening torque: N-m (kgf-m, ft-lb)***T1: 30 (3.1, 22.1)******T2: 38 (3.9, 28.0)******T3: 70 (7.1, 51.6)******T4: 80 (8.2, 59.0)******T5: 85 (8.7, 62.7)******T6: 110 (11.2, 81.1)******T7: 145 (14.8, 106.9)***

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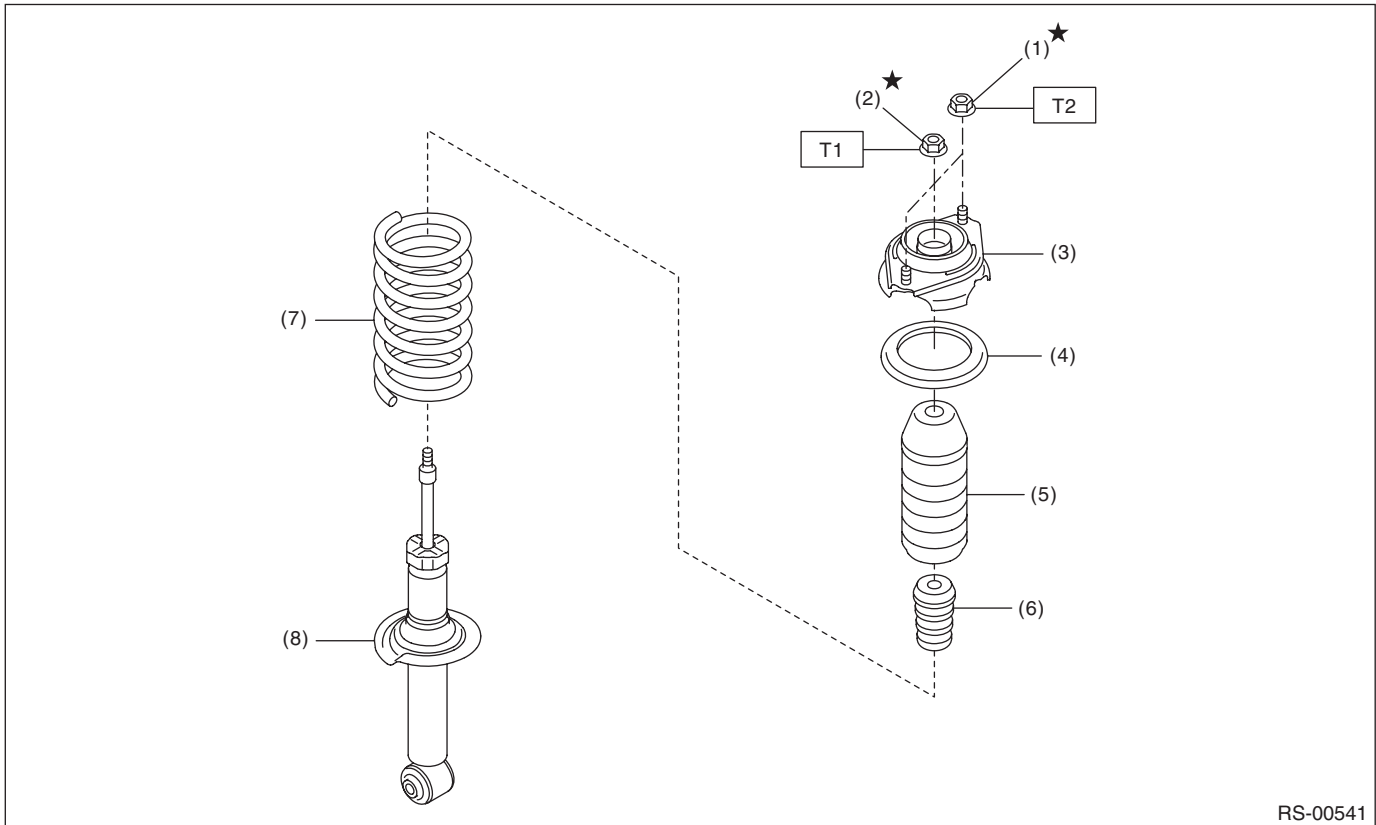
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- | | |
|-------------------------------|---|
| (1) Rear sub frame ASSY | (9) Sensor ASSY - headlight beam leveler (models with auto headlight beam leveler only) |
| (2) Self-locking nut | (10) Lateral link ASSY - rear |
| (3) Rear upper arm ASSY | (11) Housing ASSY - rear axle |
| (4) Snap pin | (12) Bushing - rear axle housing |
| (5) Lateral link ASSY - front | (13) Bushing - trailing link |
| (6) Bushing B - lateral link | (14) Flange nut |
| (7) Adjusting washer | (15) Trailing link |
| (8) Adjusting bolt | (16) Flange bolt |

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

- | |
|------------------------------------|
| <i>T1: 7.5 (0.8, 5.5)</i> |
| <i>T2: 60 (6.1, 44.3)</i> |
| <i>T3: 80 (8.2, 59.0)</i> |
| <i>T4: 90 (9.2, 66.4)</i> |
| <i>T5: 100 (10.2, 73.8)</i> |
| <i>T6: 110 (11.2, 81.1)</i> |

2. REAR SHOCK ABSORBER



- | | |
|-----------------------------|---------------------------------|
| (1) Flange nut | (5) Dust cover - rear shock |
| (2) Self-locking nut | (6) Helper - rear |
| (3) Shock mount - rear | (7) Coil spring - rear |
| (4) Rubber seat - shock UPR | (8) Shock absorber COMPL - rear |

Tightening torque: N·m (kgf-m, ft-lb)

T1: 25 (2.5, 18.4)

T2: 30 (3.1, 22.1)

General Description

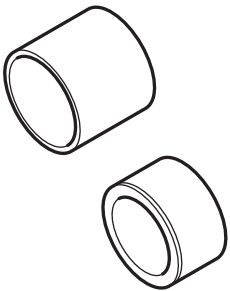
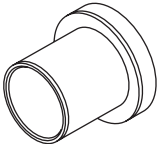
REAR SUSPENSION

C: CAUTION

- When performing any work, always wear work clothes, a work cap and protective shoes. Additionally, wear a helmet, protective goggles, etc. if necessary.
- When disposing of shock absorbers, be sure to bleed the oil or gas out completely. Also, do not expose to flames or fire.
- When performing a repair, identify the cause of trouble and avoid unnecessary removal, disassembly and replacement.
- Use SUBARU genuine grease, the recommended or equivalent. Do not mix grease etc. of different grades or manufacturers.
- Do not secure a part in a vise directly. Place cushioning materials such as wood blocks, aluminum plates, or waste cloth between the part and the vise.
- Be sure to tighten fasteners including bolts and nuts to the specified torque.
- Always use the jack-up point when the shop jacks or rigid racks are used to support the vehicle.
- When the suspension-related components have been removed/installed or replaced, perform "VDC sensor midpoint setting mode" of the VDC. <Ref. to VDC-16, ADJUSTMENT, VDC Control Module and Hydraulic Control Unit (VDCCM&H/U).>
- For parts which are not reusable, always use new parts. Other parts should be replaced with new parts as required.
- When handling oil or fuel, adhere to the following to prevent unexpected accident.
 - Be careful with fire.
 - Prepare a container to catch grease or oil, etc. If any grease or oil spills, wipe it off and clean immediately to prevent from penetrating into floor or flowing outside.
 - Follow all government and local regulations concerning disposal of refuse when disposing.
- Be sure that the surface of brake disc or brake pad is free from grease or oil.
- Before disconnecting connectors of sensors or units, be sure to disconnect the ground cable from battery.
- Some vehicle components are extremely hot immediately after driving. Be wary of receiving burns from heated parts.

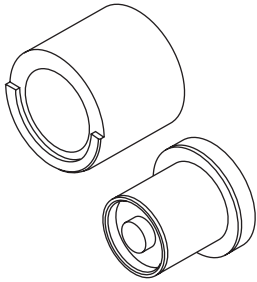
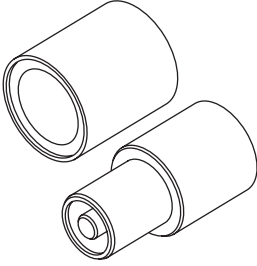
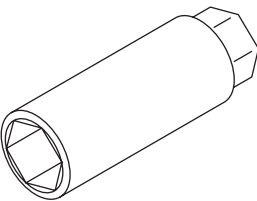
D: PREPARATION TOOL

1. SPECIAL TOOL

ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 ST20099PA010	20099PA010	INSTALLER & REMOVER	<ul style="list-style-type: none">• Used for replacing the bushing A - trailing link of the housing assembly - rear axle.• Used together with BUSHING REMOVER (20099FG000).
 ST20099FG000	20099FG000	BUSHING REMOVER	<ul style="list-style-type: none">• Used for replacing the bushing A - trailing link of the housing assembly - rear axle.• Used together with base part of INSTALLER & REMOVER (20099PA000).

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ILLUSTRATION	TOOL NUMBER	DESCRIPTION	REMARKS
 <p>ST20099AE000</p>	20099AE000	INSTALLER & REMOVER	Used for replacing the bushing B - lateral link.
 <p>ST20099AE010</p>	20099AE010	INSTALLER & REMOVER	Used for replacing the bushing C - lateral link.
 <p>ST20399FG000</p>	20399FG000	STRUT MOUNT SOCKET	<ul style="list-style-type: none"> • Used for disassembling and assembling strut assembly and shock absorber assembly. • Used for checking center nut torque of strut assembly and shock absorber assembly.

2. GENERAL TOOL

TOOL NAME	REMARKS
Alignment tester	Used for measuring wheel alignment.
Toe-in gauge	Used for toe-in measurement.
Jack	Used for removing and installing suspension.
Bearing puller	Used for removing bushings.
Tie-rod ball joint puller	Used for disconnecting the lateral link assembly - front.
Coil spring compressor	Used for disassembling and assembling strut assembly and shock absorber assembly.