

BODY REPAIR MANUAL

BS

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Foreword

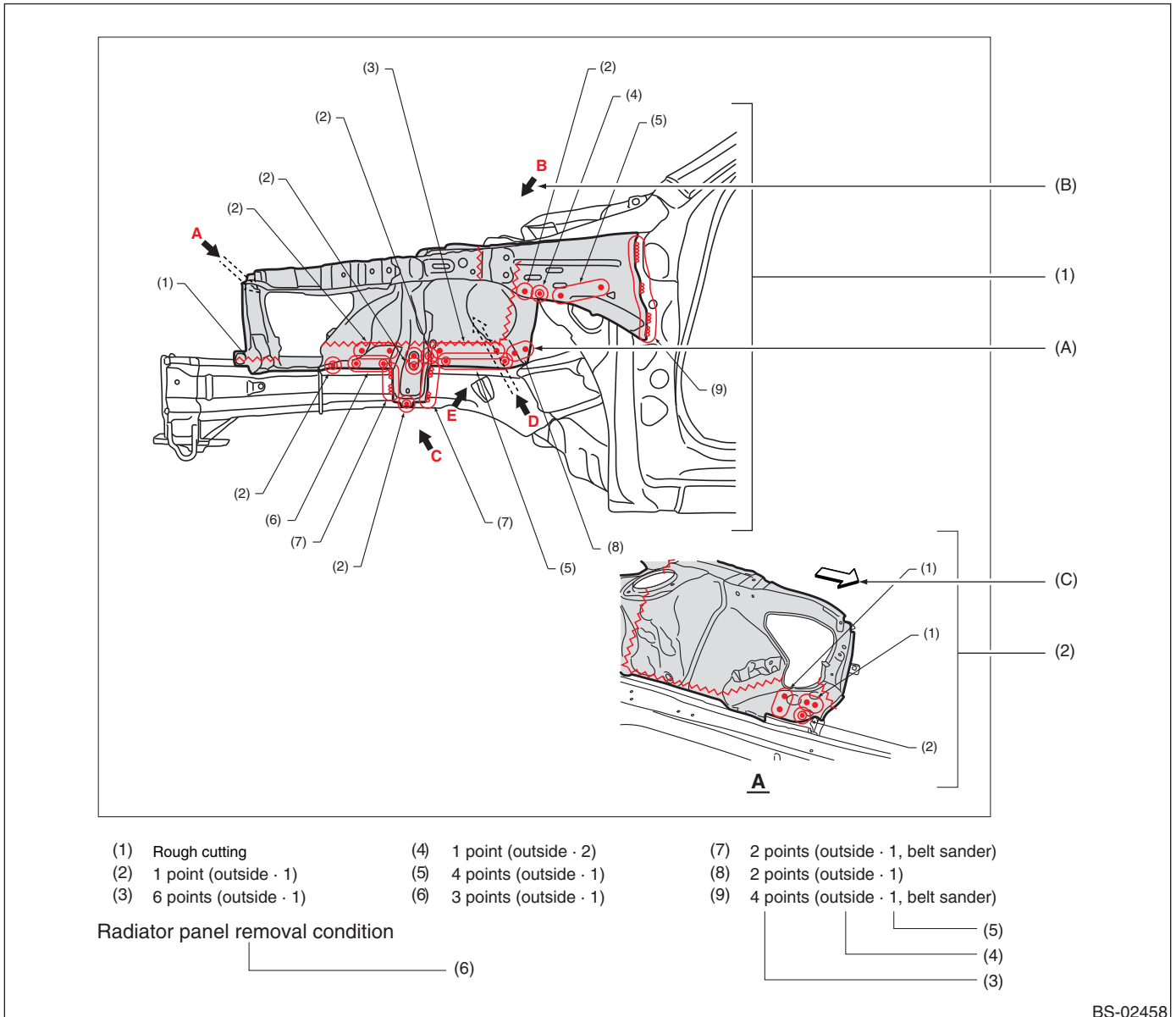
1. Foreword

A: USE OF THIS MANUAL

This manual explains the points to be observed during removal and installation of parts separately by location.

1. ILLUSTRATION EXAMPLE

- Symbols and number of points indicate the welding method and the number of welding points. Text in brackets indicates the direction for removal of welded parts, and numbers indicate the number of plates to be drilled in panels of welded parts to be removed.
- An enclosure by a broken line indicates work from the opposite side (rear side).

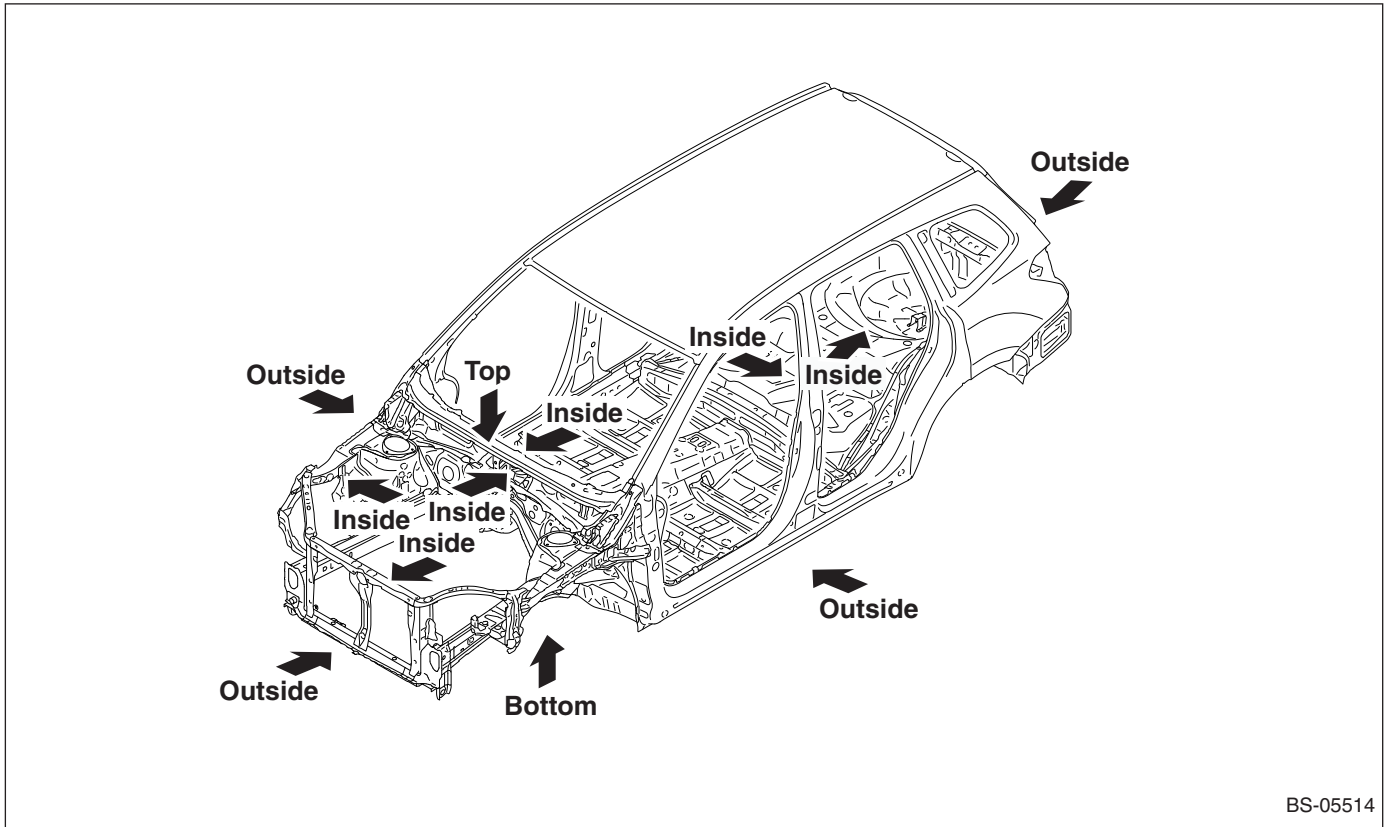


- | | |
|------------------------------------|--|
| (1) Overall view | (A) Welding method |
| (2) View | (B) View direction |
| (3) Number of welding points etc. | (C) Direction towards the front of the vehicle |
| (4) Removal direction | |
| (5) Number of plates to be drilled | |
| (6) Cautions for the work etc. | |

Foreword

2. REMOVAL DIRECTION

Division is made into the four groups of inside, outside, top, and bottom, and these directions are defined as shown in the following figure.



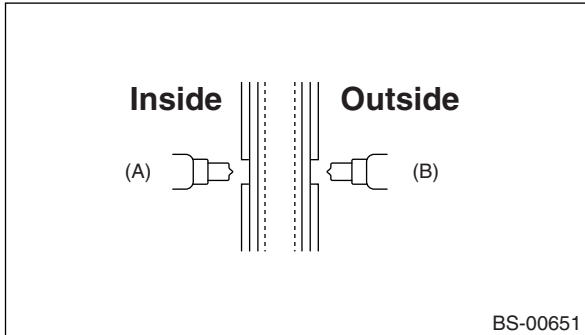
BS-05514

Foreword

3. NUMBER OF PANELS TO BE DRILLED

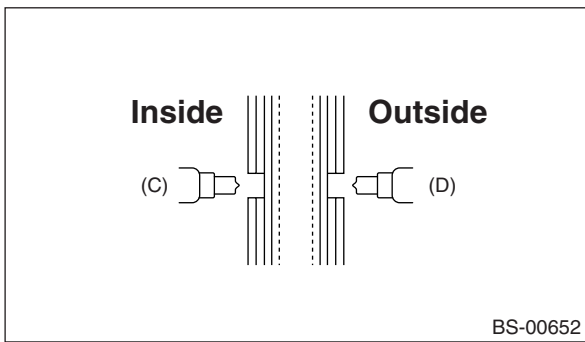
Depending on the number of panels, drilling is done through one panel or two panels, and this number is listed together with the removal direction.

(1) Drilling through one plate



- (A) (Inside · 1)
- (B) (Outside · 1)

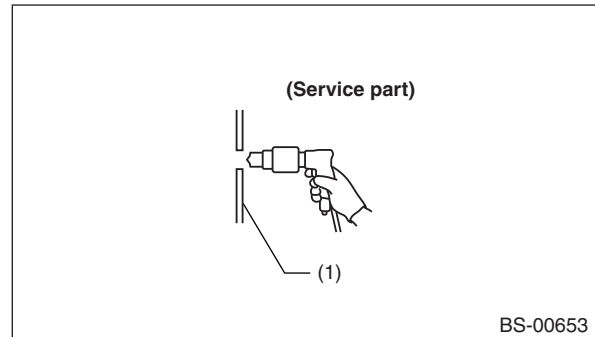
(2) Drilling through two plates



- (C) (Inside · 2)
- (D) (Outside · 2)

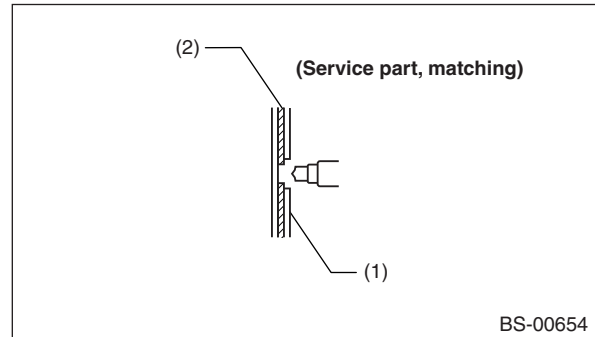
4. HOLE DRILLING FOR PLUG WELDING

(1) Drilling of holes for plug welding in service parts



- (1) Service part

(2) Drilling of holes for plug welding in service parts, matching the holes on the vehicle side


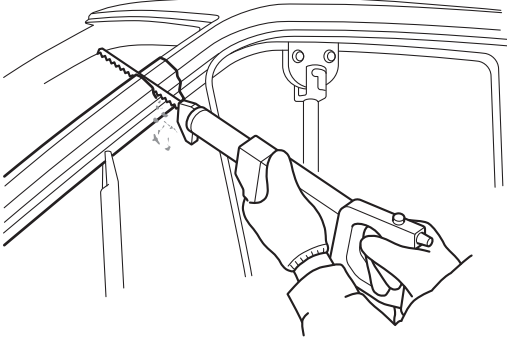


- (1) Vehicle side
- (2) Service part


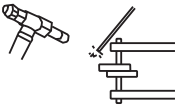
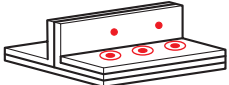
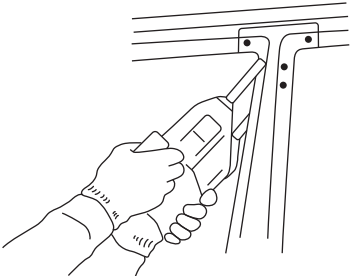


Foreword

5. MEANING OF SYMBOLS



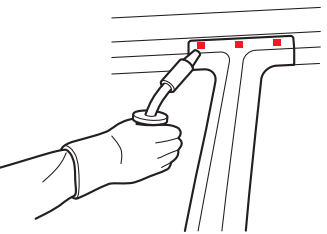


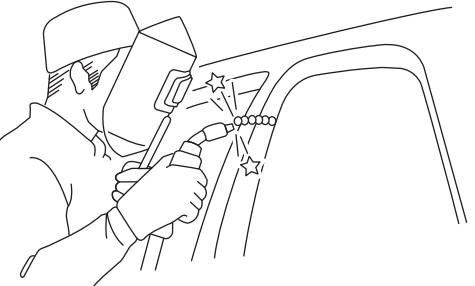
• Cutting

 <p style="text-align: right;">BS-00352</p>	 <p style="text-align: right;">BS-00267</p>
--	---

• Spot welding


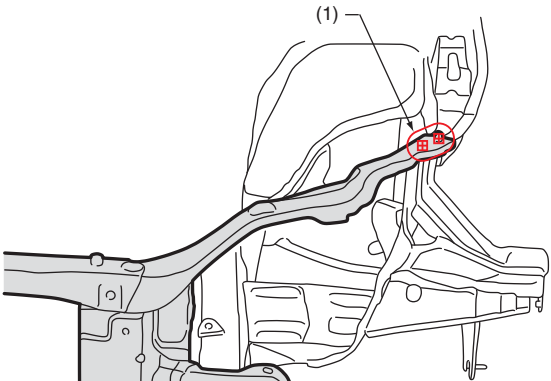

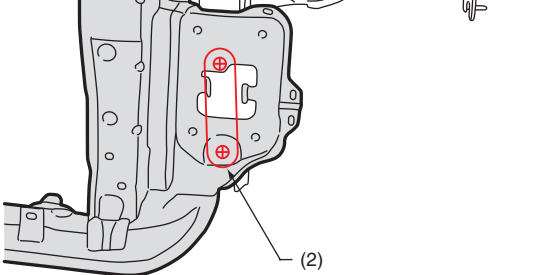
<p>Two overlapping parts</p>	 <p style="text-align: center;">BS-00655</p>	 <p style="text-align: center;">BS-00656</p>	 <p style="text-align: center;">BS-00657</p>	 <p style="text-align: right;">BS-00658</p>
<p>Three or more overlapping parts</p>	 <p style="text-align: center;">BS-00659</p>	 <p style="text-align: center;">BS-00660</p>		

• Carbon dioxide gas arc welding (MIG welding)

<p>Plug welding</p>	 <p style="text-align: center;">BS-00661</p>	 <p style="text-align: center;">BS-00662</p>	 <p style="text-align: right;">BS-00663</p>
<p>Continuous welding</p>	 <p style="text-align: center;">BS-00664</p>	 <p style="text-align: center;">BS-00665</p>	 <p style="text-align: right;">BS-00666</p>

Foreword

- Bolt, nut tightening portion

Bolt		 <p>BS-04481</p>
Nut		 <p>BS-04482</p> <p>(1) Bolt (2) Nut</p> <p>BS-04483</p>

Foreword

B: CAUTION

Since there is a possibility that the required strength will not be obtained, an inverter welder must be used for spot-welding at locations where high-strength steel is used.

C: NOTE

1. On 980 MPa class and 1500 MPa class High-strength tensile steel

It is recommended to perform the weldings using 980MPa class high-strength steel under the following conditions.

- It is recommended to perform spot welding according to board thickness and number of overlapping sheets under the following conditions ([a] — [e])
- When conditions can't be met, it is recommended to perform the plug welding any of following [f] or [g], [h] or [i].

• Welding conditions of 980 MPa class high-strength tensile steel

Spot welding	[a]	Compression	4.0kN	Total number of 2 overlapping sheets
		Current	7.0kA	
		Welding time	15cyc	
	[b]	Compression	2.6kN	
		Current	6.0kA	
		Welding time	10cyc	
	[c]	Compression	3.5kN	Total number of 3 overlapping sheets
		Current	7.0kA	
		Welding time	25cyc	
	[d]	Compression	4.4kN	
		Current	7.5kA	
		Welding time	20cyc	
[e]	Compression	3.5kN		
	Current	7.5kA		
	Welding time	16cyc		
Plug welding	[f]	Plug diameter	8 mm (0.31 in) or more	Total number of 2 or 3 overlapping sheets
		Wire	YGW12	
		Gas	CO2	
	[g]	Plug diameter	8 mm (0.31 in) or more	
		Wire	YGW16	
		Gas	Gas mixture (argon: 80%, CO2: 20%)	

• Welding conditions of 1500 MPa class high-strength tensile steel

Spot welding	[c]	Compression	3.5kN	Total number of 2 overlapping sheets
		Current	7.0kA	
		Welding time	25cyc	
	[d]	Compression	4.4kN	
		Current	7.5kA	
		Welding time	20cyc	
Plug welding	[h]	Plug diameter	8.5 mm (0.33 in) or more	Total number of 2 or 3 overlapping sheets
		Wire	YGW12	
		Gas	CO2	
	[i]	Plug diameter	8.5 mm (0.33 in) or more	
		Wire	YGW16	
		Gas	Gas mixture (argon: 80%, CO2: 20%)	

Foreword

CAUTION:

- For new spot welding, avoid previously welded locations.
- After spot welding, inspect the welding locations, and if the weld appears to be insufficient, perform plug welding.
- Shape correction by heating and splice welding shall not be performed for components using 980 MPa class and 1500 MPa class high-strength tensile steel because this may decrease the strength of the material.

1. Hole diameter required for plug welding of a steel plate below 980 MPa class

At locations where spot welding is not possible, use a punch or a drill to open holes for plug welding according to the following table.

Plate thickness of the welding material	Plug welding hole diameter
Less than 1.0 mm (0.04 in)	φ5.0 mm (0.20 in) or more
1.0 — 1.6 mm (0.04 — 0.06 in)	φ6.5mm (0.26 in) or more
1.7 — 2.3 mm (0.07 — 0.09 in)	φ8.0mm (0.31 in) or more
2.4 mm (0.09 in) or more	φ10.0 mm (0.39 in) or more

Foreword

2. REPAIR WORK USING FOAM

CAUTION:

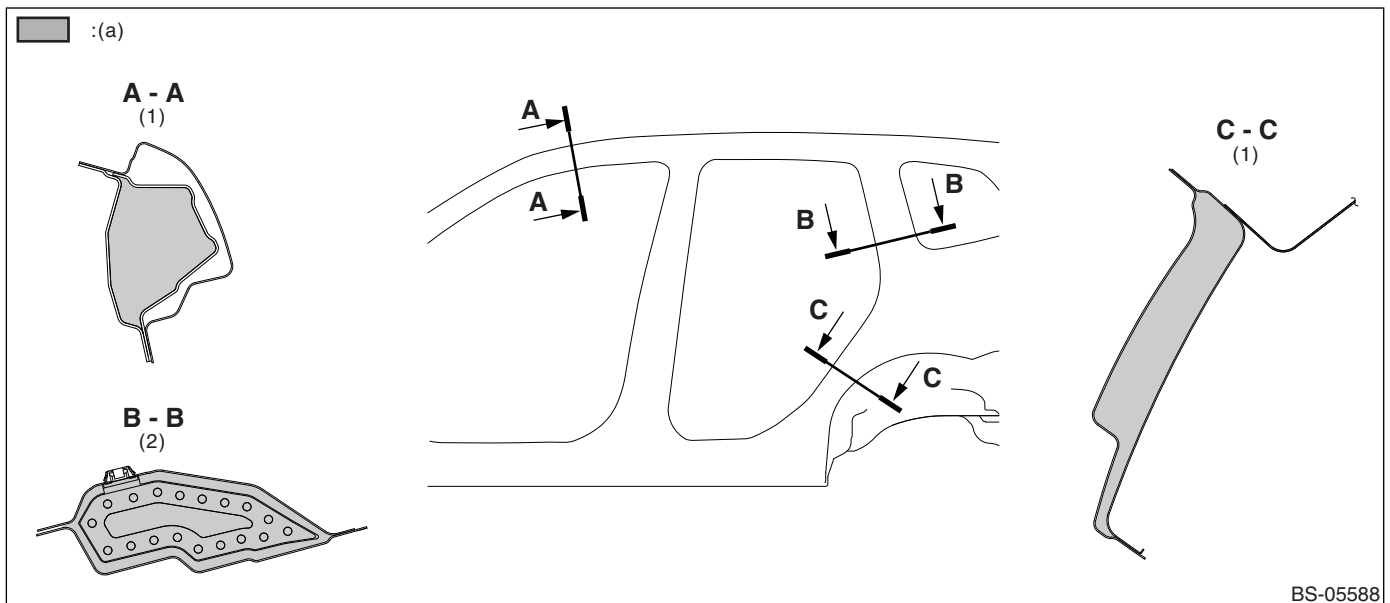
- Do not perform welding or other work involving high temperatures.
- Do not use an open flame at the time of disassembly.
- Remove residual foam before injecting the new material.
- After completion of work, confirm that there is no danger of igniting the material.
- Spray cans that have been used once cannot be used again.
- Use a narrow nozzle.

Recommended materials: Equivalent to High Span Foam made by Cemedine

For a clip type plate, reuse the plate and inject cold-setting foam.

For a clipless type, inject cold-setting foam as is.

- Foam injection locations



(a) Urethane foam injection locations

(1) Clipless type

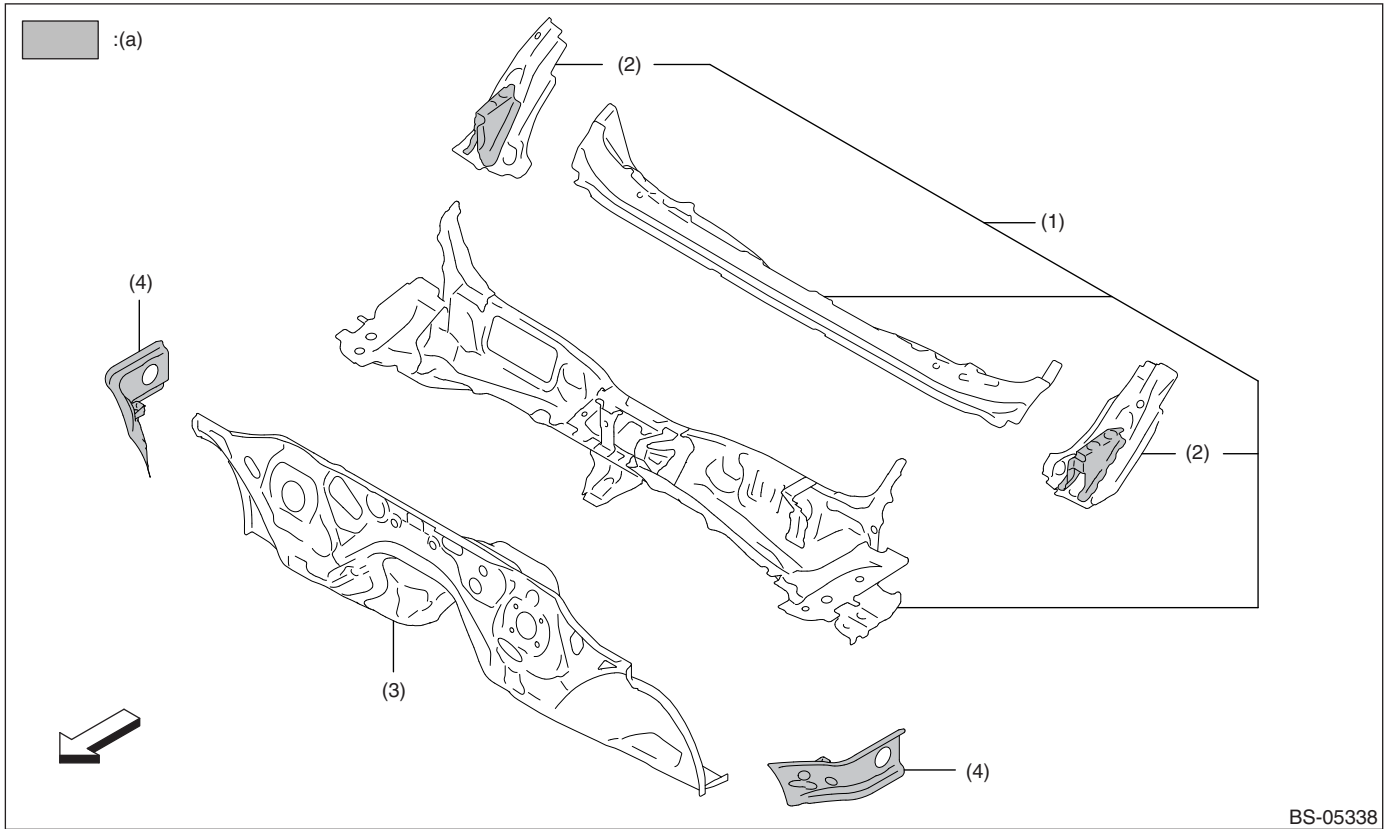
(2) Clip type

Panel Components

2. Panel Components

A: COMPONENTS

1. TOE BOARD & FRONT PANEL



(a) High-strength tensile steel
(440 — 590 MPa class)

(1) Front panel and Duct

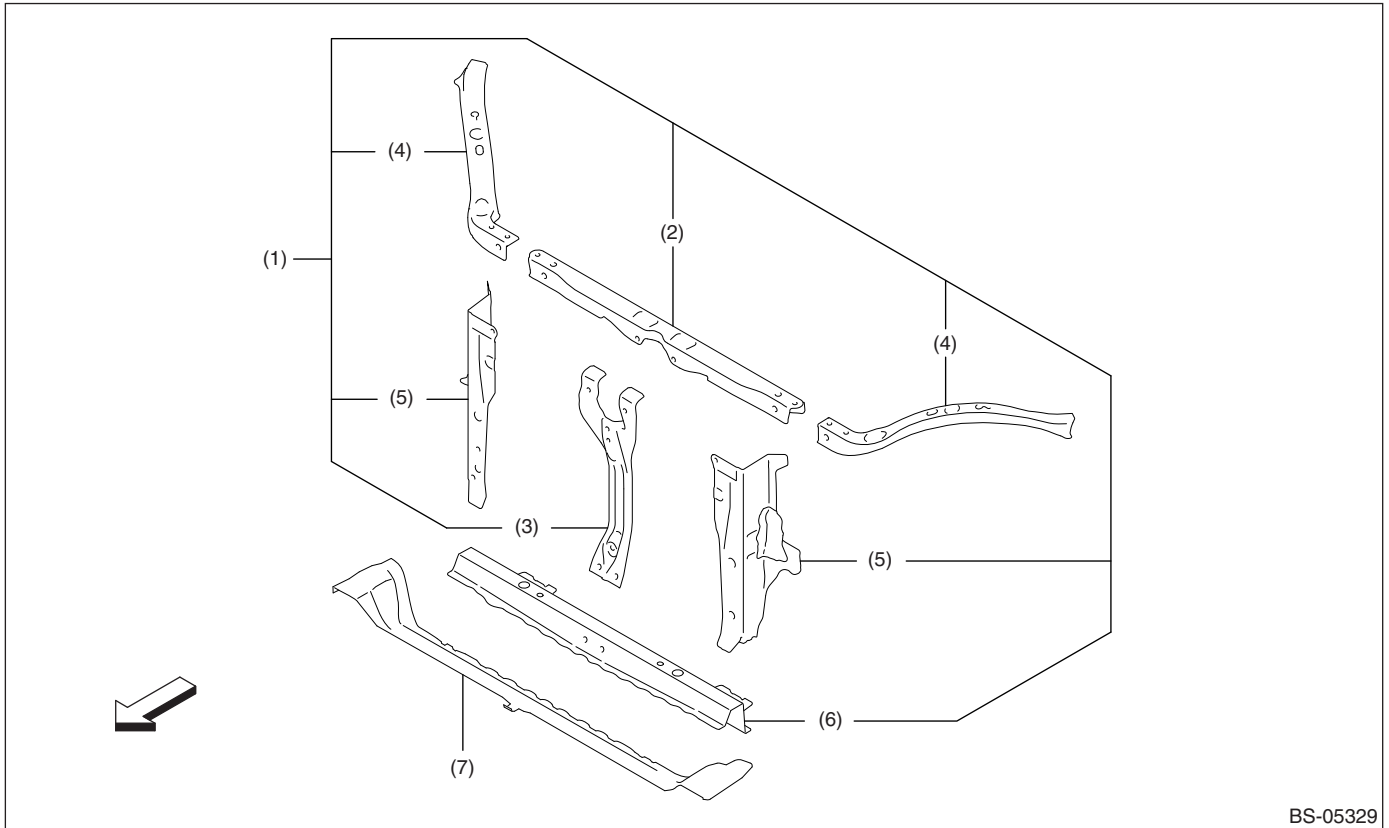
(3) Toe board

(4) Gusset

(2) Front panel side reinforcement

Panel Components

2. RADIATOR PANEL

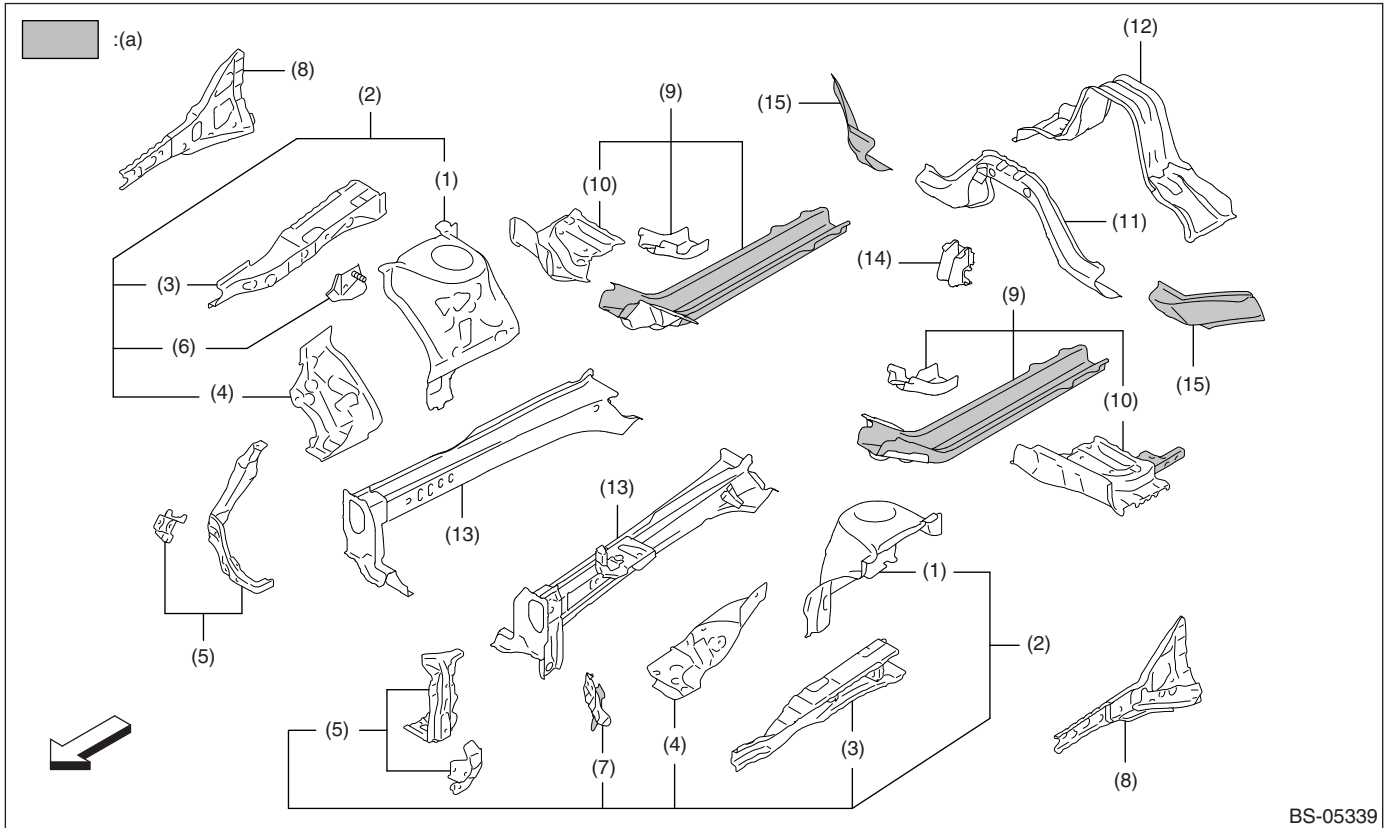


BS-05329

- | | | |
|--------------------------|-------------------------------|-------------------------------|
| (1) Radiator panel | (4) Radiator side frame upper | (7) Radiator frame lower side |
| (2) Radiator frame upper | (5) Radiator panel side | |
| (3) Hood lock stay | (6) Radiator frame lower | |

Panel Components

3. FRONT WHEEL APRON



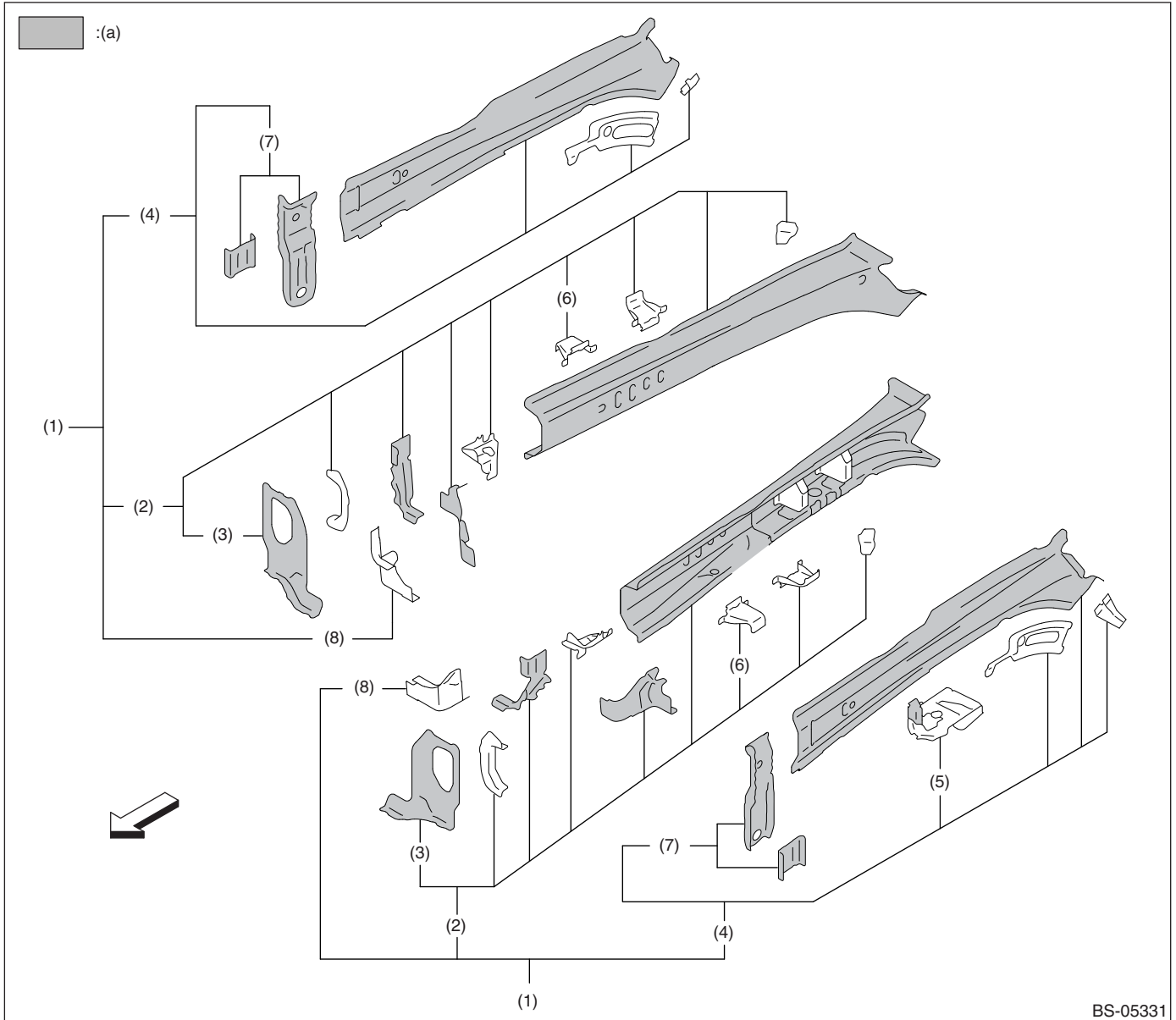
BS-05339

(a) High-strength tensile steel
(440 — 590 MPa class)

- | | | |
|------------------------------|------------------------------|-----------------------------------|
| (1) Front suspension bracket | (6) VDC bracket | (11) Toe board crossmember center |
| (2) Wheel apron | (7) Battery bracket | (12) Floor crossmember front |
| (3) Side upper inner frame | (8) Side upper frame | (13) Front side frame front |
| (4) Front wheel apron | (9) Front side frame rear | (14) Pitching stopper bracket |
| (5) Side fender bracket | (10) Toe board reinforcement | (15) Toe board crossmember side |

Panel Components

4. FRONT SIDE FRAME



(a) High-strength tensile steel
(440 — 590 MPa class)

(1) Front side frame front

(2) Front side subframe front

(3) Front frame plate front

(4) Closing plate

(5) Battery reinforcement gusset

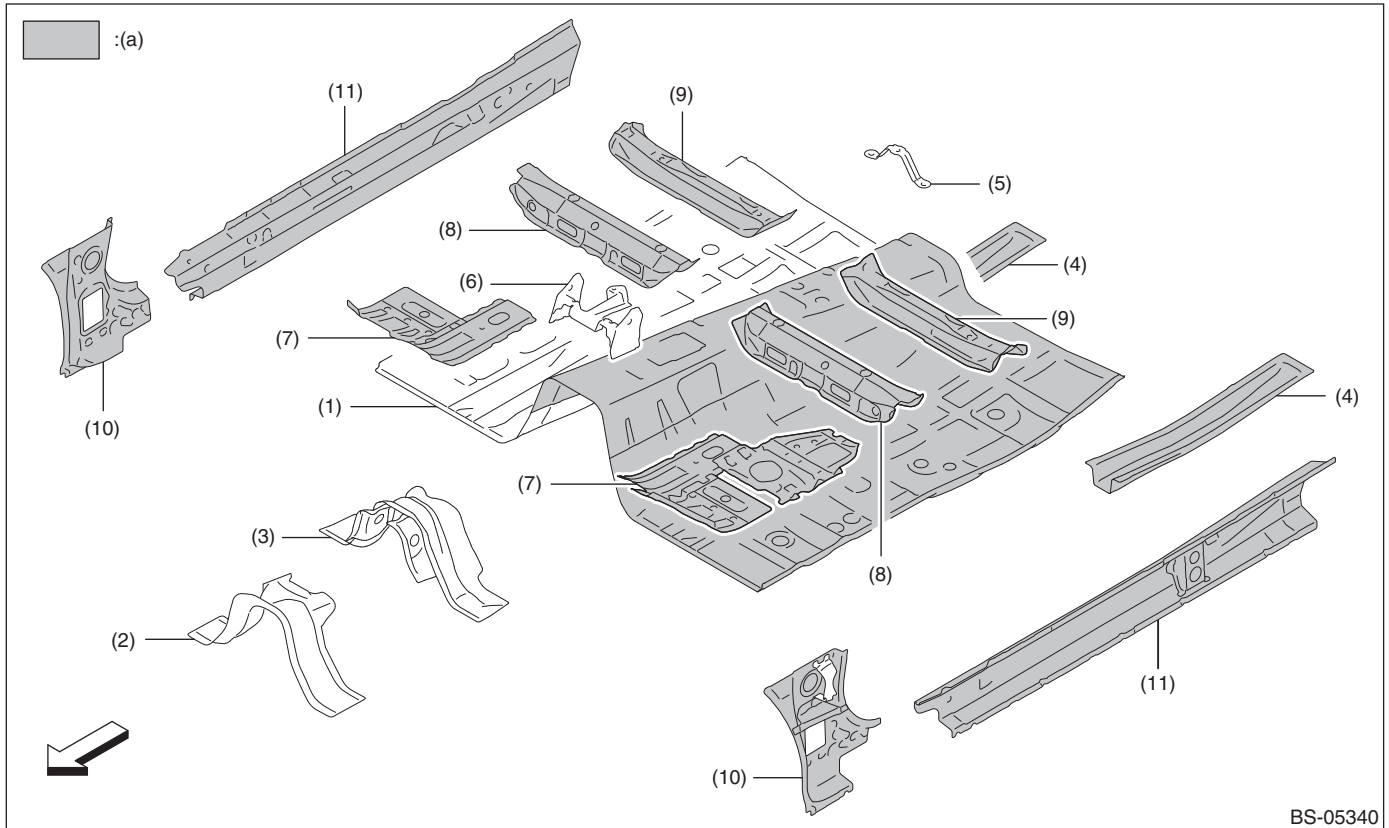
(6) Separator

(7) Front hook reinforcement

(8) Front frame gusset

Panel Components

5. FRONT FLOOR PANEL



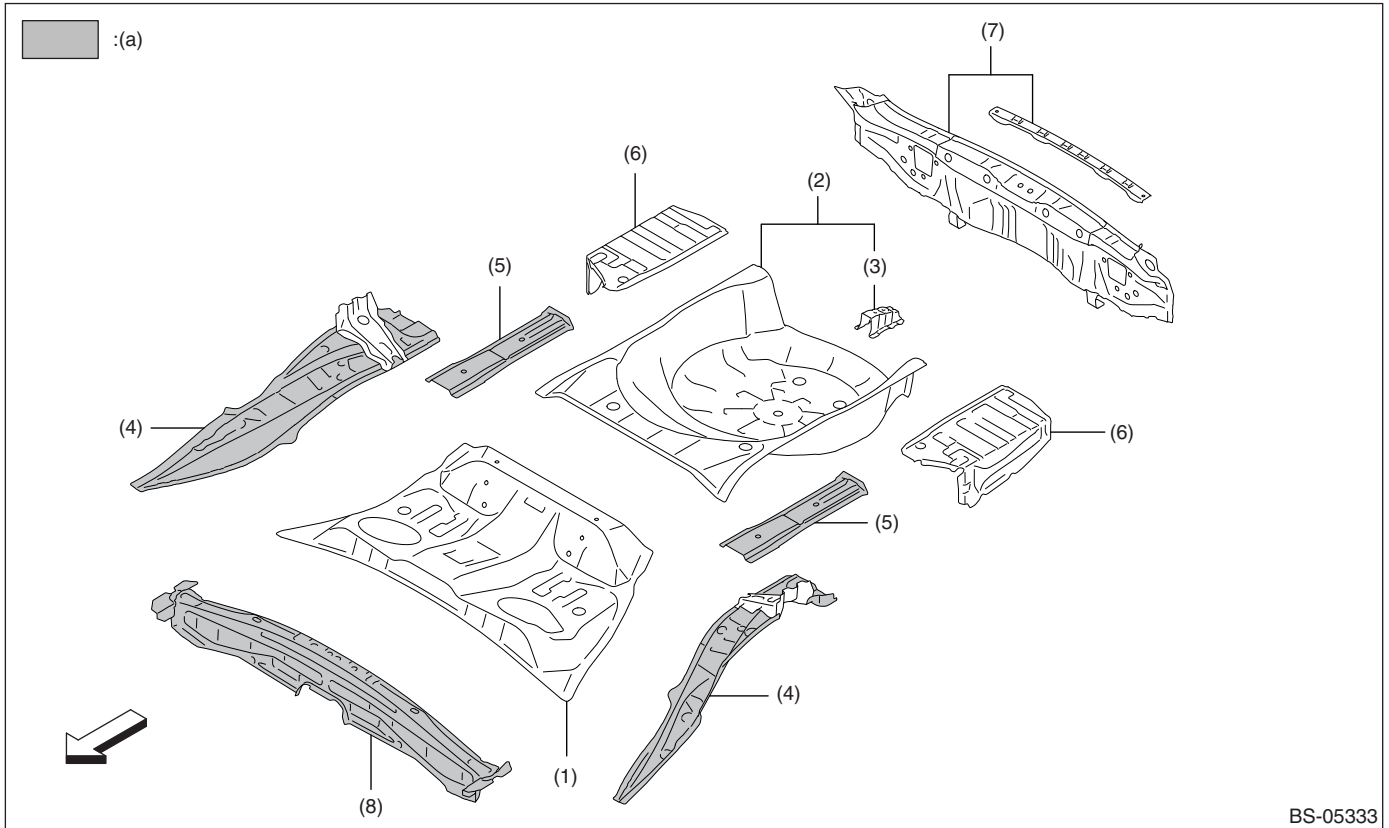
BS-05340

(a) High-strength tensile steel
(440 — 590 MPa class)

- | | | |
|------------------------------|----------------------------------|---------------------------------|
| (1) Front floor pan | (5) Harness bracket | (9) Front seat crossmember rear |
| (2) Floor crossmember center | (6) Instrument panel bracket | (10) Front pillar inner lower |
| (3) Floor crossmember rear | (7) Front floor frame front | (11) Side sill inner |
| (4) Front floor frame rear | (8) Front seat crossmember front | |

Panel Components

6. REAR FLOOR PANEL & REAR SKIRT



BS-05333

(a) High-strength tensile steel
(440 — 590 MPa class)

(1) Rear floor pan front

(4) Damper bracket floor upper

(7) Rear skirt

(2) Rear floor pan rear

(5) Rear side frame upper rear

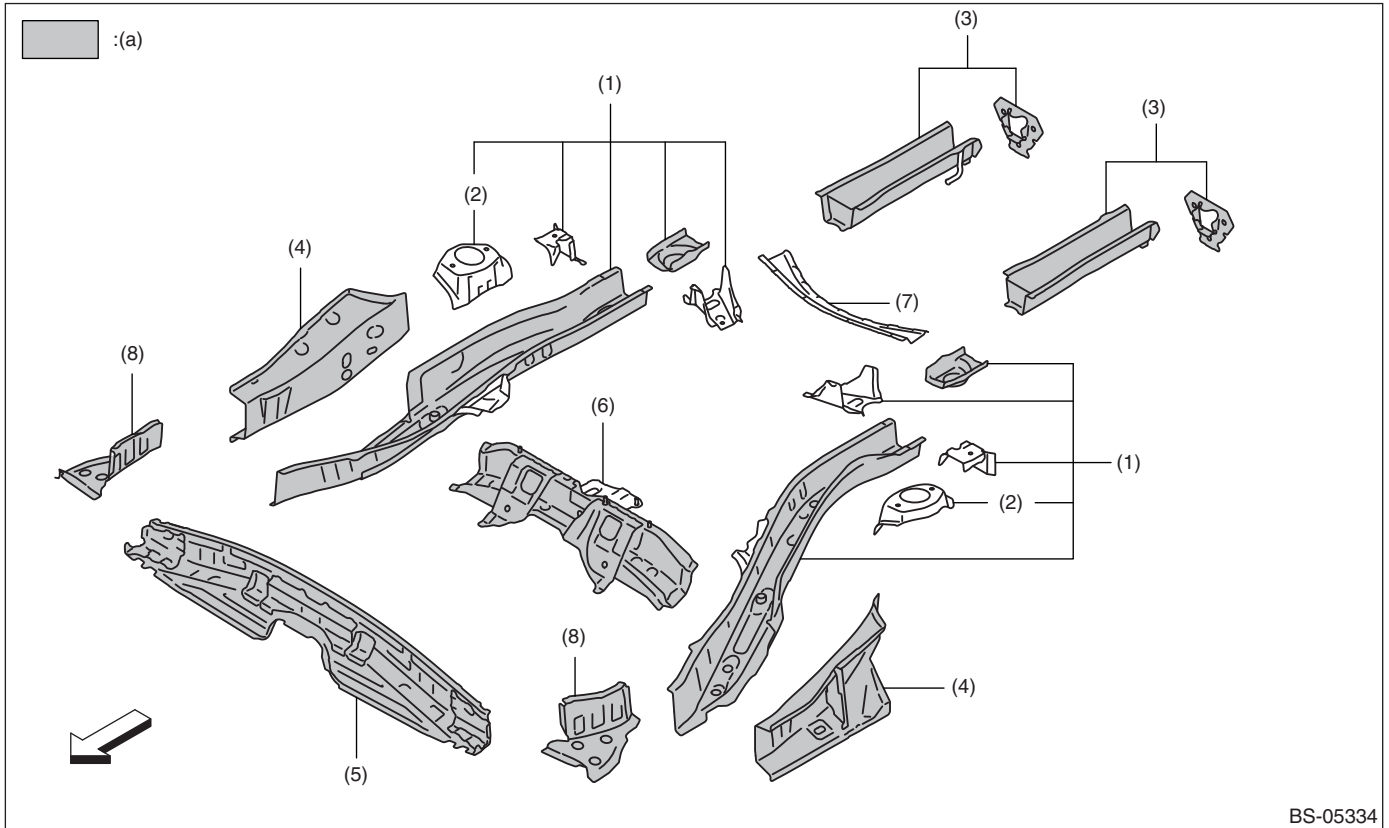
(8) Rear floor crossmember A front

(3) Spare tire bracket

(6) Floor side rear

Panel Components

7. REAR FLOOR SIDE FRAME



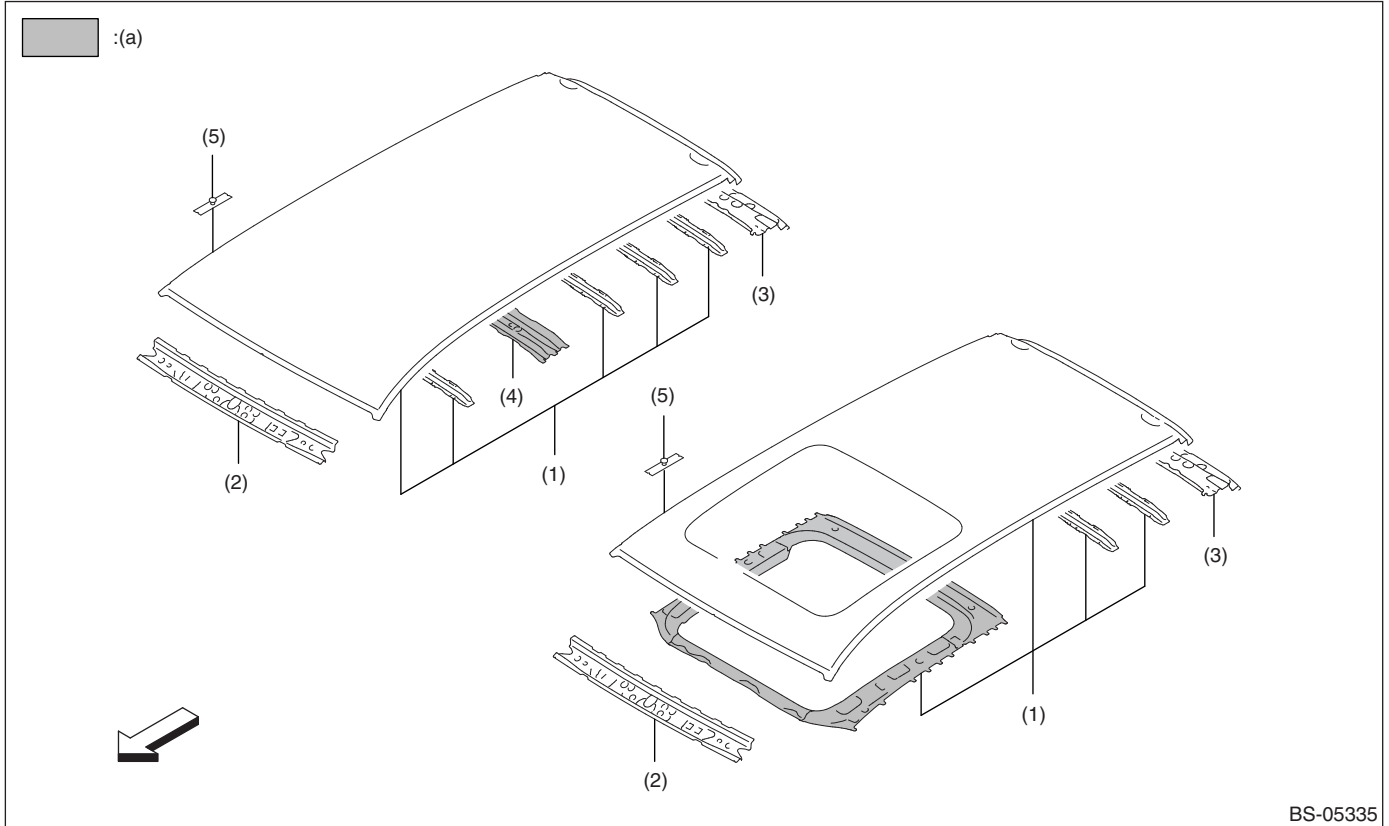
BS-05334

(a) High-strength tensile steel
(440 — 590 MPa class)

- | | | |
|--------------------------------------|-----------------------------------|------------------------------|
| (1) Floor side frame rear | (4) Side sill inner rear | (7) Rear floor crossmember C |
| (2) Rear suspension bracket | (5) Rear floor crossmember A rear | (8) Rear side frame gusset |
| (3) Floor side frame rear lower rear | (6) Rear floor crossmember B | |

Panel Components

8. ROOF



BS-05335

(a) High-strength tensile steel
(440 — 590 MPa class)

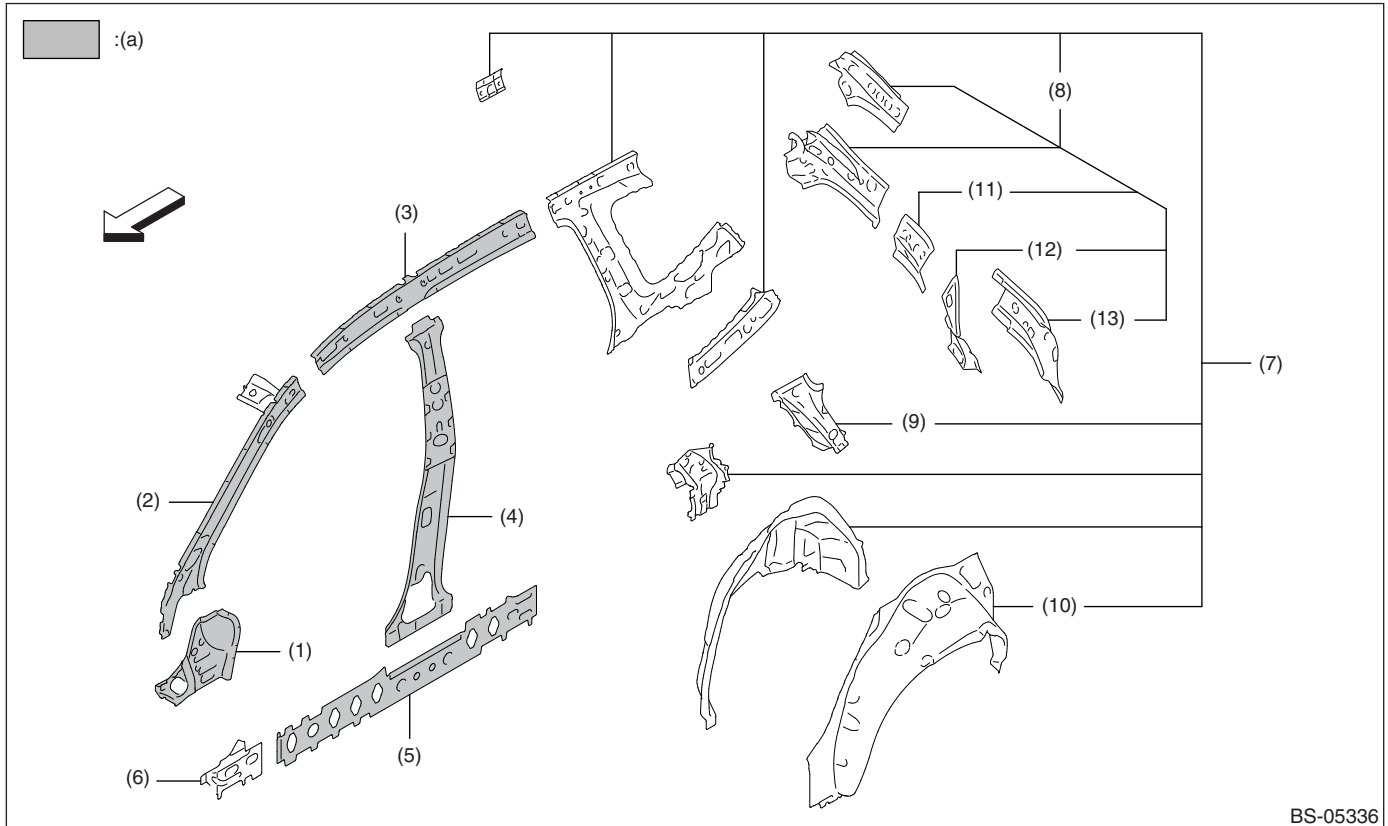
(1) Roof panel
(2) Front roof rail

(3) Rear roof rail
(4) Roof center brace

(5) T stud plate

Panel Components

9. SIDE PANEL INNER



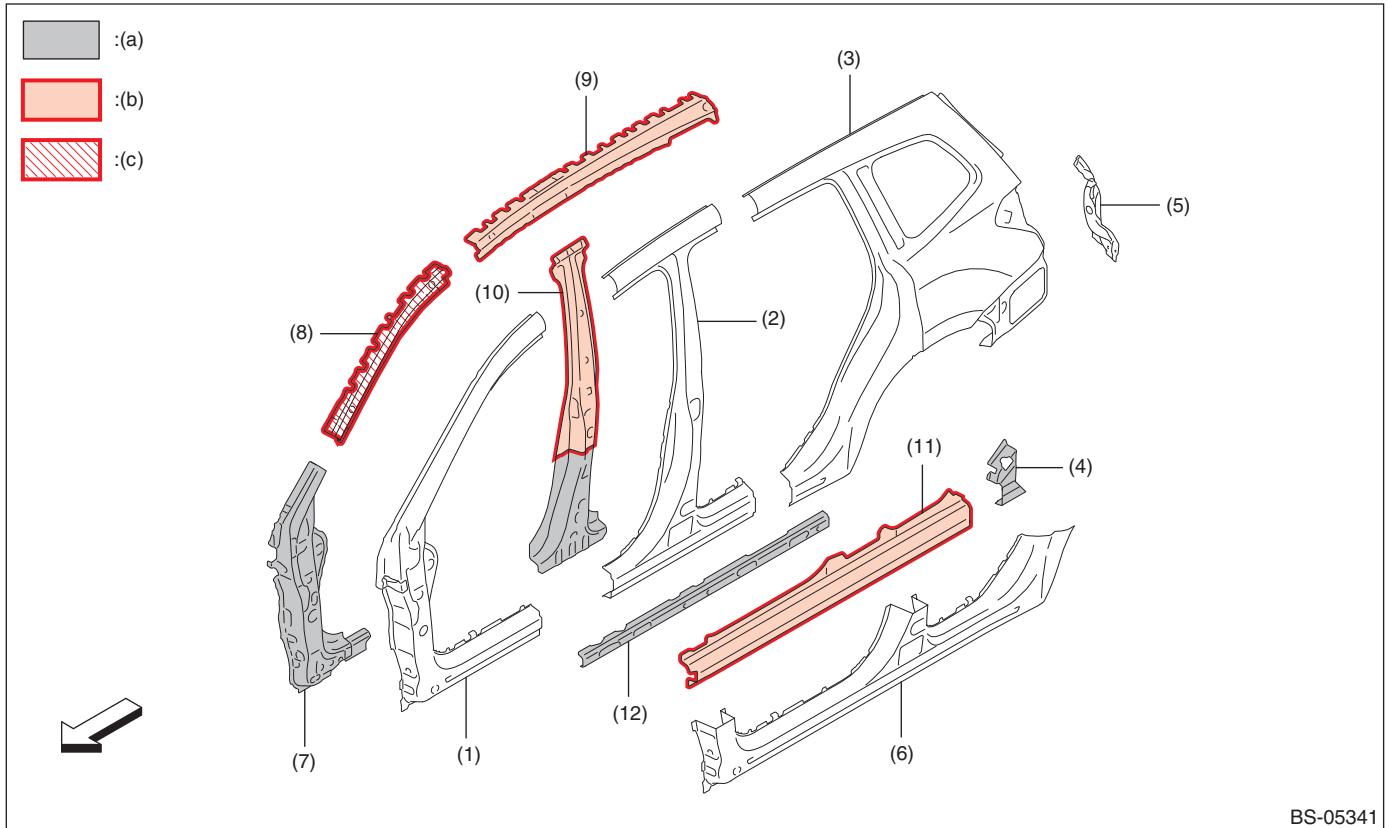
BS-05336

(a) High-strength tensile steel
(440 — 590 MPa class)

- | | | |
|-----------------------------------|---|-----------------------------------|
| (1) Front pillar inner center | (6) Side sill reinforcement inner front | (11) D-pillar inner center |
| (2) Front pillar inner upper | (7) Rear quarter inner | (12) D-pillar inner lower |
| (3) Side rail inner | (8) D-pillar reinforcement | (13) D-pillar reinforcement lower |
| (4) Center pillar inner | (9) C-pillar reinforcement | |
| (5) Side sill reinforcement inner | (10) Rear arch inner | |

Panel Components

10. SIDE PANEL OUTER



BS-05341

(a) High-strength tensile steel
(440 — 590 MPa class)

(b) High-strength tensile steel
(980 MPa class)

(c) High-strength tensile steel
(1500 MPa class)

(1) Front pillar outer

(5) Rear quarter end

(9) Side rail reinforcement outer rear

(2) Center pillar outer

(6) Side sill outer

(10) Center pillar reinforcement

(3) Rear quarter outer

(7) Front pillar reinforcement lower

(11) Side sill reinforcement outer

(4) Rear quarter catcher reinforcement

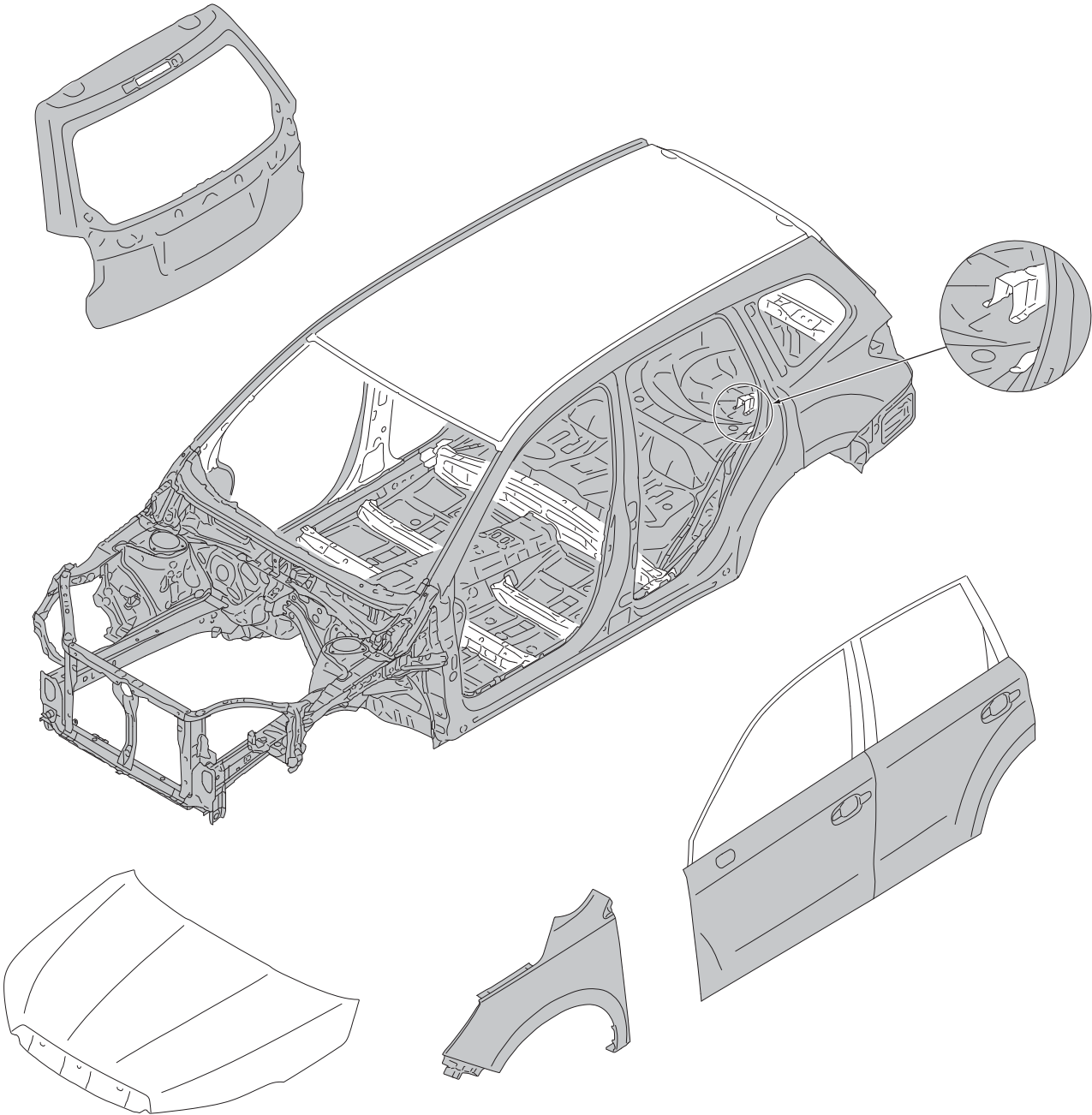
(8) Side rail reinforcement outer front

(12) Side sill reinforcement outer A

3. Galvanized Sheet Metal

A: SPECIFICATION

■ : (1)



BS-05364

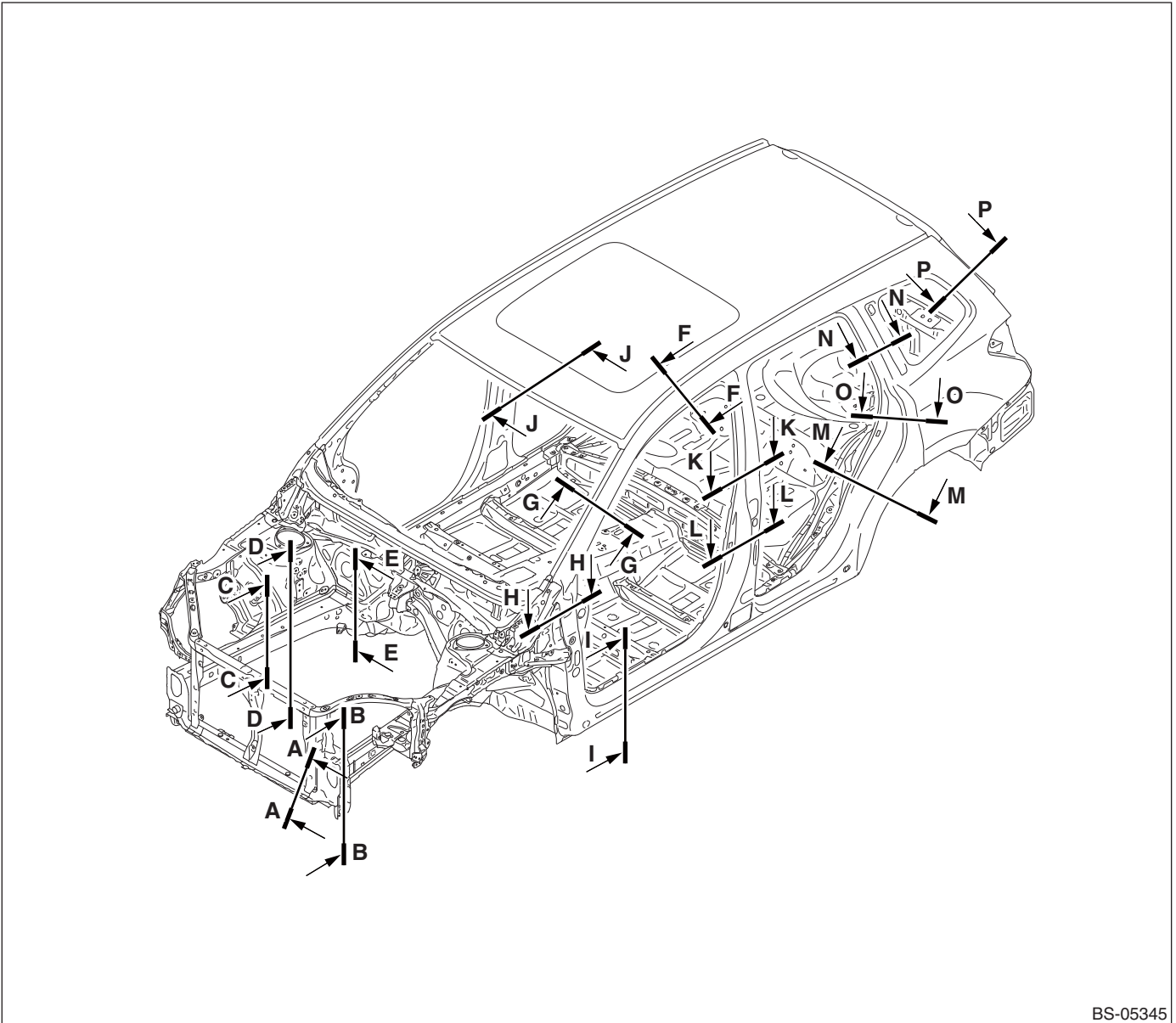
(1) Galvanized sheet metal (both sides)

The fuel flap consists of galvanized sheet metal.

Body Construction

4. Body Construction

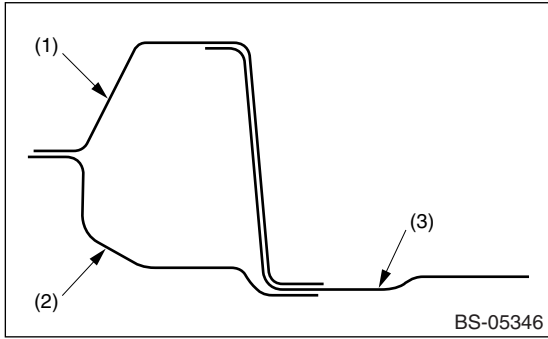
A: SPECIFICATIONS



BS-05345

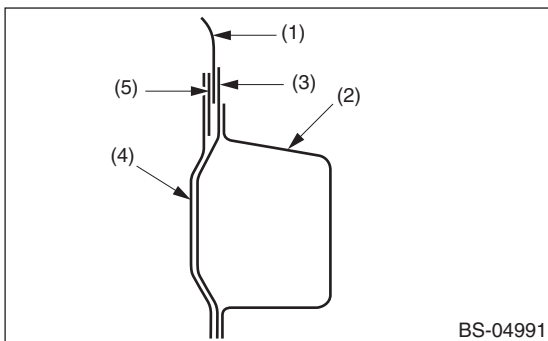
Body Construction

Cross section A — A



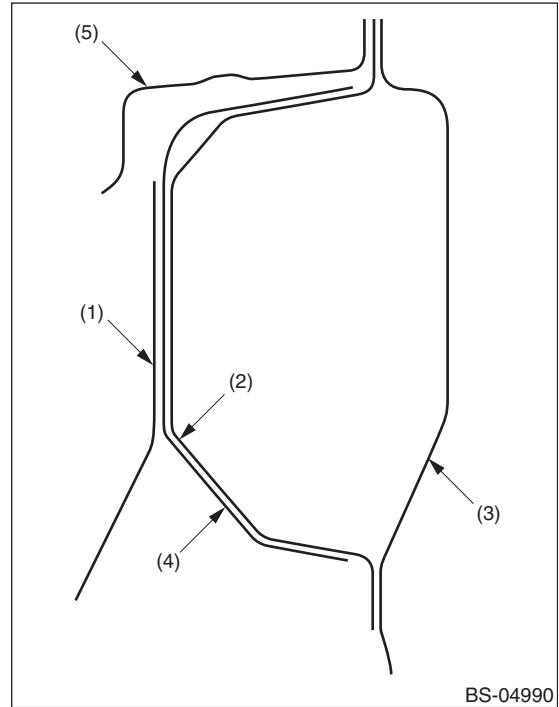
- (1) Radiator lower frame A
- (2) Radiator lower frame B
- (3) Radiator bracket reinforcement

Cross section C — C



- (1) Front wheel apron
- (2) Frame side frame front
- (3) Closing plate front
- (4) Front suspension lower reinforcement
- (5) Front suspension lower bracket

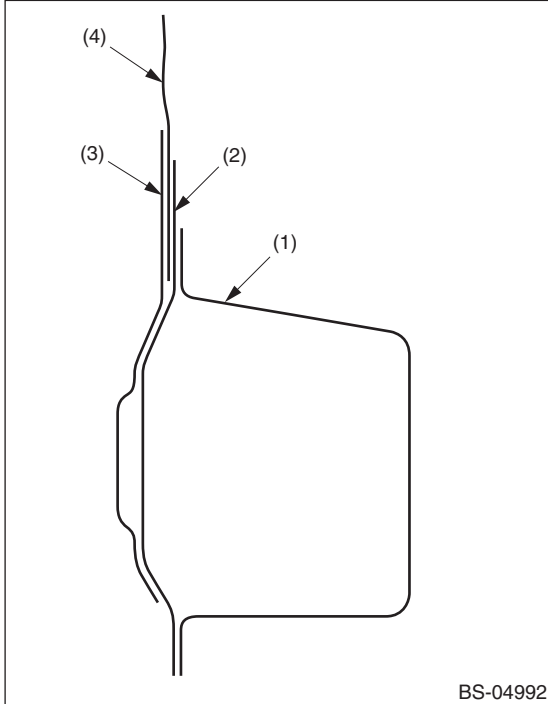
Cross section B — B



- (1) Front gusset front A
- (2) Front side frame front
- (3) Hook reinforcement
- (4) Bumper bracket
- (5) Bumper bracket rear

Body Construction

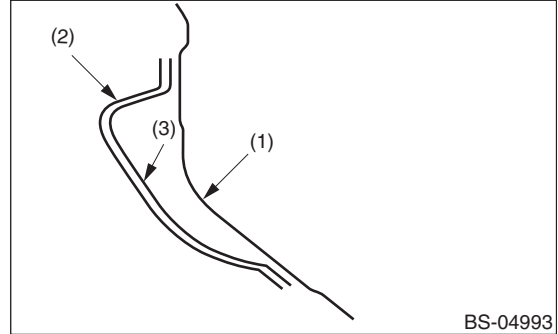
Cross section D — D



BS-04992

- (1) Front side frame front
- (2) Closing plate
- (3) Front suspension lower reinforcement
- (4) Front suspension lower bracket

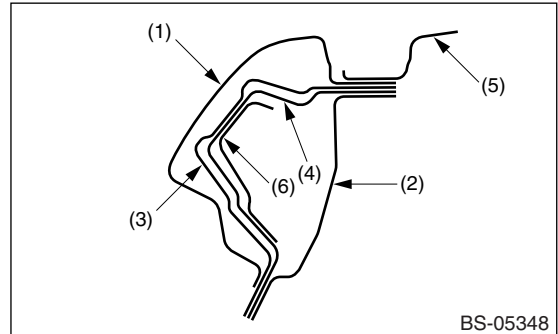
Cross section E — E



BS-04993

- (1) Toe board
- (2) Toe board center crossmember
- (3) Toe board side crossmember

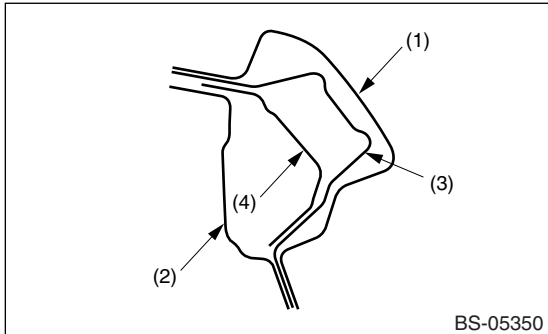
Cross section F — F



BS-05348

- (1) Outer panel side
- (2) Side rail inner
- (3) Side rail reinforcement rear
- (4) Side rail reinforcement front
- (5) Roof panel
- (6) Side rail reinforcement front A (LH side)

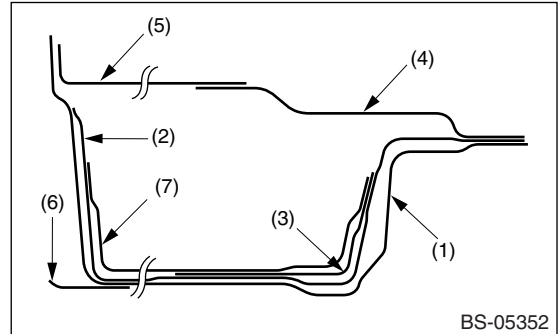
Cross section G — G



BS-05350

- (1) Outer panel side
- (2) Front pillar inner upper
- (3) Side rail reinforcement front outer
- (4) Side rail reinforcement front outer A (LH side)

Cross section H — H

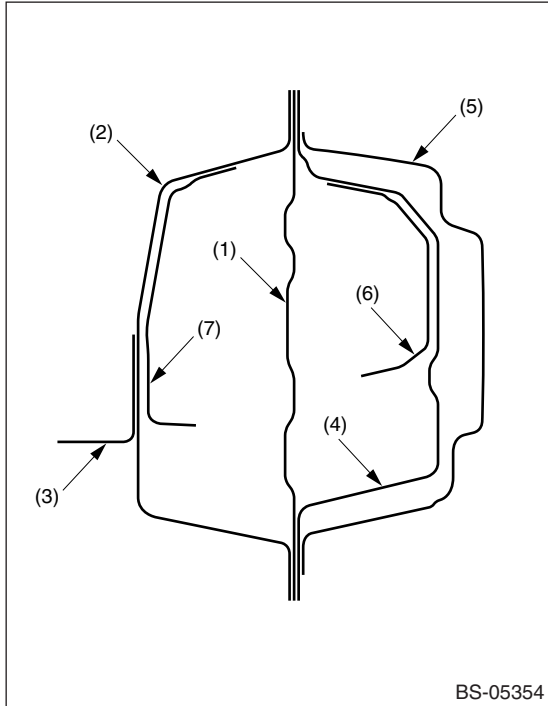


BS-05352

- (1) Outer panel side
- (2) Front pillar reinforcement
- (3) Front pillar hinge reinforcement
- (4) Front pillar inner center
- (5) Front pillar inner upper
- (6) Side frame gusset upper
- (7) Front pillar reinforcement upper (LH side)

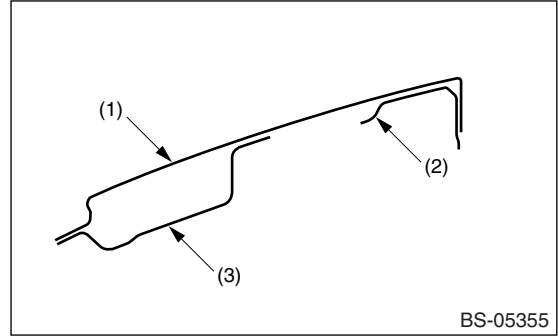
Body Construction

Cross section I — I



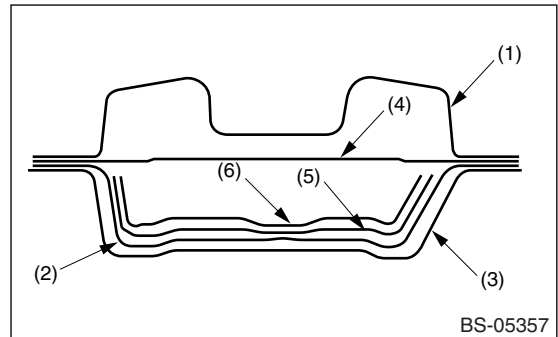
- (1) Reinforcement sill side
- (2) Side sill inner
- (3) Floor pan front
- (4) Reinforcement sill side outer
- (5) Panel side outer
- (6) Reinforcement sill side outer A
- (7) Reinforcement sill side front upper

Cross section J — J



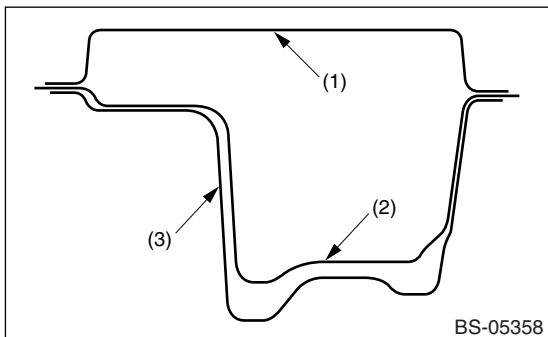
- (1) Roof panel
- (2) Frame sunroof
- (3) Front rail lower

Cross section K — K



- (1) Pillar center inner
- (2) Reinforcement pillar center outer
- (3) Panel side outer
- (4) Plate pillar center
- (5) Reinforcement pillar center outer A
- (6) Reinforcement pillar center outer C

Cross section L — L

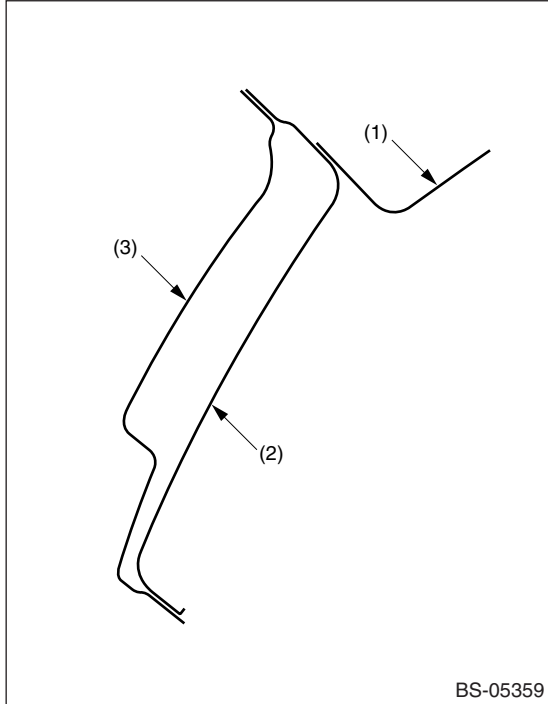


- (1) Pillar center inner
- (2) Reinforcement pillar center outer
- (3) Panel side outer

SUBARU.

Body Construction

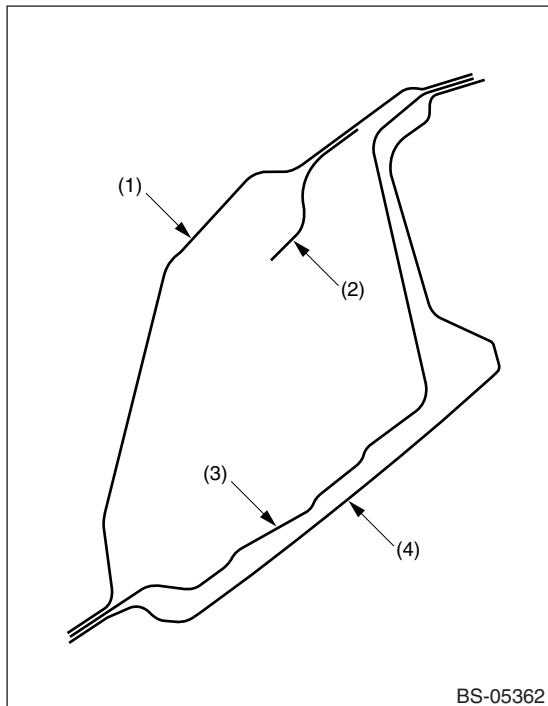
Cross section M — M



BS-05359

- (1) Wheel apron rear
- (2) Arch rear inner
- (3) Panel side outer

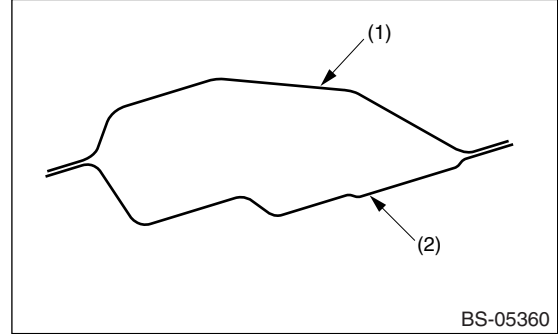
Cross section P — P



BS-05362

- (1) Pillar D inner
- (2) Separator D-pillar
- (3) Reinforcement D-pillar
- (4) Panel side outer

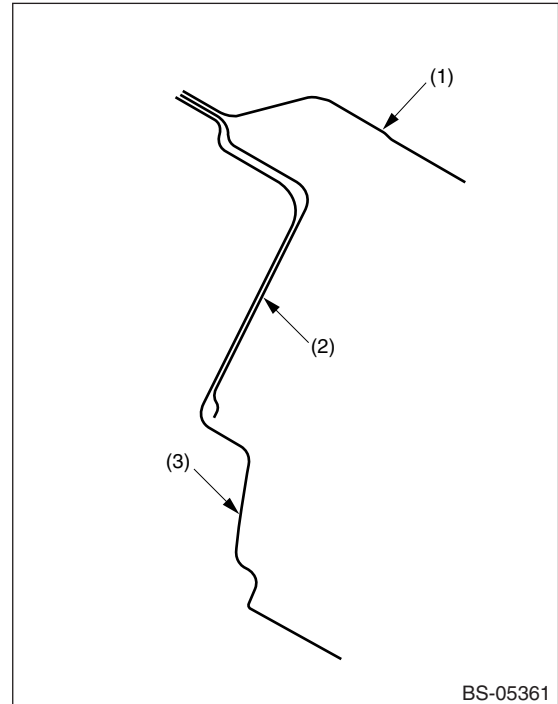
Cross section N — N



BS-05360

- (1) Quarter panel rear inner
- (2) Panel side outer

Cross section O — O



BS-05361

- (1) Quarter panel rear inner
- (2) Reinforcement striker
- (3) Panel side outer

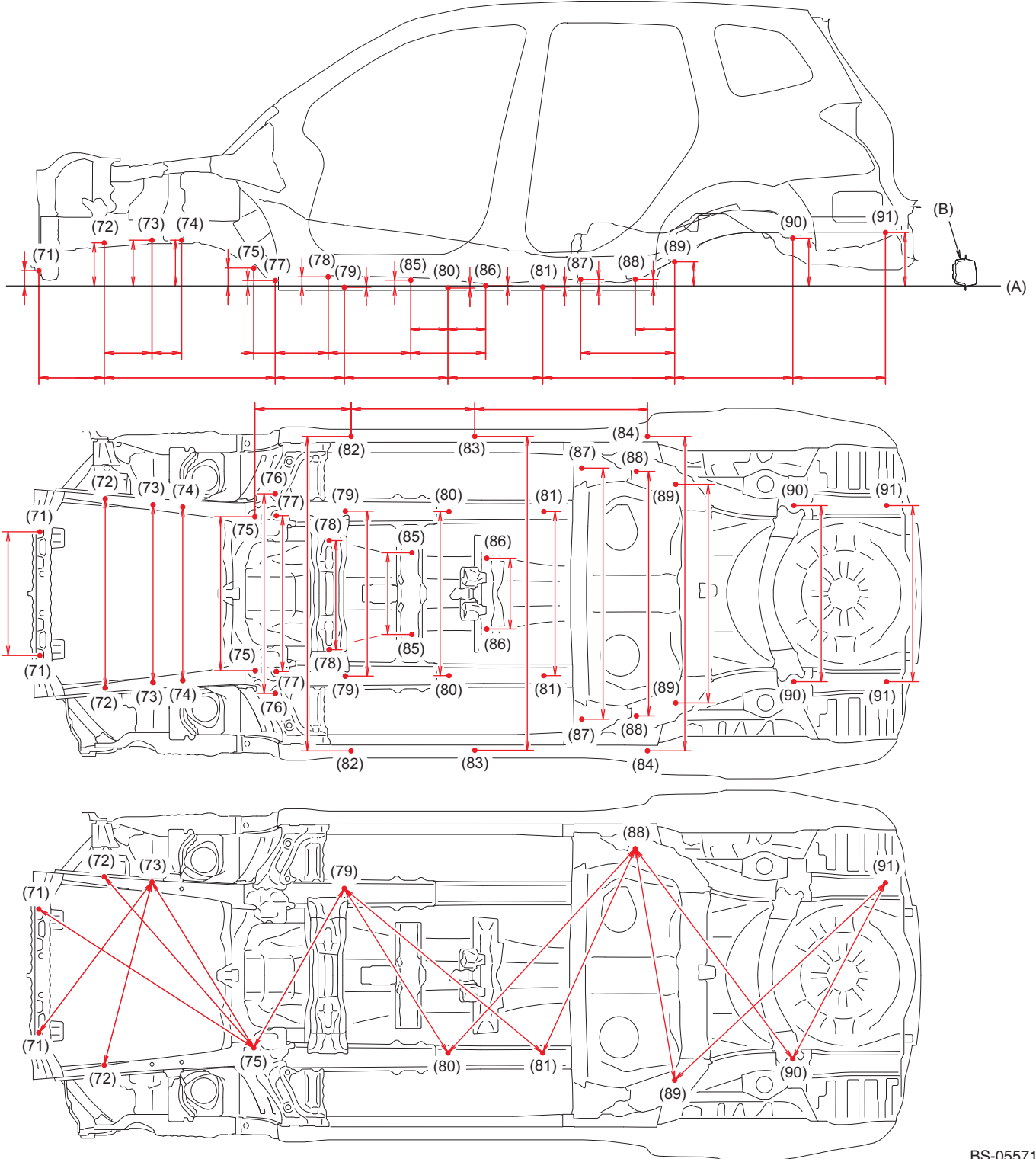
SUBARU.

Body Reference Points

5. Body Reference Points

A: DIMENSIONS

1. LOWER SURFACE



- The longitudinal dimensions are projected dimensions.

BS-05571

Body Reference Points

- The height dimensions are the vertical distances from the gauge point on the assumed horizontal line through the side sill flange joint (bending angle point).
- Diagonal dimensions are the actual dimensions between reference points.

(A) Standard line

(B) Side sill outer panel

- | | | |
|---|--|--|
| (71) Front bumper bracket mounting hole (symmetrical) | (78)L *1 Crossmember mounting hole, left side | (85) Gauge hole (symmetrical) |
| (72) Radio ground mounting hole (symmetrical) | (78) *2 Crossmember mounting hole (symmetrical) | (86) Exhaust cover mounting hole (symmetrical) |
| (73) Front crossmember mounting hole (symmetrical), front | (79) Under cover mounting hole (symmetrical) | (87) Gauge hole (symmetrical) |
| (74) Front crossmember mounting hole (symmetrical), rear | (80) Under cover mounting hole (symmetrical) | (88) Rear suspension support sub frame mounting hole (symmetrical) |
| (75) Front suspension arm mounting hole (symmetrical) | (81) Under cover mounting hole (symmetrical) | (89) Rear suspension crossmember mounting hole (symmetrical) |
| (76) Front suspension plate mounting hole (symmetrical), outer side | (82) Side sill garnish mounting hole (symmetrical) | (90) Rear suspension crossmember mounting hole (symmetrical) |
| (77) Front suspension plate mounting hole (symmetrical), inner side | (83) Side sill garnish mounting hole (symmetrical) | (91) Gauge hole (symmetrical) |
| (78) R *1 Crossmember mounting hole, right side | (84) Side sill garnish mounting hole (symmetrical) | |

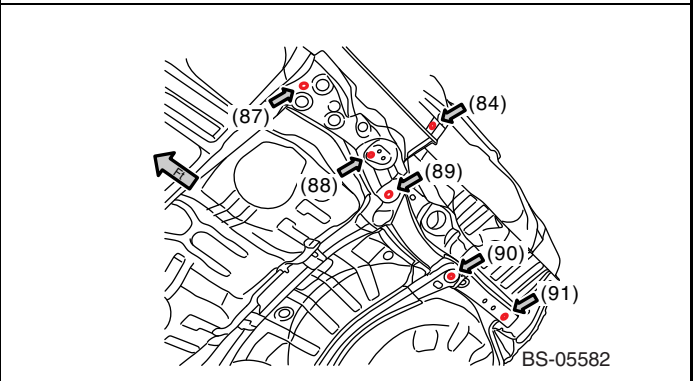
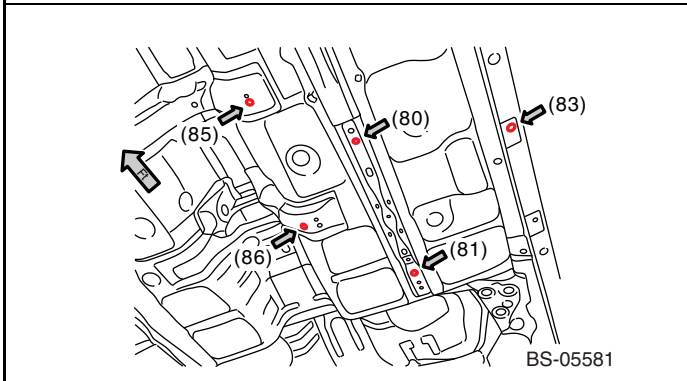
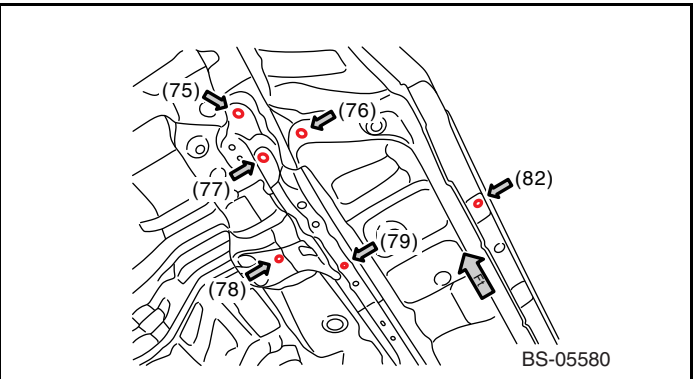
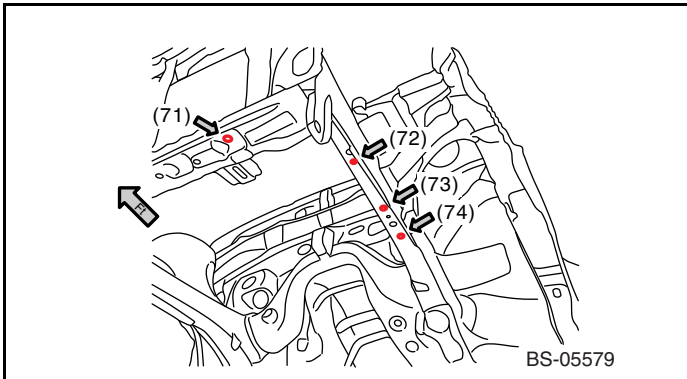
Measuring point	Datum dimension mm (in)	Projected dimensions mm (in)
Datum line — (71)	74 (2.91)	—
Datum line — (72)	209 (8.23)	—
Datum line — (73)	222 (8.74)	—
Datum line — (74)	222 (8.74)	—
Datum line — (75)	87 (3.43)	—
Datum line — (77)	27 (1.06)	—
*1 Datum line — (78) R	44 (1.73)	—
*2 Datum line — (78)	34 (1.34)	—
Datum line — (79)	-7 (-0.28)	—
Datum line — (80)	-10 (-0.39)	—
Datum line — (81)	-6 (-0.24)	—
Datum line — (85)	28 (1.10)	—
Datum line — (86)	1 (0.04)	—
Datum line — (87)	31 (1.22)	—
Datum line — (88)	33 (1.30)	—
Datum line — (89)	117 (4.61)	—
Datum line — (90)	232 (9.13)	—
Datum line — (91)	259 (10.20)	—
(71) — (72)	317 (12.48)	—
(72) — (73)	232 (9.13)	—
(72) — (77)	830 (32.68)	—
(73) — (74)	144 (5.67)	—
(75) — (77)	104 (4.09)	—
(75) — (82)	467 (18.39)	—
*1 (77) — (78) R	257 (10.12)	—
*2 (77) — (78)	357 (14.06)	—
(77) — (79)	335 (13.19)	—
*1 (78) R — (85)	402 (15.83)	—

Measuring point	Datum dimension mm (in)	Projected dimensions mm (in)
*2 (78) — (85)	302 (11.89)	—
(79) — (80)	503 (19.80)	—
(80) — (81)	460 (18.11)	—
(80) — (85)	180 (7.09)	—
(80) — (86)	183 (7.20)	—
(81) — (89)	640 (25.20)	—
(82) — (83)	600 (23.62)	—
(83) — (84)	838 (32.99)	—
(85) — (86)	363 (14.29)	—
(87) — (89)	456 (17.95)	—
(88) — (89)	191 (7.52)	—
(89) — (90)	573 (22.56)	—
(90) — (91)	450 (17.72)	—
(71) R — (71) L	600 (23.62)	—
(72) R — (72) L	914 (35.98)	—
(73) R — (73) L	862 (33.94)	—
(74) R — (74) L	840 (33.07)	—
(75) R — (75) L	746 (29.37)	—
(76) R — (76) L	968 (38.11)	—
(77) R — (77) L	756 (29.76)	—
*1 (78) R — (78) L	529 (20.83)	—
*2 (78) R — (78) L	504 (19.84)	—
(79) R — (79) L	800 (31.50)	—
(80) R — (80) L	796 (31.34)	—
(81) R — (81) L	796 (31.34)	—
(82) R — (82) L	1,525 (60.04)	—
(83) R — (83) L	1,525 (60.04)	—
(84) R — (84) L	1,525 (60.04)	—
(85) R — (85) L	396 (15.59)	—
(86) R — (86) L	343 (13.50)	—

Body Reference Points

Measuring point	Datum dimension mm (in)	Projected dimensions mm (in)
(87) R — (87) L	1,218 (47.95)	—
(88) R — (88) L	1,186 (46.69)	—
(89) R — (89) L	1,060 (41.73)	—
(90) R — (90) L	854 (33.62)	—
(91) R — (91) L	854 (33.62)	—
(71) R — (73) L	926 (36.46)	914 (35.98)
(71) L — (75) R	1,241 (48.86)	1,241 (48.86)
(72) R — (73) L	918 (36.14)	918 (36.14)
(72) L — (75) R	1,109 (43.66)	1,103 (43.43)
(73) L — (75) R	953 (37.52)	944 (37.17)

Measuring point	Datum dimension mm (in)	Projected dimensions mm (in)
(75) R — (79) L	894 (35.20)	889 (35.00)
(79) L — (80) R	943 (37.13)	943 (37.13)
(79) L — (81) R	1,251 (49.25)	1,251 (49.25)
(80) R — (88) L	1,345 (52.95)	1,345 (52.95)
(81) R — (88) L	1,089 (42.87)	1,088 (42.83)
(88) L — (89) R	1,142 (44.96)	1,139 (44.84)
(88) L — (90) R	1,290 (50.79)	1,274 (50.16)
(89) R — (91) L	1,408 (55.43)	1,401 (55.16)
(90) R — (91) L	966 (38.03)	965 (37.99)



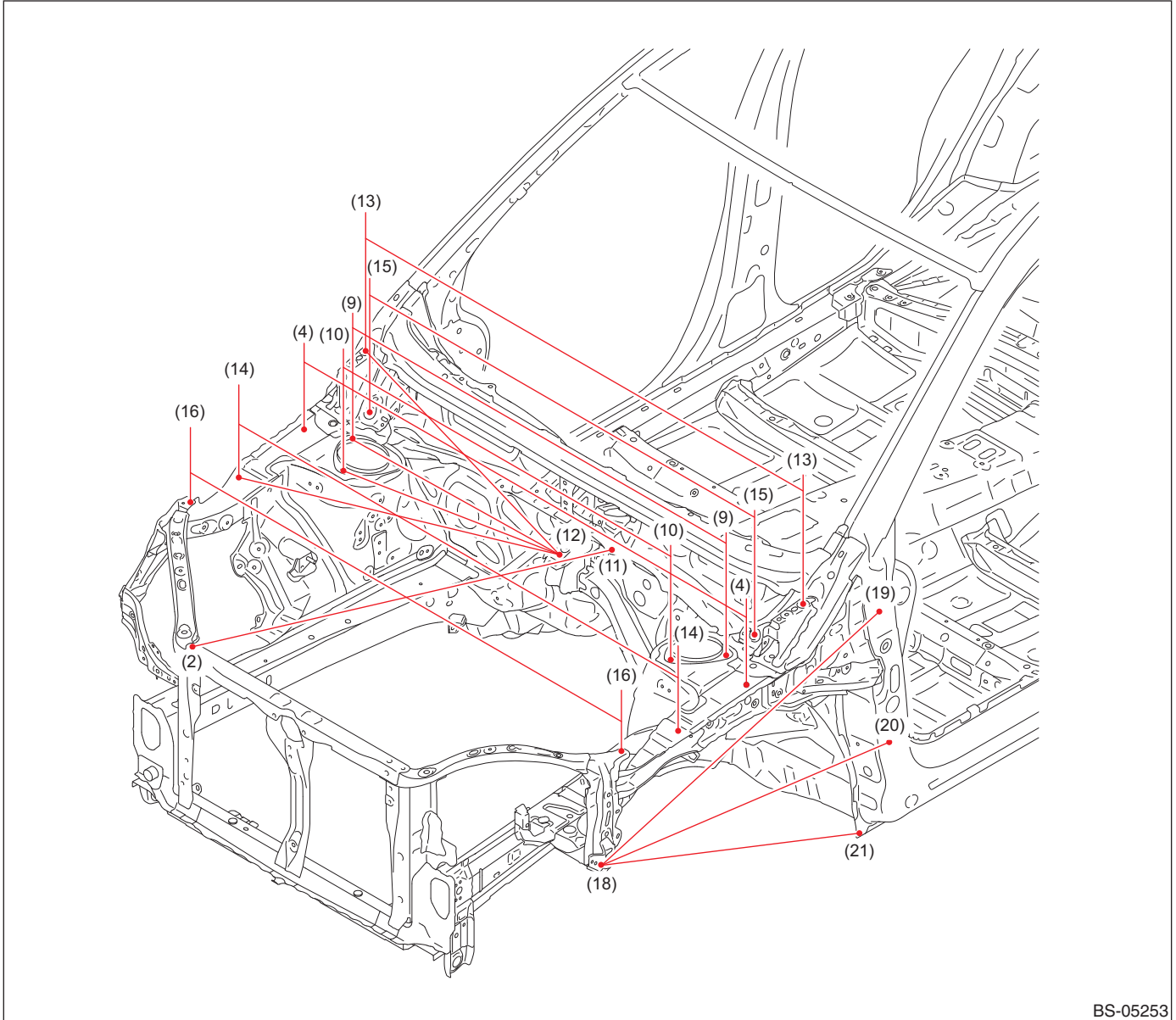
*1: Non-turbo model

*2: Turbo model

- The reference points (78) for turbo models are arranged symmetrically in a left-right direction, non-turbo models have are not laid out in a left-right symmetry.

Body Reference Points

2. FRONT 1



BS-05253

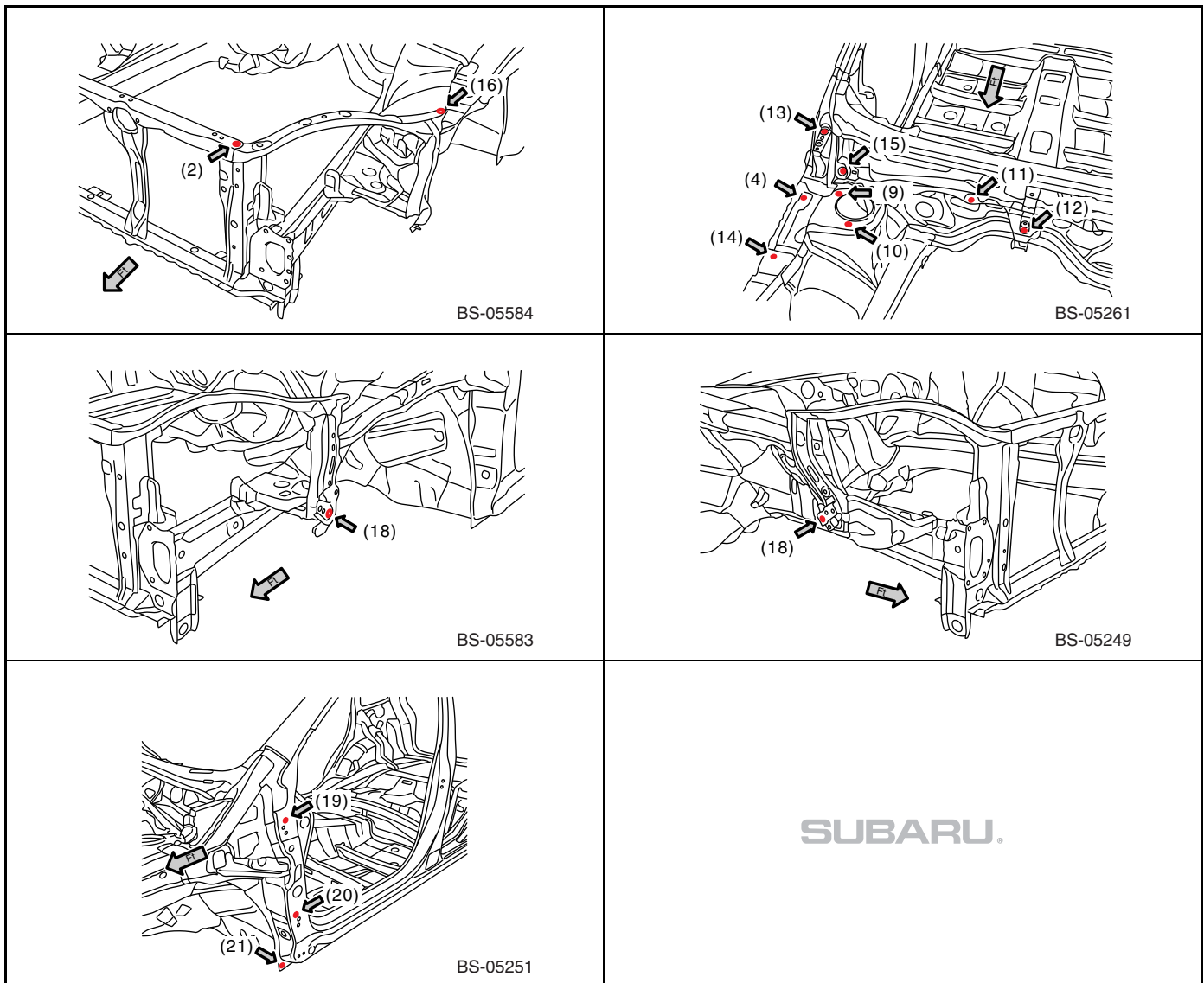
- | | | |
|--|--|---|
| (2) Radiator upper frame mounting hole (symmetrical) | (12) Harness clip mounting hole (body center) | (18) Fender mounting hole (symmetrical) |
| (4) Fender mounting hole (symmetrical) | (13) Hood hinge rear mounting hole (symmetrical) | (19) Front door hinge upper mounting hole (symmetrical), upper side |
| (9) Front suspension mounting hole (symmetrical), rear outside | (14) Fender mounting hole (symmetrical) | (20) Front door hinge lower mounting hole (symmetrical), upper side |
| (10) Front suspension mounting hole (symmetrical), front | (15) Wiper mounting hole (symmetrical) | (21) Fender garnish mounting hole (symmetrical) |
| (11) Bulkhead mounting hole (symmetrical) | (16) Fender mounting hole (symmetrical) | |

Body Reference Points

Measuring point	Datum dimension mm (in)
(2) R — (11) L	1,033 (40.67)
(4) R — (4) L	1,490 (58.66)
(9) R — (9) L	1,258 (49.53)
(9) R — (12)	635 (25.00)
(10) R — (10) L	1,103 (43.43)
(10) R — (12)	582 (22.91)
(12) — (13) R	764 (30.08)
(12) — (14) R	815 (32.09)

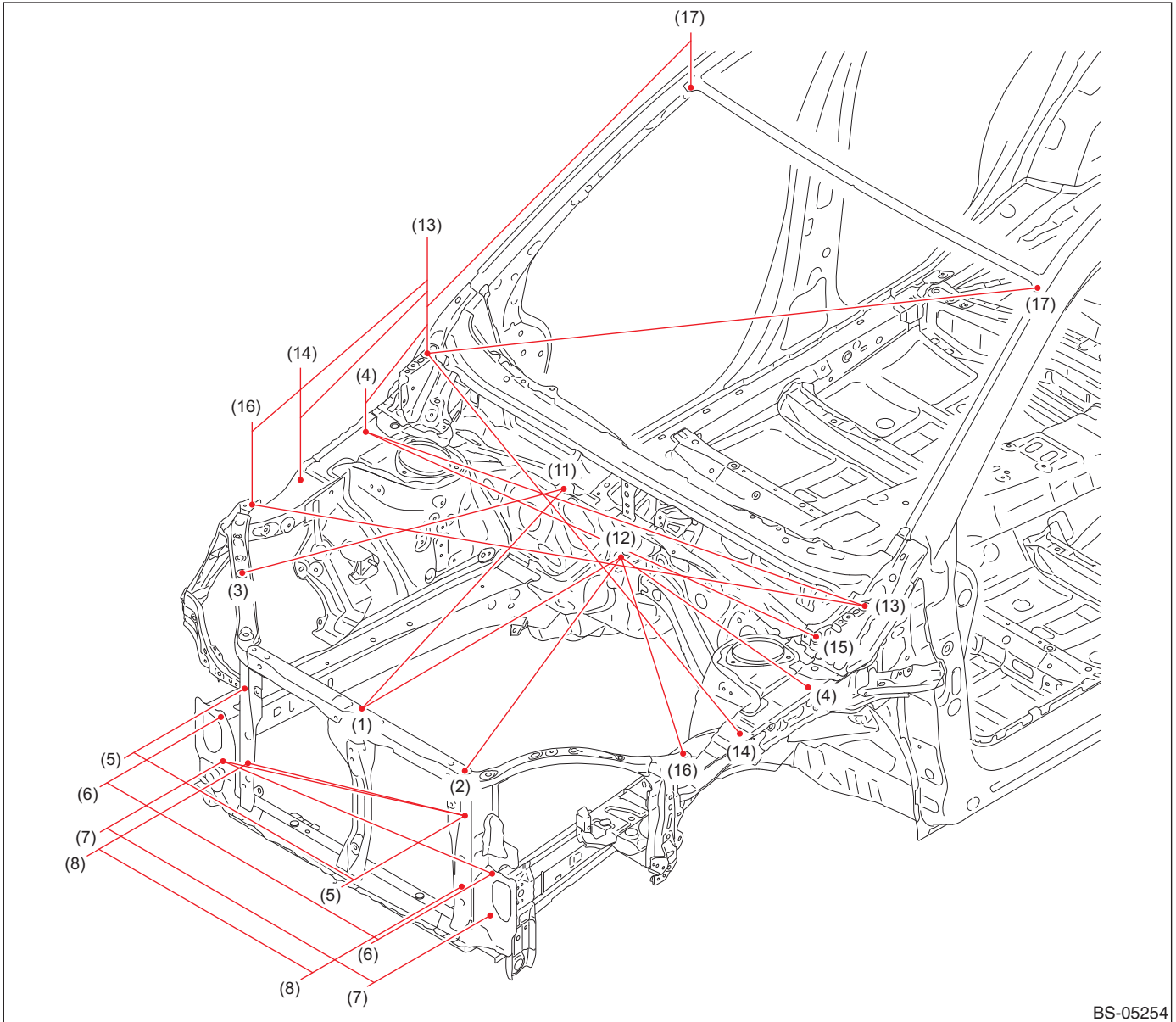
Measuring point	Datum dimension mm (in)
(13) R — (13) L	1,474 (58.03)
(14) R — (14) L	1,480 (58.27)
(15) R — (15) L	1,296 (51.02)
(16) R — (16) L	1,452 (57.17)
(18) L — (19) L	973 (38.31)
(18) L — (20) L	961 (37.83)
(18) L — (21) L	1,002 (39.45)

- The reference points (12) is at the body center, while the other reference points are left-right symmetrical.
- The dimensions are the actual dimensions between the reference points.



Body Reference Points

3. FRONT 2



BS-05254

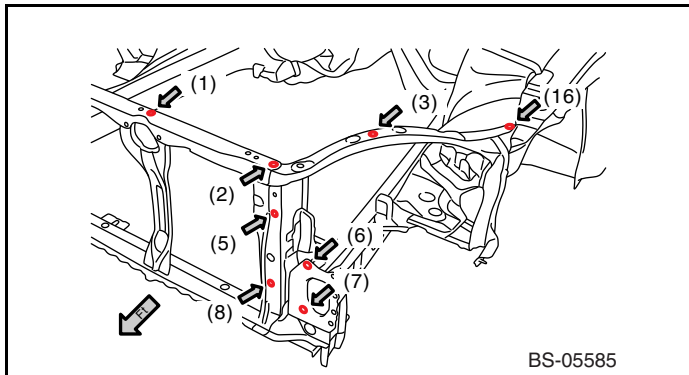
- | | | |
|--|--|--|
| (1) Repair location hole (body center) | (6) Bumper bracket mounting hole (symmetrical), upper side | (13) Hood hinge rear mounting hole (symmetrical) |
| (2) Radiator upper frame mounting hole (symmetrical) | (7) Bumper bracket mounting hole (symmetrical), lower side | (14) Fender mounting hole (symmetrical) |
| (3) Headlight mounting hole (symmetrical) | (8) Vehicle type discernment hole (symmetrical) | (15) Wiper mounting hole (symmetrical) |
| (4) Fender mounting hole (symmetrical) | (11) Bulkhead mounting hole (symmetrical) | (16) Fender mounting hole (symmetrical) |
| (5) Corner bracket mounting hole (symmetrical) | (12) Harness clip mounting hole (body center) | (17) Front glass installation reference hole (symmetrical) |

Body Reference Points

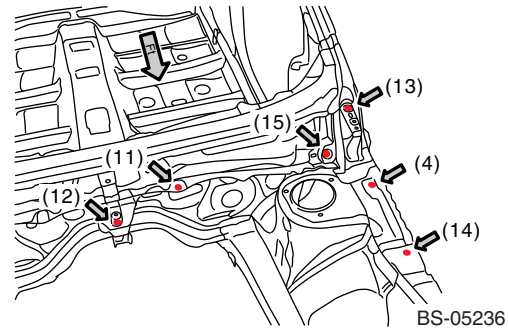
Measuring point	Datum dimension mm (in)
(1) — (11) R	892 (35.12)
(1) — (12)	873 (34.37)
(2) L — (12)	950 (37.40)
(3) R — (11) R	820 (32.28)
(4) L — (12)	756 (29.76)
(4) R — (13) R	240 (9.45)
(4) R — (13) L	1,501 (59.09)
(4) R — (15) L	1,399 (55.08)
(5) R — (5) L	742 (29.21)
(5) L — (7) R	860 (33.86)
(5) L — (8) R	761 (29.96)

Measuring point	Datum dimension mm (in)
(6) R — (6) L	914 (35.98)
(6) L — (7) R	918 (36.14)
(7) R — (7) L	900 (35.43)
(8) R — (8) L	720 (28.35)
(12) — (16) L	893 (35.16)
(13) R — (14) R	453 (17.83)
(13) R — (14) L	1,545 (60.83)
(13) R — (16) R	616 (24.25)
(13) L — (16) R	1,587 (62.48)
(13) R — (17) R	893 (35.16)
(13) R — (17) L	1,587 (62.48)

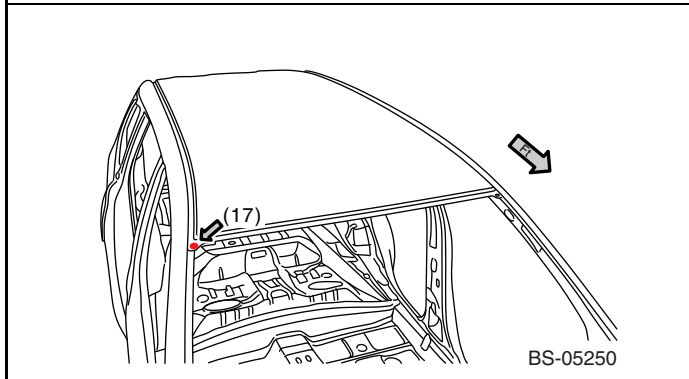
- The reference points (1) and (12) are at the body center, while the other reference points are left-right symmetrical.
- The dimensions are the actual dimensions between the reference points.



BS-05585



BS-05236

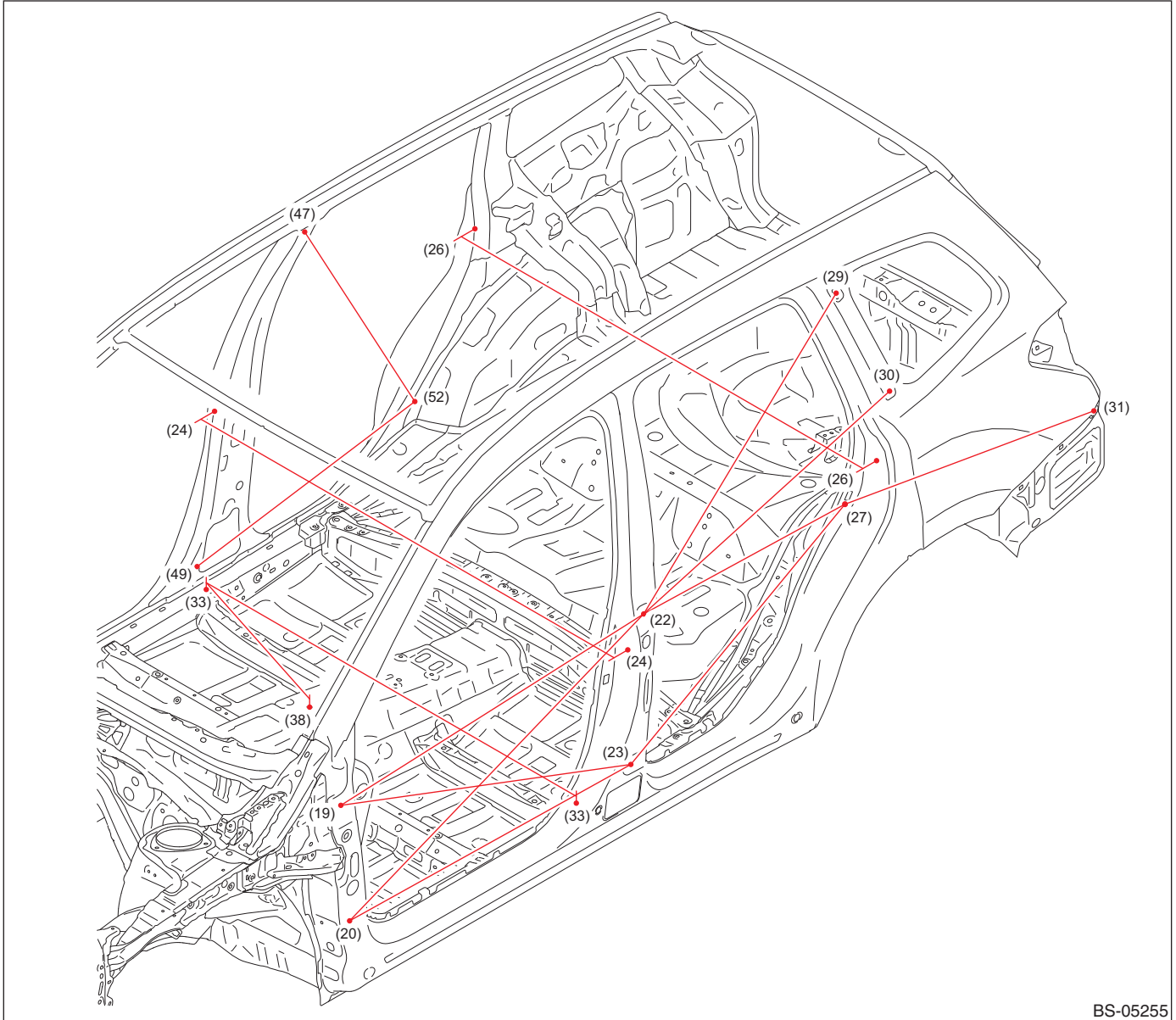


BS-05250

SUBARU.

Body Reference Points

4. INSIDE COMMON PARTS 1



BS-05255

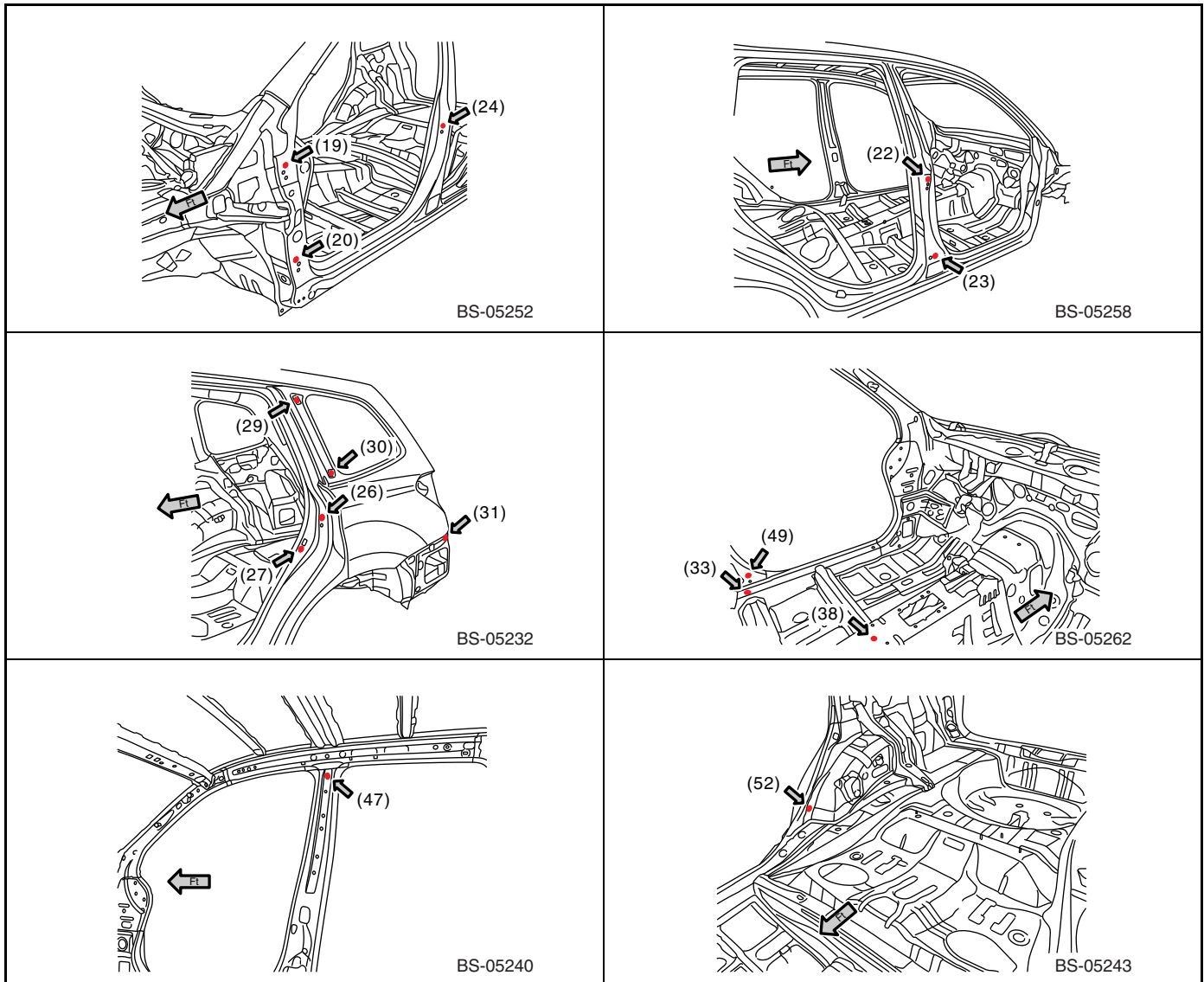
- | | | |
|---|--|---|
| (19) Front door hinge upper mounting hole (symmetrical), upper side | (27) Rear door switch mounting hole (symmetrical) | (38) Hand brake mounting hole (body center) |
| (20) Front door hinge lower mounting hole (symmetrical), upper side | (29) Rear quarter glass mounting hole (symmetrical), front upper | (47) Trim clip mounting hole (symmetrical) |
| (22) Rear door hinge upper mounting hole (symmetrical), upper side | (30) Rear quarter glass mounting hole (symmetrical), front lower | (49) Trim clip mounting hole (symmetrical) |
| (23) Rear door hinge lower mounting hole (symmetrical), front | (31) Rear bumper mounting hole (symmetrical) | (52) Trim clip mounting hole (symmetrical) |
| (24) Front door striker mounting hole (symmetrical), upper side | (32) Harness clip mounting hole (symmetrical) | |
| (26) Rear door striker mounting hole (symmetrical), upper side | (33) Harness clip mounting hole (symmetrical) | |

Body Reference Points

Measuring point	Datum dimension mm (in)
(19) L — (22) L	1,145 (45.08)
(19) L — (23) L	1,153 (45.39)
(20) L — (22) L	1,209 (47.60)
(20) L — (23) L	1,062 (41.81)
(22) L — (27) L	857 (33.74)
(22) L — (29) L	1,057 (41.61)
(22) L — (30) L	1,014 (39.92)
(23) L — (27) L	980 (38.58)

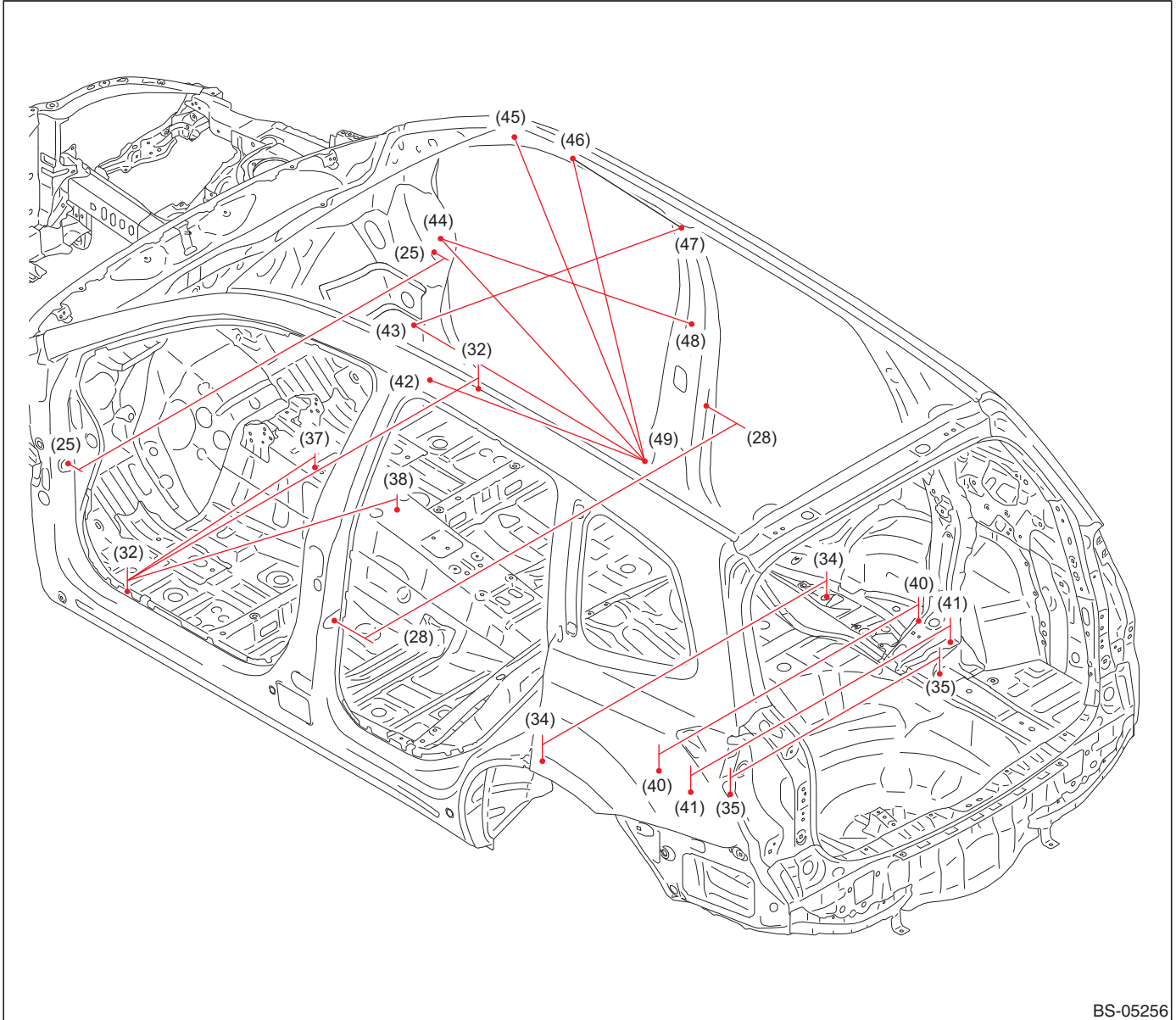
Measuring point	Datum dimension mm (in)
(24) R — (24) L	1,574 (61.97)
(26) R — (26) L	1,530 (60.24)
(27) L — (31) L	883 (34.76)
(33) R — (33) L	1,409 (55.47)
(33) R — (38)	780 (30.71)
(47) R — (52) R	1,065 (41.93)
(49) R — (52) R	841 (33.11)

- The reference point (38) is at the body center, while the other reference points are left-right symmetrical.
- The dimensions are the actual dimensions between the reference points.



Body Reference Points

5. INSIDE COMMON PARTS 2



BS-05256

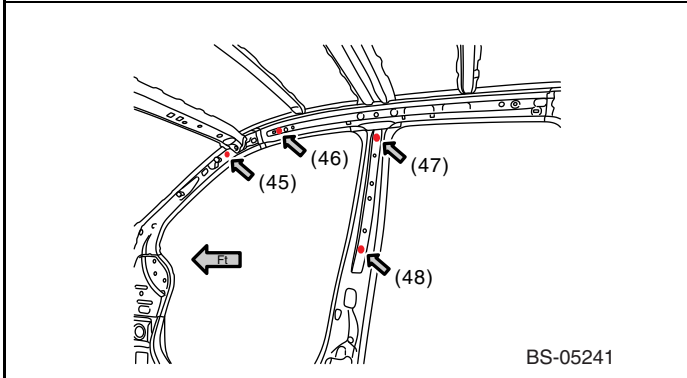
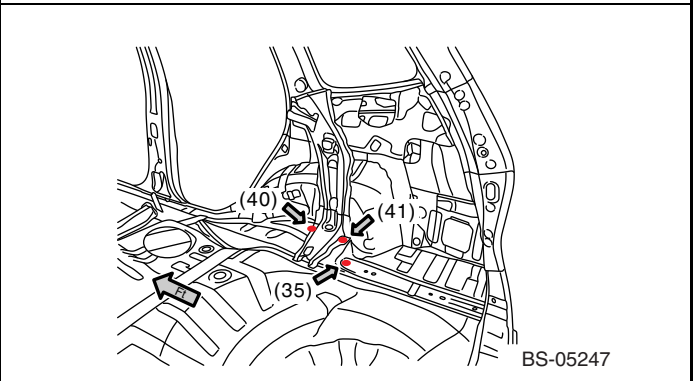
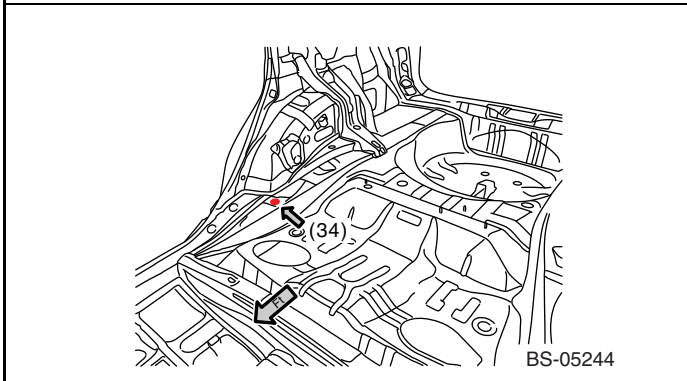
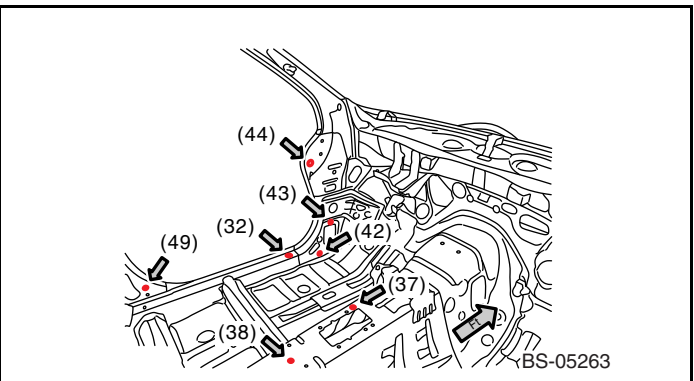
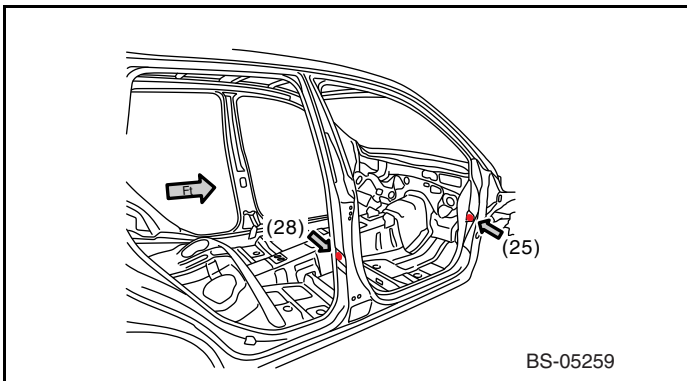
- | | | |
|---|---|---|
| (25) Front door checker mounting hole (symmetrical) | (38) Hand brake mounting hole (body center) | (45) Curtain airbag mounting hole (symmetrical) |
| (28) Rear door checker mounting hole (symmetrical) | (40) Rear suspension mounting hole (symmetrical), front | (46) Assist bracket mounting hole (symmetrical) |
| (32) Harness clip mounting hole (symmetrical) | (41) Rear suspension mounting hole (symmetrical), rear | (47) Trim clip mounting hole (symmetrical) |
| (34) Belt anchor mounting hole (symmetrical) | (42) Gauge hole (symmetrical) | (48) Trim mounting hole (symmetrical) |
| (35) Gauge hole (symmetrical) | (43) Harness connector mounting hole (symmetrical) | (49) Trim clip mounting hole (symmetrical) |
| (37) Shift case mounting hole (symmetrical) | (44) Steering beam mounting hole (symmetrical) | |

Body Reference Points

Measuring point	Datum dimension mm (in)
(25) R — (25) L	1,493 (58.78)
(28) R — (28) L	1,517 (59.72)
(32) R — (32) L	1,432 (56.38)
(32) L — (37) L	689 (27.13)
(32) L — (38)	822 (32.36)
(34) R — (34) L	1,160 (45.67)
(35) R — (35) L	854 (33.62)
(40) R — (40) L	1,059 (41.69)
(41) R — (41) L	1,059 (41.69)

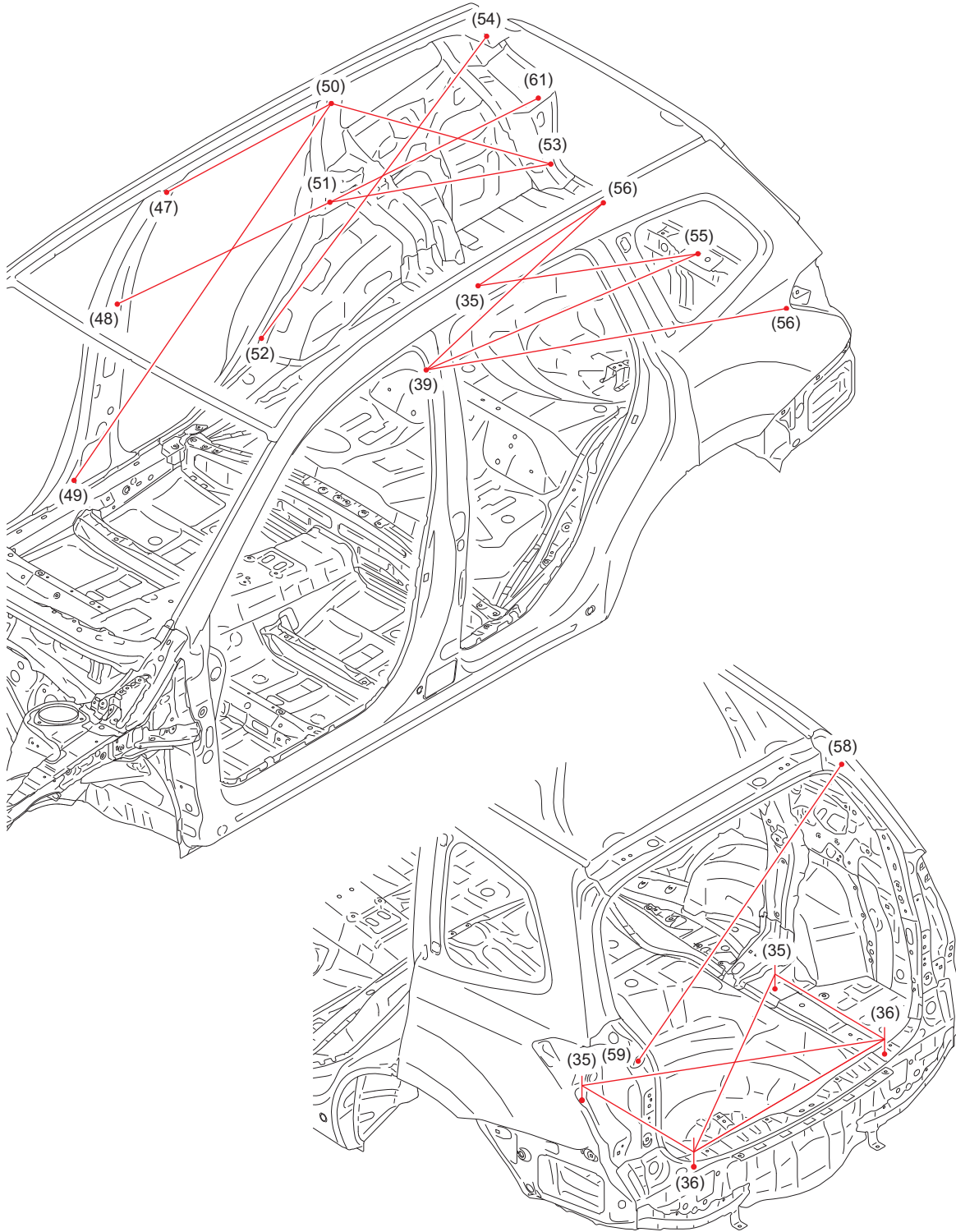
Measuring point	Datum dimension mm (in)
(42) R — (49) R	849 (33.43)
(43) R — (47) R	1,557 (61.30)
(43) R — (49) R	916 (36.06)
(44) R — (48) R	1,025 (40.35)
(44) R — (49) R	903 (35.55)
(45) R — (49) R	1,082 (42.60)
(46) R — (47) R	423 (16.65)
(46) R — (49) R	1,095 (43.11)

- The reference point (38) is at the body center, while the other reference points are left-right symmetrical.
- The dimensions are the actual dimensions between the reference points.



Body Reference Points

6. INSIDE REAR



BS-05257

Body Reference Points

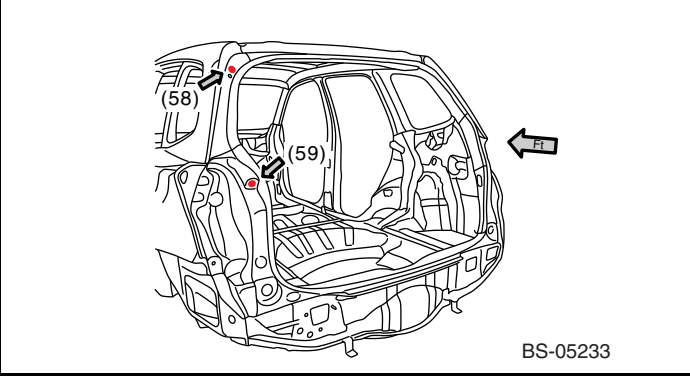
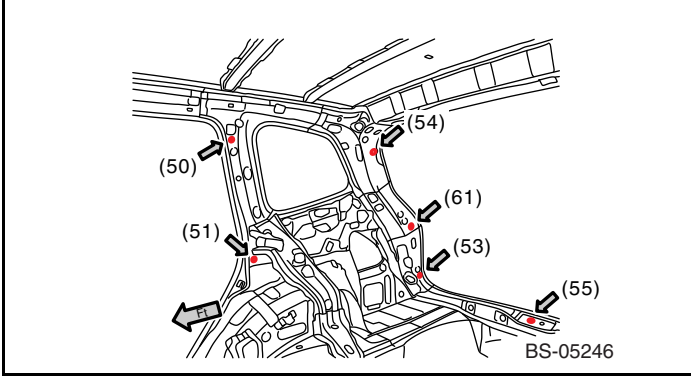
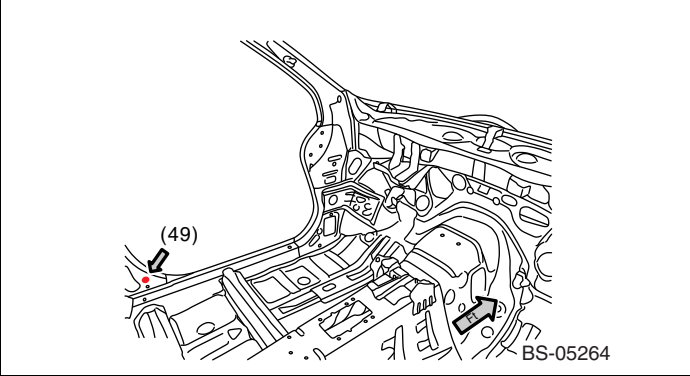
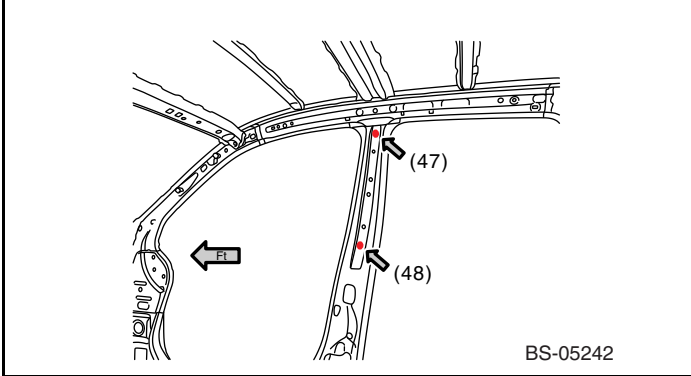
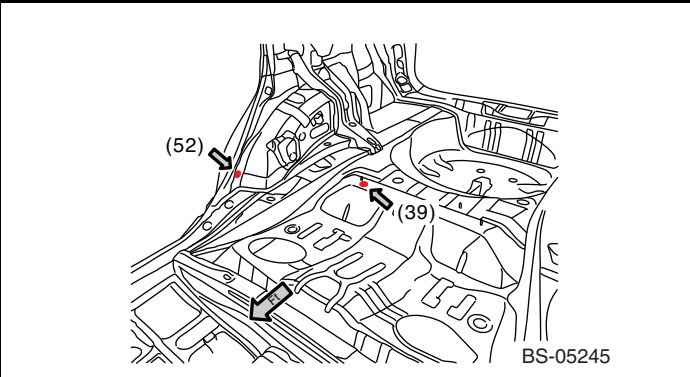
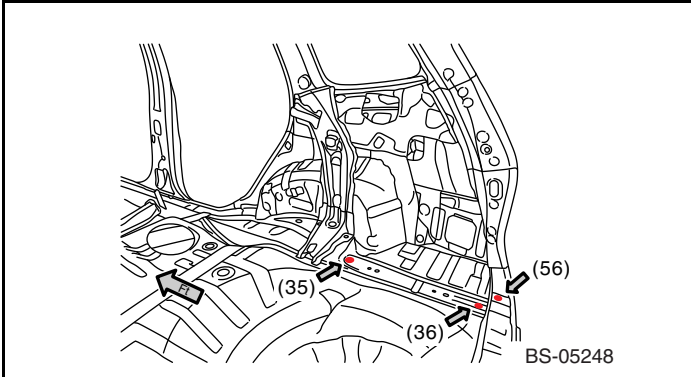
(35) Gauge hole (symmetrical)	(49) Trim clip mounting hole (symmetrical)	(55) Striker mounting hole (symmetrical)
(36)R Gauge hole (right side)	(50) Trim clip mounting hole (symmetrical)	(56) Trim clip mounting hole (symmetrical)
(36)L Gauge hole (left side)	(51) Trim clip mounting hole (symmetrical)	(58) Rear gate stay mounting hole (symmetrical)
(39) Stay rear floor mounting hole (symmetrical)	(52) Trim clip mounting hole (symmetrical)	(59) Rear combination light mounting hole (symmetrical), upper side
(47) Trim clip mounting hole (symmetrical)	(53) Trim clip mounting hole (symmetrical)	(61) Trim mounting hole (symmetrical)
(48) Trim mounting hole (symmetrical)	(54) Trim clip mounting hole (symmetrical)	

Measuring point	Datum dimension mm (in)
(35) R — (55) R	699 (27.52)
(35) R — (56) L	990 (38.98)
(35) R — (56) R	537 (21.14)
(39) R — (55) R	1,025 (40.35)
(39) R — (56) R	989 (38.94)
(39) R — (56) L	1,155 (45.47)
(47) R — (50) R	735 (28.94)
(48) R — (51) R	913 (35.94)
(49) R — (50) R	1,429 (56.26)
(50) R — (53) R	1,178 (46.38)

Measuring point	Datum dimension mm (in)
(51) R — (53) R	899 (35.39)
(51) R — (61) R	823 (32.40)
(52) R — (54) R	1,183 (46.57)
(58) R — (59) L	1,283 (50.51)
(35) R — (36) L	987 (38.86)
(35) L — (36) R	982 (38.66)
(35) R — (36) R	485 (19.09)
(35) L — (36) L	495 (19.49)
(36) R — (36) L	854 (33.62)

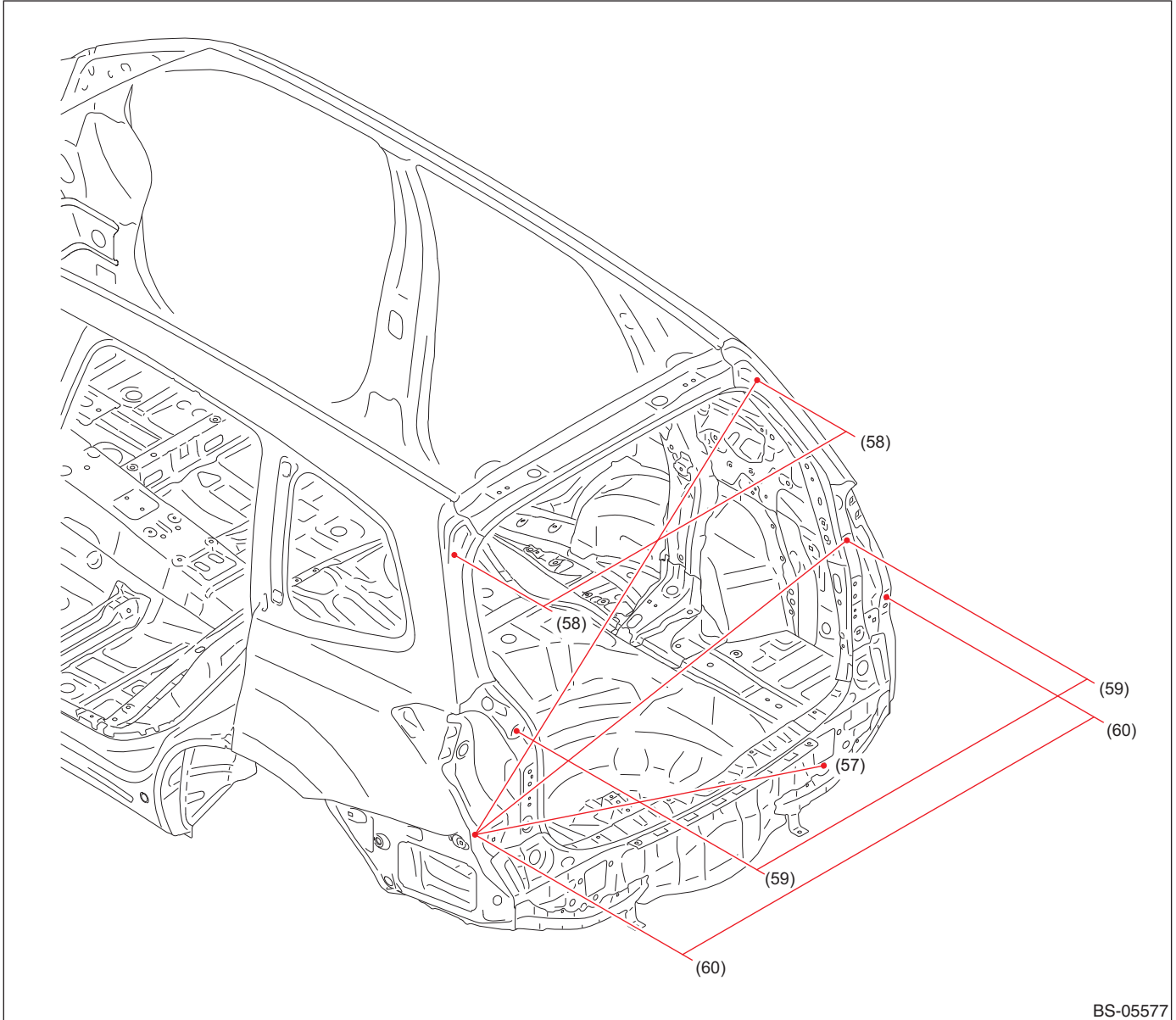
- All reference points are left-right symmetrical.
- The dimensions are the actual dimensions between the reference points.

Body Reference Points



Body Reference Points

7. REAR



- (57) Bumper beam mounting hole (symmetrical)
- (58) Rear gate stay mounting hole (symmetrical), upper side

- (59) Rear combination light mounting hole (symmetrical), upper side

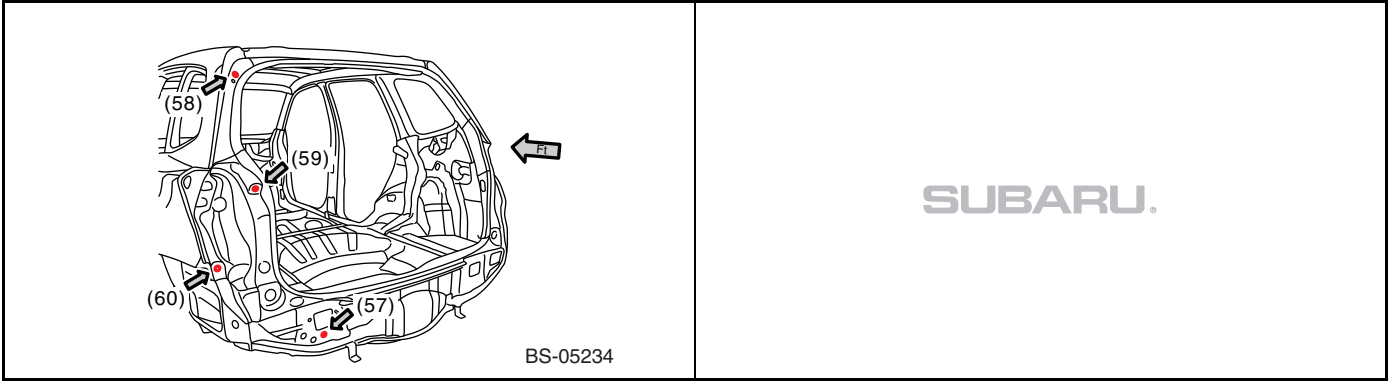
- (60) Rear bumper bracket mounting hole (symmetrical)

Measuring point	Datum dimension mm (in)
(57) R — (60) L	1,244 (48.98)
(58) R — (58) L	1,133 (44.61)
(58) R — (60) L	1,519 (59.80)

Measuring point	Datum dimension mm (in)
(59) R — (59) L	1,236 (48.66)
(59) R — (60) L	1,413 (55.63)
(60) R — (60) L	1,540 (60.63)

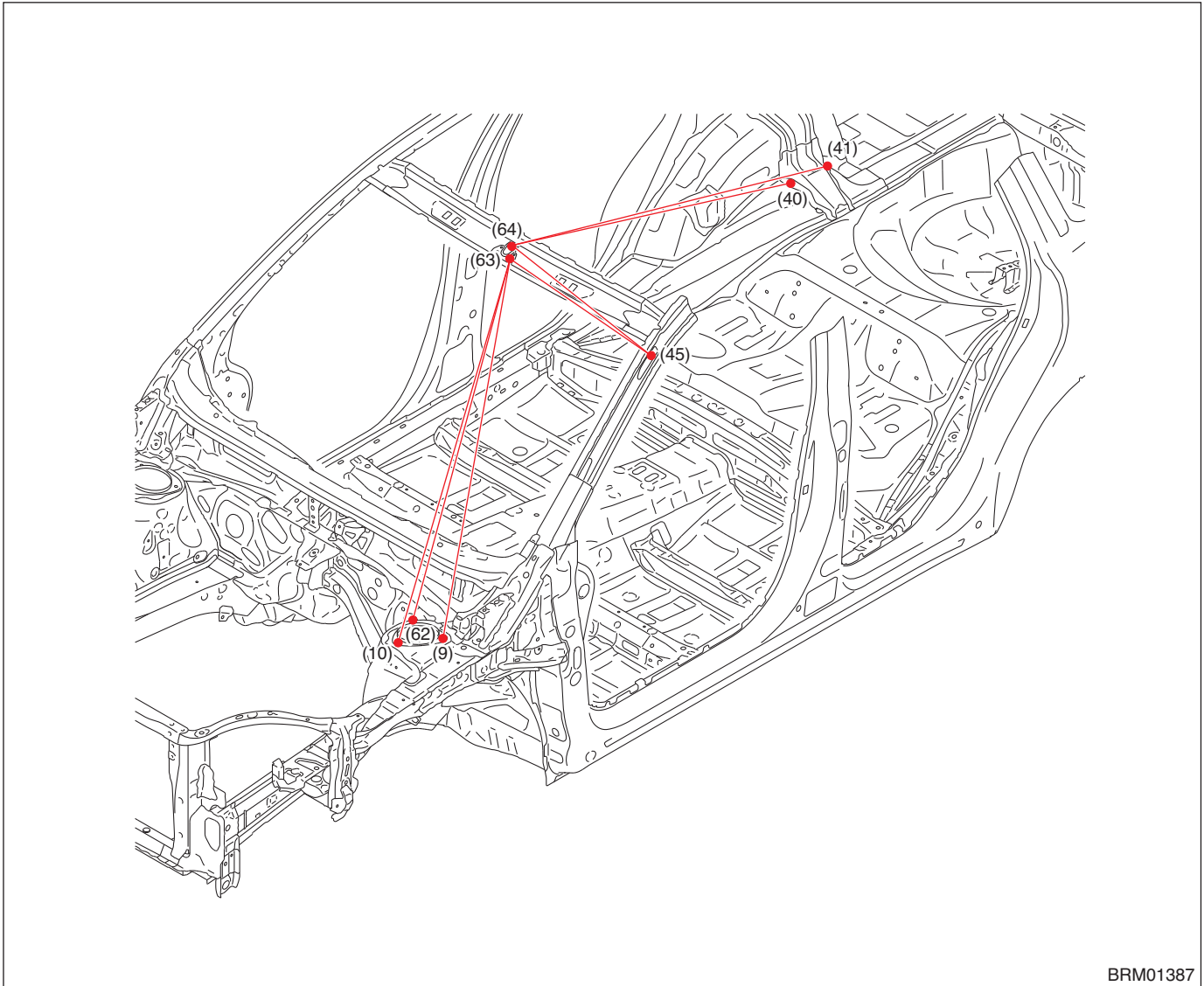
- All reference points are left-right symmetrical.
- The dimensions are the actual dimensions between the reference points.

Body Reference Points



Body Reference Points

8. FRONT ROOF RAIL (CAMERA PLATE)



BRM01387

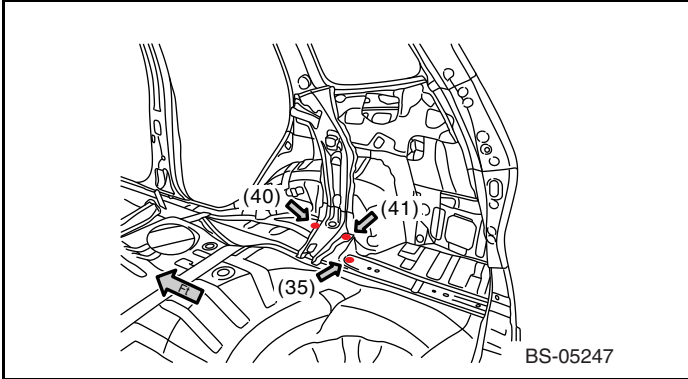
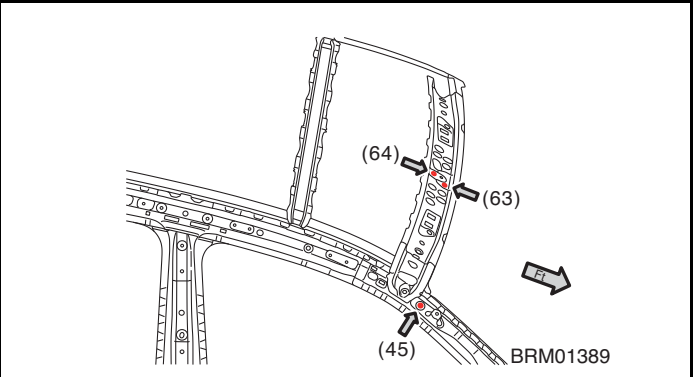
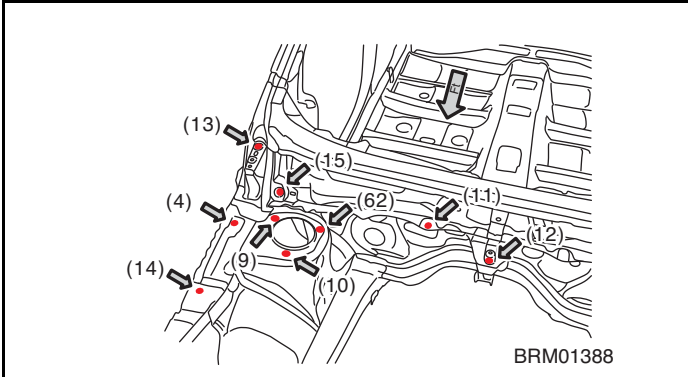
- | | | |
|--|--|---|
| (9) Front suspension mounting hole (symmetrical), rear outside | (41) Rear suspension mounting hole (symmetrical), rear | (63) Stereo camera (camera plate) mounting hole (symmetrical), front side |
| (10) Front suspension mounting hole (symmetrical), front | (45) Curtain airbag mounting hole (symmetrical) | (64) Stereo camera (camera plate) mounting hole (body center), rear side |
| (40) Rear suspension mounting hole (symmetrical), front | (62) Front suspension mounting hole (symmetrical), rear inside | |

Measuring point	Datum dimension mm (in)
(9)L — (63)L	1,248 (49.13)
(10)L — (63)L	1,293 (50.91)
(40)R — (64)	1,988 (78.27)
(41)R — (64)	2,104 (82.83)

Measuring point	Datum dimension mm (in)
(45)L — (63)L	584 (22.99)
(45)L — (64)	613 (24.13)
(62)L — (63)L	1,191 (46.89)

- Reference point (64) indicates a body center part. All other reference points indicate left-right symmetrical parts.
- The dimensions are the actual dimensions between the reference points.

Body Reference Points

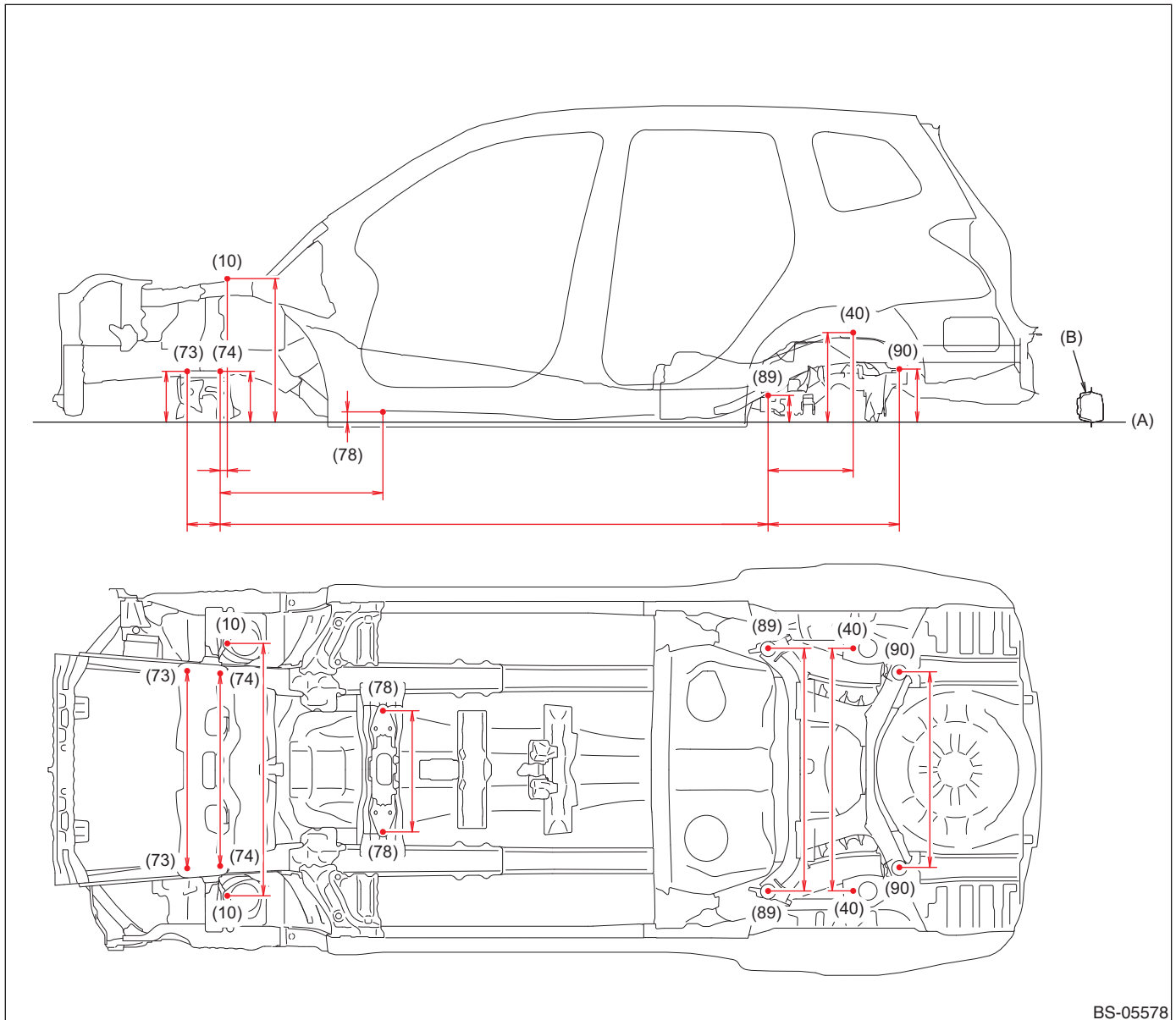


Measurement for combined parts

6. Measurement for combined parts

A: DIMENSIONS

1. SUSPENSION MOUNT & ENGINE MOUNT



BS-05578

- The longitudinal dimensions are projected dimensions.
- The height dimensions are the vertical distances from the gauge point on the assumed horizontal line through the side sill flange joint (bending angle point).

(A) Standard line

(B) Side sill outer panel

(10) Front suspension mounting hole (symmetrical), front

(74) Front crossmember mounting hole (symmetrical), rear

(78) *2 Crossmember mounting hole (symmetrical)

(42) Rear suspension mounting hole (symmetrical), front

(78)R *1 Crossmember mounting hole, right side

(90) Rear suspension crossmember mounting hole (symmetrical)

(73) Front crossmember mounting hole (symmetrical), front

(78)L *1 Crossmember mounting hole, left side

Measurement for combined parts

Measuring point	Datum dimension mm (in)
Datum line — (10)	627 (24.69)
Datum line — (40)	391 (15.39)
Datum line — (73)	222 (8.74)
Datum line — (74)	222 (8.74)
*1 Datum line — (78) R	44 (1.73)
*2 Datum line — (78)	34 (1.34)
Datum line — (89)	117 (4.61)
Datum line — (90)	232 (9.13)
(10) — (74)	31 (1.22)
(40) — (89)	372 (14.65)
(73) — (74)	144 (5.67)
*1 (74) — (78) R	711 (27.99)

Measuring point	Datum dimension mm (in)
*2 (74) — (78)	811 (31.93)
(74) — (89)	2,392 (94.17)
(89) — (90)	573 (22.56)
(10) R — (10)L	1,103 (43.43)
(40) R — (40)L	1,366 (53.78)
(73) R — (73)L	862 (33.94)
(74) R — (74)L	840 (33.07)
*1 (78) R — (78) L	529 (20.83)
*2 (78) R — (78) L	504 (19.84)
(89) R — (89) L	1,060 (41.73)
(90) R — (90) L	854 (33.62)

CAUTION:

For the reference points (10), refer to the figure "FRONT 1, DIMENSIONS, Body Reference Points" on page 29.

For the reference points (40), refer to the figure "INSIDE COMMON PARTS 2, DIMENSIONS, Body Reference Points" on page 35.

Except the reference points (10) and (40), refer to the figure "LOWER SURFACE, DIMENSIONS, Body Reference Points" on page 26.

*1: Non-turbo model

*2: Turbo model

- The reference points (78) for turbo models are arranged symmetrically in a left-right direction, non-turbo models have are not laid out in a left-right symmetry.

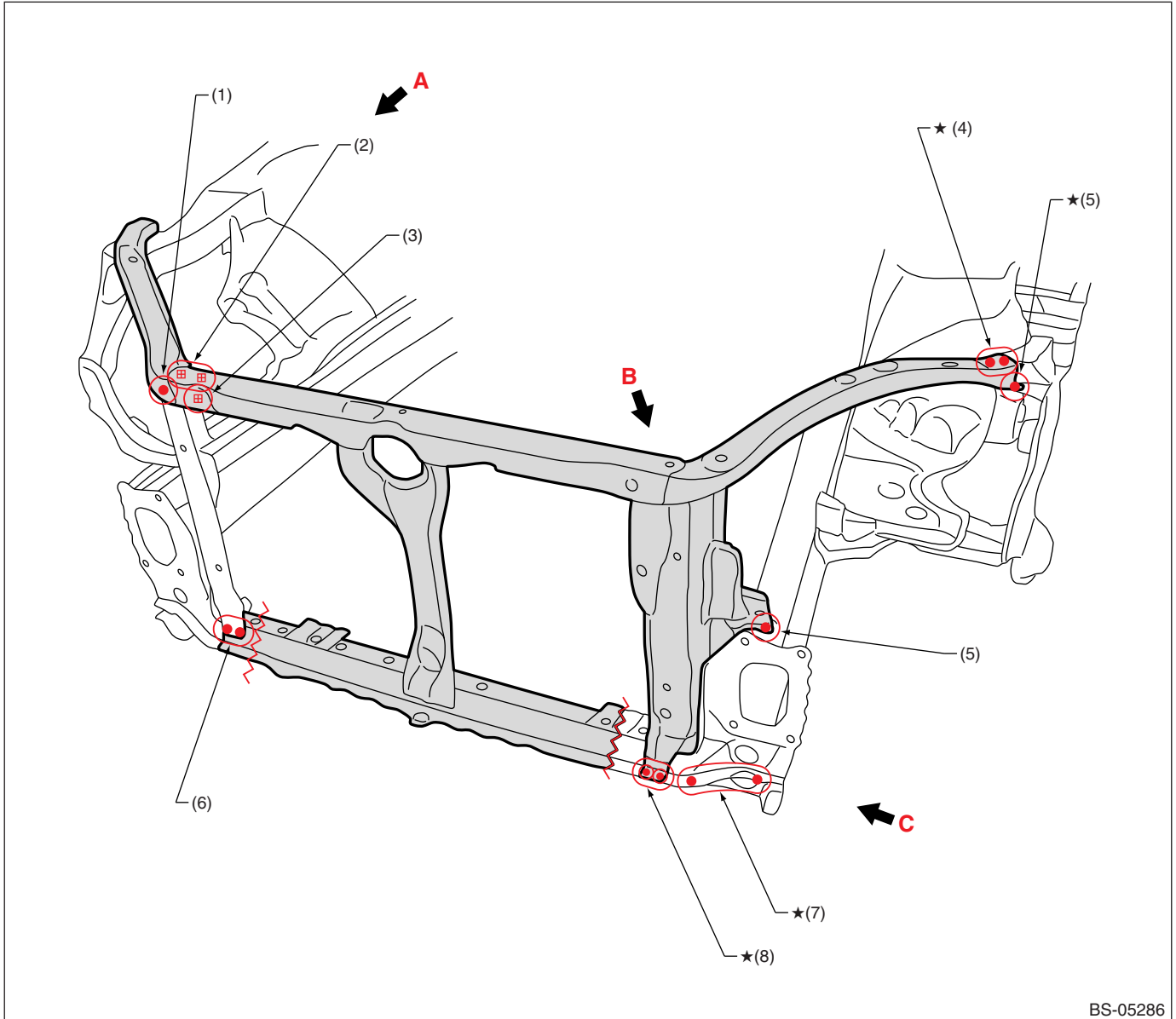
Panel Replacement

7. Panel Replacement

7-1. Radiator Panel (total replacement)

A: REMOVAL

• Overall view



BS-05286

(1) 1 point (outside · 1)

(2) 2 points (bolt)

(3) 1 point (bolt)

(4) 2 points (top · 1)

(5) 1 point (top · 1)

(6) 2 points (outside · 1)

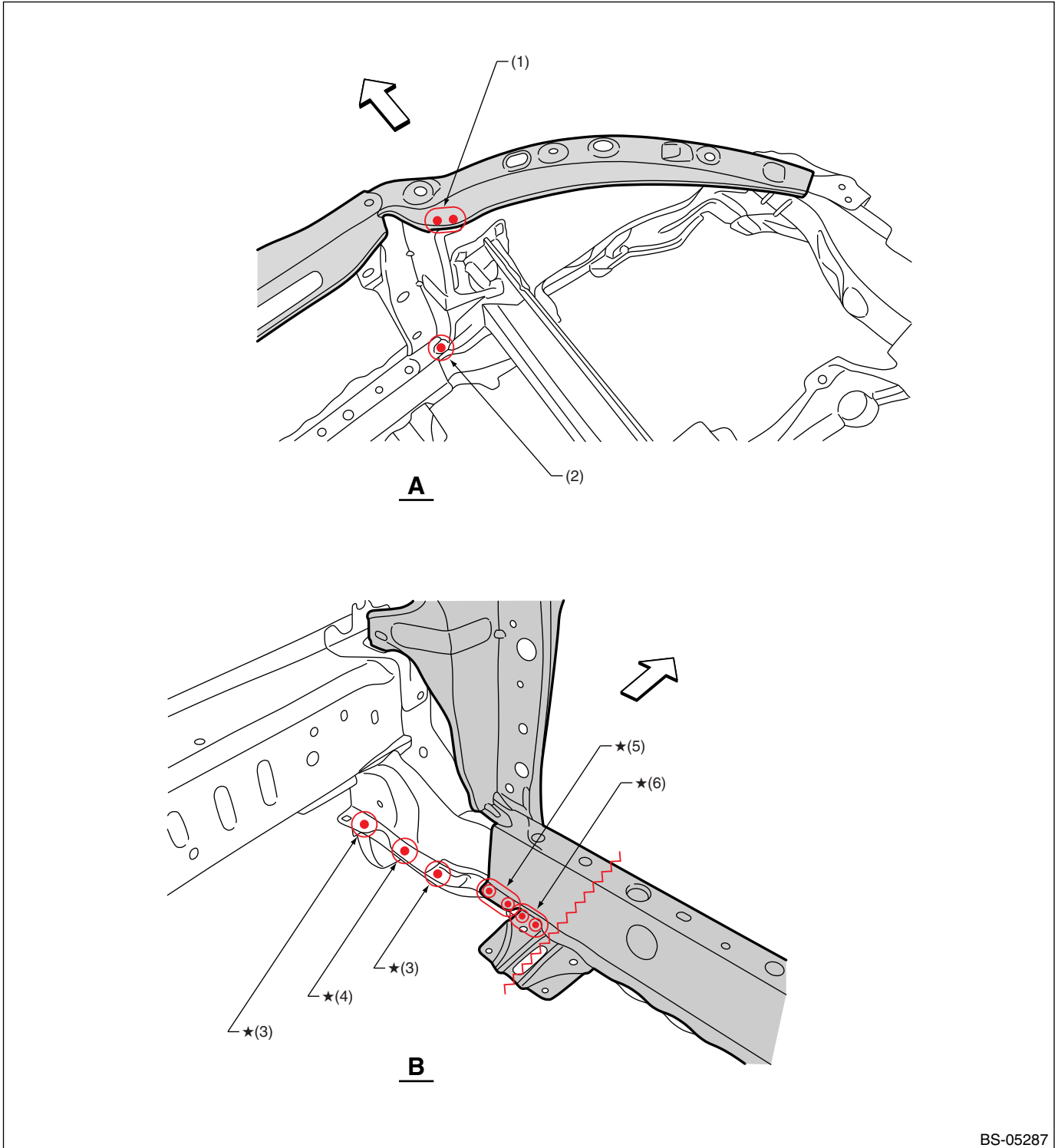
(7) 3 points (bottom · 1)

(8) 2 points (top · 1, bottom · 1)

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

• Views 1



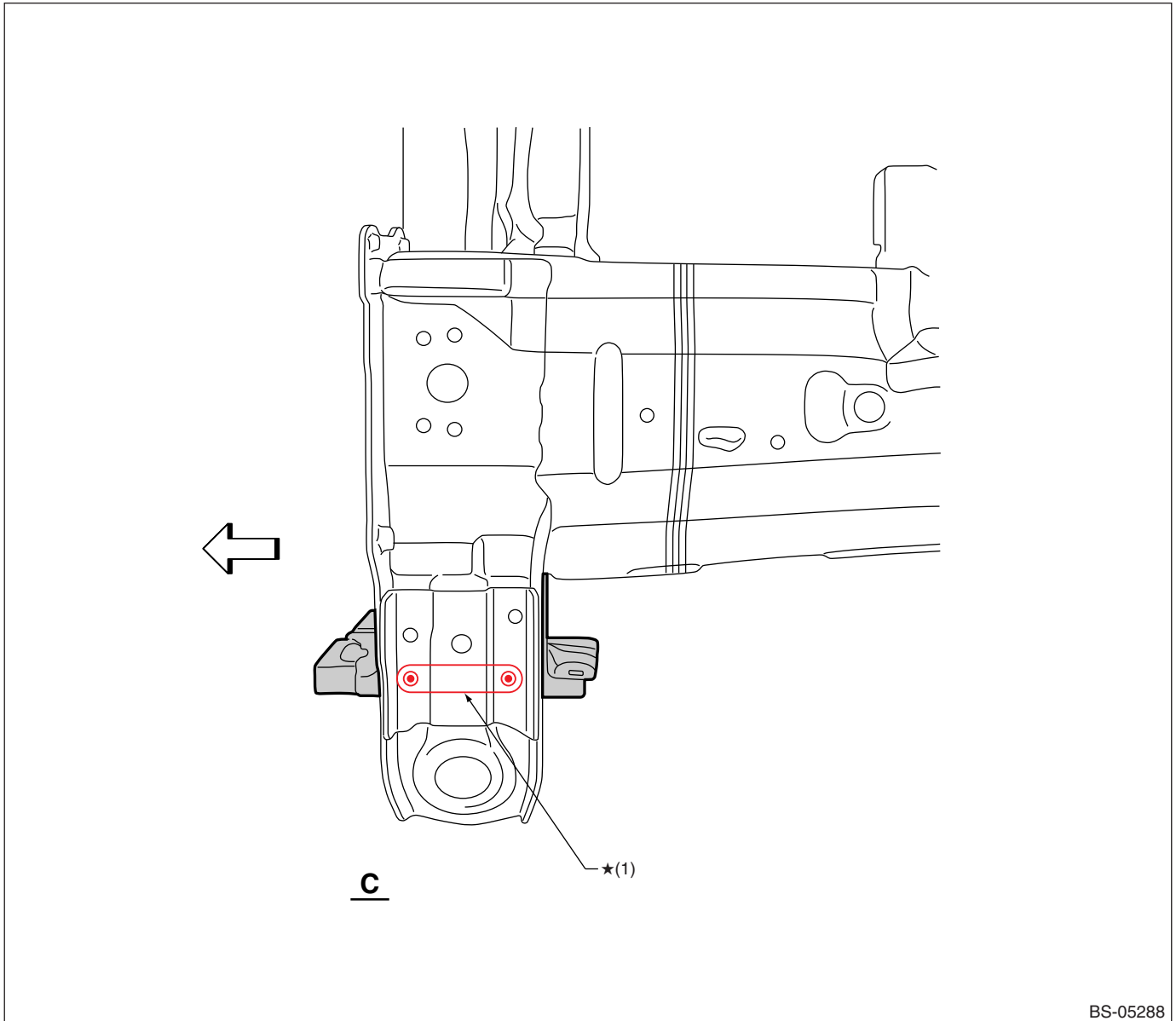
BS-05287

- | | | |
|---------------------------|---------------------------------------|------------------------------------|
| (1) 2 points (inside · 1) | (3) 1 point (bottom · 1) | (5) 3 points (top · 1, bottom · 1) |
| (2) 1 point (top · 1) | (4) 1 point (bottom · 1, belt sander) | (6) 2 points (top · 1, bottom · 1) |

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

• Views 2



BS-05288

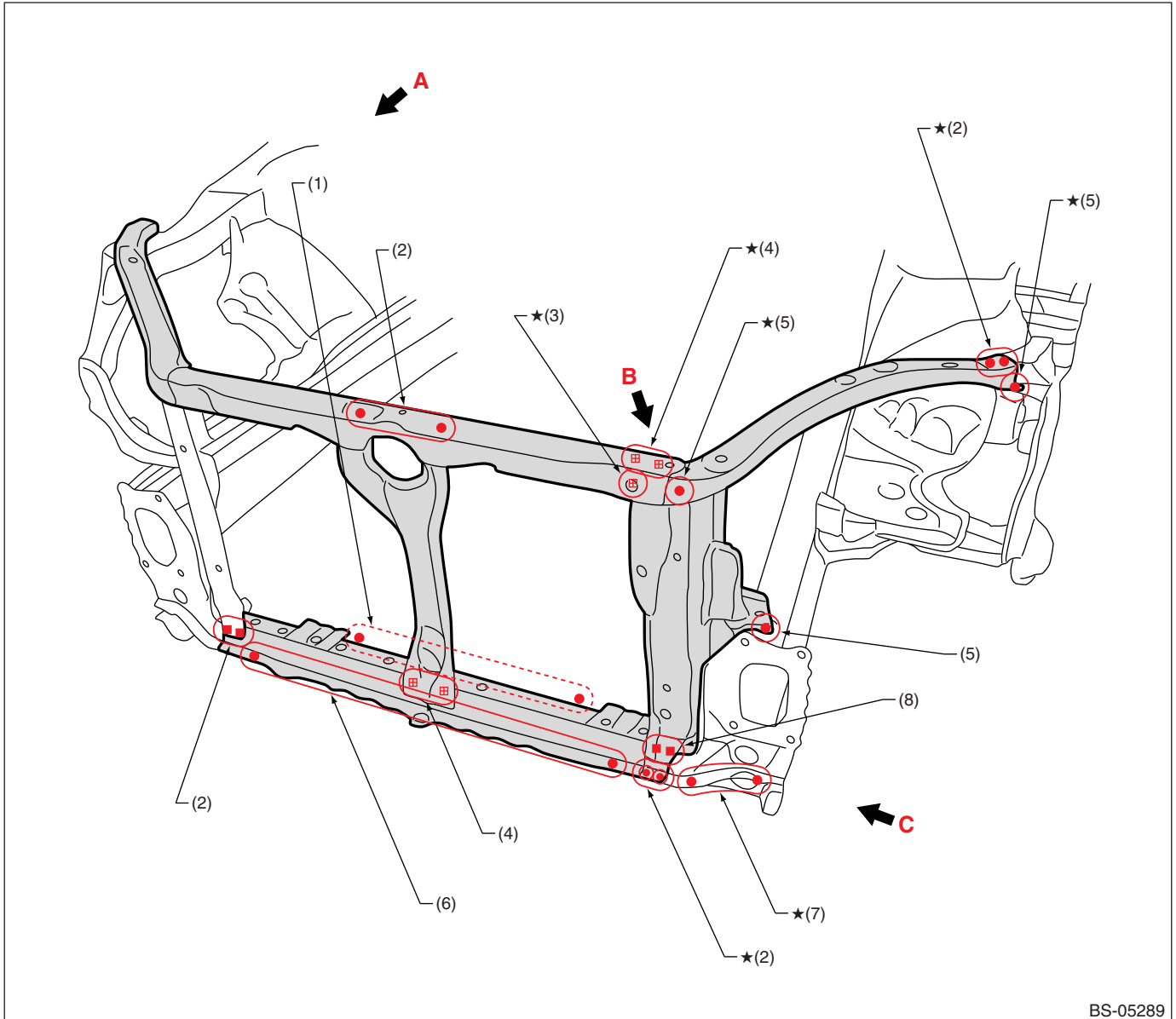
(1) 2 points (inside · 1, belt sander)

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

B: INSTALLATION

• Overall view

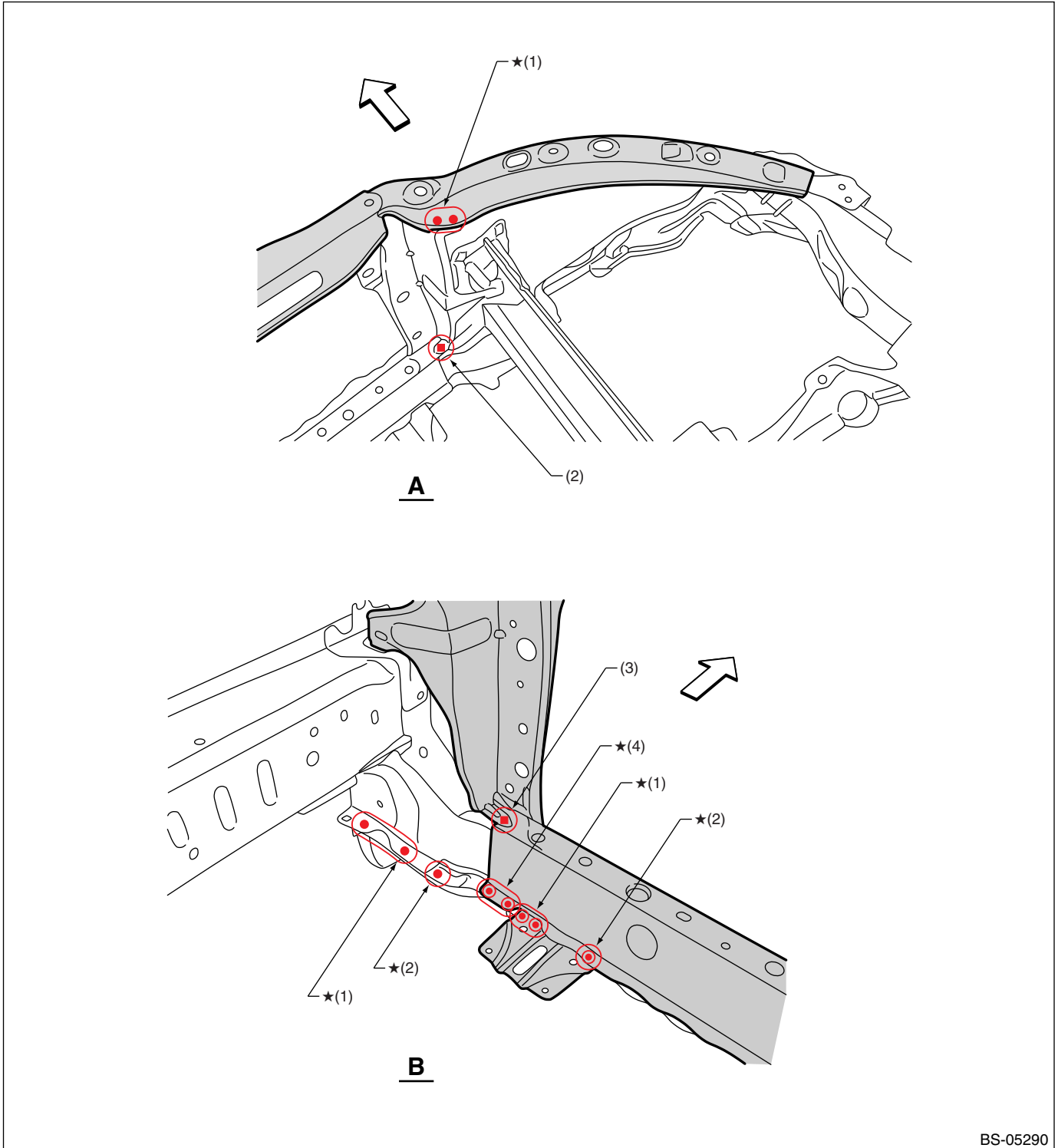


- | | | |
|--------------------|---------------------|------------------------|
| (1) 9 points | (4) 2 points (bolt) | (7) 3 points |
| (2) 2 points | (5) 1 point | (8) 2 points (service) |
| (3) 1 point (bolt) | (6) 16 points | |

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

• Views 1



(1) 2 points
(2) 1 point

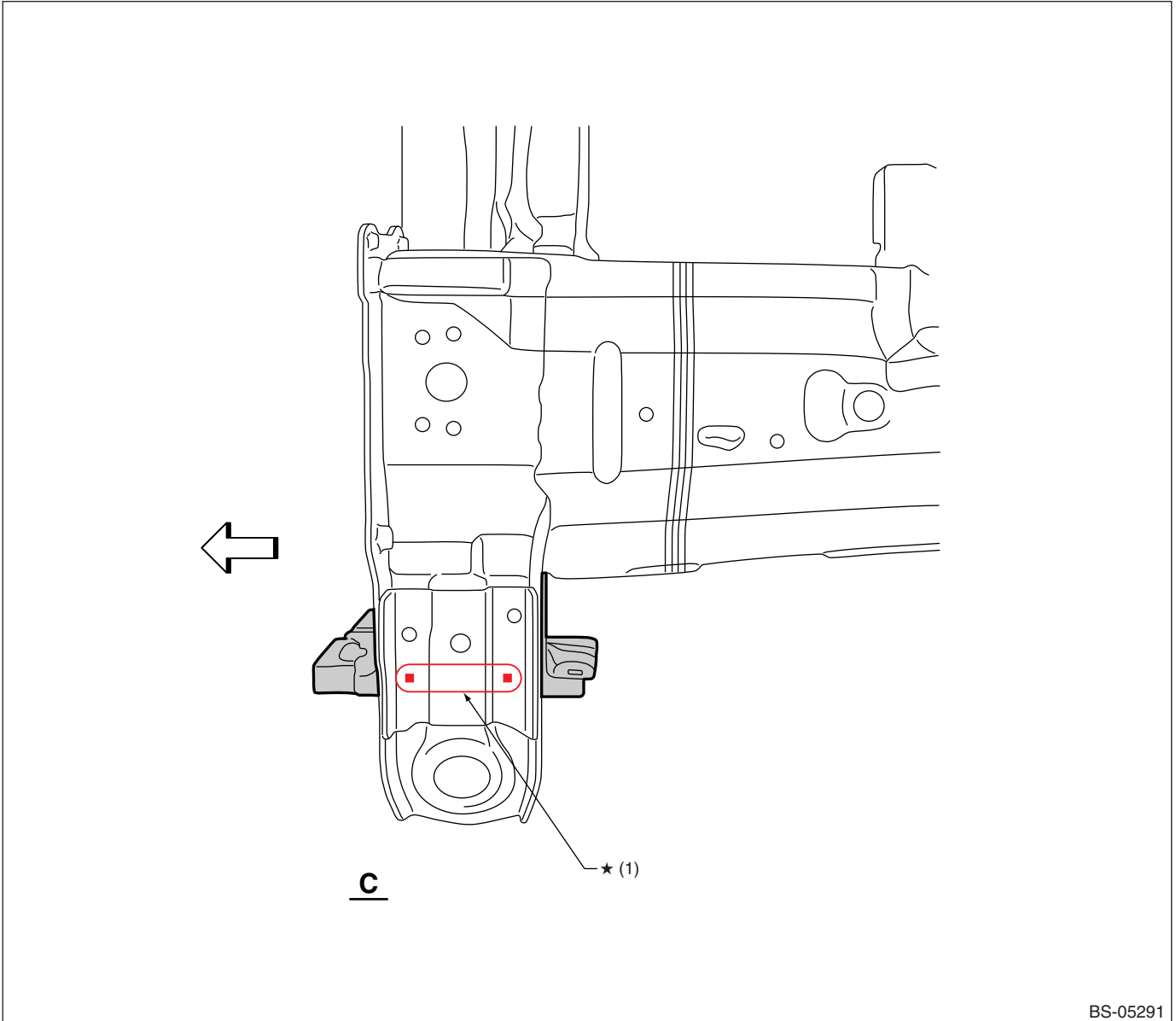
(3) 1 point (service)

(4) 3 points

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

• Views 2



BS-05291

(1) 2 points (service)

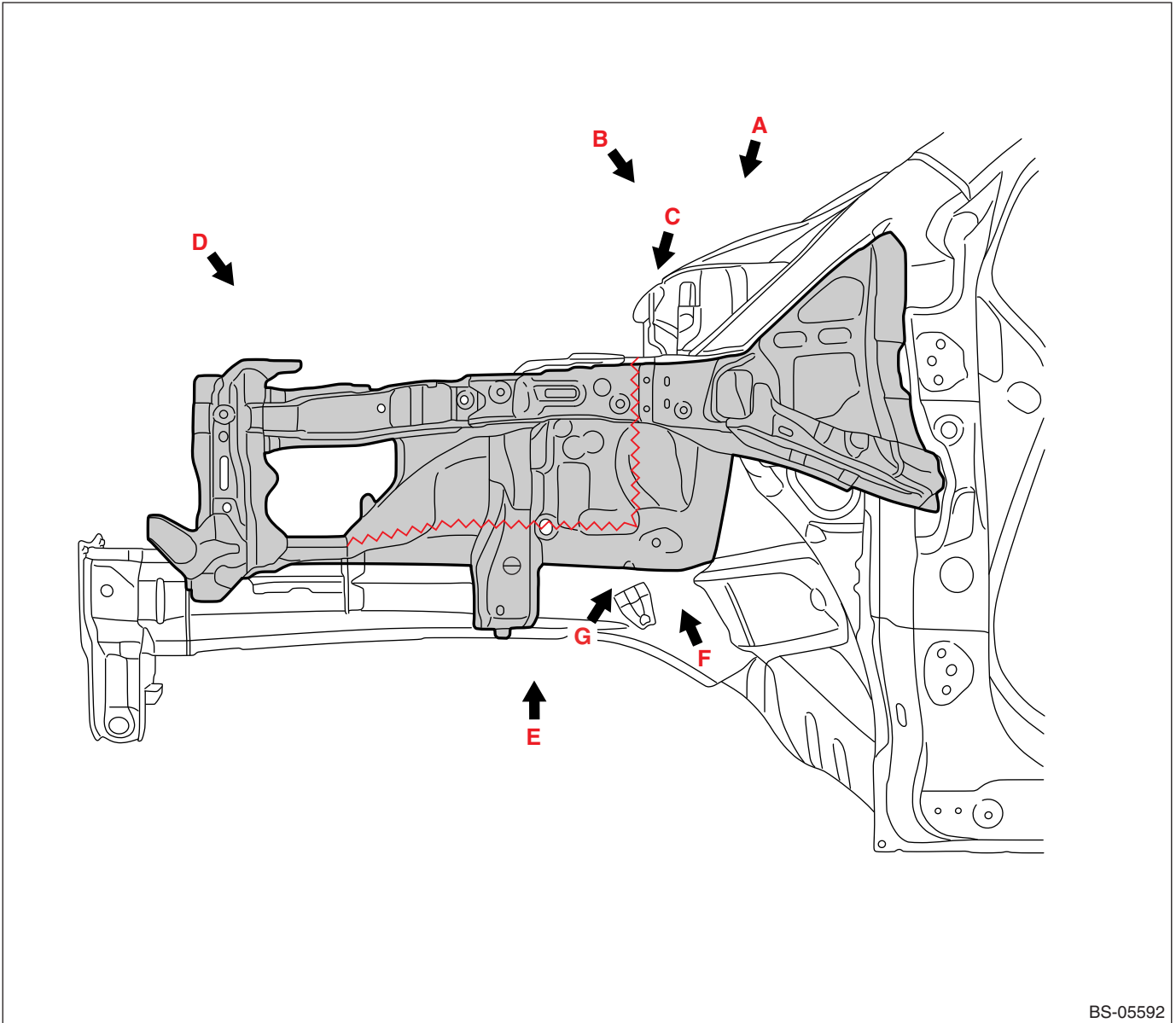
For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

7-2. Front Wheel Apron (total replacement)

A: REMOVAL

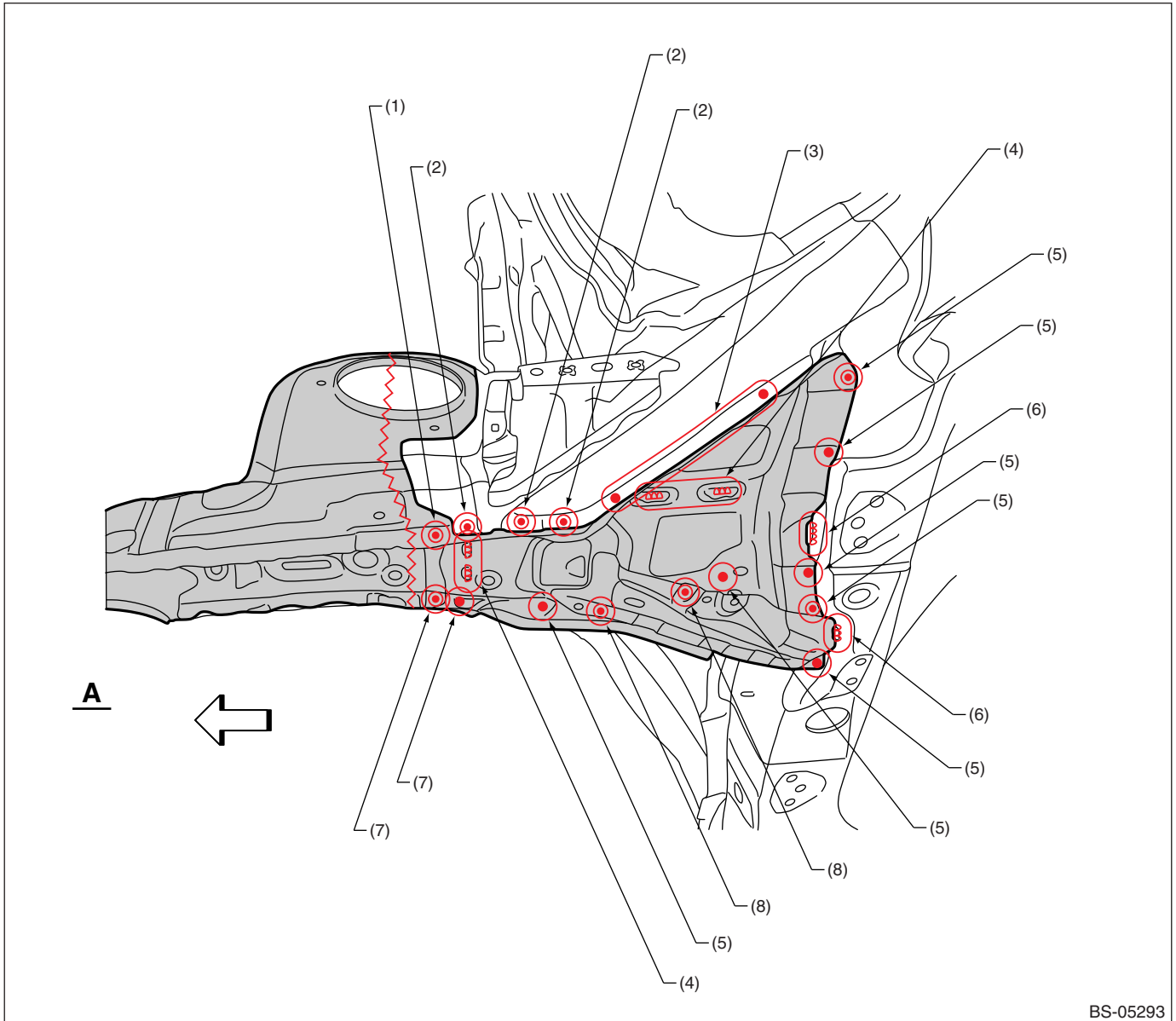
- Overall view (Radiator panel removal condition)



BS-05592

Panel Replacement

• Views 1

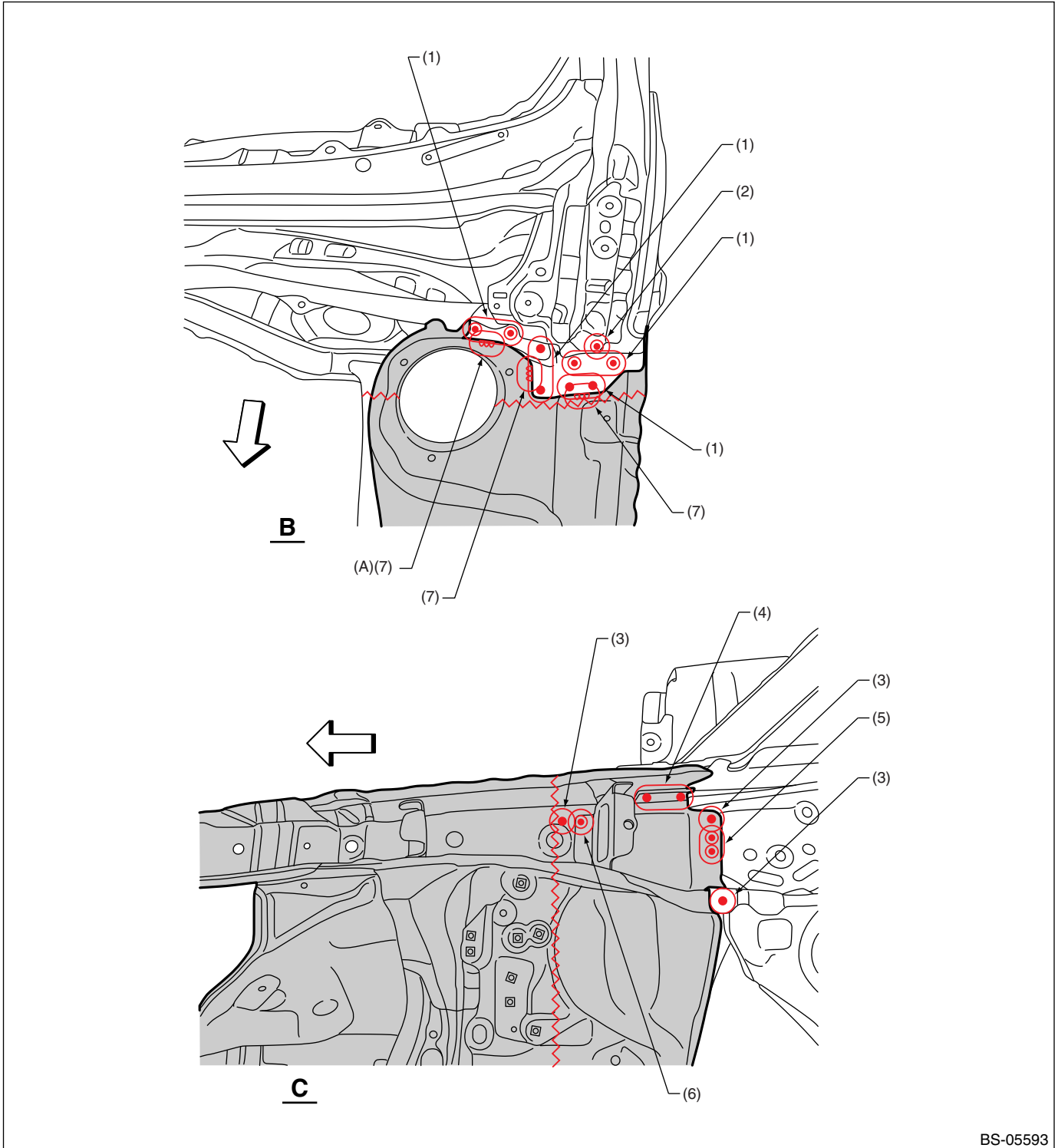


BS-05293

- | | | |
|----------------------------|---|---------------------------|
| (1) 1 point (top · 1) | (4) 2 points (outside · 1, belt sander) | (7) 1 point (bottom · 1) |
| (2) 1 point (top · 2) | (5) 1 point (outside · 1) | (8) 1 point (outside · 2) |
| (3) 4 points (outside · 1) | (6) 1 point (outside · 1, belt sander) | |

Panel Replacement

• Views 2



BS-05593

(A) LH side

(1) 2 points (top · 1)

(2) 1 point (top · 1)

(3) 1 point (outside · 1)

(4) 2 points (bottom · 1, belt sander)

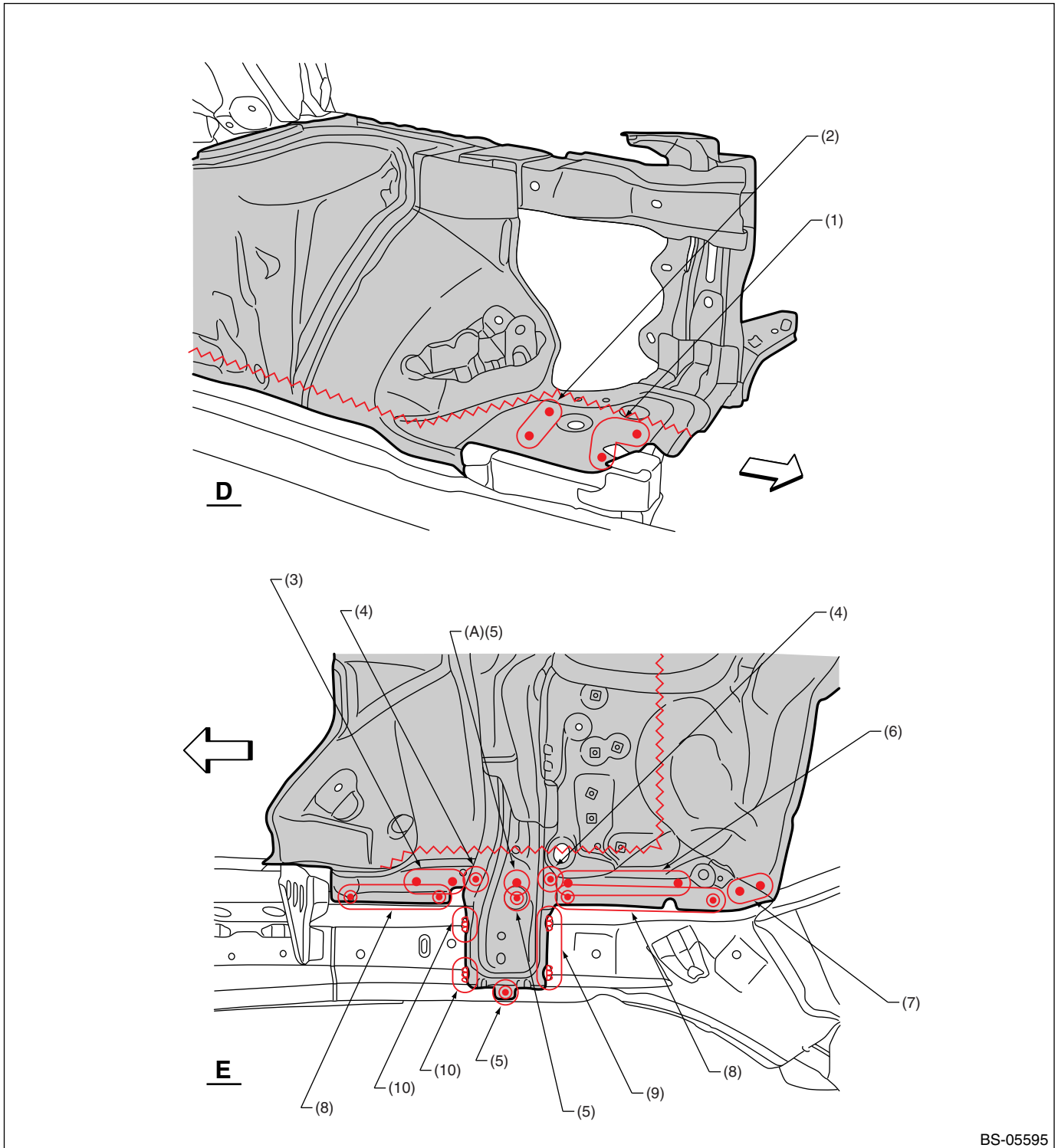
(5) 2 points (outside · 2)

(6) 1 point (outside · 2)

(7) 1 point (outside · 1, belt sander)

Panel Replacement

• Views 3



BS-05595

(A) RH side

(1) 3 points (top · 1)

(2) 2 points (top · 1)

(3) 3 points (outside · 1)

(4) 1 point (outside · 2)

(5) 1 point (outside · 1)

(6) 6 points (outside · 1)

(7) 2 points (outside · 1)

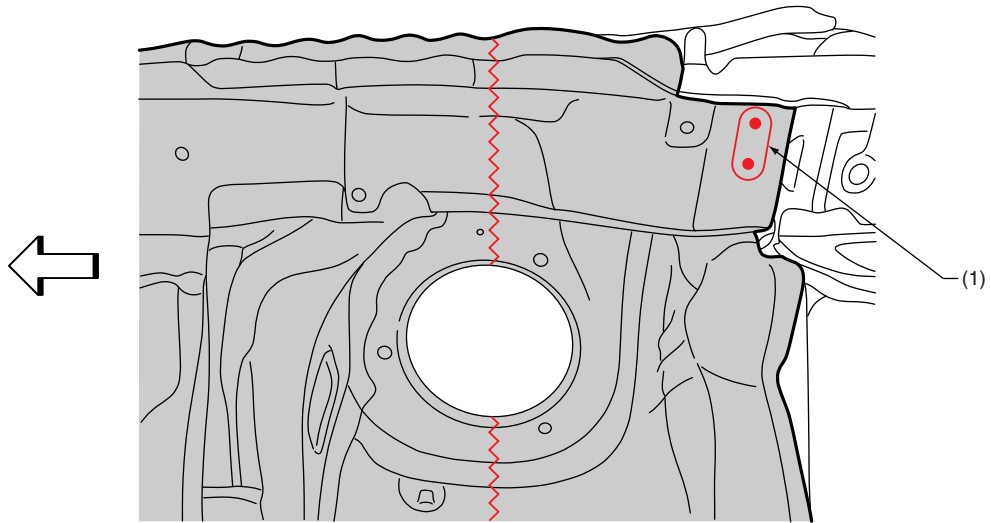
(8) 4 points (outside · 1)

(9) 2 points (outside · 1, belt sander)

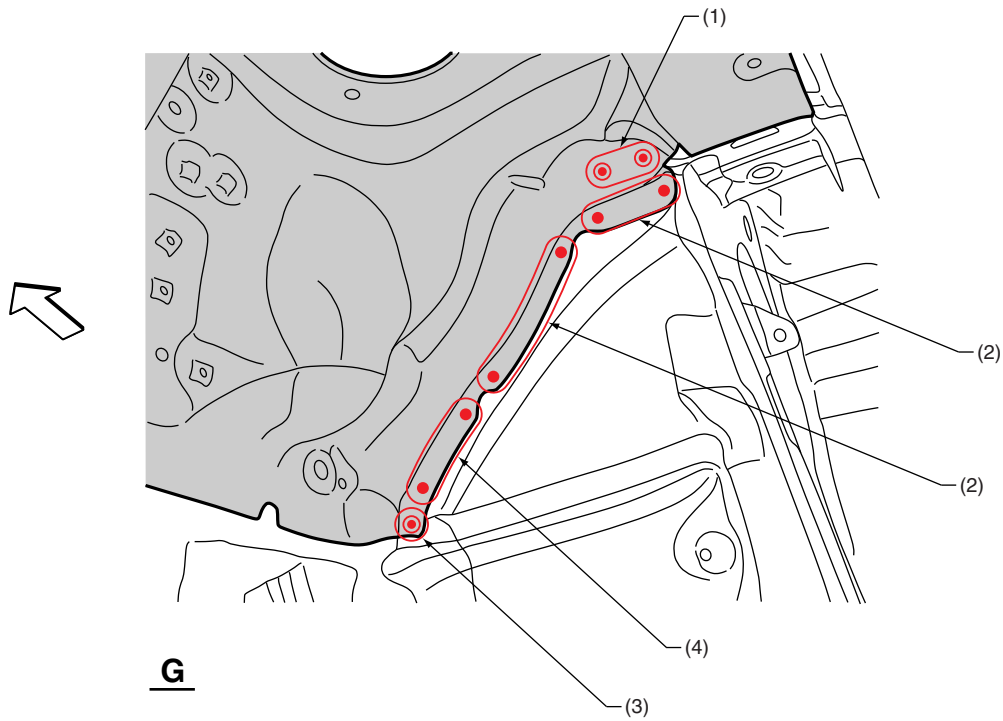
(10) 1 point (outside · 1, belt sander)

Panel Replacement

• Views 4



F



G

BS-05296

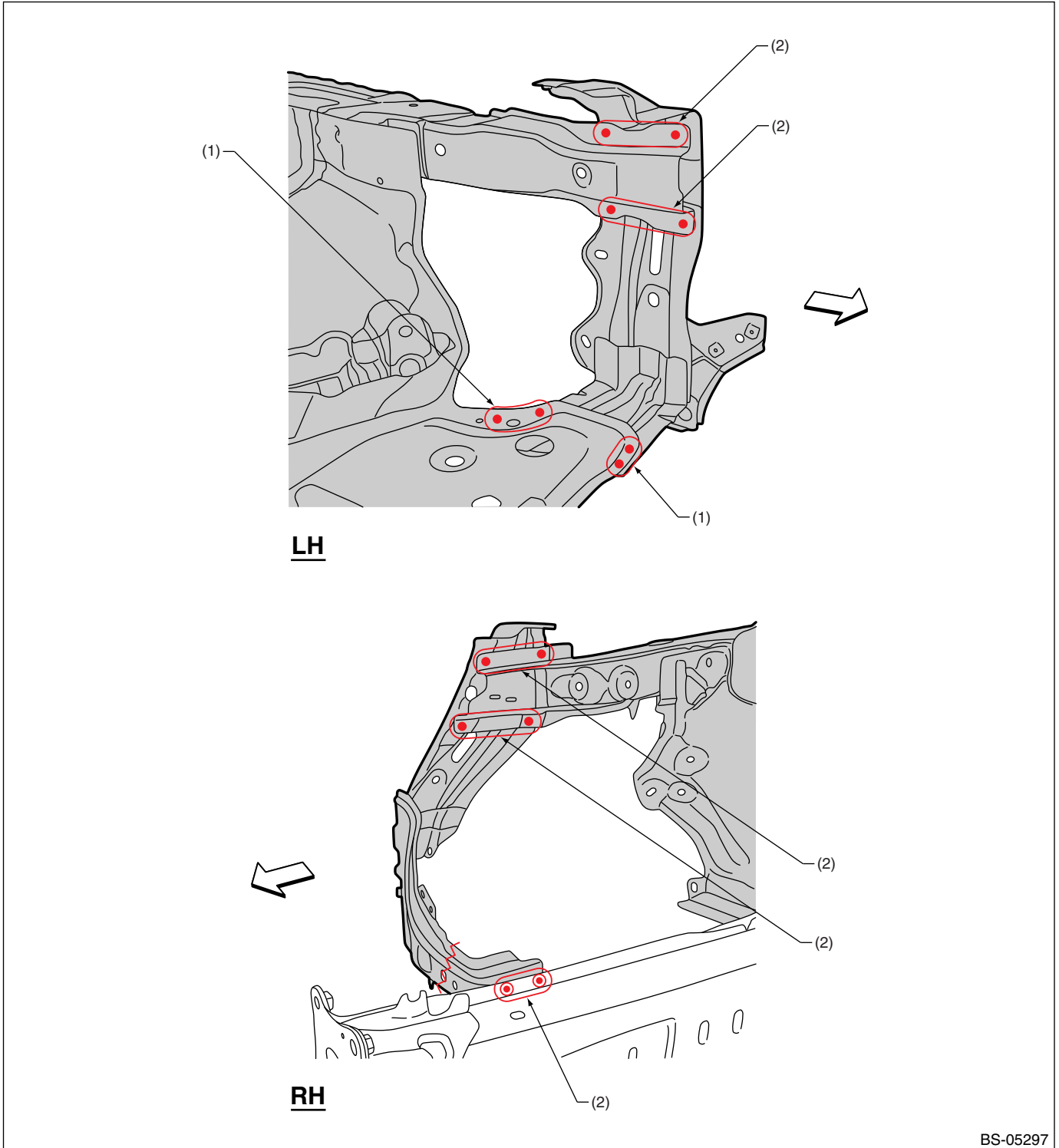
(1) 2 points (bottom · 1)
(2) 3 points (outside · 1)

(3) 1 point (outside · 1)

(4) 2 points (outside · 1)

Panel Replacement

• Views 5



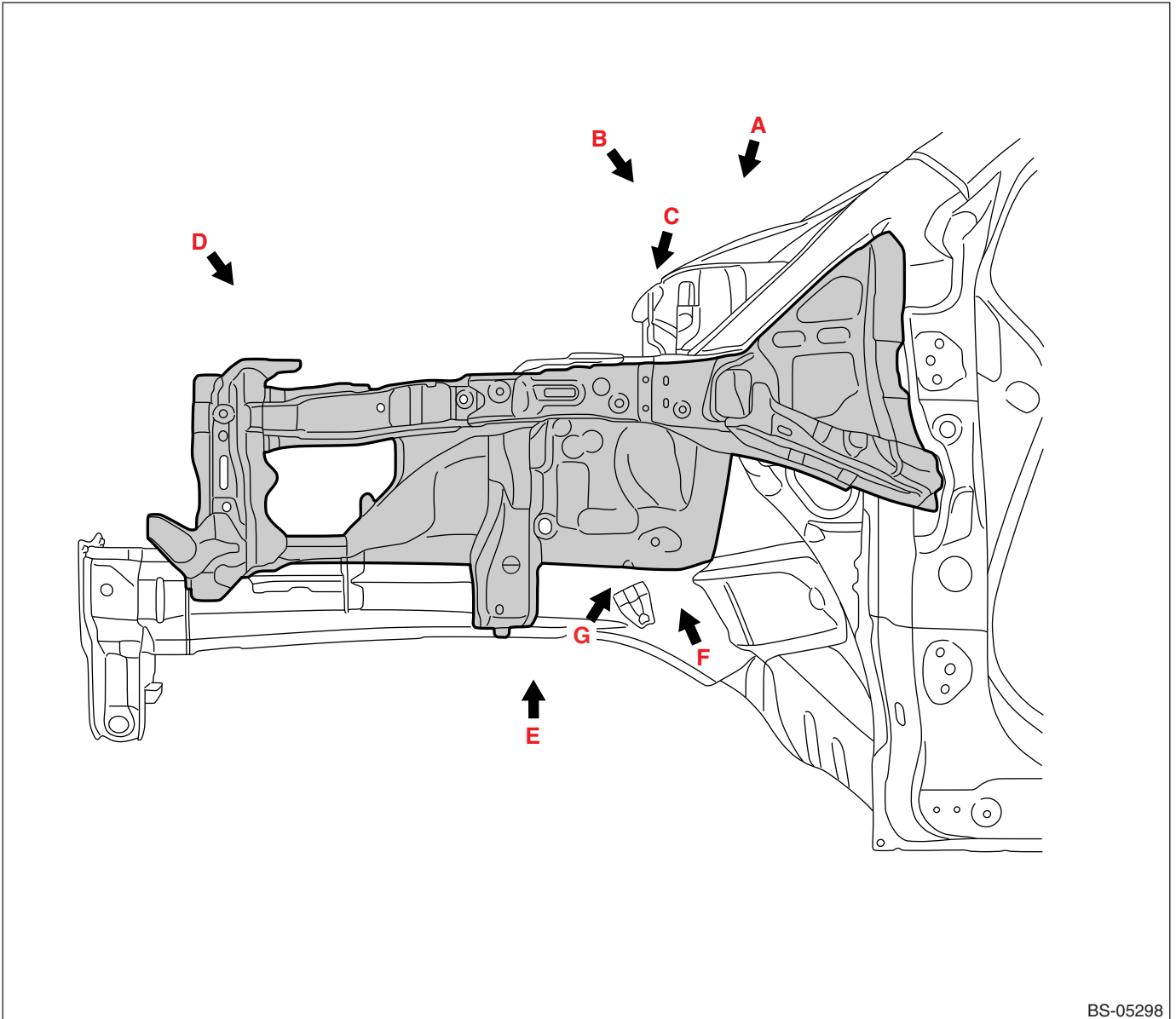
(1) 2 points (bottom · 1)

(2) 2 points (outside · 1)

Panel Replacement

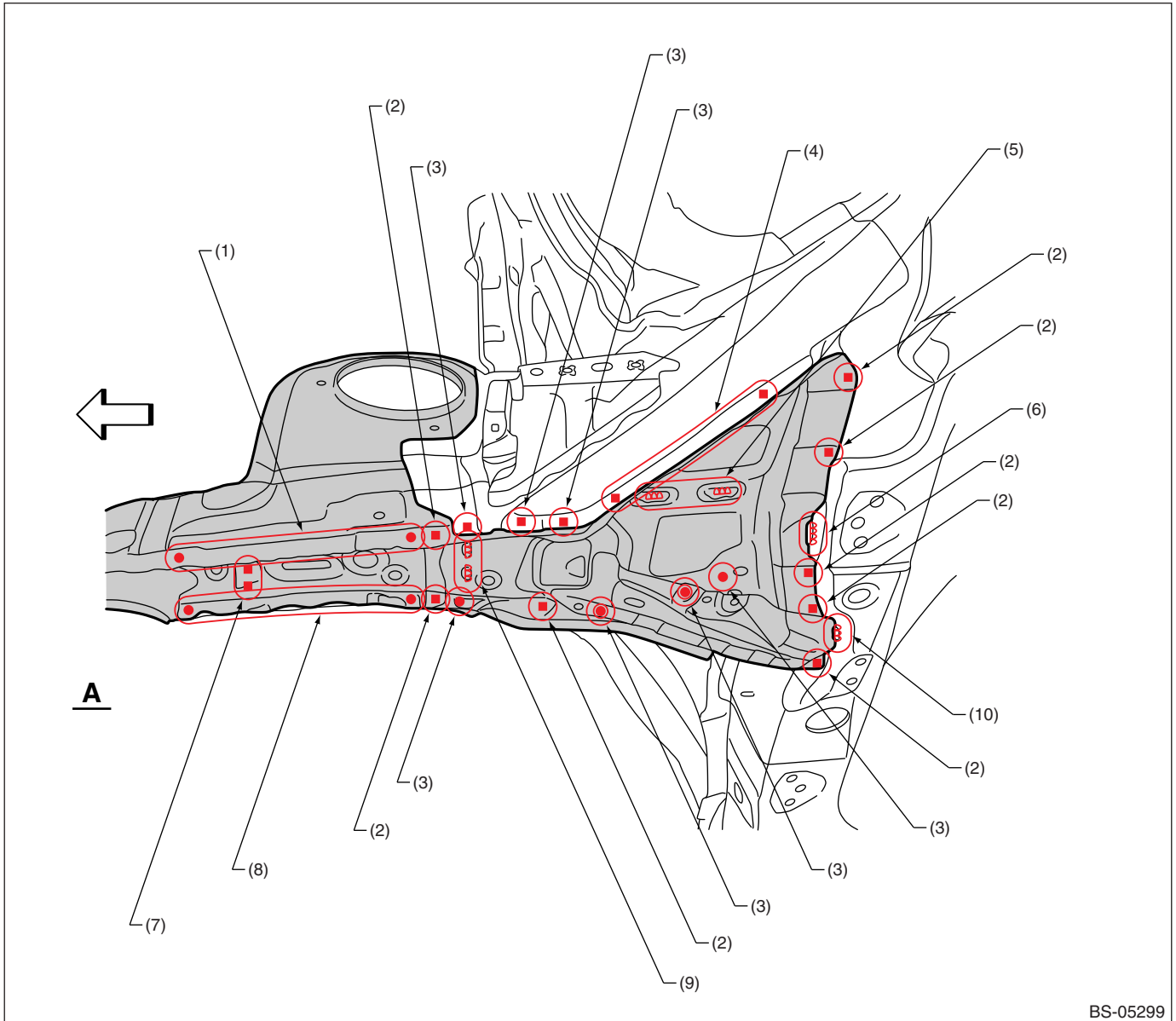
B: INSTALLATION

• Overall view



Panel Replacement

• Views 1

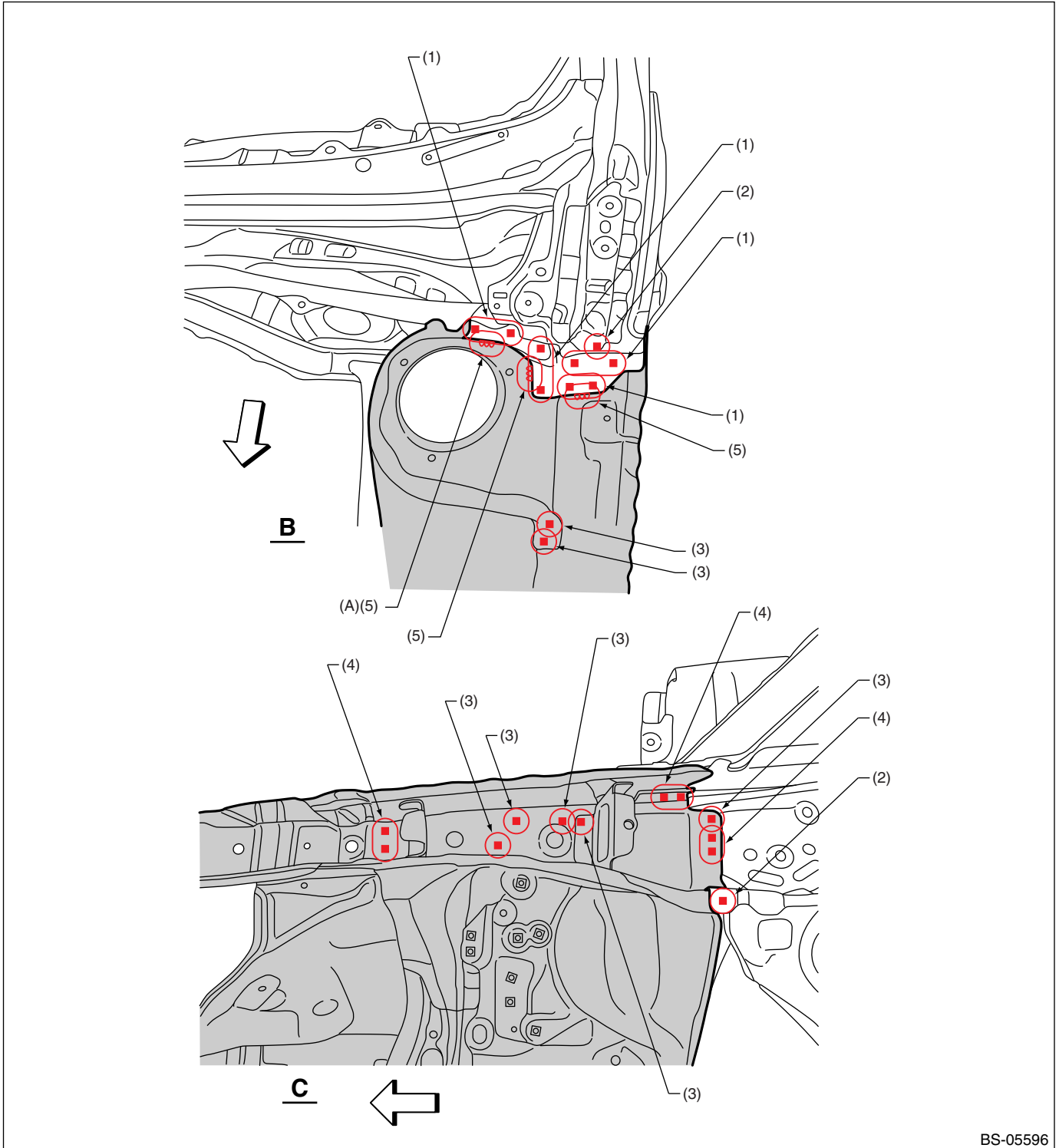


BS-05299

- | | | |
|-----------------------|--------------------------------|--------------------------------|
| (1) 7 points | (5) 2 points [20 mm (0.79 in)] | (9) 2 points [10 mm (0.39 in)] |
| (2) 1 point (service) | (6) 1 point [25 mm (0.98 in)] | (10) 1 point [20 mm (0.79 in)] |
| (3) 1 point | (7) 2 points (service) | |
| (4) 4 points | (8) 6 points | |

Panel Replacement

• Views 2



BS-05596

(A) LH side

(1) 2 points

(2) 1 point

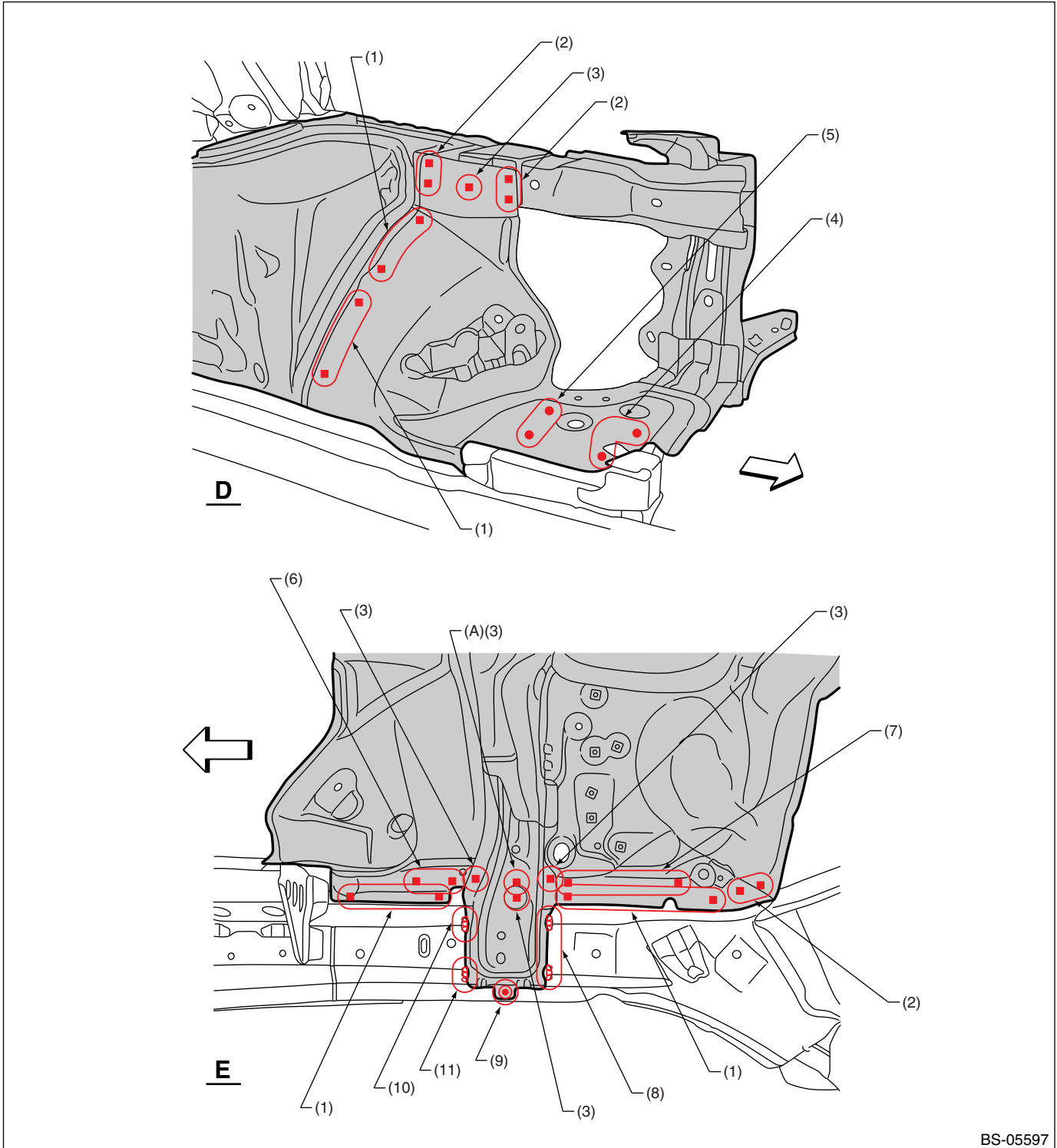
(3) 1 point (service)

(4) 2 points (service)

(5) 1 point [20 mm (0.79 in)]

Panel Replacement

• Views 3



BS-05597

(A) RH side

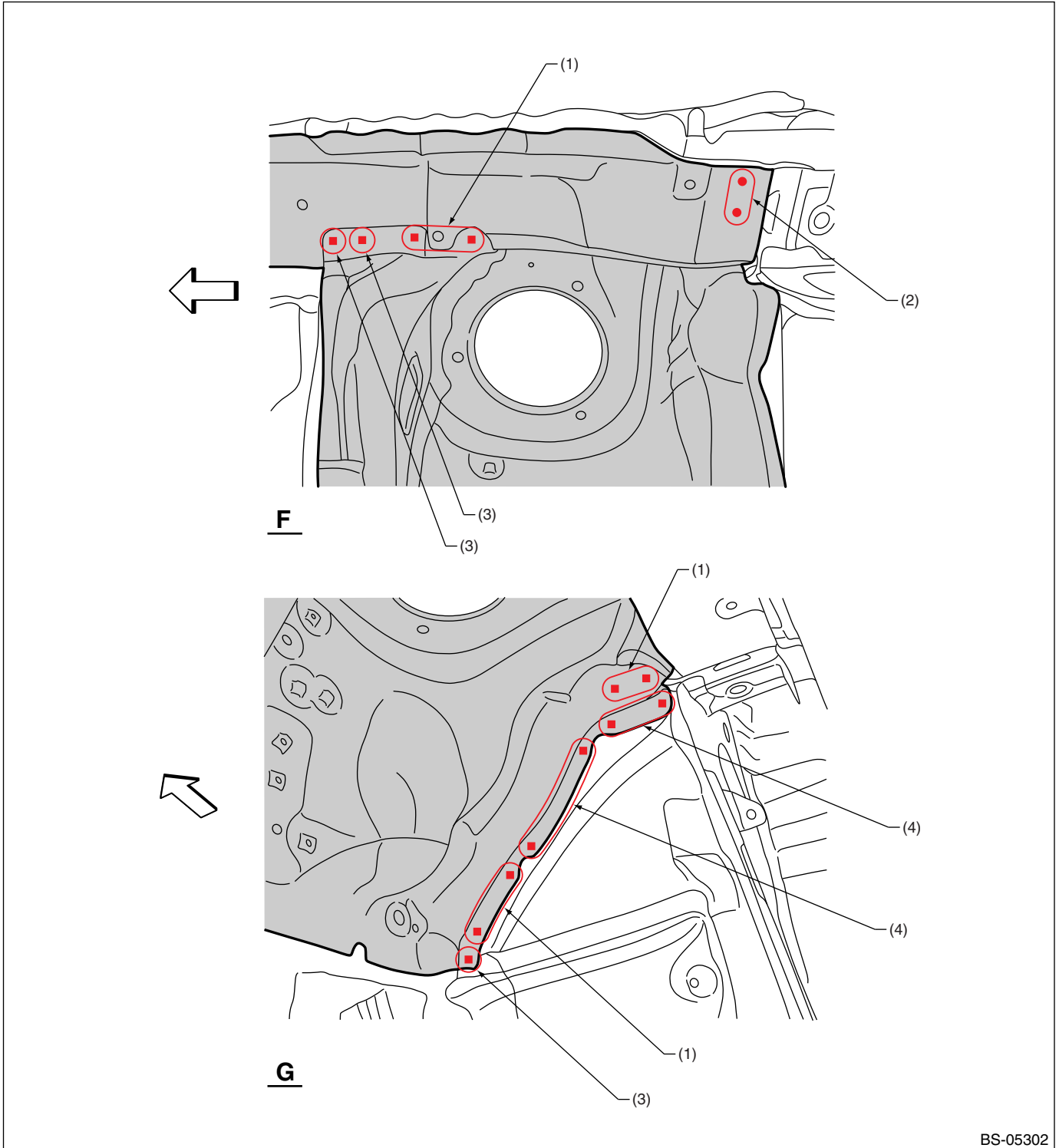
- (1) 4 points (service)
- (2) 2 points (service)
- (3) 1 point (service)
- (4) 3 points

- (5) 2 points
- (6) 3 points (service)
- (7) 6 points (service)
- (8) 2 points [20 mm (0.79 in)]

- (9) 1 point
- (10) 1 point [15 mm (0.59 in)]
- (11) 1 point [45 mm (1.77 in)]

Panel Replacement

• Views 4



BS-05302

(1) 2 points (service)

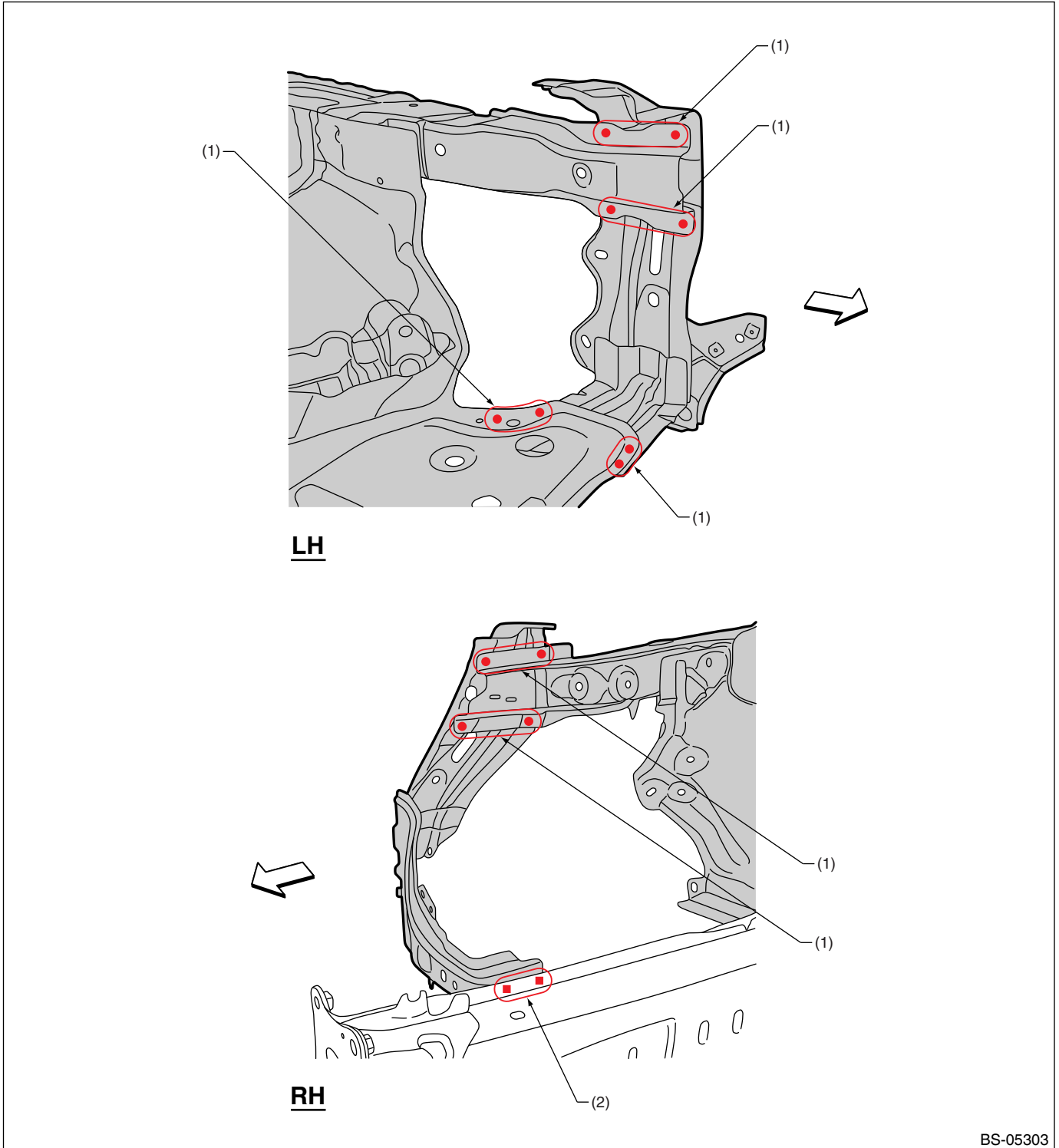
(3) 1 point (service)

(4) 3 points (service)

(2) 2 points

Panel Replacement

• Views5



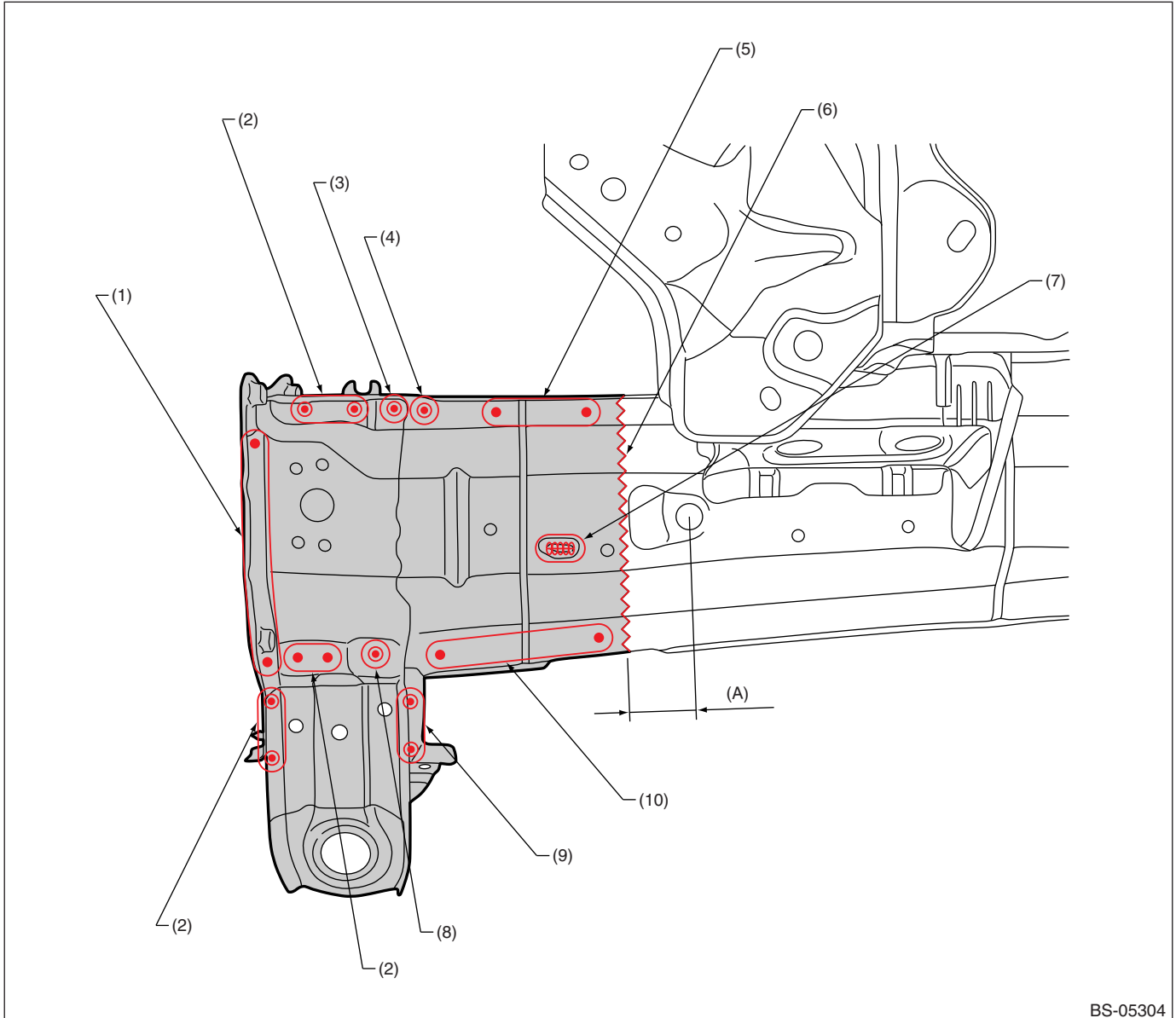
(1) 2 points

(2) 2 points (service)

Panel Replacement

7-3. Closing Plate (partial replacement)

A: REMOVAL



BS-05304

(A) 40 mm (1.57 in)

(1) 4 points (outside · 1)

(2) 2 points (outside · 1)

(3) 1 point (inside · 1)

(4) 1 point (outside · 1)

(5) 3 points (outside · 1)

(6) Cut position for butt welding

(7) 1 point (outside · 1, belt sander)

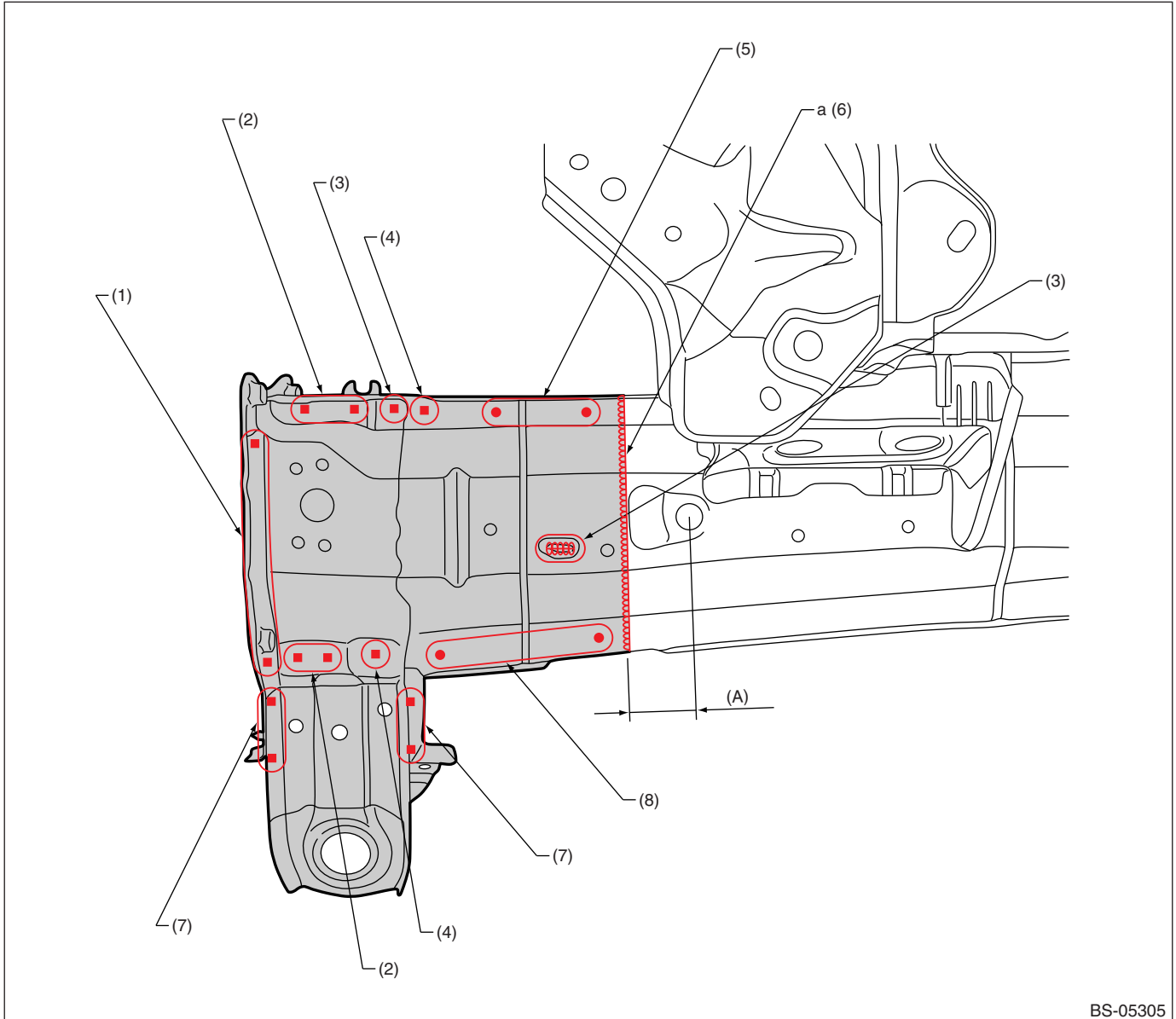
(8) 1 point (outside · 2)

(9) 2 points (inside · 1)

(10) 5 points (outside · 1)

Panel Replacement

B: INSTALLATION



BS-05305

(A) 40 mm (1.57 in)

(1) 4 points

(2) 2 points (service)

(3) 1 point

(4) 1 point (service)

(5) 3 points

(6) 1 point [155 mm (6.10 in)]

(7) 2 points

(8) 5 points

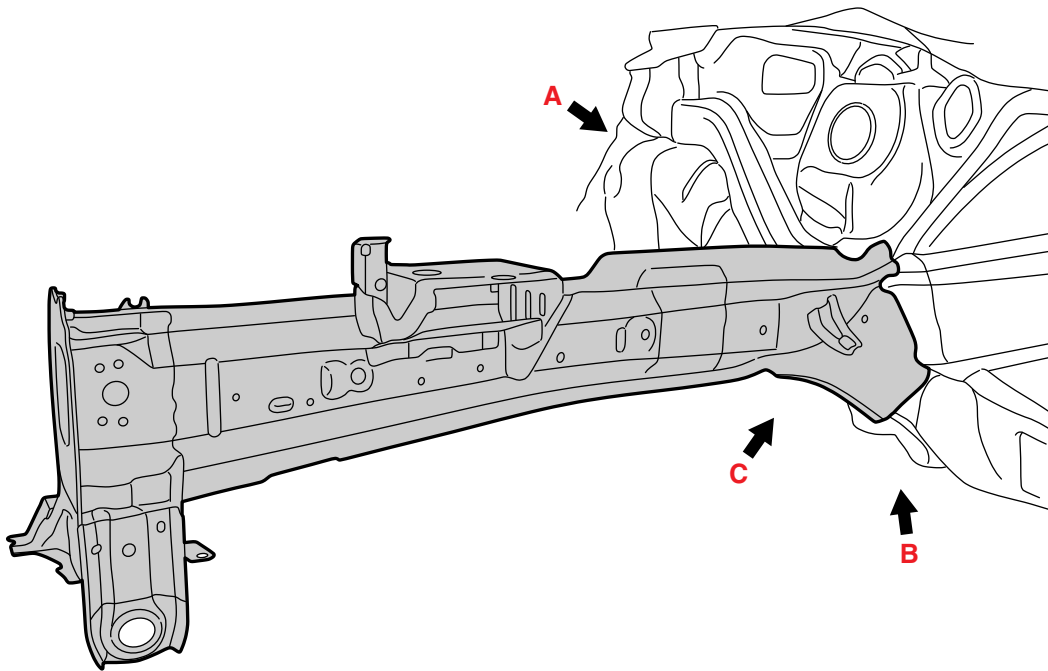
For continuous welds marked by a, anticorrosion wax shall be applied thoroughly on the rear.

Panel Replacement

7-4. Front Side Frame (total replacement)

A: REMOVAL

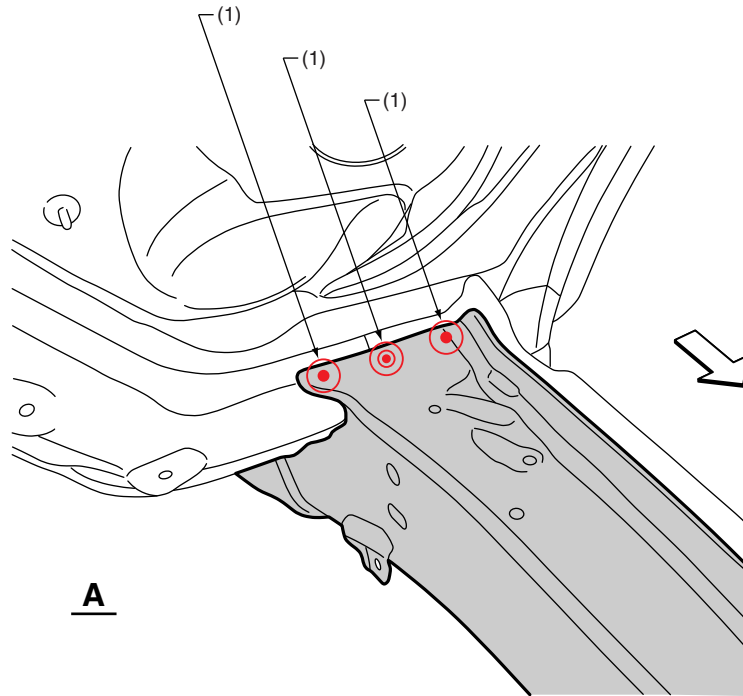
- Overall view (Radiator panel and front wheel apron removal condition)



BS-05342

Panel Replacement

• Views 1

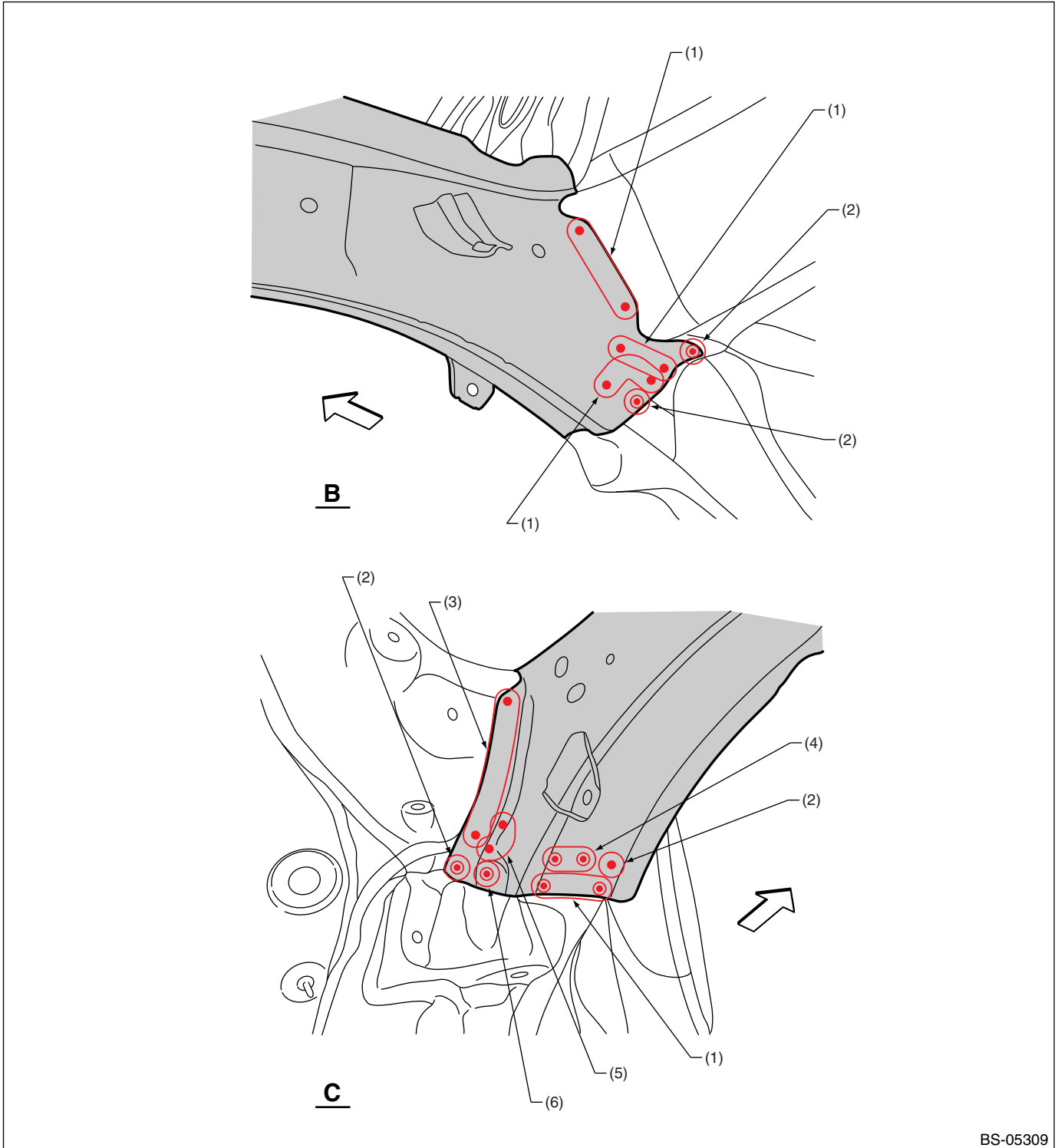


BS-05308

(1) 1 point (top · 1)

Panel Replacement

• Views 2



BS-05309

(1) 3 points (outside · 1)

(2) 1 point (outside · 1)

(3) 4 points (outside · 1)

(4) 2 points (outside · 2)

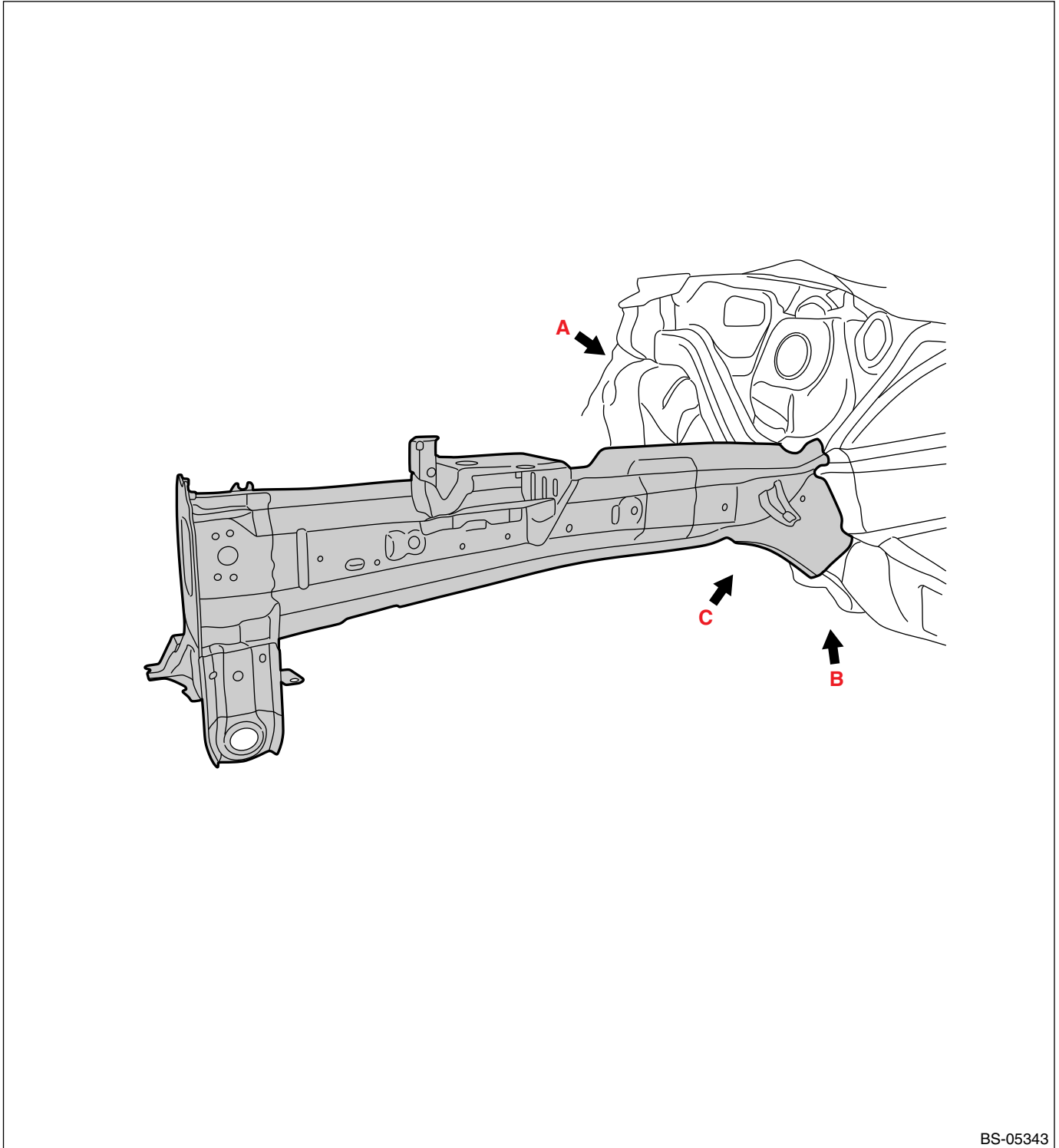
(5) 3 points (inside · 1)

(6) 1 point (inside · 1)

Panel Replacement

B: INSTALLATION

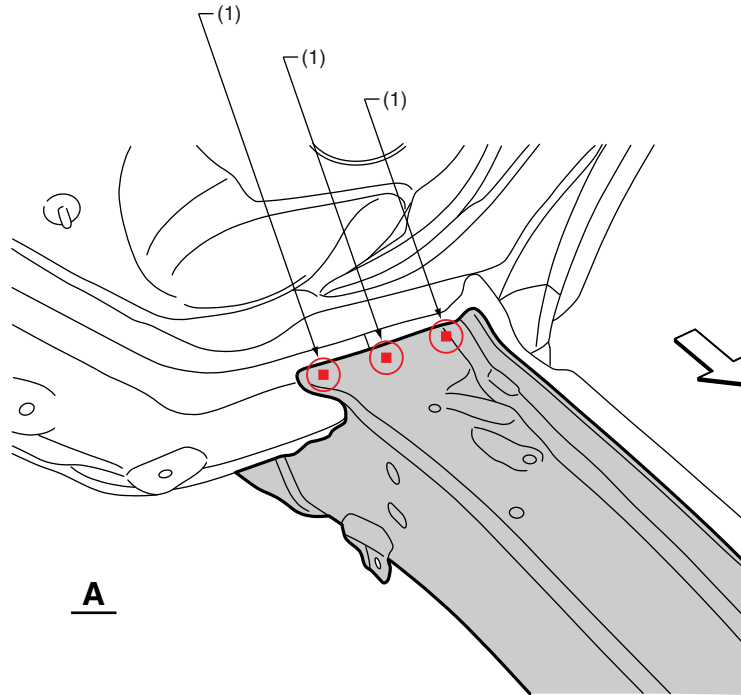
- Overall view



BS-05343

Panel Replacement

• Views 1

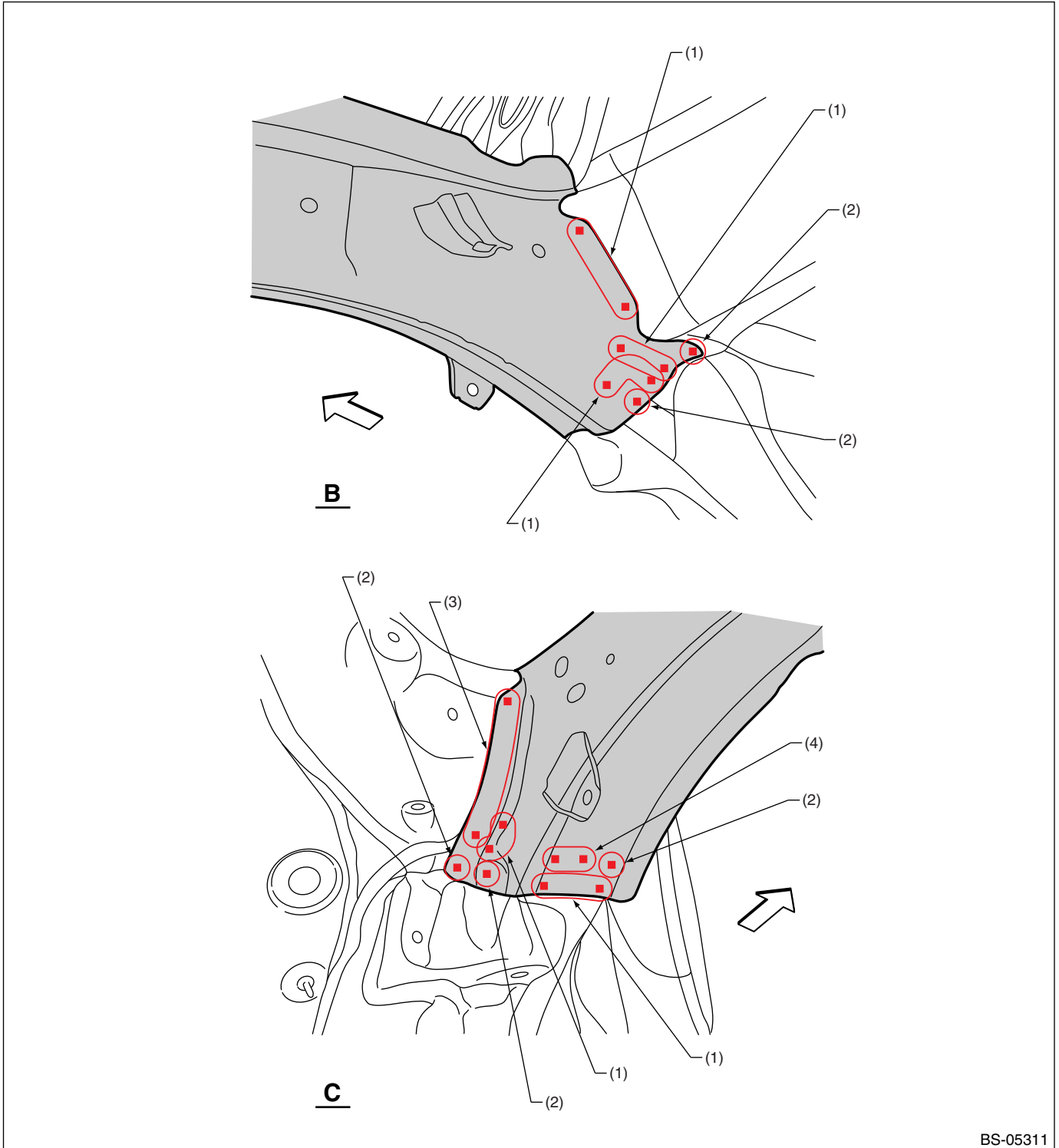


BS-05310

(1) 1 point (service)

Panel Replacement

• Views 2



BS-05311

(1) 3 points (service)

(3) 4 points (service)

(4) 2 points (service)

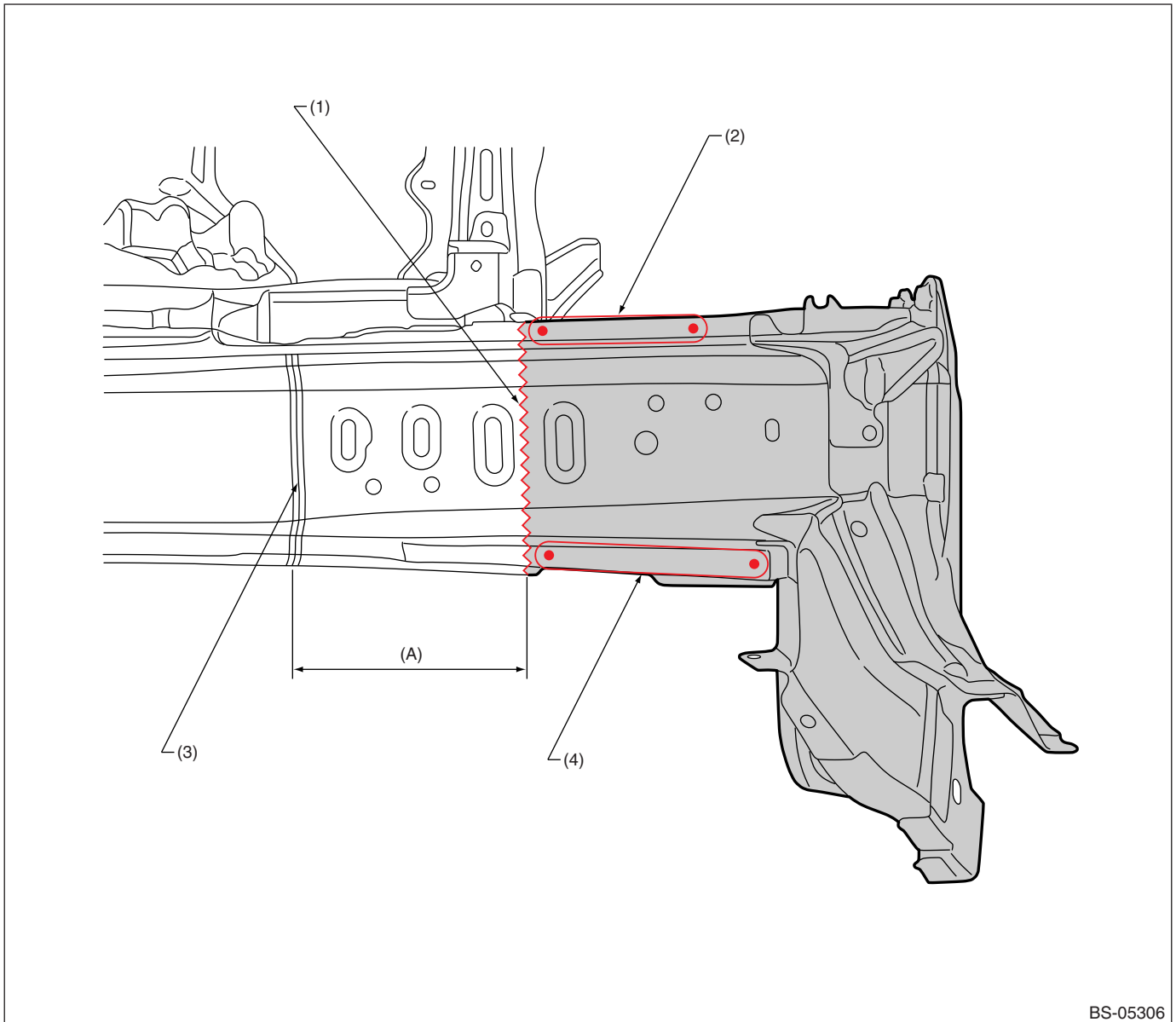
(2) 1 point (service)

Panel Replacement

7-5. Front Side Frame (partial replacement)

A: REMOVAL

- Radiator panel removal condition



BS-05306

(A) 130 mm (5.12 in)

(1) Cut position for butt welding

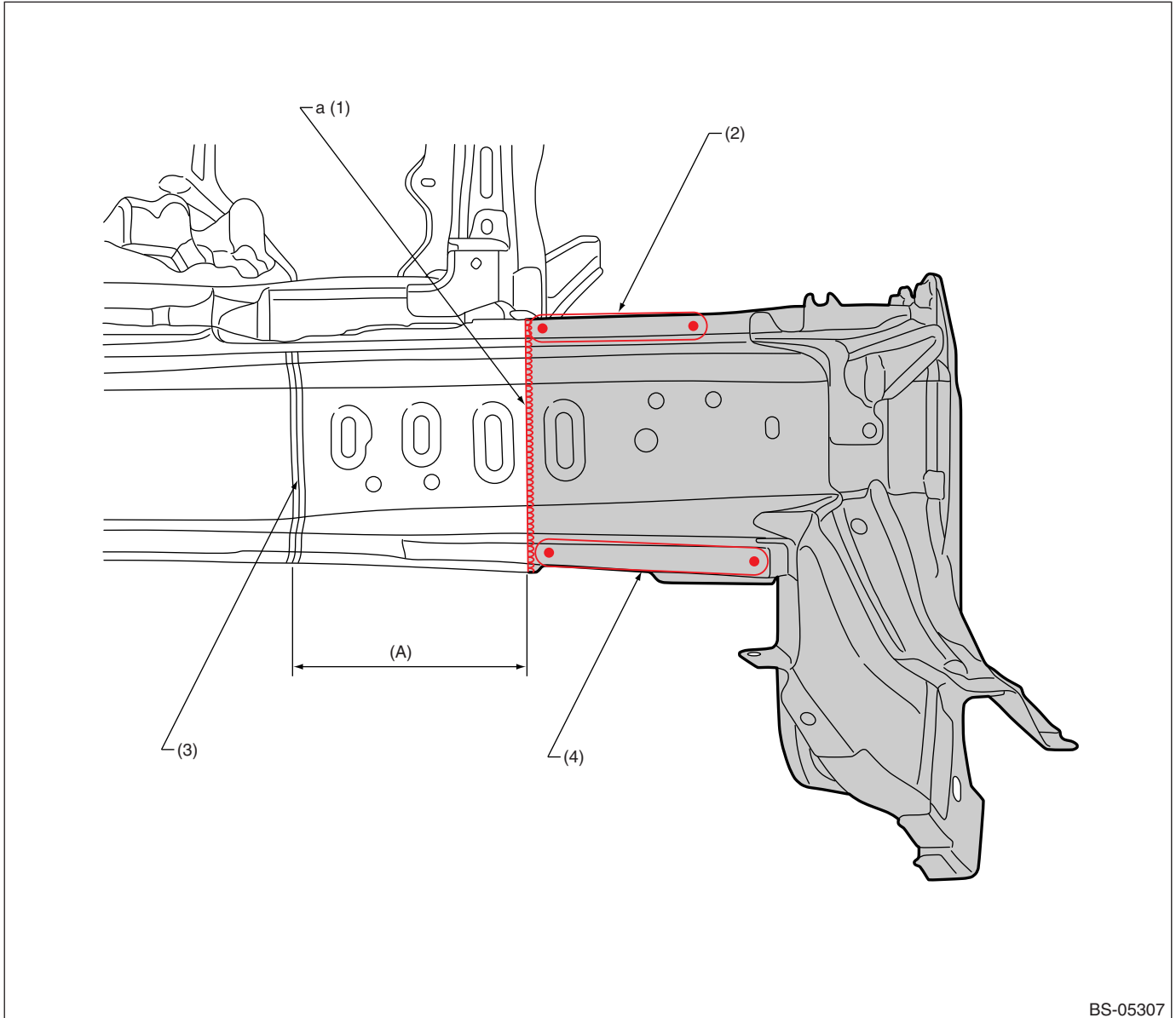
(3) Tailored line

(4) 6 points (inside · 1)

(2) 5 points (inside · 1)

Panel Replacement

B: INSTALLATION



BS-05307

(A) 130 mm (5.12 in)

(1) 1 point [220 mm (8.66in)]

(3) Tailored line

(4) 6 points

(2) 5 points

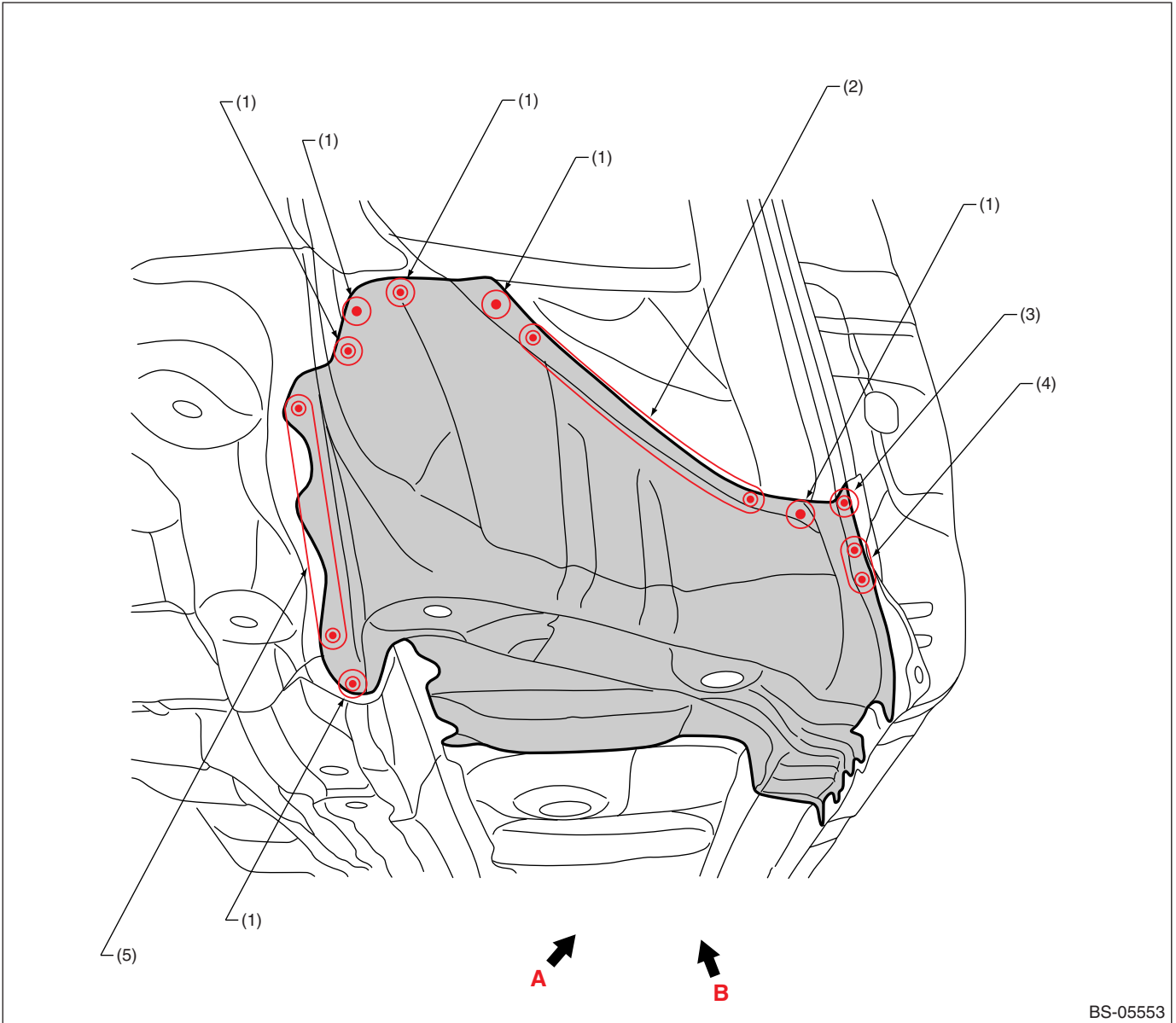
For continuous welds marked by a, anticorrosion wax shall be applied thoroughly on the rear.

Panel Replacement

7-6. Toe Board Reinforcement (total replacement)

A: REMOVAL

• Overall view



BS-05553

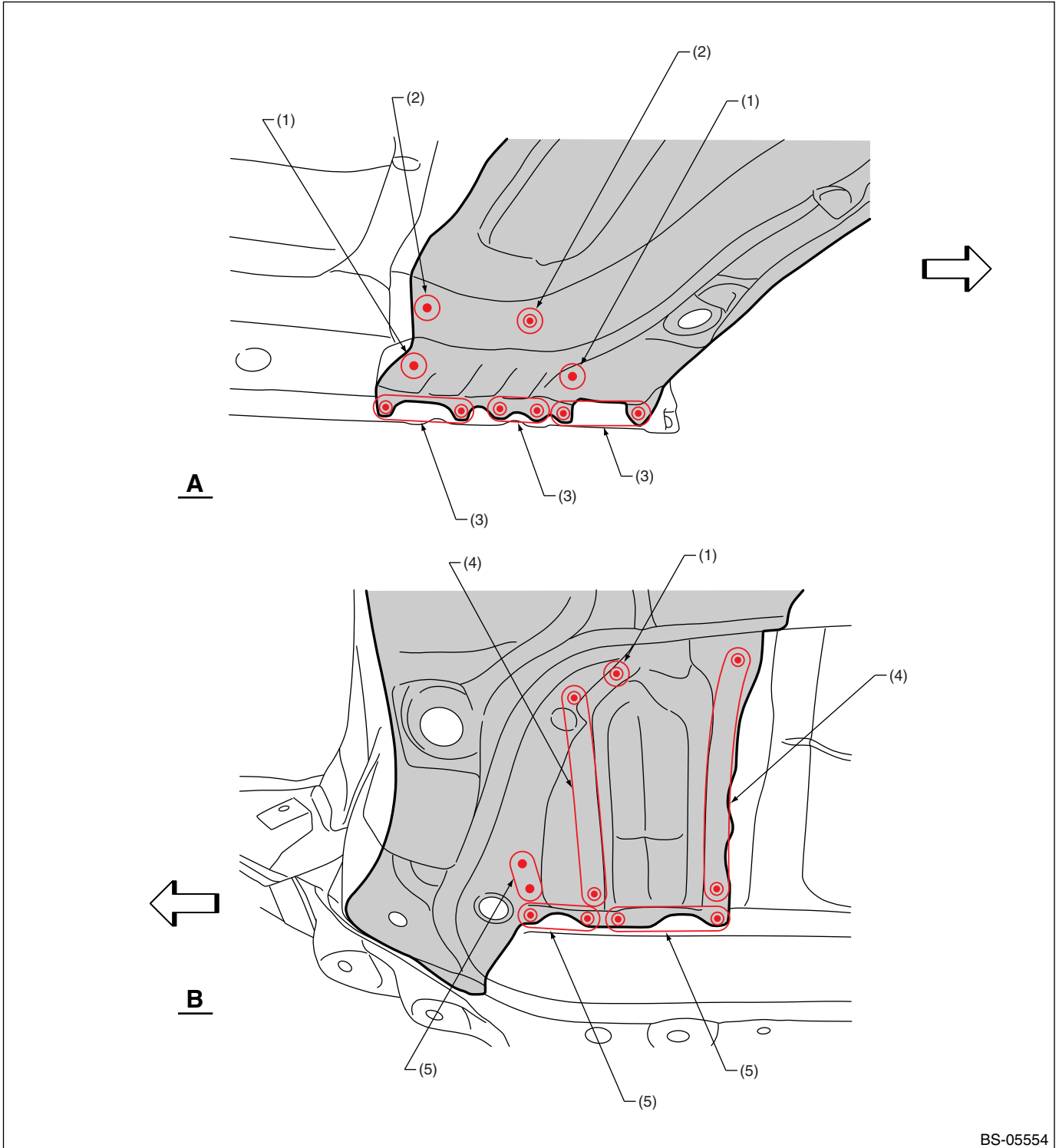
(1) 1 point (outside · 1)
(2) 6 points (outside · 1)

(3) 1 point (inside · 1, belt sander)
(4) 2 points (inside · 1, belt sander)

(5) 3 points (outside · 1)

Panel Replacement

• Views



BS-05554

(1) 1 point (bottom · 1)

(2) 1 point (inside · 1)

(3) 2 points (inside · 1)

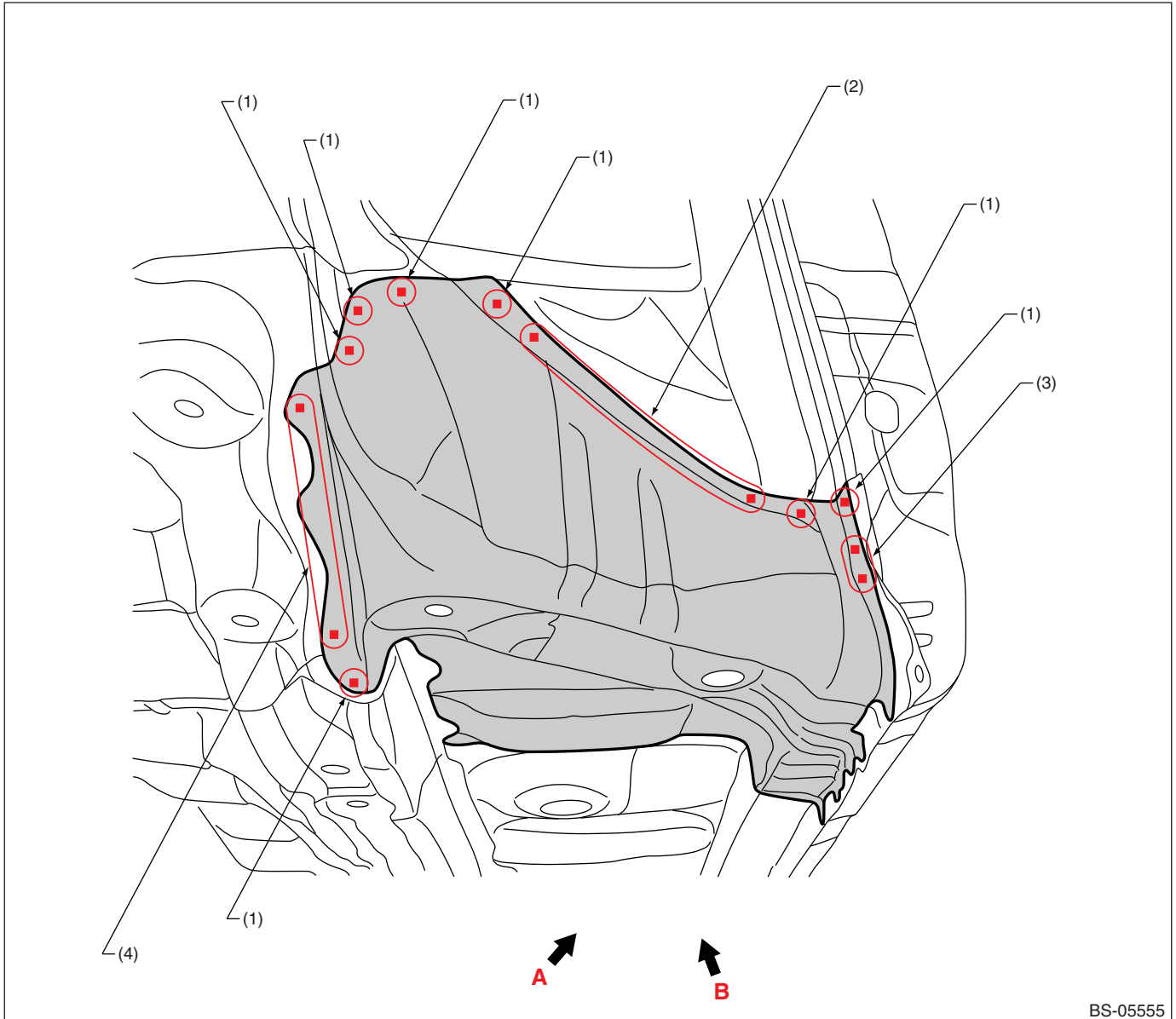
(4) 5 points (bottom · 1)

(5) 2 points (bottom · 1)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05555

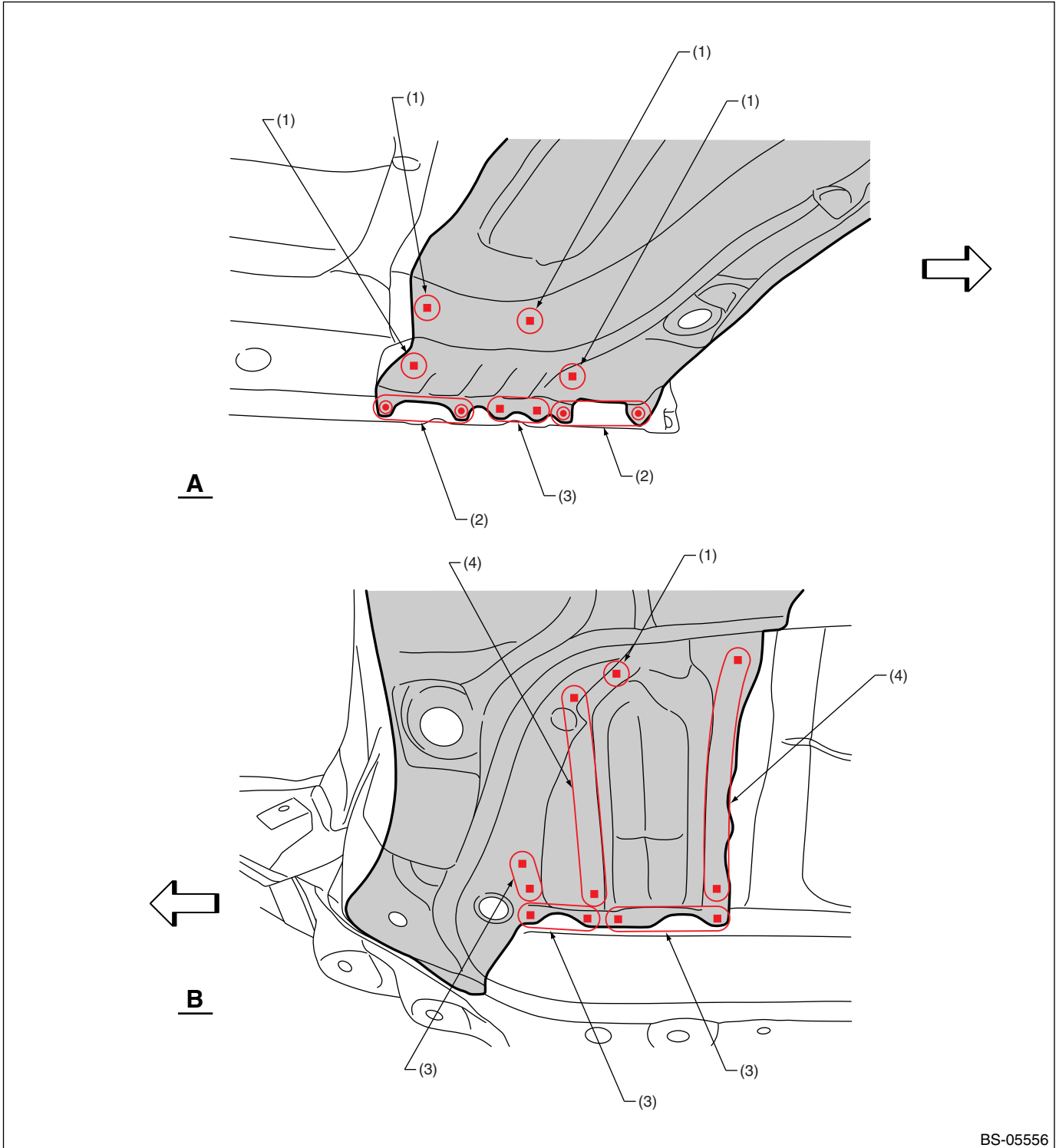
(1) 1 point (service)
(2) 6 points (service)

(3) 2 points (service)

(4) 3 points (service)

Panel Replacement

• Views



BS-05556

(1) 1 point (service)

(3) 2 points (service)

(4) 5 points (service)

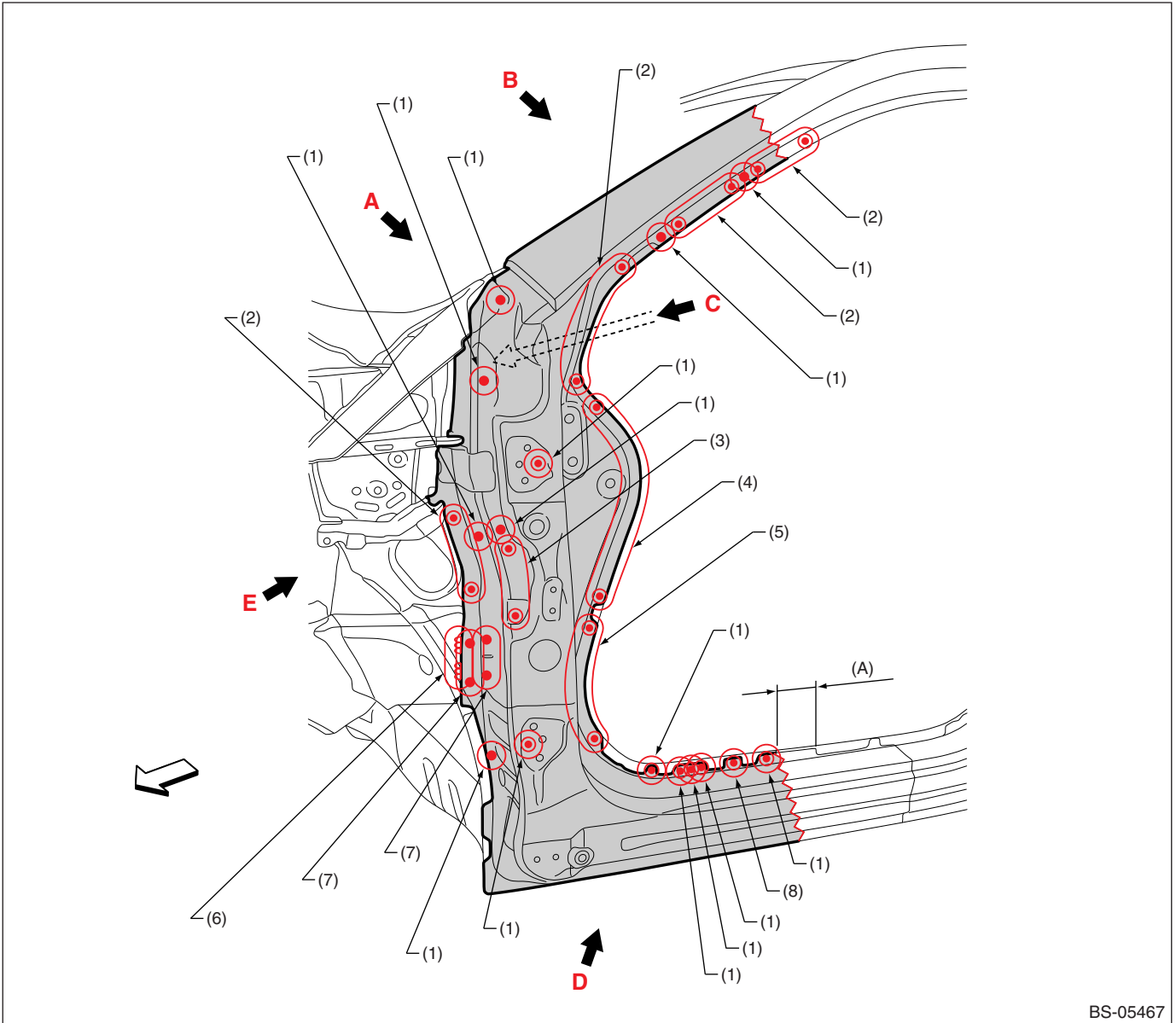
(2) 2 points

Panel Replacement

7-7. Front Pillar (partial replacement)

A: REMOVAL

• Overall view



BS-05467

(A) 90 mm (3.54 in)

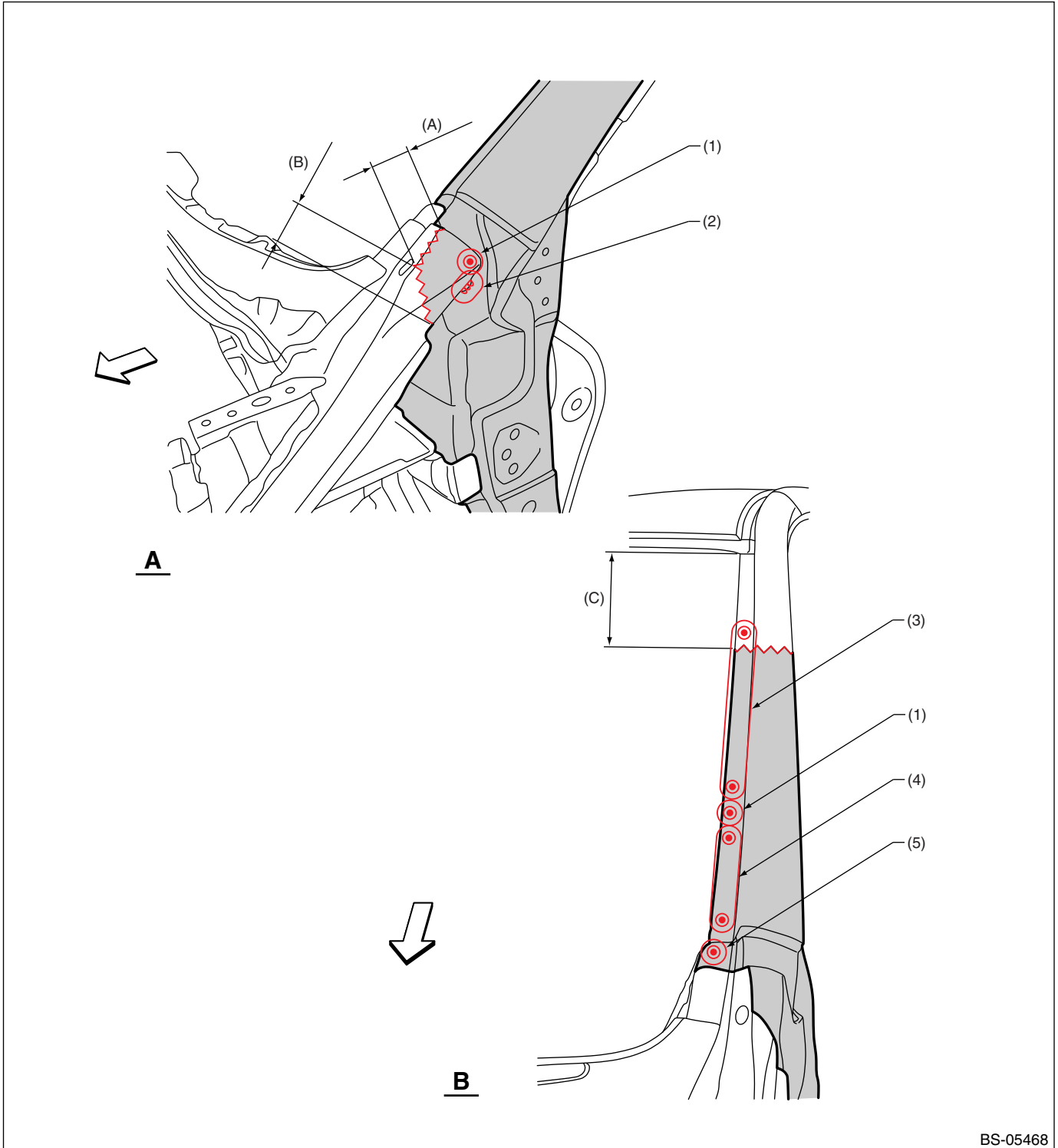
- (1) 1 point (outside · 1)
- (2) 4 points (outside · 1)
- (3) 3 points (outside · 1)

- (4) 7 points (outside · 1)
- (5) 5 points (outside · 1)
- (6) 2 points (outside · 1, belt sander)

- (7) 2 points (outside · 1)
- (8) 1 point (outside · 1, inside · 1)

Panel Replacement

• Views 1



BS-05468

(A) 40 mm (1.57 in)

(B) 55 mm (2.17 in)

(C) 140mm (5.51 in)

(1) 1 point (outside · 1)

(3) 7 points (outside · 1)

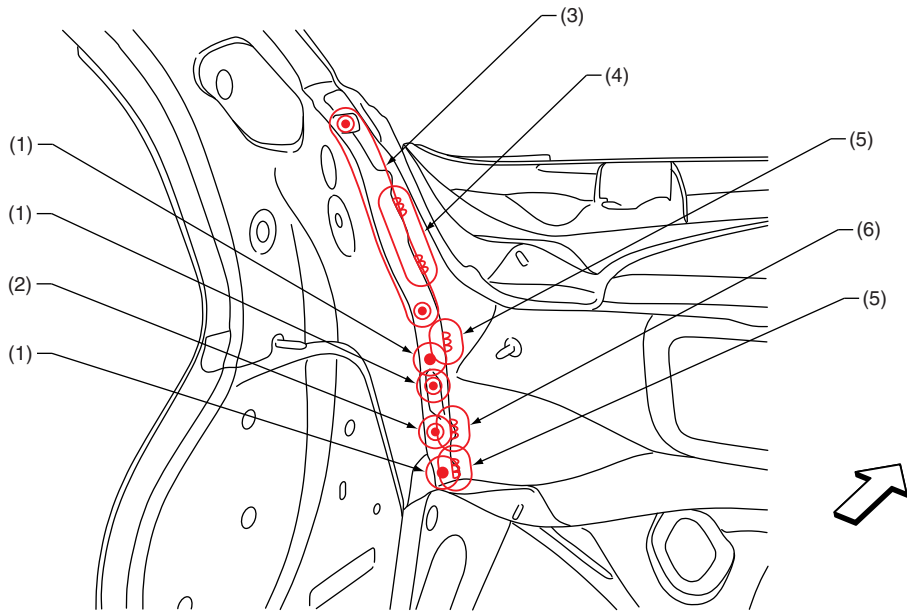
(5) 1 point (outside · 2)

(2) 1 point (outside · 1, belt sander)

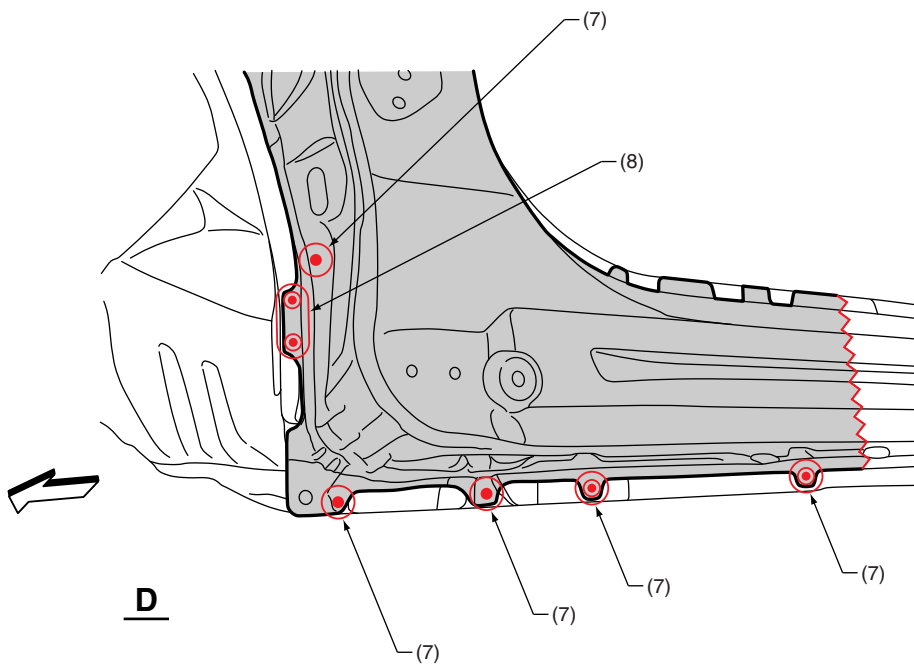
(4) 3 points (outside · 1)

Panel Replacement

• Views 2



C



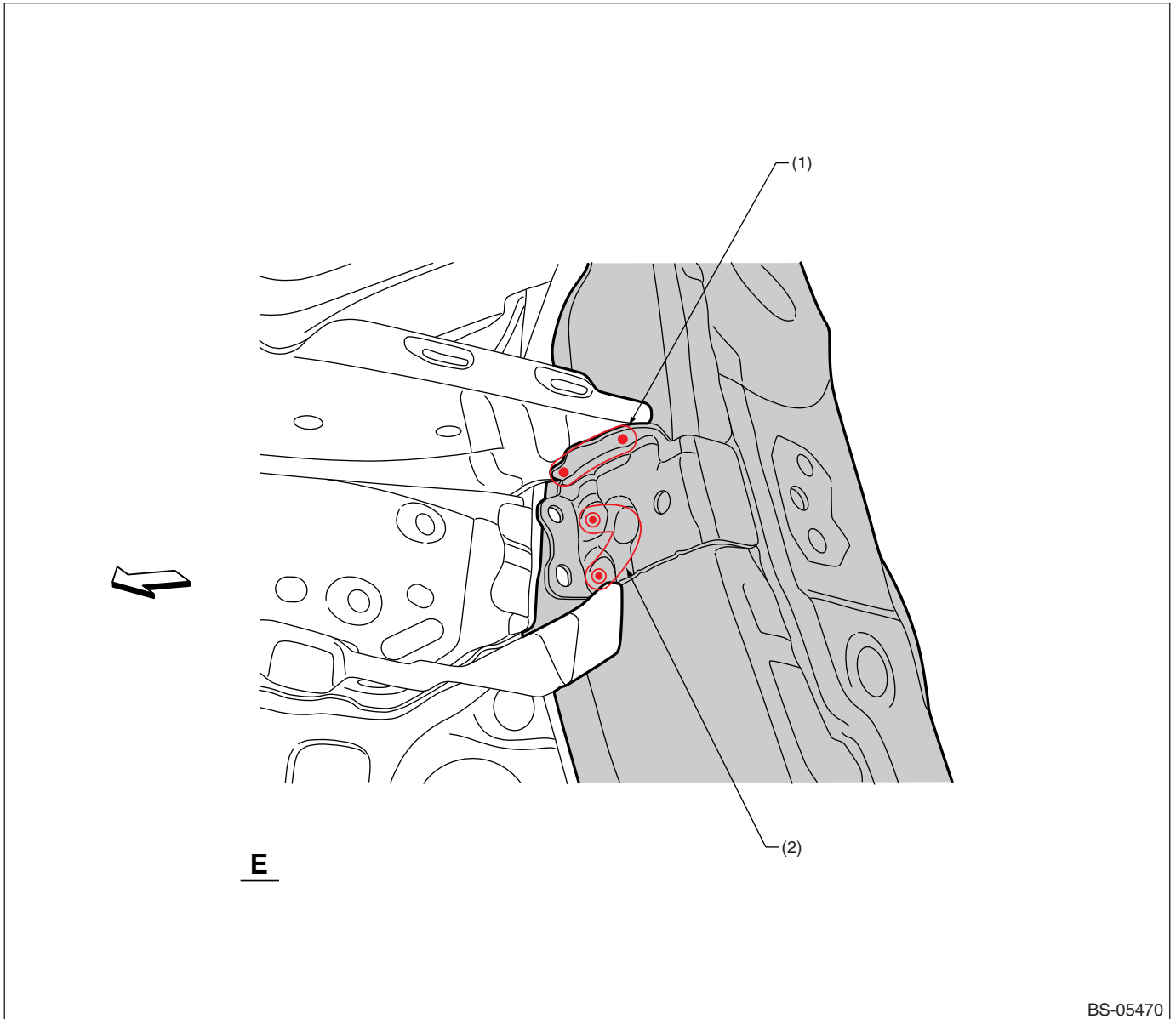
D

BS-05469

- | | | |
|---------------------------|--|----------------------------|
| (1) 1 point (inside · 1) | (4) 2 points (inside · 1, belt sander) | (7) 1 point (outside · 1) |
| (2) 1 point (inside · 2) | (5) 1 point (inside · 2, belt sander) | (8) 2 points (outside · 1) |
| (3) 4 points (inside · 2) | (6) 1 point (inside · 3, belt sander) | |

Panel Replacement

• Views 3



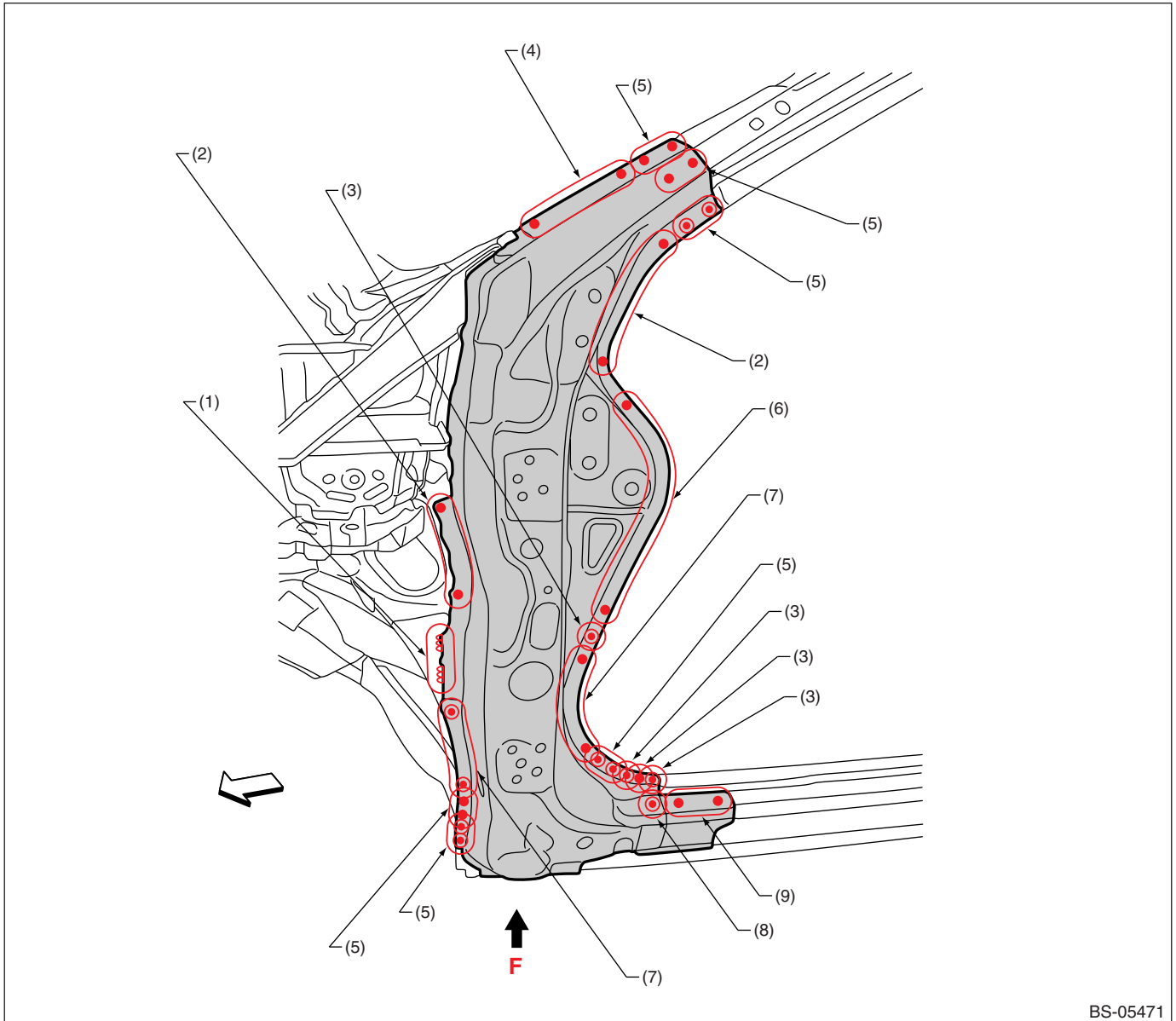
BS-05470

(1) 3 points (bottom · 1)

(2) 3 points (outside · 2)

Panel Replacement

• Overall view (front pillar outer removal condition)

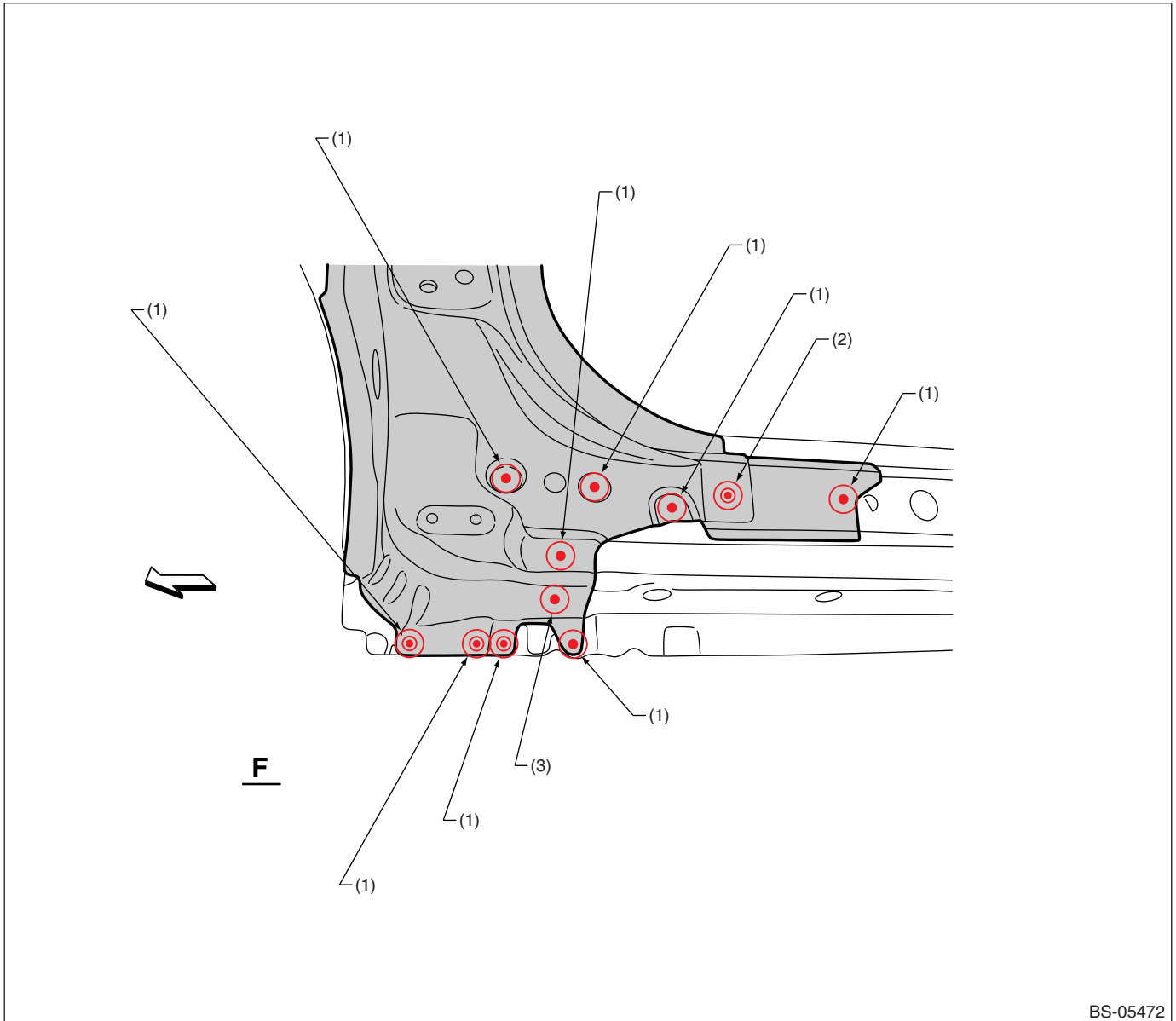


BS-05471

- | | | |
|---|----------------------------|----------------------------|
| (1) 2 points (outside · 1, belt sander) | (4) 3 points (outside · 1) | (7) 5 points (outside · 1) |
| (2) 4 points (outside · 1) | (5) 2 points (outside · 1) | (8) 1 point (top · 2) |
| (3) 1 point (outside · 1) | (6) 7 points (outside · 1) | (9) 2 points (top · 1) |

Panel Replacement

• Views



BS-05472

(1) 1 point (outside · 1)

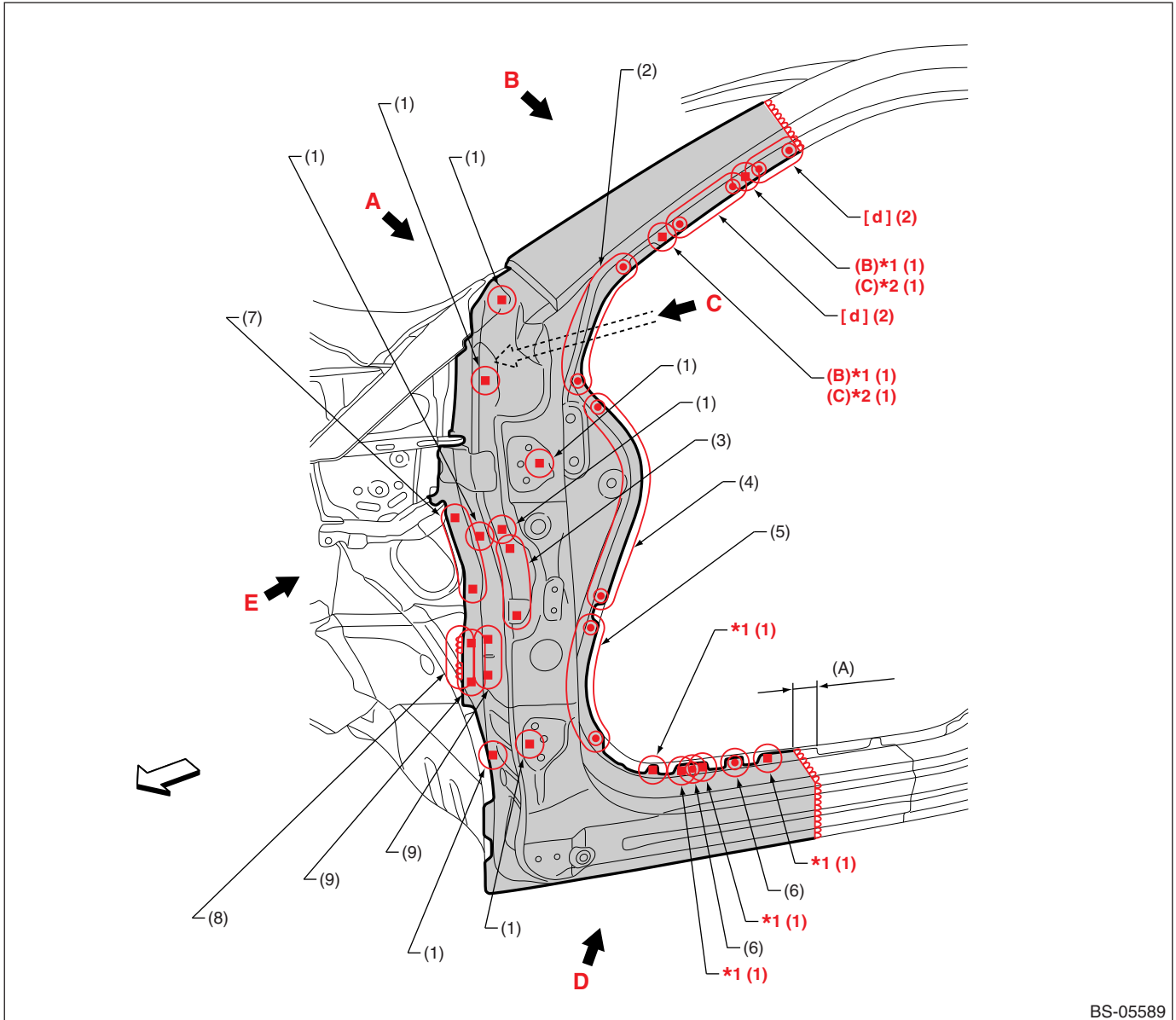
(2) 1 point (outside · 2)

(3) 1 point (bottom · 1)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05589

(A) 50 mm (1.97 in)

(B) RH side

(C) LH side

(1) 1 point (service)

(4) 7 points

(7) 4 points (service)

(2) 4 points

(5) 5 points

(8) 2 points [15 mm (0.59 in)]

(3) 3 points (service)

(6) 1 point

(9) 2 points (service)

[d] Spot welding conditions

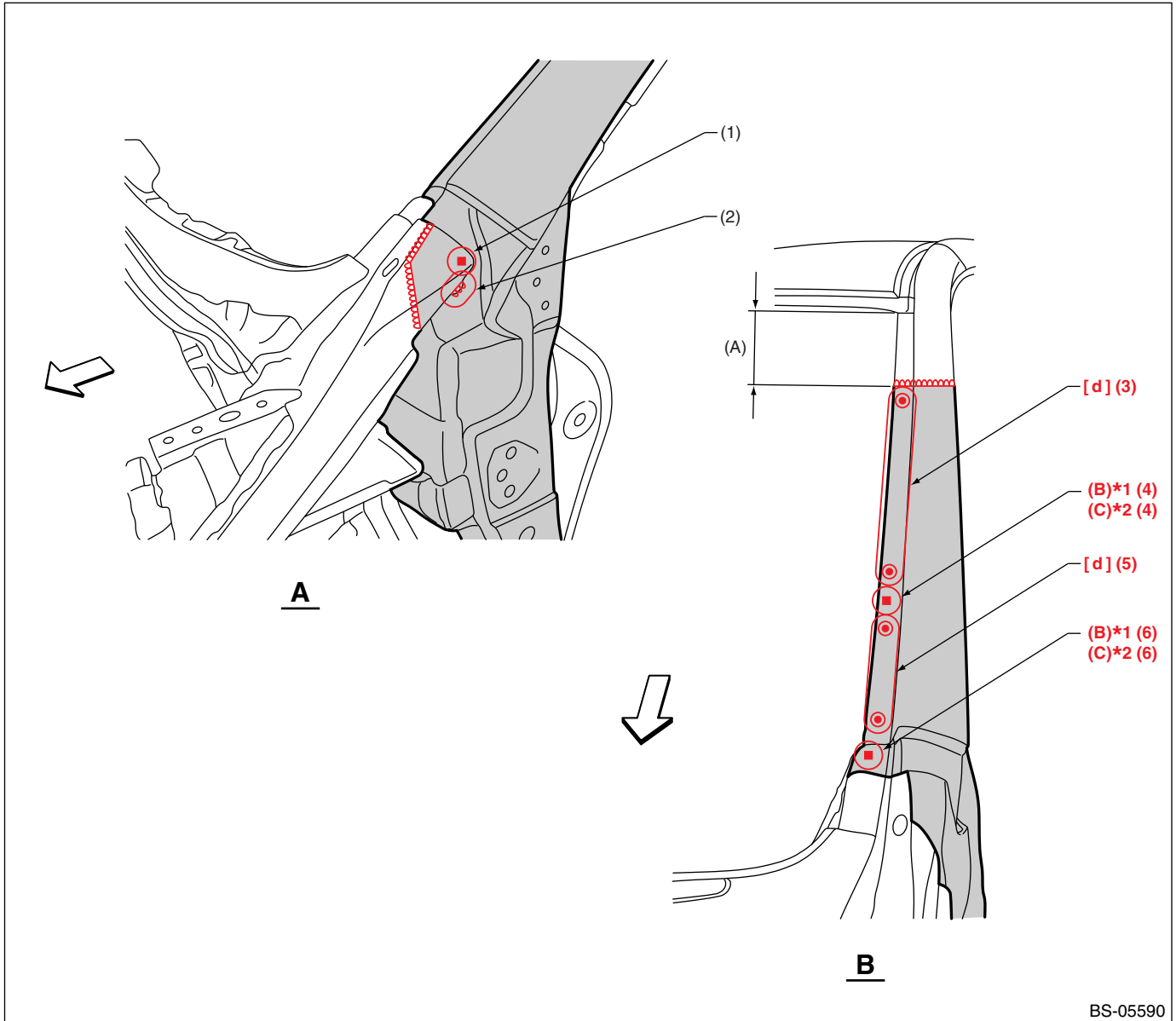
Compression: 4.4kN, Current: 7.5kA, Welding time: 20cyc

*1: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

*2: For 1500MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views 1



BS-05590

(A) 100 mm (3.94 in)

(B) RH side

(C) LH side

(1) 1 point

(3) 7 points

(5) 3 points

(2) 1 point [15 mm (0.59 in)]

(4) 1 point (service)

(6) 1 point (service · matching)

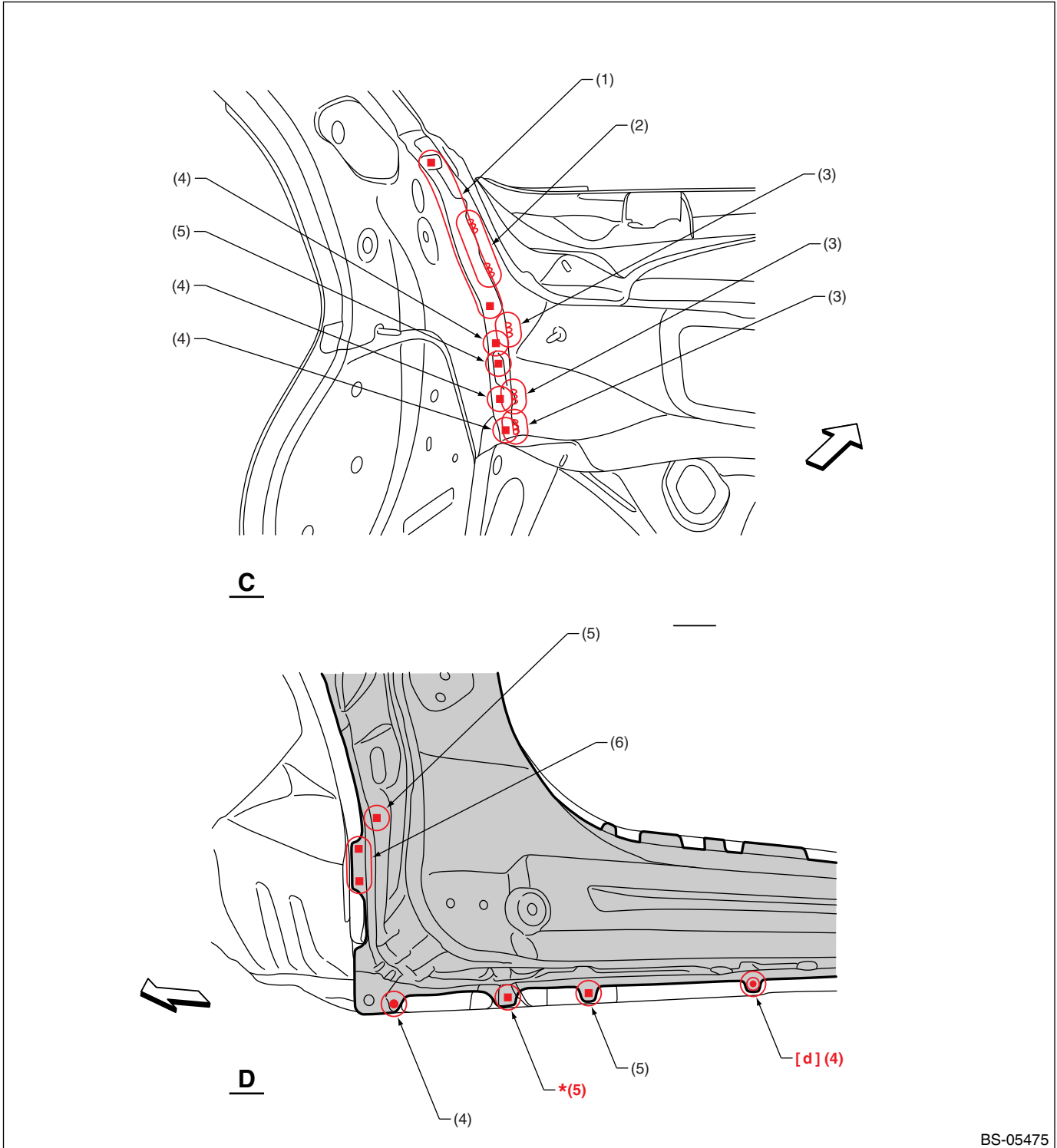
[d] Spot welding conditions

Compression: 4.4kN, Current: 7.5kA, Welding time: 20cyc

*1: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).
 *2: For 1500MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views 2



BS-05475

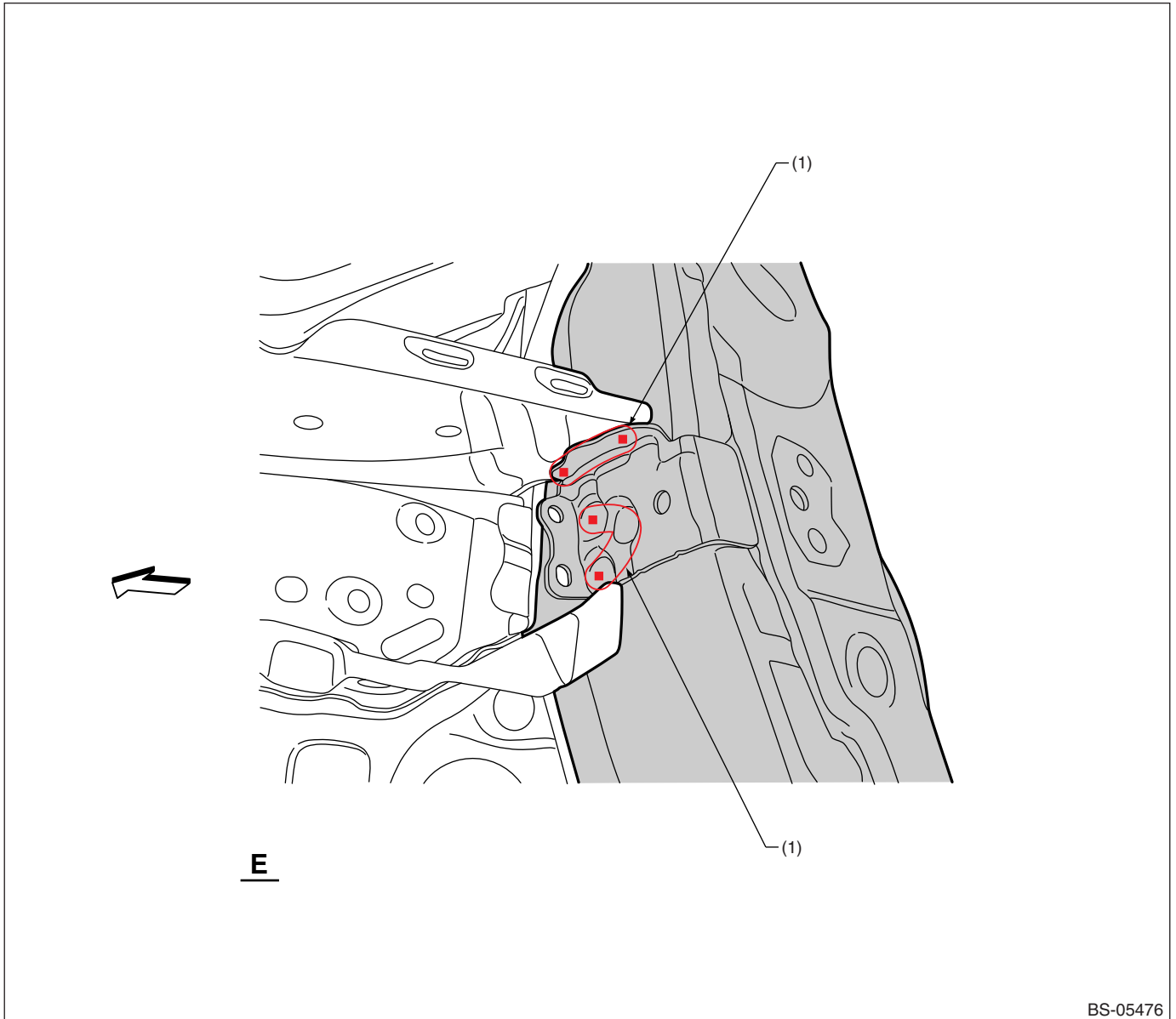
- | | | |
|--------------------------------|-------------------------------|------------------------|
| (1) 4 points | (3) 1 point [15 mm (0.59 in)] | (5) 1 point (service) |
| (2) 2 points [15 mm (0.59 in)] | (4) 1 point | (6) 2 points (service) |

[d] Spot welding conditions Compression: 4.4kN, Current: 7.5kA, Welding time: 20cyc

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

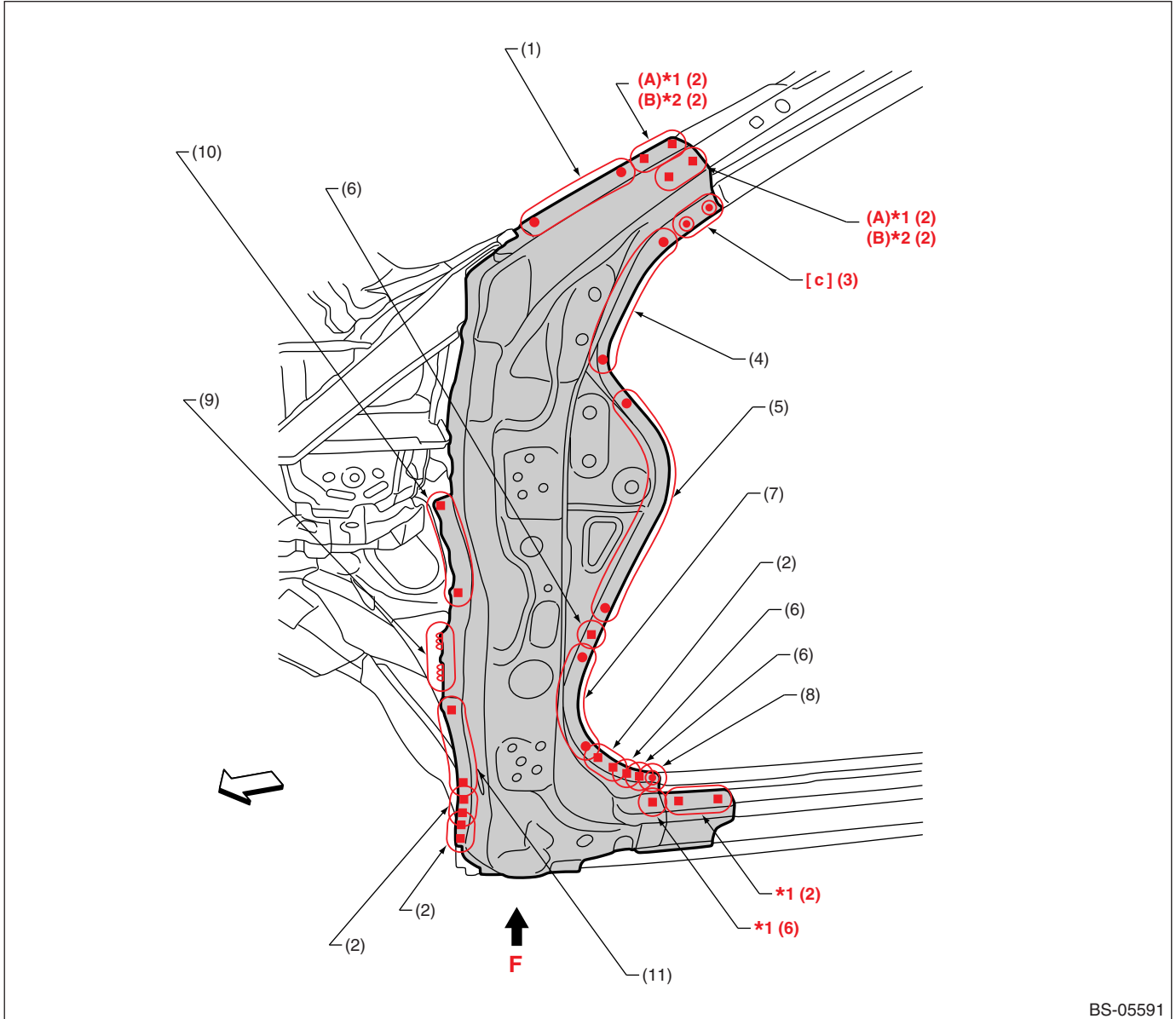
• Views 3



(1) 3 points (service)

Panel Replacement

• Overall view



(A) RH side

(B) LH side

(1) 3 points

(5) 7 points

(9) 2 points [15 mm (0.59 in)]

(2) 2 points (service)

(6) 1 point (service)

(10) 4 points (service)

(3) 2 points

(7) 5 points

(11) 5 points (service)

(4) 4 points

(8) 1 point

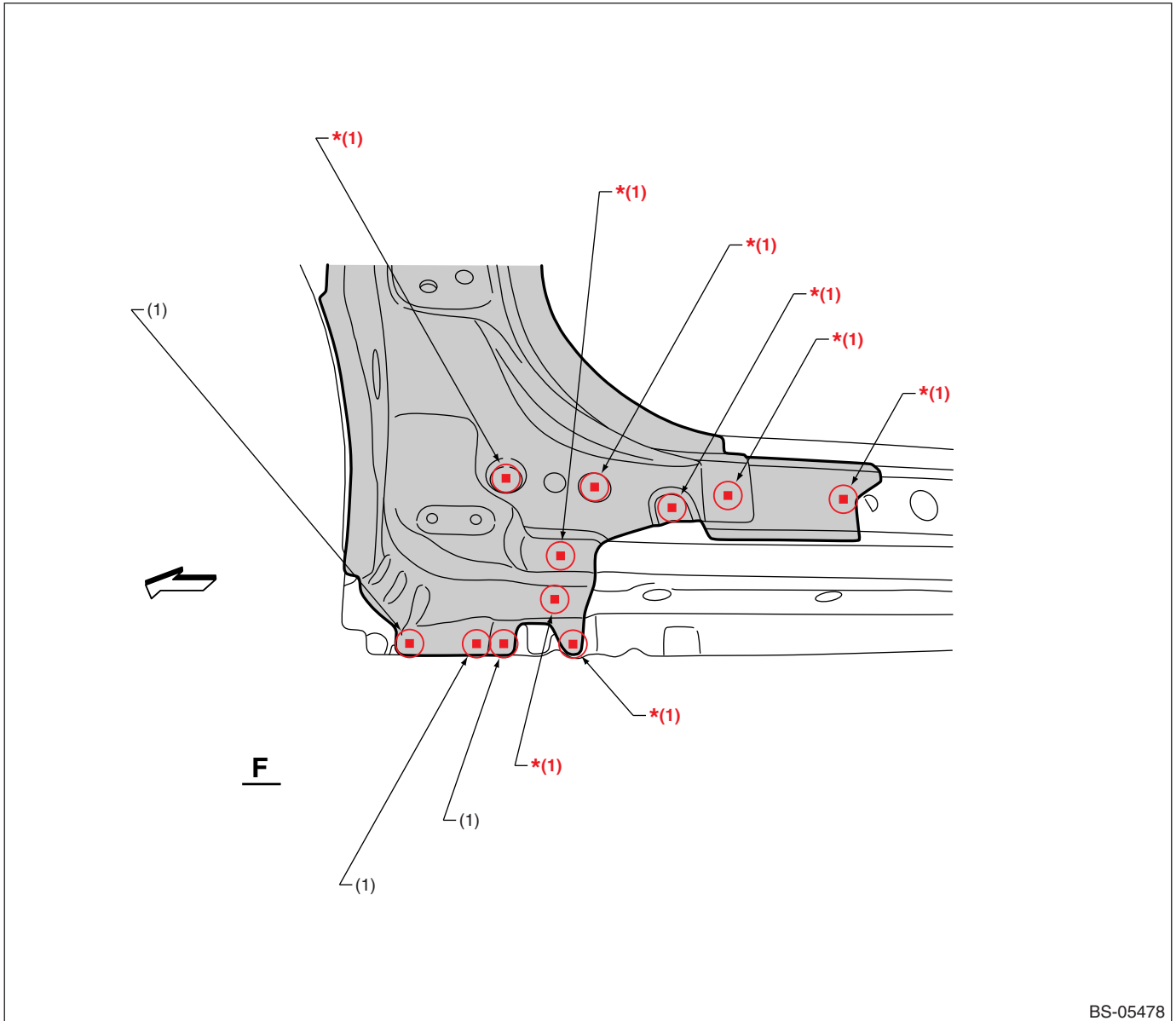
[c] Spot welding conditions

Compression: 3.5kN, Current: 7.0kA, Welding time: 25cyc

*1: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).
 *2: For 1500MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views



BS-05478

(1) 1 point (service)

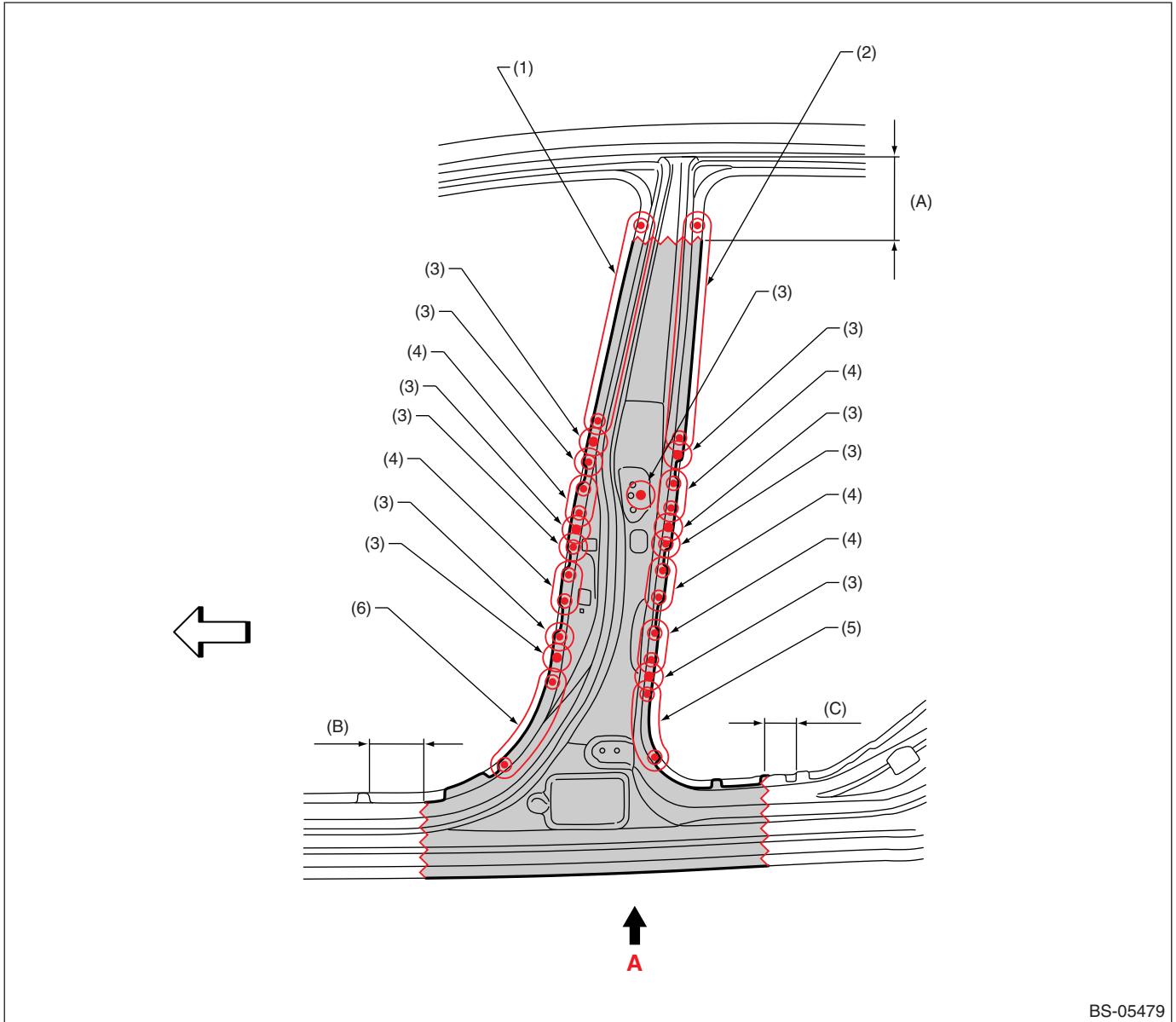
*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

7-8. Center Pillar (partial replacement)

A: REMOVAL

• Overall view



BS-05479

(A) 140 mm (5.51in)

(B) 100 mm (3.94 in)

(C) 60 mm (2.36in)

(1) 10 points (outside · 1)

(3) 1 point (outside · 1)

(5) 4 points (outside · 1)

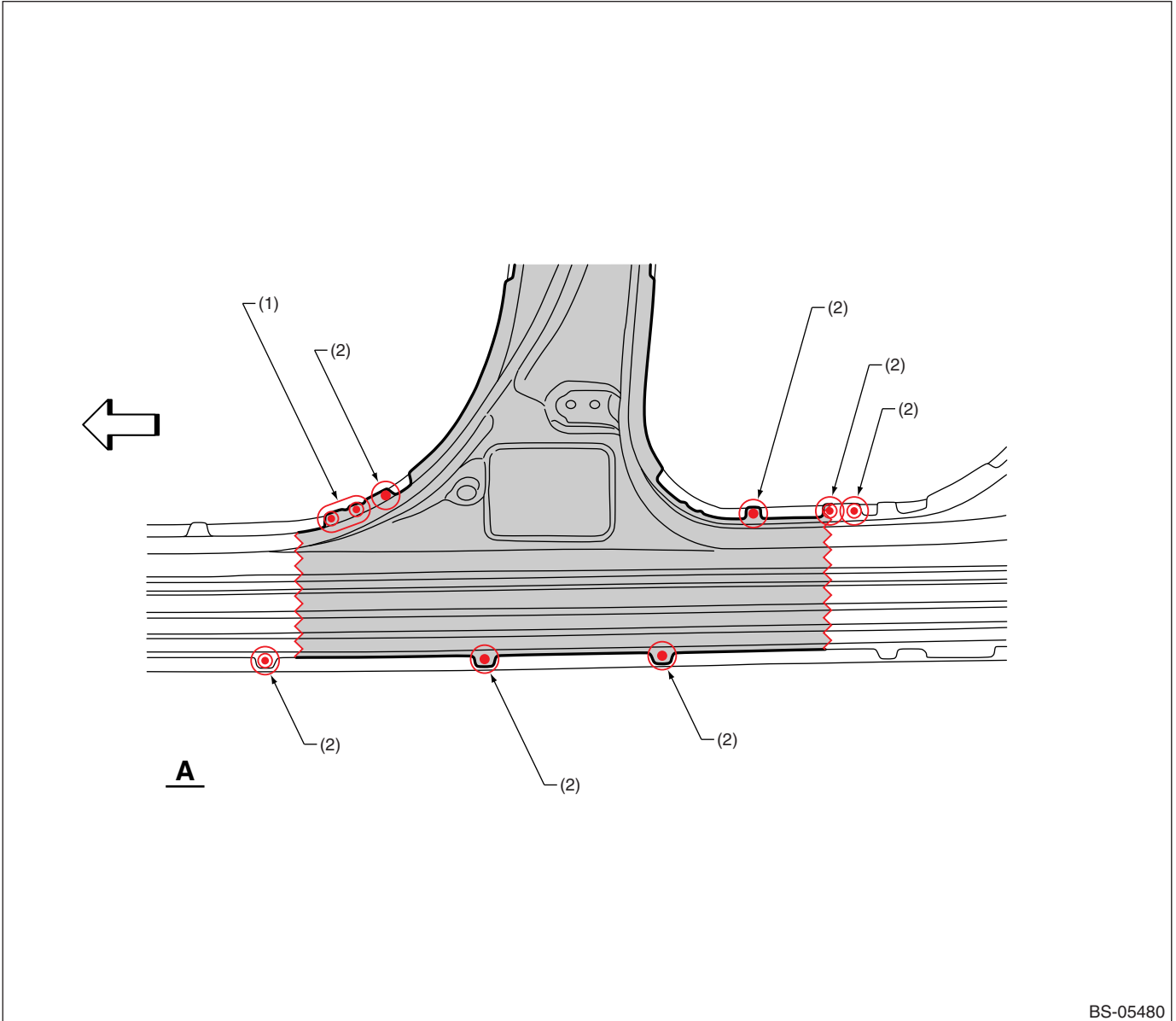
(2) 9 points (outside · 1)

(4) 2 points (outside · 1)

(6) 6 points (outside · 1)

Panel Replacement

• Views



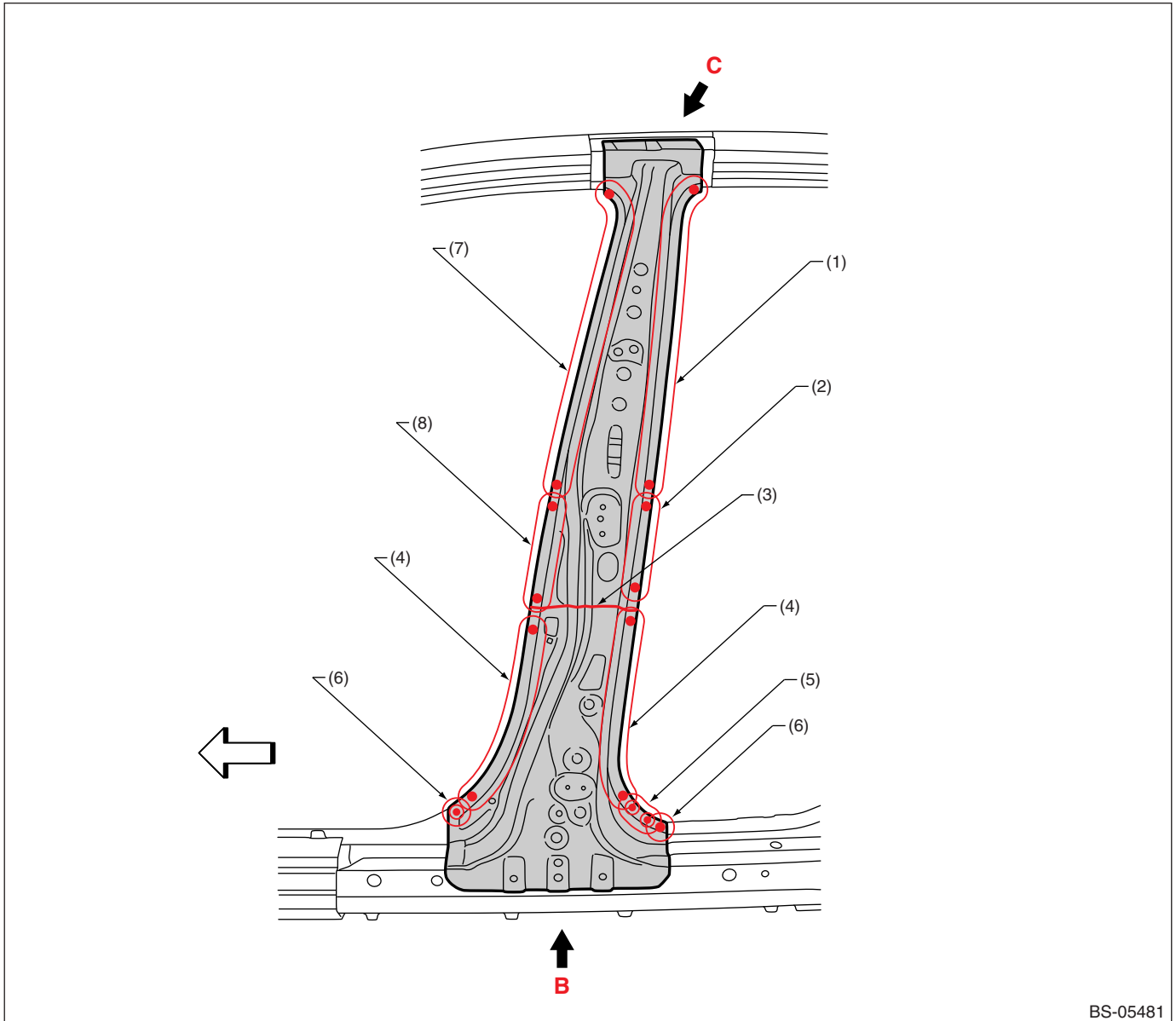
BS-05480

(1) 2 points (outside · 1)

(2) 1 point (outside · 1)

Panel Replacement

• Overall view (center pillar outer removal condition)



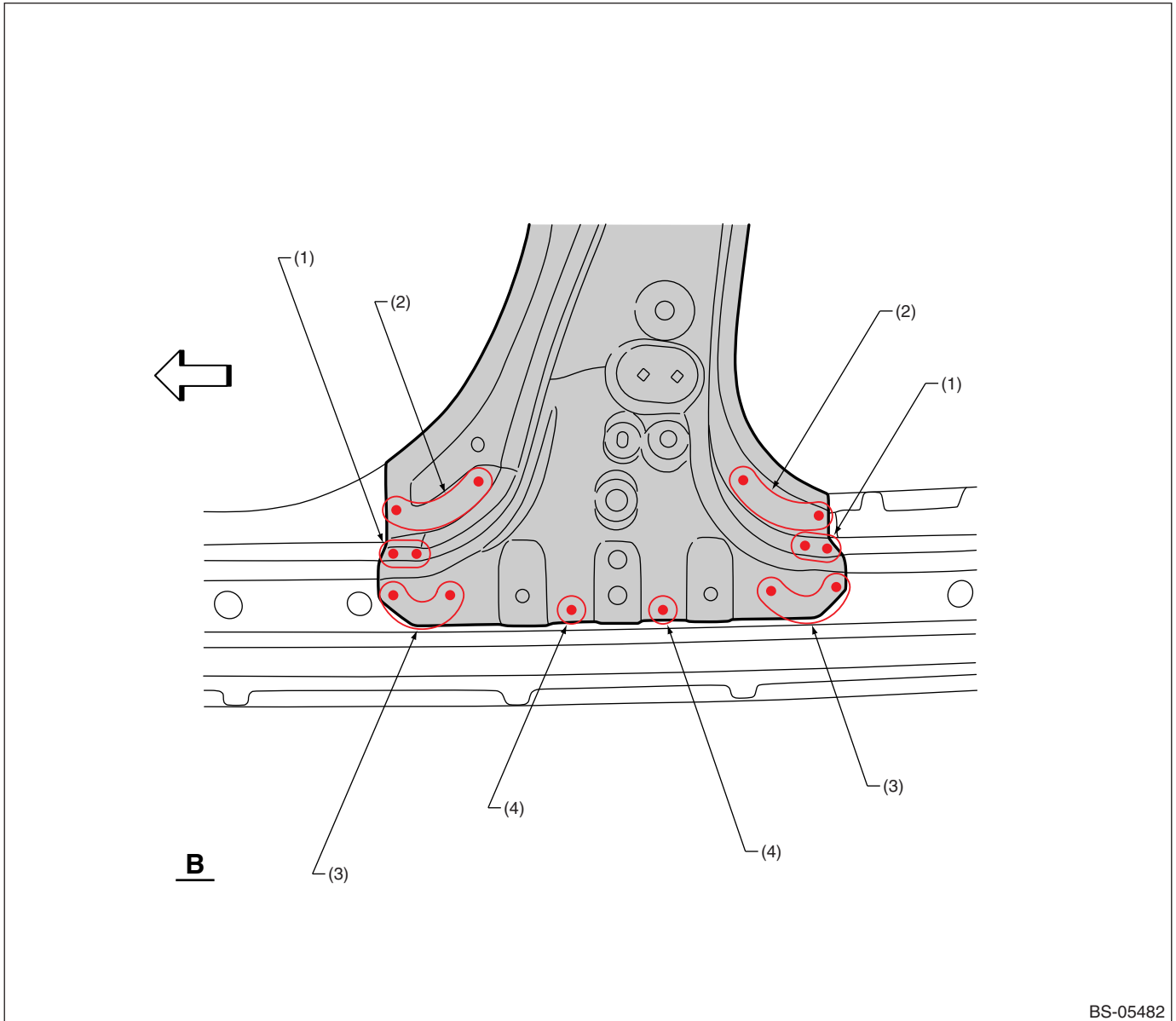
- (1) 12 points (outside · 1)
- (2) 3 points (outside · 1)
- (3) Tailored line

- (4) 8 points (outside · 1)
- (5) 2 points (outside · 1)
- (6) 1 point (outside · 1)

- (7) 13 points (outside · 1)
- (8) 4 points (outside · 1)

Panel Replacement

• Views 1



BS-05482

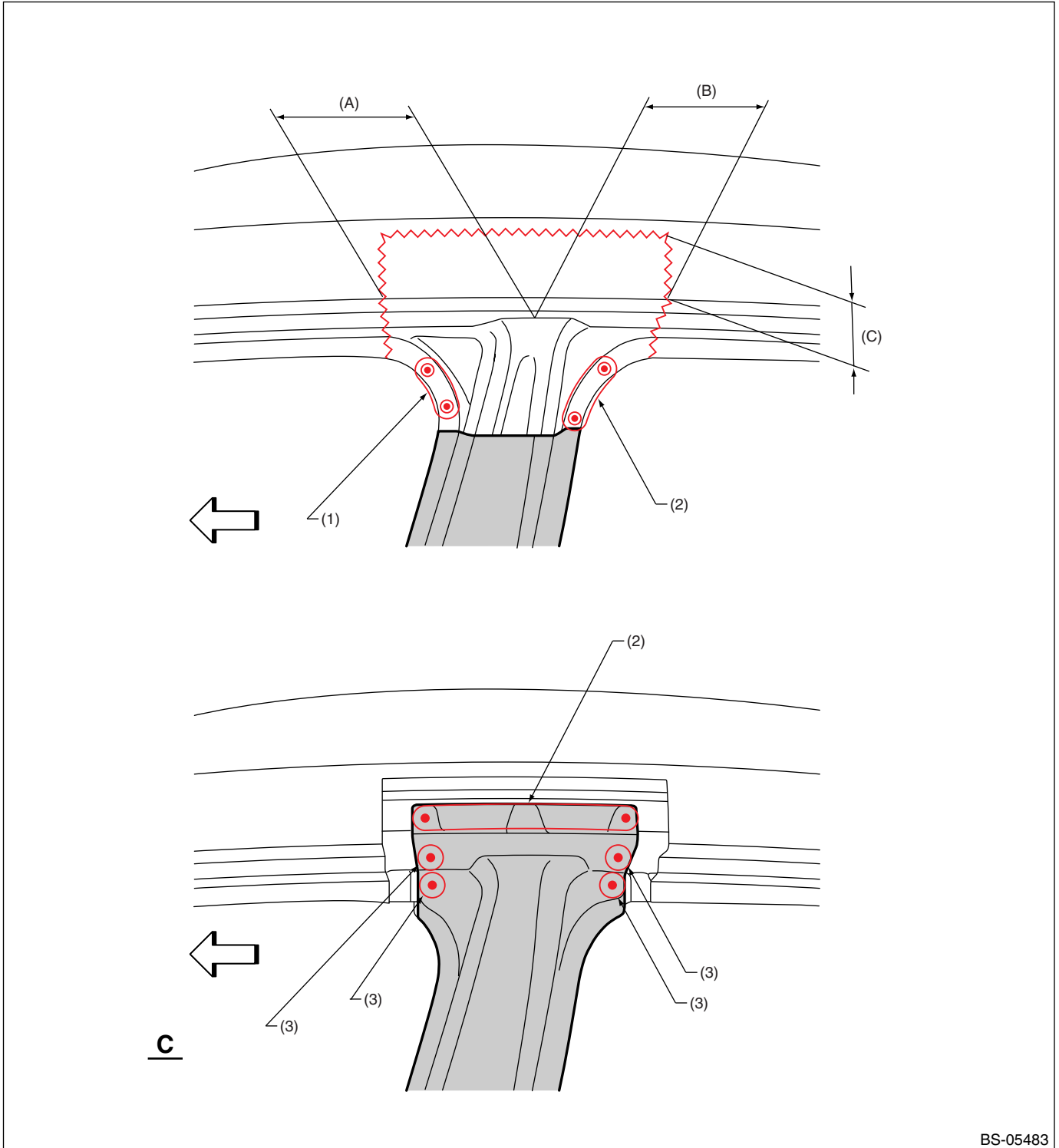
(1) 2 points (top · 1)
(2) 4 points (outside · 1)

(3) 3 points (outside · 1)

(4) 1 point (outside · 1)

Panel Replacement

• Views 2



BS-05483

(A) 120 mm (4.72 in)

(B) 100 mm (3.94 in)

(C) 50 mm (1.97 in)

(1) 2 points (outside · 1)

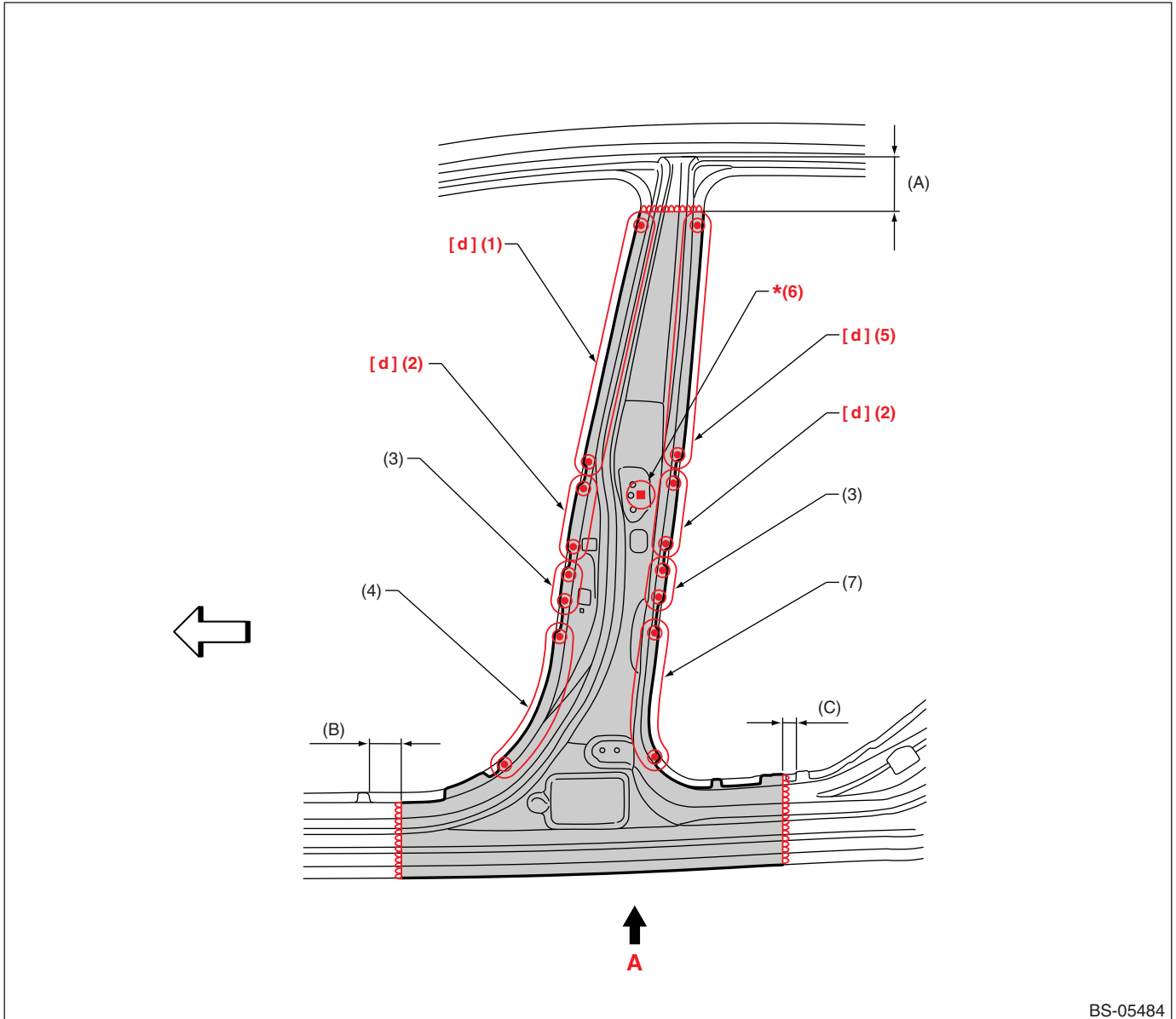
(2) 3 points (outside · 1)

(3) 1 point (outside · 1)

Panel Replacement

B: INSTALLATION

• Overall view



(A) 100 mm (3.94 in)

(B) 60 mm (2.36 in)

(C) 20 mm (0.79 in)

(1) 12 points

(4) 8 points

(7) 7 points

(2) 4 points

(5) 11 points

(3) 2 points

(6) 1 point (service)

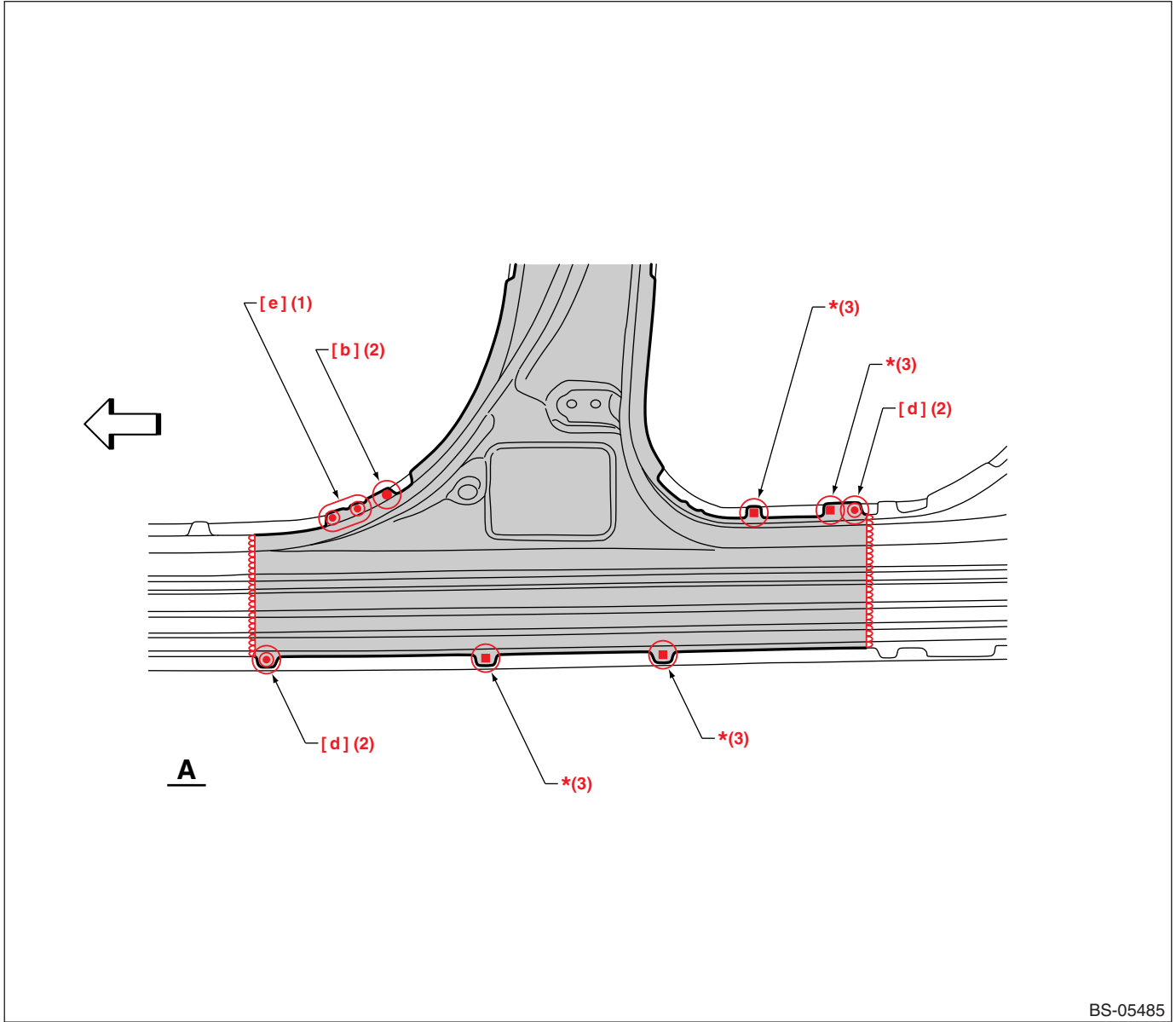
[d] Spot welding conditions

Compression: 4.4kN, Current: 7.5kA, Welding time: 20cyc

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views



BS-05485

(1) 2 points

(2) 1 point

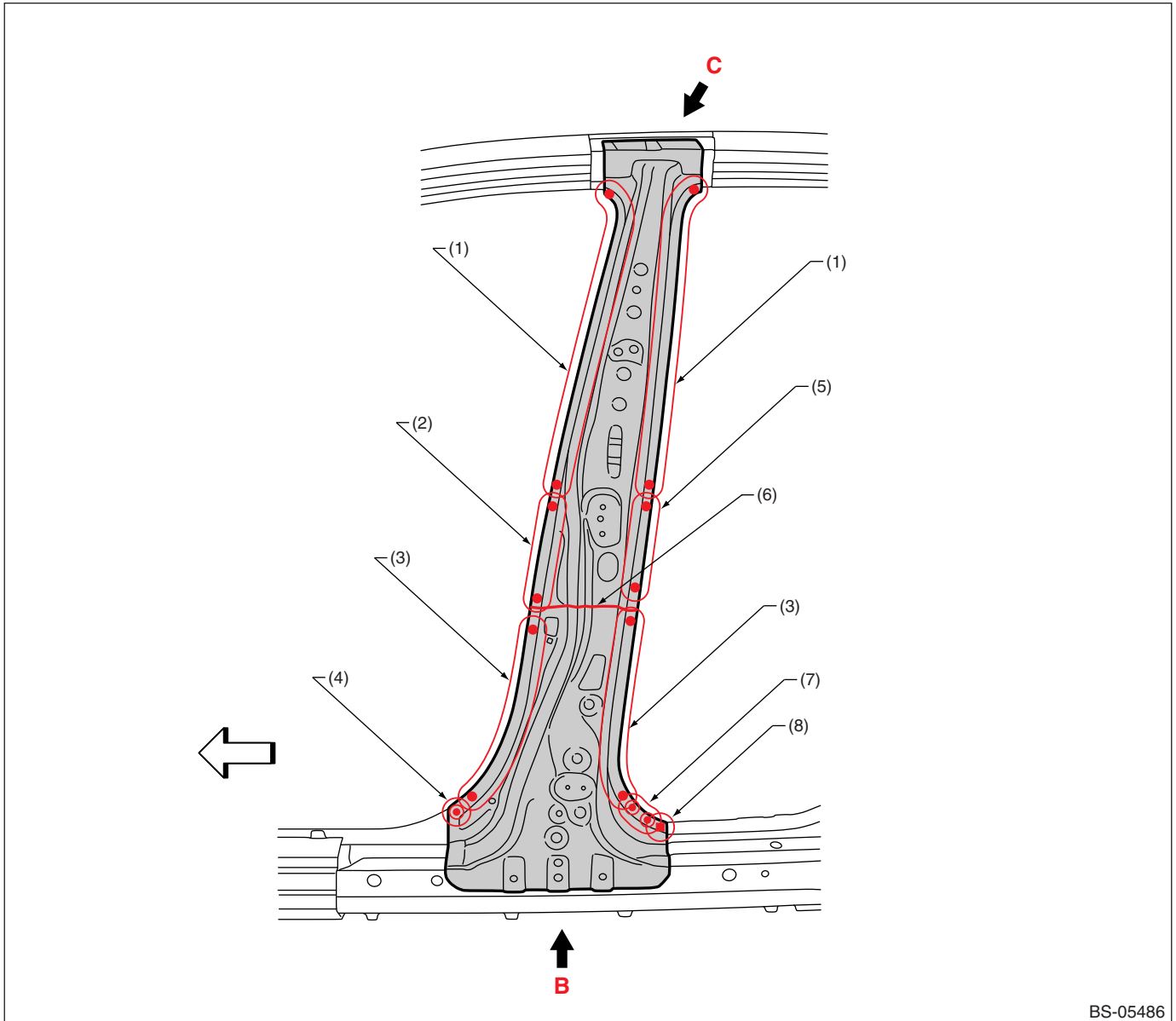
(3) 1 point (service)

[b] Spot welding conditions	Compression: 2.6kN, Current: 6.0kA, Welding time: 10cyc
[d] Spot welding conditions	Compression: 4.4kN, Current: 7.5kA, Welding time: 20cyc
[e] Spot welding conditions	Compression: 3.5kN, Current: 7.5kA, Welding time: 16cyc

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Overall view



BS-05486

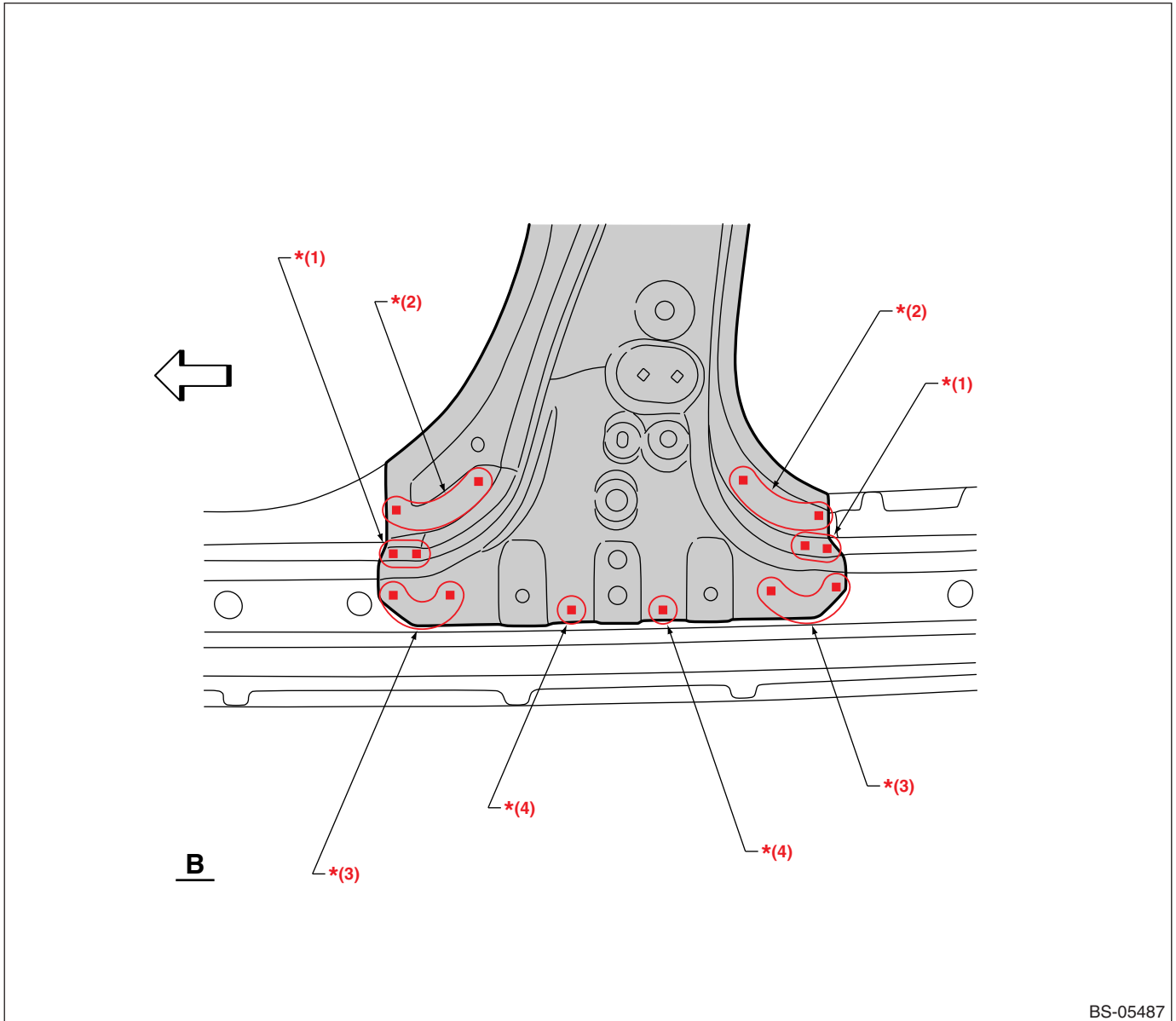
- (1) 14 points
- (2) 5 points
- (3) 9 points

- (4) 1 point
- (5) 4 points
- (6) Tailored line

- (7) 2 points
- (8) 1 point (service)

Panel Replacement

• Views 1



(1) 2 points (service)
(2) 4 points (service)

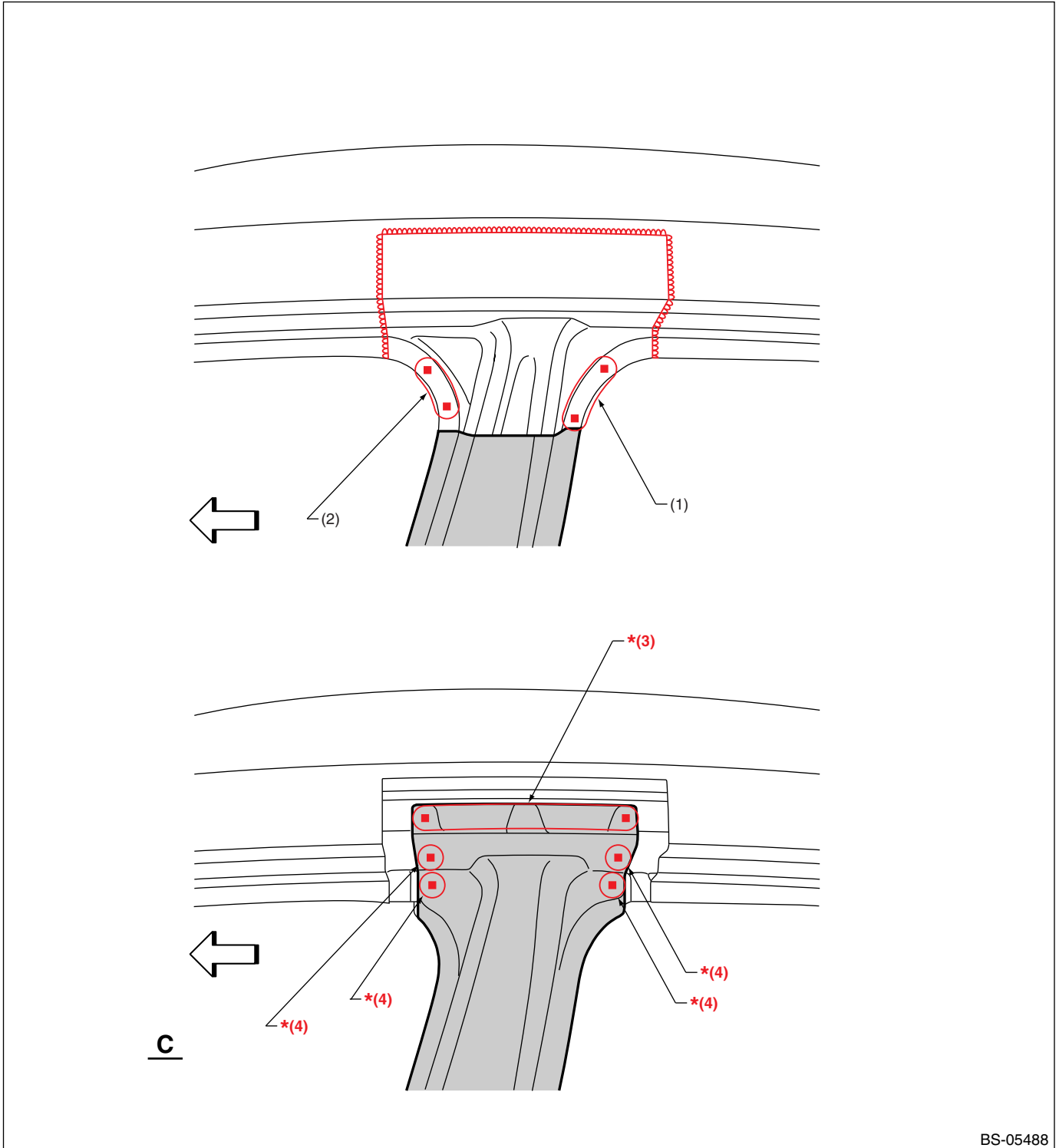
(3) 3 points (service)

(4) 1 point (service)

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views 2



BS-05488

(1) 3 points
(2) 2 points

(3) 3 points (service)

(4) 1 point (service)

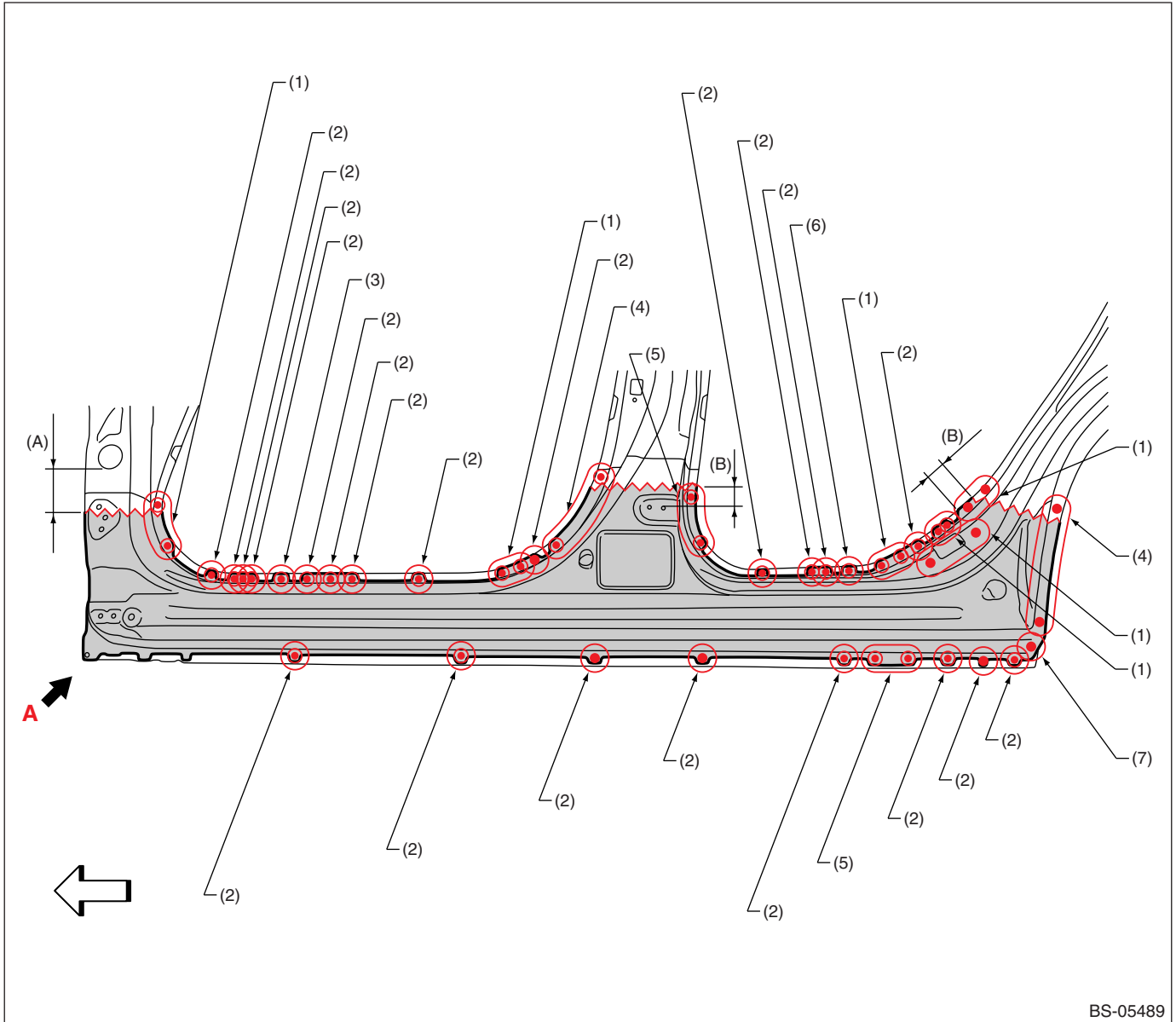
*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

7-9. Side Sill (partial replacement)

A: REMOVAL

• Overall view



BS-05489

(A) 90 mm (3.54in)

(B) 40 mm (1.57 in)

(1) 2 points (outside · 1)

(4) 5 points (outside · 1)

(7) 1 point (bottom · 1)

(2) 1 point (outside · 1)

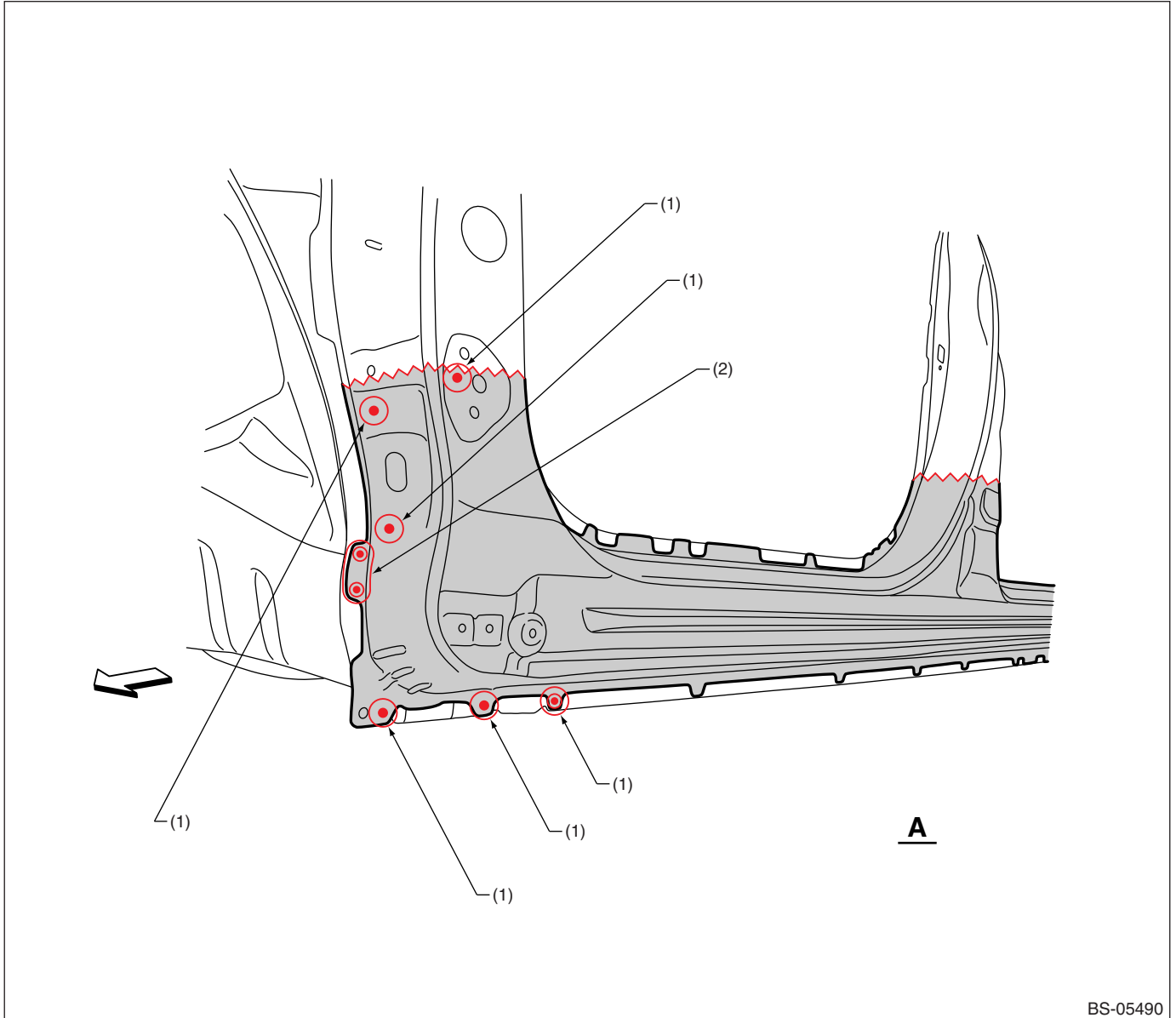
(5) 3 points (outside · 1)

(3) 1 point (outside · 1, inside · 1)

(6) 1 point (outside · 1, inside · 1 belt sander)

Panel Replacement

• Views



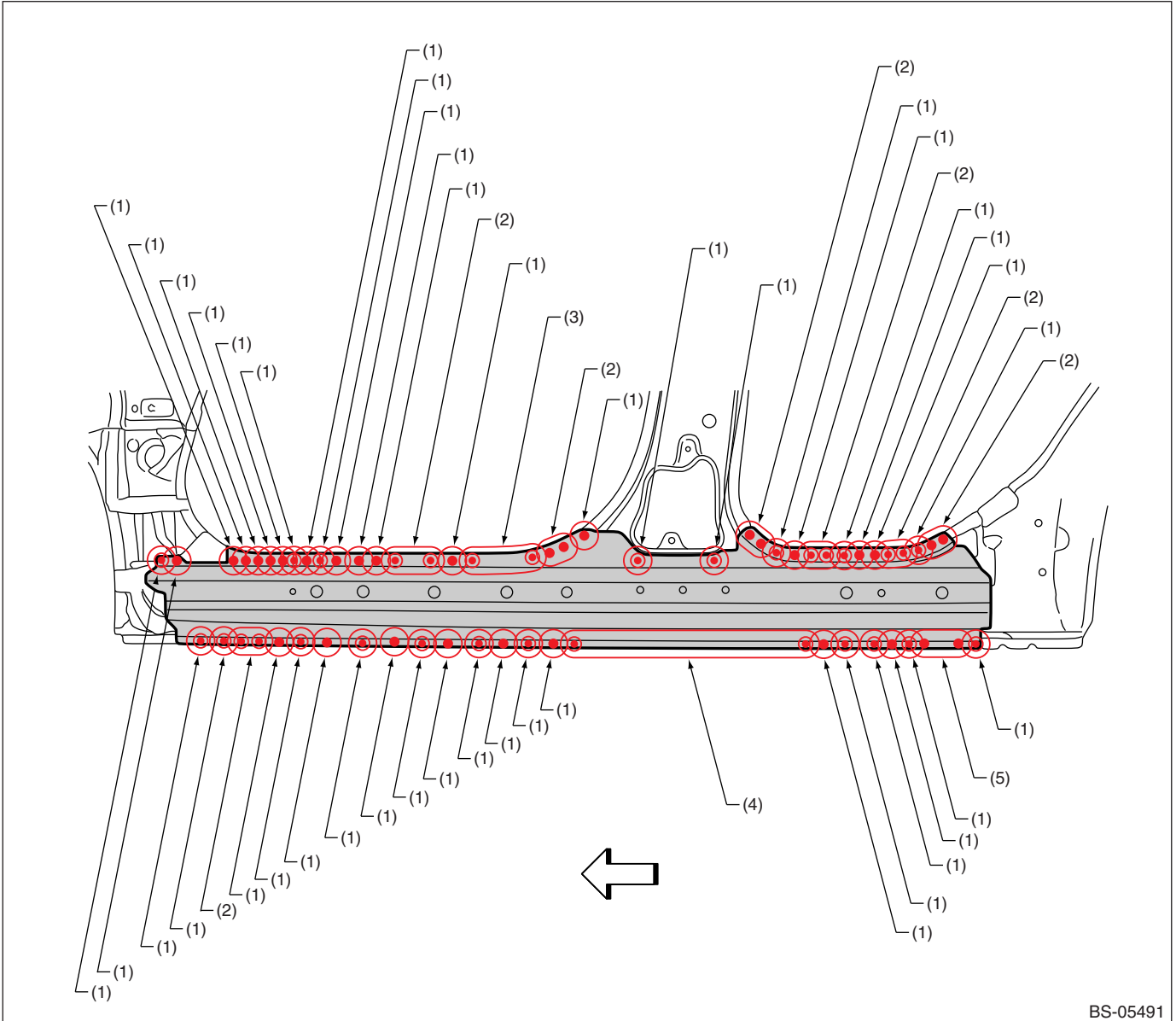
BS-05490

(1) 1 point (outside · 1)

(2) 2 points (outside · 1)

Panel Replacement

• Overall view (side sill outer removal condition)



BS-05491

(1) 1 point (outside · 1)
 (2) 2 points (outside · 1)

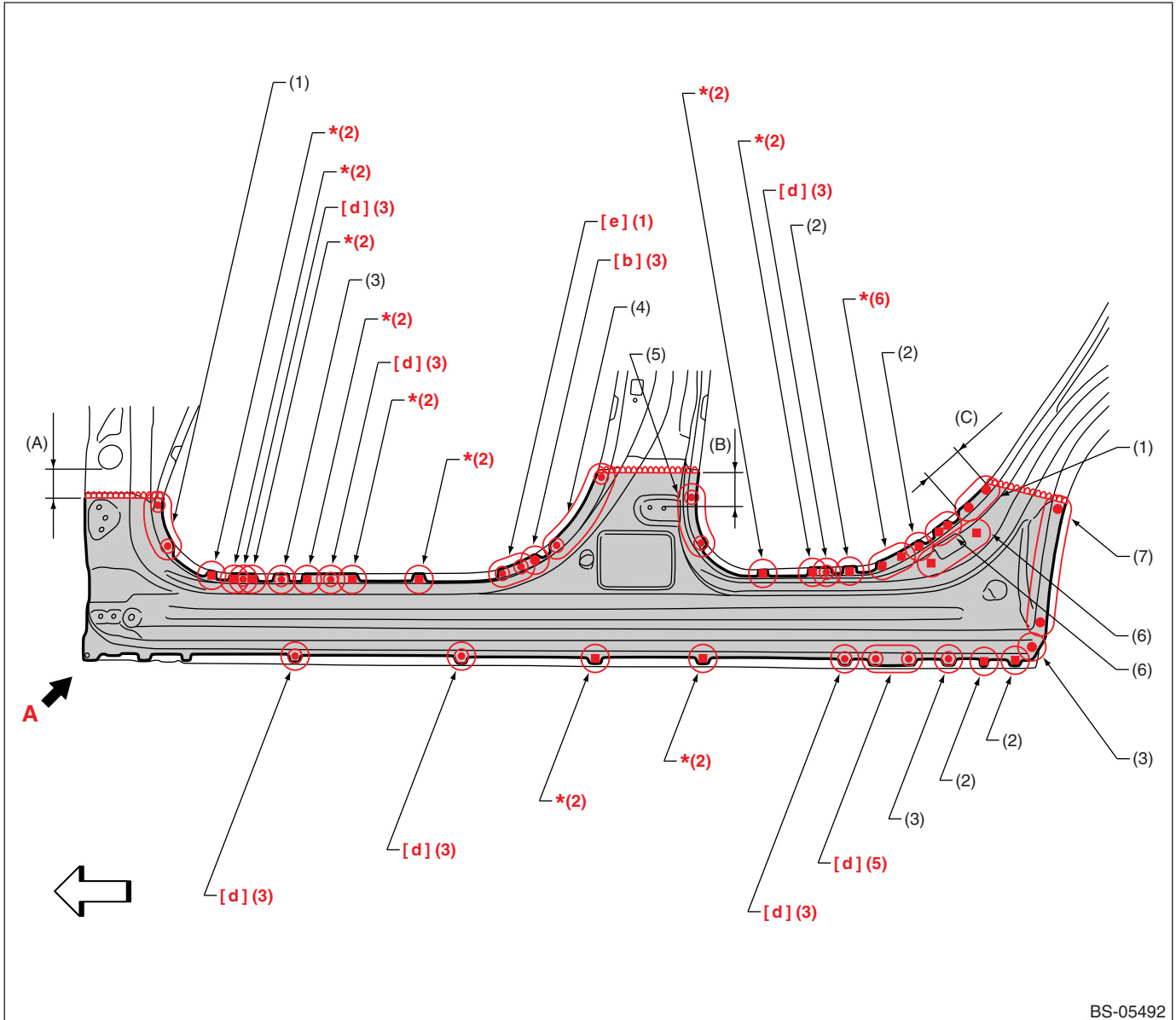
(3) 5 points (outside · 1)
 (4) 9 points (outside · 1)

(5) 3 points (outside · 1)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05492

(A) 60 mm (2.36 in)

(B) 70 mm (2.76 in)

(C) 80 mm (3.15 in)

(1) 2 points

(4) 5 points

(7) 6 points

(2) 1 point (service)

(5) 3 points

(3) 1 point

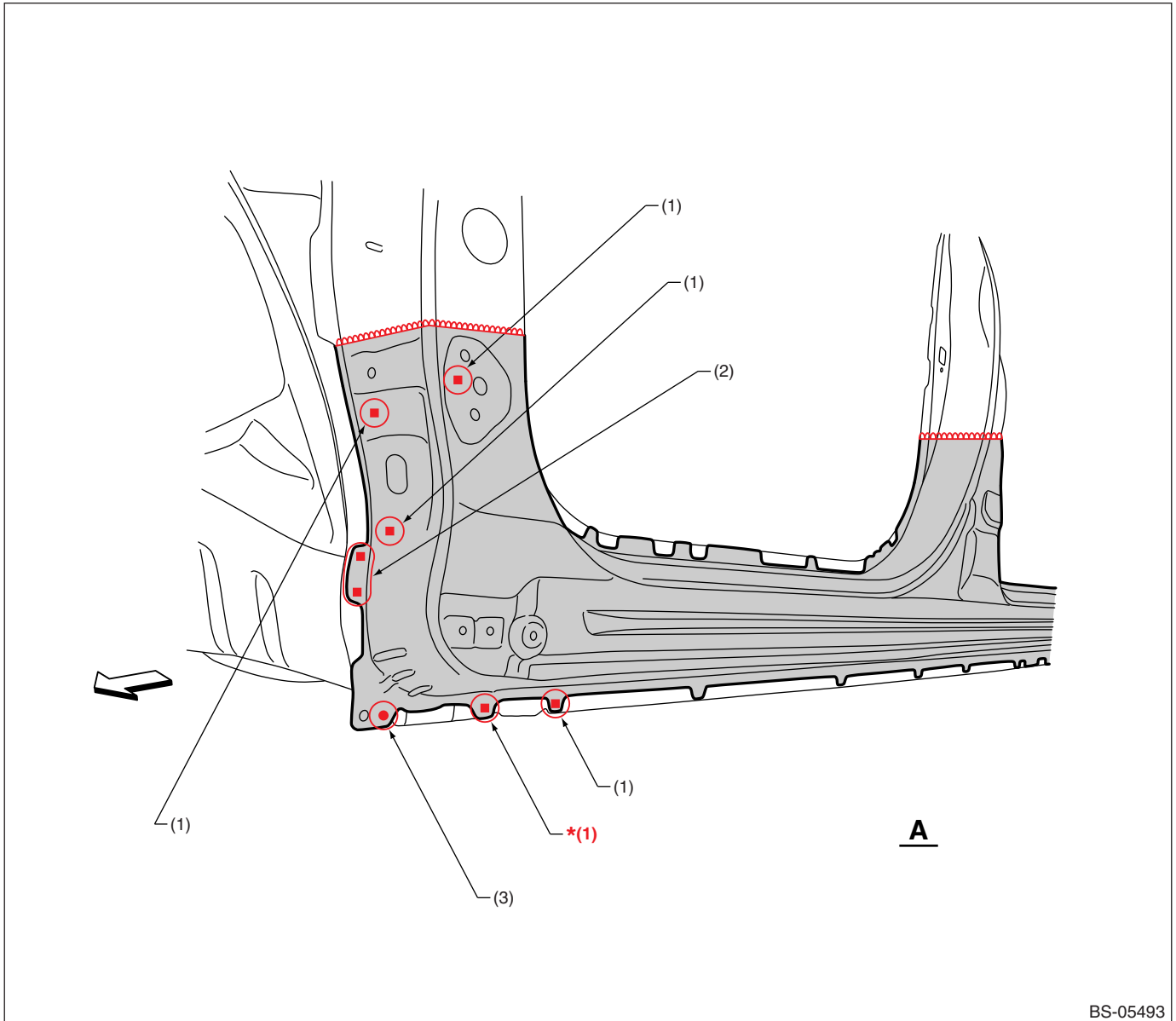
(6) 2 points (service)

[b] Spot welding conditions	Compression: 2.6kN, Current: 6.0kA, Welding time: 10cyc
[d] Spot welding conditions	Compression: 4.4kN, Current: 7.5kA, Welding time: 20cyc
[e] Spot welding conditions	Compression: 3.5kN, Current: 7.5kA, Welding time: 16cyc

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views



(1) 1 point (service)

(2) 2 points (service)

(3) 1 point

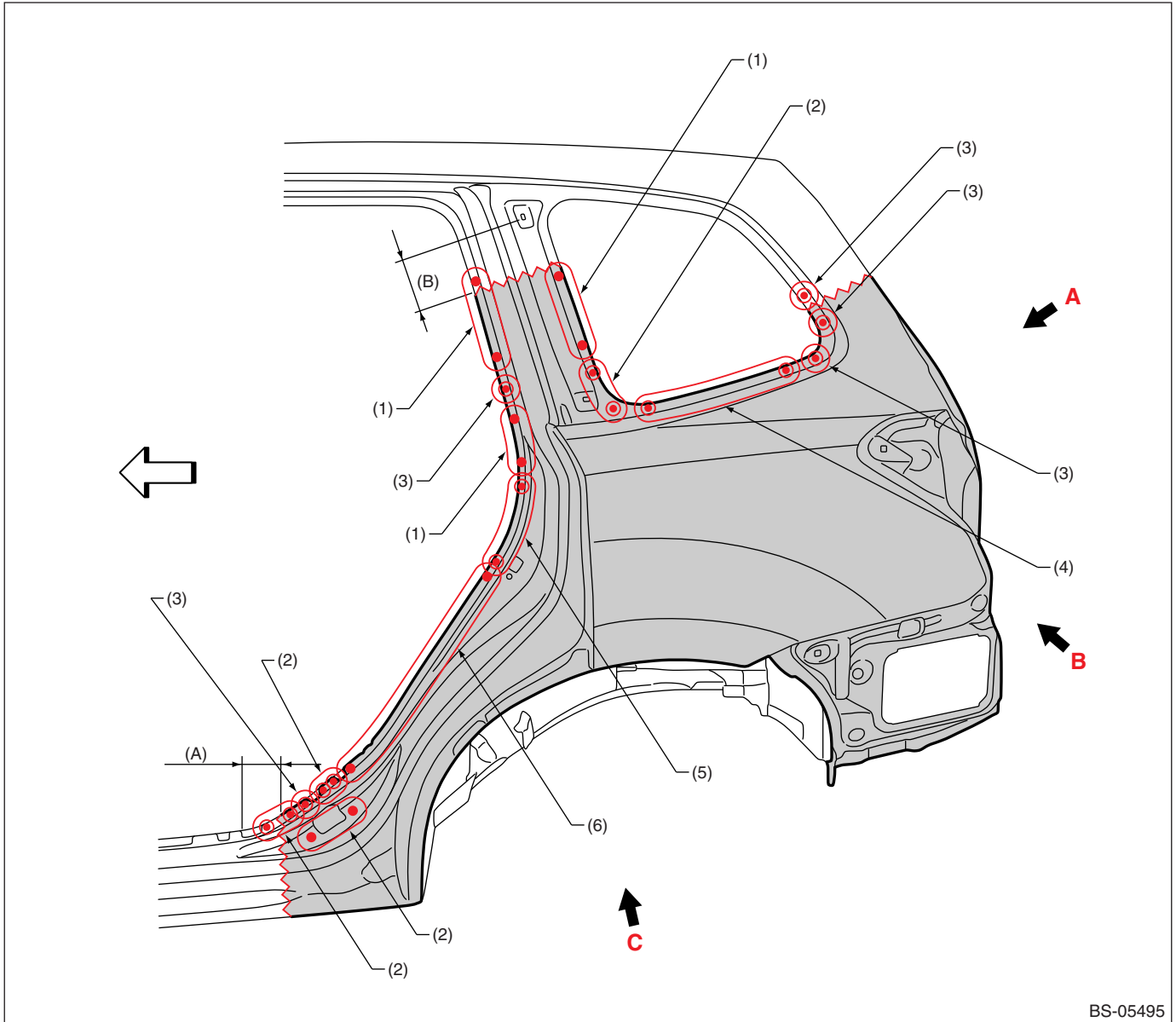
*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

7-10. Rear Quarter (partial replacement)

A: REMOVAL

• Overall view



BS-05495

(A) 60 mm (2.36 in)

(B) 100 mm (3.94 in)

(1) 3 points (outside · 1)

(3) 1 point (outside · 1)

(5) 4 points (outside · 2)

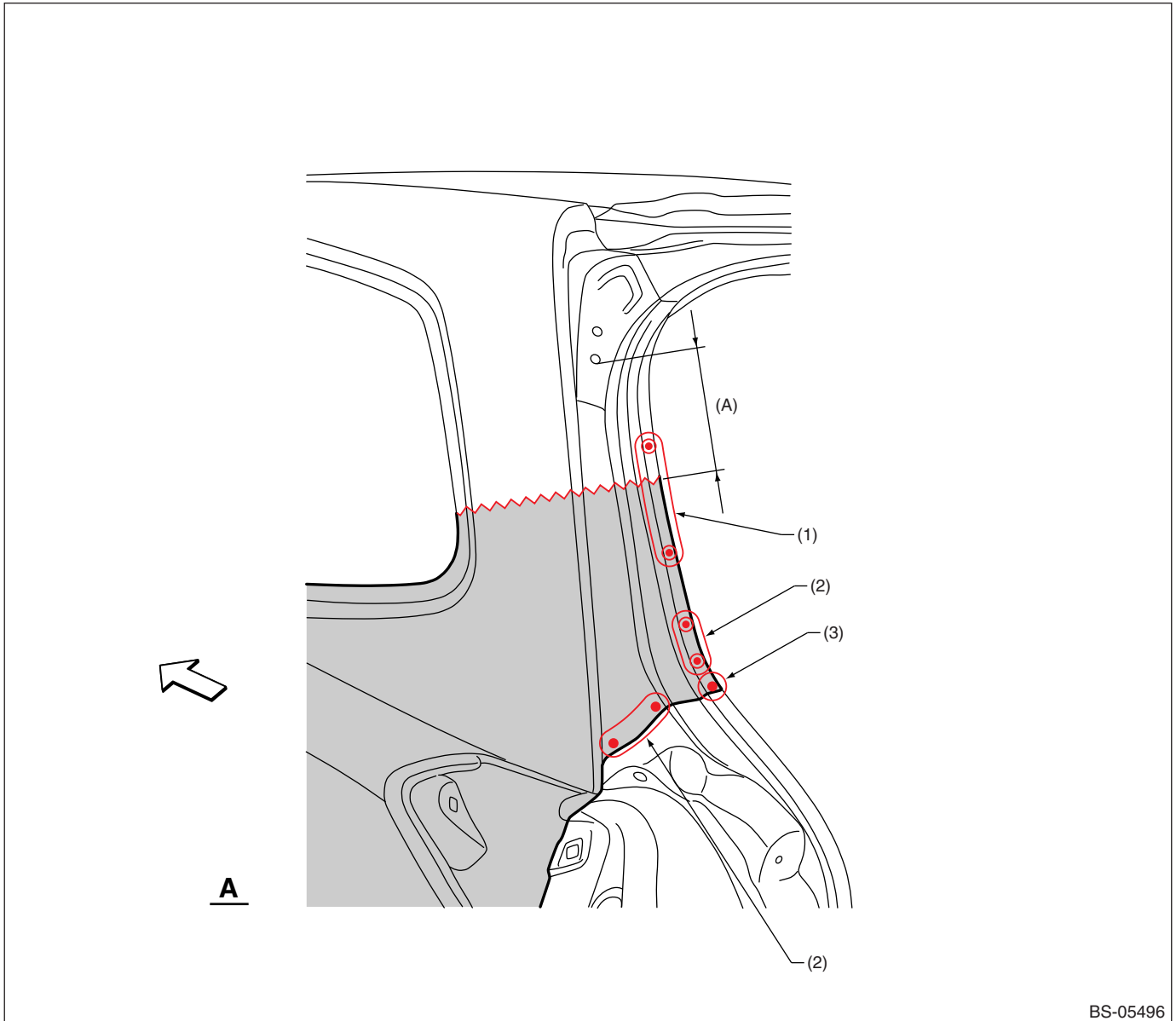
(2) 2 points (outside · 1)

(4) 6 points (outside · 1)

(6) 8 points (outside · 1)

Panel Replacement

• Views 1



BS-05496

(A) 100 mm (3.94 in)

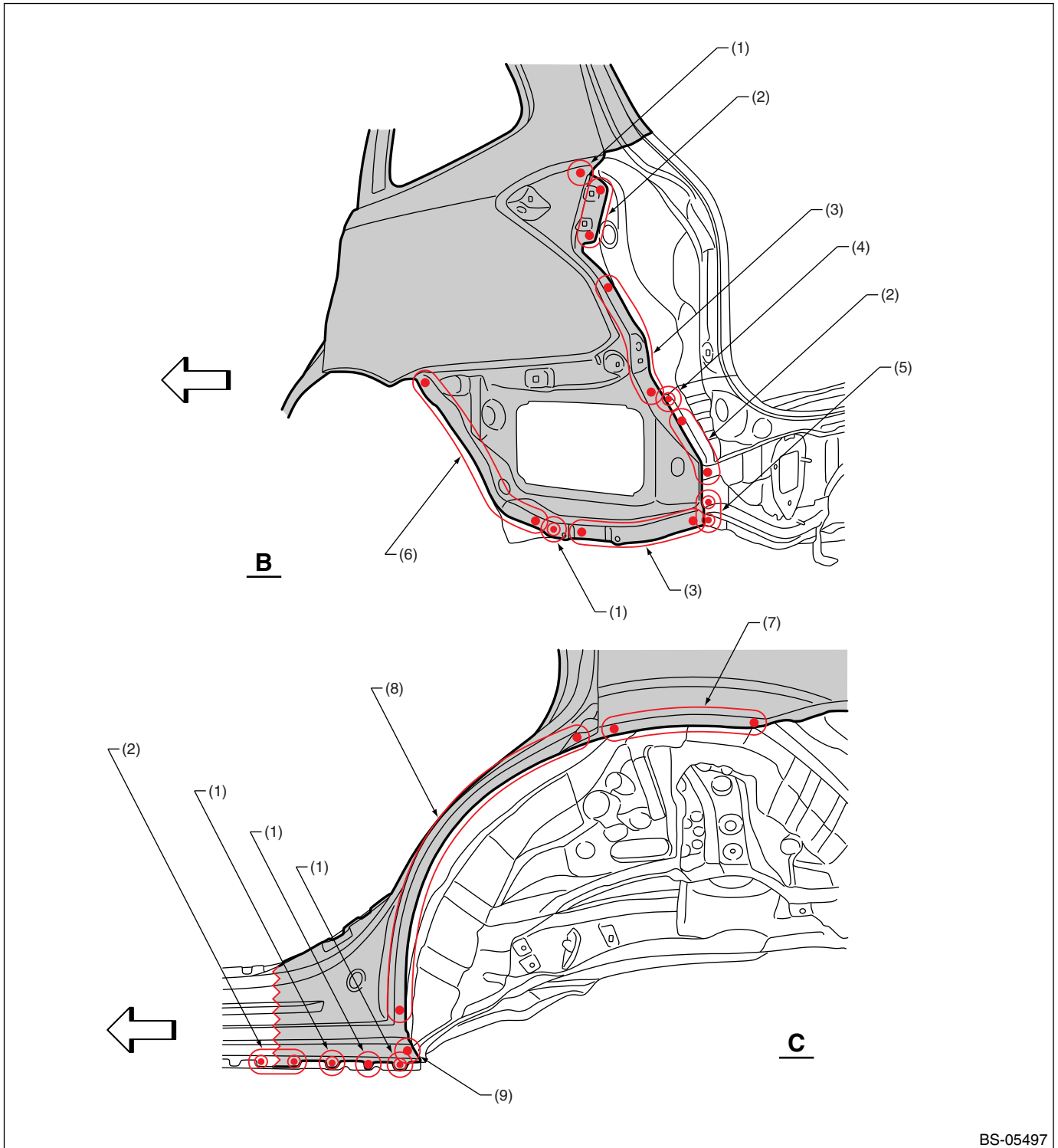
(1) 3 points (outside · 1)

(2) 2 points (outside · 1)

(3) 1 point (outside · 1)

Panel Replacement

• Views 2



BS-05497

- (1) 1 point (outside · 1)
- (2) 3 points (outside · 1)
- (3) 5 points (outside · 1)

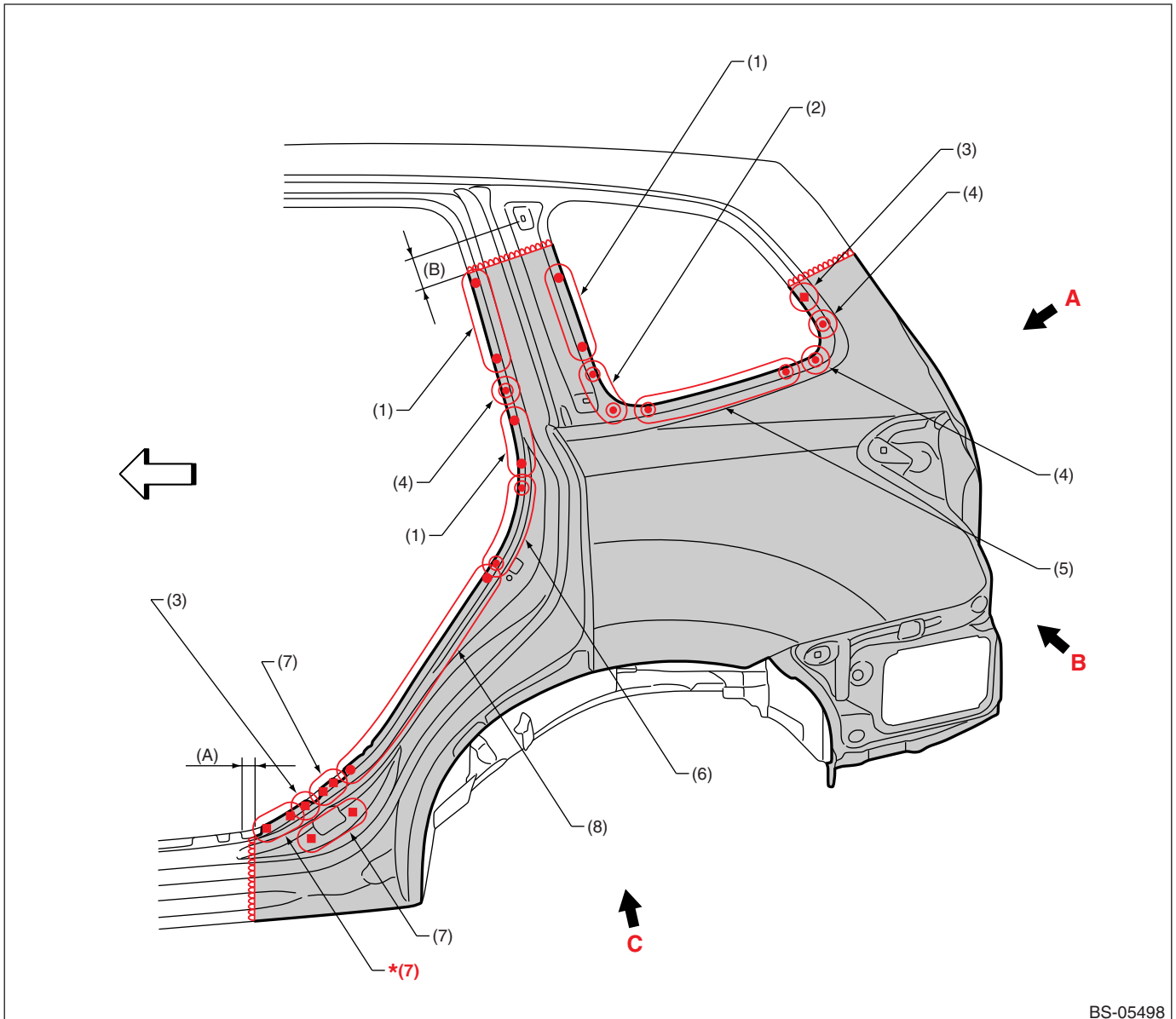
- (4) 1 point (outside · 2)
- (5) 2 points (outside · 2)
- (6) 7 points (outside · 1)

- (7) 4 points (bottom · 1)
- (8) 10 points (outside · 1)
- (9) 1 point (bottom · 1)

Panel Replacement

B: INSTALLATION

• Overall view



(A) 20 mm (0.79 in)

(B) 60 mm (2.36 in)

(1) 3 points

(4) 1 point

(7) 2 points (service)

(2) 2 points

(5) 6 points

(8) 8 points

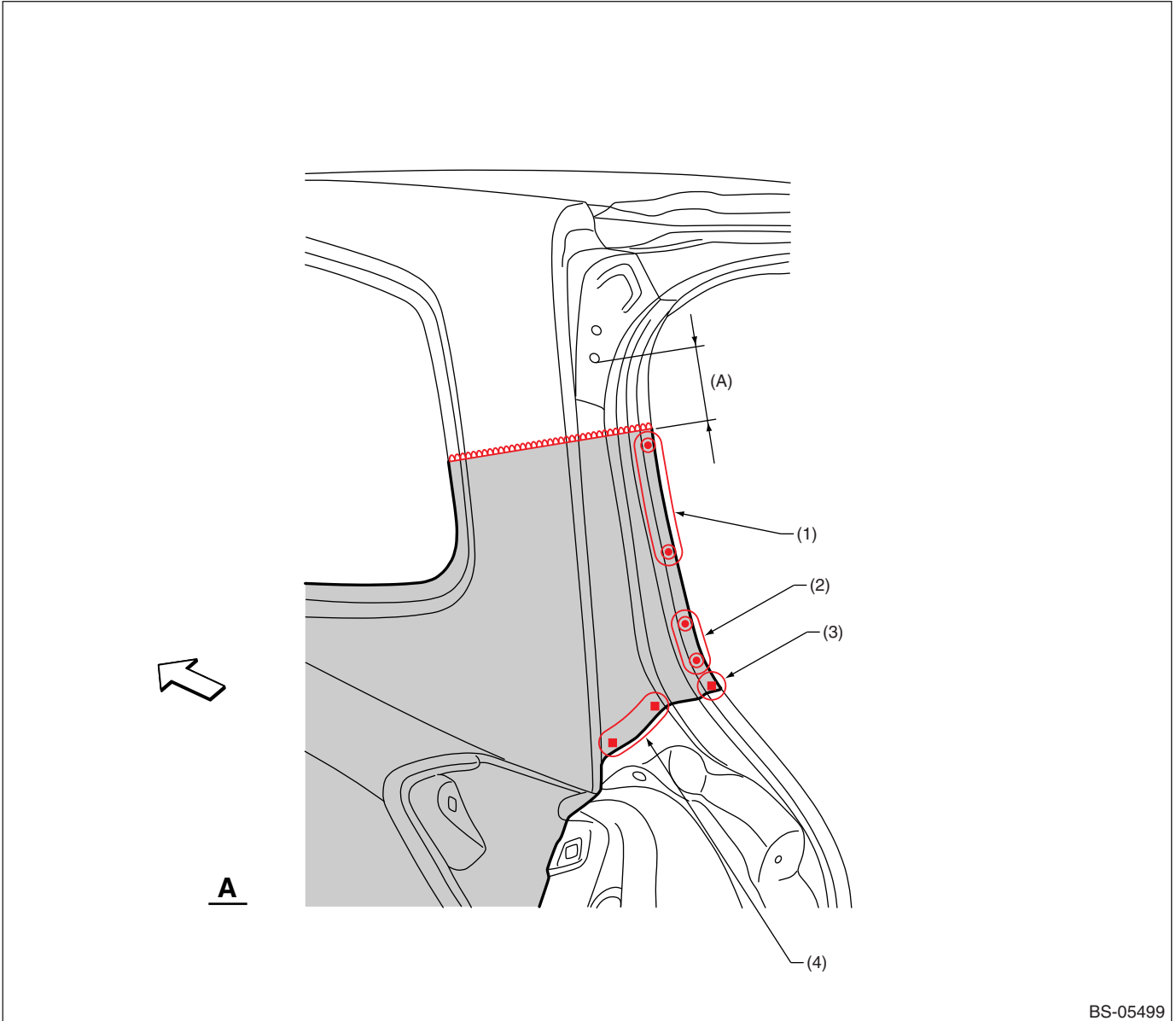
(3) 1 point (service)

(6) 4 points

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views 1



(A) 60 mm (2.36 in)

(1) 4 points

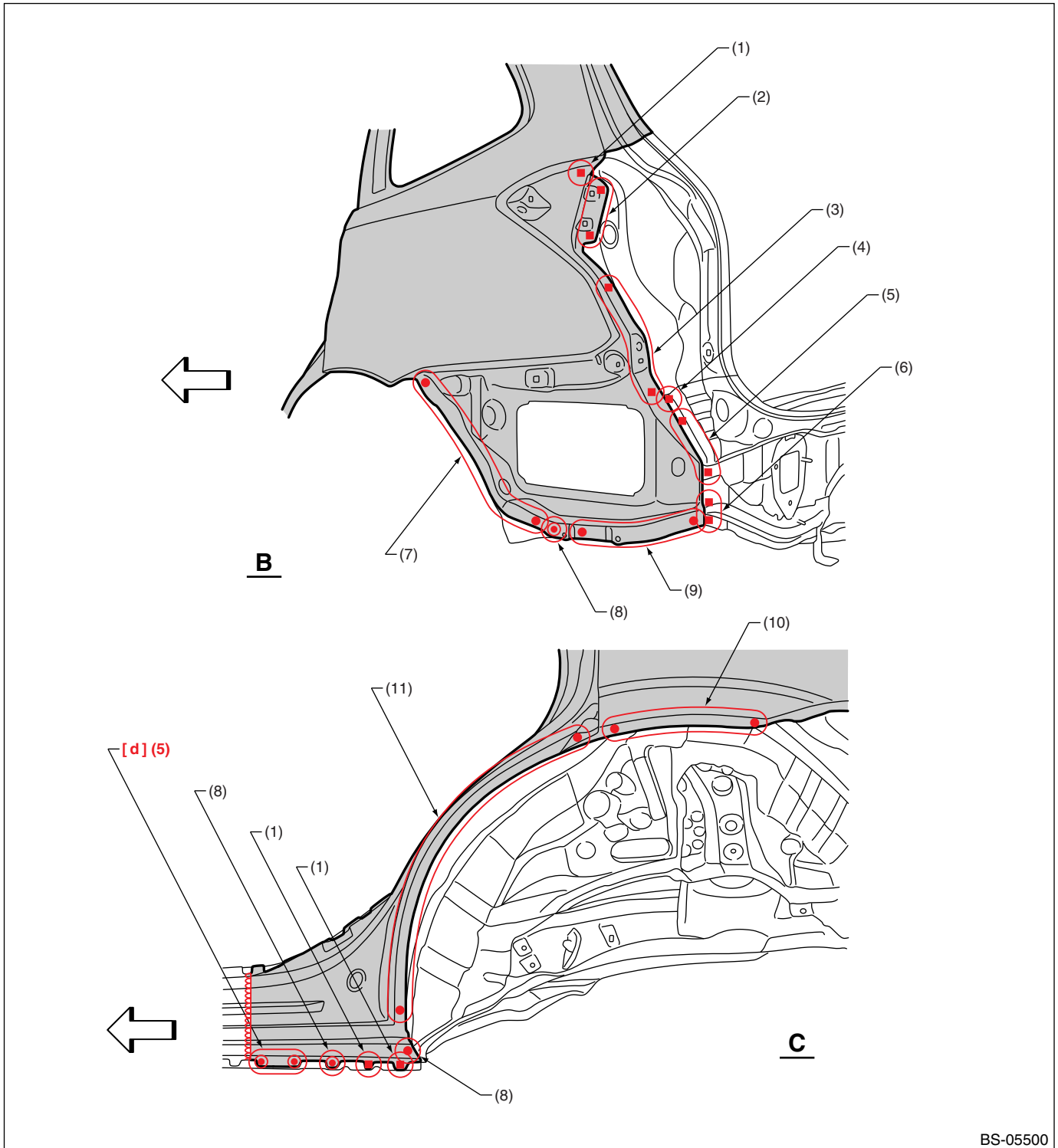
(3) 1 point (service)

(4) 2 points (service)

(2) 2 points

Panel Replacement

• Views 2



BS-05500

- | | | |
|----------------------------------|-----------------------------------|----------------|
| (1) 1 point (service) | (5) 3 points | (9) 6 points |
| (2) 3 points (service) | (6) 2 points (service · matching) | (10) 5 points |
| (3) 5 points (service) | (7) 9 points | (11) 13 points |
| (4) 1 point (service · matching) | (8) 1 point | |

[d] Spot welding conditions

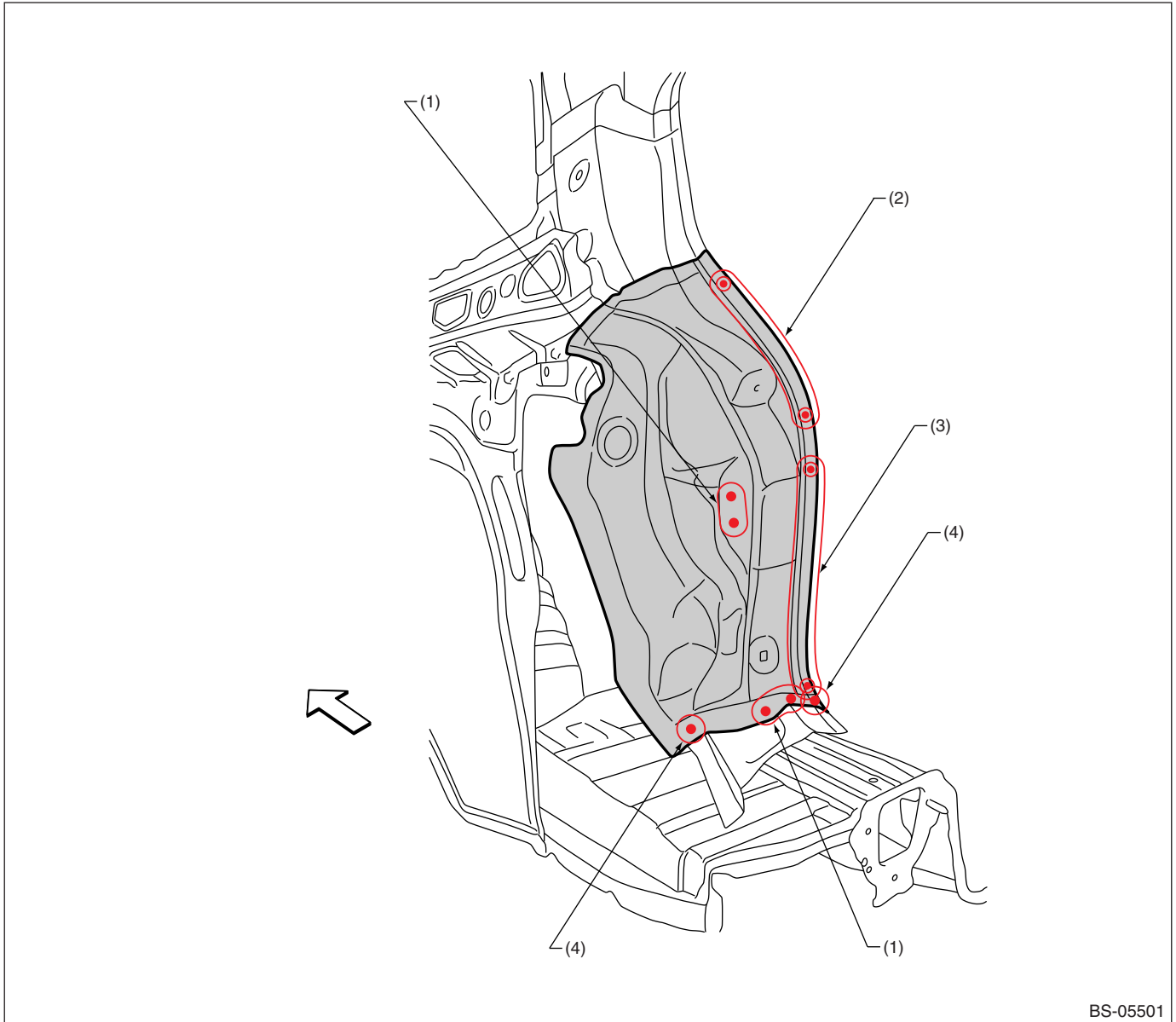
Compression: 4.4kN, Current: 7.5kA, Welding time: 20cyc

Panel Replacement

7-11. Rear Quarter End (total replacement)

A: REMOVAL

- Overall view (Rear quarter outer removal condition)



BS-05501

(1) 2 points (outside · 1)

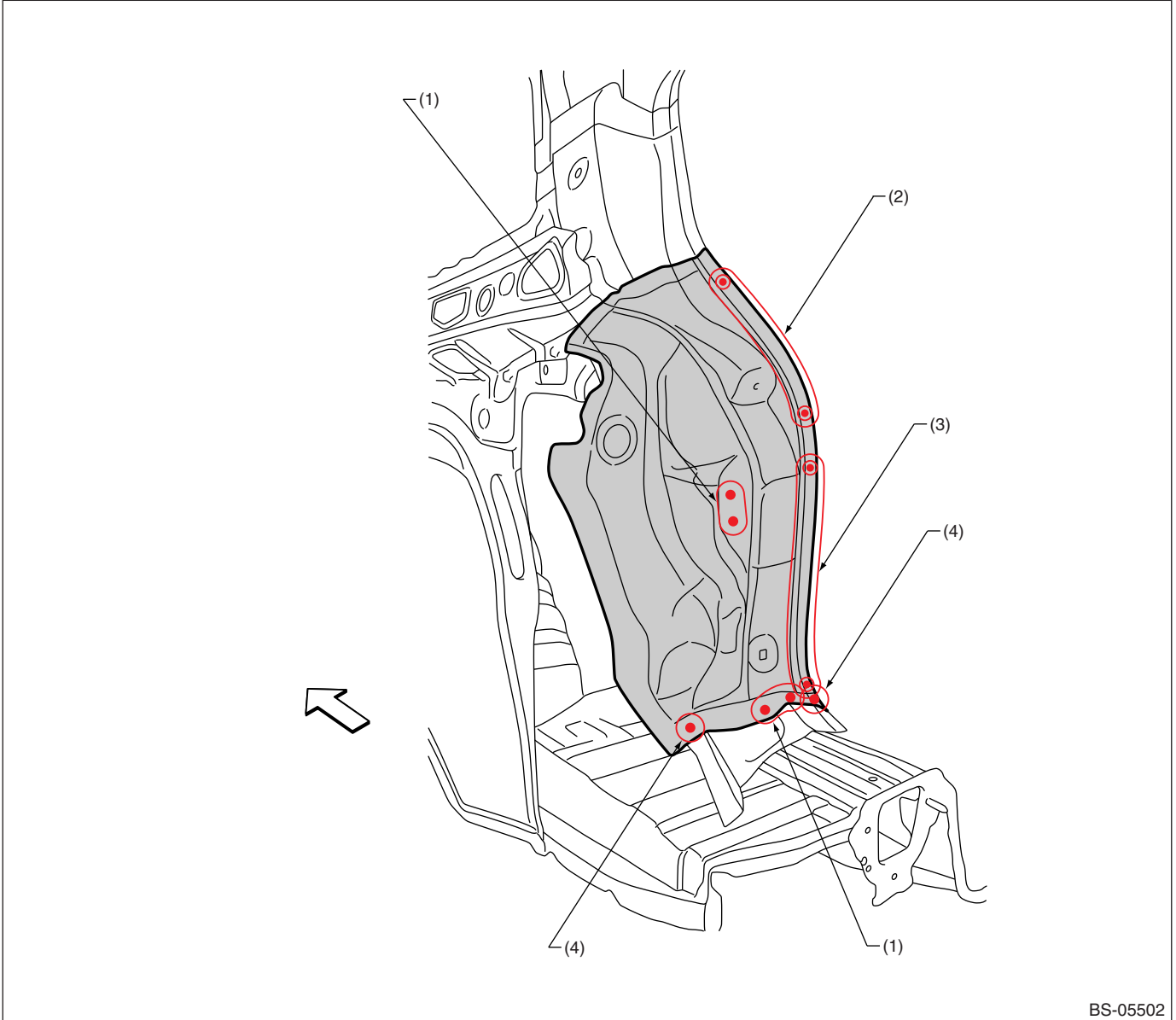
(2) 5 points (outside · 1)

(3) 6 points (outside · 1)

(4) 1 point (outside · 1)

Panel Replacement

B: INSTALLATION



BS-05502

(1) 2 points
(2) 5 points

(3) 6 points

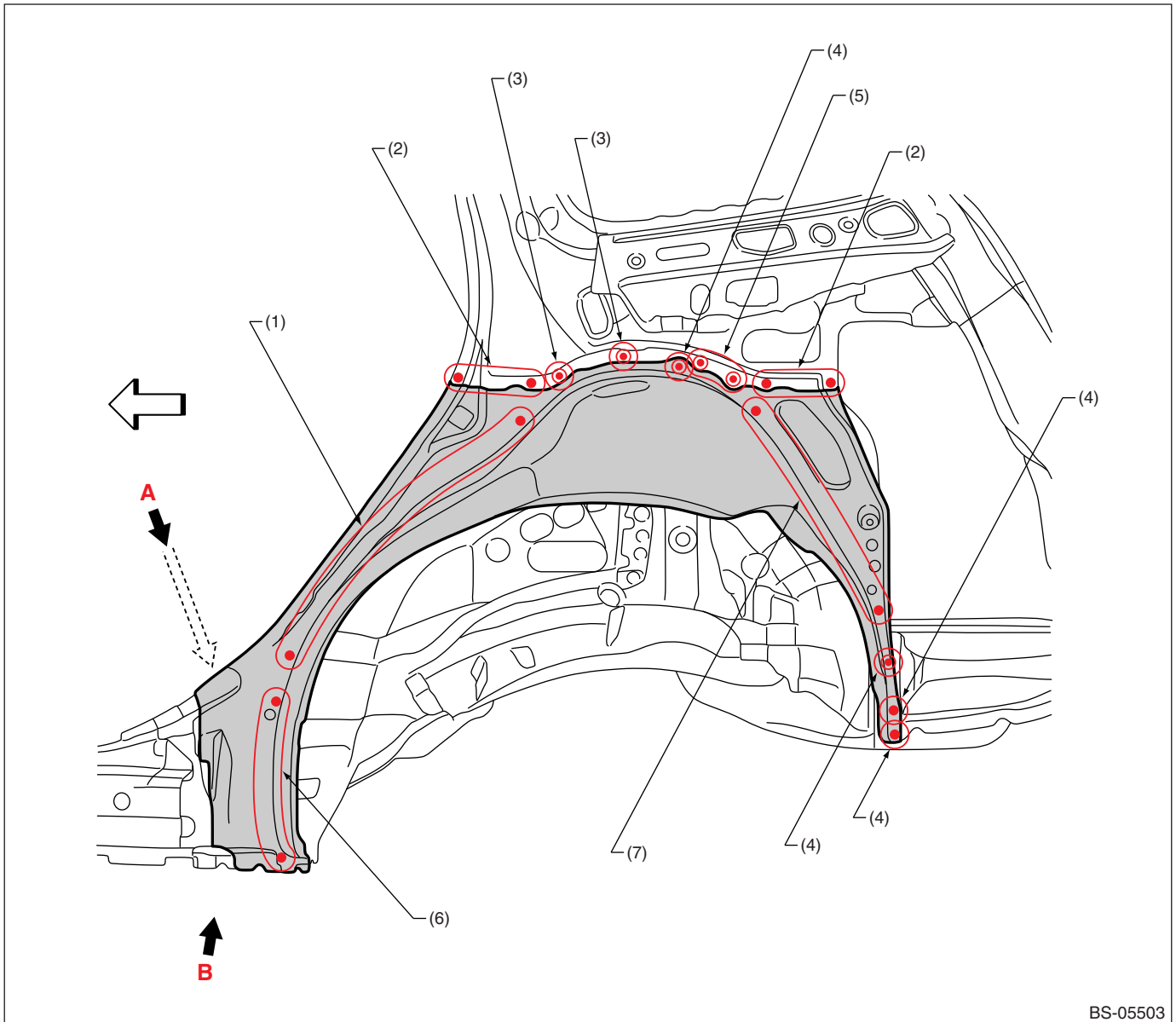
(4) 1 point

Panel Replacement

7-12. Rear Arch Inner (total replacement) / LH

A: REMOVAL

• Overall view (Rear quarter outer removal condition)



BS-05503

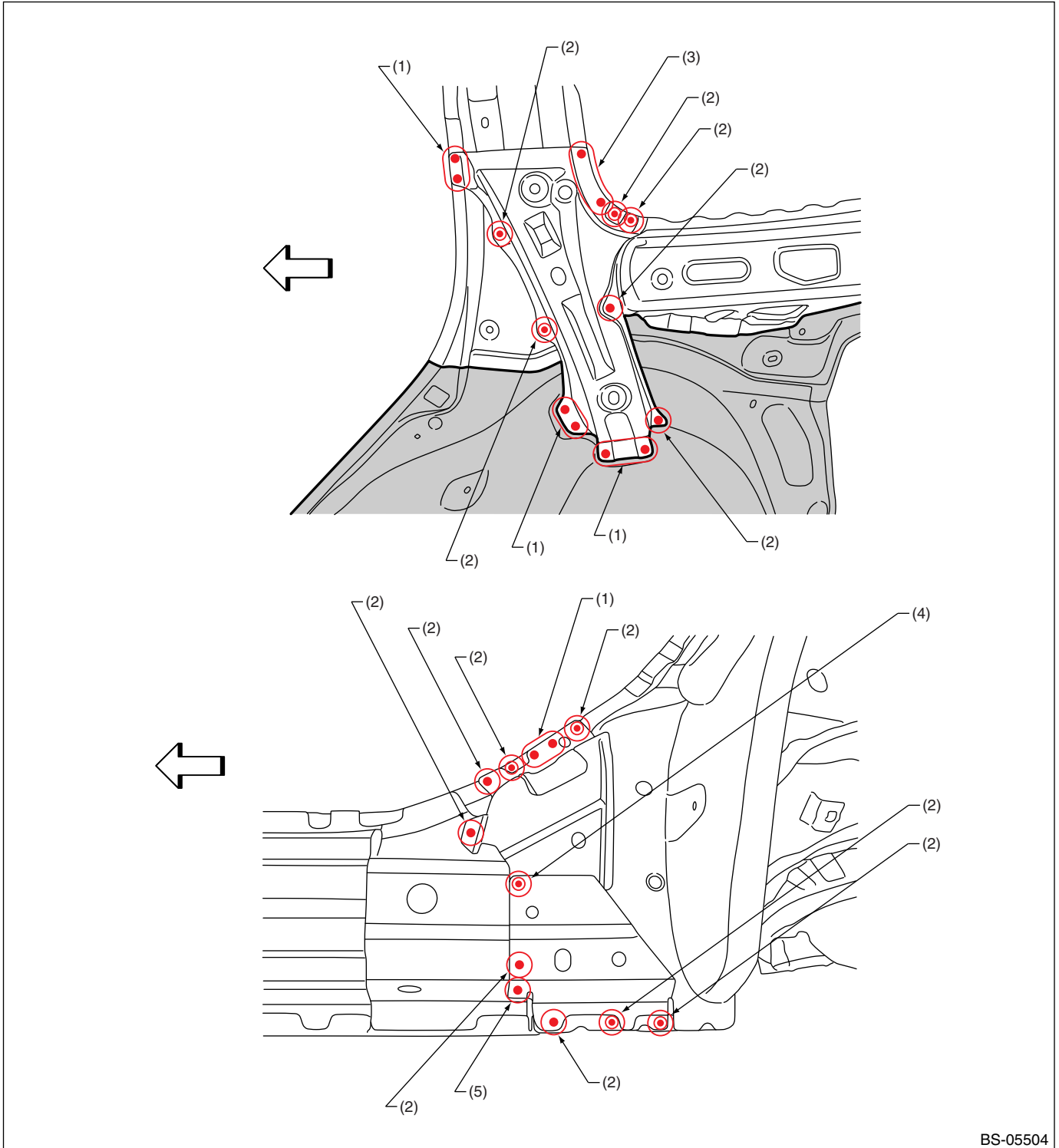
- (1) 10 points (outside · 1)
- (2) 3 points (inside · 1)
- (3) 1 point (outside · 2)

- (4) 1 point (outside · 1)
- (5) 2 points (outside · 2)
- (6) 4 points (outside · 1)

- (7) 7 points (outside · 1)

Panel Replacement

• Views 1



BS-05504

(1) 2 points (outside · 1)

(2) 1 point (outside · 1)

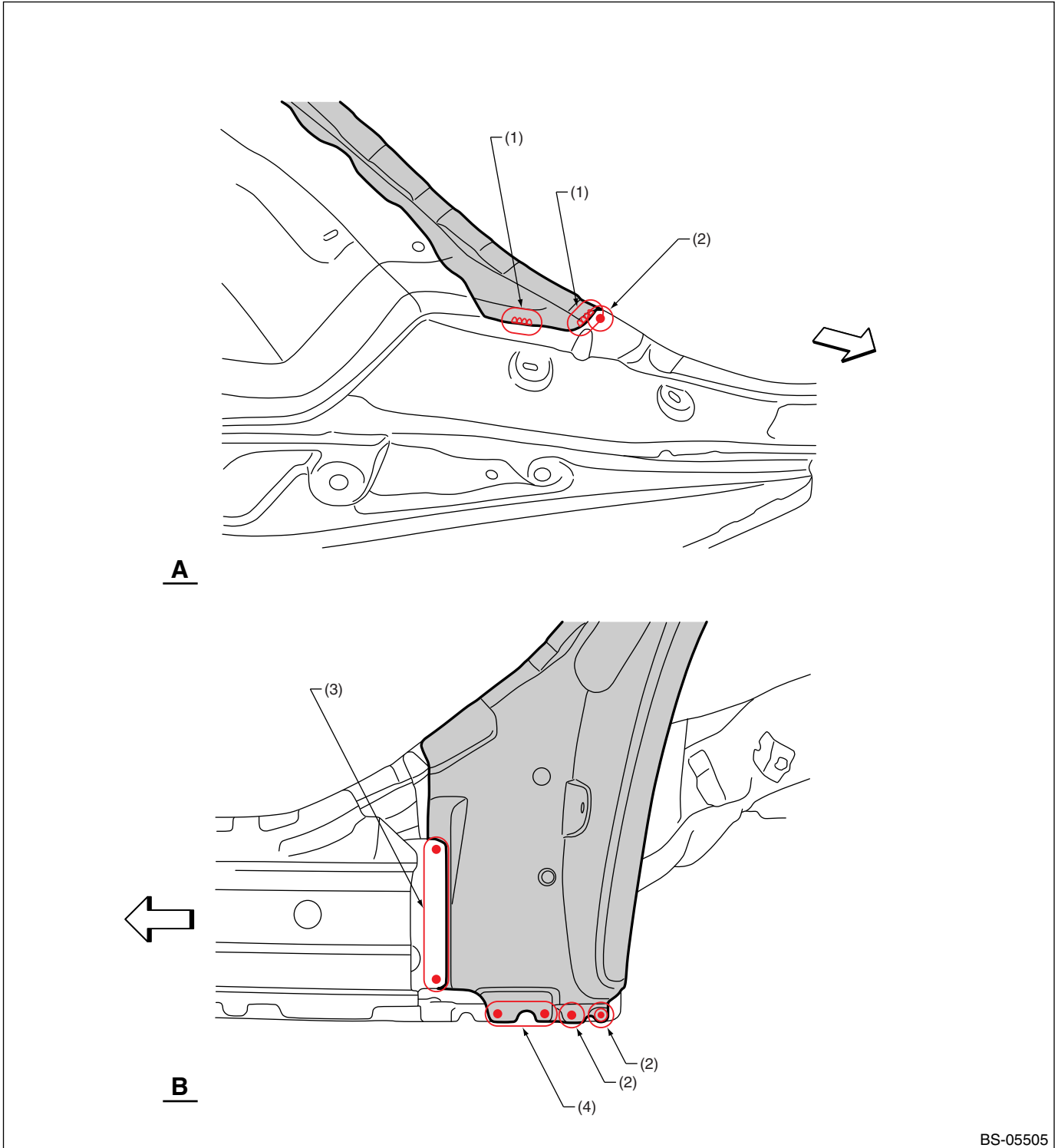
(3) 3 points (outside · 1)

(4) 1 point (outside · 2)

(5) 1 point (bottom · 1)

Panel Replacement

• Views 2



BS-05505

(1) 1 point (inside · 1 belt sander)

(3) 3 points (outside · 1)

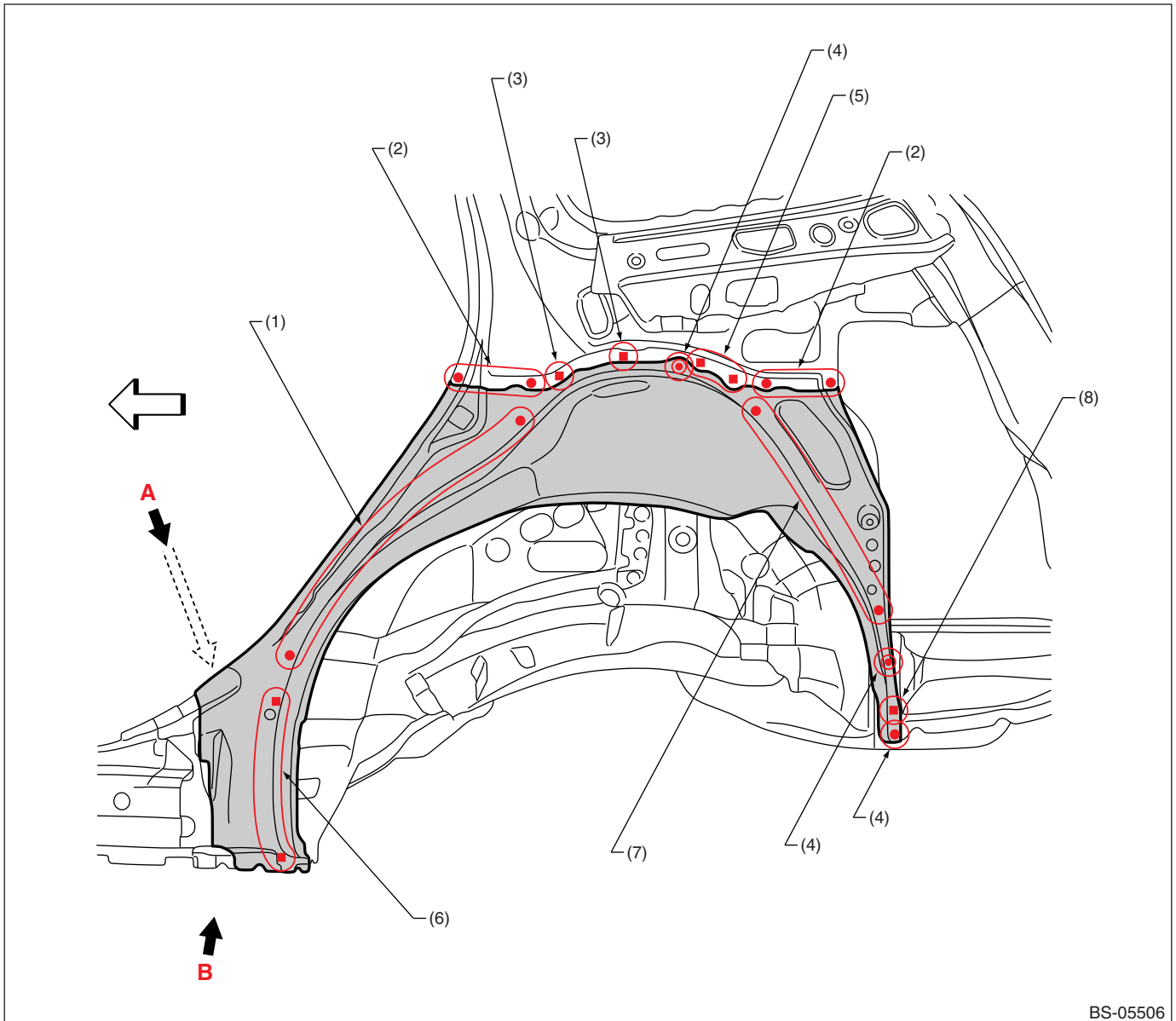
(4) 2 points (outside · 1)

(2) 1 point (outside · 1)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05506

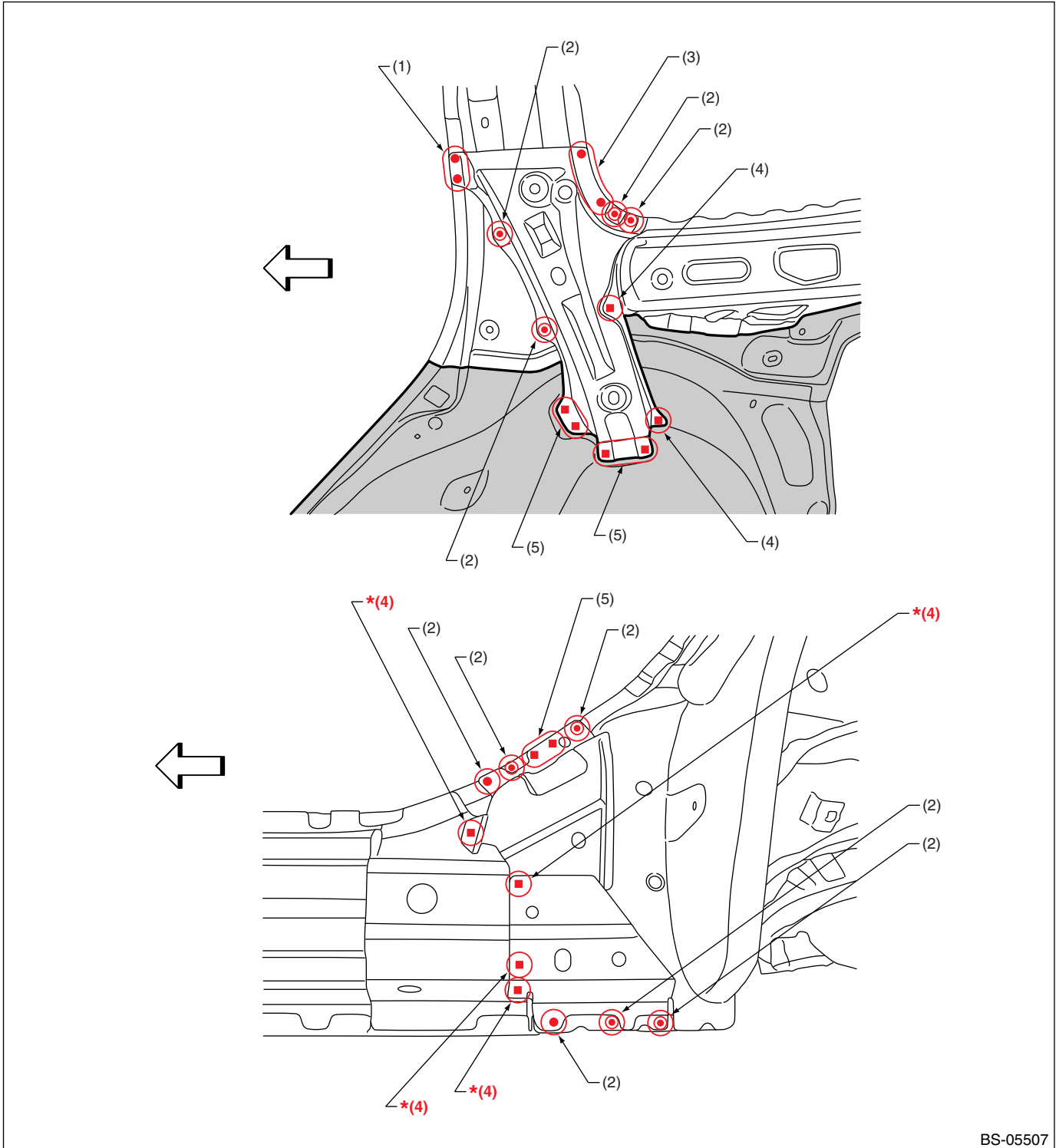
- (1) 10 points
- (2) 3 points
- (3) 1 point (service · matching)

- (4) 1 point
- (5) 2 points (service · matching)
- (6) 4 points (service)

- (7) 7 points
- (8) 1 point (service)

Panel Replacement

• Views 1



BS-05507

(1) 2 points

(3) 3 points

(5) 2 points (service)

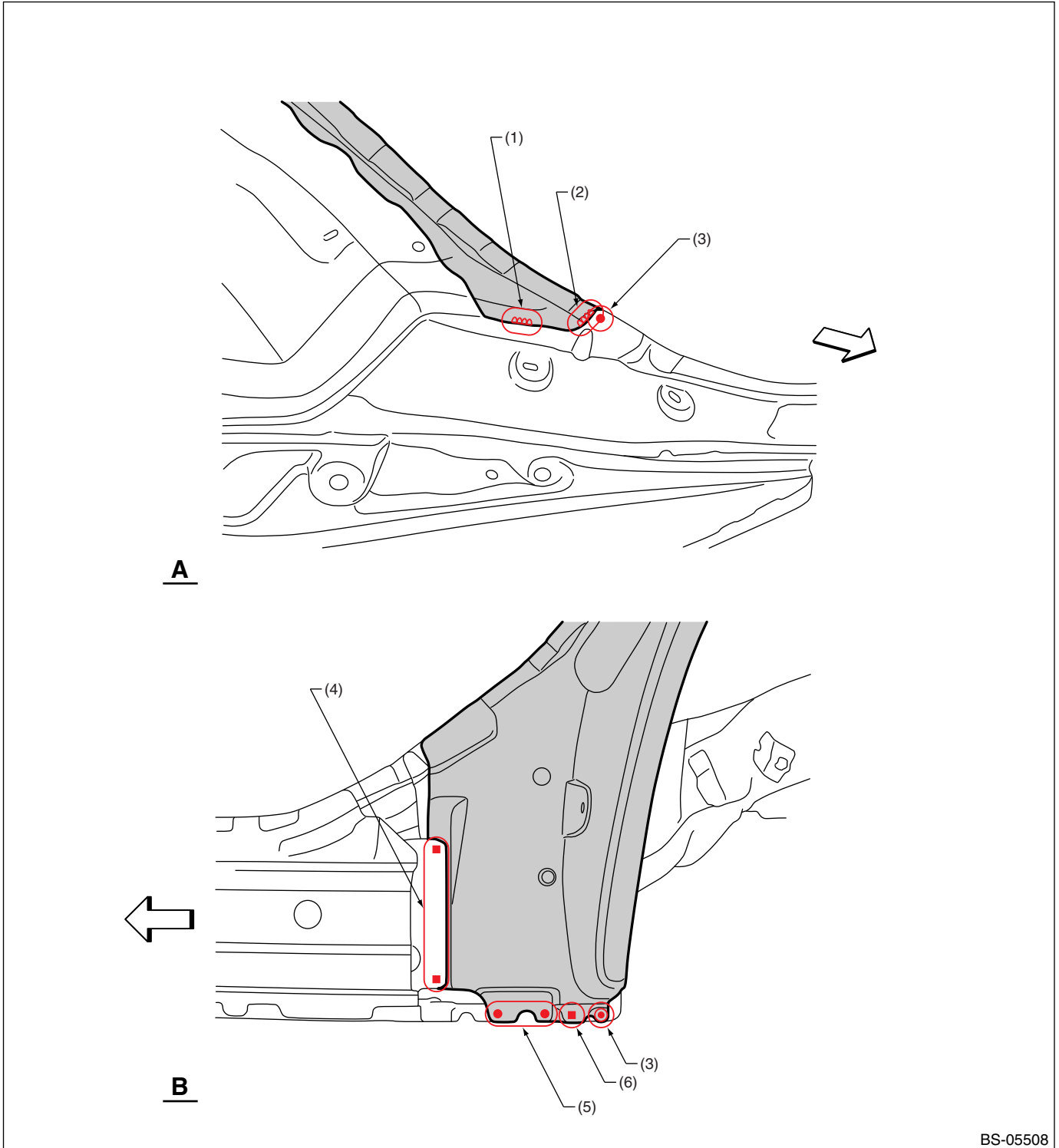
(2) 1 point

(4) 1 point (service)

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views 2



BS-05508

- (1) 1 point [20mm (0.79 in)]
- (2) 1 point [15 mm (0.59 in)]

- (3) 1 point
- (4) 3 points

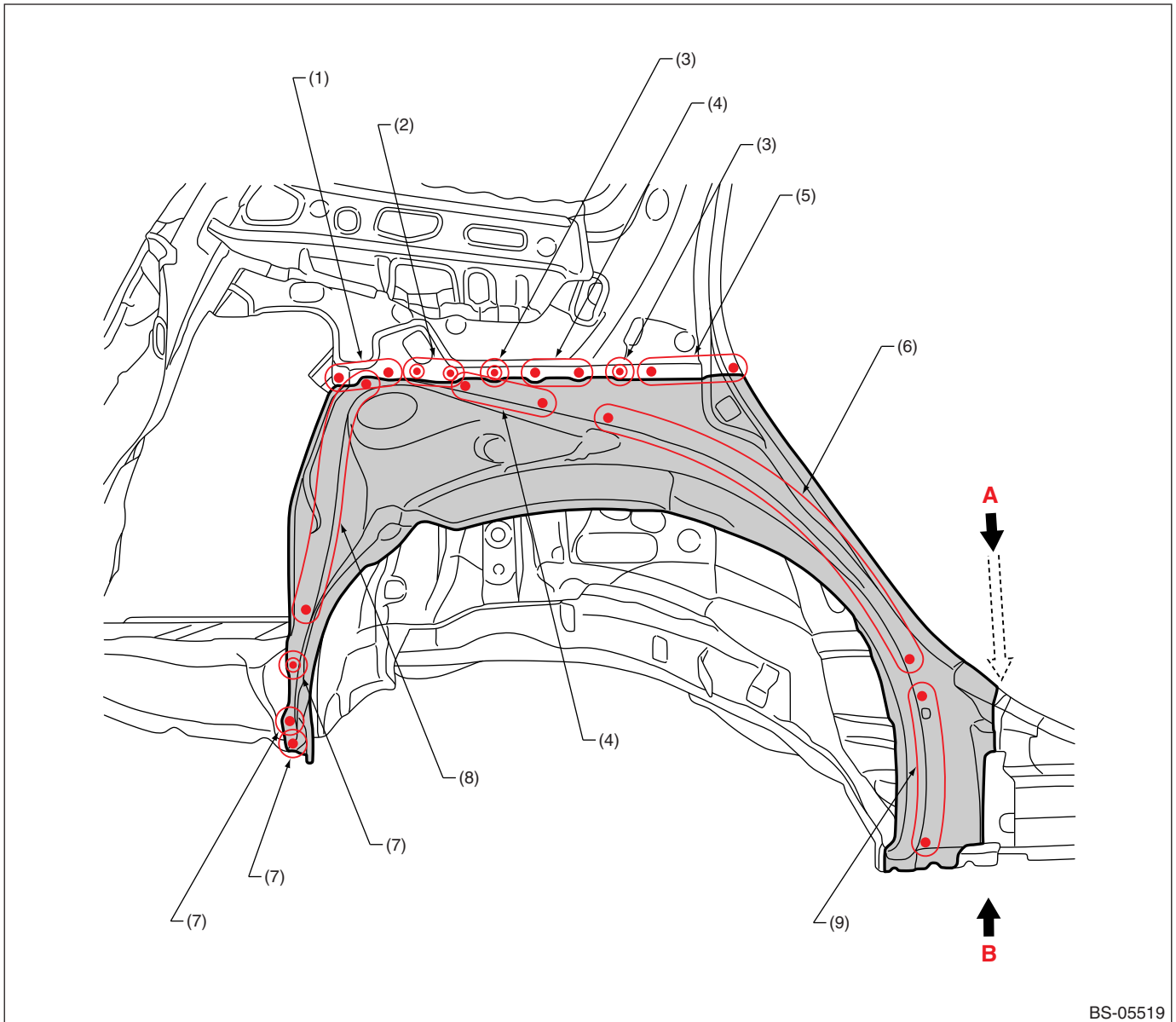
- (5) 2 points
- (6) 1 point (service)

Panel Replacement

7-13. Rear Arch Inner (total replacement) / RH

A: REMOVAL

- Overall view (Rear quarter outer removal condition)

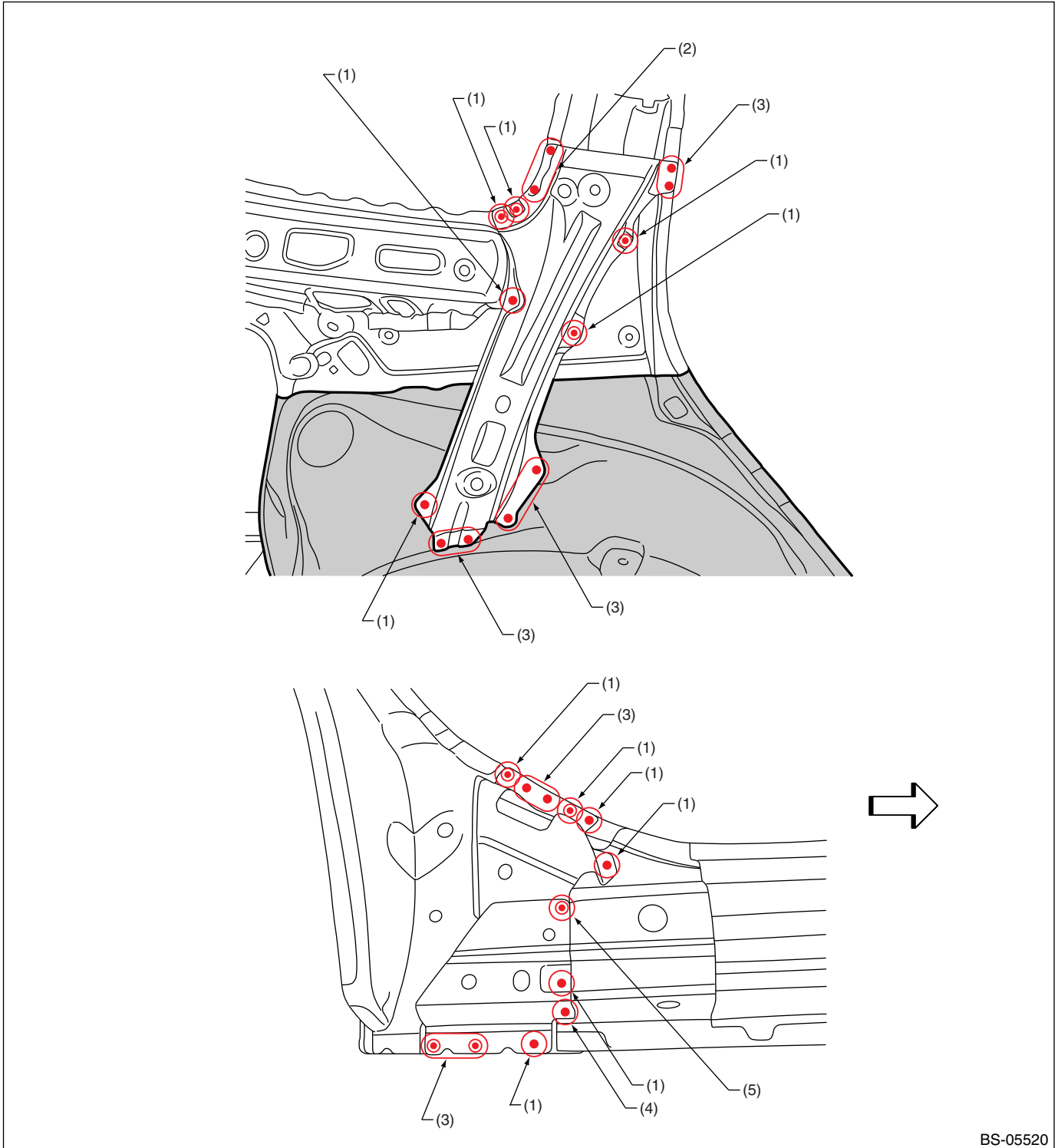


BS-05519

- | | | |
|----------------------------|-----------------------------|----------------------------|
| (1) 2 points (inside · 1) | (4) 2 points (outside · 1) | (7) 1 point (outside · 1) |
| (2) 2 points (outside · 2) | (5) 3 points (inside · 1) | (8) 7 points (outside · 1) |
| (3) 1 point (outside · 2) | (6) 11 points (outside · 1) | (9) 4 points (outside · 1) |

Panel Replacement

• Views 1



BS-05520

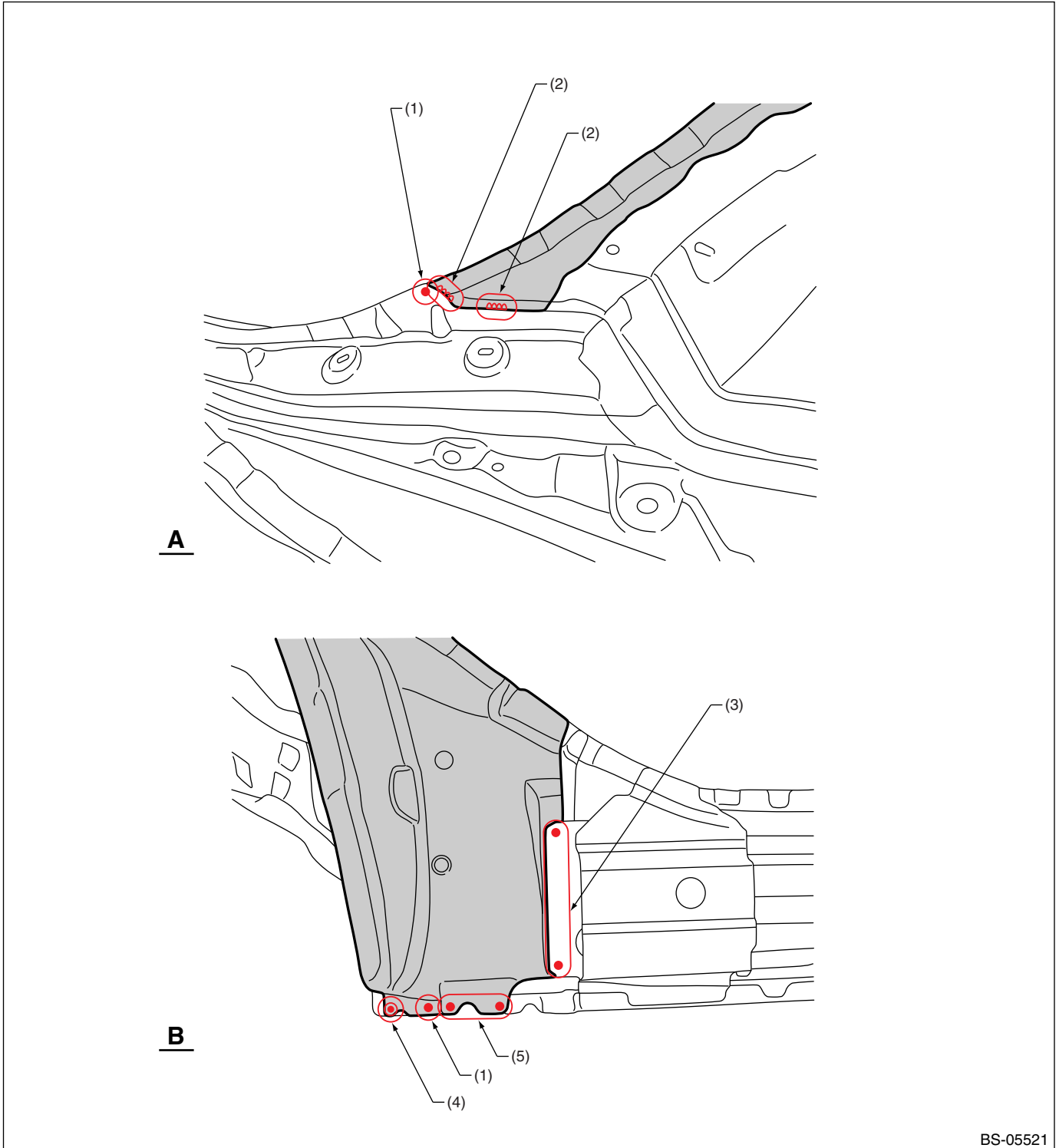
(1) 1 point (outside · 1)
(2) 3 points (outside · 1)

(3) 2 points (outside · 1)
(4) 1 point (bottom · 1)

(5) 1 point (outside · 2)

Panel Replacement

• Views 2



BS-05521

(1) 1 point (outside · 1)

(2) 1 point (inside · 1, belt sander)

(3) 3 points (outside · 1)

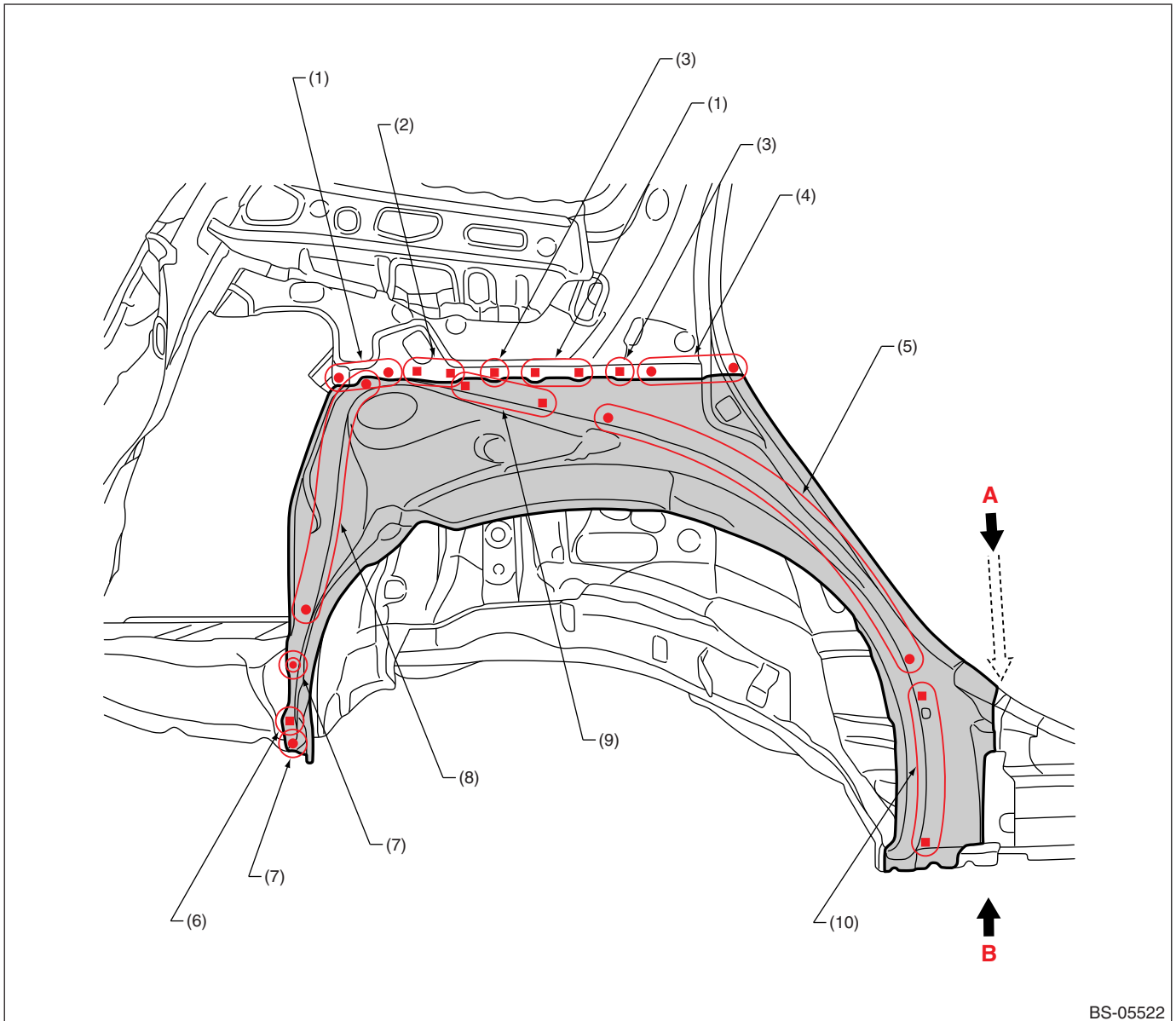
(4) 1 point

(5) 2 points (outside · 1)

Panel Replacement

B: INSTALLATION

• Overall view

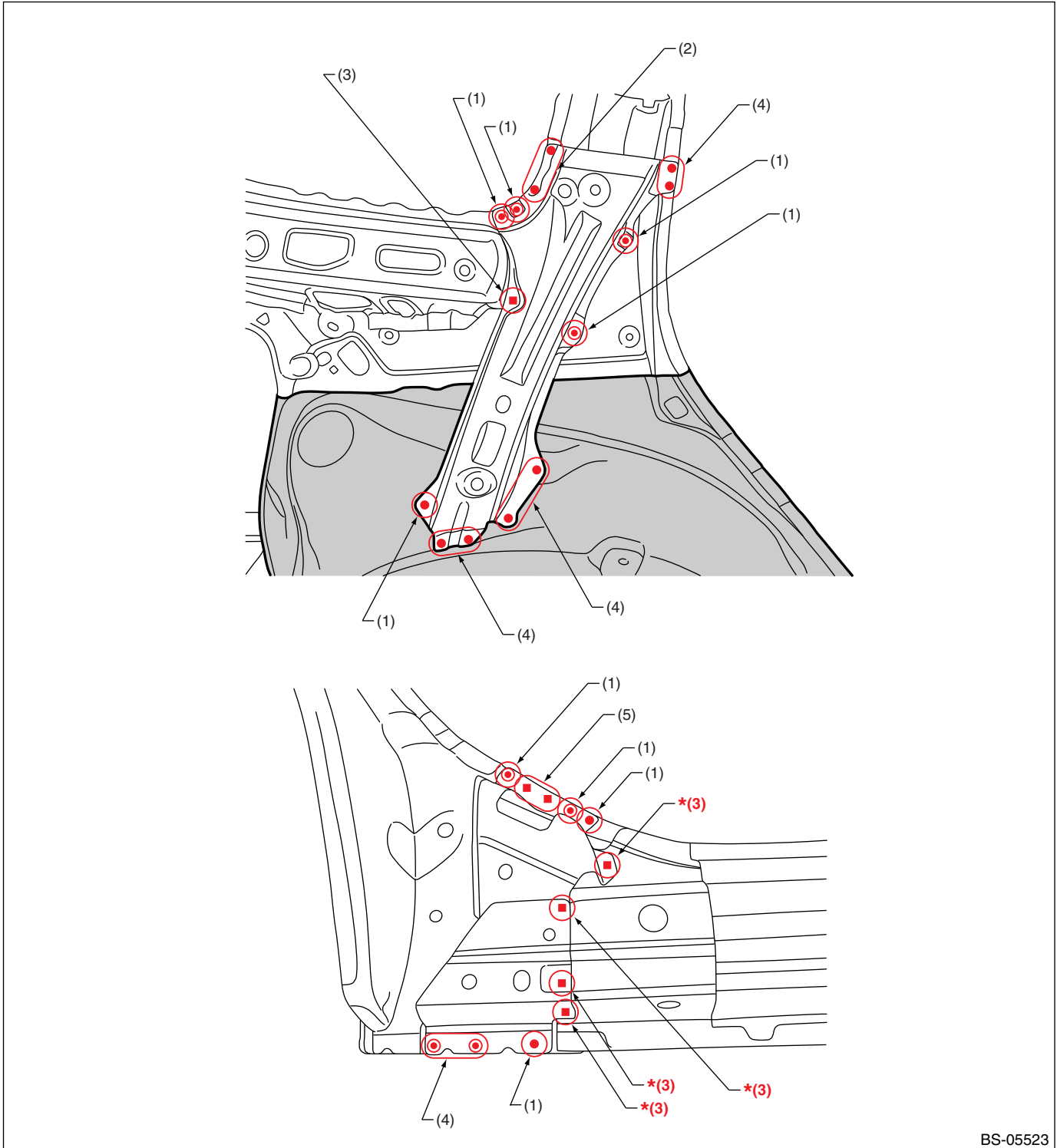


BS-05522

- | | | |
|-----------------------------------|-----------------------|-------------------------|
| (1) 2 points | (5) 11 points | (9) 2 points (service) |
| (2) 2 points (service · matching) | (6) 1 point (service) | (10) 4 points (service) |
| (3) 1 point (service · matching) | (7) 1 point | |
| (4) 3 points | (8) 7 points | |

Panel Replacement

• Views 1



BS-05523

(1) 1 point
(2) 3 points

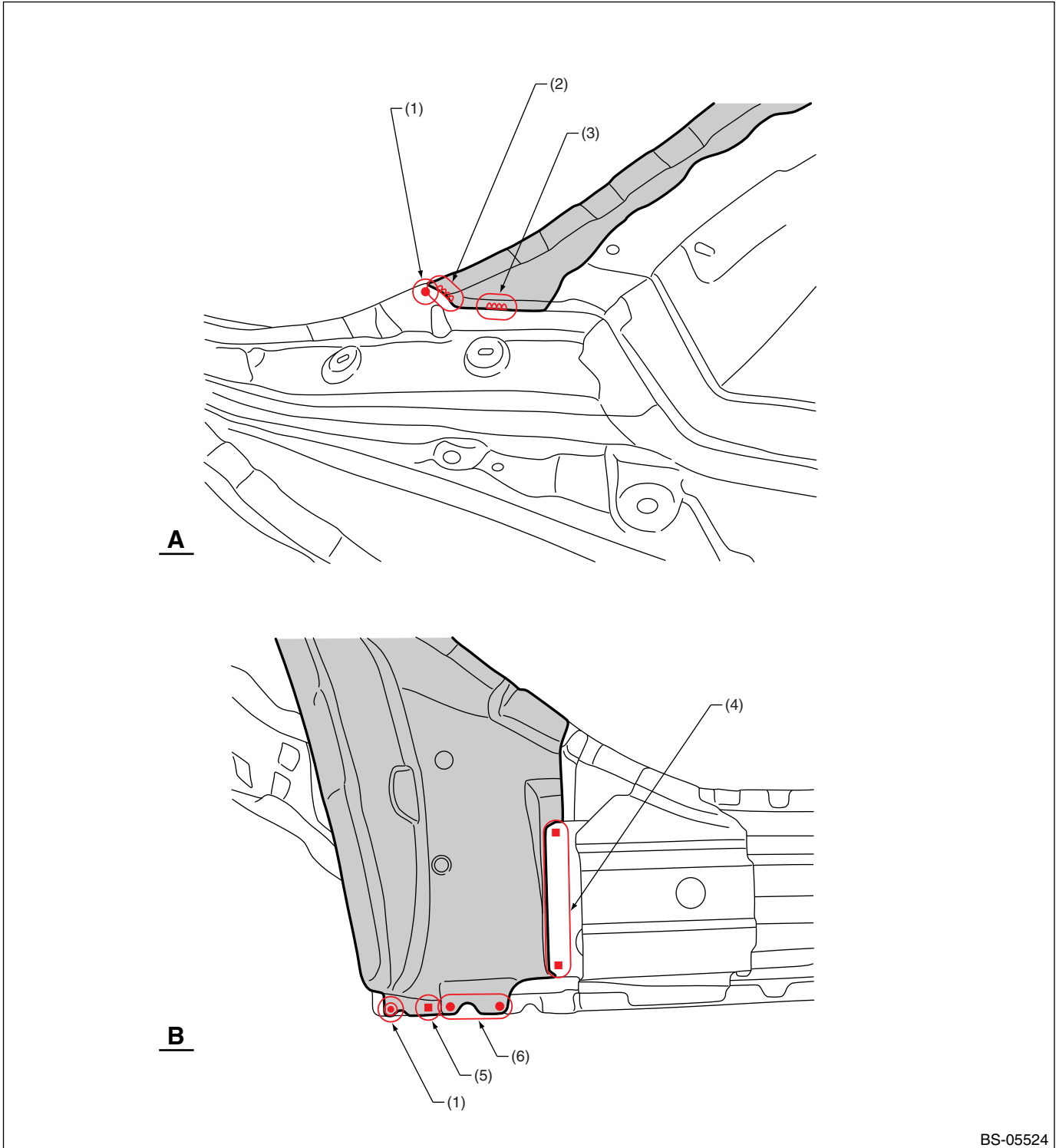
(3) 1 point (service)
(4) 2 points

(5) 2 points (service)

*: For 980MPa class High-strength tensile steel plug welding, refer to the conditions reported in (BS-7).

Panel Replacement

• Views 2



BS-05524

(1) 1 point

(2) 1 point [15 mm (0.59 in)]

(3) 1 point [20mm (0.79 in)]

(4) 3 points

(5) 1 point (service)

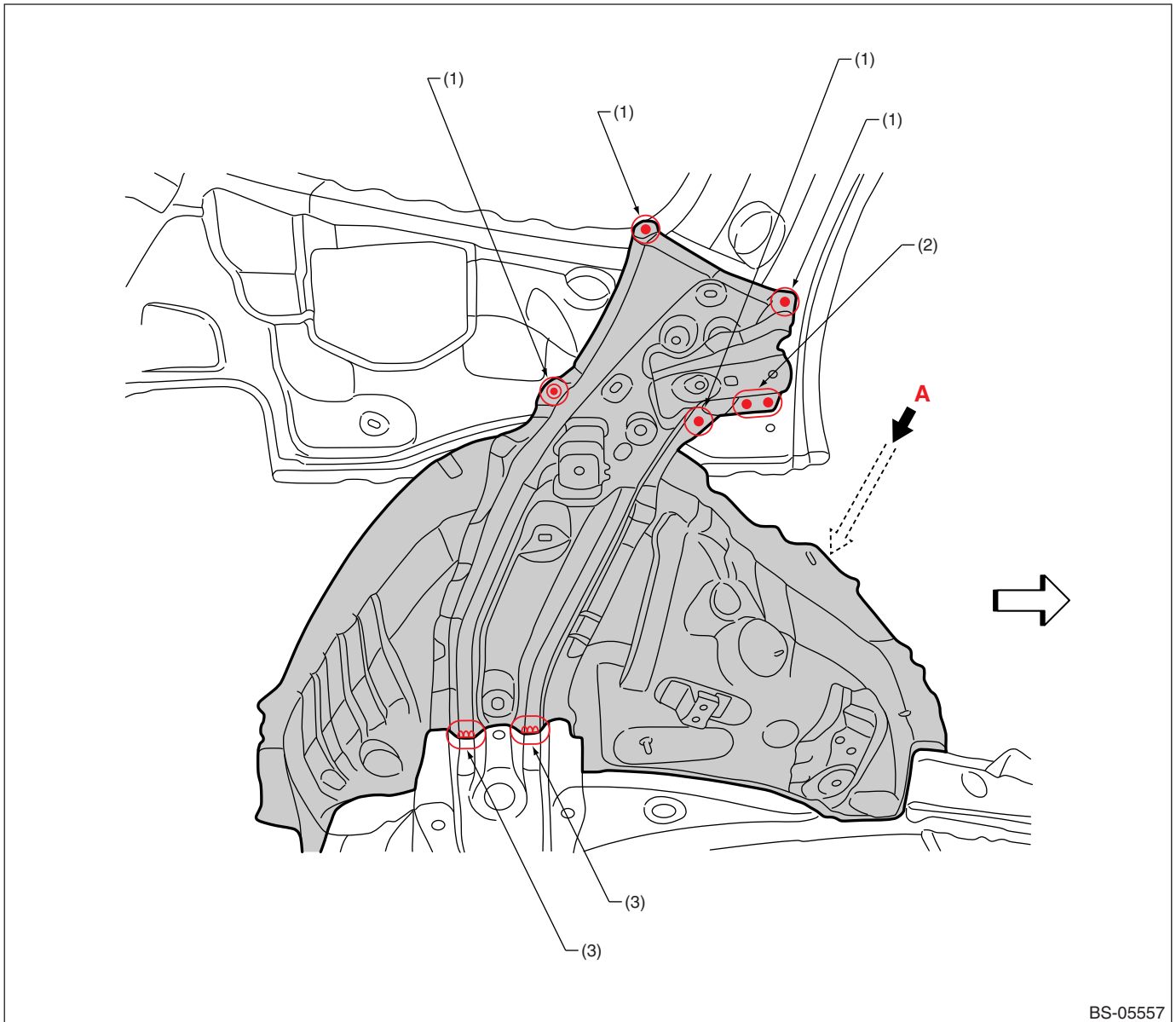
(6) 2 points

Panel Replacement

7-14. Rear Quarter Inner (partial replacement)

A: REMOVAL

- Overall view (Rear quarter and rear arch inner removal condition)



BS-05557

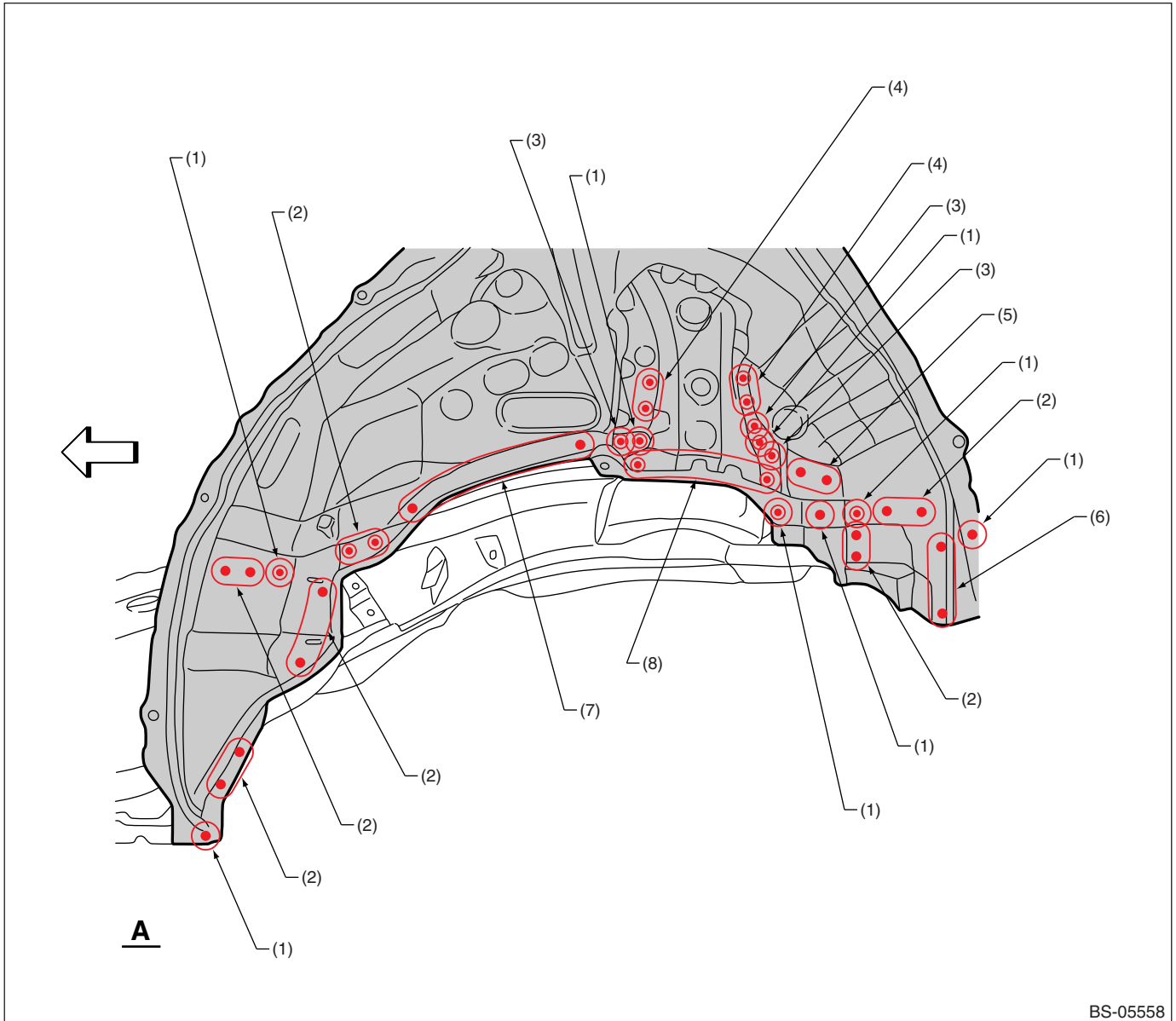
(1) 1 point (inside · 1)

(2) 2 points (inside · 1)

(3) 1 point (inside · 1 belt sander)

Panel Replacement

• Views



BS-05558

- (1) 1 point (outside · 1)
- (2) 2 points (outside · 1)
- (3) 1 point (outside · 2)

- (4) 2 points (outside · 2)
- (5) 2 points (outside · 1)
- (6) 3 points (outside · 1)

- (7) 5 points (outside · 1)
- (8) 5 points (outside · 2)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05559

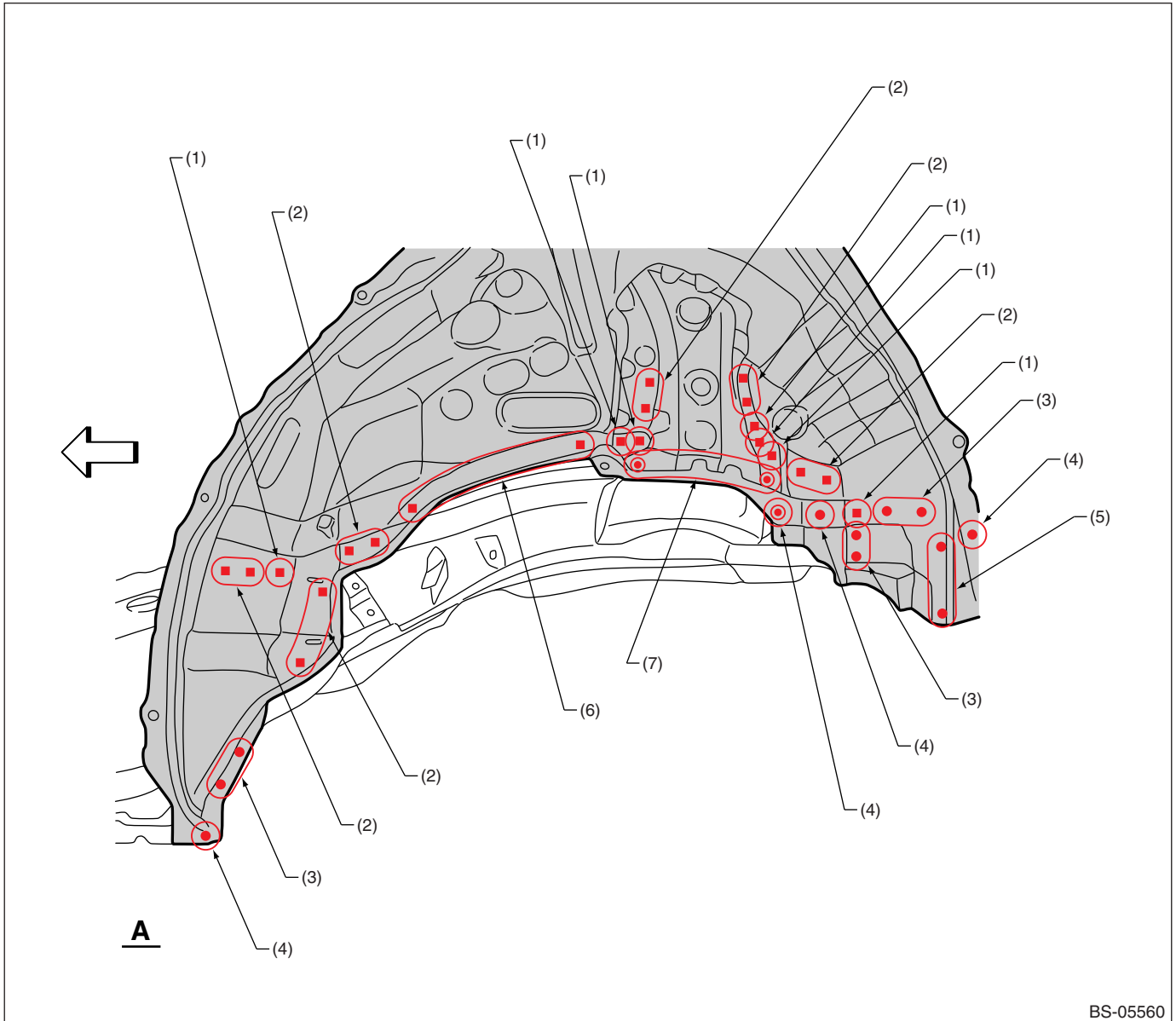
(1) 1 point

(2) 2 points

(3) 1 point [20mm (0.79 in)]

Panel Replacement

• Views



- (1) 1 point (service)
- (2) 2 points (service)
- (3) 2 points

- (4) 1 point
- (5) 3 points
- (6) 5 points (service)

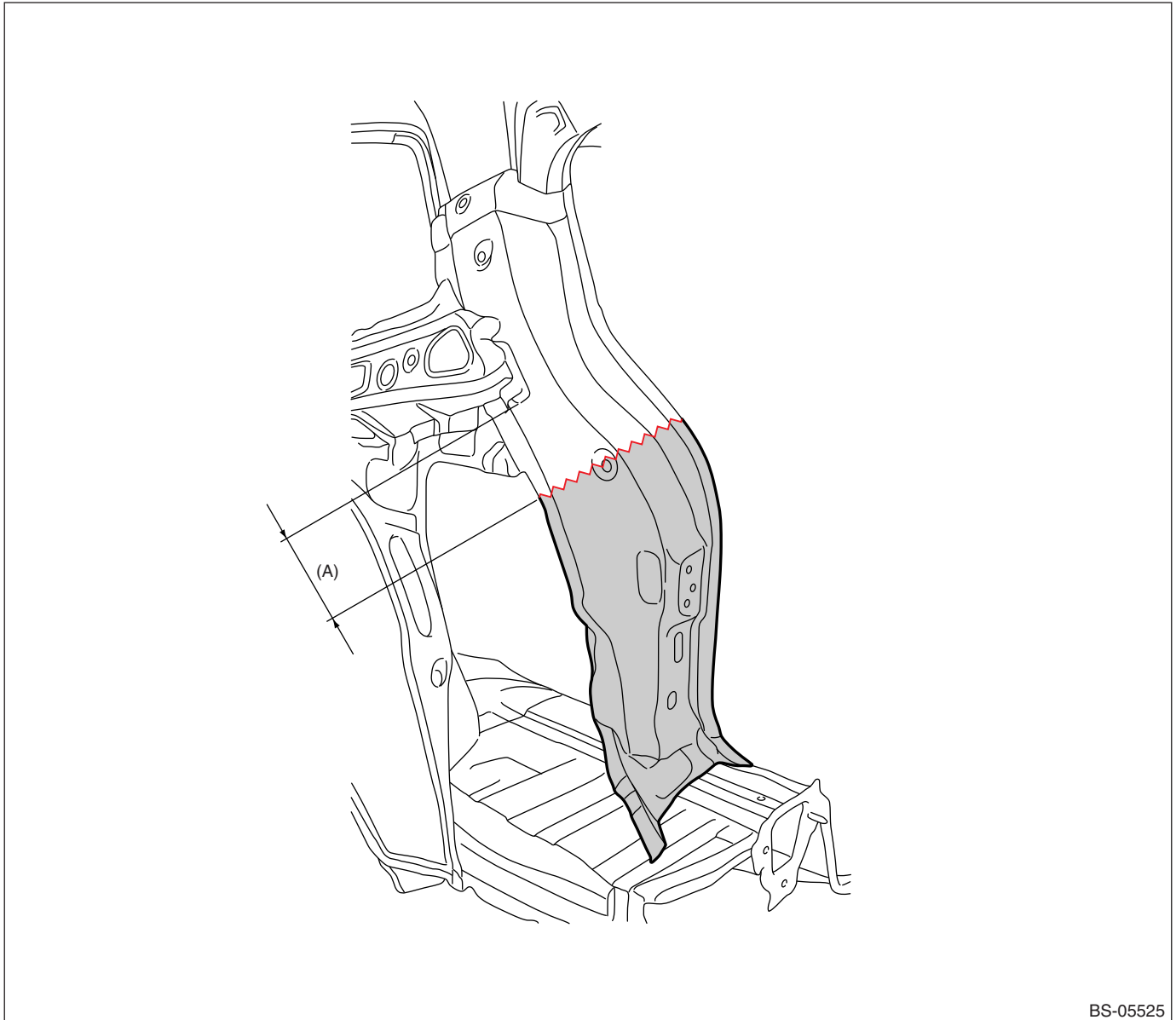
- (7) 5 points

Panel Replacement

7-15. D-pillar Reinforcement (partial replacement)

A: REMOVAL

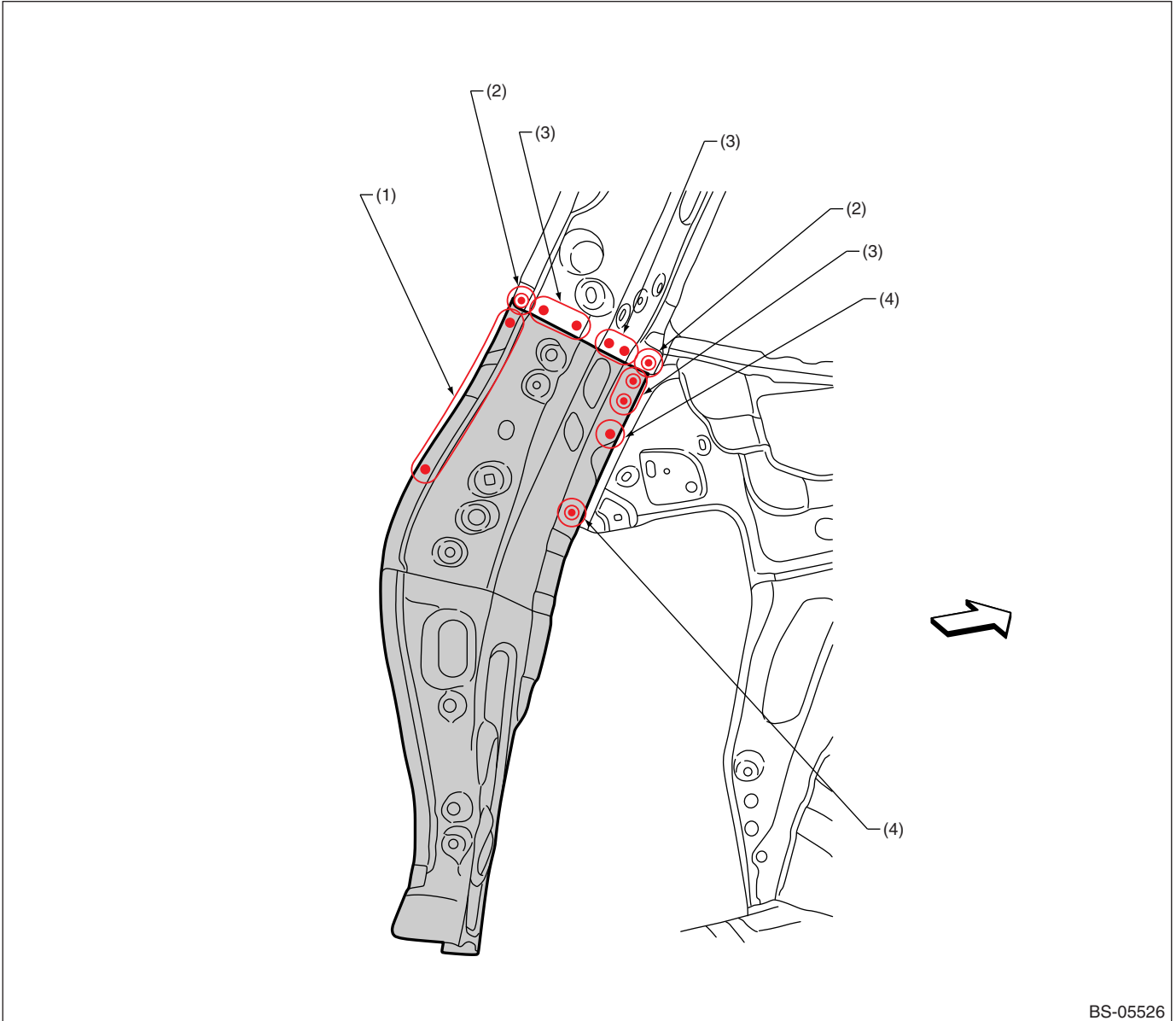
- Rear skirt, rear quarter and rear quarter end removal condition



(A) 100 mm (3.94 in)

Panel Replacement

• Views



BS-05526

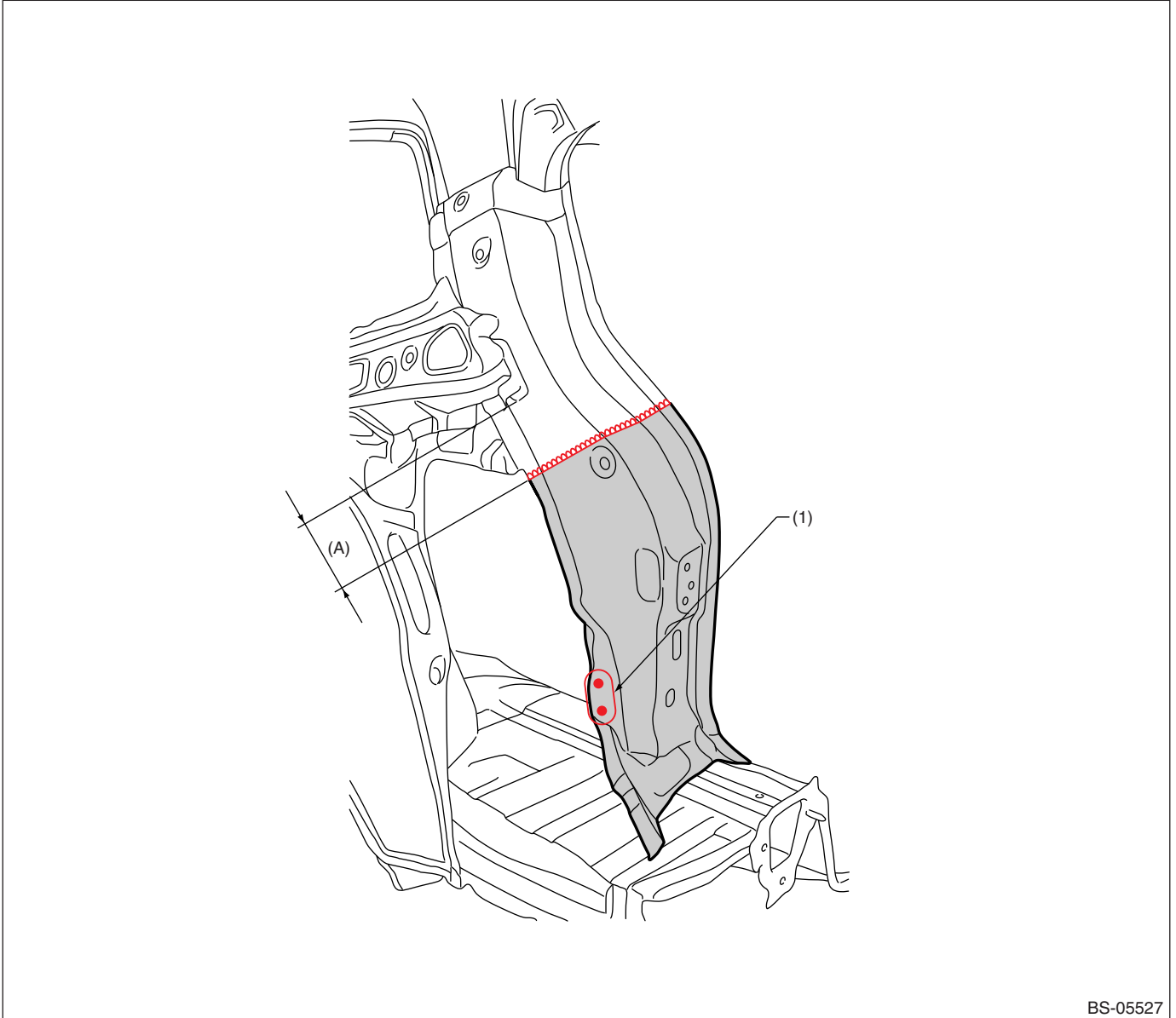
(1) 4 points (inside · 1)
(2) 1 point (inside · 2)

(3) 2 points (inside · 1)

(4) 1 point (inside · 1)

Panel Replacement

B: INSTALLATION



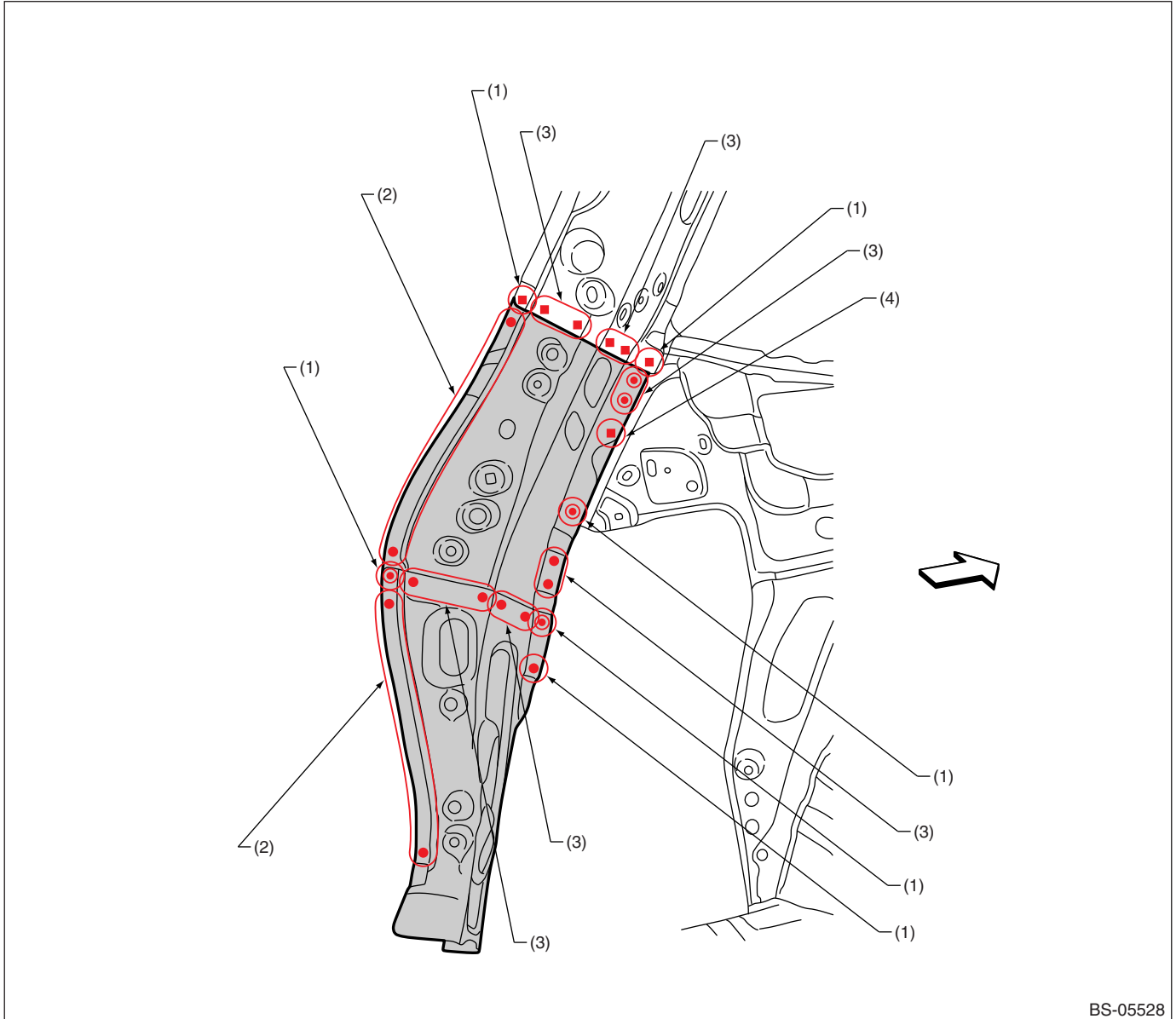
BS-05527

(A) 80 mm (3.15 in)

(1) 2 points

Panel Replacement

• Views



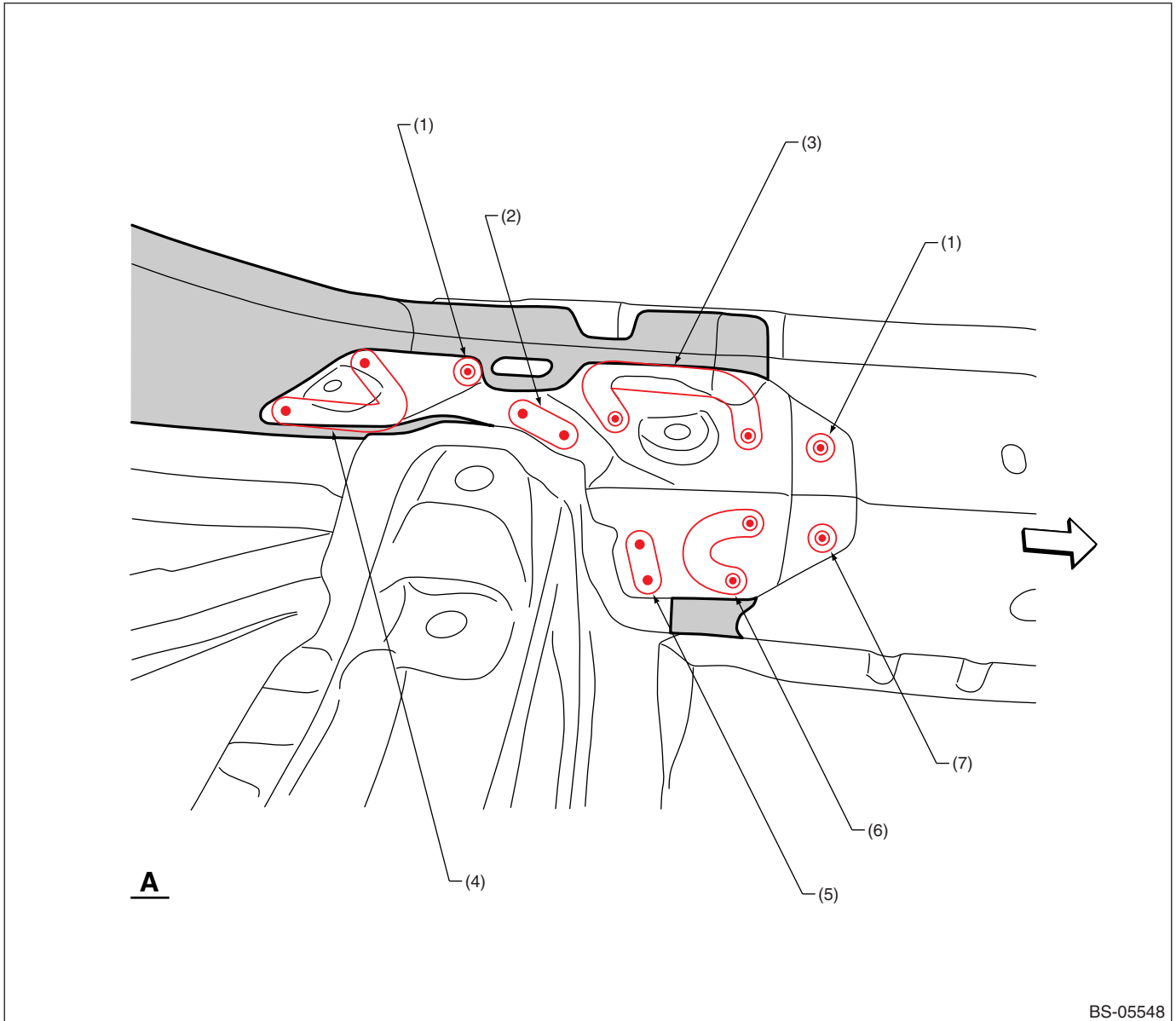
(1) 1 point
(2) 7 points

(3) 2 points

(4) 1 point (service)

Panel Replacement

• Views1



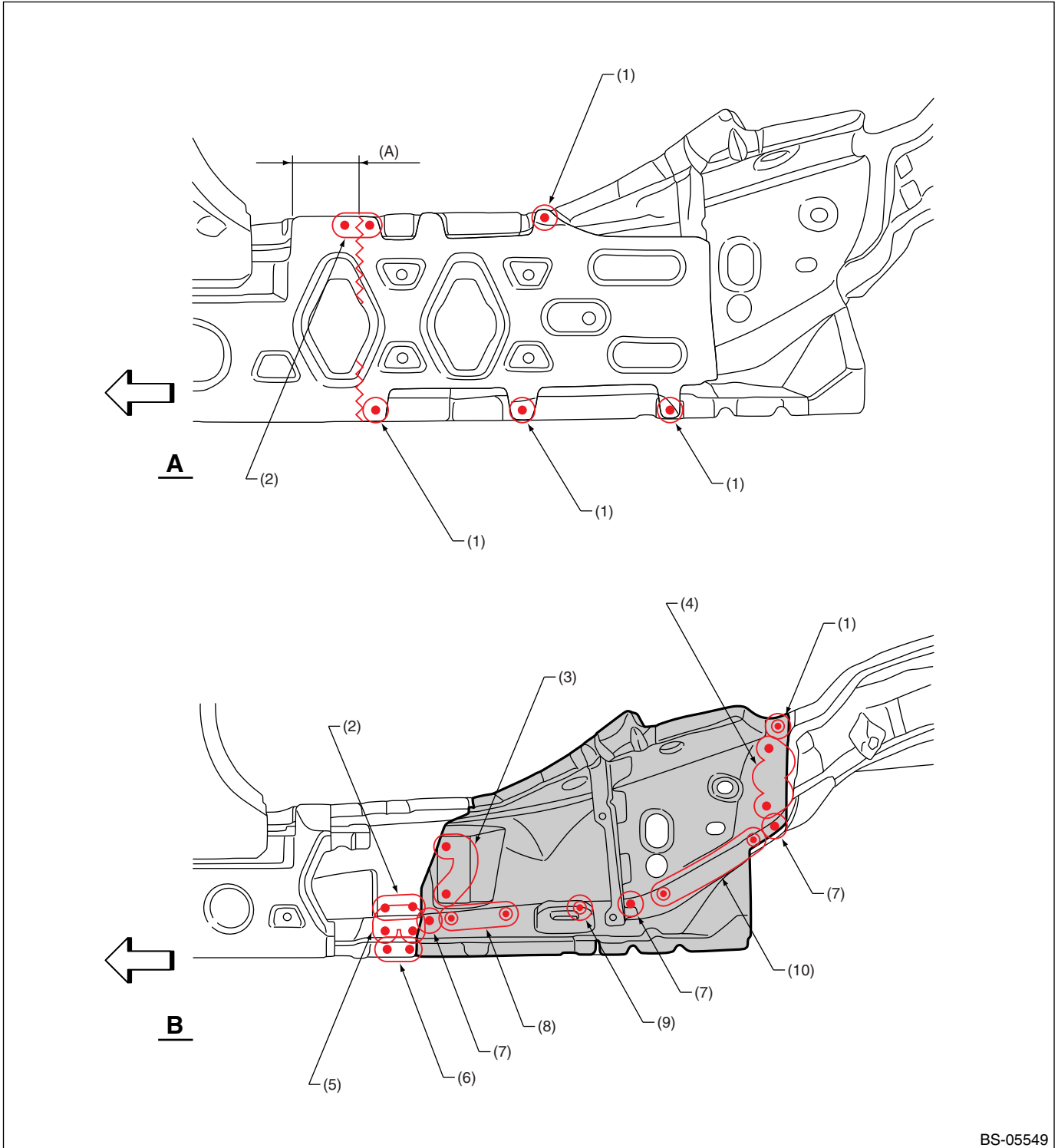
- (1) 1 point (top · 1)
- (2) 2 points (top · 1)
- (3) 5 points (top · 1)

- (4) 3 points (top · 1)
- (5) 2 points (inside · 1)
- (6) 3 points (inside · 1)

- (7) 1 point (inside · 1)

Panel Replacement

• Views2



BS-05549

(A) 60 mm (2.36 in)

- (1) 1 point (outside · 1)
- (2) 2 points (outside · 1)
- (3) 4 points (outside · 1)
- (4) 5 points (outside · 1)

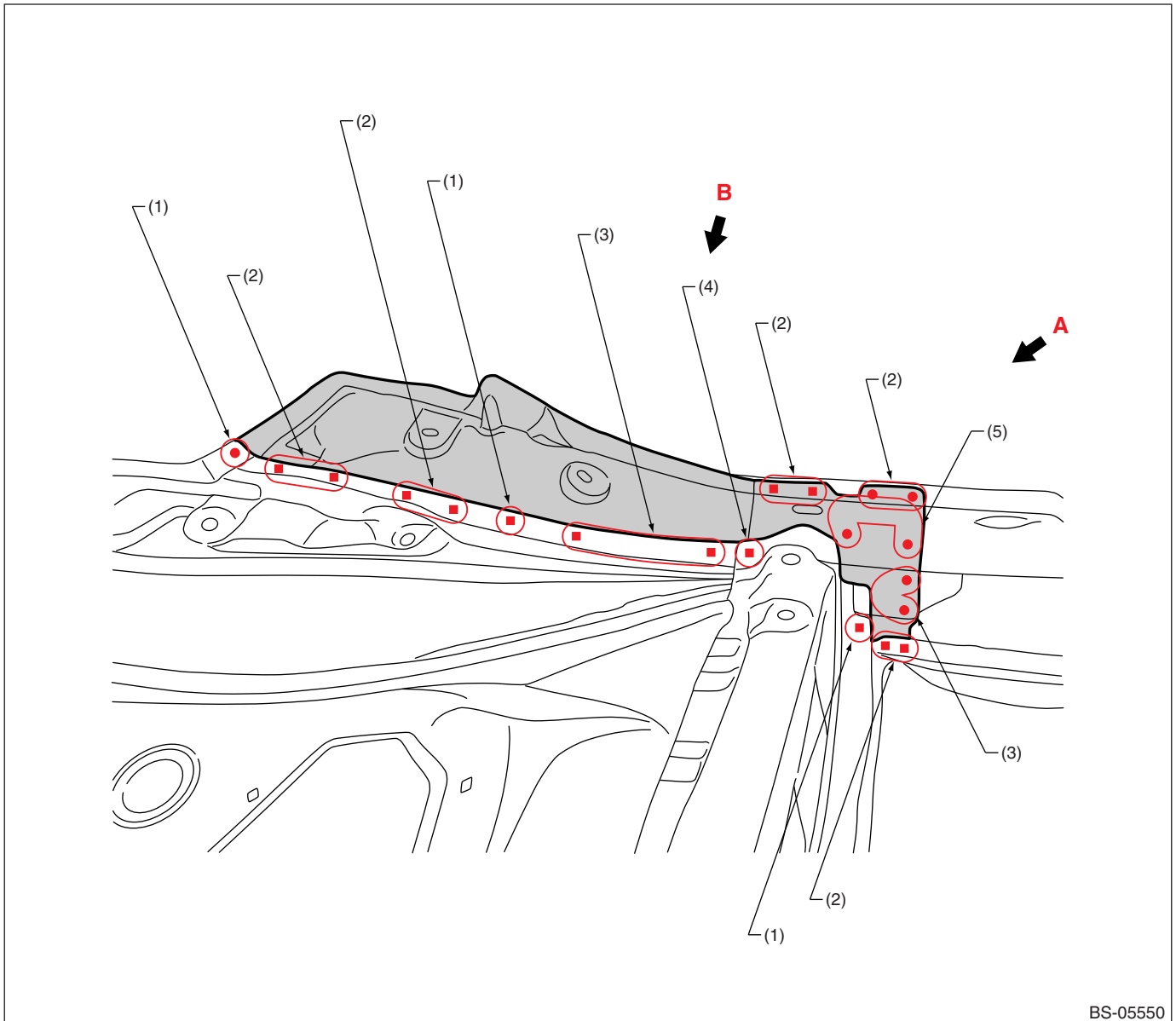
- (5) 4 points (bottom · 1)
- (6) 2 points (inside · 1)
- (7) 1 point (top · 1 belt sander)
- (8) 3 points (top · 1 belt sander)

- (9) 1 point (bottom · 1)
- (10) 5 points (top · 1 belt sander)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05550

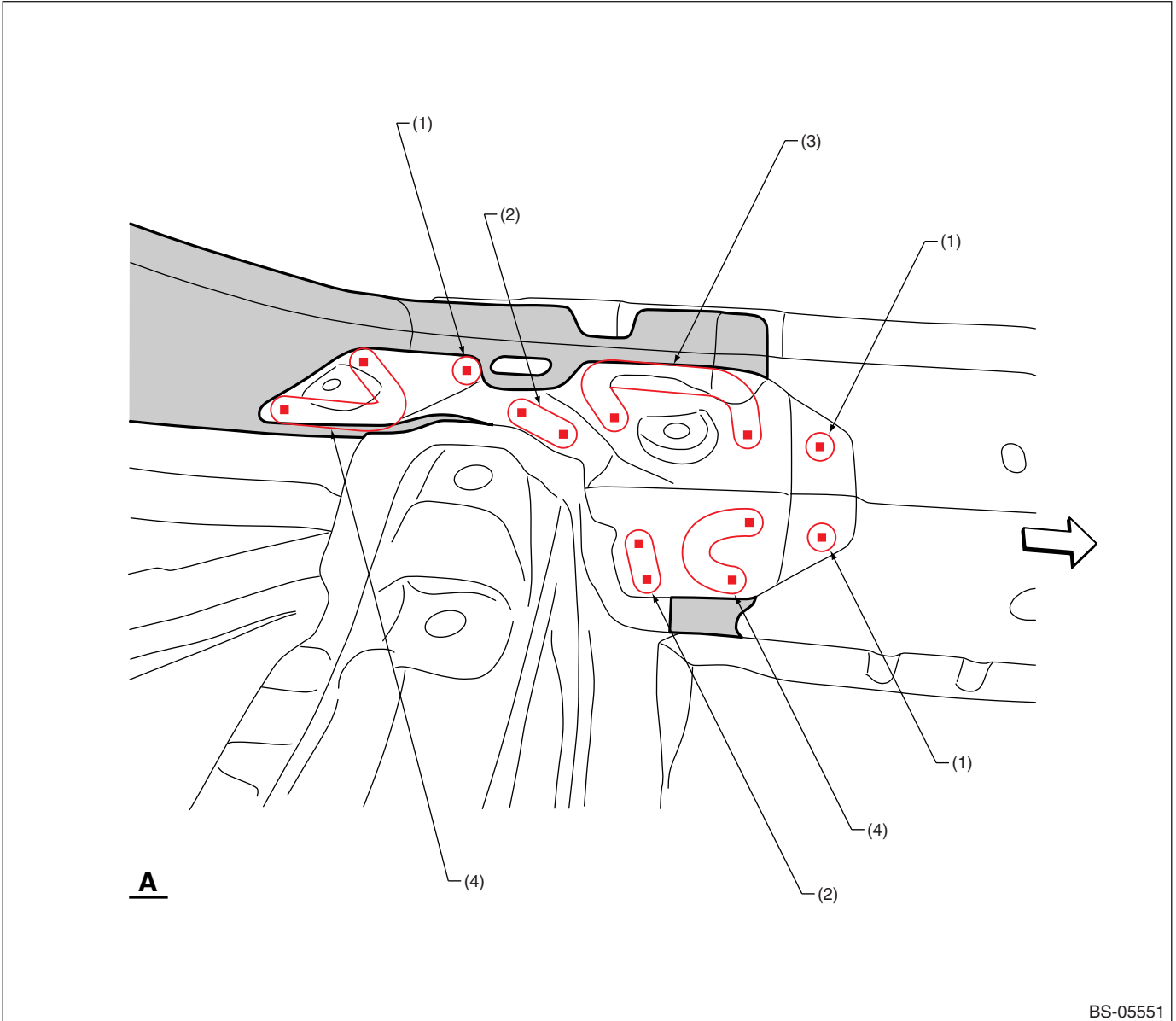
(1) 1 point
(2) 2 points

(3) 3 points
(4) 1 point (service · matching)

(5) 5 points

Panel Replacement

• Views1



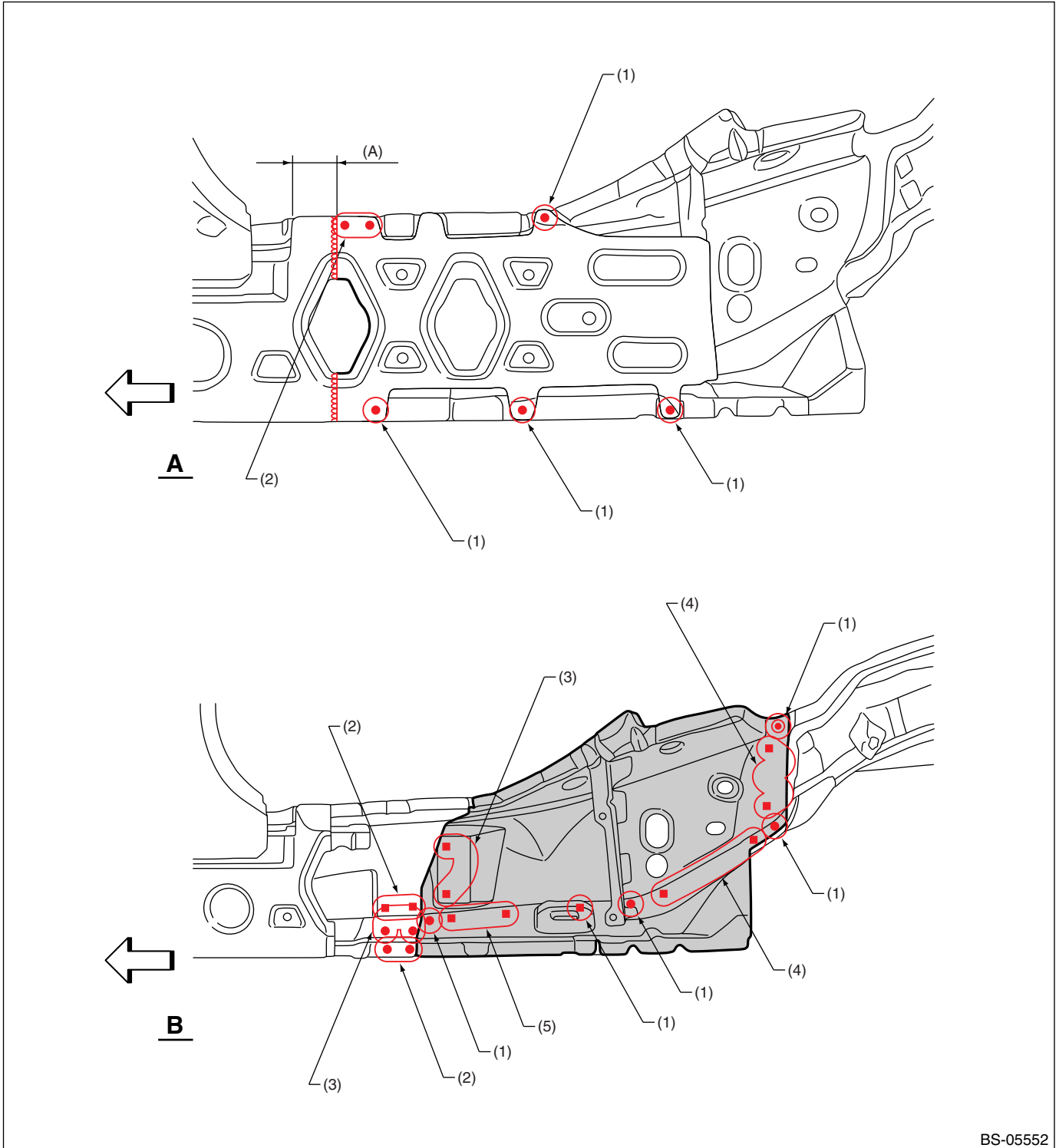
(1) 1 point (service)
(2) 2 points (service)

(3) 5 points (service)

(4) 3 points (service)

Panel Replacement

• Views2



BS-05552

(A) 40 mm (1.57 in)

(1) 1 point
(2) 2 points

(3) 4 points
(4) 5 points (service)

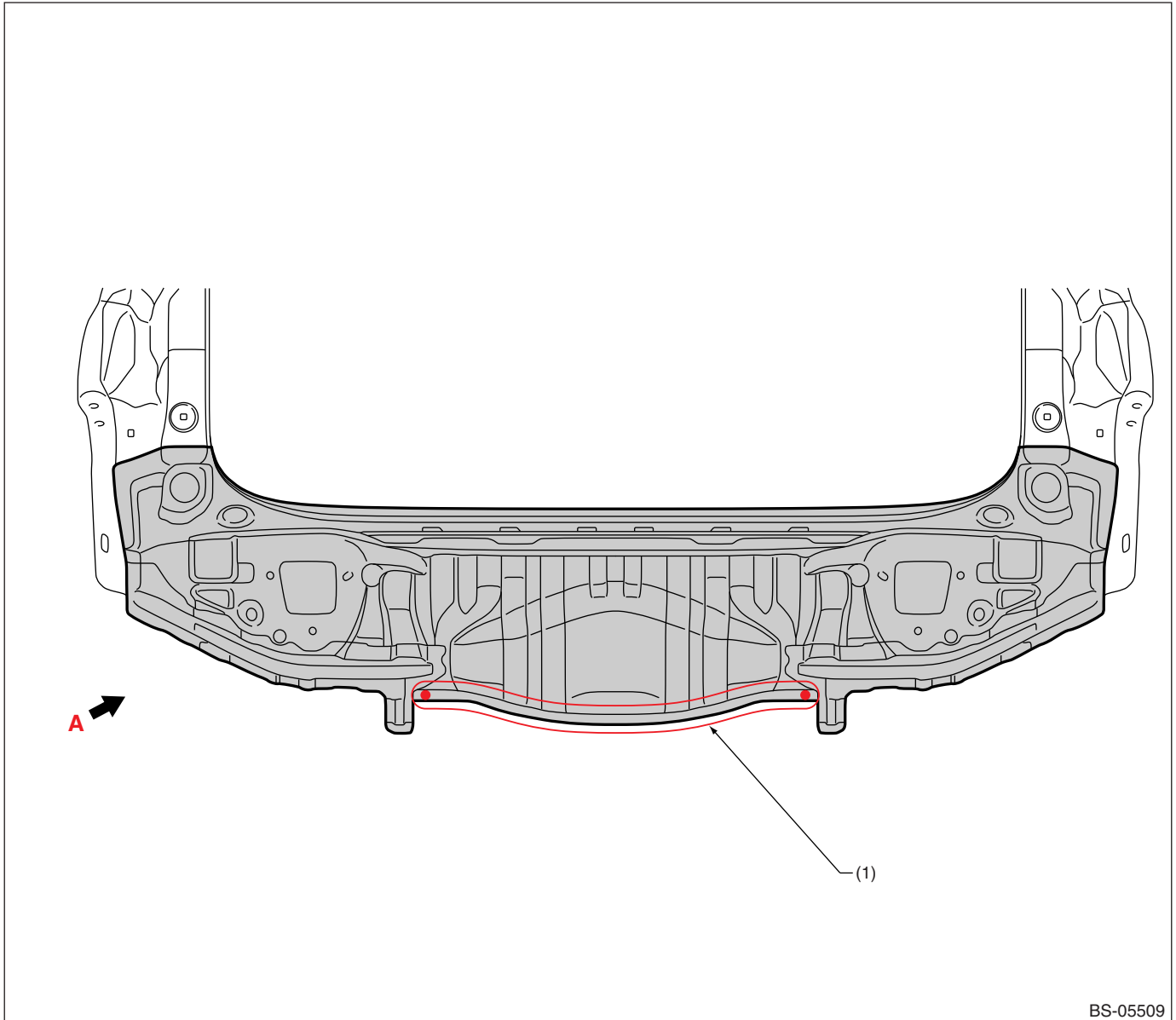
(5) 3 points (service)

Panel Replacement

7-17. Rear Skirt (total replacement)

A: REMOVAL

- Overall view

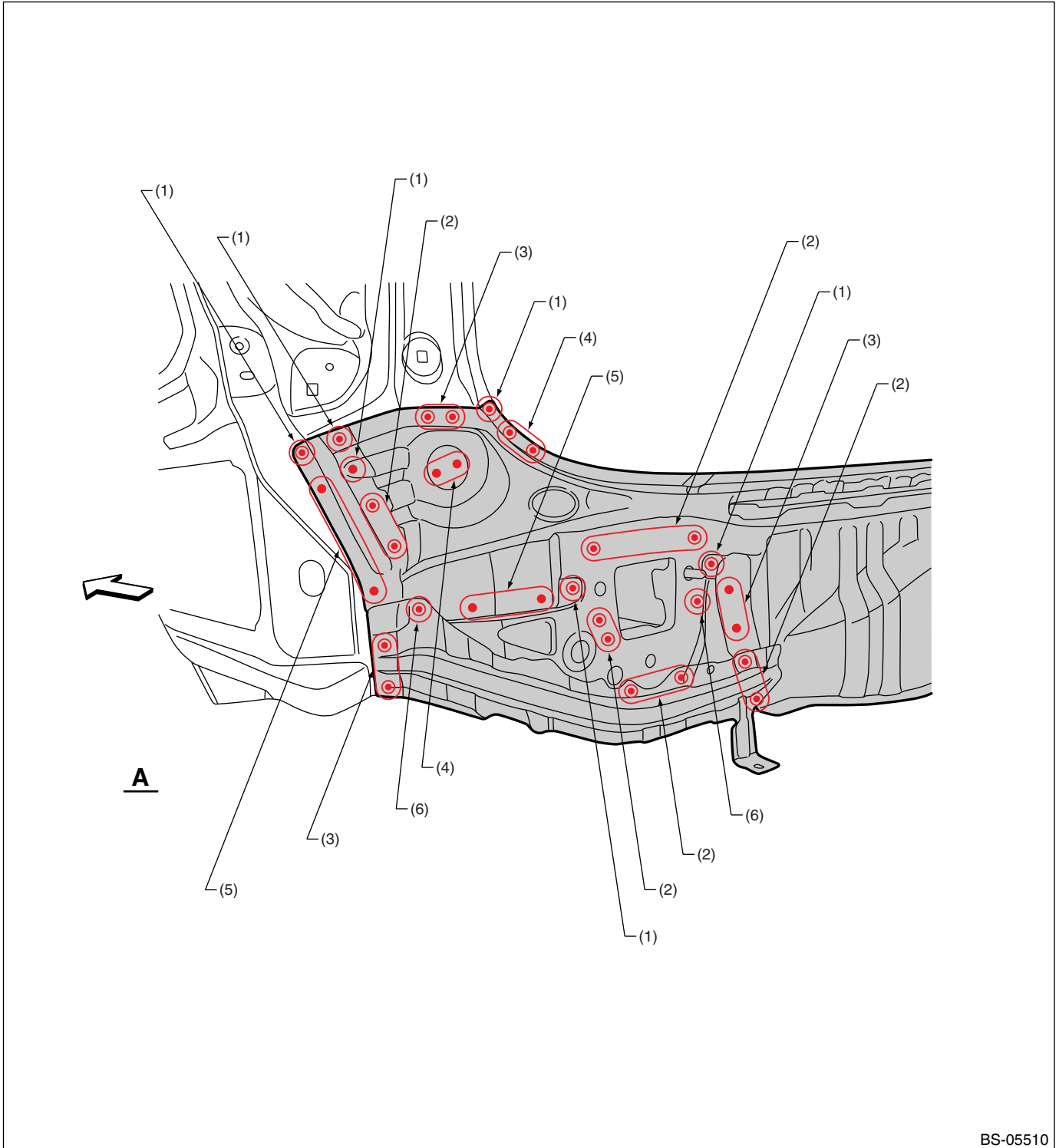


BS-05509

(1) 11 points (top · 1)

Panel Replacement

• Views



BS-05510

(1) 1 point (outside - 1)
(2) 2 points (outside - 2)

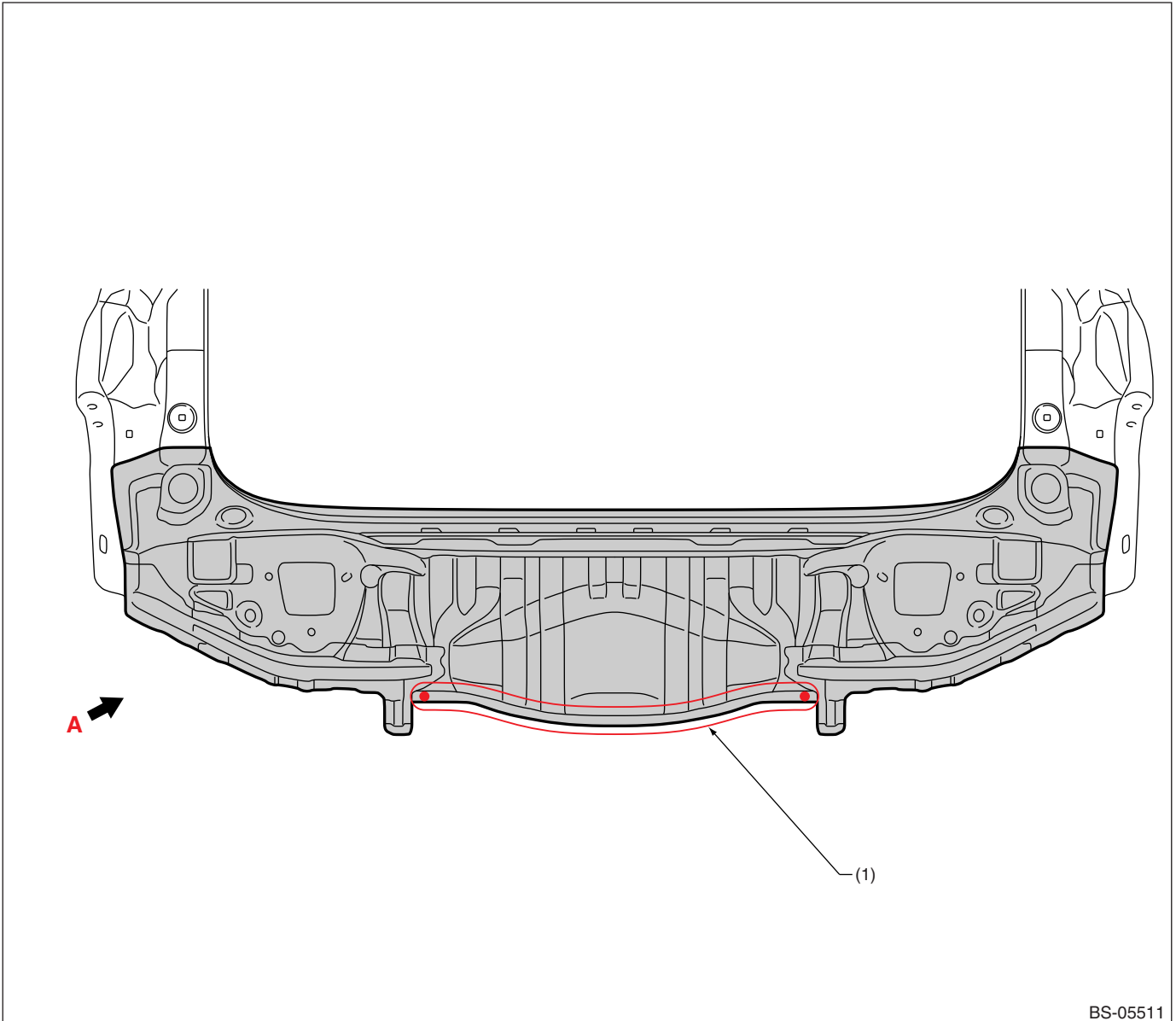
(3) 2 points (outside - 1)
(4) 2 points (inside - 1)

(5) 3 points (outside - 1)
(6) 1 point (outside - 2)

Panel Replacement

B: INSTALLATION

• Overall view

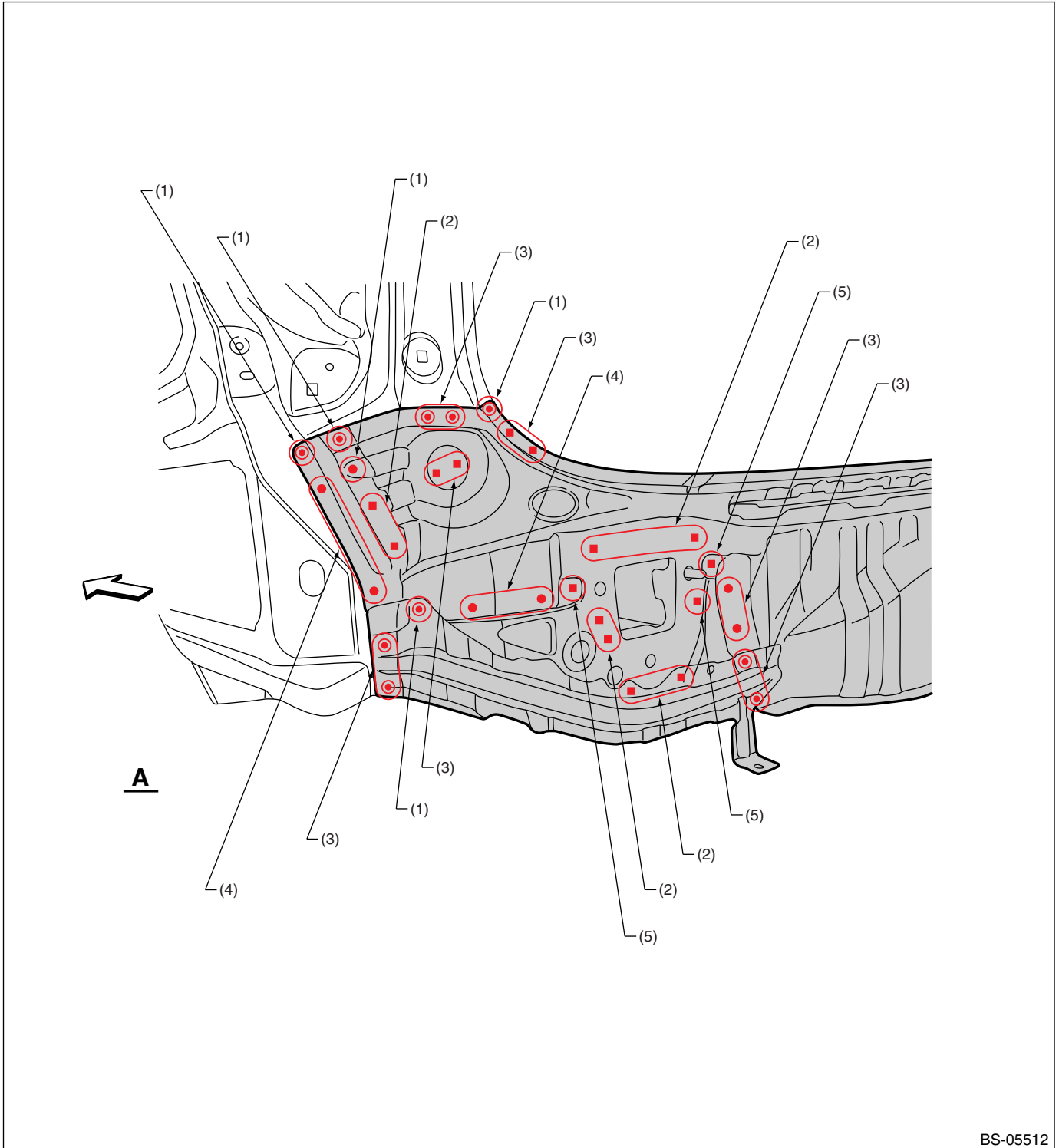


BS-05511

(1) 13 points

Panel Replacement

• Views



BS-05512

(1) 1 point
(2) 2 points (service)

(3) 2 points
(4) 3 points

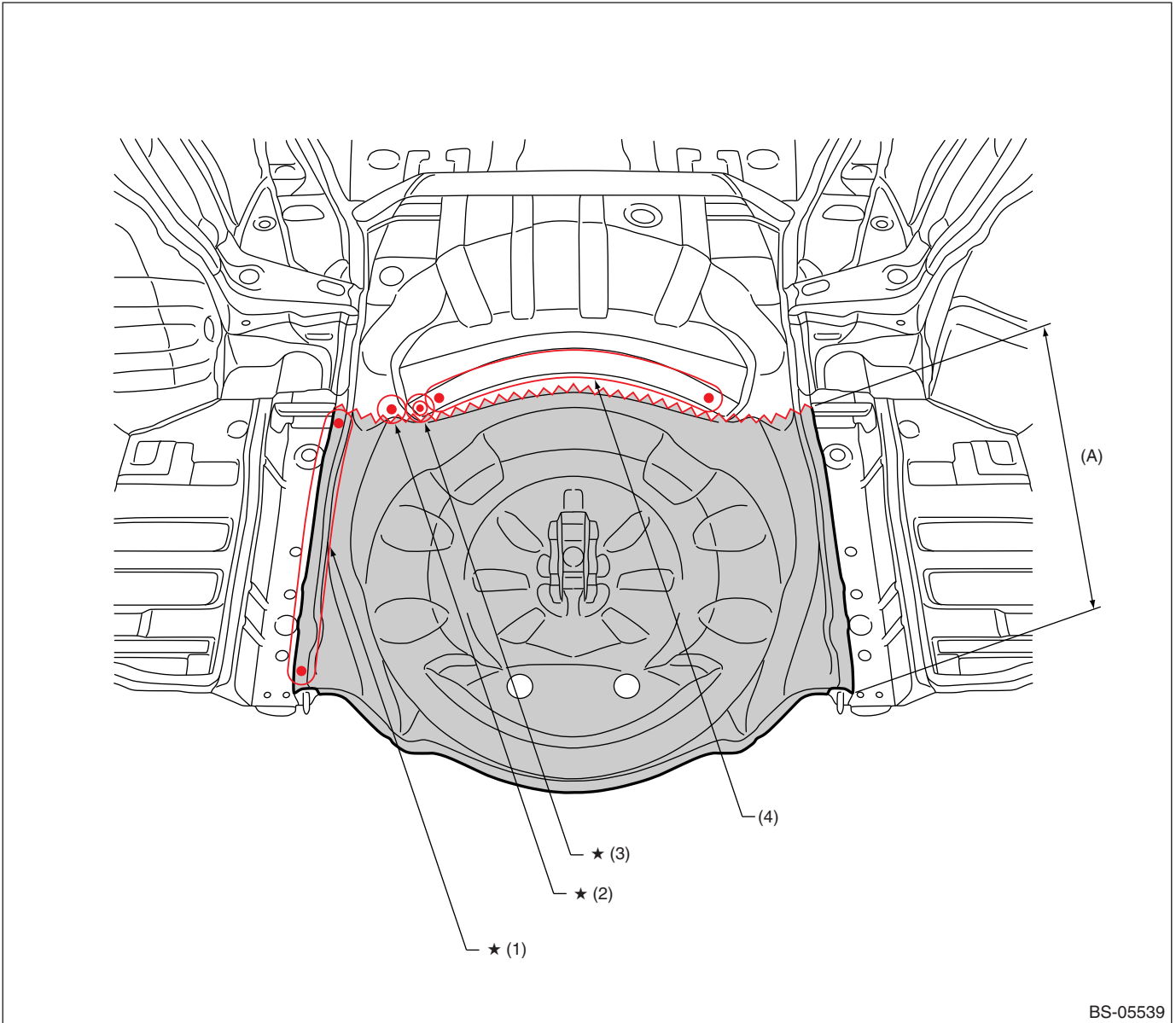
(5) 1 point (service)

Panel Replacement

7-18. Rear Floor Pan (partial replacement)

A: REMOVAL

- Rear skirt and rear side frame upper rear removal condition



BS-05539

(A) 440 mm (17.32 in)

(1) 9 points (top · 1)

(3) 1 point (outside · 1)

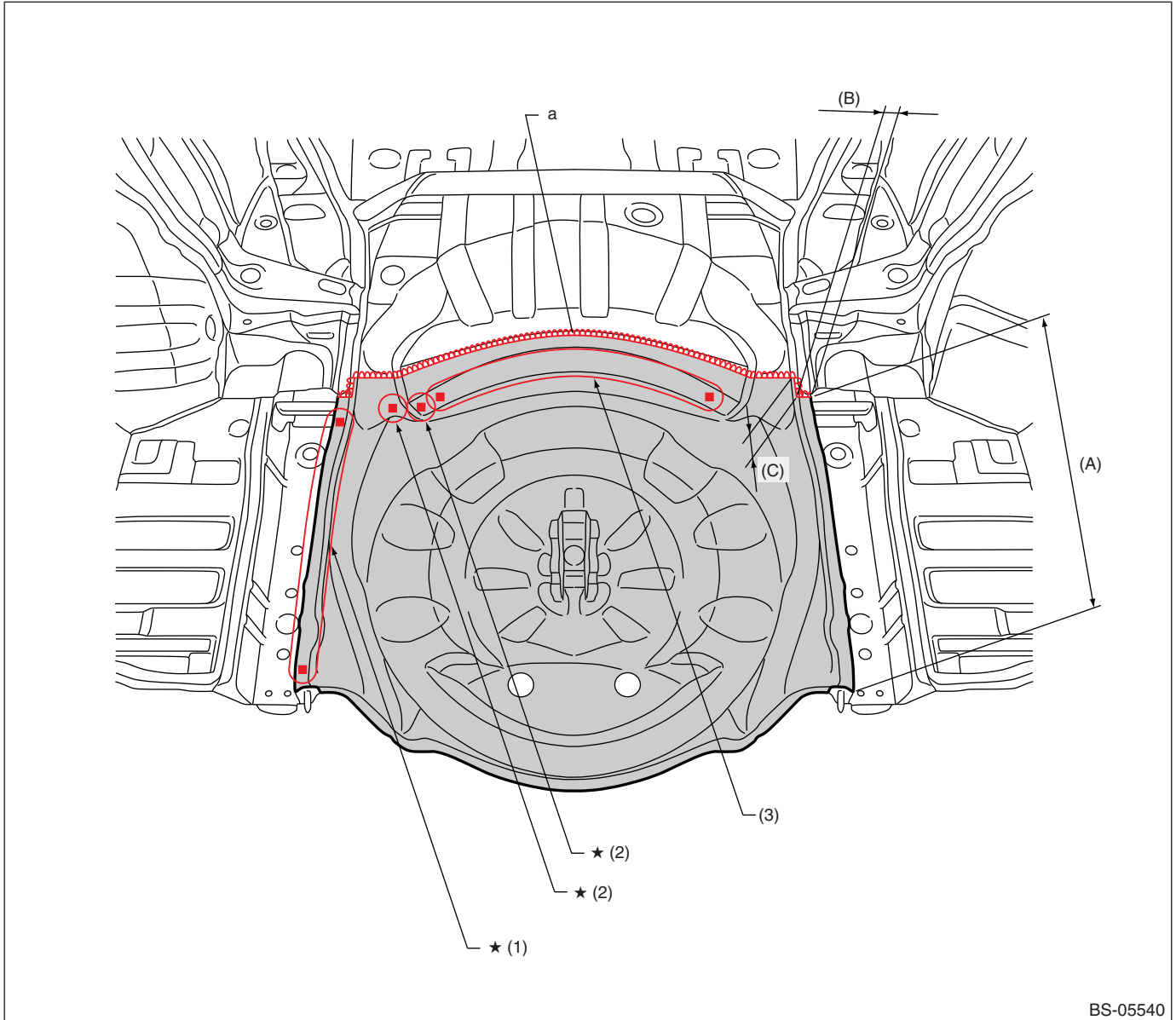
(4) 8 points (outside · 1)

(2) 1 point (inside · 1)

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

B: INSTALLATION



(A) 460 mm (18.11 in)

(B) 20 mm (0.79 in)

(C) 50 mm (1.97 in)

(1) 9 points (service)

(2) 1 point (service)

(3) 8 points (service)

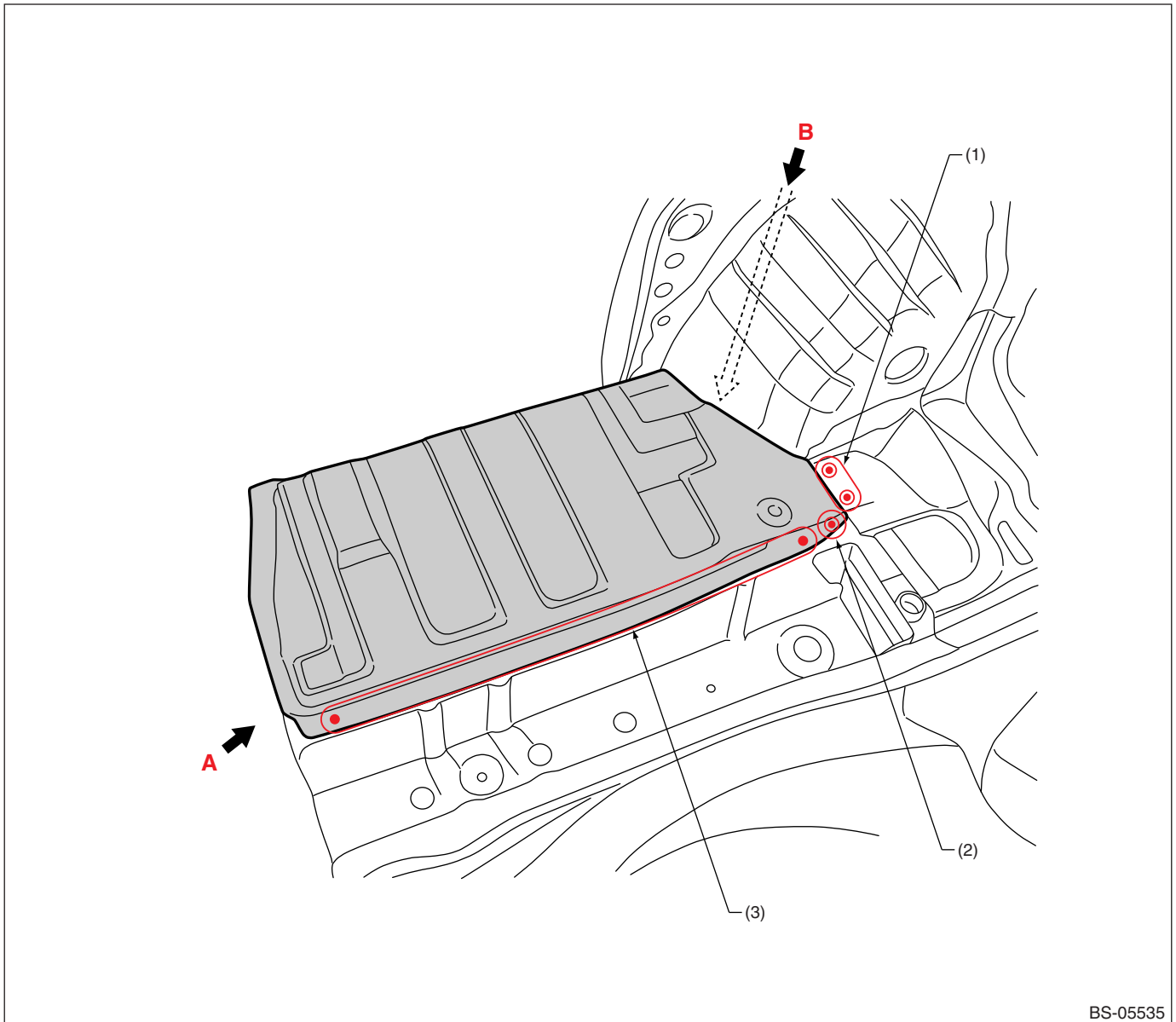
For continuous welds marked by **a**, anticorrosion wax shall be applied thoroughly on the rear.
For locations marked by **★**, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

7-19. Floor Side Rear (total replacement)

A: REMOVAL

- Overall view (Rear skirt, rear quarter outer and rear side frame upper rear removal condition)



BS-05535

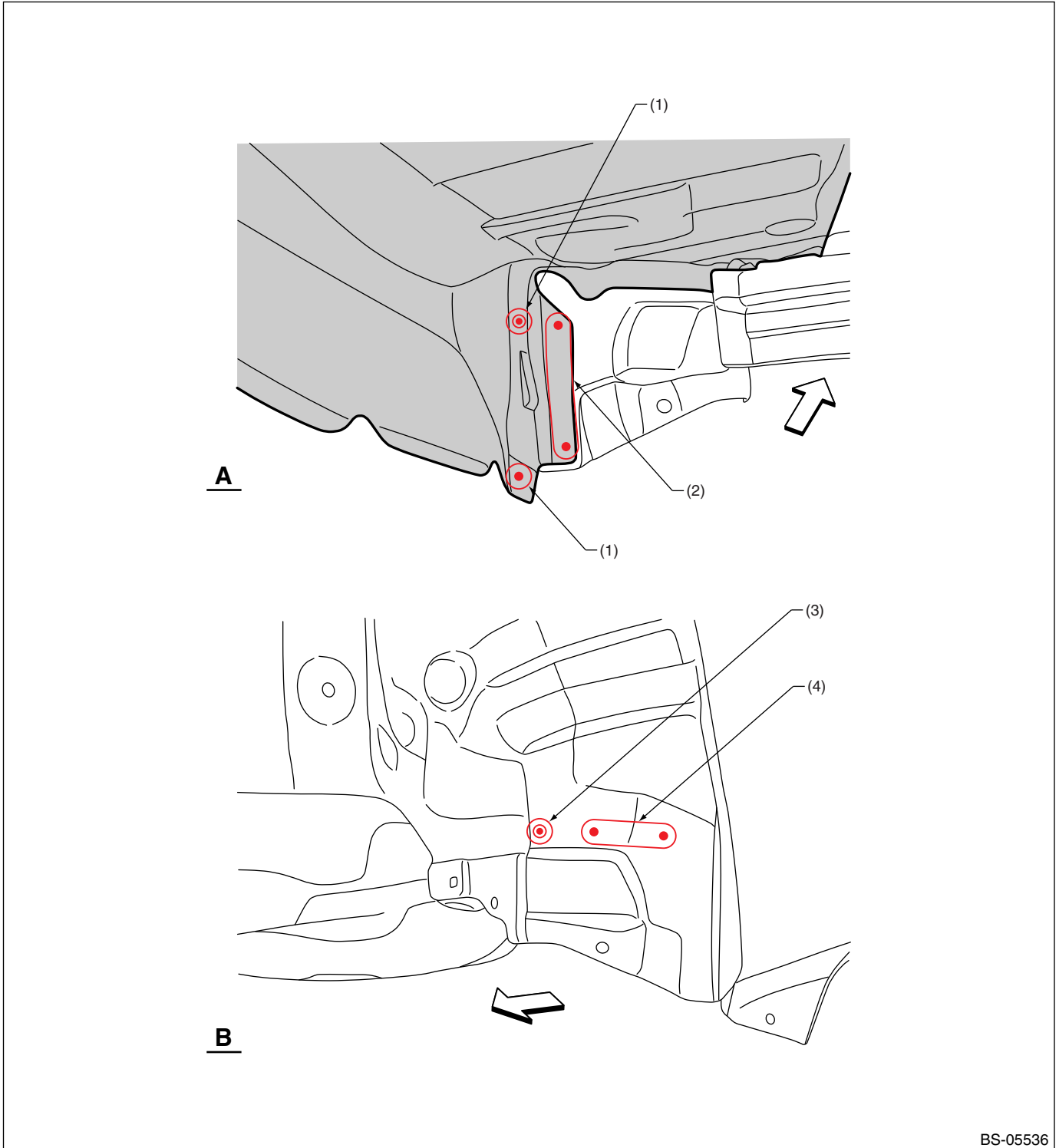
(1) LH: 2 points (top · 2)
RH: 1 point (top · 2)

(2) 1 point (top · 1)

(3) 10 points (top · 1)

Panel Replacement

• Views



BS-05536

(1) 1 point (inside · 1)
(2) 3 points (outside · 1)

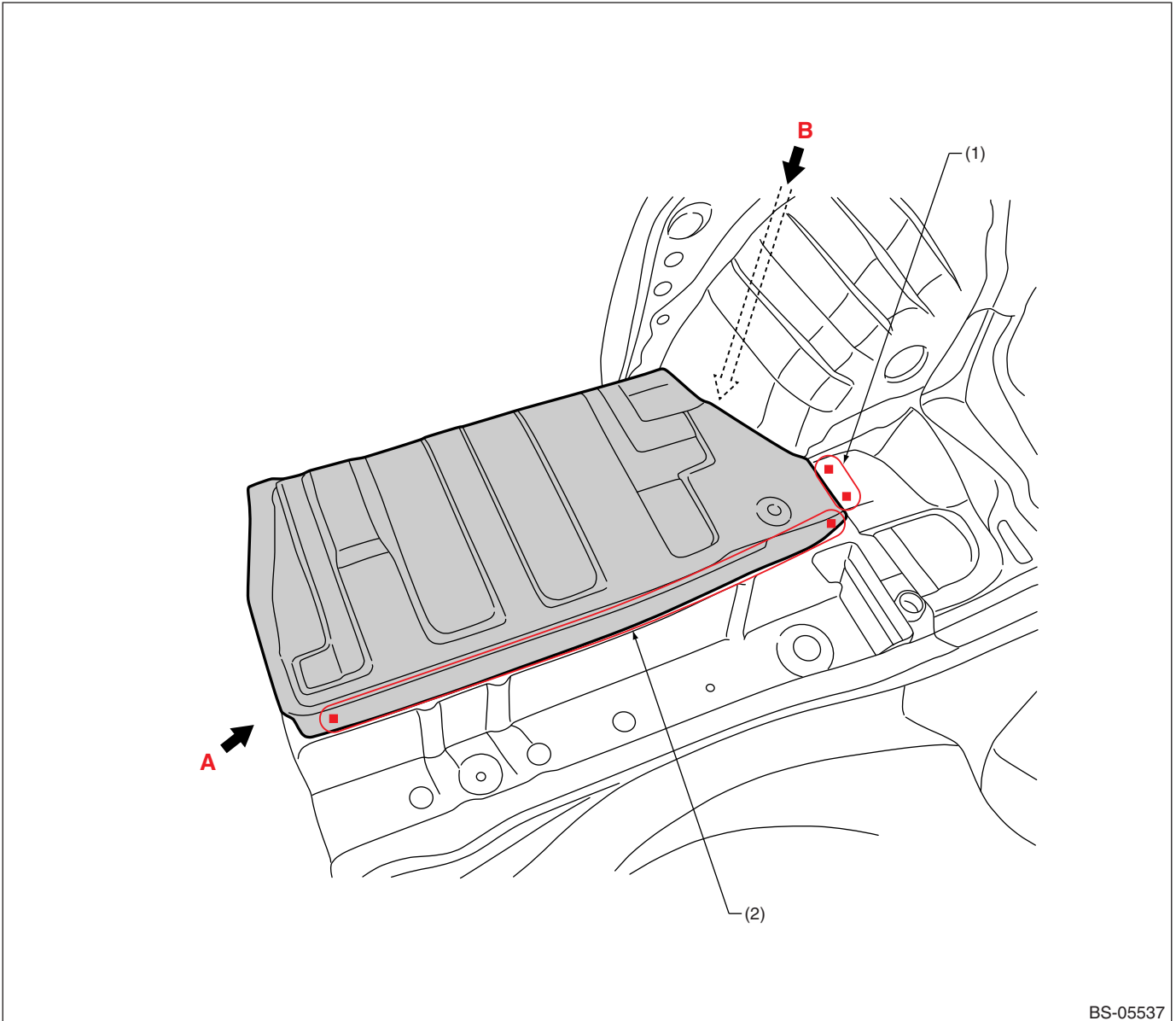
(3) 1 point (outside · 2)

(4) 2 points (outside · 1)

Panel Replacement

B: INSTALLATION

• Overall view

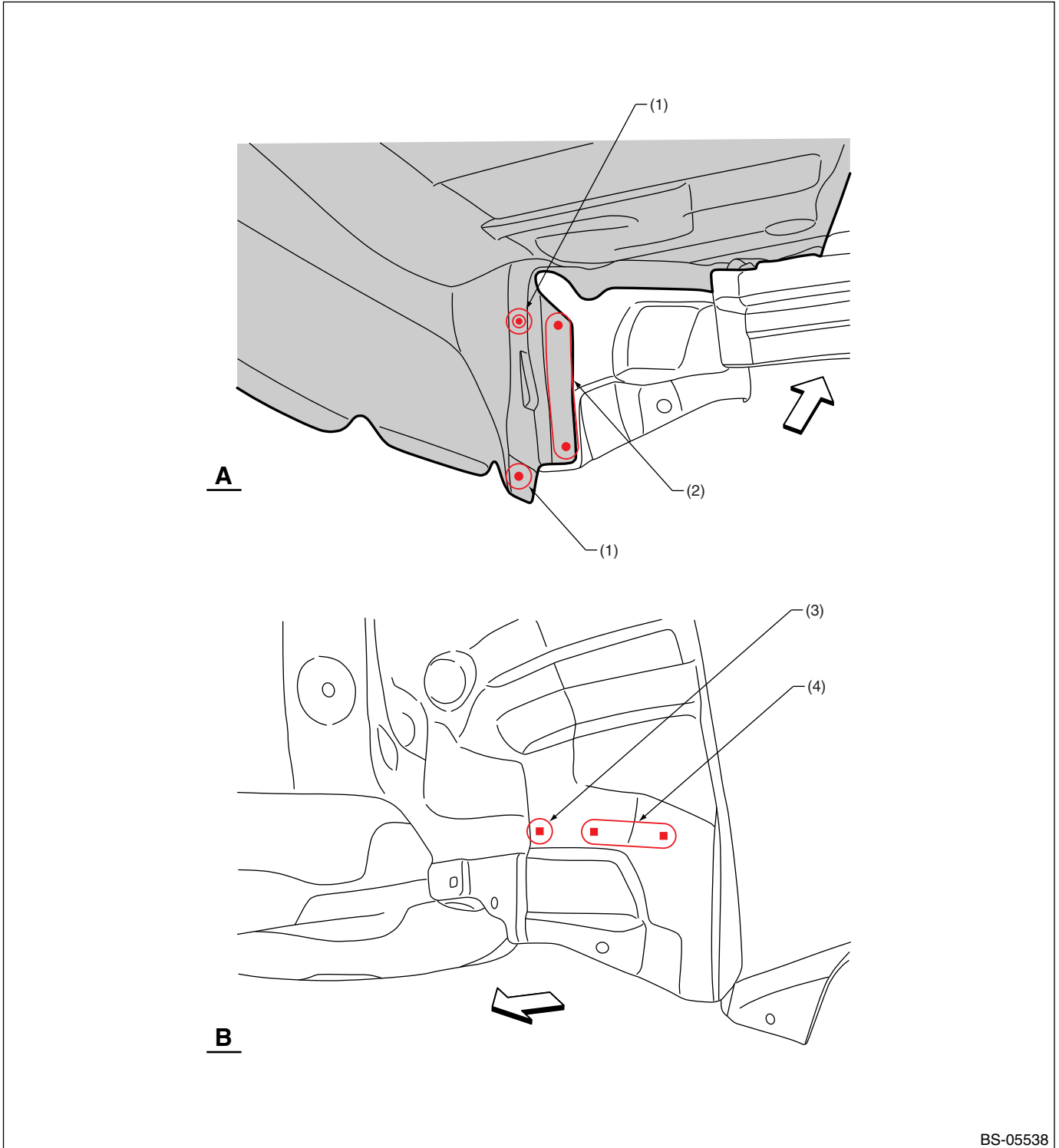


BS-05537

- (1) LH: 2 points (service · matching) (2) 11 points
RH: 1 point (service · matching)

Panel Replacement

• Views



BS-05538

(1) 1 point
(2) 3 points

(3) 1 point (service · matching)

(4) 2 points

Panel Replacement

7-20. Rear Side Frame Upper Rear (total replacement)

A: REMOVAL

- Overall view (Rear skirt removal condition)



BS-05529

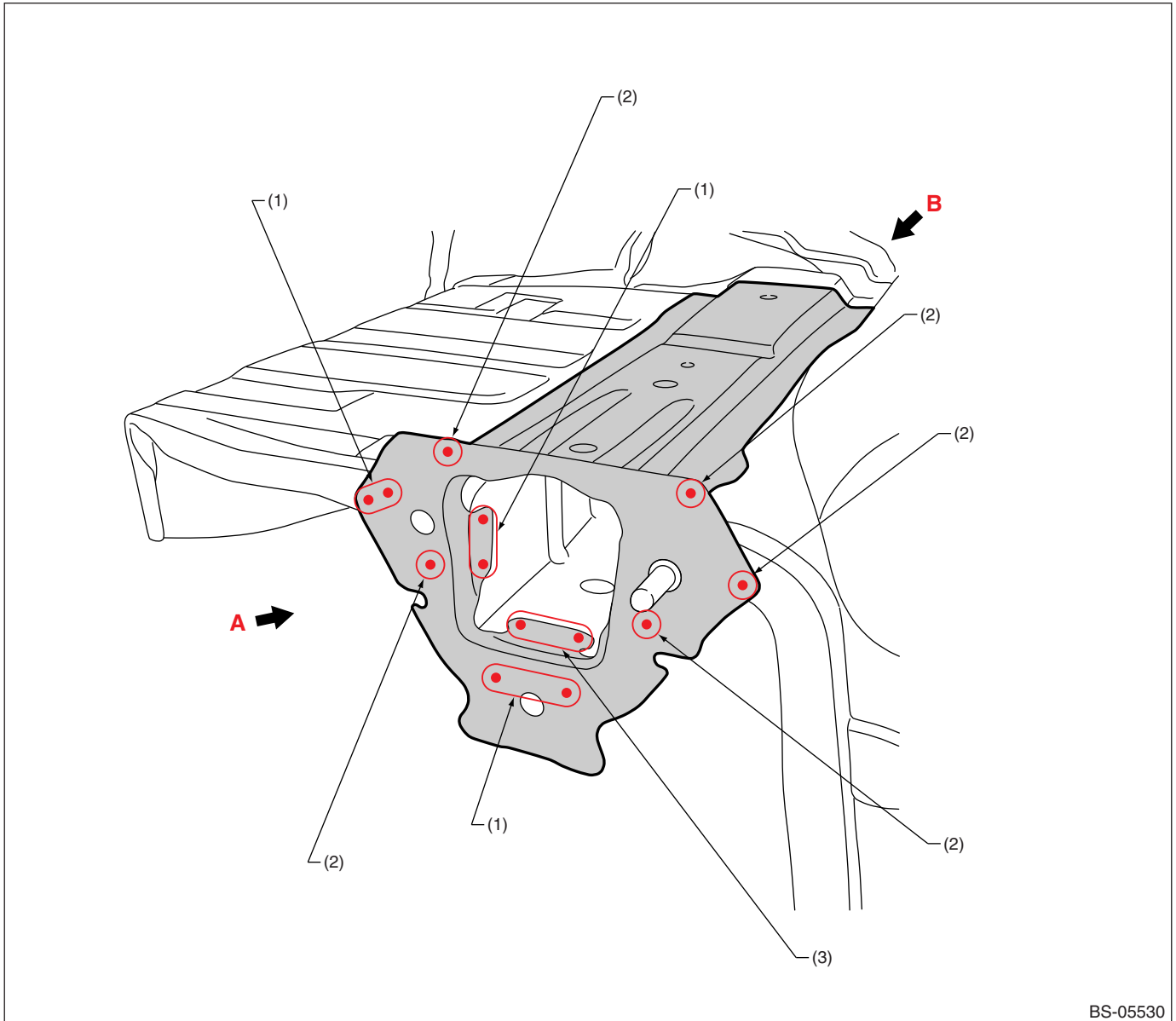
- (1) 1 point (inside - 1)
- (2) 1 point (top - 1)
- (3) 9 points (top - 1)

- (4) 1 point (top - 2)
- (5) 2 points (top - 1)
- (6) 8 points (top - 1)

- (7) 2 points (top - 2)

Panel Replacement

• Views



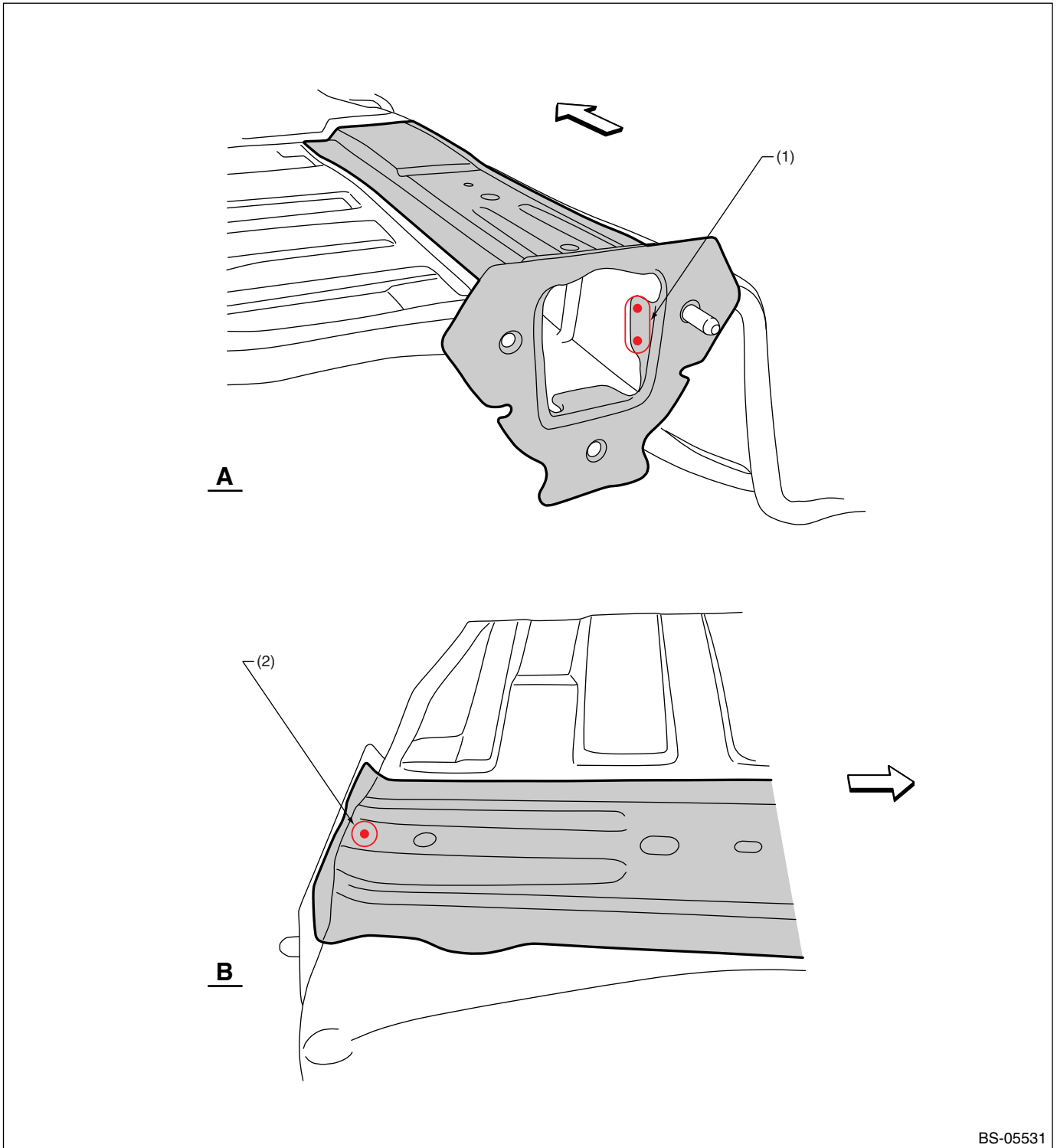
BS-05530

(1) 2 points (outside · 1)

(2) 1 point (outside · 1)

(3) 2 points (bottom · 1)

Panel Replacement



BS-05531

(1) 2 points (inside · 1, belt sander) (2) 1 point (top · 1)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05532

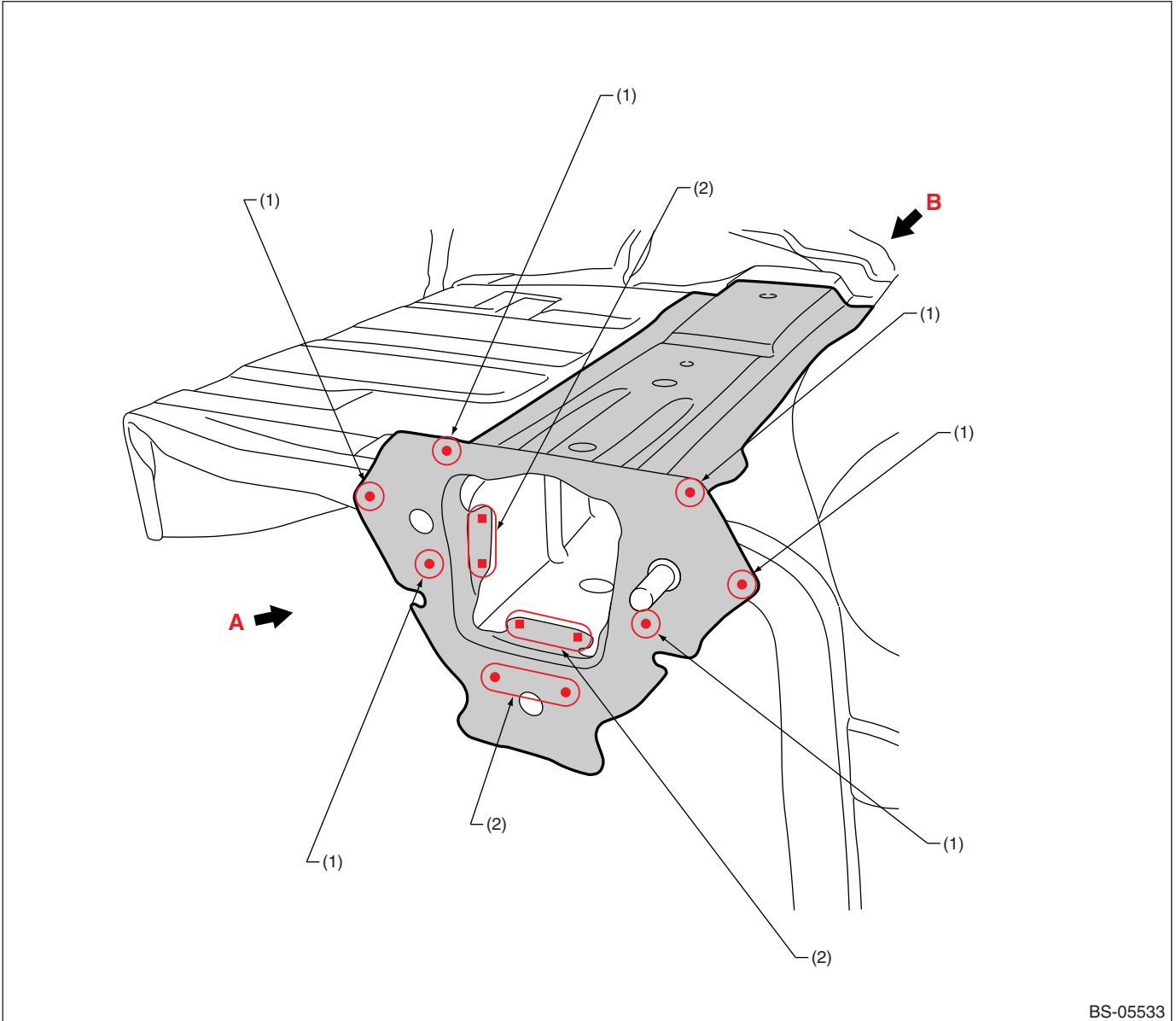
(1) 1 point
(2) 9 points (service)

(3) 1 point (service · matching)
(4) 2 points

(5) 12 points (service)
(6) 2 points (service · matching)

Panel Replacement

• Views

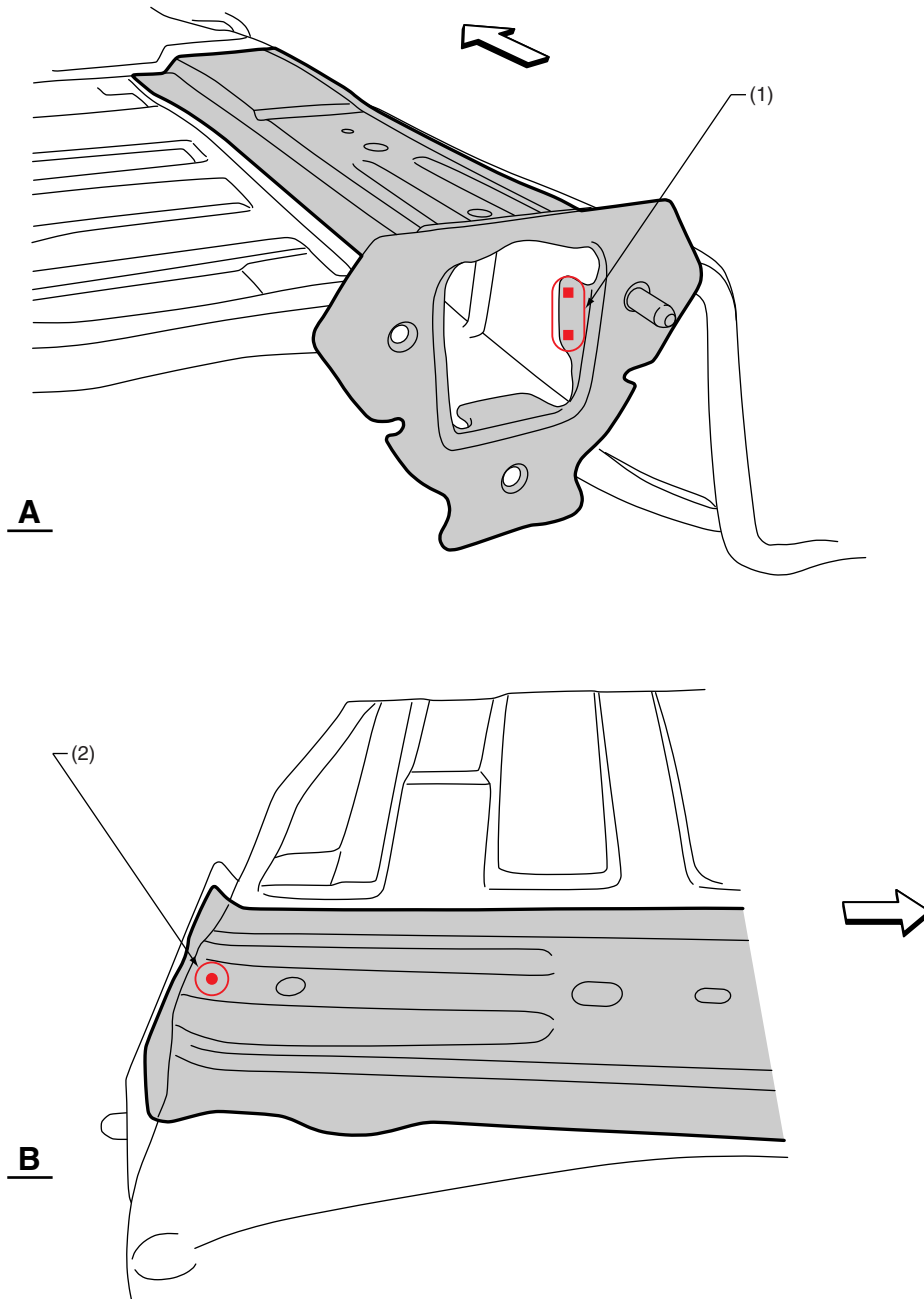


BS-05533

(1) 1 point

(2) 2 points

Panel Replacement



BS-05534

(1) 2 points (service)

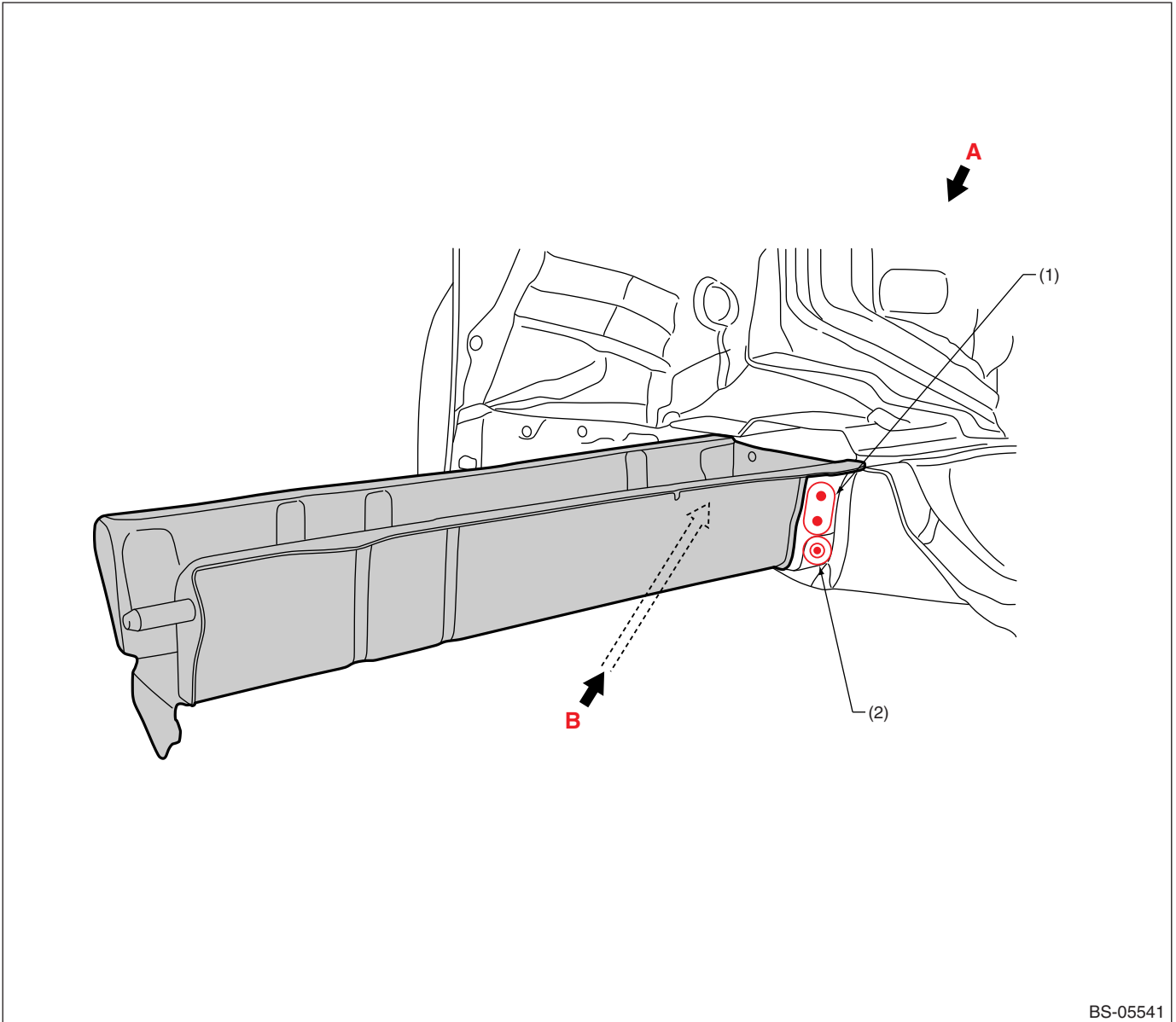
(2) 1 point

Panel Replacement

7-21. Rear Side Frame Lower Rear (total replacement)

A: REMOVAL

- Overall view (Rear skirt, rear side frame upper rear, rear floor pan and floor side rear removal condition)



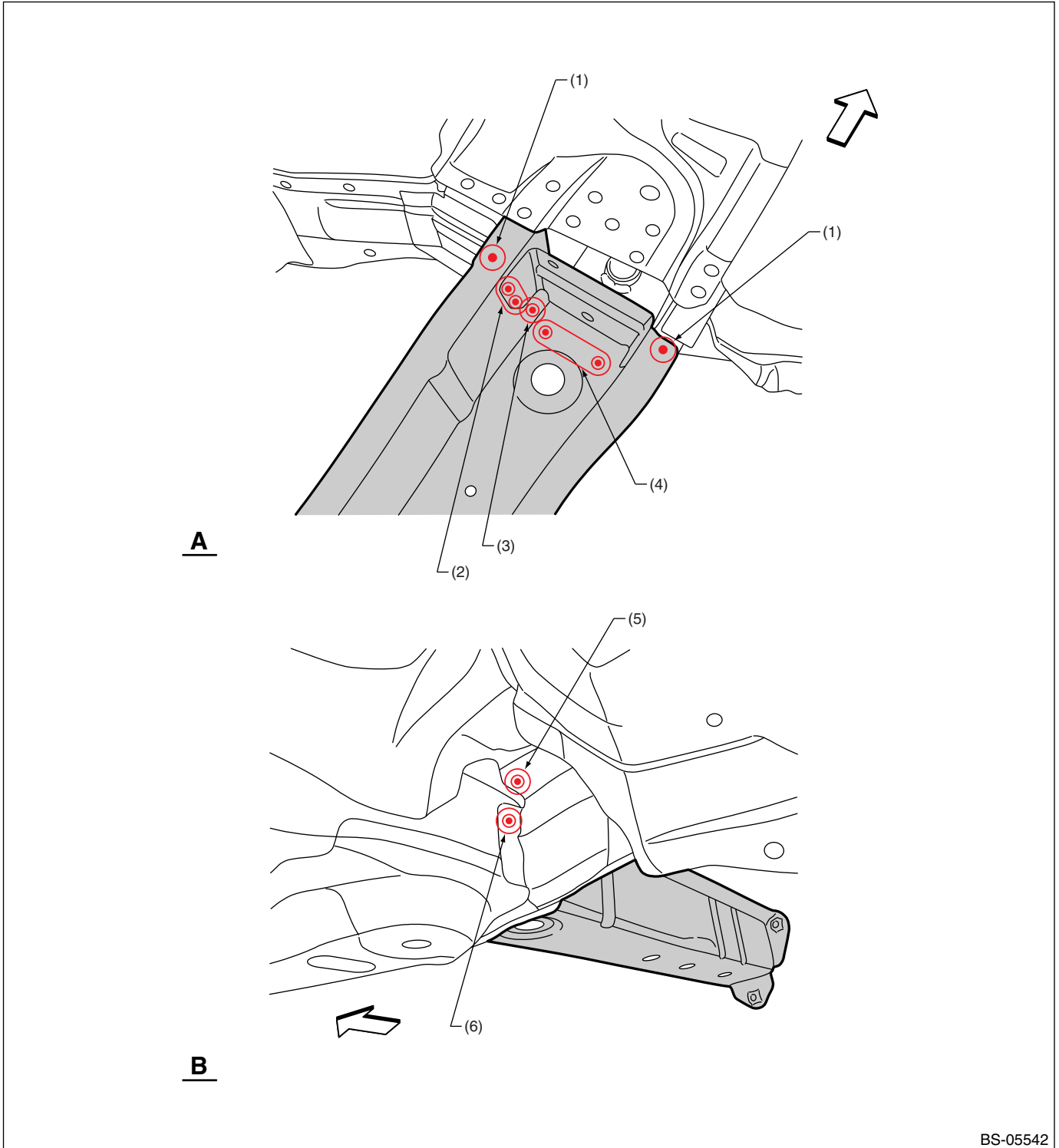
BS-05541

(1) 2 points (inside · 1)

(2) 1 point (inside · 2)

Panel Replacement

• Views



BS-05542

(1) 1 point (top · 1)

(2) 2 points (inside · 2, belt sander)

(3) 1 point (inside · 1, belt sander)

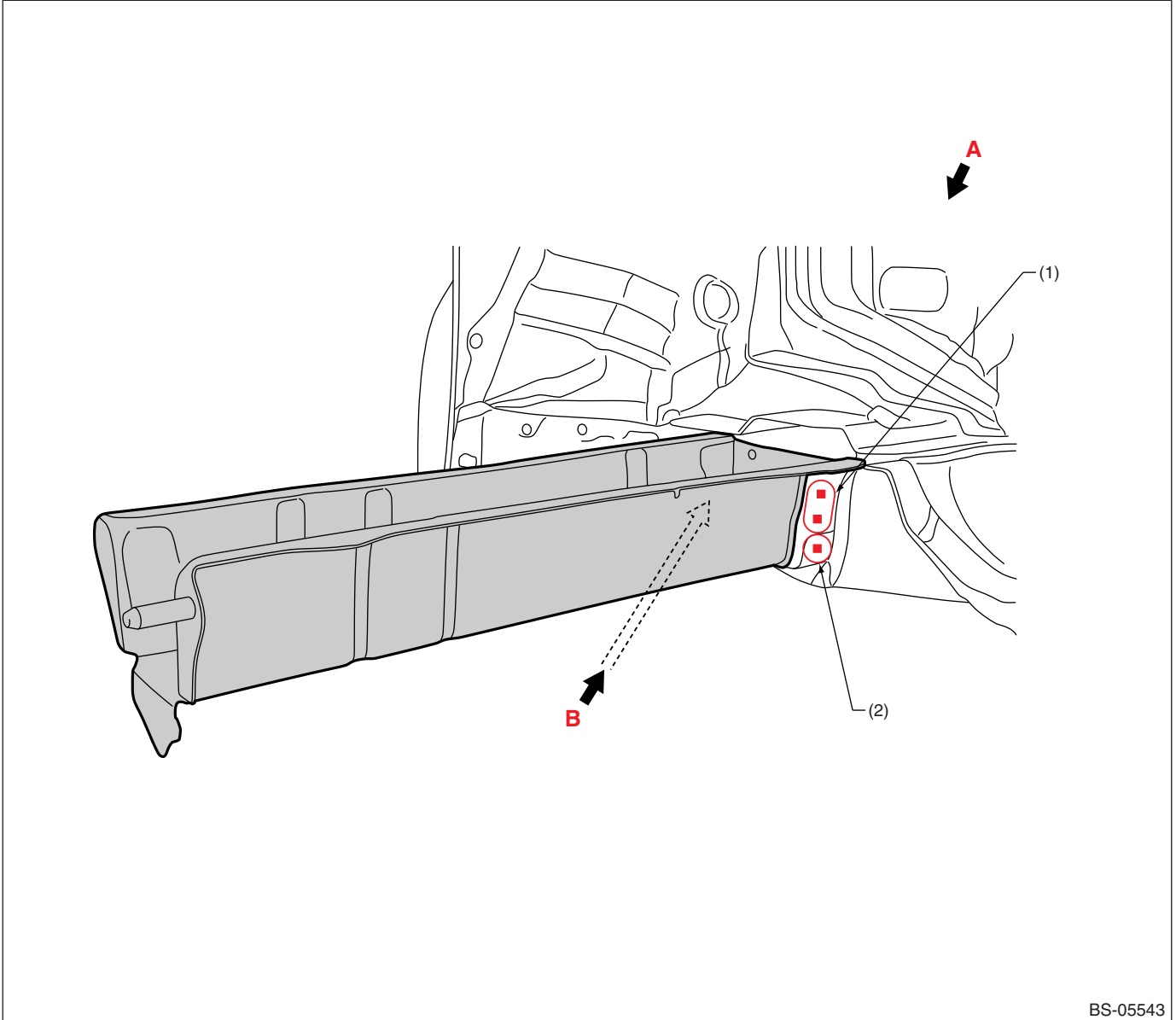
(4) 3 points (top · 1)

(5) 1 point (bottom · 2)

(6) 1 point (outside · 2, belt sander)

Panel Replacement

B: INSTALLATION



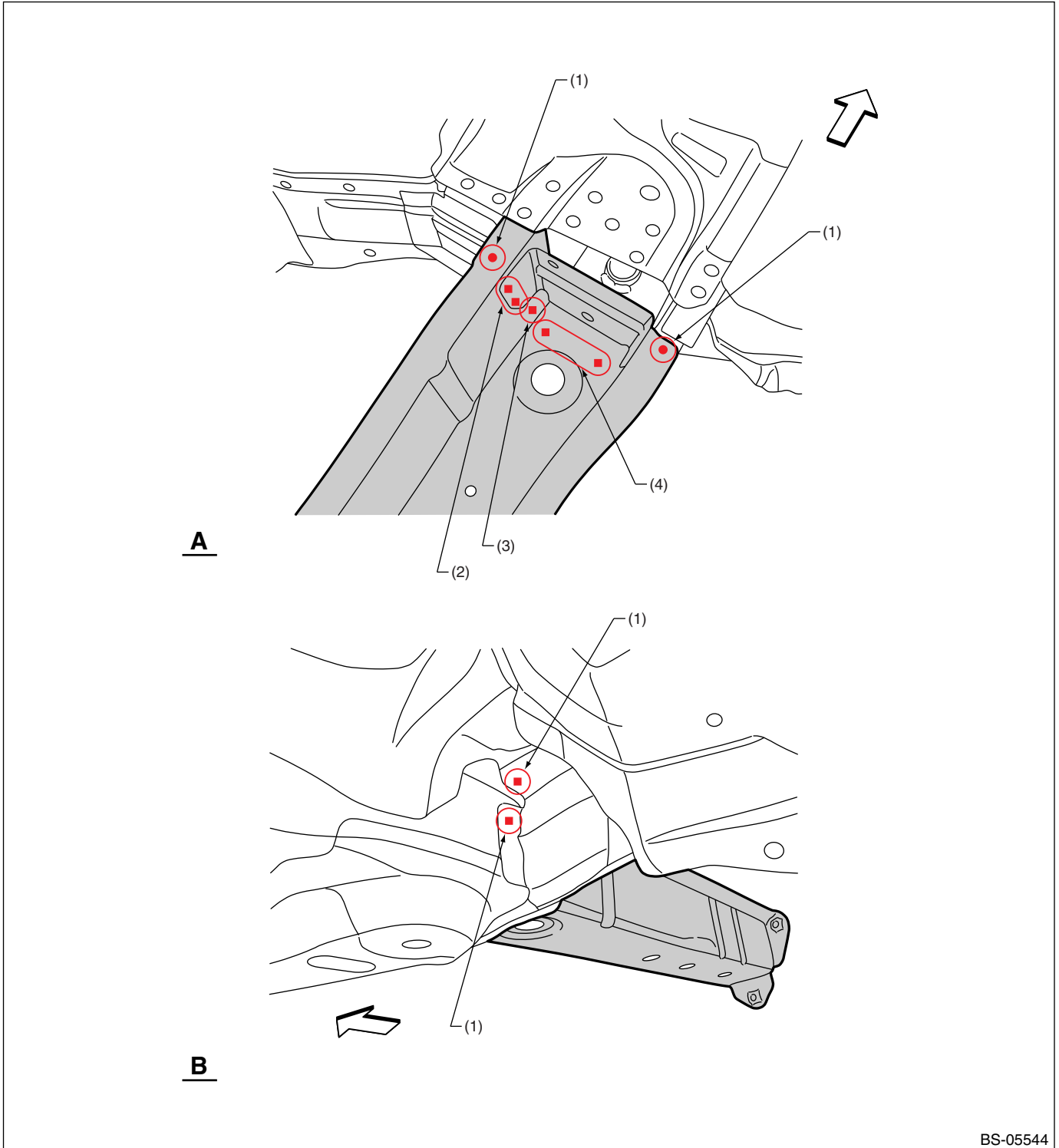
BS-05543

(1) 2 points

(2) 1 point

Panel Replacement

• Views



(1) 1 point

(2) 2 points (service)

(3) 1 point (service)

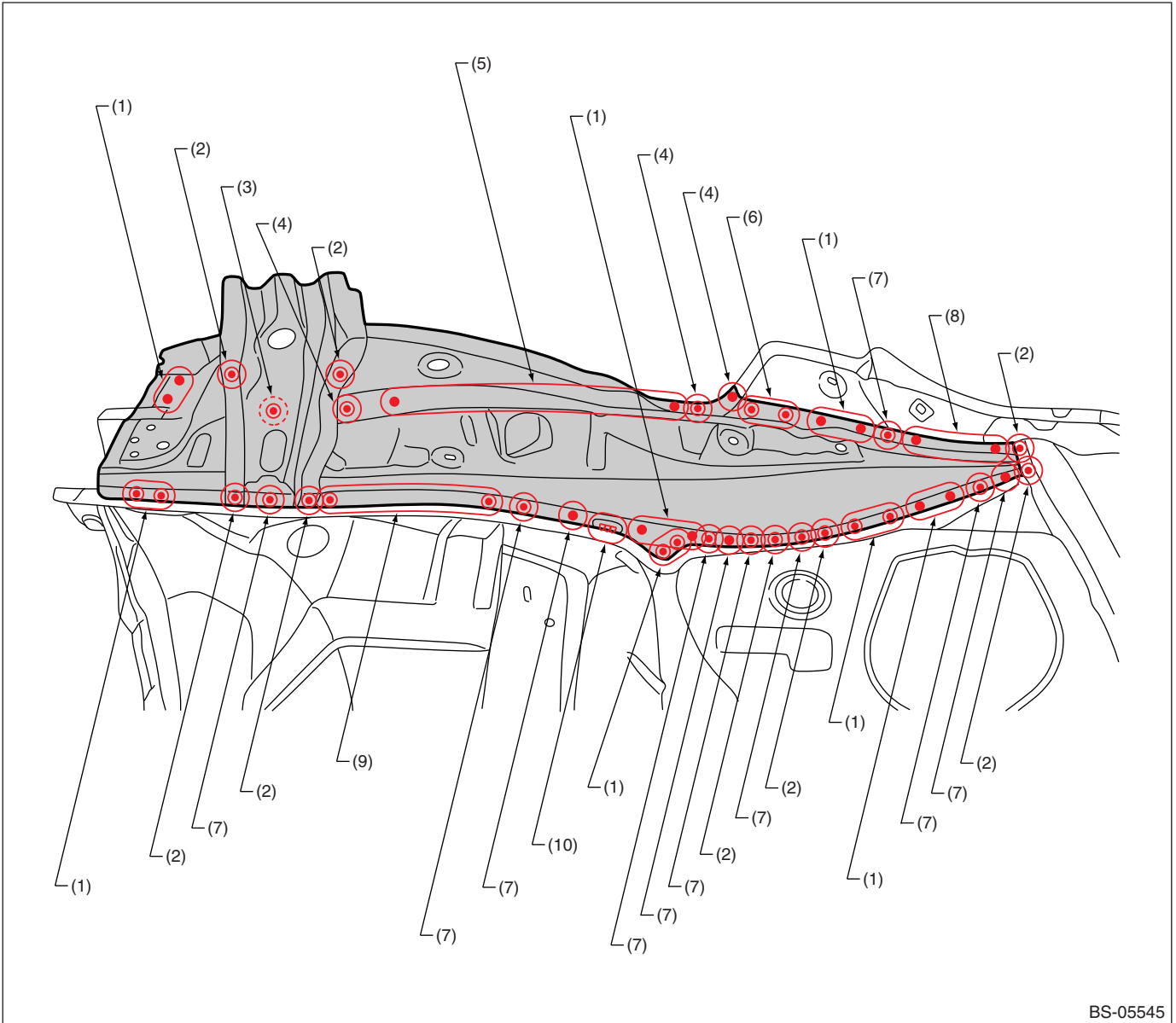
(4) 3 points (service)

Panel Replacement

7-22. Damper Bracket Floor (total replacement)

A: REMOVAL

- Rear skirt, rear floor pan, floor side rear, rear quarter and rear quarter inner removal condition

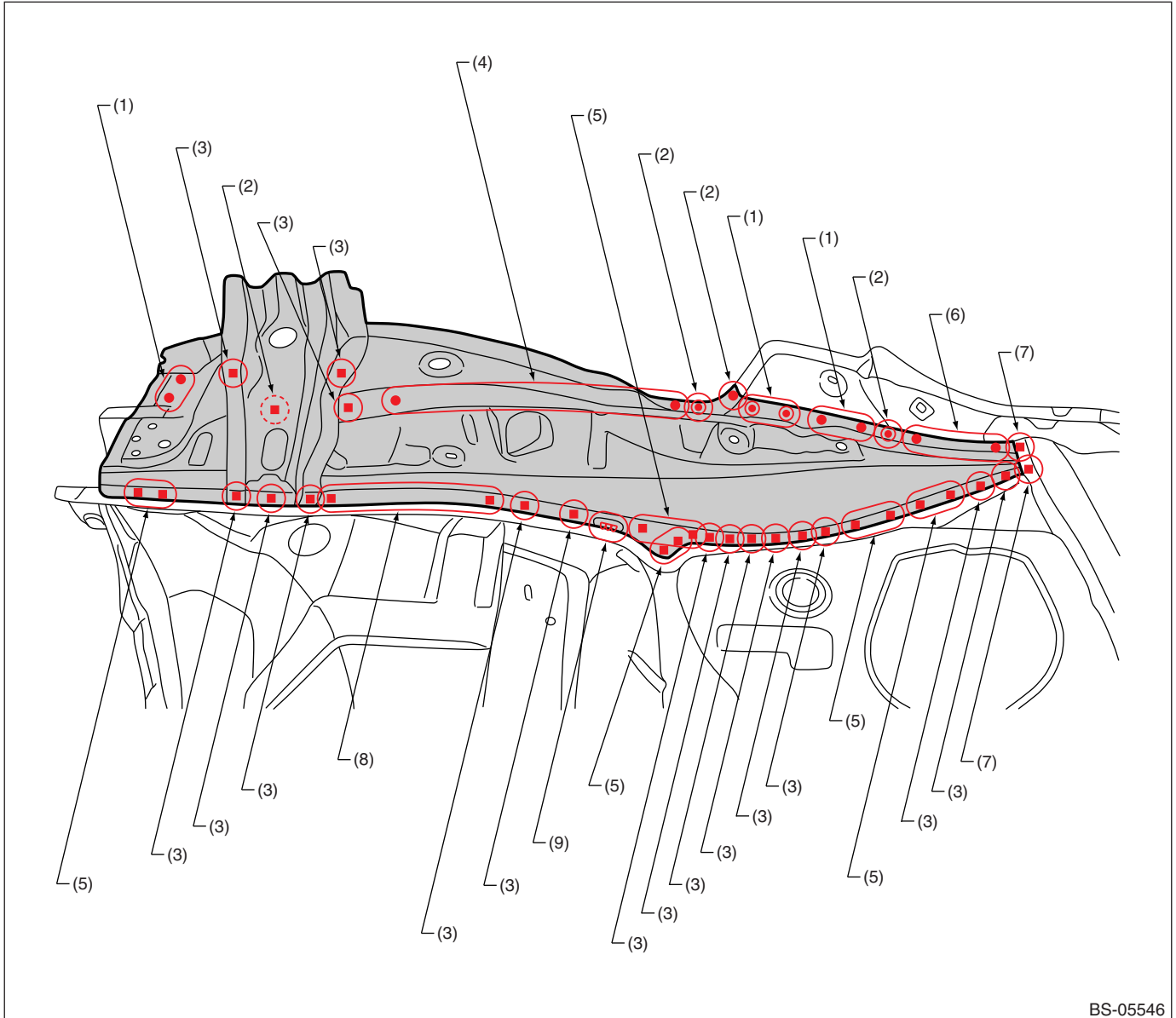


BS-05545

- | | | |
|---------------------------|---------------------------|-------------------------------------|
| (1) 2 points (top - 1) | (5) 8 points (inside - 1) | (9) 5 points (top - 1) |
| (2) 1 point (top - 2) | (6) 2 points (top - 2) | (10) 1 point (top - 1, belt sander) |
| (3) 1 point (outside - 2) | (7) 1 point (top - 1) | |
| (4) 1 point (inside - 1) | (8) 3 points (top - 1) | |

Panel Replacement

B: INSTALLATION



- (1) 2 points
- (2) 1 point
- (3) 1 point (service)

- (4) 9 points
- (5) 2 points (service)
- (6) 4 points
- (9) 1 point [15 mm (0.59 in)]

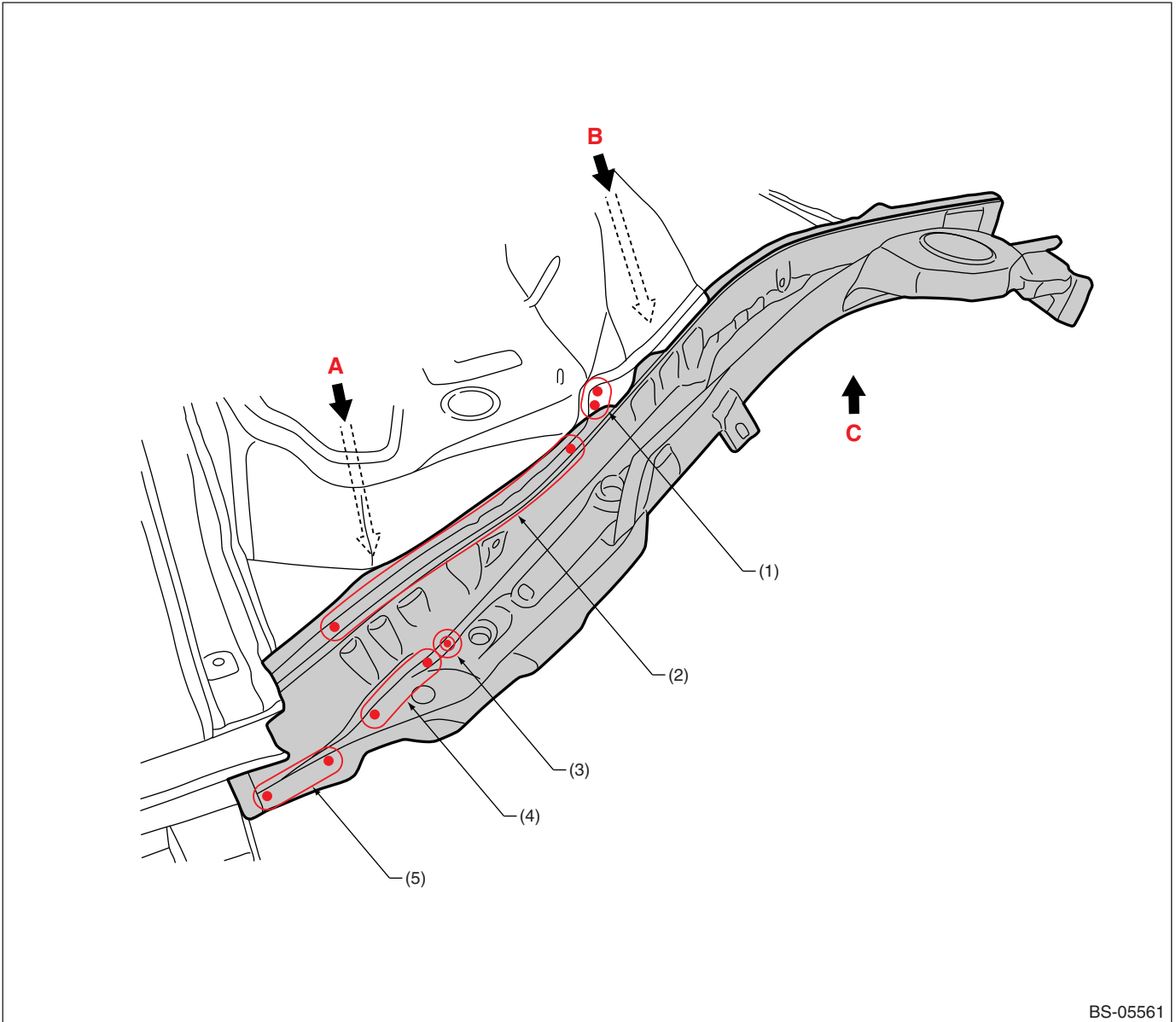
- (7) 1 point (service - matching)
- (8) 5 points (service)

Panel Replacement

7-23. Floor Side Frame Rear (total replacement)

A: REMOVAL

• Overall view (Rear skirt, rear floor pan, rear side frame rear, rear quarter outer & inner, side sill inner rear and damper bracket floor removal condition)



BS-05561

(1) 2 points (inside · 2)

(3) 1 point (bottom · 1)

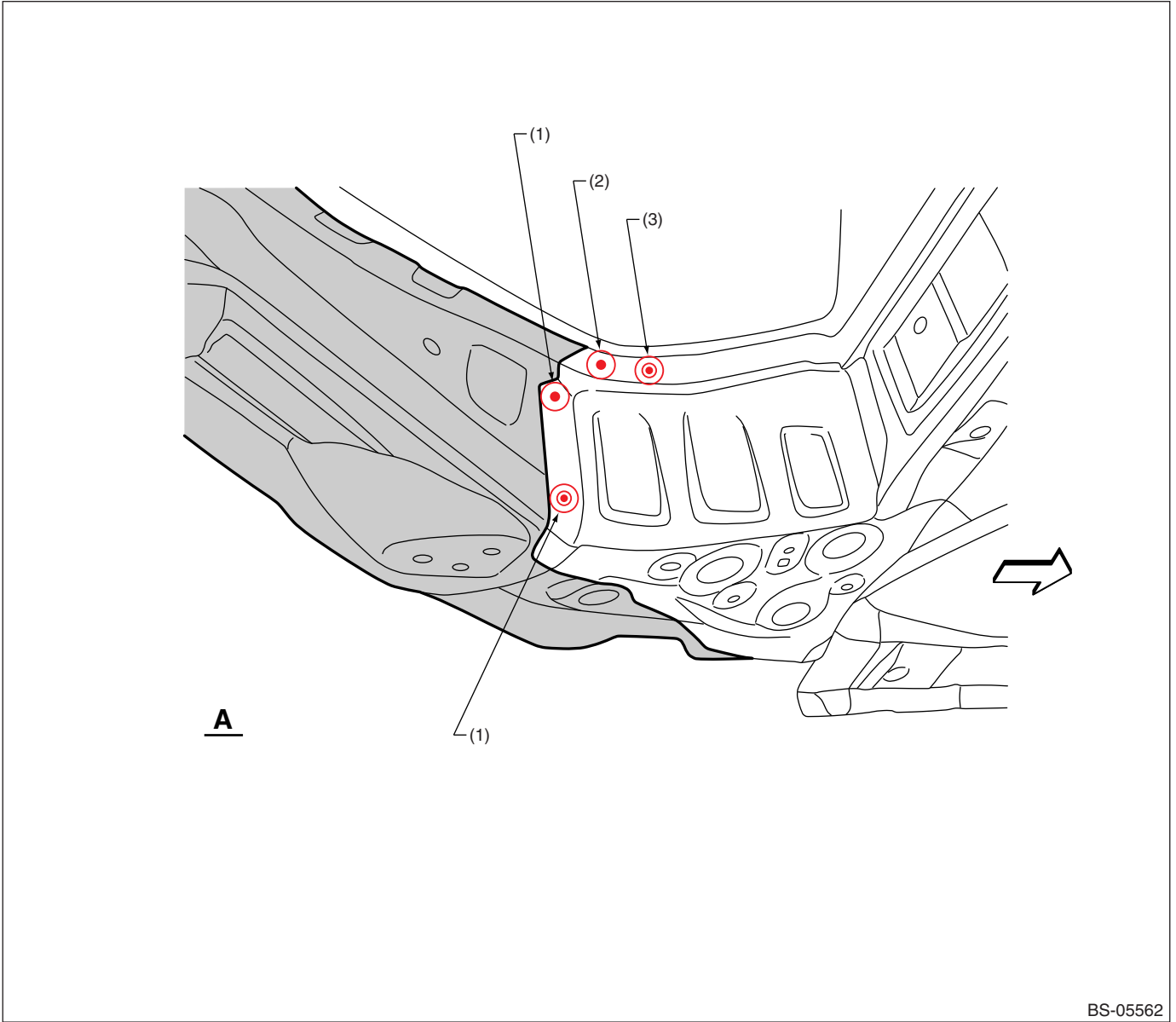
(5) 3 points (outside · 1)

(2) 6 points (top · 1)

(4) 3 points (top · 1)

Panel Replacement

• Views1



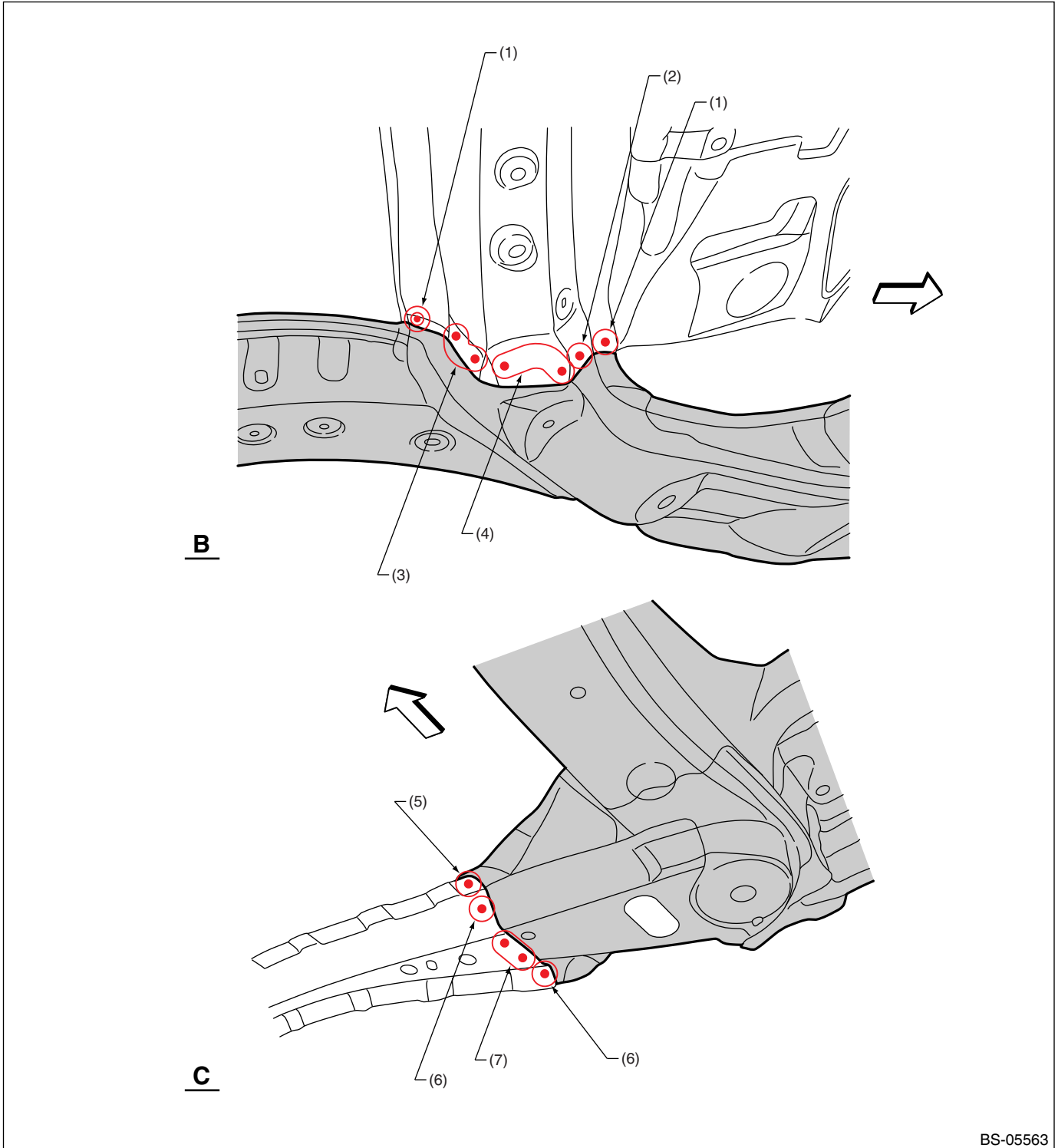
(1) 1 point (inside · 1)

(2) 1 point (bottom · 1)

(3) 1 point (top · 1, bottom · 1)

Panel Replacement

• Views2



BS-05563

- (1) 1 point (bottom · 1)
- (2) 1 point (inside · 1)
- (3) 3 points (outside · 1)

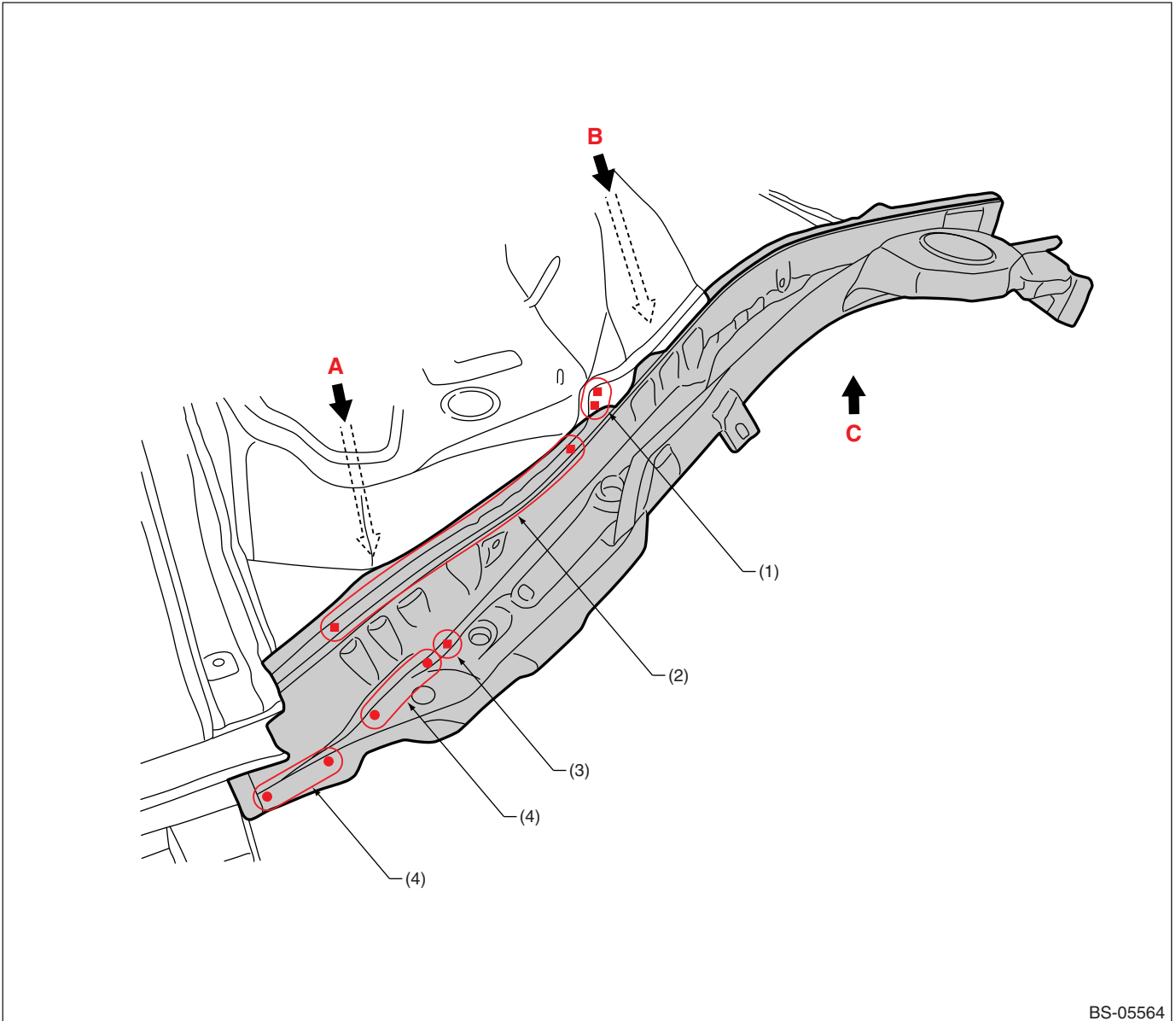
- (4) 3 points (bottom · 1)
- (5) 1 point (top · 1)
- (6) 1 point (outside · 1)

- (7) 2 points (top · 1)

Panel Replacement

B: INSTALLATION

• Overall view



BS-05564

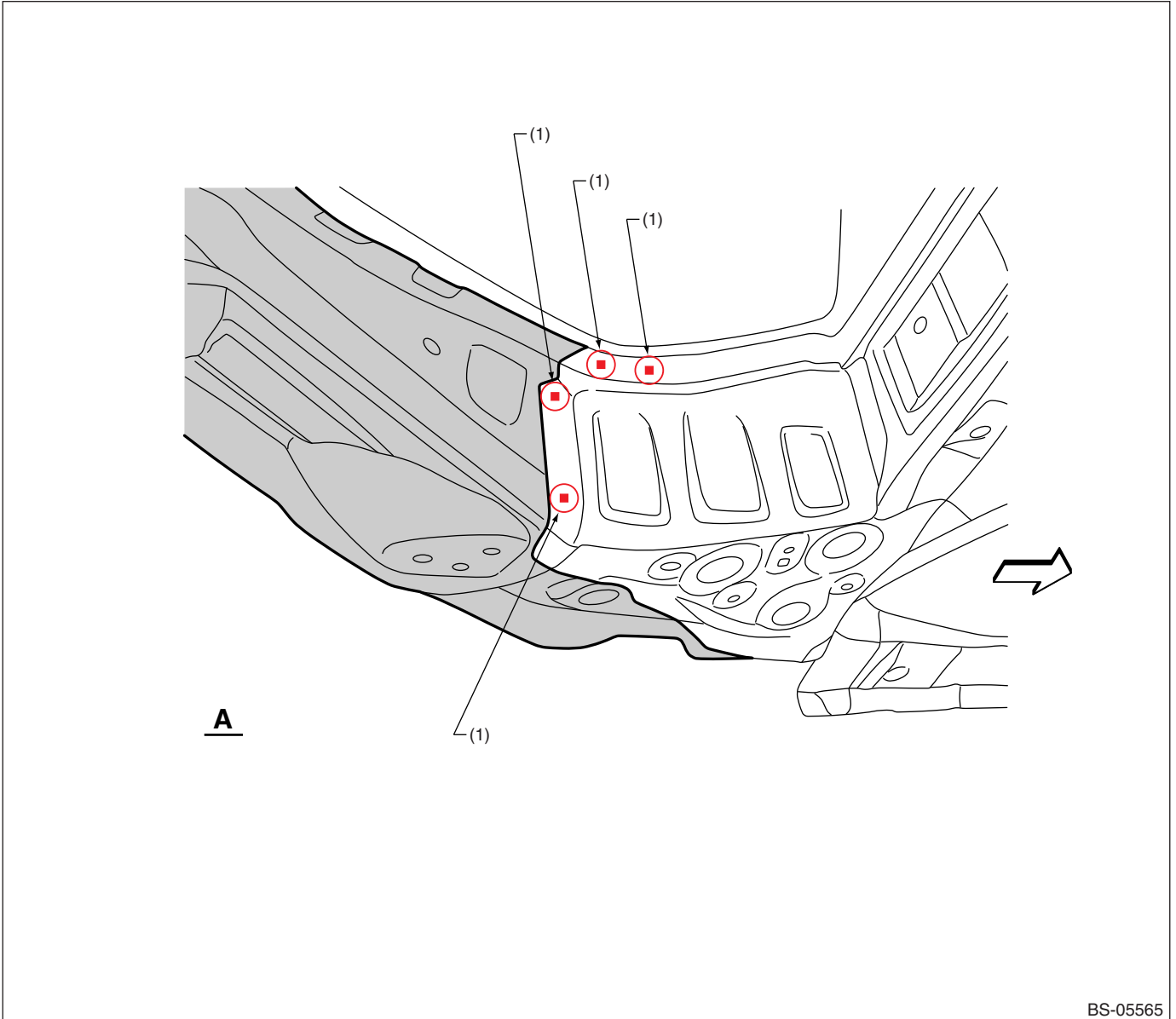
(1) 2 points
(2) 6 points

(3) 1 point

(4) 3 points

Panel Replacement

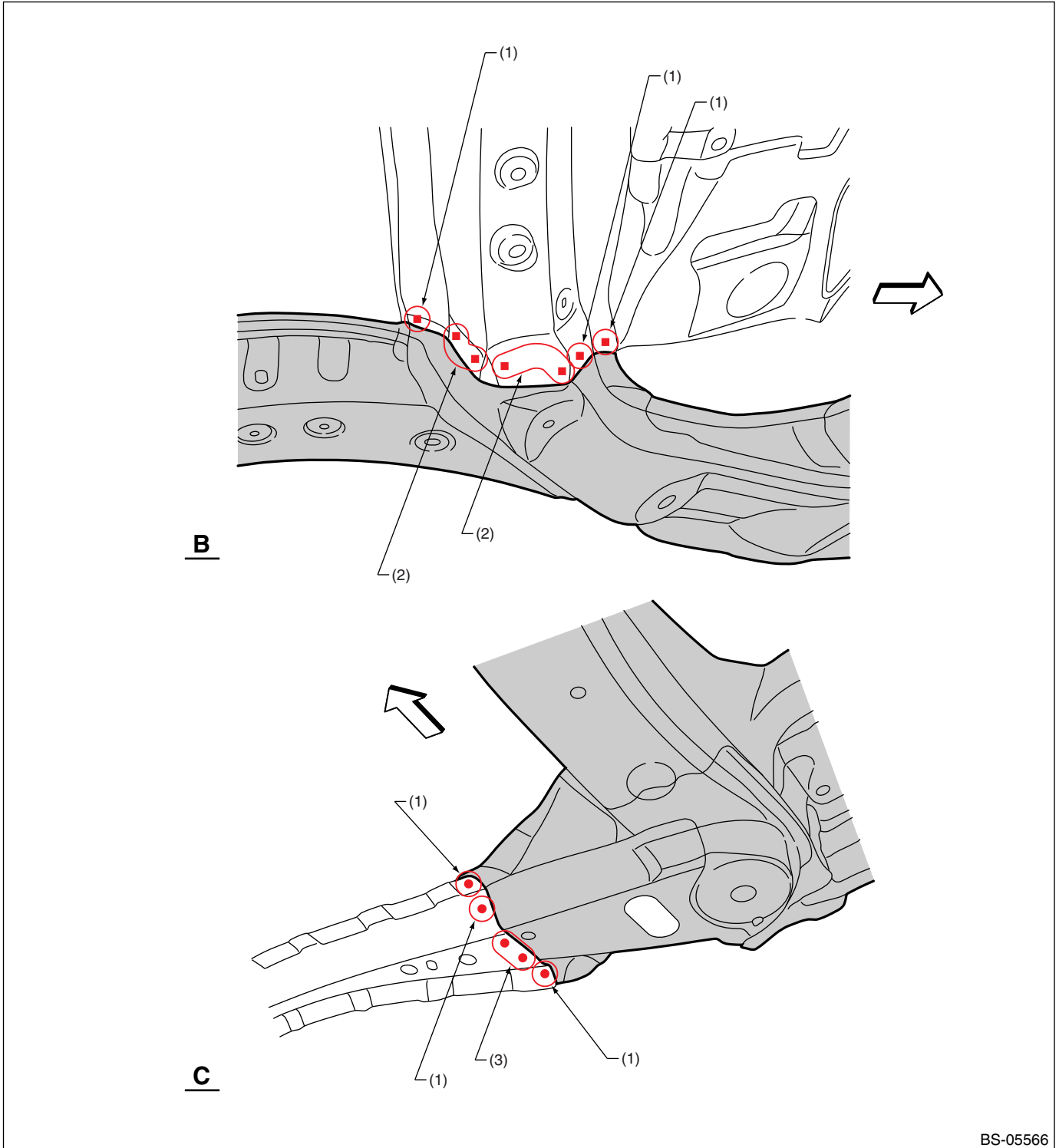
• Views1



(1) 1 point

Panel Replacement

• Views2



BS-05566

(1) 1 point

(2) 3 points

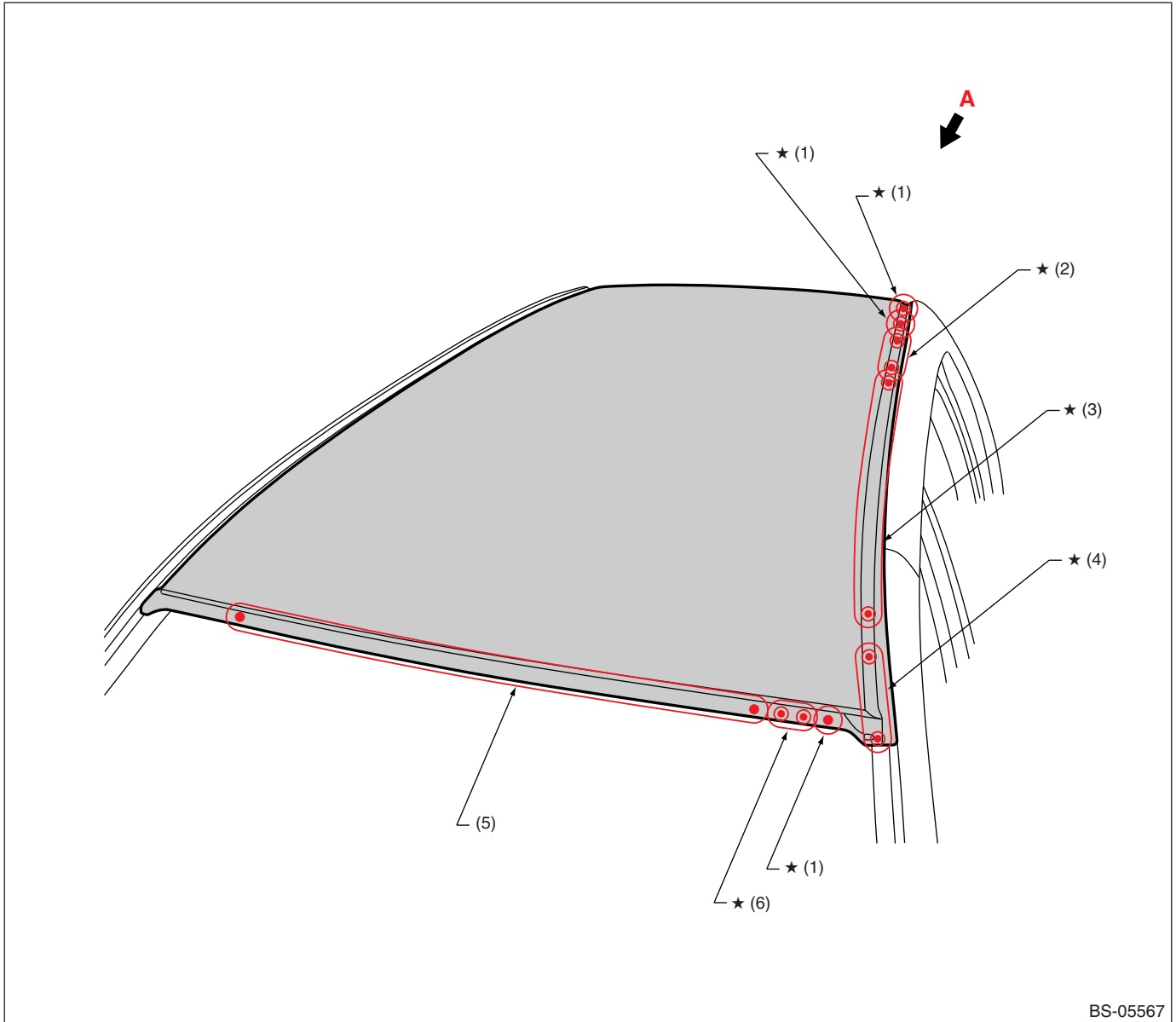
(3) 2 points

Panel Replacement

7-24. Roof Panel (total replacement)

A: REMOVAL

• Overall view



(1) 1 point (top · 1)

(2) 8 points (top · 1)

(3) 14 points (top · 1)

(4) 3 points (top · 1)

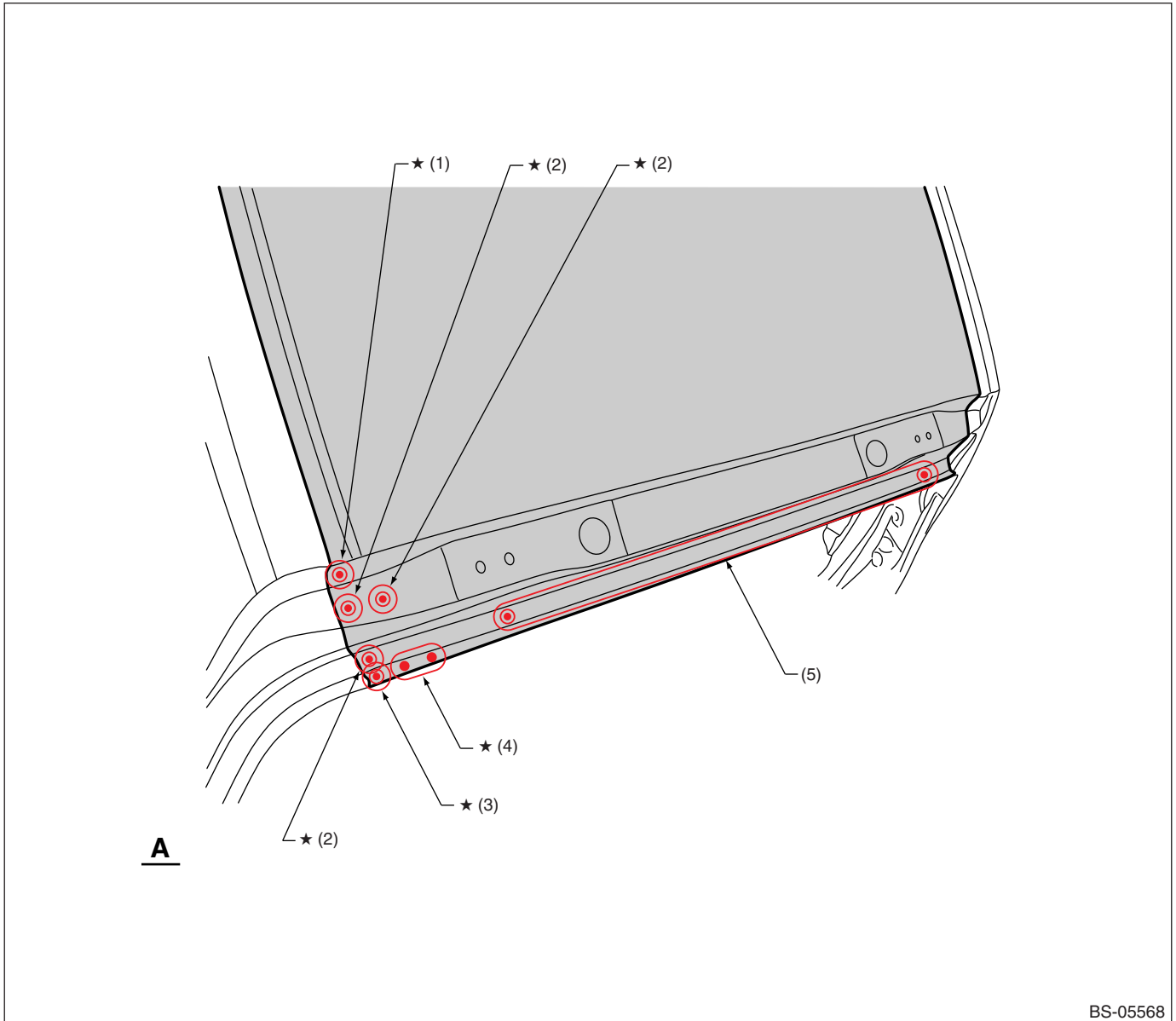
(5) 16 points (top · 1)

(6) 2 points (top · 1)

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

• Views



BS-05568

(1) 1 point (outside · 1)
(2) 1 point (top · 1)

(3) 1 point (inside · 1, belt sander)
(4) 2 points (inside · 1, belt sander)

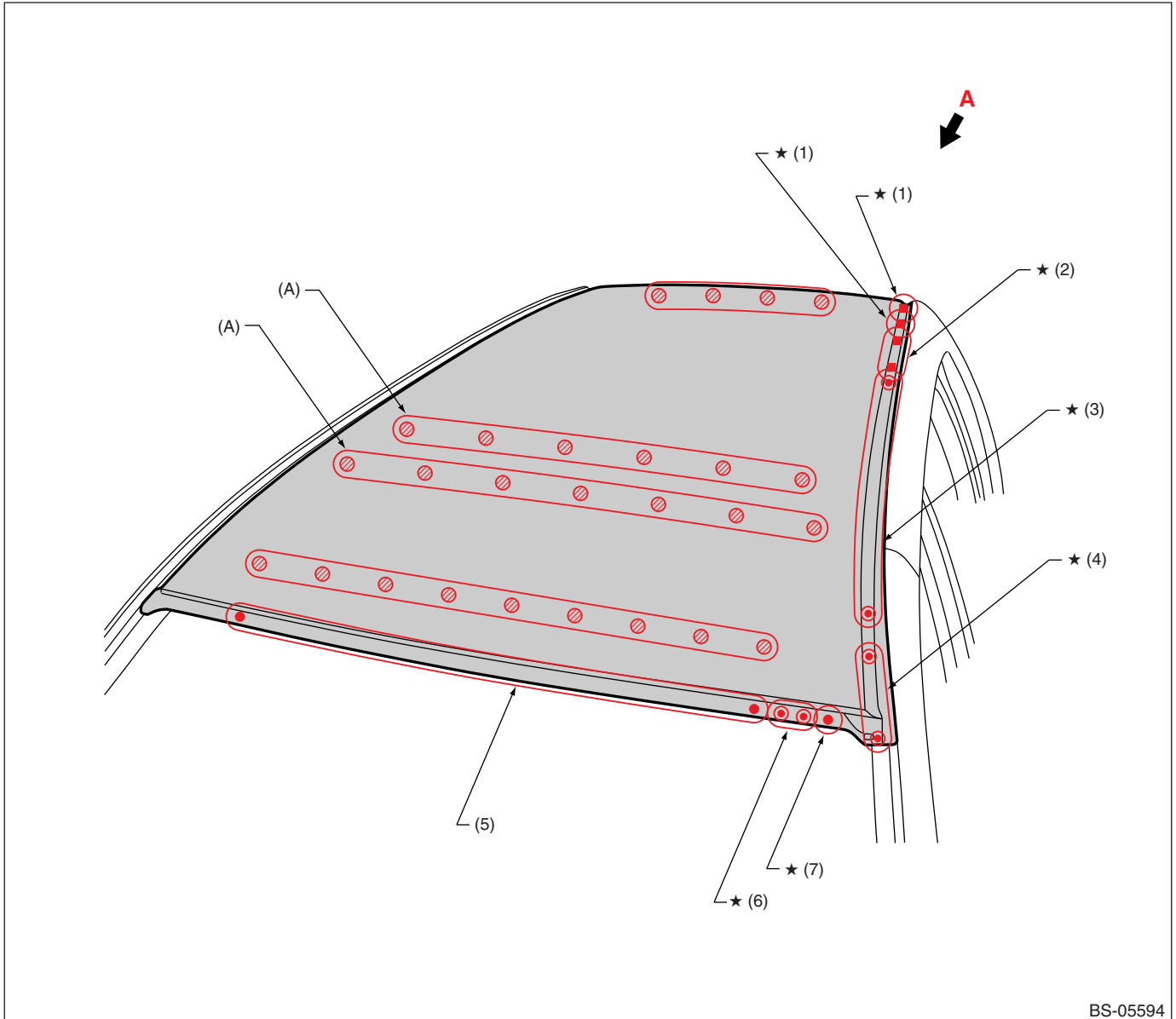
(5) 11 points (top · 1)

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

Panel Replacement

B: INSTALLATION

• Overall view



(A) Model without sunroof

(1) 1 point (service)

(2) 8 points (service)

(3) 14 points

(4) 3 points

(5) 16 points

(6) 2 points

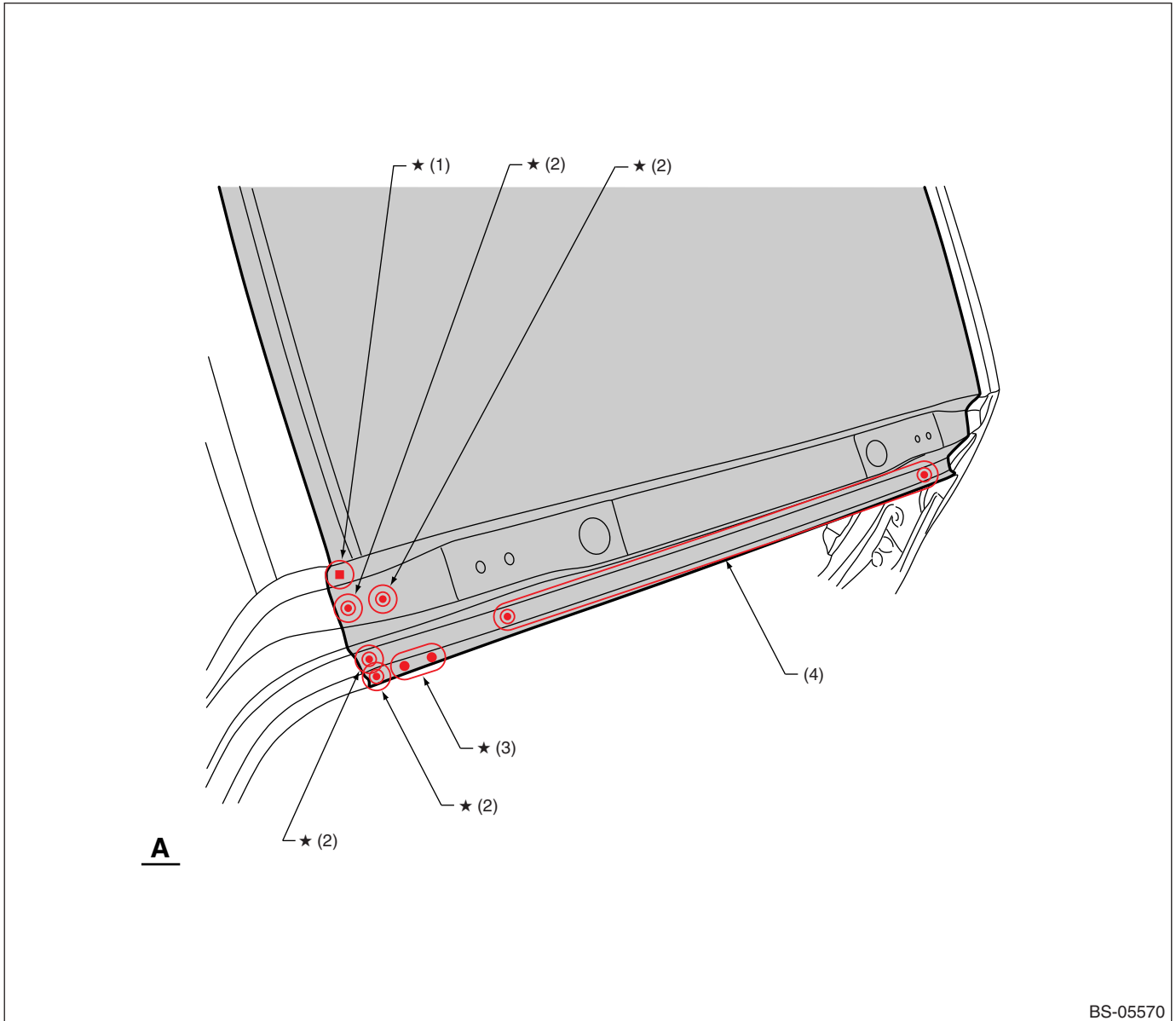
(7) 1 point

For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

⊘ : Application of adhesive.

Panel Replacement

• Views



BS-05570

(1) 1 point (service)
(2) 1 point

(3) 2 points

(4) 11 points

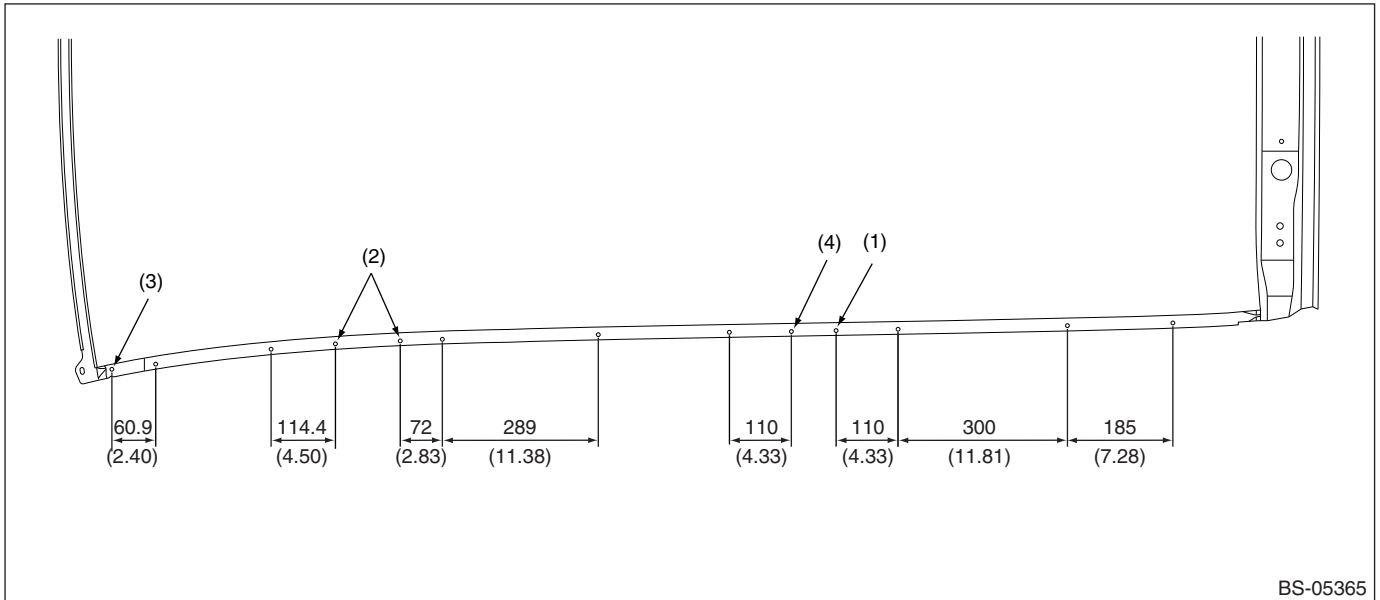
For locations marked by ★, the welding method and the number of welding points are the same on the left and the right.

For the installation of the roof panel side rail. It is recommended to weld the base together with other three overlapping sheets.

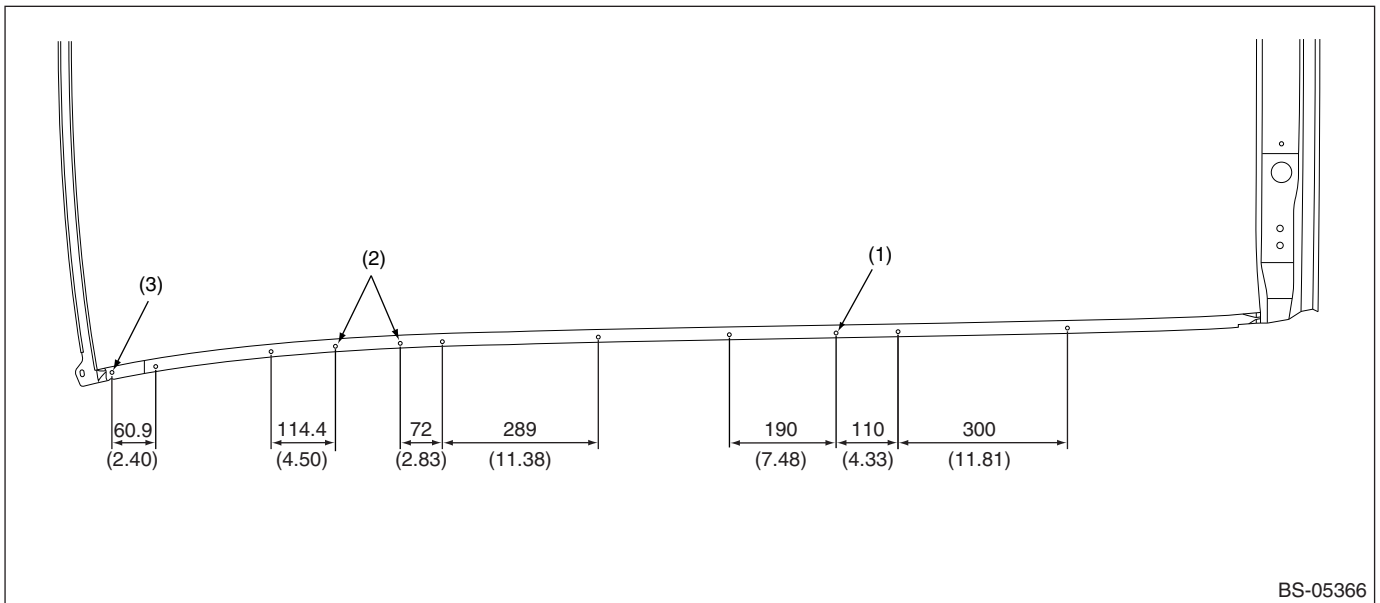
Panel Replacement

7-25. T Stud Installation

• Model without roof rail

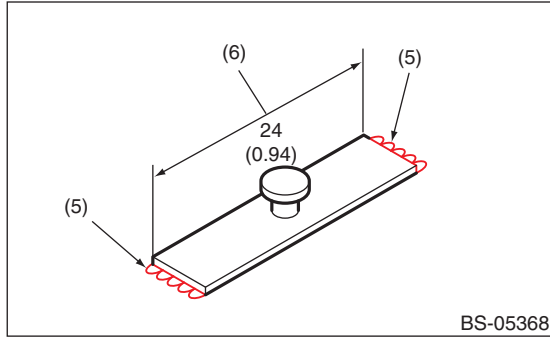


• Model with roof rail

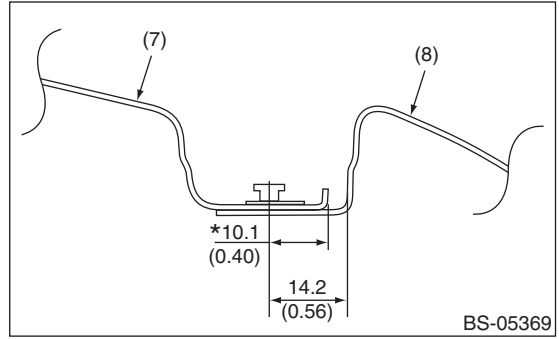


Panel Replacement

• T stud welding



• T stud basic cross section



- (1) $\phi 6.5$ mm (0.26 in) hole (for carrier bracket and roof rail installation)
- (2) $\phi 8.1$ mm (0.32 in) hole (for carrier bracket and roof rail installation)
- (3) $\phi 5.2$ mm (0.20 in) hole (for roof mole, standard pop rivet hole)

- (4) $\phi 8.1$ mm (0.32 in) hole (for carrier bracket installation)
- (5) Arc welding for both plate ends
- (6) This surface shall be kept flat as it becomes the mating face with the clip.

- (7) Roof panel
- (8) Side panel outer

* Indicates dimensions for reference.

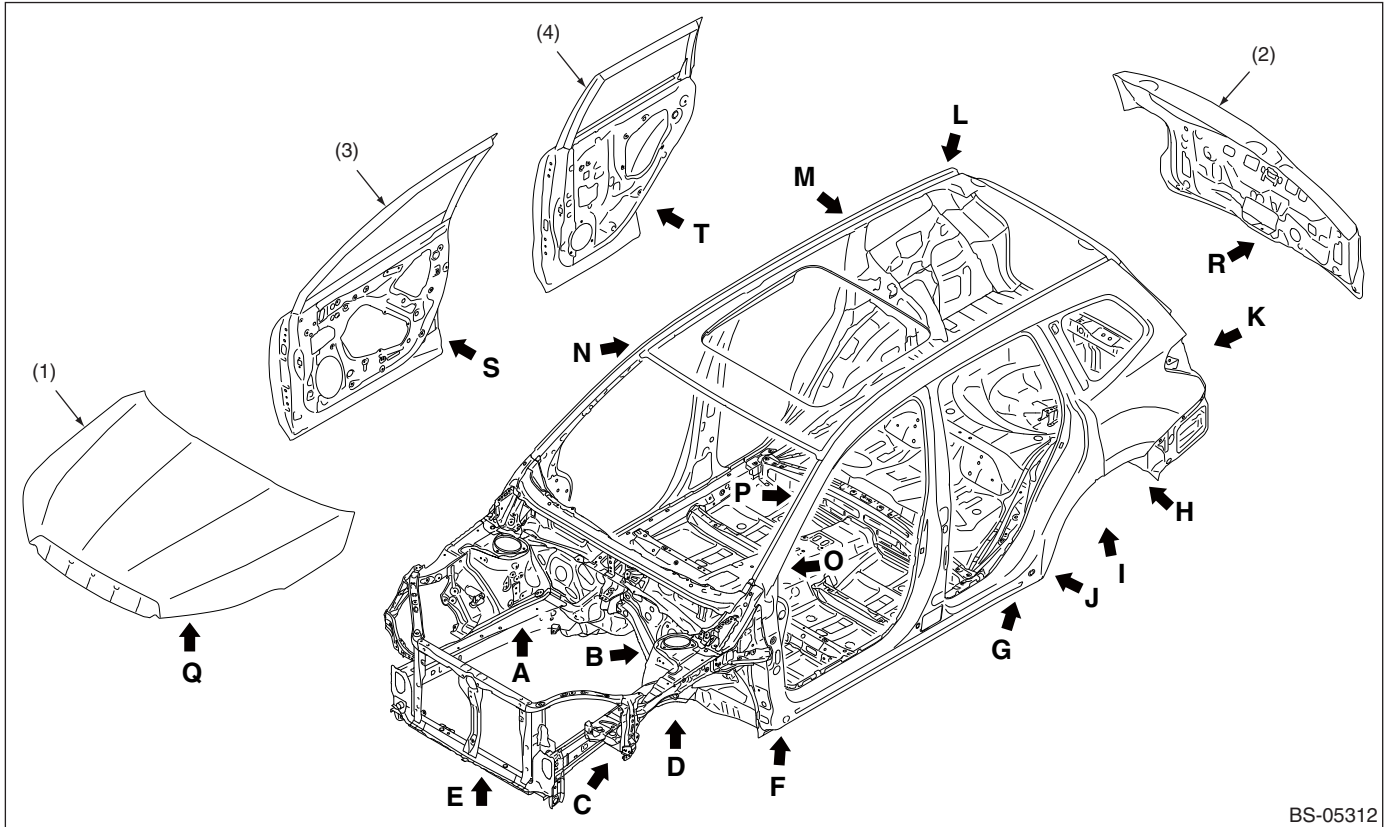
Body Sealing

8. Body Sealing

A: SPECIFICATIONS

Used material: **Three Bond 4101 (004403063)**

— : Sealer application location

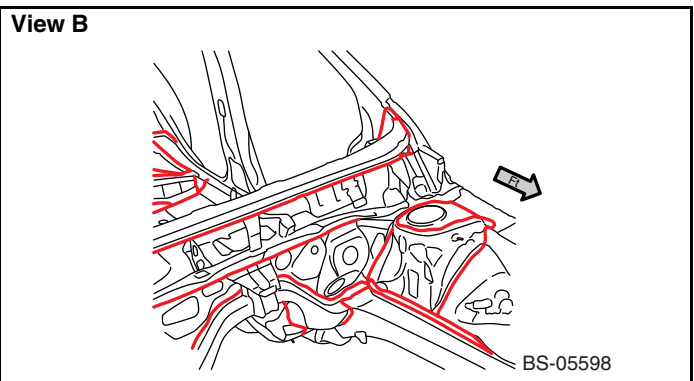
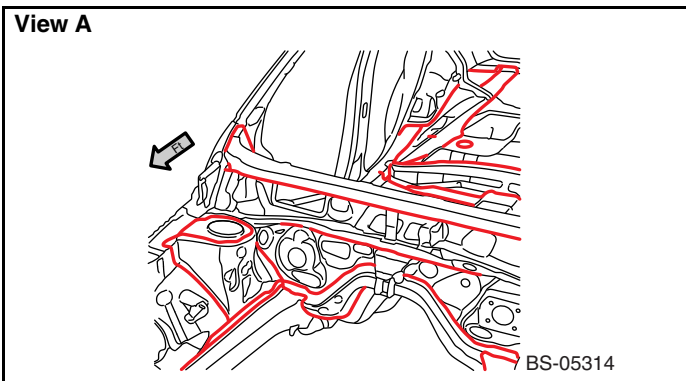


BS-05312

- (1) Front hood
- (2) Rear gate

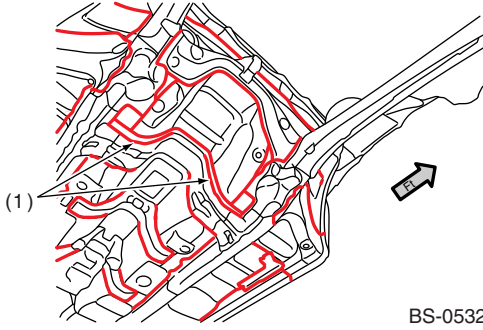
- (3) Front door

- (4) Rear door



Body Sealing

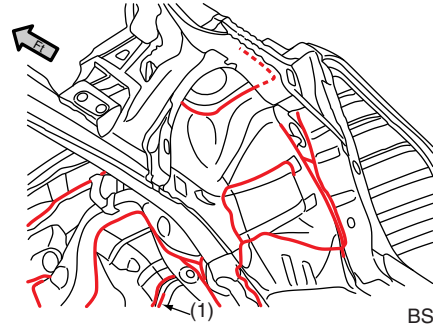
View C



BS-05322

(1) Turbo model

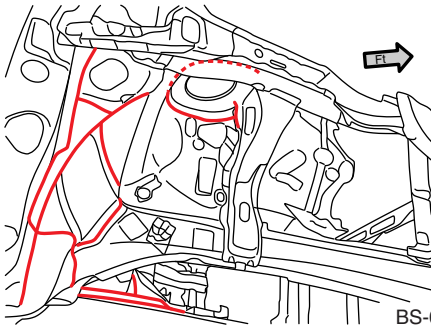
View D



BS-05276

(1) Turbo model

View E



BS-05277

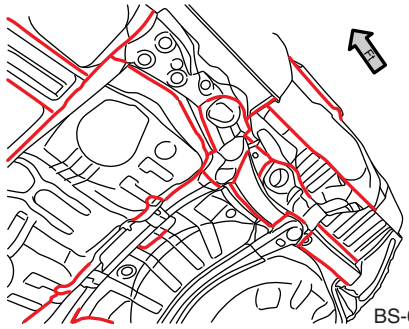
View F



BS-05323

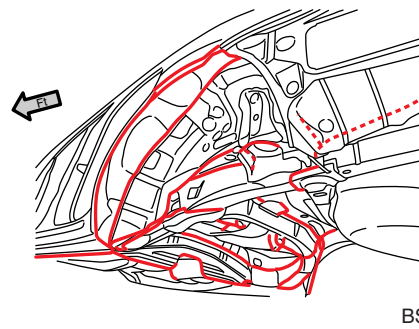
(1) Turbo model

View G



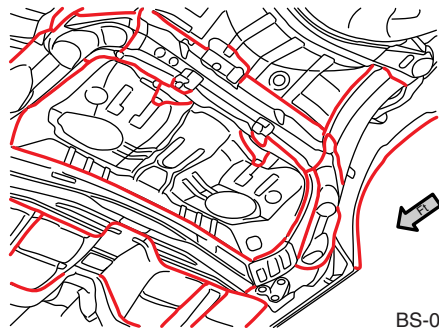
BS-05517

View H



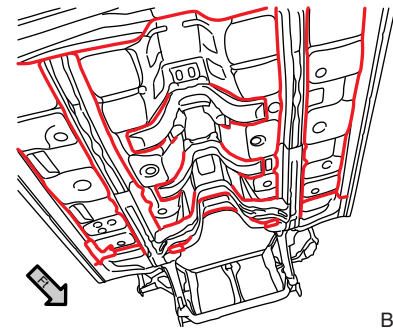
BS-05516

View I



BS-05515

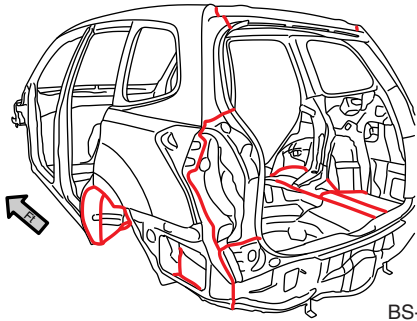
View J



BS-05324

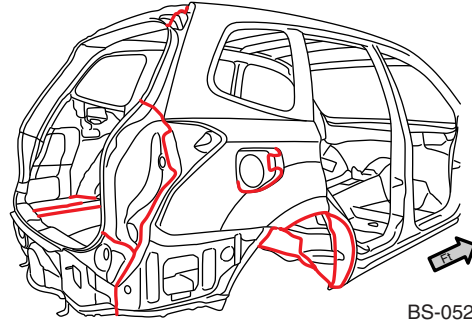
Body Sealing

View K



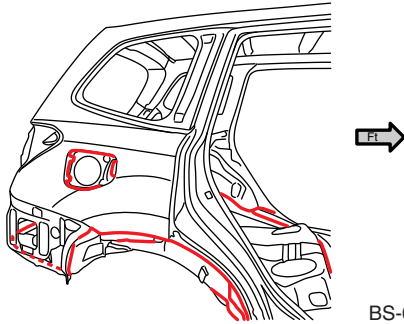
BS-05273

View L



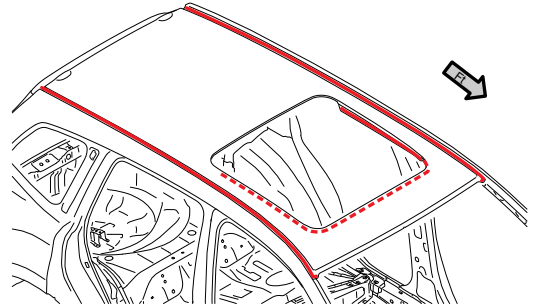
BS-05274

View M



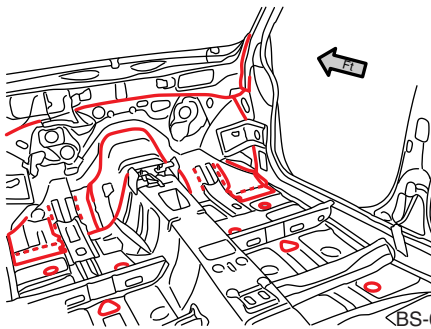
BS-05275

View N



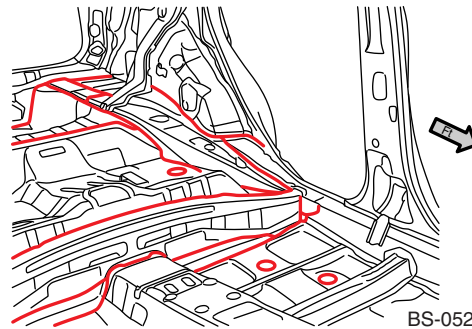
BS-05266

View O



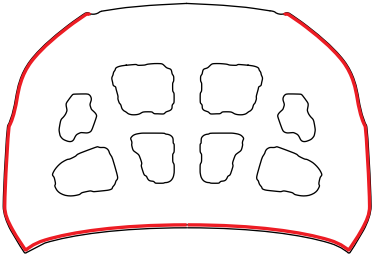
BS-05320

View P



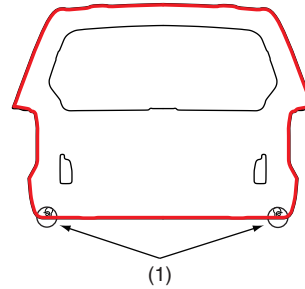
BS-05283

View Q



BS-05267

View R

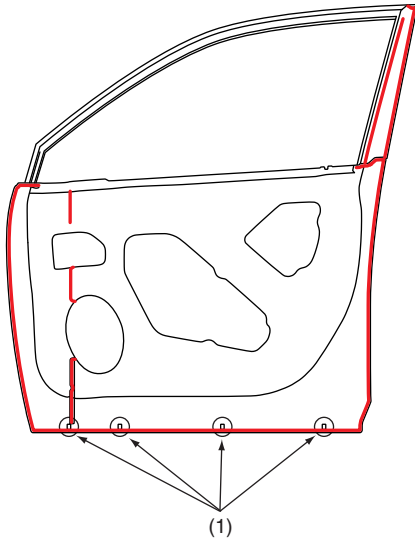


BS-05268

(1) Do not block the water drain holes.

Body Sealing

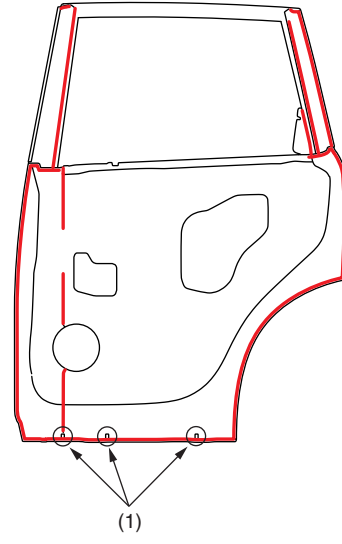
View S



BS-05269

(1) Do not block the water drain holes.

View T



BS-05270

(1) Do not block the water drain holes.

CAUTION:

Sealer already applied to hood, door and rear gate in replacement condition.

Anticorrosion Wax

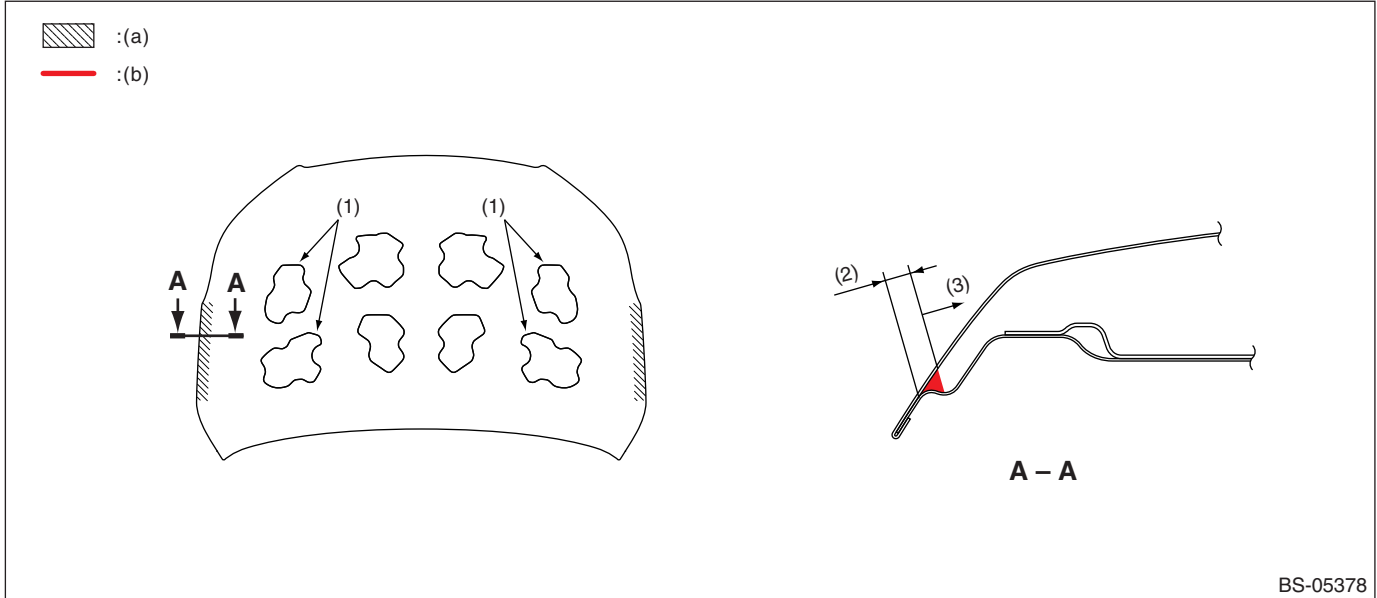
9. Anticorrosion Wax

A: SPECIFICATIONS

Used material: **Rust-stop aerosol (K0877YA015)**

— and [diagonal lines] [cross-hatch] [vertical lines]: **Application area**

- Front hood (Application thickness = 50 μm or more)



BS-05378

(a) Rust-stop aerosol

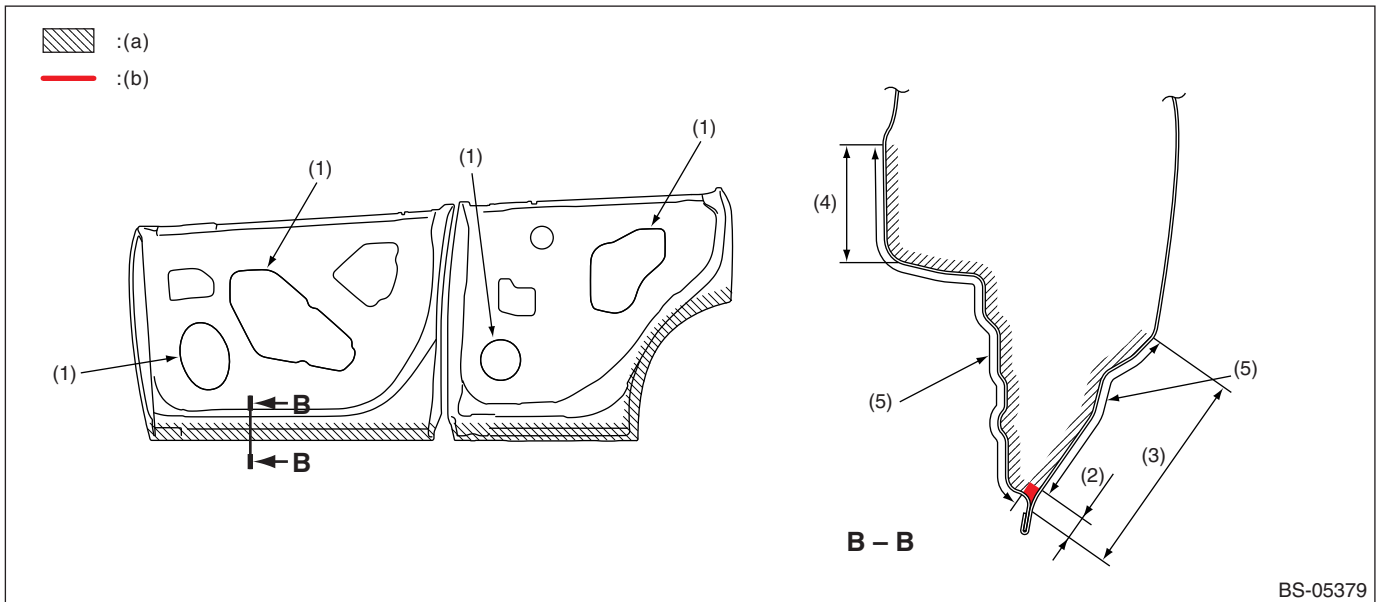
(b) To be filled into the plate joint.

(1) Wax application work openings

(2) 10 mm (0.39 in)

(3) Adherence of mist is allowable.

- Door (Application thickness = 50 μm or more)



BS-05379

(a) Rust-stop aerosol

(b) To be filled into the plate joint.

(1) Wax application work openings

(2) 10 mm (0.39 in)

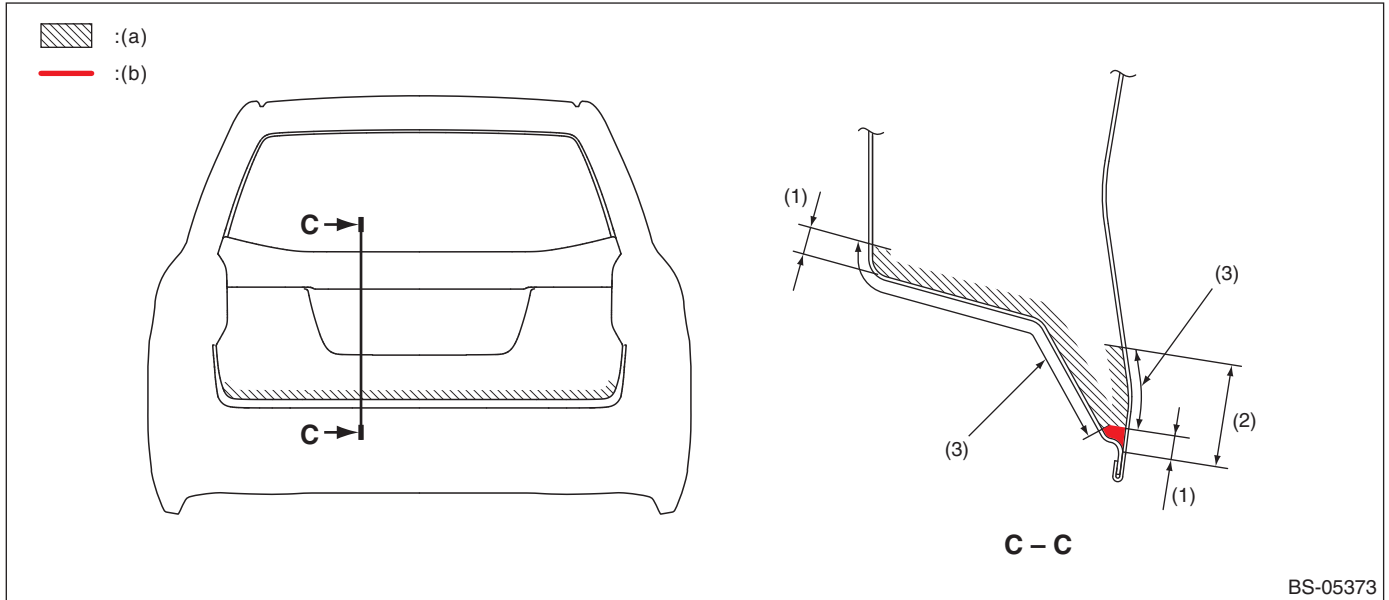
(3) 90 mm (3.54 in)

(4) 50 mm (1.97 in)

(5) Adherence of mist is allowable.

Anticorrosion Wax

- Rear gate (Application thickness = 50 μm or more)



(a) Rust-stop aerosol

(b) To be filled into the plate joint.

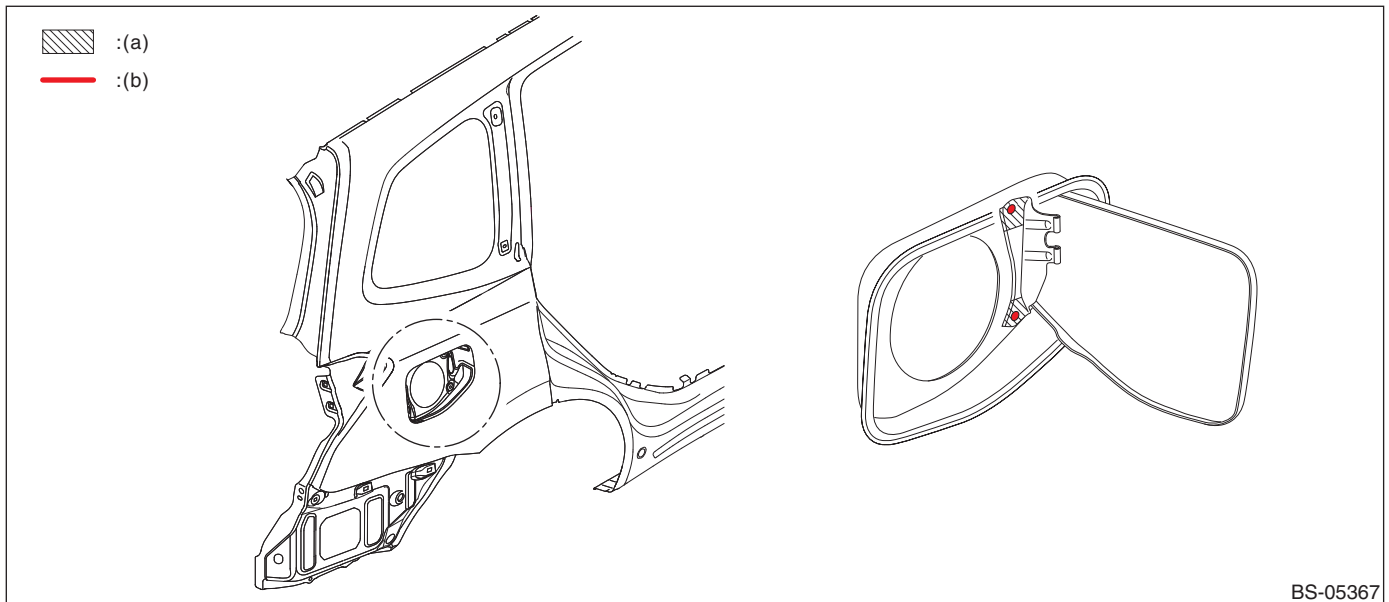
(1) 10 mm (0.39 in)

(2) 40 mm (1.57 in)

(3) Adherence of mist is allowable.

- Fuel flap (Application thickness = 15 μm or more)

Fill in to the fuel flap installation surface (indicated range) and the rivet fracture surface.



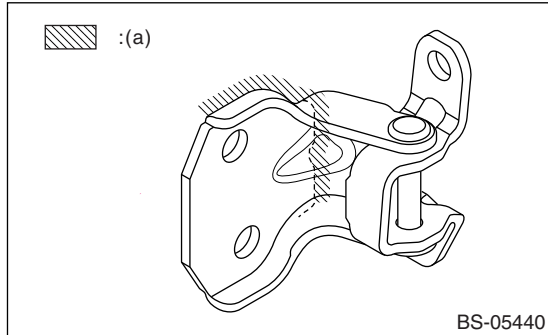
(a) Rust-stop aerosol

(b) To be filled into the fracture surface

Anticorrosion Wax

- Front door hinge (Application thickness = 15 μm or more)

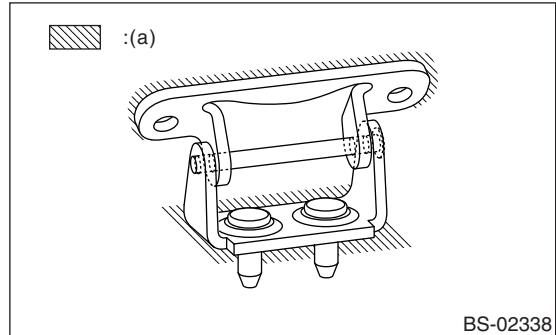
Apply to the contact surface (indicated range) on body side at two locations at the top and bottom (four locations in all), and to the installation outer circumference (plate edges) on the door side.



(a) Rust-stop aerosol

- Rear gate hinge (Application thickness = 15 μm or more)

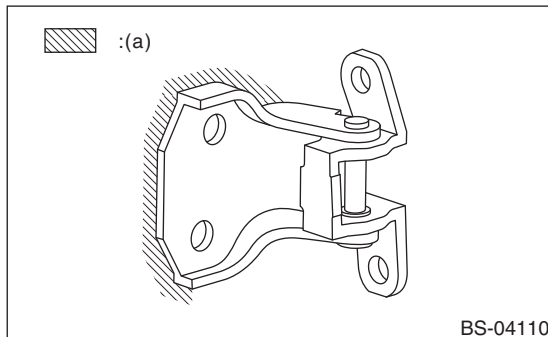
Apply to the contact surface on the body side at two locations on the left and right, and to installation outer circumference (indicated range, plate edges) on the rear gate side.



(a) Rust-stop aerosol

- Rear door hinge (Application thickness = 15 μm or more)

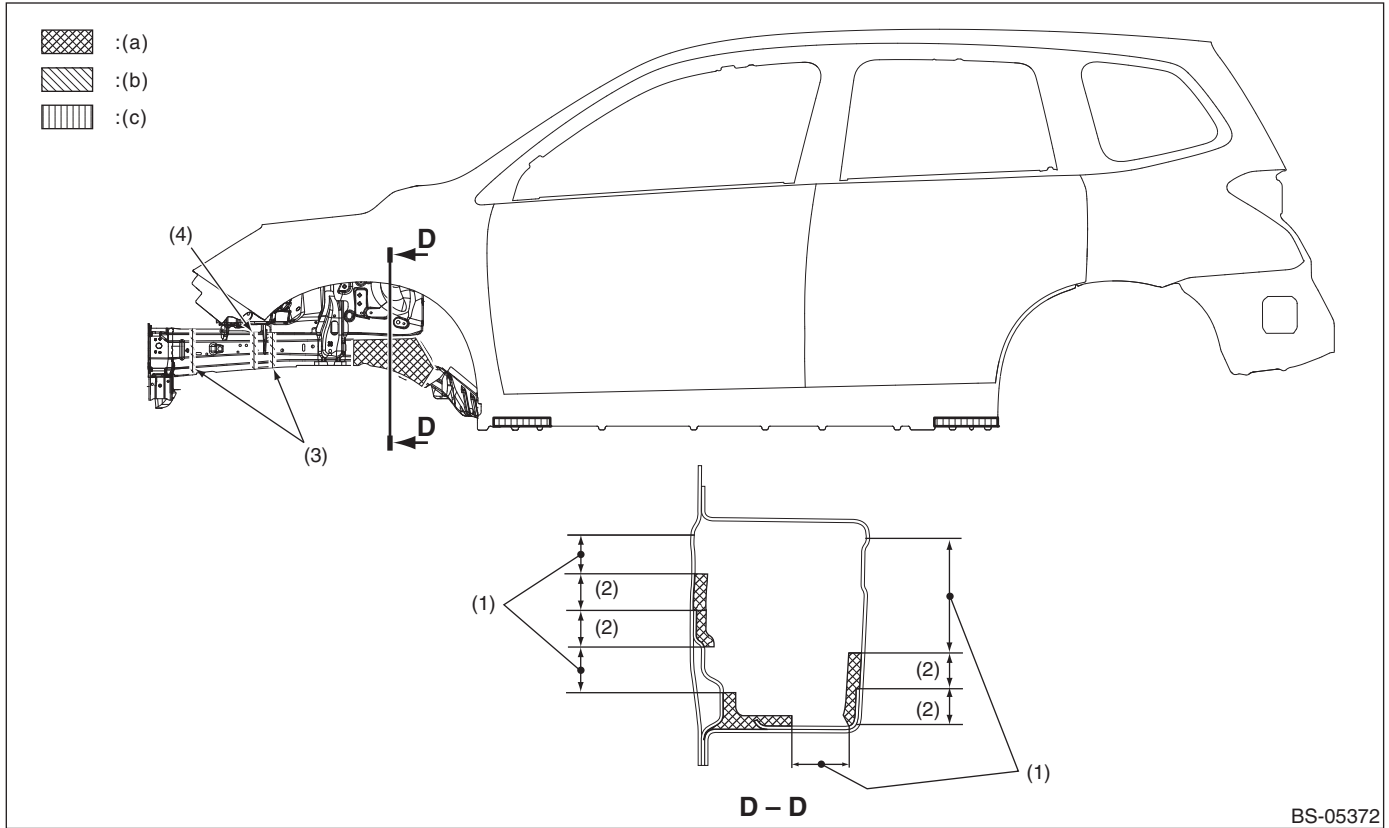
Apply to the contact surface (indicated range) on body side at two locations at the top and bottom (four locations in all), and to the installation outer circumference (plate edges) on the door side.



(a) Rust-stop aerosol

Anticorrosion Wax

- Overall view



(a) Application of rust-stop aerosol to the inside. (Application thickness = 50 μm or more)

(b) Rust-stop aerosol (Application thickness = 15 μm or more)

(c) Rust-stop aerosol (Application thickness = 150 μm or more)

(1) Adherence of mist is allowable.

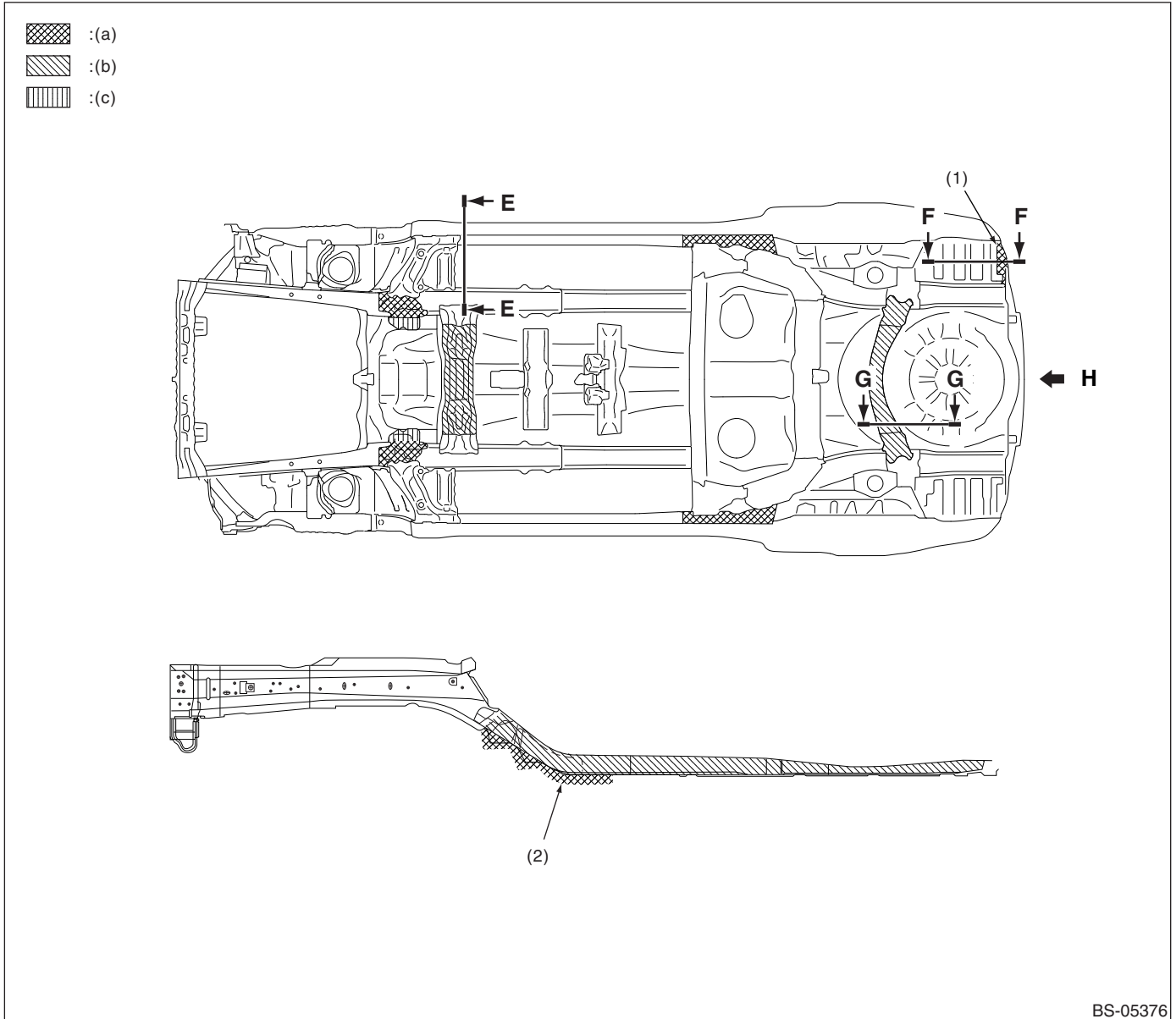
(3) The panel joints are covered.

(4) The panel joints on the inside of the engine compartment are covered .

(2) 20 mm (0.79 in)

Anticorrosion Wax

- Bottom view



BS-05376

(a) Rust-stop aerosol (Application thickness = 150 μm or more).

(b) Rust-stop aerosol (Application thickness = 20 μm or more).



(c) Rust-stop aerosol (Application thickness = 50 μm or more).

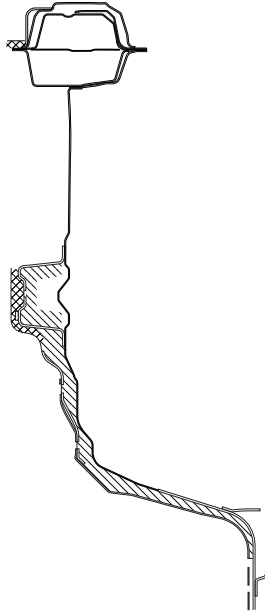
(1) Single-muffler model (LH side)

(2) Coating application area does not include the transverse link bush.

Anticorrosion Wax

Cross section E — E

-  : (a)
-  : (b)

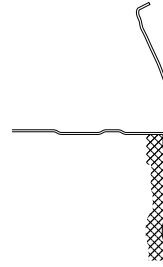


BS-05438

- (a) 150 μm or more
- (b) 20 μm or more

Cross section F — F

-  : (a)

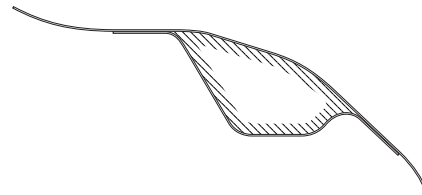


BS-05439

- (a) 150 μm or more

Cross section G — G

-  : (a)

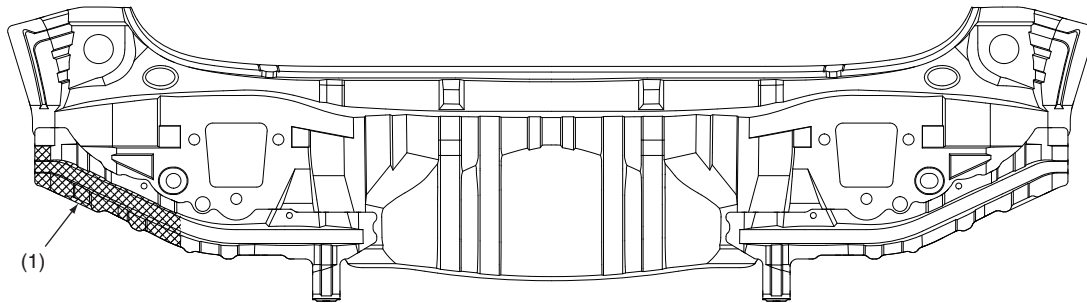


BS-05200

- (a) 20 μm or more

View H

-  : (a)



BS-05437

- (a) 150 μm or more

- (1) Single-muffler model (LH side)

Undercoat

10.Undercoat

A: SPECIFICATIONS




Repair material: PVC (NT guardcoat 5900FL)

CAUTION:

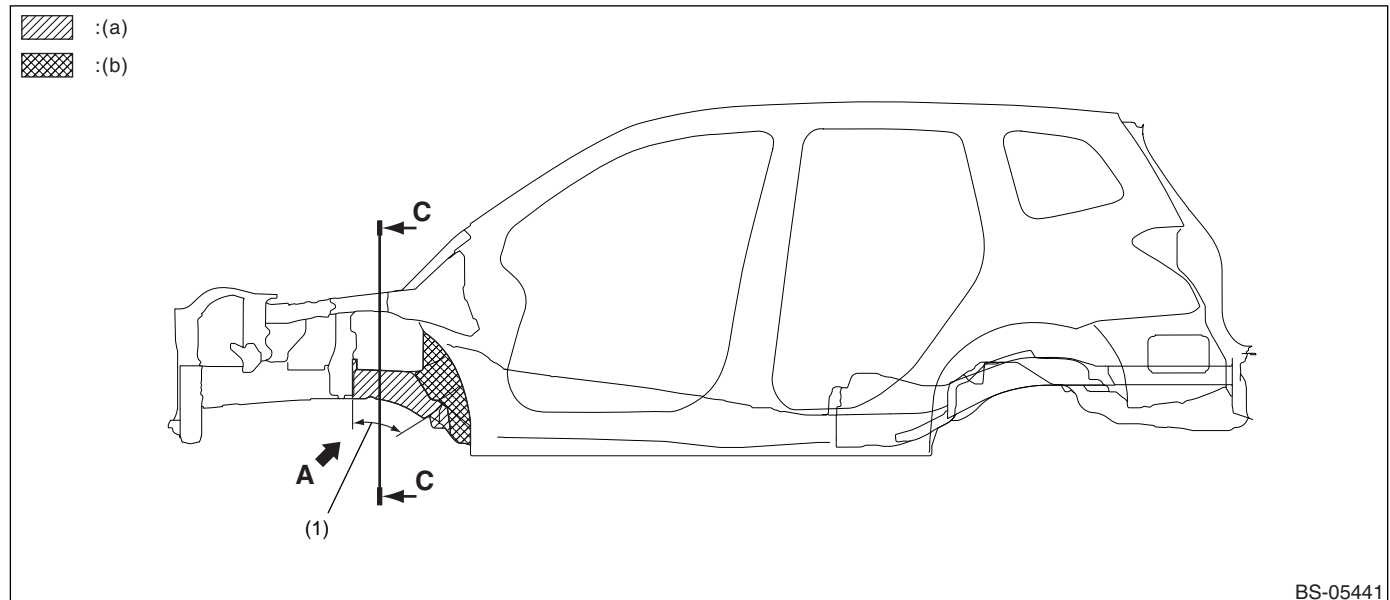
Perform working so that under the coat will not become attached to locations other than shown and to the following locations.

- High-temperature parts related to the exhaust pipe
- Hoses, tubes and harness parts
- Installation surfaces of rear suspension, transmission, subframe,etc.

1) Application area and application thickness

	300 μm or more
	600 μm or more
	The panel gap shall be filled.

- Side view



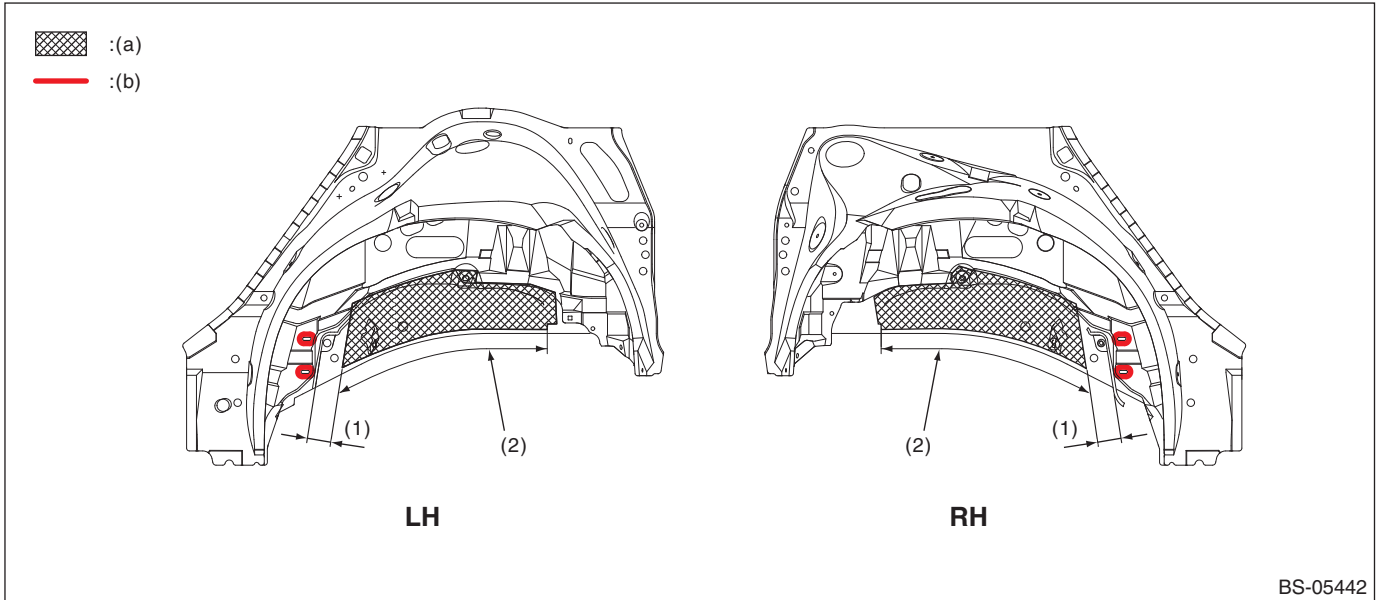
(a) 300 μm or more

(b) 600 μm or more

- (1) Application of PCV is not required at an area located 10 mm (0.39 in) from the flange end. (Adherence of mist is allowable.)

Undercoat

- Rear arch inner side view



(a) 600 μm or more

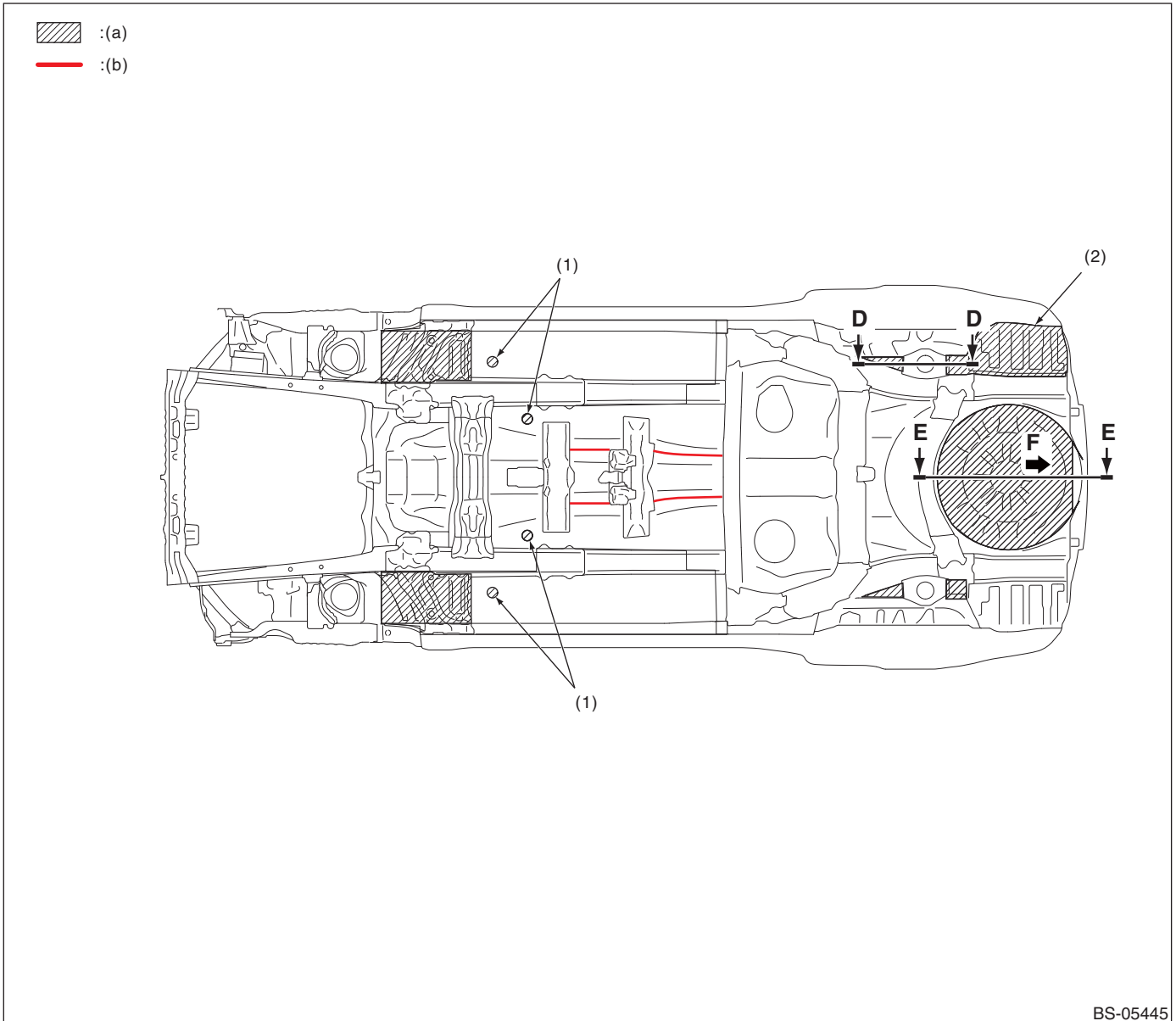
(b) The panel gap shall be filled.

(1) 50 mm (1.97 in.)

(2) Application of PCV is not required at an area located 10 mm (0.39 in) from the flange end. (Adherence of mist is allowable.)

Undercoat

- Bottom view



(a) 300 μm or more



(b) Apply the intersection between the panels.

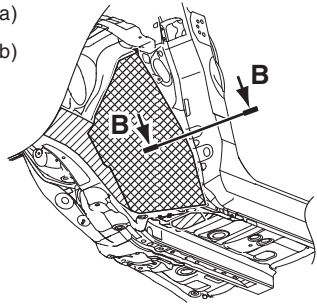
(1) Plug must be covered with undercoat.

(2) Single muffler model only

Undercoat

View A

-  : (a)
-  : (b)

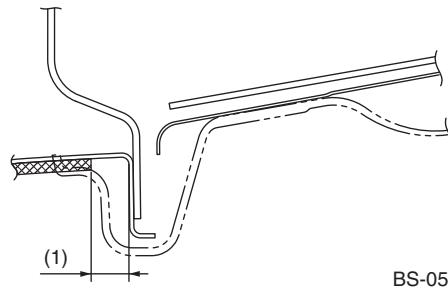


BS-05446

- (a) 300 μm or more
- (b) 600 μm or more

Cross section B — B

-  : (a)

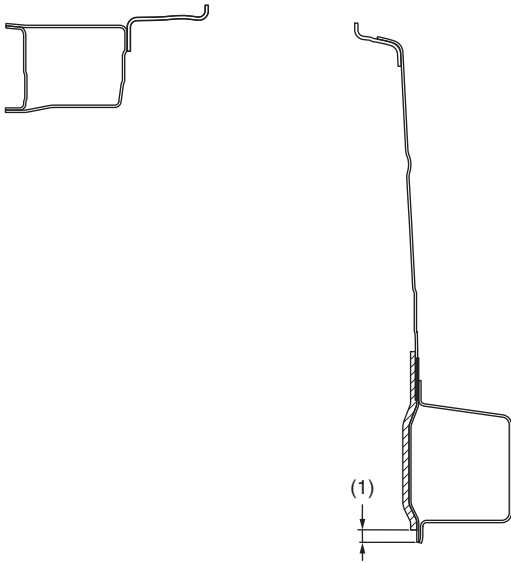


BS-05447

- (a) 600 μm or more
- (1) 10 mm (0.39 in) (Adherence of mist is allowable.)

Cross section C — C

-  : (a)

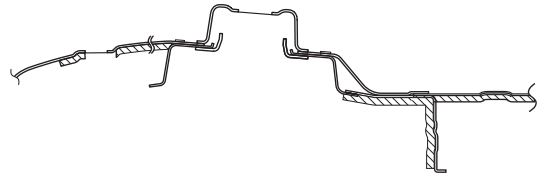


BS-05448

- (a) 300 μm or more
- (1) 5 mm (0.20 in) (Adherence of mist is allowable.)

Cross section D — D

-  : (a)



BS-05452

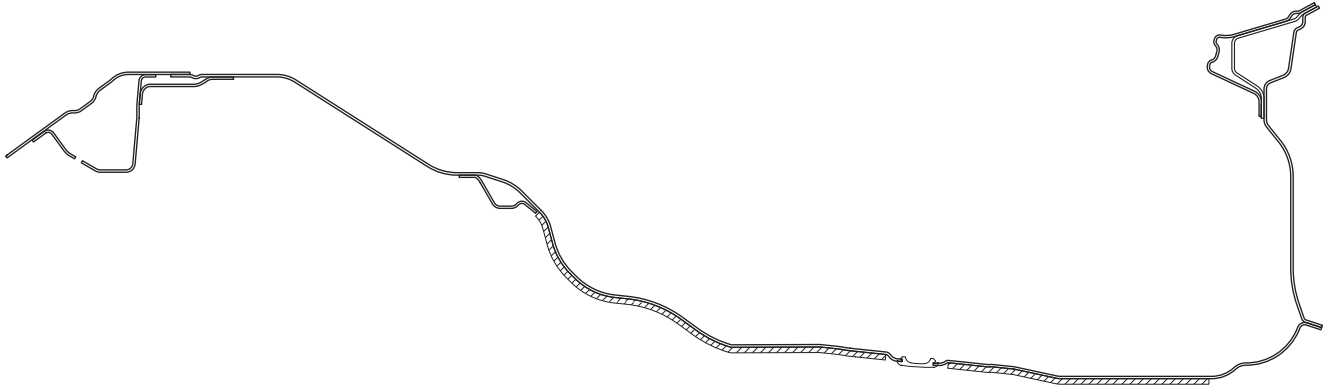
- (a) 300 μm or more

SUBARU

Undercoat

Cross section E — E

 : (a)



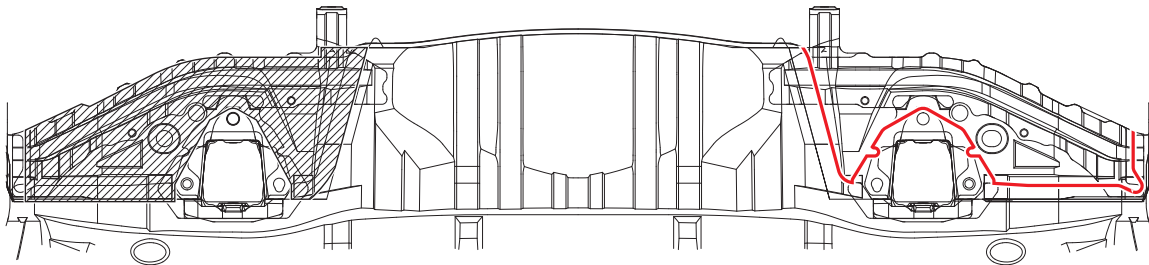
BS-05453

(a) 300 μm or more

View F

 : (a)

 : (b)



BS-05400

(a) 300 μm or more

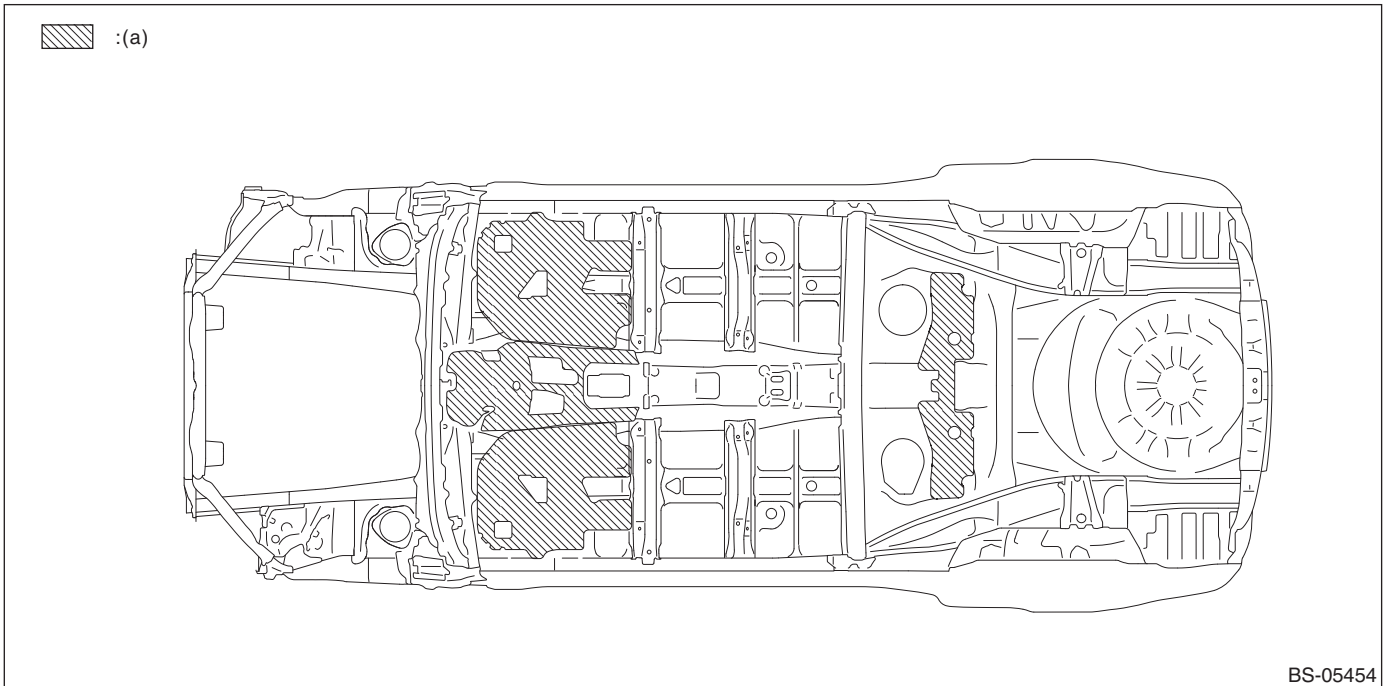
(b) The panel gap shall be filled

Damping seat

11.Damping seat

A: SPECIFICATIONS

1. UPPER VIEW



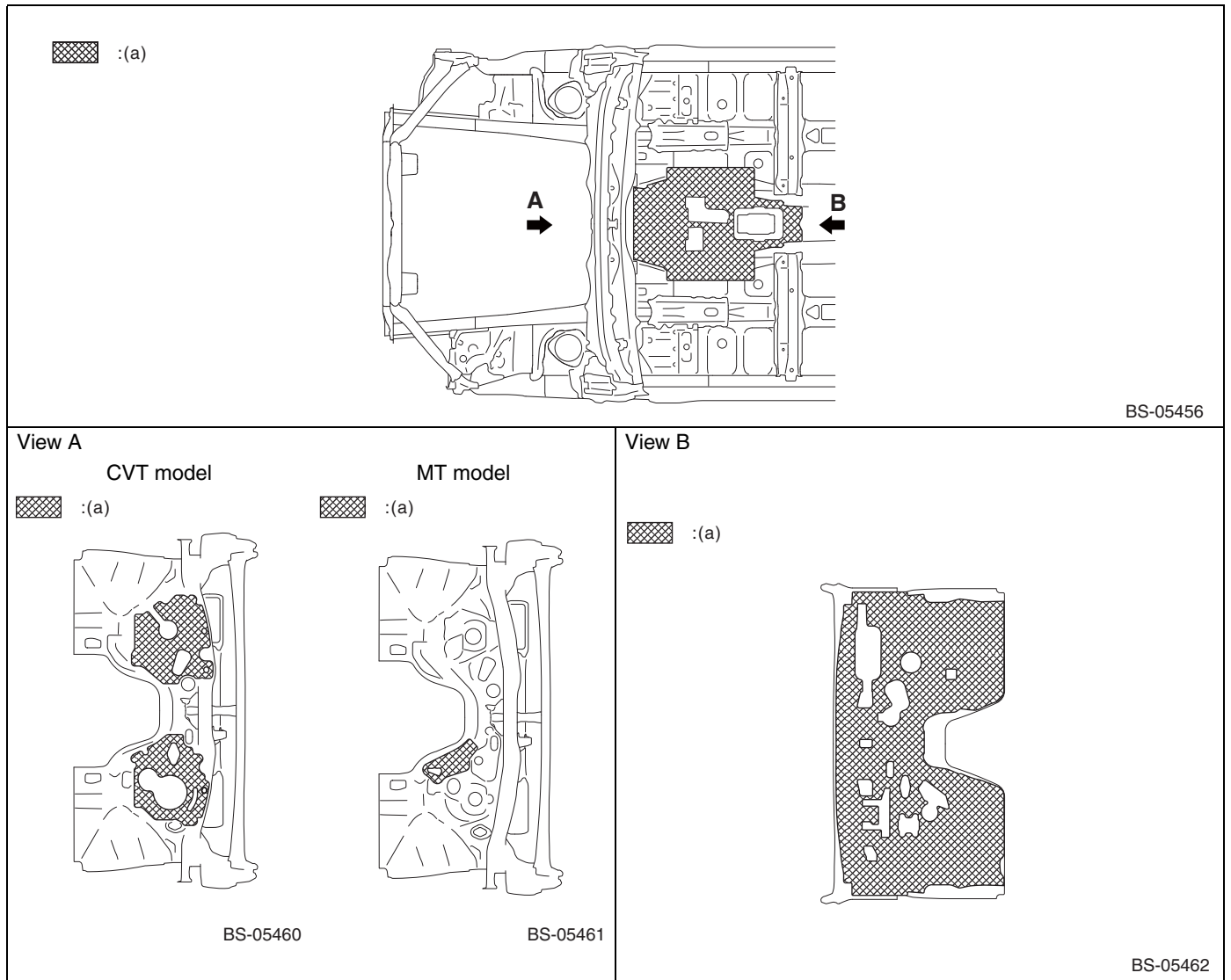
(a) Silencer

Insulator

12. Insulator

A: SPECIFICATIONS

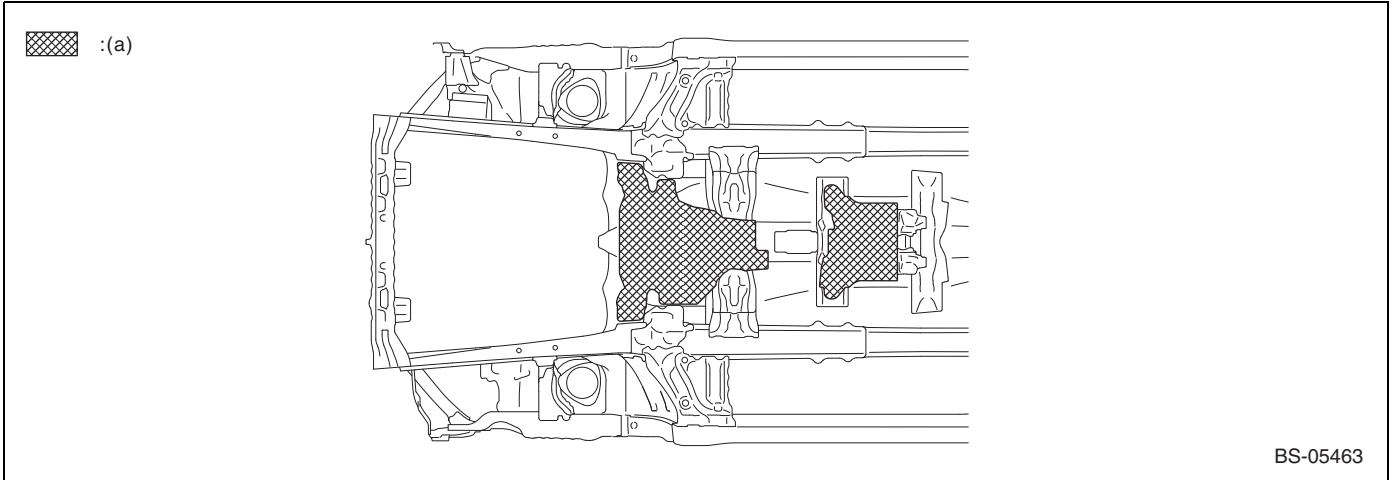
1. UPPER VIEW



(a) Insulator

Insulator

2. BOTTOM VIEW (ONLY CVT MODEL)

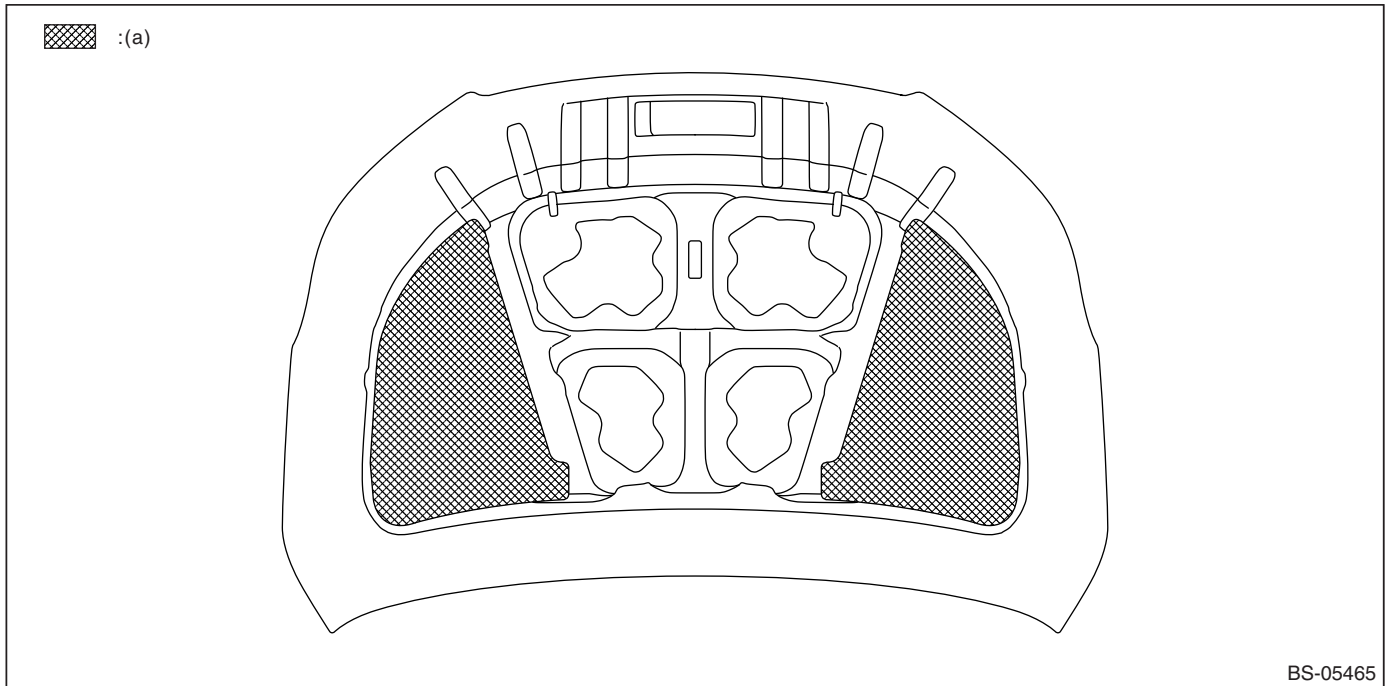


(a) Insulator

Insulator

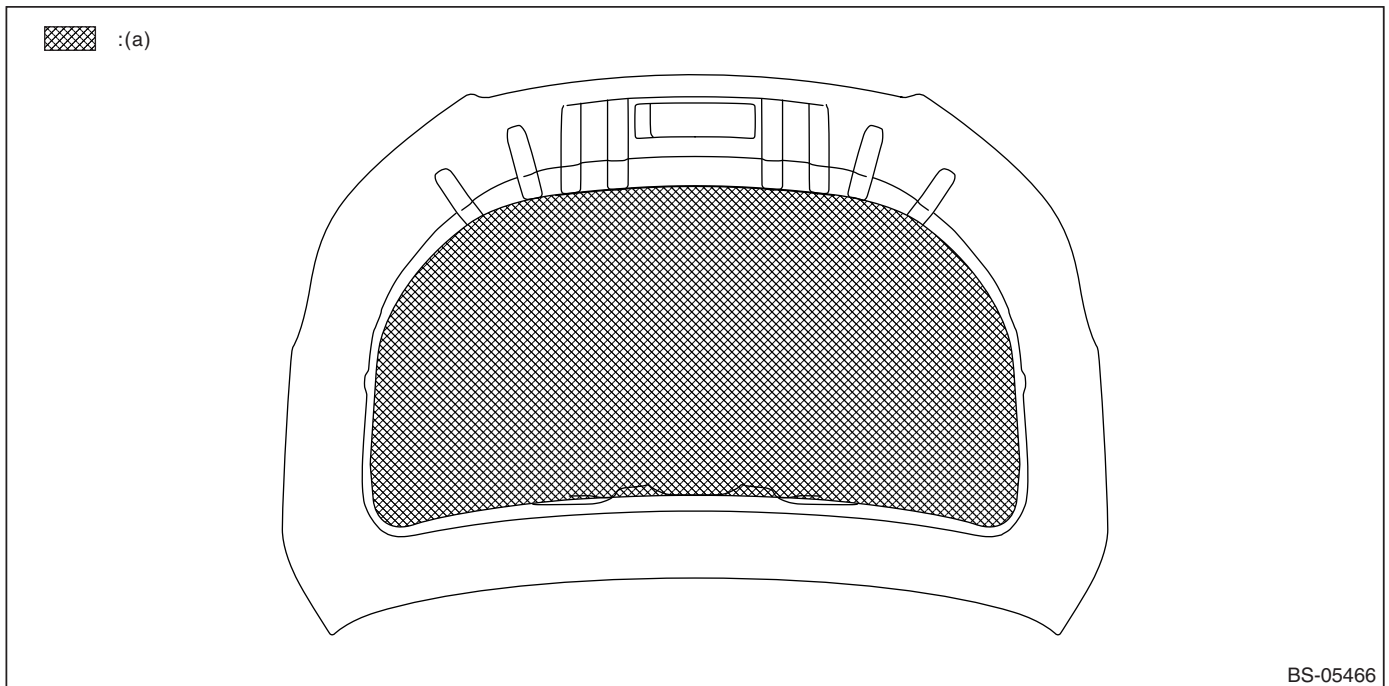
3. FRONT HOOD

- Turbo model



(a) Insulator

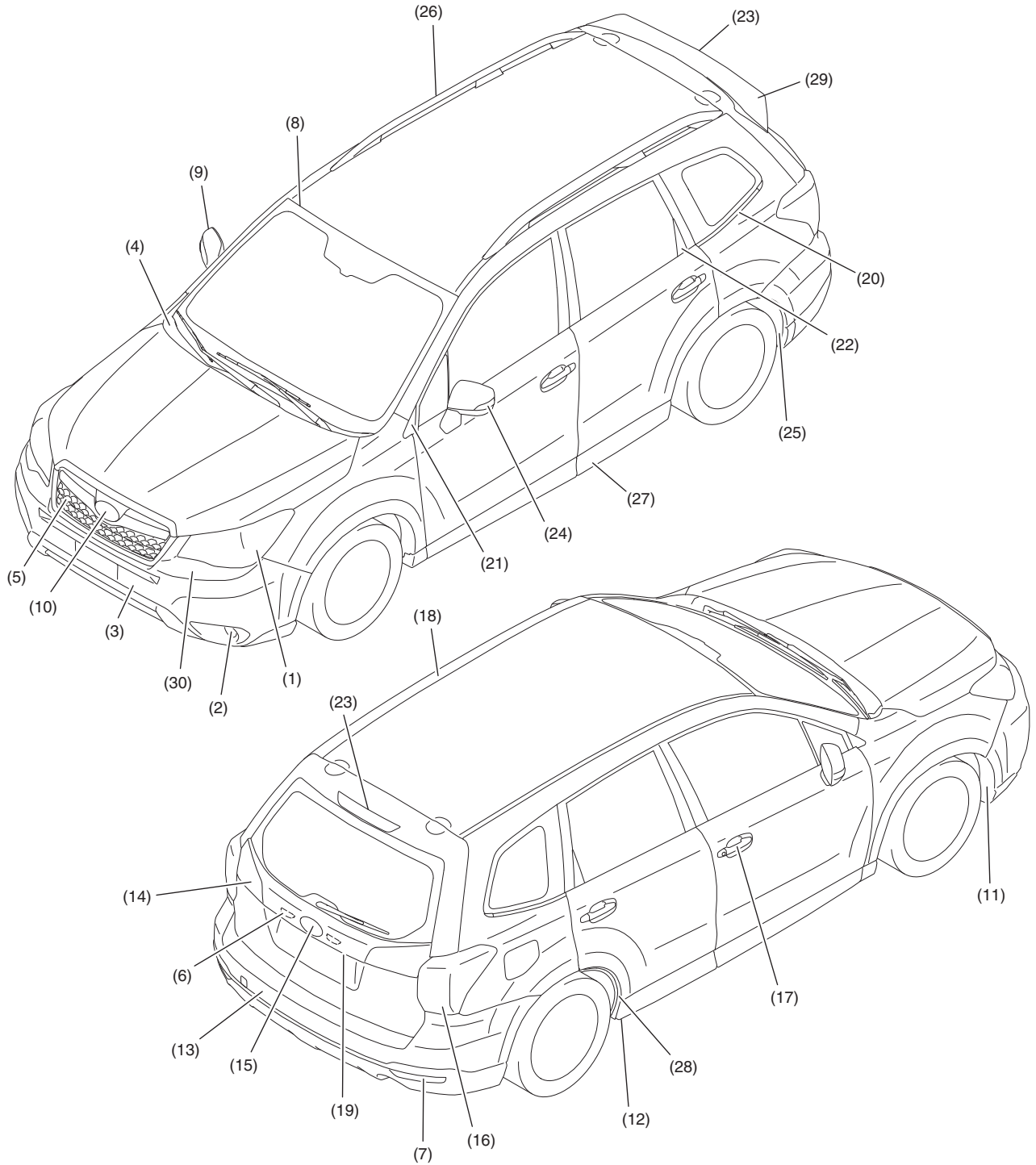
- Non-turbo model



(a) Insulator

13. Plastic Parts and Materials

A: SPECIFICATIONS



BS-05327

Plastic Parts and Materials

(1) Headlight	(12) Air flap rear	(23) High mount stop light
(2) Front fog light	(13) Rear bumper	(24) Side turn light
(3) Front bumper	(14) Rear gate garnish	(25) Rear mudguard
(4) Cowl panel	(15) Ornament rear	(26) Roof rail
(5) Front grille	(16) Rear combination light	(27) Side garnish
(6) License light	(17) Door handle	(28) Rear arch wertherstrip
(7) Rear reflex reflector	(18) Roof moulding	(29) Roof spoiler
(8) Front window moulding	(19) Rear gate opener switch	Under cover
(9) Door mirror	(20) Rear quarter moulding	Splash board
(10) Ornament front	(21) A-pillar cover	Front wiper
(11) Front mudguard	(22) Cover gusset	Rear wiper

No.	Part name		Material	
(1)	Headlight	Lens	PC	
		Housing	PP-TD30	
		Extension	PBT+PET-MD5	
		Reflector A	UP-(MD60+GF20)	
		Reflector B	PPS-MD60	
(2)	Front fog light	Lens	PC	
		Reflector	PC	
		Bracket	PP-TD30	
(3)	Front bumper	Face	PP	
		Fog light cover	PP	
		Hook cover	PP	
		Center lower bracket	PP	
		Side bracket	POM	
		Corner bracket	PP-GF30	
(4)	Cowl panel	Body, Side	PP	
(5)	Front grille	Upper	Grille	ABS
			Protector upper	TPO
			Protector lower	EPDM
		Center	Base	AES
			Moulding	ABS
		Lower	Base	AES
Moulding	ABS			
(6)	License light	Lens	PC	
		Housing	PC	
(7)	Rear reflex reflector	Lens	PMMA	
		Housing	ABS	
(8)	Front window moulding		PVC	
(9)	Door mirror	Body	AES	
		Outer cover	AES	
		Mirror holder	PP	
(10)	Ornament front	Ornament	PMMA	
		Base	ABS	
(11)	Front mudguard	Body	PE	
		Air flap	PP+EPDM	
(12)	Air flap rear		PP+EPDM	

Plastic Parts and Materials

No.	Part name		Material	
(13)	Rear bumper	Face	PP	
		Cover bumper rear	PP	
		Hook cover	PP	
		Side bracket	POM	
		Corner bracket	PP-GF30	
(14)	Rear gate garnish	Garnish	PC+PET	
		Switch bracket	AES	
		Protector upper	TPO	
		Protector lower center	TPO	
		Protector lower side	EPDM	
		Protector side	TPO	
		Protector lower A	CR	
		Protector lower B	CR	
(15)	Ornament rear	Ornament	PMMA	
		Base	ABS	
(16)	Rear combination light	Lens	PMMA	
		Housing	PC+ASA	
		Inner lens	PMMA	
		Cover	PC+ASA	
		Shade	PC+ASA	
		Bracket	ABS	
(17)	Door handle	Handle	PC+PBT-MD10	
		Handle cover	PC+PBT-MD10	
(18)	Roof moulding		PVC	
(19)	Rear gate opener switch	Operation part	PPE	
		Resin part	PP	
(20)	Rear quarter moulding	Front	PVC	
		Lower	PVC, AES	
(21)	A-pillar cover		AES	
(22)	Cover gusset		AES	
(23)	High mount stop light	Rear spoiler	Lens	PMMA
			Housing	ABS
		Rear gate	Lens	PMMA
			Housing	ABS
(24)	Side turn light	Lens	PMMA	
		Housing	PC	
(25)	Rear mudguard		PE	
(26)	Roof rail	Front cover	AES	
		Center cover	AES	
		Rear cover	AES	
(27)	Side garnish	Fender garnish	PP	
		Front door garnish	PP	
		Rear door garnish	PP	
		Side sill garnish	PP	
(28)	Rear arch wertherstrip		PP+EPDM	
(29)	Roof spoiler	Body	ABS	

Plastic Parts and Materials

No.	Part name		Material
	Under cover	Body	PP
	Splash board		PP
	Front wiper	Blade	PBT-GF30
	Rear wiper	Blade	PBT-GF30
		Arm	PET-GF45
		Arm cover	PBT

List of Plastic Material Notations

14. List of Plastic Material Notations

A: SPECIFICATIONS

Notation symbol	Material name	Notation symbol	Material name
ABS	ABS resin (acrylonitrile/butadiene/styrene/resin)	PET-MD5	Polyethylene terephthalate(5% mineral powder content)
AES	Acrylonitrile/ethylene/styrene	PMMA	Polymethyl methacrylate
ASA	Acrylonitrile/styrene/acrylate	POM	Polyacetal
CR	Chloroprene rubber	PP	Polypropylene
EPDM	Ethylene/propylene/dien rubber	PP-GF30	Polypropylene (30% glass fiber content)
PBT	Polybutylene terephthalate	PP-TD30	Polypropylene (30% talc content)
PBT-GF30	Polybutylene terephthalate(30% glass fiber content)	PPE	Polyphenylene ether
PBT-MD10	Polybutylene terephthalate (10% mineral powder content)	PPS-MD60	Polyphenylene sulfide (60% mineral powder content)
PC	Polycarbonate	TPO	Thermo polyolefin
PE	Polyethylene	PVC	Polyvinyl chloride
PET	Polyethylene terephthalate	UP-(MD60+GF20)	Unsaturated polyester (60% mineral powder and 20% glass fiber content)
PET-GF45	Polyethylene terephthalate (45% glass fiber content)		