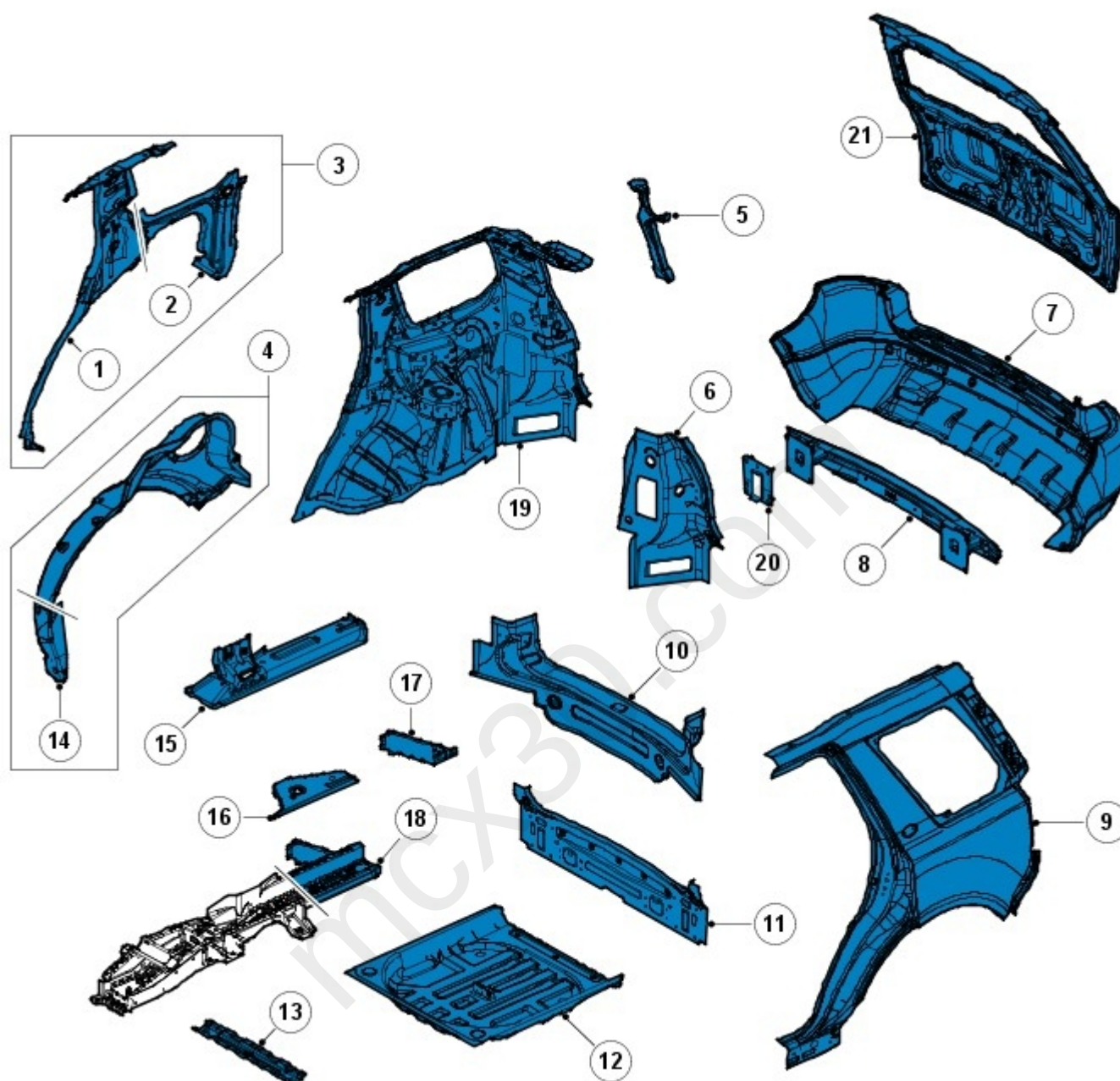


Rear End Sheet Metal Repairs - Rear End Sheet Metal

Description and Operation

Rear end service panels



E87574

Item	Description
1	Inner quarter panel front
2	Inner quarter panel rear
3	Inner quarter panel
4	Rear wheelhouse outer
5	Water drain panel section
6	Rear lamp mounting panel
7	Rear bumper cover
8	Rear bumper
9	Quarter panel
10	Back panel assembly
11	Back panel
12	Spare wheel well
13	Rear crossmember
14	Rear wheelhouse front extension
15	Rear side member closing panel
16	Rear side member upper side extension
17	Rear side member lower side extension
18	Rear side member section

Item	Description
19	Inner quarter panel and wheelhouse
20	Rear bumper mounting
21	Liftgate

Time schedules, rear end

The following schedules show the total time taken to replace single panels and also combinations of panels. The published times include the removal of Mechanical, Electrical and Trim, (MET), items, plus paint times based on Metallic Clear Over Base Paint, (blends to adjacent panels are not included). A corrosion protection time is included where appropriate.

The times were generated by Thatcham, (the Motor Insurance Repair Research Centre), and are to be used as a guide only, based on new undamaged panels. Job allowances are not included, as a guide Thatcham recommend 0.3 hours to be added to single panel times and 0.5 hours to be added to combination times.

Single panel times

Panel Description	Times
Rear bumper cover	5.1
Liftgate	6.9
Rear lamp mounting panel	L / H 8.5 R / H 8.6
Back panel	14.6
Quarter panel	L / H 22.9 R / H 24.1
Headliner remove and install	3.3
Liftgate screen remove and install	1.4
Rear suspension assembly remove and install	4.0
Fuel tank remove and install	2.5

Combination panel replacement times

Combination panel times

Panel Description	Times
Rear bumper cover	
Rear bumper	
Liftgate	
Rear lamp mounting panel	
Back panel	
Quarter panel	
Headliner remove and install	
Liftgate screen remove and install	
Total Time	L / H 44.3 R / H 45.3

Combination panel times

Panel Description	Times
Rear bumper cover	
Rear bumper	
Liftgate	
Rear lamp mounting panel L/H and R/H	
Back panel	
Inner back panel assembly	
Quarter panel L/H and R/H	
Headliner remove and install	
Liftgate screen remove and install	
Total Time	62.5

Combination panel times

Panel Description	Times
Rear bumper cover	
Rear bumper	
Liftgate	
Back panel	
Inner back panel assembly	
Quarter panel	
Spare wheel well	
Rear crossmember	
Rear bumper mounting	
Rear side member section	
Rear side member closing panel	
Rear side member upper side extension	
Water drain panel section	
Inner quarter panel and wheelarch	
Headliner remove and install	
Liftgate screen remove and install	
Fuel tank remove and install	
Rear suspension assembly remove and install	
Total Time	L / H 69.6 R / H 70.3

Combination panel times

Panel Description	Times
Rear bumper cover	
Rear bumper	
Liftgate	
Back panel	
Inner back panel assembly	
Quarter panel L/H and R/H	
Spare wheel well	
Rear crossmember	
Rear bumper mounting L/H and R/H	
Rear side member section L/H and R/H	
Rear side member closing panel L/H and R/H	
Rear side member upper side extension L/H and R/H	
Water drain panel section L/H and R/H	
Inner quarter panel and wheelarch L/H and R/H	
Headliner remove and install	
Liftgate screen remove and install	
Fuel tank remove and install	
Rear suspension assembly remove and install	
Total Time	95.9

Combination panel times

Panel Description	Times
Rear bumper cover	
Rear bumper	
Liftgate	
Back panel	
Inner back panel assembly	
Rear lamp mounting panel	
Spare wheel well	
Rear bumper mounting	
Rear side member section	
Rear side member closing panel	
Rear side member upper side extension	
Liftgate screen remove and install	
Fuel tank remove and install	
Rear suspension assembly remove and install	
Total Time	L / H 47.1 R / H 47.1

Combination panel times

Panel Description	Times
Rear bumper cover	
Rear bumper	
Liftgate	
Back panel	
Inner back panel assembly	
Rear lamp mounting panels L/H and R/H	
Spare wheel well	
Rear crossmember	
Rear bumper mounting L/H and R/H	
Liftgate screen remove and install	
Fuel tank remove and install	
Rear suspension assembly remove and install	
Total Time	43.9

Rear End Sheet Metal Repairs - Quarter Panel

Removal and Installation

Removal



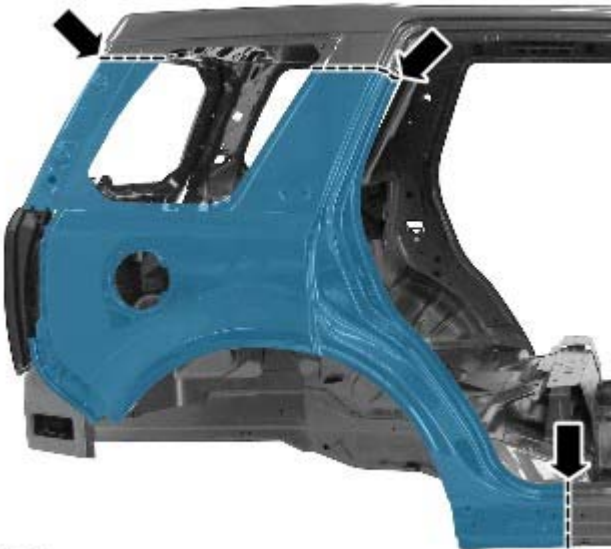
CAUTION: The quarter panel must be MIG slot brazed to the rocker panel inner reinforcement, which is DP600, (Dual Phase steel). **MIG plug welds / spot welds must not be used in this area.**

- NOTE: The quarter panel is serviced as a separate weld-on panel.
- NOTE: There are NVH elements inside this panel, they are not serviced on the new panel. If damaged, a new element will be required.

1. The quarter panel is replaced in conjunction with:
 - Rear bumper cover
 - Rear door
 - Quarter glass
 - Headliner
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the rear bumper cover.
For additional information, refer to: [Rear Bumper](#) (501-19 Bumpers, Removal and Installation).
4. Remove the rear door.
For additional information, refer to: [Rear Door](#) (501-03 Body Closures, Removal and Installation).
5. Remove the headliner.
For additional information, refer to: [Headliner - Vehicles Without: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation) / [Headliner - Vehicles With: Tilting Roof Opening Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
6. Remove the rear door striker from the C-Pillar.
7. Remove the roof moulding, front and rear sections.
8. Remove the side air curtain module.
For additional information, refer to: [Side Air Curtain Module](#) (501-20B Supplemental Restraint System, Removal and Installation).
9. Remove the rear quarter glass.
For additional information, refer to: [Rear Quarter Window Glass](#) (501-11 Glass, Frames and Mechanisms, Removal and Installation).
10. Remove the front seat.
For additional information, refer to: [Front Seat](#) (501-10 Seating, Removal and Installation).
11. Remove the floor console.
For additional information, refer to: [Floor Console](#) (501-12 Instrument Panel and Console, Removal and Installation).
12. Remove the RH & LH rocker panel inner trims.
13. Remove the rear seat cushion.
For additional information, refer to: [Rear Seat Cushion](#) (501-10 Seating, Removal and Installation).
14. Remove the rear carpet section.
15. Remove the rear safety belt retractor.
For additional information, refer to: [Rear Safety Belt Retractor](#) (501-20A Safety Belt System, Removal and Installation).
16. Remove the liftgate aperture weatherseal.
17. Remove the forced air extraction grille.
18. Remove the rear wheel and tire.
For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).
19. Remove the rocker panel outer moulding.
20. Release and lay aside the wiring harness along the inner

quarter panel and back panel.

21. Release and lay aside the insulating material at the inner quarter panel.
22. RH side: Drain the fuel tank.
For additional information, refer to: [Fuel Tank Draining](#) (310-00 Fuel System - General Information, General Procedures).
23. RH side: Remove the fuel tank filler pipe.
For additional information, refer to: [Fuel Tank Filler Pipe](#) (310-01A Fuel Tank and Lines - I6 3.2L Petrol, Removal and Installation).
24. Saw cut the old panel at the points illustrated, using the new panel for reference, ensuring that the new panel overlaps.



E85932

25. Mill out the spot welds.



E85931

26. Separate the joints and remove the old panel, also releasing the NVH elements and the fuel filler on the RH.

Installation

1. Offer up and align the new panel and clamp into position, overlapping the old panel. Saw cut the new and old panels at the points where the MIG butt joints are to be made.

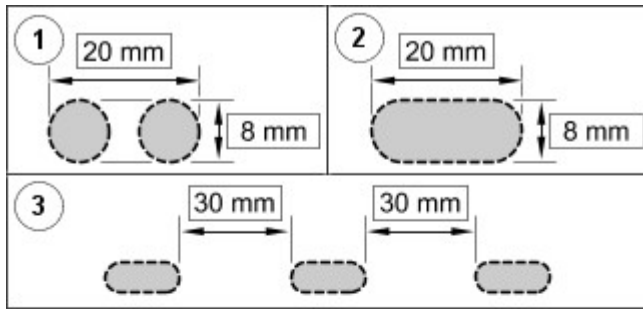


E85933

2. Remove the new panel and the old remnants.
3. Prepare the old and new panel joint surfaces.
4. Drill holes in the new panel ready for MIG plug welding.



E85934



5. NOTE: MIG slots should be installed in accordance with the spacing shown in the illustration. Where this is not possible, due to the indents in the panel, the slot should be made in the location of the original spot weld.

Cut slots in the new panel ready for MIG brazing.



E89240

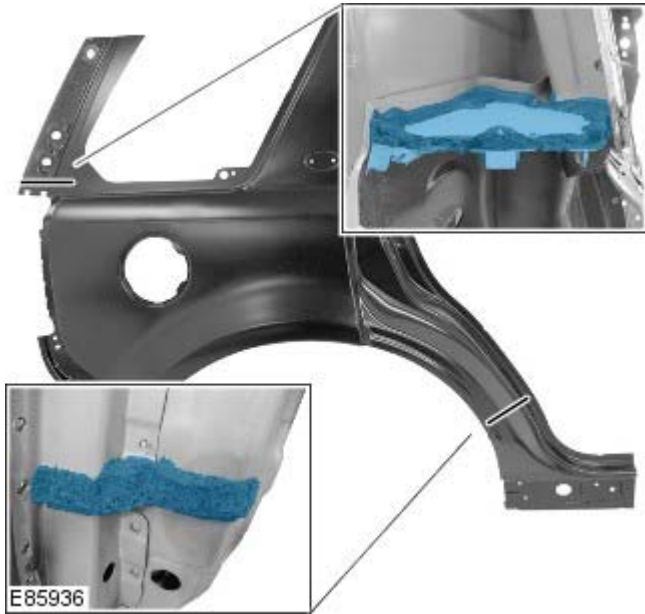
6. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
7. Remove the new panel.
8. Apply adhesive to the areas illustrated.



E85935

9. If necessary, renew the NVH element/s.

10. Apply sealer adhesive to the NVH elements.



11. Offer up the new panel and clamp into position.

12. Tack weld the butt joints.

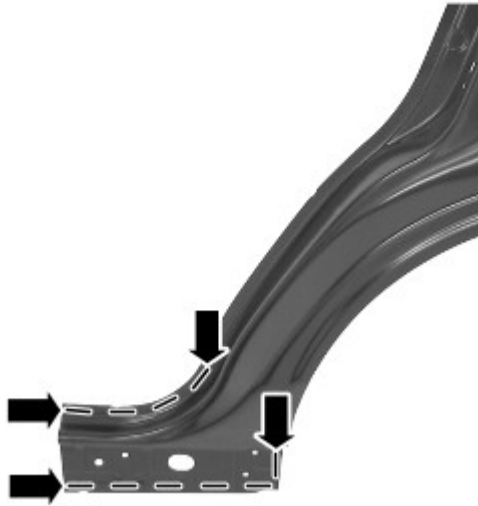
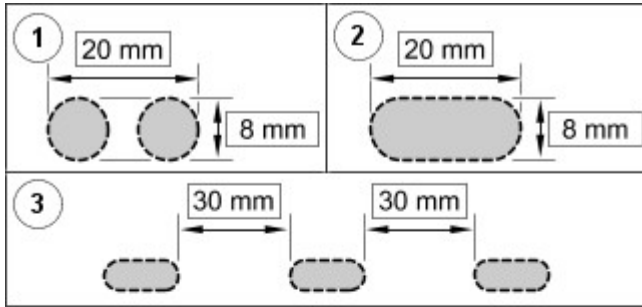
13. Spot weld.



14. MIG plug weld.



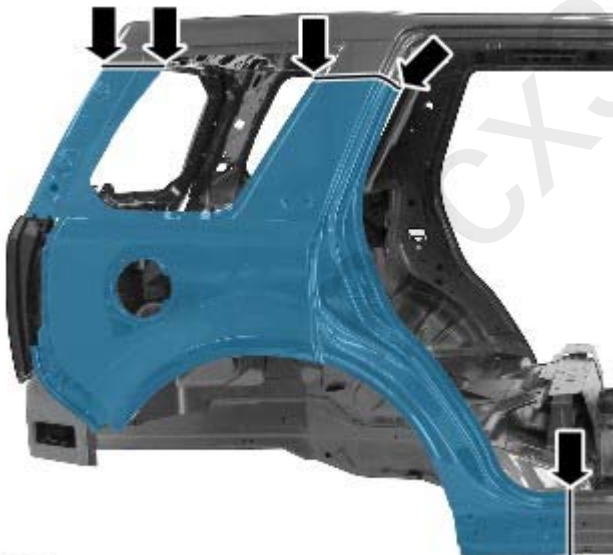
15. MIG braze the slots.



E89239

16. Dress the tack welds.

17. MIG weld the butt joint.



E85939

18. Dress all welded joints.

19. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Rear Side Member Section

Removal and Installation

Removal

• NOTE: The rear side member section is cut from the rear side member service panel. The section is approximately 410mm in length and is serviced with the rear side member lower extension.

• NOTE: It is necessary to remove the spare wheel well to allow access to the rear side member section.

1. The rear side member section is replaced in conjunction with:

- Rear bumper cover
- Rear bumper armature
- Back panel
- Rear bumper mounting
- Inner back panel assembly
- Rear side member closing panel.
- Spare wheel well
- Fuel tank
- Rear subframe and suspension assembly

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the rear side member closing panel.

For additional information, refer to: [Rear Side Member Closing Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

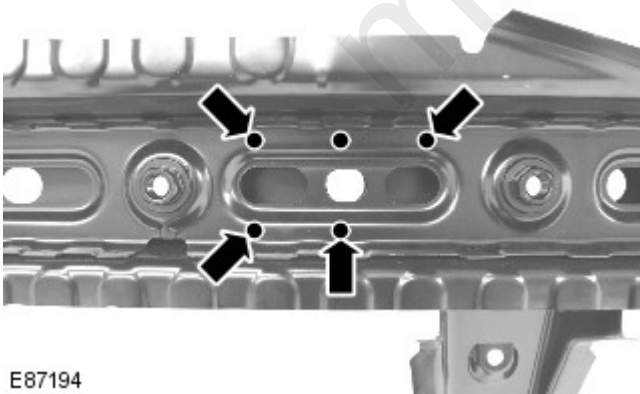
4. Remove the rear subframe / suspension as an assembly.

For additional information, refer to: [Rear Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).

5. Remove the fuel tank.

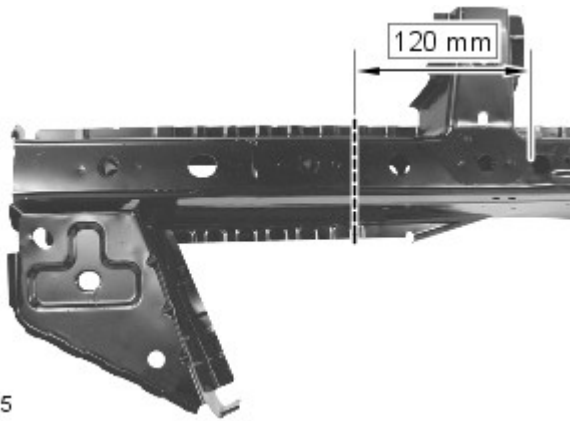
For additional information, refer to: [Fuel Tank](#) (310-01A Fuel Tank and Lines - I6 3.2L Petrol, Removal and Installation).

6. Mill out the spot welds.



E87194

7. Saw cut the old panel at the point illustrated.



E87195

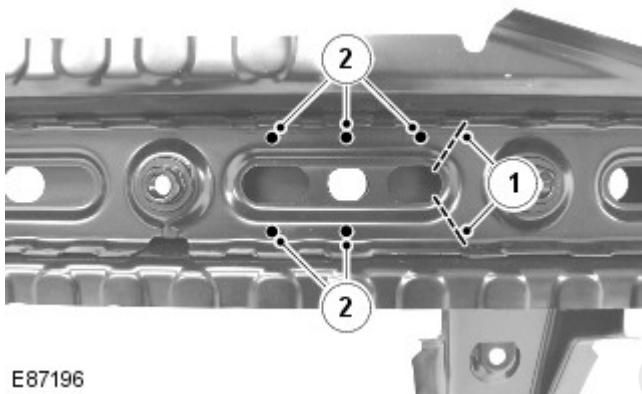
8. Separate the joints and remove the old panel.

Installation

1. NOTE: Ensure there is a 50mm minimum stagger between the old side member and the new reinforcement section cuts.

Remove a section of reinforcement from the old panel:

1. Saw cut the reinforcement at the point illustrated, do not cut through the side member.
2. Mill out 5 spot welds.
3. Separate and remove the reinforcement remnant.

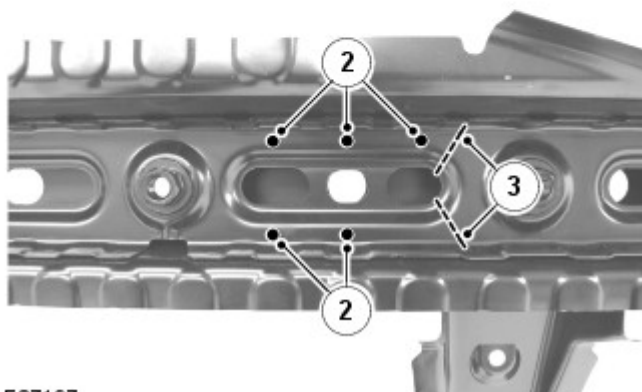
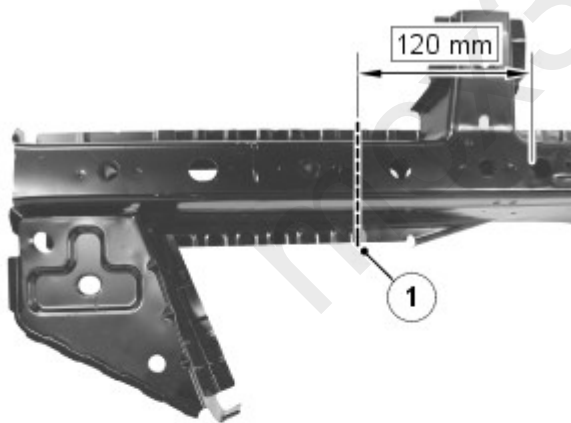


E87196

2. NOTE: Ensure there is a 50mm minimum stagger between the old side member and the new reinforcement section cuts.

Remove the rear side member section from the service panel:

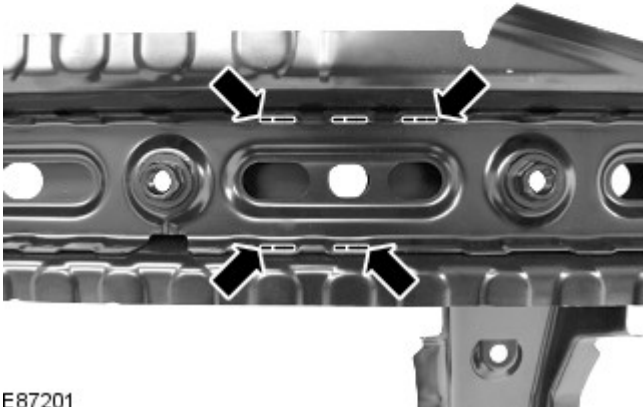
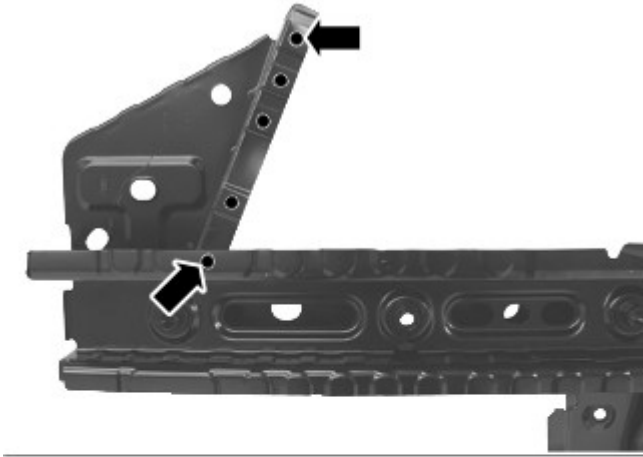
1. Saw cut the side member at the point illustrated, do not cut through the reinforcement.
2. Mill out 5 spot welds.
3. Saw cut the reinforcement at the point illustrated.
4. Separate and remove the side member section.



E87197

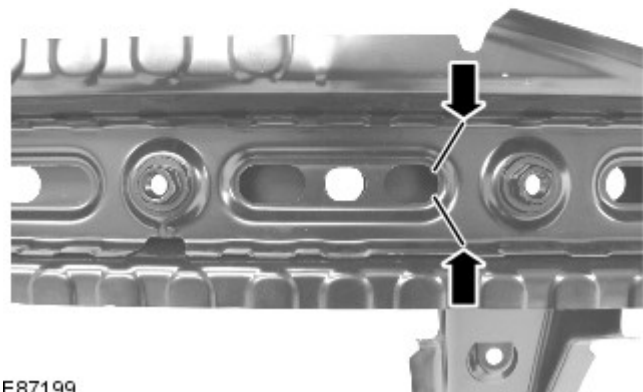
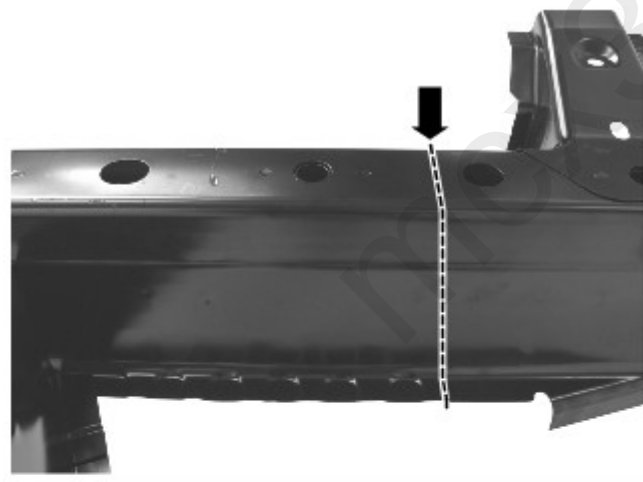
3. Prepare the old and new panel joint surfaces.

4. Drill holes in the new panel ready for MIG plug welding.



E87201

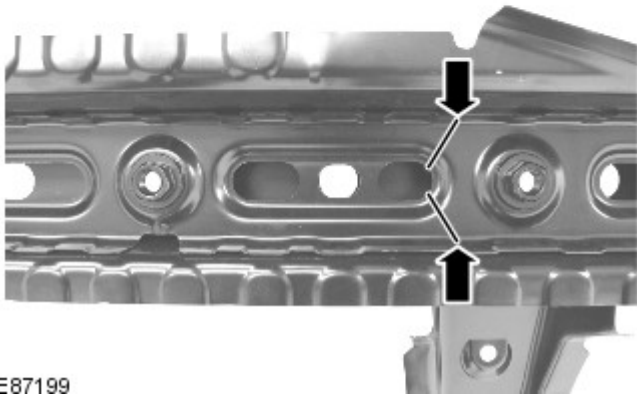
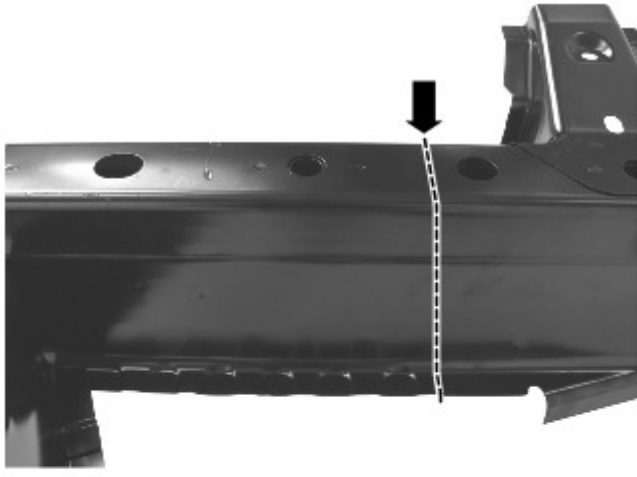
5. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
6. With panels clamped into position, tack weld the butt joints.



E87199

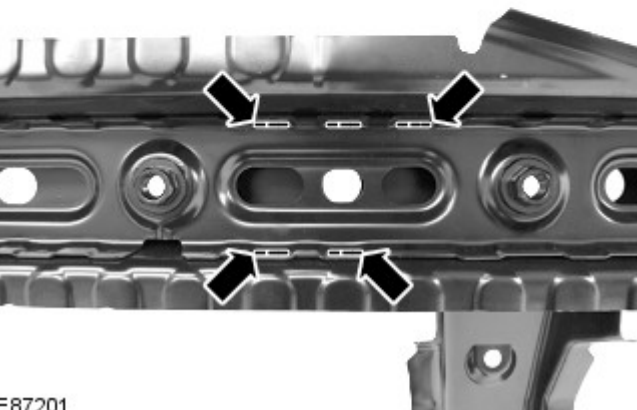
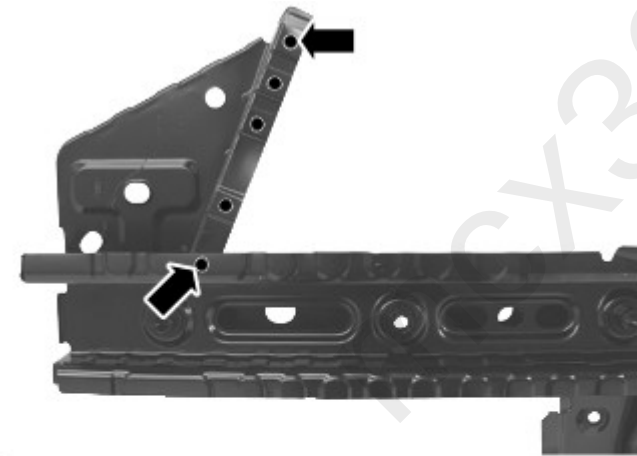
7. Dress the tack welds.

8. MIG weld the butt joints.



E87199

9. MIG plug weld.



E87201

10. Dress all welded joints.

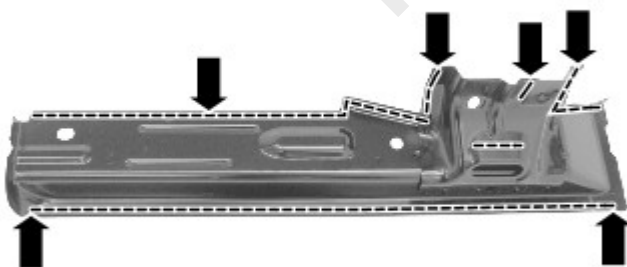
11. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Rear Side Member Closing Panel

Removal and Installation

Removal

- NOTE: The rear side member closing panel is serviced as a separate weld-on panel.
 - NOTE: The panel is serviced less its weld studs.
 - NOTE: It is necessary to remove the spare wheel well to allow access to the rear side member closing panel.
1. The rear side member closing panel is replaced in conjunction with:
 - Rear bumper cover
 - Rear bumper armature
 - Back panel
 - Rear bumper mounting
 - Inner back panel assembly
 - Rear side member section
 - Spare wheel well
 - Fuel tank
 - Rear subframe and suspension assembly
 2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
 3. Remove the rear side member section.
For additional information, refer to: [Rear Side Member Section](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
 4. Remove the rear subframe / suspension as an assembly.
For additional information, refer to: [Rear Subframe](#) (502-00 Uni-Body, Subframe and Mounting System, Removal and Installation).
 5. Remove the fuel tank.
For additional information, refer to: [Fuel Tank](#) (310-01A Fuel Tank and Lines - I6 3.2L Petrol, Removal and Installation).
 6. Mill out the spot welds.



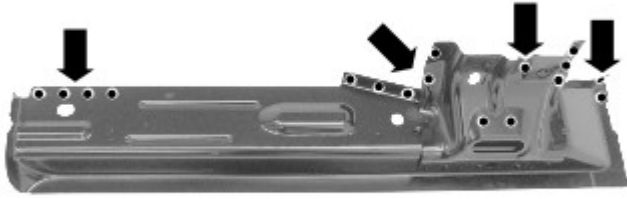
E87203

7. Separate the joints and remove the old panel.

Installation

1. Prepare the old and new panel joint surfaces.

2. Drill hole in the new panel ready for MIG plug welding.



E87204

3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

4. Remove the new panel.

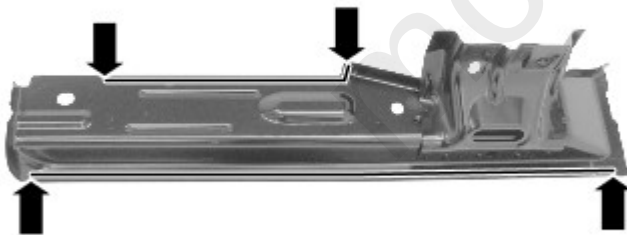
5. Apply adhesive to the areas illustrated.



E87205

6. Offer up the new panel and clamp into position.

7. Spot weld.



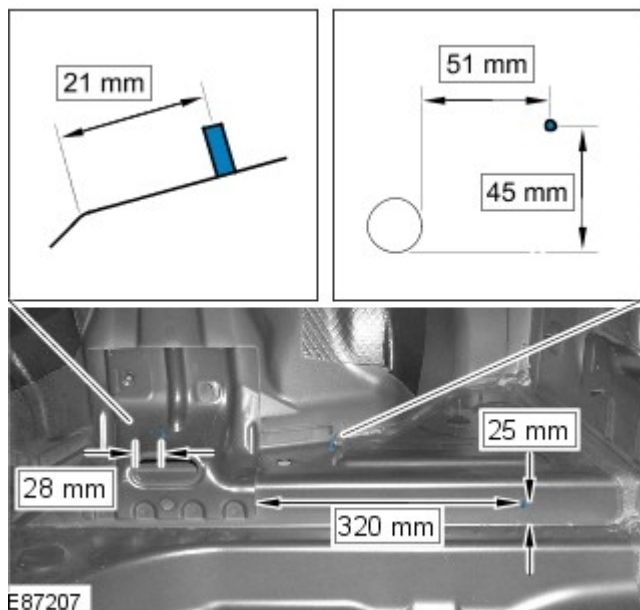
E87206

8. MIG plug weld.



E87204

9. Install weld studs.



10. Dress all welded joints.

11. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Spare Wheel Well

Removal and Installation

Removal

• NOTE: The spare wheel well is serviced as a separate weld on panel, it includes the spare wheel retaining bracket but not the crossmember.

• NOTE: The panel is serviced less its weld studs

1. The spare wheel well is replaced in conjunction with:

- Rear bumper cover
- Rear bumper
- Back panel
- Back panel assembly
- Fuel tank
- Rear subframe and suspension assembly

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the back panel assembly.

For additional information, refer to: [Back Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Remove the rear subframe and suspension as an assembly.

5. Remove the fuel tank.

For additional information, refer to: [Fuel Tank](#) (310-01A Fuel Tank and Lines - I6 3.2L Petrol, Removal and Installation) / [Fuel Tank](#) (310-01B Fuel Tank and Lines - TD4 2.2L Diesel, Removal and Installation).

6. Remove the rear seat.

7. Remove the RH and LH rocker panel inner trims.

8. Remove the RH and LH rear quarter panel mouldings.

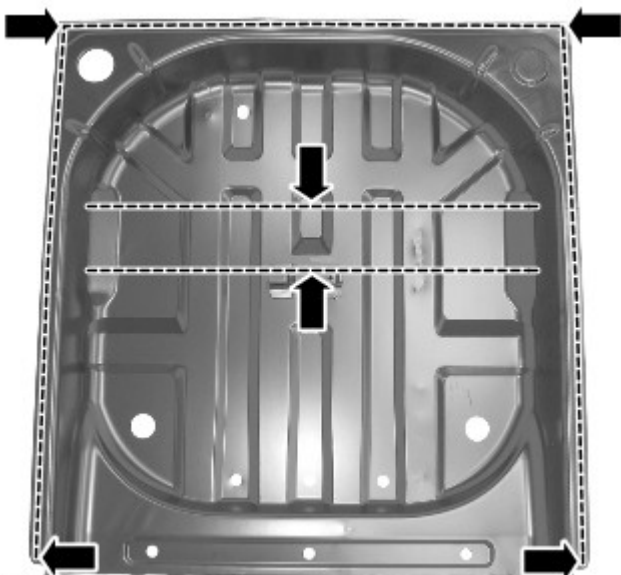
For additional information, refer to: [Rear Quarter Panel Moulding](#) (501-08 Exterior Trim and Ornamentation, Removal and Installation).

9. Release and lay aside the carpet.

10. Remove the RH and LH brake pipes.

11. Release and lay aside the wiring harnesses at the floor panel and inner quarter panels.

12. Mill out the spot welds.

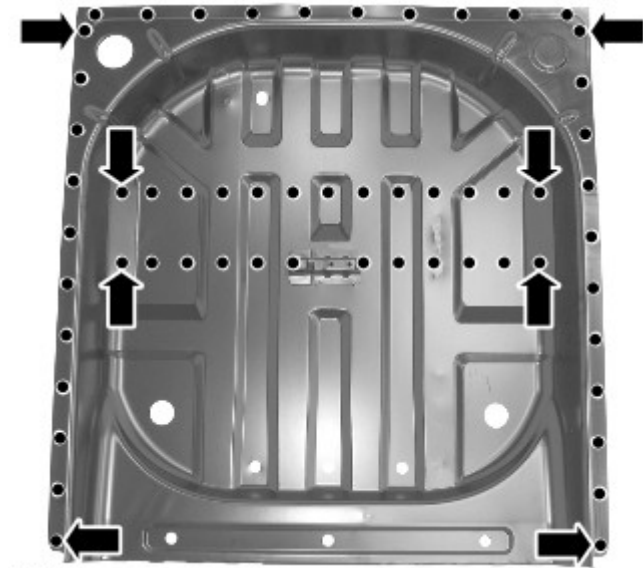


13. Separate the joints and remove the old panel.

Installation

1. Prepare the old and new panel joint surfaces.

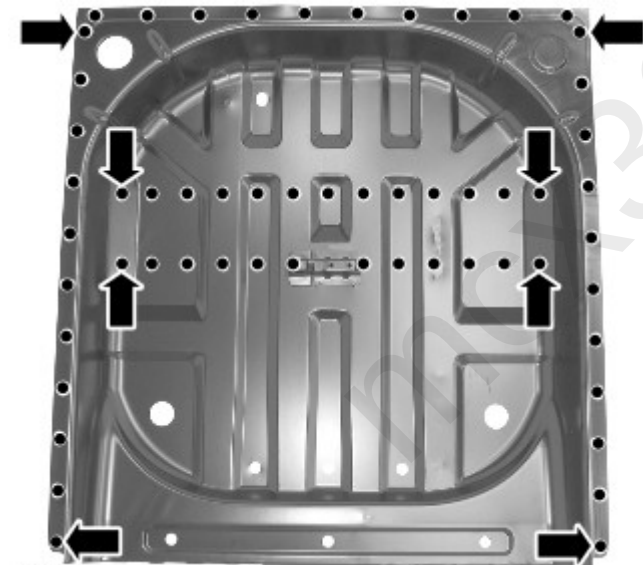
2. Drill holes in the new panel ready for MIG plug welding.



E87220

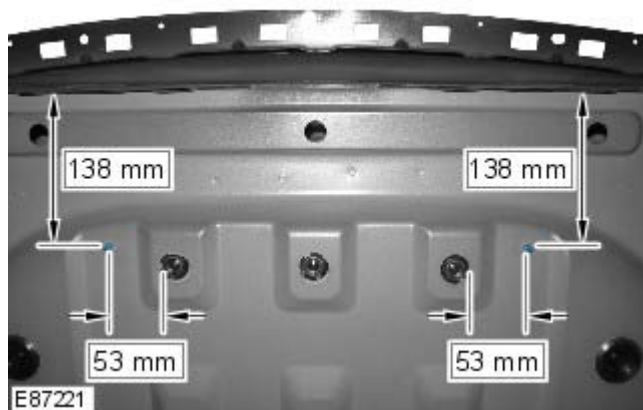
3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

4. MIG plug weld.



E87220

5. Install weld studs.



E87221

6. Dress all welded joints.

7. The installation of associated panels and mechanical components is the reverse of removal.

mcx30.com

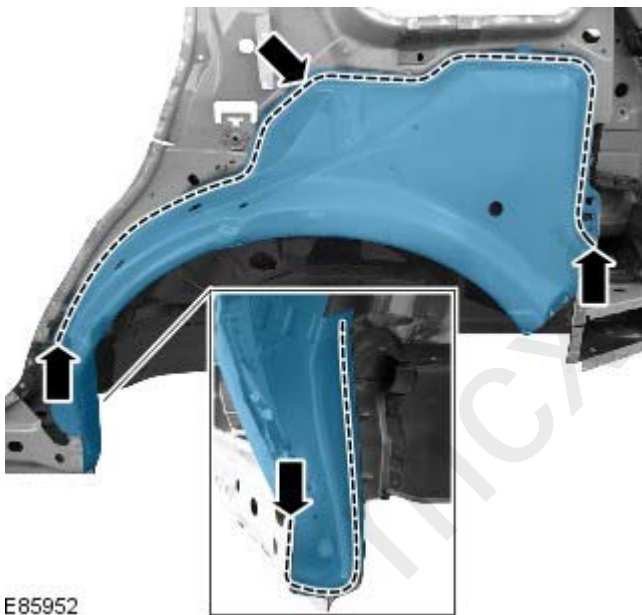
Rear End Sheet Metal Repairs - Rear Wheelhouse Outer

Removal and Installation

Removal

- NOTE: The rear wheelhouse outer is serviced as a separate weld-on panel.

1. The rear wheelhouse outer is replaced in conjunction with:
 - Rear bumper cover
 - Quarter panel
 - Rear door
 - Quarter glass
 - Inner quarter panel
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the inner quarter panel.
For additional information, refer to: [Inner Quarter Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
4. Mill out the spot welds.



E85952

5. Separate the joints and remove the old panel.

Installation

1. Prepare the old and new panel joint surfaces.

2. Drill holes in the new panel ready for MIG plug welding.



E85953

3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step. If not, rectify and recheck before proceeding.

4. Remove the new panel.

5. Apply adhesive to the areas illustrated.

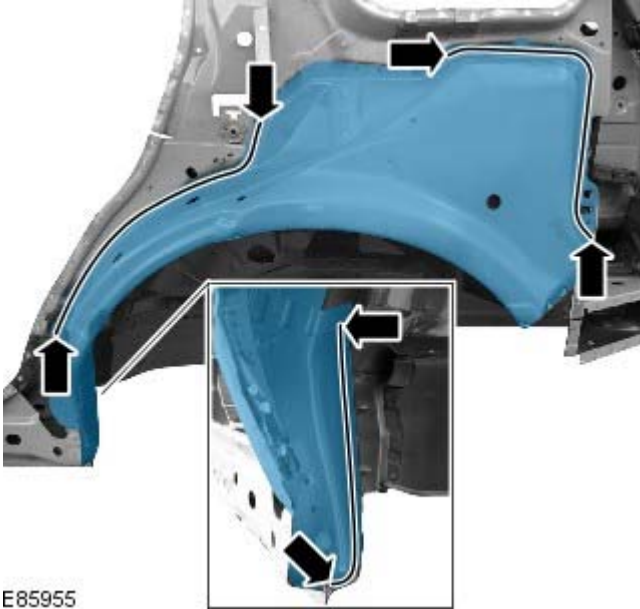


E85954

6. Offer up the new panel and clamp into position.

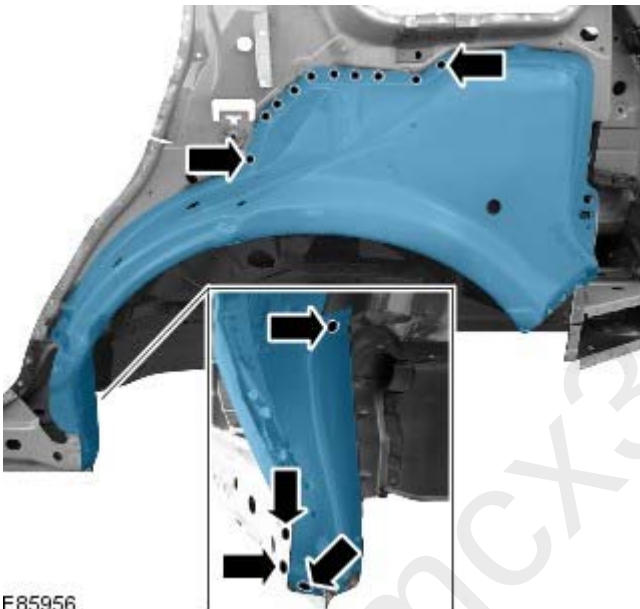
7. Tack weld the butt joints.

8. Spot weld.



E85955

9. MIG plug weld.



E85956

10. Dress all welded joints.

11. The installation of associated panels and mechanical components is the reverse of removal.

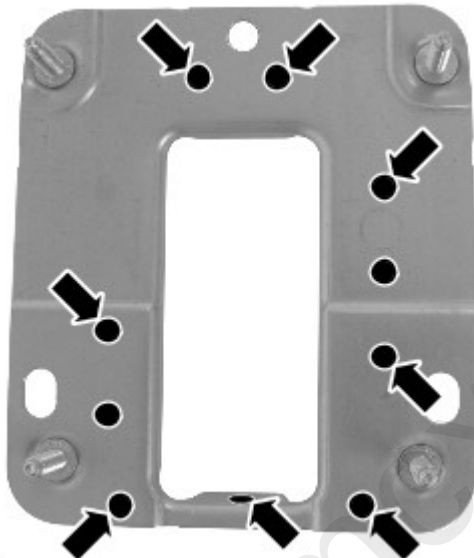
Rear End Sheet Metal Repairs - Rear Bumper Mounting

Removal and Installation

Removal

- NOTE: The rear bumper mounting is serviced as a separate weld-on panel.

1. The rear bumper mounting is replaced in conjunction with:
 - Rear bumper cover
 - Rear bumper armature
 - Back panel
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the back panel.
For additional information, refer to: [Back Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
4. Mill out the spot welds.



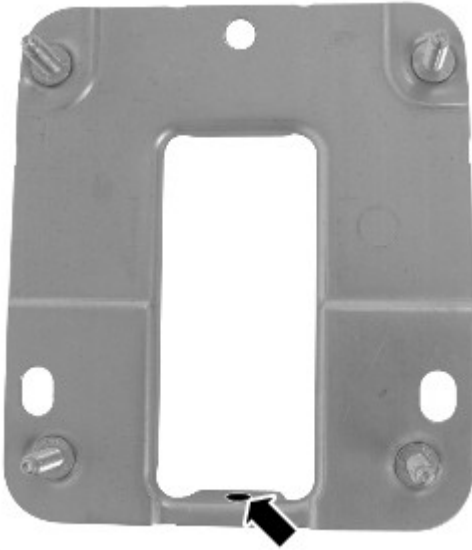
E87215

5. Separate the joints and remove the old panel.

Installation

1. Prepare the old and new panel joint surfaces.

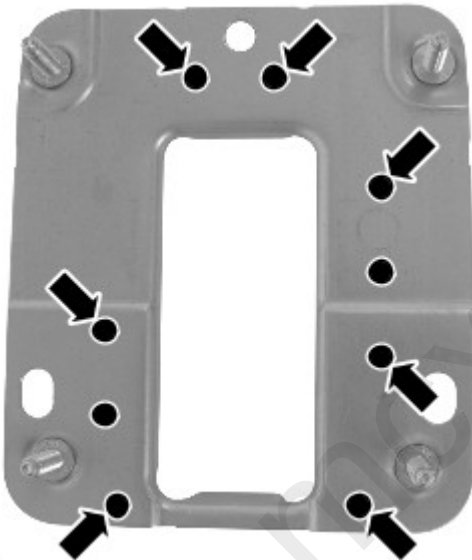
2. Drill hole in the new panel ready for MIG plug welding.



E87216

3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

4. Spot weld.

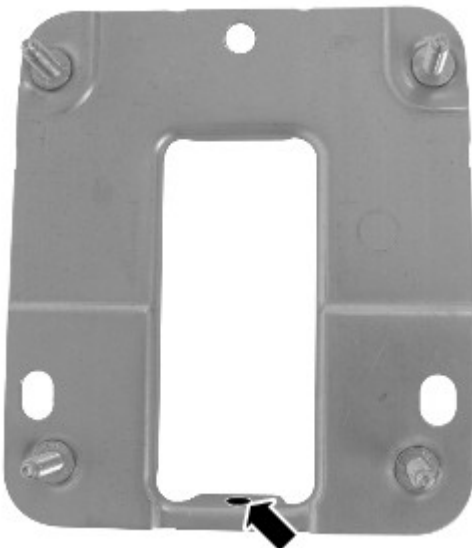


E87217

5. MIG plug weld.

6. Dress all welded joints.

7. The installation of associated panels and mechanical components is the reverse of removal.



E87216

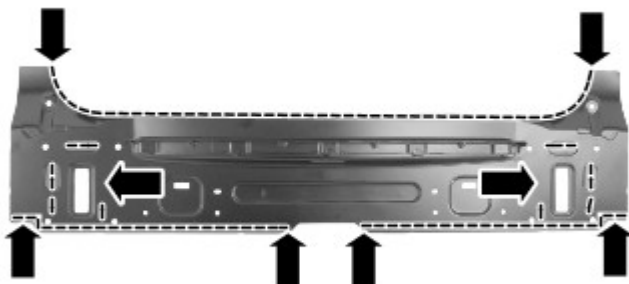
Rear End Sheet Metal Repairs - Back Panel

Removal and Installation

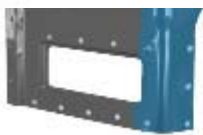
Removal

- NOTE: The back panel is serviced as a separate weld-on panel, it includes the bumper retaining bracket.
- NOTE: It is necessary to remove sections of both rear lamp mounting panels to enable removal and refitment of the back panel, (unless the back panel is being replaced in conjunction with a rear lamp mounting panel).

1. The back panel is replaced in conjunction with:
 - Rear bumper cover
 - Rear bumper
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the rear bumper.
For additional information, refer to: [Rear Bumper](#) (501-19 Bumpers, Removal and Installation).
4. Remove the RH and LH bumper retainer guides.
5. Remove the liftgate aperture weatherseal.
6. Remove the back panel trim.
7. Remove the RH and LH quarter panel inner trims.
For additional information, refer to: [Rear Quarter Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).
8. Remove the RH and LH forced air extraction grilles.
9. Remove the spare road wheel.
10. Remove the subwoofer amplifier.
For additional information, refer to: [Subwoofer Amplifier](#) (415-01 Information and Entertainment System, Removal and Installation).
11. Remove the exhaust assembly.
For additional information, refer to: [Exhaust System](#) (309-00A Exhaust System - I6 3.2L Petrol, Removal and Installation).
12. Remove the floor panel exhaust heat shield.
13. Remove the RH and LH road wheels.
For additional information, refer to: [Wheel and Tire](#) (204-04 Wheels and Tires, Removal and Installation).
14. Release and lay aside the insulating material at the back panel.
15. Release and lay aside the back panel wiring harness.
16. Saw cut each rear lamp mounting panel, as illustrated.
17. Saw out the spot welds.
18. Mill out the spot welds.
19. Mill out the spot welds.



E87177



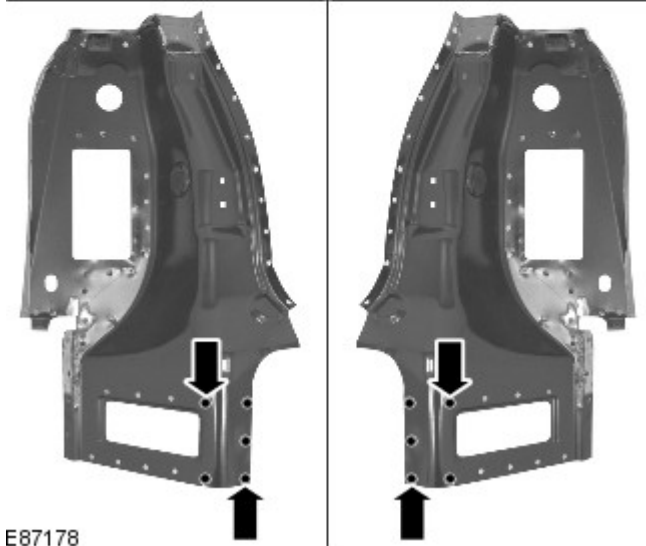
20. Separate the joints and remove the old panel.

Installation

1. Prepare the old and new panel joint surfaces, including the rear lamp mounting panel sections.

E87176

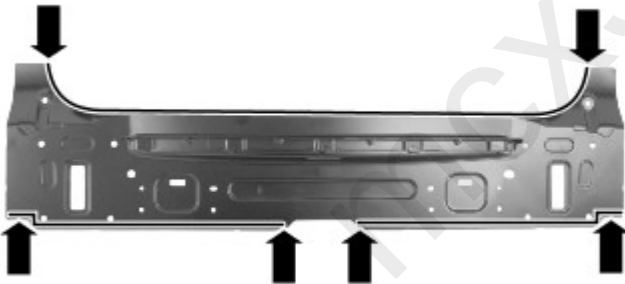
2. Drill holes in the new panel ready for MIG plug welding.



E87178

3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

4. Spot weld.



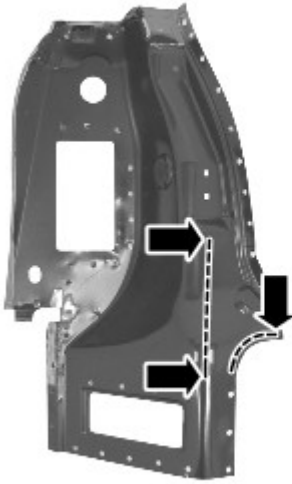
E87179

5. MIG plug weld.

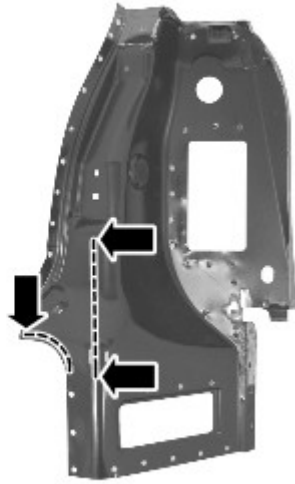


E87180

6. Apply adhesive to the rear lamp mounting panel sections at the points illustrated.



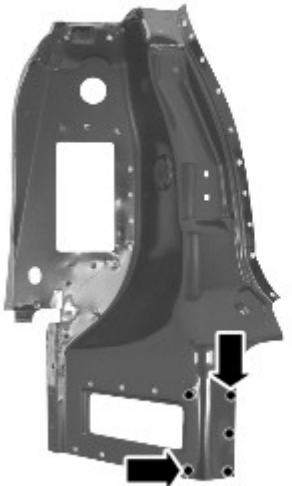
E87181



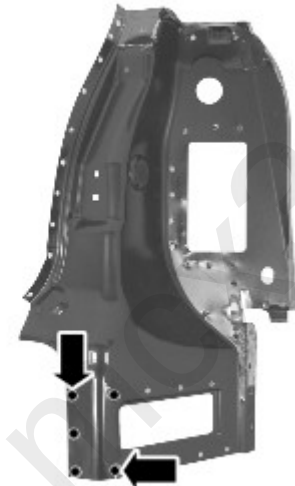
7. Offer up the rear lamp mounting panel sections and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

8. Tack weld the butt joints.

9. MIG plug weld.

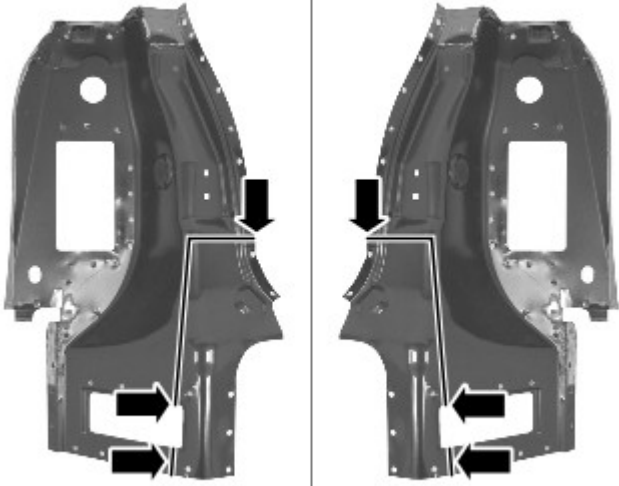


E87183



10. Dress the tack welds.

11. MIG weld the butt joint.



E87184

12. Dress all welded joints.

13. The installation of associated panels and mechanical components is the reverse of removal.

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Rear End Sheet Metal Repairs - Rear Crossmember

Removal and Installation

Removal

- NOTE: The rear crossmember is serviced as a separate weld-on panel.
- NOTE: The panel is serviced less its weld studs.

1. The rear crossmember is replaced in conjunction with:

- Rear bumper cover
- Rear bumper armature
- Back panel
- Inner back panel assembly
- Spare wheel well

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the spare wheel well.

For additional information, refer to: [Spare Wheel Well](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Mill out the spot welds.



E87209

5. Separate the joints and remove the old panel.

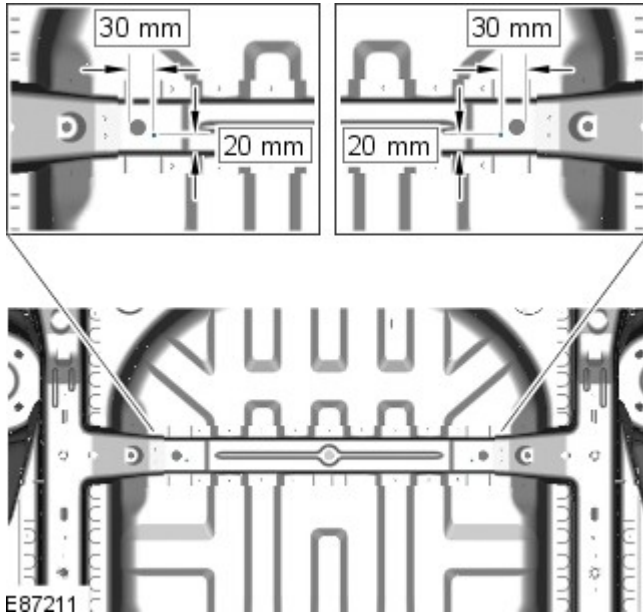
Installation

1. Prepare the old and new panel joint surfaces.
2. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
3. Spot weld.



E87210

4. Install weld studs.



E87211

5. Dress all welded joints.

6. The installation of associated panels and mechanical components is the reverse of removal.

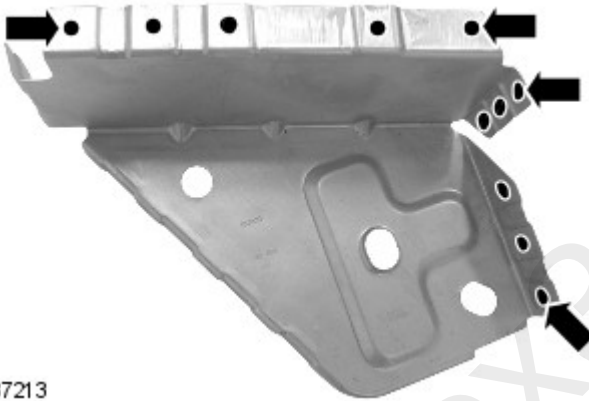
Rear End Sheet Metal Repairs - Rear Side Member Lower Side Extension

Removal and Installation

Removal

• NOTE: The rear side member lower side extension is serviced as a separate weld-on panel, it is also serviced as part of the rear side member.

1. The rear side member lower side extension is replaced in conjunction with:
 - Rear bumper cover
 - Rear bumper armature
 - Rear lamp mounting panel
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the rear lamp mounting panel.
For additional information, refer to: [Rear Lamp Mounting Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
4. Mill out the spot welds.



E87213

5. Separate the joints and remove the old panel.

Installation

1. Prepare the old and new panel joint surfaces.
2. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
3. MIG plug weld.



E87213

4. Dress all welded joints.
5. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Rear Lamp Mounting Panel

Removal and Installation

Removal

• NOTE: The rear lamp mounting panel is serviced as a separate weld-on panel.

• NOTE: There are NVH elements attached to the old panel, they are not serviced on the new panel. If damaged, new elements will be required.

1. The rear lamp mounting panel is replaced in conjunction with:

- Rear bumper cover
- Rear bumper armature

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the rear bumper.

For additional information, refer to: [Rear Bumper](#) (501-19 Bumpers, Removal and Installation).

4. Disconnect both battery cables.

5. Remove the D-Pillar trim panel.

For additional information, refer to: [D-Pillar Trim Panel](#) (501-05 Interior Trim and Ornamentation, Removal and Installation).

6. Remove the rear wheel and tire.

7. Remove the rear quarter window moulding.

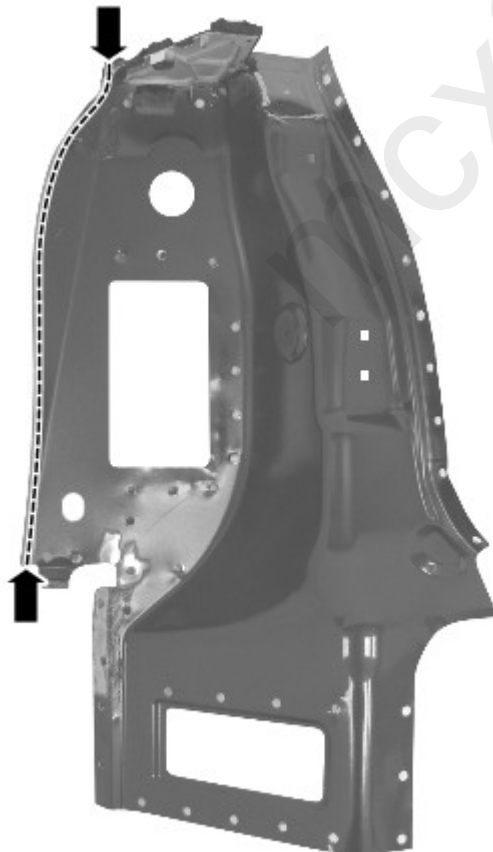
8. Remove the loadspace trim panel.

9. Remove the forced air extraction grille.

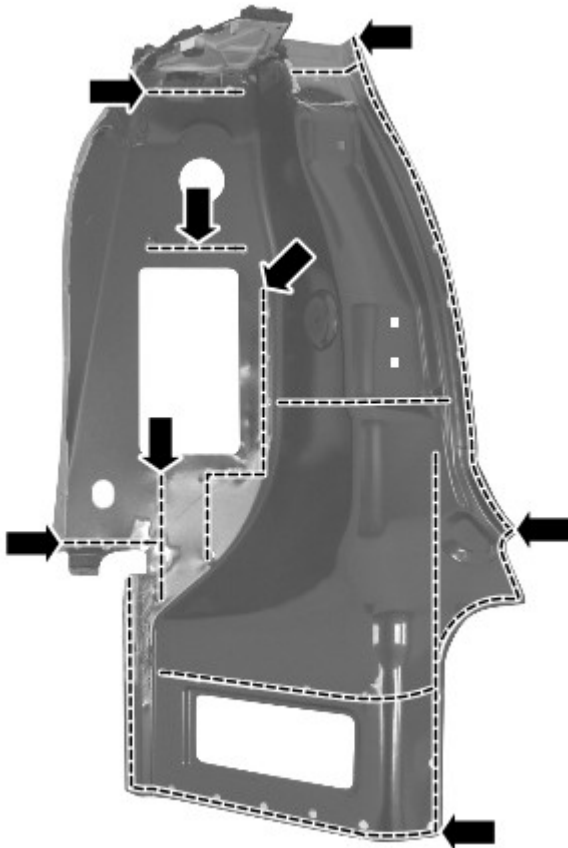
10. Release the insulating material and lay aside.

11. Release and lay aside the wiring harness.

12. Use a belt sander to sand down the spot welds in the area illustrated.



13. Mill out the remaining spot welds.

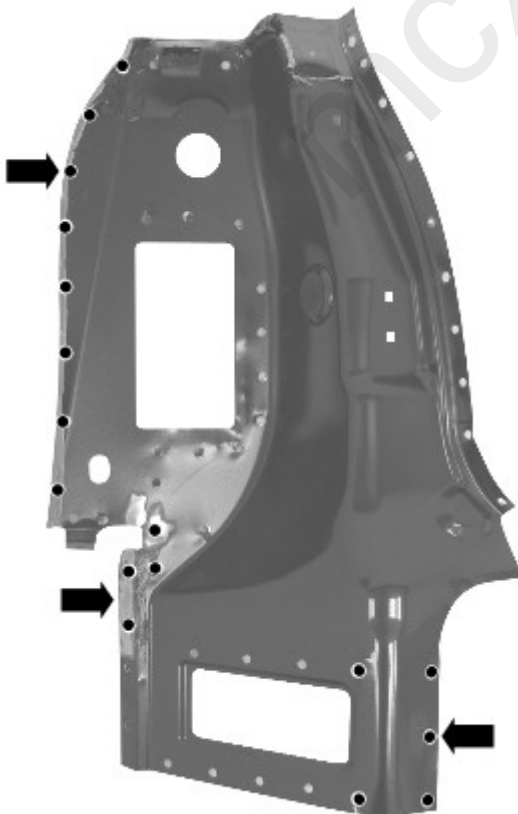


E87187

14. Separate the joints and remove the old panel, also releasing the NVH elements.

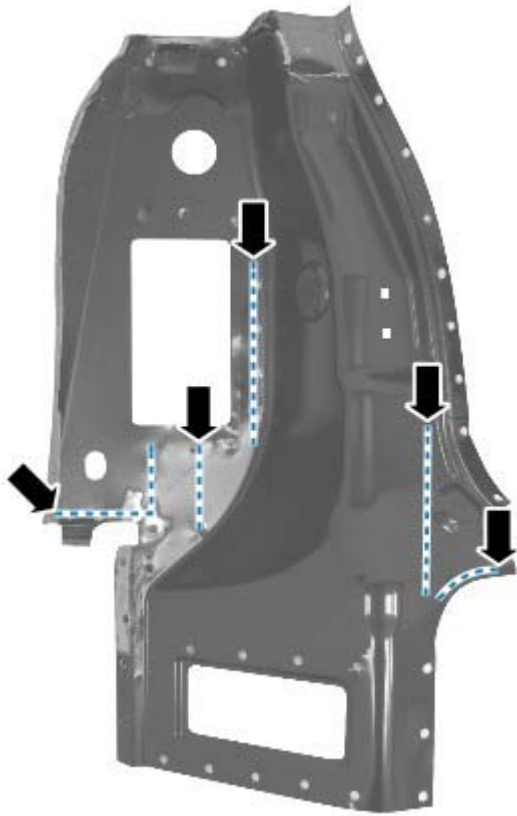
Installation

1. Prepare the old and new panel joint surfaces, including the rear lamp mounting panel sections.
2. Drill holes in the new panel ready for MIG plug welding.
3. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
4. Remove the new panel.



E87192

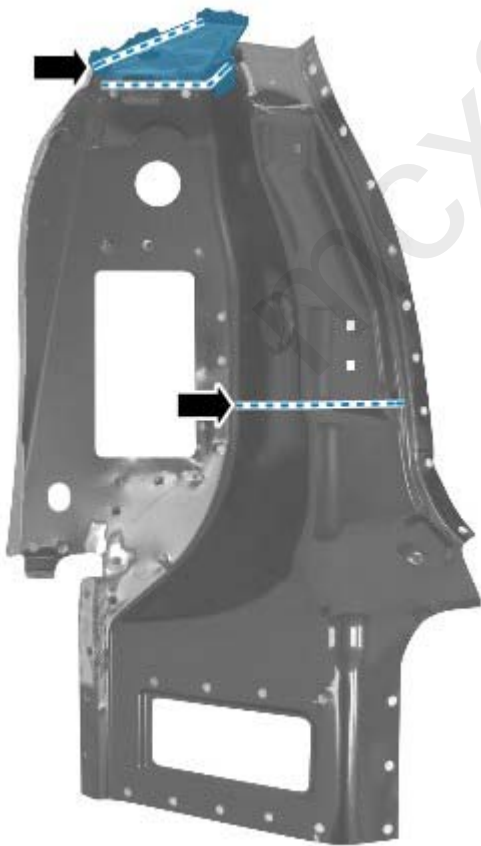
5. Apply adhesive to the areas illustrated.



E87189

6. If necessary, renew the NVH elements.

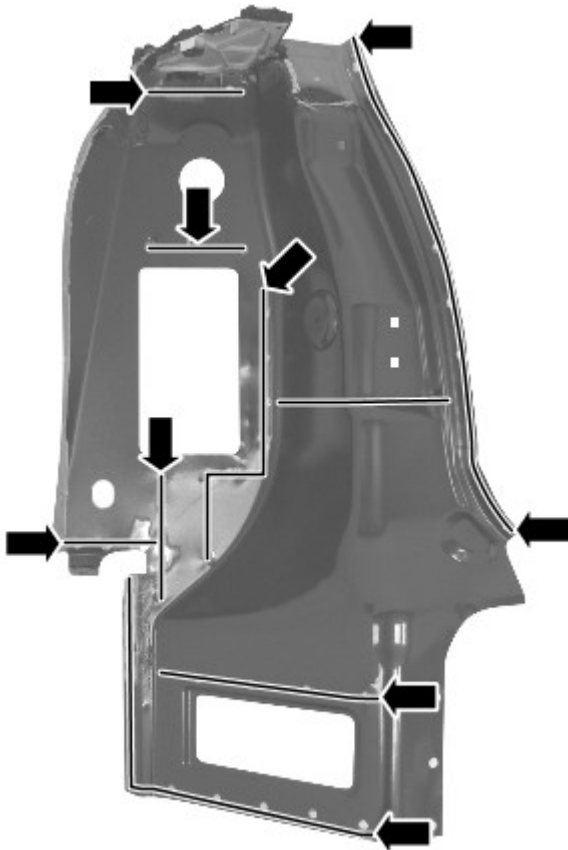
7. Apply sealer adhesive to the NVH elements.



E87190

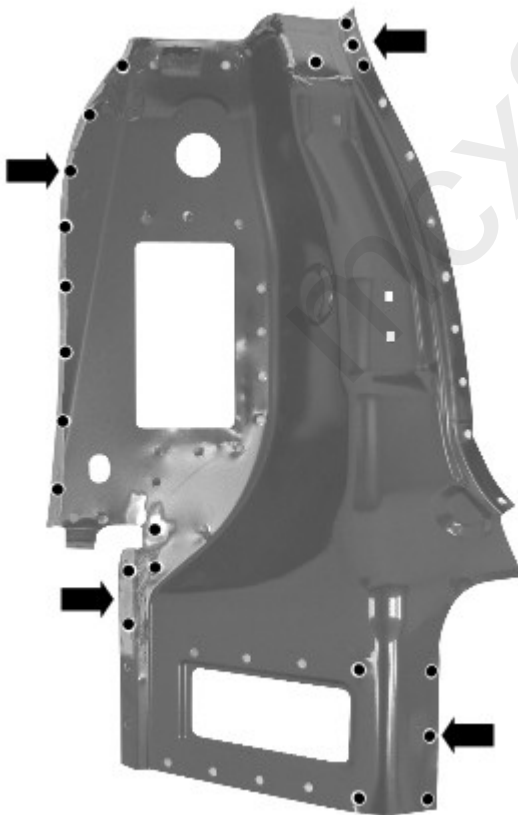
8. Offer up the new panel and clamp into position.

9. Spot weld.



E87191

10. MIG plug weld.



E87188

11. Dress all welded joints.

12. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Water Drain Panel Section

Removal and Installation

Removal

- NOTE: The water drain panel section is cut from the water drain panel, which is a separate weld-on panel.

1. The water drain panel section is replaced in conjunction with:

- Rear bumper cover
- Rear bumper armature
- Liftgate
- Quarter panel
- Rear lamp mounting panel

2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the quarter panel.
For additional information, refer to: [Quarter Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Remove the rear lamp mounting panel.
For additional information, refer to: [Rear Lamp Mounting Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

5. Mill out the spot welds.



E87454

6. Saw cut the old panel at the point illustrated, using the new panel for reference, ensuring that the new panel overlaps.



E87455

7. Separate the joints and remove the old panel.

Installation

1. Offer up and align the new panel and clamp into position, overlapping the old panel. Saw cut the new and old panels at the point where the MIG butt joint is to be made.
2. Remove the new panel and the old remnants.
3. Prepare the old and new panel joint surfaces.
4. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

5. Tack weld the butt joint.



E87455

6. Spot weld.



E87456

7. Dress the tack welds.

8. MIG weld the butt joint.



E87457

9. Dress all welded joints.

10. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Rear Wheelhouse Front Extension

Removal and Installation

Removal

- NOTE: The rear wheelhouse front extension is to be unpicked from the rear wheelhouse outer service panel.

1. The rear wheelhouse front extension is replaced in conjunction with:

- Rear bumper cover
- Quarter panel
- Rear door
- Quarter glass
- Inner quarter panel

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the inner quarter panel.

For additional information, refer to: [Inner Quarter Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Mill out the spot welds.



E85946

5. Separate the joints and remove the old panel.

Installation

1. Remove the rear wheelhouse front extension from the wheelhouse outer service panel.



E85947

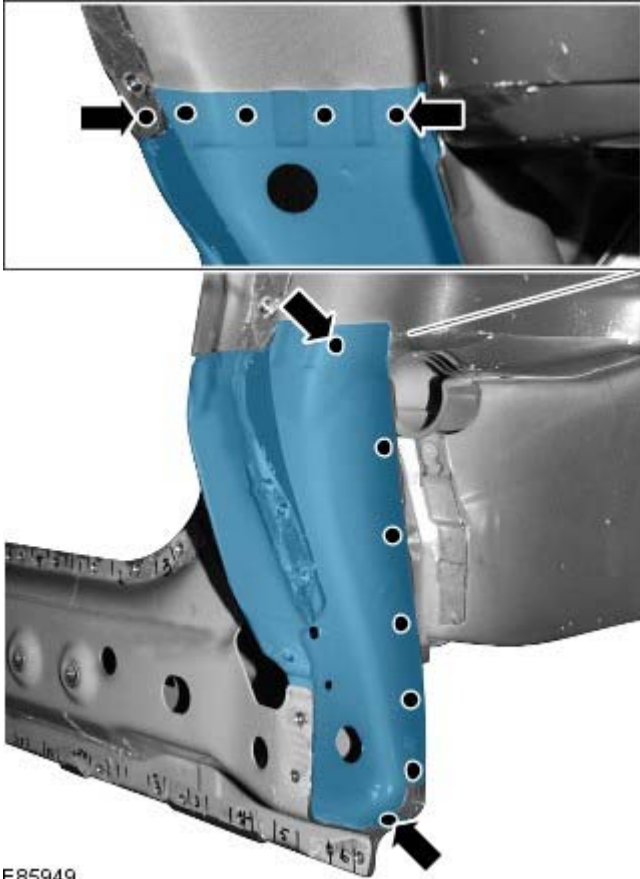
2. Prepare the old and new panel joint surfaces.
3. Drill holes in the new panel ready for MIG plug welding.



E85948

4. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

5. Spot weld.



E85949

6. MIG plug weld.



E85950

7. Dress all welded joints.

8. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Inner Quarter Panel

Removal and Installation

Removal

- NOTE: The inner quarter panel is serviced as a separate weld-on panel.
- NOTE: There is a NVH element on this panel, it is not serviced on the new panel. If damaged, a new element will be required.

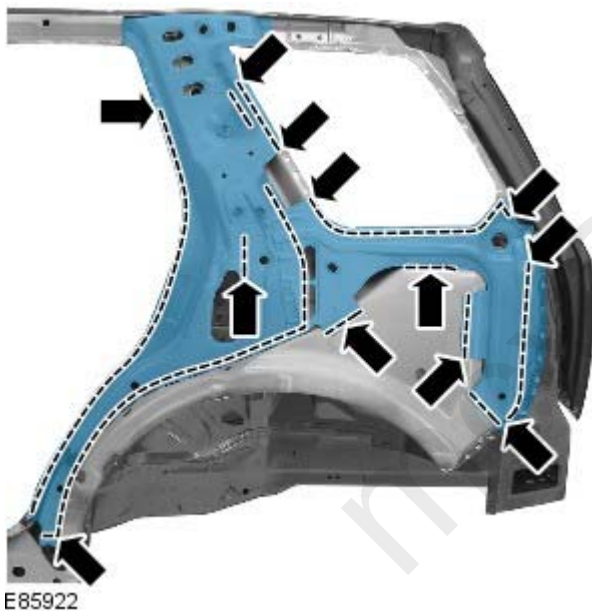
1. The inner quarter panel is replaced in conjunction with:

- Rear bumper cover
- Quarter panel
- Rear door
- Quarter glass

2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the quarter panel.
For additional information, refer to: [Quarter Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Mill out the spot welds.



5. Saw cut the old panel at the point illustrated, using the new panel for reference, ensuring that the new panel overlaps.



E85923

6. Separate the joints and remove the old panel, also releasing the NVH element.

Installation

1. Offer up and align the new panel and clamp into position, overlapping the old panel. Saw cut through the new and old panels at the point where the MIG butt joint is to be made.



E85924

2. Remove the new panel and the old remnants.
3. Prepare the old and new panel joint surfaces.

4. Drill holes in the new panel ready for MIG plug welding.



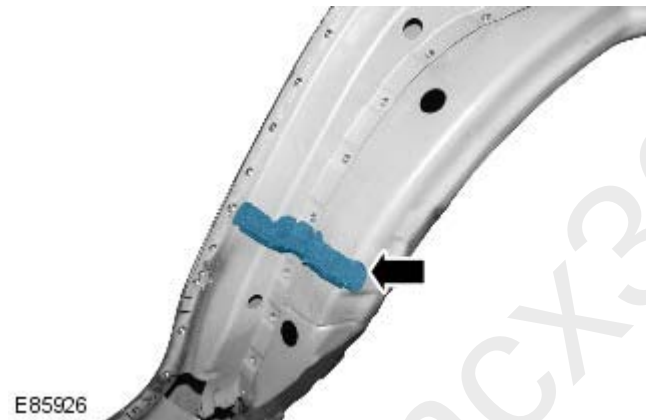
E85925

5. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

6. Remove the new panel.

7. If necessary, renew the NVH element.

8. Apply sealer adhesive to the NVH element.

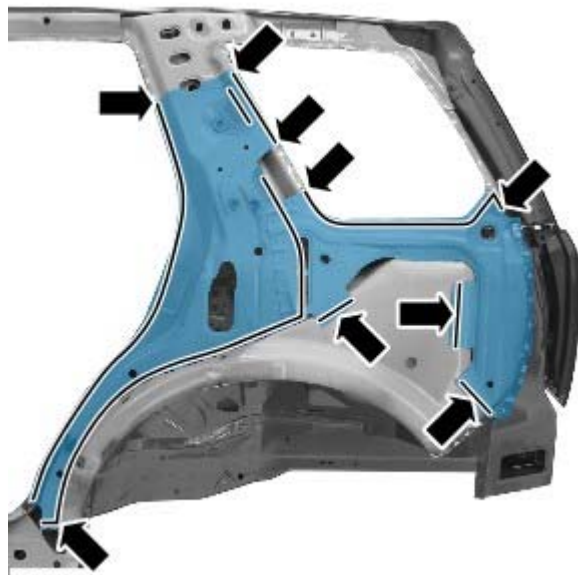


E85926

9. Offer up the new panel and clamp into position.

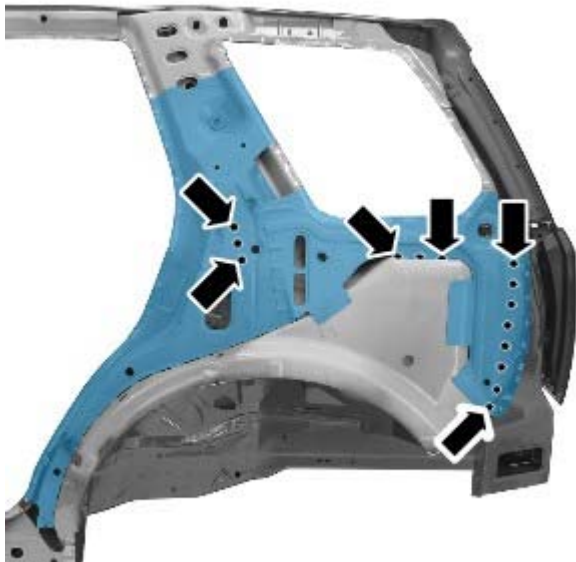
10. Tack weld the butt joint.

11. Spot weld.



E85927

12. MIG plug weld.



E85928

13. Dress the tack welds.

14. MIG weld the butt joint.



E85929

15. Dress all welded joints.

16. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Front Inner Quarter Panel

Removal and Installation

Removal

- NOTE: The front inner quarter panel is to be unpicked from the inner quarter panel, it is not serviced separately.
- NOTE: There is a NVH element on this panel, it is not serviced on the new panel. If damaged, a new element will be required.

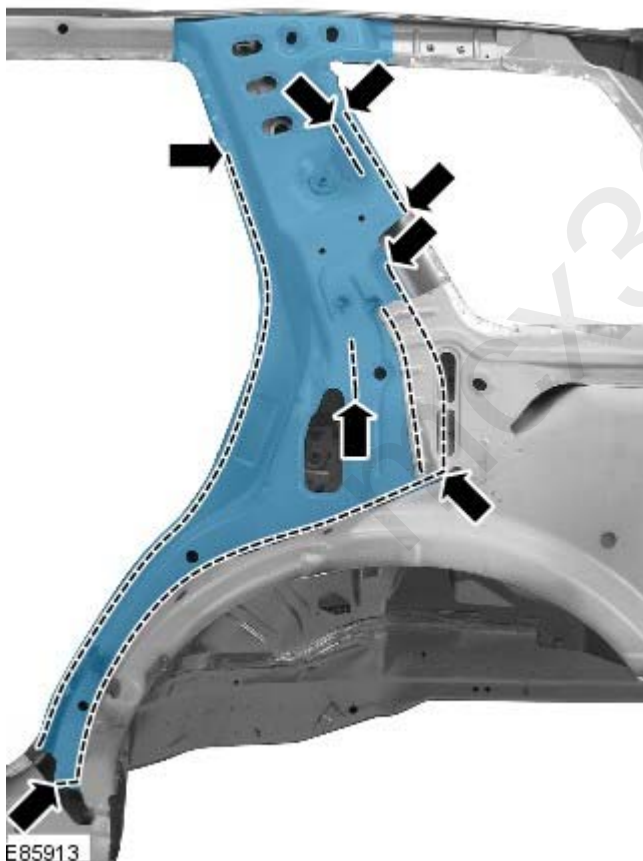
1. The front inner quarter panel is replaced in conjunction with:

- Rear bumper cover
- Quarter panel
- Rear door
- Quarter glass

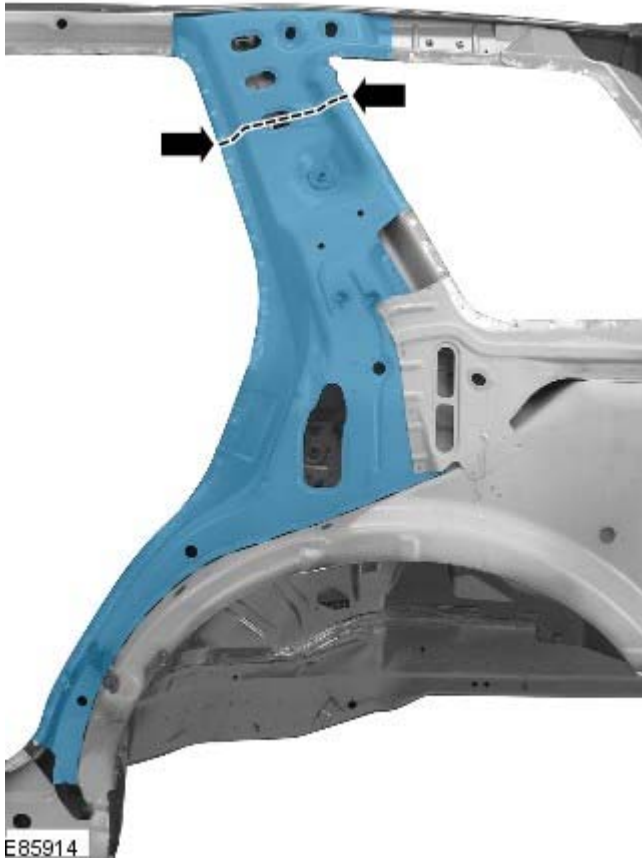
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the quarter panel.
For additional information, refer to: [Quarter Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Mill out the spot welds.



5. Saw cut the old panel at the point illustrated, using the new panel for reference, ensuring that the new panel overlaps.



6. Separate the joints and remove the old panel, also releasing the NVH element.

Installation

1. Remove the front inner quarter panel from the inner quarter service panel, mill out 5 spot welds.
2. Offer up and align the new panel and clamp into position, overlapping the old panel. Saw cut through the new and old panels at the point where the joint is to be made.
3. Remove the new panel and the old remnants.
4. Prepare the old and new panel joint surfaces.
5. Drill holes in the new panel ready for MIG plug welding.



6. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.

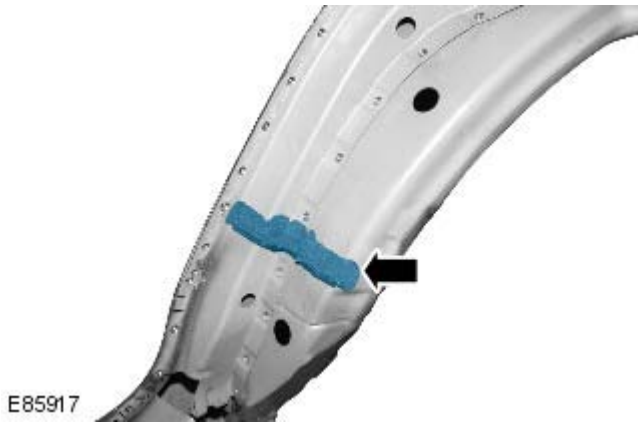
7. Remove the new panel.

8. If necessary, renew the NVH element.

E85916

E85915

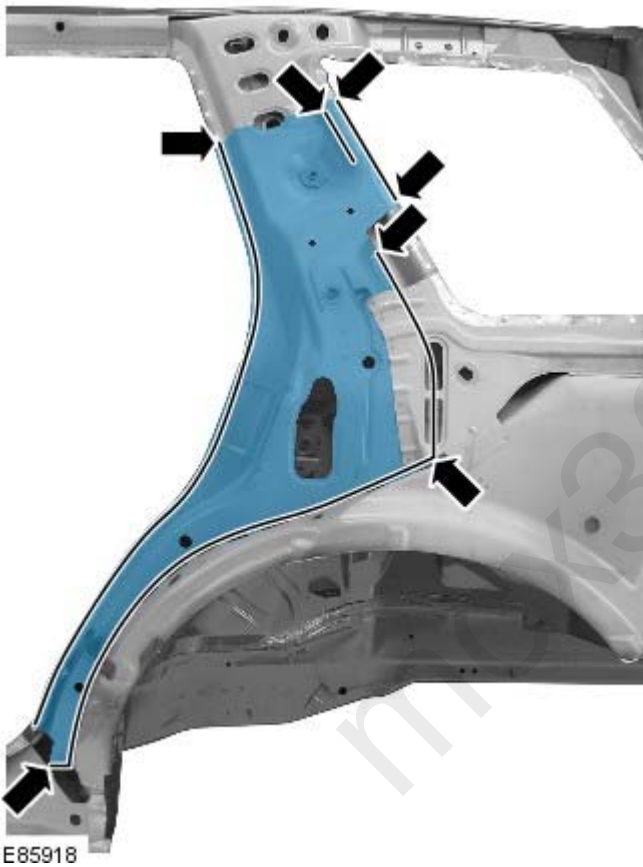
9. Apply sealer adhesive to the NVH element.



10. Offer up the new panel and clamp into position.

11. Tack weld the butt joint.

12. Spot weld.

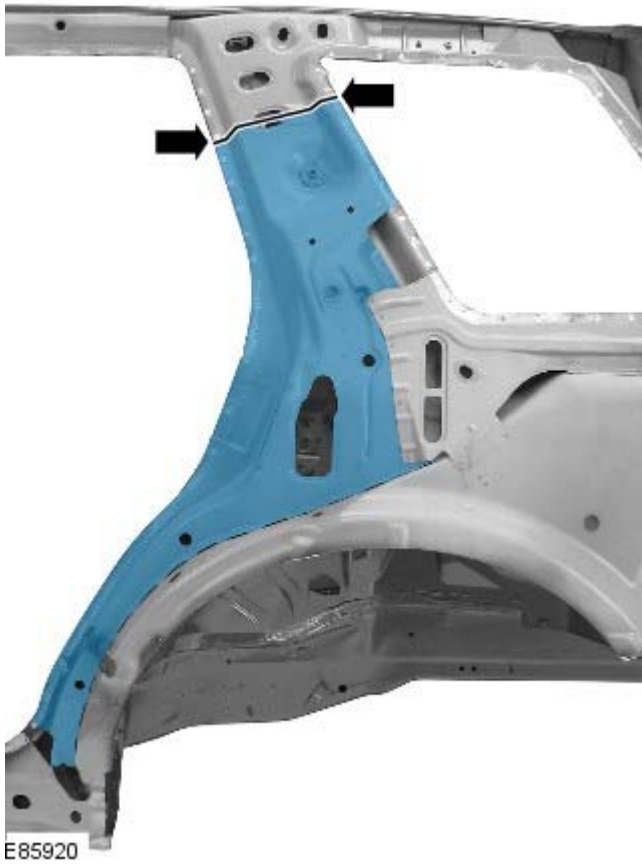


13. MIG plug weld.



14. Dress the tack welds.

15. MIG weld the butt joint.



16. Dress all welded joints.

17. The installation of associated panels and mechanical components is the reverse of removal.

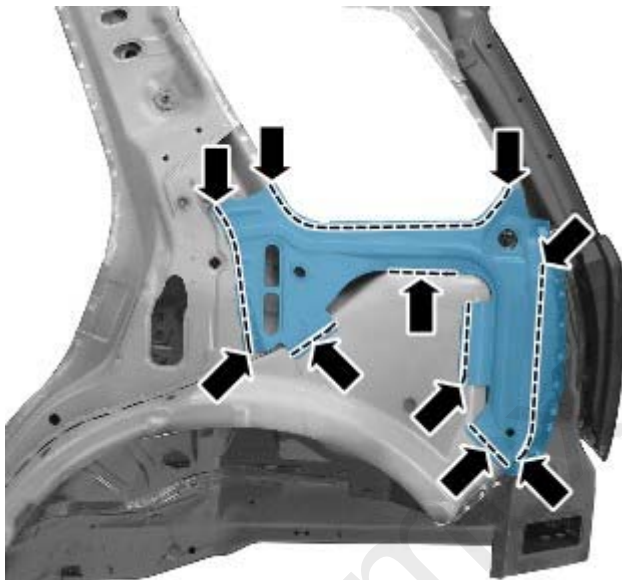
Rear End Sheet Metal Repairs - Rear Inner Quarter Panel

Removal and Installation

Removal

• NOTE: The rear inner quarter panel is to be unpicked from the inner quarter panel, it is not serviced separately.

1. The rear inner quarter panel is replaced in conjunction with:
 - Rear bumper cover
 - Quarter panel
 - Rear door
 - Quarter glass
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the quarter panel.
For additional information, refer to: [Quarter Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
4. Mill out the spot welds.



E85941

5. Separate the joints and remove the old panel, also releasing the NVH element.

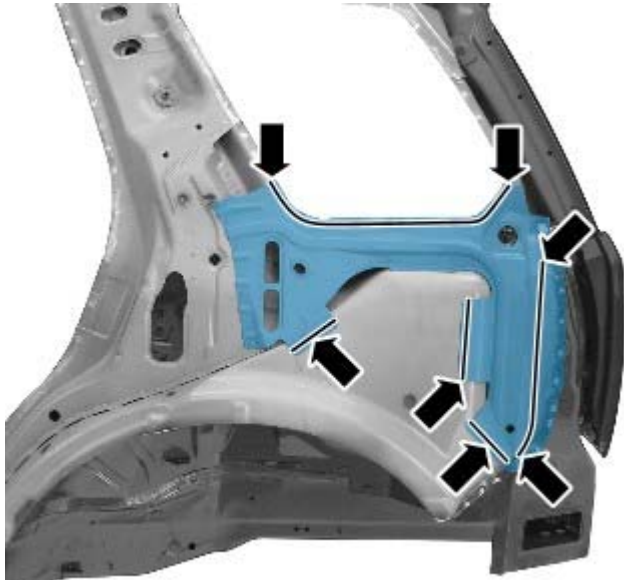
Installation

1. Remove the rear inner quarter panel from the inner quarter service panel, mill out 5 spot welds.
2. Prepare the old and new panel joint surfaces.
3. Drill holes in the new panel ready for MIG plug welding.



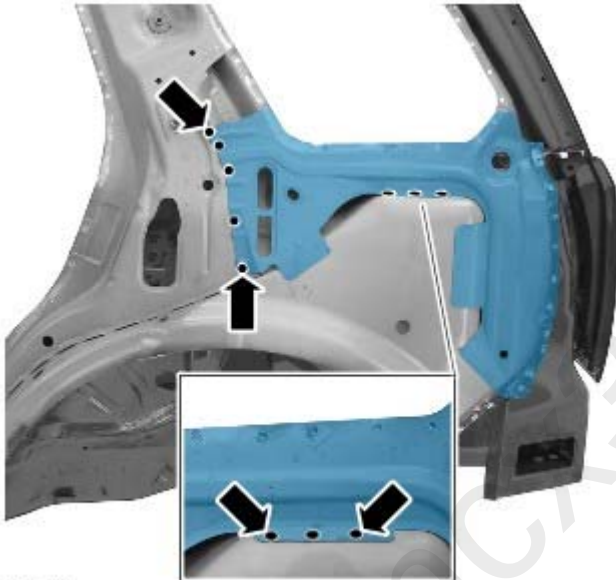
E85942

4. Spot weld.



E85943

5. MIG plug weld.



E85944

6. Dress all welded joints.

7. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Inner Quarter Panel and Wheelhouse

Removal and Installation

Removal

• NOTE: The inner quarter panel and wheelhouse is an assembly of the inner quarter panel, rear wheelhouse inner, rear wheelhouse outer and the rear lamp mounting panel.

• NOTE: The service panel is not fully welded.

• NOTE: The panel is sectioned to avoid disturbing the roof panel.

1. The inner quarter panel and wheelhouse is replaced in conjunction with:

- Rear bumper cover
- Rear bumper
- Quarter panel
- Rear door
- Quarter glass
- Rear subframe and suspension assembly

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove the quarter panel.

For additional information, refer to: [Quarter Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Remove the rear subframe / suspension as an assembly.

5. Remove the brake pipe.

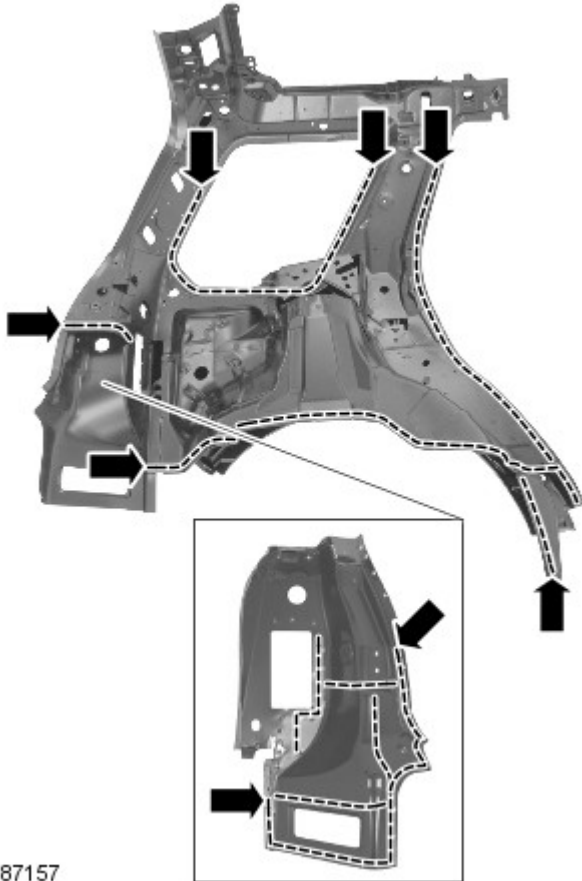
6. RH Only: Release and lay aside the fuel vent hose.

7. Remove the rear seat backrest.

For additional information, refer to: [Front Seat Backrest Heater Mat](#) (501-10 Seating, Removal and Installation).

8. Release and lay aside the wiring harness.

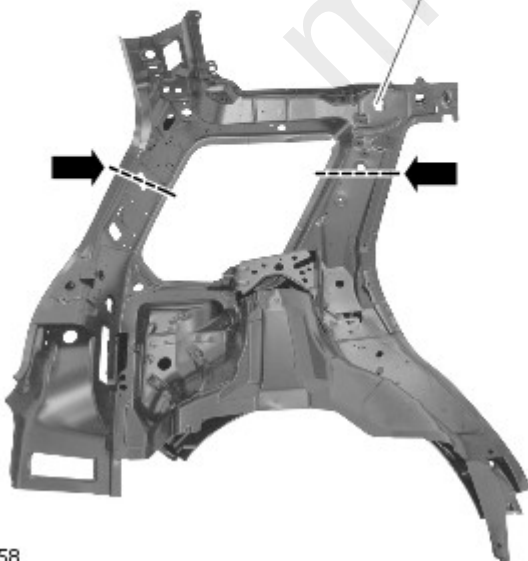
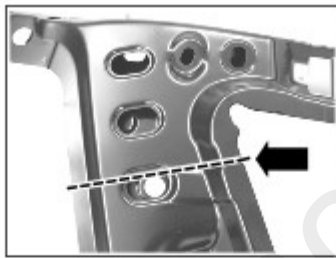
9. Mill out the spot welds.



E87157

10. NOTE: Ensure there is a 50mm minimum stagger between the butt joints.

Saw cut the old panel at the points illustrated, using the new panel for reference, ensuring that the new panel overlaps.

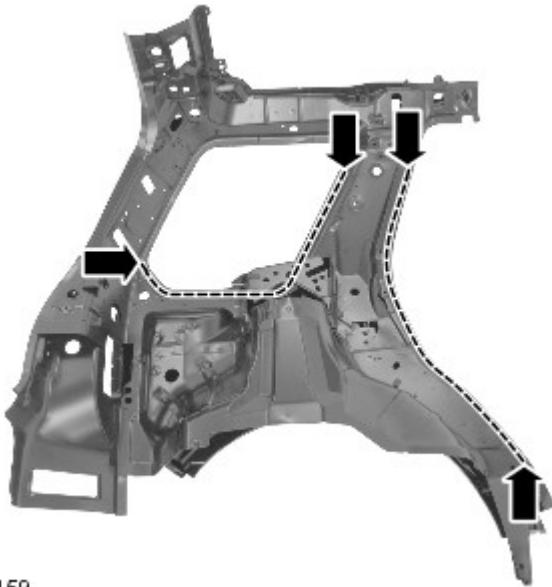


E87158

11. Separate the joints and remove the old panel, also releasing the NVH elements.

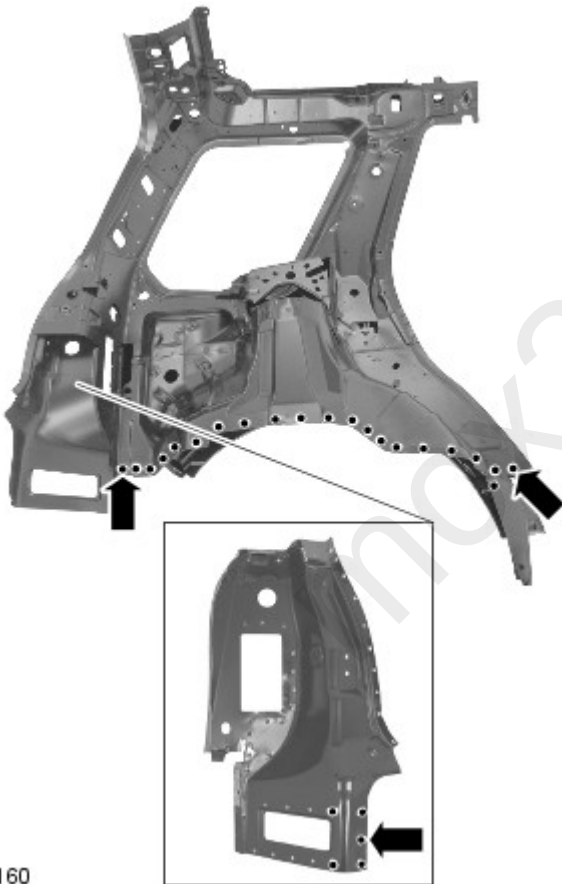
Installation

1. Prepare the new panel in the areas where it is not fully welded and spot weld.



E87159

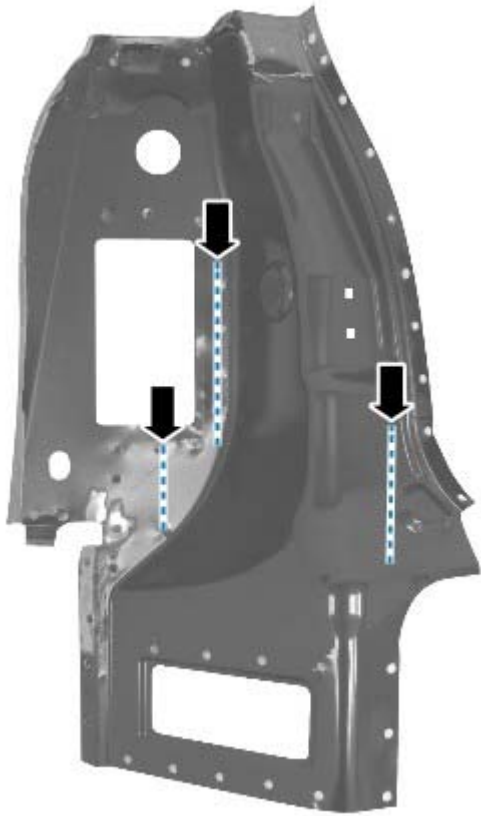
2. Prepare the old and new panel joint surfaces.
3. Drill holes in the new panel ready for MIG plug welding.



E87160

4. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
5. Remove the new panel.

6. Apply adhesive to the areas illustrated.



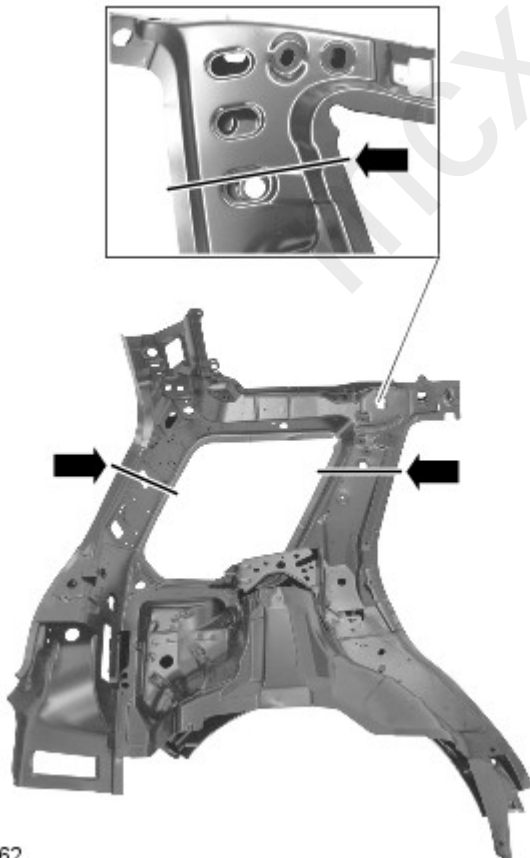
E87161

7. If necessary, renew the NVH element(s).

8. Apply sealer adhesive to the NVH elements.

9. Offer up the new panel and clamp into position.

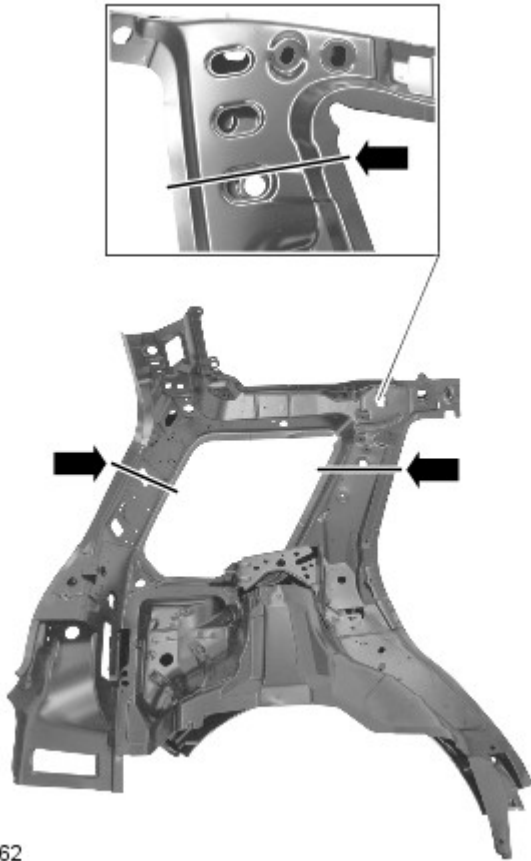
10. With panels clamped into position, tack weld the butt joints.



E87162

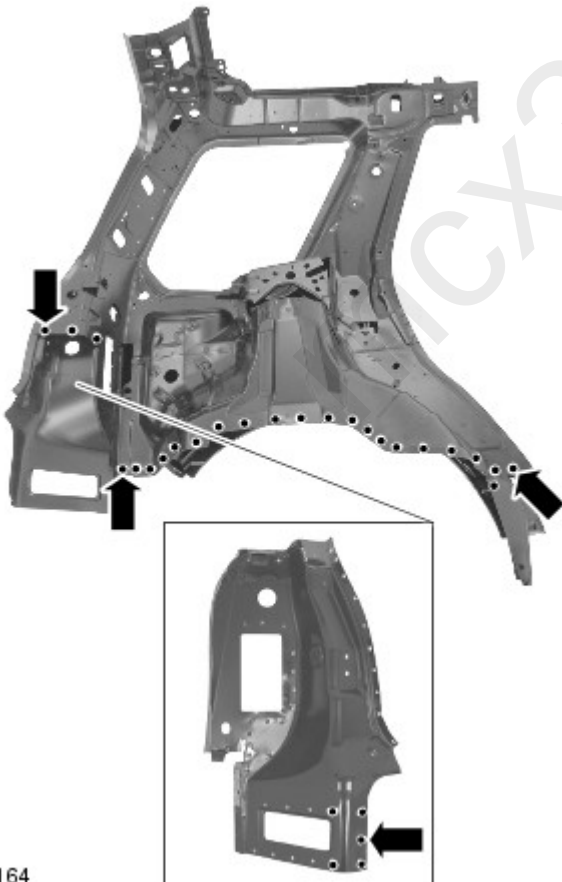
11. Dress the tack welds.

12. MIG weld the butt joints.



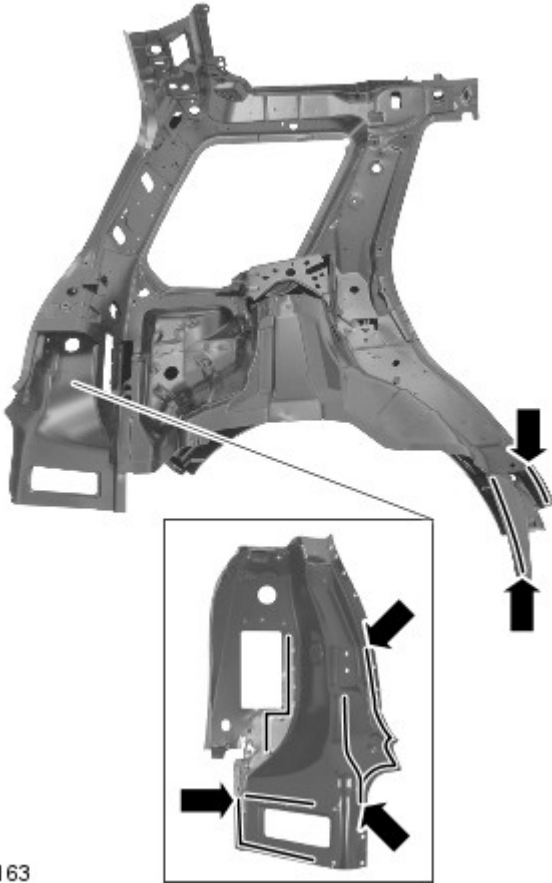
E87162

13. MIG plug weld.



E87164

14. Spot weld.



E87163

15. Dress all welded joints.

16. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Inner Back Panel Assembly

Removal and Installation

Removal

- NOTE: The inner back panel assembly is serviced as a separate weld-on panel.
- NOTE: The panel is serviced less its weld studs.
- NOTE: There are NVH elements attached to the panel, they are not serviced on the new panel. If damaged, new elements will be required.
- NOTE: It is necessary to remove the back panel and both rear lamp mounting panels to enable removal and refitment of the inner back panel.

1. The inner back panel assembly is replaced in conjunction with:

- Rear bumper cover
- Rear bumper armature
- Back panel
- Both rear lamp mounting panels

2. For additional information relating to this repair procedure please see the following:

For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).

3. Remove both rear lamp mounting panels.

For additional information, refer to: [Rear Lamp Mounting Panel](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

4. Remove the back panel.

For additional information, refer to: Back Panel Assembly (501-30, Removal and Installation).

5. Saw cut the old panel, at the points illustrated, to aid access to spot welds.



E87166

6. Mill out the spot welds.



E87167

7. Separate the joints and remove the old panel, also releasing the NVH elements.

Installation

1. Prepare the old and new panel joint surfaces.
2. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
3. Remove the new panel.
4. Apply adhesive to the areas illustrated.



E87170

5. If necessary, renew the NVH elements.
6. Apply sealer adhesive to the NVH elements.



E87171

7. Offer up the new panel and clamp into position.
8. Spot weld.



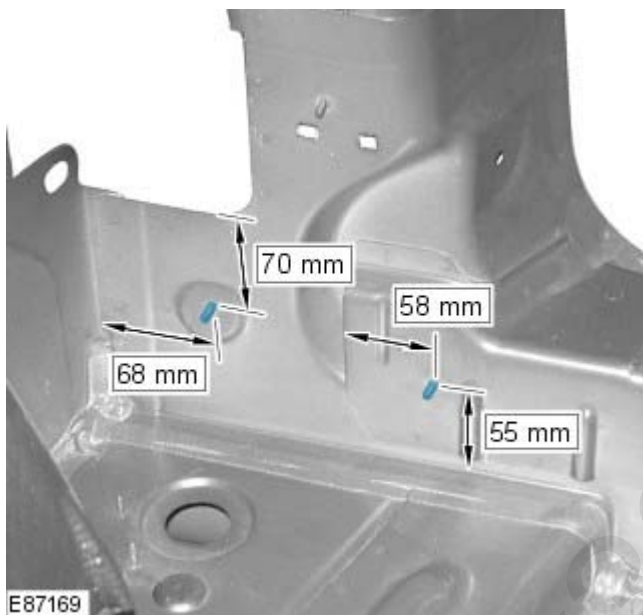
E87168

9. MIG plug weld.



E87172

10. Install weld studs.



11. Dress all welded joints.

12. The installation of associated panels and mechanical components is the reverse of removal.

Rear End Sheet Metal Repairs - Rear Side Member Upper Side Extension

Removal and Installation

Removal

• NOTE: The rear side member upper side extension is serviced as a separate weld on panel, it is also serviced on the rear side member.

• NOTE: The panel is serviced less its weld studs.

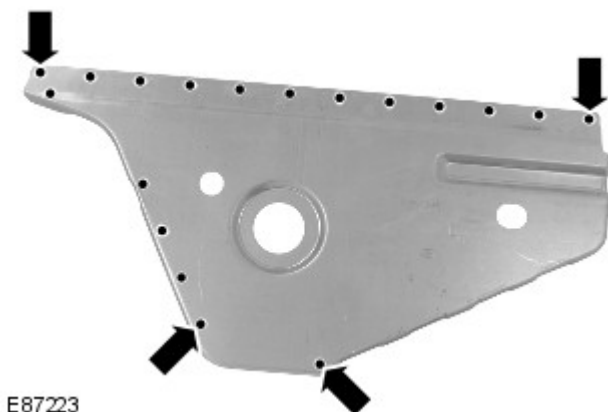
1. The rear side member upper side extension is replaced in conjunction with:
 - Rear bumper cover
 - Rear bumper armature
 - Rear lamp mounting panel
 - Rear side member lower side extension
2. For additional information relating to this repair procedure please see the following:
For additional information, refer to: [Body and Frame](#) (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation) / [Standard Workshop Practices](#) (100-00 General Information, Description and Operation).
3. Remove the rear side member lower side extension.
For additional information, refer to: [Rear Side Member Lower Side Extension](#) (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
4. Mill out the spot welds.



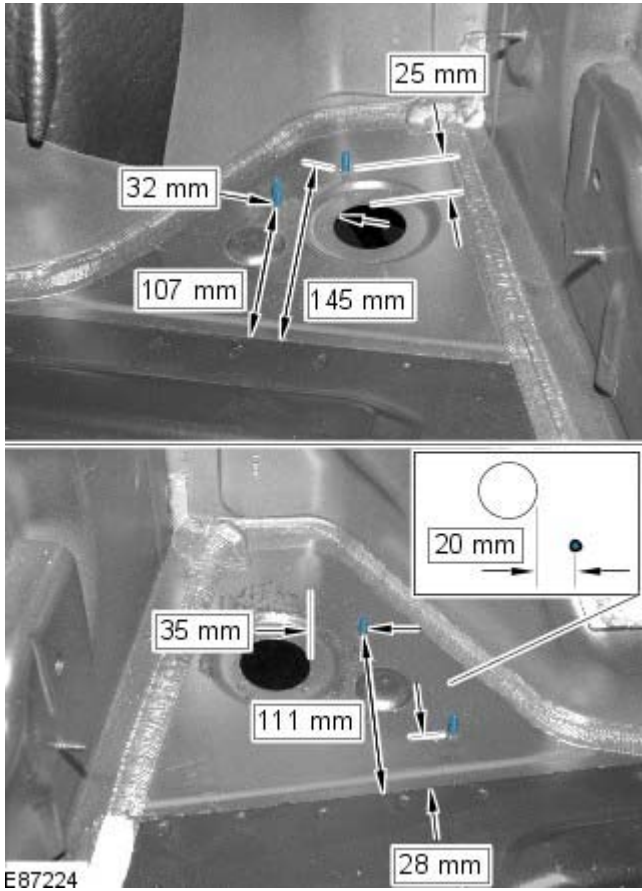
5. Separate the joints and remove the old panel.

Installation

1. Prepare the old and new panel joint surfaces.
2. Offer up the new panel and clamp into position. Check alignment, if correct, proceed to next step, if not, rectify and recheck before proceeding.
3. MIG plug weld.



4. Install weld studs.



5. Dress all welded joints.

6. The installation of associated panels and mechanical components is the reverse of removal.