

SECTION 501-27 Front End Sheet Metal Repairs

VEHICLE APPLICATION: 2011.00 Focus

CONTENTS	PAGE
REMOVAL AND INSTALLATION	
Fender Apron Panel Section.....	501-27-2
Fender Apron Panel Reinforcement..... (44 277 4)	501-27-4
Front Side Member Section.....	501-27-6
Front Side Member and Fender Apron Panel LH.....	501-27-8

REMOVAL AND INSTALLATION

Fender Apron Panel Section

1. Replacement parts

- Apron panel section
- Front module bracket
- Inner apron panel reinforcement

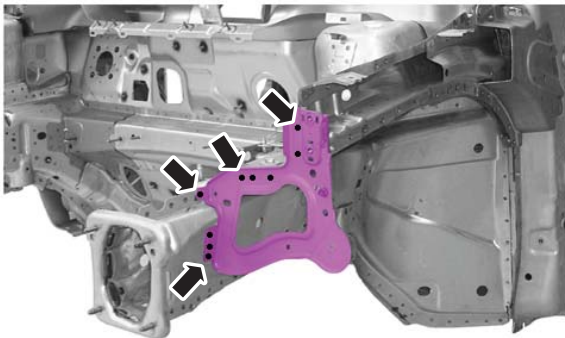
Removal

1. General information

- The apron panel reinforcement is already removed as a sectional replacement before repair work starts.
- Necessary removal work: Bonnet, wing, bumper, door, front module, headlamp and wheelhouse liner.

2. Front module bracket

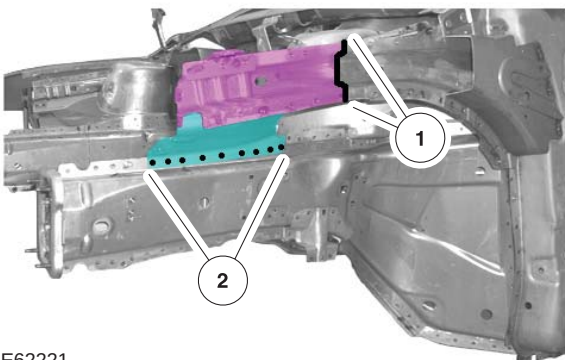
- Mill out the spot welds.



E62220

3. Apron panel and apron panel inner reinforcement

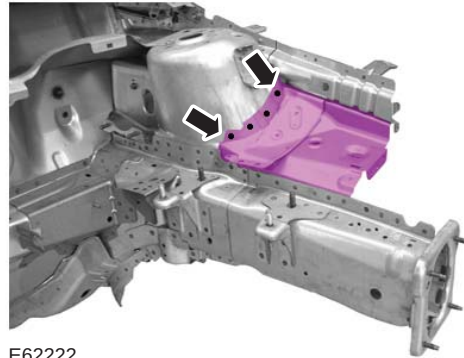
1. Separating cut.
2. Mill out the spot welds.



E62221

4. Apron panel

- Mill out the spot welds.



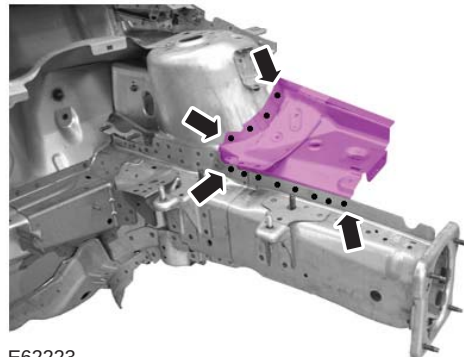
E62222

Installation

NOTE: Before resistance spot welding of body panels with a total panel thickness of 3 mm and greater, the welding equipment instructions contained in sub-section 501-25 must be followed.

1. Apron panel

- Resistance spot weld.



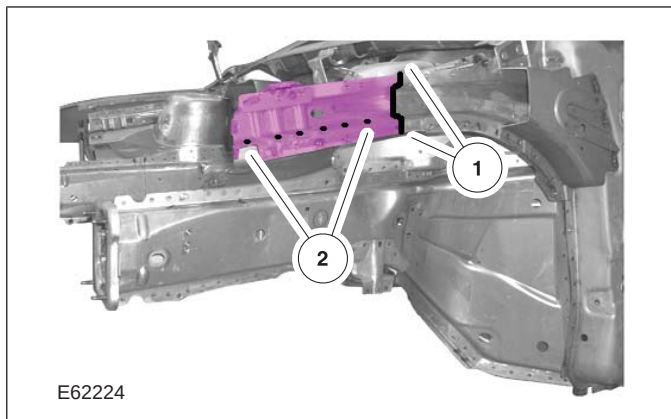
E62223

2. Apron panel and apron panel inner reinforcement

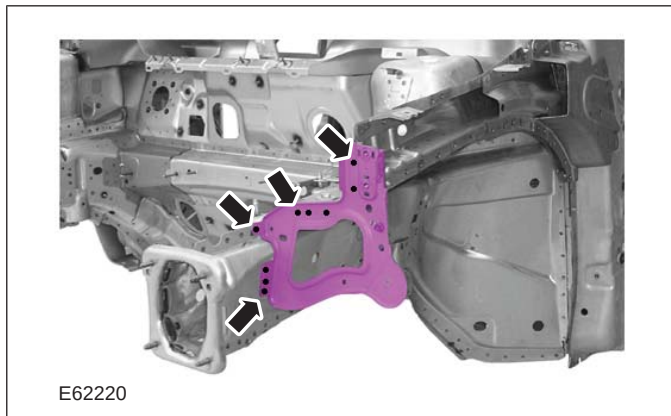
1. Continuous MIG weld seam.

REMOVAL AND INSTALLATION

2. Resistance spot weld.

**3. Front module bracket**

- Resistance spot weld.



REMOVAL AND INSTALLATION

Fender Apron Panel Reinforcement(44 277 4)

1. Replacement Parts

- Fender panel reinforcement

Removal

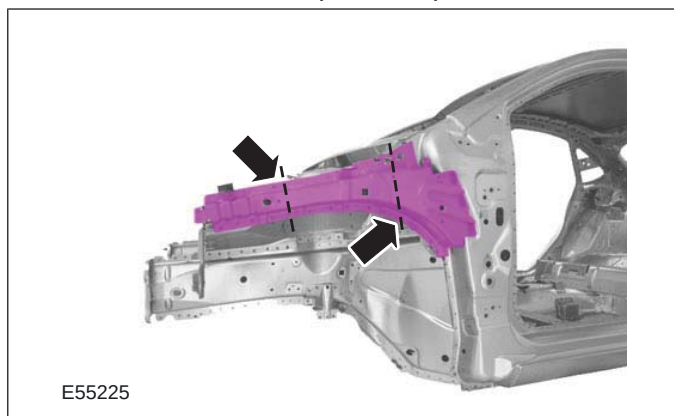
NOTE: Where possible, a partial replacement of the fender panel reinforcement is preferred to a complete replacement, as this can save a considerable amount of time on assembly work in the inner area of the A-pillar. The partial replacement options shown do not require the MIG brazed joints on the A-pillar to be detached.

1. General notes

- Necessary removal work: Bonnet, wing, bumper, door, front module, headlamp and wheelhouse liner.

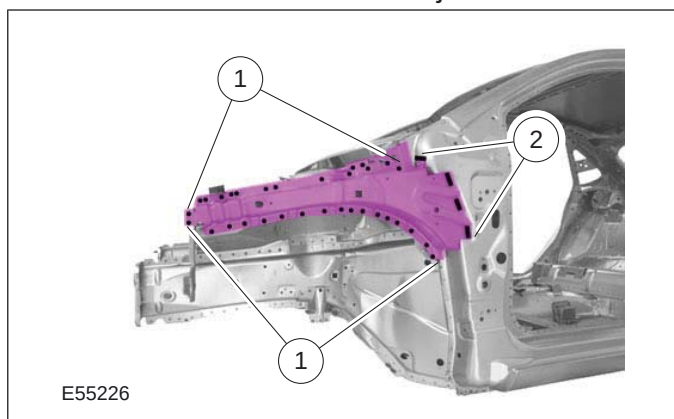
2. Fender panel reinforcement

- Cut locations for partial replacement.



3. Fender panel reinforcement

1. Mill out the spot welds.
2. Grind out the MIG brazed joints.

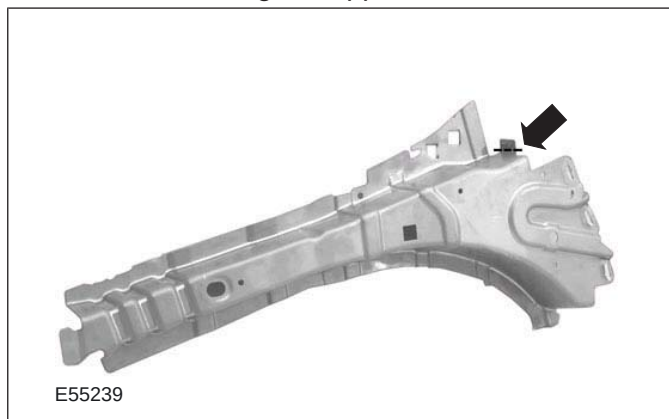


Installation

NOTE: Before resistance spot welding of body panels with a total panel thickness of 3 mm and greater, the welding equipment instructions contained in sub-section 501-25 must be followed.

1. Prepare fender panel reinforcement

- Cut off the sheet metal tabs, leaving a residual flange of approx. 5 mm.

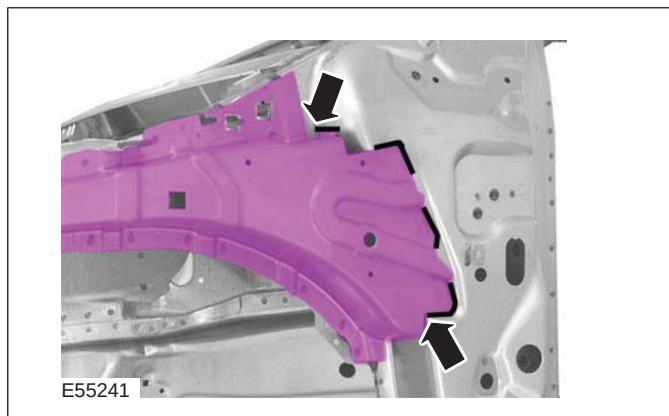


2. NOTE:

- When carrying out a repair, the MIG brazed joints made during vehicle production must be replaced by MIG weld joints in a different location (see diagram E55241).
- These MIG welds must not be carried out on or near existing MIG brazed seams as even the smallest amount of brazing solder can result in a reduction in the strength of the weld seam.

Fender panel reinforcement

- Continuous MIG seam weld.



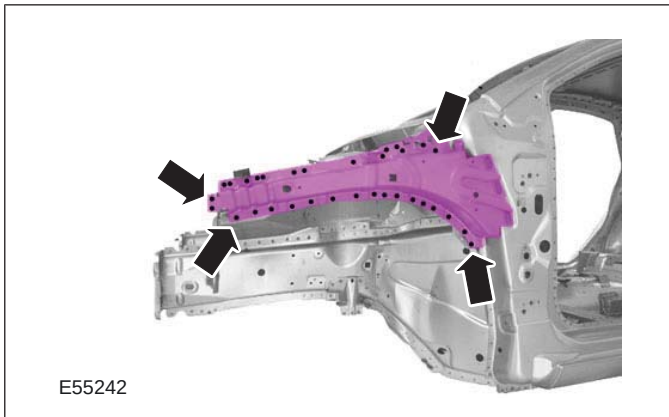
3. NOTE: After carrying out the repair carefully apply cavity seal. Also treat the areas of the original MIG brazed joints.

REMOVAL AND INSTALLATION

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Fender panel reinforcement

- Resistance spot weld.



REMOVAL AND INSTALLATION

Front Side Member Section

General Equipment

Measurement or alignment angle system

1. Replacement Parts

- Outer side member
- Inner side member
- Crossmember retaining flange

Removal

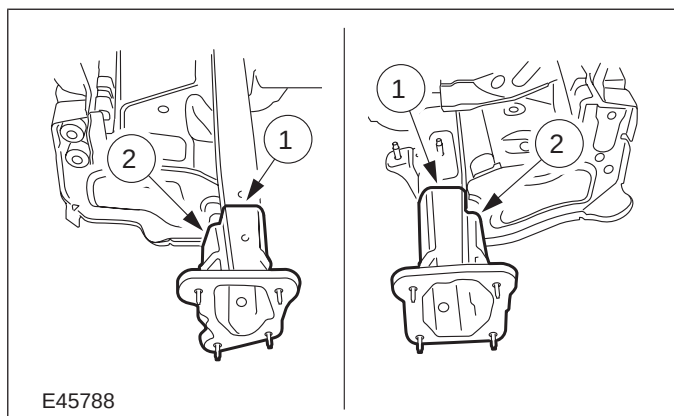
1. General Notes

- Required removal operations: Bumper, hood, fender, front module, headlamps and crossmember with crash elements.

NOTE: The cuts in the side member must be offset to one another.

2. Overview of cuts

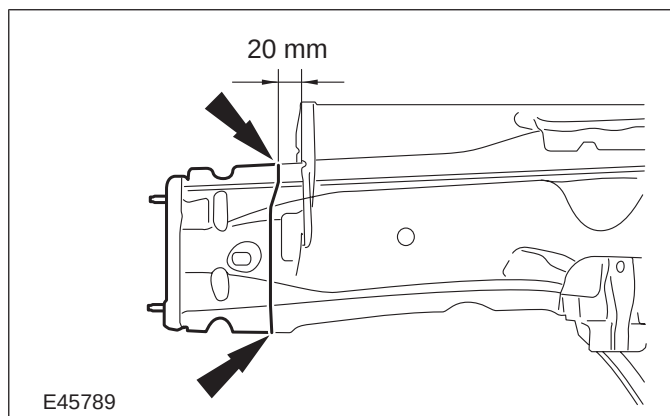
1. Inside of member.
2. Outside of member.



3. **NOTE:** Cut through the complete cross section of the side member using a large jigsaw. This is the final cut on the outside of the member.

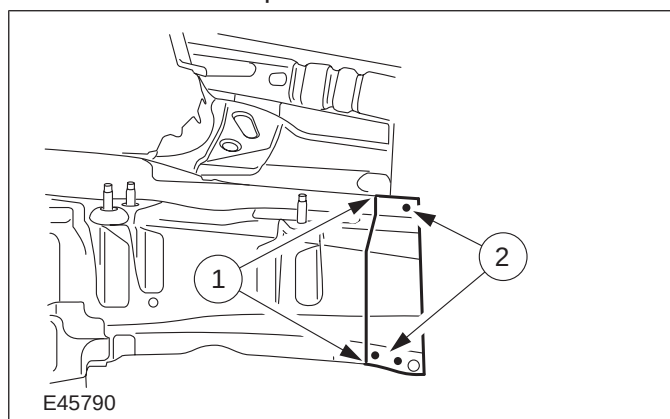
Outer side member

- Cut location.



4. Inner side member

1. Cut location.
2. Mill out the spot welds.

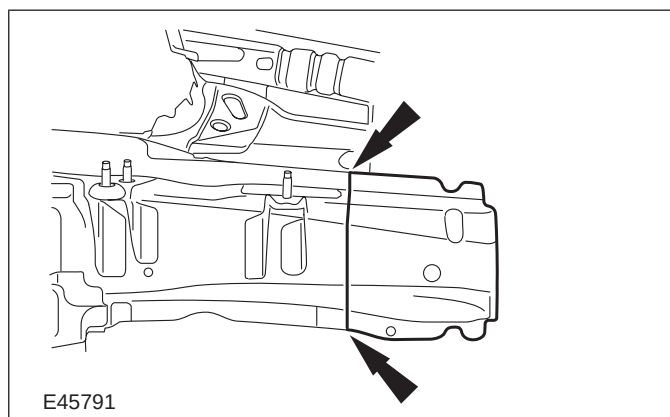


Installation

NOTE: Before resistance spot welding of body panels with a total panel thickness of 3 mm and greater, the welding equipment instructions contained in sub-section 501-25A must be followed.

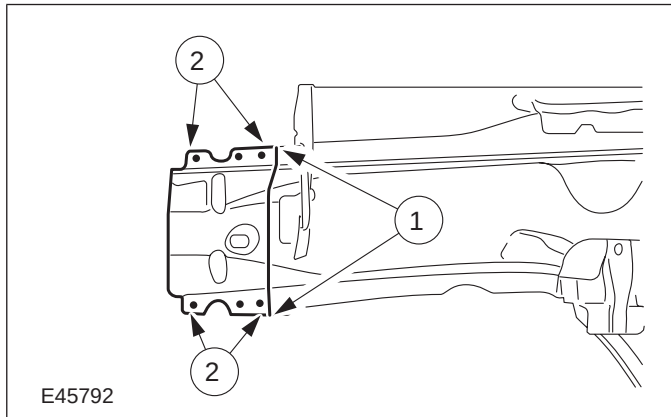
1. Inner side member

- Continuous MIG weld.

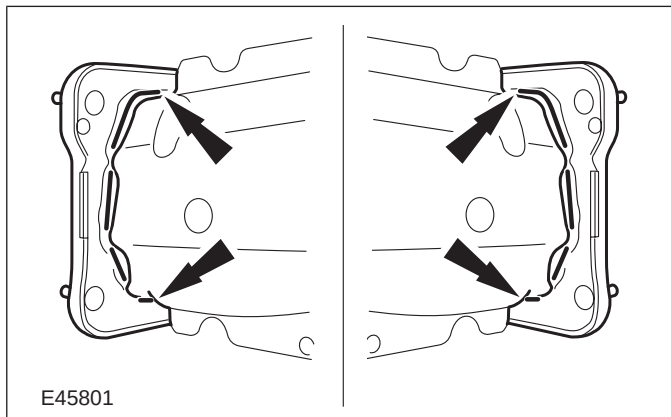


REMOVAL AND INSTALLATION**2. Outer side member**

1. Continuous MIG weld.
2. Resistance spot weld.

**3. Crossmember retaining flange**

- Continuous MIG weld.



REMOVAL AND INSTALLATION

Front Side Member and Fender Apron Panel LH

General Equipment

Measurement and alignment angle system

1. Replacement parts

- Outer side member
- Inner side member
- Side member inner reinforcement
- Crossmember retaining flange
- Apron panel
- Inner apron panel reinforcement
- Front module bracket

Removal

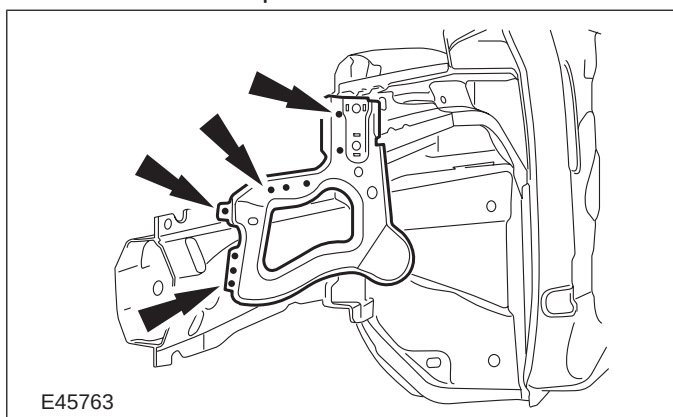
1. General information

- The apron panel reinforcement is already removed before commencing the repair.
- Necessary removal work: radiator, drive aggregates, crossmember with crash elements, crash padding and A-pillar trim.
- Move carpets and wiring out of the working area.

2. NOTE: The cross member retaining flange is already detached from the side member during removal work.

Front module bracket

- Mill out the spot welds.

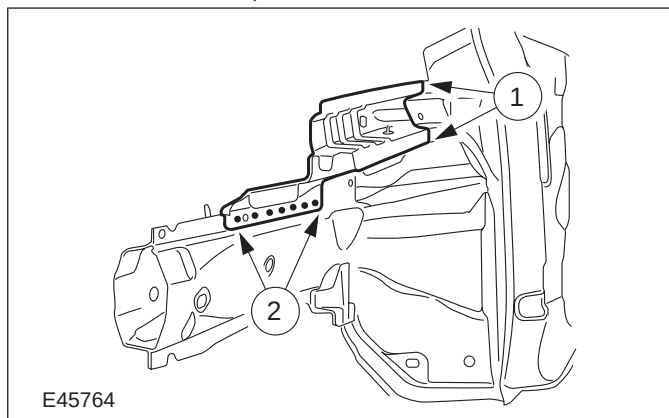


3. NOTE: After the rough separating cut both panel layers of the side member connection are accessible.

Inner apron panel reinforcement

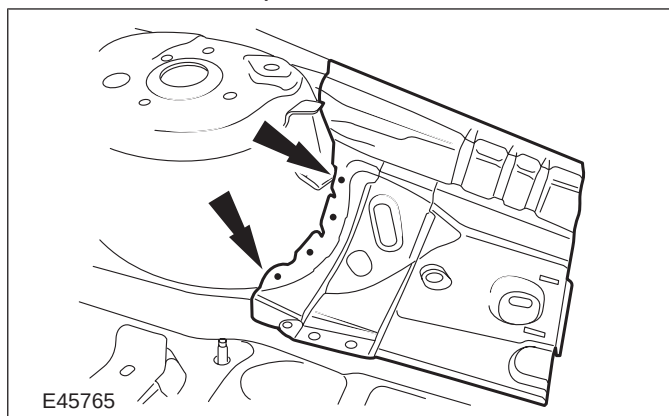
1. Separating cut.

2. Mill out the spot welds (two panel thicknesses).



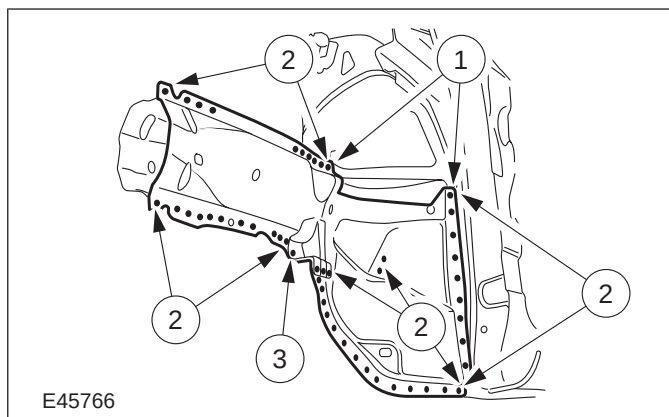
4. Apron panel

- Mill out the spot welds.



5. Outer side member

1. Rough separating cut.
2. Mill out the spot welds.
3. Grind out the weld seam.

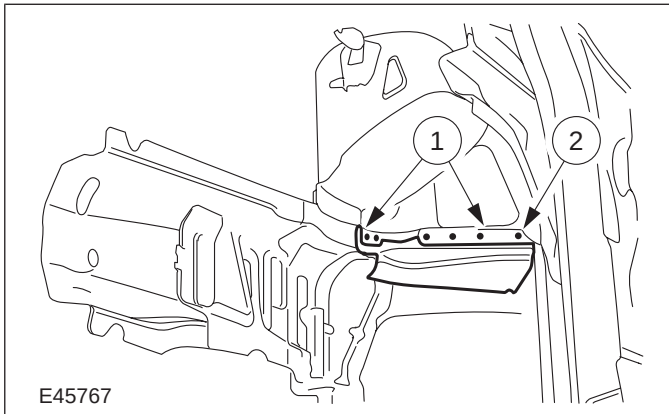


6. Outer side member (remainder)

1. Mill out the spot welds.

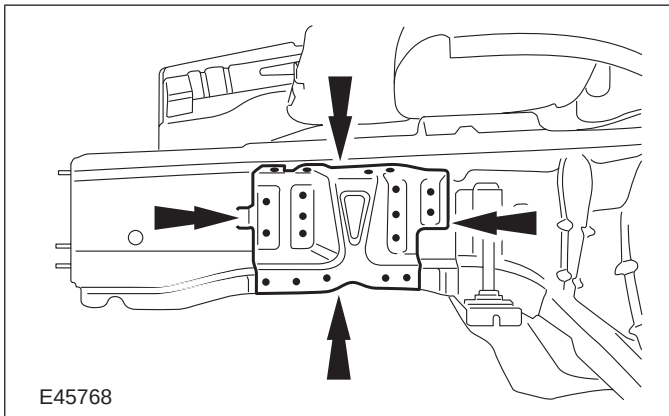
REMOVAL AND INSTALLATION

2. Mill out the spot welds (two panel thicknesses).



7. Side member inner reinforcement

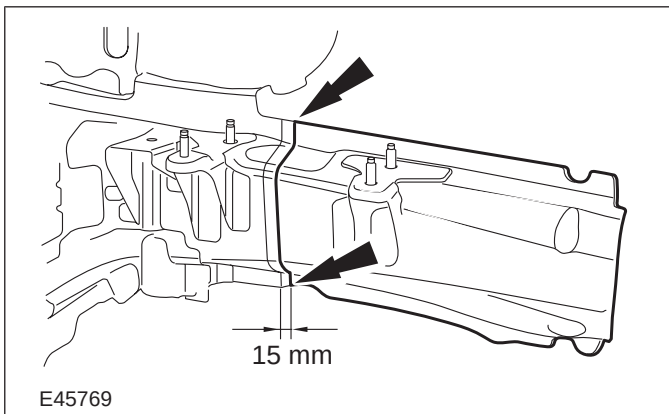
- Mill out the spot welds.



8. NOTE: Cut dimensions measured from the laser weld seam.

Inner side member

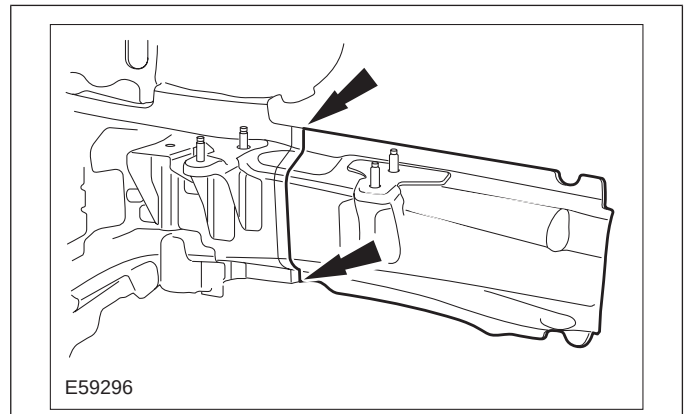
- Separating cut.



- Fit the inner and outer side members as well as the crossmember retaining flange using the alignment angle and fix in place.
- Before resistance spot welding of body panels with a total panel thickness of 3 mm and greater, the welding equipment instructions contained in sub-section 501-25 must be followed.

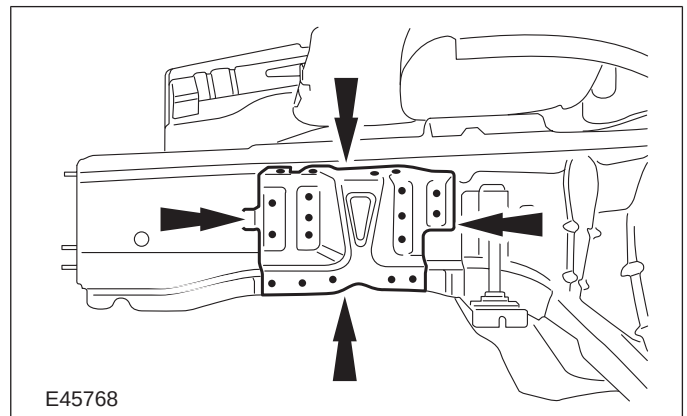
1. Inner side member

- Continuous MIG weld seam.



2. Side member inner reinforcement

- Offer up the new part and resistance spot weld it.



NOTE: Determine the position of the holes for puddle welding on the vehicle.

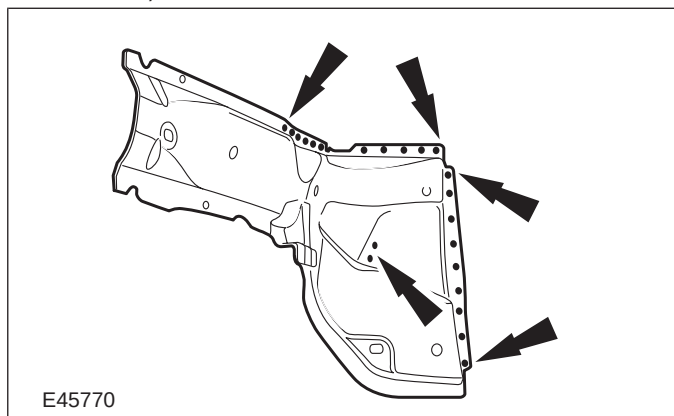
3. Outer side member

Installation

NOTE:

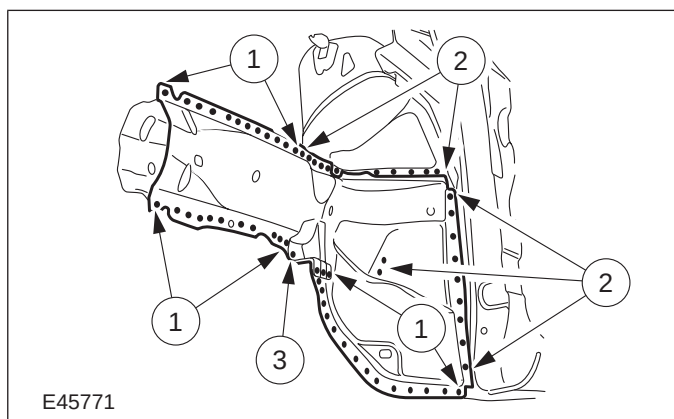
REMOVAL AND INSTALLATION

- Drill holes for puddle welding (diameter: 10 mm).



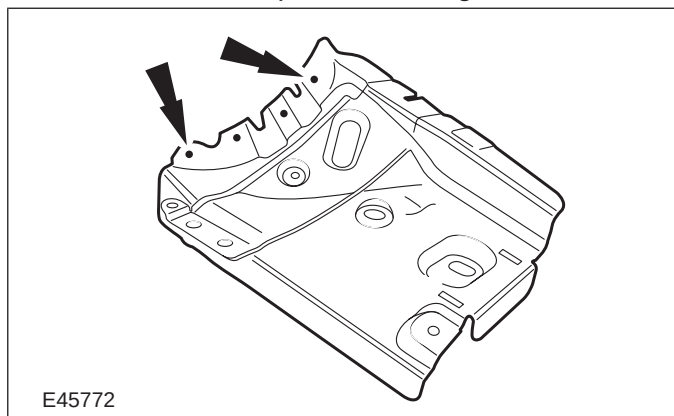
4. Outer side member

1. Resistance spot weld.
2. Puddle weld.
3. Continuous MIG weld seam.



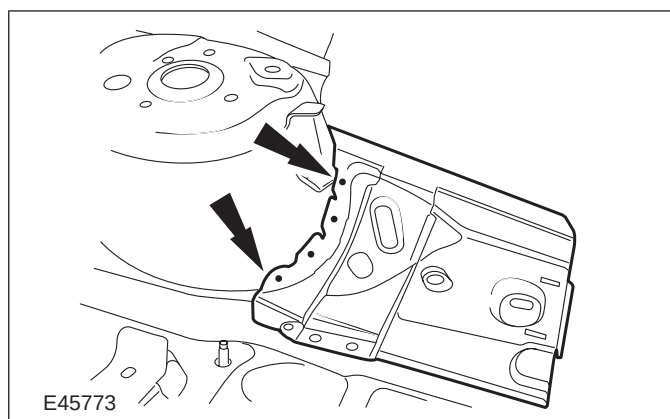
5. Apron panel

- Drill holes for puddle welding.



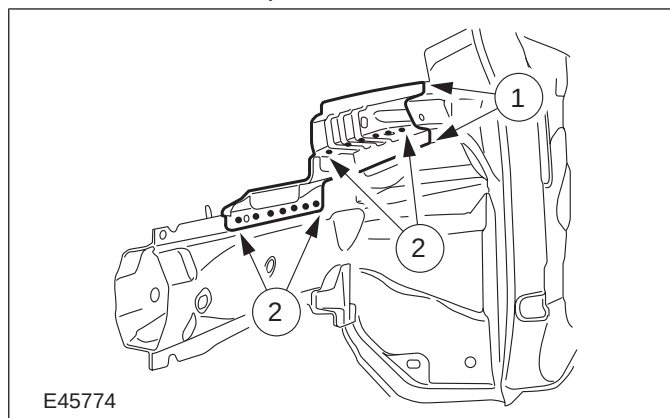
6. Apron panel

- Puddle weld.



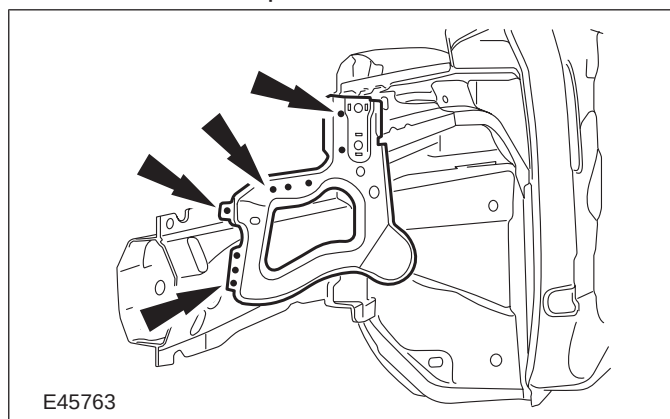
7. Inner apron panel reinforcement

1. Continuous MIG weld seam.
2. Resistance spot weld.



8. Front module bracket

- Resistance spot weld.



9. Crossmember retaining flange

REMOVAL AND INSTALLATION

- Continuous MIG weld seam.

