

Fender Apron Panel Reinforcement

Special Tool(s) / General Equipment

6.5 mm Drill Bit
Blind Rivet Gun
Hot Air Gun
MIG/MAG Welding Equipment
Spot Weld Drill Bit
Locking Pliers

Materials

Name	Specification
Metal Bonding Adhesive TA-1, TA-1-B, 3M, 08115, LORD Fusor® 108B	-
Seam Sealer TA-2-B, 3M, 08308, LORD Fusor® 805DTM	-

Removal

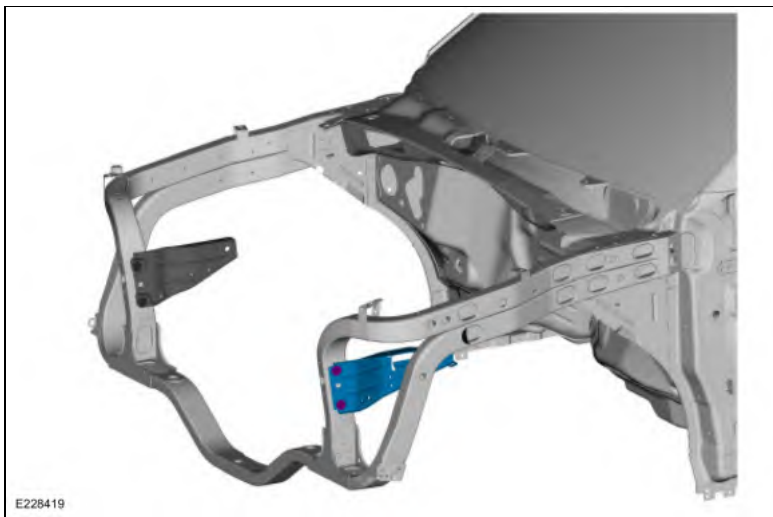
NOTE: Aluminum body panels are highly receptive to heat transfer. With the extensive use of structural adhesives and non-structural sealers used in vehicle construction, the potential of heat transfer could impact adhesives and sealers in non-associated panels during the repair process. Many repairs areas that utilize structural adhesive may be separated after fastener removal by using a panel chisel along the joint/flange. Using heat not exceeding 425°F to loosen a bonded panel should only be done when **all panels in the joint** will be replaced and new adhesive applied.

NOTE: The fender apron panel reinforcement must be replaced at the factory seams. No sectioning procedure is approved or permitted.

NOTE: The fender apron panel reinforcement is made of hydro-formed HSLA (High-Strength Low Alloy) steel and may be separated at weld joints. The following assumes full component replacement. Adjust to meet repair needs.

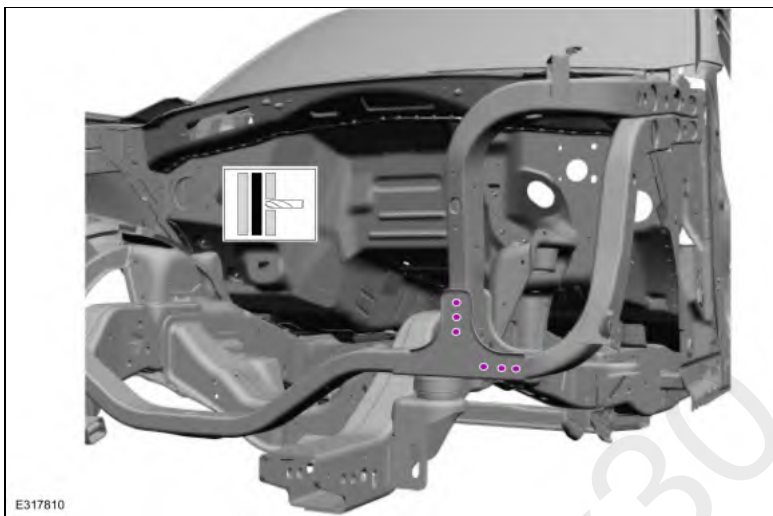
NOTE: LH side shown, RH side similar.

1. Remove the battery(s).
Refer to: Battery Tray (414-01 Battery, Mounting and Cables, Removal and Installation).
2. Remove the fender and splash shield.
Refer to: Fender (501-02 Front End Body Panels, Removal and Installation).
Refer to: Fender Splash Shield (501-02 Front End Body Panels, Removal and Installation).
3. Remove the front door.
Refer to: Front Door - Crew Cab/Regular Cab (501-03 Body Closures, Removal and Installation).
Refer to: Front Door - SuperCab (501-03 Body Closures, Removal and Installation).
4. Remove the hood and the hood hinges.
Refer to: Hood (501-02 Front End Body Panels, Removal and Installation).
5. Remove the cowl panel grille and cowl panel.
Refer to: Cowl Panel Grille (501-02 Front End Body Panels, Removal and Installation).
Refer to: Cowl Panel (501-02 Front End Body Panels, Removal and Installation).
6. Remove the front bumper.
Refer to: Front Bumper (501-19 Bumpers, Removal and Installation).
7. Remove the cooling module.
Refer to: Cooling Module (303-03A Engine Cooling - 6.2L V8, Removal and Installation).
Refer to: Cooling Module (303-03B Engine Cooling - 6.7L Power Stroke Diesel, Removal and Installation).
Refer to: Cooling Module (303-03B Engine Cooling - 6.7L Power Stroke Diesel, Removal and Installation).
8. Dimensionally restore the vehicle to a pre-damage condition.
Refer to: Body and Frame (501-26 Body Repairs - Vehicle Specific Information and Tolerance Checks, Description and Operation).
9. Position aside all wiring harnesses.
10. Remove the bolts and battery support bracket.



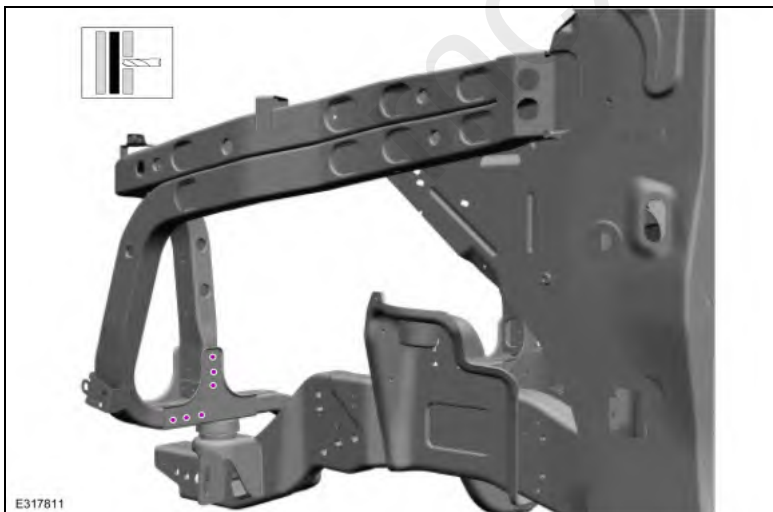
11. Remove the welds.
Use the General Equipment: Spot Weld Drill Bit

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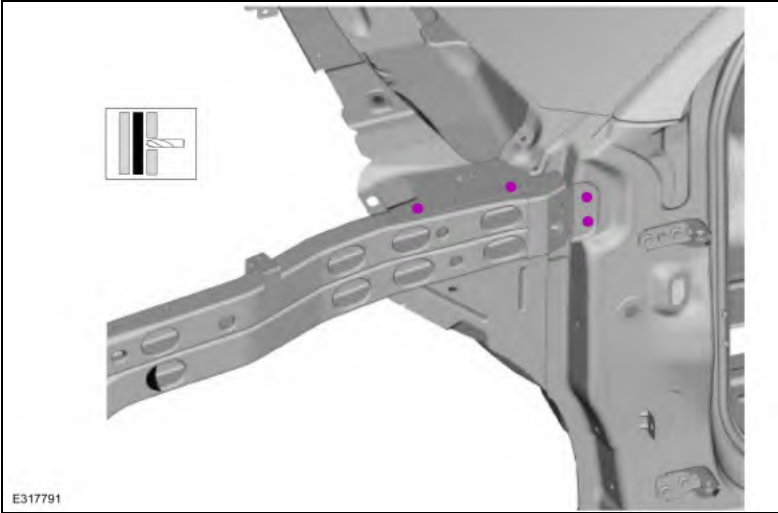


12. Remove the welds.
Use the General Equipment: Spot Weld Drill Bit

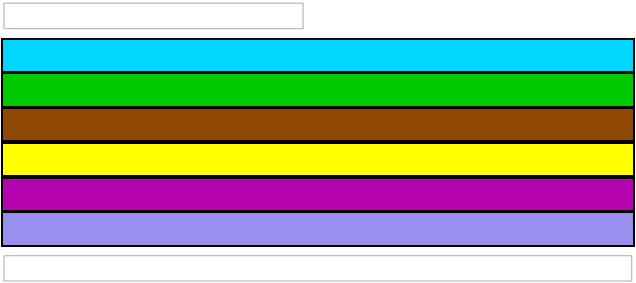
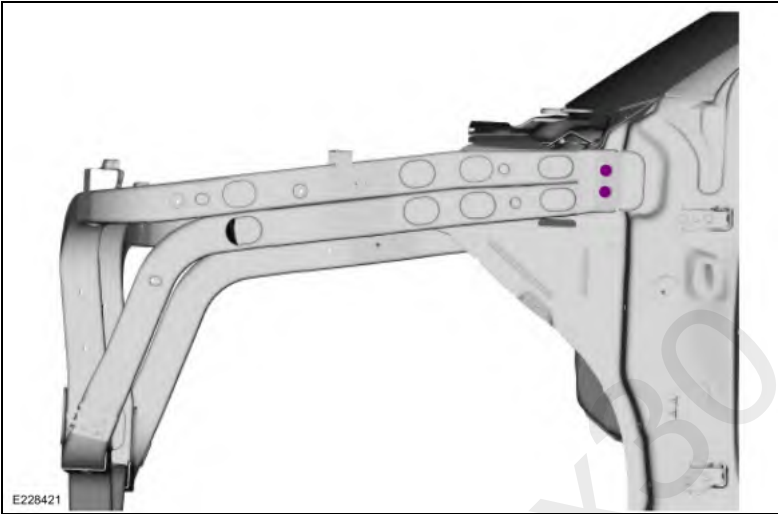
Use the General Equipment: Spot Weld Drill Bit



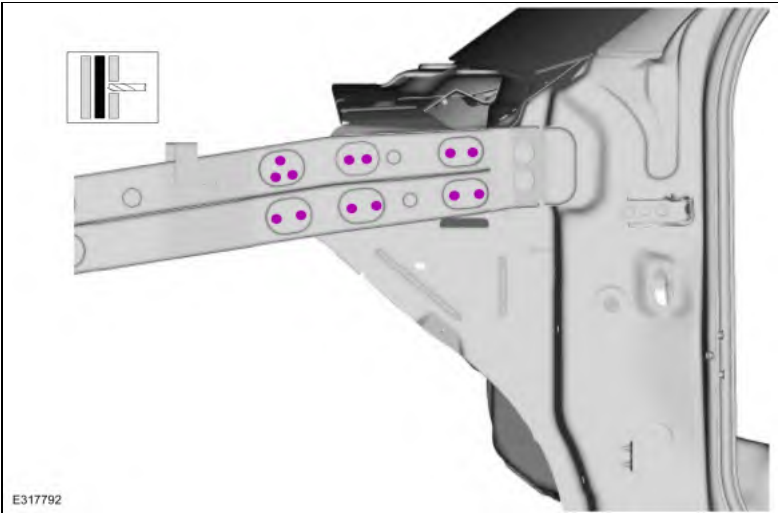
13. Remove the welds.
Use the General Equipment: Spot Weld Drill Bit



14. Remove the bolts.



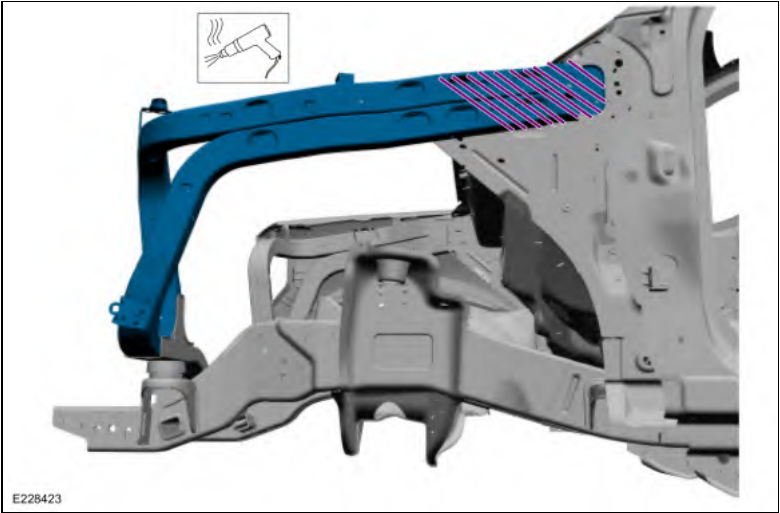
15. Remove the welds.
Use the General Equipment: Spot Weld Drill Bit



16. **NOTE:** Aluminum body panels are highly receptive to heat transfer. With the extensive use of structural adhesives and non-structural sealers used in vehicle construction, the potential of heat transfer could impact adhesives and sealers in non-associated panels during the repair process. Many repairs areas that

utilize structural adhesive may be separated after fastener removal by using a panel chisel along the joint/flange. Using heat not exceeding 425° F to loosen a bonded panel should only be done when **all panels in the joint** will be replaced and new adhesive applied.

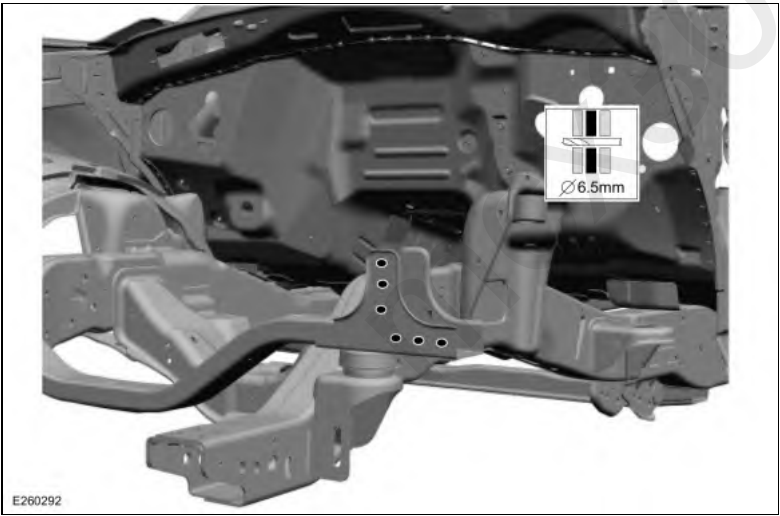
Break the adhesive bond and remove the fender apron panel reinforcement.
Use the General Equipment: Hot Air Gun



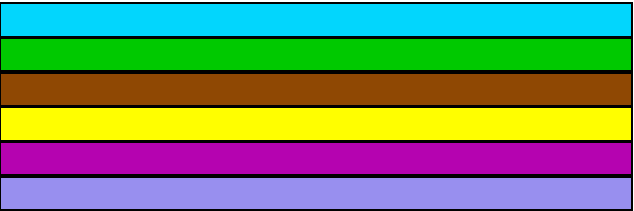
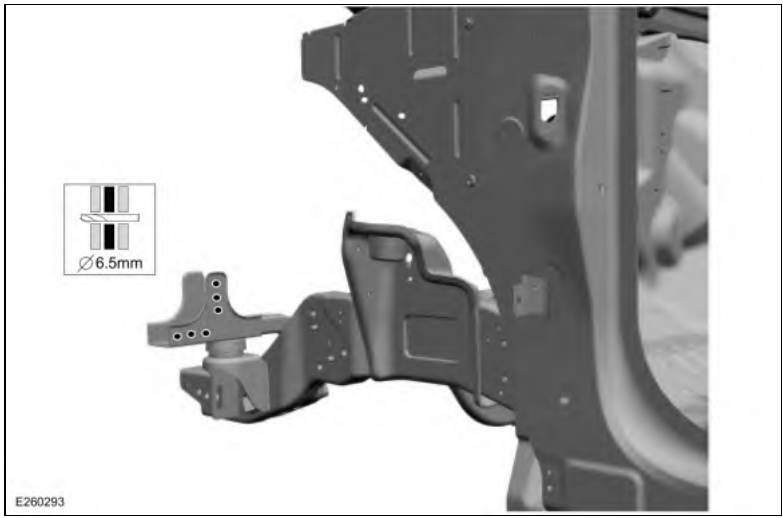
Installation

NOTE: The fender apron panel reinforcement must be replaced at the factory seams. No sectioning procedure is approved or permitted.

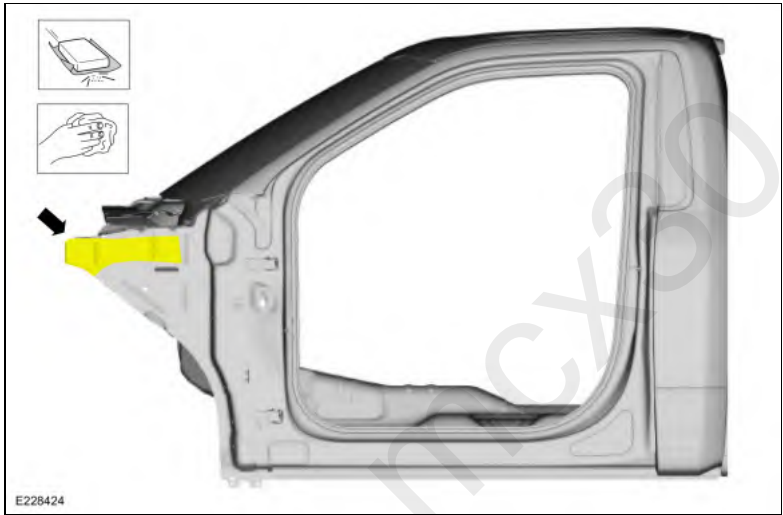
- 1. Drill for plug welds.
Use the General Equipment: 6.5 mm Drill Bit



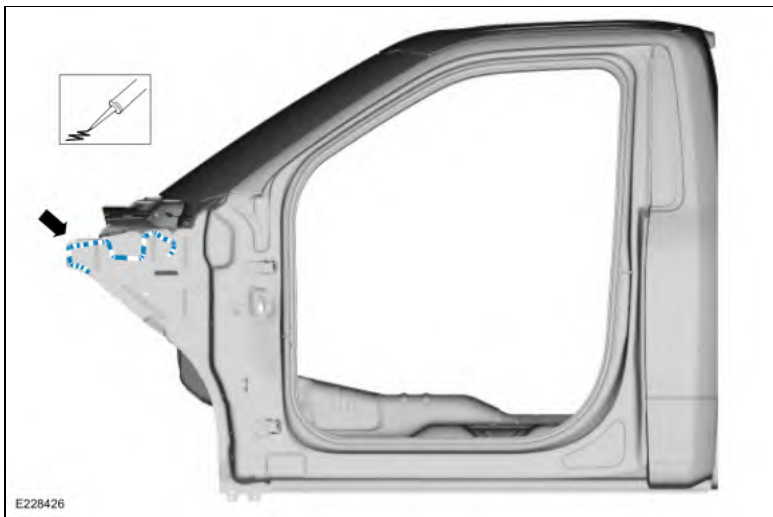
- 2. Drill for plug welds.
Use the General Equipment: 6.5 mm Drill Bit



3. 80-120 grit sand paper.
Sand to remove old adhesive and clean.

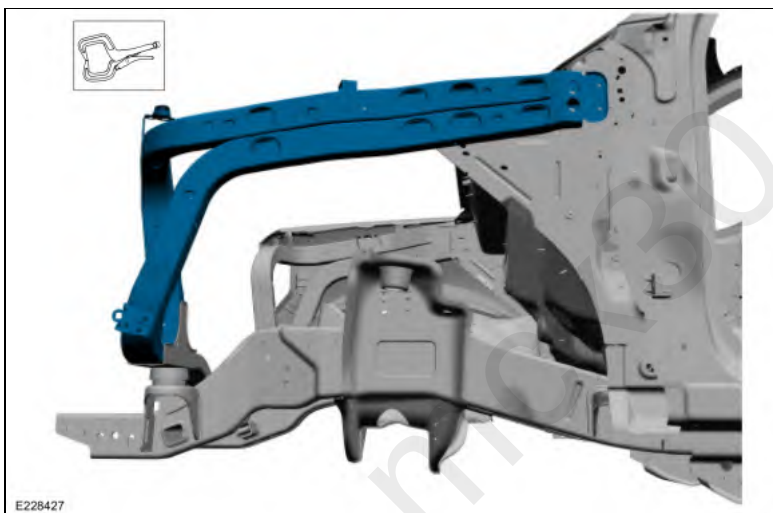


4. Apply adhesive.
Material: Metal Bonding Adhesive / TA-1, TA-1-B, 3M, 08115, LORD Fusor® 108B



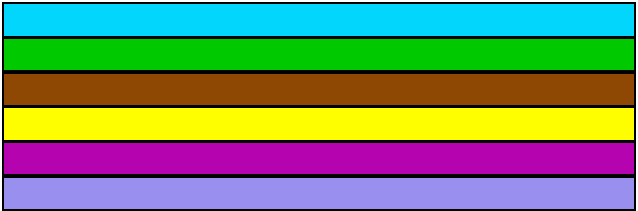


5. Install properly align and clamp the fender apron panel reinforcement in position.
Use the General Equipment: Locking Pliers

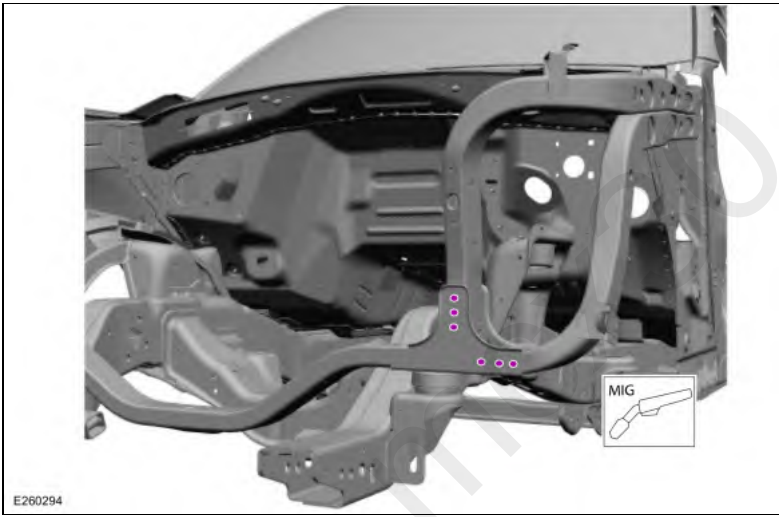




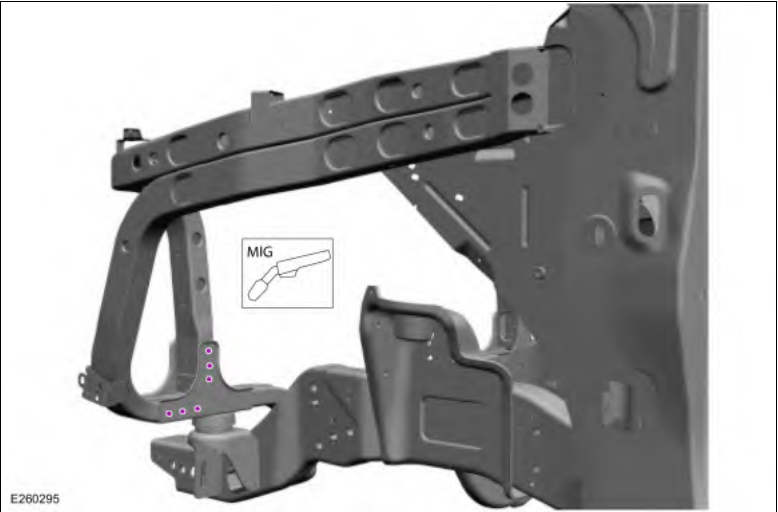
6. Install the bolts.
Torque: 27 lb.ft (37 Nm)



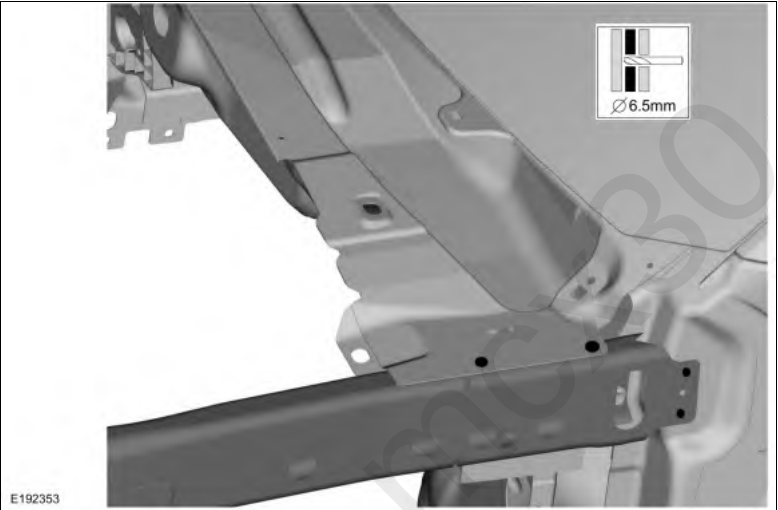
7. Install the welds.
Use the General Equipment: MIG/MAG Welding Equipment



8. Install the welds.
Use the General Equipment: MIG/MAG Welding Equipment

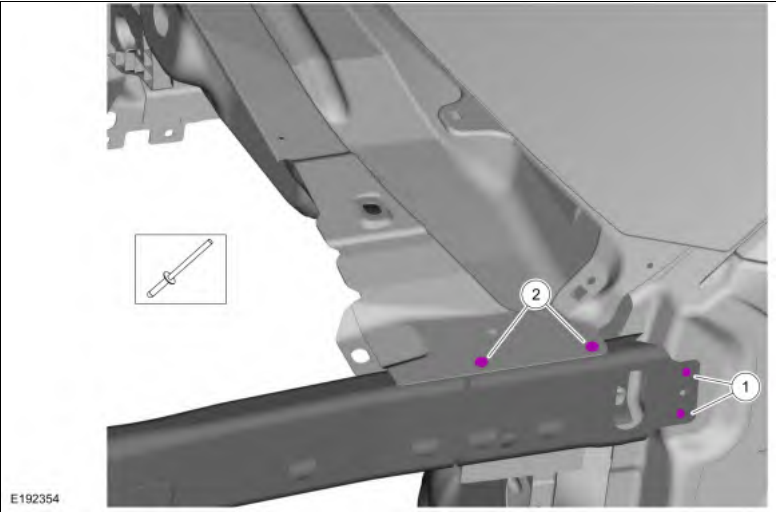


9. Drill rivet holes as indicated.
Use the General Equipment: 6.5 mm Drill Bit

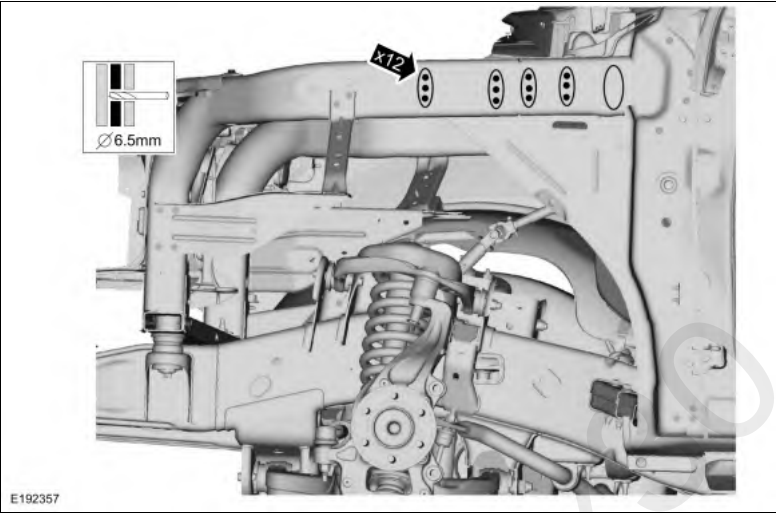


10.

Item	SPR Number	SPR Code	Henrob® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W708777-S900C	-	-
2	-	-	-	-	W702512-S900C	-	-



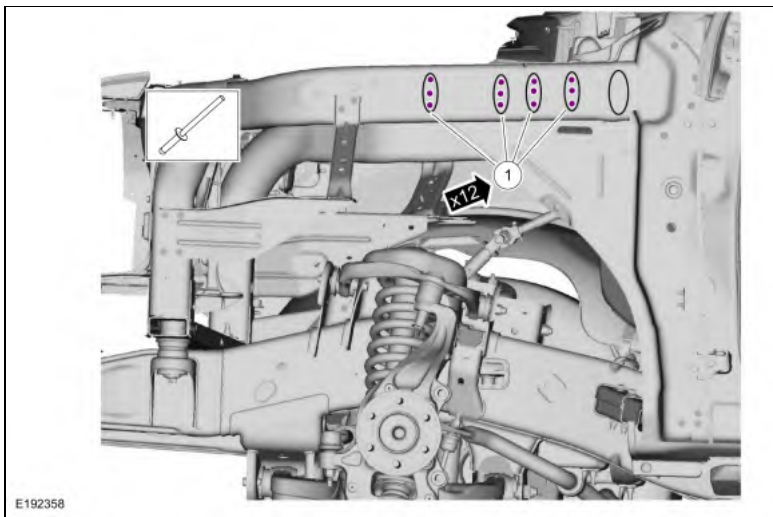
11. Drill rivet holes as indicated.
Use the General Equipment: 6.5 mm Drill Bit



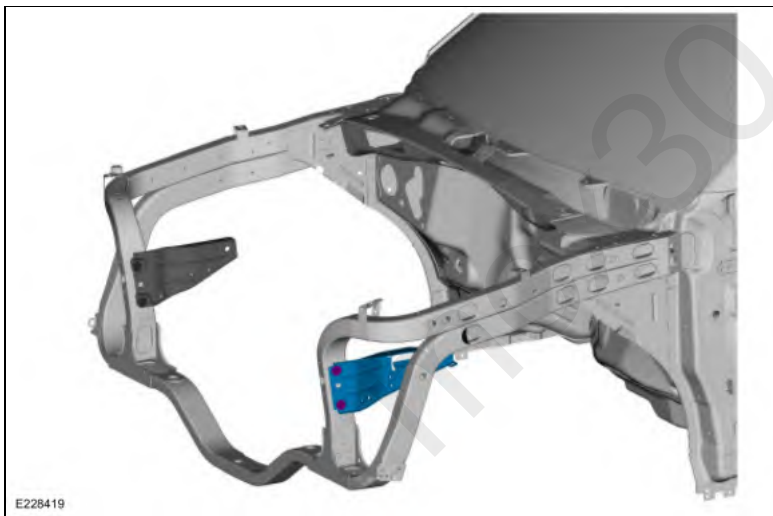
12. Install blind rivet fasteners.

Item	SPR Number	SPR Code	Henrob® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W708777-S900C	-	-

Use the General Equipment: Blind Rivet Gun



13. **Sealing work:** All seams must be sealed to production level.
Material: Seam Sealer / TA-2-B, 3M, 08308, LORD Fusor® 805DTM
14. Install the battery support bracket and bolts.
Torque: 22 lb.ft (30 Nm)



15. Refinish the repair using a Ford approved paint system and typical refinishing techniques.
16. Restore corrosion protection.
Refer to: Corrosion Prevention (501-25 Body Repairs - General Information, General Procedures).
17. Install the cooling module.
Refer to: Cooling Module (303-03A Engine Cooling - 6.2L V8, Removal and Installation).
Refer to: Cooling Module (303-03B Engine Cooling - 6.7L Power Stroke Diesel, Removal and Installation).
Refer to: Cooling Module (303-03B Engine Cooling - 6.7L Power Stroke Diesel, Removal and Installation).
18. Reposition all wiring harnesses to original locations.
19. Install the battery(s).
Refer to: Battery Tray (414-01 Battery, Mounting and Cables, Removal and Installation).
Refer to: Battery (414-01 Battery, Mounting and Cables, Removal and Installation).
20. Install the fender and splash shield.
Refer to: Fender (501-02 Front End Body Panels, Removal and Installation).
Refer to: Fender Splash Shield (501-02 Front End Body Panels, Removal and Installation).
21. Install the front door.
Refer to: Front Door - Crew Cab/Regular Cab (501-03 Body Closures, Removal and Installation).
Refer to: Front Door - SuperCab (501-03 Body Closures, Removal and Installation).

22. Install the cowl panel grille and cowl panel.
Refer to: Cowl Panel Grille (501-02 Front End Body Panels, Removal and Installation).
Refer to: Cowl Panel (501-02 Front End Body Panels, Removal and Installation).
 23. Install the hood and the hood hinges.
Refer to: Hood (501-02 Front End Body Panels, Removal and Installation).
 24. Install the front bumper.
Refer to: Front Bumper (501-19 Bumpers, Removal and Installation).
 25. Align the front door.
Refer to: Front Door Alignment - Crew Cab/Regular Cab (501-03 Body Closures, General Procedures).
Refer to: Front Door Alignment - SuperCab (501-03 Body Closures, General Procedures).
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