

Fender Apron Panel Reinforcement

Special Tool(s) / General Equipment

6.5 mm Drill Bit
Polydrive Bit Socket
Self-Piercing Rivet (SPR) Remover/Installer
Belt Sander
Blind Rivet Gun
Hot Air Gun
Locking Pliers

Materials

Name	Specification
Metal Bonding Adhesive TA-1, TA-1-B, 3M™ 08115, LORD Fusor® 108B	-

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: LH side shown, RH side similar.

1. Depower the SRS.

Refer to: [Supplemental Restraint System \(SRS\) Depowering](#) (501-20B Supplemental Restraint System, General Procedures).

2. Remove the air cleaner assembly.

Refer to: [Air Cleaner](#) (303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

Refer to: [Air Cleaner](#) (303-12B Intake Air Distribution and Filtering - 3.3L Duratec - V6, Removal and Installation).

Refer to: [Air Cleaner](#) (303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

Refer to: [Air Cleaner](#) (303-12D Intake Air Distribution and Filtering - 5.0L 32V Ti-VCT, Removal and Installation).

3. Remove the front bumper.

Refer to: [Front Bumper - Raptor](#) (501-19 Bumpers, Removal and Installation).

4. Remove the hood and hood hinge on the repair side.

Refer to: [Hood](#) (501-02 Front End Body Panels, Removal and Installation).

5. LH side.

Refer to: [Battery](#) (414-01 Battery, Mounting and Cables, Removal and Installation).

6. Remove the fender and fender splash shield.

Refer to: [Fender Splash Shield](#) (501-02 Front End Body Panels, Removal and Installation).

Refer to: [Fender](#) (501-02 Front End Body Panels, Removal and Installation).

7. Remove the front door.

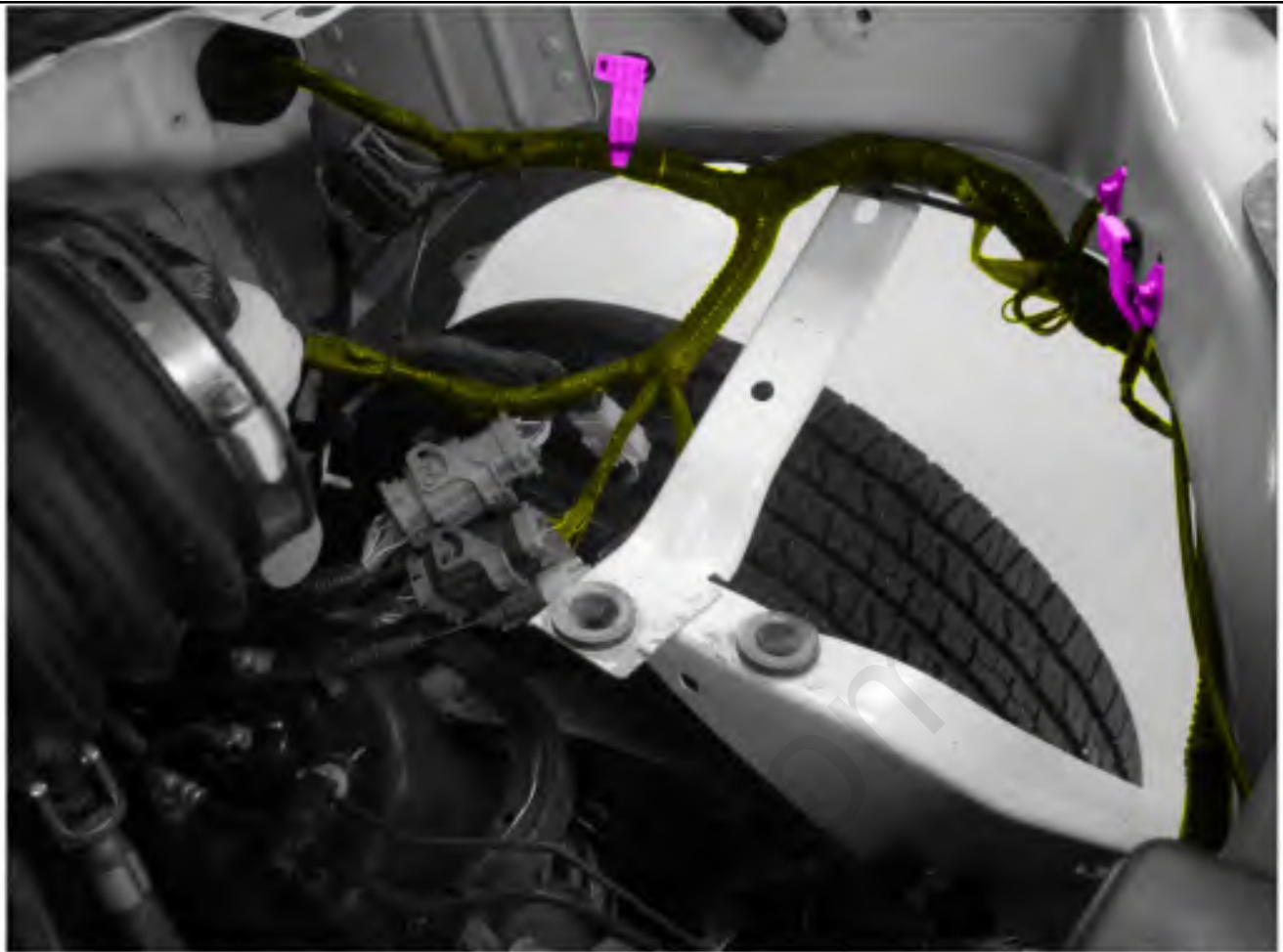
Refer to: [Front Door - Regular Cab/SuperCrew](#) (501-03 Body Closures, Removal and Installation).

Refer to: [Front Door - SuperCab](#) (501-03 Body Closures, 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 the wiring harness.



10. Remove the lower fender bracket.



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11. Remove the cooling module.

Refer to: [Cooling Module](#) (303-03A Engine Cooling - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

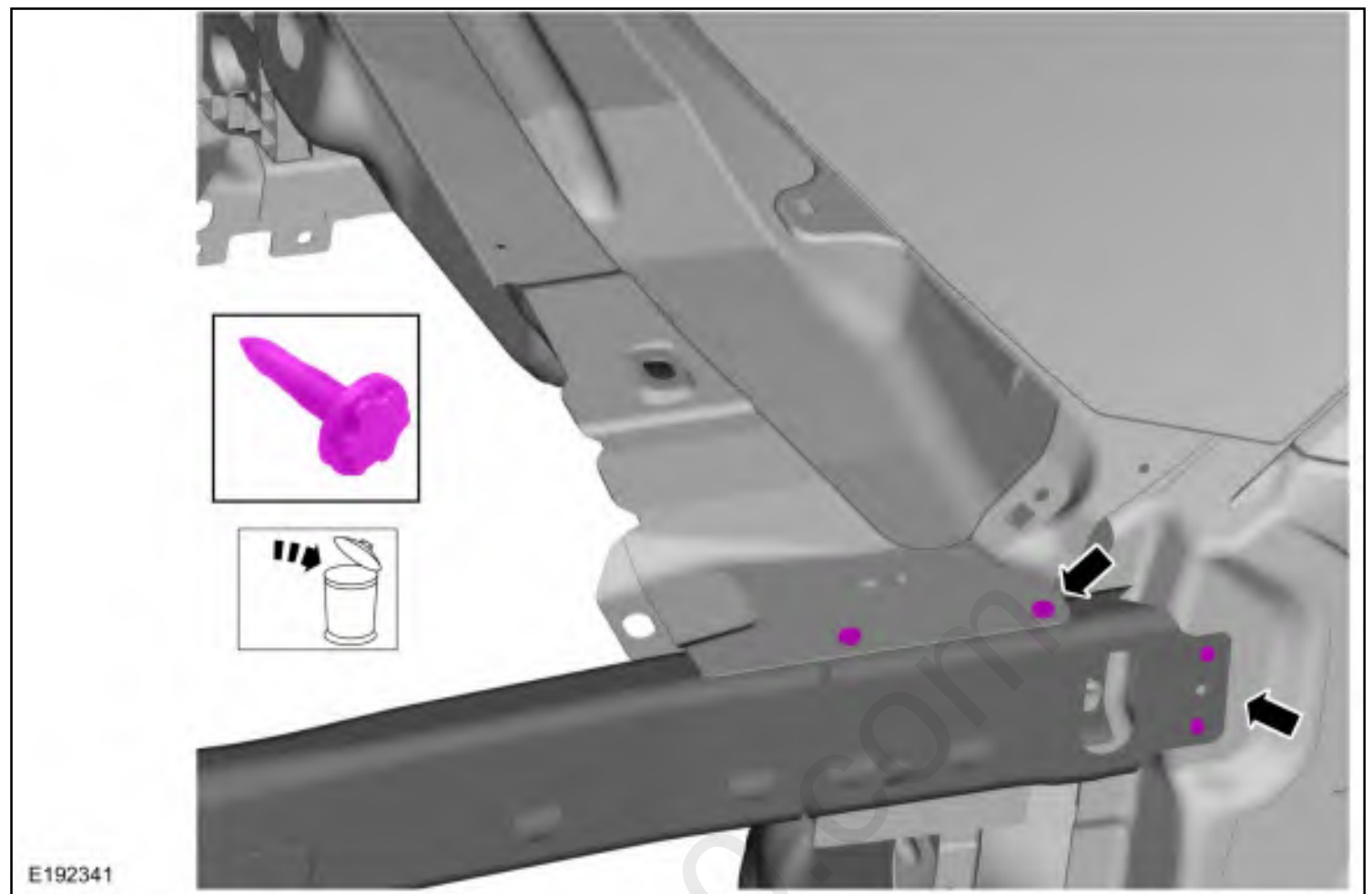
Refer to: [Cooling Module](#) (303-03C Engine Cooling - 3.5L EcoBoost (272kW/370PS), Removal and Installation).

Refer to: [Cooling Module](#) (303-03A Engine Cooling - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

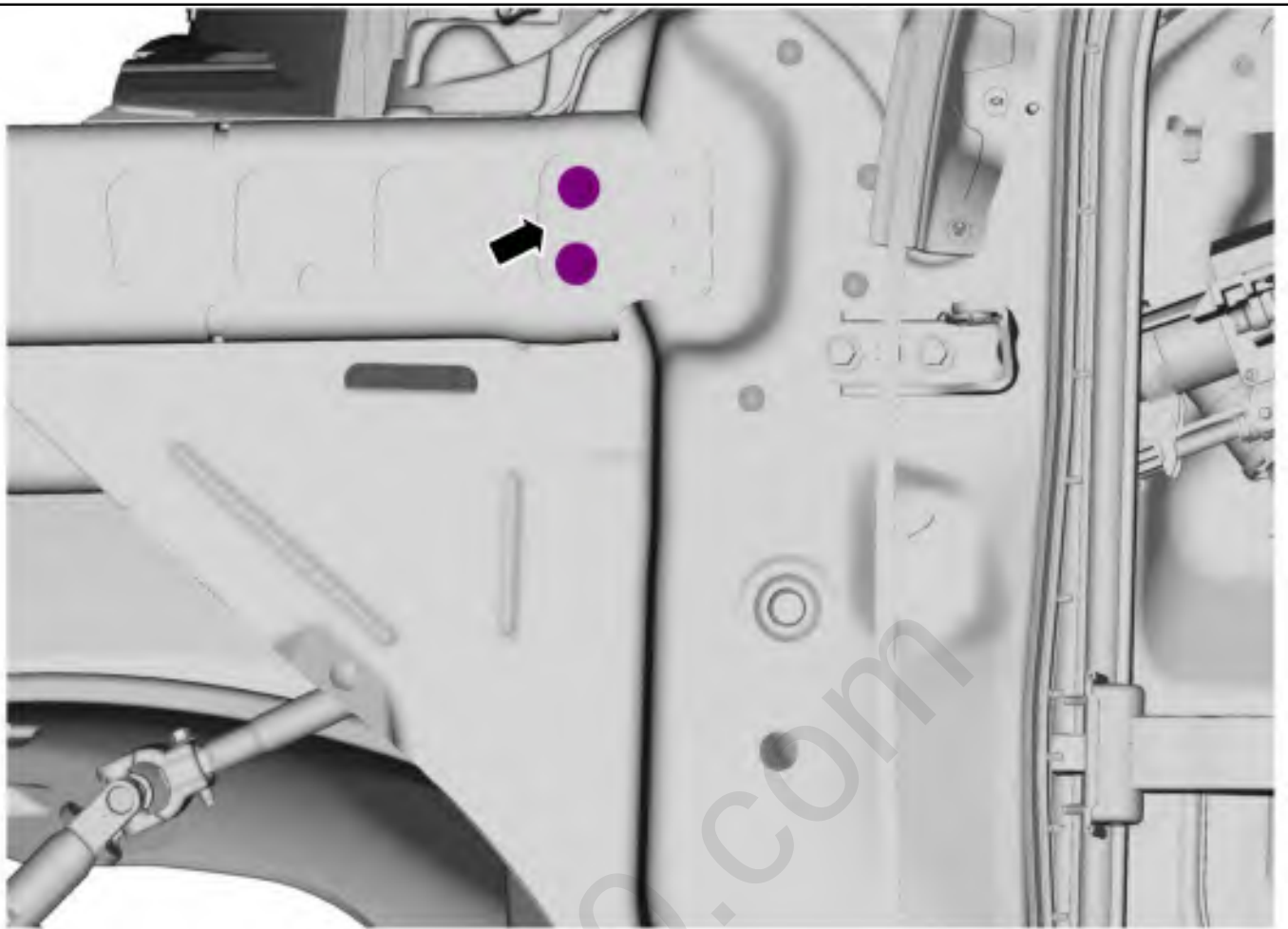
Refer to: [Cooling Module](#) (303-03D Engine Cooling - 5.0L 32V Ti-VCT, Removal and Installation).

12. Remove and discard the FDS fasteners.

Use the General Equipment: Polydrive Bit Socket



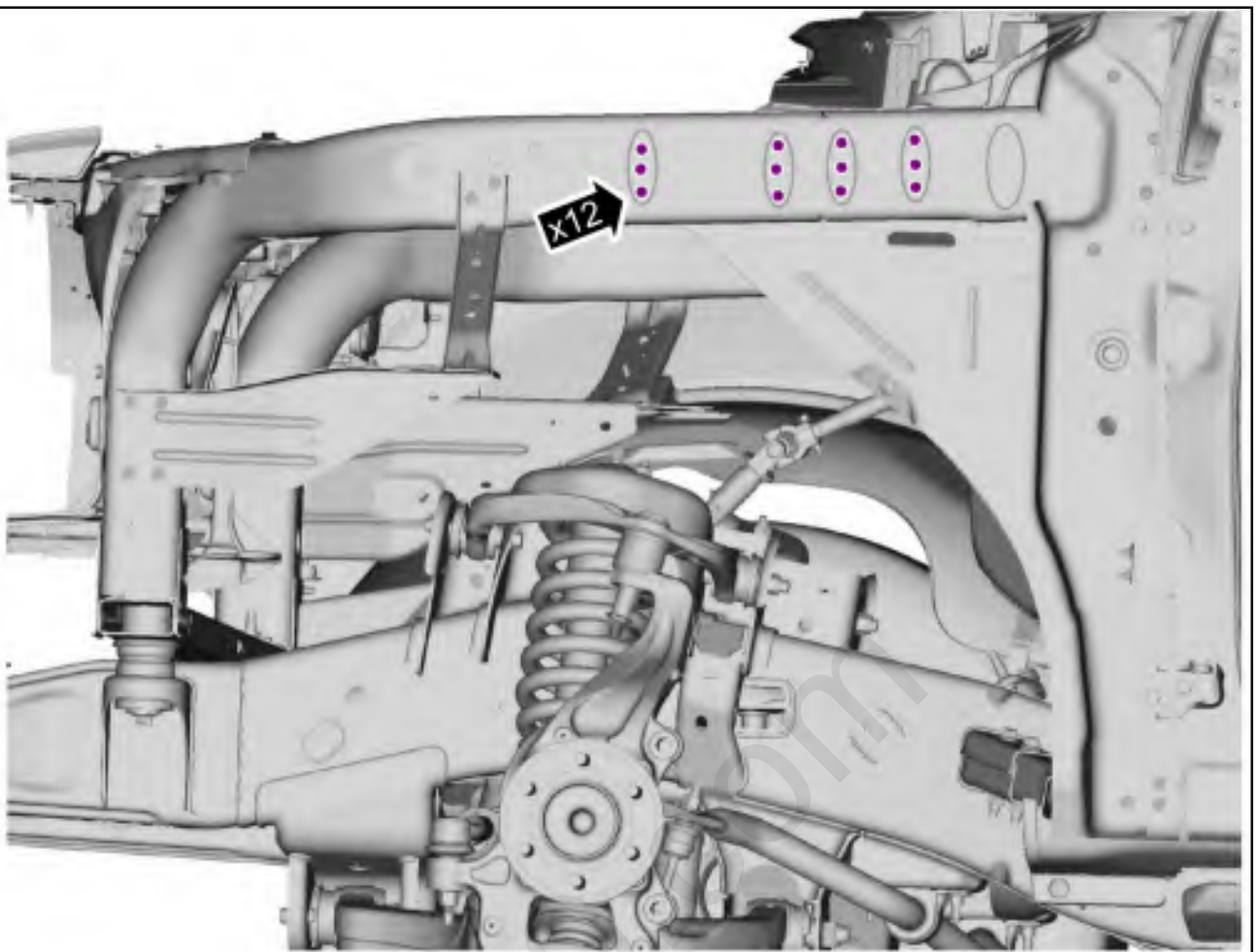
13. Remove the bolts.



14. Remove the SPR fasteners.

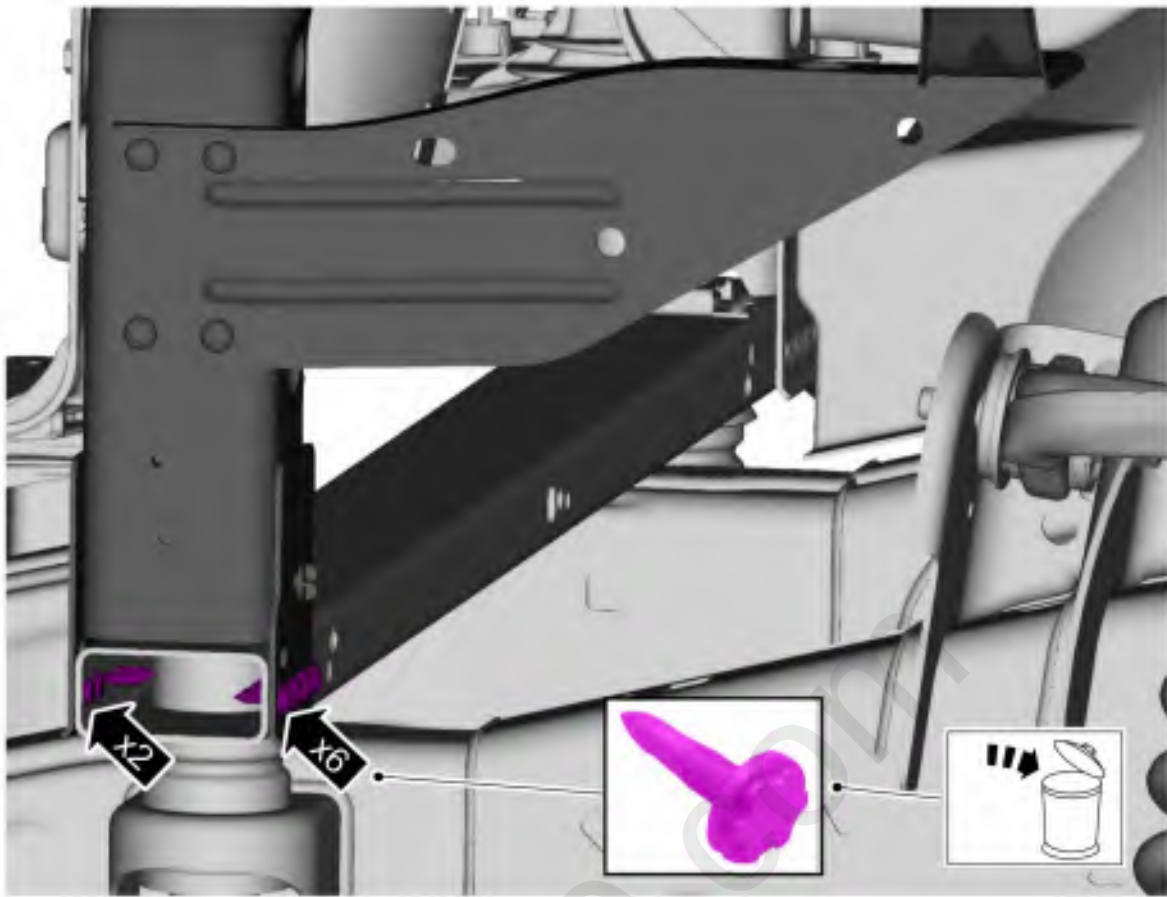
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer

Use the General Equipment: Belt Sander



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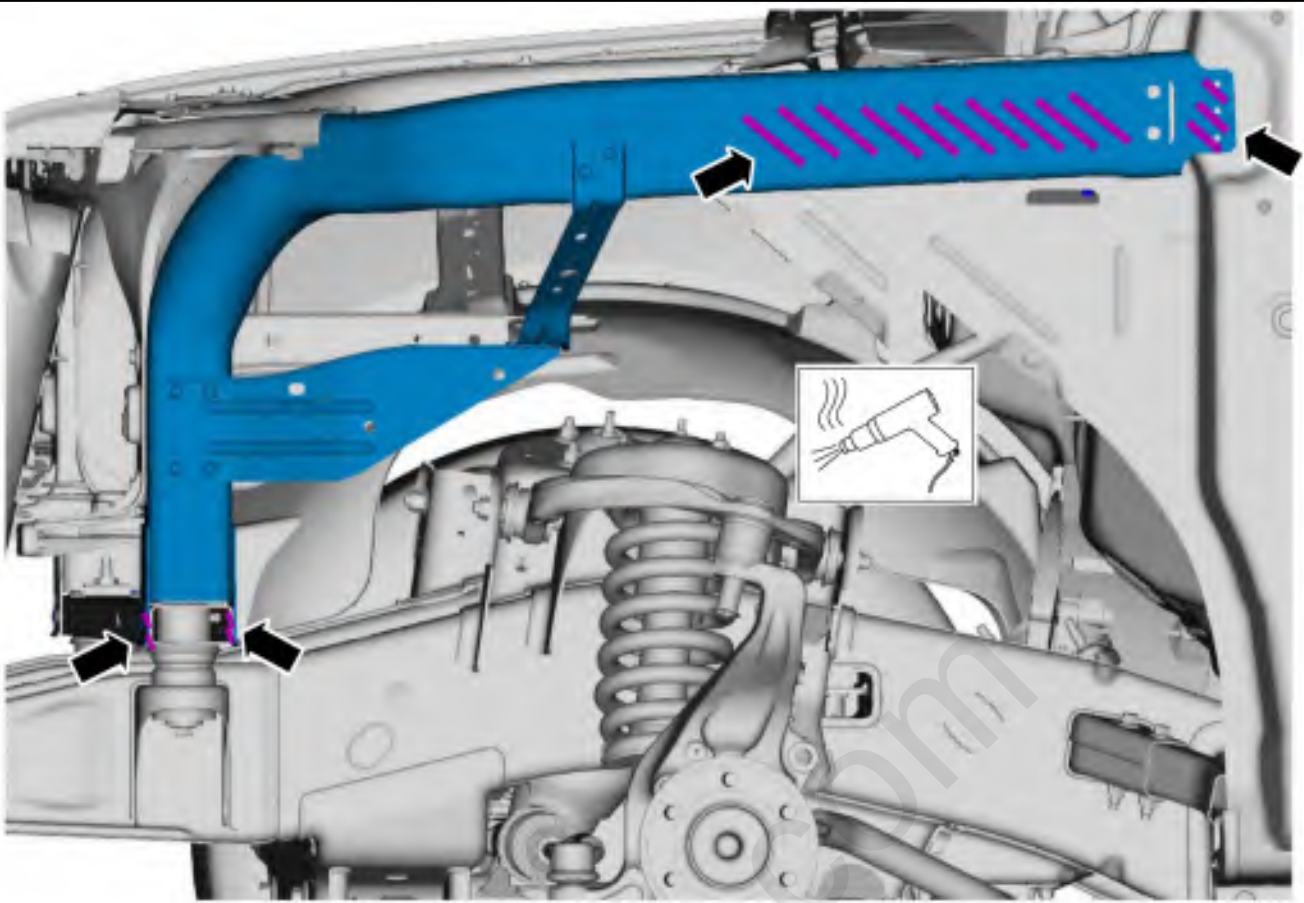
15. Remove the FDS and SPR fasteners.
Use the General Equipment: Polydrive Bit Socket
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander



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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.

Remove the fender apron panel reinforcement.
Use the General Equipment: Hot Air Gun



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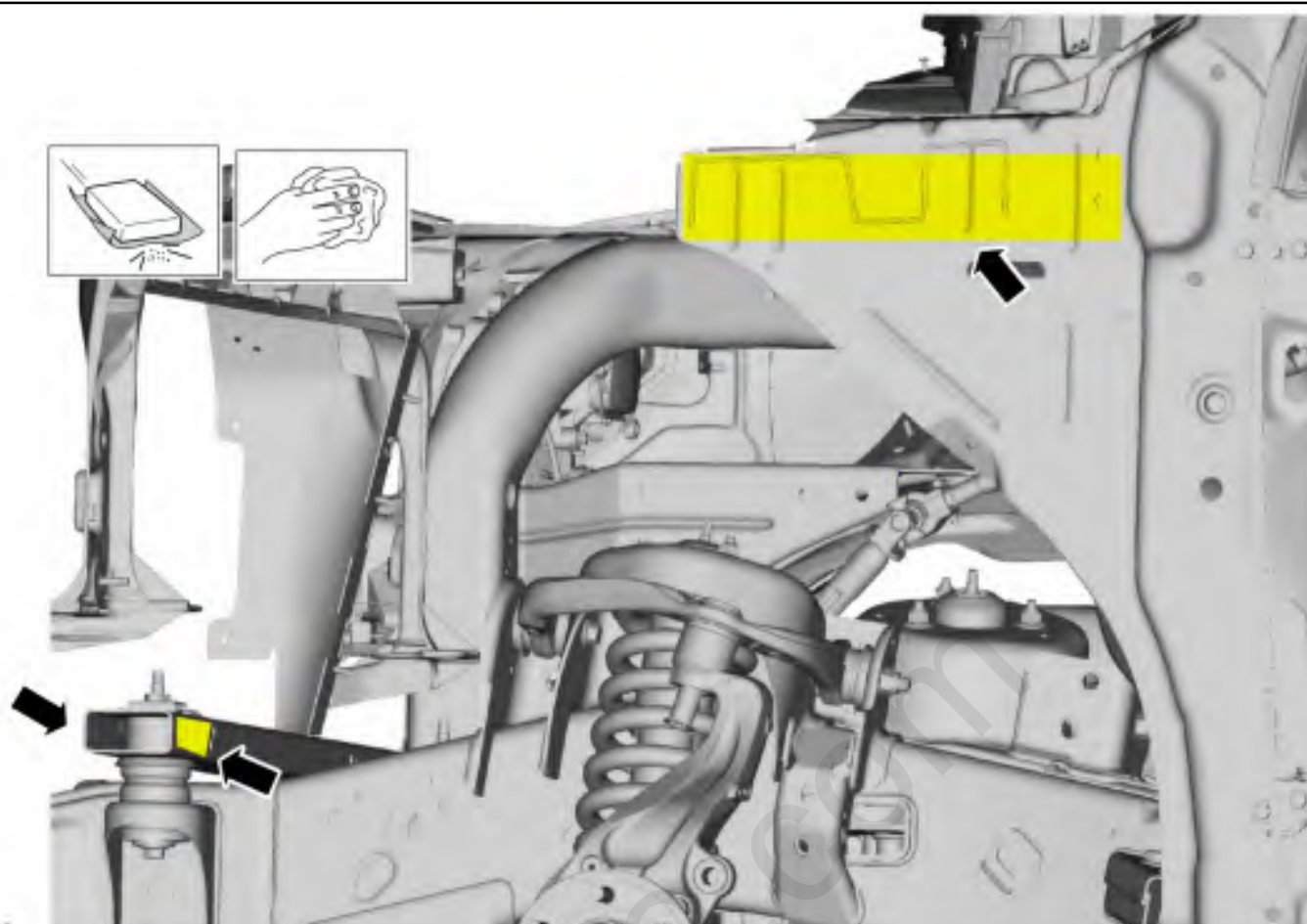
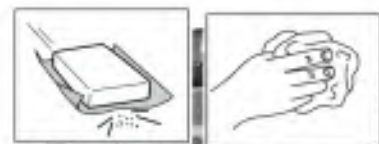


Installation

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

NOTE: LH side shown, RH side similar.

1. Sand to remove old adhesive using 80 grit sandpaper and clean.



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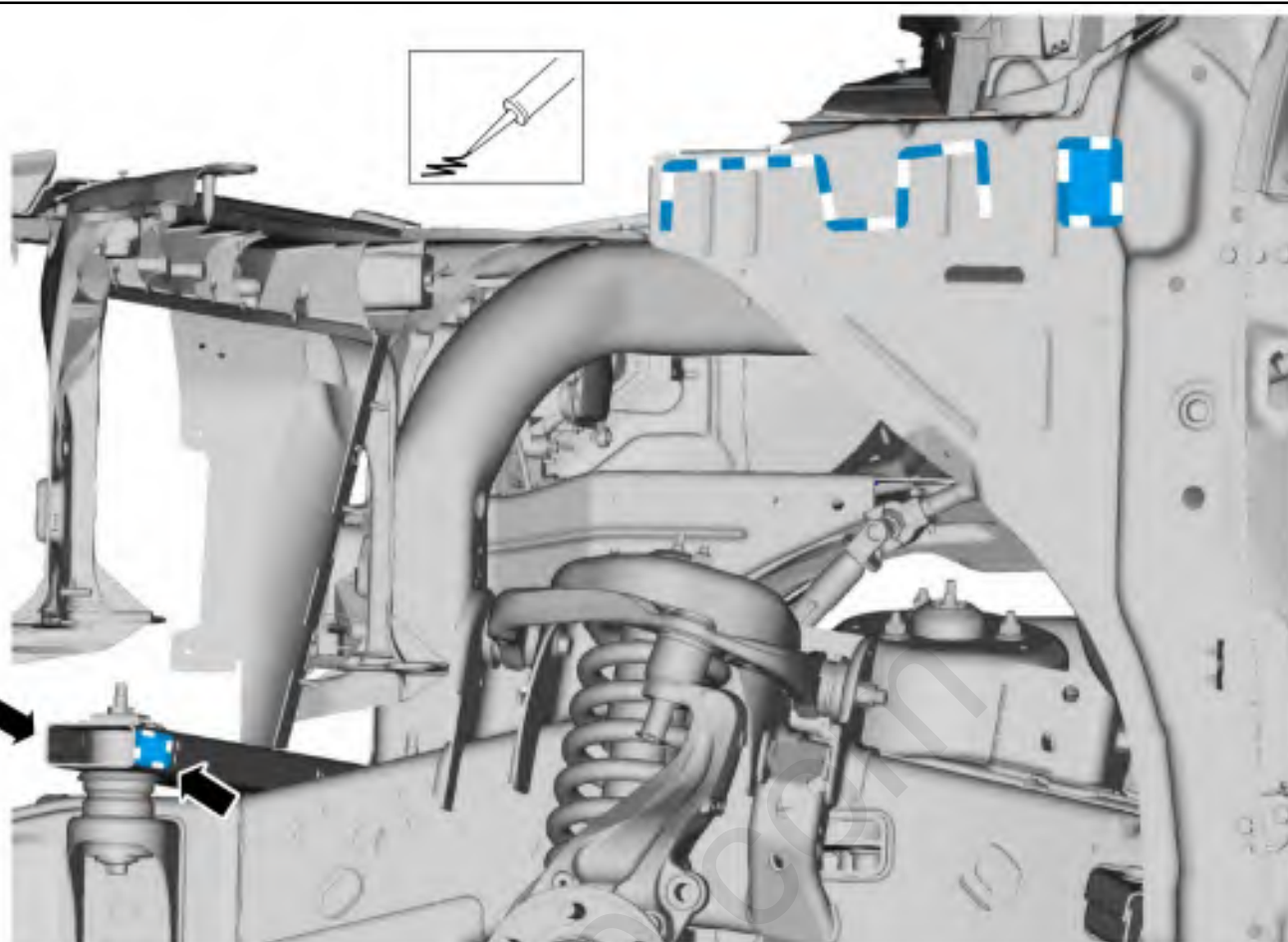


2. Sand to remove e-coat **in the mating surface area only** using 80 grit sandpaper and clean.



3. Apply adhesive.

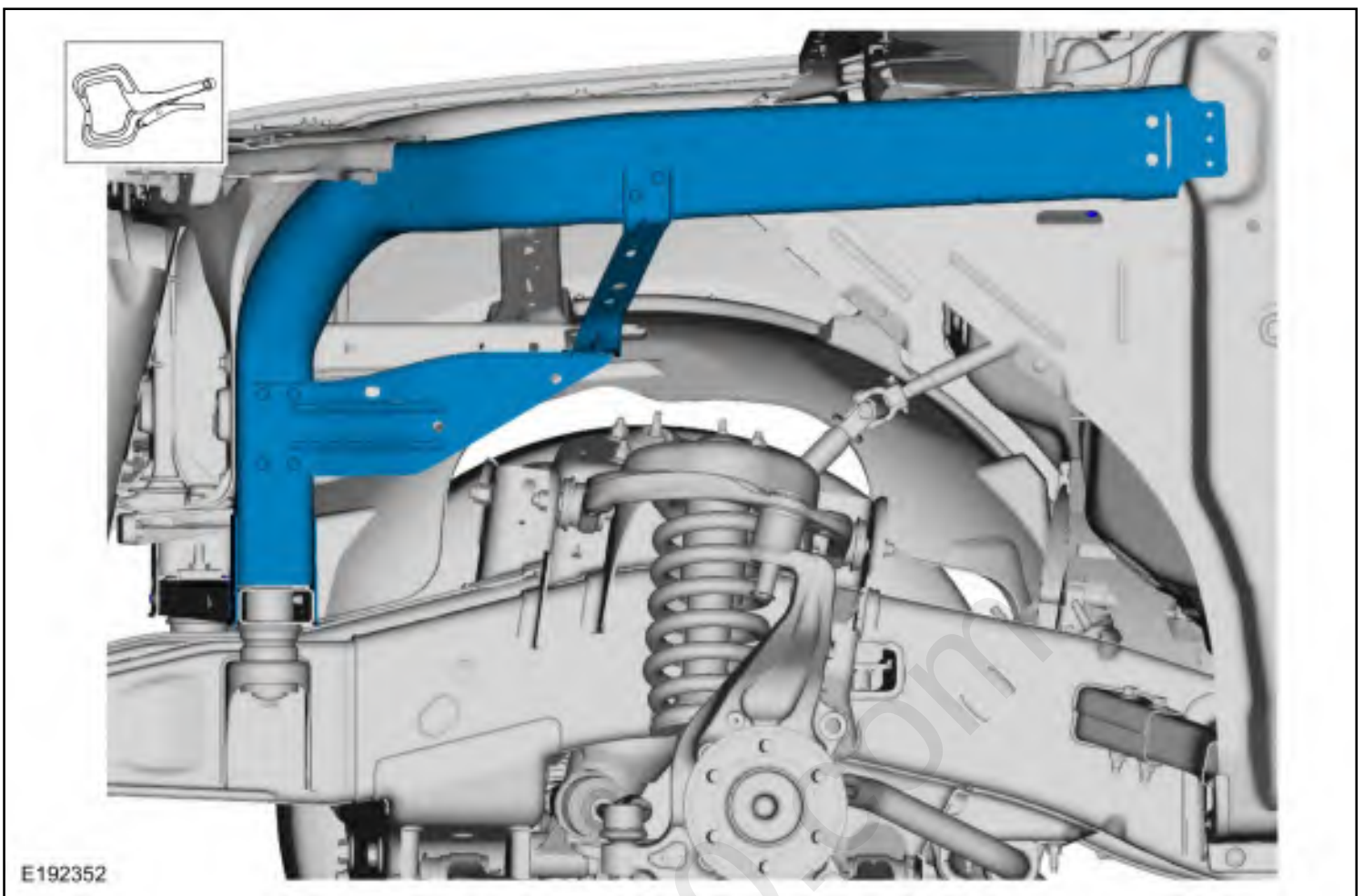
Material: Metal Bonding Adhesive / TA-1, TA-1-B, 3M™ 08115, LORD Fusor® 108B



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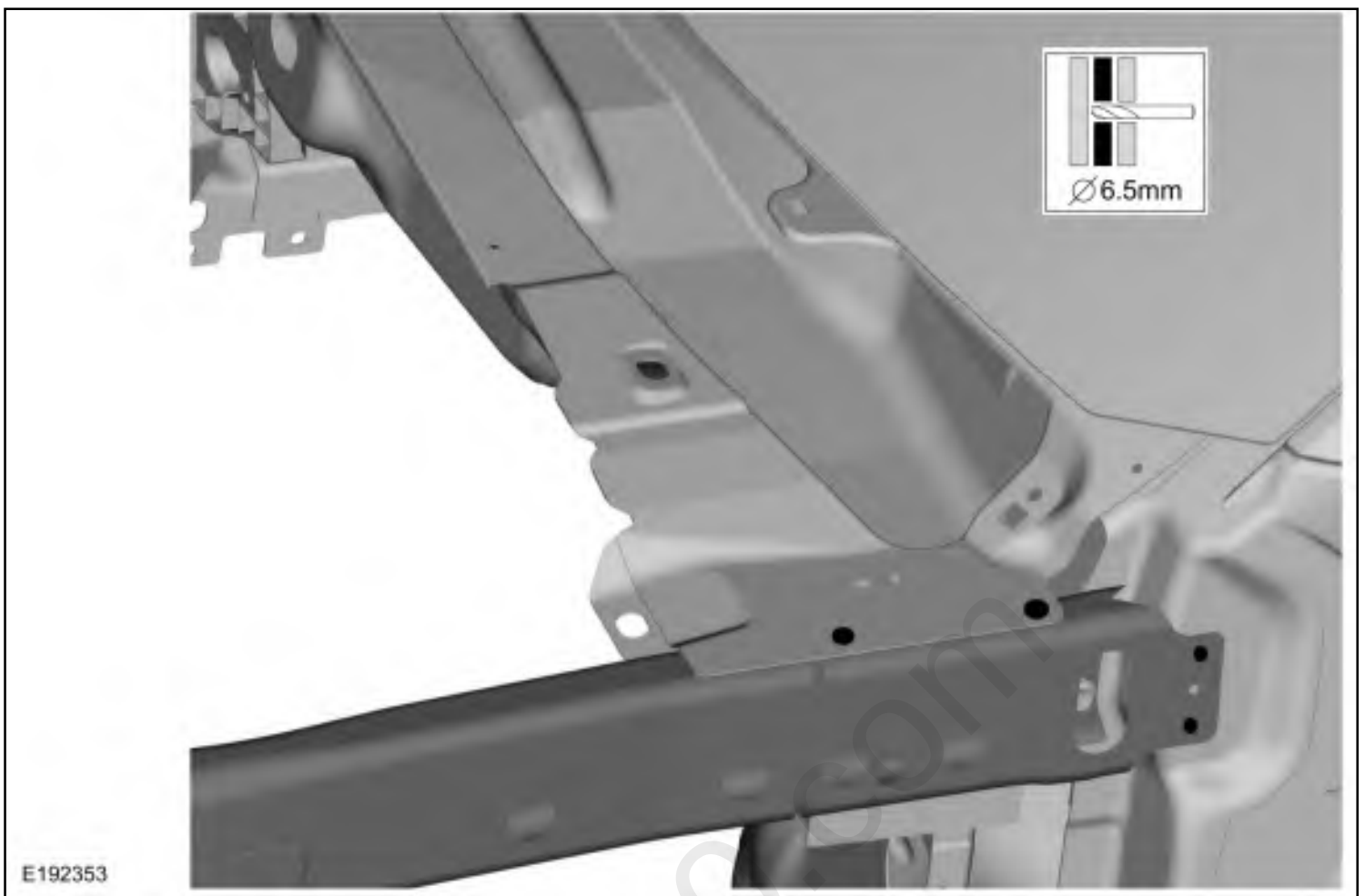
4. Install, properly position and clamp the fender apron panel reinforcement assembly.
Use the General Equipment: Locking Pliers



5. Install the bolts.
Torque: 22 lb.ft (30 Nm)



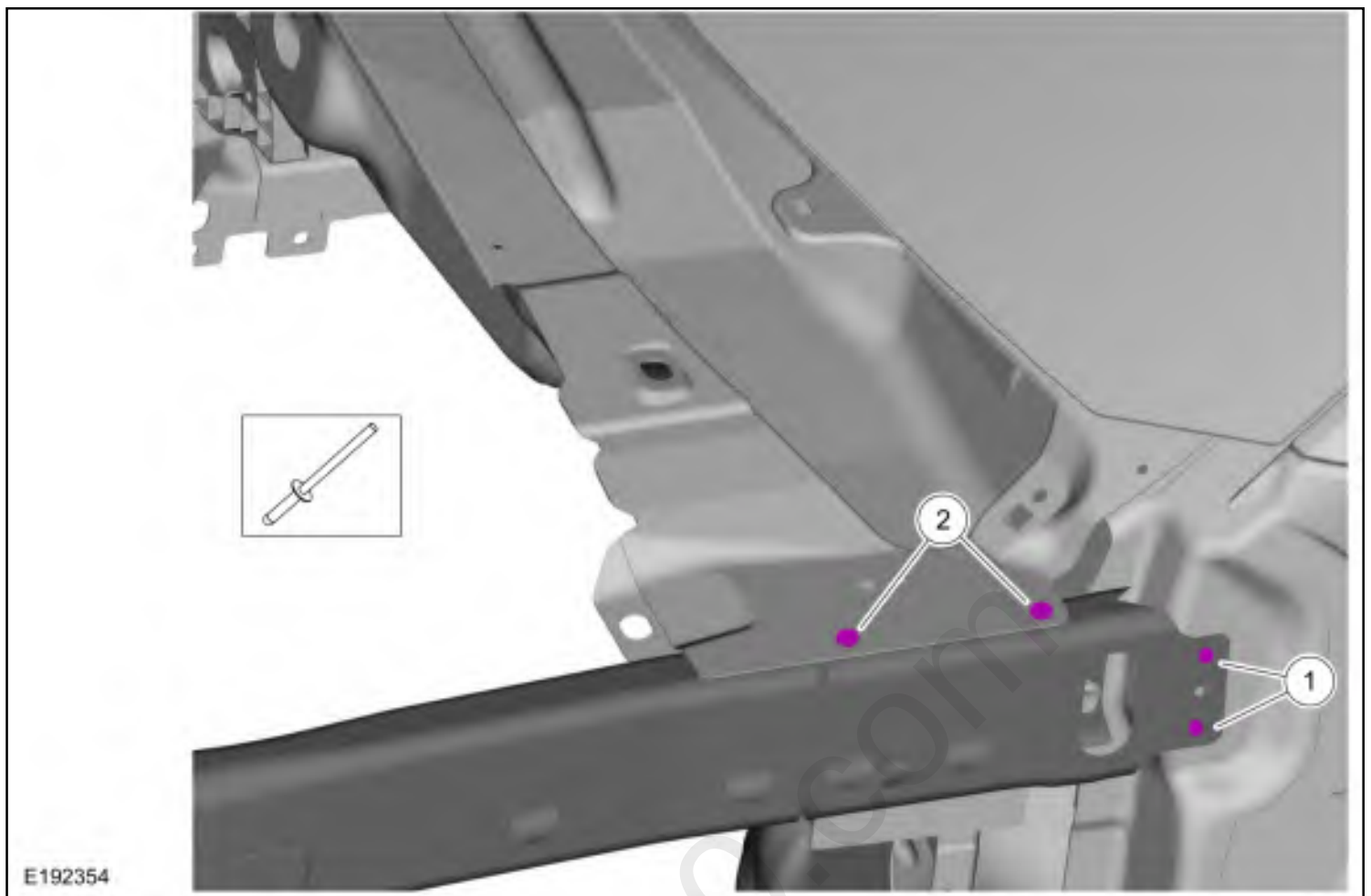
6. Drill rivet holes as indicated.
Use the General Equipment: 6.5 mm Drill Bit



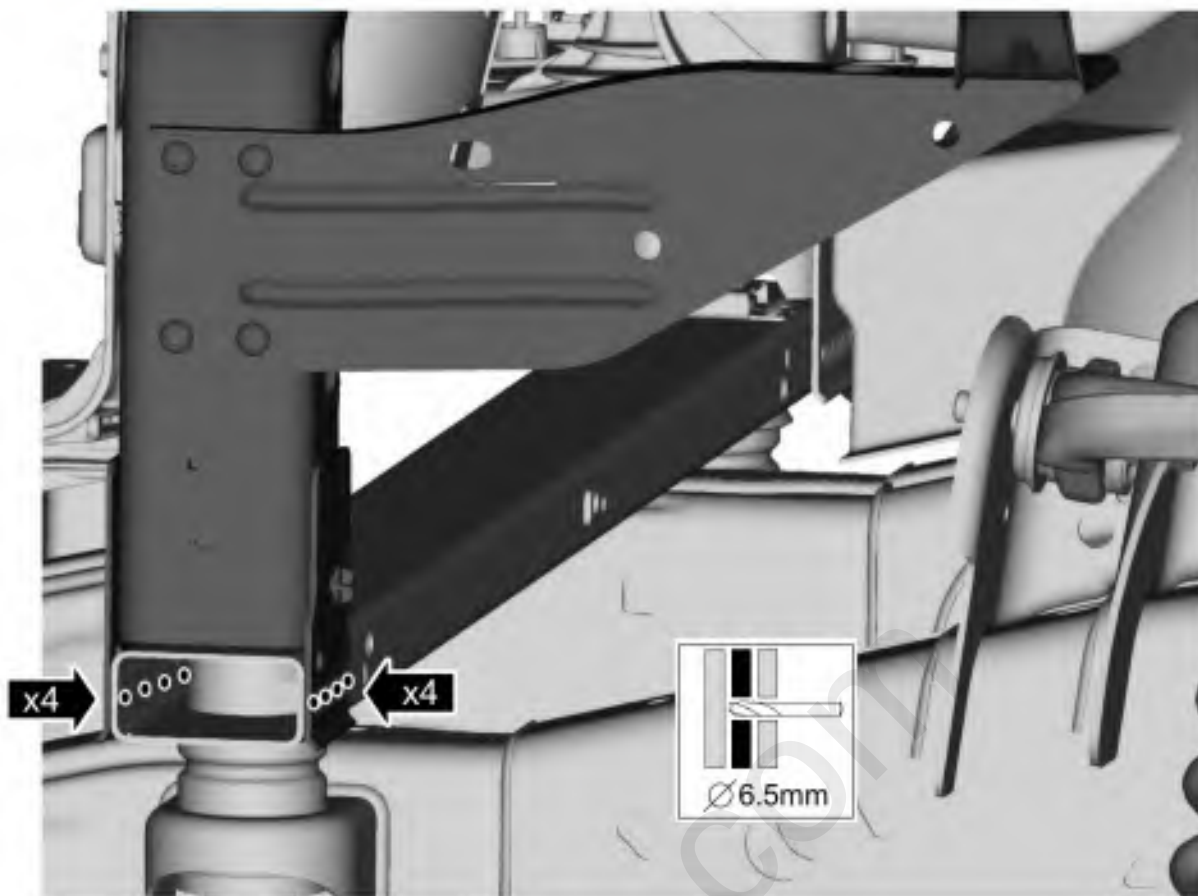
7. Install blind rivet fasteners.

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

Use the General Equipment: Blind Rivet Gun



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

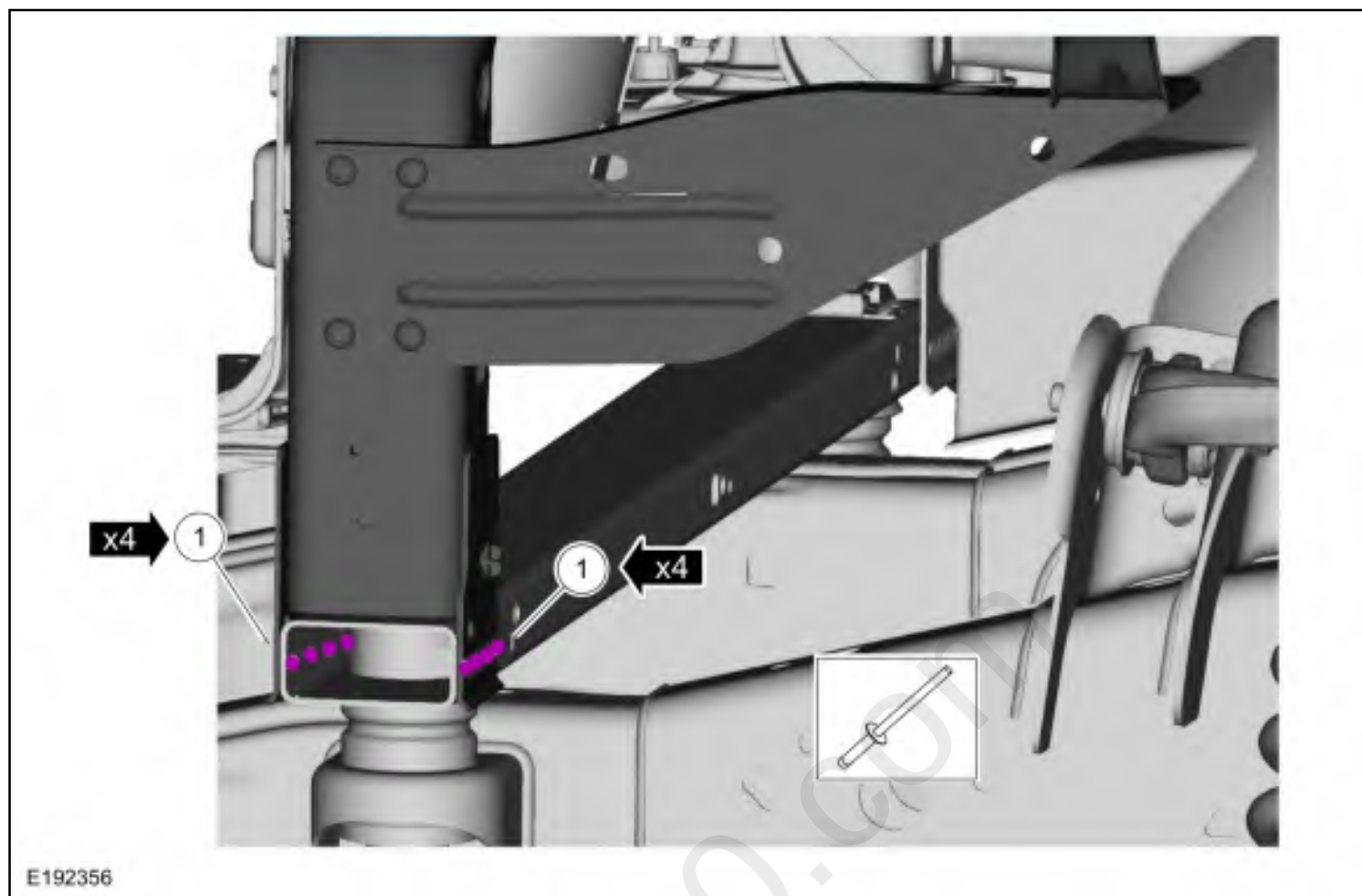


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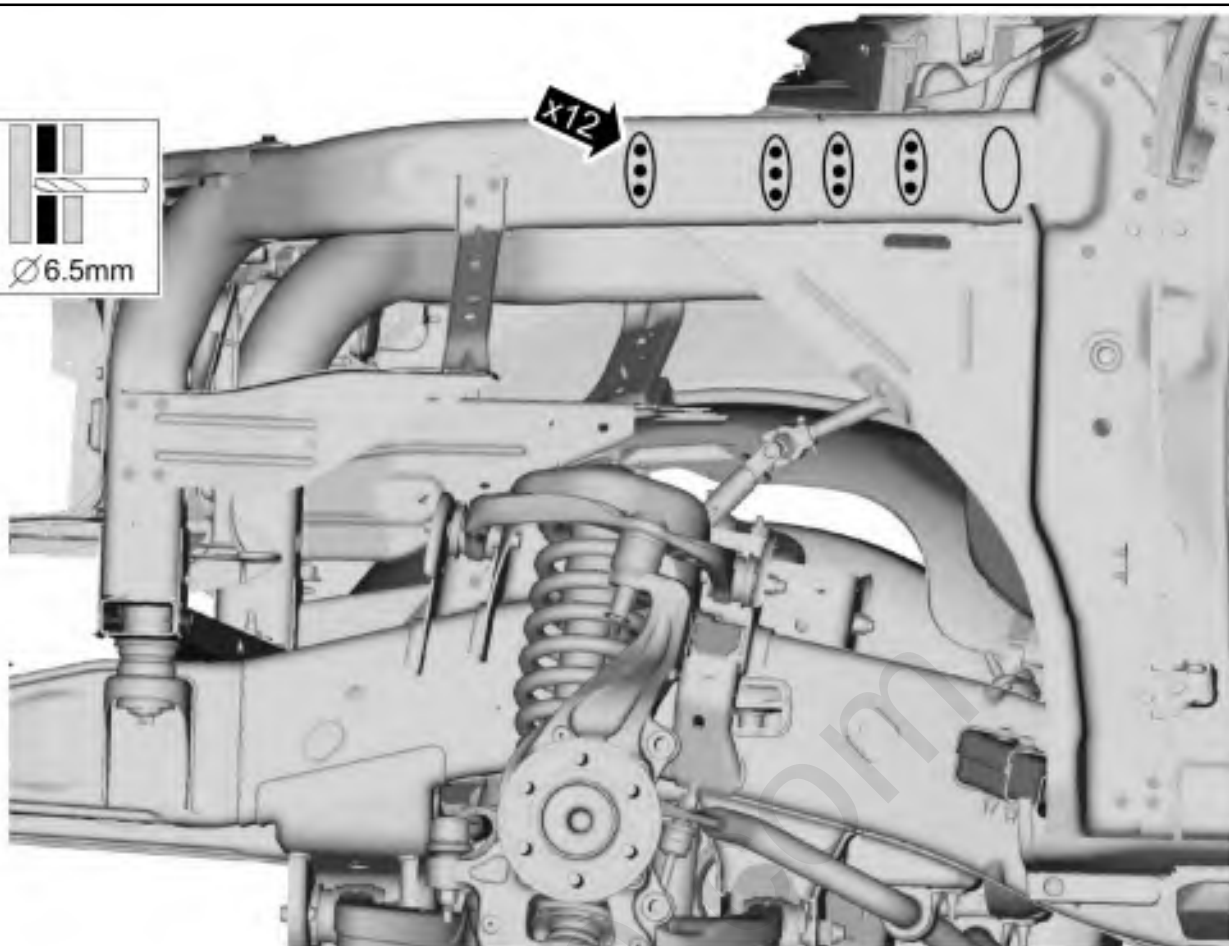
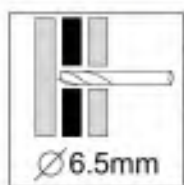
9. Install blind rivet fasteners.

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



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



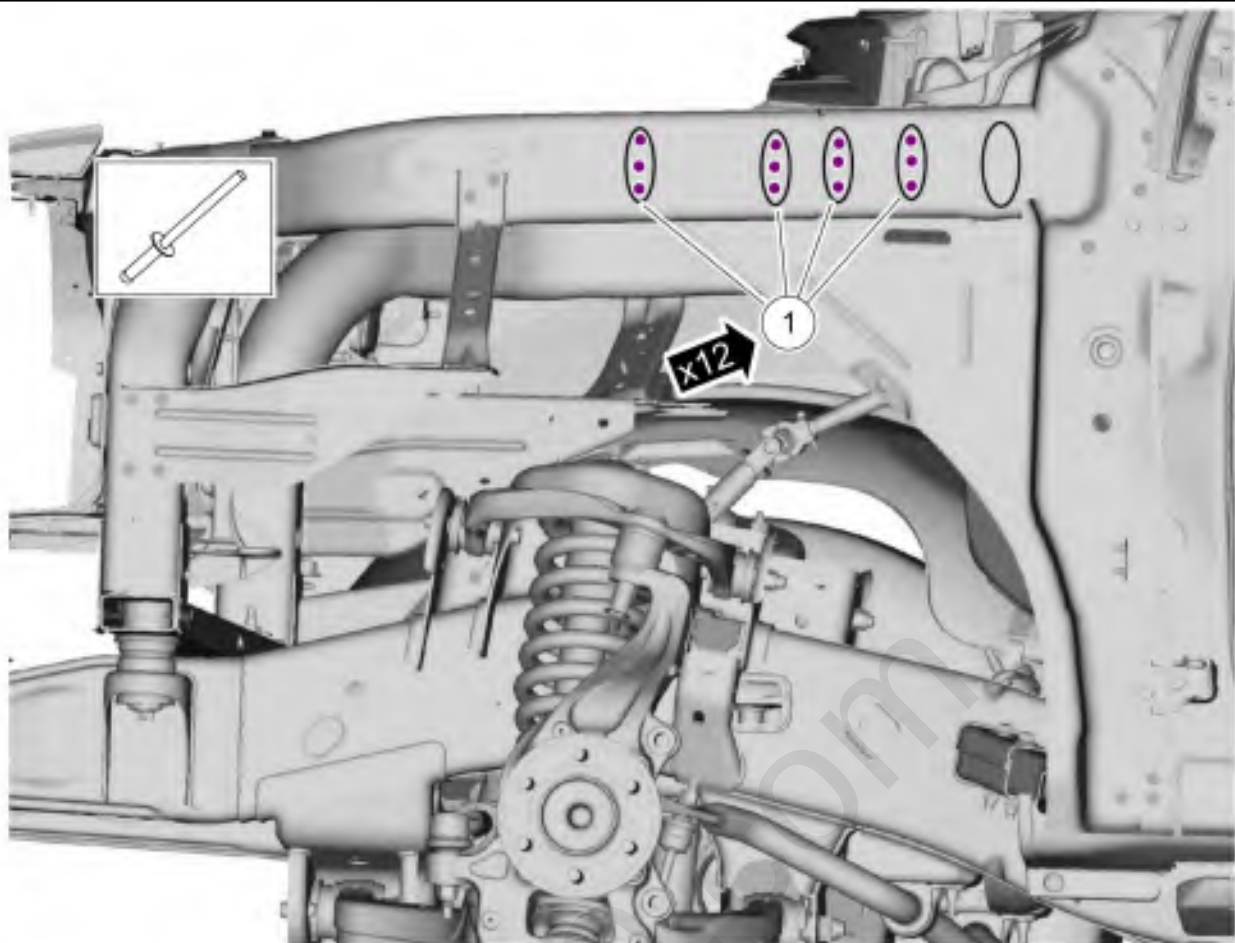
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11. Install blind rivet fasteners.

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

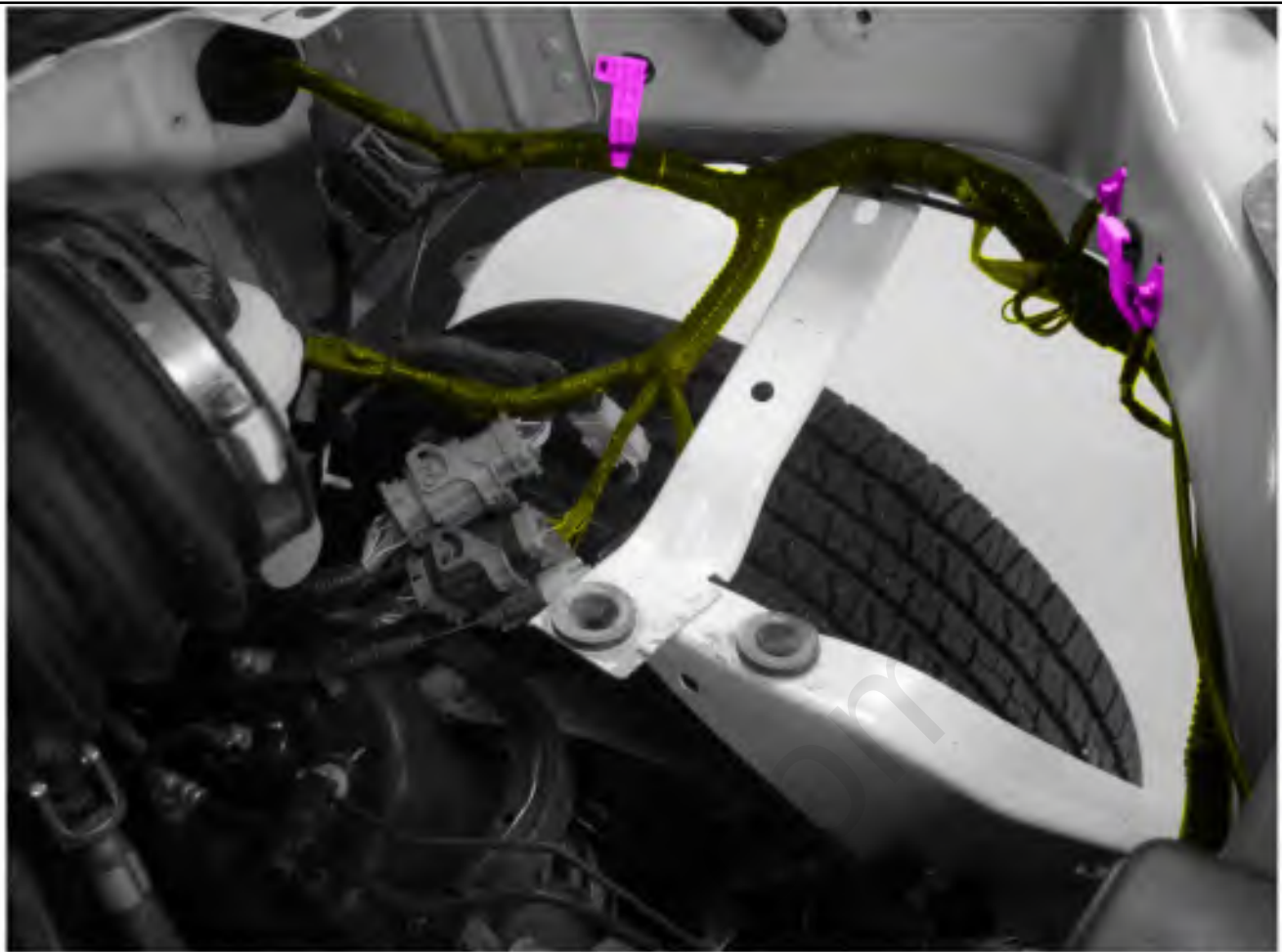


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12. Sealing work: All areas must be sealed to production level.
13. Refinish the repair using a Ford approved paint system and typical refinishing techniques.
14. Install the radiator and bolster assembly.
Refer to: [Cooling Module](#) (303-03A Engine Cooling - 2.7L EcoBoost (238kW/324PS), Removal and Installation).
Refer to: [Cooling Module](#) (303-03C Engine Cooling - 3.5L EcoBoost (272kW/370PS), Removal and Installation).
Refer to: [Cooling Module](#) (303-03A Engine Cooling - 2.7L EcoBoost (238kW/324PS), Removal and Installation).
Refer to: [Cooling Module](#) (303-03D Engine Cooling - 5.0L 32V Ti-VCT, Removal and Installation).
15. Install the lower fender bracket.
Torque: 80 lb.in (9.0 Nm)



16. Reposition the wiring harness assembly.



17. LH side.

Refer to: [Battery](#) (414-01 Battery, Mounting and Cables, Removal and Installation).

18. Install the air cleaner assembly.

Refer to: [Air Cleaner](#) (303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

Refer to: [Air Cleaner](#) (303-12B Intake Air Distribution and Filtering - 3.3L Duratec - V6, Removal and Installation).

Refer to: [Air Cleaner](#) (303-12A Intake Air Distribution and Filtering - 2.7L EcoBoost (238kW/324PS), Removal and Installation).

Refer to: [Air Cleaner](#) (303-12D Intake Air Distribution and Filtering - 5.0L 32V Ti-VCT, Removal and Installation).

19. Install the front door.

Refer to: [Front Door - Regular Cab/SuperCrew](#) (501-03 Body Closures, Removal and Installation).

Refer to: [Front Door - SuperCab](#) (501-03 Body Closures, 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 hood hinge and hood.

Refer to: [Hood](#) (501-02 Front End Body Panels, Removal and Installation).

22. Install the front bumper.

Refer to: [Front Bumper - Raptor](#) (501-19 Bumpers, Removal and Installation).

23. Repower the SRS.

Refer to: [Supplemental Restraint System \(SRS\) Repowering](#) (501-20B Supplemental Restraint System, General Procedures).