2021 F-150

Procedure revision date: 09/25/2020

### **Pickup Box Corner Reinforcement**

### Special Tool(s) / General Equipment

6.5 mm Drill Bit
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

WARNING: Electric vehicles damaged by a crash may have compromised high voltage safety systems and present a potential high voltage electrical shock hazard. Exercise caution and wear appropriate Personal Protective Equipment (PPE) safety gear, including high voltage safety gloves and boots. Remove all metallic jewelry, including watches and rings. Isolate the HV system as directed by the Ford Emergency Response Guide for the vehicle. Failure to follow these instructions may result in serious personal injury or death.

NOTICE: Battery electric vehicle (BEV), hybrid electric vehicle (HEV) and plug-in hybrid electric vehicle (PHEV) contain a high-voltage battery. Before cutting or welding near the high-voltage battery it must be removed to avoid damage.

1. A WARNING: Before beginning any service procedure in this manual, refer to health and safety warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

Refer to: Health and Safety Precautions (100-00 General Information, Description and Operation).

Refer to: High Voltage System Health and Safety Precautions - Overview (100-00 General Information, Description and Operation).

**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:** 6.5 foot pickup box shown, 5.5 foot and 8 foot similar.

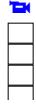
- 2. Remove the tailgate.
- 3. Remove the tail lamp assembly.

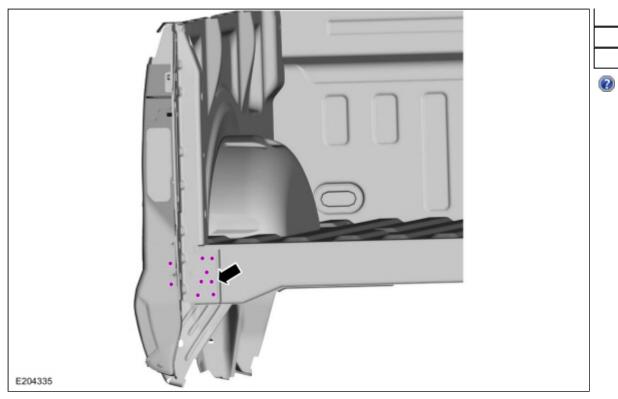
  Refer to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
- 4. Remove the pickup box outer side panel.

  Refer to: Pickup Box Outer Side Panel (501-30 Rear End Sheet Metal Repairs, Removal and Installation).
- 5. Remove the torx® screw, tailgate tether bolt, tailgate bumper, striker and hinge.



- 6. Route the tail lamp wiring harness out the bottom of the reinforcement and position aside.
- 7. Remove the <u>SPR</u> fasteners.
  Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
  Use the General Equipment: Belt Sander

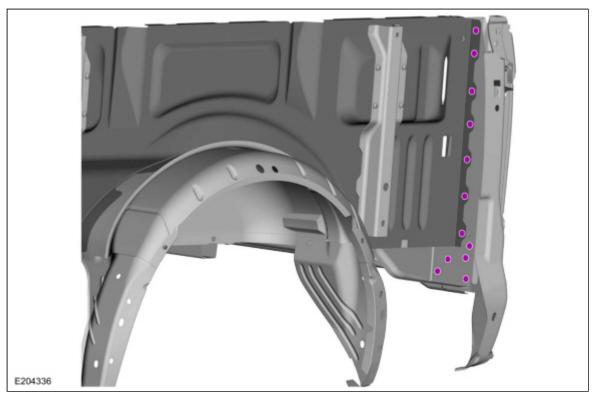




8. Remove the <u>SPR</u> fasteners.
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander







9. **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 pickup box corner reinforcement. Use the General Equipment: Hot Air Gun

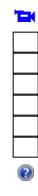


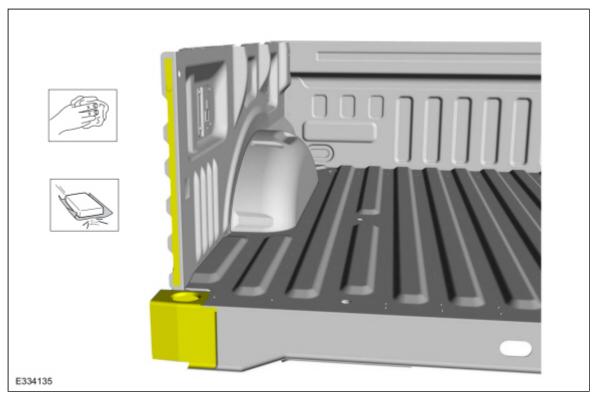


# Installation

**NOTE:** 6.5 foot pickup box shown, 5.5 foot and 8 foot similar.

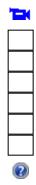
1. 80-120 grit sand paper. Sand to remove old adhesive and clean.

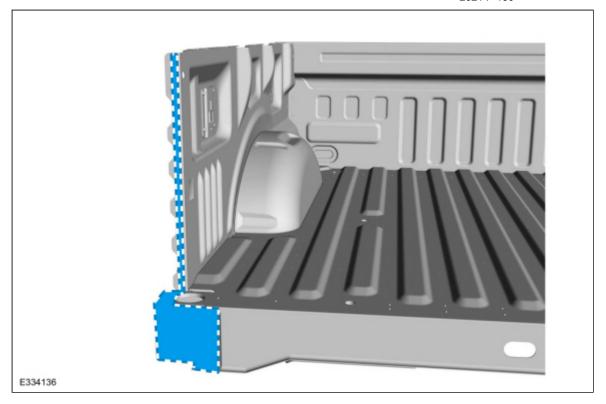




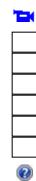
# 2. Apply adhesive.

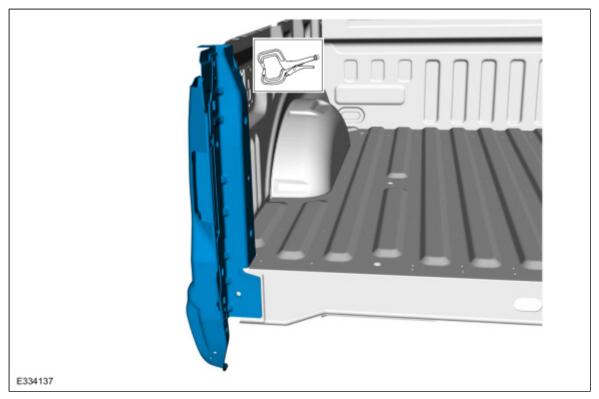
Material: Metal Bonding Adhesive / TA-1, TA-1-B, 3M™ 08115, LORD Fusor® 108B



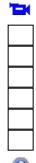


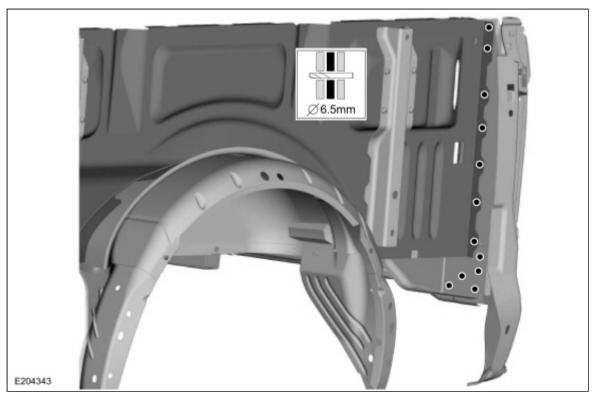
3. Install the pickup box corner reinforcement and clamp in position. Use the General Equipment: Locking Pliers





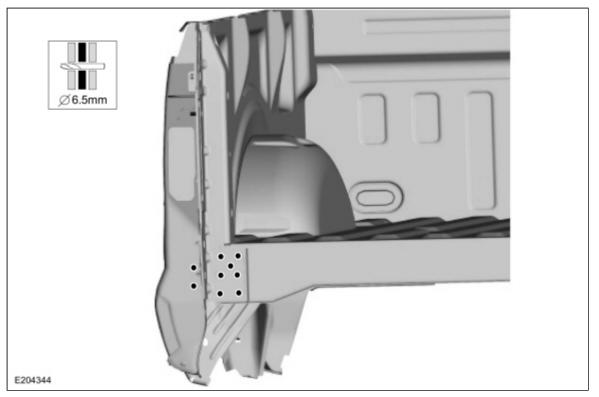
4. Drill 6.5 mm holes for blind rivet fastener installation. Use the General Equipment: 6.5 mm Drill Bit





5. Drill 6.5 mm holes for blind rivet fastener installation. Use the General Equipment: 6.5 mm Drill Bit



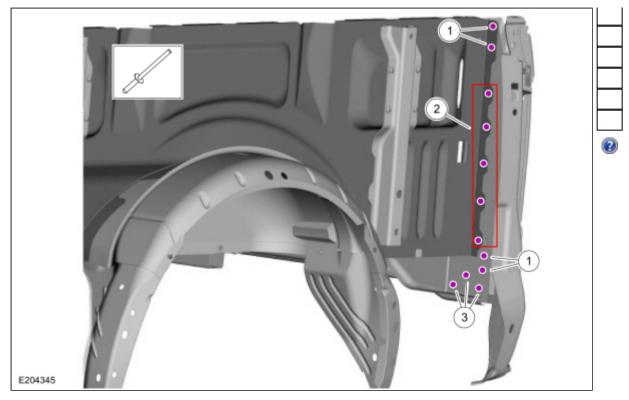


# 6. Install blind rivet fasteners.

Item	<u>SPR</u> Number	SPR Code	, , , , , , , , , , , , , , , , , , , ,	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W702512- S900C	-	-
2	-	-	-	-	W707638- S900C	-	-
3	-	-	-	-	W708777- S900C	-	-

Refer to: <u>Joining Techniques</u> (501-25 Body Repairs - General Information, General Procedures). Use the General Equipment: Blind Rivet Gun

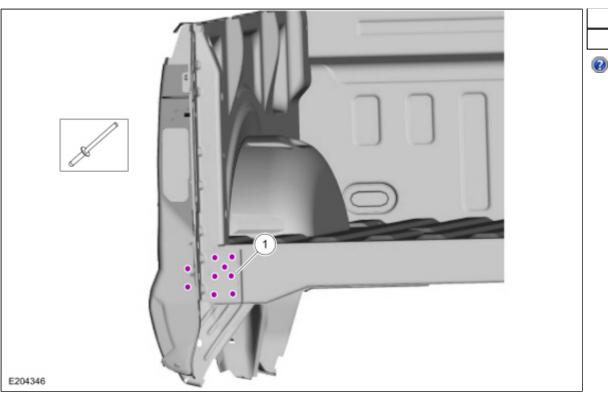




# 7. Install blind rivet fasteners.

Item		SPR Code	Henrob®, Car-OLiner ®, CMO®, Chief®, Spanesi®, Wielander and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	-	-	-	-	W702512- S900C	-	-

Refer to: <u>Joining Techniques</u> (501-25 Body Repairs - General Information, General Procedures). Use the General Equipment: Blind Rivet Gun



- 8. Route the tail lamp wiring harness through the pickup box corner reinforcement.
- 9. Install the pickup box outer side panel.
  Refer to: Pickup Box Outer Side Panel (501-30 Rear End Sheet Metal Repairs, Removal and Installation).

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Install the torx® screw, tailgate tether bolt, tailgate bumper, striker and hinge.

• Torx screw.

Torque: 177 lb.in (20 Nm)

Tailgate tether bolt.

Torque: 30 lb.ft (40 Nm)

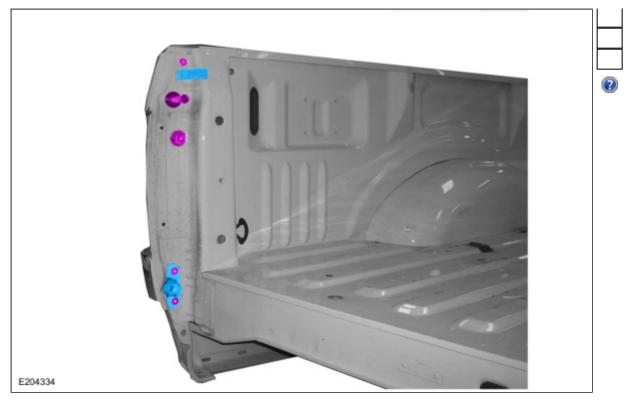
Tailgate striker.

Torque: 30 lb.ft (40 Nm)

• Tailgate hinge bolts.

*Torque*: 41 lb.ft (55 Nm)





- 11. Install the tail lamp assembly.

  Refer to: Rear Lamp Assembly (417-01 Exterior Lighting, Removal and Installation).
- 12. Install the tailgate.

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