



Roof Reinforcement - SuperCrew**Special Tool(s) / General Equipment**

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

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.

-  **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.

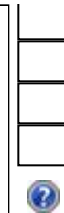
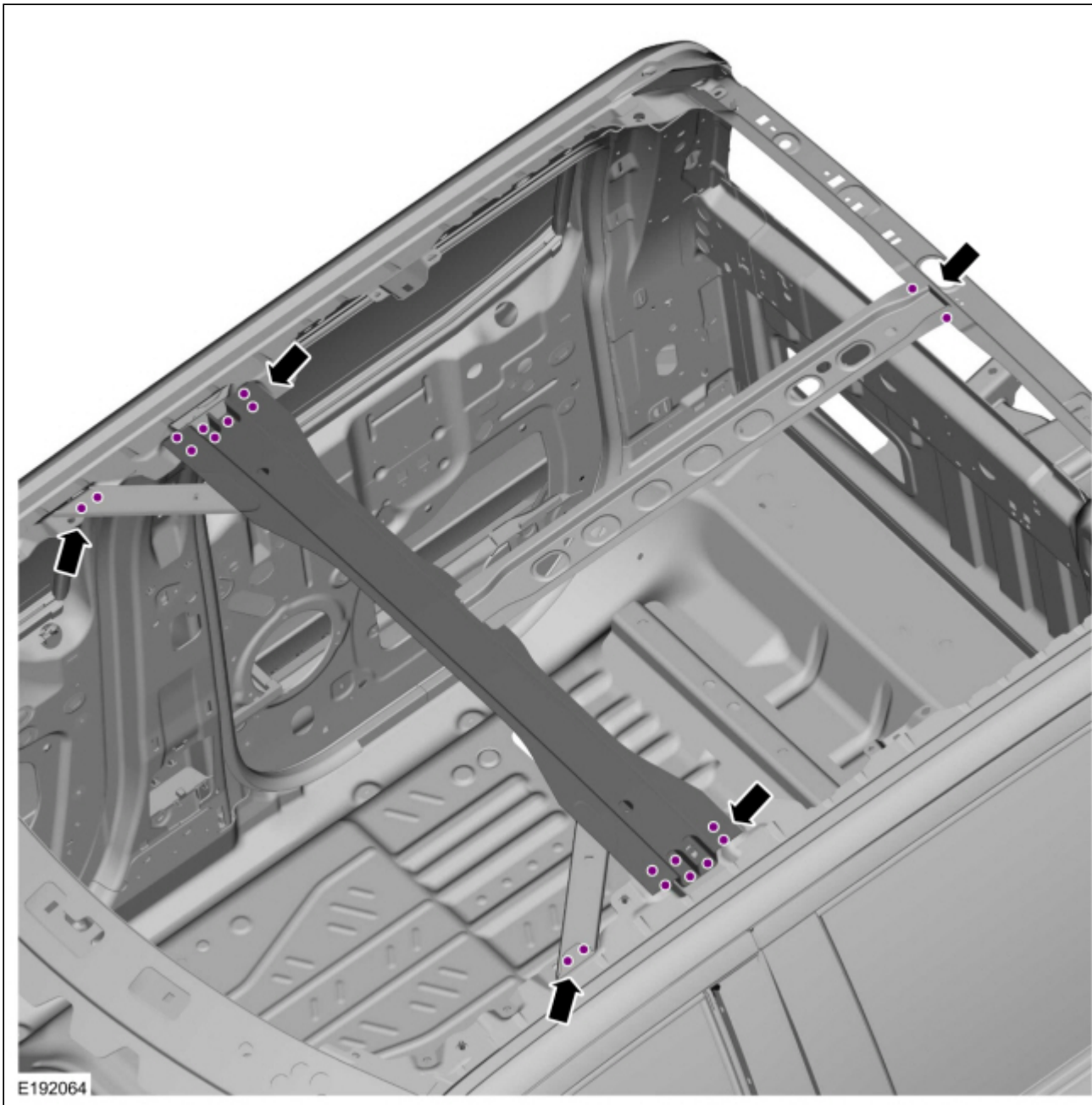
Refer to: [Health and Safety Precautions](#) (100-00 General Information, Description and Operation).

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

NOTE: Roof reinforcements are provided as 4 service parts (roof reinforcement, center reinforcement and K-braces), the following procedure assumes all components are to be replaced.

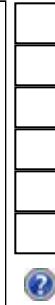
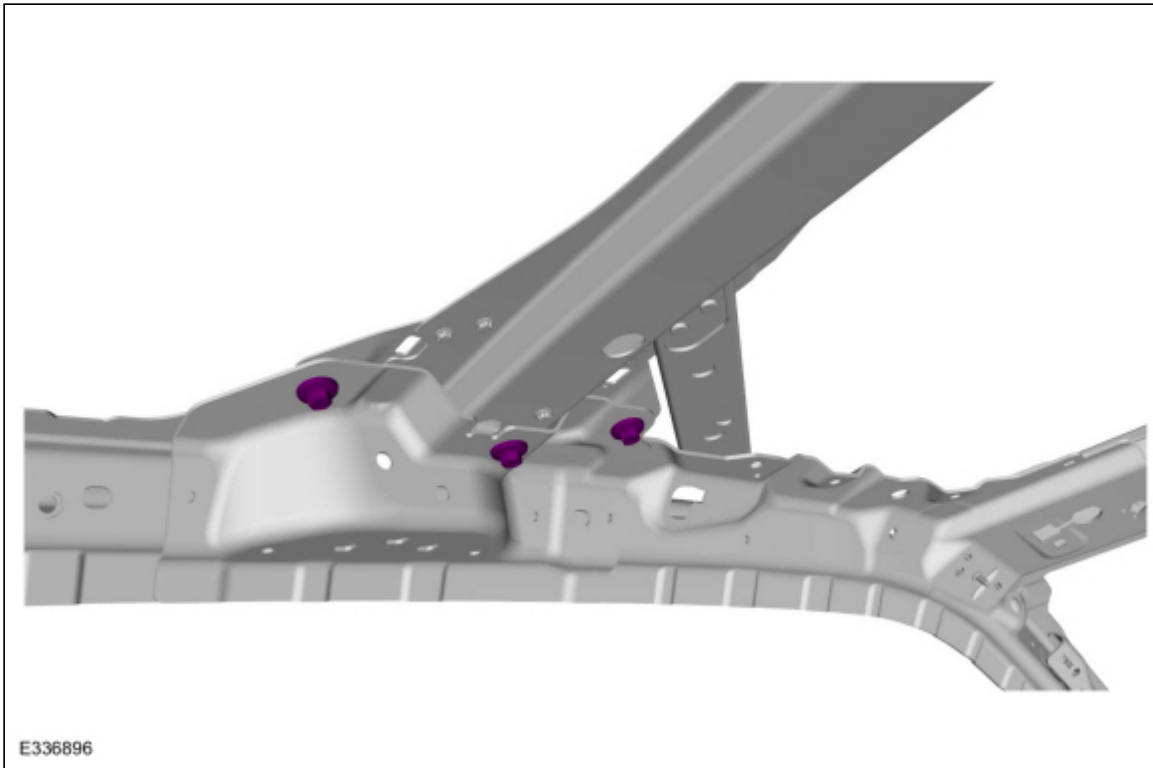
- Remove the roof outer panel.
Refer to: [Roof Panel - SuperCrew](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).
- Remove the SPR fasteners as indicated.
Use the General Equipment: Self-Piercing Rivet (SPR) Remover/Installer
Use the General Equipment: Belt Sander





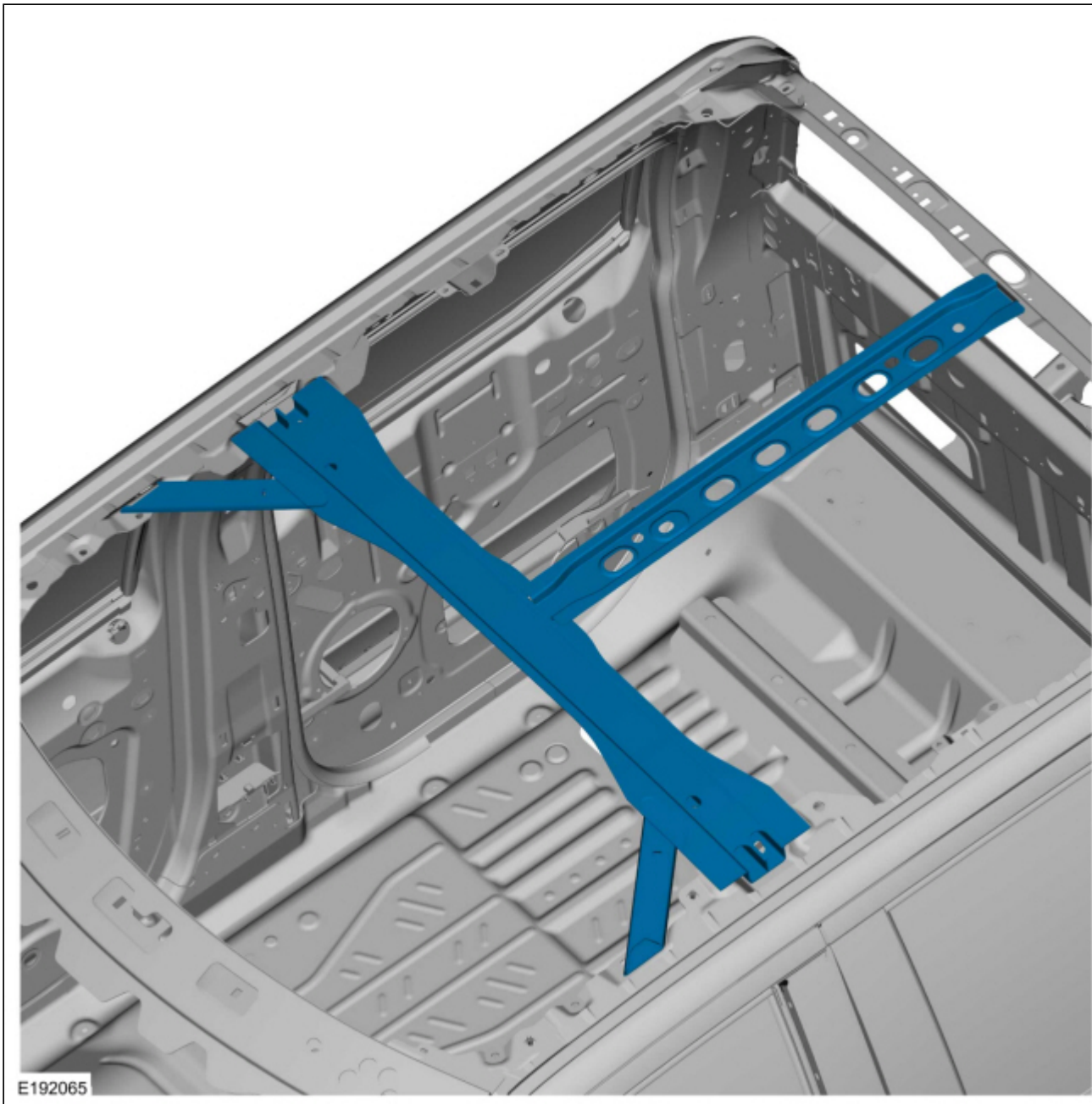
- 4. **On Both Sides:**
Remove the fasteners.





5. Remove the roof reinforcement.



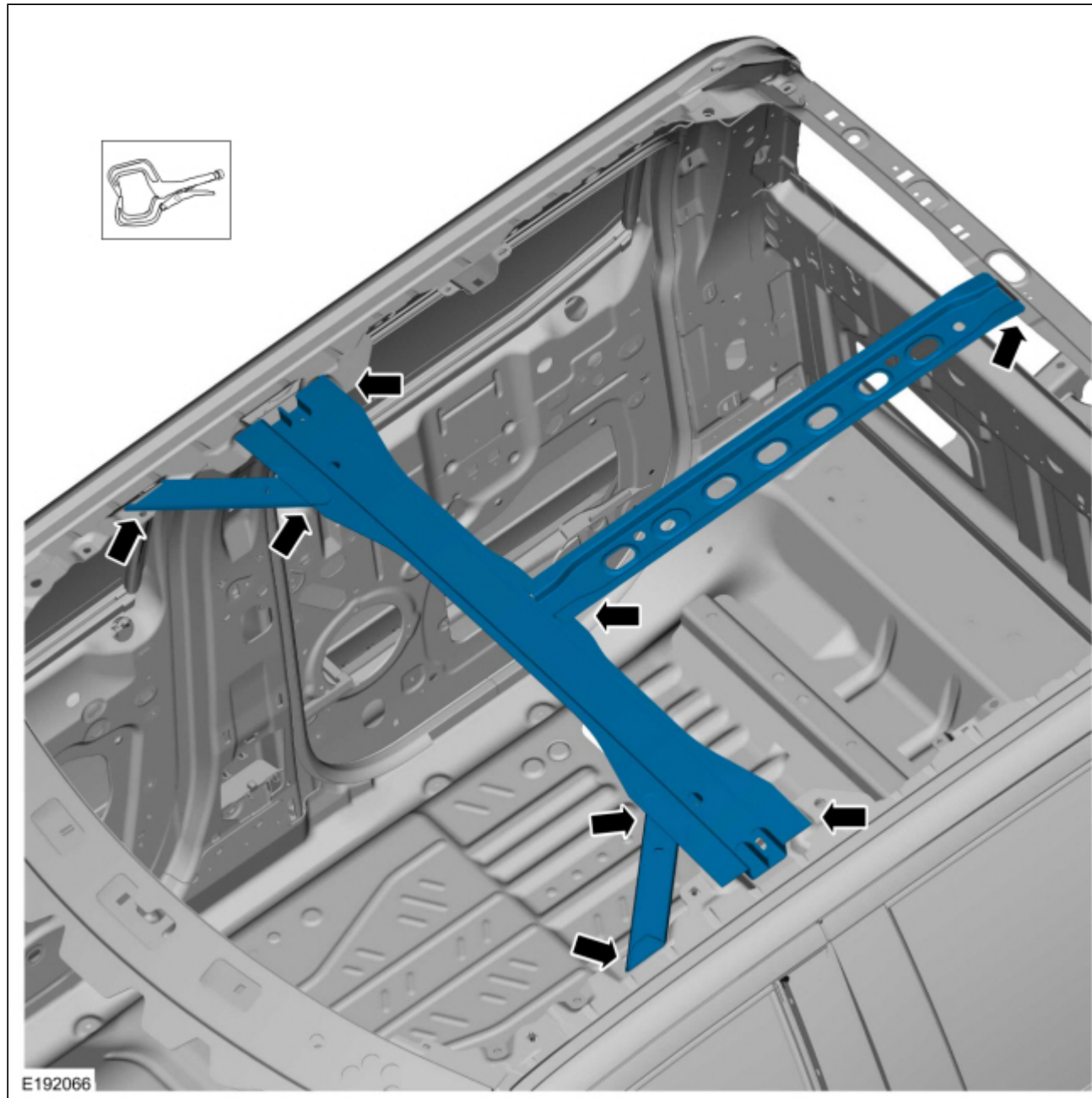


Installation

NOTE: SPR fasteners may not be placed directly over original SPR location. They must be placed adjacent to original location matching original quantity.

NOTE: Solid rivets or blind fasteners may be used in place of SPR fasteners after enlarging the existing hole to 6.5 mm.

1. Install the roof reinforcement and clamp in position.
Use the General Equipment: Locking Pliers



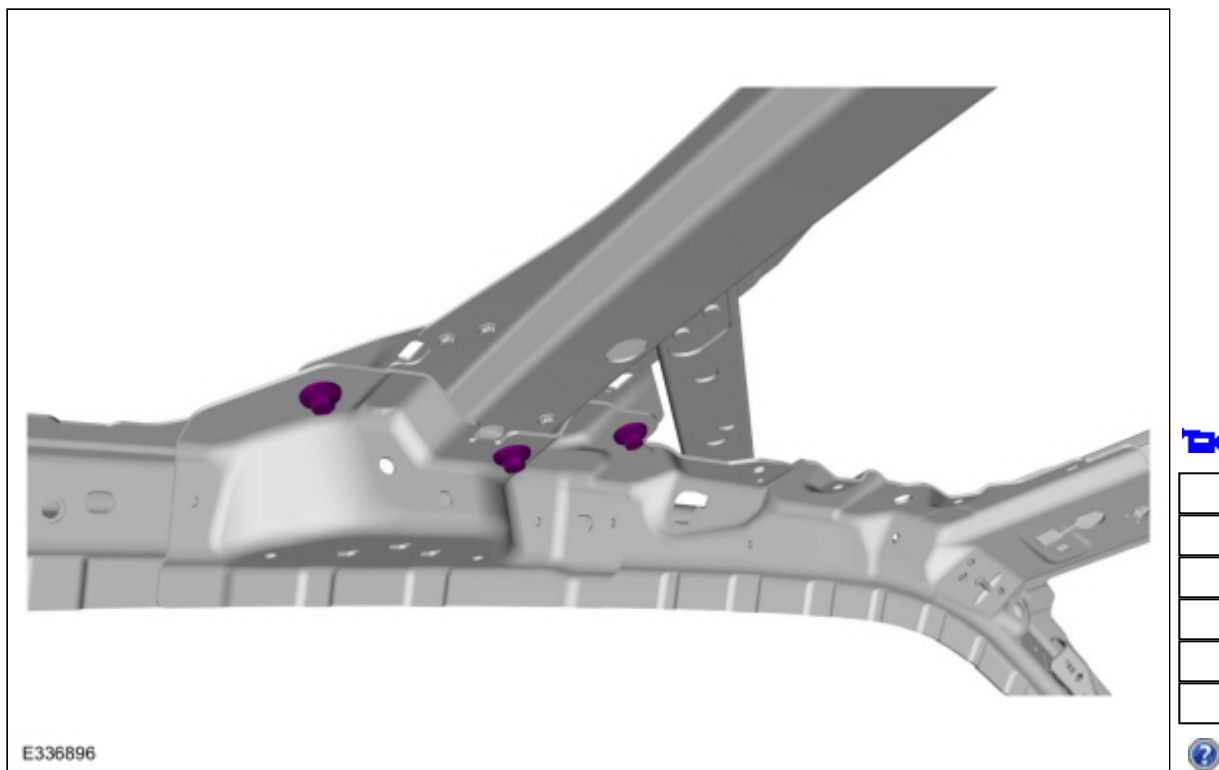
2. Drill 6.5 mm rivet holes as indicated.
Use the General Equipment: 6.5 mm Drill Bit



3. On Both Sides:

Install the fasteners.

Torque: 30 lb.ft (40 Nm)



4. NOTE: SPR fasteners may not be placed directly over original SPR location. They must be placed adjacent to original location matching original quantity.

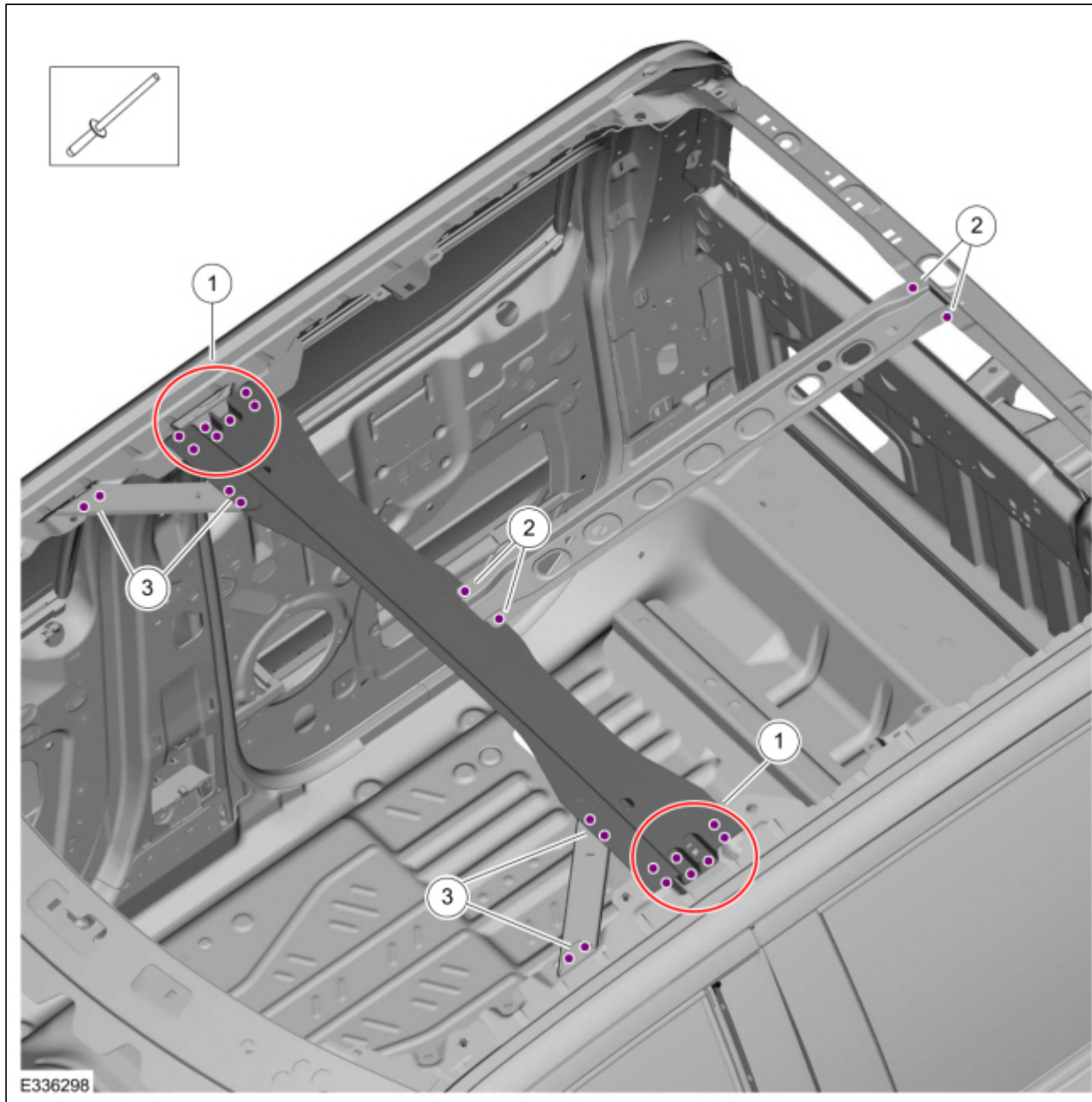
NOTE: Solid rivets or blind fasteners may be used in place of SPR fasteners after enlarging the existing hole to 6.5 mm.

Install fasteners.

Item	SPR Number	SPR Code	Henrob®, Car-OLiner®, CMO®, Chief®, Spanesi®, Wielander and Schill® Mandrel	Pro-Spot® Mandrel	Blind Rivet	Solid Rivet	Rivnut®
1	W710246-S900	BN	DG10-200/H	-	W708777-S900C	-	-
2	W713404-S900	FC	DZ09-025/H	-	W702512-S900C	-	-
3	W717338-S900	EM	DP11- 225/H	-	-	-	-

Refer to: [Joining Techniques](#) (501-25 Body Repairs - General Information, General Procedures).
Use the General Equipment: Blind Rivet Gun





5. Install the roof outer panel.

Refer to: [Roof Panel - SuperCrew](#) (501-28 Roof Sheet Metal Repairs, Removal and Installation).

© Copyright 2021, Ford Motor Company.

