

SECTION 501-35: Body Repairs
GENERAL PROCEDURES

2014 F-150 Workshop Manual
Procedure revision date: 10/25/2013

Sectioning Guidelines

General Equipment

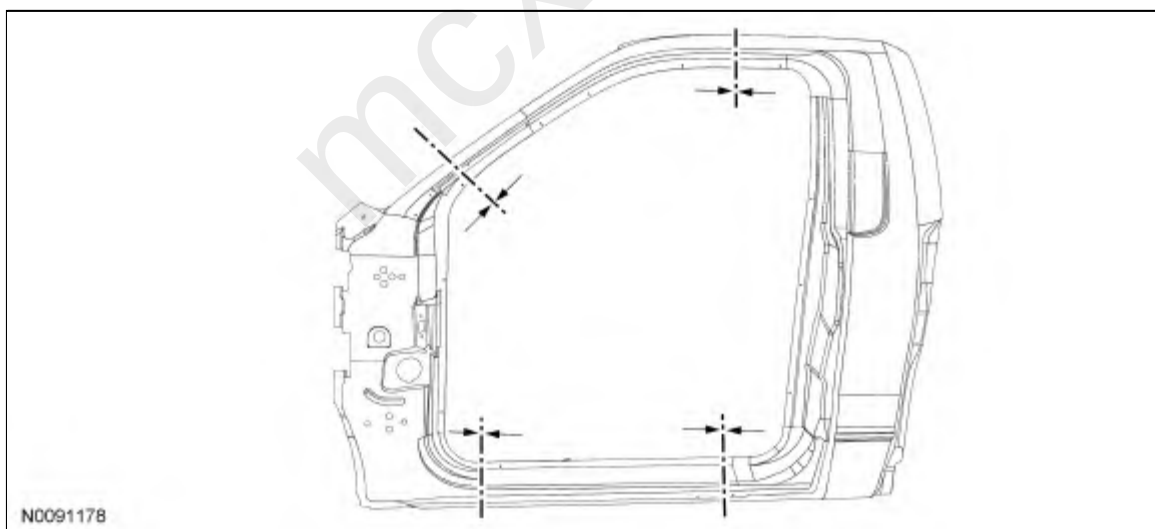
3 Phase Inverter Spot Welder 254-00002
Compuspot 700F Welder 190-50080
I4 Inverter Spot Welder 254-00014
Inverter Welder with MIG Welder 254-00015

Material

Item	Specification
Motorcraft® Premium Undercoating PM-25-A	—
Rust Inhibitor ValuGard™ VG104, VG104A (aerosol)	—
Seam Sealer TA-2	—

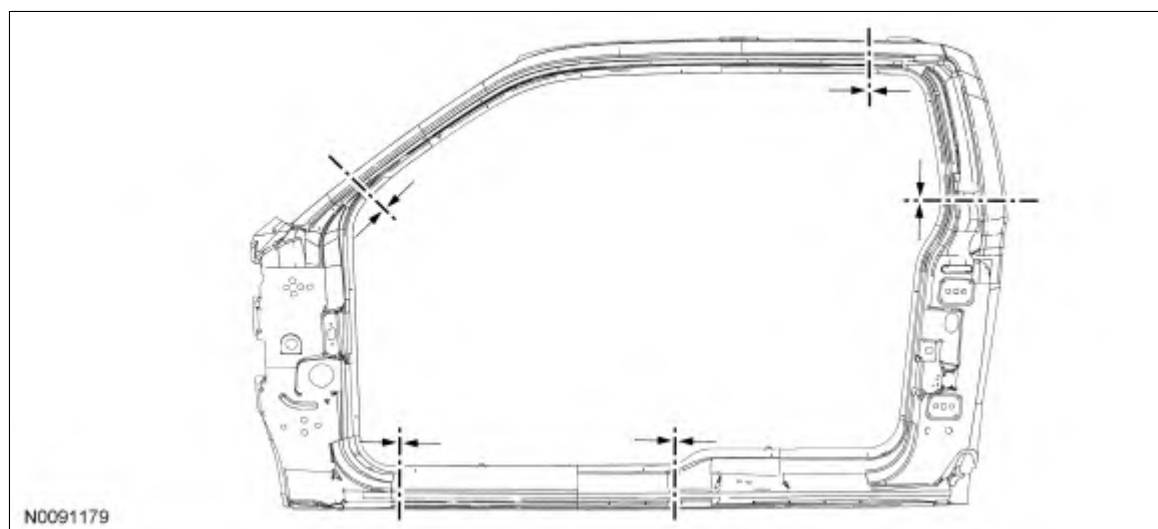
Regular Cab

NOTE: Left side shown, right side similar.



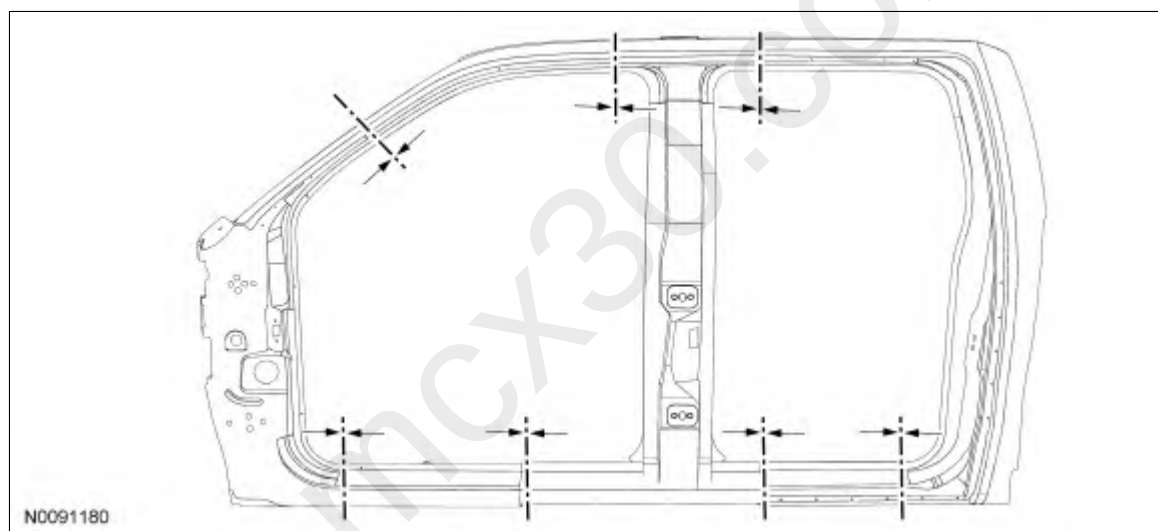
SuperCab

NOTE: Left side shown, right side similar.



SuperCrew

NOTE: Left side shown, right side similar.



⚠ WARNING: Collision damage repair must conform to the instructions contained in this workshop manual. Replacement components must be new, genuine Ford Motor Company parts. Recycled, salvaged, aftermarket or reconditioned parts (including body parts, wheels or safety restraint components) are not authorized by Ford.

Departure from the instructions provided in this manual, including alternate repair methods or the use of substitute components, risks compromising crash safety. Failure to follow these instructions may adversely affect structural integrity and crash safety performance, which could result in serious personal injury to vehicle occupants in a crash.

⚠ WARNING: Invisible ultraviolet and infrared rays emitted in welding can injure unprotected eyes and skin. Always use protection such as a welder's helmet with dark-colored filter lenses of the correct density. Electric welding will produce intense radiation, therefore, filter plate lenses of the deepest shade providing adequate visibility are recommended. It is strongly recommended that persons working in the weld area wear flash safety goggles. Also wear protective clothing. Failure to

follow these instructions may result in serious personal injury.



WARNING: Do not carry out body side sectioning repairs in areas of laser welds. Factory laser welds cannot be duplicated with conventional welding equipment and structural integrity may be compromised. Failure to follow this instruction may result in serious injury to vehicle occupant(s).



WARNING: Do not cut or grind body side components within 50 mm (1.96 in) of restraint anchoring points. Welding within 50 mm (1.96 in) of restraint anchoring points may result in incorrect operation of restraint devices. For additional restraints anchoring location information, refer to [Section 501-20A](#) and [Section 501-20B](#). Failure to follow these instructions may result in serious injury to vehicle occupant(s).



WARNING: Do not carry out body side sectioning repairs in areas of door hinge or striker anchoring points. Welding within 50 mm (1.96 in) of door hinge or striker locations may compromise structural integrity during a collision. Failure to follow these instructions may result in serious injury to vehicle occupant(s).

NOTICE: Electronic modules and related wiring may be damaged when exposed to heat from welding procedures. Carefully disconnect and remove, or position away from heat affected areas. For additional information, refer to [Welding Precautions — Steel](#) in this section.

1. **NOTICE:** Sectioning procedures can only be carried out on the outer body side panel. No sectioning repairs can be carried out on inner reinforcement panels. Failure to follow these instructions may compromise structural integrity of the cab structure.

Correct vehicle dimensions must be maintained when carrying out sectioning procedures to body side panels or pillar areas. Refer to [Body](#) for dimensional information.

2. **NOTE:** Factory spot welds may be substituted with either Squeeze-Type Resistance Spot Welding (STRW) or Metal Inert Gas (MIG) plug welds. Spot/plug welds should equal factory welds in both location and quantity. Do not place a new spot weld directly over an original weld location. Plug weld hole should equal 8 mm (0.31 in) diameter.

Corrosion protection needs to be restored whenever it is necessary to sand or grind through painted surfaces or E-coat, or when bare metal repairs are carried out. For additional information, refer to [Restoring Corrosion Protection Following Repair](#) in this section.

3. Detrim the vehicle as necessary and drill out the spot welds from the damaged area. Using an air chisel or reciprocating saw, cut off the portion of the panel to be replaced.
4. Where possible, create a backer piece using a portion of the old panel. This will create a stronger joint.
5. When welding overlapping surfaces or substrates, apply a weld-through between the surfaces prior to welding. When the surfaces have been welded, apply corrosion protection material to the surfaces or substrates.
 - Make sure horizontal joints and flanges are correctly sealed with seam sealer to prevent moisture intrusion. Water and moisture migrate to horizontal joints and corrosion tends to occur more rapidly in these areas. Metal surfaces must be clean and dry before applying seam sealer.
6. Proceed with refinish procedures following Ford-approved paint guidelines. After refinishing, apply corrosion protection material as required.

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