

Joining Techniques

Special Tool(s) / General Equipment

Resistance Spotwelding Equipment
Grinder
Plasma Cutter
Air Body Saw
8 mm Drill Bit
MIG/MAG Welding Equipment
Spot Weld Drill Bit

Materials

Name	Specification
Metal Bonding Adhesive TA-1, TA-1-B, 3Mâ„¸ 08115, LORD FusorÂ® 108B	-
Seam Sealer TA-2-B, 3Mâ„¸ 08308, LORD FusorÂ® 805DTM	-
MotorcraftÂ® Metal Surface Prep ZC-31-A	-
ValuGardâ„¸ Premium Undercoating VG101, VG101A	-
ValuGardâ„¸ Rust Inhibitor VG104, VG104A	-

Repair

NOTE: Weld Bonding - Squeeze-Type Resistance Spot Welding (STRW) Method

1. **WARNING:** Before beginning any service procedure in this section, REFER to Safety Warnings in section 100-00 General Information. Failure to follow this instruction may result in serious personal injury.

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

2. Verify the vehicle is dimensionally correct on a frame machine. Straighten if necessary.
3. Remove damaged panels. Remove only large portions of the damaged panel. Avoid cutting into mating flanges or adjacent parts.
Use the General Equipment: Air Body Saw
Use the General Equipment: Plasma Cutter
4. Drill out the spot welds and remove the remaining portions of the panel to be replaced.
Use the General Equipment: Spot Weld Drill Bit
5. Prepare any damaged flanges on the vehicle using hammer and dolly.
6. Grind the mating surface of the original flanges no greater than 25 mm (0.9843 in) where the metal bonding adhesive will be applied.
7. Be sure to remove galvanizing on metal. Metal should have a shiny appearance. Be careful not to damage the corners or thin the metal. The E-coat should also be removed on the opposite side of the flange only where the spot welds are to be placed. Clean surfaces with surface prep.
Material: MotorcraftÂ® Metal Surface Prep / ZC-31-A
8. Dry-fit and clamp the replacement service parts to verify a correct fit.
9. Remove the service part after verifying correct fit and alignment.
10. Prepare the adhesive. Dispense a small amount of adhesive from the cartridge to make sure of an even flow of both components. Attach the