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1997 JEEP Grand Cherokee OEM Service and Repair Workshop Manual

Go to manual page

Sample

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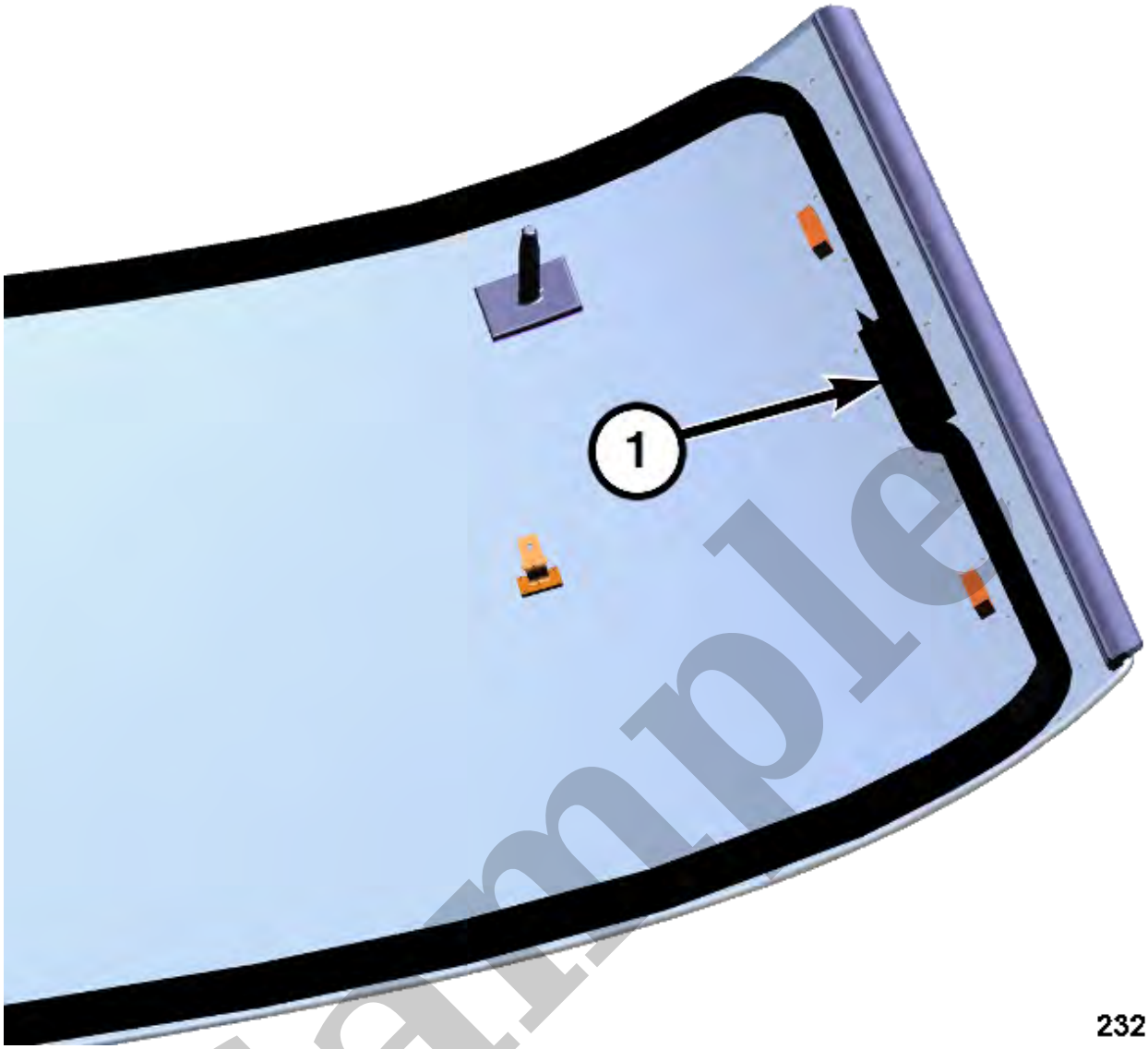
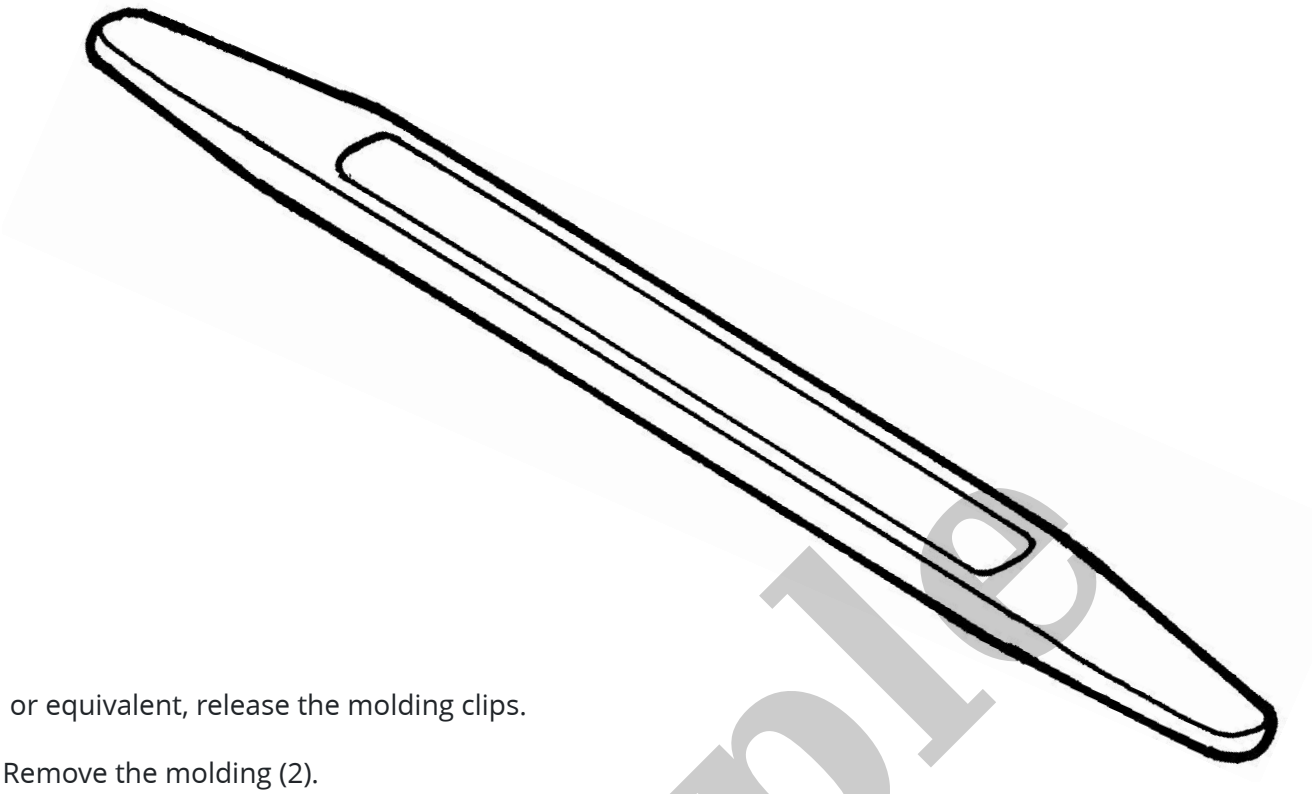


19. Run the end of the adhesive bead (1) on the liftgate glass parallel to the start of the bead and smooth the ends flush.

NOTE

Make sure there are no gaps present in the adhesive bead and ends.

Sample



or equivalent, release the molding clips.

4. Remove the molding (2).

Sample

9. Apply pinch weld primer 25 mm (1 in) wide around the quarter glass fence. Allow at least three minutes drying time.
10. Using a flashlight, verify that the primer is completely and evenly installed along the quarter glass fence.
11. Re-prime any area that is not fully and evenly primed.

CAUTION

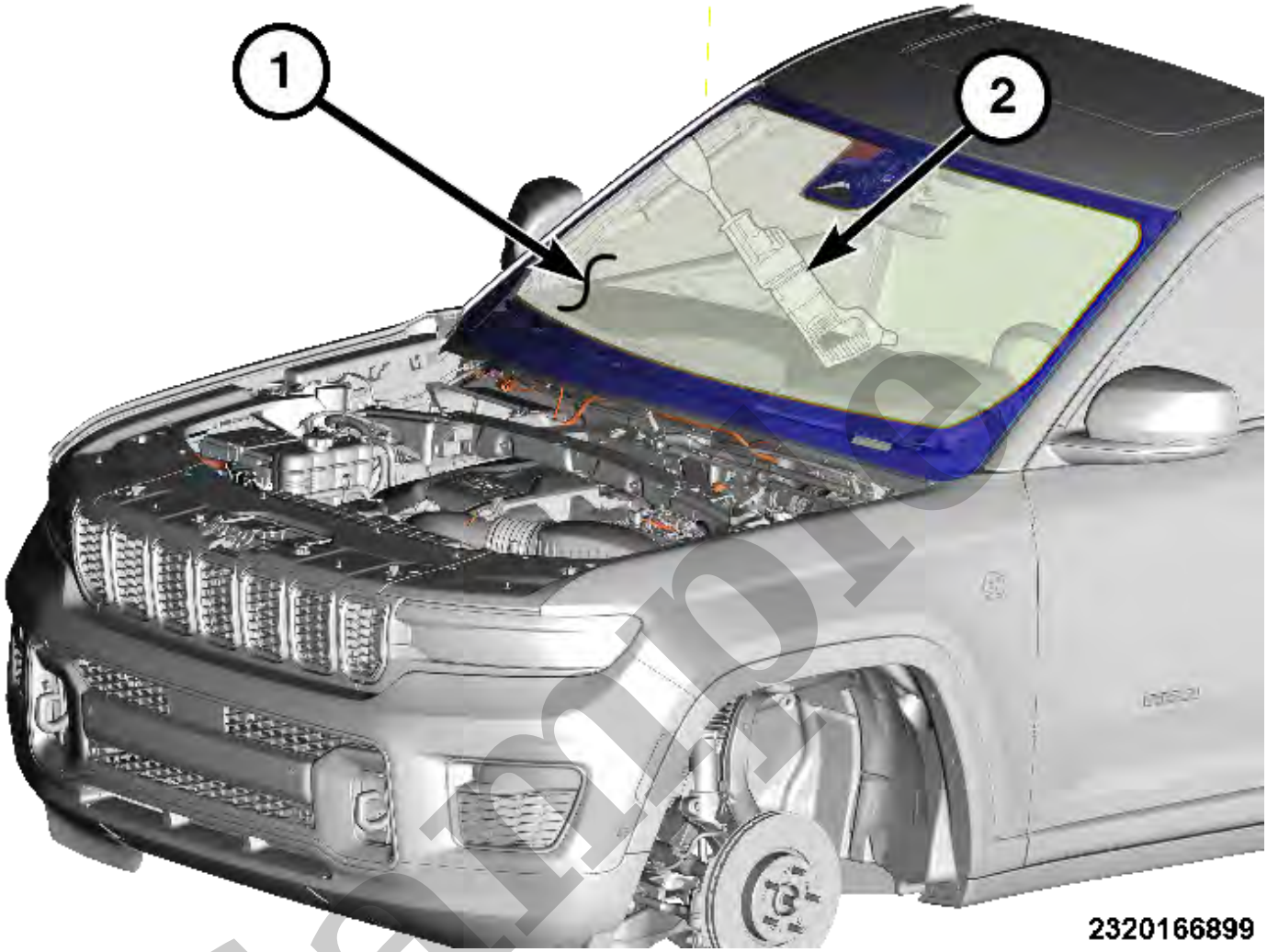
Always apply the bead of adhesive to the quarter glass. Always install the quarter glass within 5 minutes after applying the adhesive.

NOTE

If the original urethane adhesive has been exposed for more than 12 hours, the entire adhesive area will need to be re-primed prior to installing new adhesive.

12. Apply approximately a 7 mm (0.275 in) wide and 13 mm (0.50 in) tall bead of adhesive with a triangular nozzle approximately 6 mm (0.230 in) from the edge of the glass seal starting at the bottom center of the quarter glass.
13. Run the end of the adhesive bead (1) on the quarter glass (2) parallel to the start of the bead and smooth the ends flush.

Sample

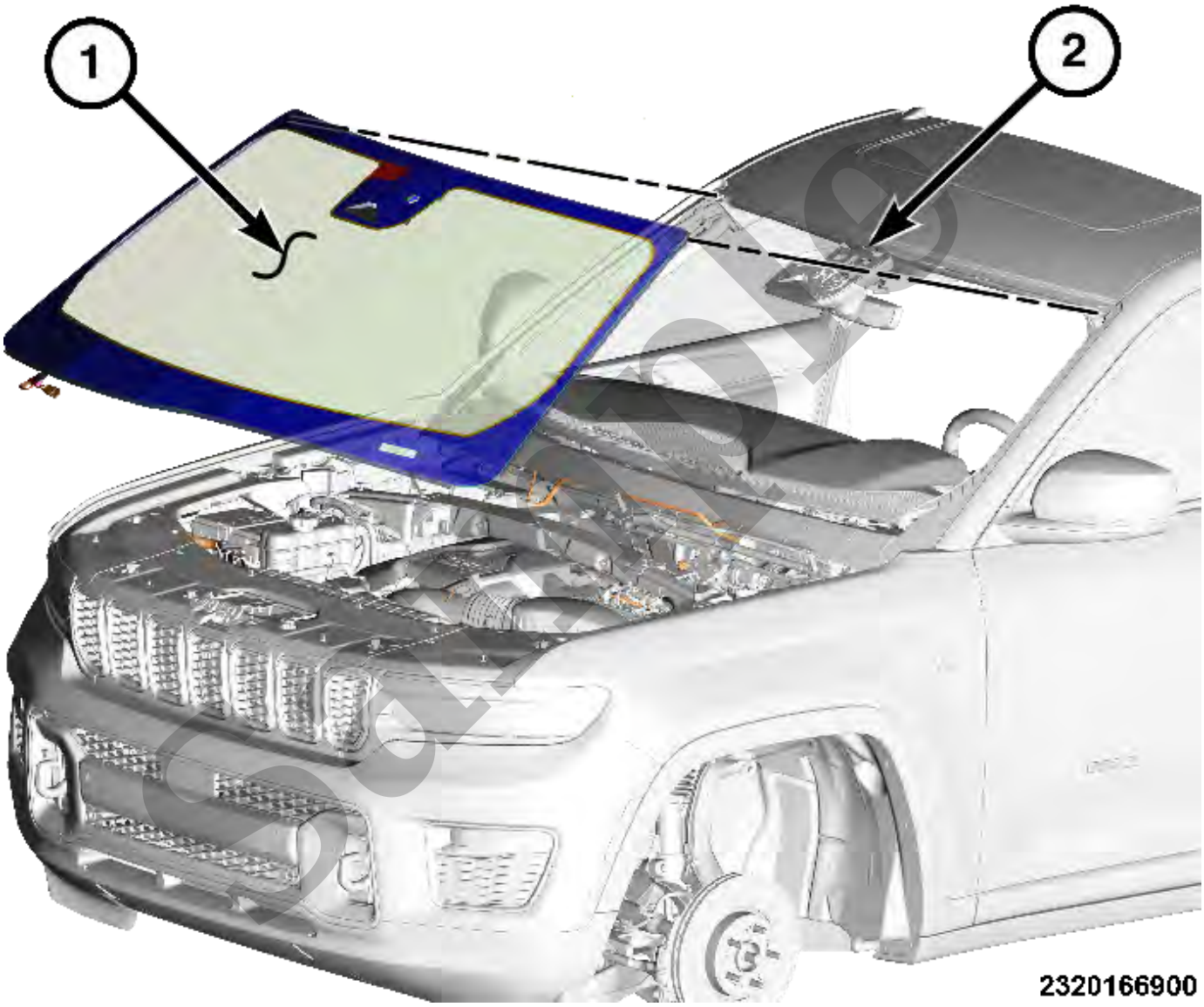


7. Using an assistant and a windshield cut-out tool (1), cut and separate the urethane adhesive securing the windshield to the windshield fence.

Sample

The windshield fence should be cleaned of most of its old urethane adhesive. A small amount of old urethane, approximately 1 mm in height should remain on the fence. Do not completely remove all old urethane from the fence, the paint finish and bonding strength will be adversely affected.

2. Using a razor knife (1), level the original bead of urethane (2) on the windshield fence (3) to a thickness of approximately 1 mm (0.04 in.) and remove the loose adhesive.



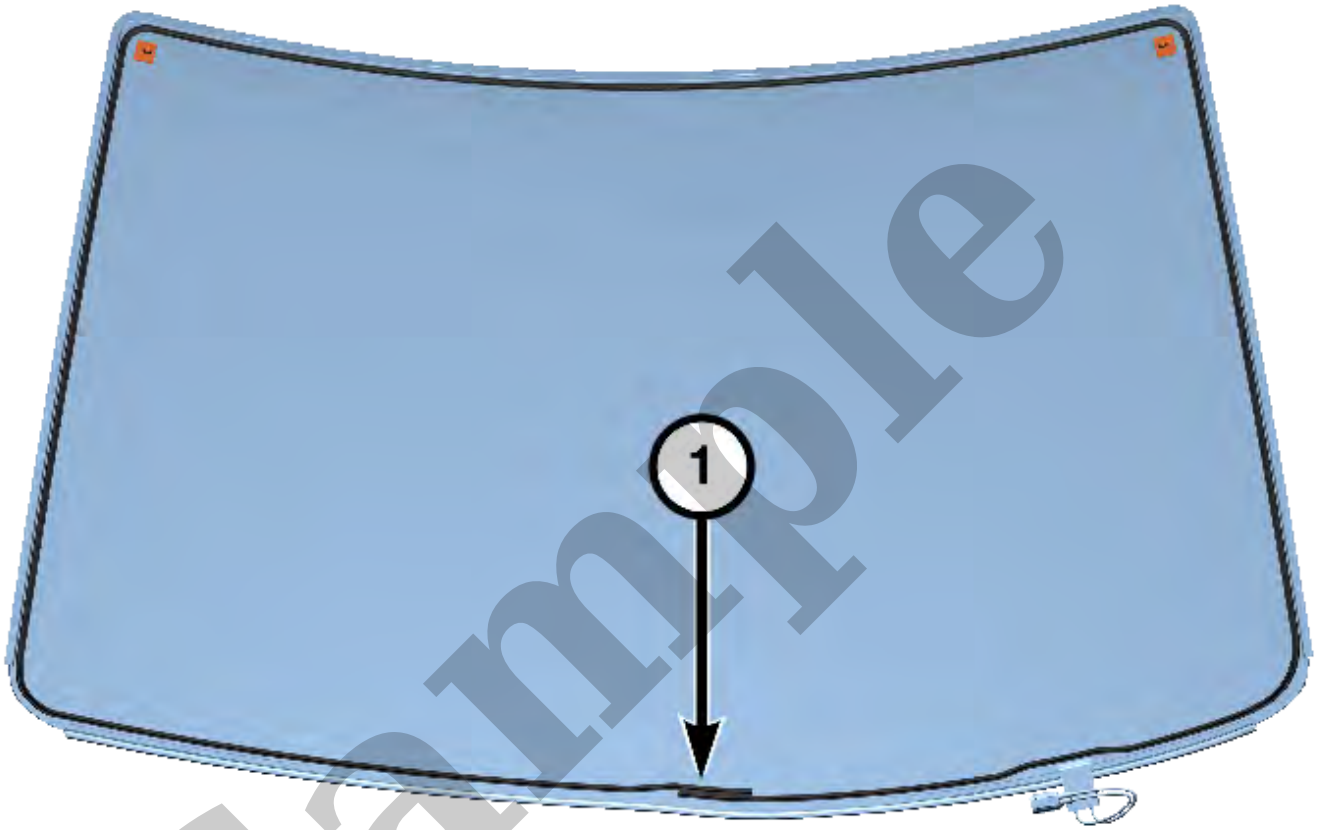
3. Using an assistant, position the windshield into the windshield opening and against the windshield fence (1).

4. Verify the windshield lays evenly against the fence at the top, bottom and sides of the opening. If not, the fence must be formed to the shape of the windshield.

5. Mark the windshield and the windshield fence with pieces of masking tape to use as a reference for installation.

NOTE

Make sure the bead of adhesive is placed on the primer fully.



Sample

17. Run the end of the adhesive bead (1) on the windshield parallel to the start of the bead and smooth the ends flush.

NOTE

Make sure there are no gaps present in the adhesive bead and ends.

Failure to follow these instructions may result in possible serious or fatal injury.

Welding

- Comply with all federal, state and local regulations to avoid any injuries due to shock, fires, fumes, sparks and liquids.
- All flammable materials or liquid should be stored in tightly sealed and labeled containers, and used only in well ventilated areas.
- No spark producing equipment should be permitted in any area where flammable materials are being handled or stored.

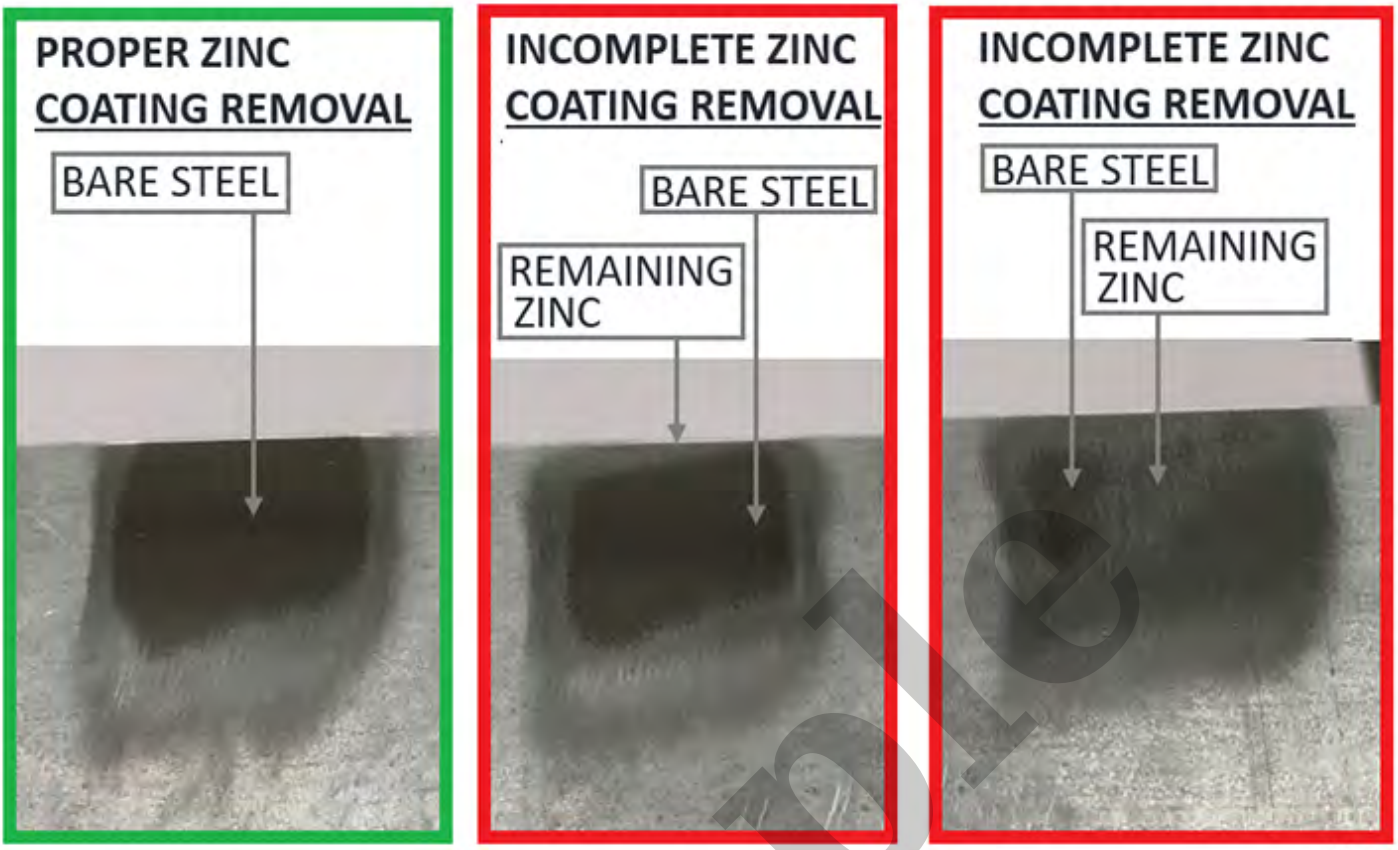
Adhesives:

- Safety Data Sheets (SDS) must be available and understood before adhesives are handled.
- All personnel should be instructed on the proper procedures to prevent skin contact with solvents, curing agents, and uncured base adhesives, which could cause allergic reactions or sensitization.

Introduction

The purpose of this document is to clearly explain the welding options available to the collision repair technician and how to determine that welding repairs are made properly. The primary types of welding covered in this section are Squeeze Type Resistant Spot Welding (STRSW), Gas Metal Arc Welding (GMAW), Metal Inert Gas (MIG) Brazing and Weld Bonding (a combination of STRSW and structural adhesive). Proper training and weld testing are required to ensure that a safe, high quality, vehicle repair is made.

Sample



- It is critical to remove zinc completely to ensure welding is performed on bare steel.
- Proper zinc removal will become evident during grinding as the metallic surface color tone changes and stabilizes to a uniform appearance, indicating the bare steel substrate has been reached.
- Damage or thinning of the steel from excessive grinding shall be avoided.

Modified Lap Joint

NOTE

Parts shown for example purposes only. Emphasis is on joint design and proper plug weld placement.

Modified Lap Joint

Sample

body panels.

Weld Processes

Squeeze Type Resistance Spot Welding (STRSW)

Applications

- With advancements in equipment technologies, such as computer program controlled and inverters, STRSW is not restricted to light gauge sheet metal any longer. Heavier gauges of high strength and coated steel, currently used in vehicle structures, can now be welded in the field, providing destructive testing is performed on each combination. This is to ensure quality welds are being maintained.

Equipment Requirements

- Equipment must produce two sided welds
- Equipment must have been tested to SAE J2667 with satisfactory results obtained
- Equipment must have the capability to create welds that comply with the Minimum Weld Nugget Requirement Chart
- Technician must have the appropriate sheet metal measuring equipment to ensure their welds meet the minimum weld nugget size for the actual panels being welded

Gas Metal Arc Welding (GMAW) or "MIG"

Applications

- Sheet metal repairs where STRSW is not available or practical, and truck frame repairs.
- The most common usage of GMAW on uncoated or galvanneal coated steel will utilize a 75% Argon - 25% CO2 shielding gas mix, and AWS specification ER70S6 wire. When welding galvanized material, Flux Core Arc Welding (FCAW) using AWS specification E71T-GS wire should be used to avoid weld porosity from the zinc in the galvanizing.

Weld Process

COMPONENT PARTS	**TRUCK FRAME**		**BODYSHELL EXTERIOR & UNDERBODY PANELS**			
	Zinc and Zinc Iron Alloy coated sheet steels					
WELDING PROCESS	GAS METAL ARC (Note: 1)	FLUX CORED ARC	GAS METAL ARC (Note: 1)	MIG BRAZE (Note: 2)	GAS METAL ARC (Note: 1)	FLUX CORED ARC
Material Type	High Strength and Structural Quality Steels which includes HSLA, Martensitic, and Dual Phase materials					

Sample