

2023 SKILLS AUTO BODY REPAIR WELDING – POST SECONDARY

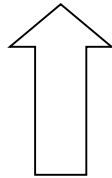
Structural Panel Sectioning Project Task Sheet Project “A” B Pillar Sectioning

READ ALL INSTRUCTIONS BEFORE BEGINNING

Duration: 3 Hours

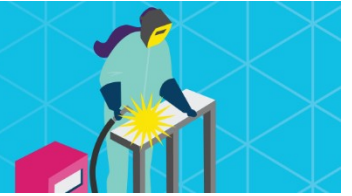
ALL WELDING AND FINAL STEP GRINDING ON THE VEHICLE PANEL MUST BE DONE WITH THE PANEL IN A VERTICAL / UPRIGHT POSITION IN VISE

**ARROW INDICATES
TOP OF VEHICLE**



Instructions

- All corrosion protection must be replaced.
- Be sure to mark out your project **prior** to cutting. Double-check your measurements.
- Join the vehicle component, and the recycled component using a straight-cut **butt joint with an insert** (backing) on the outer panel and an offset open butt joint on the inner panel.
- The overall length of the **completed** sectioned panel **must** be the same as the original vehicle component (406 +/-1mm).
- Vehicle component inner panel cut is to be offset from the outer panel cut by 40mm.
- Vehicle component inner panel requires an **open butt joint** that is welded from outside
- Any spot welds that have been removed must be replaced with plug welds.
- Plug welds are 8mm (15/16^{ths})
- Allow for heat control, even spacing, and esthetics.
- All welds will be measured using the I-CAR specifications for welds
- All welds must have continuous **fusion**, however, they can be stitch welds



#1 Measure from the VEHICLE TOP 406mm cut through the outer and inner as one clean cut. *THE “SHORT PIECE” LEFT OVER IS YOUR “SALVAGE COMPONENT”*

Vehicle Component

1. Cut the **outer** portion of the pillar 160mm, and remove the outer section.
2. Trim the inner panel back to provide the required offset for the **open butt weld**
3. Separate the required spot welds to complete the process.

Recycled Component

1. Cut the **salvage** panel at the correct measurement to maintain the original panel component length, ensuring not to **cut through** the inner panel.
2. Trim the **inner** panel to provide the required amount of offset to mate properly with the Vehicle Component offset for the open butt joint. Be sure to allow for a **root gap** and maintain the overall “B” pillar length.
3. Separate the required spot welds to complete the process.
4. Using a piece of **removed vehicle** outer panel, create an insert 50 mm in width to fit into the recycled component.
5. Correctly position the insert into the vehicle component allowing it to be plug welded in position. Use one (1) plug weld on each side and two (2) on the face of each section. Be certain to space the plug welds evenly. Trim components to allow for a **root gap** and maintain the “B” pillars’ overall length.

Assembling the Component

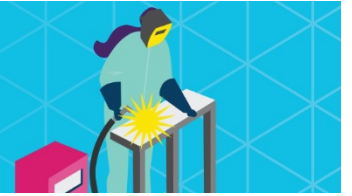
1. Assemble the components, test fit and re-measure.



2. Call the judge over **BEFORE ANY WELDING TAKES PLACE**



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3. Apply weld through primer in required locations
4. weld together using industry-accepted methods.
5. Finish grind (Dress) one-half (1/2) of the outer surface of the welded component.

Completed project panel to be presented to the exam marker when finished.