

# 2022 SKILLS AUTO BODY REPAIR

## WELDING - SECONDARY

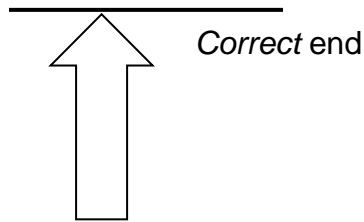
### STRUCTURAL PANEL SECTIONING PROJECT Task Sheet Project “A” B Pillar Sectioning

**READ ALL INSTRUCTIONS BEFORE BEGINNING**

Duration: 6 Hours

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

**ARROW  
INDICATES TOP  
OF VEHICLE**



#### Instructions

- All corrosion protection must be replaced.
- Mark components *Vehicle* and *salvage/recycled* and the *direction* before starting.
- Join the vehicle component and the recycled component using a straight cut butt joint with backing.
- The overall length of the sectioned panel must be the same as the original vehicle component\* (303 +/- 1mm). *\*due to manufacturing processes exact on site length may vary... be sure to record your components original length.*
- Any spot welds that have been removed must be replaced with plug welds.
- Be aware to apply heat control techniques during the welding portion of the project
- All plug weld holes will be 8mm
- Read all instructions thoroughly before beginning, double check as you work

### Vehicle Component

1. Cut outer panel 160mm measuring from the *correct* end. Leave inner/backing panel full length. Be sure not to cut into backing panel. Remove spot welds as per industry standard, avoid damaging the backing piece. Remove outer skin.
2. Using the piece that was removed, fashion an insert/sleeve 50mm wide.
3. Prepare plug weld locations on panel for the sleeve. Use two (2) 8mm plugs on the top (face) and two (2) 8mm plugs on each side. Make sure plug weld locations are spaced evenly for heat control and esthetics

### STOP for Judges to mark (on site instructor to visually inspect)

### Recycled/Salvage Component

1. Cut the outer panel of your salvage component at the 157mm mark, measuring from the *correct* end.
2. Trim to fit allowing for proper root gap at the butt with backing joint location on the vehicle component (*root gap should allow for penetration into the sleeve*)
3. Prepare the salvage piece, the sleeve, and the inner/backing panel of the vehicle component for welding.
4. Prepare the plug weld holes for the butt with backing joint on the salvage section. Use two (2) 8mm plugs on the top (face) and two (2) 8mm plugs on each side.

### STOP for Judges to Mark (on site instructor to visually inspect)

### Assemble Component:

1. Double check fit and measurements, be certain **ALL** steps are accounted for
2. Set up welder and preform test welds on **scrap portions** of components prior to welding project
3. Assemble the components in the defined position in the vice and weld together using industry accepted methods.
4. Continuous weld the butt joint with backing using heat control techniques
5. Replace the spot weld locations in the salvage section with plug welds.
6. Finish grind one half (1/2) of the outer surface of the welded component.

**Mark your project with your competitor number only \*\*\*NO NAMES\*\*\* this will be sent for judging off site.**