

## Collision Repair Contest

### **Purpose:**

To evaluate each contestant's preparation for employment and to recognize outstanding students for excellence and professionalism in the field of collision repair.

### **Clothing Requirements:**

Work uniform, leather work shoes (leather or canvas athletic shoes are not acceptable), clear lens safety glasses with side shields or goggles (prescription glasses can be used only if they are equipped with side shields. If not they must be covered with goggles).

### **Eligibility:**

Open to active SkillsUSA members enrolled in programs with collision repair as the occupational objective.

### **Equipment and Materials:**

#### **SUPPLIED BY TECHNICAL COMMITTEE**

1. Basic equipment of a collision repair laboratory
  - a. Milton 777 male air fitting
2. Material for metal working phase
  - a. Similar panels and damage to be repaired by contestants
  - b. Plastic filler and polyester filler
  - c. Various grits of sand paper (6" Hookit dust free discs)
3. Materials for plastic repair phase
  - a. Cleaning solvent
  - b. Plastic repair material
  - c. Abrasive discs and sheets
  - d. Plastic bumper parts
  - e. Clamps
4. Materials for handwritten estimate phase
  - a. Vehicle with or without damage to inspect and document (if not damaged, a list of damage will be provided)
  - b. Copies of appropriate crash manual pages for vehicle
  - c. Copies of P pages as needed
  - d. Handwritten estimate sheets
5. Materials for the welding phase
  - a. Weld stations with proper ventilation
  - b. Lincoln 140C welders in operating order

- d. Precut metal coupons
- e. Vice-grip clamps to secure work pieces

**SUPPLIED BY CONTESTANT**

- 1. Body files
- 2. Body hammers and dollies
- 3. General purpose tools
- 4. Dust masks
- 5. Ear protection
- 6. Metal grinder(s)
- 7. Cartridge style organic vapor respirator
- 8. DA sander (6" Hookit dust free pad)
- 9. Welding gloves, jacket, helmet
- 10. Other special hands tools
- 11. Eye protection
- 12. Sanding boards and blocks
- 13. Squeegees
- 14. Calculator

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**Contest Specifications:**

Contestants will demonstrate their ability to perform tasks selected from the following list of competencies:

- 1. METAL WORKING
  - a. Straighten a damaged panel to conform to the original contour
  - b. Finishing worked panel with plastic/polyester type body filler and feathering final bodywork ready for primer
  - c. Overall appearance of finished product will conform to the following:
    - 1. Panel will conform to original contour
    - 2. Panel will be free of rough sand scratches and pin holes
- 2. WELDING
  - a. Ability to set up and use a MIG welder in a proper manner
  - b. Ability to set up the equipment and the preparation of pieces of metal to be welded
  - c. Turning off the welder after usage
  - d. Using MIG welding equipment to
    - Complete a plug weld according to I-Car specs
    - Complete a butt weld according to I-Car specs
    - Complete a lap weld according to I-Car specs
- 3. PLASTIC REPAIR
  - a. Proper cleaning techniques prior to repair

- b. Proper repair procedures according to manufacturer's instructions on preparing, mixing and applying product to the repair surface
  - c. Finished repair appearance and texture
4. ESTIMATE WRITING
- a. Documentation of all vehicle information
  - b. Estimate preparation on information presented
  - c. Calculation of necessary procedures according to P pages as provided
  - d. Proper sequences followed in estimate preparation
  - e. Calculation of labor times and material according to information provided
  - f. Neatness and readability

### Safety Requirements:

Any contestant that violates any safety requirements and has to be reminded twice will be removed from the completion

1. Demonstrate ability to observe all common safety rules
2. Demonstrate how to use tools and equipment in safe manner
3. Work uniforms
4. Leather work shoes
5. Clear lens safety glasses with side shields or goggles (prescription glasses may be used only if they are equipped with side shields. If not, they must be covered with goggles).
6. All department/school names must be removed prior to the competition

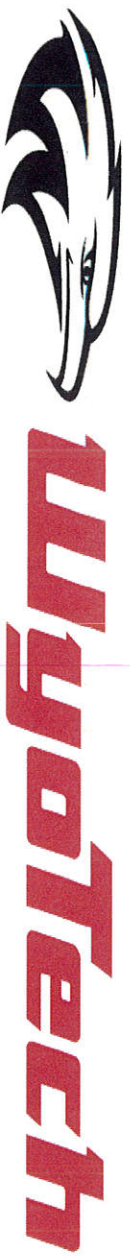
Collision Repair Technology- Score Sheet		Contestants									
1. Metal Repair (Fender)	Value	1	2	3	4	5	6	7	8	9	10
<b>Safety</b>											
Used Safety glasses or goggles/ face shield	3										
Use Dust mask or respirator	3										
Use gloves/ear plugs	3										
<b>Prep</b>											
Analyzed Damage (identify high spots & low spots)	2										
Clean Panel	1										
<b>Metal Work</b>											
Restore to Contour (remove high & low spots)	3										
Final Contour/ Finish	10										
<b>Scoring Sub Total</b>	<b>25</b>										



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## Collision Repair Technology- Score Sheet

	Value																		
<b>2. Plastic Filler (Fender)</b>	Value	1	2	3	4	5	6	7	8	9	10								
<b>Safety</b>																			
Used Safety glasses or goggles/ face shield	3																		
Use Dust mask or respirator	3																		
Use gloves/ear plugs	3																		
<b>Prep</b>																			
Paint removed/sanded proper grit	2																		
Cleaned panel	1																		
<b>Filler</b>																			
Mixing: proper ratio/proper mixing procedure amount needed for task	2																		
Cleaned equipment (spreader, board)	1																		
<b>Sanding</b>																			
Use proper grit	1																		
Sand to Contour	2																		
Feather Edges	2																		
Final application matches contour/ pinholes/no aggressive sand scratches / primer ready	10																		
<b>Scoring Sub Total</b>	30																		





### Collision Repair Technology - Score Sheet

	Value	1	2	3	4	5	6	7	8	9	10
<b>3. Plastic Repair (Bumper)</b>											
<b>Safety</b>											
Used Safety glasses or goggles/ face shield	3										
Use Dust mask or respirator	3										
Use gloves/ear plugs	2										
<b>Prep</b>											
Paint removed/sanded proper grit	2										
Panel properly cleaned	1										
<b>Repair Materials</b>											
Mixing: proper procedure, proper amt needed for task	2										
Application: Use of adhesion promoter backing material	2										
Cleaned Equipment (Spreader)	1										
<b>Sanding</b>											
Use proper grit	1										
Sand to Contour	2										
Feather Edges	1										
Final application matches contour/ pinholes/no aggressive sand scratches / primer ready	10										
<b>Scoring Sub Total</b>	30										



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### Collision Repair Technology- Score Sheet

	Value	1	2	3	4	5	6	7	8	9	10
<b>4. Estimating Information</b>											
Vehicle make,model,year	1										
(VIN, miles, paint code)											
Owner information	1										
<b>The Estimate</b>											
Proper Sequence	3										
Use of P pages	1										
Calculation of labor and materials	10										
Identify damaged parts	2										
Parts numbers	1										
Sales Tax	1										
Neatness & Readability	5										
<b>Scoring Sub Total</b>	<b>25</b>										



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### Collision Repair Technology- Score Sheet

	Value	1	2	3	4	5	6	7	8	9	10
<b>5.Welding</b>											
<b>Safety</b>											
Wear Helmet	4										
Gloves	4										
Sleeves, jacket	4										
<b>Equipment</b>											
Proper set up (gas, wire, speed, heat, ground clamp, etc.)	1										
Proper shut off	1										
<b>Welds</b>											
Proper prep of metal	1										
Plug weld vertical I-Car	5										
Butt weld w/ backing	5										
Vertical I-Car											
Lap weld vertical I-Car	5										
<b>Scoring Sub Total</b>	30										



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## Collision Repair Technology- Score Sheet

<b>6. Totals</b>	Value	1	2	3	4	5	6	7	8	9	10
Clothing	10										
Section 1: Metal Repair	25										
Section 2: Plastic Fillers	30										
Section 3: Plastic Repairs	30										
Section 4: Estimate	25										
Section 5: Welding	30										
<b>Total Score</b>	150										



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