

Collision Repair Technology
MO SkillsUSA 2022
Tool List & Contest Specifications

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*CONTACT FOR DATA SHEETS (IF DESIRED)

All items on each tool list to be supplied by the contestant:

- One page, typewritten resume
- Respirator
- Safety Glasses

METAL REPAIR Tool List (Other tools and equipment optional)

- DA sander (Hook it)
 - Interface pad for DA (Hook it)
 - Grinder
 - Hammers
 - Dollies
 - Sanding boards
 - Sanding blocks (stick it)
 - Plastic spreaders
 - Mixing board
 - Shrinking hammer and dolly
 - Air fittings and necessary wrenches**
- **Milton 791 (male) and/or Milton 792 (female) [for air tools]

PLASTIC REPAIR Tool List (Other tools)

- Safety glasses
- Respirator
- Mixing board
- Spreader
- Sanding block
- Grinder or die grinder
- DA sander
- Drill (air or electric)

WELDING Tool List

- Welding respirator
- Welding gloves
- Welding vest
- 12" ruler
- Permanent marker
- Welding helmet
- Vice Grips

Note: The welding portion will replicate the National SkillsUSA contest by using vertical and overhead welding.

FRAME ANALYSIS Tool List

- Pencil with eraser

Remember to prepare for the Professional Development Program (PDP) Knowledge test!

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Contest Specifications:

WELDING

- Using Millermatic 211 welders, MIG weld 18 gauge steel coupons in vertical and overhead positions
- Contestants will have 30 minutes total to complete all welds required in addition to having practice coupons to set up welder for each position
- Vertical welding (contestants will choose one of each for scoring)
 - 2 butt joint with backing welds
 - 2 fillet welds
 - 2 plug welds
- Overhead welds (contestants will choose one of each for scoring)
 - 2 butt joint with backing welds
 - 2 fillet welds
 - 2 plug welds
- Coupons must be clamped. No screws or tack welds

METAL WORKING

- Repair 3 dents in fender
 - Straighten dent with use of body filler
 - Metal finish dent
 - Fix dent with use of stud gun

FRAME AND STRUCTURAL ANALYSIS

- Analyze measurements from pre-installed Chief Velocity or Car –O-Liner Vision computerized measuring systems and determine damage or damages indicated by the system as well as understand and describe the forms of damage that can be found in a frame. Example: twist, sag, sway, and diamond

PLASTIC REPAIR

- Repair tear in automobile plastic bumper coupon using 3M 5887 adhesive and provided backing material
- Form tab on coupon using 3M 04240 repair material and pinning.

INTERVIEW AND TYPED RESUME

- Clothing required for the Collision Repair contest will be suitable for the interview

Pre-Contest Meeting and Contest:

Date: Friday, April 8th

Time: 8:00 a.m. – Completion

Pre-Contest Meeting Location: Vehicle & Power Center - Room 128 (ACT shop) – State Tech (7)

Doors open at 7:30 a.m. (contestants may drop off appropriate tools)

Remember to prepare for the Professional Development Program (PDP) Knowledge test!