

**Collision Repair Technology
MO SkillsUSA 2019
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

METAL REPAIR Tool List

(Other tools and equipment optional)

- ___ Respirator
- ___ Safety glasses
- ___ DA sander
- ___ Grinder
- ___ Hammers
- ___ Dollies
- ___ Sanding boards
- ___ Sanding blocks
- ___ Plastic spreaders
- ___ Mixing board
- ___ Cheese grater
- ___ 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 and equipment optional)

- ___ Safety glasses
- ___ Respirator
- ___ Mixing board
- ___ Spreader
- ___ Sanding block
- ___ Grinder or die grinder
- ___ DA sander

WELDING Tool List

- ___ Welding respirator
- ___ Welding gloves
- ___ Welding vest
- ___ 12" ruler
- ___ Permanent marker
- ___ Welding helmet (optional)

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

FRAME ANALYSIS Tool List

- ___ Tram gauge
- ___ Metric tape measure (optional)
- ___ Pencil

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

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Contest Specifications:

WELDING

- Using Lincoln 210 MP welders, mig weld 18 gauge steel coupons in vertical and overhead positions
- Contestants will have 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 filler
 - Metal finish dent
 - Shrink dent with use of stud gun

FRAME AND STRUCTURAL ANALYSIS

- Analyze pre-installed centerline gauges and determine damage or damages indicated by misalignment of the gauges
- Measure several underhood dimensions of a vehicle using a tram gauge and dimension sheet

PLASTIC REPAIR

- Repair tear in automobile plastic bumper coupon using 3M 5887 adhesive and provided backing material
- Form tab on coupon using Duramix 4247 repair material and Duramix contour sheeting

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 5

Time: 8:00 a.m. – Completion

Pre-Contest Meeting Location: Vehicle & Power Center - Room 128 - STC (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!