IDAHO
Division of Career Technical Education

2022-2023 Technical Skills Assessment
Automotive Collision Repair

Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

Assessment: Automotive Collision Repair **Number tested:** 77	% Correct 20-21	% Correct 21-22	% Correct 22-23
CONTENT STANDARD 1.0: IDENTIFY AND UTILIZE SAFETY PROCEDURES AND PROPER TOOLS	75.73%	78.38%	73.92%
Performance Standard 1.1: Demonstrate general lab safety rules and procedures	75.73%	78.38%	73.92%
1.1.1 Describe general shop safety rules and procedures (i.e., safety test)	71.56%	72.76%	67.00%
1.1.2 Utilize safe procedures for handling of tools and equipment	86.00%	92.31%	85.00%
1.1.3 Identify and use proper placement of floor jacks and jack stands	90.67%	92.31%	86.00%
1.1.4 Identify and use proper procedures for safe vehicle lift operation	84.44%	86.54%	84.33%
1.1.5 Utilize proper ventilation procedures for working within the lab/shop area	92.67%	94.71%	86.50%
1.1.6 Identify marked safety areas	72.00%	73.56%	71.00%
1.1.7 Identify the location and the types of fire extinguishers and other fire safety equipment.	88.00%	81.25%	89.00%
1.1.8 Demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment	54.00%	60.58%	54.00%
1.1.10 Identify the location of the posted evacuation routes	88.00%	88.46%	82.00%
1.1.11 Comply with the required use of PPE during lab/shop activities	60.00%	63.46%	51.00%
1.1.12 Identify and wear appropriate clothing for lab/shop activities	86.67%	88.46%	91.00%
1.1.14 Research safety aspects of supplemental restraint systems (SRS), electronic brake control systems, and hybrid vehicle high voltage circuits	26.67%	37.50%	44.00%
1.1.16 Locate and interpret safety data sheets (MSDS, SDS)	49.33%	62.50%	50.00%
CONTENT STANDARD 3.0 DEMONSTRATE DAMAGE ANALYSIS, ESTIMATING AND CUSTOMER SERVICE SKILLS	56.38%	59.07%	56.57%
Performance Standard 3.1: Identify vehicle construction and parts	54.33%	56.97%	54.50%
3.1.1 Identify type of vehicle construction (space frame, unibody, body-over-frame)	54.67%	51.92%	57.00%
3.1.4 Identify steel types; determine repairability	56.00%	63.46%	51.00%
3.1.5 Identify aluminum/magnesium components; determine repairability	66.67%	74.04%	71.00%
3.1.6 Identify plastic/composite components; determine repairability	40.00%	38.46%	39.00%

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Performance Standard 3.3: Demonstrate estimating procedures	61.33%	65.87%	63.50%
3.3.16 Determine price and source of necessary sublet operations	53.33%	64.42%	55.00%
3.3.28 Demonstrate ability to access OEM repair information	69.33%	67.31%	72.00%
Performance Standard 3.4: Demonstrate customer relations and sales skills	54.67%	53.85%	51.00%
3.4.2 Listen to customer/client; collect information and identify customers/client's concerns, needs and expectations	54.67%	53.85%	51.00%
CONTENT STANDARD 4.0 PERFORM NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR (BODY COMPONENTS)	60.29%	60.46%	57.75%
Performance Standard 4.1: Demonstrate inspection and preparation techniques	96.00%	93.91%	90.67%
4.1.3 Inspect, remove, label, store, and reinstall interior trim and components	97.33%	97.12%	94.00%
4.1.13 Verify proper operation of seatbelt	95.33%	92.31%	89.00%
Performance Standard 4.2: Perform outer body panel repairs, replacments, and adjustments	58.37%	58.01%	60.33%
4.2.1 Determine the extent of direct and indirect/hidden damage and direction of impact; develop and document a repair plan	46.67%	50.96%	43.00%
4.2.2 Inspect, remove, replace, and align hood, hood hinges, and hood latch	80.00%	85.58%	79.00%
4.2.3 Inspect, remove, replace, and align deck lid, lid hinges, and lid latch	50.67%	33.65%	43.00%
4.2.7 Inspect, remove, replace and align fenders, and related panels	70.67%	69.23%	70.00%
4.2.8 Straighten contours of damaged panels to a suitable condition for body filling or metal finishing using power tools, hand tools, and weld-on pulling attachments	68.00%	65.38%	67.00%
4.2.9 Weld damaged or torn steel body panels; repair broken welds	54.67%	55.77%	62.00%
4.2.10 Restore corrosion protection	52.00%	49.04%	53.00%
4.2.11 Restore sound deadeners and foam materials	86.67%	90.38%	94.00%
4.2.12 Perform panel bonding and weld bonding	16.00%	22.12%	32.00%
Performance Standard 4.3: Apply metal finishing and body filling techniques	56.89%	56.62%	53.33%
4.3.1 Remove paint from the damaged area of a body panel	78.67%	74.04%	81.00%
4.3.2 Locate and repair surface irregularities on a damaged body panel	44.00%	38.46%	31.00%
4.3.3 Demonstrate hammer and dolly techniques	60.00%	58.65%	60.00%
4.3.4 Heat shrinkstretched panel areas to proper contour	30.00%	33.65%	33.50%
4.3.5 Cold shrinkstretched panel areas to proper contour	44.67%	43.27%	37.00%
4.3.6 Prepare and apply body filler	84.00%	87.50%	76.00%
4.3.8 Rough sand body filler to contour; finish sand	96.00%	97.12%	91.00%

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Performance Standard 4.5: Perform metal welding and cutting techniques	58.22%	58.23%	51.89%
4.5.1 Identify weldable and non-weldable substrates used in vehicle construction	58.67%	54.81%	42.00%
4.5.3 Determine the correct GMAW (MIG) welder type, electrode/wire type, diameter, and gas to be used in a specific welding situation	65.33%	72.12%	58.00%
4.5.4 Set up and adjust the GMAW (MIG) welder to tune for proper electrode stickout, voltage, polarity, flow rate, and wire-feed speed required for the substrate being welded	68.00%	64.42%	61.00%
4.5.5 Store, handle, and install high-pressure gas cylinders	93.33%	97.12%	85.00%
4.5.7 Use the proper angle of the gun to the joint and direction of gun travel for the type of weld being made in the flat, horizontal, vertical, and overhead positions	14.67%	6.73%	10.00%
4.5.8 Protect adjacent panels, glass, vehicle interior, etc. from welding and cutting operations	57.33%	49.04%	49.00%
4.5.9 Protect computers and other electronic control modules during welding procedures	40.00%	38.46%	48.00%
4.5.13 Perform the following welds: continuous, plug, butt weld with and without backing, fillet, etc	66.67%	81.73%	61.00%
4.5.15 Identify the causes of various welding defects; make necessary adjustments	60.00%	59.62%	53.00%
Performance Standard 4.6: Utilize plastics and adhesives	40.00%	48.56%	43.00%
4.6.1 Identify the types of plastics; determine repairability	10.67%	16.35%	19.00%
4.6.3 Demonstrate one-sided, two-sided, and tab repair	69.33%	80.77%	67.00%
CONTENT STANDARD 5.0 PERFORM STRUCTURAL ANALYSIS AND DAMAGE REPAIR	76.67%	78.85%	70.25%
Performance Standard 5.1: Demonstrate inspection and repair techniques	76.67%	78.85%	70.25%
5.1.1 Measure and diagnose structural damage using a tram gauge	76.00%	73.08%	69.00%
5.1.2 Attach vehicle to anchoring devices	73.33%	86.54%	75.00%
5.1.8 Reinstall wheels and torque lug nuts	78.67%	77.88%	68.50%
CONTENT STANDARD 6.0 DEMONSTRATE PAINTING AND REFINISHING TECHNIQUES	55.73%	57.13%	55.32%
Performance Standard 6.1: Apply safety precautions	58.67%	62.18%	57.50%
6.1.1 Identify and take necessary precautions with hazardous operations and materials according to federal, state, and local regulations	81.33%	85.58%	85.00%
6.1.2 Identify safety and personal health hazards according to OSHA guidelines and the Right to Know Law	94.67%	90.38%	88.00%
6.1.3 Inspect spray environment and equipment to ensure compliance with federal, state and local regulations, and for safety and cleanliness hazards	46.67%	40.38%	38.00%
6.1.4 Select and use a NIOSH approved air purifying respirator. Inspect condition and ensure fit and operation. Perform proper maintenance in accordance with OSHA Regulation 1910.134 and applicable state and local regulation	33.33%	48.08%	53.00%

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6.1.5 Select and use a NIOSH approved supplied air (Fresh Air Make-up) respirator system. Perform proper maintenance in accordance with OSHA Regulation 1910.134 and applicable state and local regulation	12.00%	20.19%	18.00%
6.1.6 Select and use appropriate PPE	84.00%	88.46%	63.00%
Performance Standard 6.2: Utilize surface preparation techniques	46.98%	48.59%	49.29%
6.2.4 Strip paint to bare substrate (paint removal)	6.67%	4.81%	6.00%
6.2.5 Dry or wet sand areas to be refinished	32.00%	29.81%	34.00%
6.2.6 Featheredge areas to be refinished	60.00%	65.38%	58.00%
6.2.7 Apply suitable metal treatment or primer in accordance with total product systems	84.00%	86.54%	80.00%
6.2.8 Mask and protect other areas that will not be refinished	65.33%	61.54%	60.00%
6.2.9 Mix primer, primer-surfacer or primer-sealer	76.00%	78.85%	69.00%
6.2.11 Apply primer onto surface of repaired area	97.33%	100.00%	92.00%
6.2.12 Apply two-component finishing filler to minor surface imperfections	30.67%	24.04%	44.00%
6.2.13 Block sand area to which primer-surfacer has been applied	56.00%	43.27%	57.00%
6.2.14 Dry sand area to which finishing filler has been applied	38.00%	42.31%	39.50%
6.2.15 Remove dust from area to be refinished, including cracks or moldings of adjacent areas	34.67%	36.54%	40.00%
6.2.16 Clean area to be refinished using a final cleaning solution	53.33%	68.27%	70.00%
6.2.17 Remove, with a tack rag, any dust or lint particles from the area to be refinished	38.67%	38.46%	47.00%
6.2.23 Identify the types of rigid, semi-rigid or flexible plastic parts to be refinished; determine the materials needed, preparation, and refinishing procedures	24.67%	27.40%	31.00%
6.2.24 Identify metal parts to be refinished; determine the materials needed, preparation, and refinishing procedures	38.67%	49.04%	40.00%
Performance Standard 6.3: Perform spray gun and related equipment operations	73.33%	76.92%	65.00%
6.3.4 Demonstrate an understanding of the operation of spray equipment	73.33%	76.92%	65.00%
Performance Standard 6.4: Utilize paint mixing, matching, and application techniques	62.86%	63.74%	59.86%
6.4.1 Identify color code by manufacturers vehicle information label	78.67%	74.04%	75.00%
6.4.2 Shake, stir, reduce, catalyze/activate, and strain refinish materials	66.67%	66.35%	64.00%
6.4.3 Apply finish using appropriate spray techniques (gun arc, angle, distance, travel speed, and spray pattern overlap) for the finish being applied	54.67%	64.42%	52.00%
6.4.7 Apply basecoat/clearcoat for overall refinishing	38.67%	46.15%	55.00%
6.4.12 Identify and mix paint using a formula	64.00%	64.42%	57.00%
6.4.14 Tint color using formula to achieve a blendable match	42.67%	38.46%	36.00%
6.4.15 Identify alternative color formula to achieve a blendable match	94.67%	92.31%	80.00%

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Performance Standard 6.5: Identify paint defects--causes and cures	76.67%	76.44%	67.50%
6.5.3 Identify the presence of fish-eyes (crater-like openings) in the finish; determine the cause(s) and correct the condition	80.00%	73.08%	68.00%
6.5.8 Identify solvent popping in freshly painted surface; determine the cause(s) and correct the condition	73.33%	79.81%	67.00%
Performance Standard 6.6: Perform final detail procedures	77.33%	67.31%	79.00%
6.6.6 Perform vehicle clean-up; complete quality control using a checklist	77.33%	67.31%	79.00%