



Celebrating 100 Years of Career Readiness

2018-2019 Technical Skills Assessment Collision Repair

Results by Standard

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

Assessment: Idaho Collision Repair Number tested: 59	% Correct 16-17	% Correct 17-18	% Correct 18-19
1) CONTENT STANDARD 1.0: IDENTIFY AND UTILIZE SAFETY PROCEDURES AND PROPER TOOLS	75.91%	76.92%	71.53%
1) Performance Standard 1.1: Demonstrate general lab safety rules and procedures	75.91%	76.92%	71.53%
1.1.1 Describe general shop safety rules and procedures (i.e., safety test)	68.94%	66.67%	64.41%
1.1.2 Utilize safe procedures for handling of tools and equipment	86.36%	92.31%	84.75%
1.1.3 Identify and use proper placement of floor jacks and jack stands	88.64%	95.19%	87.29%
1.1.4 Identify and use proper procedures for safe vehicle lift operation	81.82%	85.26%	77.40%
1.1.5 Utilize proper ventilation procedures for working within the lab/shop area	94.32%	93.27%	82.20%
1.1.6 Identify marked safety areas	72.73%	76.92%	63.56%
1.1.7 Identify the location and the types of fire extinguishers and other fire safety equipment.	82.95%	95.19%	84.75%
1.1.8 Demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment	50.00%	61.54%	52.54%
1.1.10 Identify the location of the posted evacuation routes	88.64%	82.69%	72.88%
1.1.11 Comply with the required use of PPE during lab/shop activities	68.18%	56.73%	66.95%
1.1.12 Identify and wear appropriate clothing for lab/shop activities	90.91%	75.00%	81.36%
1.1.14 Research safety aspects of supplemental restraint systems (SRS), electronic brake control systems, and hybrid vehicle high voltage circuits	27.27%	36.54%	35.59%
1.1.16 Locate and interpret safety data sheets (MSDS, SDS)	63.64%	48.08%	55.93%
3) CONTENT STANDARD 3.0 DEMONSTRATE DAMAGE ANALYSIS, ESTIMATING AND CUSTOMER SERVICE SKILLS	47.08%	57.14%	51.09%
1) Performance Standard 3.1: Identify vehicle construction and parts	45.45%	57.21%	51.27%
3.1.1 Identify type of vehicle construction (space frame, unibody, body-over-frame)	47.73%	71.15%	62.71%
3.1.4 Identify steel types; determine repairability	56.82%	53.85%	47.46%
3.1.5 Identify aluminum/magnesium components; determine repairability	61.36%	75.00%	55.93%

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3.1.6 Identify plastic/composite components; determine repairability	15.91%	28.85%	38.98%
3) Performance Standard 3.3: Demonstrate estimating procedures	55.68%	54.81%	50.00%
3.3.16 Determine price and source of necessary sublet operations	50.00%	57.69%	42.37%
3.3.28 Demonstrate ability to access OEM repair information	61.36%	51.92%	57.63%
4) Performance Standard 3.4: Demonstrate customer relations and sales skills	36.36%	61.54%	52.54%
3.4.2 Listen to customer/client; collect information and identify customers/client's concerns, needs and expectations	36.36%	61.54%	52.54%
4) CONTENT STANDARD 4.0 PERFORM NON-STRUCTURAL ANALYSIS AND DAMAGE REPAIR (BODY COMPONENTS)	53.84%	55.59%	54.34%
1) Performance Standard 4.1: Demonstrate inspection and preparation techniques	90.91%	90.38%	89.27%
4.1.3 Inspect, remove, label, store, and reinstall interior trim and components	97.73%	98.08%	94.92%
4.1.13 Verify proper operation of seatbelt	87.50%	86.54%	86.44%
2) Performance Standard 4.2: Perform outer body panel repairs, replacements, and adjustments	52.02%	55.13%	51.41%
4.2.1 Determine the extent of direct and indirect/hidden damage and direction of impact; develop and document a repair plan	29.55%	44.23%	23.73%
4.2.2 Inspect, remove, replace, and align hood, hood hinges, and hood latch	84.09%	78.85%	81.36%
4.2.3 Inspect, remove, replace, and align deck lid, lid hinges, and lid latch	50.00%	48.08%	42.37%
4.2.7 Inspect, remove, replace and align fenders, and related panels	70.45%	63.46%	74.58%
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	47.73%	55.77%	50.85%
4.2.9 Weld damaged or torn steel body panels; repair broken welds	59.09%	73.08%	50.85%
4.2.10 Restore corrosion protection	38.64%	26.92%	33.90%
4.2.11 Restore sound deadeners and foam materials	84.09%	80.77%	86.44%
4.2.12 Perform panel bonding and weld bonding	4.55%	25.00%	18.64%
3) Performance Standard 4.3: Apply metal finishing and body filling techniques	53.03%	51.92%	50.28%
4.3.1 Remove paint from the damaged area of a body panel	70.45%	65.38%	67.80%
4.3.2 Locate and repair surface irregularities on a damaged body panel	31.82%	44.23%	23.73%
4.3.3 Demonstrate hammer and dolly techniques	54.55%	57.69%	77.97%
4.3.4 Heat shrinkstretched panel areas to proper contour	31.82%	15.38%	28.81%
4.3.5 Cold shrinkstretched panel areas to proper contour	47.73%	47.12%	38.14%
4.3.6 Prepare and apply body filler	70.45%	80.77%	59.32%
4.3.8 Rough sand body filler to contour; finish sand	90.91%	94.23%	89.83%
5) Performance Standard 4.5: Perform metal welding and cutting techniques	48.48%	52.99%	53.67%

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4.5.1 Identify weldable and non-weldable substrates used in vehicle construction	47.73%	44.23%	50.85%
4.5.3 Determine the correct GMAW (MIG) welder type, electrode/wire type, diameter, and gas to be used in a specific welding situation	45.45%	67.31%	57.63%
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	52.27%	53.85%	59.32%
4.5.5 Store, handle, and install high-pressure gas cylinders	95.45%	96.15%	89.83%
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	6.82%	9.62%	15.25%
4.5.8 Protect adjacent panels, glass, vehicle interior, etc. from welding and cutting operations	54.55%	46.15%	47.46%
4.5.9 Protect computers and other electronic control modules during welding procedures	31.82%	46.15%	57.63%
4.5.13 Perform the following welds: continuous, plug, butt weld with and without backing, fillet, etc	68.18%	75.00%	69.49%
4.5.15 Identify the causes of various welding defects; make necessary adjustments	34.09%	38.46%	35.59%
6) Performance Standard 4.6: Utilize plastics and adhesives	34.09%	33.65%	36.44%
4.6.1 Identify the types of plastics; determine repairability	11.36%	1.92%	13.56%
4.6.3 Demonstrate one-sided, two-sided, and tab repair	56.82%	65.38%	59.32%
5) CONTENT STANDARD 5.0 PERFORM STRUCTURAL ANALYSIS AND DAMAGE REPAIR	69.32%	68.75%	63.56%
1) Performance Standard 5.1: Demonstrate inspection and repair techniques	69.32%	68.75%	63.56%
5.1.1 Measure and diagnose structural damage using a tram gauge	70.45%	57.69%	57.63%
5.1.2 Attach vehicle to anchoring devices	61.36%	84.62%	62.71%
5.1.8 Reinstall wheels and torque lug nuts	72.73%	66.35%	66.95%
6) CONTENT STANDARD 6.0 DEMONSTRATE PAINTING AND REFINISHING TECHNIQUES	54.61%	52.55%	52.84%
1) Performance Standard 6.1: Apply safety precautions	61.36%	55.77%	59.89%
6.1.1 Identify and take necessary precautions with hazardous operations and materials according to federal, state, and local regulations	77.27%	78.85%	79.66%
6.1.2 Identify safety and personal health hazards according to OSHA guidelines and the Right to Know Law	100.00%	92.31%	93.22%
6.1.3 Inspect spray environment and equipment to ensure compliance with federal, state and local regulations, and for safety and cleanliness hazards	52.27%	36.54%	42.37%
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	36.36%	32.69%	52.54%
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	11.36%	11.54%	22.03%

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6.1.6 Select and use appropriate PPE	90.91%	82.69%	69.49%
2) Performance Standard 6.2: Utilize surface preparation techniques	48.40%	45.81%	48.65%
6.2.4 Strip paint to bare substrate (paint removal)	6.82%	7.69%	3.39%
6.2.5 Dry or wet sand areas to be refinished	45.45%	38.46%	38.98%
6.2.6 Featheredge areas to be refinished	59.09%	61.54%	57.63%
6.2.7 Apply suitable metal treatment or primer in accordance with total product systems	93.18%	88.46%	88.14%
6.2.8 Mask and protect other areas that will not be refinished	56.82%	51.92%	72.88%
6.2.9 Mix primer, primer-surfacer or primer-sealer	70.45%	75.00%	71.19%
6.2.11 Apply primer onto surface of repaired area	93.18%	98.08%	79.66%
6.2.12 Apply two-component finishing filler to minor surface imperfections	34.09%	19.23%	25.42%
6.2.13 Block sand area to which primer-surfacer has been applied	50.00%	51.92%	49.15%
6.2.14 Dry sand area to which finishing filler has been applied	38.64%	38.46%	31.36%
6.2.15 Remove dust from area to be refinished, including cracks or moldings of adjacent areas	45.45%	36.54%	44.07%
6.2.16 Clean area to be refinished using a final cleaning solution	56.82%	50.00%	67.80%
6.2.17 Remove, with a tack rag, any dust or lint particles from the area to be refinished	47.73%	48.08%	72.88%
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	25.00%	19.23%	22.88%
6.2.24 Identify metal parts to be refinished; determine the materials needed, preparation, and refinishing procedures	36.36%	36.54%	47.46%
3) Performance Standard 6.3: Perform spray gun and related equipment operations	59.09%	67.31%	52.54%
6.3.4 Demonstrate an understanding of the operation of spray equipment	59.09%	67.31%	52.54%
4) Performance Standard 6.4: Utilize paint mixing, matching, and application techniques	55.84%	56.87%	56.17%
6.4.1 Identify color code by manufacturers vehicle information label	84.09%	69.23%	71.19%
6.4.2 Shake, stir, reduce, catalyze/activate, and strain refinish materials	45.45%	71.15%	59.32%
6.4.3 Apply finish using appropriate spray techniques (gun arc, angle, distance, travel speed, and spray pattern overlap) for the finish being applied	38.64%	50.00%	45.76%
6.4.7 Apply basecoat/clearcoat for overall refinishing	52.27%	32.69%	40.68%
6.4.12 Identify and mix paint using a formula	43.18%	51.92%	54.24%
6.4.14 Tint color using formula to achieve a blendable match	45.45%	46.15%	40.68%
6.4.15 Identify alternative color formula to achieve a blendable match	81.82%	76.92%	81.36%
5) Performance Standard 6.5: Identify paint defects—causes and cures	72.73%	62.50%	52.54%
6.5.3 Identify the presence of fish-eyes (crater-like openings) in the finish; determine the cause(s) and correct the condition	65.91%	67.31%	54.24%
6.5.8 Identify solvent popping in freshly painted surface; determine the cause(s) and correct the condition	79.55%	57.69%	50.85%

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Number tested: 59	17	18	19
6) Performance Standard 6.6: Perform final detail procedures	70.45%	82.69%	59.32%
6.6.6 Perform vehicle clean-up; complete quality control using a checklist	70.45%	82.69%	59.32%