



Celebrating 100 Years of Career Readiness

2018-2019 Technical Skills Assessment Diesel Technology

Results by Standard

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

Assessment: Idaho Diesel Technology Number tested: 51	% Correct 16-17	% Correct 17-18	% Correct 18-19
1) CONTENT STANDARD 1.0: SAFETY AND TOOLS	81.82%	82.24%	81.07%
1) Performance Standard 1.1: Demonstrate General Lab Safety Rules and Procedures	86.03%	84.50%	84.91%
1.1.1 Perform a quality job hazard analysis	66.67%	58.14%	69.81%
1.1.2 Demonstrate the key attributes to contribute to an active safety culture	77.78%	79.07%	77.99%
1.1.3 Utilize proper ventilation procedures for working within the lab/shop area	93.33%	83.72%	88.68%
1.1.5 Identify the location and the types of fire extinguishers and other fire safety equipment; demonstrate knowledge of the procedures for using fire extinguishers and other fire safety equipment	80.00%	88.37%	82.08%
1.1.6 Identify the location and use of eye wash stations	83.33%	81.40%	86.79%
1.1.7 Identify the location of the posted evacuation routes	93.33%	88.37%	88.05%
1.1.8 Comply with the required use of safety glasses, ear protection, gloves, and shoes during lab/shop activities (i.e., personal protection equipment - PPE)	100.00%	96.12%	95.60%
1.1.9 Identify and wear appropriate clothing for lab/shop activities	100.00%	95.35%	98.11%
1.1.10 Secure hair and jewelry for lab/shop activities	91.67%	97.67%	97.17%
1.1.12 Perform housekeeping duties	61.67%	58.14%	55.66%
2) Performance Standard 1.2: Demonstrate Safe Handling and Usage of Tools	74.44%	78.29%	74.37%
1.2.1 Identify appropriate tools and their usage in diesel service applications	30.00%	41.86%	32.08%
1.2.2 Identify standard and metric designation	46.67%	54.65%	43.40%
1.2.3 Demonstrate safe handling and use of hand and power tools	86.67%	82.56%	80.19%
1.2.4 Utilize safe procedures for handling of tools and equipment	96.67%	96.51%	96.23%
1.2.5 Identify and use proper placement of floor jacks and jack stands	88.89%	88.37%	86.79%
1.2.6 Identify situational tool restrictions	68.33%	82.56%	80.19%
2) CONTENT STANDARD 2.0: BASIC VEHICLE SERVICE AT A DOT LEVEL	47.50%	58.72%	61.79%
1) Performance Standard 2.1: Identify and Utilize Vehicle Service Information	63.33%	65.12%	73.58%

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2.1.3 Demonstrate knowledge of special service messages, quotes, service campaigns/recalls, vehicle/service warranty applications, and service interval recommendations	63.33%	65.12%	73.58%
2) Performance Standards 2.2: Prepare A Vehicle For Service	42.22%	56.59%	57.86%
2.2.4 Demonstrate use of the three Cs (concern, cause, and correction)	42.22%	56.59%	57.86%
3) CONTENT STANDARD 3.0: DIESEL ENGINE SERVICE	66.15%	68.52%	64.88%
1) Performance Standard 3.1: Perform Preliminary Engine Inspection	66.67%	65.70%	62.74%
3.1.2 Identify engine fuel, oil, coolant, air, and other leaks; determine needed action	66.67%	65.70%	62.74%
3) Performance Standard 3.3: Understand and Diesel Engine Theory and Operation	65.93%	69.77%	65.83%
3.3.1 Describe the operation of a diesel engine	69.33%	70.70%	66.79%
3.3.2 Describe the operations of a diesel engines subsystems	61.67%	68.60%	64.62%
4) CONTENT STANDARD 4.0: PREVENTATIVE MAINTENANCE INSPECTIONS	96.67%	86.05%	84.91%
1) Performance Standard: 4.1: Perform Presentative Maintenance Inspections	96.67%	86.05%	84.91%
4.1.1 Perform a Form A Preventative Maintenance Inspection per Technology & Maintenance Council standards	96.67%	86.05%	84.91%
6) CONTENT STANDARD 6.0 : BRAKE SYSTEM	62.12%	57.93%	55.92%
1) Performance Standard 6.1: Understand Brake Theory and Operation	65.24%	52.16%	55.26%
6.1.1 Identify brake safety procedures per system manufacturer and type	50.00%	37.98%	38.36%
6.1.2 Identify brake components for air or hydraulic brake systems	88.33%	76.74%	82.08%
6.1.4 Identify wear limits in brake linings, drums and rotators	65.00%	48.84%	53.77%
2) Performance Standards 6.2: Assess Air Brakes - Mechanical/Foundation Brakes	76.67%	74.42%	81.13%
6.2.1 Inspect and measure brake shoes or pads; replace friction lining	76.67%	74.42%	81.13%
3) Performance Standard 6.3: Perform Wheel Bearing Service and Repair	50.00%	65.89%	49.06%
6.3.1 Inspect and service wheel bearings according to manufacturers specifications	50.00%	65.89%	49.06%
7) CONTENT STANDARD 7.0: ELECTRIC/ELECTRONIC SYSTEMS	61.11%	60.79%	59.38%
1) Performance Standard 7.1: Understand General Electrical Systems	55.74%	54.52%	52.52%
7.1.1 Identify safety procedures related to electrical system service	56.67%	48.84%	40.57%
7.1.4 Read and interpret electrical/electronic circuits using wiring diagrams	86.67%	74.42%	81.13%
7.1.5 Check continuity in electrical/electronic circuits using appropriate test equipment	34.44%	36.43%	40.25%
7.1.6 Check applied voltages, circuit voltages, and voltage drops in electrical/electronic circuits using appropriate test equipment	54.44%	58.91%	49.06%
7.1.7 Check current flow in electrical/electronic circuits and components using appropriate test equipment	70.00%	72.09%	50.94%
7.1.8 Check resistance in electrical/electronic circuits and components using appropriate test equipment	45.56%	41.09%	43.40%

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7.1.9 Locate shorts, grounds, and opens in electrical/electronic circuits	78.33%	67.44%	72.64%
7.1.10 Inspect and test fusible links, circuit breakers, relays, solenoids, and fuses; replace as needed	57.78%	64.34%	62.89%
2) Performance Standard 7.2: Perform Battery Service	64.89%	64.34%	65.16%
7.2.1 Identify battery type; perform appropriate battery load test; determine needed action	66.67%	61.63%	66.04%
7.2.2 Determine battery state of charge using an open circuit voltage test	41.67%	52.33%	44.34%
7.2.3 Inspect, clean, and service battery; replace as needed	80.00%	70.54%	67.92%
7.2.5 Charge battery using appropriate method for battery type	82.22%	75.19%	76.10%
7.2.6 Inspect, test, and clean battery cables and connectors; repair or replace as needed	31.67%	41.86%	48.11%
7.2.7 Jump start a vehicle using jumper cables and a booster battery or appropriate auxiliary power supply using proper safety procedures	68.89%	72.09%	76.10%
3) Perform Standard 7.3: Perform Starting System Service	63.33%	62.79%	58.49%
7.3.5 Perform starter current draw test; determine needed action	63.33%	62.79%	58.49%
4) Performance Standard 7.4: Perform Charging System Diagnosis and Repair	63.33%	79.07%	69.81%
7.4.6 Remove and replace alternator	63.33%	79.07%	69.81%
5) Performance Standard 7.5: Perform Lighting Systems Diagnosis Repair	96.67%	100.00%	86.79%
7.5.2 Test, replace, and aim headlights	96.67%	100.00%	86.79%
8) CONTENT STANDARD 8.0: TRANSPORTATION CAREERS	98.33%	93.02%	100.00%
2) Performance Standard 8.2: Explore Industry Ethics and Standards	98.33%	93.02%	100.00%
8.2.4 Demonstrate personal accountability and responsibility for your career and safety	98.33%	93.02%	100.00%