



2023-2024

Technical Skills Assessment

Small Engine Repair/Power Sports

Results by Standard

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

Assessment: Small Engine Repair/Power Sports	% Correct 20-21	% Correct 21-22	% Correct 22-23	% Correct 23-24
Number tested: 37				
1) CONTENT STANDARD 1.0: BASIC SAFETY	87.86%	83.81%	88.26%	88.74%
1) Performance Standard 1.1: Workplace Safety	87.86%	83.81%	88.26%	88.74%
1.1.1. Describe general shop safety rules and procedures.	92.86%	81.43%	90.91%	85.14%
1.1.2. Utilize safe procedures for handling of tools and equipment.	74.29%	74.29%	84.85%	84.68%
1.1.6. Identify the location and use of eye wash stations.	82.86%	74.29%	77.27%	74.32%
1.1.8. Comply with the required use of safety glasses, ear protection, gloves and shoes during lab/shop activities.	97.14%	94.29%	93.94%	97.30%
1.1.10. Secure hair and jewelry for lab/shop activities.	94.29%	94.29%	93.18%	100.00%
2) CONTENT STANDARD 2.0: TOOLS	77.86%	71.43%	66.48%	74.32%
1) Performance Standard 2.1: Basic Tools	77.86%	71.43%	66.48%	74.32%
2.1.1 Identify basic tools.	78.10%	68.10%	54.55%	72.07%
2.1.2 Identify basic tool usage.	71.43%	67.62%	69.70%	67.57%
2.1.3 Demonstrate common tools knowledge.	87.14%	82.14%	79.55%	87.84%
3) CONTENT STANDARD 3.0: FASTENERS	81.43%	82.50%	79.55%	83.11%
1) Performance Standard 3.1: Proper use of fasteners	81.43%	82.50%	79.55%	83.11%
3.1.7. Demonstrate proper torque methods.	81.43%	82.50%	79.55%	83.11%
4) CONTENT STANDARD 4.0: MEASUREMENT	34.29%	40.00%	40.91%	54.05%
1) Performance Standard 4.1: Precision Measuring Instruments	34.29%	40.00%	40.91%	54.05%
4.1.5. Demonstrate precision measuring.	34.29%	40.00%	40.91%	54.05%
5) CONTENT STANDARD 5.0: BASIC ELECTRICAL	53.33%	56.43%	57.58%	47.30%
1) Performance Standard 5.1: Basic Electrical Theory and System	53.33%	56.43%	57.58%	47.30%
5.1.3. Understand basic electrical theory.	44.76%	43.33%	45.45%	38.74%
5.1.5. Demonstrate proper use of a multimeter.	61.90%	69.52%	69.70%	55.86%
6) CONTENT STANDARD 6.0: ENGINE DESIGN AND THEORY	66.70%	59.78%	60.16%	60.14%
1) Performance Standard 6.1: Basic Engine Principles and Design	76.43%	71.07%	72.73%	64.86%

6.1.3. Explain theory of operation.	74.29%	72.86%	70.45%	62.16%
Assessment: Small Engine Repair/Power Sports	% Correct	% Correct	% Correct	% Correct
Number tested: 62	20-21	21-22	22-23	23-24
6.1.4. Identify engine components and their function.	78.57%	69.29%	75.00%	67.57%
2) Performance Standard 6.2: Operation of a 2 stroke Engine	61.43%	54.64%	55.68%	54.73%
6.2.2. Define 2 stroke engine operations.	37.14%	30.71%	38.64%	29.73%
6.2.4. Demonstrate knowledge of 2 stroke engine operation.	78.10%	71.43%	77.27%	72.07%
6.2.5. Diagnose, troubleshoot, and repair a 2 stroke engine.	60.95%	53.81%	45.45%	54.05%
3) Performance Standard 6.3: Operation of a 4 stroke Engine	70.61%	63.57%	63.31%	60.81%
6.3.1. Define 4 stroke engine terms.	94.29%	84.29%	88.64%	81.08%
6.3.2. Define 4 stroke engine operations.	67.62%	50.95%	65.15%	60.36%
6.3.3. Identify 4 stroke engine components.	70.48%	62.38%	50.00%	55.86%
6.3.4. Demonstrate knowledge of 4 stroke engine operation.	45.71%	43.33%	54.55%	45.05%
6.3.5. Diagnose, troubleshoot, and repair a 4 stroke engine	82.86%	83.81%	66.67%	68.47%
4) Performance Standard 6.4: Overhaul of a 4 stroke Engine	58.70%	55.06%	50.41%	55.28%
6.4.4. Disassemble and evaluate a 4 stroke engine.	80.95%	73.81%	72.73%	81.98%
6.4.5. Inspect internal components.	52.38%	51.43%	50.00%	52.25%
6.4.6. Service, replace or repair damaged internal components.	58.57%	48.57%	38.64%	40.54%
6.4.7. Reassemble a 4 stroke engine.	42.86%	44.29%	36.36%	41.44%
5) Performance Standard 6.5: Overhaul a 2 stroke Engine	61.14%	54.86%	53.64%	58.92%
6.5.1. Diagnose various engine problems.	60.95%	56.67%	51.52%	61.26%
6.5.3. Perform and evaluate failure analysis.	61.43%	52.14%	56.82%	55.41%
7) Performance Standard 6.7: Fuel Systems	66.00%	57.86%	59.09%	60.54%
6.7.1. Define types of fuel systems.	57.14%	44.29%	47.73%	55.41%
6.7.3. Identify fuel system components and their functions.	84.29%	77.86%	79.55%	77.03%
6.7.5. Service fuel systems components.	66.67%	57.62%	56.06%	63.96%
6.7.6. Diagnose, troubleshoot and repair fuel system malfunctions.	59.05%	53.81%	56.06%	49.55%
8) Performance Standard 6.8: Governor Systems	69.52%	65.71%	77.27%	64.86%
6.8.1. Identify different types of governor systems and their components.	57.14%	67.14%	68.18%	72.97%
6.8.2. Identify governor theory, operation, and adjustments.	82.86%	70.00%	90.91%	70.27%
6.8.3. Diagnose, troubleshoot and repair governor malfunctions	68.57%	60.00%	72.73%	51.35%
9) Performance Standard 6.9: Ignition Systems	75.43%	59.43%	59.09%	67.57%
6.9.2. Identify components and functions of a basic ignition system.	70.48%	52.38%	51.52%	58.56%
6.9.3. Diagnose, troubleshoot, and repair ignition system malfunctions.	82.86%	70.00%	70.45%	81.08%
10) Performance Standard 6.10: Charging Systems	81.43%	82.14%	84.09%	79.73%

6.10.2. Identify components and functions of a basic charging system.	81.43%	82.14%	84.09%	79.73%
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Number tested: 62	20-21	21-22	22-23	23-24
11) Performance Standard 6.11: Starting Systems	61.43%	48.57%	59.09%	50.00%
6.11.3. Diagnose, troubleshoot, and repair starting system malfunctions.	61.43%	48.57%	59.09%	50.00%
7) CONTENT STANDARD 7.0: MAINTENANCE	91.43%	84.76%	83.33%	90.09%
1) Performance Standard 7.1: Basic Maintenance	91.43%	84.76%	83.33%	90.09%
7.1.2. Research owner's manuals, service schedules, and manufacturer's data to perform proper periodic maintenance.	91.43%	84.76%	83.33%	90.09%
8) CONTENT STANDARD 8.0: PARTS AND SERVICE MANAGEMENT	91.43%	82.86%	90.91%	86.49%
1) Performance Standard 8.1: Parts and Service Operation	91.43%	82.86%	90.91%	86.49%
8.1.2. Identify how to look up parts.	91.43%	82.86%	90.91%	86.49%