

## 2024-2025

## **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	% Correct	% Correct	% Correct
Number tested: 55	21-22	22-23	23-24	24-25
1) CONTENT STANDARD 1.0: BASIC SAFETY	83.81%	88.26%	88.74%	84.21%
1) Performance Standard 1.1: Workplace Safety	83.81%	88.26%	88.74%	84.21%
1.1.1. Describe general shop safety rules and procedures.	81.43%	90.91%	85.14%	91.23%
1.1.2. Utilize safe procedures for handling of tools and equipment.	74.29%	84.85%	84.68%	76.02%
1.1.6. Identify the location and use of eye wash stations.	74.29%	77.27%	74.32%	71.05%
1.1.8. Comply with the required use of safety glasses, ear protection, gloves and shoes during lab/shop activities.	94.29%	93.94%	97.30%	92.40%
1.1.10. Secure hair and jewelry for lab/shop activities.	94.29%	93.18%	100.00%	90.35%
2) CONTENT STANDARD 2.0: TOOLS	71.43%	66.48%	74.32%	66.23%
1) Performance Standard 2.1: Basic Tools	71.43%	66.48%	74.32%	66.23%
2.1.1 Identify basic tools.	68.10%	54.55%	72.07%	56.14%
2.1.2 Identify basic tool usage.	67.62%	69.70%	67.57%	64.33%
2.1.3 Demonstrate common tools knowledge.	82.14%	79.55%	87.84%	84.21%
3) CONTENT STANDARD 3.0: FASTENERS	82.50%	79.55%	83.11%	75.44%
1) Performance Standard 3.1: Proper use of fasteners	82.50%	79.55%	83.11%	75.44%
3.1.7. Demonstrate proper torque methods.	82.50%	79.55%	83.11%	75.44%
4) CONTENT STANDARD 4.0: MEASUREMENT	40.00%	40.91%	54.05%	49.12%
1) Performance Standard 4.1: Precision Measuring Instruments	40.00%	40.91%	54.05%	49.12%
4.1.5. Demonstrate precision measuring.	40.00%	40.91%	54.05%	49.12%
5) CONTENT STANDARD 5.0: BASIC ELECTRICAL	56.43%	57.58%	47.30%	47.08%
1) Performance Standard 5.1: Basic Electrical Theory and System	56.43%	57.58%	47.30%	47.08%
5.1.3. Understand basic electrical theory.	43.33%	45.45%	38.74%	35.67%
5.1.5. Demonstrate proper use of a multimeter.	69.52%	69.70%	55.86%	58.48%
6) CONTENT STANDARD 6.0: ENGINE DESIGN AND THEORY	59.78%	60.16%	60.14%	60.47%
1) Performance Standard 6.1: Basic Engine Principles and Design	76.43%	71.07%	72.73%	71.49%

6.1.3. Explain theory of operation.	74.29%	72.86%	70.45%	73.68%
Assessment: Small Engine Repair/Power Sports	% Correct	% Correct	% Correct	% Correct
Number tested: 62	20-21	21-22	22-23	24-25
6.1.4. Identify engine components and their function.	69.29%	75.00%	67.57%	69.30%
2) Performance Standard 6.2: Operation of a 2 stroke Engine	54.64%	55.68%	54.73%	56.80%
6.2.2. Define 2 stroke engine operations.	30.71%	38.64%	29.73%	36.84%
6.2.4. Demonstrate knowledge of 2 stroke engine operation.	71.43%	77.27%	72.07%	70.18%
6.2.5. Diagnose, troubleshoot, and repair a 2 stroke engine.	53.81%	45.45%	54.05%	56.73%
3) Performance Standard 6.3: Operation of a 4 stroke Engine	63.57%	63.31%	60.81%	63.03%
6.3.1. Define 4 stroke engine terms.	84.29%	88.64%	81.08%	84.21%
6.3.2. Define 4 stroke engine operations.	50.95%	65.15%	60.36%	59.06%
6.3.3. Identify 4 stroke engine components.	62.38%	50.00%	55.86%	57.89%
6.3.4. Demonstrate knowledge of 4 stroke engine operation.	43.33%	54.55%	45.05%	52.05%
6.3.5. Diagnose, troubleshoot, and repair a 4 stroke engine	83.81%	66.67%	68.47%	69.01%
4) Performance Standard 6.4: Overhaul of a 4 stroke Engine	55.06%	50.41%	55.28%	51.83%
6.4.4. Disassemble and evaluate a 4 stroke engine.	73.81%	72.73%	81.98%	75.44%
6.4.5. Inspect internal components.	51.43%	50.00%	52.25%	45.03%
6.4.6. Service, replace or repair damaged internal components.	48.57%	38.64%	40.54%	48.25%
6.4.7. Reassemble a 4 stroke engine.	44.29%	36.36%	41.44%	37.43%
5) Performance Standard 6.5: Overhaul a 2 stroke Engine	54.86%	53.64%	58.92%	52.28%
6.5.1. Diagnose various engine problems.	56.67%	51.52%	61.26%	56.14%
6.5.3. Perform and evaluate failure analysis.	52.14%	56.82%	55.41%	46.49%
7) Performance Standard 6.7: Fuel Systems	57.86%	59.09%	60.54%	65.09%
6.7.1. Define types of fuel systems.	44.29%	47.73%	55.41%	55.26%
6.7.3. Identify fuel system components and their functions.	77.86%	79.55%	77.03%	77.19%
6.7.5. Service fuel systems components.	57.62%	56.06%	63.96%	66.67%
6.7.6. Diagnose, troubleshoot and repair fuel system malfunctions.	53.81%	56.06%	49.55%	61.99%
8) Performance Standard 6.8: Governor Systems	65.71%	77.27%	64.86%	64.91%
6.8.1. Identify different types of governor systems and their components.	67.14%	68.18%	72.97%	73.68%
6.8.2. Identify governor theory, operation, and adjustments.	70.00%	90.91%	70.27%	57.89%
6.8.3. Diagnose, troubleshoot and repair governor malfunctions	60.00%	72.73%	51.35%	63.16%
9) Performance Standard 6.9: Ignition Systems	59.43%	59.09%	67.57%	61.05%
6.9.2. Identify components and functions of a basic ignition system.	52.38%	51.52%	58.56%	50.88%
6.9.3. Diagnose, troubleshoot, and repair ignition system malfunctions.	70.00%	70.45%	81.08%	76.32%
10) Performance Standard 6.10: Charging Systems	82.14%	84.09%	79.73%	80.70%

6.10.2. Identify components and functions of a basic charging system.	82.14%	84.09%	79.73%	80.70%
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11) Performance Standard 6.11: Starting Systems	48.57%	59.09%	50.00%	51.75%
6.11.3. Diagnose, troubleshoot, and repair starting system malfunctions.	48.57%	59.09%	50.00%	51.75%
7) CONTENT STANDARD 7.0: MAINTENANCE	84.76%	83.33%	90.09%	87.72%
1) Performance Standard 7.1: Basic Maintenance	84.76%	83.33%	90.09%	87.72%
7.1.2. Research owner's manuals, service schedules, and manufacturer's data to perform	84.76%	83.33%	90.09%	87.72%
proper periodic maintenance.				
8) CONTENT STANDARD 8.0: PARTS AND SERVICE MANAGEMENT	82.86%	90.91%	86.49%	84.21%
1) Performance Standard 8.1: Parts and Service Operation	82.86%	90.91%	86.49%	84.21%
8.1.2. Identify how to look up parts.	82.86%	90.91%	86.49%	84.21%