



2021-2022

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: 62	17-18	18-19	20-21	21-22
1) CONTENT STANDARD 1.0: BASIC SAFETY	88.49%	89.58%	87.86%	83.81%
1) Performance Standard 1.1: Workplace Safety	88.49%	88.19%	87.86%	83.81%
1.1.1. Describe general shop safety rules and procedures.	90.48%	88.19%	92.86%	81.43%
1.1.2. Utilize safe procedures for handling of tools and equipment.	84.13%	80.56%	74.29%	74.29%
1.1.6. Identify the location and use of eye wash stations.	78.57%	70.83%	82.86%	74.29%
1.1.8. Comply with the required use of safety glasses, ear protection, gloves and shoes during lab/shop activities.	95.24%	100.00%	97.14%	94.29%
1.1.10. Secure hair and jewelry for lab/shop activities.	92.86%	97.92%	94.29%	94.29%
2) CONTENT STANDARD 2.0: TOOLS	72.62%	76.56%	77.86%	71.43%
1) Performance Standard 2.1: Basic Tools	72.62%	76.56%	77.86%	71.43%
2.1.1 Identify basic tools.	68.25%	70.83%	78.10%	68.10%
2.1.2 Identify basic tool usage.	76.19%	75.00%	71.43%	67.62%
2.1.3 Demonstrate common tools knowledge.	73.81%	87.50%	87.14%	82.14%
3) CONTENT STANDARD 3.0: FASTENERS	70.24%	80.21%	81.43%	82.50%
1) Performance Standard 3.1: Proper use of fasteners	70.24%	80.21%	81.43%	82.50%
3.1.7. Demonstrate proper torque methods.	70.24%	80.21%	81.43%	82.50%
4) CONTENT STANDARD 4.0: MEASUREMENT	14.29%	58.33%	34.29%	40.00%
1) Performance Standard 4.1: Precision Measuring Instruments	14.29%	58.33%	34.29%	40.00%
4.1.5. Demonstrate precision measuring.	14.29%	58.33%	34.29%	40.00%
5) CONTENT STANDARD 5.0: BASIC ELECTRICAL	53.97%	58.33%	53.33%	56.43%
1) Performance Standard 5.1: Basic Electrical Theory and System	53.97%	58.33%	53.33%	56.43%
5.1.3. Understand basic electrical theory.	41.27%	47.22%	44.76%	43.33%
5.1.5. Demonstrate proper use of a multimeter.	66.67%	69.44%	61.90%	69.52%
6) CONTENT STANDARD 6.0: ENGINE DESIGN AND THEORY	61.53%	68.03%	66.70%	59.78%
1) Performance Standard 6.1: Basic Engine Principles and Design	73.81%	81.25%	76.43%	71.07%

6.1.3. Explain theory of operation.	80.95%	72.92%	74.29%	72.86%
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6.1.4. Identify engine components and their function.	66.67%	89.58%	78.57%	69.29%
2) Performance Standard 6.2: Operation of a 2 stroke Engine	58.93%	57.81%	61.43%	54.64%
6.2.2. Define 2 stroke engine operations.	40.48%	33.33%	37.14%	30.71%
6.2.4. Demonstrate knowledge of 2 stroke engine operation.	77.78%	75.00%	78.10%	71.43%
6.2.5. Diagnose, troubleshoot, and repair a 2 stroke engine.	52.38%	56.94%	60.95%	53.81%
3) Performance Standard 6.3: Operation of a 4 stroke Engine	64.97%	75.89%	70.61%	63.57%
6.3.1. Define 4 stroke engine terms.	92.86%	97.92%	94.29%	84.29%
6.3.2. Define 4 stroke engine operations.	60.32%	68.06%	67.62%	50.95%
6.3.3. Identify 4 stroke engine components.	55.56%	76.39%	70.48%	62.38%
6.3.4. Demonstrate knowledge of 4 stroke engine operation.	49.21%	62.50%	45.71%	43.33%
6.3.5. Diagnose, troubleshoot, and repair a 4 stroke engine	76.19%	81.94%	82.86%	83.81%
4) Performance Standard 6.4: Overhaul of a 4 stroke Engine	51.08%	61.36%	58.70%	55.06%
6.4.4. Disassemble and evaluate a 4 stroke engine.	76.19%	76.39%	80.95%	73.81%
6.4.5. Inspect internal components.	39.68%	54.17%	52.38%	51.43%
6.4.6. Service, replace or repair damaged internal components.	47.62%	62.50%	58.57%	48.57%
6.4.7. Reassemble a 4 stroke engine.	39.68%	52.78%	42.86%	44.29%
5) Performance Standard 6.5: Overhaul a 2 stroke Engine	58.10%	60.00%	61.14%	54.86%
6.5.1. Diagnose various engine problems.	61.90%	66.67%	60.95%	56.67%
6.5.3. Perform and evaluate failure analysis.	52.38%	50.00%	61.43%	52.14%
7) Performance Standard 6.7: Fuel Systems	64.29%	66.67%	66.00%	57.86%
6.7.1. Define types of fuel systems.	57.14%	56.25%	57.14%	44.29%
6.7.3. Identify fuel system components and their functions.	85.71%	83.33%	84.29%	77.86%
6.7.5. Service fuel systems components.	66.67%	69.44%	66.67%	57.62%
6.7.6. Diagnose, troubleshoot and repair fuel system malfunctions.	52.38%	59.72%	59.05%	53.81%
8) Performance Standard 6.8: Governor Systems	60.32%	73.61%	69.52%	65.71%
6.8.1. Identify different types of governor systems and their components.	57.14%	70.83%	57.14%	67.14%
6.8.2. Identify governor theory, operation, and adjustments.	71.43%	75.00%	82.86%	70.00%
6.8.3. Diagnose, troubleshoot and repair governor malfunctions	52.38%	75.00%	68.57%	60.00%
9) Performance Standard 6.9: Ignition Systems	68.57%	75.83%	75.43%	59.43%
6.9.2. Identify components and functions of a basic ignition system.	69.84%	69.44%	70.48%	52.38%
6.9.3. Diagnose, troubleshoot, and repair ignition system malfunctions.	66.67%	85.42%	82.86%	70.00%
10) Performance Standard 6.10: Charging Systems	80.95%	79.17%	81.43%	82.14%

6.10.2. Identify components and functions of a basic charging system.	80.95%	79.17%	81.43%	82.14%
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11) Performance Standard 6.11: Starting Systems	40.48%	52.08%	61.43%	48.57%
6.11.3. Diagnose, troubleshoot, and repair starting system malfunctions.	40.48%	52.08%	61.43%	48.57%
7) CONTENT STANDARD 7.0: MAINTENANCE	85.71%	93.06%	91.43%	84.76%
1) Performance Standard 7.1: Basic Maintenance	85.71%	93.06%	91.43%	84.76%
7.1.2. Research owner's manuals, service schedules, and manufacturer's data to perform proper periodic maintenance.	85.71%	93.06%	91.43%	84.76%
8) CONTENT STANDARD 8.0: PARTS AND SERVICE MANAGEMENT	85.71%	87.50%	91.43%	82.86%
1) Performance Standard 8.1: Parts and Service Operation	85.71%	87.50%	91.43%	82.86%
8.1.2. Identify how to look up parts.	85.71%	87.50%	91.43%	82.86%