Name:	Candidate ID (optional):
Role: **Mechanical Systems Specialist** Date Completed:	

Description:

Mechanical Systems Specialists repair and maintain mechanical systems and associated components such as belts, bearings, gears, sprockets, chains, shafts, and couplings to keep mechanical systems in operating condition.

Directions for Submitting Affidavit:

- Log on to *nims-skills.org* with Evaluator credentials
- Access the Testing Center
- Access the "Evaluate Candidates" window
- Select "Submit Affidavit" for any assigned candidate
- Follow the on-screen instructions to mark "Pass" or "Fail" for each duty

Please refer to the standards to access performance requirements for each duty.

Mechanical Systems	Date Completed
1.01 Maintenance	
1.02 Troubleshooting	
1.03 Planning	
1.04 Improvements	
1.05 Standardizing	
1.06 Measurements	

Role: Mechanical Systems Specialist

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Duty Area 1: Mechanical Systems

- Duty 1.01: Maintenance
- Duty 1.02: Troubleshooting
- Duty 1.03: Planning
- Duty 1.04: Improvements
- Duty 1.05: Standardizing
- Duty 1.06: Measurements

Role: Mechanical Systems Specialist
Duty Area 1: Mechanical Systems
Duty 1.01: Maintenance

Responsibility:

Inspect and maintain mechanical systems to prevent future failures or restore to serviceable and acceptable operating conditions.

Resources:

Access to equipment, operating artifacts, schematics, and hand tools

Performance:

Practical

1. Adjusting:
    a. Aligning and leveling components
    b. Setting belt tension
2. Lubricating mechanical systems
3. Installing mechanical components

Critical Thinking

1. Conducting job safety analysis
2. Determining:
    a. When to make adjustments
    b. If components need lubrication
3. Verifying:
    a. Components to replace
    b. System and component operations

Compliance:

Full

Evaluation:

Equipment verification, observation

Role: Mechanical Systems Specialist
Duty Area 1: Mechanical Systems
Duty 1.02: Troubleshooting

Responsibility:

Trace errors within mechanical systems.

Resources:

Access to equipment, operating artifacts, schematics, and hand tools

Performance:

Practical

1. Exercising equipment
2. Checking inputs and outputs
3. Documenting findings

Critical Thinking

1. Verifying symptoms
2. Determining:
    a. System and component failures
    b. If failures require adjustments
    c. Replacement components
    d. When to escalate failures

Compliance:

Full

Evaluation:

Error verification, observation

Role: Mechanical Systems Specialist
Duty Area 1: Mechanical Systems
Duty 1.03: Planning

Responsibility:

Formulate maintenance procedures for mechanical systems.

Resources:

Access to equipment and workflow

Performance:

Practical

Documenting maintenance procedures

Critical Thinking

Determining maintenance procedures

Compliance:

Full

Evaluation:

Plan verification

Role: Mechanical Systems Specialist
Duty Area 1: Mechanical Systems
Duty 1.04: Improvements

Responsibility:

Evaluate mechanical systems for improvements.

Resources:

Access to systems, original system design, system information, and user feedback

Performance:

Practical

1. Researching new technologies
2. Documenting and presenting proposed changes

Critical Thinking

1. Determining:
    a. Areas for improvement
    b. Technologies to optimize
    c. New technologies to deploy
2. Comparing current system design to proposed changes
3. Analyzing benefits and investments

Compliance:

Full

Evaluation:

Observation

Role: Mechanical Systems Specialist
Duty Area 1: Mechanical Systems
Duty 1.05: Standardizing

Responsibility:

Check Measuring and Test Equipment (M&TE) to ensure accuracy, repeatability, and reproducibility.

Resources:

Access to M&TE, standardization equipment or artifact, applicable specification, standardization procedure, and any related accessories

Performance:

Practical

1. Taking measurements in accordance with standardization procedure
2. Cleaning and adjusting M&TE

Critical Thinking

1. Ensuring the artifact is in good condition and clean
2. Selecting correct standardization equipment or artifact
3. Interpreting measurement result
4. Evaluating potential sources of error

Compliance:

Full

Evaluation:

Measurement verification, observation

Role: Mechanical Systems Specialist
Duty Area 1: Mechanical Systems
Duty 1.06: Measurements

Responsibility:

Select and use appropriate Measuring and Test Equipment (M&TE) to measure mechanical system and component conditions in an accurate, repeatable, and reproducible manner.

Resources:

Access to hand-held M&TE and applicable specifications, system and component specifications, and any related accessories

Performance:

Practical

1. Taking measurements
2. Recording results of measurements

Critical Thinking

1. Selecting appropriate M&TE for measurement
2. Applying appropriate measurement technique
3. Determining need for traceability of M&TE
4. Interpreting measurement result
5. Evaluating potential sources of error

Compliance:

Full

Evaluation:

Measurement verification, observation