



Name:	Candidate ID (optional):
Role: <b>Hydraulic Systems Specialist</b>	
Date Completed:	

**Description:**

Hydraulic Systems Specialists repair and maintain hydraulic systems and associated components such as pumps, valves, cylinders, motors, and filters to keep hydraulic 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.

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

## Role: Hydraulic Systems Specialist

### Description:

Hydraulic Systems Specialists repair and maintain hydraulic systems and associated components such as pumps, valves, cylinders, motors, and filters to keep hydraulic systems in operating condition.

### Duty Area 1: Hydraulic 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: Hydraulic Systems Specialist

### Duty Area 1: Hydraulic Systems

#### Duty 1.01: Maintenance

##### Responsibility:

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

##### Resources:

Access to equipment, operating artifacts, schematics, Measuring and Test Equipment (M&TE), and hand tools

##### Performance:

###### *Practical*

1. Starting up and shutting down hydraulic systems
2. Adjusting:
  - a. Operating pressure
  - b. Actuator speeds
3. Servicing filters and fluids
4. Installing hydraulic components

###### *Critical Thinking*

1. Conducting job safety analysis
2. Determining:
  - a. When to make adjustments
  - b. Fluid conditions and specifications
3. Verifying:
  - a. Components to replace
  - b. System and component operations

##### Compliance:

Full

##### Evaluation:

Equipment verification, observation

## Role: Hydraulic Systems Specialist

### Duty Area 1: Hydraulic Systems

#### Duty 1.02: Troubleshooting

##### Responsibility:

Trace errors within hydraulic systems.

##### Resources:

Access to equipment, operating artifacts, schematics, Measuring and Test Equipment (M&TE), 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: Hydraulic Systems Specialist

### Duty Area 1: Hydraulic Systems

#### Duty 1.03: Planning

**Responsibility:**

Formulate maintenance procedures for hydraulic systems.

**Resources:**

Access to equipment and workflow

**Performance:**

*Practical*

Documenting maintenance procedures

*Critical Thinking*

Determining maintenance procedures

**Compliance:**

Full

**Evaluation:**

Plan verification

## Role: Hydraulic Systems Specialist

### Duty Area 1: Hydraulic Systems

#### Duty 1.04: Improvements

##### Responsibility:

Evaluate hydraulic 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: Hydraulic Systems Specialist

### Duty Area 1: Hydraulic 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: Hydraulic Systems Specialist

### Duty Area 1: Hydraulic Systems

#### Duty 1.06: Measurements

##### Responsibility:

Select and use appropriate Measuring and Test Equipment (M&TE) to measure hydraulic 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