

Power Generation Maintenance Mechanic

PGMM52

Updated November 2024

Focus Statement

A Power Generation Maintenance Mechanic must be able to safely use hand and power tools; work safely in accordance with regulatory and industry standards; perform advanced rigging and mathematical calculations; interpret construction drawings; identify, inspect, troubleshoot, maintain, and replace pumps, drivers, compressors, pulverizers, gearboxes, valves, and other major mechanical equipment; prepare and assemble piping components to include threading, cutting, and joining; remove, install, and troubleshoot bearings, mechanical seals, and couplings, and perform machinery alignments; troubleshoot and repair equipment; and have a basic working knowledge of turbines, hydraulics, pneumatics, and motor-operated valves.

Overview

- Two-hour closed-book examination
- May use a basic function, non-printing calculator
- No extra papers, books, notes or study materials are allowed

Minimum passing score is 75.

Performance Verification

A corresponding hands-on Performance Verification is available.

NCCER Curriculum

All NCCER knowledge assessments are referenced to NCCER's curriculum modules as listed on this specification sheet. This assessment is referenced to NCCER's 1st edition of the Power Generation Maintenance Mechanic curriculum. You may order books and modules from Pearson by visiting www.nccer.org/order-books-modules/

Assessment Development

All questions are developed and approved by subject matter experts under the direction of NCCER.

Credentials

Upon successful completion of the knowledge assessment or performance verification, credentials can be viewed and printed by the individual or assessment program through their NCCER Account.

Score Report and Training Prescription

Each candidate will have online access to their assessment results including their overall score and recommended training through their NCCER Account.

Written Assessment Contents:

Module ID	Content Domain/Module Title	Number of Items
00101	Basic Safety	1
00106	Basic Rigging	1
32103	Fasteners and Anchors	4
32104	Oxyfuel Cutting	4
32105	Gaskets and Packing	3
32107	Construction Drawings	4
32108	Pumps and Drivers	4

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Written Assessment Contents:

Module ID	Content Domain/Module Title	Number of Items
32109	Valves	4
32112	Mobile and Support Equipment	4
32113	Lubrication	4
32302	Precision Measuring Tools	4
32207	Introduction to Bearings	4
32303	Installing Bearings	4
32304	Installing Couplings	4
32308	Installing Mechanical Seals	4
32306	Conventional Alignment	4
32404	Reverse Alignment	4
32307	Installing Belt and Chain Drives	3
32204	Introduction to Ferrous Metal Piping Practices	4
32205	Identify, Install and Maintain Valves	4
32208	Low-Pressure Steam Systems	4
32209	High-Pressure Steam Systems and Auxiliaries	4
32211	Heaters, Furnaces, Heat Exchangers, Cooling Towers, and Fin Fans	3
15401	Conveyors	2
15409	Basic Hydraulic Systems	4
15410	Troubleshooting and Repairing Hydraulic Systems	3
52401	Vibration and Balancing	4
52402	Fuel Preparation and Delivery Equipment	4

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Written Assessment Contents:

Module ID	Content Domain/Module Title	Number of Items
32403	Compressors and Pneumatic Systems	4
32407	Troubleshooting and Repairing Pumps	4
32408	Troubleshooting and Repairing Gearboxes	3
15505	Turbines	4
15506	Maintaining and Repairing Turbines	4

Total Number of Items

119