National Craft Assessment and Certification Program
S P E C I F I C A T I O N S

INDUSTRIAL MILLWRIGHT V3
(MLWR15_03)
Released November 2009

Overview
This written assessment is a two-hour closed-book examination. You will be permitted to use a basic function, non-printing calculator during the examination. The assessment center will provide any necessary pencils. No extra papers, books, notes or study material are allowed in the testing area.

Study Material
All NCCER written assessments are referenced to NCCER's curriculum listed in the content. You may order modules from Pearson (800.922.0579) or from NCCER's Online Catalog at www.nccer.org.

Assessment Development
All questions on each assessment have been developed and approved by subject matter experts from the respective craft. Assessment development and administration is under the direction of Prov™, NCCER's testing partner.

Credentials
NCCER will send appropriate credentials (certificate, wallet card and official transcript) to the assessment center upon successful completion of the written assessment.

Training Prescription Reports
Each candidate will have access to individual results of the written assessment from Prov's website (www.provexam.com). This training prescription will include the overall score and results by topic area.

National Registry
Assessment results will be maintained in NCCER's National Registry and become a part of each candidate's training records. These records are stored and become a portable record of the candidate's training and assessment achievements.

Focus Statement
A journey-level millwright will be able to:

- Identify hand tools, fasteners and equipment used in the trade and distinguish their applications
- Apply basic layout principles, blueprint reading, and master intermediate trade math
- Identify appropriate gaskets and O-rings according to their application
- Apply oxyfuel cutting techniques
- Use safe rigging practices
- Set baseplates and soleplates
- Properly use precision measuring tools
- Install packing and seals (including mechanical seals)
- Remove and install bearings and couplings
- Fabricate shims
- Pre-align and install equipment
- Install belt and chain drives, fans and blowers
- Identify conveyor parts and explain their functions
- Distinguish types of alignment (conventional, laser and reverse) and identify the steps that must be taken for each
- Identify types of pumps common to the millwright trade, and distinguish their application, troubleshooting and repairing procedures
- Identify types of compressors and their maintenance procedures
- Troubleshoot and repair gearboxes
- Identify turbine components and explain their functions

Written Assessment Contents

Module Number	Module Name	Number of Questions
00101-04	Basic Safety	4
15102-06	Millwright Hand Tools	4
15103-06	Fasteners	4
15104-06	Basic Layout	4
15105-06	Gaskets and O-rings	4
15106-06	Oxyfuel Cutting	4
15201-07	Intermediate Trade Math	4
15204-07	Specialty Tools	4
15205-07	Millwright Power Tools	4
15206-07	Rigging	4
15207-07	Setting Baseplates and Soleplates	4
15209-07	Introduction to Bearings	4
15302-08	Precision Measuring Tools	4
15303-08	Installing Packing	4
15304-08	Installing Seals	4
15305-08	Installing Mechanical Seals	4
15306-08	Removing and Installing Bearings	4
15307-08	Installing Couplings	4
15308-08	Fabricating Shims	4
15311-08	Installing Belt and Chain Drives	4
15312-08	Installing Fans and Blowers	4
15401-08	Conveyors	4
15403-08	Conventional Alignment	4
15404-08	Pumps	4
15405-08	Troubleshoot and Repair Pumps	4
15406-08	Compressors and Compressor Maintenance	4
15411-08	Troubleshoot and Repair Gearboxes	4
15501-09	Reverse Alignment	4
15502-09	Laser Alignment	4
15503-09	Advanced Blueprint Reading	4
15505-09	Turbines	4
15507-09	Installation of Motors	4
Total Number of Questions		**128**

The cut score for this assessment is 68%.

A Performance Verification is available.