



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

Industrial Boilermaker V3

(RBLMK34_02)

Revised September 2008

Overview

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

Study Material

All NCCER written assessments are referenced to Contren® Learning Series modules 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 at 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

An industrial boilermaker:

- Recognizes safety-related issues and equipment
- Masters a variety of hand and power tools such as hydraulic, pneumatic, and electrical
- Recognizes proper and safe use of tools and equipment, such as oxyfuel torches to cut steel and iron
- Knows various types of gasket materials commonly used in flanges and presents the proper procedure to use for laying out and cutting a flange gasket
- Knows all components and equipment of a boiler

- Interprets plot plans, structural drawings, elevation drawings, as-built drawings, equipment arrangement drawings, P&IDs, isometric drawings, spool sheets, and detail sheets.
- Identifies installation and removal procedures for various types of valves and actuators
- Identifies pipe hangers and supports found on the job
- Explains how to read and interpret pipe support drawings and symbols and how to determine field placement of hangers and spring can supports
- Inspects, tests, plugs and replaces boiler tubes
- Constructs and maintains of towers and exchangers
- Performs service, flow, head pressure, hydrostatic, and steam blow tests on piping systems and equipment

Written Assessment Contents:

| Module Number | Domain Name | Number of Questions |
|---------------|-----------------------------------|---------------------|
| 00102-04 | Introduction to Construction Math | 6 |
| 00106-04 | Rigging | 6 |
| 34102 | Boilermaker Safety | 8 |
| 34103 | Boilermaker Tools | 4 |
| 34105 | Oxyfuel Cutting | 4 |
| 34106 | Cutting and Fitting Gaskets | 5 |
| 34201 | Introduction to Boiler Components | 6 |
| 34203 | Drawings and Detail Sheets | 7 |
| 34204 | Identifying and Installing Valves | 7 |
| 34205 | Base Metal Preparation | 4 |
| 34209 | Pipe Hangers and Supports | 4 |
| 34210 | Fasteners | 4 |
| 34211 | Spring Can Supports | 4 |
| 34303 | Advanced Tube Work | 5 |
| 34307 | Towers & Exchangers | 10 |
| 34308 | Testing Piping Systems | 6 |
| 34403 | Advanced Towers & Exchangers | 10 |
| Total | | 100 |

The cut score for this assessment is 74%.
A Performance Verification is available.

The Pipefitter's Bluebook is the only approved reference for this assessment.