



Performance Verification Packet

Industrial Millwright

This performance verification is designed as one method to evaluate job skills and safe work habits of a participant. The performance of the participant must be evaluated by an NCCER certified evaluator, at an NCCER authorized assessment site and be approved by an NCCER accredited assessment center.

Last Updated: September 2009

NCCER

13614 Progress Blvd • Alachua, FL 32615

1-888-622-3720

Performance Verification Form

How to fill out and file your information

Participant

- 1) Print your last name, first name, and social security number.
- 2) Print your company name, current employer, and the state where your employer's main office is located.
- 3) In the space provided for "Participant Signature," sign your name and enter the date you signed the form.

Performance Evaluator

- 1) In the space provided for "Site Code," enter the postal zip code of the location where the performance verification is being conducted.
- 2) In the column provided for "Date," enter the date the participant completed each of the tasks. This date is important because there may be times a participant does not complete a performance verification in one day.
- 3) In the space provided for "Performance Evaluator," sign your name.
- 4) In the space provided for "Date," next to your signature, list the date the participant successfully completed all of the tasks.

Administrator

- 1) In the space provided for "Administrator," sign your name. Your signature indicates that the performance evaluator is certified to conduct this performance verification and that it was conducted within the guidelines of the NCCER.
- 2) In the space provided for "Date", next to your signature, list the date that this performance verification form is being sent to the NCCER for entry into the National Registry.
- 3) In the space provided for "Accredited Assessment Center," print the name of the accredited assessment center that is conducting this performance verification.

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NCCER PERFORMANCE VERIFICATION CANDIDATE SUMMARY

INDUSTRIAL MILLWRIGHT

Objective

The candidate will demonstrate the ability to remove, inspect, disassemble, rebuild, install and align a pump and record necessary information.

Scope

This Performance Verification provides a means to observe and evaluate competencies in the following areas:

- Removing pump from casing
- Removing impeller back plate and seal
- Disassembly of bearing housing
- Installation of shafts and bearings into housing
- Installation of a pump into casing

Materials Required

- PPE
- Wrenches (combination)
- Rigging equipment (i.e., sling, shackles, hoist, etc.)
- Pullers
- Induction heater
- 250-degree temp-stick
- Various coupling types
- Emery cloth or Scotchbrite
- Flat file
- Various bearing types
- Allen wrenches
- Foundation and baseplates
- Machinist level
- Optical level
- Shims (hard pack and precision shims)
- Hand held mirror
- Dial indicators with chain or reverse alignment brackets
- Laser
- Brass punch
- Pump Installed in Casing
- Proper Measurement Tools
- Pump Specification Sheet
- Hand / Power Tools

Time Required

Based on Job Site specifications and equipment

Tasks

- **Remove pump from casing**
 - Check condition
 - Check shaft and seal
- **Remove impeller backplate and seal**
 - Check shaft
 - Check seal
- **Disassemble bearing housing**
 - Inspect shaft
 - Check for proper fit
- **Install shaft and bearings in housing**
 - Check for proper fit
 - Make sure all secondary seals, O-rings, etc., are in place
- **Install pump in casing**

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NCCER PERFORMANCE VERIFICATION CANDIDATE SUMMARY
INDUSTRIAL MILLWRIGHT

- Verify proper clearances

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NCCER PERFORMANCE VERIFICATION EVALUATOR CHECKLIST
INDUSTRIAL MILLWRIGHT

Date Completed Task To Perform

- __-__-__ 1. **Remove pump from casing**
- Checked impeller condition
 - Checked shaft and seal
-

- __-__-__ 2. **Remove impeller backplate and seal**
- Checked shaft run out
 - Checked for seal failure
 - Inspected back plate
-

- __-__-__ 3. **Disassemble bearing housing**
- Inspected shaft
 - Checked for proper fit
-

- __-__-__ 4. **Install shaft and bearings into housing**
- Checked and verified proper fit
 - Made sure all secondary seals, O-rings, etc., are in place
-

- __-__-__ 5. **Install pump in casing**
- Verified impeller clearance
 - Verified seal setting after impeller clearance
 - Proper specifications were met during installation



PERFORMANCE VERIFICATION FORM

INDUSTRIAL MILLWRIGHT – MLWRT15_03 - CRAFT

Candidate information		
_____	_____	_____
Last Name	First Name	Social Security Number
_____	_____	_____
Employer/Company Name	State	Site Code
Evaluator		
_____	_____	_____
Last Name	First Name	Social Security Number

Task Number	TASK	DATE (MM/DD/YY)	START TIME	END TIME
01	Remove pump from casing (15404-08)			
02	Remove impeller backplate and seal (15304-08)			
03	Disassemble bearing housing (15306-08)			
04	Install shaft and bearings in housing (15306-08)			
05	Install pump in casing (15405-08)			

Consent/Release: I, the undersigned, do hereby authorize the National Center for Construction Education and Research (NCCER) to release the information and results attained through the administration of the National Craft Assessment and Certification Program (NCACP) to the organization referenced below, and acknowledge that the employer noted above is my present employer.

Accredited Assessment Center: _____

Participant: _____ **Date:** _____

Performance Evaluator: _____ **Date:** _____

Administrator: _____ **Date:** _____