

NIMS COMPETENCY-BASED APPRENTICESHIP SYSTEM

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**NIMS CERTIFIED MACHINE BUILDER
CORE COMPETENCY ASSESSMENT FORM**

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APPRENTICE: _____ EMPLOYEE NUMBER: _____

SUPERVISOR: _____ DEPARTMENT: _____

INSTRUCTIONS: Check-off each Core Competency as the apprentice demonstrates a level of proficiency that is equivalent to a journeyworker level employee.

NIMS CERTIFIED MACHINE BUILDER CORE COMPETENCIES

1.	Identify and Demonstrate Usage of Machine Safety and Personal Protective Equipment	
2.	Demonstrate Compliance with Lock-out / Tag-out Procedures and OSHA Requirements and Guidelines	
3.	Machine Operations and Material Handling, Hazardous Materials Handling and Storage, including EPA, Hazmat, and OSHA	
4.	Part Inspection	
5.	Process Control	
6.	Process Adjustment – Single Part Production	
7.	Participation in Processes Improvement	
8.	Manual Operations: Layout	
9.	Manual Operations: Benchwork	
10.	Sawing	
11.	Job Process Planning	
12.	Drilling Operations	
13.	Turning Operations: Turning Between Centers - Level I Machining Skills	
14.	Turning Operations: Turning Between Centers - Level II Machining Skills	
15.	Turning Operations: Chucking - Level I Machining Skills	
16.	Turning Operations: Chucking - Level II Machining Skills	
17.	Milling: Square Up a Block	
18.	Manual Milling: Vertical and Horizontal - Level I Machining Skills	
19.	Manual Milling: Vertical and Horizontal - Level II Machining Skills	
20.	Surface Grinding, Grinding Wheel Safety	
21.	Surface Grinding, Horizontal Spindle, Reciprocating Table - Level I Machining Skills	
22.	Surface Grinding, Horizontal Spindle, Reciprocating Table - Level II Machining Skills	
23.	CNC Programming - Milling and / or CNC Programming - Turning - Level I Machining Skills	
24.	CNC: Write a Simple CNC Milling and / or Turning Program and Review Tool Path - Level I Machining	
25.	CNC: Operate a CNC Milling Machine and / or CNC Lathe - Level I Machining Skills	
26.	General Housekeeping & Maintenance	
27.	Preventative Maintenance - Machine Tools	
28.	Tooling Maintenance	

COMMENTS: _____

APPRENTICE'S SIGNATURE: _____ DATE: _____

SUPERVISOR'S SIGNATURE: _____ DATE: _____

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NIMS CERTIFIED MACHINE BUILDER CORE COMPETENCIES

29.	Job Process Planning	
30.	Job Planning--Layout	
31.	Parts Identification and Preparation	
32.	Preparation for Assembly--Level Base of Machine	
33.	Measure and Verify Bearing Surfaces	
34.	Surface Preparation	
35.	Bolt Hole Preparation	
36.	Install Bearings and Shafts to Housing	
37.	Select and Install Gears; Match, Align, Secure, and Pin Mating Parts	
38.	Install Components for Fluids and Air	
39.	Install Mechanical Components on Machine	
40.	Install Drive Systems	
41.	Performance Test Sub-Assembly	
42.	Mount, Align, and Secure Sub-Assemblies	
43.	Set Machine Adjustments	
44.	Install Machine Guarding	
45.	Verify Machine Operation	
46.	Tear Down Machine for Shipment (IF APPLICABLE)	
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