APPRENTICE WORK PROGRESS RECORD

CNC Programmer

Name: _____ Employer: _____

Year: _____ Employer Signature: _____

	WORK CODES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
	C-1 (2,600 Hours) CNC Set-Up & Ops												
	C-2 (550 Hours) Material Process & QA												
	C-3 (300 Hours) Inspection, Deburr, etc.												
	C-4 (1,050 Hours) Develop Tooling												
	C-5 (1,000 Hours) Create CNC/NC Code												
	C-6 (300 Hours) Manage MFG Data												
	C-7 (200 Hours) Customer Service												
	Total Hours												
	Wage Rate	$	$	$	$	$	$	$	$	$	$	$	$
	Apprentice Initials												
	Employer Initials												

Instructions for Apprentice Work Progress Record

Apprentice shall submit monthly work progress hours by the fifteenth (15th) day of the following month. **Apprentices may not count more than 184 hours per month toward the required hours for the completion**. Overtime, Sick Leave, and Paid Time Off do not count towards completion of the apprenticeship.

Name of Program: AJAC – Production Apprenticeship Committee #1828 – CNC Programmer

APPRENTICE WORK PROGRESS RECORD

CNC Programmer

This is the permanent record of your apprenticeship. Make the entries in ink and have your supervisor sign each month's report. **The original should be kept for your records and the monthly total hours recorded electronically through the AJAC Apprentice Tracking System (ATS): http://ats.ajactraining.org.**

We recommend that you start a binder to keep these hard copy record sheets. The worksheet is the work record for one year. Each column represents one month. Mark the number of hours worked on each month on the row that lists the skill from the apprenticeship standards. Total the hours you worked each month on each row and record that number in the row titled "Total Hours". Report the total in the ATS.

The hours from your work progress record are due at AJAC by the 15th of the month following the month you just completed (i.e. hours worked in January are due by February 15th). Failure to report hours by the 15th of the month may result in loss of hours and other disciplinary action. **Apprentices may not count more than 184 straight hours per month toward the required hours for completion.**

Work Codes:

C – 1: **Advance CNC Set-Up and Operations (4 Axis, 5 Axis Process) (2,600 Hours):** Read and interpret advanced engineering drawings and specifications. Select and install appropriate cutting tools for specific jobs. Load and secure advanced workpieces onto the CNC machine. Set work and tool offsets accurately. Diagnose and resolve CNC machine errors and malfunctions. Identify and address issues related to tool wear, chip evacuation, and coolant flow. Troubleshoot problems with machine movements and positioning.

C – 2: **Material Process, Quality Assurance & Cutting Technology (550 Hours):** Implement quality control processes. Perform regular calibration checks on the CNC machine. Adjust and compensate for any inaccuracies in machine geometry. Ensure proper alignment of multiple axes.

C – 3: Advance Inspection, Parts Finishing, Deburr, Administrative Work (300 Hours): Utilize precision measuring instruments for in-process and final inspection. Verify workpiece dimensions against engineering specifications. Analyze machining processes for efficiency improvements. Propose and implement process enhancements. Stay updated on the latest advancements in CNC machining technology.

C – 4: Establish Manufacturing Process / Develop Tooling (1,050 Hours): Proofread code manually, eliminate code crashes, validate accuracy, prevent over travel alarms, validate code syntax, verify (cycle times, tool holder assembly), and archive edits

C – 5: Create CNC/NC Code/ Identify Numeric Code (1,000 Hours): Generate CNC programs using CAM software. Understand and apply G-code and M-code commands. Debug and optimize CNC programs for efficiency. Develop programs for multi-axis machining

C – 6: Develop Set-up Documentation / Manage Manufacturing Data (300 Hours): Create comprehensive setup sheets detailing all the necessary steps for machine setup. Document tooling information, including tool numbers, types, and dimensions. Specify work offsets, tool offsets, and any additional parameters

required for the setup. Include notes on critical dimensions, tolerances, and quality control checkpoints. Develop standardized setup procedures for common machining operations. Generate manufacturing data sheets that provide a detailed overview of each job. Document raw material specifications, including material type and dimensions. Specify machining sequences and operations for different features of the workpiece. Include information on recommended cutting speeds, feeds, and spindle speeds. Provide details on coolant requirements and any special instructions for each job.

C – 7: Provide Internal/External Customer Service (200 Hours): Effectively communicate with team members and supervisors. Provide clear and concise documentation of machine setups and programs. Collaborate with engineers and designers for process optimization. Implement a system for version control on setup documentation and data sheets. Clearly mark and communicate any revisions or changes to the documentation. Ensure that all team members use the latest, approved versions of setup documents. Build Standard Operating Procedures (SOPs), Develop and maintain SOPs for various CNC machining processes. Clearly outline the step-by-step procedures for machine setup and operation. Include safety precautions, emergency procedures, and shutdown protocols.