

# APPRENTICE WORK PROGRESS RECORD

## Machinist (Aircraft Oriented)

Name: \_\_\_\_\_

Apprentice Registration Number: \_\_\_\_\_

Year: \_\_\_\_\_

Employer: \_\_\_\_\_

WORK CODES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
<b>M-1 (2,600 Hours)</b> Conventional & CNC Machining Basics												
<b>M-2 (2,100 Hours)</b> Conventional & CNC Machining Operations												
<b>M-3 (800 Hours)</b> CNC Set-Up & Advanced Operation Procedures												
<b>M-4 (500 Hours)</b> Material Process, Quality Assurance & Cutting Technology												
<b>M-5 (500 Hours)</b> Advanced Machining Techniques & NC Basic Programming												
<b>M-6 (1,500 Hours)</b> Inspection, Parts Finishing, Deburr, Assembly, Bench Work												
<b>Total Hours</b>												
<b>Wage Rate</b>	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>Apprentice Initials</b>												
<b>Employer Initials</b>												

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: Aerospace Joint Apprenticeship Committee (AJAC) #1828 – Machinist (Aircraft Oriented)

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### Instructions for Apprentice Work Progress Record

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:

##### **M – 1: Basic Conventional & CNC Machining (2,600 Hours)**

- Manual Mill & Lathe Machining: Dialing in Machines, Feeds and Speeds, Squaring, Milling, Turning, Threading, Facing, Tooling, Knurling, Boring, Basic Surface and Cylindrical Grinding, Honing, Drill Presses, Lifting/Rigging & Crane processes, hydraulic and manual presses, Metal/Band Saws operation, proper work holdings.
- CNC Mill & Lathe Machining: Basic set up, work holdings, basic machine maintenance (i.e. fluid levels), basic operations, visual and audio trouble shooting (i.e. cutter wear), Lock-out/Tag out Procedures, Zero offsets, TLO's and CDC, selecting and verifying programs.

##### **M – 2: Advanced Conventional & CNC Machining (2,100 Hours)**

- Manual Mill & Lathe Advanced Machining: Manual lathe turning, manual milling vertical/horizontal/jig, broaching, keyset cutting, gear cutting, heat treating, Swiss lathe operation, tool grinding/milling.
- Advanced CNC Mill & Lathe Machining: Advanced machining techniques, specialty tool selection/install/repair, advance set-up and operation, fixturing and work holding creation/machining/modification, complex tolerance machining, and system operations.

##### **M – 3: CNC Set-Up & Advanced Operation Procedures (800 Hours)**

- Advanced work holdings, jigs, tool and die theory, M+G programming system, crash avoidance, advanced preventative maintenance (including alignment), cutting tool selection/maintenance, tool and cutter grinding. Water-Jet, Laser, EDM operation.

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### **M – 4: Material Process, Quality Assurance & Cutting Technology (500 Hours)**

- Material process handling and metallurgy (i.e. Aluminum, Stainless steels, steels, heat treat/electroplate, ceramics, castings, forgings, billets, plastics, composites.)
- Able to use various tools such as: (Boring bar, broach, end mill, drill, spot drill, center drill, reamer, hone, keyseat cutter, wheel cutter, groove tool, thread mill, tap, chamfer mills, engraving cutters, face mills, radius mills, part-offs, custom ground tools) Turning tools, milling tools, wheel cutters, drills, insert Tools, boring tools, form tools, taps.

### **M – 5: Advanced Machining Techniques & NC Basic Programming (500 Hours)**

- Programming tools, parts, and work holding using CAD and CAM software, Advanced troubleshooting of programming issues, and reprogramming. Ensuring the software is posted correctly for the machine and its capabilities.

### **M – 6: Inspection, Parts Finishing, Deburr, Assembly, Bench Work (1,500 Hours)**

- Blueprint reading, Mylar, GD&T, Inspection techniques & proper tool use, temperature control & FOD control, inspection systems, coordinate measuring machine (CMM), work holding.
- Parts assembly, part marking, part packaging, deburring, tool & cutter grinding and maintenance.