



The Manufacturers Association

JOB QUALIFICATION STANDARD (JQS)

Occupation: TOOLMAKER

Work Process: Sawing

Practical Hours: 100 hrs.

DOL Standard: Sawing: Apply a working knowledge for setting up, operating, or tending to machines that saw, cut or shear materials during the removal of metal, within a defined tolerance, to be used in further machining or fabrication processes.

Performance Objective: Demonstrate the ability to safely setup and operate machine tools to perform routine sawing operations.

Performance Indicator	Qualification Date/Initial
Demonstrate the ability to check fused/welded blade to ensure that joined saw has a continuous cutting edge in accordance with manufacturer's manual or job specifications.	
Demonstrate the ability to locate and position the workpiece in the saw to the required operational clearance by setting up workholding devices, including nesting fixtures, vises, or roller supports, so that the workpiece is aligned, secured, and stable during sawing operations in accordance with job specifications.	
Demonstrate the ability to select speeds and feeds of saws using the speed and feed charts and in accordance with the size, type, and hardness of workpiece material, so that the saw performs optimum cutting without damage to workpiece, cutting tools, or machines, and ensures personal safety.	
Demonstrate the ability to install and test-run blade to check alignments and movements so that the blade makes the required cut, prevents machine or blade damage and ensures personal safety in accordance with company standards.	
Demonstrate the ability to check first cut-off by measuring and checking a cut-off piece to ensure that the angles, squareness, and length of the sawed piece will conform to the engineering drawings and job specifications.	
Demonstrate the ability to cut shapes (vertical bandsaw) using required sawing sequences, speeds, feeds, and cutting fluids, so that the profile, size, and dimensions of the cut shapes conform to the engineering drawings, job specifications.	
Demonstrate the ability to cut squared and angled surfaces (power cut-off saw) using required sawing sequences, speeds, feeds, and cutting fluids, so that the squareness, angles, and size of cut surfaces conform to engineering drawings, job specifications.	
Demonstrate the ability to maintain material identification by marking or stamping the workpiece and completing shop documentation to facilitate traceability of the final product or work-in-process and maintain inventory control in accordance with company standards.	



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Demonstrate the ability to deburr the workpiece using files, scrapers, emery cloth, sanders and hand or pedestal grinders to remove excess material and ensure safe handling in accordance with engineering drawings, job specifications.	
Demonstrate the ability to perform final inspection using precision measuring instruments and checking devices including inside and outside micrometers, vernier height gauges or indicators, gauge blocks, and pin gauges to ensure that the tolerances and dimensions of the sawed workpiece to conform to the engineering drawings and job specifications.	
Demonstrate the ability to complete work documentation including tracking sheets, sign-off sheets, inspection reports, or procedure sheets to record the finalization of jobs and to facilitate traceability of work-in-process and ensure that data is recorded accurately and clearly in accordance with engineering drawings and job specifications.	
Demonstrate the ability to practice good housekeeping in the workplace by cleaning up spills or leaks, keeping work area clean and clear of obstructions, and storing tools or equipment so that the potential for accident or injury is prevented and tools or equipment are in place and available in compliance with safety regulations.	

Apprentice Signature:	Completed: MM/DD/YY
Mentor Signature:	Completed: MM/DD/YY
Supervisor Signature:	Completed: MM/DD/YY
Comments:	