



The Manufacturers Association

JOB QUALIFICATION STANDARD (JQS)

Occupation: Maintenance Mechanic

Work Process: Welding and Fabrication

Practical Hours: 250 hrs.

DOL Standard: Maintenance Welding: Apply a working knowledge of welding and soldering skills when performing tasks within the manufacturing environment.

Performance Objective: Demonstrate the ability to safely perform welding tasks to fabricate parts and repair mechanical equipment, in accordance with specifications.

Performance Indicator	Qualification Date/Initial
Demonstrate the ability to use an acetylene torch to cut steel parts.	
Demonstrate the ability to identify weld symbols on a welding schematic.	
Demonstrate the ability to select a welding process for a given application.	
Demonstrate the ability to apply proper grounding techniques for welding.	
Demonstrate the ability to match selection of the metal to be welded with the proper welding rod and wiring.	
Demonstrate the ability to prepare metal parts to be welded including degreasing, cleaning, grinding.	
Demonstrate the ability to Use a SMAW Welder to perform basic types of welds including tack, butt joint, lap joint, T-joint, corner joint and groove joint in various positions.	
Demonstrate the ability to Use a GMAW Welder to perform basic types of welds including tack, butt joint, lap joint, T-joint, corner joint and groove joint in various positions.	
Demonstrate the ability to visually inspect welds to identify defects to include porosity, undercut, inclusions, poor penetration, burn through and cold lap.	
Demonstrate the ability to apply countermeasures to correct welding defects.	
Demonstrate the ability to set up and use a plasma cutter to cut flat stock.	

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