Inspection of Equipment: General Requirements

After I obtain the hot work permit, what do I need to do before I begin hot work for the day?

An equipment inspection should be conducted before using any arc or gas welding equipment on each shift.

Gas Welding Equipment

What should I inspect before using gas welding equipment?

Items that should always be inspected before use include:	Yes	No
Is flash-back protection provided by an approved device that will prevent flames from traveling into cylinders?		
Are hoses for use showing defects such as cuts, excessive wear or cracks?		
Are pressure reducing-reducing regulators used only for the gases and pressures for which they are intended?		
Are gauges on oxygen regulators marked "USE NO OIL"?		
Are all gauges in proper working order and have the clear guards intact?		
Do cylinders have gas and are fittings on tight?		
Is personal protective equipment (welding hood, gloves, apron, welding jacket, etc.) available with no defects?		
Do torches have leaking shutoff valves, hose couplings and tip connections?		
Are torches ignited by friction lighters or other approved devices and not by matches, lighters, or from other hot work?		
Are fuel gas and oxygen hoses easily distinguishable from each other by color or surface characteristics readily distinguished by the sense of touch?		

Use this guide to make recommended equipment inspections prior to conducting hot work operations.

Hot Work Out of Service Guide

What should I do with any piece of defective welding equipment?

Any piece of defective welding equipment should be immediately removed from service and physically tagged "OUT OF SERVICE" in a conspicuous location on the defective equipment. All defective equipment should be removed from the normal work area and stored safely until the equipment can either be repaired or replaced. Once the equipment has been repaired it can be brought back into regular service.

What should I do with a cylinder with a leaky valve or fitting?

The cylinder with the leaky valve or fitting should be taken outdoors away from ignition sources and slowly emptied. Additionally, clear and visible warning signs that prohibit open flame or other sources of ignition should be posted near cylinders with leaking fuse plugs or other leaking safety devices.



Arc Welding Equipment

What should I inspect before using arc welding equipment?

Items that should always be inspected before use include:	Yes	No
Is the electrical cord, electrode holder and cables free from defects (no cable splices are allowed within 10 feet of the electrode holder)?		
Check all connections to the machine to make certain they are properly made.		
Is PPE (welding hood, gloves, apron, welding jacket, etc.) available and have no defects?		
Is the frame or case of the welding machine effectively grounded?		
Are electrode holders placed so that they cannot make electrical contact with persons, conducting objects, fuel or compressed gas tanks?		
Are terminals for welding leads protected from accidental electrical contact by personnel or metal objects?		
Is the control apparatus enclosed on all types of arc welding machines?		
Ensure that no connections for portable control devices, such as push buttons carried by the operator, are connected to an AC circuit of higher than 120 volts.		
Does each welding machine have a separate disconnect switch or controller provided at or near the machine?		

Report any defective equipment to your Supervisor and do not use until it is repaired or replaced before use.

Great American's loss control information is intended to provide guidance and is not intended as a legal interpretation of any federal, state or local laws, rules or regulations applicable to your business. The loss control information provided is intended only to assist policyholders in the management of potential loss producing conditions involving their premises and/or operations based on generally accepted safe practices. In providing such information, Great American does not warrant that all potential hazards or conditions have been evaluated or can be controlled. It is not intended as an offer to write insurance for such conditions or exposures. The liability of Great American Insurance Company and its affiliated insurers is limited to the terms, limits and conditions of the insurance policies underwritten by any of them. Any claims scenarios are provided to illustrate possible exposures faced by you or your clients. The facts of any situation which may actually arise, and the terms, conditions, exclusions, and limitations in any policy in effect at that time, are unique. Thus, no representation is made that any specific insurance coverage applies to the claims scenarios. © 2021 Great American Insurance Company, 301 E. Fourth St., Cincinnati, OH 45202.

All rights reserved. F13939-LC (06/21)

