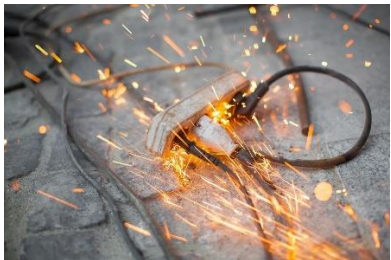



Welding Precautions

Vocabulary

Ex.1. Match the words with their definitions.

1. electrode lead	a. locations that are difficult to reach or enter due to obstacles or limited space.
2. riveting	b. to use up a resource or material.
3. hard-to-access areas	c. materials containing iron, such as steel or cast iron.
4. consume	d. a welding process that uses an arc between a bare metal electrode and the workpiece under a blanket of granular flux.
5. precaution	e. an electrical connection that allows current to bypass its intended path.
6. adjustment	f. a wire connected to an electrode used to conduct electricity in welding.
7. short circuit 	g. the flow of electric charge through a conductor.
8. ferrous material	h. the total value of all goods and services produced by a country in a year, including income earned abroad.
9. helmet 	i. a protective head covering worn for safety during activities such as construction or sports.
10. gross national product	j. an action taken in advance to prevent harm or danger.
11. submerged arc welding	k. a small change made to

	something in order to correct or improve it.
12. electric current	1. holding one's attention completely; fascinating or engrossing.

Ex. 2. Complete the sentences with the given words:

settings, dissimilar, Oxy fuel, explosion risk, gas, Fusion, trigger, flame, Overhead, red hot, variable, electrode holder

The welder adjusted the _____(1) settings to achieve a stronger bond.

_____ (2) welding requires heating the metals until they melt together.

The correct _____(3) are crucial for a successful welding job.

The _____(4) from the torch is used to heat up the metal before welding.

_____ (5) welding uses a combination of oxygen and acetylene gas.

Proper _____(6) flow is necessary for a clean and efficient weld.

The welder inspected the _____(7) before starting the job.

The metal became _____(8) during the welding process.

He pressed the _____(9) to start the welding machine.

_____ (10) welding can be challenging due to gravity pulling the molten metal down.

Welding _____(11) metals requires special techniques to ensure a strong bond.

The welder took precautions to minimize the _____(12) in the workshop.

Reading

Ex. 1. Read the text.

Welding Precautions

Welding is a process that involves joining two pieces of metal together using heat and pressure. While it is a necessary skill in many industries, it also poses several hazards to workers. To ensure the safety of everyone involved, it is important to take certain precautions when performing welding tasks.

One of the main risks associated with welding is exposure to harmful fumes and gases. The intense heat generated during the process can cause metals to release toxic substances into the air. Workers should always operate in well-ventilated areas, preferably outdoors or in a space equipped with exhaust fans. If these options are not available, they should use respiratory protection, such as a powered air-purifying respirator (PAPR), to filter out the contaminants.

Another potential danger is the bright light produced by the welding arc. This intense light can damage the eyes and cause a condition known as arc eye, which is similar to sunburn of the cornea. Welders should wear appropriate eye protection, such as a welding helmet with a dark lens, to shield their eyes from the harmful rays. They should also ensure that others nearby are not looking directly at the arc without proper protection.

The heat generated during welding can also lead to burns and fires. Workers should wear flame-resistant clothing, such as leather jackets and gloves, to protect themselves from sparks and hot metal. They should also keep a fire extinguisher close by and be trained in its proper use. Additionally, it is important to clear the work area of any flammable materials and have a fire watch on standby to monitor for potential fire hazards.

Lastly, welders should be aware of the electrical hazards associated with the process. They should inspect all equipment for damaged cords or loose connections before use. They should also avoid standing on wet surfaces or touching metal objects while welding, as this can increase the risk of electric shock. It is recommended to use ground fault circuit

interrupters (GFCIs) or double-insulated tools to further minimize the risk of electrical accidents.

In conclusion, welding can be a dangerous activity if proper precautions are not taken. By following these safety guidelines, workers can protect themselves and others from the potential hazards associated with the process.

Ex. 2. *Answer the questions.*

1. What are the main risks associated with welding?
2. How can workers protect themselves from exposure to harmful fumes and gases during welding?
3. Why is it important for welders to wear appropriate eye protection?
4. How can the heat generated during welding lead to injuries?
5. What safety measures should be taken to prevent fires during welding tasks?
6. What electrical hazards should welders be aware of?
7. How can workers further minimize the risk of electrical accidents while welding?

Communication

Ex. 1. *Make sentences using the following words:*

1. wear/appropriate/safety
2. work/area/well-ventilated
3. safety/guidelines/manufacturer
4. connections/before/starting
5. flammable/materials/away
6. proper/posture/prevent
7. inspect/equipment/regularly
8. focused/alert/while

9. breaks/avoid/fatigue

10. seek/training/new