

Plasma Cutter (Lincoln Tomahawk 375)

METHOD OF OPERATION

*Steel material is placed on plasma cutting table. After placing electrode, a torch is used to cut out organic shapes.

MACHINE HAZARDS

*Electric Shock	*Fumes/Noxious Gas
*Body Burns/Radiation Burns	*Flying Sparks/Falling Slag
*Noise	

*Controls: Proper hand placement—Never place hands in close proximity while the rolls are operating.

*Controls: Always ensure the grounding clamp is placed on a corner of the material to ensure proper operation and grounding

*Controls- NO loose fitting, frayed, or torn clothing. Frayed and torn clothing can catch errant sparks and catch fire. The user should remove any ties, jewelry, watches, and secure any long hair away from the face before operating this machine.

*Controls-Fume extraction: The operator should ensure the Fume extraction is always turned on and functioning before using the Plasma Cutter

*Controls-PPE: The operator should ensure that they are wearing proper PPE before using the Plasma Cutter.

PPE/Safety Measures

*Closed Toed Shoes	*Long hair tied back and away from face
*Welding Helmet	*Form fitting clothing, without rips and frays
*Spats (If shoes are not rated for sparks)	
*Welding jacket	

Guards and Devices

*Internal Air compressor

Most plasma cutters require an external air compressor to be attached for proper operation. This machine also has an INTERNAL AIR COMPRESSOR, allowing it to be portable. This compressor is rated for about 4 minutes of continuous cutting. If the machine begins to overheat, it will shut itself off.

*Electrode

- the electrode must be clamped to a corner of your piece to ensure proper grounding and operation.

* Stand off clip, safety cover

The torch comes equipped with a stand off clip to ensure appropriate distance from the workpiece. It also comes equipped with a safety cover over the trigger. The safety cover must be flipped up in order to squeeze the trigger on the torch.

Operational Notes

Set up:

Ensure Machine is properly set up for current and airflow.

Sequence of Operation

Cutting

1. To use the Plasma Cutter, orient the plasma cutter table in a position ideal for the operator. Place your material on the table, ensuring that it is properly supported.
2. Ensure your material is free of grease, oil, and any flammable materials.
3. Premark necessary patterns or guidelines if necessary
4. After donning appropriate PPE, clamp your electrode in a corner of the piece. Turn on the machine using the switch in THE BACK of the machine
5. The switch in the FRONT of the machine allows you to use the internal air compressor. Ensure this is turned ON before beginning your operation.
6. Place your torch on the spot where you would like to start cutting. Do not remove the clip, as this allows for proper stand off distance from the machine
7. When you are ready to begin cutting, flip the safety cover and squeeze the red trigger on the torch. Begin to drag your torch at a steady pace along your cut line. If you move too slow or too fast you might not create a clean cut
8. Move your torch along the path until you have cut out your piece

Never

- *Attempt to cut on the fixturing table. Use ONLY the PLASMA CUTTING table.
- *Attempt to use the Plasma cutter without first turning on the FUME EXTRACTION
- *Attempt to weld or cut containers that have held combustible liquids or gases
- *Attempt to cut or heat metals coated with or containing materials that emit toxic fumes, unless coating is removed from the work surface.
- *Attempt to use the machine without appropriate PPE
- *Attempt to cut material which you are unfamiliar of its origin
- *Attempt to use the machine if others in the area are not wearing appropriate PPE

- *Use faulty equipment. Immediately report suspect equipment.
- *Use the machine while wearing rings or other jewelry

Maintenance Notes/Service by Operator

- *Contact Shop Supervisor/qualified person:
- *If you require any additional support.