



Job Performance Review

Torch Cutting Operations – Oxyacetylene Cutting

Individual Level Competency

JPR Title

Torch Cutting Operations – Oxyacetylene Cutting

JPR Number

JPR-TR-7

Reference

NFPA 1670 – Standard on Operations and Training for Technical Search and Rescue Incidents

OSHA 1910.253 Oxygen-Fuel Gas Welding and Cutting

ANSI Z49.1 Safety in Welding, Cutting and Allied Processes

IFSTA Essentials of Firefighting

ATFD Standards of Cover and Risk Analysis

Performance Criteria

Firefighter is able to articulate the various aspects of establishing Oxyacetylene Torch Cutting operations as identified below.

Time Parameters

Safe and efficient manner

Safety Precautions

Space allocation to prevent injury to self or others while operating

Appropriate PPE

Attention to surroundings

Procedure

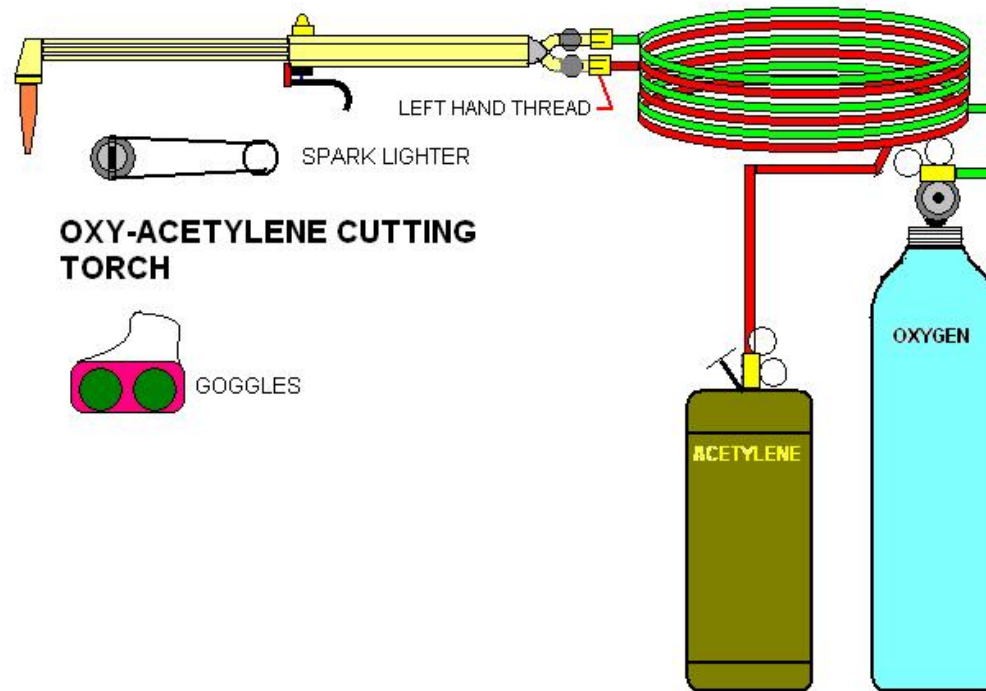
The procedure for establishing this operation is reviewed below on page 2.

Firehouse Software Evaluator Notes

Link to “General Training in the Rescue Section” of FHS



OXYGEN - ACETYLENE CUTTING



1. Turn on your valves on the tanks. **Acetylene main valve should only be opened 1/2 turn, and the regulator set at 5 to 7 psi, oxygen should be opened fully and set between 15 and 25 PSI.**
2. First, turn the torch oxygen that IS released by the trigger, all the way on.
3. Turn on the Acetylene valve until you hear a slight hiss of gas from the nozzle.
4. Take your striker/lighter and light the torch. This should produce a dark red/orange flame, that puts out very putrid black smoke.
5. Now, slowly turn on the valve that controls your Oxygen until you see the flame change. **Careful: too much Oxygen and you can "bleed out" the flame. Meaning the flame will go out. In this event, turn the Oxygen off and try again.**
The flame, when the trigger is NOT compressed, should be a blue flame, measuring about two inches, with about a 1/2" bluish-yellow inner flame.
6. When the trigger is compressed, the flame will become much shorter, louder, and faster.
7. When cutting, always heat the metal up to a nice cherry red, and then press the trigger for oxygen.

Caution: Sparks will be thrown, so be aware and safe. Utilize appropriate PPE.