Student: ----------

Trainer: ----------

Date: ----------

Version: 0.1.0 - 2020-11-03

Certification for: Plasma Torch (Metal Shop)

Training Check-Off List:

Tool Anatomy

- ☐ Parts of the CMS's Hypertherm Powermax85 plasma cutter are properly identified
  - ☐ Torch lead and connector – can take torch lead on and off
  - ☐ Work lead, clamp and connector – can install and remove work lead
  - ☐ Gas supply line
  - ☐ On/Off Switch
  - ☐ Operating Mode Switch – can impart different modes
    - ☐ Expanded metal
    - ☐ Standard cutting and piercing
    - ☐ Gouging
    - ☐ Lock
  - ☐ Status Screen
    - ☐ Current setting
    - ☐ Fault Icon
    - ☐ Fault code
    - ☐ Pressure setting
    - ☐ Gas Pressure Bar

Machine Capabilities & Limitations

- ☐ Student can convey recommended cutting capacities as respective speeds (ipm) for Powermax85.

- ☐ Student can convey duty cycle limitations with Powermax85:
  - ☐ At 85 A, the arc can remain on for 6 minutes out of 10 minutes without causing the unit to overheat (60% duty cycle).
  - ☐ At 74 A, the arc can remain on for 8 minutes out of 10 (80%)
  - ☐ At 66 A, the arc can remain on for 10 minutes out of 10 (100%).

Pre-Operation

- ☐ Student utilizes proper Personal Protection Gear – safety glasses, welding helmet or glasses, welding gloves, welding jacket (or long sleeves!) No unrestrained long hair and no flowing clothes. Closed-toed shoes are required.
- ☐ Student checks to ensure that work area is safe – No puddles on floor in welding/plasma cutting (handheld) area. Plasma cutting area is free of flammable materials.
- ☐ Student adjusts welding screens to make sure no bystanders can be caught by arc-flash

Plasma Cutter - Hand Cutting Certification

Operation

- ☐ Student turn on air compressor AND cooling fan
- ☐ Student turns on the Powermax85, checks the indicators and verifies the following
  - ☐ The green power ON LED on the front of the power supply is illuminated.
  - ☐ The Fault LED is not illuminated.
  - ☐ No error icons appear in the status screen.
- ☐ Student adjusts the current (amperage) for the specific cutting application.

- ☐ Student turns on the fume extractor and position extraction arm correctly.
- ☐ Student attaches work clamp correctly
- ☐ Student demonstrates proper drag-cutting technique

Post-Operation

- ☐ Student turns off the fume extractor.
- ☐ Student turns off the plasma cutter.
- ☐ Student turns off air compressor and cooling fan.
- ☐ Student disconnects the work clamp, coil cords and stores neatly.
- ☐ Student return all tools.
- ☐ Student cleans the cutting table and the area around the cutting table.

Lockout/Tagout Procedure

- ☐ Student imparts the following Lockout/Tagout procedure: Tool unplugged and plug wrapped in safe/visible location, tag filled out and posted, front desk and/or Metal Shop Lead notified ( [/cdn-cgi/l/email-protection#4a272f3e2b263922253a0a29262b382f2725243e272b212f38393a2b292f6425382d])

Pass/Fail: ----------

Comments:

Student Signature: ---------- **Date** ----------

Certifier Signature: ---------- **Date** ----------

Certifer: Please scan this QR Code to email info@claremontmakerspace.org, and include a list of students who have passed this test.

Then, return this form to the front desk (even if the student failed!).