Tomahawk 625

Processes
Plasma Cutting and Gouging

For These Materials
Mild Steel, Brass, Stainless Steel, Copper, Aluminum

Product Number
K2807-1 Tomahawk® 625 with Hand Torch

Input Power
208/230/1/50/60

Rated Output Current/Duty Cycle
24A/89.6V/100%
29A/91.8V/60%
40A/96.0V/35%

Output Range
10-40A

Air Pressure Required
80-110psi (6-7.5 Bar)

Air Flow Rate Required
70psi @ 125-200 SCFH
(5 bar @ 80 Liters/min)

Weight/Dimensions (H x W x D)
34 lbs. (15.4 kg)
15.2 x 8.5 x 18.9 in.
(385 x 215 x 480 mm)

See back for complete specs

Plasma Cutting - Anywhere, Anytime
Tomahawk plasma cutting systems are portable enough to carry to any jobsite. Hook up the compressed air, grab the torch and start cutting right away.

FEATURES
- Continuous Output Control – Focus the arc for different material thickness.
- Touch Start System – Reliable plasma arc initiation without high frequency.
- Rapid Arc Restrike – Fast cutting through gaps, even expanded metal.
- Front Panel Purge Control – Makes it easy to set the air flow rate without initiating the plasma arc.
- Cool Operation, Long Consumable Life
  New electrode and nozzle design save you money in the long run.
- Added Safety – Our Parts-in-Place system detects correct installation of consumables and torch.
- Lightweight and Portable – Easily carried by one person.
- Engine Drive Compatible – Select a Lincoln Electric Ranger® or Vantage® to power your Tomahawk in remote locations.

APPLICATIONS
- On site maintenance
- Small construction sites
- Air ducting installation (HVAC)
- Demolition work
- Rental

INPUT

OUTPUT

WHAT’S INCLUDED

K2807-1 Includes:
- Lincoln Electric LC40 hand torch
20 ft. (6 m) cable
- Air regulator and pressure gauge
- Internal water separator
- Work clamp and cable
- Spare consumables
- Shoulder strap
- Input power cord

CUT PERFORMANCE - MILD STEEL

<table>
<thead>
<tr>
<th>Hand Torch</th>
<th>Recommended</th>
<th>Maximum</th>
<th>Severance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated Cut</td>
<td>20 ipm</td>
<td>12 ipm</td>
<td>5 ipm</td>
</tr>
<tr>
<td>(0.51 m/min)</td>
<td>(0.30 m/min)</td>
<td>(0.13 m/min)</td>
<td></td>
</tr>
<tr>
<td>1/2 in (12.7 mm)</td>
<td>5/8 in (0.625 in) (15.9 mm)</td>
<td>3/4 in (19.1 mm)</td>
<td></td>
</tr>
</tbody>
</table>

Two Year Extended Warranty Available in U.S.A. and Canada
* 3 year warranty on machine
1 year on torch

IP21S

THE LINCOLN ELECTRIC COMPANY
22801 St. Clair Avenue • Cleveland, OH • 44117-1199 • U.S.A.
PH: +1.216-481-8100 • www.lincolnelectric.com
KEY CONTROLS

1. Output Current and Air Purge Control
2. Air Pressure Gauge
3. Air Pressure Regulator Adjustment
4. Work Lead Connection
5. Torch Connection
6. Output Status LED Indicator (Red)
7. Power On/Off LED Indicator (Green)
8. Thermal Status LED Indicator (Yellow)
9. Air Inlet For External Compressed Air
10. On/Off Power Switch
11. Input Cable
12. Cooling Fan

LINCOLN LC TORCH HEAD DESIGN

TORCH DESIGN FOR OPTIMAL STARTING AND PERFORMANCE

Starting
- Air pressure pushes the electrode back
- Ignition takes place on the ‘shoulder’
- No damage to the tip

Extended consumable lifetime
Consistent starting without High Frequency

Performance
- Enhanced swirling airflow
- Improved radius and electrode/nozzle design

More concentrated arc
Faster cutting speeds
Greater thickness cutting capacity

Consumable Life
- Internal airflow keeps the electrode and tip cool
- New torch head and electrode and nozzle design

Increases life of consumable components
Lower operating costs
A CLOSER LOOK

CUTTING PERFORMANCE MILD STEEL

<table>
<thead>
<tr>
<th>Plate Thickness (inches)</th>
<th>0.125</th>
<th>0.250</th>
<th>0.375</th>
<th>0.500</th>
<th>0.625</th>
<th>0.750</th>
</tr>
</thead>
<tbody>
<tr>
<td>Travel Speed (IPM)</td>
<td>70</td>
<td>60</td>
<td>50</td>
<td>40</td>
<td>30</td>
<td>20</td>
</tr>
</tbody>
</table>

Aluminum cutting speeds are typically 10-20% faster than mild steel.
Stainless steel cutting speeds are typically 10-20% slower than mild steel.

CUTTING CONFIGURATIONS

**Standard**
In the Standard Cutting configuration, the nozzle is designed for a user-maintained gap between the nozzle and the workpiece, unless the drag cup is attached. Standard cutting allows maximum arc visibility and is recommended for higher current levels and thicker plate. Standard cutting parts are included with the torch.

**Contact**
Contact Cutting uses special expendable parts that allow the torch to touch the workpiece. This technique is recommended for low amperages and thinner plate thicknesses. A special optional nozzle is required for Contact Cutting. See consumables.

**Gouging**
When gouging metal, a special optional gouging nozzle is used in conjunction with a shield to protect the nozzle from molten metal blow back. See consumables.

COMPATIBLE ENGINE DRIVES (1)

<table>
<thead>
<tr>
<th>Ranger®</th>
<th>Ranger 225</th>
<th>Ranger 250 GXT</th>
<th>Ranger 305 LPG</th>
<th>Ranger 305 G</th>
<th>Ranger 305 D</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vantage®</td>
<td>Vantage 300</td>
<td>Vantage 400</td>
<td>Vantage 500</td>
<td>Vantage 520 SD</td>
<td>Vantage 600 SD</td>
</tr>
</tbody>
</table>

(1) When run in the high idle mode

The Tomahawk 625 can be operated on engine driven generators as long as the 230 volt auxiliary meets the following conditions.

- The AC Waveform peak voltage is below 400 volts.
- The AC waveform frequency is between 45 and 65 Hz.
- The RMS voltage of the AC waveform is always greater than 208VAC.
### Recommended Accessories

**GENERAL OPTIONS**

Plasma Circle Cutting Guide Kit
For cutting circles from 3-33 in. (77-838 mm) in diameter. Works with all Lincoln LC series plasma torches. Order K2886-1

**REPLACEMENT TORCH CONSUMABLES**

Lincoln Electric LC40 Parts

- **Handle** S28173-1
- **Head** S28174-1
- **Electrode** KP2843-1
- **Swirl Ring** KP2842-4
- **Nozzle** 40A - KP2843-2
- **Retaining Cap** KP2843-5
- **Drag Spacer** KP2843-10

- **Cooling Kit** S28174-3

- **Retaining Cap** (Gouging) Optional
- **Nozzle** (Gouging) Optional
- **Nozzle** (Contact) 40A Optional
- **Nozzle** (Contact) 25A Optional
- **Gouge Shield** Optional
- **Swirl Ring** Optional

- **It is normal for the electrode and nozzle to wear during operation.**
- **Electrodes should typically be replaced when erosion reaches 0.025 in. (0.65 mm).**
- **A green and erratic arc will indicate the end of electrode life. The electrode should be immediately replaced.**
- **It is recommended that the KP2843-1 Electrode and KP2843-2 Nozzle (40A) be replaced as a complete set.**

**PRODUCT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Number</th>
<th>Input Power</th>
<th>Rated Output Current/Voltage/ Duty Cycle</th>
<th>Input Current @ Rated Output</th>
<th>Pilot Current</th>
<th>Output Range</th>
<th>Air Pressure Required (psi)</th>
<th>Air Flow Rate Required (L/min)</th>
<th>Dimensions H x W x D (in.)</th>
<th>Net Weight Without Torch (lbs)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomahawk 625 with Hand Torch</td>
<td>K2807-1</td>
<td>208/230/1 50/60</td>
<td>24A/89.6V/100%  29A/91.8V/60%  40A/96.0V/35%</td>
<td>36.8A (Max)</td>
<td>17A</td>
<td>10-40A</td>
<td>80-110</td>
<td>70psi @ 125-200SCFH</td>
<td>5 Bar @ 80</td>
<td>15.2 (358) 8.5 (215) 18.9 (480)</td>
</tr>
</tbody>
</table>

**CUSTOMER ASSISTANCE POLICY**

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