ARM YOURSELF WITH THE RIGHT WELDER

Ranger® 225

The Ranger® 225 is a multi-process, engine-driven welder designed for a variety of processes – stick, TIG, MIG or flux cored. Whatever the process or application, arm yourself to get the job done and get it done right the first time.

- Totally enclosed case protects the engine and limits noise
- Smooth DC welding output
- 10,500 Watts AC generator power

KEY FEATURES

Processes »
Stick, TIG, MIG, Flux-Cored

Output »

Input »

Product Number »
K2857-1
FEATURES

» Totally Enclosed Case
  • Engine is fully protected.
  • 3 service access doors.
  • Low noise – 76.4 dBA sound level at 23 ft. (7 m). 100.7 dB sound power [Lwa] at rated output.

» Versatile DC Welding
  • Smooth DC welding output for a broad range of stick electrode types.
  • MIG, flux-cored and TIG capable (with optional equipment).

» 10,500 Watts Peak Single-Phase AC Generator Power
  • Peak for motor starting.
  • 9,000 watts continuous power for generator, plasma cutter or inverter welder.
  • Lights, grinder, power tools.

» 23 HP Kohler® Gasoline Engine
  • 2 cylinder, 4 cycle overhead valve air-cooled design.
  • Oil drain extension for easy oil changes.
  • 12 gallon tank for extended run times.
  • Only 1.5 gallons/hour at 210 amps DC, 25V, 100% duty cycle. Visual fuel level gauge on both sides of unit.

» Rugged Reliability
  • Welding and AC generator outputs rated at 104°F (40°C).

PERFORMANCE

Arc Performance
• Smooth DC welding output for a broad range of stick electrodes, such as Lincoln Excalibur® 7018 [AWS E7018] and Fleetweld® 5P+ [AWS E6010]. Also capable of MIG, flux-cored, and TIG welding.
• Choose DC(+) for a deep penetrating arc or DC(-) for less penetration on thin sheet metal.
• Rated 225 amps/25 volts/40% duty cycle and 210 amps/25 volts/100% duty cycle for CC and 200 amps/20 volts for CV. All rated outputs at 104°F [40°C].
• Simple Output Range Selector can be used to select one of three amperage ranges with generous overlap for Stick/TIG welding, or one Wire Feed welding range.
• Fine adjustment control allows you to dial in just the right welding output for each application.
• Add productivity with self-shielded flux-cored CV wire welding. Compatible with Lincoln Electric LN-25 PRO and Activ8™ Across-the-Arc wire feeders for use with a variety of wire electrodes.
• Expand to AC TIG welding with optional Square Wave™ TIG 200 (powered by AC generator power from the Ranger 225) for aluminum and other alloy welding.

AC Generator Performance
• 10,500 watts peak AC generator power. Most peak power in its class. Use for motor starting.
• 9,000 watts continuous AC generator power. For high capacity needs such as a back-up generator, powering a Tomahawk® 1000 plasma cutter, an Invertec inverter welder or a Square Wave TIG 175 welder. Also for lights, a grinder or other power tools.
• Delivers up to 38 amps from the single 120V/240V full-KVA receptacle. Standard circuit breakers protect the machine as well as your power tools.
• Delivers up to 40 amps from two 120V duplex receptacles.
• Get two tools in one when you use the Ranger 225 as a power generator for emergency standby power, and/or for welding.
• Optional GFCI (Ground Fault Circuit Interrupter) Kit available for additional protection from electrical shock.
• Simultaneous welding and AC generator power – power up to 3,950 watts while welding at 145 amps (AC generator power is reduced when welding simultaneously per table below).
• Take on more jobs – plug in an optional Tomahawk® 1000 plasma cutter to cleanly cut metal.
FEATURES

- Top-of-the-line OHV engine: Kohler® Command® 23 HP CH730.
- Three engine doors provide machine protection and easy service access.
- Easy to Maintain — Engine requires an oil change only every 100 hours and every 200 hours for the oil filter.
- Electric Start Switch for easy starts. Switch combines OFF, START, and IDLER functions into one simple, compact, easy to use switch.
- Circuit breaker protects battery ignition circuit.
- Convenient truck or trailer mounting with front and rear holes in base.
- Fuel level slots in both sides of the base with a decal to easily read the fuel level in the tank. Helps you avoid running out of fuel during critical jobs.
- Large top fuel filler neck is easily accessed for refueling.
- Oil drain valve (no tools required) with removable extension tube.
- Easy access battery cover.

<table>
<thead>
<tr>
<th>DC Welding Output [Amps]</th>
<th>Permissible Power [Watts]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>9,000</td>
</tr>
<tr>
<td>90</td>
<td>6,000</td>
</tr>
<tr>
<td>145</td>
<td>3,950</td>
</tr>
<tr>
<td>225</td>
<td>0</td>
</tr>
</tbody>
</table>

PERFORMANCE

KEY CONTROLS

1. Engine Hour Meter
2. 4 Position Output Range Selector
3. Circuit Breakers
4. 120 Volt AC Receptacles (NEMA 5-20R)
5. Output Stud Covers
6. Ground Stud
7. 120/240 Volt AC Full KVA Receptacle (NEMA 14-50R)
8. Fine Output Control
9. Engine Choke Control (Stainless Steel Cable)
10. Engine Start Switch with Idler Control
QUALITY AND RELIABILITY

- Oil dip stick, filters, spark plugs, etc. are easily accessed with left, right and top engine doors. Left and right doors are removable, if desired, for service.
- Adjust exhaust direction with top-mounted 360° rotatable exhaust muffler. Muffler made from aluminized steel for long life.
- Red and black powder paint finish offers increased durability with added protection from rust and corrosion. Also ultraviolet resistant to better retain color and gloss.
- Longer engine life, reduced noise emissions and greater fuel economy with automatic engine idler.
- Conveniently located engine maintenance label under top engine door.
- Automatic engine shutdown protection for low oil pressure.
- 435 cold cranking amps with the Group 58 battery for extra starting capacity in cold temperatures.
- Dependability and long life aided by all-copper windings in rotor and stator with high quality insulation.
- Manufactured under a quality system certified to ISO 9001 requirements.
- Canadian Standards Association (CSA) certified.
- Three-year Lincoln Electric warranty (parts and labor) on welder (engine is warranted separately by the manufacturer).
- Backed by Lincoln Electric’s Service Parts Commitment—We will ship in-stock parts within 24 hours of receipt of the order to anywhere within the U.S.

MACHINE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Ordering Information</th>
<th>Description</th>
<th>CC Rated Output Current/Voltage/Duty Cycle</th>
<th>CV-Rated Output Current/Voltage/Duty Cycle</th>
<th>Generator AC Power(4)</th>
<th>Dimension H x W x L inches (mm)</th>
<th>Weight lbs. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranger 225</td>
<td>K2857-1</td>
<td>225 Amp DC Arc Welder 10,500 Watts Peak 9,000 Watts Continuous AC Power</td>
<td>DC Constant Current 225A/25V/60% 200A/20V/100% Current Ranges 100-25A 50-90A Max DCV @ 3700 RPM 80V RMS</td>
<td>DC Constant Voltage 10,500 Watts Peak 9,000 Watts Continuous 60 Hz Single Phase Two 120V Duplex Receptacles 20A per Duplex 40A Total 240V/480V Receptacle 38A Each 120V Branch 38A @ 240V</td>
<td>DC Rated Output Current/Voltage/Duty Cycle</td>
<td>29.9 x 21.5 x 42.3 (759 x 546 x 1074)</td>
<td></td>
</tr>
</tbody>
</table>

(1) DC constant voltage capability provides convenience and added safety when welding in electrically hazardous conditions.
(2) When welding, available auxiliary power will be reduced. Output voltage is within ±5-10% at all loads up to rated capacity.
(3) 120V will operate either 60 Hz or 50/60 Hz power tools, lights, etc.
(4) Circuits cannot be wired in parallel to operate the same device.

ENGINE SPECIFICATIONS

<table>
<thead>
<tr>
<th>Engine Model</th>
<th>Description</th>
<th>Horsepower &amp; Displacement</th>
<th>Ignition</th>
<th>Capacities</th>
<th>Operating Speeds</th>
<th>Fuel Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kohler OHV (Gasoline)</td>
<td>2 Cylinder, 4 Cycle, OHV Air-Cooled Gasoline Engine Aluminum Alloy with Cast Iron Liners</td>
<td>23 HP @ 3600 RPM 44 cu in (725 cc)</td>
<td>Electric Start 12V Battery 495 Cold Cranking Amps Manual Choke</td>
<td>FUEL: 12 Gals (46 Ltrs) OIL: 2.0 Qts (1.9 Ltrs)</td>
<td>210A DC 3,500 RPM High Idle 3,700 RPM Low Idle 2,200 RPM</td>
<td>1.5 Gals/Hr 5.7 Ltr/Hr 0.9 Gals/Hr 3.5 Ltr/hr 0.4 Gals/Hr 1.6 Ltr/Hr</td>
</tr>
</tbody>
</table>

(5) Kohler® warranty is 3 years.
RECOMMENDED ACCESSORIES

**Power Plug Kit** (20 amp)
Provides four 120V plugs rated at 20 amps each, and one dual voltage, full KVA plug rated at 120/240V, 50 amps. 120V plug may not be compatible with common household receptacles. Order K902N

**Full-KVA Power Plug**
One dual voltage plug rated at 120/240V, 50 amps. 120/240V, 50 amps. Includes high-limit protection, low-voltage cut-off, and ground fault circuit interrupter (GFCI duplex) rated at 20 amps each, and one dual voltage, full KVA plug rated at 120/240V, 50 amps. Order T2553-9

**Full-KVA Adapter Kit**
Provides convenient connection of Lincoln Electric equipment having a 240V AC 1-phase plug (NEMA 6-50P) to the full-KVA receptacle on engine-driven welders. Order K9161-1

**GFCI Receptacle Kit**
Includes one UL approved 120V ground fault circuit interrupter duplex type receptacle and installation instructions. Replaces the factory-installed 120V duplex receptacle. Each receptacle of the GFCI duplex is rated at 20 amps. Maximum total current from the GFCI duplex is limited to 20 amps. Two kits required. Order K8160-1

**Spark Arrestor Kit**
Attaches to muffler exhaust tube. Virtually eliminates spark emissions. Order K9169-1

**Canvas Cover**
To protect the Ranger 225 when not in use. Made from attractive red canvas material that is flame retardant, mildew resistant and water repellent. Order K866-2

**All-Terrain Undercarriage**
For moving by hand at construction sites. Maneuvers over obstacles. Heavy-duty puncture-resistant (inner tube and sealant) tires. Order K9177-1

**Factory Undercarriage**
For moving by hand on smooth surface floors. Heavy-duty, puncture-resistant (inner tube and sealant) tires and front caster. Convenient steering handle. Order K9701-1

**Welding Gas Cylinder/LPG Tank Holder**
Holds welding gas cylinder or LPG tank (for products with LPG engine). For LPG: Use one holder for LPG tank and a second holder for welding gas cylinder. Both holders will attach to the K1770-1 undercarriage. Order K745-1

**Small Two Wheel Welder Trailer**
For heavy-duty road, off-road, plan yard use. Includes pivoting jack stand, safety chains, and 13 in. (330 mm) wheels. Stiff .120 in. (3.0 mm) welded rectangular steel tube frame construction is phosphate etched and powder coat painted for superior rust and corrosion resistance. Low sway suspension gives outstanding stability with manageable tongue weight. Wheeled bearings are packed with high viscosity, high pressure, low washout Lubriglide® grease. Includes an O2-8000, 2 a.in. (51 mm) ballnut eye combination hitch. Overall length 60 in. (1524 mm). Overall length 110 in. (2794 mm). Order: K2640-1 Fender & Light Kit K2639-1

**Kohler Tune-Up Kit**
([K2105/CH50REC0405]) Includes: Spark Plug (Qty 2), In-Line Fuel Filter (Qty 1), Air Filter (Qty 1), Air Filter Pre-Cleaner (Qty 1), Oil (2 Quarts), Oil Filter (Qty 1). Order K3494-1

**STICK OPTIONS**

**Accessory Kit**
For stick welding. Includes 35 ft. (10.7 m) 4/0 electrode cable with lug, 30 ft. (9.1 m) 2/0 work cable with lugs, headshield, filter plate, work clamp and electrode holder. 400 amp capacity. Order K104

**Accessory Kit**
For stick welding. Includes 20 ft. (6.1 m) 4/0 electrode cable with lug, 15 ft. (4.6 m) 6/0 work cable with lugs, headshield, filter plate, work clamp, electrode holder and sample pack of mild steel electrode. 150 amp capacity. Order K855

**TIG OPTIONS**

**Pro-Torch™ PTA-26V TIG Torch**
Air-cooled 200 amp torch (2 piece) equipped with valve for gas flow control. 25 ft. (7.6 m) length. Order K2089-9

**Magnum® Parts Kit**
Provides all the torch accessories you need to start welding. Parts kit provides collet sets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry redclosed pack. Order KP509 for PTA-26V

**Square Wave TIG-200**
This 46 lb (21 kg) TIG and stick welder includes adjustable AC Frequency Control and AC Balance for great results on aluminum, pulse mode and 120V or 240V input power capability. Order K5126-1

**WIRE FEEDER OPTIONS**

**LN-25X/Magnum® Pro Curve 045C One-Pak**
Includes: LN-25X Wire Feeder with CrossLine™ Technology (K4267-1), Magnum® Pro Curve™ welding gun Ready-Pak® 15’ (K2691-1-10-45), Drive Roll Kit (K2690-1)-045 in (1.0-1.2 mm Cored Wire (K1697-045C).) Order K4500-1

**LN-25X/K325 Pro 176-5/64C One-Pak**
Includes: LN-25X Wire Feeder with CrossLine™ Technology (K4267-1), K26 Pro Innershield® 150A FCAW-SS Welding Gun 10’R 176-5/64 (K126-12), Drive Roll Kit (K2640-1) in 20 (2.0mm) Solid/Cored Wire (K1697-20CS), Drive Roll Kit (K2640-1) in 45 (6.4 mm) Cored Wire (K1697-45CS). Order K4500-2

**POWER MIG™ 180C**
Premium compact wire welder with continuous voltage control for MIG and flux-cored welding. 30 to 180 amp output range. Get input power from the AC generator or engine-drive welder. Includes encoder with full-KVA adapter kit (required). Add the K2552-1 Magnum® 100 Series Spool Gun for aluminum MIG welding. Order K2475-2

**WIRE FEEDER OPTIONS**

**Magnum® 100SG Spool Gun**
Designed to easily feed 4 in. (101.6 mm) diameter 1 lbs. (0.45 kg) spools of .030 in. (0.8 mm) or .035 in. (0.9 mm) diameter SuperGlaze® aluminum MIG wire. Includes gun, adapter kit, .035 in. (0.9 mm) contact tips (qty 3), gas nozzle, and a 1 in. (2.5 cm) spool of SuperGlaze® 4043 .035 in. (0.9 mm) MIG wire. Packaged in a convenient carrying case. Order K5269-1

**PLASMA CUTTING**

**Tomahawk 1000**
Cuts metal using the AC generator power from the engine-driven welder. Requires the T2503-1 Full-KVA Power Plug [1-Phase]. Order K2808-1
<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Number</th>
<th>Rated Output Current/Voltage/Duty Cycle</th>
<th>Output Range</th>
<th>Engine</th>
<th>Number of Cylinders</th>
<th>HP@ Speed (rpm)</th>
<th>H x W x D inches (mm)</th>
<th>Net Weight lbs. (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranger 225</td>
<td>K2857-1</td>
<td>225A DC CC/25V/40% 210A DC CC/25V/100% 200A DC CV/20V/100%</td>
<td>50-225A DC 15-20V CV 10,500 watts peak 9,000 watts continuous</td>
<td>Kohler OHV Command® CH730</td>
<td>2</td>
<td>23 @ 3600</td>
<td>29.9 x 21.5 x 42.3 (759 x 546 x 1074)</td>
<td>514 (233)</td>
</tr>
</tbody>
</table>


Manufactured at a facility with certified ISO Quality and Environmental Management Systems.

C U S T O M E R  A S S I S T A N C E  P O L I C Y

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to www.lincolnelectric.com for any updated information.