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

Publication E6.89 | Issue Date 12/15
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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 175 or Invertec® V205-T AC/DC (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.

SIMULTANEOUS WELDING AND POWER LOADS

<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>

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 360º 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</th>
<th>CV-Rated Output</th>
<th>Generator AC Power</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/40% 210A 25V/100% Current Ranges 10-225A 70-145A 50-90A Max DCV @ 3700 RPM 80V RMS</td>
<td>DC Constant Voltage² 200A 20V/100% 15-25V</td>
<td>10,500 Watts Peak 9,000 Watts Continuous 60 Hz Single Phase Two 120V Duplex Receptacles 20A per Duplex 40A Total 120V/240V Receptacle 38A Each 120V Branch³ 38A @ 240V</td>
<td>29.9 x 21.5 x 42.3 (759 x 546 x 1074) To top of exhaust tube: 36.2 (920)</td>
<td>441 (213)</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 ±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(⁵) Command CH730 (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 485 Cold Cranking Amps Manual Choke</td>
<td>FUEL: 12 Gals (46 Ltrs) Oil: 2.0 Qts (7.9 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

GENERAL OPTIONS

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 K820N

Full-KVA Power Plug
One dual voltage plug rated at 120/240V, 50 amps.
[NEMA-14-50P]
Order T2059-9

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 K816-1

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 K895-1

Spark Arrestor Kit
Attaches to muffler exhaust tube. Virtually eliminates spark emissions.
Order K899-1

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 K886-2

All-Terrain Undercarriage
For moving by hand at construction sites. Maneuvers over obstacles. Heavy-duty puncture-resistant (inner tube and sealant) tires. Front caster. Convenient steering handle.
Order K707-1

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 K707-1

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 K7070-1 undercarriage.
Order K745-1

Small Two Wheel Welder Trailer
For heavy-duty road, off-road, pla “y” and yard use. Includes pivoting jack stand, safety chains, and 13 in. (330 mm) wheels. Steel frame construction is phosphate etched and powder coat painted for superior rust and corrosion resistance. Low swivel suspension gives outstanding stability with manageable tongue weight. Wheeled bearings are packed with high viscosity, high pressure, low washout Lubriplate® grease. Includes a Duo-Hitch®, a 2 in. (51 mm) ball-lucent eye combination hitch. Overall width 60 in. (1524 mm). Overall length 110 in. (2794 mm).
Order: K2639-1 Fender & Light Kit
Order K2440-1 Cable Rack

STICK OPTIONS

Accessory Kit
For stick welding. Includes 35 ft. (10.7 m) #6 work cable with lug, 15 ft. (4.6 m) #6 work cable with lugs, headshield, filter plate, work clamp and electrode holder. 400 amp capacity.
Order K704

Accessory Kit
For stick welding. Includes 20 ft. (6.1 m) #6 electrode cable with lug, 15 ft. (4.6 m) #6 electrode cable with lugs, headshield, filter plate, work clamp, electrode holder and sample pack of mild steel electrode. 150 amp capacity.
Order K875

TIG OPTIONS

Pro-Torch™ PTA-26V TIG Torch
Air-cooled 200 amp torch (2 piece) equipped with valve for gas flow control. 25 ft. (.76 m) length.
Order K738-9

Magnum® Parts Kit
Provides all the torch accessories you need to start welding. Parts kit includes collets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry resealable pack.
Order KP689 for PTA-26V

Square Wave TIG 175
For AC TIG welding with square wave performance, use the AC generator of the engine-driven welder to supply the power (full rated output may not be available). Easy setup. Includes torch, foot Amptrol™, gas regulator and hose. Requires the K1816-1 Full KVA Adapter Kit.
Order K2478-5

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 230V input power capability.
Order K3526-1

WIRE FEEDER OPTIONS

LN-25 PRO Wire Feeder
Portable DC/CC unit for flux-cored and MIG welding with MAXTRAC® wire drive system. Includes gas solenoid and internal contactor.
Order K2831-5

K26™ PRO InnerShield® Gun
For self-shielded wire with 75 ft. (22.9 m) cable. For .030-5/64 in. (1.2-0.2 mm) wire. Includes K26-10 Connector Kit.
Order K26-12

Drive Roll and Guide Tube Kit
For .062-5/64 in. (1.6 mm) cored or solid steel wire.
Order KP1697-068

Magnum PRO 350 Ready-Pak® 15 ft., .035-.045 in.
Magnum PRO MIG/flux-cored welding guns are rated 100% duty cycle. The guns are designed for high amperage, high duty cycle applications in extreme environments where heat resistance and fast serviceability are key.
Order K2652-2-10-45

Drive Roll and Guide Tube Kit
For .035-.046 in. (0.9-1.1 mm) solid steel wire.
Order KP1696-1

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 of the engine-driven welder with the K3516-1 Full KVA Adapter Kit [required]. Add the K2532-1 Magnum® 10050 Spool Gun for aluminum MIG welding.
Order K2475-1
**WIRE FEEDER OPTIONS**

Magnum 100SG Spool Gun
Designed to easily feed 4 in. (102 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 lbs. (0.45 kg) spool of SuperGlaze® 4043 .035 in. (0.9 mm) MIG wire. Packaged in a convenient carrying case.
Order K2532-1

**PLASMA CUTTING**

Tomahawk 1000
Cuts metal using the AC generator power from the engine-driven welder. Requires the T12153-9 Full-KVA Power Plug (9-Phase).
Order K2808-1

**PRODUCT SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Product Number</th>
<th>Rated Output</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/46%</td>
<td>50-225A DC</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>
<tr>
<td></td>
<td></td>
<td>210A DC CC/25V/100%</td>
<td>15-25V CV</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>200A DC CV/20V/100%</td>
<td>10,500 watts peak</td>
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</tbody>
</table>

**CUSTOMER ASSISTANCE POLICY**

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.

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