A WELDER FOR ALL SEASONS

Ranger® 305 G and Ranger® 305 G EFI

Make the Ranger® 305 G your portable welding station – general stick and downhill pipe, Touch Start TIG®, MIG and flux-cored wire capability. Choose the Ranger® 305 G EFI (electronic fuel injection) for easier starts in cold weather and lower fuel consumption, with no choke starting required. The 9,500 watt continuous single-phase AC generator powers motors starting, tools and inverter welders for extended range and process capability.

- Digital weld meters monitor actual welding output
- 12-gallon fuel capacity allows for extended operation
- Electric fuel pump helps avoid vapor lock during high-altitude operation

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**Welding Performance**

- **Lincoln Electric Chopper Technology®.**
  - Easy Starts.
  - Smooth Arc.
  - Low Spatter.
  - Optimal Bead Appearance.

- **CC-stick mode is optimized for general purpose stick using E7018 low hydrogen electrodes.**

- **Downhill pipe welding mode is excellent for cellulosic electrodes, such as Lincoln Electric Fleetweld® 5P+™. This mode delivers fast travel speeds, especially on fill passes.**

- **Arc force control provides a soft or more forceful digging arc in CC-stick or downhill pipe mode and inductance/pinch control in CV wire mode.**

- **Built-in “hot” start for easier starts and restrikes minimizing the electrode “sticking” to the work.**

- **Touch Start TIG® (DC) - lift tungsten to start the arc. No high frequency required. Avoids tungsten contamination in the weld. Voltage sensing output stops the arc when the torch is lifted at the end of the weld.**

- **Arc gouging with up to 3/16 in. (4.8 mm) carbons.**

**AC Generator Performance**

- **Up to 40 amps at 240V from the 120V/240V receptacle with weather resistant cover. Circuit breaker protection.**

- **Two 120V 20 Amp duplex receptacles with weather resistant covers. Circuit breaker protection. Will operate up to 9 in. grinder.**

- **Nominal 120V and 240V AC generator voltage is independent of any weld dial setting. This is done with one generator system (rotor/stator) using Lincoln Electric Chopper Technology®, avoiding the complexity of two generator (rotor/stator) systems.**

### Table: Simultaneous Welding and Power Loads

<table>
<thead>
<tr>
<th>Welding Output (Amps)</th>
<th>Continuous Power (Watts)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>0</td>
</tr>
<tr>
<td>250</td>
<td>2,300</td>
</tr>
<tr>
<td>200</td>
<td>4,200</td>
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<tr>
<td>150</td>
<td>5,600</td>
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<tr>
<td>100</td>
<td>7,100</td>
</tr>
<tr>
<td>0</td>
<td>9,500</td>
</tr>
</tbody>
</table>
Simple Controls – Keep training time to a minimum with the straightforward control panel of the Lincoln Electric Ranger 305 G. The flip-down control panel door keeps less frequently used controls out of the way.

Single, full-range output control dial. No confusion with taps and controls!

4 welding modes: CC-Stick, Downhill Pipe, CV-Wire, and Touch Start TIG®.

Dual digital output meters for presetting weldamps for stick, TIG or downhill pipe modes, or voltage for CV wire mode. Also displays actual outputs while welding. Memory feature holds output readings for 7 seconds after welding stops for viewing by the operator.

Output at welding terminals controlled by electronic contactor. Can be switched to "On", or to "Remotely Controlled."

Remote output control is auto-activated when plugged into a 6-pin connector. For the CC-stick, downhill pipe and Touch Start TIG® modes, the machine output dial becomes a maximum current limit for more fine tuning with the remote control dial or Amptrol®.

Compatible with many Lincoln Electric wire feeders including the LN-25 Ironworker®, Activ8®, LF-72, LF-74, LN-7 GMA, LN-742, LN-8, wire feeders and Magnum® SG Gun.

Wire feed voltmeter switch matches polarity of wire feeder voltmeter to polarity of electrode.

Top-of-the-line Kohler® engine choices:
- 23 HP CH730 OHV Command® with carburetor.
- 25 HP ECH740 OHV Command® with EFI (Electronic Fuel Injection). Choke starting not needed.

12 gallon fuel capacity allows you to run an extended day.

Fully enclosed case for equipment protection and low noise. Noise at rated load:
- 101.3 dB sound power (Lwa)
- 76.7 dBA sound level at 23 ft. (7 m)

Electric fuel pump avoids vapor lock. Assures consistent fuel delivery in locations having a combination of high altitude, warm ambient temperatures, and high anti-pollution additives in gasoline.

Combination electric fuel gauge and engine hour meter located on control panel. Easily check both fuel level and hours of operation. Fuel gauge helps you virtually eliminate running low on fuel during critical jobs. Hour meter helps plan for scheduled engine maintenance.

Large top fuel filler neck is easily accessed for refueling.

Electric start.

Oil drain valve (no tools required) with removable extension tube.

Convenient truck or trailer mounting with front and rear holes in base.
Make the Ranger 305 G your portable welding station – general stick and downhill pipe, Touch Start TIG, MIG, flux-cored and AC generator to power lights, grinders or other power tools.

**QUALITY AND RELIABILITY**

- Printed circuit boards are environmentally-shielded using Lincoln Electric’s engineered potting and protective frame trays.
- Oil dip stick, filters, spark plugs, etc. are easily accessed with left, right and top engine doors. Left and right doors are removable for service.
- Adjust exhaust direction with top-mounted 360° rotatable exhaust muffler. Muffler made from aluminized steel for longer life.
- Attractive 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.
- Reliable start-up with Group 58 battery with 435 cold cranking amps.

- Easy access battery cover.
- Optional K1690-1 GFCI (Ground Fault Circuit Interrupter) Kit available for additional protection from electrical shock.
- Dependability and long life aided by all-copper windings in rotor and stator with high quality insulation.
- Approved by Canadian Standards Association (CSA).
- Manufactured under a quality system certified to ISO 9001 requirements and ISO 14001 environmental standards.
- Three year Lincoln Electric warranty (parts and labor) on welder (engine is warranted separately by the manufacturer).

**SYSTEM SELECTION**

**One-Pak® Welding Package**

Order a Lincoln Electric One-Pak® and get everything you need to complete a welding package – all with one order number. (Package is not assembled.)

**Each UNASSEMBLED Package Contains:**

- Ranger® 305 G (K1726-5 with electric fuel pump)
- Accessory Kit (K704)
- LN-25 Ironworker® Wire Feeder (K2614-9)
- Gun and Cable (K126-12)
- 5/64 in. (2.0 mm) Innershield® NR®-233 25 lb. (11.3 kg) Spool [ED033039]

Order: K2353-2
**MACHINE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Ordering Information</th>
<th>Description</th>
<th>CC/Pipe Rated Output Current/Voltage/ Duty Cycle</th>
<th>CV-Rated Output Current/Voltage/ Duty Cycle</th>
<th>Generator AC Power</th>
<th>H x W x L inches (mm)</th>
<th>Weight lbs/(kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranger® 305 G</td>
<td>K1726-5 With Electric Fuel Pump</td>
<td>Kohler® OHV (5) Command® CH730 Gasoline 2 Cylinder, 4 Cycle, OHV, Air-Cooled Gasoline Engine Aluminum Alloy Block with Cast Iron Liners Electric Fuel Pump</td>
<td>DC Constant Current 305A/29V/100% 20-305A</td>
<td>DC Constant Voltage 300A/29V/100% 14-300A 29V Single-Dial Continuous Control</td>
<td>10,500 Watts Peak 12,000 Watts Peak EFI 9,500 Watts Continuous 60 Hz Single Phase</td>
<td>36.2 (920)</td>
<td>29.9 x 21.5 x 42.3 (795 x 546 x 1073)</td>
</tr>
<tr>
<td>Ranger® 305 G EFI</td>
<td>K3928-1 With Electric Fuel Pump</td>
<td>Kohler® OHV (5) Command® ECH740 Gasoline 2 Cylinder, 4 Cycle, OHV, Air-Cooled Gasoline Engine Aluminum Alloy Block with Cast Iron Liners Electric Fuel Pump Electronic Fuel Injection</td>
<td>DC Pipe Current 305A/29V/100% 40-300A</td>
<td>Touch Start TIG 250A/30V/700% 20-250 A</td>
<td>10,500 Watts Peak 12,000 Watts Peak EFI 9,500 Watts Continuous 60 Hz Single Phase</td>
<td>36.2 (920)</td>
<td>29.9 x 21.5 x 42.3 (795 x 546 x 1073)</td>
</tr>
<tr>
<td>Ranger® 305 G EFI Fall Camo</td>
<td>K3928-10 Camo wrapped Roof, Case Sides and Engine Doors</td>
<td>Kohler® OHV (5) Command® ECH740 Gasoline 2 Cylinder, 4 Cycle, OHV, Air-Cooled Gasoline Engine Aluminum Alloy Block with Cast Iron Liners Electric Fuel Pump Electronic Fuel Injection</td>
<td>Electric Start, 12V Group 58 Battery, 495 Cold Cranking Amps, Pushbutton Start Switch, Charging Indicator</td>
<td>Electric Start, 12V Group 58 Battery, 495 Cold Cranking Amps, Pushbutton Start Switch, Charging Indicator</td>
<td>10,500 Watts Peak 12,000 Watts Peak EFI 9,500 Watts Continuous 60 Hz Single Phase</td>
<td>36.2 (920)</td>
<td>29.9 x 21.5 x 42.3 (795 x 546 x 1073)</td>
</tr>
</tbody>
</table>

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**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® ECH730 Gasoline</td>
<td>2 Cylinder, 4 Cycle, OHV, Air-Cooled Gasoline Engine Aluminum Alloy Block with Cast Iron Liners Electric Fuel Pump</td>
<td>23 HP @ 3600 RPM 44 cu in (725 cc)</td>
<td>Electric Start, 12V Group 58 Battery, 495 Cold Cranking Amps, Pushbutton Start Switch, Charging Indicator</td>
<td>FUEL: 12 Gal (46 liters) OIL: 2.0 Qts (1.9 liters)</td>
<td>FULL LOAD 3,500 RPM (300A)</td>
<td>1.7 Gals/Hr 6.5 liters/Hr</td>
</tr>
<tr>
<td>Kohler® OHV (5) Command® ECH740 Gasoline</td>
<td>2 Cylinder, 4 Cycle, OHV, Air-Cooled Gasoline Engine Aluminum Alloy Block with Cast Iron Liners Electric Fuel Pump Electronic Fuel Injection</td>
<td>25 HP @ 3600 RPM 46 cu in (747 cc)</td>
<td>Electric Start, 12V Group 58 Battery, 495 Cold Cranking Amps, Pushbutton Start Switch, Charging Indicator</td>
<td>FUEL: 12 Gal (46 liters) OIL: 2.0 Qts (1.9 liters)</td>
<td>FULL LOAD 3,500 RPM (300A)</td>
<td>1.5 Gals/Hr 5.8 liters/Hr</td>
</tr>
</tbody>
</table>

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

120V

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 K1814-1

Full-KVA Power Plug
One dual voltage plug rated at 120/240V, 50 amps. NEMA 14-50P.
Order T2153-9

Power Plug Kit
Provides four 120V plugs rated at 20 amps each, and one dual voltage, full KVA plug rated at 50A/240V, 50 amps. 120V plug may not be compatible with common household receptacles.
Order K862N

Kohler® Tune-Up Kit
For routine engine maintenance. Includes (2) spark plugs, (1) fuel filter, (1) air filter, (1) oil filter, (1) 1 Qt. 10W 30 Oil.
Order K3494-1

All-Terrain Undercarriage
For moving by hand at construction sites. Maneuvers over obstacles. Heavy-duty puncture-resistant (inner tube and sealant) tires.
Order K1737-1

Foot Amptrol™
Varies current while welding for making critical TIG welds and crater filling. Depress pedal to increase current. Depressing pedal fully achieves maximum set current. Fully raising the pedal finishes the weld and starts the afterflow cycle. Includes 25 ft. (7.6 m) length.
Order K1783-9

Remote Control Kit
Consists of a control box with choice of two cable lengths. Permits remote adjustment of output.
Order K857 for 25 ft. (7.6 m) K857-1 for 100 ft. (30.5 m)

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 K5126-1

PTA-26V TIG Torch
Air-cooled 200 amp torch equipped with valve for gas flow control. 25 ft. (7.6 m) length.
Order K1745-1

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 for all 120V receptacles on the Ranger 305 G and Ranger 305 G EFI.
Order K1690-1

Manual Adjustment Kit
Provides all the torch accessories you need to start welding. Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry re closable pack.
Order K9529

PTA-26V TIG Torch
Order K2663-1

PTA-26V TIG Torch
Provides all the torch accessories you need to start welding. Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry re closable pack.
Order K9529

PTA-26V TIG Torch
Provides all the torch accessories you need to start welding. Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry re closable pack.
Order K9529

PTA-26V TIG Torch
Provides all the torch accessories you need to start welding. Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry re closable pack.
Order K9529

PTA-26V TIG Torch
Provides all the torch accessories you need to start welding. Parts kit provides collets, collet bodies, a back cap, alumina nozzles and tungsten in a variety of sizes, all packaged in an easy to carry re closable pack.
Order K9529
**RECOMMENDED ACCESSORIES**

**WIRE FEEDERS**

**LN-25X / Magnum PRO Curve™ 045C One-Pak**
Includes LN-25X Feeder with CrossLinc® Technology (K4267-1); Magnum® PRO Curve™ welding gun Ready-Pak® 15 ft. (4.6 mm) (K2951-2-10-45), Drive Roll Kit .040-.045 in. (1.0-1.2 mm) Cored Wire (K01697-045C).
Order K4100-1

**LN-25X / K126 PRO 1/16-5/64C One-Pak**
Includes LN-25X Wire Feeder with CrossLinc® Technology (K4267-1); K126™ PRO Innershield® 350A FCAW-SS Welding Gun 15 ft. (4.6 m) 1/16-5/64 (K126-12), Drive Roll Kit 5/64 in. (2.0 mm) Solid/Cored Wire (K01697-5/64); Drive Roll Kit 1/16 in. (1.6 mm) Cored Wire (K01697-1/16).
Order K4100-2

**Magnu™ 5G Spool Gun**
Hand held semiautomatic wire feeder. Requires 5G Control Module
Order K487-25

**5G Control Module**
The interface between the power source and the spool gun. Provides control of wire speed and gas flow. For use with a spool gun.
Order K489

**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 K1816-1 Full-KVA Adapter Kit (required). Add the K2532-1 Magnum® 100SG Spool Gun for aluminum MIG welding.
Order K2473-2

**Magnum® 100SG Spool Gun**
Designed to easily feed 4 in. (102 mm) diameter 1 lb. (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 1 lb. (0.45 kg) spool of SuperGlaze® 4043 .035 in. (0.9 mm) MIG wire. Packaged in a convenient carrying case.
Order K3269-1

**PLASMA CUTTING**

**Tomahawk® 1000**
Cuts metal using the AC generator power from the engine-driven welder. Requires the T12153-9 Full-KVA Power Plug (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 in (mm)</th>
<th>Net Weight lb (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ranger® 305 G</td>
<td>K1726-5</td>
<td>305A DC CC/29V/100%</td>
<td>20-305A DC</td>
<td>Kohler® OHV Command®</td>
<td>2</td>
<td>23 @ 3600</td>
<td>29.9 x 21.5 x 42.3</td>
<td>510</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300A DC CC/29V/100%</td>
<td>40-300A Pipe</td>
<td>CH740 Gasoline Electric Fuel Pump</td>
<td></td>
<td></td>
<td>(759 x 546 x 1073)</td>
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<td></td>
<td></td>
<td></td>
<td>14-29V</td>
<td></td>
<td></td>
<td></td>
<td>To top of exhaust tube: 36.2 (920)</td>
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<td></td>
<td></td>
<td></td>
<td>10,500 watts peak</td>
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<td></td>
<td></td>
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<td>12,000 watts peak</td>
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<td></td>
<td></td>
<td></td>
<td>9,500 watts continuous</td>
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<tr>
<td>Ranger® 305 G One-Pak</td>
<td>K2953-2</td>
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<tr>
<td>Ranger® 305 G EFI</td>
<td>K3928-1</td>
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<tr>
<td>Ranger® 305 G EFI Fall Camo</td>
<td>K3928-10</td>
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</tr>
</tbody>
</table>

For best welding results with Lincoln Electric equipment, always use Lincoln Electric consumables. Visit [www.lincolnelectric.com](http://www.lincolnelectric.com) for more details.

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

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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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The Lincoln Electric Company
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