

ADVANTAGE

▶ Excellent welding capabilities:

CC-stick, down hill stick welding on pipe, CV wire welding and Touch-Start™ TIG.

▶ Kubota® 18.8 HP D722 diesel engine

▶ Single-phase 240V and circuit breaker

▶ Digital output meters pre-setting weld amps or voltage.

▶ Single, full-range output control dial eliminates confusion with taps and controls!

▶ Flip-down control panel door keeps less frequently used dials out of your way!

▶ Portability ideally suited for transportation via either fork lift truck, crane, mounted on a trailer or carried on the back of a ute.

▶ Standard hour meter ensures that the machine maintenance schedule can be easily tracked.

▶ Flip-down service panels allows easy access for servicing.

▶ Easily accessible panels for battery and oil drain facilities.

▶ 3-year Lincoln parts and labour warranty (engine is warranted separately by the manufacturer)



Shown with optional VRD fitted and spark arrestor

A Portable, Multi-Process Powerhouse.

The Ranger® 305D is a powerful 300 amp, DC diesel, engine-driven welder designed especially for contractors, maintenance/repair and all other field-based welding professionals who demand the best welding arc.

Lincoln Electric's Chopper Technology® delivers excellent arc characteristics whether you are in stick (conventional or pipe), TIG, MIG or arc gouging modes of operation.

Rugged and dependable, the Ranger® 305D is built within a totally enclosed, robust case, which provides maximum protection for its 45-litre fuel tank and water-cooled Kubota® 18.8 HP D722 diesel engine.

This portable powerhouse delivers 7,200 continuous watts of 240V/AC generator power - enough power to run lights, tools, pump and weld all at the same time!

Order

K2922-1 Ranger® 305D

Recommended Options

Welding lead kit, remote control, VRD kit, spark arrestor

Suggested Wire Feeders

LN™- 25 PRO, LF-72

Processes

Stick, TIG, MIG, Flux-cored and Gouging

TECHNICAL SPECIFICATIONS

MACHINE SPECIFICATIONS

Model	Output Range*	Rated Output*	OCV	Aux Power	Weight Kg	Dimensions H x W x D mm
Ranger® 305D	20 - 305 amps 40-300A pipe 20-250A DC TIG 14-29V CV 7,200 watts continuous	305A, 29V @ 100%	60V max	7.2kW, AC 2 x 240V IP66 receptacles	317	909 x 546 x 1327

*Rated Output @ 40°C

Ranger® 305D

ENGINE SPECIFICATIONS

Model	Description	Horsepower	Displacement	Capacities	Operating Speeds	Sound Levels
Kubota® D722	3 cyl liquid cooled 4 cycle Diesel engine	18.8Hp@3600RPM	789cc Bore x Stroke 67 x 68mm	Fuel: 45L Oil: 3.2L Coolant: 3.6L	High Idle: 3650 Full Load: 3500 Low Idle: 2450	104 dBLWA 80.6 dBA @ 7m

PERFORMANCE

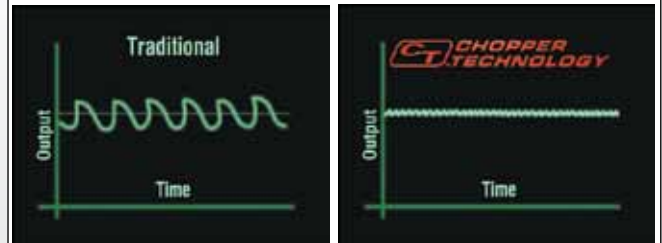
Welding Performance

- **Pipe welding performance** similar to that of pure DC generator welders.
- **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 minimising the electrode “sticking” to the work.
- **Arc gouging with up to 4.8mm carbons.**

AC Generator Performance

- **Skewed rotor design** provides AC power waveshape suitable for operating Lincoln Electric plasma cutters and inverters.
- **240V auxiliary power** - IP66 rated outlets.

WHAT IS CHOPPER TECHNOLOGY®?



Patented and award-winning Lincoln Chopper Technology® delivers superior DC arc welding performance for general purpose stick, Downhill Pipe, DC TIG, MIG, cored-wire and arc gouging.

Benefits of Chopper Technology® include:

- Easy arc starting
- Smooth arc action
- Low spatter levels
- Excellent bead appearance

SIMULTANEOUS WELDING & POWER LOADS

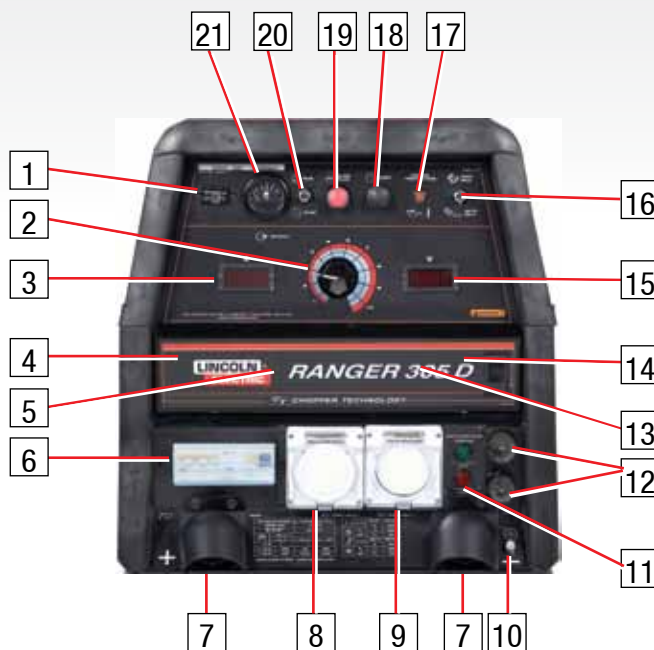
Welding Output (Amps)	Permissible Power (Watts)
300	700
200	4500
150	5800
100	7200
0	7200

WHAT IS TOUCH-START™ TIG?

Touch-Start™ TIG uses a very low voltage to sense when the tip of the tungsten electrode is touched to the work piece. When this occurs, a complete circuit is established. When the tungsten is then raised from the work piece, the circuit senses a change in voltage and initiates the appropriate welding current and voltage to support the TIG welding process.

Enjoy the added benefits of Lincoln’s Touch-Start™ TIG when DC TIG welding. Not only do you avoid tungsten contamination when arc starting, but you also don’t need extra high frequency equipment.

Key Controls



1. Hour Meter
2. Output Control dial
3. Digital Weld Output Ammeter
4. Weld Mode Switch
5. Arc Force™ & Inductance/Pinch Control
6. Circuit Breakers
7. Output Terminal
8. 240 Volt AC Receptacle
9. 240 Volt AC Receptacle
10. Earth Terminal
11. Optional VRD
12. Remote Control & Feeder Connectors
13. Output Contactor Control Switch
14. Wire Feeder Voltmeter Polarity Switch
15. Digital Weld Output Voltmeter
16. Idler Control Switch
17. Engine Protection Light
18. Push Button Start Switch
19. Glow Plug Button
20. Run/Stop Switch
21. Fuel Gauge

FEATURES

- **Simple Controls** - Keep training time to a minimum with the straight forward control panel of the Ranger® 305D. The flip-down control panel door keeps less frequently used dials out of the way.
- **Single, full-range output control dial** - avoid confusion with taps and controls!
- **4 welding modes:** CC-Stick, Downhill Pipe, CV-Wire and Touch-Start™ TIG (eliminates high frequency and avoids tungsten contamination).
- **Dual digital output meters for pre-setting weld amps** for stick, TIG or downhill pipe modes, or voltage for CV wire mode. Also displays actual outputs while welding. Memory features holds actual output readings for 7 seconds after welding stops.
- **Output at welding terminals controlled by electronic contactor** - can be switched to "On" or to "Remotely Controlled".
- **Remote is auto-activated** when plugged into a 6-pin connector.
- **Compatible with many Lincoln wire feeders** including the LN™-25 PRO.
- **Matching polarity** - wire feed voltmeter switch matches polarity of wire feeder volt meter to polarity of electrode.
- **Top-of-the-line, water-cooled Kubota® 18.8hp D722 diesel engine.**
- **Lower noise** than partially-enclosed and unenclosed welders of comparable size - 80 dBA @ 7m.
- **Glow plugs** for rapid starting down to -15°C (5°F).
- **Electric fuel pump and automatic air-bleed system** virtually eliminates manual air bleeding if fuel tank is run dry. Activated when glow plug button is pressed.
- **Engine closed breather system keeps** engine compartment and the ground clean! Eliminates oil mist from collecting inside the engine compartment, especially on radiator surfaces, which would lower engine cooling efficiency. Also prevents oil drips to a truck bed or the ground from an open breather discharge.
- **45 litre fuel capacity** allows you to run an extended day. 20% longer than the nearest competitor!
- **Fuel gauge and hour meter standard.**
- **Electric start** - engine battery charging system light to indicate abnormal charging.
- **No-tools-required oil drain valve** with removable extension tube.
- **Convenient truck or trailer mounting** with front and rear holes in base.

QUALITY AND RELIABILITY

- **Trayed and potted printed circuit boards** provide a robust environmental shield.
- **Fully enclosed case maximises machine and engine protection** - oil dip stick, filters, spark plugs, etc. are easily accessed with left, right and top engine doors. Left and right doors are removable.
- **Longer engine life, reduced noise emissions and greater fuel economy** with automatic engine idler.
- **Conveniently located engine maintenance label** under top engine door.
- **Engine hour meter** for scheduled maintenance.
- **Circuit breaker protection** on the battery ignition system
- **Reliable start-up** with Group 58 battery with 550 cold cranking amps.
- **Automatic engine shutdown protection** for low oil pressure or high engine temperature. Indicator light on control panel.
- **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.**
- **Three-year Lincoln Electric parts and labour warranty.** (Engine is warranted separately by the manufacturer).



Removeable engine access door and oil drain hose.



Convenient slide-out battery drawer.

Ranger® 305D

STICK OPTIONS

Welding Leads

Electrode Lead 10m x 50mm2
c/w twist-lock holder

Order KA1452-8

Work Return Lead 9m x 50mm2
c/w work clamp

Order KA1452-7

Pigtail 50mm2
/w lug and female mechconnector

Order KA145-12



Remote Output Control

Permits remote adjustment of output.

Order K857 8.5m lead & 6 pin plug
K857-1 30m lead and 6 pin plug

VRD Kit

Field fit kit option, provides additional safety in the CC-Stick weld mode, especially when working in an environment with higher risk of electric shock.

Order K32043-3

WIRE FEEDER OPTIONS



LF-72 Wire Feeder

A heavy-duty semi-automatic wire feeder designed for CV MIG and FCAW welding.

Order K2327-7



LN™-25 PRO Wire Feeder

Portable CC/CV unit for flux-cored and MIG welding. Includes Gas Solenoid & Internal Contactor.

Order K2613-5A1 includes bonus K126 PRO gun
K2613-5A2 includes bonus
Magnum® 400 gun



Magnum® 350 Innershield® Gun (for LN™-25 PRO)

For self-shielded wire with 4.5m cable. For 1.7 - 2.4mm wire.

Order K126-12



PLASMA CUTTING OPTIONS

Invertec® PC210

Cuts up to 10mm using the 240V AC generator power from the Ranger® 305D.

Order K12038-2



Invertec® V205-T AC/DC

For AC TIG welding with square wave performance, use the AC generator of the engine-driven welder to supply the power.

Order K1855-3



Powercraft™ PC26G TIG Torch

Air-cooled 200 amp torch (2 piece) equipped with valve for gas flow control. 7.6m length.

Order PC 26FS-8I-2



Foot Amptrol™

Provides 7.6m of remote output control for TIG welding. (6 pin plug connection).

Order K870



Hand Amptrol™

Provides 7.6m of remote current control for TIG welding. (6 pin plug connection). Velcro straps secure torch.

Order K963-3 (one size fits all TIG Torches).



Spark Arrester

Easily mounts to standard muffler.

Order K1898-1

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Subject to Change - This information is accurate to the best of our knowledge at the time of printing.