



Complete Combinations, Portable Power

THE TOTAL SOLUTION

The Lincoln Ranger 405 D is a 405 amp DC multi-process engine driven diesel welder that has been specifically designed and engineered for cross-country pipe welding contractors and other end-users involved in field-based welding applications or situations where auxiliary power is a requirement.

What makes the Ranger 405 D different to other engine driven welders is that it produces a very stable smooth arc for Stick, TIG, MIG or flux-cored wire welding.

The Ranger 405 D is fitted with a rugged Kubota 3-cylinder liquid-cooled diesel engine that provides the power for welding and auxiliary AC power supplies. The large capacity AC generator can be used to provide emergency standby power (110, 240 and 415 volt) for operating a wide variety of power tools and lighting etc.

Enclosed in an insonorised outer casing the Ranger 405 D is one of the quietest engine driven welders on the market.

Incorporating the latest developments in Lincoln stator design, the Ranger 405 D delivers smooth and stable auxiliary power suitable for powering Inverter welding machines.

The Ranger 405 D provides you with a total welding solution from one machine.

Europe

Asia-Pacific

Latin America

North America

Russia

Africa

Middle East

WELDING AND CUTTING SERVICES

LINCOLN
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The **welding** experts



ADVANTAGES

- ✓ Superior DC multi-process welding for Stick, TIG, MIG welding for Innershield (self-shielded) and Outershield (gas-shielded) welding applications.
- ✓ 30 to 405-amp DC welding output, 370 amps @ 60% duty cycle.
- ✓ Full range output for general-purpose stick and CV wire applications from one infinitely variable control.
- ✓ Digital volt / amp meter which also displays reduced OCV in CC mode.
- ✓ The industry's first engine driven welder which is factory fitted with a Voltage Reduction Device (VRD) as standard. The VRD operates in the CC mode reducing the OCV to less than 8 volts thus increasing operator safety when welding in environmental areas with increased hazard of electrical danger.
- ✓ Indicator warning lights for low oil pressure, high coolant temperature, electrical over-temperature for welding operation, general electrical failure and battery not charging.
- ✓ Housed in an insonorised case for low noise level 66 and 70dBA @ 7m.
- ✓ Field proven Kubota 3-cylinder, liquid-cooled diesel engine, glow plugs for quick starting, delivering 18.6kW @ 3000rpm.



The Most Versatile Welder Generator in the World

The Ranger 405 D has been designed with a CC/CV output thereby providing the versatility of a multi-process welding machine. The Ranger 405 D is ideal for stick electrode welding but can also be used for TIG and MIG welding with the appropriate add-on modules.

When operating in the stick mode, the Ranger 405 D provides continuous and infinitely variable output for use with a wide variety of electrodes. The machine is fitted as standard with an infinitely variable arc force control which, combined with the dual inductance range, allows flexibility depending on the type of electrode and application.

The Ranger 405 D has been fitted with auxiliary outputs for 415v, 240v and 110v allowing the machine to be used for both welding and the operation of power tools etc.



With portability in mind, the Ranger 405 D has been housed in a smaller more robust outer casing making it ideally suited for transportation by fork lift truck, crane or mounted on a undercarriage.

Fitted as standard this machine has both digital volt and amp meter essential for welding and an hour meter ensuring that the machine maintenance schedule can be easily tracked.

The Ranger 405 D has been designed to provide flexibility and portability for our customers. The unit has a single-sided service panel which allows easy access to all serviceable areas of the engine - this, combined with remote coolant and oil drain facilities, makes it the most user-friendly engine driven welder in the world.



The Full Story

MIG Welding

To convert the Ranger 405 D into a MIG welder just plug in the Lincoln LN25 wire feeder. This unique feeder has been designed to work directly from the welding output of the Ranger 405 D and no further control cables or leads are required.

The LN25 is capable of welding with either gas-less flux cored wire (Innershield) or solid / flux cored (Outershield) wires.

TIG Welding

TIG welding can be undertaken with the Ranger 405 D by either using the TIG Module (K930-2) or in conjunction with one of the generator friendly Lincoln Inverter TIG machines.



A Closer Look



ADVANTAGES

- ✓ Fuel Gauge and Hourmeter:- standard equipment.
- ✓ 45 litre fuel capacity for up to 12 hours operation.
- ✓ Automatic engine idler for greater fuel economy.
- ✓ Engine protection system - automatic shutdown for low oil pressure or high coolant temperature.
- ✓ Remote output (14 pin MS) plug for easy connection of wire feeders and Lincoln remote control.
- ✓ Smoother and more stable AC auxillary power suitable for use even with Inverter power sources.
- ✓ Packed with power delivering from 415v, 240v and 110v auxillary outputs.
- ✓ Housed in a fully enclosed, weather resistant casing.
- ✓ Lockable Control and Engine Panel for on-site protection.
- ✓ Designed and manufactured the Lincoln way, robust and reliable, with easy maintenance, excellent fuel economy and low noise.
- ✓ 2-year worldwide Lincoln warranty (engine is warranted separately by the manufacturer).

RANGER 405 D

WELDING OUTPUT

Part Number	Current Range	Duty Cycle	Max OCV	Weight	Dimensions L x W x H (mm)
KA1453-3	CC 30-405 amps	370A, 34V @ 60%	CC 62V	550kg	1665 x 733 x 970
	CV up to 405 amps	300A, 32V @ 100%	CV 49V		

AUXILIARY POWER

Rated Voltages 1 Phase/3 Phase	Rated Output	Receptacles	Residual Current Device	Wire Feeder Supply
220-240/1/50/60	10 kVA	3 x 240V, 15A	4 pole, 25A	42V AC @ 10A
400-415/3/50/60	15 kVA	1 x 415V, 20A	(30mA trip current)	115V AC @ 5A
110/1/50/60	5 kVA	1 x 115V, 20A (All circuit breaker protected)		

ENGINE SPECIFICATION

Make/Model	Type	Displacement	Power (SEA J1349 net intermittent)	Electrical System	Governor Type
Kubota/D1105	3 Cyl, Watercooled, 4 cycle, diesel	1124cc	18.6KW @ 3000rpm	12V Battery & starter, key start & stop, glow plugs, alternator battery charger (internal regulator)	Centrifugal (Flywheel high speed mechanical)

Lubrication	Cooling System	Fuel System	Fuel Tank Capacity	Air Cleaner	Muffler
Forced feed, full flow oil filter	Pressurised (0.9kg/cm ²) Radiator. Pump forced circulation, (50% Ethylene Glycol - 50% water) and an overflow reservoir bottle	Indirect Injection, 2x fuel filters, lift pump, automatic bypass valve for easy bleeding	45 litres	Heavy duty, 2 stage dry cartridge type	Low noise mounted with machine casing

Operating Speed Sound Levels (approx.)	Speed	@7m		@1m	
		High Idle	Low Idle	High Idle	Low Idle
High Idle	3150rpm	69dBA	78dBA		
Low Idle	1550rpm	66dBA	68dBA		
Full Load	3000rpm	70dBA	78dBA		

ACCESSORIES:

Ordering Information	Ordering Information
K10373-1	Two-wheeled site undercarriage
K10374-1	Factory-mounted undercarriage for highway towing, without brake
K10095-3-15M	Remote Output Control with 15m lead
K903-1	Spark arrestor
D4512-B	Chalwyn Valve
K930-2	TIG Module
K449-1	LN25 Wire Feed Unit

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