Lincoln’s New Titan 701 is both a rugged three cylinder, diesel engine driven 700 amp DC arc welder and 3.4kW AC power generator. This robust diesel powered field welder has been designed and built specifically for demanding harsh environments and rugged work conditions like mining and construction sites, cross-country pipelines, civil engineering projects, hire fleets and on-site repair applications.

The design of the Titan 701 has especially taken into account the in-field maintenance requirements of remote locations. There are no PCB’s used in the Titan 701 for low maintenance, long service life, easy operation and a great arc performance across all welding processes that this machine has been designed for.

The Titan 701 has been designed to meet specific customer requirements. Easy to understand controls, excellent welding characteristics for a wide variety of processes, similar CC arc characteristics to those of the DC400, simple in-field servicing especially when used in remote locations – NO electronics or PCB’s, a heavy-duty design to ensure maximum reliability, powered by the Deutz F3L912 air-cooled engine.

**Advantage Lincoln**

- 30 – 700 amps DC output
- 600 amps @ 40% duty cycle
- 3,400 watts of AC auxiliary power
- Eight current ranges with overlap. Fine tuning within each range.
- No electronics or printed circuit boards.
- All copper windings for enhanced arc stability
- Powered by the popular Deutz F3L912 air-cooled industrial diesel engine.
- Three-year warranty on parts and labour (engines warranted separately by engine manufacturer).

**Processes**

- Stick
- Flux-Cored
- TIG
- Gouging

**TECHNICAL SPECIFICATIONS**

**MACHINE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Output Range</th>
<th>Rated Output*</th>
<th>OCV</th>
<th>Aux Power</th>
<th>Weight Kg</th>
<th>Dimensions H x W x D mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Titan 701</td>
<td>30 - 700 DC Amps</td>
<td>500A, 40V @ 100%</td>
<td>600A, 30V @ 40%</td>
<td>650A, 25V @ 25%</td>
<td>88V max.</td>
<td>3,400 watts 60Hz AC 230V @ 15 amps</td>
</tr>
</tbody>
</table>

* Rated Output @ 40°C

**ENGINE SPECIFICATIONS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
<th>Horsepower</th>
<th>Displacement</th>
<th>Capacities</th>
<th>Operating Speeds</th>
<th>Fuel Consumption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deutz F3L912</td>
<td>3 cyl, air-cooled Diesel Engine 12V Electric Start Two-stage Dry Type Air Cleaner Fuel Filter with Water Separator</td>
<td>33kw (44 HP) @ 1800 RPM</td>
<td>2.83L (173 cu in)</td>
<td>Fuel: 95 litres Oil: 8.0 litres</td>
<td>500A load 1800 RPM High Idle 1890 RPM</td>
<td>7.34 litres/hour 2.5 litres/hour</td>
</tr>
</tbody>
</table>

**Description**

Output

- CC
- DC
- 34 kW

Input

- D
FEATURES

• Simple controls – Keep training time to a minimum with the coarse output control (eight overlapping ranges) and fine adjustment for the desired output. Scratch-resistant Lexan® nameplate.

• Single-sided engine access for routine maintenance. Double hinged door located on the right side of the machine opens easily in tight surroundings.

• Large 95 litre fuel tank provides run time for an extended day - 13 hours of welding at 450A/38V/100% duty cycle or 37 hours at high idle.

• Fuel gauge for monitoring fuel levels - avoid running out of fuel.

• Engine hour meter for scheduled maintenance.

• Engine watcher – protection from high oil temperature.

• Output stud hand nuts provide convenient positive connection of welding leads without tools.

• Two inductance output studs for optimum output for Stick/TIG and Gouging.

• Provision for fork lift truck and crane lifting.

1. Run / stop switch
2. Start button
3. Battery charge light
4. Fuel gauge
5. Oil temperature light
6. Hour meter
7. Circuit breakers
8. 230 volt auxiliary power outlet
9. Fine output control
10. (-) Output terminals
11. Earth Stud
12. Optional Analogue volt/amp meters
13. (+) Output terminal
14. 8 position course output control
A CLOSER LOOK

ARC PERFORMANCE

• 500 amps @ 100% duty cycle and capable of 600 amps @ 40% duty cycle. All ratings are at 40° C.

• Wide operating range 30 to 700 amps to cover most applications.

• OCV 88 volts max.

• CC: stick output delivering excellent welding characteristics for E6010 cellulose, E7018 low hydrogen electrodes.

• CC: wire welding with the LN-25 across-the-arc wire feeder for a variety of Innershield FCAW-SS wires.

• CC: Scratch start TIG welding

• Arc gouging: the Titan 701 is capable of gouging with up to 12.7mm carbons.

• Exceptional CC arc characteristics similar to those of the Lincoln DC400.

• The Titan 701 produces a smooth stable arc for low amperage TIG through to a powerful arc for carbon arc gouging.

FUEL CONSUMPTION

<table>
<thead>
<tr>
<th>Fuel Consumption</th>
<th>Approx. running time for 95 litre (Hours)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Idle No Load 1890 RPM</td>
<td>2.5 litres / hour</td>
</tr>
<tr>
<td>DC CC Weld Output 450A @ 38 volts</td>
<td>7.34 litres / hour</td>
</tr>
<tr>
<td>Auxiliary Power 3.4 KVA</td>
<td>3.3 litres / hour</td>
</tr>
</tbody>
</table>

FUEL CONSUMPTION

<table>
<thead>
<tr>
<th>Welding Output</th>
<th>Permissible power-watts (unity Power Factor)</th>
<th>Permissible Auxiliary Current in Amperes @ 230V +/-10%</th>
</tr>
</thead>
<tbody>
<tr>
<td>450A/38V</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Up to 350A/34V</td>
<td>3,400</td>
<td>15</td>
</tr>
</tbody>
</table>

GENERATOR PERFORMANCE

• 1-phase 230V, 15A, AC generator power rated at 3.4kW continuous output for industrial power tools, grinders, lighting and stand-by power. Simultaneously weld & use auxiliary power.

• Weather resistant 230V outlet. IP44 rated. Circuit breaker protected.

• Auxiliary power rating is continuous, provided the engine manufacturer’s lubrication and maintenance schedules are adhered to.

TITAN SIMULTANEOUS WELDING AND POWER LOADS

QUALITY AND RELIABILITY

• Three cylinder Duetz air-cooled diesel engine. Eliminates the need for regular monitoring of water levels, no radiator hoses to break half way through a job.

• Automatic shutdown for high oil temperature.

• Conventional transformer design with NO printed circuit board or electronics. Design also incorporates a modular assembly minimizing spare part requirements.

• Designed for easy servicing even in the remotest location.

• Single-side engine access for easy routine maintenance.

• Three-year parts and labour warranty. (Engine warranted separately by the manufacturer)

• Manufactured under a ISO 9001 Certified Quality Management System.
**RECOMMENDED OPTIONS**

**STICK OPTIONS**

Accessory Kit
Includes (10m) 70mm² electrode cable with lug, (9m) 70mm² work cable with lugs, helmet, work clamp, electrode holder, wire brush, chipping hammers. 400 amp capacity.
Order K1700 Lead Kit
Kit400 Accessory Kit

Remote Output Control
Consists of a control box with 20m cable length. Permits remote adjustment of output.
Refer to Lincoln Electric for details

**WIRE FEEDER OPTIONS**

LN-25 Wire Feeder
Portable CC/CV unit for flux-cored and MIG welding. Includes Gas Solenoid & Internal Contactor.
Order K449

Magnum© 350 Innershield Gun (for LN-25)
For self-shielded wire with 4.5m cable. For 1.7 - 2.4mm wire.
Order K126

Drive Roll and Guide Tube Kit (for LN-25)
For 1.7 - 2.4mm cored or solid steel wire.
Order KP653-3/32

**GENERAL OPTIONS**

Roll Frame
Heavy-duty tube frame designed to protect the machine when being moved around the site.
Order K32002

Spill Tray
Designed to bolt into K32002 roll frame. Provides environmental protection from fluid spills. Includes drain plug.
Order K32003-1

**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 advice or information about their use of our products. We respond to our customers based on the best information in our possession at that time. Lincoln Electric is not in a position to warrant or guarantee such advice and assumes no responsibility, with respect to such information or advice. We expressly disclaim any warranty of any kind, including any warranty of fitness for any customer’s particular purpose, with respect to such information or advice. As a matter of practical consideration, we also cannot assume any responsibility for updating or correcting any such information or advice once it has been given, nor does the provision of information or advice create, expand or alter any warranty with respect to the sale of our products.

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.

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