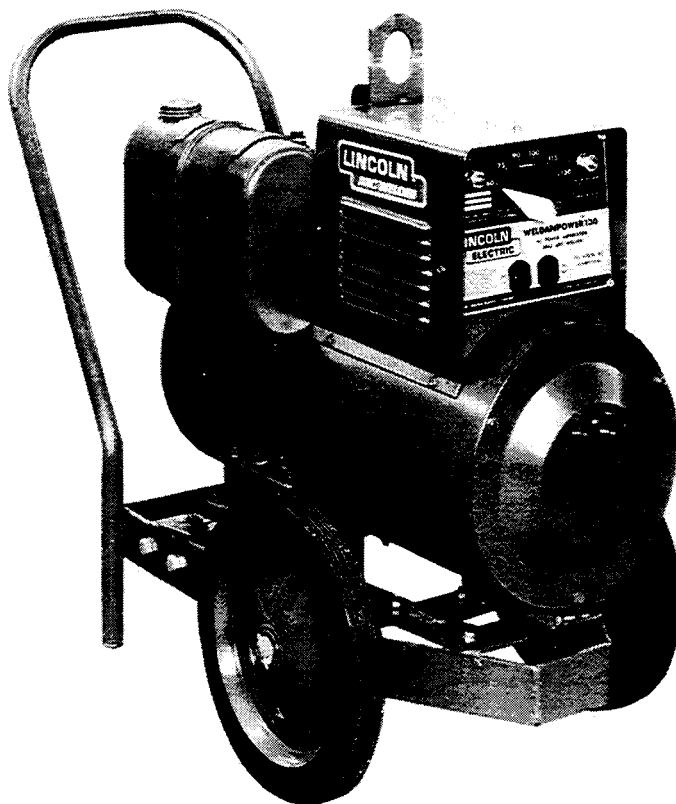


OPERATING MANUAL

WELDANPOWER® 130 Combination 130 Amp AC Welder and 3500 Watt AC Power Generator

Models (Below Code 7190 Only) .
AC-130/3.5-AS and
AC-130/2.5-AS



This manual covers equipment which is obsolete and no longer in production by The Lincoln Electric Co. Specifications and availability of optional features may have changed.

For newer Weldanpower 130 built after May 1972 (above code 7190), see IM-272

LINCOLN ELECTRIC THE LINCOLN ELECTRIC COMPANY

World's Largest Manufacturer of Arc Welding Equipment and Electrodes · Manufacturer of Motors Since 1895

Cleveland, Ohio 44117 U.S.A.

Toronto, Ontario, Canada

Padstow, N.S.W., Australia

Grand-Quevilly, 76 — France

DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt by the carrier. (Consequently, claims for material damaged in shipment must be made by the purchaser against the transportation company at the time the shipment is received.

STARTING THE ENGINE

See the Kohler engine operating instructions supplied with your welder for detailed engine starting, operating and maintenance instructions, parts lists and safety precautions.

Whenever starting the engine, be sure any load connected to the AC power receptacles is turned off or the plugs are pulled. If the load is left connected, it may prevent the generator from building up to full voltage.

To start the engine:

1. Be sure the valve on the fuel tank is open.
2. Close the choke by putting the lever on the side of the carburetor in the up position.
3. Pull the throttle control out and slip it into the notch for full engine speed.
4. Crank the engine with a firm steady pull on the rope.
5. Immediately after the engine has started, slowly return the choke lever to the down position to open the choke.
6. If a second pull of the starter is needed, open the choke by putting the lever in the down position.
7. Release the throttle from the notch and let the engine warm up with the throttle set for low idle speed.
8. Slip the throttle control into the notch to increase the engine to full speed for operation of the machine as welder or power generator.

OPERATION AS AN AC POWER SOURCE

The Weldanpower 130 should not be used for simultaneous welding and power generation.

Do NOT attempt to draw power from the output receptacles until the engine is operating at full speed. If the power load is turned on when starting the engine, the machine may fail to generate full voltage.

Run the wires from the load to the receptacles on the control panel through the strain relief clamp located on the panel covering the end of the rotor. This clamp helps to hold the plugs in the receptacles as the machine operates or the cables are pulled.

115 Volt Power

Most Weldanpower 130 models are 115 volt, single phase, 60 hertz power generators with a total maximum output of 3.5 KVA or 30 amps. When operated continuously, a maximum of 15 amps can be drawn from each of the two receptacles located on the control panel. Most 1-1/2 HP motors can be started if there is no load on the motor and no other load on the Weldanpower. Since the full load current rating of a 1-1/2 HP motor is about 20 amps, the motor load must be reduced to 75% to avoid overheating the receptacle when the motor is operated continuously. A 3/4 HP motor is the largest size that can be operated continuously from one receptacle.

Equipment plugged into the Weldanpower receptacles should be double insulated or else connected to a separate solid earth ground. Do NOT ground to the Weldanpower frame or panel and do not replace 2-prong receptacles with 3-prong grounding receptacles. If power tools have a grounding type plug, use an adaptor in the Weldanpower receptacle and connect the pigtail to a solid earth ground.

230 Volt Power

The Weldanpower 130 is also available as a 230 volt, single phase, 60 hertz power generator with a total maximum output of 2.5 KVA or 11 amps. When operated continuously, a maximum of 11 amps can be drawn from either of the two receptacles. Most 1 HP motors can be started when there is no load on the motor and run continuously at full load by these models.

The receptacle is grounded to the machine. Power tools are grounded only when the machine frame is connected to a solid earth ground.

OPERATION AS A WELDER

The welding output is rated at 130 amps at 25 arc volts, 60 hertz AC current. It is rated at 30% duty cycle on all settings. Duty cycle is based on a ten minute period. This means the arc can be drawn for three minutes out of each ten minute period without any danger of overheating. If used for more than three minutes during several successive ten minute periods, it may overheat.

Connect the electrode cable to the "Electrode" stud and the ground cable to the "To Work" stud. The output amperes are marked at each position of the current selector switch. Turn the switch to the current required for each job.

There is a slight amount of play at each switch position. It is good practice to move the switch back and forth once within this play after switching to a new position. This wiping action keeps the contacts free of dirt and oxides.

DO NOT TURN THE SELECTOR SWITCH WHILE WELDING AS THIS MAY DAMAGE THE CONTACTS.

ENGINE SPEEDS

The engine high idle speed is 3700 RPM. Full load speed is 3500 RPM. Put the throttle control in the idle position to reduce the engine to 2400 RPM speed when desired.

STOPPING THE ENGINE

When possible, remove the load and let the engine run at low idle speed for a few minutes before stopping.

Stop the engine with the Ignition switch or by holding the button on the side of the breaker point box down until the engine is completely stopped.

MAINTENANCE INSTRUCTIONS

1. Blow out the welder and controls with low pressure air periodically. In particularly dirty locations this may be required once each week.
2. Governor and carburetor joints and the throttle shaft must be kept clean and lubricated.
3. Refer to the Kohler engine operating instructions for

engine maintenance and trouble shooting instructions.

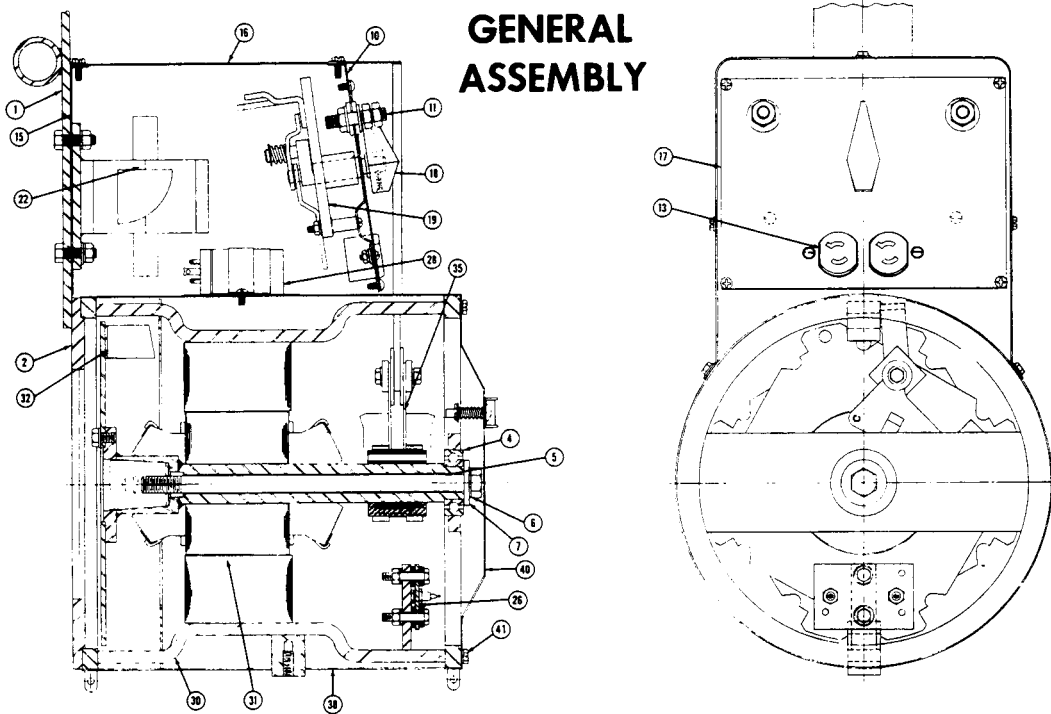
SLIP RINGS AND BRUSHES

The rotor slip rings and brushes require practically no attention. They should be inspected when a general overhaul is necessary. Fit replacement brushes by placing a piece of sandpaper between the brush and slip ring and work the sandpaper back and forth.

In the event of a major engine overhaul, the rotor must be removed. To do this, loosen the rotor through bolt (Item

5) and back it out a few turns. Then, while applying pressure to a pry bar between the housing plate (Item 2) and blower disc (Item 32) near the mounting bolts, give the through bolt a blow with a hammer. This should break the rotor assembly loose.

If the rotor is removed, it must be remagnetized after the machine is reassembled. To do this connect a 6 or 12 volt battery across the slip rings with the machine running at full speed. Connect the positive lead to the outside brushholder (nearest the bearing) and the negative lead to the inside brushholder. Maintain the connection just long enough for the output voltage to build up.



WHEN ORDERING GIVE: Item No., Part Name, Parts List No., and Welder Code

Parts List P-74-C			
ITEM	PART NAME AND DESCRIPTION	NO. REQ'D.	
1	Lift Bale Assembly	1	
2	Engine Adapter Plate	1	
	Hex Head Screw, Generator and Lift Bale to Adapter Plate	2	
	Hex Head Screw, Adapter Plate to Engine	4	
4	Bearing	1	
5	Hex Head Bolt	1	
6	Lockwasher, Mount	1	
7	Washer	1	
10	Front Panel, Includes:		
	Speed Nuts	3	
	Self-Tapping Screws	3	
11	Output Stud	2	
	Insulating Tube	2	
	Insulating Washer	4	
	Flat Washer	4	
	Lockwasher	2	
	Hex Nut	4	
	Hex Nut	2	
13	Simplex Receptacle (Below Code 6000)	2	
13	Duplex Receptacle (Above Code 6000)	2	
15	Case Back Panel, Includes:		
	Speed Nuts	3	
	Self-Tapping Screws	3	
16	Cover	1	
17	Nameplate	1	
	Self-Tapping Screw, Nameplate Mounting	2	
	"Lincoln Welder" Decal	1	
18	Handle	1	
19	Selector Switch	1	
22	Reactor	1	
26	Diode Assembly, Includes:		
	Diode	2	
	Mounting Bracket	1	
28	Condenser	1	
	Clamp, Mount Condenser	1	
	Self-Tapping Screw, Mount Condenser	3	
30	Generator Frame	1	
31	Rotor	1	
32	Blower	1	
35	Brushholder, Includes	1	
	Brushholder, Inside Position	1	
	Brushholder, Outside Position	1	
	Hex Head Screw	2	
	Plain Washer	4	
	Lockwasher	2	
	Insulator	4	
	Insulating Bushing	4	
	Hex Nut	2	
	Brushholder Support	2	
	Spring	2	
38	Brushes	2	
	Stator Cover, Includes	1	
	Speed Nuts	4	
40	Self Tapping Screws	4	
	End Cover, Includes	1	
	Lead Clamp	1	
	Rivet	1	
	Spring	1	
	Washer	1	
41	Cotter Pin	1	
	Thread Cutting Screw	3	
	Parts Not Illustrated		
	Throttle Rod Support	1	
	Self Tapping Screw, Mounts Support	4	
	Throttle Rod	1	
	Knob, Throttle Rod	1	
	Coupling, Throttle Rod to Engine Linkage	1	
	Magneto Switch	1	
	Nameplate, Magneto Switch	1	
	Muffler	1	
	Pipe Nipple	1	
	Air Cleaner	1	
	Base	1	
	Rubber Mount, Welder and Engine to Base	3	
	Stem Bumper, Mounts to Underside of Base	4	

SAFETY PRECAUTIONS

For your own protection read and observe all instructions and specific safety precautions included in this manual as well as the following general safety precautions:

Arc Welding Safety

1. Arcburn may be more severe than sunburn. Therefore:
 - a. Use a good shield fitted with the proper filter and cover plates to protect your eyes from the rays of the arc and sparks when welding or observing open arc welding.
 - b. Use suitable clothing to protect your skin and that of your helpers from the arc rays.
 - c. Protect other nearby personnel with suitable non-flammable screening.
2. Droplets of molten slag are thrown or fall from the welding arc. Protect yourself with oil free protective garments such as leather gloves, heavy shirt, cuffless trousers and high shoes.
3. Always wear safety glasses when in a welding area. Use glasses with side shields when near slag chipping operations.
4. Remove flammable material from the area or cover it to prevent the welding sparks from starting a fire.
5. Use a well maintained electrode holder and ground clamp which are connected to the welding machine with insulated welding cables of sufficient size and in good repair. Never cool the holder by dipping it into water. When not welding, place the holder where it is insulated from the ground system. Accidental grounding can cause overheating and create a fire hazard. (If using the welder as a power source for mechanized welding, these precautions for the electrode holder also apply for the semiautomatic welding gun.)
6. Be sure the work cable is connected to the work as close to the welding area as practical. Work cables connected to the building framework or other locations some distance from the welding area increase the possibility of the welding current passing through lifting chains, crane cables or other alternate circuits. This can create fire hazards or overheat lifting chains or cables until they fail.
7. When standing on metal or working in a damp area, be sure you are well insulated from ground by wearing dry gloves and rubber soled shoes.

8. Do not simultaneously touch electrode holders connected to two different welders because the voltage between the two holders can be the total of the open circuit voltage of both welders.
9. Provide adequate ventilation in the welding area. This is particularly important when welding on galvanized, lead or cadmium plated steel and other metals which produce toxic fumes.
10. Do not weld in locations close to chlorinated hydrocarbon vapors coming from degreasing, cleaning or spraying operations. The heat or the rays of the arc can decompose solvent vapors to form phosgene, a highly toxic gas, and other irritating products.
11. For more detailed safety information, purchase a copy of "Safety in Welding & Cutting - ANSI Standard Z49.1" for \$4.00 from the American Welding Society.

Engine Welder Operation and Maintenance Safety

1. Whenever possible, turn the machine off before doing trouble shooting and maintenance work.
2. Keep all safety guards, covers and devices in position and good repair.
3. Keep hands, hair, clothing and tools away from V-belts, gears, fans and all other moving parts when starting, operating or repairing equipment.
4. Operate internal combustion engines in open, well ventilated areas or vent the engine exhaust fumes to the outside.
5. Do not add fuel near an open flame or when the engine is running. Stop the engine, and if possible, allow it to cool to prevent fuel from igniting on contact with hot engine parts or electrical sparks.
6. To prevent accidentally starting gasoline engines while turning the engine or welding generator during maintenance work, disconnect the spark plug wires, distributor cap or magneto wire as appropriate.
7. To avoid scalding, do not remove the radiator pressure cap when the engine is hot.
8. Observe special precaution mentioned in the specific operating manual for the engine.

HOW TO ORDER REPLACEMENT PARTS

All parts should be ordered from Authorized Field Service Shops or branch offices. The "Field Service Directory" listing all Authorized Field Service Shops geographically is supplied with each machine or is available upon request. These shops stock GENUINE replacement parts and have factory trained men to service your machine.

In ordering replacement parts give the following information:

- (a) From the machine nameplate - Machine model, code number and serial number.
- (b) From the Instruction Manual - Part name, item number, quantity required, and the number of the parts list used to get

this information. To obtain this information refer to the pictures of the machine shown in this manual and find the required part and its item number. Get the part name and quantity required from the accompanying parts list.

All items in the parts lists which are indented in the parts name column are integral parts of the assembly which they are listed immediately under. If the entire assembly is required, do not order the indented items. The indented parts may be ordered separately if only parts of the assembly are required.

WARRANTY

The Lincoln Electric Company, the Seller, warrants all new equipment except engines and accessories thereof against defects in workmanship and material for a period of one year from date of shipment, provided the equipment has been properly cared for, and operated under normal conditions. Engines and engine accessories are warranted free from defects for a period of ninety days from the date of shipment.

If the Buyer gives the Seller written notice of any defects in equipment, electrode or flux within any period of warranty and the Seller's inspection confirms the existence of such defects, then the Seller shall correct the defect or defects at its option, either by repair or replacement F.O.B. its own factory or other place as designated by the Seller. The remedy provided Buyer herein for breach of Seller's warranty shall be exclusive.

No expense, liability or responsibility will be assumed by the Seller for

repairs made outside of the Seller's factory without written authority from the Seller.

The Seller shall not be liable for any consequential damages in case of any failure to meet the conditions of any warranty. The liability of the Seller arising out of the supplying of said equipment or electrode or its use by the Buyer, whether on warranties or otherwise, shall not in any case exceed the cost of correcting defects in the equipment or replacing defective electrode in accordance with the above guarantee. Upon the expiration of any period of warranty, all such liability shall terminate.

The foregoing guarantees and remedies are exclusive and except as above set forth there are no guarantees or warranties with respect to engines, accessories, equipment or electrodes, either express or arising by operation of law or trade usage or otherwise implied, including without limitation the warranty of merchantability, all such warranties being waived by the Buyer.



THE LINCOLN ELECTRIC COMPANY

World's Largest Manufacturer of Arc Welding Equipment and Electrodes • Manufacturer of Motors Since 1895

Cleveland, Ohio 44117 U.S.A.

Branch Offices, Field Service Shops, and Distributing Agencies in All Principal Cities

LINCOLN ELECTRIC CO., (Australia) Pty., Ltd., Padstow, N.S.W.

LINCOLN ELECTRIC CO., of Canada, Ltd., Leaside, Toronto 17, Canada

LA SOUDURE ELECTRIQUE LINCOLN, Grand Quevilly (76) France

Export Representatives

ARMCO INTERNATIONAL - DIV. OF ARMCO STEEL CORP., Middletown, Ohio, U.S.A.