


Balcrank®




Diesel Fuel Pumps *Multi-Purpose Transfer*

Models:

- 1170-001 Pump Only
- 1170-002 Pump with Flow Meter

	⚠ WARNING
	DANGER: Not for use with fluids that have a flash point below 100°F (38°C). Examples: gasoline, alcohol. Sparking could result in an explosion which could result in death.


	⚠ WARNING
	In the presence of explosive vapors, take action to prevent static sparking. Failure to ground the pump, piping, valves, containers, or other miscellaneous equipment can result in fire or explosion. A green grounding lug is provided on the pump.


Thoroughly read and understand this manual before installing, operating or servicing this equipment.


OPERATION, INSTALLATION, MAINTENANCE AND REPAIR GUIDE

GENERAL SAFETY REQUIREMENTS

NOTE: THOROUGHLY READ AND UNDERSTAND THIS MANUAL BEFORE INSTALLING, OPERATING OR SERVICING THIS EQUIPMENT.

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	<p>DANGER: Not for use with fluids that have a flash point below 100°F (38°C). Examples: gasoline, alcohol.</p> <p>Sparking could result in an explosion which could result in death.</p>

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	DANGER
	<p>DANGER: Not for use with fluids that have a flash point below 100°F (38°C, examples: gasoline, alcohol). Sparking could result in an explosion which could result in death.</p> <p>DANGER: No doit pas être utilisé avec des fluides dont le point éclair est en dessous de 38°C (par ex.: essence ou alcool). Une zétincelle peut provoquer une explosion.</p> <p>PERICOLO: Non utilizzarlo con fluidi aventi il punto di infiammabilità inferiore a 38°C (100°F) (Esempio: benzina, alcol). Eventuali scintille potrebbero provocare un'esplosione che può causare la morte.</p> <p>PELIGRO: No usar con líquidos con punto de inflamación inferior a 38°C, como gasolina, alcohol, etc. por riesgo de explosión.</p>

SAFETY



Complies with applicable European standards

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will not contribute to the formation of gas or to the pollution of ground water by seepage.

Metal Parts Disposal

The metal parts of the cabinet, both painted and steel are normally recoverable by companies specialized in scrapping metal.

Electronic Circuit Card Disposal

The electronic circuit cards (meters, electric panel) must be disposed of by companies specialized in the disposal of electronic components.

Miscellaneous Parts Disposal

Additional parts making up the fuel unit, such as tubes, rubber gaskets, plastic parts and wiring harness, must be delivered to companies specialized in the disposal of industrial refuse.

SAFETY RULES

Protective Gloves. Prolonged contact with hydrocarbons can cause skin irritation: when dispensing fuel always use PVC gloves conforming to the standard EN 388 cat.

Permitted Uses. The unit must always be used for the purpose intended. Follow the instructions listed under Instructions for Use.

Overheating. To prevent overheating, make sure that the pump unit stops whenever fuel has not been dispensed for more than 2 minutes.

Service. Service of the fuel unit must be performed by qualified personnel.

RULES FOR DEMOLITION AND DISPOSAL

In the event that the fuel unit is to be demolished, the parts of which it is composed must be sent to companies that specialize in the disposal and recycling of industrial refuse and, in particular:

Packing Material Disposal

The packing material consists of wood and biodegradable cardboard and can be delivered to companies that normally recover cellulose. The protective polyethylene foam forms are chemically inert and can be disposed of in dumps where they

GENERAL INFORMATION

Models 1170-001 and 1170-002 fuel units are designed for the transfer of diesel fuel for private use. Characterized by maximum safety and simplicity of use, these fuel units are dependable, high-performance equipment that is quickly installed and ready for use.

Equipment and features common to all fuel units are:

- Self-priming pump and motor - Model 1170-001 and 1170-002 fuel units are equipped with self-priming, volumetric, electric rotary vane pumps for the transfer of diesel fuel, provided with a by-pass valve. Such a valve allows functioning for brief periods of time even with the dispensing nozzle closed. The closed-type, asynchronous motor is directly coupled to the pump body (protection class IP 55 conforming to the standard EN 60034-5-86) self-ventilated, 12 volt DC with permanent magnets. Max flow rate 10 gpm
- Meter (optional) The meter is a mechanical oscillating disk meters designed to allow the precise measurement of diesel fuel. The meter is provided with a non-resettable cumulative total in gallons and a resettable batch total. The

batch total has three digits, the cumulative total has six digits. The meter accuracy is $\pm 1\%$ in the flow rate within 5 to 30 gal/min.

- Two meters of cable with battery clamps
- Four meters of anti-static rubber tube for fuel $\frac{3}{4}$ "
- Manual type dispensing nozzle
- Quick coupling for 2" drum connector
- telescoping suction tube

Permitted Uses - Transfer of diesel fuel with a viscosity from 2 to 5.35 cSt at 37.8° C. Minimum flash point - 55°C

Uses Not Permitted - The transfer of fluids with different characteristics than those indicated above is not allowed.

INSTALLATION

Assembly Procedure

Pump

- Connect the telescopic suction tube to the pump body ensuring that you connect the suction tube to the pump inlet as indicated by the arrow.
- Then connect the hose assembly to the manual on/off or automatic shut off fuel nozzle.
- Connect the hose and nozzle assembly to the pump and motor assembly ensuring that there are no leaks by using suitable thread tape.
- Mount the nozzle holster to the pump with the aid of the screw set that accompanies the pump.
- Connect the battery cables with the aid of the heavy-duty alligator clamps to a 12 volt battery.
- Turn on the intended power source.
- The pump motor will start to drive the vane pump head and when you open the nozzle, diesel fuel should start to flow from the fuel nozzle.
- When not in use, please store fuel nozzle in nozzle holster to ensure no contaminants can enter the fuel nozzle.

ATTENTION - The motors are not of an anti-explosive type. DO NOT install them where inflammable vapors could be present.

Hydraulic Connections

Remove the protective caps from the threads on the pump. The hydraulic connections shall be made by skilled personnel, in a workmanlike manner, with respect for the regulations in effect in the country of installation.

Use tubing and accessories suitable for use with diesel fuel. Materials that are not suitable for use with diesel fuel can cause damage to the pump, harm people and cause pollution!

Make sure that the suction tubing is clean and free of scum.

SUGGESTION - Before connecting the tubing to the pump filter it is a good idea to fill the tubing with diesel fuel to facilitate priming the pump during the phase of putting it into operation.

Electrical Connections

The electrical connections must be performed in a workmanlike manner by skilled personnel, respecting the regulations in effect in the country of installation. The maximum acceptable variations from the electrical parameters are: Voltage $\pm 5\%$.

Connecting the 1170-001 or 1170-002 12 VDC Simply connect the clamp to a battery connection.

WARNING - Before to connect check the battery voltage. To connect the 12 Vdc pump with 24 Vdc will damage the electric motor

START UP OPERATION

Wetting the Pump - The pump provided with the unit is a self-priming pump capable of suctioning with empty tube, nevertheless, the pump should be partially filled with fluid before turning it on for the first time. It is left to the technician's experience to determine the best way to wet the pump.

Calibrating the Meter (optional) - The meter is already calibrated in the factory to be used with diesel fuel. It is possible to recalibrate on site the meter using the calibrating pin. If the meter indicate a value greater than the real volume, unscrew the pin. If the meter indicate a value less than the real volume, screw the pin.

WARNING - The accuracy of the meter is not guaranteed in case the dispensing at reduced flow rate (less than 5 gal/min).

Priming the Pump - It is advisable to oversee the first priming phase to make sure that it is happening in a reasonable amount of time. The priming of the pump can require up to some second, depending on the wetting of the pump.

WARNING - If this phase is excessively prolonged, stop the pump and verify that:

- the pump is not running completely dry;
- the suction tubing is airtight and completely immersed in the fluid to be pumped;
- the suction filter is not clogged;
- the residual air in the tubes has been evacuated.

INSTRUCTIONS FOR USE

WARNING -

- Transfer must always occur in the presence and under the control of the Operator.
- Keep the dispensing nozzle closed until it is inserted in the container to be filled.

How to Dispense Fuel

- Rotate the reset handle in a counter-clockwise direction to completely zero-out the batch total. The cumulative total cannot be reset.
- Extract the dispensing nozzle and insert it in the container to be filled.
- Press the pump switch to start the pump.
- Press the nozzle lever and keep it pressed until you have dispensed the desired quantity.
- When dispensing is finished, press the pump switch in "OFF" position to stop the pump. Replace the nozzle.
- Rehang the tube, so that it will not be crushed by moving vehicles.

MAINTENANCE

The unit has been designed to require the minimum operation maintenance. According to the existing regulations the following components shall be checked periodically for damage:

- discharge pipe
- electrical cable
- dispensing nozzle

Clean periodically the dispensing nozzle tube.

Balcrank Lubrication Equipment Warranty Statement

All Balcrank equipment sold by authorized Balcrank distributors is warranted to their original customer to be free from defects in materials and workmanship for a period of one year from the date of sale to that customer. Selected Balcrank equipment carries warranty terms for a more extended period as defined in the Balcrank Lubrication Equipment & Accessories User Price List, wherein a "lifetime" warranty represents a warranty period of thirty years. Within the initial one-year warranty period, Balcrank will repair or replace all Balcrank equipment determined by Balcrank to have defective materials or workmanship. For equipment carrying more extended warranties, Balcrank will repair or replace the product including parts and labor during the first full year and will provide parts only for the remainder of the warranty period.

This warranty applies only to equipment installed and operated according to applicable Balcrank Service Bulletins and Installation Instructions.

Any equipment claimed to be defective must be returned, freight prepaid, to an Authorized Balcrank Service Center (ASC). Upon receiving candidate warranty equipment from a customer, ASC will: 1) diagnose to determine the warrantable condition of the equipment, 2) submit, prior to repair or replacement, a request to Balcrank for warranty authorization, then 3) in cooperation with Balcrank, proceed with repair locally or forward the equipment to Balcrank and obtain replacement. If the part(s) or equipment items are found defective upon inspection by Balcrank, they will be repaired or replaced, and then will be returned to the ASC. If Balcrank finds the claimed part(s) or equipment not to be defective, the ASC will receive written authorization from the original customer, and then repair them for a reasonable charge to the customer, which will include all applicable parts, labor, and return transportation costs.

Optionally, the customer may submit certain eligible products directly to Balcrank for warranty return by using Balcrank Lubrication Equipment Direct Service Warranty Procedure. Eligible products are defined in the Balcrank Lubrication Equipment & Accessories User Price List. Refer to the Balcrank web site www.balcrank.com for a copy.

Any equipment returned to Balcrank must have the Warranty Service Claim number (WSC#) clearly marked on the outside of the carton. Balcrank's sole responsibility is for defects in material and workmanship, and Buyer's sole and exclusive remedy hereunder, shall be limited to repair or replacement of the defective part or equipment.

This warranty does not cover, nor shall Balcrank be liable for repair or replacement of parts or equipment resulting from general wear and tear through use, or damage or failure caused by improper installation, abuse, misapplication, abrasion, corrosion, insufficient or improper maintenance, negligence, accident, alteration, or substitution of non-Balcrank parts.

Furthermore, the Warranty for Lubrication Equipment and Accessories does not cover the following specific conditions:

- Failure or damage to equipment caused by dirt or debris in compressed air lines and fluid lines. This includes, but is not limited to, clogged inlet filters, strainers, or regulators; fluid meters; control handles; fluid tips; and valves.
- Failure of normal wear parts including but not limited to: o-rings, packings, seals and valves unless originally improperly installed by the factory.
- Products placed in applications for which their use was not intended. Examples include but are not limited to Lubricant pump being used to pump solvents, or placing equipment intended strictly for indoor use outdoors
- Damage to equipment resulting from operation above and beyond Balcrank's recommendations.
- Leaks at air and fluid fittings and connections.
- Damage caused by thermal expansion whenever adequate pressure relief was not included in the system.
- Loose suction tubes on pumps.
- Incorrect hose reel spring tension, requiring adjustment.

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL BALCRANK BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, OR OTHER DAMAGES OF SIMILAR NATURE, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST PRODUCTION, PROPERTY DAMAGE, PERSONAL INJURY, WHETHER SUFFERED BY BUYER OR ANY THIRD PARTY, IRRESPECTIVE OF WHETHER CLAIMS OR ACTIONS, LEGAL OR EQUITABLE, FOR SUCH DAMAGES ARE BASED UPON CONTRACTS, WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE. ANY CLAIM OR ACTION FOR BREACH OF WARRANTY MUST BE BROUGHT WITHIN TWO (2) YEARS FROM THE DATE OF SALE TO THE ORIGINAL CUSTOMER.

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Distributed by:

SERVICE BULLETIN SB1080
New Release 11/06
832246