

SAVE THESE INSTRUCTIONS

Models:

02-1541-GII, 02-1542-GII, 02-1543-GII,
02-1560-GII, 02-1561-GII, 02-1562-GII



1110 Maggie Lane
Billings, MT USA 59101
TEL: 406-259-8282
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DIXON PUMPS INC.

DIXONPUMPS.COM
1-800-874-8976

BLADE MASTER 1.5 HP 1500 SERIES STATIONARY TRANSFER PUMP 1.5 " PUMP, SINGLE PHASE AC 110/220V, EXPLOSION PROOF

Owner's Manual

STOP

***DO NOT RETURN
THIS PRODUCT TO
A DISTRIBUTOR!***

Please contact Dixon Pumps Inc. before returning any product. If you are missing any parts or experience problems with your Installation, please contact Customer Service at **1-800-874-8976**

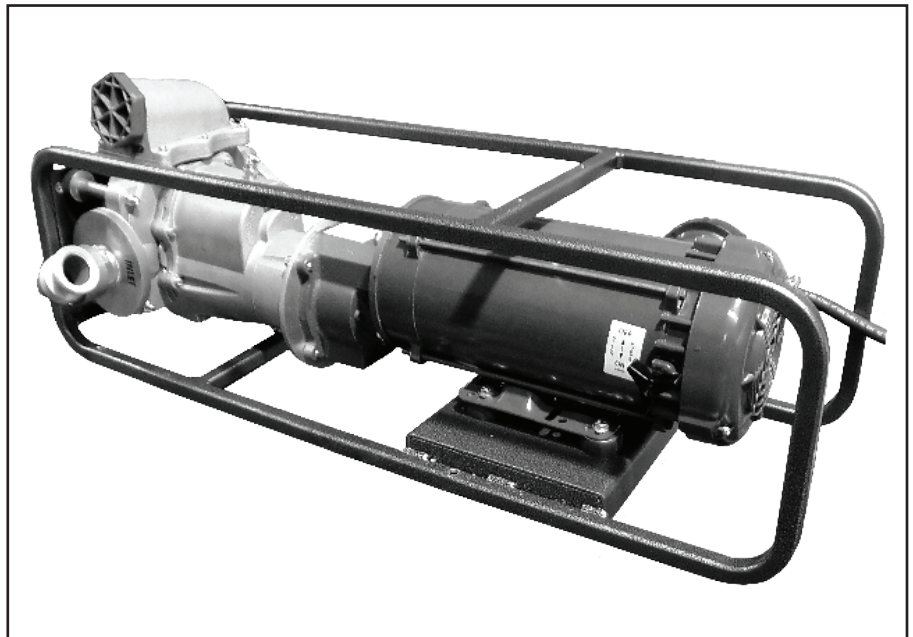
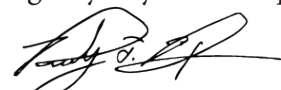


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Congratulations on the purchase of your new Blade Master® 1500 Series Transfer Pump. Dixon Pumps Inc. is proud to manufacture the highest quality transfer pumps, filtration, and tank cleaning systems available, and we appreciate the opportunity to become part of your operations.

Please review this manual in its entirety before operating your new unit, and please follow all of the operations and maintenance procedures listed herein to ensure that your new unit is always operating at its greatest capacity and capabilities. We are sure that this unit is going to give you years of dependable service.


President and CEO
Dixon Pumps Inc.

General Information

The Blade Master® pump uses time synchronized, twin impellers with revolutionary wiper blades, which enables this positive displacement pump to be run dry without any adverse affect, and can be operated in either direction. The Blade Master® is a high-volume, low-energy, stationary-mount transfer pump designed to transfer light to heavy viscous products at low pressure.

The Blade Master® has 1 1/2 inch inlet/outlet ports, with a maximum operating pressure of 0 to 40 P.S.I. This pump is designed to self-prime to a maximum of a six foot vertical lift.

The 1500 Series Stationary Pump is built as a complete unit, and comes standard with the following:

- 1.5" Blade Master pump head
- Gear Reducer (2:1, 2.5:1, 3:1, or 4:1)
- 1.5 HP 110/220V AC Single Phase TEXP Motor
- C-Flange
- Powder coated frame

Note

The viscosity of some products may effect the self-priming vertical lift of the pump.

Mounting Procedures

To stationary mount your Blade Master® pumping unit it is recommended that the pump be mounted in the horizontal position. After finding your exact location, you may drill 9/64 inch holes in the bottom section of the square tubing frame; 2 holes in the front, 2 holes in the middle, and 2 holes in the rear sections of the lower square tubing. Use 1/4 inch Grade 5 bolts with flat washers to fasten down the pumping unit. When bolting frame in place, make a good solid positive ground connection to the frame.

Inlet/Outlet Connections



WHEN PUMPING EXPLOSIVE PRODUCTS, ALL HOSE COUPLINGS MUST BE EXPLOSION PROOF RATED. ALL HOSE MUST HAVE A STATIC WIRE, AND MUST ALSO BE UL LISTED FOR CLASS 1, DIV 1, GROUP D, CLASS 2, GROUP F AND G (CANADA: MUST BE CSA LISTED)

Once the pump has been mounted you are ready to make your inlet/outlet connections: The Blade Master® comes with a 1 1/2 inch inlet/ outlet, which may be reduced to the desired inlet/ outlet size. **DIXON PUMPS INC. DOES NOT RECOMMEND REDUCING THE INLET/ OUTLET TO ANY SMALLER THAN 1 1/2 INCH!**

INLET AND OUTLET ARE MARKED WITH LABELS ON THE PUMP

CAUTION

WHEN MAKING CONNECTIONS, BE SURE THAT ALL THREADS ARE SEALED WITH THE PROPER THREAD SEALING COMPOUND THAT IS APPLICABLE FOR YOUR APPLICATION.

Shut-Off Nozzle

CAUTION

IF EQUIPPED WITH SHUT-OFF NOZZLE THE "BLADE MASTER" WILL OPERATE IN THE BY-PASS MODE IF NOZZLE IS IN OFF POSITION. THE PUMP WILL ONLY OPERATE FOR 5 MINUTES IN FULL BY-PASS MODE. ANY LONGER THE 5 MINUTES MAY CAUSE DAMAGE TO THE PUMP.

Note

You can only operate a shut off nozzle on the outlet side of the pump when equipped with by-pass.

Electrical Connections

When the pump is mounted in the permanent stationary position, it is recommended that you hard-wire the pump motor with 110 volts, 20 amps, or 220 volts, 7.5 amps. Using conduit is recommended, the motor on the pumping unit is supplied with a 3/4 inch inlet explosion proof junction box (UL/CSA CLASS 1, DIV 1, GROUP D, CLASS 2, GROUP F & G) for the electrical connections. It is recommended that a maximum length of 75 feet of electrical cord be used. Dixon Pumps Inc. recommends that 12 gauge 3 conductor SOW electrical cord be used with this Blade Master product.

REFER TO ATTACHED WIRING DIAGRAM AND YOUR LOCAL ELECTRICAL REQUIREMENTS FOR AMPERAGE

Note

To connect portable electric cord to the junction box in an explosive environment you must use product #490-103 cord connector kit

Wiring instructions

Remove four 3/16 inch X 1 inch hex head screws holding the cover on the junction box. Follow the wiring diagram provided for proper voltage required, and the direction you wish the motor to turn. The Blade Master® operates in either direction. When making the wire connections you must twist all wires together securely; use crimp type wire nuts and electrical tape all connections.

To change motor voltage, remove four 3/16 inch X 1 inch hex head screws holding the cover on the junction box. Unwrap tape from wire nuts, cut wires, remove wire nuts, and rewire motor to desired voltage. Follow the wiring diagram provided for desired voltage. When the proper configuration is complete, twist all wires together securely; use crimp type wire nuts and electrical tape all connections. Seal junction box with hex head screws

Switch Connections

The pump motor comes equipped with an on/off toggle (110/220V) switch which is located on the side of the motor. Before plugging the portable cord into the power supply, place the switch in the off position.

General Operations

When you have completed all of the above procedures, the Blade Master® pump is ready for operation. You should first turn the pump on, and check all connections for leakage. If any leakage occurs, tighten all fittings until no leakage appears.

For a list of products which may or may not be pumped with the “Blade Master” refer to your local distributor, Dixon Pumps Inc, or dixonpumps.com

General Maintenance

The Blade Master® requires minimal maintenance, but the following maintenance procedures are required for maximum performance.

After 2000 hours of operation, you should add 22 ounces of synthetic lubricant. Dixon Pumps recommends Mobil SHC-629.

Periodically, all nuts and bolts should be checked and tightened securely to assure maximum performance of the pump unit.

CAUTION

WHEN PUMPING ANY CORROSIVE PRODUCT OR PRODUCTS THAT WILL LEAVE A FILM OR DEPOSIT OF ANY KIND, THE PUMP SHOULD BE FLUSHED IMMEDIATELY AFTER USE.

Gear Reducer Maintenance

This pump unit comes equipped with a “CBN 3001 Series” gear reducer that requires very minimal maintenance. Every 50 hours of operation you should check the mounting bolts for tightness. This unique gear reducer is designed with the synthetic lubricating oil within the gear reducer housing. This gear reducer should not become hot enough to cause any breakdown in the synthetic oil, to cause any breakdown within the gear operation of this reducer.

IF YOU HAVE ANY CONCERNS CONTACT DIXON PUMPS INC. FOR FURTHER DETAILS.

TROUBLE SHOOTING GUIDE

Symptom	Probable Cause	Remedy
Pump will not prime or lift	<ul style="list-style-type: none">Trying to self prime over 6 feet vertical liftPump impellers are not sealing properlyLine plugged or filter cloggedSuction line flush on bottom of drum or tankLoose, unsealed fittingsBypass valve stuck open	<p>Reduce lift to 6 feet or install check valve at end of inlet line</p> <p>Squirt approximately 2 table-spoons of oil into the inlet/outlet, coating impellers completely</p> <p>Flush line and clean filter</p> <p>Suction line needs 1 inch clearance on all sides</p> <p>Check all fittings for proper seal</p> <p>Remove nut and guide, check for any foreign objects lodged in spring or valve</p>
Motor tripping circuit breaker or overload protector shutting off	<ul style="list-style-type: none">Circuit breaker too small or overloadedOutlet hose or pipe too long, creating too much head pressureReducing inlet/outlet too smallProduct viscosity too high	<p>Check power source to verify proper voltage and amperage; unit requires 30 amps 230V</p> <p>This unit has a maximum PSI limit based on a 25, 50, 75, or 100 pound bypass spring</p> <p>The inlet/outlet lines should not be smaller than XX in</p> <p>Make sure that you have the correct unit for your application</p>
Pump is not producing the proper volume of product flow	<ul style="list-style-type: none">Bypass is openingInlet/outlet has been reduced	<p>Bypass will open at the max PSI for bypass. Heavier bypass springs are available from Dixon Pumps Inc.</p> <p>When inlet/outlet are reduced, flow-rate will decrease</p>

REMEMBER: THE LONGER YOUR OUTLET HOSE OR PIPE AND THE GREATER THE HEAD PRESSURE REQUIRED, THE GREATER YOUR REDUCTION IN FLOW RATE WILL BE

For any further operating, maintenance of trouble shooting information, please feel free to contact your local distributor or our factory at:

Dixon Pumps Inc. 1110 Maggie Lane, Billings, MT 59101 TEL: 800-874-8976 FAX: 406-245-5606

Warranty Statement

For the benefit of the original purchaser, DIXON PUMPS, INC. warrants all products of its manufacture to be free from defects in workmanship and materials for a period of two years from date of purchase. DIXON PUMPS, INC. does not warrant hoses, or hose couplings. Purchaser shall give DIXON PUMPS, INC. prompt notice of any warranty claims, and shall return any defective parts (shipping and insurance prepaid) to DIXON PUMPS, INC. for inspection at its plant in Billings, Montana. At its option, DIXON PUMPS, INC. will either repair or replace, without charge, F.O.B. factory, any part(s) or product(s) found to have been defective. NO REIMBURSEMENT SHALL BE ALLOWED FOR ANY EXPENSES INCURRED FOR REPAIRS OR ALTERATIONS MADE BY OTHERS WITHOUT OUR PRIOR WRITTEN AUTHORIZATION FROM DIXON PUMPS, INC.

This warranty does not cover any product failures arising from abnormal use, improper application or installation, neglect or accident. Any non-factory alteration or modification of any DIXON PUMPS, INC. product automatically voids this warranty. DIXON PUMPS, INC. pumps are not designed for all known substances. If the material being transferred with a DIXON PUMPS, INC pump has corrosive, polymerizing, or other properties that may result in unsatisfactory or dangerous operation, please contact DIXON PUMPS, INC. at 1-800-874-8976 before attempting to transfer the material.

The foregoing express warranty and remedy are exclusive and in lieu of all other warranties provided by law. All implied warranties of merchantability and fitness for a particular purpose and all damages for breach of warranty are specifically excluded. This warranty expressly excludes any contingent liability and costs associated with product defect or failure.

Any equipment manufactured by others included in this sale is sold only with such warranties as may be provided by the original manufacturer.

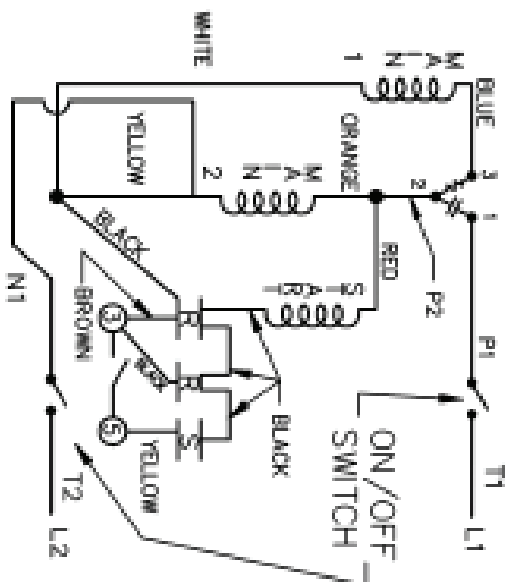
Any products(s) or part(s) returned for warranty inspection and/or repair must have a RETURNED MERCHANDISE AUTHORIZATION (RMA), prior to shipment.

Out-of-Warranty repairs will be charged at this established factory per hour rate, plus any components needed for replacement.

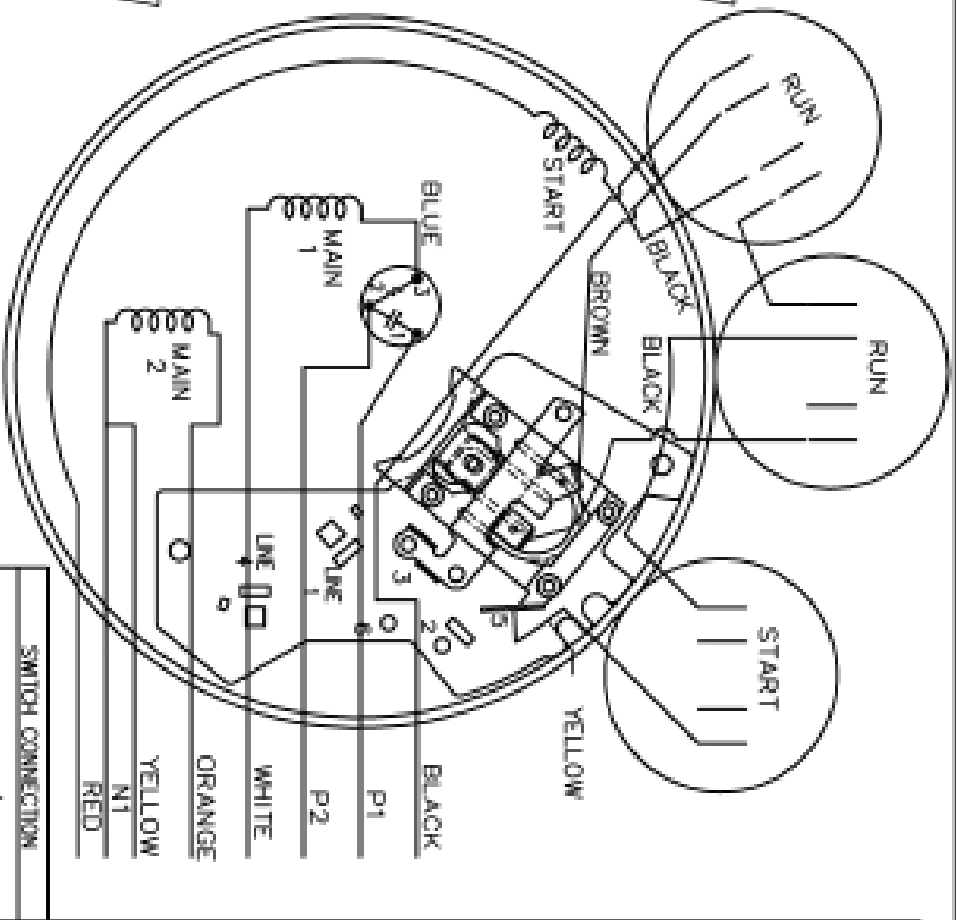
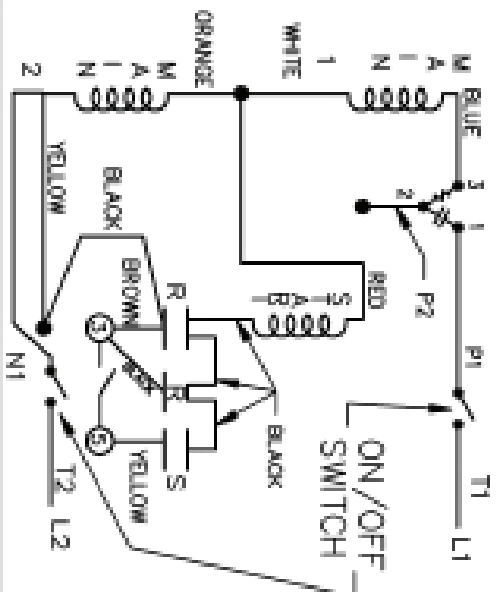
THANK YOU FOR YOUR PURCHASE!

Shipping Address: DIXON PUMPS, INC.
 1110 MAGGIE LANE
 BILLINGS, MT 59101

LOW VOLTAGE C.C.W.



HIGH VOLTAGE C.C.W.



102006-116

DUAL VOLTAGE
CAP. START-CAP. RUN
OVERLOAD SELECT
ROTATION.

LOW VOLT. CCW ROT.

T1 LINE 1
T2 LINE 2

WHITE
YELLOW
BLACK

P2
ORANGE
RED

HIGH VOLT. CCW ROT.

T1 LINE 1
T2 LINE 2

BLACK
YELLOW
P2

ORANGE
WHITE
RED

FOR CW ROT. EITHER
VOLTAGE INTERCHANGE
RED WITH BLACK LEAD.



CONNECTION DIAGRAM

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