

Installation, Operation & Maintenance Supplement Instruction





Bulletin No.: IOMS-PUL-1012

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Conventions

For the remainder of this bulletin, the following conventions are in effect.

A WARNING DEFINES A CONDITION THAT COULD CAUSE DAMAGE TO BOTH THE EQUIPMENT AND THE PERSONNEL OPERATING IT. THIS MANUAL MUST BE CONSULTED IN ALL CASES WHERE THE WARNING SYMBOL IS MARKED IN ORDER TO FIND OUT THE NATURE OF THE POTENTIAL HAZARDS AND ANY ACTIONS WHICH HAVE TO BE TAKEN TO AVOID THEM.



CAUTION POSSIBILITY OF ELECTRIC SHOCK.



- NOTES ARE GENERAL INFORMATION MEANT TO MAKE OPERATING THE EQUIPMENT EASIER.

TIPS HAVE BEEN INCLUDED WITHIN THIS BULLETIN TO HELP THE OPERATOR RUN THE EQUIPMENT IN THE MOST EFFICIENT MANNER POSSIBLE. THESE "TIPS" ARE DRAWN FROM THE KNOWLEDGE AND EXPERIENCE OF OUR STAFF ENGINEERS, AND INPUT FROM THE FIELD.



THIS IS A PROCEDURE HEADING. A PROCEDURE HEADING INDICATES THE STARTING POINT FOR A PROCEDURE WITHIN A SPECIFIC SECTION OF THIS MANUAL.

Revision History

REV LEVEL BRIEF DESCRIPTION DATE - New bulletin number 11/01/2016

REVISION LOG

- New

PULSA Series[®] FACTORY SERVICE POLICY

Should you experience a problem with your *PULSA Series* pump, first consult the troubleshooting guide in your operation and maintenance manual. If the problem is not covered or cannot be solved, please contact your local Pulsafeeder Sales Representative, or our Technical Services Department for further assistance.

Trained technicians are available to diagnose your problem and arrange a solution. Solutions may include purchase of replacement parts or returning the unit to the factory for inspection and repair. All returns require a Return Authorization number to be issued by Pulsafeeder. Parts purchased to correct a warranty issue may be credited after an examination of original parts by Pulsafeeder. Warranty parts returned as defective which test good will be sent back freight collect. No credit will be issued on any replacement electronic parts.

Any modifications or out-of-warranty repairs will be subject to bench fees and costs associated with replacement parts.

TRADEMARKS

PULSA Series is a registered trademark of Pulsafeeder, Inc. Pulsafeeder[®] is a registered trademark of Pulsafeeder, Inc. Pulsafeeder EPO[®] is a registered trademark of Pulsafeeder, Inc.

SAFETY CONSIDERATIONS:

- 1. Read and understand all related instructions and documentation before attempting to install or maintain this equipment
- 2. Observe all special instructions, notes, and cautions.
- 3. Act with care and exercise good common sense and judgment during all installation, adjustment, and maintenance procedures.
- Ensure that all safety and work procedures and standards that are applicable to your company and facility are followed during the installation, maintenance, and operation of this equipment.

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1 Introduction

PULSA Series metering pumps are positive displacement, reciprocating pumps. They combine the high efficiency of plunger pumps with a diaphragm seal to eliminate product leakage. Each pump consists of a power end and a liquid end separated by the hydraulically operated diaphragm.

1.1 When to use these instructions

The PULSA Series 7120V pumps have a vertically mounted motor. Use these instructions with the IOM-IMP-98 when installing the pump, replacing the motor, or the drive oil.

2 COMPONENT LOCATION AND OPERATION 2.1 Gear Ratio Assembly

PULSA 7120V pumps are driven by a standard C-face electric motor mounted on the motor adaptor input flange. The motor drives a set of worm gears which convert rotational speed into torque. They in turn power the eccentric shaft assembly that converts rotary motion to reciprocating motion. The motor adaptor is available in a variety of configurations to accommodate different motor frame specifications.



3 Equipment Set-up



PULSA 7120V pumps use two separate oils: *PULSA* lube 1HG, hydraulic oil for the eccentric box and *PULSA* lube 8GS, gear oil for the gearbox. Confusion between the two will impair performance and damage the pump.

3.1 Oil Capacities

It is recommended that adequate supplies of both *PULSA*lube oils be on hand for periodic changes and emergency requirements. The approximate amounts of oil required to fill PULSA Series 7120V pumps to specified levels are:

Oil	Color	Application	Amount (approx.)
PULSAlube 1H	Brown	7120V Hydraulic	1 Gallon – 1HG-1GL
PULSAlube 8G	Amber	7120V Gearbox	200 ml (0.21 quart) – 8GS-2ML

Please note that the eccentric box section of the pump is not completely full when the proper amount of oil is used, this is normal.

3.1.1 Gear Oil Fill

In all pump configurations, one pipe plug is present at the top of the gearbox and one is on the side at the centerline level. Remove the top plug and fill with *PULSA*lube 8GS (amber) gear oil through the top port to the level of the eccentric shaft centerline, which is level with the side port. If desired, the side plug can be removed so that leakage from the side port indicates attainment of the required level. Replace both pipe plugs after filling. Do not add oil through the port on the side of the motor adapter, as this port is for motor drive coupling access only.

3.2 Drive Motor Installation

3.2.1 Motor Rotation

Motor can be operated in either direction, clockwise or counterclockwise. Verification of motor direction is not necessary at startup.

3.2.2 Motor Installation

PULSA Series 7120V pumps may be shipped with the drive motor packed separately. This is done to avoid damage during transport.



Figure 11

- 1. Remove the unattached coupling half from the motor adaptor. Ensure that the elastomer coupling spider remains in place, on the coupling half that remains attached to the worm shaft.
- 2. If applicable, remove any tape or retainer rings that hold the motor shaft key in place.
- 3. Place the loose coupling half on the motor shaft. Align the keyway with the key and align shaft end to inner coupling surface as shown in figure above.
- 4. Tighten the setscrew onto the shaft key.
- 5. Place the motor in a vertical position and align the coupling teeth.
- 6. Install the motor downwards onto the adaptor. The plastic guide will assist in aligning the coupling halves. Final position can be achieved by slightly rotating the motor until the coupling jaws align.
- 7. Rotate the motor until the clearance holes in the adaptor and the tapped holes in the motor align. Fasten the motor to the adaptor using the supplied bolts (4). Tighten bolts evenly to secure motor.

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PULSA Series[®] 7120V DRIVE MOTOR INSTALLATION

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