Leeson Motor Field Installation for 5 HP Load and 7-1/2 HP Unload Applications

Motor Kit Part No.: D04-0654

Instructions for replacing present 5 HP and 7-1/2 HP Baldor motors with Leeson 7-1/2 HP motors.

NOTE: The Leeson motors do not have manual resets, so no bypass wiring is required.

Instruction Manual

PNEG-1764
Date: 08-13-10
# Contents

<table>
<thead>
<tr>
<th>Chapter 1  Safety</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety Guidelines</td>
<td>4</td>
</tr>
<tr>
<td>Chapter 2  Installation</td>
<td>7</td>
</tr>
<tr>
<td>Top Auger Motor</td>
<td>7</td>
</tr>
<tr>
<td>Top Auger Motor Controls and Conduit</td>
<td>8</td>
</tr>
<tr>
<td>Bottom Auger Motor</td>
<td>10</td>
</tr>
<tr>
<td>Cleanout Door Mechanism</td>
<td>12</td>
</tr>
<tr>
<td>GSI Group Service Report</td>
<td>14</td>
</tr>
<tr>
<td>Chapter 3  Warranty</td>
<td>15</td>
</tr>
</tbody>
</table>
1. Safety

Safety Guidelines

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting **personal safety** and **preventing equipment problems**. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidelines. To help you recognize this information, we use the symbols that are defined below. Please read the manual and pay attention to these sections. Failure to read this manual and its safety instructions is a misuse of the equipment and may lead to serious injury or death.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

**DANGER** indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

**WARNING** indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

**CAUTION** indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

**CAUTION** used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.

**NOTE** indicates information about the equipment that you should pay special attention.
1. Safety

Follow Safety Instructions

Carefully read all safety messages in this manual and safety signs on your machine. Keep signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from the manufacturer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machinery in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual or need assistance, contact your dealer.

Practice Safe Maintenance

Understand service procedures before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is in operation. Keep hands, feet and clothing away from rotating parts.

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any built up grease oil and debris.

Install Equipment Properly

This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.

Operate Motor Properly

In an emergency, shut down the power source.

Turn OFF and lock out all power sources before performing any maintenance.

Do not operate electric motor equipped units until motors are properly grounded.
1. Safety

Install and Operate Electrical Equipment Properly

Electrical controls should be installed by a qualified electrician and must meet the standards set by the National Electrical Code and all local and state codes.

Disconnect and lock out all power sources before installing wires/cables or servicing equipment.

Stay Clear of Rotating Idler

Entanglement in rotating idlers can cause serious injury or death.

Keep all shields and covers in place at all times.

Wear close fitting clothing. Stop and lock out power source before making adjustments, cleaning, or maintaining equipment.

Wear Protective Clothing

Ear plugs or muffs should be worn at all times to protect ears from high noise levels.

Wear close fitting clothing and safety equipment appropriate to the job.

Remove all jewelry.

Long hair should be tied up and back.

Safety glasses should be worn at all times to protect eyes from debris.

Wear gloves to protect your hands from sharp edges on plastic or steel parts.

Wear steel toe boots to help protect your feet from falling debris. Tuck in any loose or dangling shoe strings.

A respirator may be needed to prevent breathing potentially toxic fumes and dust.

Wear hard hat to help protect your head.

Wear appropriate fall protection equipment when working at elevations greater than six feet (6').
Top Auger Motor

Step 1: *(See Figure 2A.)*

1. Remove the belts and sheave from the motor shaft.
2. Replace the present 712-1 Baldor motor with the D03-1010 Leeson motor.
3. Install new 28138-2 sheave on motor shaft.
4. Re-install belts and adjust tension.
5. Re-install belt guard.

*Figure 2A* Top Auger Drive Components
2. Installation

Top Auger Motor Controls and Conduit

Step 2: *(See Figure 2B below and Figure 2C on Page 9.)*

**DANGER** *Electrical shock hazard. Will cause serious injury or death. Disconnect and lock out power before servicing.*

1. Remove the breaker, contactor and overload for the top auger motor.
2. Install the new 80 amp breaker, 48 amp contactor and the 30-43 amp overload. Set the overload for 33 amps.
3. Replace the 10 gauge wire from the breaker to the distribution block with the 8 gauge wire.
   Also, connect the breaker to the contactor with 8 gauge wire.
4. Replace the original 10 gauge wire routed through the load motor conduit with the 8 gauge wire.
   Connect to the new overload and motor.

<table>
<thead>
<tr>
<th>Part No./Process</th>
<th>Critical Process/Inspection Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td>N3 Control Panel Rework</td>
<td>It is imperative that all 510 and 1220 dryers have the control panel reworked as</td>
</tr>
<tr>
<td>Reviewed By: Jeff Falconer</td>
<td>1) 5 HP contactor, 60 amp load breaker and 10 gauge wiring for each must be removed.</td>
</tr>
<tr>
<td>Approval:</td>
<td>2) 7.5 HP <strong>contactor, 80 amp load</strong> breaker and <strong>8 gauge</strong> wire must be installed and rewired accordingly.</td>
</tr>
<tr>
<td>Issue Date: 7/15/2010</td>
<td></td>
</tr>
<tr>
<td>Removal Date:</td>
<td></td>
</tr>
</tbody>
</table>

Original controls and wiring

Revise controls and wiring

Figure 2B
It is imperative that all 510 and 1220 dryers using 7.5 HP Leeson Motor be reworked as follows:

1) All 10 gauge wire for load circuit to be removed from motor to control panel.

2) 8 Gauge wire must be installed from motor to control panel and wired to new contactor.
2. Installation

Bottom Auger Motor

Step 3: (See Figure 2D.)

1. Disassemble auger cleanout handle mechanism to provide easier access to the motor.

2. Remove belts and sheave from motor shaft.

3. If the dryer is an FFI model with 7” metering rolls, replace the meter roll pan lever with D01-2605. (See Figure 2E on Page 11.) This will resolve any interference with the new motor.

4. Replace the present 712-1 Baldor motor with the D03-1010 Leeson motor.

5. Install new 28138-2 sheave on motor shaft.

6. Install new MHC00793 B84 belts and adjust tension.

Figure 2D

Bottom auger drive components

If this is the FFI dryer, replace meter roll pan lever with D01-2605 before installing new motor.
Figure 2E

New lever (D01-2605)
2. Installation

Cleanout Door Mechanism

Step 4: *(See Figure 2F below and Figure 2G on Page 13.)*

1. To allow adequate clearance between the linkage arm and the motor, move the handle to the left side of the pivot arm weldment.

2. Also, move the linkage arm to the left side of the cleanout door hinge. *(See Figure 2G on Page 13.)*

3. Adjust linkage for correct operation of the cleanout door.

<table>
<thead>
<tr>
<th>Part No./Process</th>
<th>Critical Process/Inspection Parameters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N5</strong> Cleanout Door</td>
<td>It is imperative that all GSI and FFI cleanout door brackets be installed on the left side of the handle as shown.</td>
</tr>
</tbody>
</table>

Cleanout arm must be fastened at both ends on the left side of the handle.

![Present assembly](image1)

![Revise assembly after leeson motor installed](image2)

*Figure 2F*
2. Installation

PNEG-1764 Leeson Motor Field Installation for 5 HP Load and 7-1/2 HP Unload Applications

Figure 2G Cleanout Door Hinge

Move linkage to opposite side
2. Installation

GSI Group Service Report

GSI GROUP SERVICE REPORT

Warranty Reference MTRPORTDRYER10 Date Serviced _______/_____/2010

Dealer Name and #:___________________________________________________________

Dealer Address:________________________________________________________________

City____________________  State________________  Zip____________________

Dealer Phone: (____) _______ - _________

Customer Name:____________________________________________________________

Customer Address:________________________________________________________________

City____________________  State________________  Zip____________________

Customer Phone: (____) _______ - _________

Model Number:________________________________________________________________

Serial Number:________________________________________________________________

Dryer Order Number: ______________________

Labor $___________  Round Trip Mileage and Amount: _____Miles $__________

Description of reported problem:
Project: MTRPORTDRYER10 - Load and Unload motor replacement

____________________________________________________________________________

Description of service performed: ____________________________________________

____________________________________________________________________________

Additional Comments: _________________________________________________________

____________________________________________________________________________

Service Technician X_____________________________ Date: _________________________

Customer X_____________________________ Date: ____________________________
### GSI Group, LLC Limited Warranty

The GSI Group, LLC ("GSI") warrants products which it manufactures to be free of defects in materials and workmanship under normal usage and conditions for a period of 12 months after sale to the original end-user or if a foreign sale, 14 months from arrival at port of discharge, whichever is earlier. The end-user’s sole remedy (and GSI’s only obligation) is to repair or replace, at GSI’s option and expense, products that in GSI’s judgment, contain a material defect in materials or workmanship. Expenses incurred by or on behalf of the end-user without prior written authorization from the GSI Warranty Group shall be the sole responsibility of the end-user.

### Warranty Extensions:

The Limited Warranty period is extended for the following products:

<table>
<thead>
<tr>
<th>Product</th>
<th>Warranty Period</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>AP Fans and Flooring</strong></td>
<td></td>
</tr>
<tr>
<td>Performer Series Direct Drive Fan Motor</td>
<td>3 Years</td>
</tr>
<tr>
<td>All Fiberglass Housings</td>
<td>Lifetime</td>
</tr>
<tr>
<td>All Fiberglass Propellers</td>
<td>Lifetime</td>
</tr>
<tr>
<td><strong>Cumberland Feeding/Watering Systems</strong></td>
<td></td>
</tr>
<tr>
<td>Feeder System Pan Assemblies</td>
<td>5 Years **</td>
</tr>
<tr>
<td>Feed Tubes (1-3/4&quot; and 2.00&quot;)</td>
<td>10 Years *</td>
</tr>
<tr>
<td>Centerless Augers</td>
<td>10 Years *</td>
</tr>
<tr>
<td>Watering Nipples</td>
<td>10 Years *</td>
</tr>
<tr>
<td><strong>Grain Systems</strong></td>
<td></td>
</tr>
<tr>
<td>Grain Bin Structural Design</td>
<td>5 Years</td>
</tr>
<tr>
<td><strong>Grain Systems Farm Fans Zimmerman</strong></td>
<td></td>
</tr>
<tr>
<td>Portable and Tower Dryers</td>
<td>2 Years</td>
</tr>
<tr>
<td>Portable and Tower Dryer Frames and Internal Infrastructure †</td>
<td>5 Years</td>
</tr>
</tbody>
</table>

GSI further warrants that the portable and tower dryer frame and basket, excluding all auger and auger drive components, shall be free from defects in materials for a period of time beginning on the twelfth (12th) month from the date of purchase and continuing until the sixtieth (60th) month from the date of purchase (extended warranty period). During the extended warranty period, GSI will replace the frame or basket components that prove to be defective under normal conditions of use without charge, excluding the labor, transportation, and/or shipping costs incurred in the performance of this extended warranty.

### Conditions and Limitations:

**THERE ARE NO WARRANTIES THAT EXTEND BEYOND THE LIMITED WARRANTY DESCRIPTION SET FORTH ABOVE. SPECIFICALLY, GSI MAKES NO FURTHER WARRANTY OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE IN CONNECTION WITH: (I) PRODUCT MANUFACTURED OR SOLD BY GSI OR (II) ANY ADVICE, INSTRUCTION, RECOMMENDATION OR SUGGESTION PROVIDED BY AN AGENT, REPRESENTATIVE OR EMPLOYEE OF GSI REGARDING OR RELATED TO THE CONFIGURATION, INSTALLATION, LAYOUT, SUITABILITY FOR A PARTICULAR PURPOSE, OR DESIGN OF SUCH PRODUCTS.**

GSI shall not be liable for any direct, indirect, incidental or consequential damages, including, without limitation, loss of anticipated profits or benefits. The sole and exclusive remedy is set forth in the Limited Warranty, which shall not exceed the amount paid for the product purchased. This warranty is not transferable and applies only to the original end-user. GSI shall have no obligation or responsibility for any representations or warranties made by or on behalf of any dealer, agent or distributor.

GSI assumes no responsibility for claims resulting from construction defects or unauthorized modifications to products which it manufactured. Modifications to products not specifically delineated in the manual accompanying the equipment at initial sale will void the Limited Warranty.

This Limited Warranty shall not extend to products or parts which have been damaged by negligent use, misuse, alteration, accident or which have been improperly/inadequately maintained. This Limited Warranty extends solely to products manufactured by GSI.

Prior to installation, the end-user has the responsibility to comply with federal, state and local codes which apply to the location and installation of products manufactured or sold by GSI.

---

9101239_1_CR_rev7.DOC (revised July 2009)
This equipment shall be installed in accordance with the current installation codes and applicable regulations which should be carefully followed in all cases. Authorities having jurisdiction should be consulted before installations are made.