Basic KLEENair
Assembly and Operations Manual


10" Basic KLEENair on a GSI Dryer


10" Basic KLEENair on a Sukup Dryer using transition weldments
Transition Weldment


10" Basic KLEENair attached to a FF X-Stream stackable dryer


Long radius elbows work best for corners
10" Basic KLEENair attached to an MC Tower Dryer


10" Self Powered KLEENair attached to a Brock Superb Dryer that has a drag chain discharge.


10" Self Powered KLEENair attached to an old Behlen Dryer and running at an angle. Even though the unit will still work great at an angle it will wear down the nylon brush-tipped auger much faster.

Table of Contents

Introduction

General Information

READ THIS MANUAL carefully to learn how to properly use and install equipment. Failure to do so could result in personal injury or equipment damage.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your equipment and should be easily accessible when needed.

Receiving Merchandise and Filing Claims

INSPECT the shipment immediately upon arrival. The consignee is responsible for ensuring that all quantities are correct. Report any damage or shortages by recording a detailed description on the bill of lading to justify the claim from the transport firm. When receiving merchandise, it is important to check both the quantity of parts and their descriptions with the packing list enclosed within each package. All claims for freight damage or shortage must be made by the consignee within ten (10) days from the date of the delivery. The consignee should accept the shipment after noting the damage or loss.

Capacity

A. The capacities may differ greatly under varying conditions. The following factors play a role in the performance of the KLEENair Vacuum Grain Screener.

- Speed/rpm
- Angle of operation
- Moisture content
- Amount of foreign matter
- Different materials
- Methods of feeding

Safety

Safety Instructions

Our foremost concern is your safety and the safety of others associated with this equipment. We want to keep you as a customer. This manual is to help you understand safe operating procedures and some problems which may be encountered by the operator and other personnel.

As owner and/or operator, it is your responsibility to know what requirements, hazards and precautions exist, and to inform all personnel associated with the equipment or in the area. Safety precautions may be required from the personnel. Avoid any alterations to the equipment. Such alterations may produce a very dangerous situation where SERIOUS INJURY or DEATH may occur.

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.

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.

Read and Understand Manual

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.

Operate Motor Properly

To avoid serious injury or death, stay away from unit and make sure everyone is clear of the equipment before starting or operating the unit.

Electric Shock Hazard

All electrical connections should be made in accordance with the National Electric Code. Be sure equipment and bins are properly grounded.

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

Disconnect power on electrical driven units before resetting motor overloads.

Do not repetitively stop and start the drive in order to free a plugged condition. Jogging the drive in this manner can damage the equipment and/or drive components.

Safety Continued

Operate Unload Equipment Properly

- Untrained operators subject themselves and others to **SERIOUS INJURY** or **DEATH. NEVER** allow untrained personnel to operate this equipment.
- **NEVER** work alone.
- Keep children and other unqualified personnel out of the working area at **ALL** times.
- Make sure **ALL** equipment is locked in position before operating.
- **NEVER** start equipment until **ALL** persons are clear of the work area.
- Keep hands and feet away from the auger intake and other moving parts.
- **NEVER** attempt to assist machinery operation or to remove trash from equipment while in operation.
- Be sure all operators are adequately rested and prepared to perform all functions of operating this equipment.
- **NEVER** allow any person intoxicated or under the influence of alcohol or drugs to operate the equipment.
- Make sure someone is nearby who is aware of the proper shut down sequence in the event of an accident or emergency.
- **ALWAYS** think before acting. **NEVER** act impulsively around the equipment.
- **NEVER** allow anyone inside a bin, truck or wagon which is being unloaded by an auger or conveyor. Flowing grain can trap and suffocate a person in seconds.
- Use ample overhead lighting after sunset to light the work area.
- Keep area around intake free of obstacles such as electrical cords, blocks, etc., that might trip workers.
- **NEVER** drive, stand or walk under the equipment.

Safety Continued

Prepare for Emergencies

Be prepared if fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital and fire department near your telephone.

Wear Protective Clothing

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 a hard hat to help protect your head.

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

Assembly

Remove discharge from dryer

Begin by removing the existing discharge from the dryer that you are attaching the KLEENair to.

Step:

1. Remove flanged bearing from the dryer discharge weldment.

2. Remove the grain discharge weldment and discharge auger.

3. Make sure the dryer has a hanger bearing at the end of the unload auger. If your dryer does not have a hanger bearing then you will need to install a Hanger Bearing Kit on the dryer before attaching the KLEENair. (see part number below)

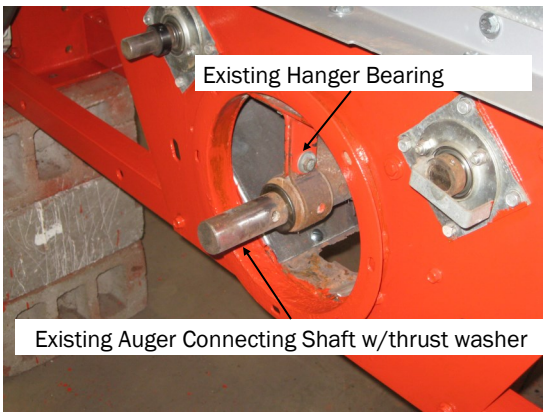
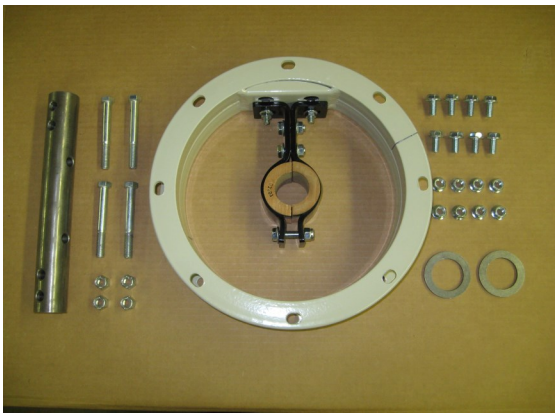


Figure 1

Complete Hanger Bearing Kit w/Weldment



For 8" (KL8BRG-KIT) For 10" (KL10BRG-KIT)

4. Inspect existing Auger Connecting Shaft to ensure proper hole alignment to KLEENair.

   When measuring from center to center, holes should have 1-3/4" spacing to connect to KLEENair brush auger. If your existing connecting shaft does not have the correct spacing then contact your KLEENair dealer.

Assembly Continued

Attaching KLEENair to dryer

5. Remove nylon bristle brush auger from the KLEENair body.

6. Connect brush auger to existing connecting shaft on the dryer. (see Figure 2) Ensure that the flight is moving in the same direction as the existing flight of the dryer's discharge auger. Make sure that the "Grain Flow" arrow is pointing in the right direction. Line up holes on connecting shaft to the holes on the brush auger. Insert 7/16" x 3-1/2" hex bolt and secure with 7/16" nylock nut. (see Figure 3)

Figure 2

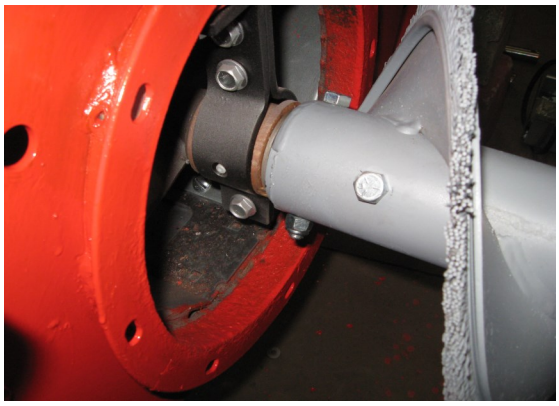


Figure 3

7. Insert connecting shaft (supplied in Hanger Bearing Kit w/o Weldment) into the end of the brush auger. Line up holes on connecting shaft to the holes on the brush auger. Insert 7/16" x 3-1/2" hex bolt and secure with 7/16" nylock nut. (see Figure 4)

Figure 4

Assembly Continued

Attaching KLEENair to dryer

8. Slide KLEENair body onto brush auger. (see Figure 5) Ensure that the end of the KLEENair that has the hanger bearing bracket is located on the discharge end and away from the dryer (see Figure 6). Fasten the KLEENair to the dryer with the 3/8" flanged bolts and nuts (finger-tight) supplied in the Hanger Bearing Kit w/o Weldment. (see Figure 7)

Figure 5

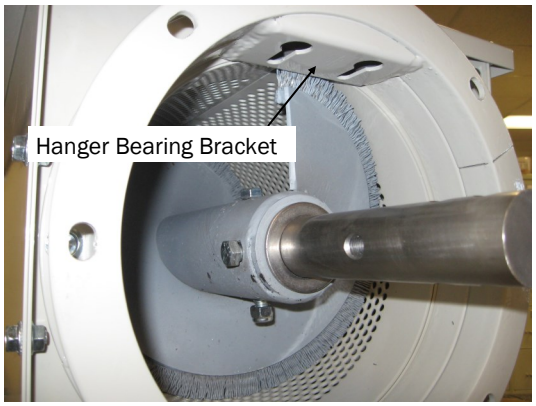


Figure 6

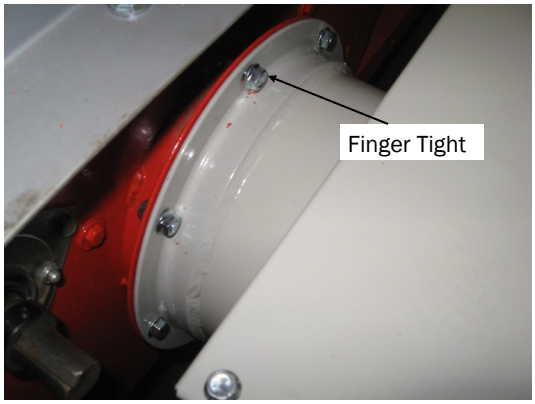


Figure 7

Note: The dryer pictured in this assembly is a Farm Fans. Your dryer may have a different size or shape transition where the discharge attaches to the dryer. You may need to do some field fabrication to attach the round flange of the KLEENair to the transition of your dryer (see sample pictures on page 13). It is important to have a hanger bearing at the end of the dryer before you attach the KLEENair. See Step 3 for the part number to order an extra Hanger Bearing Kit if your dryer does not already have one.

Assembly Continued

Attaching KLEENair to dryer

9. Take a measurement from the ground, or foundation, to the bottom of the KLEENair to determine the proper length of the legs. You want to make sure that the KLEENair is straight and in line with the discharge auger of the dryer. Make any adjustments to the length of the legs and fasten them to the KLEENair with the 8 flange bolts and nuts already on the left and right corners of the KLEENair. (see Figure 8)

Figure 8

10. Install Hanger Bearing Kit w/o Weldment on discharge end of KLEENair. (See Figures 9 & 10)

    a. Slide one thrust washer onto the connecting shaft up against the brush auger.

    b. Assemble the two halves of the hanger bracket with the wood bearing halves.

    c. Attach hanger bearing assembly to hanger bracket on KLEENair discharge end using the two carriage bolts.

    d. Slide the second thrust washer on to the connecting shaft up against the wood bearing.

Assembly Continued

Attaching KLEENair to dryer

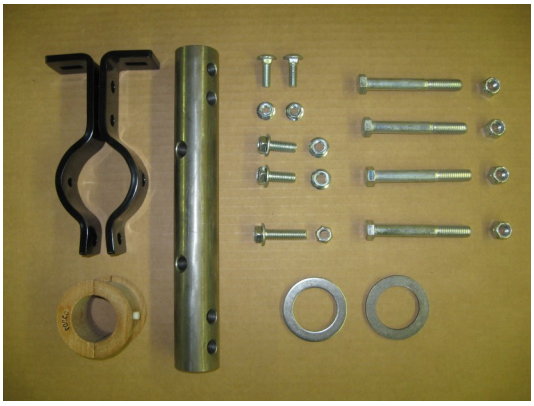


Figure 9

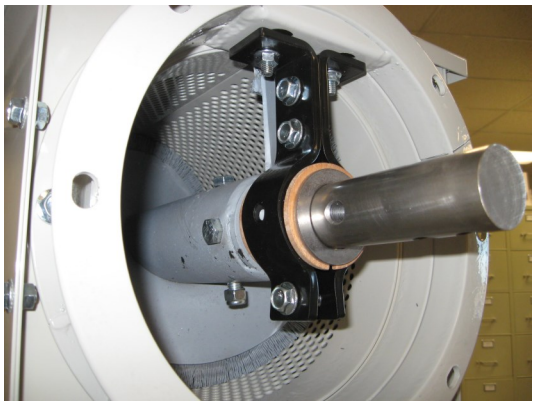


Figure 10

11. Attach the discharge that was removed from the dryer onto the end of the KLEENair. (see Figures 11 & 12) If your dryer has a moisture sampler or safety switch you may have to extend the wire connections at this time.

Figure 11

Figure 12

Note: The dryer pictured in this assembly is a Farm Fans. Your dryer may have a different size or shape transition where the discharge attaches to the KLEENair. You may need to do some field fabrication to attach the round flange of the KLEENair to the transition of your discharge (see sample pictures on page 13).

Tighten bolts shown in figure 7.

EXAMPLES

Example Transitions

10” Self-Powered KLEENair attached to a SuperB Dryer

10” Basic KLEENair attached to an MC Dryer

10” KLEENair attached to a Sukup Dryer (Sukup Transition Kit available from Production Sales Company)

8” KLEENair attached to a Sukup Dryer

KLEENair spliced into an auger

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