Portable Grain Dryer

Assembly Manual

a division of

THE GSI GROUP

PNEG-663

Printed: April 1998

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Appendices

Icons Used in This Manual

 ..... This icon indicates safety and hazards to people and equipment. This icon is used to call your attention to instructions for your personal safety and/or safety of the equipment. Watch for this symbol. Use safety precautions to prevent injury to people and damage to equipment.

 ..... This icon indicates information reader should note.

 ..... This icon indicates communication options: phone, fax, e-mail, internet

 ..... This icon indicates recommended tools and/or hardware.

Introduction

Thank you for choosing a Grain Systems portable grain dryer. This manual describes how to assemble the C-Series portable dryer, all models. This dryer is one of the finest grain conditioning products ever built. It is designed to give excellent performance and service for many years.

GSI Mission

"Provide our customers with awesome service and products in order to grow our company to be the world leader, using a best cost producer strategy, with empowered associates who enjoy their jobs."

Welcome to The GSI Group, Inc. in Assumption, Illinois.

This product is intended for grain conditioning only. Any other application is a misuse of product. Misuse of product may cause injury. Misuse of product may void warranty.

This product has sharp edges. These sharp edges may cause serious injury. To avoid injury use proper protective clothing and equipment at all times.

In this manual guards are removed for illustration purposes only. All guards must be in place before and during operation.

It is important to read and understand this manual. Know and use safe operating procedures. Know and prevent safety hazards. It is the responsibility of the dryer owner and the dryer operator to know the equipment requirements, safety hazards, and how to prevent injury or damage. Inform any personnel who work with the equipment, or who are in the dryer area, about safety hazards.

All personnel operating or working around a portable grain dryer should read this manual. This manual must be delivered with equipment to its owner. Failure to read this manual and adhere to safety instructions is a misuse of the equipment and may void warranty.

A careful operator reduces risk of personal injury and equipment damage.

Electrical Power Supply: Grain Systems recommends you contact your local power company and request that a representative inspect your dryer installation. Be sure your wiring is compatible with your power company's system and that you will have adequate power supplied to dryer.

Material Data Safety Sheets (MSDS): MSDS are available upon request.

Safety Icon:

..... This icon indicates safety and hazards to people and equipment. This icon is used to call your attention to instructions for your personal safety and/or safety of the equipment. Watch for this symbol. Use safety precautions to prevent injury to people and damage to equipment.

Safety Words:*

"DANGER" (red) this word means the hazard or unsafe practice **will** result in **severe** injury or **death**.

"WARNING" (orange) this word means the hazard or unsafe practice **could** result in **severe** injury or **death**.

"CAUTION" (yellow) this word means the hazard or unsafe practice **could** result in **minor** injury or **property damage**.

* These safety words conform to the American National Standards Institute draft standard ANSI Z535.4, "American National Standards for Product Safety Signs and Labels," 1989.

Safety Decals On Dryer:

Safety decals are placed on appropriate dryer parts prior to shipping. The purpose of the safety decals on the dryer is to immediately alert all personnel to the hazards of an operating dryer. The safety decal does not replace the need for all personnel to know and understand safe dryer operations and requirements. Read the "Dryer Operations and Service Manual".

Safety decals should be read and understood by all people in or around the dryer area.

The following pages of "SAFETY DECALS ON DRYER" identify and give the location of all safety decals that should be on each portable dryer. Safety decals are listed in numerical order.

If the safety decals on the following pages are not on your dryer, or if they are damaged, immediately contact Grain Systems for replacement safety decals.

U.S. telephone: 217.226.4421
U.S. toll free fax: 1.800.353.8306
International fax: 217.226.3404
e-mail: gsisales@grainsystems.com
internet: http:/www.grainsystems.com

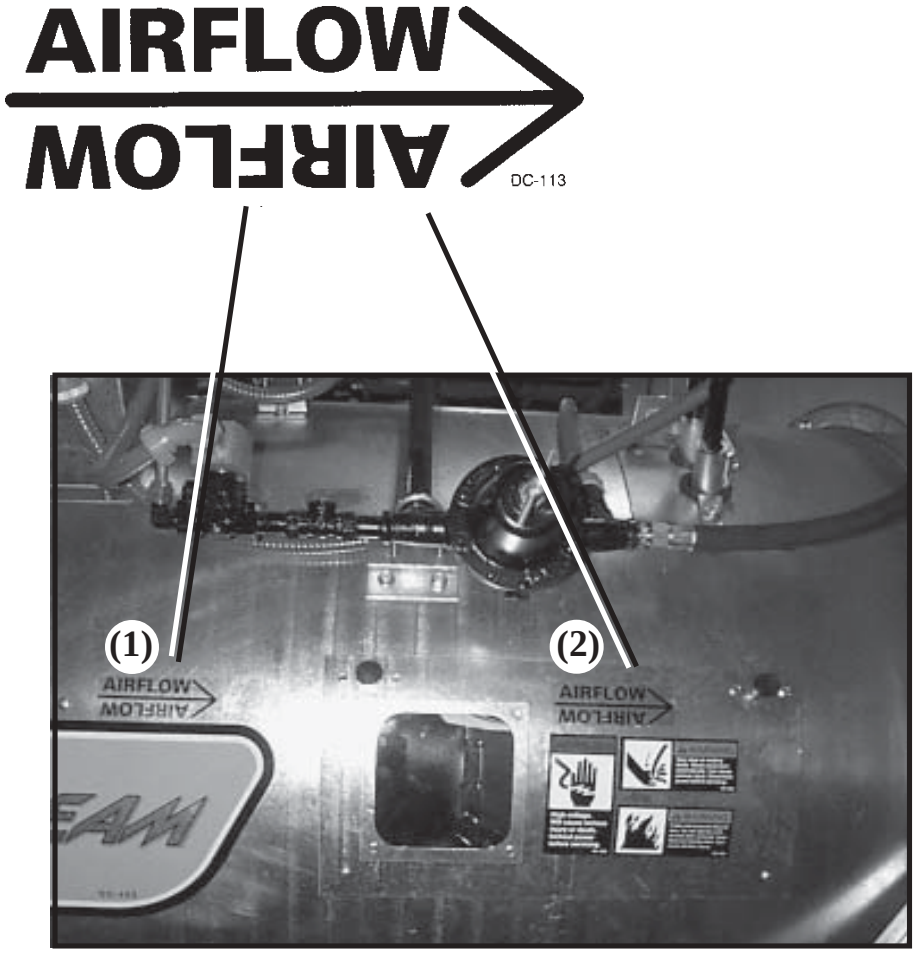
GSI
a division of
THE GSI GROUP

1004 East Illinois Street
Post Office Box 20
Assumption, IL 62510-0020
United States of America

Safety Decal # DC-113

Location of Decal on Dryer: (1) on fan can
(2) on fan can access door

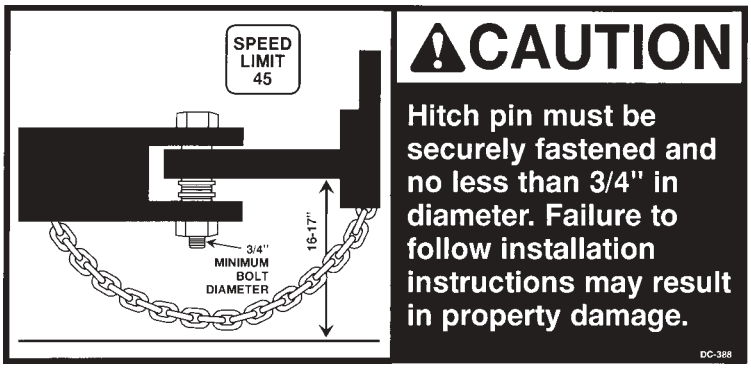
Safety Decal:

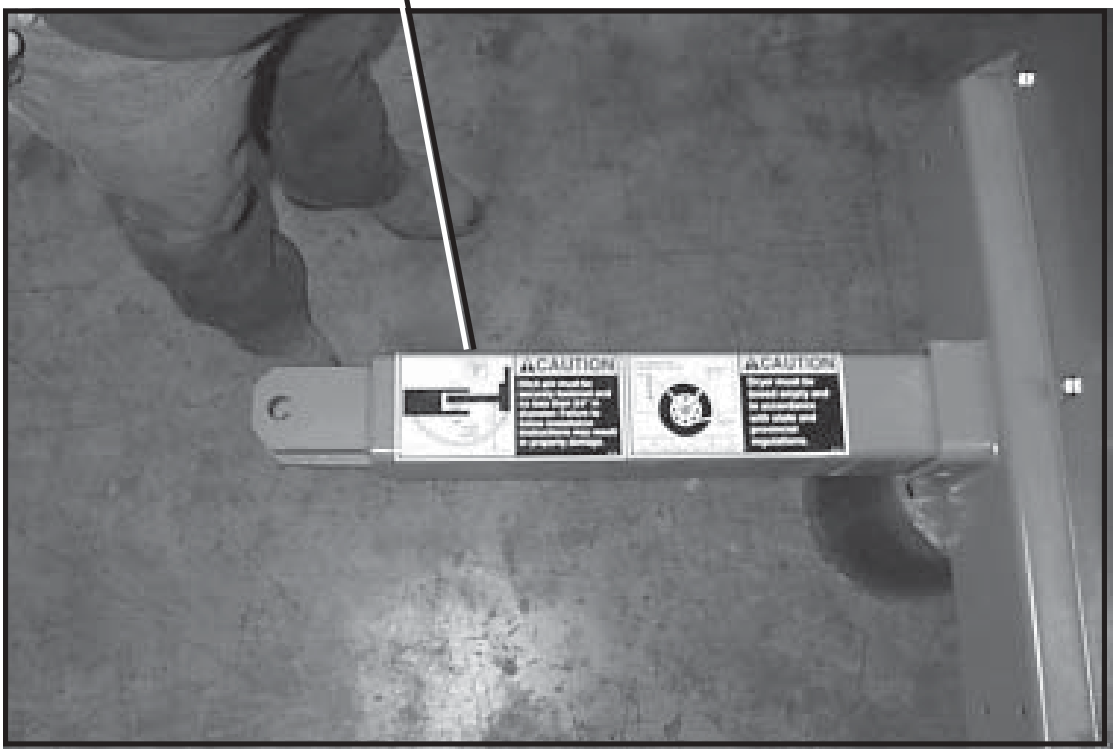


Safety Decal # DC-388

Location of Decal on Dryer: on hitch tongue

Safety Decal:

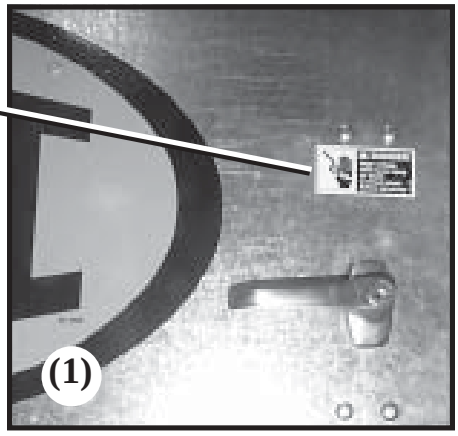


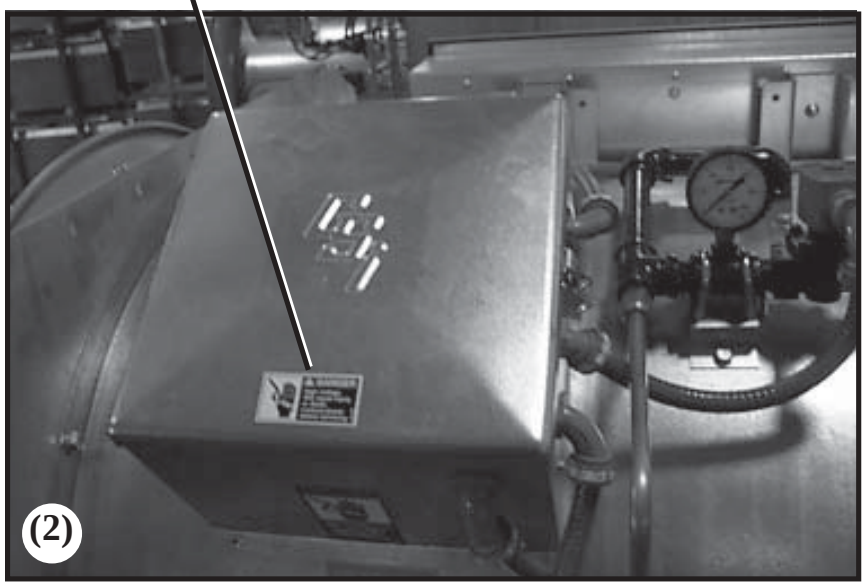


Safety Decal # DC-889

Location of Decal on Dryer: 1. outside of power box door
2. fan can control box - lid

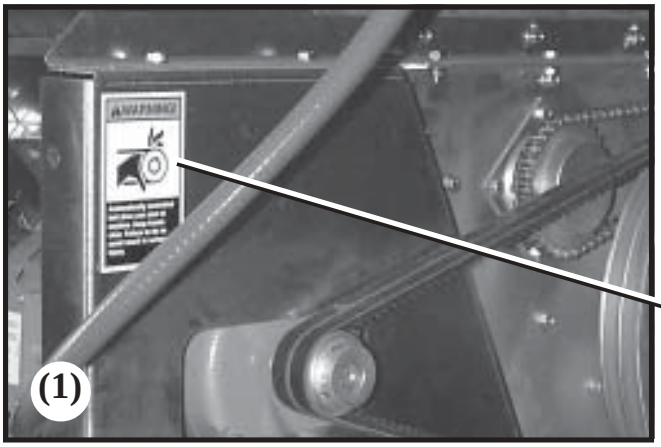
Safety Decal:

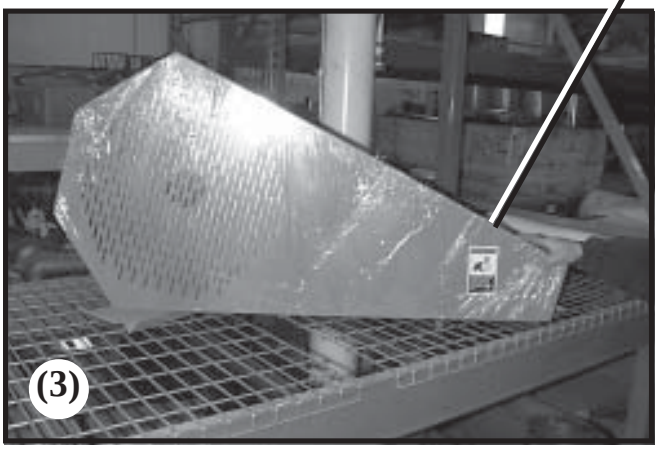




Safety Decal # DC-971

Location of Decal on Dryer:
(1) underneath belt guard
(shown with belt guard removed for illustration purpose only)
(2) on belt guard
(3) on belt guard for load motor



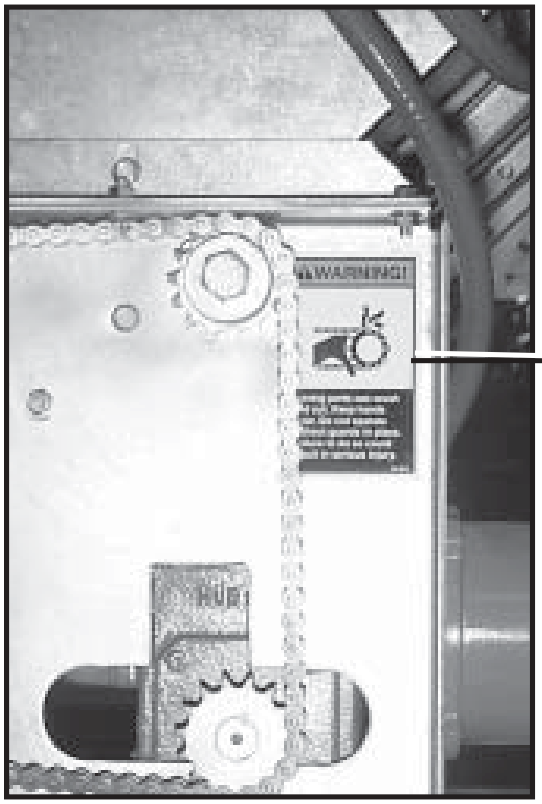


Safety Decal:

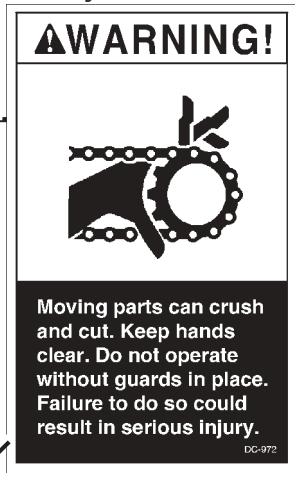
Safety Decal # DC-972

Location of Decal on Dryer: (1) underneath belt guard
(shown with belt guard removed for illustration purpose only)
(2) on belt guard

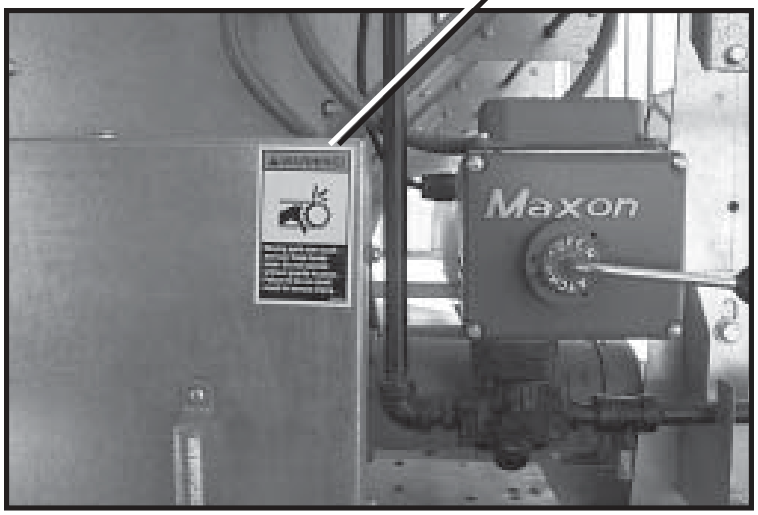
(1)



Safety Decal



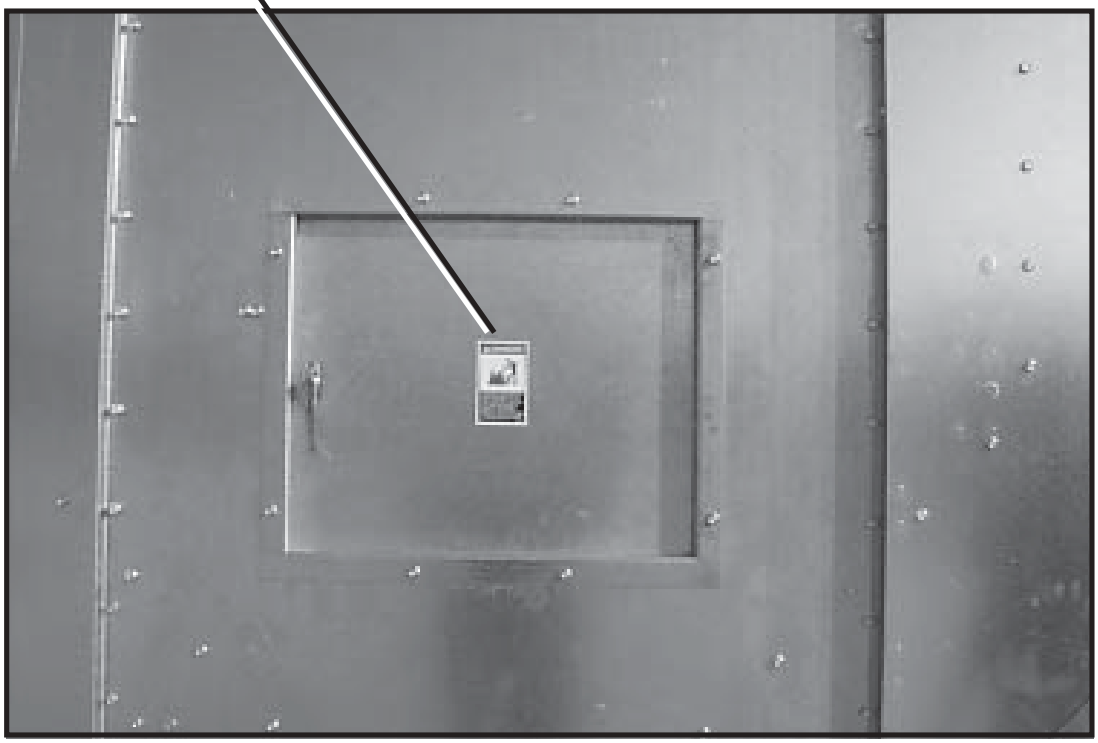
(2)



Safety Decal # DC-973

Location of Decal on Dryer: on rear access door(s)

Safety Decal

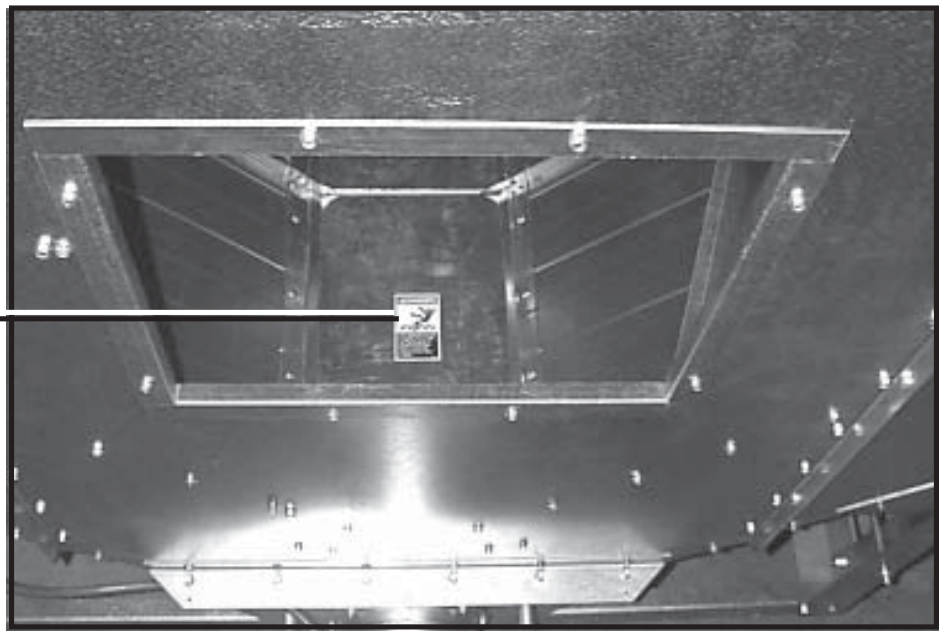


Safety Decal # DC-974 **continued on next page**

Location of Decal on Dryer: (1) on top of plenum door (access door to auger)
(2) on bottom of plenum door (access door to auger)

Safety Decal

(1)



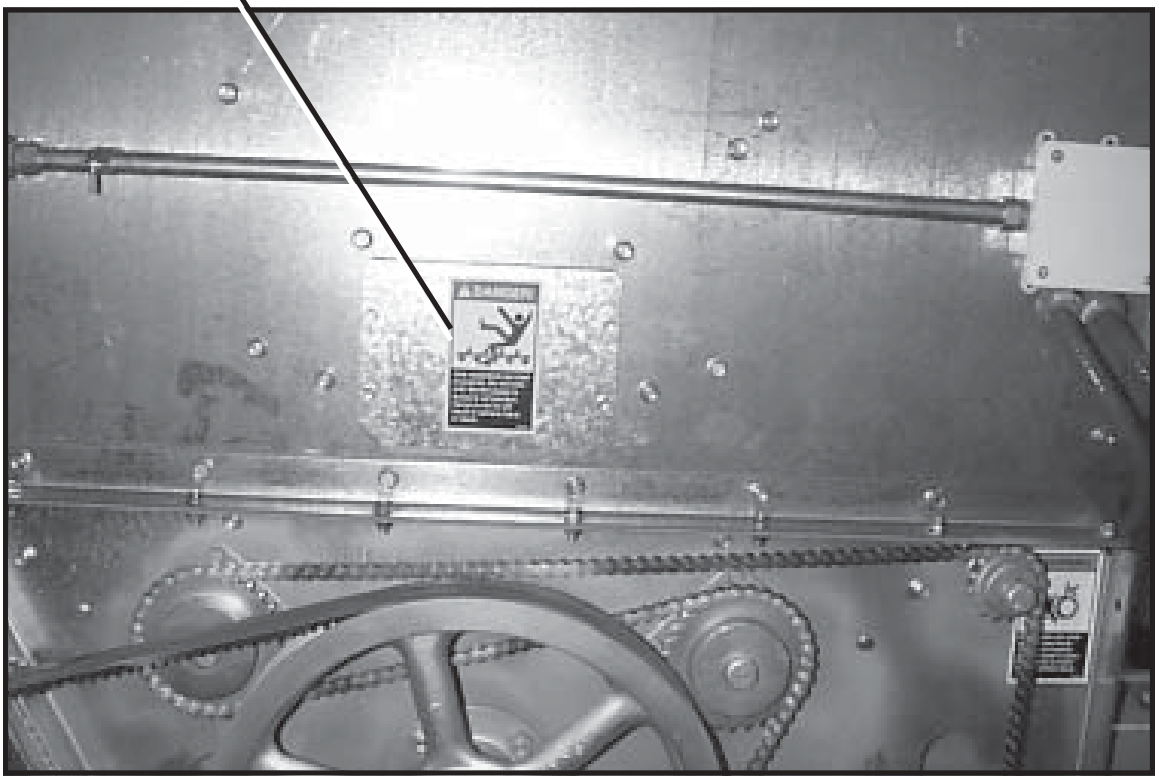
(2)

Safety Decal # DC-974 **continued on next page**

Location of Decal on Dryer: (3) on front auger access panel

Safety Decal

(3)

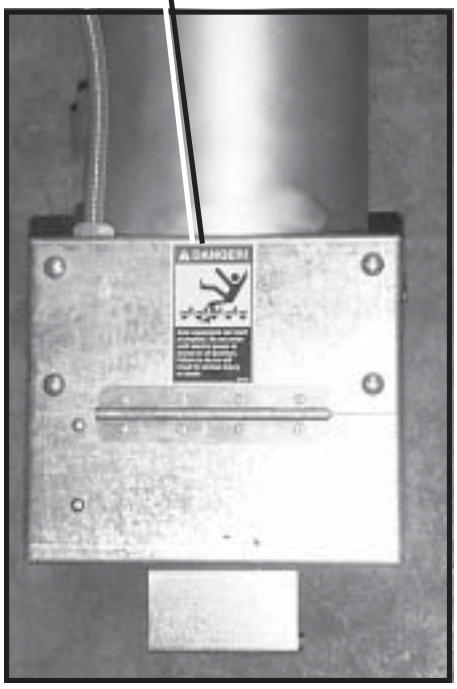


Safety Decal # DC-974 **continued from previous page**

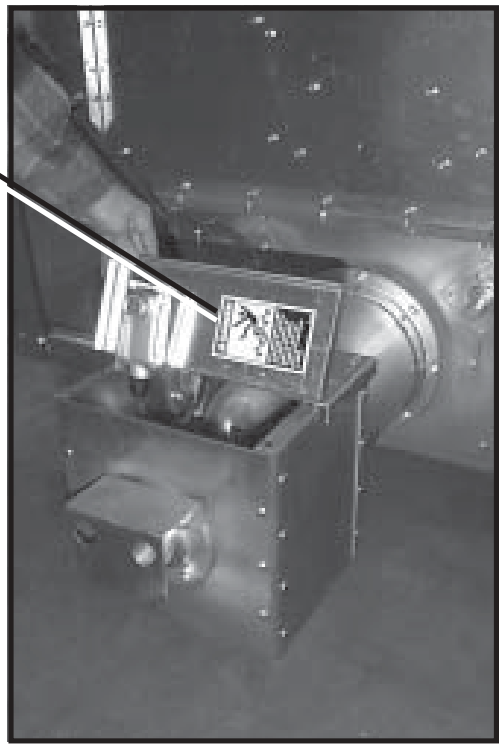
Location of Decal on Dryer: (4) on top of discharge box
(5) underneath discharge box lid

Safety Decal

(4)



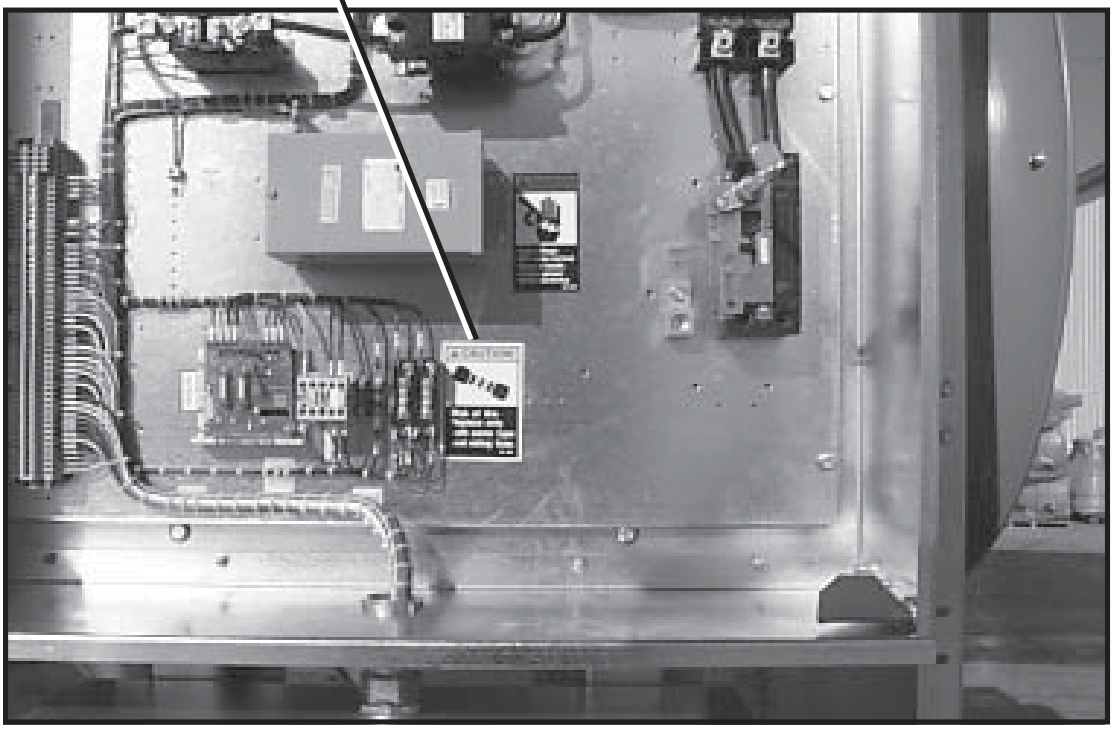
(5)



Safety Decal # DC-1182

Location of Decal on Dryer: in power box

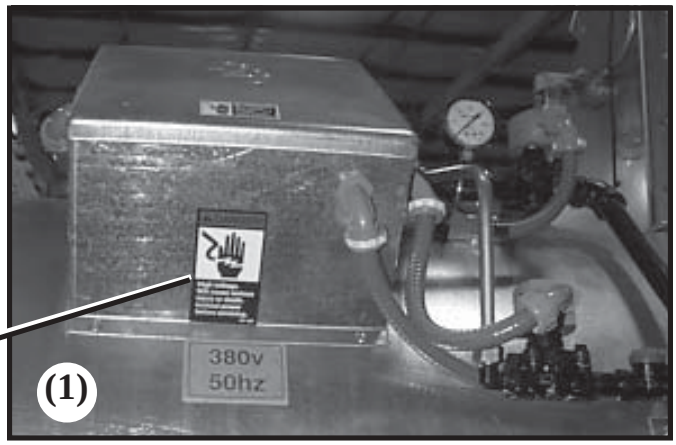
Safety Decal

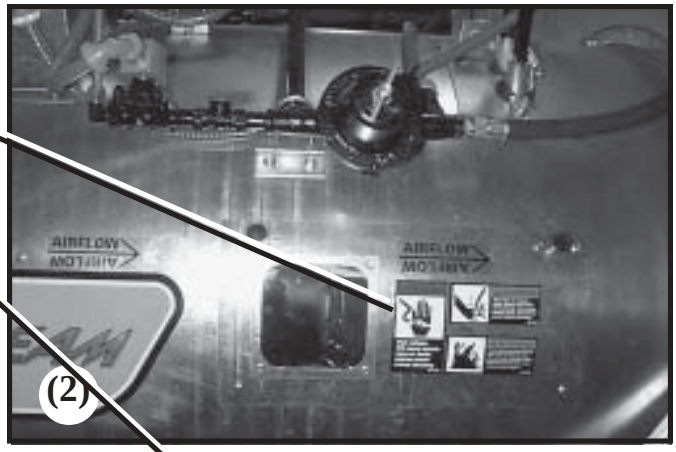


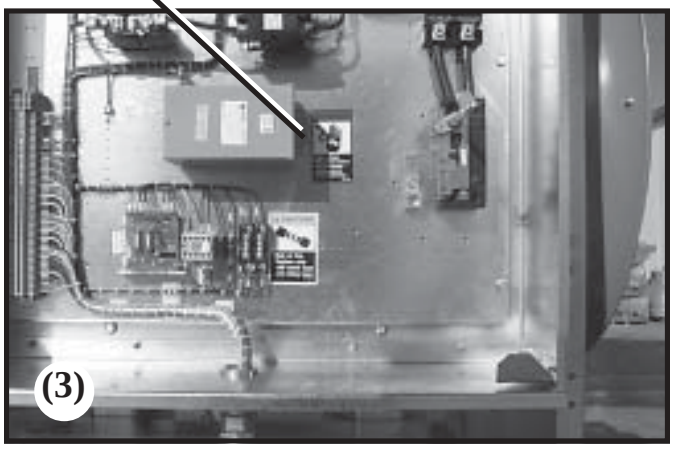
Safety Decal # DC-1224

Location of Decal on Dryer:
(1) on side of fan can control box
(2) on fan can access door
(3) in power box

Safety Decal



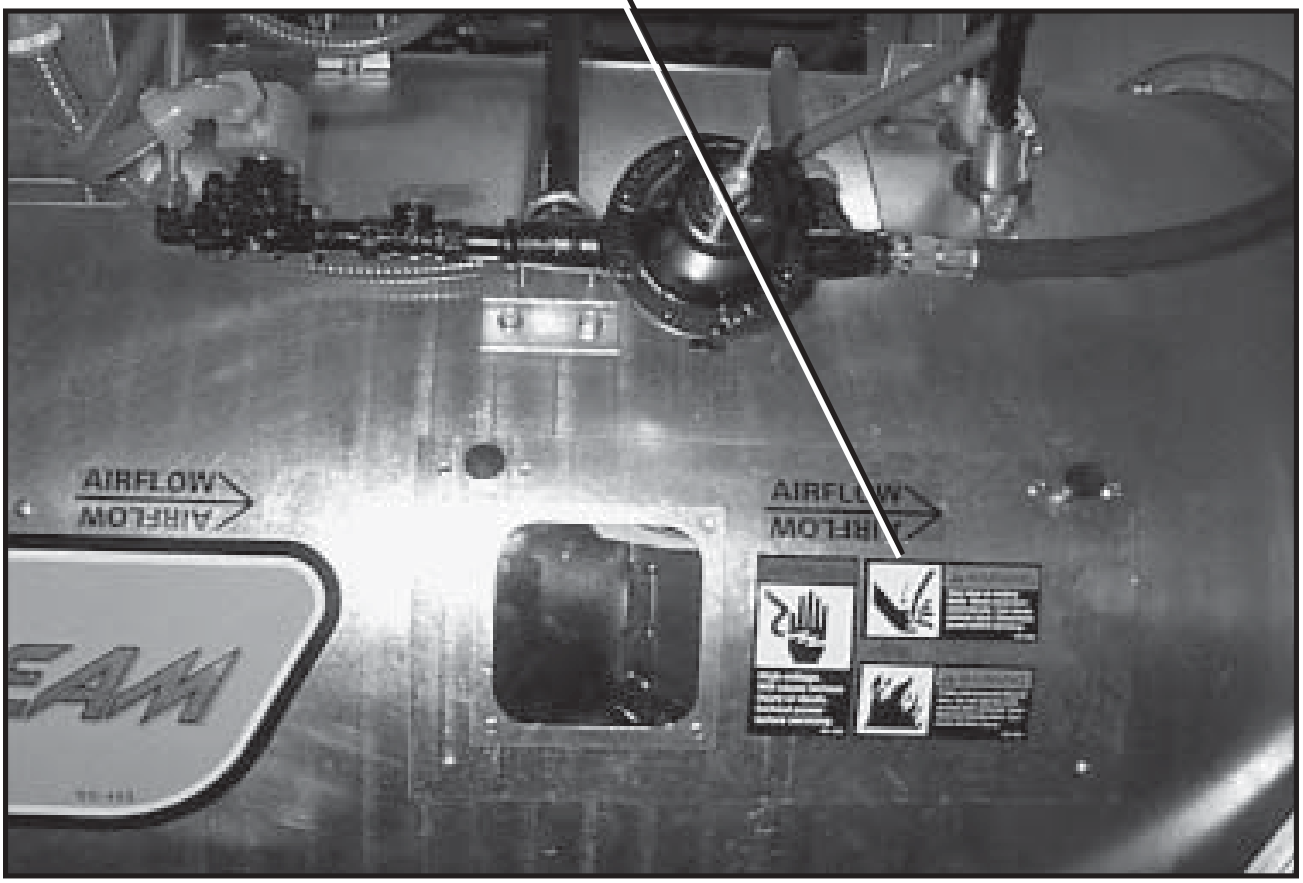




Safety Decal # DC-1225

Location of Decal on Dryer: on fan can access door

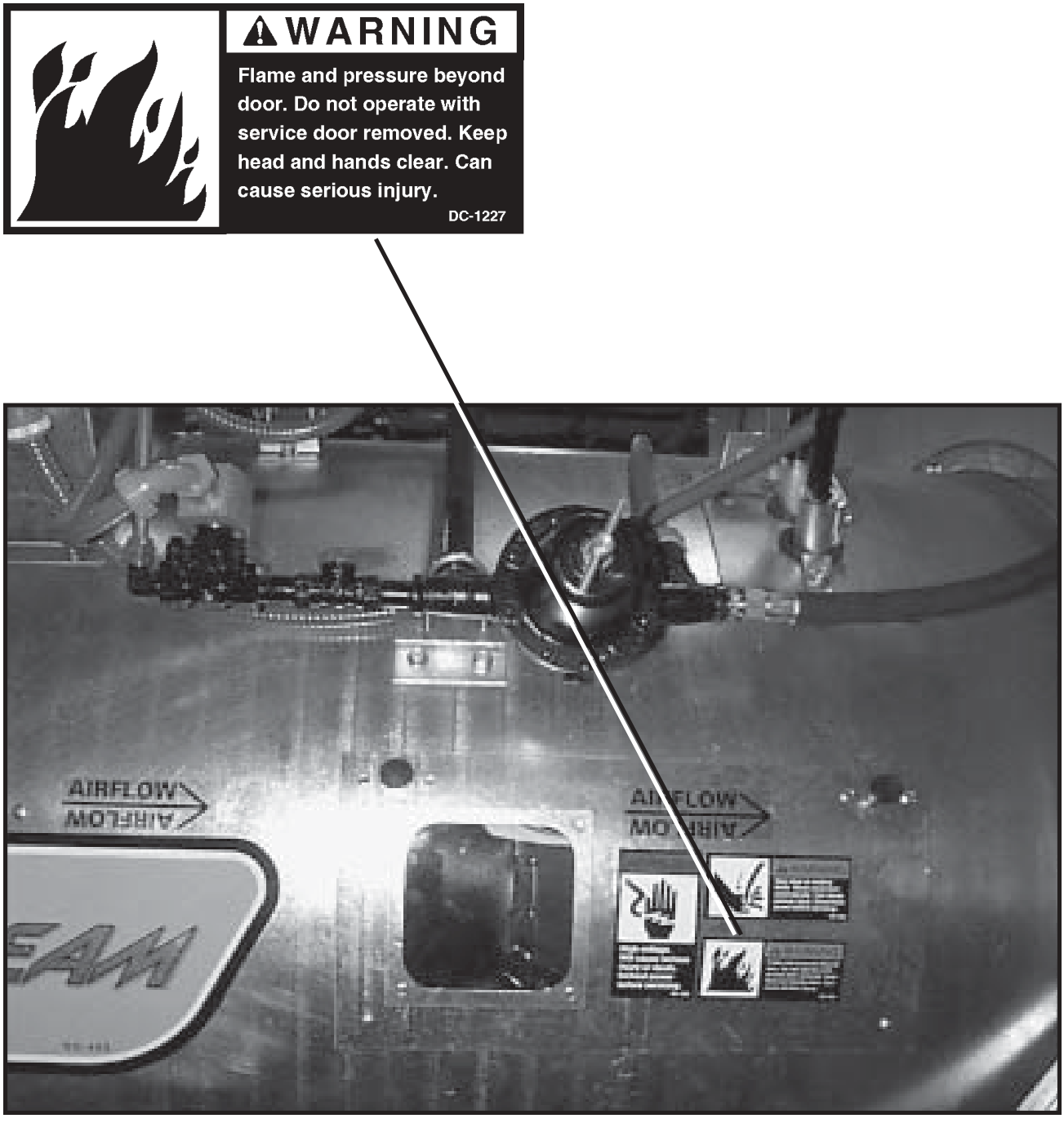
Safety Decal



Safety Decal # DC-1227

Location of Decal on Dryer: on fan can access door

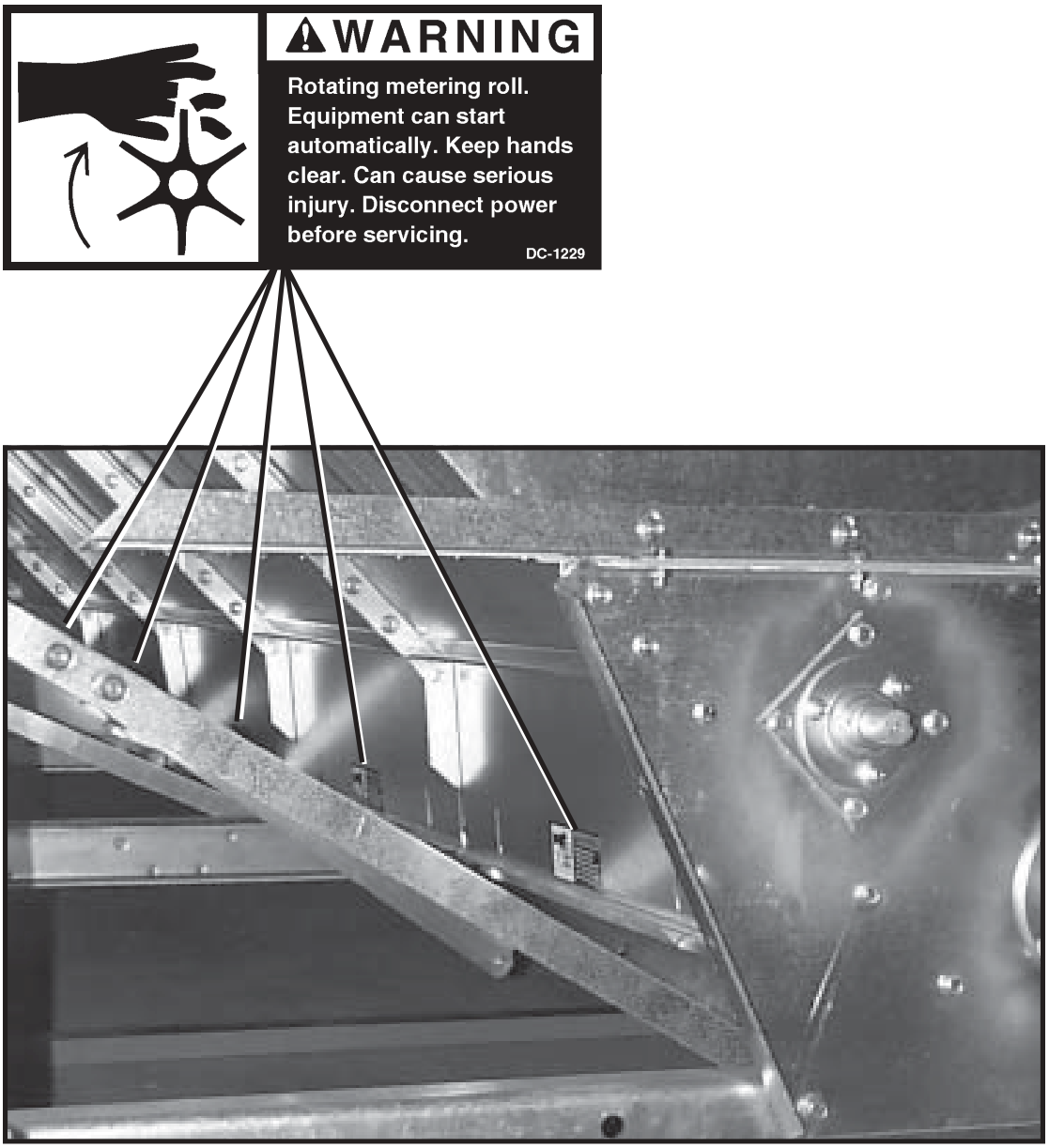
Safety Decal



Safety Decal # DC-1229

Location of Decal on Dryer: centered on each access door (to meter roll area)

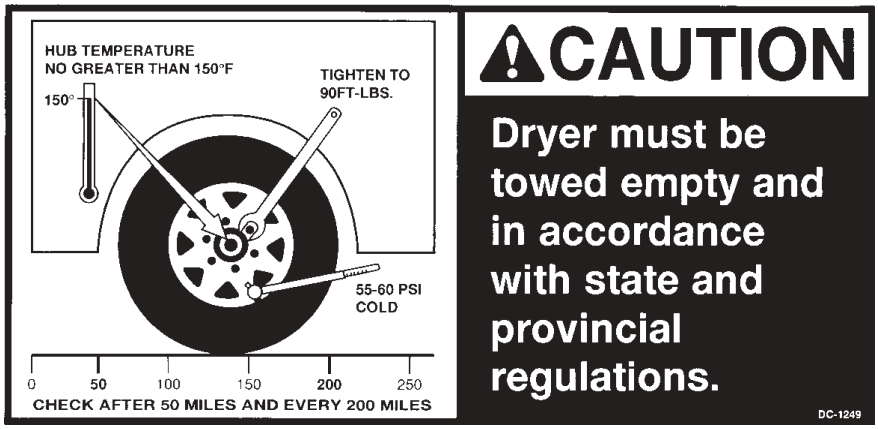
Safety Decal

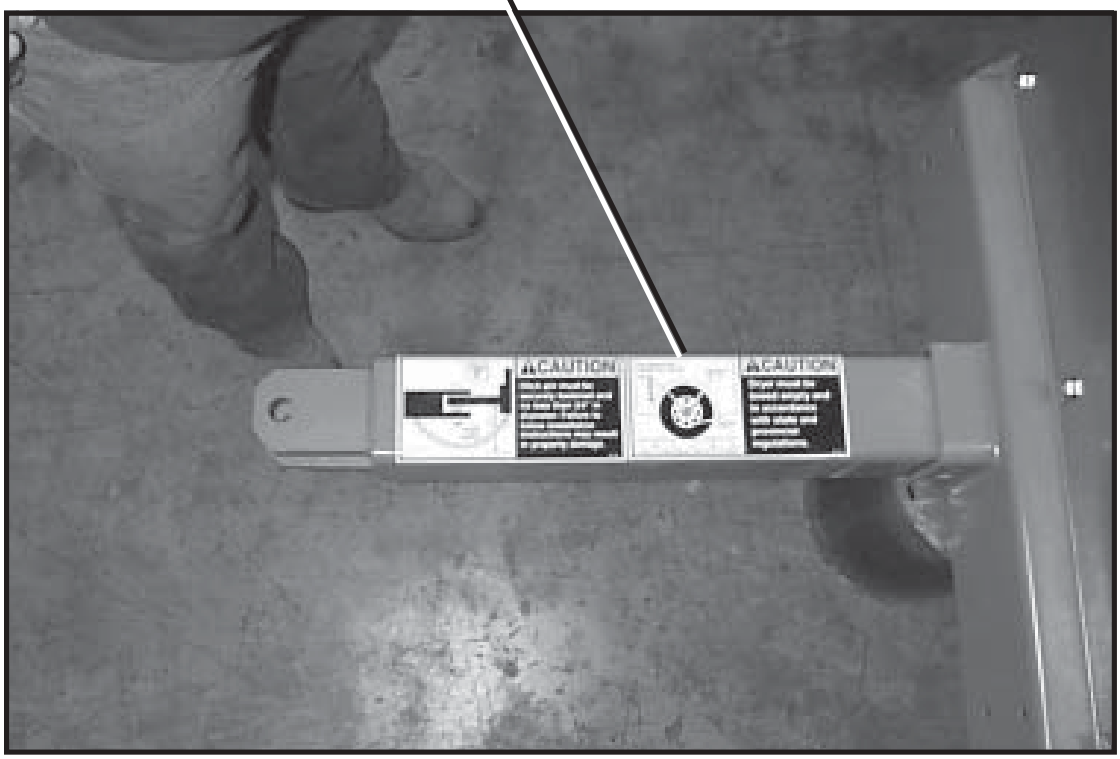


Safety Decal # DC-1249

Location of Decal on Dryer: on hitch tongue

Safety Decal

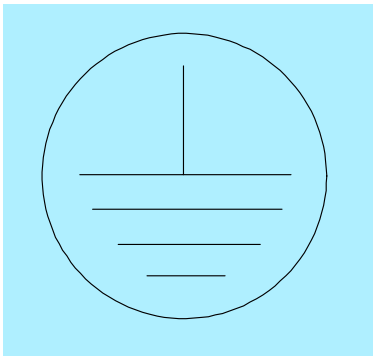


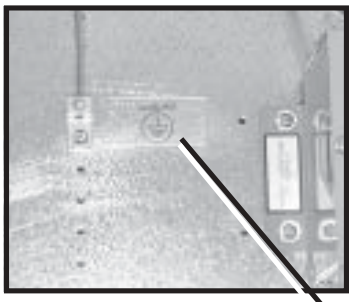


Safety Decal

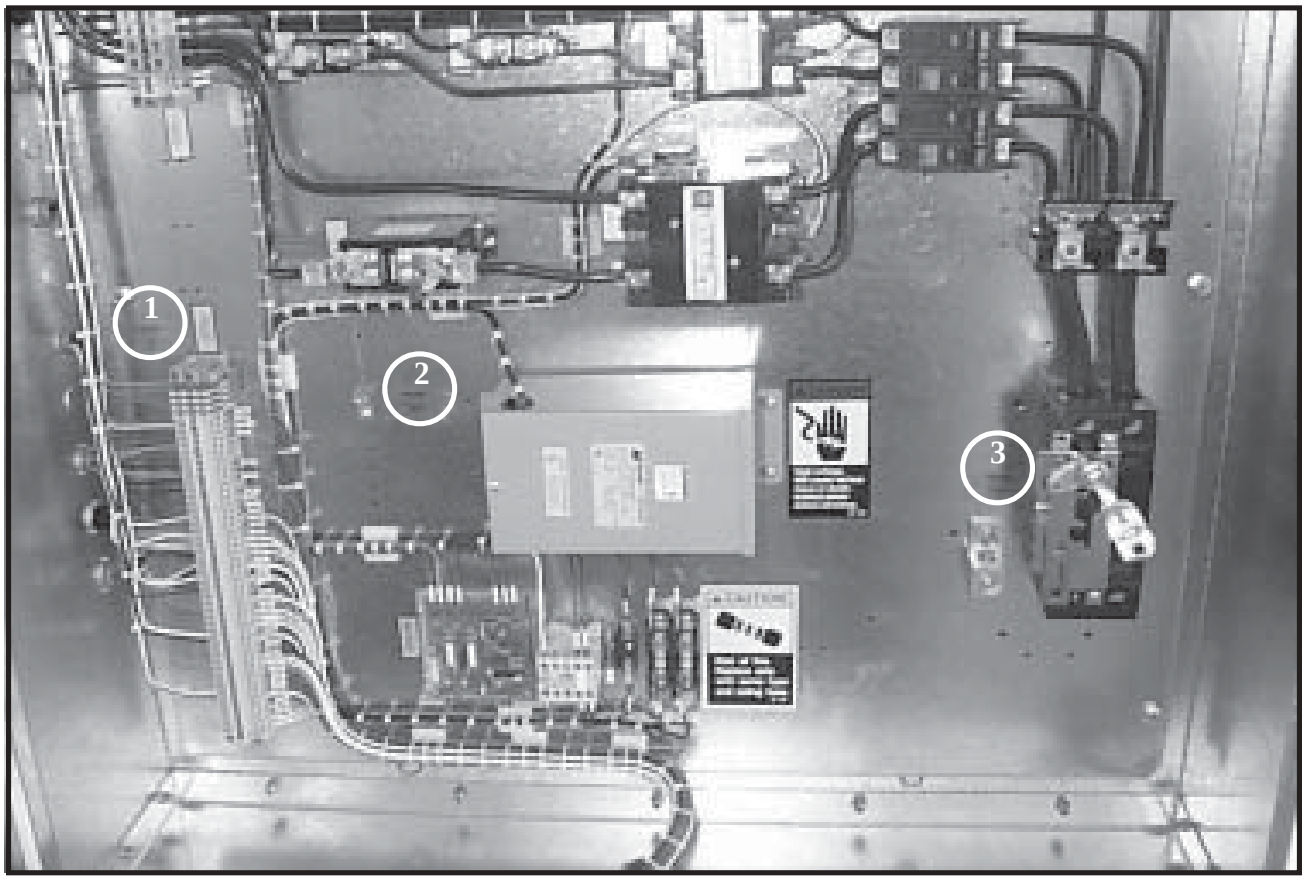
Location of Decal on Dryer: (1 inside power box, above terminal strip
(2) inside power box, left of transformer
(3) inside power box, left of safety disconnect breaker

Safety Decal





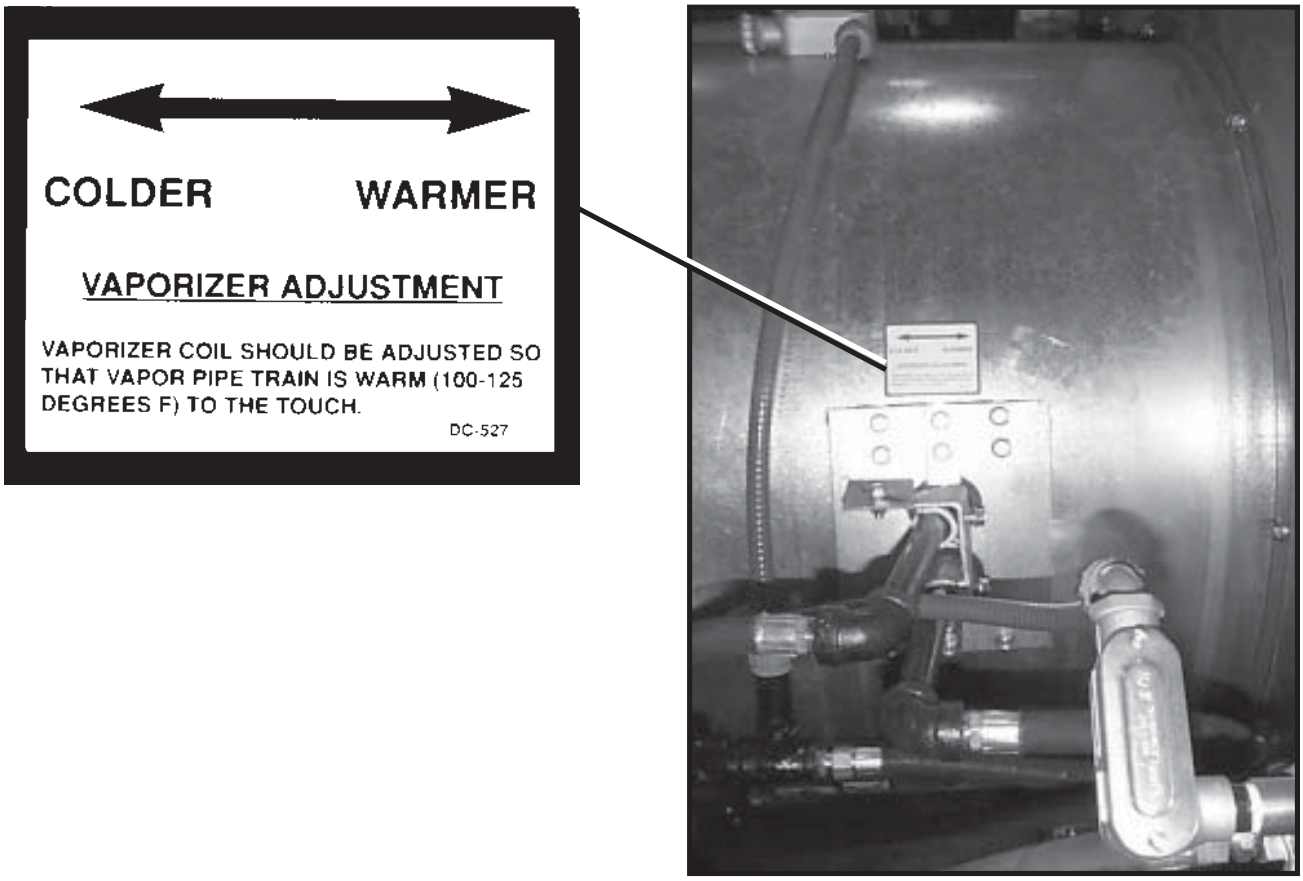
Close Up - Ground symbol



Ground symbol indicates earth ground point. Ground symbols are located at points 1, 2 and 3.

Information Decal DC-527

Location of Decal on Dryer: on fan can, above vaporizer coil assembly

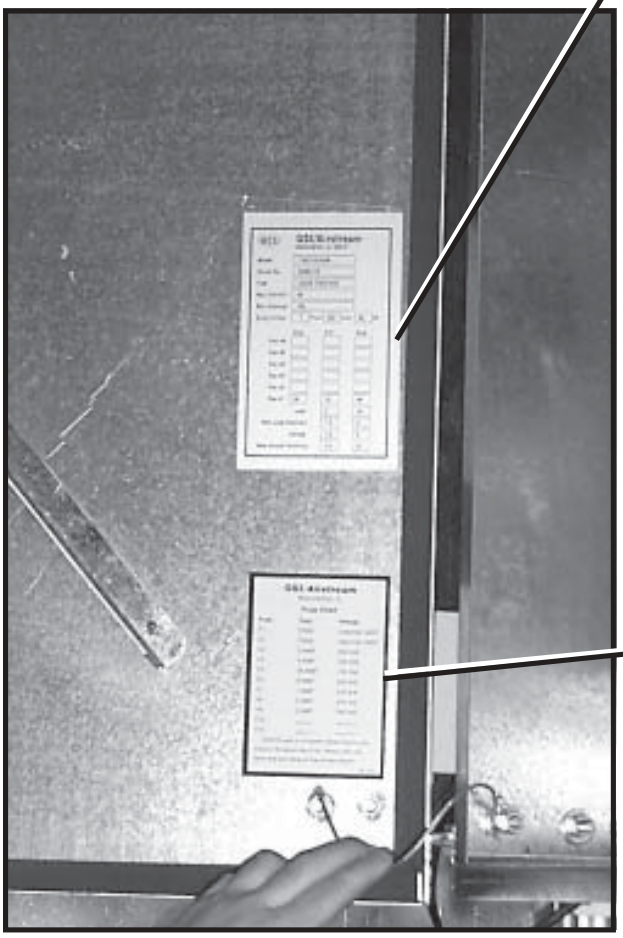


Information Decal

A. Serial # label

B. Fuse sizing chart DC-1253

Location of Decals on Dryer:
inside control box cover in lower right corner



A

GSI
Assumption, IL 62510

Model	1112CZ33LEGW			
Serial No.	SAMPLE			
Fuel	LIQUID PROPANE			
Max. Total H.P.	34			
Max. Amperage	79			
Supply Voltage	3 Phase	380 Volts	50 HZ	

	Size	H.P.	Amp
Fan #6			
Fan #5			
Fan #4			
Fan #3			
Fan #2			
Fan #1	36	15	27
Load		2	3
Max Load Auxiliary		7.5	13
Unload		1.5	3
Max Unload Auxiliary		7.5	13

B

GSI
Assumption, IL

Fuse Chart

Fuse	Type	Voltage
F1	FNQ5	Less than 500V
F2	FNQ5	Less than 500V
F3	5 AMP	250 Volt
F4	5 AMP	250 Volt
F5	25 AMP	125 Volt
F6	8 AMP	250 Volt
F7	1 AMP	250 Volt
F8	5 AMP	250 Volt
F9	2 AMP	250 Volt
F10	———	———
F11	———	———

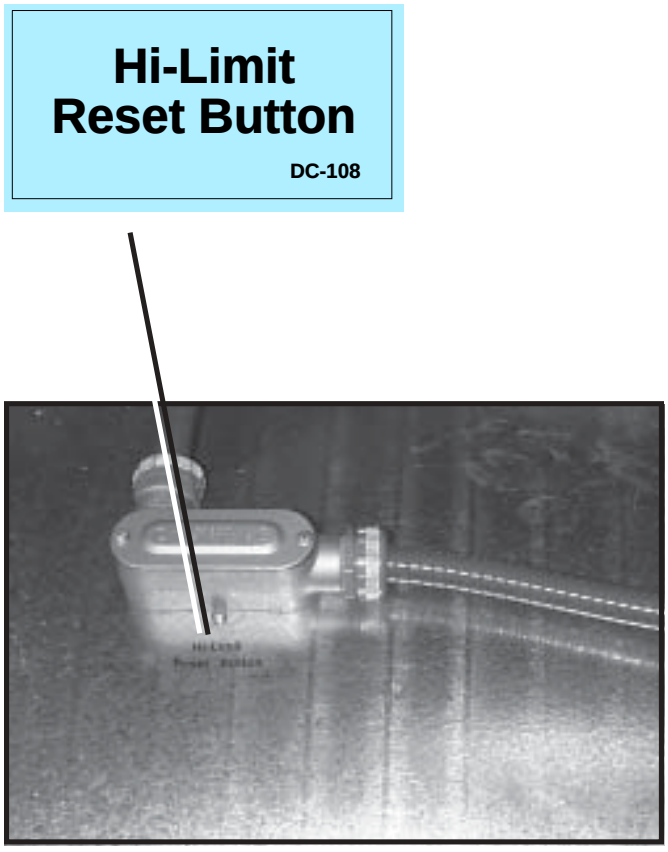
F8 & F9 used in Competitor Series Dryers only.

Caution: To reduce risk of fire, replace with only same type and rating of fuse (or equivalent).

DC-1253

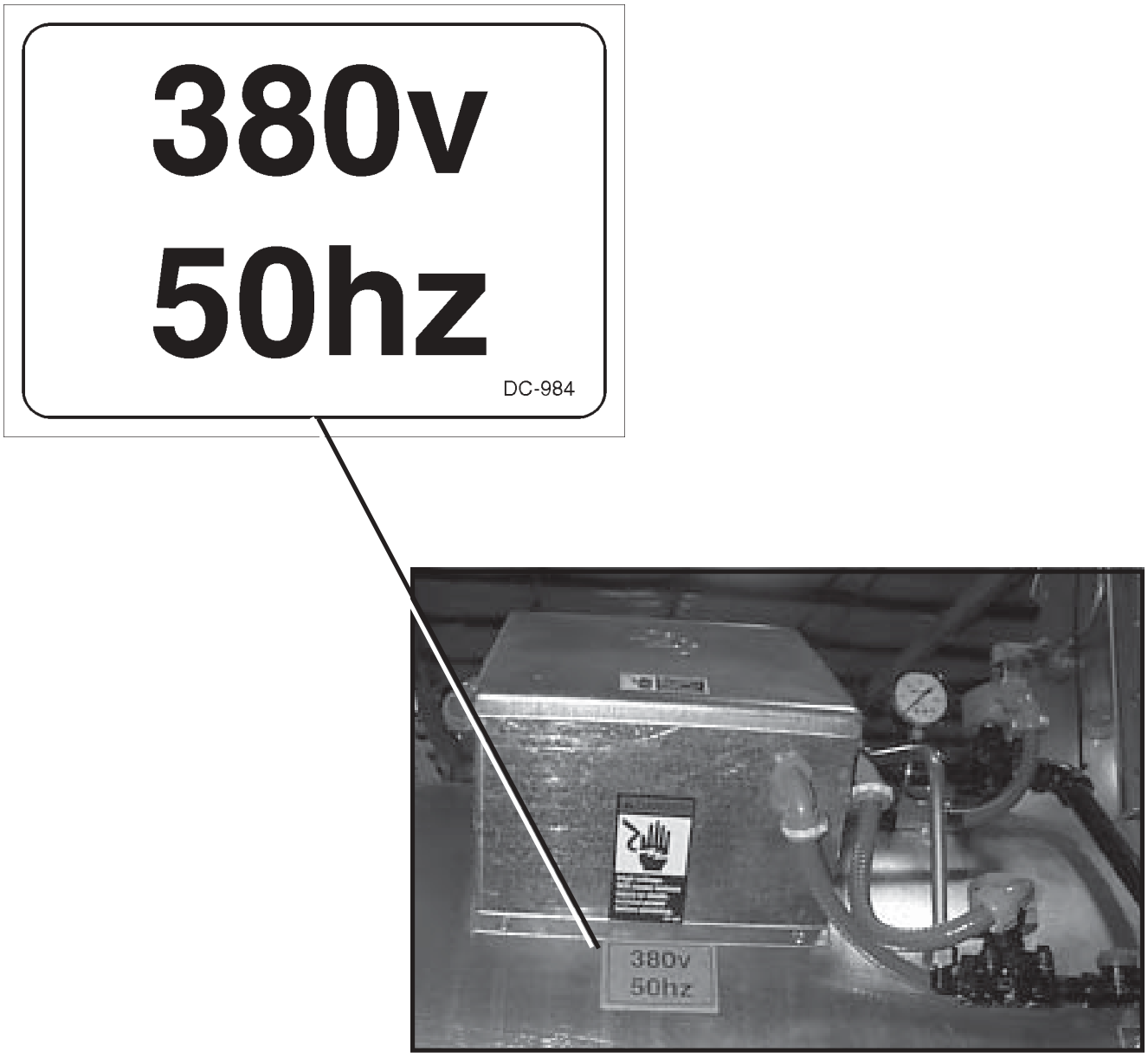
Information Decal DC-108

Location of Decal on Dryer: on top of fan can.



Information Decal DC-984

Location of Decal on Dryer: on side of fan can control box



Information Decal

Location of Decal on Dryer: on tire and rim assembly

“WARNING
Failure to follow these instructions may result in wheel loss which can cause injury or death!
Torque wheel nuts to 90-120 lb-ft before first road use.
Re-torque to 90-120 lb-ft after 10, 25, and 50 miles.
Check periodically thereafter.”

Export Cargo Box Markings
The outside of each crate is marked with the dealer name, order #, dryer size, and dryer specifications.
Screen Crate is marked with part numbers and quantity.
Panel Pallet is marked with part numbers and size.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

1. Unpack Crates And Panel Pallet (if dryer was shipped)

1.1. Clear an area for unpacking crates and pallet.
There are several crates and one panel pallet for each dryer.

1.2. Cut crate and panel pallet bands. Unscrew top and one end of each crate.

1.3. Completely unpack all crates and the panel pallet before assembling dryer.
Note part number stickers when unpacking. Part numbers will be useful when finding parts for assembly.

1.4. Provide sufficient raised, level, stable supports for dryer assembly.
(Sawhorses 30" X 80" are ideal supports for assembly.)

1.5. Check off the contents of the crates and pallet against the packing list that is shipped with each dryer.

1.6. Inspect for missing or damaged parts. Report missing or damaged parts to Grain Systems, Inc. promptly.

See Photos 1-1 to 1-14 on the following pages for overview of unpacking crates and panel pallet.

Photo 1-1 Fan/heater unit as shipped (inverted on shipping pallet).

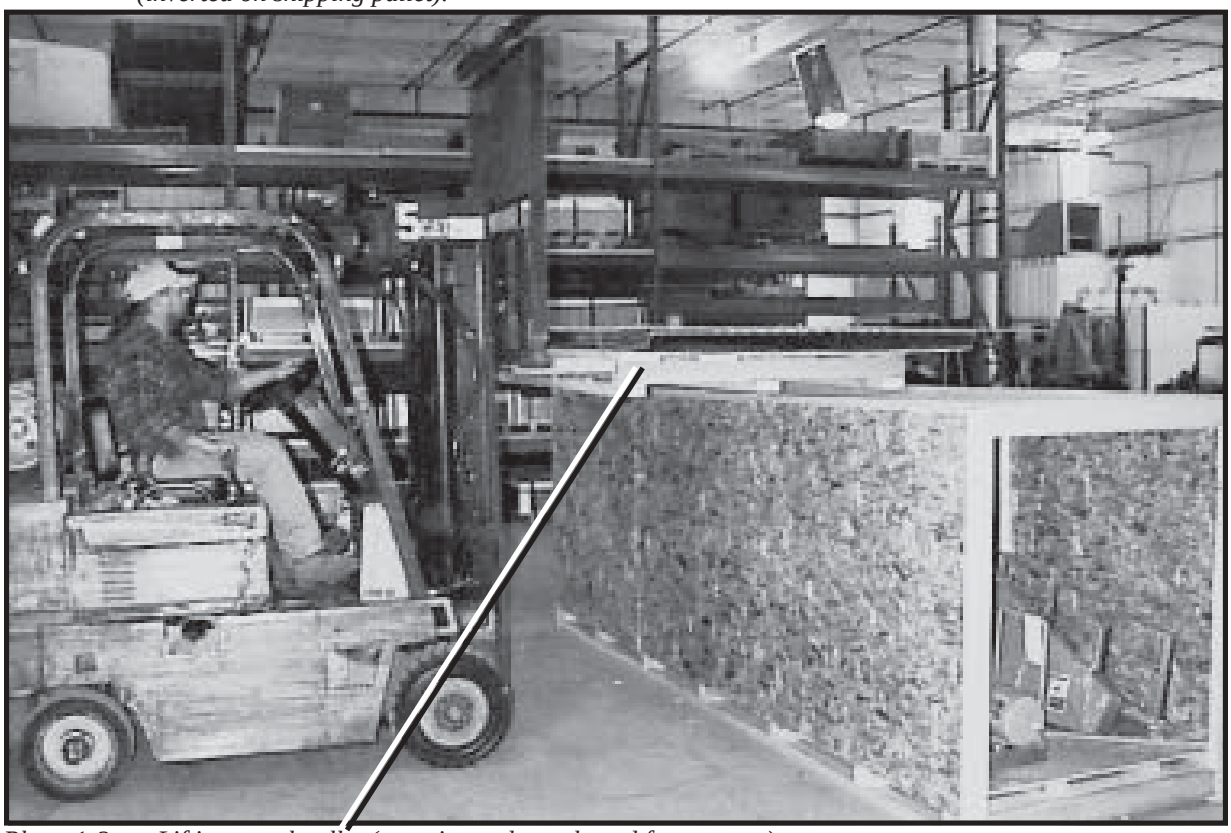


Photo 1-2 Lifting panel pallet (contains end panels and fan support).

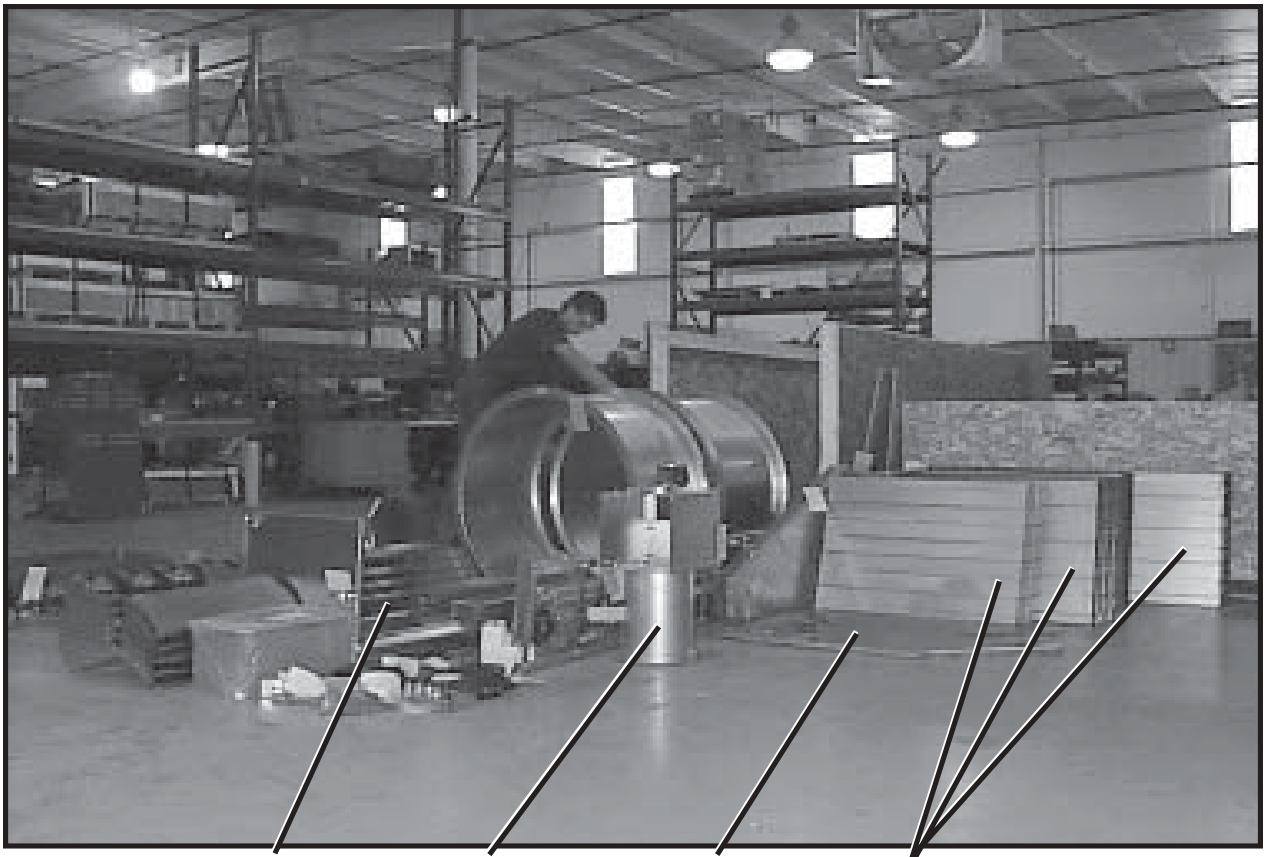


Photo 1-3 ladder assembly discharge assembly hopper bulkheads sets of screens

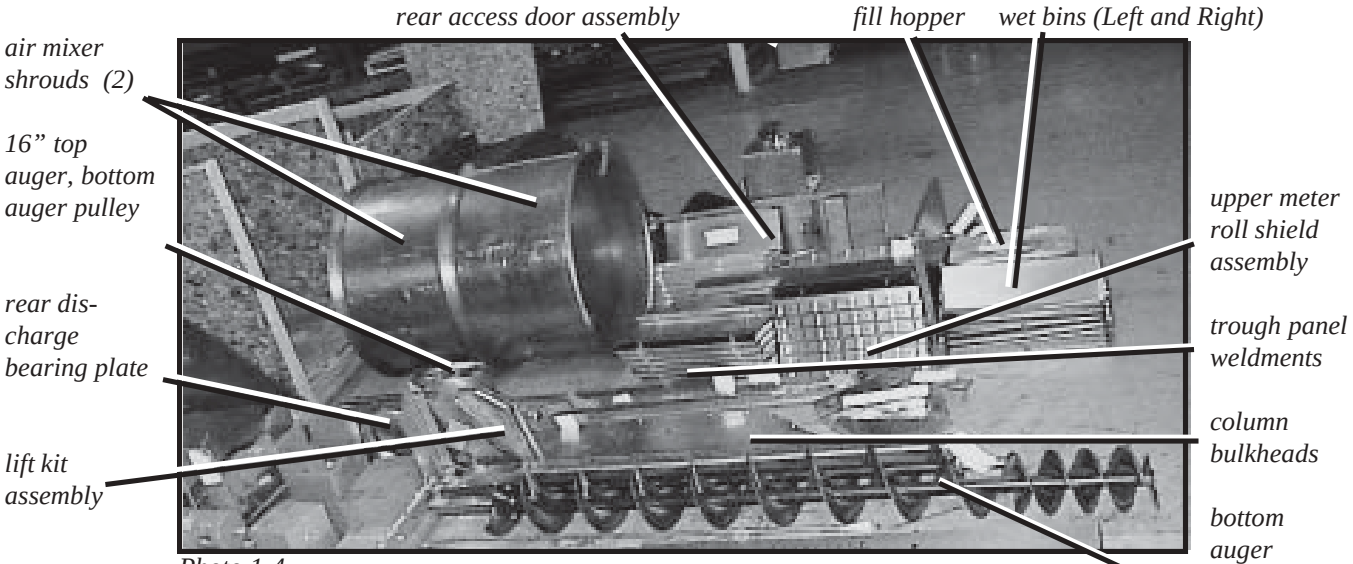


Photo 1-4

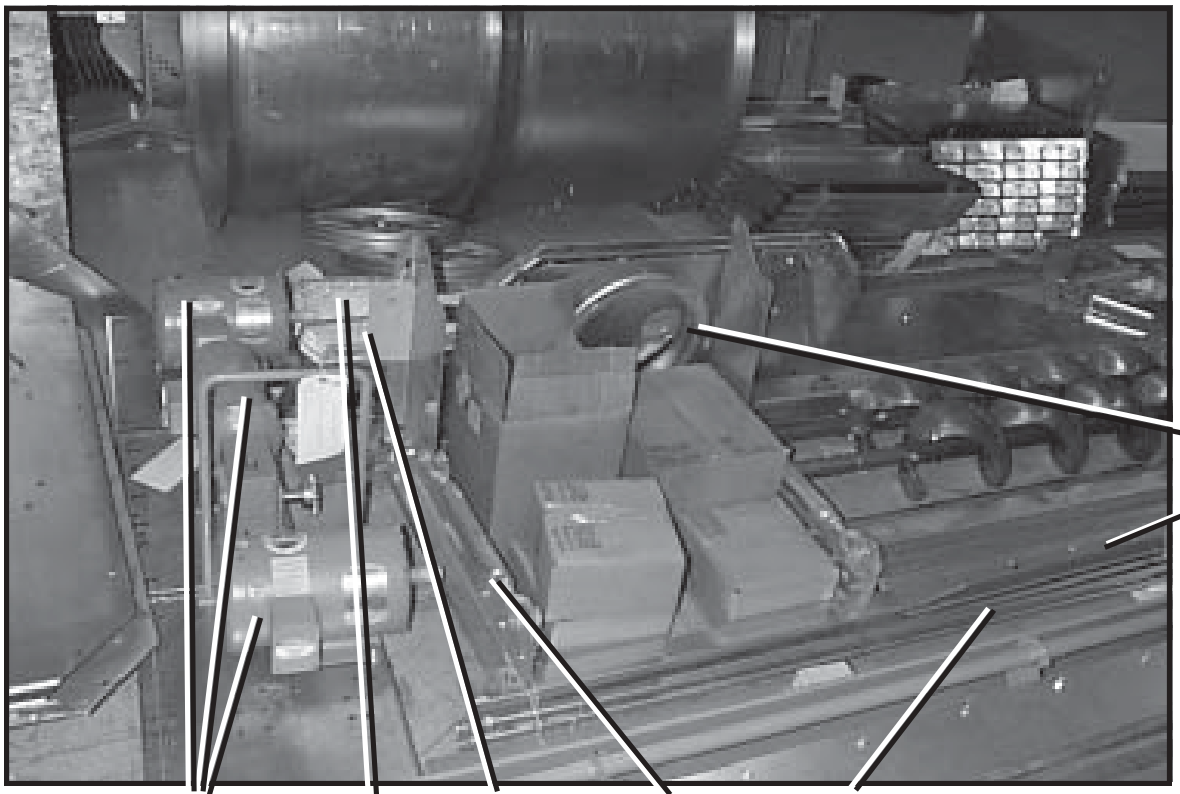


Photo 1-5 motors (3) corner legs side legs lift kit assembly conduit (for hi-limits)

Photo 1-6

Photo 1-7 Basket assembly and miscellaneous hardware.

Photo 1-8

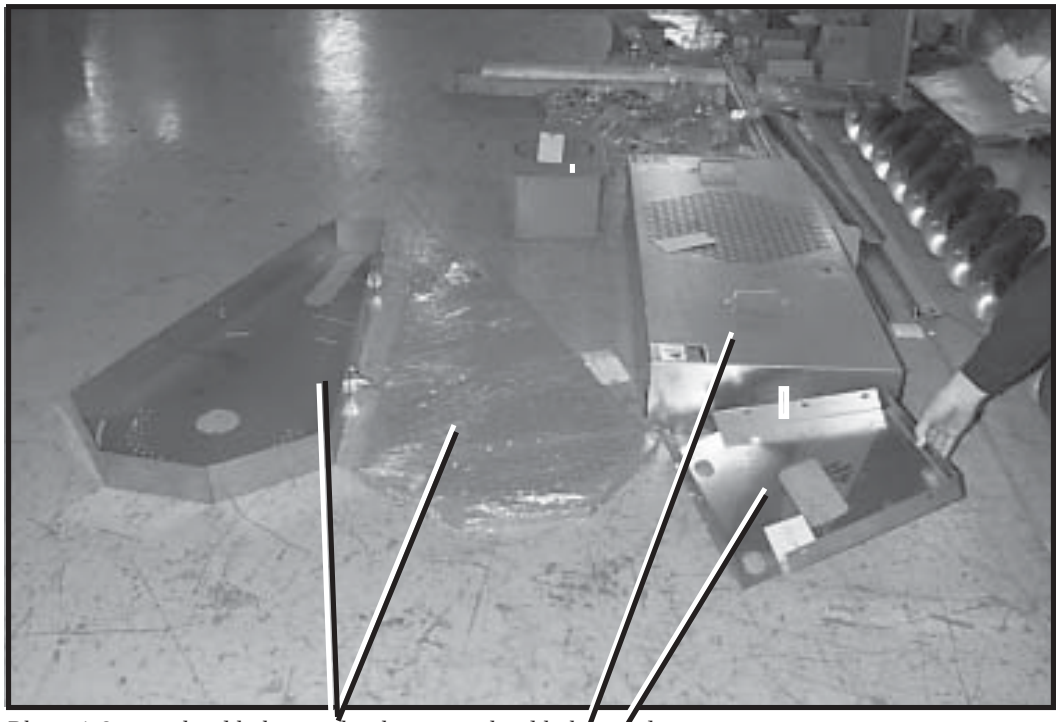


Photo 1-9 toploads belt guard bottom unload belt guard

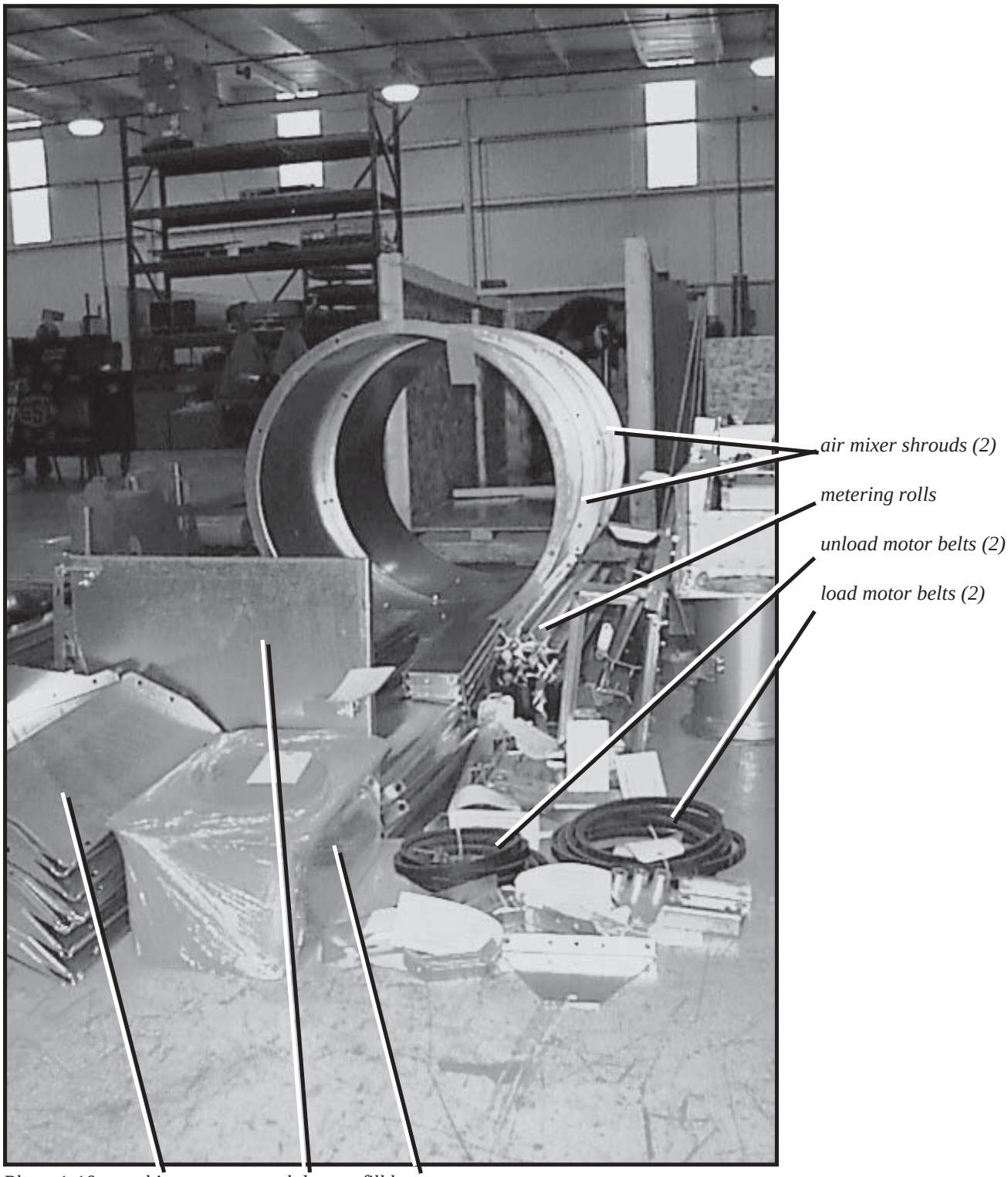

air mixer shrouds (2)
metering rolls
unload motor belts (2)
load motor belts (2)
wet bins
rear panel door
fill hopper

Photo 1-10

Photo 1-11 Unpacking electrical conduit assemblies from control box crate.

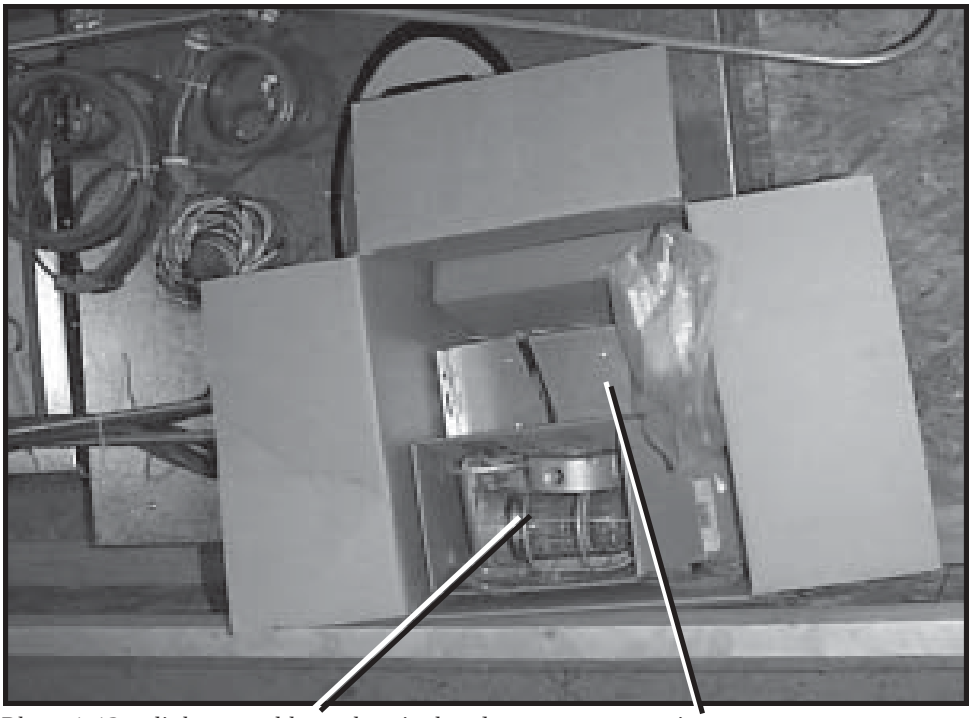


Photo 1-12 light assembly electrical and sensory accessories

Photo 1-13 Unpacking control box.

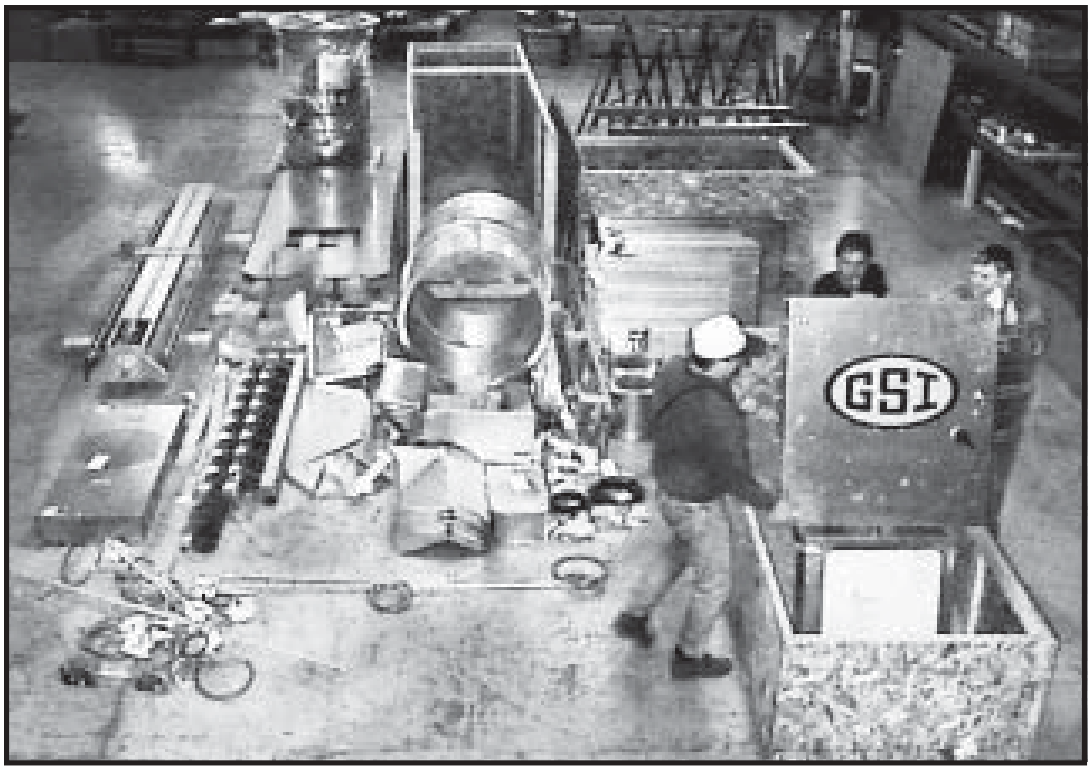


Photo 1-14 Inspecting control box.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

2. Main Frame

2.1. Set SIDE RAIL ANGLES (L.H. and R.H.) on 31" raised, level, stable supports (sawhorses). Front of each SIDE RAIL has 5 holes (for HITCH BRACKET installation).

2.2. Set out the parts as shown in photo 2-1.

Front of dryer, Right Hand (RH) side, and Left Hand (LH) side are labeled in Photo 2-1. Face front of dryer for RH and LH orientation. Example shown is 12' dryer.

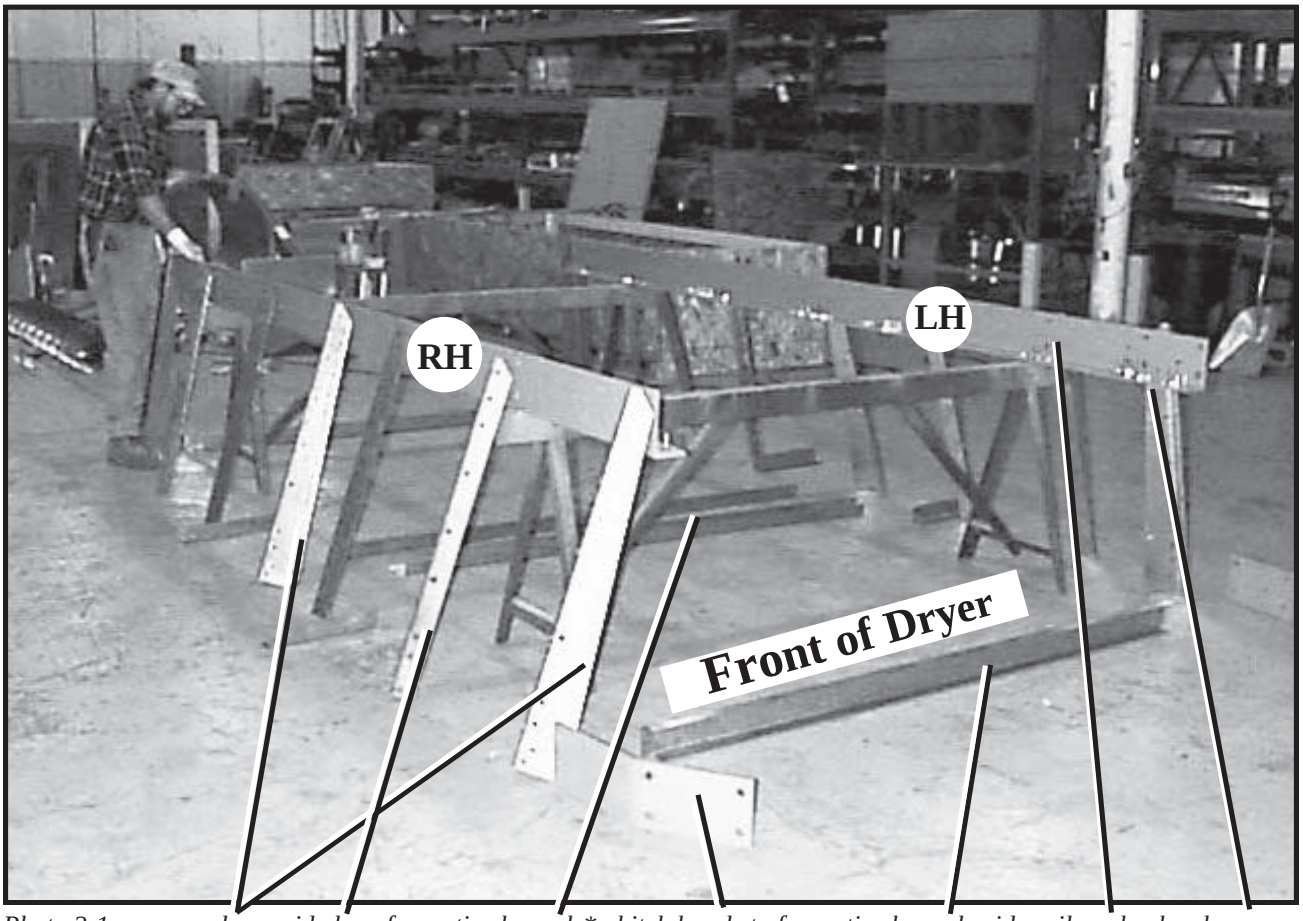


Photo 2-1 corner legs side leg frame tie channels hitch bracket frame tie channel side rail angle hardware*

** Secondary cross tie channel has a notch.*
(6', 8', and 10' dryers will not have frame tie channel or secondary cross tie channel.)

2.3.
Loosely bolt HITCH BRACKETS, R.H. (D01-0012) and L.H. (D01-0011), to SIDE RAIL ANGLES with 5/8”x2” bolts. Use 2 bolts for each HITCH BRACKET. Use 5/8” flat washer in slotted bottom hole only.

(Photos 2-2 and 2-3)

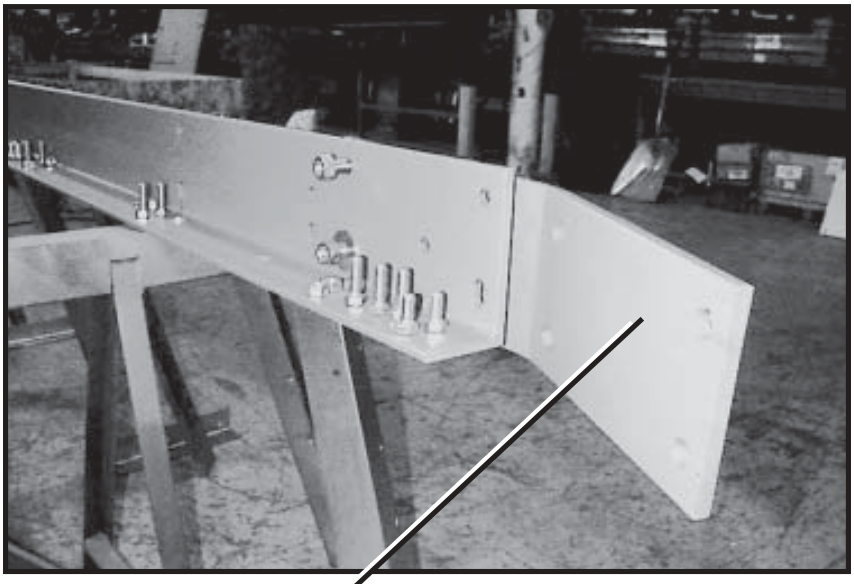


Photo 2-2 Hitch bracket LH.

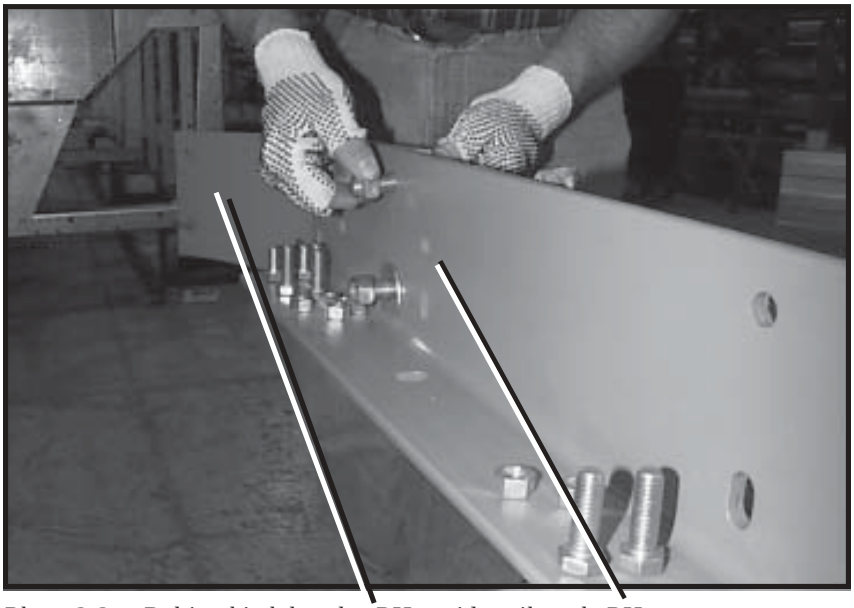


Photo 2-3 Bolting hitch bracket RH to side rail angle RH.

2.4.

IF dryer does not have a transport kit, omit step 2.4.

IF dryer has a TK-01 or TK-02 transport kit (TK-01-TK-02), use 1/2”x1” bolts and 1/2” locknuts to loosely bolt STIFFINER ANGLES (D01-0015) on SIDE LEGS where TK-01 or TK-02 transport kit will be located. (Photos 2-4 and 2-5)

Photo 2-4
Loosely bolt stiffner angle.

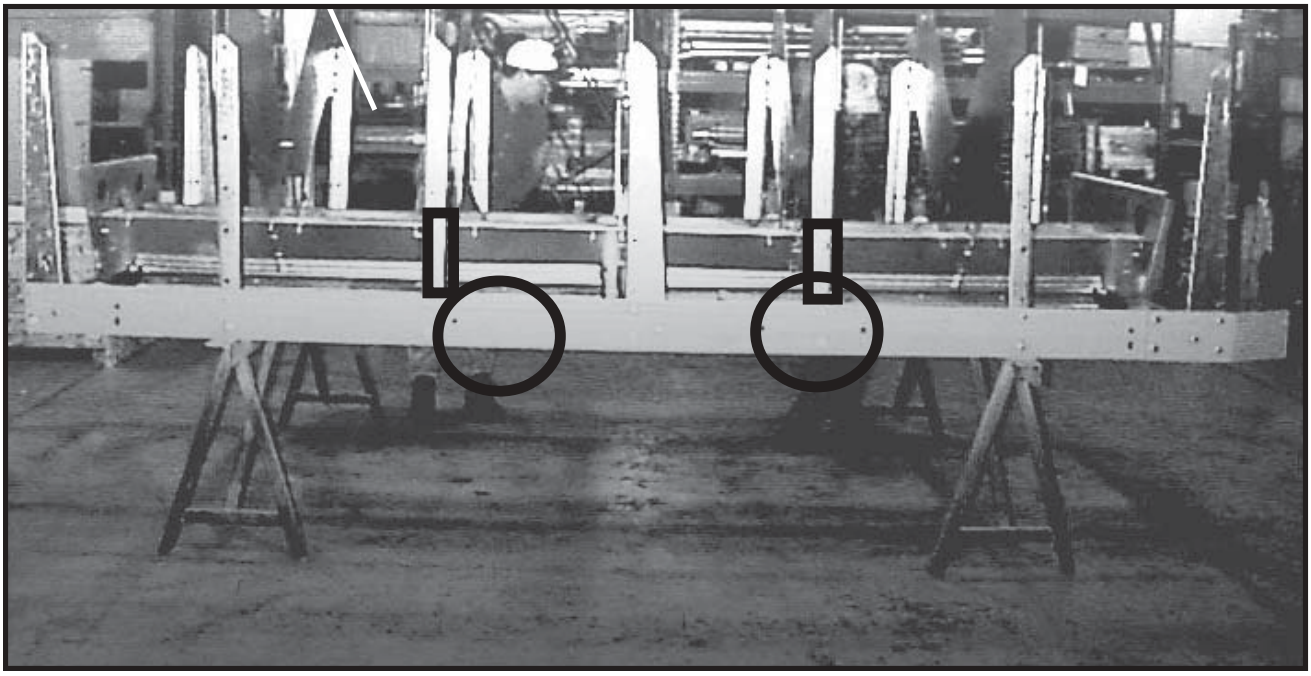


Photo 2-5 Circles indicate where transport kit (wheels) will be installed in a later step. Rectangles indicate where stiffner angles are bolted to side legs.

☛ *Install 2 stiffner angles on both RH and LH side of dryer.*

2.5.
(Insert bolts from outside dryer.) Loosely tighten bolts in step 2.5. but leave loose enough to allow movement for easier assembly. (Bolts are tightened after installing OUTSIDE SCREEN.)

2.5.1.
CORNER LEGS. Use 1/2”x1-1/2” bolts and 1/2” locknuts.

Bolt CORNER LEGS (D01-0007) to SIDE RAIL ANGLES. (Photo 2-6)

Photo 2-6 Bolt legs to side rail angles.

2.5.2. MOTOR MOUNT ADJUSTMENT BRACKET. Use 1/2”x1” bolts and 1/2” locknuts. Place slotted hole on MOTOR MOUNT ADJUSTMENT BRACKET (D0-00016) so it faces toward L.H. side of dryer. Bolt MOTOR MOUNT ADJUSTMENT BRACKET to right front CORNER LEG (D01-0007) in the same holes as FRAME TIE CHANNEL (D01-0008). (Photo 2-7)

Photo 2-7 Slotted hole on motor mount adjustment bracket.

2.5.3. TIE CHANNELS (4). Use 1/2”x1” bolts and 1/2” locknuts.
• Bolt front FRAME TIE CHANNEL (D01-0008) to front CORNER LEGS (D01-0007).
• Bolt rear FRAME TIE CHANNEL (D01-0008) to rear CORNER LEGS (D01-0007).

2.5.3. continued
• Bolt center FRAME TIE CHANNEL (D01-0008) to CORNER LEGS (D01-0007) in center of dryer.
• Bolt notched SECONDARY CROSS TIE CHANNEL (D31-0118) to back side of CENTER CORNER LEGS (D01-0007).

2.5.4. SIDE LEGS. Use 1/2”x1-1/2” bolts and 1/2” locknuts.
• Bolt SIDE LEGS (D01-0005) to SIDE RAIL ANGLES. The first three LEGS on both sides (D01-0005 to D01-0007) face to front of dryer (marked by “●” in Photo 2-8).

RH side legs *frame tie channels*

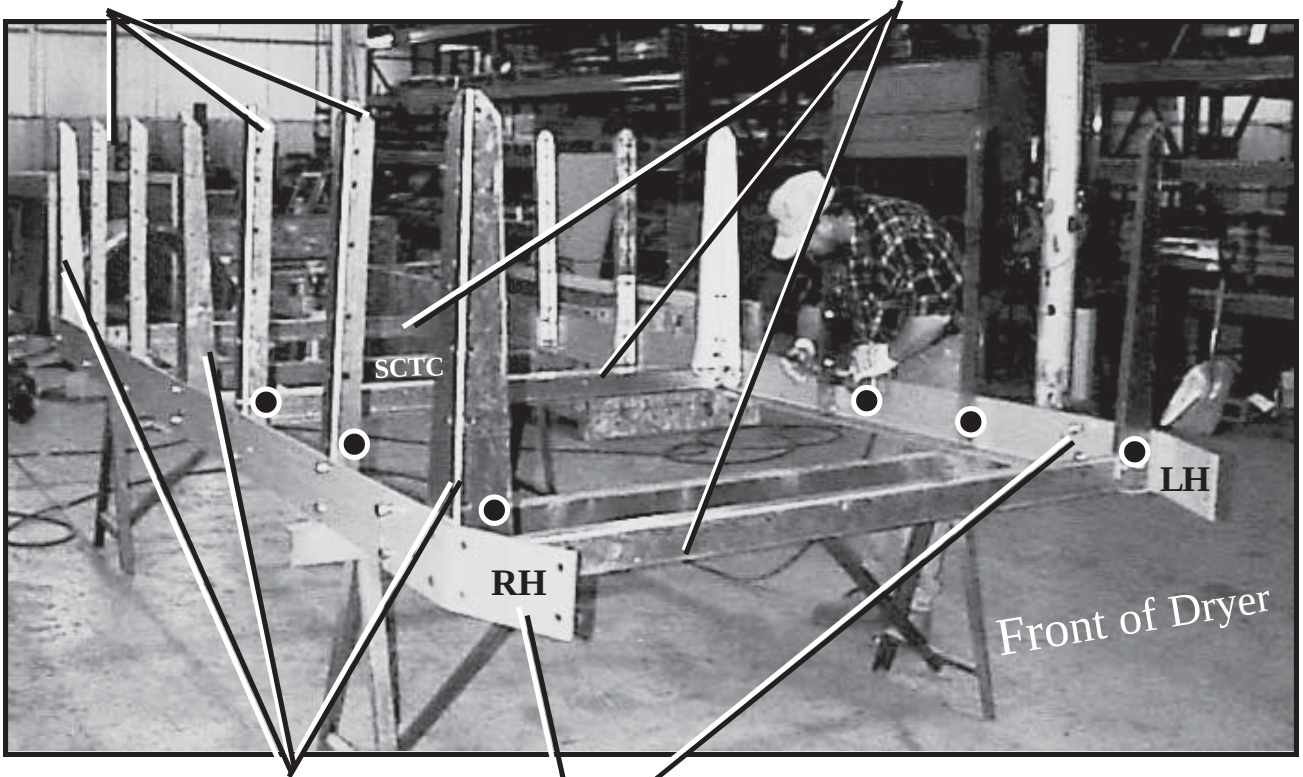


Photo 2-8 RH corner legs side rail angles (RH and LH) secondary cross tie channel (SCTC)

2.6. Square dryer frame.

2.6.1. Mark 12” (or more for longer dryers) from corner ends on top of both SIDE RAIL ANGLES. (4 marks) (Photo 2-9)

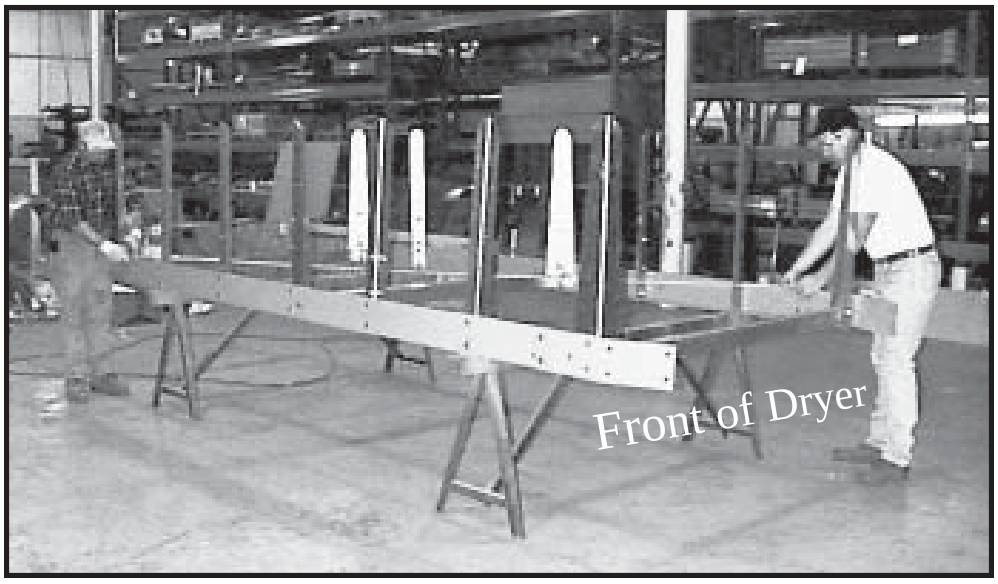


Photo 2-9

2.6.2. Measure diagonally from mark to mark across the dryer frame. (Illustration 2-1)

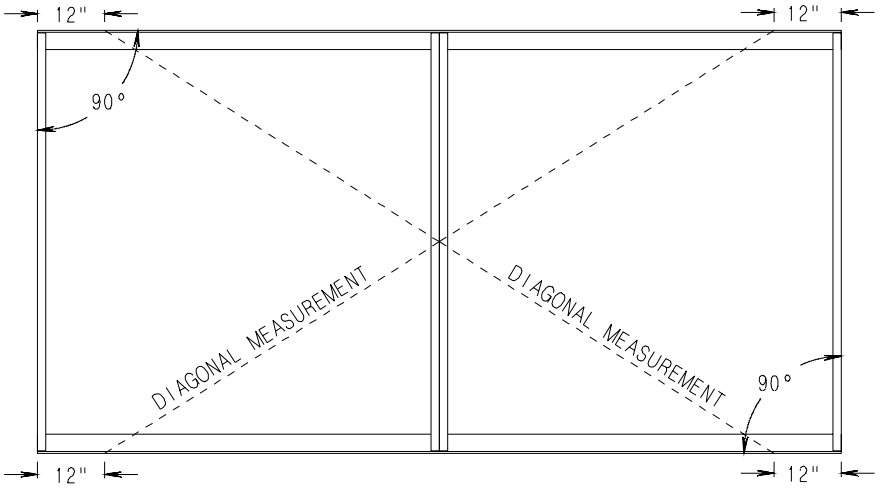


Illustration 2-1 If diagonal lines are equal, dryer is square.

2.6.3. Adjust frame until SIDE RAIL ANGLES are parallel and dryer is square. Dryer is square when diagonal lines are equal.

2.6.4. Check. After adjusting frame, remeasure diagonals to be sure they are equal.

2.7.
Loosely bolt GUSSET PLATES (D01-0004) to LEGS (D01-0005 to D01-0007) with 3/8”x1” bolts and 3/8” whiz nuts. (Photo 2-10)

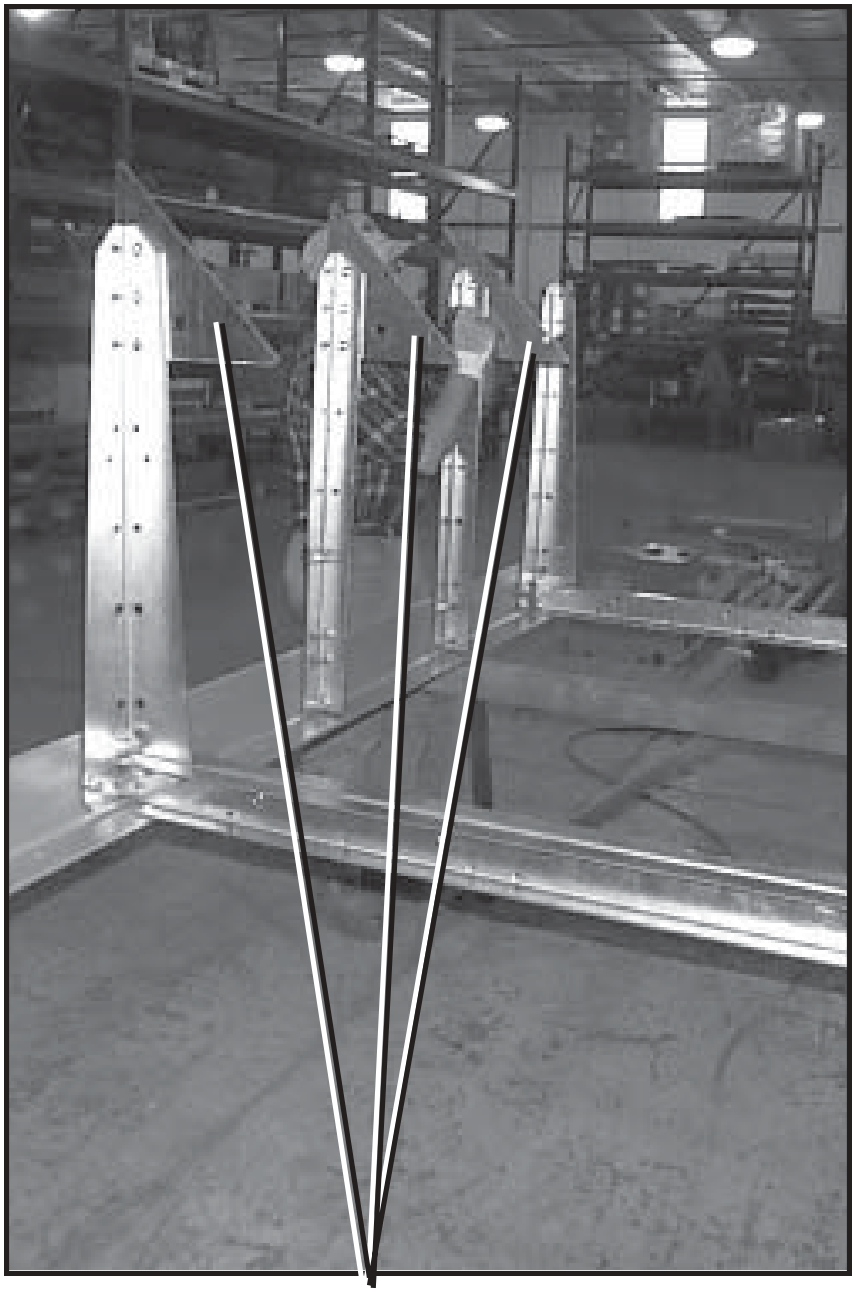


Photo 2-10 Gusset plates.

2.8.
Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts. Loosely bolt HOPPER BULKHEADS (D01-0109) (in first hole on longest side) to GUSSET PLATES (in bottom hole).

☛ Continued on next page.

(Photos 2-11 and 2-12, and Illustration 2-2)

Photo 2-11 Placing hopper bulkhead.

Photo 2-12 Bolting hopper bulkhead to gusset.

2.8. continued
Loosely bolt HOPPER BULKHEADS to GUSSET PLATES on both sides of dryer. Start with second leg from end of a corner. Do not install HOPPER BULKHEADS on 4 corner legs of dryer. Bolt HOPPER BULKHEADS on same side of GUSSET PLATES as SIDE LEGS.
(Illustration 2-2)

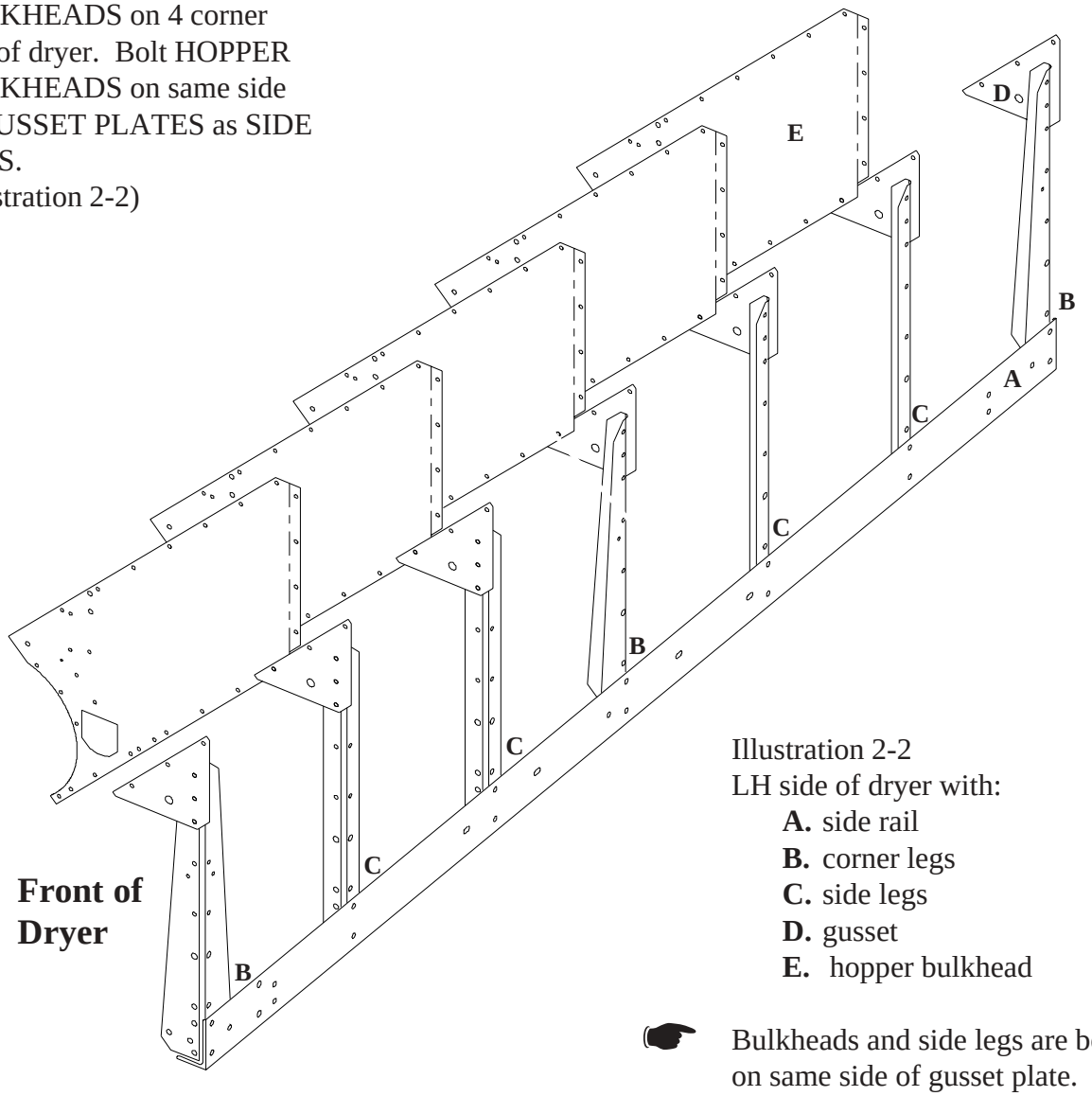


Illustration 2-2
LH side of dryer with:
- **A.** side rail
- **B.** corner legs
- **C.** side legs
- **D.** gusset
- **E.** hopper bulkhead

☛ Bulkheads and side legs are bolted on same side of gusset plate.

2.9.
Pull each pair of HOPPER BULKHEADS together in center. Loosely bolt each pair using 1/2”x1” bolts, 1/2” nuts and 1/2” lockwashers. (Photo 2-13)

After all bulkheads are loosely bolted in place, tighten bolts on each pair of HOPPER BULKHEADS, leaving approximately 4” between bulkheads at lowest point.

(Photo 2-14)

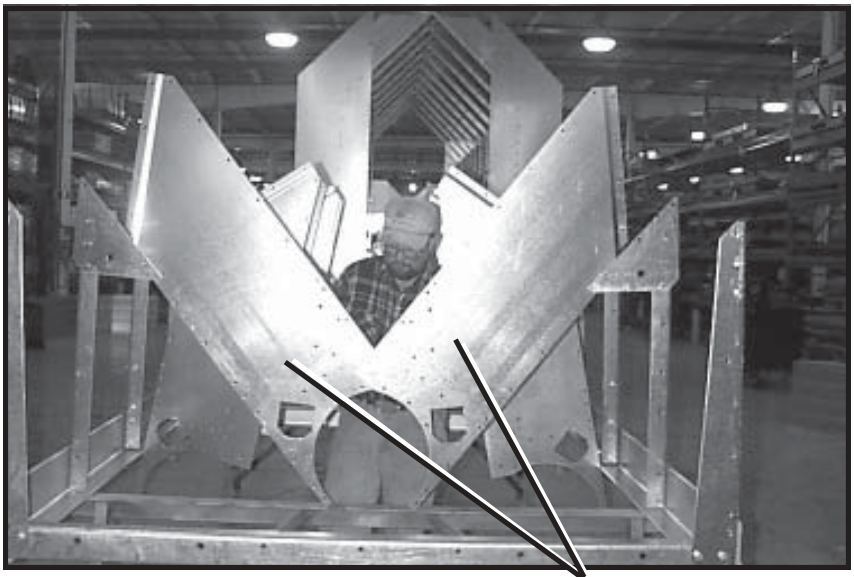


Photo 2-13 Loosely bolting pairs of hopper bulkheads. (rear view of dryer)

Photo 2-14 Tightening bolts with approximately 4” gap between bulkheads at lowest point.

2.10.
Use 3/8”x1” whiz bolts and 3/8” whiz nuts in step 2.10.

2.10.1.
Loosely bolt DISCHARGE BEARING PLATE (D31-0120) to rear FRAME TIE CHANNEL.

2.10.2.
Loosely bolt AUGER BEARING PLATE (D01-1374) to front FRAME TIE CHANNEL.

(Photo 2-15)

Photo 2-15 Positioning auger bearing plate. (front of dryer)

2.10.3.
Bolt (2) BEARING SHIELD SPACER BRACKETS (D01-0065) to front FRAME TIE CHANNEL (D01-0008). (Photo 2-16)

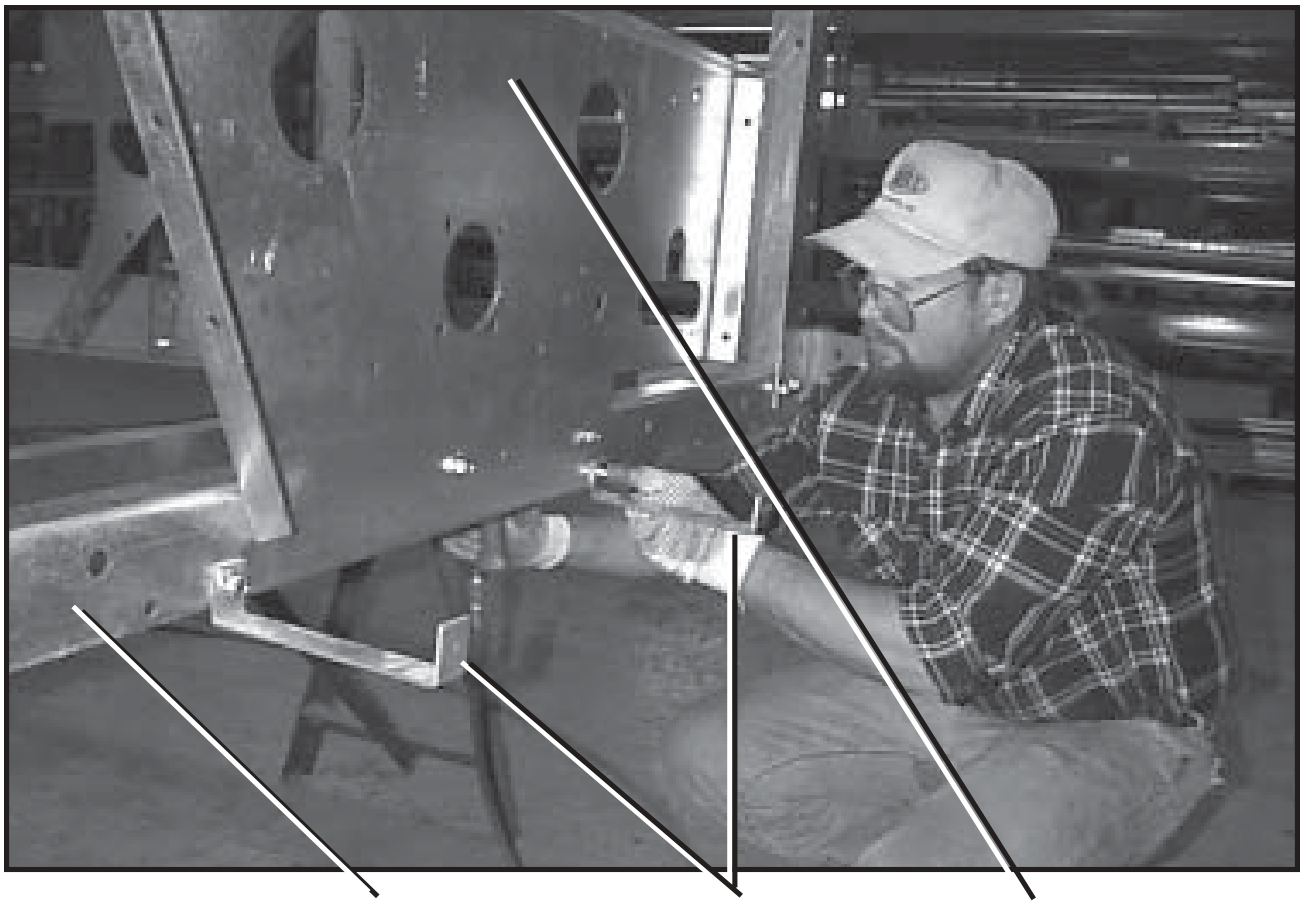


Photo 2-16 front frame tie channel bearing shield spacer brackets front bearing plate

2.11.
Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts to loosely bolt TROUGH PANEL WELDMENTS (D01-0048) in step 2.11.

(Start at rear of dryer and work to front.)

2.11.1.
Loosely bolt rear TROUGH PANEL WELDMENT to DISCHARGE BEARING PLATE.

(Photos 2-17 and 2-18)

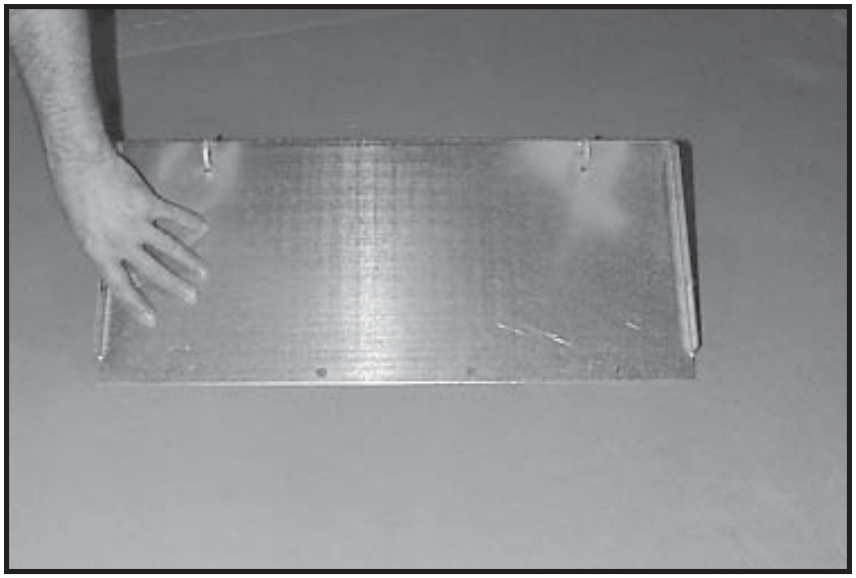


Photo 2-17 Close Up -trough panel weldment.

Photo 2-18 Loosely bolting rear trough panel weldment to discharge bearing plate.

2.11.2.
Loosely bolt TROUGH PANEL WELDMENTS (in bottom 2 holes) to HOPPER BULKHEADS through dryer on RH and LH sides sides.

(Photos 2-19 and 2-20)

Photo 2-19 Loosely bolting trough panel weldments.

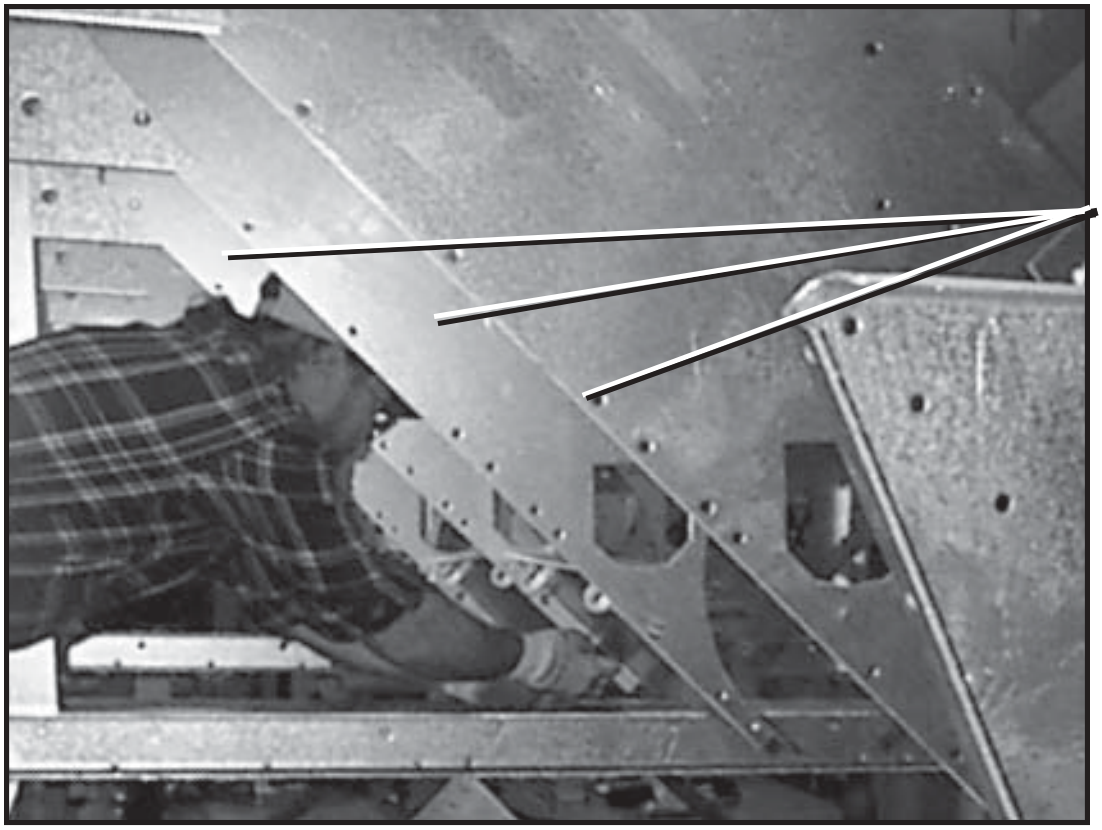


Photo 2-20 Loosely bolting trough panel weldments through dryer.

2.11.3.
With same bolt, loosely bolt front TROUGH PANEL WELDMENT and front HOPPER BULKHEADS to BOTTOM AUGER BEARING PLATE (D01-1374).

Do this on LH and RH sides.

(Photos 2-21 and 2-22)

Photo 2-21

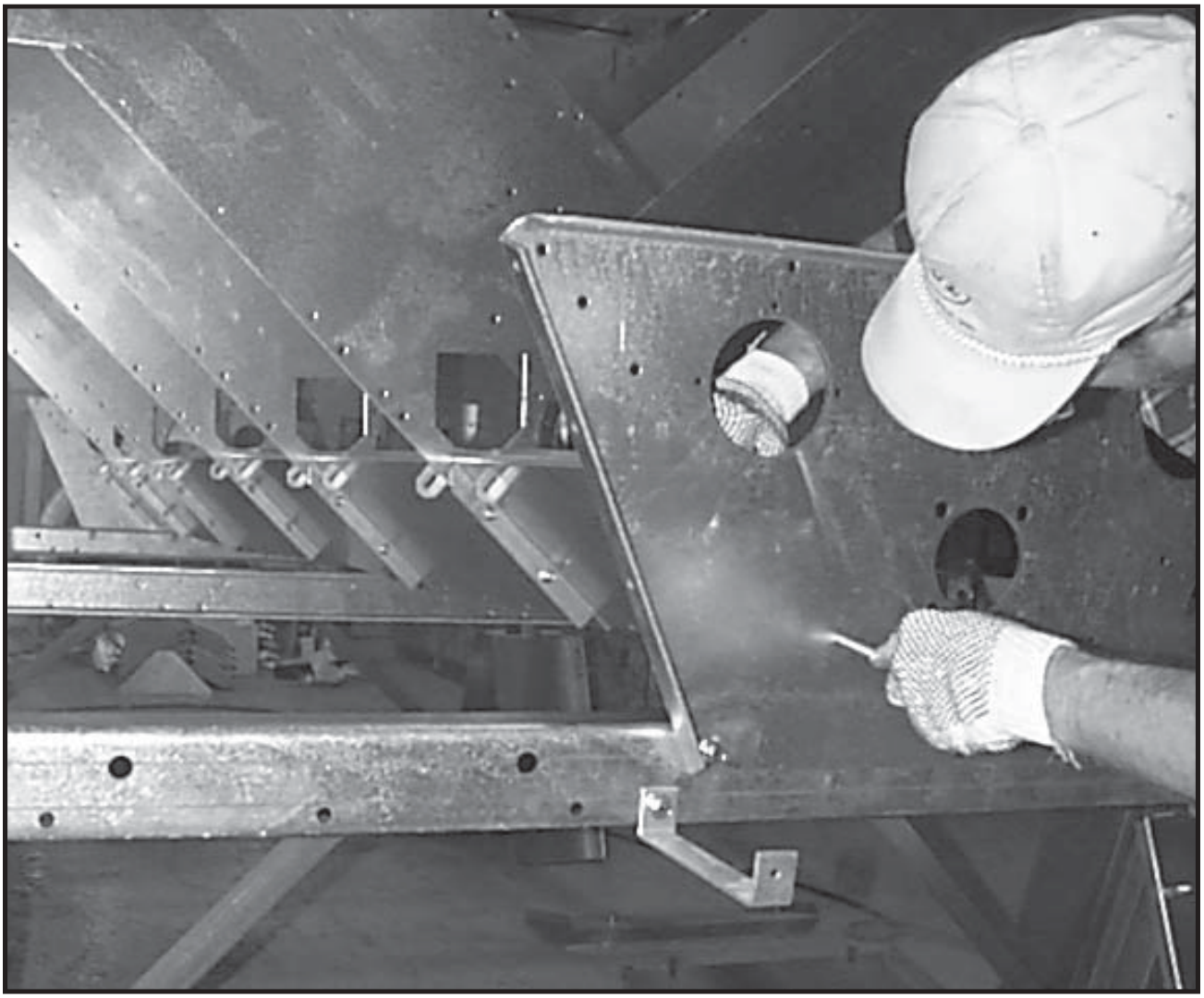


Photo 2-22

2.12.

Place (do not bolt yet) CLEAN-OUT EXTENSION STRAPS (D01-0177) in TROUGH PANEL WELDMENTS (D01-0048) along length of dryer. Placement of CLEAN-OUT EXTENSION STRAPS is explained below. (Depending on dryer size, there are from 3 to 13 CLEAN-OUT EXTENSION STRAPS, 1 CLEAN-OUT EXTENSION STRAP in each column*.

- (Start at front of dryer.) Place first CLEAN-OUT EXTENSION STRAP in fourth set of holes in TROUGH PANEL WELDMENTS. Continue placing CLEAN-OUT EXTENSION STRAPS in every third set of holes until reaching point above FRAME TIE CHANNELS.

☛ For 6', 8', and 10' dryers, see ** below.

- After reaching point above FRAME TIE CHANNELS, repeat pattern for placing CLEAN-OUT EXTENSION STRAPS. That is, place CLEAN-OUT EXTENSION STRAP in fourth set of holes from point above FRAME TIE CHANNELS. Continue placing CLEAN-OUT EXTENSION STRAPS in every third set of holes until reaching rear of dryer. (Photo 2-23)

☛ * A column is the cubic space between two HOPPER BULKHEADS. Standard column is 2' wide.

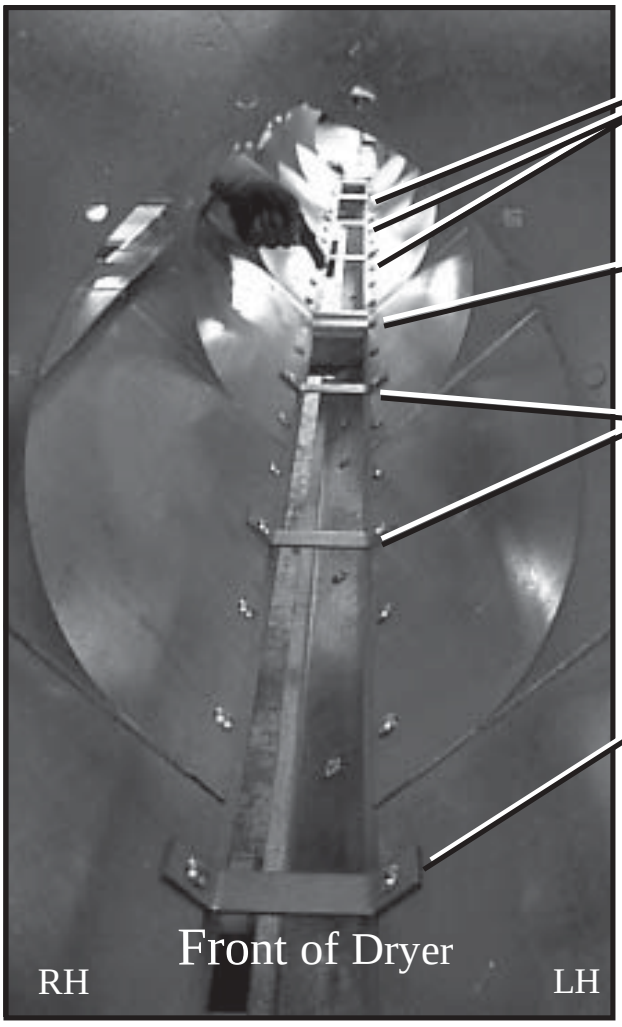


Photo 2-23 Placement of clean-out extension straps inside auger chamber.

2.13.
All dryers have at least 2 END SEALS (D01-0185). Larger dryers have either 4 or 6 END SEALS.

IF there are 2 END SEALS, place 1 at each end of dryer. (Photo 2-24)

IF there are 4 or 6 END SEALS; place 1 at each end of dryer, 1 on FRAME TIE CHANNEL(S), and 1 on SECONDARY CROSS TIE CHANNEL(S).

Photo 2-24 Place end seal on top of frame tie channel and on outside of trough panel.

2.14.
(Start in middle of dryer.) Place and snug bolt CLEAN-OUT EXTENSIONS (D21-0006); and snug bolt (in same hole) CLEANOUT EXTENSION STRAPS, TROUGH PANEL WELDMENTS, and CLEAN-OUT HINGE BRACKETS. (Chart 2-1)

- CLEAN-OUT HINGE BRACKETS bolt to bottom of CLEAN-OUT EXTENSIONS.

- CLEAN-OUT EXTENSIONS run the length of the dryer on both sides. CLEAN-OUT EXTENSIONS bolt to the bottom of TROUGH PANEL WELDMENTS. (Photo 2-25)

- All CLEAN-OUT HINGE BRACKETS face the same way. (Photo 2-26)

- Install CLEAN-OUT HINGE BRACKETS in 3rd hole back from each FRAME TIE CHANNEL. If there is a third CLEAN-OUT HINGE BRACKET, install in 2nd hole on 3rd column.

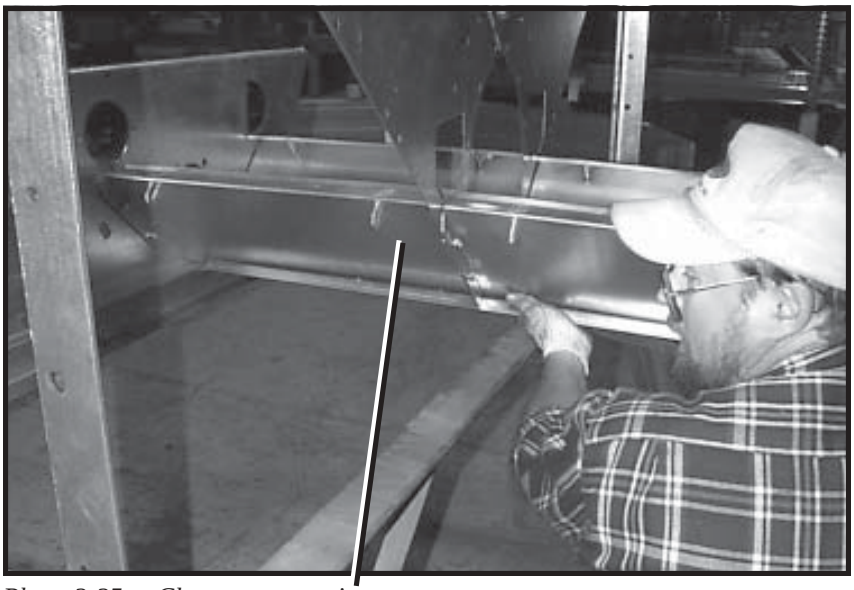


Photo 2-25 Clean-out extension.

Photo 2-26 Clean-out hinge bracket.

Clean-out Door Size	Number of Clean-Out Hinge Brackets
6’	2
8’	2
10’	3

Chart 2-1

2.15.
Align END SEALS so parts fit flush, and tighten bolts. (Photo 2-27)

2.16.
Tighten bolts on TROUGH PANEL WELDMENTS, CLEAN-OUT EXTENSIONS, END SEAL HINGE BRACKETS, BOTTOM AUGER BEARING PLATE, and DISCHARGE BEARING PLATE. (Photo 2-28)

It is important to install both bearing plates level.

☛ Tighten alternating sections on LH and RH sides.

• When tightening bolts, first tighten to DISCHARGE BEARING PLATE (rear of dryer), then tighten TRUSS HEADS through CLEAN-OUT EXTENSION 2 bolts past seam, where TROUGH PANEL WELDMENTS bolt to HOPPER BULKHEAD, then tighten seam. Continue this sequence to BOTTOM AUGER BEARING PLATE (front of dryer).

Photo 2-27

Photo 2-28 Discharge bearing plate. (rear of dryer)

2.17. To install METER ROLL ASSEMBLIES,
refer to Chart 2-1, Chart 2-2, Chart 2-3, and Chart 2-4, and read all of Step 2.17.

Chart 2-1 ***Total Meter Roll Assemblies*** ***Required For Each Dryer Length***

dryer length	meter rolls 47-1/4”	46-11/16”	23-1/16”
8’	4		
10’	2	2	2
12’	4	2	
14’	2	4	2
16’	4	4	
18’	2	6	2
20’	4	6	
22’	2	8	2
26’	2	10	2

Chart 2-2 ***Meter Roll Assembly*** ***(MR)*** ***Placement*** ***by Dryer Length***

Number, length, and placement of conduit is listed for one side of dryer in chart.

All dryers require conduit listed below on both RH and LH sides.

dryer length (Front of Dryer ↓)	MR #1	MR #2	MR #3	MR #4	MR #5	MR #6	MR #7
6’	47-1/4”	23-1/16”					
8’	47-1/4”	47-1/4”					
10’	47-1/4”	46-11/16”	23-1/16”				
12’	47-1/4”	46-11/16”	47-1/4”				
14’	47-1/4”	46-11/16”	46-11/16”	23-1/16”			
16’	47-1/4”	46-11/16””	46-11/16”	47-1/4”			
18’	47-1/4”	46-11/16”	46-11/16”	46-11/16”	23-1/16”		
20’	47-1/4”	46-11/16”	46-11/16”	46-11/16”	47-1/4”		
22’	47-1/4”	46-11/16”	46-11/16”	46-11/16”	46-11/16”	23-1/16”	
26’	47-1/4”	46-11/16”	46-11/16”	46-11/16”	46-11/16”	46-11/16”	23-1/16”

2.17. continued

Chart 2-3 ***Meter Roll Subassembly - Parts***

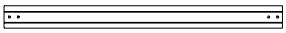
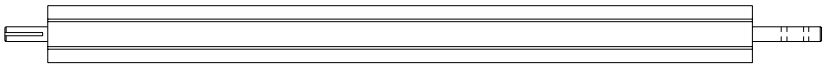
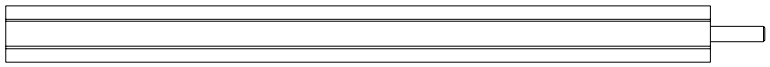
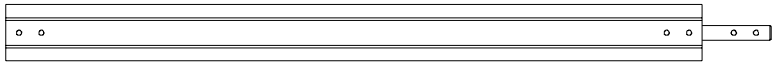
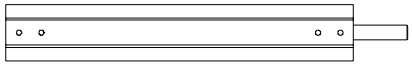
	Part Name	Part Number
	front meter roll 47-1/4”	D31-0031
	intermediate meter roll 46-13/16”	D31-0030
	rear meter roll 23-5/16”	D31-0029
	meter roll drive shaft	D01-0006
	meter roll splice shaft	D31-0046
	meter roll stub shaft	D01-0272

Chart 2-4 ***Meter Roll Assemblies***

	Part Number
 meter roll assembly 47-1/4” with drive shaft (left) and splice shaft (right) (viewed from keyway side)	D04-0197
 meter roll assembly 47-1/4” with stub shaft	D04-0198
 meter roll assembly 46-13/16” with splice shaft	D04-0199
 meter roll assembly 23-5/16” with stub shaft	D04-0200

Hardware used to install meter rolls:
5/16x1-3/4” clevis pins (D02-0028) and 1/8x1” cotter pins (S-6635)

2.27. continued

☛ Start at front of dryer. Install METER ROLLS symmetrically on RH and LH sides of dryer. In other words, placement of METER ROLLS on RH side of dryer is identical to placement on LH side.

☛ Refer to Charts 2-1 through 2-4 on previous pages for METER ROLL placement sequence. All METER ROLLS are placed through length of dryer before securing at (front) BOTTOM AUGER BEARING PLATE (D01-1374) and (rear) DISCHARGE BEARING PLATE (D31-0120) with 1" METER ROLL BEARING ASSMBLIES (D02-0002).

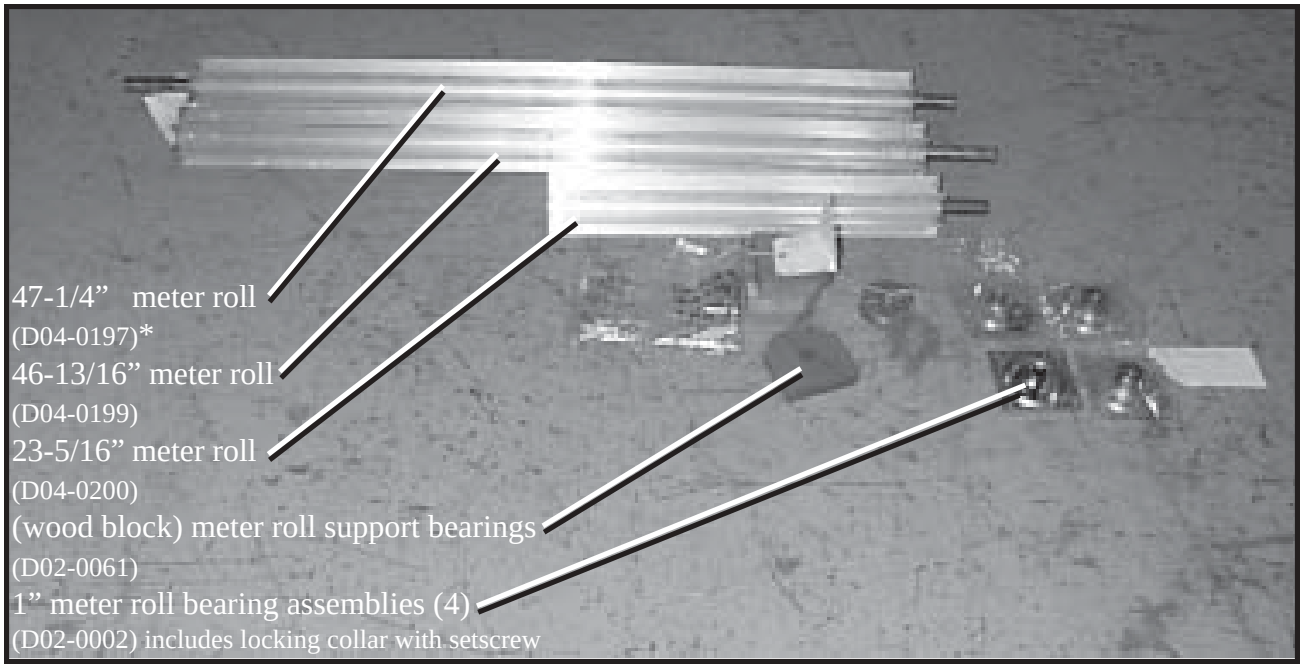


Photo 2-30 Meter roll ssemblies and hardware for installing assemblies.

* 47-1/4" meter roll assembly with stub shaft only (D04-0198) not shown.

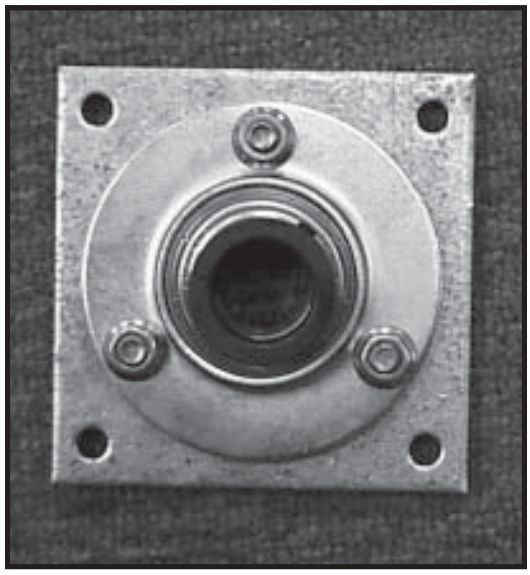


Photo 2-31 Close up - (D02-0002) 1" meter roll bearing assembly.

2.17.1.
Place two 47-1/4" METER ROLL ASSEMBLIES (D04-0197) through (front) BOTTOM AUGER BEARING PLATE (D01-1374), one on R.H. side of dryer and one on L.H. side of dryer. (Photo 2- 32)

☛ Drive shaft protrudes from dryer.

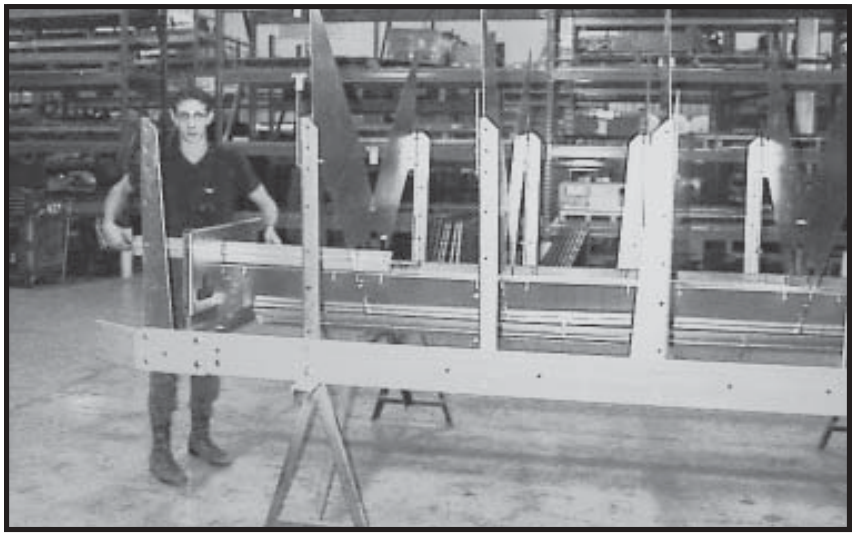


Photo 2-32 Placing meter roll assemblies through (front) bottom auger bearing plate.

2.17.2.
Install hardware on both METER ROLL ASSEMBLY splice shafts as follows.

Slide 1" METER ROLL WASHER (D31-0148) (flat washer, diameter 3") on shaft, then METER ROLL SUPPORT BEARING (wood block, #D02-0061), then second 1" METER ROLL WASHER (D31-0148). (Photo 2-33)

Photo 2-33 Sliding washer, wooden bearing, and second washer onto splice shaft of front meter roll assembly.

2.17.2. continued
Continue installing METER ROLL ASSEMBLIES (according to preceding charts) (Photo 2-34) through length of dryer.

Insert hardware between each pair of METER ROLL ASSEMBLIES per step 2.17.1.

Pin as follows.

Insert 5/16x1-3/4" CLEVIS PIN (D02-0028) in METER ROLL ASSEMBLY hole, turn METER ROLL ASSEMBLY 1/2 turn, then insert 1/8x1" COTTER PIN (S-6635) and bend.

(Photos 2-35 and 2-36)

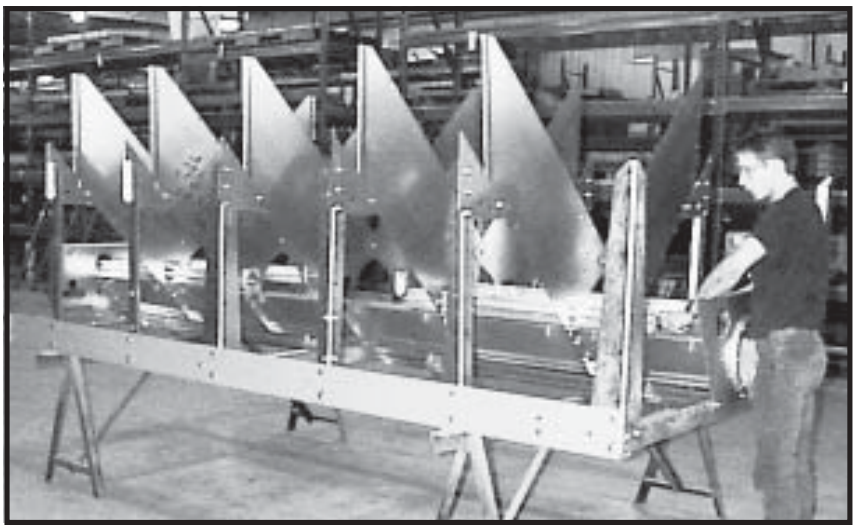


Photo 2-34 Installing meter roll assemblies through length of dryer.

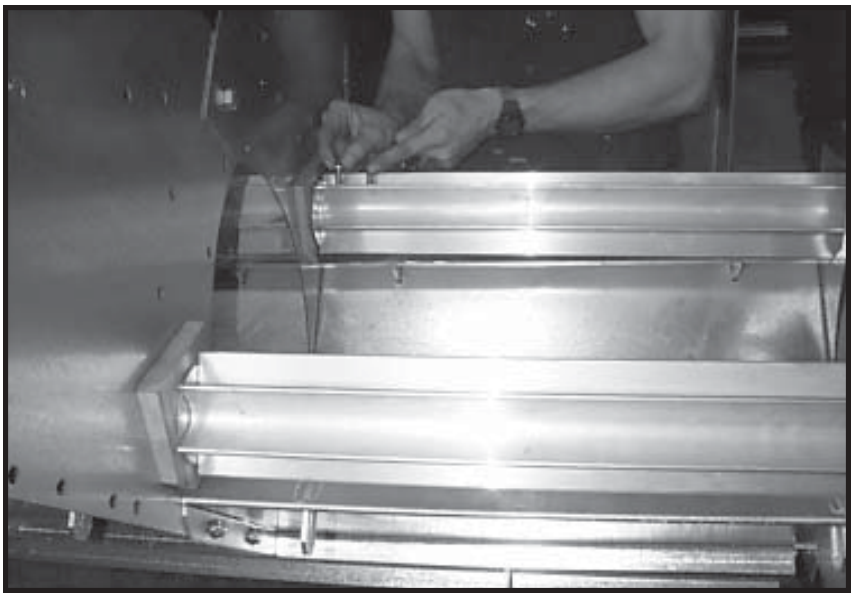


Photo 2-35 Inserting clevis pins in meter roll assemblies.

Photo 2-36 Bending cotter pins through clevis pins.

2.18.
After placing last METER ROLL ASSEMBLIES in rear of dryer (Photo 2-37), install (4) 1” METER ROLL BEARING ASSEMBLIES (D02-0002) as follows.

2.18.1. Slide one 1” METER ROLL WASHER (D31-0148) (3” diameter) on (4) protruding METER ROLL ASSEMBLY drive shafts.

2.18.2. Slide 1” METER ROLL BEARING ASSEMBLY on protruding METER ROLL ASSEMBLY (2) drive shafts and (2) stub shafts.
(Photos 2-38 and 2-39).

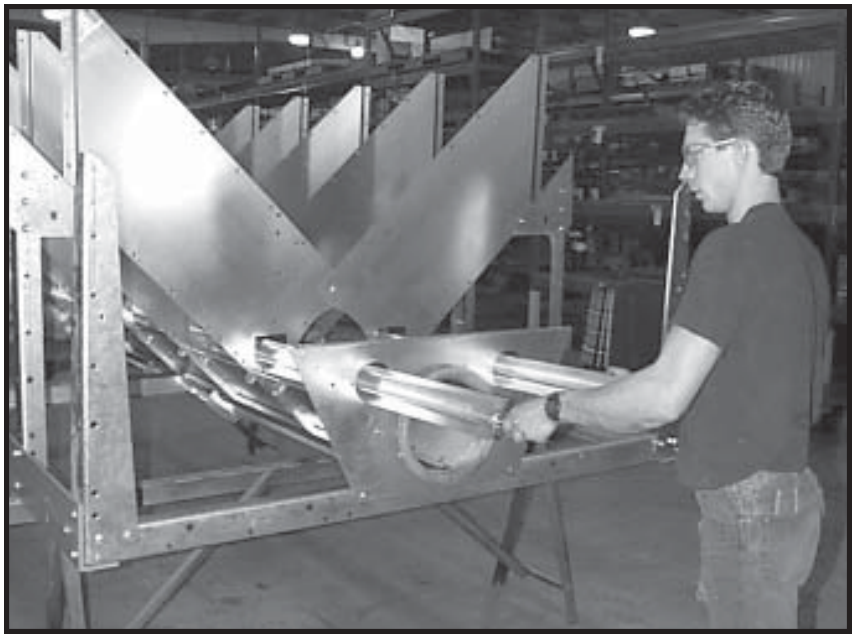


Photo 2-37 Placing meter roll assemblies. (rear of dryer)

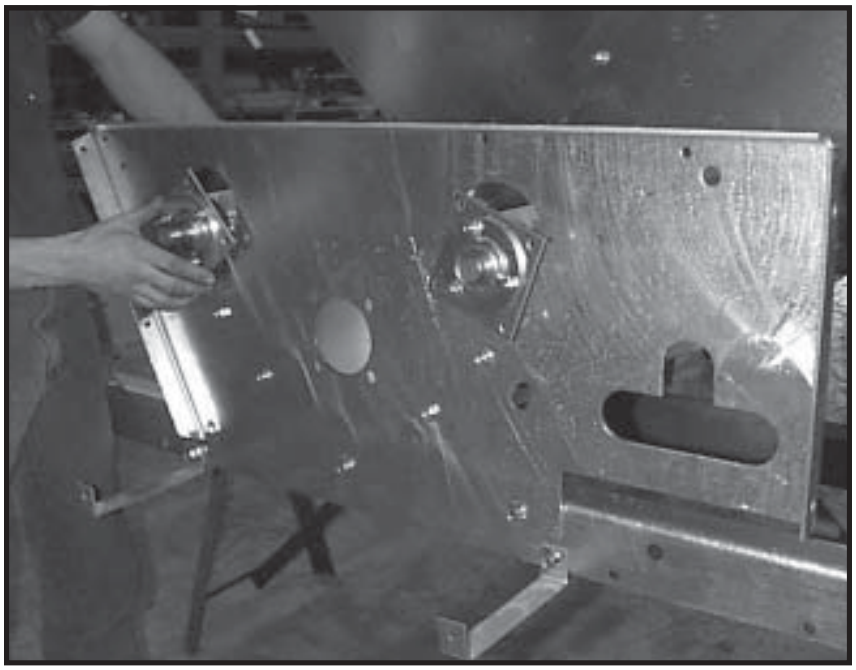


Photo 2-38 Sliding 1” meter roll assembly on meter roll assembly drive shafts at (front) bottom auger bearing plate.

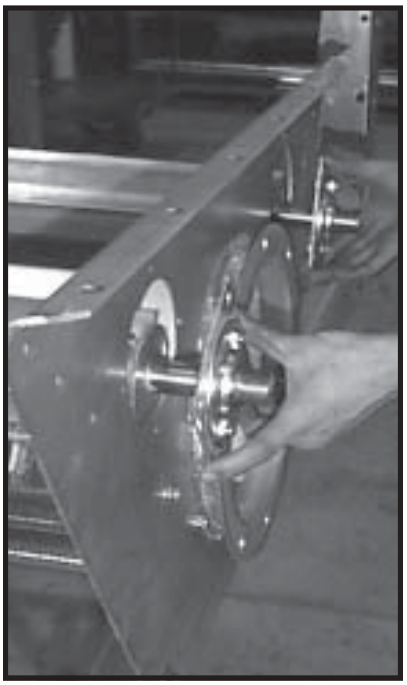


Photo 2-39 Sliding 1” meter roll bearing assembly on meter roll assembly stub shafts at (rear) discharge bearing plate.

2.18.3. At (front) BOTTOM AUGER BEARING PLATE, lift 1" METER ROLL BEARING ASSEMBLIES (D02-0002) into place. With self-tapping 5/16-18x3/4" hex head bolts (S-6495), bolt each 1" METER ROLL BEARING ASSEMBLY at (2) side and (1) bottom holes. (Leave top hole empty until after UPPER METER ROLL SHIELDS have been installed.) Then tighten (3) bolts on 1" METER ROLL BEARING ASSEMBLY. It may be necessry to bend down TROUGH PANEL WELDMENT to get bolt in bottom bolt hole. At (rear) DISCHARGE BEARING PLATE, install 1" METER ROLL BEARING ASSEMBLIES using same procedure as above, but tighten all (4) bolts. (Photo 2-40)

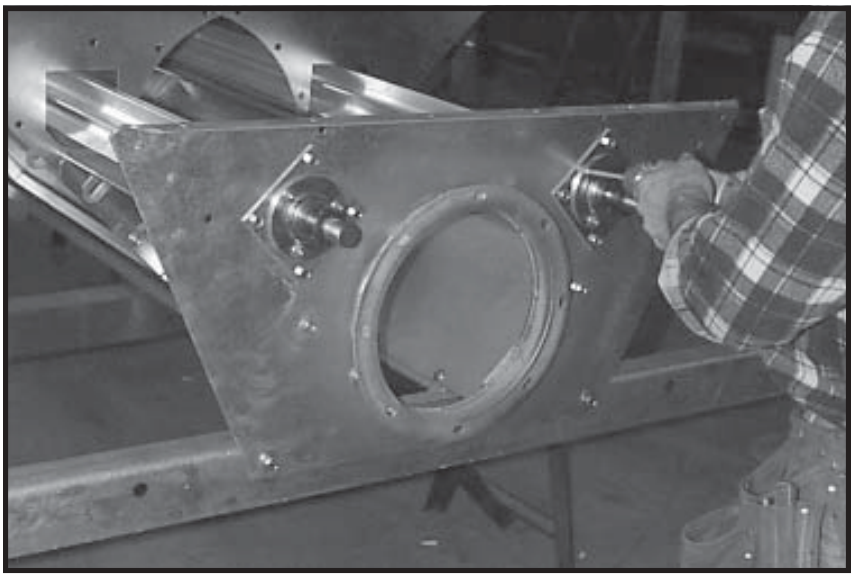


Photo 2-40 Tightening bolts on 1" meter roll assemblies at (rear) discharge bearing plate.

2.19.
IF dryer is a Series 2000 without SPEED SENSOR BOX BRACKET (D01-0462), omit Step 2.18.4.
IF dryer is not a Series 2000, install SPEED SENSOR BOX BRACKET (D01-0462) as follows. Remove (4) hex head bolts on (rear) L.H. METER ROLL BEARING ASSEMBLY. (Can leave top bolt in loose as placement guide.) Slide SPEED SENSOR BOX BRACKET over METER ROLL stub shaft. Replace and tighten (4) hex head bolts. (Photo 2-42)

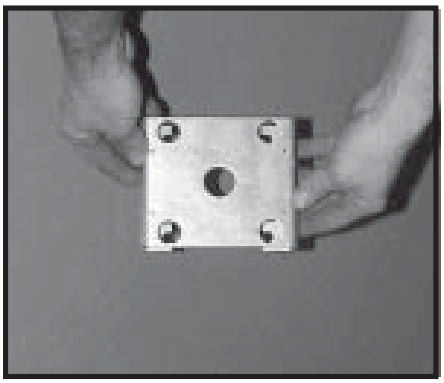


Photo 2-41 Close Up - speed sensor box bracket.

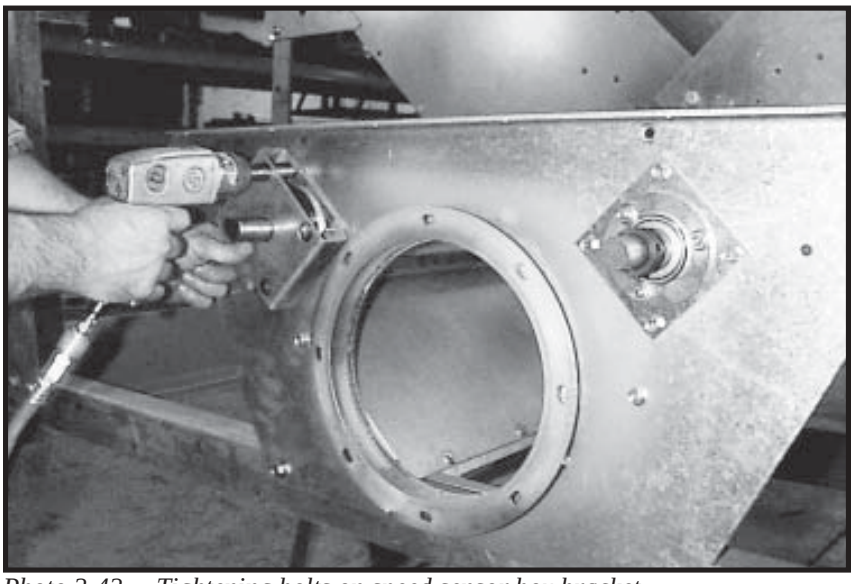


Photo 2-42 Tightening bolts on speed sensor box bracket.

☛ Will adjust 1" METER ROLL BEARING ASSEMBLIES and tighten lock collars after UPPER METER ROLL SHIELDS have been installed and tightened.

2.20. Install J-PLATE BOTTOM HANGER BEARING MOUNTS (D01-1290) using 5/16”x3/4” whiz bolts and 5/16” whiz nuts as follows. (Photo 2-43)

2.20.1. Place J-PLATE BOTTOM HANGER BEARING MOUNTS back-to-back on each side of HOPPER BULKHEADS (D01-0190) located on same seam as FRAME TIE CHANNELS, and bolt. (Photo 2-44)

2.20.2. Lift C-CHANNEL BOTTOM HANGER BEARING MOUNT (D01-1291) to bottom of J-PLATE BOTTOM HANGER BEARING MOUNTS and loosely bolt.

2.20.3 When all bolts are in place, tighten.

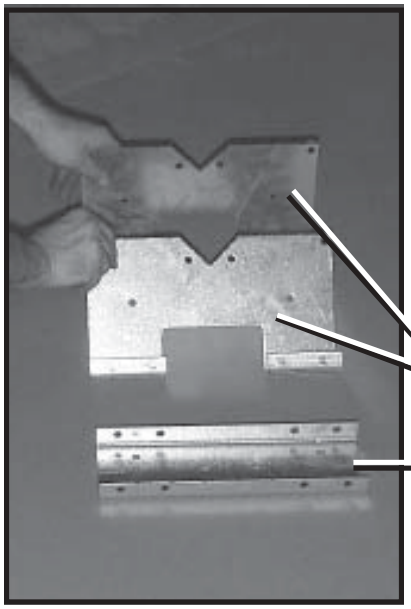


Photo 2-43 Close Up

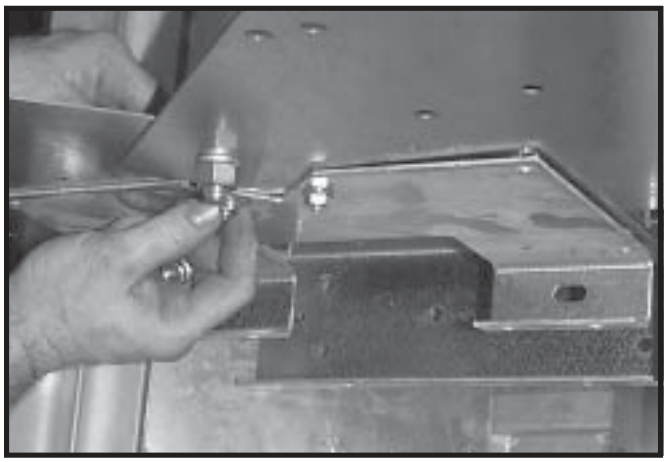


Photo 2-44 Bolting J-plate bottom hanger bearing mounts to hopper bulkheads.

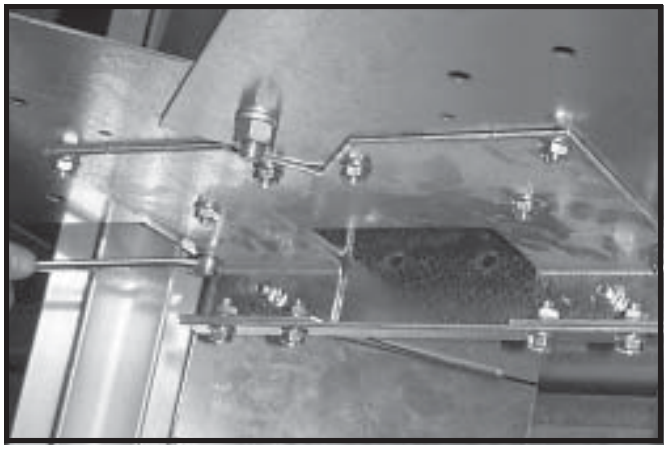


Photo 2-45 C-channel bottom hanger bearing mount and J-plate bottom hanger bearing mounts bolted to hopper bulkheads.

2.21.
Lower dryer onto (4) 13" supports. (Photo 2-46)

2.22.
Install METER ROLL UPPER SHIELD ASSEMBLY (D01-1180) as follows.
(Photo 2-47)

2.22.1.
Set out (12) METER ROLL UPPER SHIELD ASSEMBLIES (D01-1180) around perimeter of dryer.

2.22.2.
Start at rear of dryer. Use 5/16"x3/4" whiz bolts and 5/16" whiz nuts.

Loosely bolt (2) each rear METER ROLL UPPER SHIELD ASSEMBLY (D01-1180) to (rear) DISCHARGE BEARING PLATE (D31-0120), and fasten with whiz nuts.

Loosely bolt other end of METER ROLL UPPER SHIELD ASSEMBLY to HOPPER BULKHEAD (D01-0109). Next METER ROLL UPPER SHIELD ASSEMBLY will attach to same bolts on other side of HOPPER BULKHEAD. Loosely fasten each pair of METER ROLL UPPER SHIELD ASSEMBLIES with whiz nuts. (Photo 2-48)

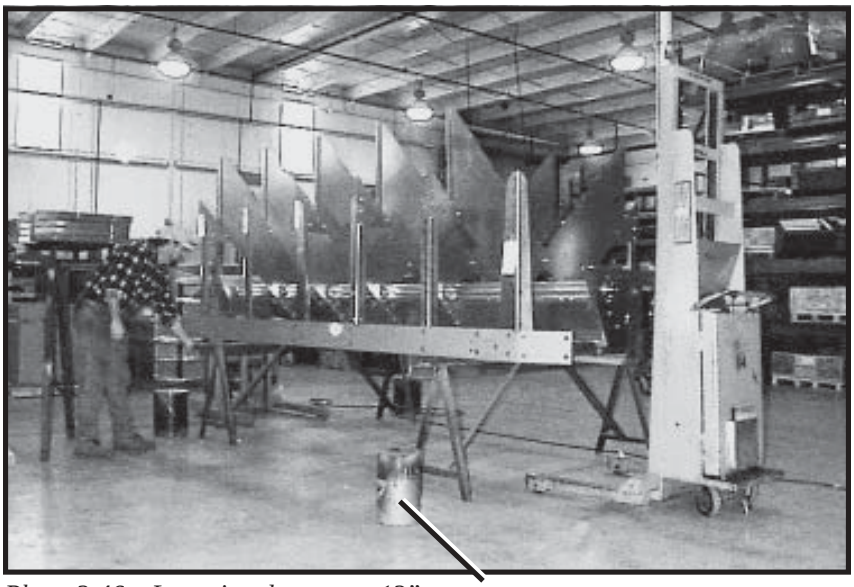


Photo 2-46 Lowering dryer onto 13" supports.

Photo 2-47 Close Up - meter roll upper shield assembly.

Photo 2-48 Bolting (2) meter roll upper shield assemblies on hopper bulkhead.

2.22.2. continued
Continue loosely bolting METER ROLL UPPER SHIELD ASSEMBLIES through length of dryer on RH and LH sides. Loosely bolt (2) front METER ROLL UPPER SHIELD ASSEMBLIES to the (front) BOTTOM AUGER BEARING PLATE (D01-1374), and loosely fasten with whiz nuts.

2.22.3. After all METER ROLL UPPER SHIELD ASSEMBLIES are loosely bolted in place, push each set of METER ROLL UPPER SHIELD ASSEMBLIES toward outside of dryer, (Photo 2-49), and tighten bolts. (Photo 2-50)

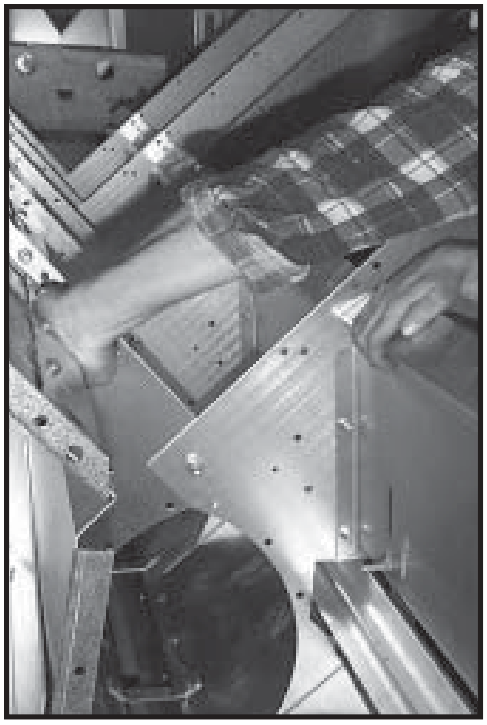


Photo 2-49 Pushing a set of meter roll upper shield assemblies toward outside of dryer.

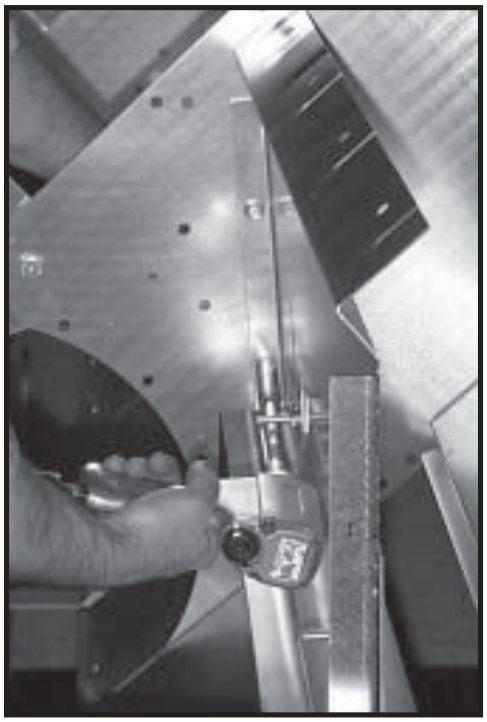


Photo 2-50 Tightening bolts on meter roll upper shield assemblies.

2.23. Tighten top bolt on both 1" METER ROLL BEARING ASSEMBLY on (front) BOTTOM AUGER BEARING PLATE. (Photo 2-51)

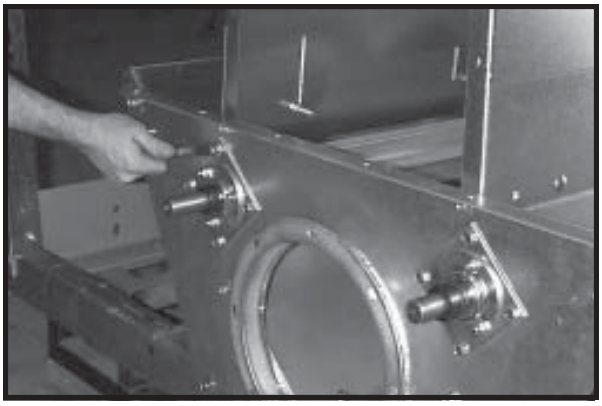


Photo 2-51 Tightening top bolt on 1" meter roll bearing assembly.

2.24. Turn RH and LH meter rolls to be sure they turn freely. Check for clearance at front and rear bearing plates.

2.25. Set LOCK COLLAR (D02-0002) on 1" METER ROLL BEARING ASSEMBLIES (D02-0002) on both bearing plates as follows.

Spin LOCK COLLAR on shaft until set in place. With hammer (13 ounce) and punch, strike in a clockwise direction to lock. (Photo 2-52)

Photo 2-52 Locking lock collar.

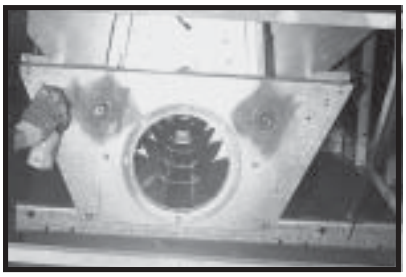


Photo 3-54 Priming meter roll bearing assemblies.

☛ Be sure setscrew is not aligned with keyway of drive shafts on (front) BOTTOM AUGER BEARING PLATE.

Then tighten setscrew on LOCK COLLARS with 1/8" allen wrench. (Photo 2-53)

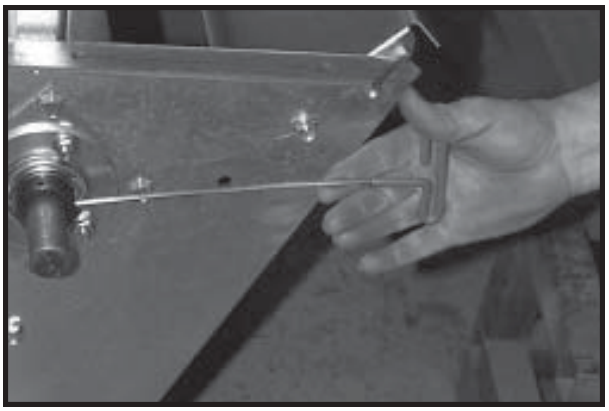


Photo 2-53 Tightening setscrew.

2.26 Prepare (4) 1" METER ROLL BEARING ASSEMBLIES (D02-0002) for later assembly with auger. Prime with spray primer, then paint with Super Acrylic Controls Rust Spray Enamel - Chrome Aluminum. (Photo 2-54)

2.26. Install CONNECTOR SHEETS (D01-0050) (Photo 2-55) as follows.

Start at rear of dryer. Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts.

Loosely bolt (2) each rear CONNECTOR SHEET (D01-0050) through (2) top holes in (rear) DISCHARGE BEARING PLATE (D31-0120), and fasten with whiz nuts.

Loosely bolt other end of (2) each CONNECTOR SHEET to HOPPER BULKHEAD (D01-0109). Next CONNECTOR SHEET will attach to same bolts on other side of HOPPER BULKHEAD. Loosely fasten each pair of CONNECTOR SHEETS with whiz nuts. Continue loosely bolting CONNECTOR SHEETS through length of dryer on RH and LH sides. Loosely bolt (2) front CONNECTOR SHEETS to (front) BOTTOM AUGER BEARING PLATE (D01-1374), and loosely fasten with whiz nuts. (Photo 2-56)

☛ Bolts in CONNECTOR SHEETS will be tightened when OUTSIDE SCREENS are installed.

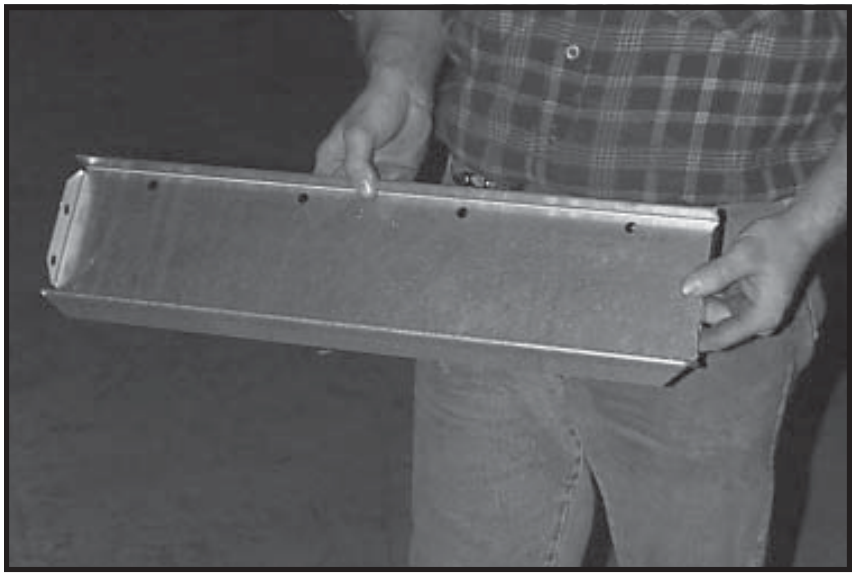


Photo 2-55 Close Up - connector sheet.

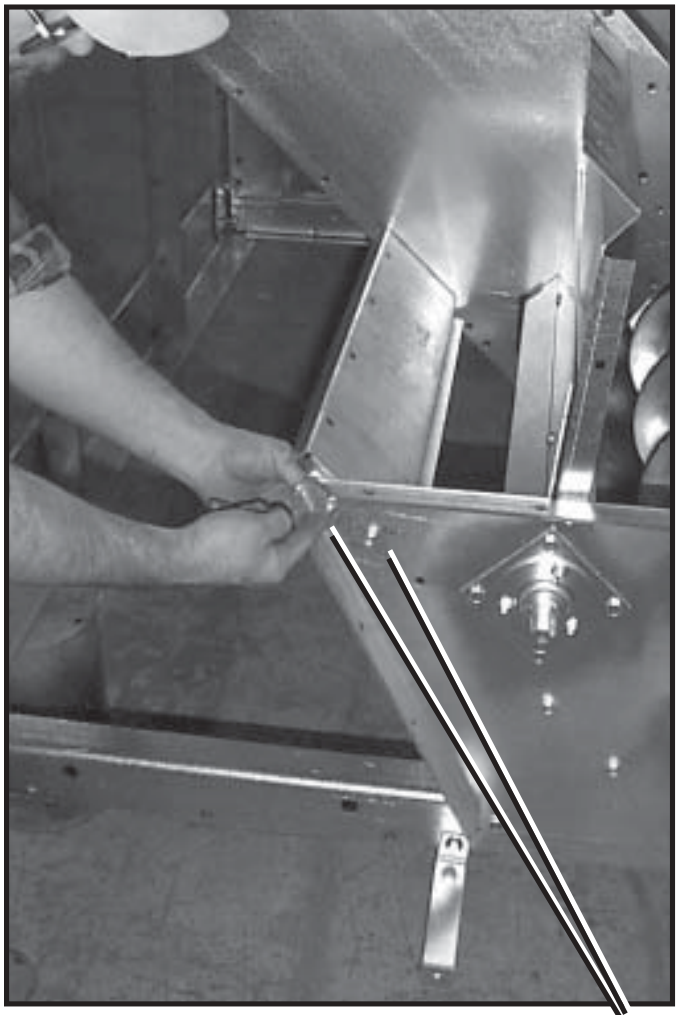


Photo 2-56 Loosely bolt front connector sheet through (2) top holes in (front) bottom auger bearing plate.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

3. Install Inside Screens (includes bottom augers)

Parts for inside screens include: PLENUM BOTTOMS, PLENUM CLOSURE DOOR ANGLES (RH and LH), PLENUM CLOSURE DOORS, BOTTOM AUGER WELDMENT(S), COLUMN BULKHEADS, PLENUM WALLS, GARNER BULKHEAD, PLENUM TOPS, COLUMN END PANELS, and CONDUIT (COLUMN HI-LIMIT).

Photo 3-1 Close Up - plenum bottoms.

3.1. Install PLENUM BOTTOMS (D01-1225) (Photo 3-1) as follows.

Use 5/16"x3/4" truss head bolts and 5/16" whiz nuts to bolt PLENUM BOTTOMS to METER ROLL UPPER SHIELD ASSEMBLY (D01-1180).

Use 5/16"x3/4" whiz bolts and 5/16" whiz nuts to bolt PLENUM BOTTOM vertical seams.

☛ On inside screen assembly, insert all whiz bolts toward front of dryer.

3.1.1. Prior to installation, set out all PLENUM BOTTOMS along RH and LH sides of dryer.

3.1.2. Slide all PLENUM BOTTOMS between HOPPER BULKHEADS (D01-0109), and over CONNECTOR SHEETS.
(Photo 3-2)

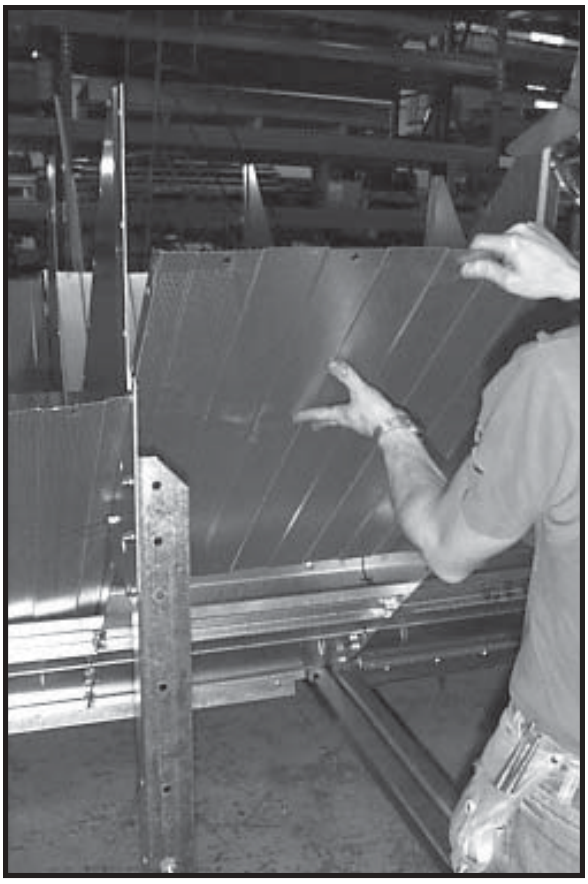


Photo 3-2 Sliding plenum bottom between hopper bulkheads and over connector sheet.

☛ It takes at least two people to install PLENUM BOTTOMS (D01-1225), one inside dryer and one outside dryer. Outside-person lifts and holds PLENUM BOTTOMS, while inside-person loosely bolts PLENUM BOTTOMS in place. (Photo 3-3)

3.1.3. At front of dryer (either RH or LH side), install (2) PLENUM BOTTOMS at same time as follows.

3.1.3.1. Position and secure front two PLENUM BOTTOMS, one on each side of HOPPER BULKHEAD (D01-0109), with 3/8" punches and clamps. (Photo 3-4) Loosely bolt with whiz bolts and whiz nuts along vertical seams (except top bolt hole in each vertical seam).

☛ Exception: in one-fan dryer, bolt top bolt holes.

3.1.3.2. Position and secure front two PLENUM BOTTOMS to METER ROLL UPPER SHIELD ASSEMBLY (D01-1180) with 3/8" punch, then loosely bolt with truss head bolts and whiz nuts. (Photo 3-5)

3.1.4. Continue installing PLENUM BOTTOMS through length of dryer.

Photo 3-3 Outside-person lifts plenum bottom into place, inside-person bolts it.

Do not bolt top bolt hole in each vertical seam. Exception: in one-fan dryer, bolt top bolt holes.

Photo 3-4 Loosely bolting along vertical seams of plenum bottom/ hopper bulkhead/penum bottom .

Photo 3-5 Securing with 3/8" punch and loosely bolting plenum bottoms to meter roll upper shield assembly.

3.1.5. After all PLENUM BOTTOMS (D01-1225) are loosely bolted on RH and LH sides of dryer, tighten truss head bolts on PLENUM BOTTOMS to METER ROLL UPPER SHIELD ASSEMBLIES (D01-1180).

3.1.6. Tighten whiz bolts on PLENUM BOTTOM vertical seams (except top bolt hole in each vertical seam).

3.2. Install PLENUM CLOSURE DOOR LH ANGLE (D01-1136X) and PLENUM CLOSURE DOOR RH ANGLE (D01-1136Y) as follows. (Photo 3-6)

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts.

☛ Face weather stripping side of all PLENUM CLOSURE DOOR RH ANGLES in same direction (either to front or rear of dryer), and touching HOPPER BULKHEADS (D01-0109).

Loosely bolt each set of PLENUM CLOSURE DOOR ANGLES (1-RH and 1-LH) to each HOPPER BULKHEAD (Photo 3-7)
through length of dryer. (Photo 3-8)

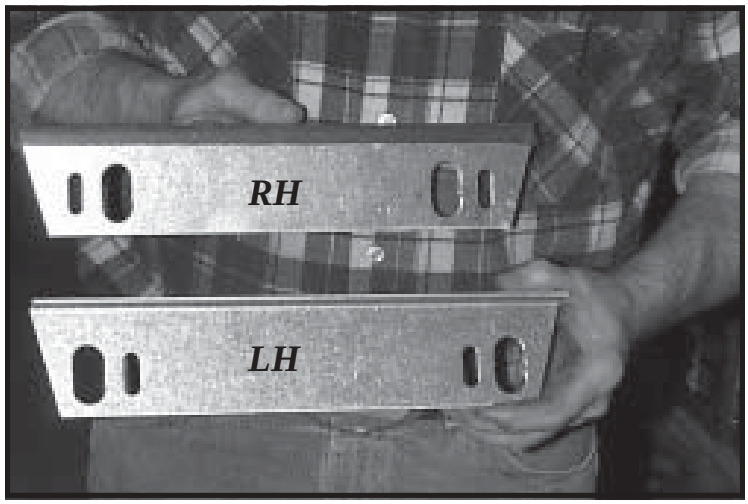


Photo 3-6 Top - plenum closure door RH angle has weather stripping. Bottom - plenum closure door LH angle.

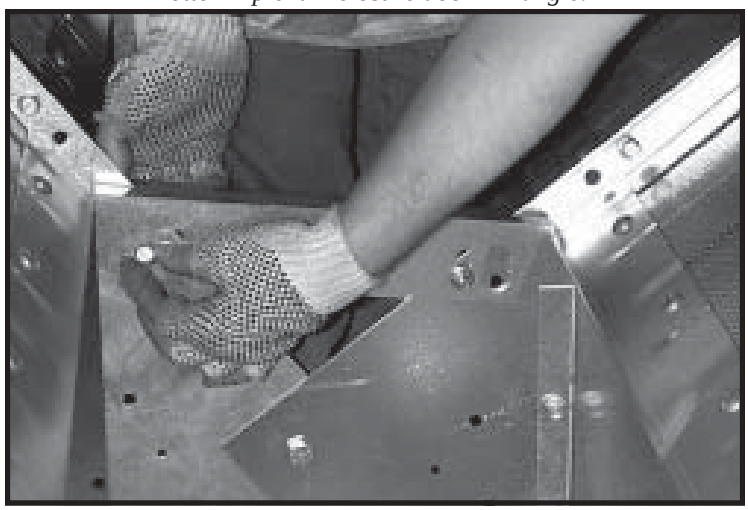


Photo 3-7 Loosely bolting plenum closure door angles (RH and LH) to hopper bulkhead, above meter roll upper shield assembly.

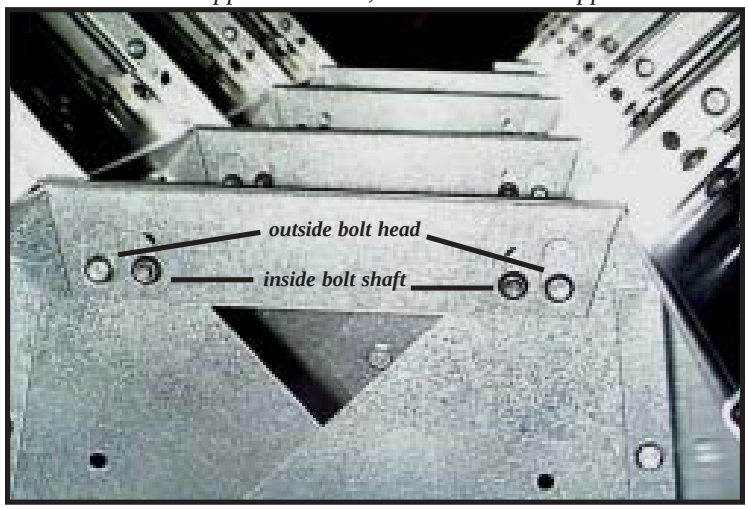


Photo 3-8 Plenum closure door angles loosely bolted through length of dryer. Note bolt orientation.

3.3. Install PLENUM CLOSURE DOORS and PLENUM CLOSURE DOOR-REAR as follows. (Photos 3-9 and 3-10)

☛ Exception: in two-fan dryer, use FRONT PLENUM CLOSURE DOOR with slotted ACCESS PLATE. (Photos 3-11 and 3-12)

☛ PLENUM CLOSURE DOOR-REAR (with notch) installs at rear of all dryers.

Use 5/16"x3/4" hex head bolts, 5/16" flat washers, and 5/16" locknuts.

3.3.1. (Starting at either front or rear of dryer), place first two PLENUM CLOSURE DOORS across METER ROLL UPPER SHIELD ASSEMBLIES (D01-1120) so that (2) hinges in each PLENUM CLOSURE DOOR are on LH side of dryer. Hold PLENUM CLOSURE DOOR outside hinge in place with loose bolt in bottom hole of PLENUM BOTTOM (D01-1225). (Photo 3-13)

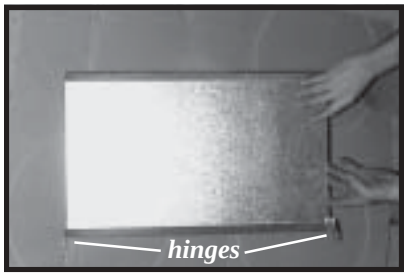


Photo 3-9 *Plenum closure door, installs through dryer, except at rear.* (D01-1114)

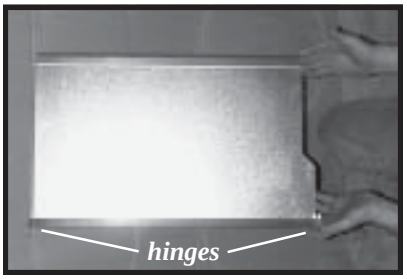


Photo 3-10 *Plenum closure door-rear, with notch, installs at rear of dryer.* (D01-1214)

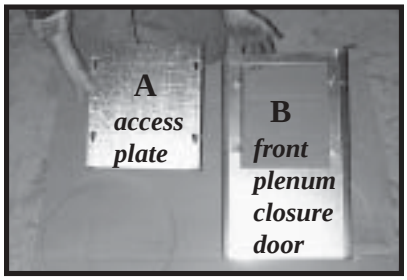


Photo 3-11 *Two-fan dryer uses front plenum closure door, fitted with slotted access plate.*
A. (D01-0953)
B. (D01-1215)

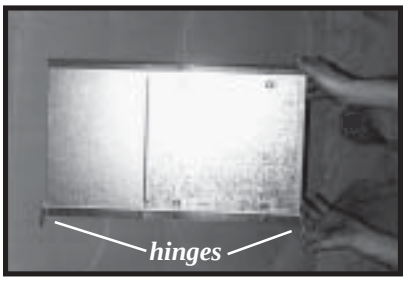


Photo 3-12 *Two-fan dryer - front plenum closure door is shipped with access plate in place.*

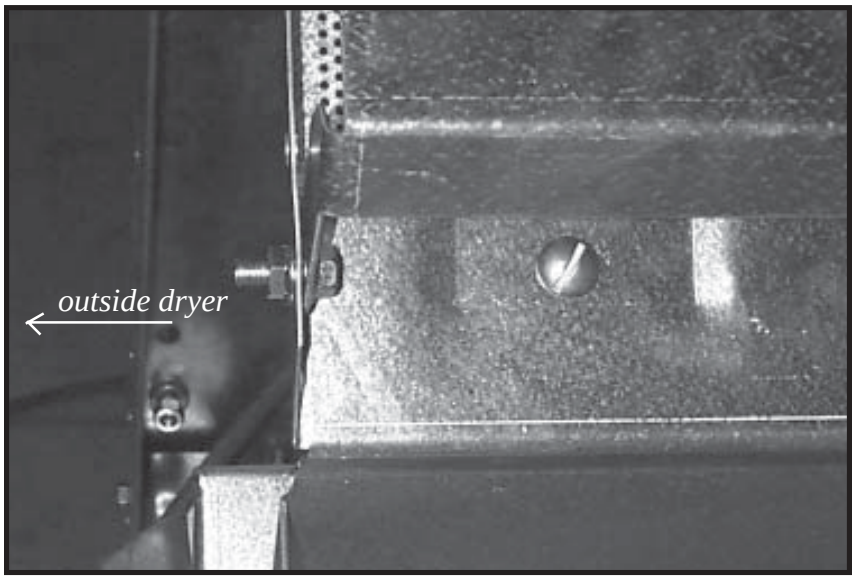


Photo 3-13 *Loosely bolting plenum closure door outside hinge in place. Note bolt is installed toward outside of dryer.*

3.3.2. PLENUM CLOSURE DOORS (D01-1114) bolt into dryer by (2) hinges (Photo 3-14)

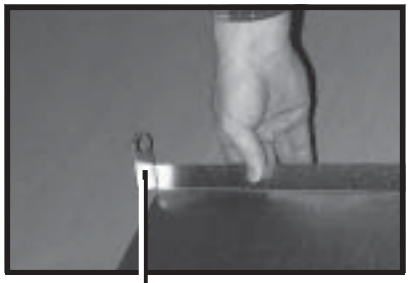


Photo 3-14 Hinge on plenum closure door

☛ Outside hinges of front and rear PLENUM CLOSURE DOORS bolt temporarily through bottom hole of PLENUM BOTTOM (D01-1225). Insert bolt toward outside of dryer. A whiz bolt will permanently replace temporary bolt when END PANELS are installed.

Install PLENUM CLOSURE DOORS through length of dryer as follows. With vise grips clamp (1) hinge from (2) PLENUM CLOSURE DOORS on each side of PLENUM BOTTOM. Slide 5/16" washer on hex head bolt and insert bolt though first PLENUM CLOSURE DOOR hinge, PLENUM BOTTOM, and next PLENUM CLOSURE DOOR hinge. Slide another 5/16" washer and 5/16" locknut on bolt.

Secure vertical seam with clamp and tighten bolts on both hinges. Check that PLENUM CLOSURE DOOR will open easily and close securely.

3.3.3. Repeat step for each pair of PLENUM CLOSURE DOORS. (Photo 3-15)

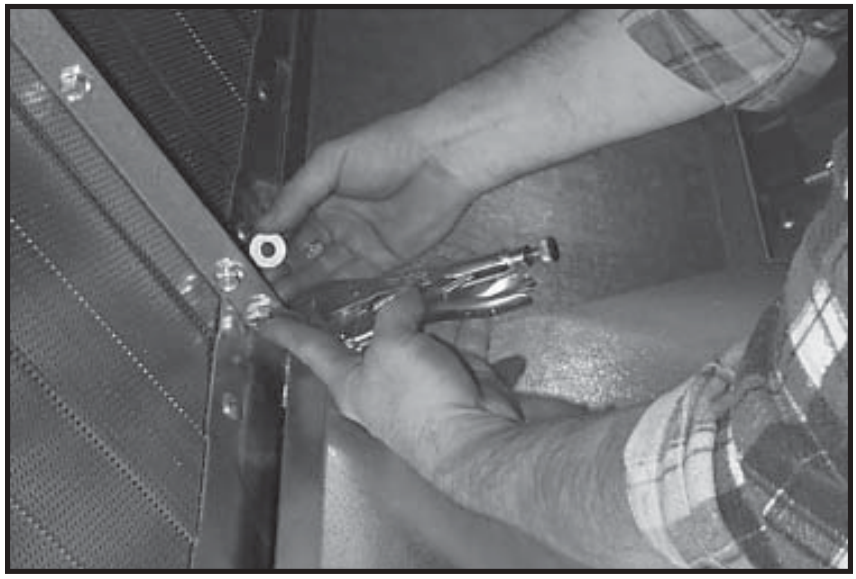


Photo 3-15 Loosely bolting with bolt/washer (dryer seam) washer/locknut.

3.4. After all PLENUM CLOSURE DOORS (D01-1114) are loosely bolted in place, adjust each pair of PLENUM CLOSURE DOOR ANGLES (D01-1136X and D01-1136Y) as follows.

3.4.1. Starting at rear of dryer, pull first pair of PLENUM CLOSURE DOOR ANGLES all the way up, and snug bolt so they stay in place.

3.4.2. Firmly press PLENUM CLOSURE DOOR down along METER ROLL UPPER SHIELD ASSEMBLY (D01-1180) until it fits flush.

3.4.3. Adjust of PLENUM CLOSURE DOOR ANGLES up or down until PLENUM CLOSURE DOOR closes without a gap.

3.4.4. Lift PLENUM CLOSURE DOOR and tighten (2) inside bolts on PLENUM CLOSURE DOOR ANGLES where they attach to HOPPER BULKHEADS (D01-0109).

3.4.5. Continue to adjust PLENUM CLOSURE DOOR ANGLES through length of dryer as in steps 3.4 to 3.4.4. (Photo 3-16)

☛ When tightening inside bolts on each pair of PLENUM CLOSURE DOOR ANGLES, also tighten (2) outside bolts on preceding pair of PLENUM CLOSURE DOOR ANGLES.

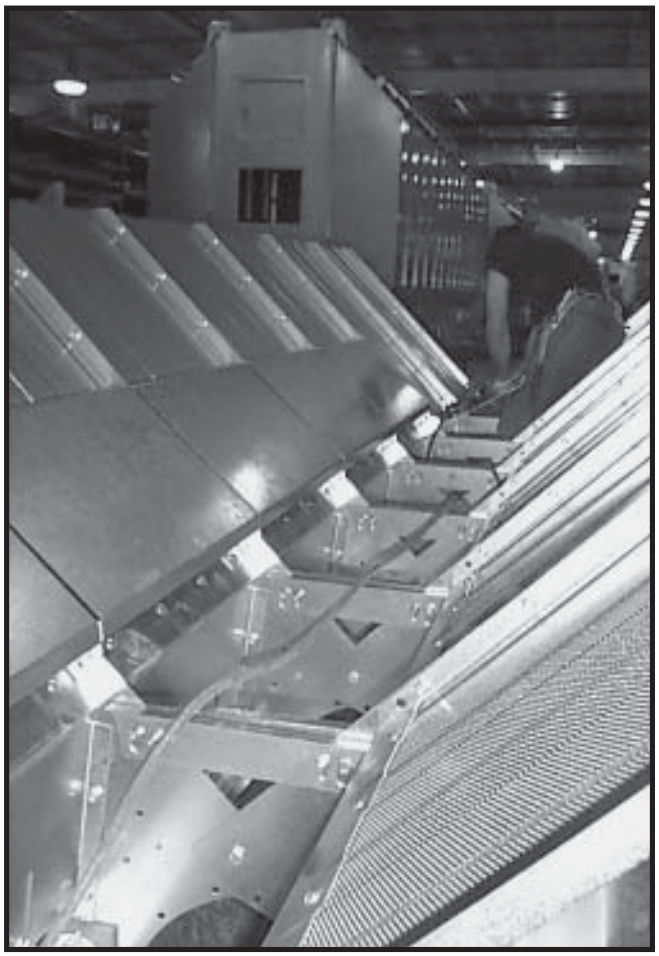


Photo 3-16 Tightening adjusted plenum closure door angles through length of dryer.

3.5. Install BOTTOM AUGER WELDMENT(S) (D01-0701) (Photo 3-17) as follows.

☛ For all dryer sizes, refer to Chart 3-1, "Bottom Auger Placement by Dryer Length - number of auger sections, length of sections, and placement in dryer".

Photo 3-17 Front and rear bottom augers sections for 12' dryer.

As an example, this step installs bottom augers in a 12' dryer.

☛ BOTTOM FRONT AUGER WELDMENT (D21-0017) is pre-assembled with SPLICE SHAFT (D31-0076) and AUGER END SHAFT (D31-0316).

3.5.1. (From rear of dryer) slide front section of BOTTOM FRONT AUGER WELDMENT through dryer so AUGER END SHAFT protrudes from (front) BOTTOM AUGER BEARING PLATE (D01-1374).

3.5.2. Slide 1 1/2" FLANGETTE BEARING (D32-0001) over AUGER END SHAFT and loosely bolt to BOTTOM AUGER BEARING PLATE with 1/2" bolts and 1/2" lock nuts. (Photo 3-18)

Leave loose.

☛ **Do not step on auger during installation, as that will cause auger to bow and turn unevenly.**

Photo 3-18 Loosely bolting flangette bearing to bottom auger bearing plate.

☛ To install BOTTOM AUGER WELDMENT(S), refer to Chart 3-1, and read all of Step 3.5.

Chart 3-1 ***BOTTOM AUGER PLACEMENT*** ***by Dryer Length - number of auger sections, length of sections, and placement in dryer.***

Dryer Length	↓ Front of Dryer: Front Auger	Middle Auger	Rear Auger	Stub*
6'	87"			
8'	111"			
10'	135 7/8"			
12'	68 3/8"		88 1/4"	
14'	68 3/8"		111 7/8"	
16'	92 3/8"		111 7/8"	
18'	116 3/8"		111 7/8"	
20'	116 3/8"		117 7/8"	23"
22'	68 3/8"	93 7/8"	111 7/8"	
26'	116 3/8"	93 7/8"	111 7/8"	

* *Stub extends bottom auger through (rear) discharge bearing plate. Stub requires hanger bearing.*

3.5.3. Install HANGER BEARING ASSEMBLY (D01-1246) with auger hardware (Photo 3-19) as follows.

3.5.3.1. Slide first 1 1/2" washer onto SPLICE SHAFT (D31-0076), then HANGER BEARING ASSEMBLY (D01-1246), then second 1 1/2" washer.

3.5.3.2. Insert (2) carriage bolts through HANGER BEARING ASSEMBLY and C-CHANNEL BOTTOM HANGER BEARING MOUNT (D__-____). Slide (1) flat washers and (1) locknut on each carriage bolt, and tighten.

3.5.3.3. Check for approximately 1/4" clearance between 1 1/2" washer and BOTTOM FRONT AUGER WELDMENT (D21-0017).

With approximately 1/4" clearance, set LOCK COLLAR (D02-0002) as in Step 2.25.

3.5.3.4. Check so auger turns smoothly and HANGER BEARING ASSEMBLY doesn't move.

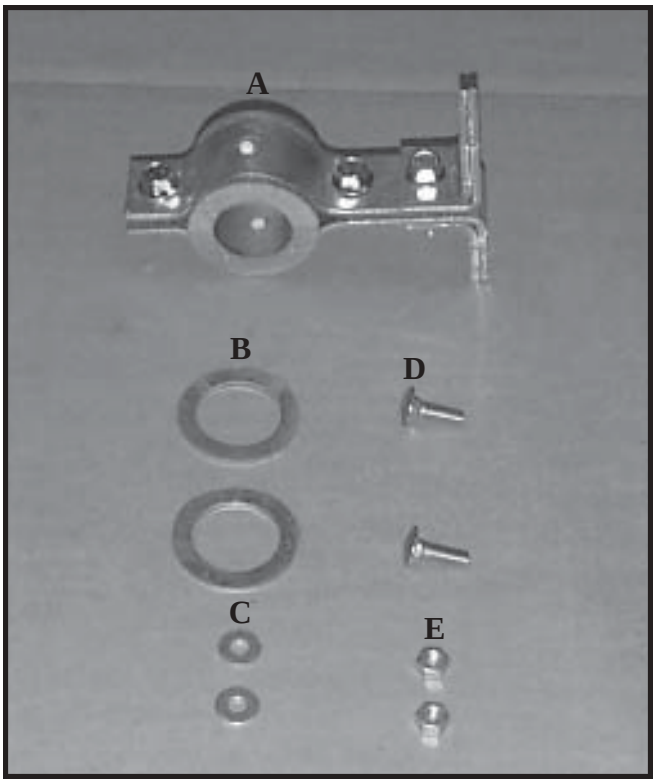


Photo 3-19 Hanger bearing assembly and auger hardware, sizes listed below.

A. (1) HANGER BEARING ASSEMBLY (D01-1246)
B. (2) HANGER BEARING MACHINE WASHER 2/25"x1/5" (D31-0048)
C. (2) 5/16" wrought iron flat washers
D. (2) 5/16"-18x1" carriage bolts,
E. (2) 5/16"-18 hex 3/way lock nuts

3.5.4. (From rear of dryer), insert BOTTOM REAR AUGER WELDMENT (D01-0701) into dryer and onto SPLICE SHAFT (D31-0076).

Rotate rear bottom auger until BOTTOM REAR AUGER WELDMENT and SPLICE SHAFT holes align. (Photo 3-20)

3.5.5. Seat (rear auger section) of BOTTOM REAR AUGER WELDMENT with lead hammer.

☛ Do not use hard surface hammer as that will deform end of shaft and impair dryer operation.

3.5.6. In center of dryer, bolt BOTTOM REAR AUGER WELDMENT to SPLICE SHAFT using the following hardware:

7/16”x2 1/2” hex head bolts
7/16” locknuts

Tighten bolts.

(Photo 3-21)

Photo 3-20 *Inserting rear auger section of bottom rear auger weldment.*

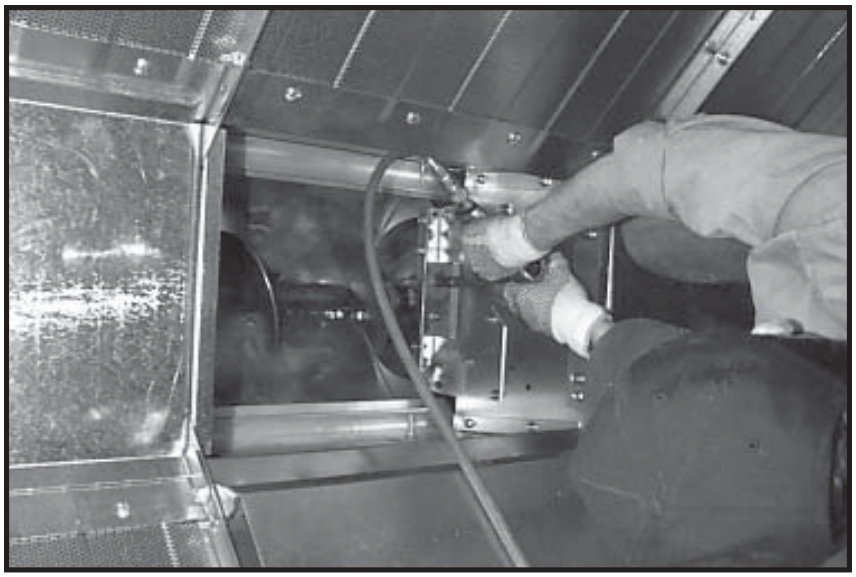


Photo 3-21 Tightening hanger bearing assembly to C-channel mount.

3.5.7. Install DISCHARGE AUGER ASSEMBLY (D01-0481) (Photo 3-22) as follows.

3.5.7.1. Place DISCHARGE AUGER ASSEMBLY over BOTTOM REAR AUGER WELDMENT (D01-0701). (Photo 3-23)

3.5.7.2. Slide 1 1/2" FLANGETTE BEARING (D32-0001) on AUGER END SHAFT (D31-0330).

3.5.7.3. Bolt DISCHARGE AUGER ASSEMBLY to DISCHARGE BEARING PLATE (D31-0120) with 5/16"x3/4" whiz bolts and 5/16" whiz nuts.

3.5.7.4. Check that flange rings match around entire circumference.

3.5.7.5. Check that DISCHARGE AUGER ASSEMBLY is level with 12" level, then tighten.

3.5.7.6. Set LOCK COLLAR (D02-0002) on DISCHARGE AUGER ASSEMBLY as in Step 2.25.

☛ **Do not step on auger during installation, as that will cause auger to bow and turn unevenly.**

Photo 3-22 Discharge auger assembly.

Photo 3-23 Placing discharge auger assembly over bottom rear auger weldment.

☛ Scaffolding is not part of dryer assembly, but set up scaffold through center of dryer before installing remainder of inside screens. (Scaffold is not provided.) (Photo 3-24)

Photo 3-24 Scaffold.

3.6. (At either front or rear of dryer) install COLUMN BULKHEADS (D031-0055) (Photo 3-25) and PLENUM WALLS (D31-0012) (Photo 3-26) as follows.

Use 3/8”x1” whiz bolts and 3/8” whiz nuts to bolt COLUMN BULKHEAD to HOPPER BULKHEAD (D01-0109). Insert all whiz bolts toward front of dryer.

Use 5/16”x3/4” trusshead bolts and 5/16” whiz nuts to bolt PLENUM WALLS to PLENUM BOTTOMS (D01-1225).

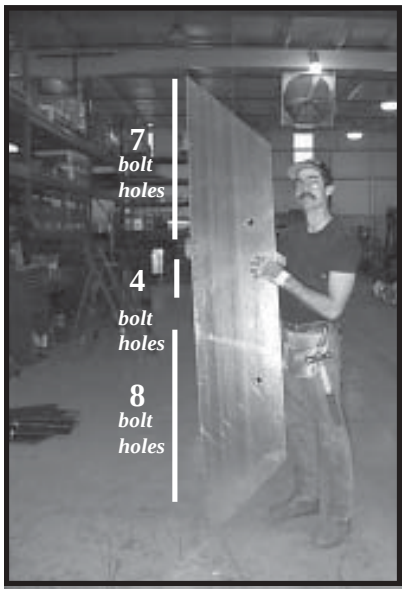


Photo 3-25 Column bulkhead.

Bolt hole spacing from top to bottom is 7 widely spaced bolt holes, above 4 closely spaced bolt holes, above 8 widely spaced bolt holes.

Photo 3-26 Plenum wall

Note 45^{o} angle at bottom.

☛ It takes at least two people to install COLUMN BULKHEADS (D031-0055) and PLENUM WALLS (D31-0012), one on scaffold inside dryer and one on ground outside dryer. Outside-person lifts dryer parts up to inside-person, then both loosely bolt dryer parts in place.

3.6.1 At one corner of dryer, outside-person lifts first COLUMN BULKHEAD up to inside-person. Photo (3-27)

Photo 3-27 Outside-person and inside-person loosely bolt column bulkhead and plenum walls in place.

☛ Top of COLUMN BULKHEAD has 7 widely spaced bolt holes above 4 closely spaced bolt holes.

3.6.2 Both workers insert COLUMN BULKHEAD in offset in first HOPPER BULKHEAD (D01-0109), and loosely bolt with 3/8”x1” whiz bolts and 3/8” whiz nuts.

If necessary for column alignment, put temporary bolt in top hole of GUSSET PLATE (D01-0004) to COLUMN BULKHEAD seam.

☛ Insert all whiz bolts toward front of dryer.

3.6.3. In same corner, outside-person lifts first and second PLENUM WALLS (D31-0012) up to inside-person.

☛ Bottom of PLENUM WALL is angled 45°.

3.6.4. Position first and second PLENUM WALLS on either side of first COLUMN BULKHEAD (D031-0055), secure during fitting with 3/8" punches.
(Photo 3-28)

Firmly press angled 45° bottom edge of PLENUM WALL along PLENUM BOTTOM (D01-1225)so it fits flush. Then loosely bolt PLENUM WALLS to PLENUM BOTTOM with trusshead bolts and whiz nuts (with nuts on inside of dryer).

Use whiz bolts and whiz nuts to bolt PLENUM WALLS on either side of COLUMN BULKHEAD. Insert all whiz bolts toward front of dryer.

3.6.5. Continue installing COLUMN BULKHEADS AND PLENUM WALLS through length of dryer on RH and LH sides.

☛ Leave COLUMN BULKHEADS and PLENUM WALLS loosely bolted after installation.

Photo 3-28 Securing first and second PLENUM WALLS on either side of first COLUMN BULKHEAD.

3.7. Start at rear of dryer (either RH or LH corner) to install GARNER BULKHEADS (D01-0101) (Photo 3-29) as follows.

Use 3/8”x1” whiz bolts and 3/8” whiz nuts to bolt GARNER BULKHEADS to COLUMN BULKHEADS (D31-0055).

Use 1/2”x1” bolt and 1/2” locknut to bolt GARNER BULKHEAD pairs in center.

3.7.1. Standing on scaffold inside dryer, loosely bolt angled bottom edge of GARNER BULKHEAD to top of COLUMN BULKHEAD.

(☛ GARNER BULKHEADS go on right side of COLUMN BULKHEAD when facing PLENUM WALL (D31-0012) from inside dryer. (Photo 3-30)

3.7.2. Continue loosely bolting GARNER BULKHEADS to COLUMN BULKHEADS through length of dryer on RH and LH sides.

Photo 3-29 angled bottom edge of garner bulkhead

Photo 3-30 Loosely bolting garner bulkhead to column bulkheads through length of dryer.

3.7.3. On scaffold inside dryer, two workers pull each pair of GARNER BULKHEADS (D01-0101) together in center. One person holds GARNER BULKHEAD in place with 3/8" punches, the other person inserts and tightens the 1/2"x1" bolt and 1/2" locknut. (Photo 3-31)

☛ Bolt each pair of GARNER BULKHEADS, right-over-left. (Figure 3-1)

Continue bolting GARNER BULKHEAD pairs together through length of dryer.

Photo 3-31 Loosely bolting pairs of garner bulkheads through length of dryer.

3.7.4. Tighten bolts on GARNER BULKHEAD to COLUMN BULKHEAD (D31-0055) seams. Tighten bolts on COLUMN BULKHEAD to HOPPER BULKHEAD (D01-0109) vertical seams.

☛ Bottom edge of PLENUM TOP is angled 45°, and top edge is angled 45°. Bottom edge is square cut, top edge is bevel cut. Top of plenum top has (2) closely spaced holes. (Photo 3-26)

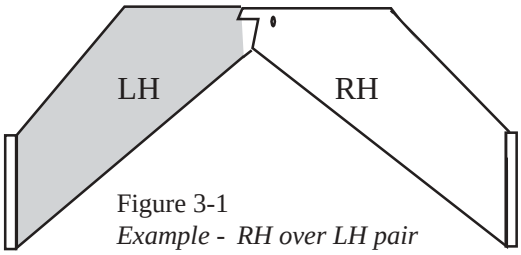


Figure 3-1
Example - RH over LH pair of garner bulkheads

3.8. Install PLENUM TOPS (D01-0126) (Photo 3-32) as follows.
Use 5/16"x3/4" truss head bolts and 5/16" whiz nuts to bolt PLENUM TOPS to PLENUM WALLS (D31-0012).

Use 5/16"x3/4" whiz bolts and 5/16" whiz nuts to bolt PLENUM TOP to GARNER BULKHEAD(D01-0101) to PLENUM TOP vertical seam, and on horizontal seam where PLENUM TOP pairs meet at top of dryer.

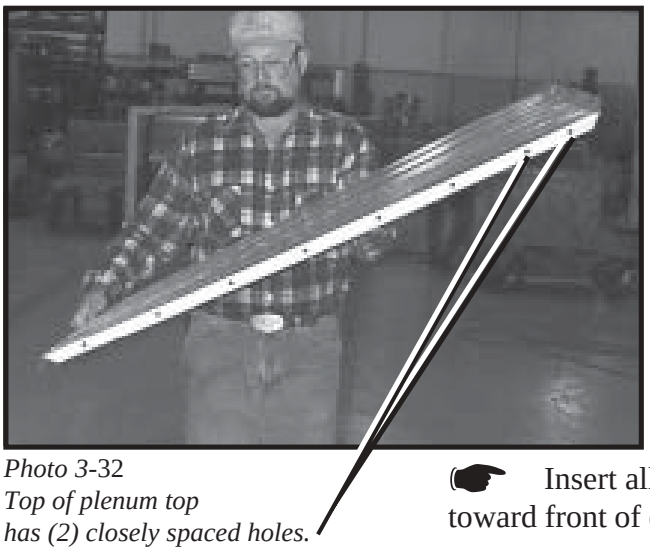


Photo 3-32
Top of plenum top has (2) closely spaced holes.

☛ Insert all whiz bolts toward front of dryer.

☛ Install all truss head bolts with whiz nuts on inside of dryer.

3.8.1. Start at rear of dryer (either RH or LH side), with one person on scaffold inside dryer and one person on ladder outside dryer. Outside-person lifts first PLENUM TOP (D01-0126) up to inside-person (top edge up). (Photo 3-33)

Photo 3-33 Outside-person lifting first plenum top up to inside-person.

3.8.2. Both workers insert PLENUM TOP between first and second GARNER BULKHEADS (D01-0101), and secure in place with 3/8" punches and clamps. Outside-person inserts bolts toward inside of dryer, and inside-person puts nuts on loosely. (Photo 3-34)

Photo 3-34 Close up - Positioning second plenum top to rear of garner bulkhead with 3/8" punches, securing with clamps, and loosely bolting.

3.8.3. Insert next PLENUM TOP on other side of first GARNER BULKHEAD, and loosely bolt to hold it in place.

☛ Firmly press angled 45° bottom edge of each PLENUM TOP along PLENUM WALL (D31-0012) so PLENUM TOP fits flush. (Photo 3-30)Firmly press angled 45° bottom edge of each PLENUM TOP along PLENUM WALL (D31-0012) so PLENUM TOP fits flush. (Photo 3-35)

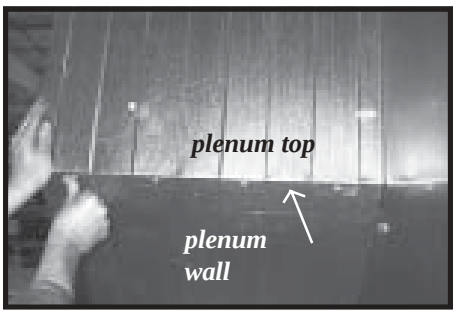


Photo 3-35 Outside dryer - pressing bottom edge of plenum top to plenum wall.

3.8.1. When first two PLENUM TOPS (D01-0126) are loosely bolted in place on one side of dryer, install first PLENUM TOP on other side of dryer as in step 3.8.1. to 3.8.3.

3.8.2. Squeeze rear pair of PLENUM TOPS together at top of dryer and loosely bolt. (Photos 3-36 and 3-37)

☛ Insert bolts either all to LH side, or all to RH side.

3.8.3. From inside dryer, check horizontal top seam of first two PLENUM TOPS for gaps. From above dryer, use ball-peen hammer close any gaps in seam.
(Photos 3-38, 3-39, and 3-40)

3.8.4. Tightly bolt horizontal top seam of first two PLENUM TOPS.

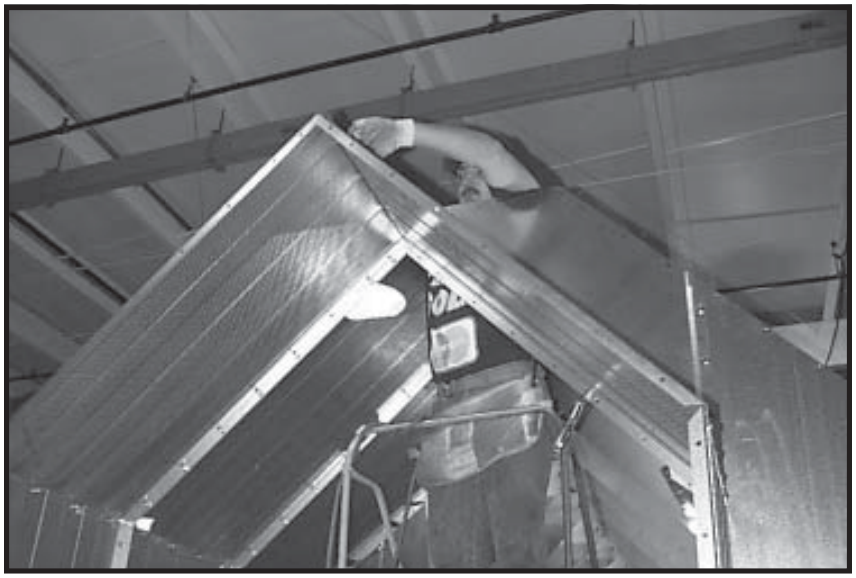


Photo 3-36 Pull rear pair of plenum tops together at top and loosely bolt.

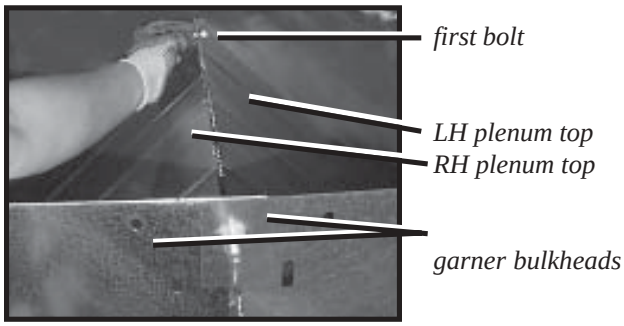


Photo 3-37 Aeriel view - tightly bolting plenum tops together at top of dryer to prevent grain from leaking into plenum chamber.

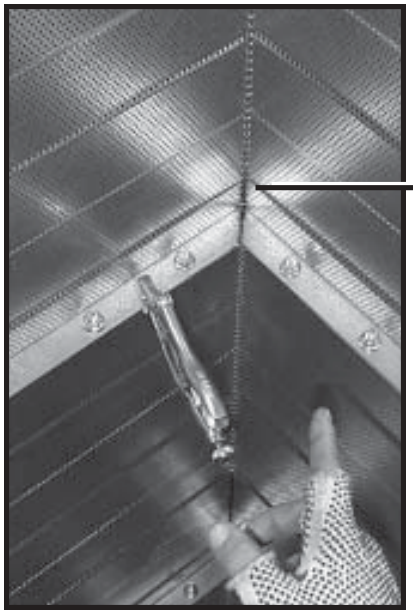


Photo 3-38 Checking for gaps in plenum top horizontal top seam.

Photo 3-39 Hammering gaps closed.

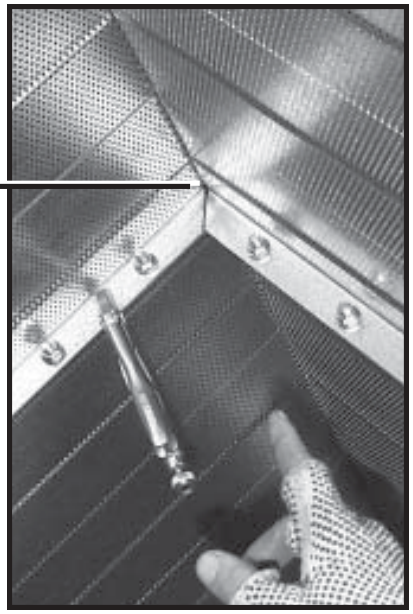


Photo 3-40 Final check to be sure all gaps are closed.

3.8.5. Continue installing PLENUM TOPS (D01-0126) in pairs through length of dryer as in steps 3.7.1. to 3.7.7. (Photo 3-41)

Photo 3-41 Installing plenum tops through length of dryer.

3.8.6. After all PLENUM TOPS are loosely bolted through length of dryer (with top horizontal edges of each RH/LH pair squeezed together and tightly bolted), tighten bolts on inside vertical seams inside dryer.

From top to bottom, this vertical seam is where GARNER BULKHEAD, COLUMN BULKHEAD, AND HOPPER BULKHEAD, is between PLENUM TOP, PLENUM WALL (D31-0012), and PLENUM BOTTOM (D01-1225) respectively. Tighten all bolts in vertical seam from top to bottom.

☛ Exception: in two-fan dryer, there will be no bottom bolt in PLENUM WALL and no top bolt in PLENUM BOTTOM to tighten.

As bolts in vertical seam on each column are tighten, tighten all bolts in horizontal seams inside dryer.

3.9. Install (4) COLUMN END PANELS (D31-0307) (Photo 3-42) as follows.

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts.

☛ Install all whiz nuts on inside of dryer.

3.9.1. Set out (4) COLUMN END PANELS, one at each of four outside corners of dryer.

3.9.2. With one person on scaffold inside dryer and one person outside dryer, use 3/8” punches to lift, then bolt first COLUMN END PANEL (D31-0307) into place with bottom edge down. (Photo 3-43)

3.9.3. Repeat step 3.8.2. for remaining COLUMN END PANELS.

3.9.4. Remove one bottom knock-out from outer edge of each of (4) COLUMN END PANELS. (Photo 3-44)

☛ Leave remaining knockouts in column end panels until later steps.

3.9.5. Remove scaffolding.

3.9.6. If assembling one plenum dryer, continue with Step 5., “Install EMT CONDUIT, COLUMN HI-LIMIT”.

Photo 3-42 Bottom edge of column end panel has two large notches on longest edge.

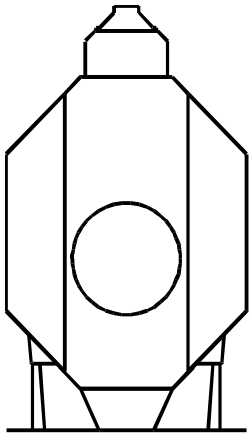
Photo 3-43 Lifting LH rear column end panel into place using 3/8” punches.

Photo 3-44 Removing knockout in column end panel.

☛ **If assembling two or three plenum dryer, see Chart 3-2 “INSTALLING PLENUM DIVIDERS”, and following pages.**

INSTALLING PLENUM DIVIDERS

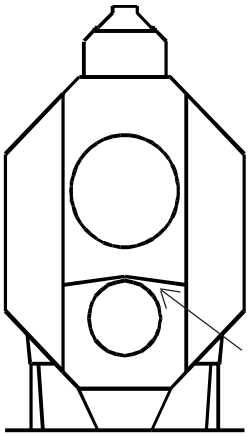
Chart 4-1 to multi-fan and stackable dryers



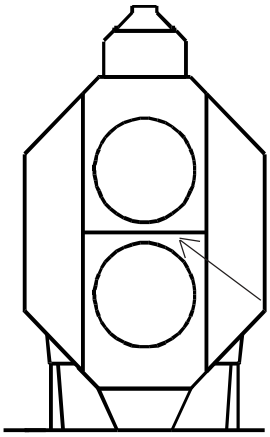
One Plenum Module Dryer
no divider

One plenum dryers do not require plenum dividers. Continue with step 5., “Install EMT CONDUIT, COLUMN HI-LIMIT”.

☛ All dryer modules can be stacked to form larger capacity dryers.

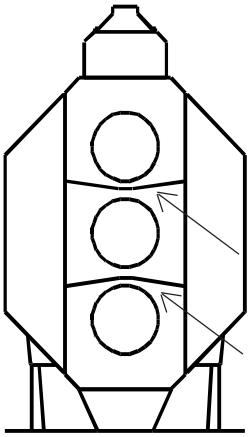


Two Plenum Module Dryer
pitched divider
1/3 to 2/3 split



Two Plenum Module Dryer
level divider
1/2 to 1/2 split

Two plenum dryers require either a pitched plenum divider or a level plenum divider. See following pages for steps to install.

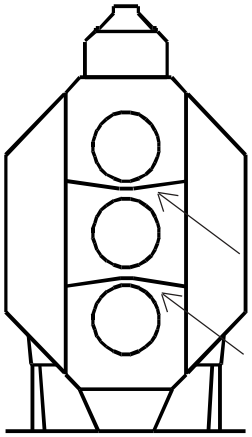


Three Plenum Module Dryer
downward angled top divider
and pitched bottom divider
1/3 to 1/3 to 1/3 split

Three plenum dryers require a bottom plenum divider and a top plenum divider. See following pages for steps to install.

☛ After installing plenum divider(s), continue with step 5., “Install EMT CONDUIT, COLUMN HI-LIMIT”.

THREE PLENUM MODULE
Installing Plenum Dividers



Three Plenum Module Dryer downward angled top divider and pitched bottom divider 1/3 to 1/3 to 1/3 split

For three plenum dryers, install bottom plenum divider, then top plenum divider.

BOTTOM PLENUM DIVIDER.

Pre-assemble (2) BOTTOM PLENUM DIVIDER ENDS (D31-0033) as follows (Photos 4-1 and 4-2). Use 5/16"x3/4" hex head bolts and 5/16" hex locknuts to fasten (2) CLEAN-OUT DOOR GUIDES (D31-0260) TO EACH BOTTOM PLENUM END.

Insert CLEAN-OUT DOOR (D31-0259) between CLEAN-OUT DOOR GUIDES. Check that CLEAN-OUT DOOR fits snug, but slides easily. (Photos 4-3, 4-4 and 4-5)

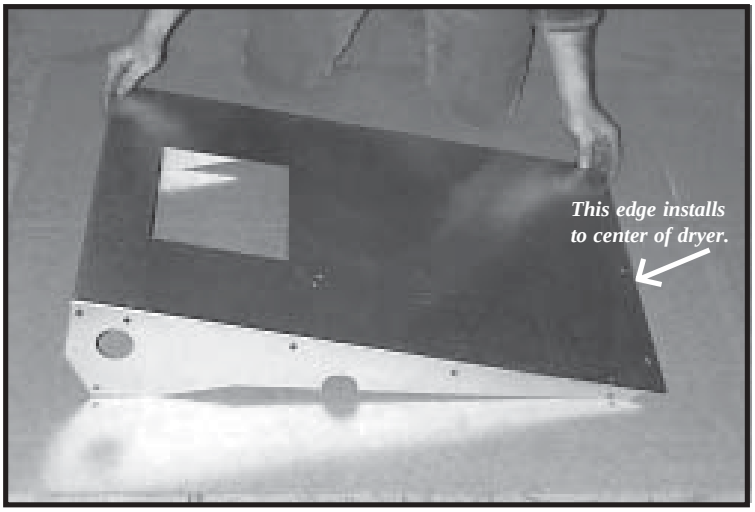


Photo 4-1 Bottom plenum divider end installs at front LH and rear RH of dryer.

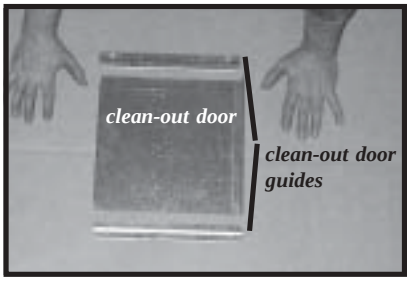


Photo 4-2 Clean-out door and (2) clean-out door guides.

Photo 4-3 Bolting clean-out door guides to bottom plenum divider end.

Photo 4-4 Inserting clean-out door between clean-out door guides.

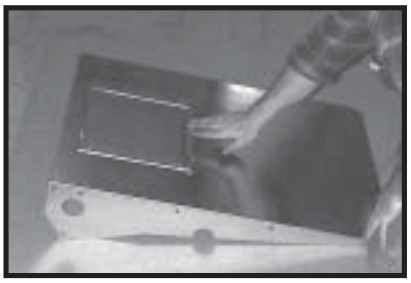
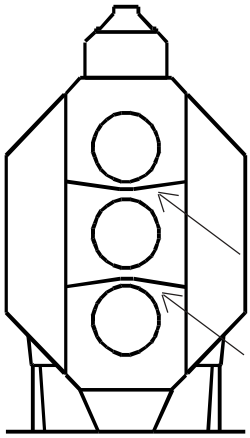


Photo 4-5 Checking clean-out door.

THREE PLENUM MODULE
Installing Plenum Dividers



Three Plenum Module Dryer downward angled top divider and pitched bottom divider 1/3 to 1/3 to 1/3 split

BOTTOM PLENUM DIVIDER continued.

☛ Insert bolts toward front of dryer.

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts to install bottom plenum dividers to column seams and to install pairs of bottom plenum dividers where they overlap through center of dryer. (Photos 4-6 and 4-7)

Use 1/4: screws to install bottom plenum divider overlapping side seams.

☛ Requires two workers install plenum dividers.

☛ Start at front LH side of dryer.

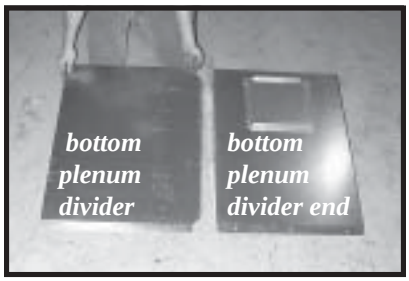
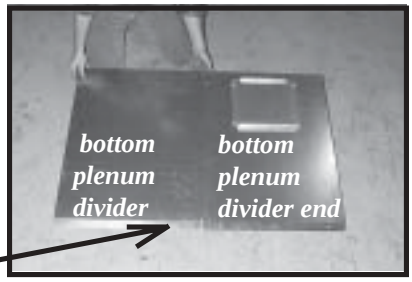


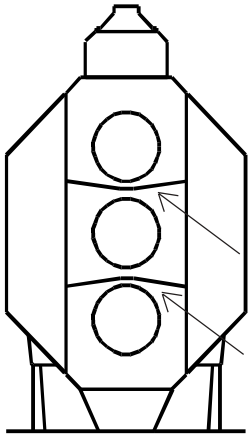
Photo 4-6 Aligning bottom plenum divider and bottom plenum divider end (with guides and clean-out door installed).



This edge will install at center of dryer.

Photo 4-7 Bottom plenum divider and bottom plenum divider end aligned as they will be installed in dryer.

THREE PLENUM MODULE
Installing Plenum Dividers



Three Plenum Module Dryer downward angled top divider and pitched bottom divider 1/3 to 1/3 to 1/3 split

BOTTOM PLENUM DIVIDER continued.

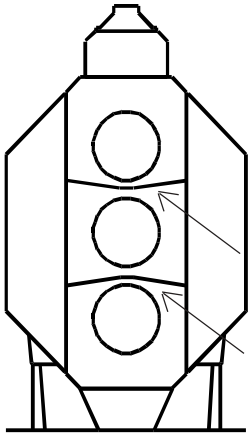
This example installs bottom plenum divider to 22', three-fan dryer.

A. Starting at front LH side of dryer, loosely bolt front edge of (front LH) BOTTOM PLENUM DIVIDER END (D31-0033) (with CLOSE-OUT DOOR GUIDES (D31-0260) and CLOSE-OUT DOOR (D31-0259) already assembled) to COLUMN END PANEL (D31-0307), and rear edge to column seam inside dryer. (Photos 4-8 and 4-9)

Photo 4-8 Loosely bolting front edge of (front LH) bottom plenum divider end to column end panel.

Photo 4-9 Loosely bolting rear edge of (front LH) bottom plenum divider end to column seam inside dryer.

THREE PLENUM MODULE
Installing Plenum Dividers



Three Plenum Module Dryer
downward angled top divider
and pitched bottom divider
1/3 to 1/3 to 1/3 split

BOTTOM PLENUM DIVIDER continued.

B. Place (front LH) BOTTOM PLENUM DIVIDER (D31-0032) overlapping (front LH) PLENUM DIVIDER END. Loosely bolt (2 bolts) on rear edge to next column seam. Tightly bolt BOTTOM PLENUM to PLENUM BOTTOM END (4 screws). (Photo 4-10)

C. Continue bolting BOTTOM PLENUM DIVIDERS overlapping BOTTOM PLENUM DIVIDERS through LH side of dryer as in Step B above.

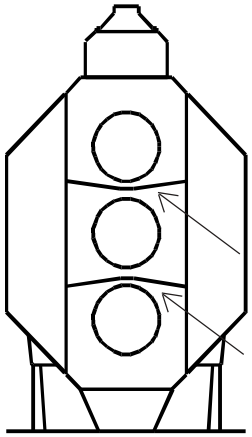
D. At RH rear of dryer, install rear BOTTOM PLENUM DIVIDER END as in step A.

Loosely bolt each BOTTOM PLENUM DIVIDER to BOTTOM PLENUM DIVIDER seam in center of dryer while installing remaining BOTTOM PLENUM DIVIDERS through RH side of dryer. (Photo 4-11)

Photo 4-10 Loosely bolting (front) bottom plenum divider overlaping bottom plenum divider end.

Photo 4-11 Loosely bolting overlapping (rear) bottom plenum dividers.

THREE PLENUM MODULE
Installing Plenum Dividers



Three Plenum Module Dryer
downward angled top divider
and pitched bottom divider
1/3 to 1/3 to 1/3 split

BOTTOM PLENUM DIVIDER continued.

E. After BOTTOM PLENUM DIVIDERS are installed on both sides of dryer, tighten bolts on all BOTTOM PLENUM DIVIDER SEAMS, except leave (2) outside bolts on (front and rear) BOTTOM PLENUM DIVIDER ENDS (D31-0033) loose for easier installation of front and rear COLUMN END PANELS. (D31-0307) (Photo 4-12)

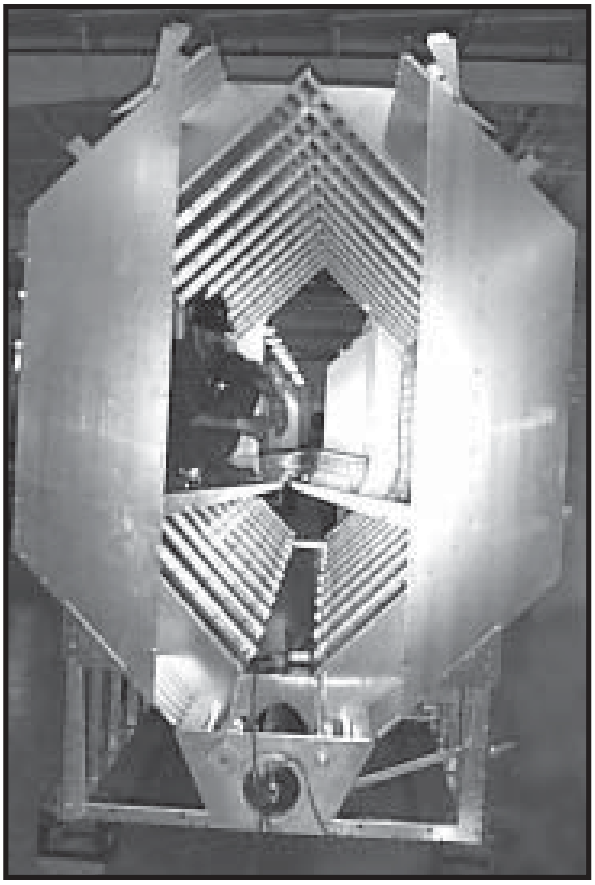
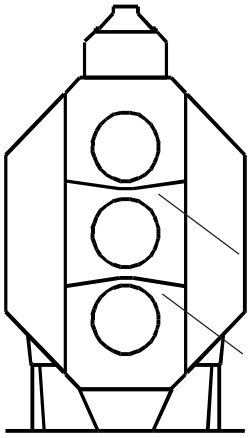


Photo 4-12 Bottom plenum divider installed in 22', three-fan dryer.

THREE PLENUM MODULE
Installing Plenum Dividers



Three Plenum Module Dryer
downward angled top divider
and pitched bottom divider
1/3 to 1/3 to 1/3 split

TOP PLENUM DIVIDER.

This example installs top plenum divider to 22', three-fan dryer.

After bottom plenum divider is installed, install top plenum divider, in the same way as bottom plenum divider was installed.

See preceding Steps A. through E., and following Photos 4-13 to 4-20.

Use 5/16"x3/4" whiz bolts and 5/16"x3/4" whiz nuts to install top plenum dividers to column seam and where pairs of top plenum dividers overlap through center of dryer.

Use 1/4" screws to install top plenum divider overlapping side seams.

For top plenum divider installation, use TOP PLENUM DIVIDERS (D31-0035) and TOP PLENUM DIVIDER ENDS (D31-0034) pre-assembled with CLEAN-OUT DOOR GUIDES (D31-0260) AND CLEAN-OUT DOOR (D31-0259). (Photos 4-13 and 4-14)

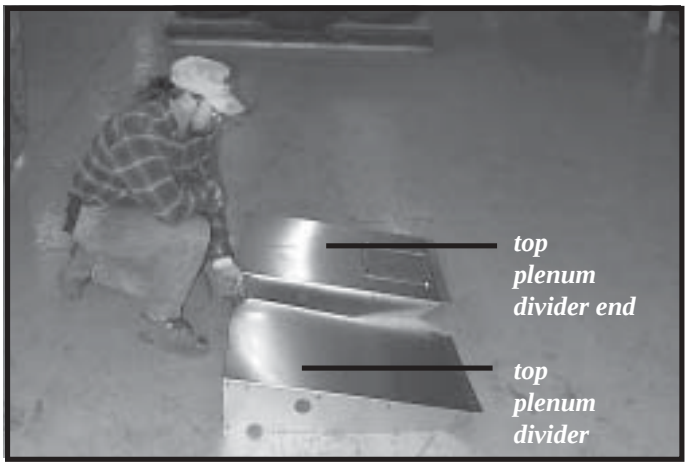
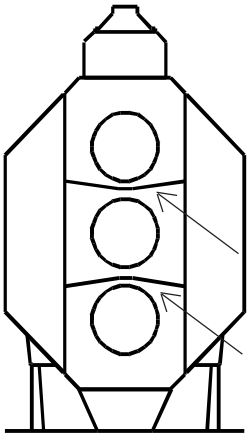


Photo 4-13 Top plenum divider and top plenum divider end (with clean-out door guides and clean-out door installed).

Photo 4-14 Top plenum dividers overlapping as installed in dryer.

THREE PLENUM MODULE
Installing Plenum Dividers

TOP PLENUM DIVIDER continued.



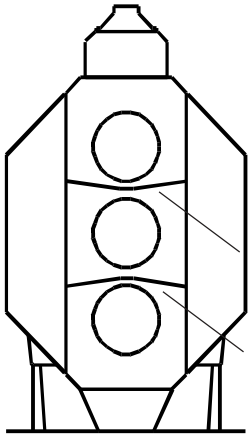
Three Plenum Module Dryer
downward angled top divider
and pitched bottom divider
1/3 to 1/3 to 1/3 split

Photo 4-15 Lifting top plenum dividers up for installation.

Photo 4-16 Loosely bolting rear edge of (front LH) top plenum divider end to column seam inside dryer.

Photo 4-17 Loosely bolting front edge of (front LH) top plenum divider end to column end panel.

THREE PLENUM MODULE
Installing Plenum Dividers



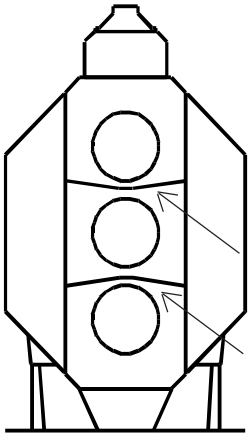
Three Plenum Module Dryer
downward angled top divider
and pitched bottom divider
1/3 to 1/3 to 1/3 split

TOP PLENUM DIVIDER continued.

Photo 4-18 Tightening screws in (front) top plenum divider overlapping (front LH) top plenum divider end.

Photo 4-19 Installing (rear RH) top plenum bottom end.

THREE PLENUM MODULE
Installing Plenum Dividers



Three Plenum Module Dryer
downward angled top divider
and pitched bottom divider
1/3 to 1/3 to 1/3 split

TOP PLENUM DIVIDER continued.

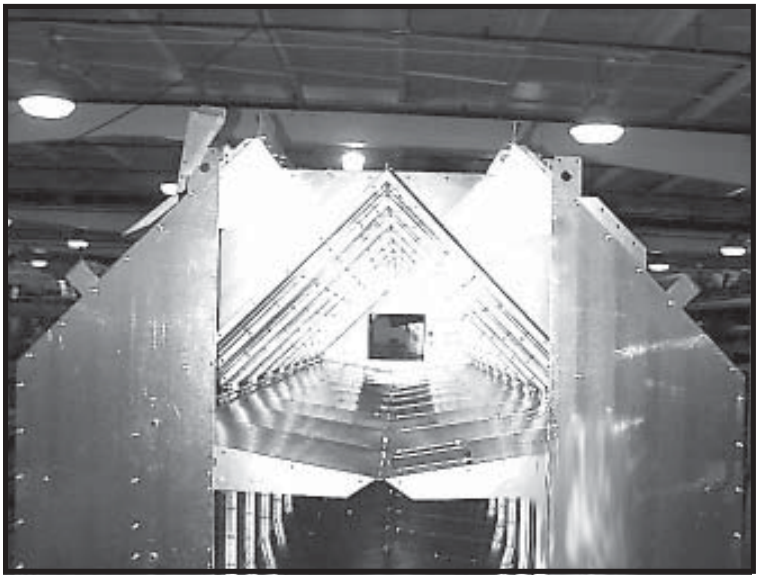
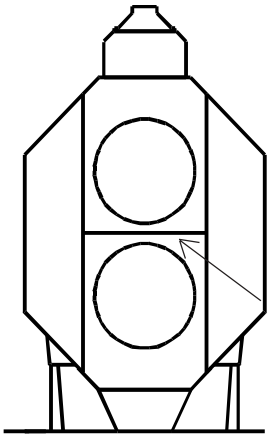


Photo 4-20 Top plenum divider installed in 22', three-fan dryer.

After installing top and bottom plenum dividers, continue with Step 5., "Install EMT CONDUIT, COLUMN HI-LIMIT".

TWO PLENUM MODULE
Installing Plenum Divider



Two Plenum Module Dryer
level divider
1/2 to 1/2 split

LEVEL PLENUM DIVIDER.

This example installs level plenum divider to 26', two-fan dryer.

For level plenum divider installation, use the following parts:

PLENUM SUPPORT CHANNEL (D61-0024)

LH PLENUM DIVIDER-SHEET (D61-0025)

LH REAR PLENUM DIVIDER-SHEET (D61-0027)

RH PLENUM DIVIDER-SHEET (D61-0026)

RH REAR PLENUM DIVIDER-SHEET (D61-0028)

(Photos 4-21 and 4-22)

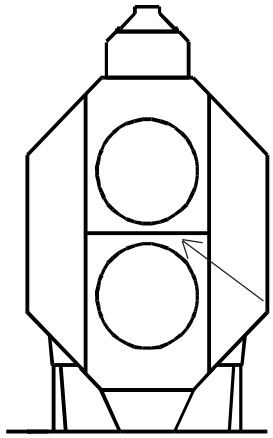
Use 5/16"x3/4" whiz bolts and 5/16"x3/4" whiz nuts to bolt PLENUM SUPPORT CHANNELS to PLENUM WALLS (D31-0012).

Use 1/4" screws to screw all plenum divider sheets to PLENUM SUPPORT CHANNELS.

Photo 4-21 Plenum support channel.

TWO PLENUM MODULE: Installing Plenum Divider

LEVEL PLENUM DIVIDER continued.



Two Plenum Module Dryer
level divider
1/2 to 1/2 split

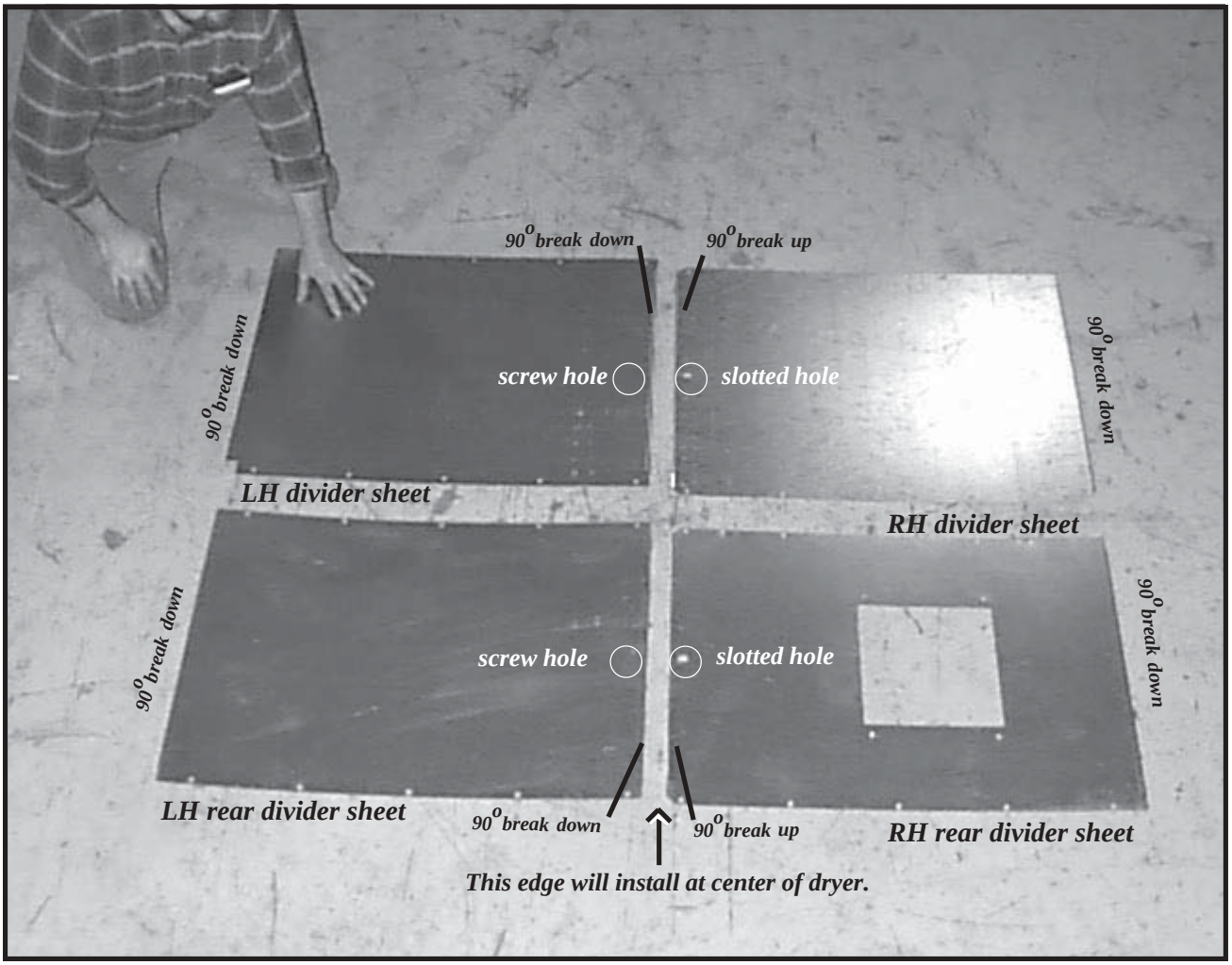
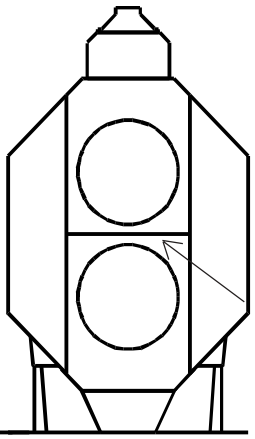


Photo 4-22 Level plenum divider and level plenum divider end are shown aligned as they will be installed in rear of dryer. (RH rear divider sheet shown without clean-out door guides and clean-out door.)

TWO PLENUM MODULE
Installing Plenum Divider



Two Plenum Module Dryer
level divider
1/2 to 1/2 split

LEVEL PLENUM DIVIDER continued.

A. Starting at front of dryer, install PLENUM SUPPORT CHANNELS (D61-0024) (Photo 4-23) on rear side of each column seam.

☛ Use 5/16” whiz bolts and 5/16” whiz nuts to bolt PLENUM SUPPORT CHANNELS in 5th hole (up or down) on PLENUM WALLS (D31-0012).

Last support channel will face opposite direction to install against rear COLUMN END PANELS (D31-0307).

B. After all PLENUM SUPPORT CHANNELS are installed through length of dryer, tighten bolts, except leave front and rear PLENUM SUPPORT CHANNEL loose.

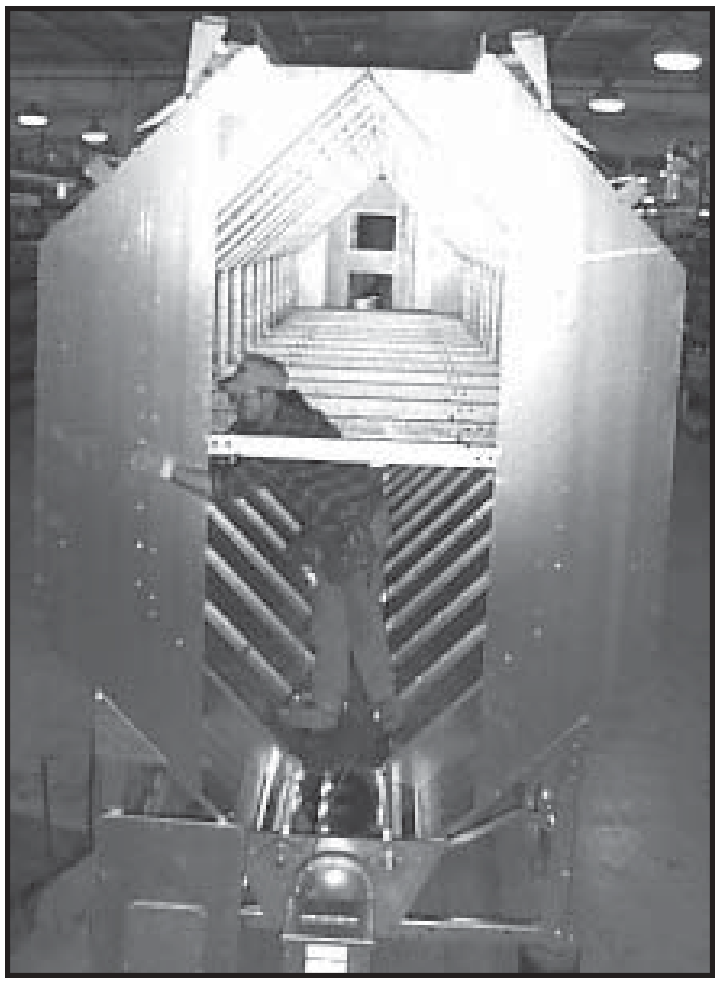
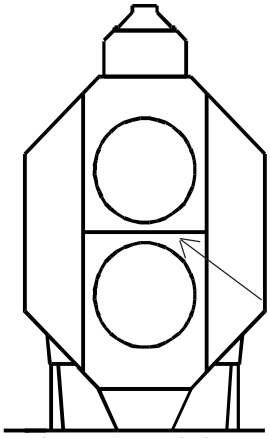


Photo 4-23 (Rear view) Plenum support channels installed through length of dryer.

TWO PLENUM MODULE
Installing Plenum Divider



Two Plenum Module Dryer
level divider
1/2 to 1/2 split

LEVEL PLENUM DIVIDER continued.

C. Starting at rear of dryer, use 1/4" screws to screw LH REAR PLENUM DIVIDER SHEET (D61-0027) to PLENUM SUPPORT CHANNEL. Then screw in RH REAR PLENUM DIVIDER SHEET (D61-0028) overlapping LH REAR PLENUM DIVIDER SHEET, and loosely install screws. (Photo 4-24)

D. Loosely install screws in next LH PLENUM DIVIDER-SHEET (D61-0025) and RH PLENUM DIVIDER-SHEET (D61-0026) pair. (Photo 4-25)

☛ Tighten screws on previous pair of plenum divider sheets after loosely installing next pair. (Photo 4-26)

E. Continue installing LH REAR PLENUM DIVIDER-SHEET and RH PLENUM DIVIDER-SHEET overlapping pairs through length of dryer. (Photo 4-27)

☛ After installing level PLENUM DIVIDER, continue with Step 5, " Install EMT CONDUIT, COLUMN HI-LIMIT.

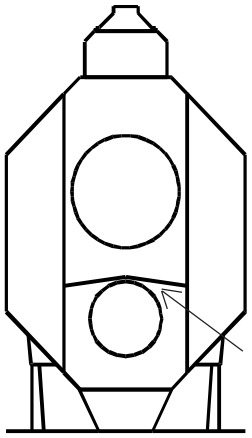
Photo 4-24 Placing first pair of plenum sheets. (rear view)

Photo 4-25 Loosely installing screws in next pair of plenum sheets.

Photo 4-26 Tightening screws in previous pair of plenum sheets.

Photo 4-27 Level plenum divider installed in 26', two-fan dryer.

TWO PLENUM MODULE
Installing Plenum Divider



Two Plenum Module Dryer
pitched divider
1/3 to 2/3 split

PITCHED PLENUM DIVIDER.

To install pitched plenum divider to two-fan dryer, refer to steps in “BOTTOM PLENUM DIVIDER” section of “THREE PLENUM MODULE, Installing Plenum Dividers”.

Use the same installation steps, parts, and hardware.

After installing pitched PLENUM DIVIDER, continue with Step 5, “Install EMT CONDUIT, COLUMN HI-LIMIT.

5. EMT* CONDUIT

Install EMT CONDUIT COLUMN HI-LIMIT (Photo 5-1) as follows.

Refer to Chart 5-1, "EMT Conduit Requirements by Dryer Length" for number, length, and placement of EMT conduit for each dryer.

Use EMT conduit fittings that are shipped on EMT conduit. (Photo 5-2)

5.1. If necessary, remove EMT conduit fittings from EMT conduit.

Photo 5-1 EMT conduit, column hi-limit for 22' dryer.

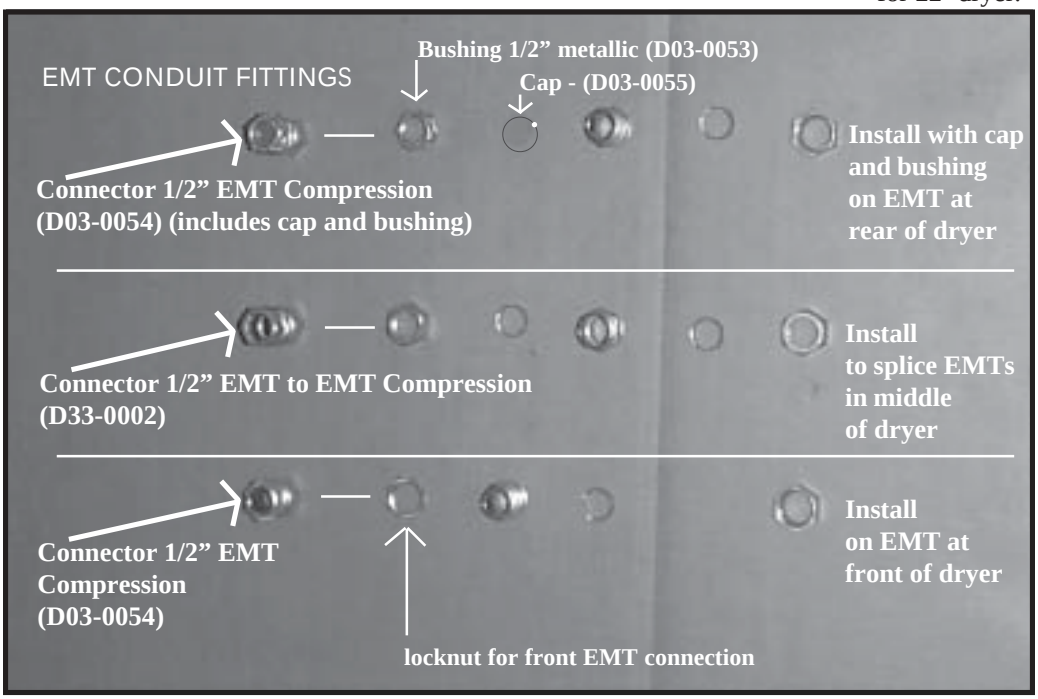


Photo 5-2 EMT conduit fittings for 22' dryer ——with exploded view to right of each fitting.
*EMT = Electrical Metallic Transit.

☛ To install EMT CONDUIT, COLUMN HI-LIMIT, refer to Chart 5-1, and read all of Step 5.

Chart 5-1 ***EMT Conduit, Column Hi-Limit Requirements*** ***by Dryer Length***

Number, length, and placement of conduit is listed for one side of dryer.
All dryers require conduit listed below on both RH and LH sides.

dryer length	Front of Dryer ↓ Front EMT	Middle EMT	Rear EMT*
6’	4’3”		
8’	6’3”		
10’	99”		
12’	60”		63”
14’	60”		87”
16’	84”		87”
18’	108”		87”
20’	108”		111”
22’	60”	120”	63”
26’	60”	120”	111”

***** EMT conduit extends only 3” past rear column bulkhead into last dryer column.

5.2. Refer to Chart 5-1, "EMT Conduit, Column Hi-Limit Requirements by Dryer Length", for number, length, and placement of EMT CONDUIT, COLUMN HI-LIMIT in dryer.

On either RH or LH side first, insert length(s) of EMT CONDUIT through knockout in front COLUMN END PANELS (D31-307), and all the way through dryer. (Photo 5-3)

☛ Placement for rear conduit is extended approximately 3" past rear COLUMN BULKHEAD (D31-0055).

5.3. Install CONNECTOR 1/2" EMT COMPRESSION (D03-0054) including CAP (D03-0055) and BUSHING (D03-0053), on EMT conduit at rear of dryer. Press in CAP for compress coupling. (Photo 5-4)

Tighten connection. (Photo 5-5)

5.4. If required for dryer length, install CONNECTOR 1/2" EMT to EMT COMPRESSION (D03-0002) to splice EMT conduit in middle of dryer. (Photo 5-6)
Tighten connection. (Photo 5-7)

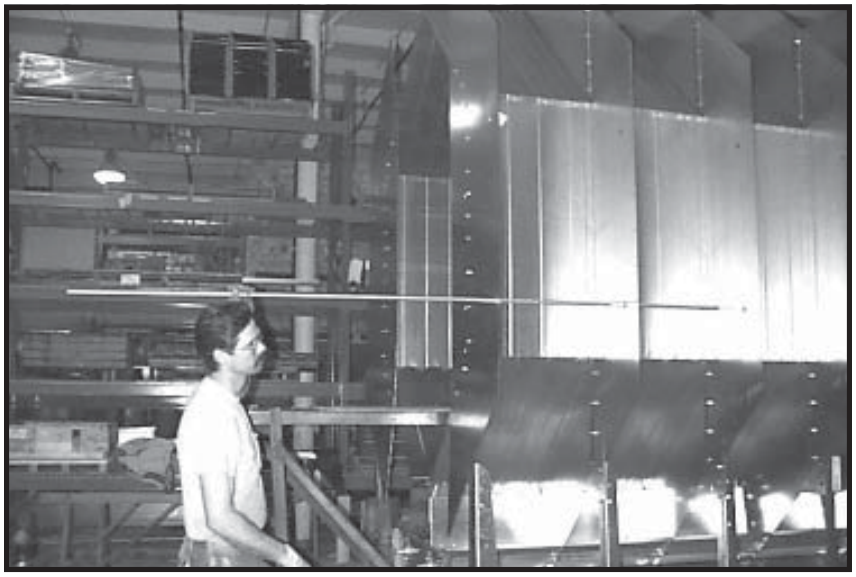


Photo 5-3 Inserting EMT conduit, column hi-limit through knockout on column end panel.

Photo 5-4 Installing connector 1/2" EMT compression at rear of dryer.

Photo 5-5 Tightening connector 1/2" EMT compression at rear of dryer.

Photo 5-6 Installing connector 1/2" EMT to EMT compression splice in middle of dryer.

Photo 5-7 Tightening connector 1/2" EMT to EMT compression splice in middle of dryer.

5.5. Install CONNECTOR 1/2" EMT COMPRESSION (except locknut) on EMT conduit at front of dryer, before inserting EMT conduit back through front COLUMN END PANEL (D31-0307). (Photo 5-8)

☛ Locknut will install on other side of COLUMN END PANEL (D31-0307)

Tighten. (Photo 5-9)

5.6. Draw EMT conduit through front COLUMN END PANEL. Install locknut to front end of EMT conduit. (Photo 5-10)

5.7. Set locknut. (Photo 5-11)

5.8. Repeat Steps 5.1 to 5.7. for other side of dryer.

Photo 5-8 Installing connector 1/2" EMT compression (without locknut) at front of dryer.

Photo 5-9 Tightening connector 1/2" EMT compression at front of dryer.

Photo 5-10 Installing locknut.

Photo 5-11 Setting locknut.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

6. Install Outside Screens

Parts for outside screens include: OUTSIDE WALLS, ROOF SHEETS, and HOPPER SHEETS (which are bolted together, then installed on dryer as a unit), and the following brackets: LH & RH TOP EDGE ANGLE GUSSETS, WALK RAIL BRACKET, and ANCHOR BRACKET-MOTOR MOUNT.

READ ALL OF STEP 6. BEFORE INSTALLATION.

6.1. Assemble all HOPPER SHEETS (D01-0128), OUTSIDE WALLS (D31-0013), ROOF SHEETS (D01-0127) (Photo 6-1) together as follows. (Photo 6-2)

☛ Use 5/16"x3/4" truss head bolts and 5/16" whiz nuts.

6.1.1. Bolt HOPPER SHEET to bottom of OUTSIDE WALL. Bolt other side of OUTSIDE WALL to bottom of ROOF SHEET.

☛ Tab on HOPPER SHEETS will bolt to CONNECTOR SHEET (D01-0050) in later step.

6.1.2. Check that all seams are even and tighten bolts.

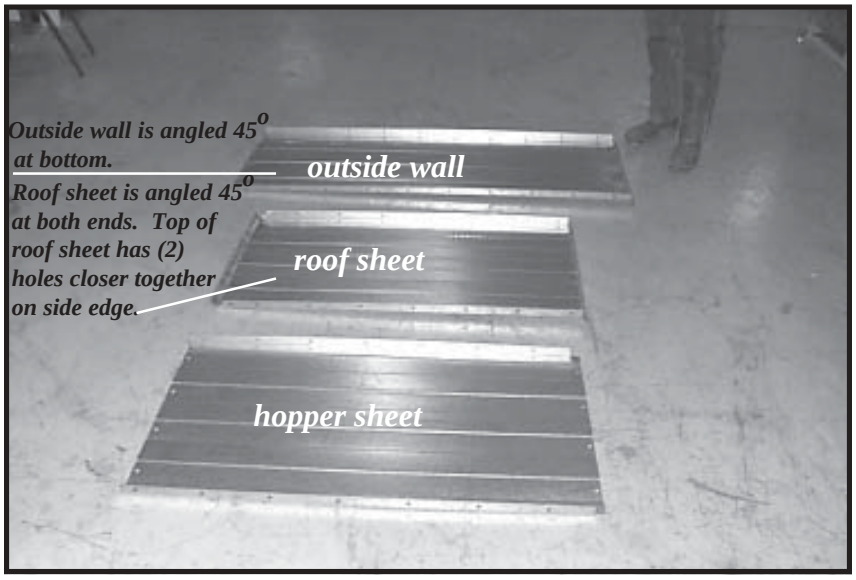


Photo 6-1 Outside wall, roof sheet, and hopper sheet.

Photo 6-2 Assembling hopper sheet, to outside wall, to roof sheet.

6.2. Jack up dryer with 3-ton floor jack, just enough to lift some of dryer weight off blocks so bolts will align with bolt holes.

☛ Protect dryer bottom from metal jack with block of wood long enough to span underneath two HOPPER BULKHEADS (D01-0109). (Photo 6-3)

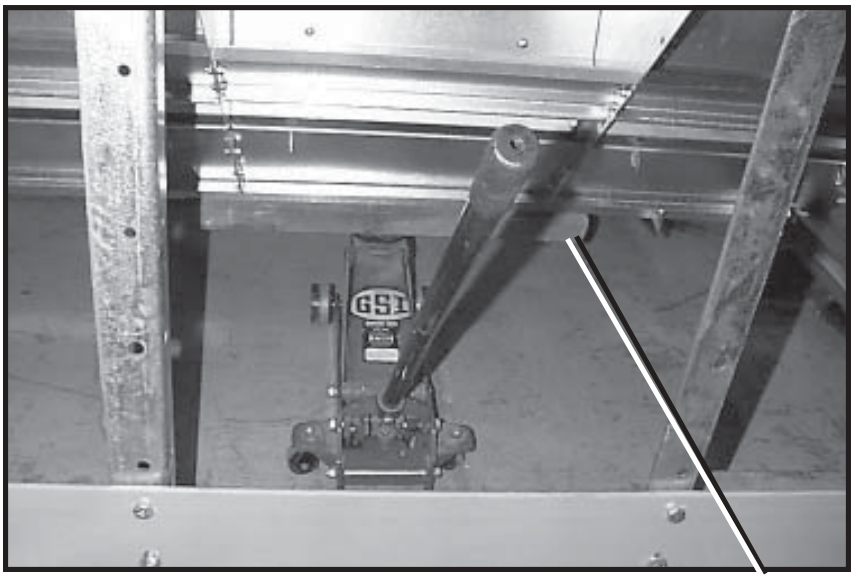


Photo 6-3 Dryer jacked up with 3-ton floor jack. Note block of wood protects bottom of dryer by spanning underneath two hopper bulkheads.

6.3. Install assembled HOPPER SHEETS (D01-0128) to OUTSIDE WALLS (D31-0013 to ROOF SHEETS (D01-0127), and brackets to dryer as follows.

☛ 5/16”x3/4” whiz bolts and 5/16” whiz nuts that are holding HOPPER BULKHEADS (D01-0109) to GUSSET PLATES can be removed one side at a time.

☛ Use 3/8”x1” bolts and 3/8” whiz nuts to bolt through HOPPER SHEETS, GUSSET PLATES, and HOPPER BULKHEAD.

☛ Use 5/16”x3/4” truss head bolts and 5/16” whiz nuts to bolt hopper sheets to connector sheets.

☛ Face all bolts on seams in same direction as 3/8”x1” whiz bolts that bolt GUSSET PLATES (D01-0004)to LEGS (D01-0005 TO D01-0007).

☛ All brackets install (when facing dryer) on RH side of column seam, except on rear LH END PANEL seam and front RH END PANEL seam, install brackets on LH side (when facing dryer).

☛ On dryers with FRAME TIE CHANNEL(S) underneath, install (2) WALK RAIL BRACKETS (D01-0113), one on each side of ROOF SHEET.

6.3. continued
Install the following bracket(s) as each pre-assembled HOPPER SHEET (D01-0128) to OUTSIDE WALL (D31-0013) to ROOF SHEET is installed to dryer:

- LH TOP EDGE ANGLE GUSSET (D01-0152) (Photo 6-4)
- RH TOP EDGE ANGLE GUSSET (D01-0153) (Photo 6-4)

- WALK RAIL BRACKET (D01-0113) Photo (6-5)
- ANCHOR BRACKET-MOTOR MOUNT. (D01-0170) (Photo 6-6)

Bolt first (3) brackets (Photo 6-7) and outside screen assembly at either front LH or rear RH of dryer.

ANCHOR BRACKET-MOTOR MOUNT goes on front ROOF SHEET seam in fourth, fifth, and sixth hole from bottom of front LH outside screen assembly.

Install WALK RAIL BRACKET in third hole from bottom.

TOP EDGE ANGLE GUSSET (white circle) will be moved up to top two holes after FRONT PANEL is installed Leave loose.

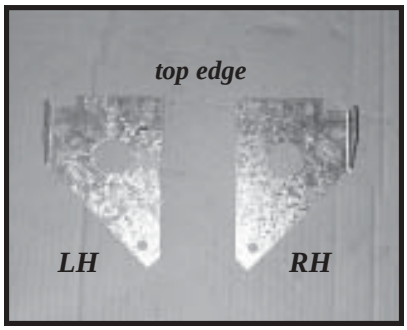


Photo 6-4 Top edge angle gusset.

Install TOP EDGE ANGLE GUSSET at every seam in dryer.

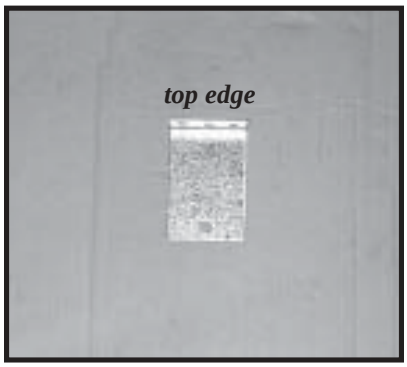


Photo 6-5 Walk rail bracket.

Install WALK RAIL BRACKET at every seam in dryer.

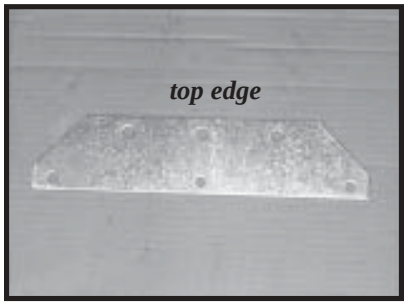


Photo 6-6 Anchor bracket-motor mount.

Install ANCHOR BRACKET-MOTOR MOUNT in front LH corner of dryer.


Photo 6-7 First set of brackets bolted in LH front of dryer.

6.3. **continued**
Three workers are needed to install pre-assembled HOPPER SHEETS (D01-0128)/OUTSIDE WALLS (D31-0013)/ROOF SHEETS (D01-0127) and brackets to dryer.

One person works below dryer, while two people lift and loosely bolt pre-assembled HOPPER SHEET/OUTSIDE WALL/ROOF SHEET over each column on dryer. (Photos 6-8 and 6-9)

Photo 6-8 Three workers install outside screen pre-assembly consisting of hopper sheet/outside wall/roof sheet.

Photo 6-9 Close Up - Outside screen installation.

6.3. **continued**

Install HOPPER SHEET (D01-0128) above GUSSET PLATE (D01-0004), and below 3/8”x1” whiz bolt and 3/8” whiz nut on HOPPER BULKHEAD (D01-0109).

Person who is below dryer tightens HOPPER SHEETS as they are installed through length of dryer. Tighten 5/16”-x3/4” truss head bolts on CONNECTOR SHEETS (D01-0050). Tighten 5/16”x3/4” whiz bolts on CONNECTOR SHEETS and two bolts below GUSSET PLATES that fasten HOPPER SHEETS (D01-0128) together.

6.4. When all outside screen brackets and assembled HOPPER SHEET/ OUTSIDEWALL/ROOF SHEET are in place, tighten seams leaving the following hardware loose:

- (4) CORNER GUSSET PLATES (D01-0004), all (6) 3/8”X1” bolts.

- All whiz bolts on (4) COLUMN END PANELS (D31-0307).

- All 1/2”x1” bolts and 1/ 2”x1 1/2” bolts on (4) corner legs (D01-0007).

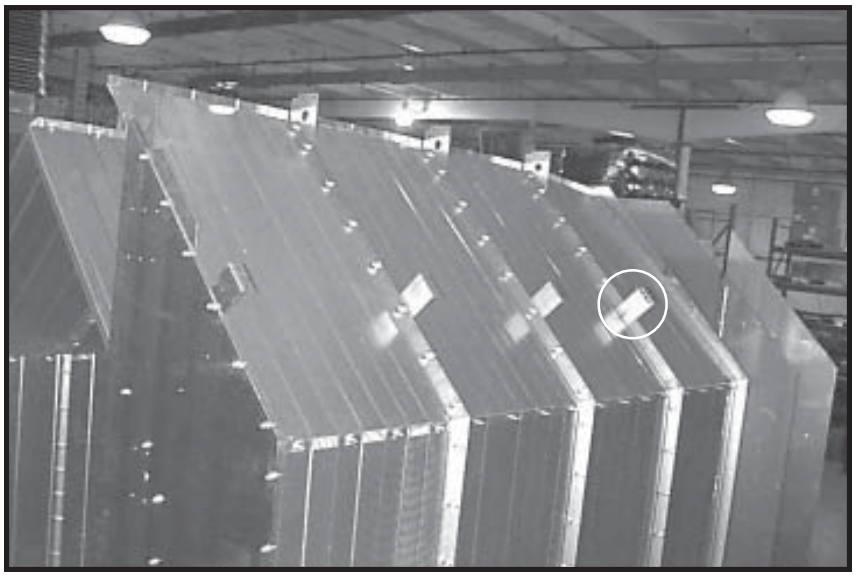


Photo 6-10 Brackets and outside screen installed in LH side of dryer. Note (2) walk rail brackets (circled in photo), one on each side of seam above frame tie channels.

6.4. continued.

- All 5/16”x3/4” whiz bolts on ROOF SHEETS (D01-0127).

Tighten all other seams, GUSSET PLATES, LEGS (D01-0005 TO D01-0007), and FRAME TIE CANNELS and SECONDARY CROSS TIE CHANNELS (D01-0008 TO D31-0118) in center of dryer.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

7. Top edge Angles

Install (6', 8' or 10') TOP EDGE ANGLES and (6', 8' or 10') TOP EDGE ANGLES-PAINTED (Photos 7-1 and 7-2) and TOP EDGE ANGLE SPLICE (D31-0003) (Photo 7-3) as follows.

Photo 7-1 Top edge angles (unpainted) for installation at top of dryer.

Photo 7-2 Top edge angles-P (painted) for installation along sides of dryer. Top edge angles are shipped painted.

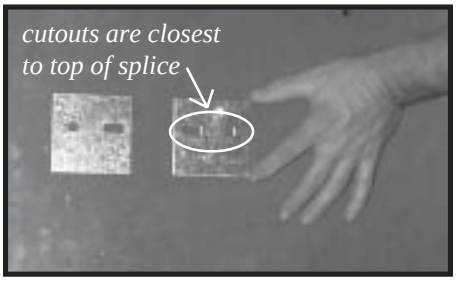


Photo 7-3 Top edge angle splice (D31-0003).

Step 7 Top Edge Angles

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts to install TOP EDGE ANGLES, TOP EDGE ANGLES-PAINTED, and TOP EDGE ANGLE SPLICES (D31-0003).

7.1. Start top of dryer, at either front or rear, RH or LH side.

Place TOP EDGE ANGLE (with 90^{o} break at top, short edge facing away from dryer) across TOP EDGE ANGLE GUSSETS (Photo 7-4)

☛ If required for dryer length, splice next TOP EDGE ANGLE above FRAME TIE CHANNEL mid-point, with TOP EDGE ANGLE SPLICE. (Photos 7-5 to 7-9)

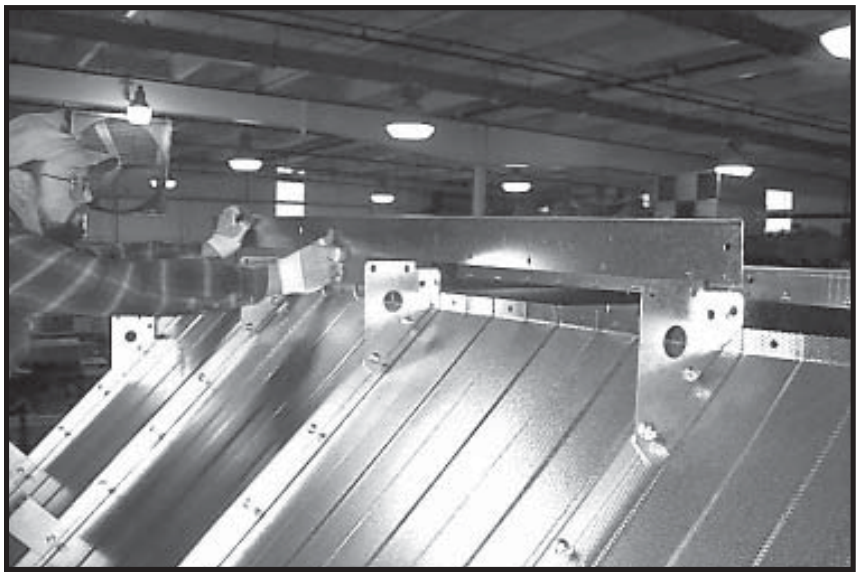


Photo 7-4 Placing top edge angle across top edge angle gusset.

Photo 7-5 Placing top edge angle splice behind top edge angle. (RH side of dryer)

Photo 7-6 Bolting top edge angle splice. (RH side of dryer)

Photo 7-7 Clamping top edge angle splice. (RH side of dryer)

Photo 7-8 Tightening top edge angle splice. (RH side of dryer)

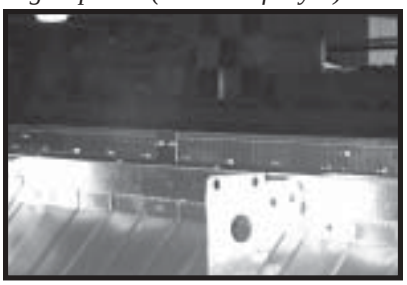


Photo 7-9 Installed top edge angle splice. (LH side of dryer)

7.2. Make sure TOP EDGE ANGLE(S) are level, and bolt to ROOF SHEET.
(Photo 7-10)

Tighten bolts on ROOF SHEET to ROOF SHEET seams.
(Photo 7-11)

☛ Except do not tighten COLUMN END PANEL (D31-0307) seams yet.

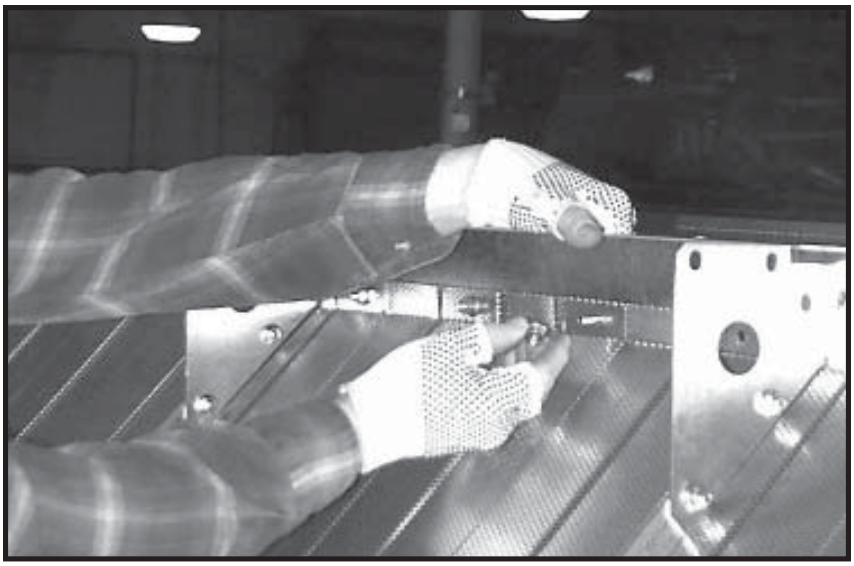


Photo 7-10 Bolting top edge angle to roof sheet.

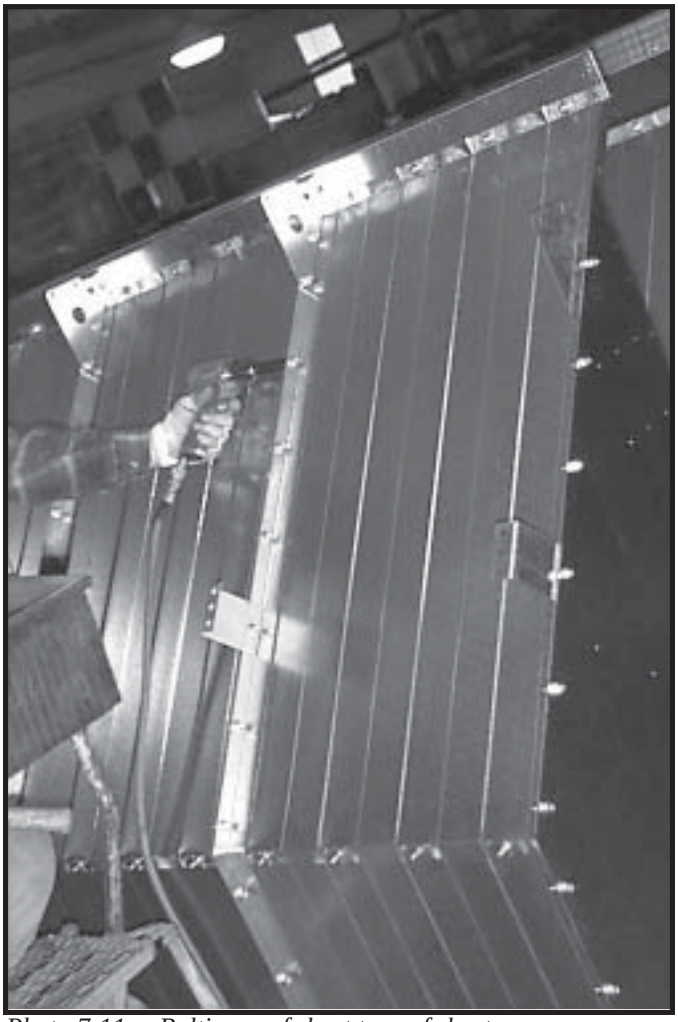


Photo 7-11 Bolting roof sheet to roof sheet seams

7.3. Place TOP EDGE ANGLE-PAINTED (with 90^{O} break at top, short edge facing down) across WALK RAIL BRACKETS (D01-0113).
(Photo 7-11)

☛ Tighten bolts with wrench to avoid scratching paint.

If required for dryer length, lay next TOP EDGE ANGLE-PAINTED end-to-end with first TOP EDGE ANGLE-PAINTED and bolt.

7.4. Install TOP EDGE ANGLES and TOP EDGE ANGLES-PAINTED to other side of dryer as in Step 7.1 to 7.3.

Photo 7-12 Placing top edge angle over walk rail brackets. (RH side of dryer)

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

8. Install Access Doors

Install ACCESS DOORS (D01-0045) (Photo 8-1) as follows.

Use 5/16"x3/4" hex head bolts and 5/16" locknuts.

8.1. Set out ACCESS DOORS along side of dryer.

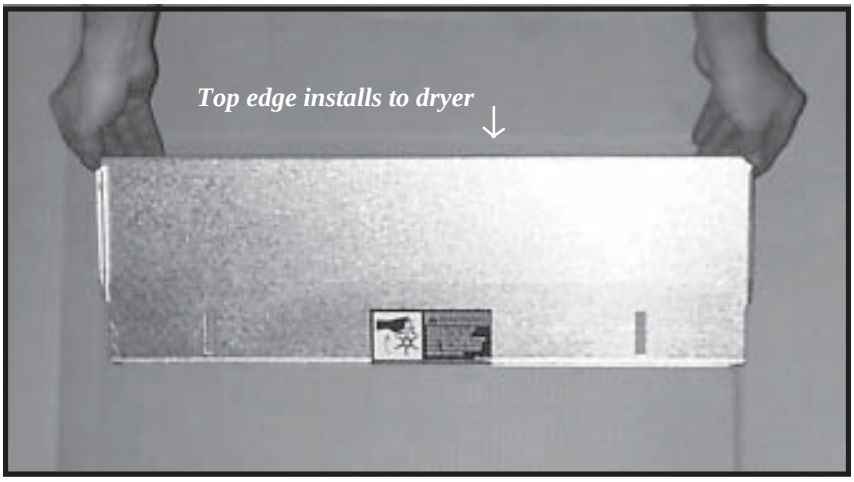


Photo 8-1 Access door.

8.2. Start at rear of dryer (either RH or LH side). Loosely bolt ACCESS DOORS (D01-0045) to HOPPER BULKHEAD (D01-0109) (in first holes beneath CONNECTOR SHEET (D01-0050). (Photo 8-2)

Face bolts toward front of dryer. (Photo 8-3)

Install ACCESS DOORS through length of dryer.

8.3. Tighten bolts on each ACCESS DOOR enough that door will push back to fit snug against TROUGH PANEL WELDMENT (D01-0048) . (Photo 8-4)

☛ If necessary, lightly hammer to align ACCESS DOOR to TROUGH PANEL WELDMENT. Check that ACCESS DOORS open and close easily to TROUGH PANEL WELDMENT straps.

8.4. Install ACCESS DOORS on other side of dryer as in steps 8.1 to 8.3
.

☛ After dryer is completely assembled and tested, ACCESS DOORS will be latched with DOOR LATCH (D01-0039) and HAIRPINS (S-6552).

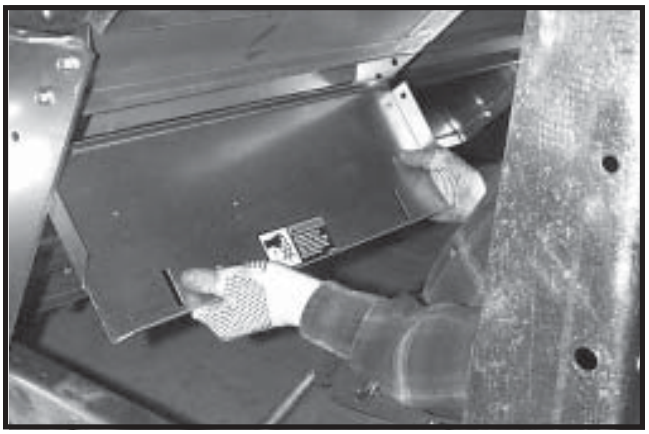


Photo 8-2 Placing access door between hopper bulkheads in first holes beneath connector sheet.

Photo 8-3 Face bolts to front of dryer. (RH side view)

Photo 8-4 Access doors fit snug against trough panel weldment.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

9. Install Clean-Out Door Handles

Parts for clean-out door installation include: clean-out door handle, pivot rods, pivot rod brackets, linkage bars, and linkage bar weldments.

Install CLEAN-OUT DOOR HANDLES (D01-0294) (Photo 9-1) using the following parts.

Pivot Rod, 25.188 (D01-0264)
Pivot Rod, 49.625 (D31-0162)
(Photo 9-2)

Pivot Rod Bracket (D01-0299)
(Photo 9-3)

Linkage Bar, 30.188 (D01-0293)
Linkage Bar, 37.25 (D01-0261)
(Photo 9-4)

Short Linkage Bar Weldment (D01-0296)
(Photo 9-5)

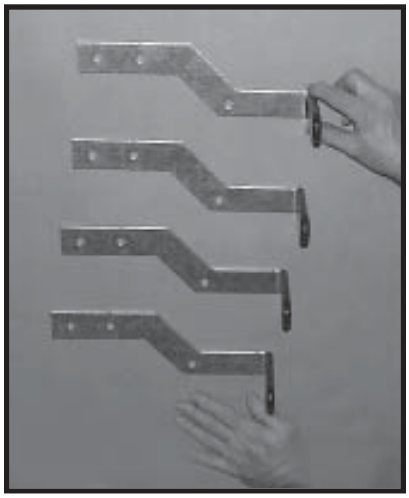


Photo 9-1 Clean-out door handles.

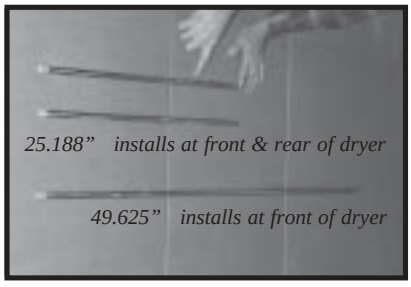


Photo 9-2 Pivot rods.

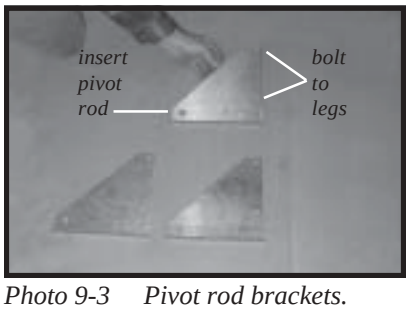


Photo 9-3 Pivot rod brackets.

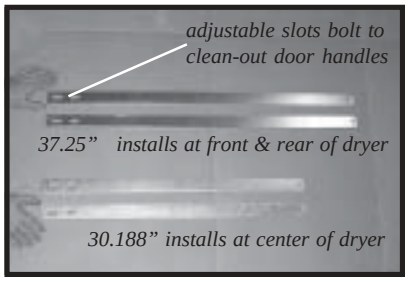


Photo 9-4 Linkage bars.

Photo 9-5 Short linkage bar weldments.

Install CLEAN-OUT DOOR HANDLES (D01-0294) on RH side of dryer (only) as follows.

9.1. Bolt (1) PIVOT ROD BRACKET (D01-0299) to CENTER LEG (D01-0007), and (1) to SIDE LEG (D01-0005) on each side of center leg. Bolt PIVOT ROD BRACKETS in fourth and fifth holes on legs (counting from bottom up). Use 1/2"x1" bolts with 1/2' locknuts and 3/8"x1" whiz bolts with 3/8" whiz nuts. (Photo 9-6)

☛ If there is a stiffiner on leg, insert (1 or 2) 3/8" flat washers as spacers.

9.2.
Place LINKAGE BARS under dryer.

30" LINKAGE BARS will install on CLEAN-OUT DOOR hinge at center of dryer.

37" LINKAGE BARS will install at front and rear of dryer.

Set out SHORT LINKAGE BAR WELDMENTS (D01-0296) alongside dryer.

Insert PIVOT RODS in PIVOT ROD BRACKETS. (Photo 9-7)

Photo 9-6 Bolting pivot rod bracket to side leg in front of center leg.

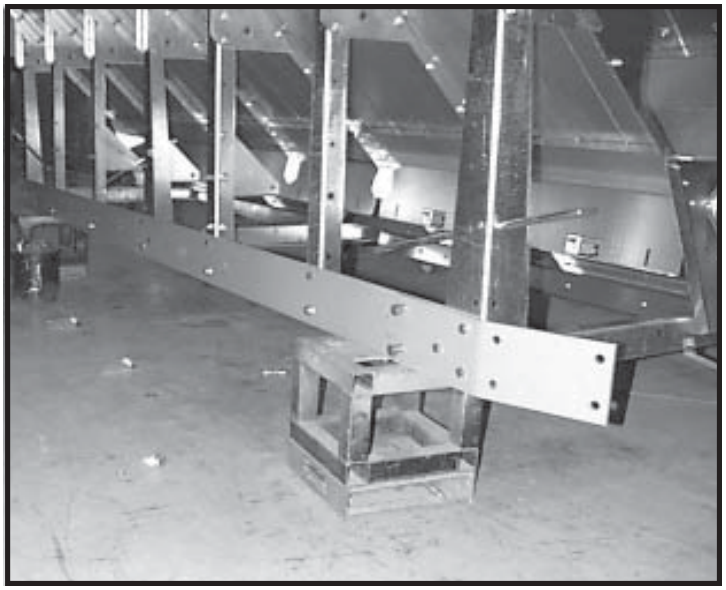


Photo 9-7 Linkage bars and short linkage bar weldments set out by dryer, and pivot rods inserted in pivot rod brackets.

☛ PIVOT ROD installation may require use of bar clamp (Photo 9-8) to pull in main frame legs.

Photo 9-8 Bar clamp.

9.3. Install PIVOT RODS (D31-0162) through RH side of dryer as follows:

9.3.1. Insert 49" PIVOT ROD through front PIVOT ROD BRACKET (D01-0299) at center of dryer. Slide 5/8" washer over 49" PIVOT ROD, then SHORT LINKAGE BAR WELDMENT (D01-0296), and then another 5/8" washer. (Photo 9-9)

Insert other end of same 49" PIVOT ROD through second PIVOT ROD BRACKET at center of dryer and slide on 5/8" washer, SHORT LINKAGE BAR WELDMENT, and 5/8" washer as in previous column.

Insert same end of 49" PIVOT ROD through third PIVOT ROD BRACKET. Place 5/8" washers on outside ends of 49" PIVOT ROD. Insert 1/8"x1" cotter pins through holes at outside end of PIVOT ROD, and bend over 1/8"x1" cotter pins to secure PIVOT ROD.

9.3.2. Install 25" PIVOT RODS as in Step 9.3.1., but insert in fourth hole in front and rear CORNER LEGS (D01-0007). (Photos 9-10 and 9-11)

☛ Holes in center of 25" PIVOT RODS are off-centered. Two middle holes should be closest to bracketed SIDE LEG (D01-0005). Slide on

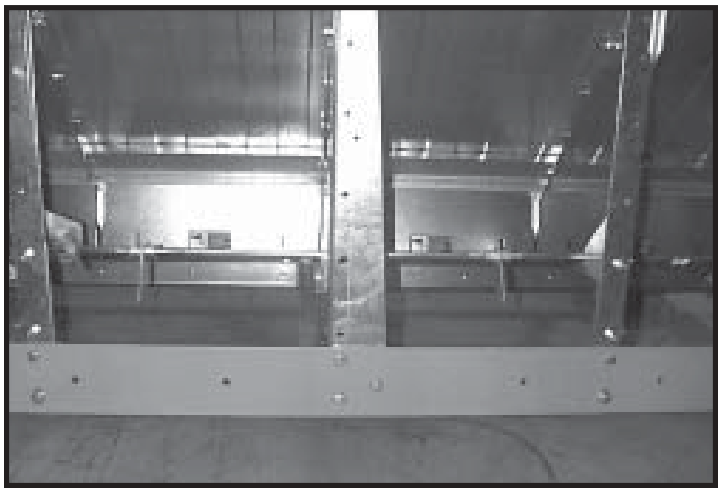


Photo 9-9 Installing pivot rods at center of dryer.

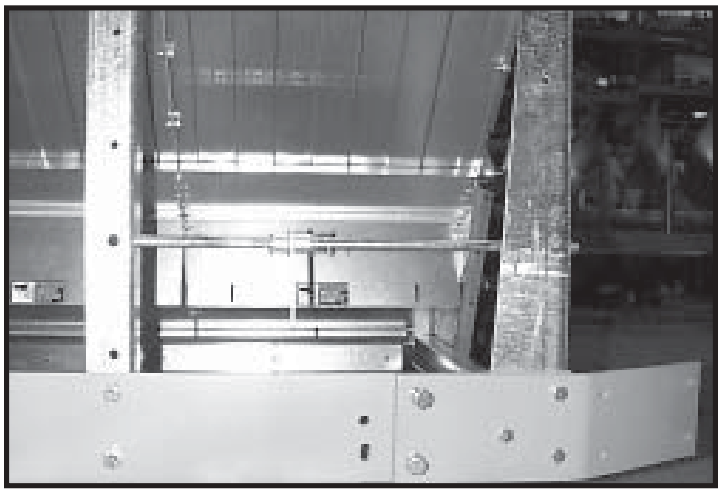


Photo 9-10 Installing pivot rods at front of dryer.

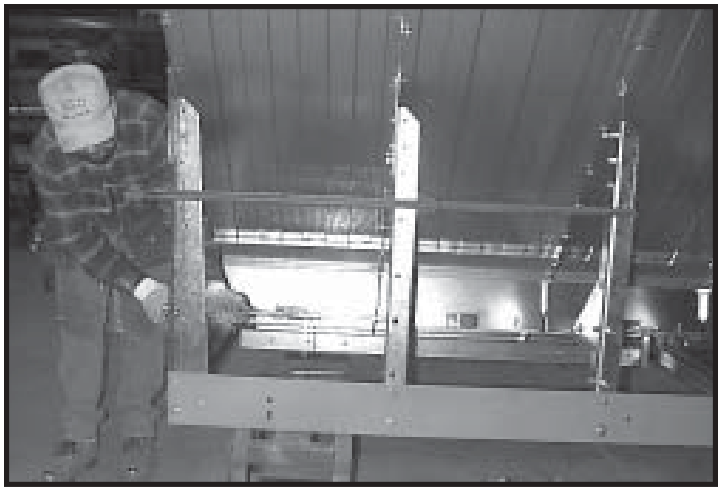


Photo 9-11 Installing pivot rods at rear of dryer.

hardware and secure with cotter pins as installation of 49” PIVOT ROD.

9.3.3. Install cotter pins through PIVOT ROD on both sides of all washer/SHORT LINKAGE BAR WELDMENTS/washer assemblies.

9.4. Install LINKAGE BARS as follows:

9.4.1. Bolt 37” and 30” LINKAGE BARS to right side of CLEAN-OUT DOOR ASSEMBLY (D51-0077) front side of (rear and front hinges) of each CLEAN-OUT DOOR ASSEMBLY with 5/16”x3/4” hex head bolts and 5/16” locknuts.

9.4.2. Tighten 37” and 30” LINKAGE BARS so they still move easily.
(Photo 9-12)

Photo 9-12 Linkage bar bolted to clean-out door assembly. (view from rear LH side of dryer)

9.5. Install CLEAN-OUT DOOR HANDLES (D01-0294) as follows:

Insert bolts toward front of dryer.

9.5.1. Insert 3/8”x1” whiz bolts through SHORT LINKAGE BAR WELDMENTS. Place 3/8” washer between SHORT LINKAGE BAR WELDMENTS and CLEAN-OUT DOOR HANDLES. Use 3/8” locknuts on 3/8”x1 whiz bolts and tighten so CLEAN-OUT DOOR HANDLES move freely.

9.5.2. Use 3/8”x1” whiz bolts and 3/8” whiz nuts to fasten 37” LINKAGE BAR and 30” LINKAGE BAR to right side of CLEAN-OUT DOOR HANDLES.
(Photo 9-13)

(☛ Adjust bolts in slots in LINKAGE BARS so that CLEAN-OUT DOORS close with a light snap.

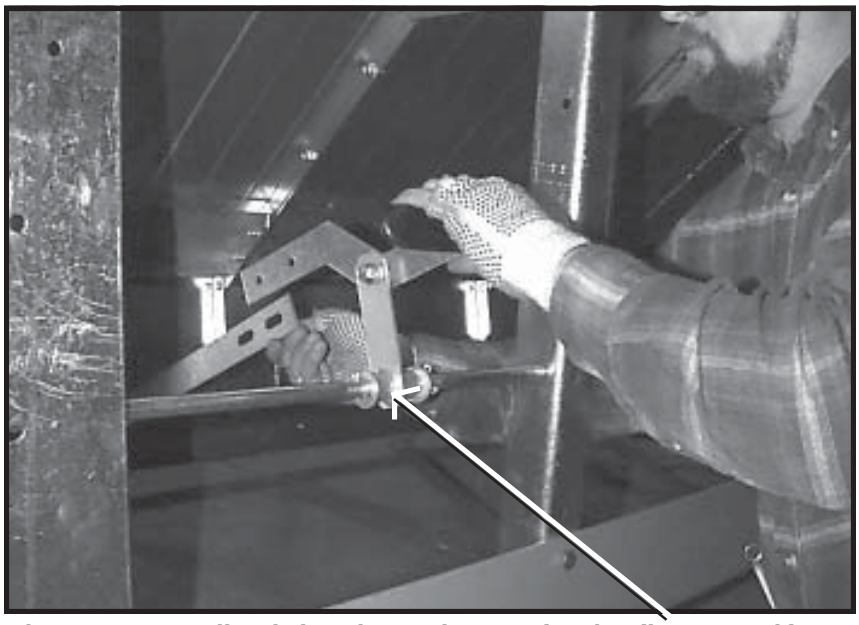


Photo 9-13 Installing linkage bar to clean-out door handle. Note weld on pivot rod weldment is installed facing rear of dryer.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

10. Install Transports (if required)

If dryer does not require a transport kit, continue with Step 11, "Airmixer Can".

If dryer requires a transport, install required Transport Kit listed below:
(Photos 10-1 to 10-10)

TK-01 **1 axle, 2 wheels**

TK-02 **2 axles, 4 wheels**

TK-02 S **1 axle, 4 wheels**

TK-03 **2 axles, 6 wheels**

TK-04 **2 axles, 8 wheels**

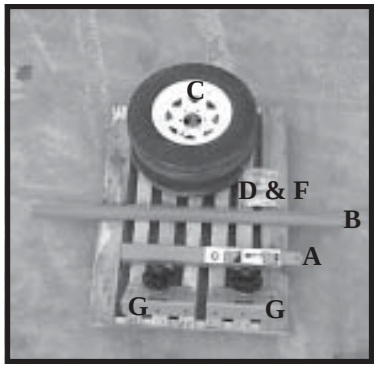


Photo 10-1 TK-01.

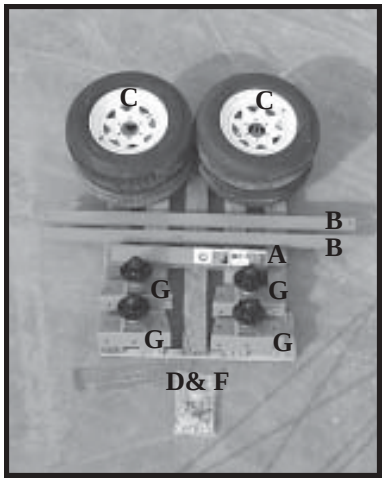


Photo 10-2 TK-02.

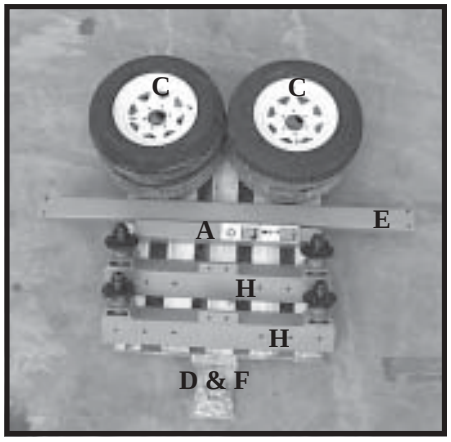


Photo 10-3 TK-02 S.

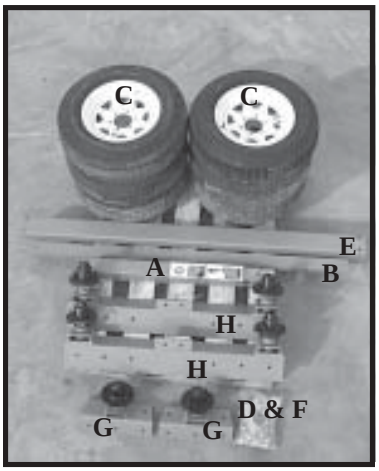


Photo 10-4 TK-03.

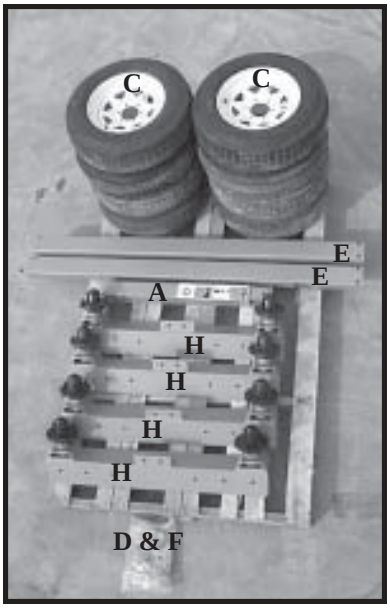


Photo 10-5 TK-04.

A. HITCH, INNER TUBE WELDMENT (D01-0022)
B. AXLE CROSS CHANNEL (D01-0023)
C. TIRE AND RIM ASSEMBLY (D01-0189)
D. HITCH PIN ASSEMBLY (D04-0151)
E. SUPPORT CROSS TUBE (D31-0061)
F. HARDWARE KIT (TK-xx-HDWR)
G. TRANSPORT SINGLE WHEEL ASSEMBLY (TK-1W)
H. TRANSPORT DOUBLE WHEEL ASSEMBLY (TK-2W)

Transport Kits installed.

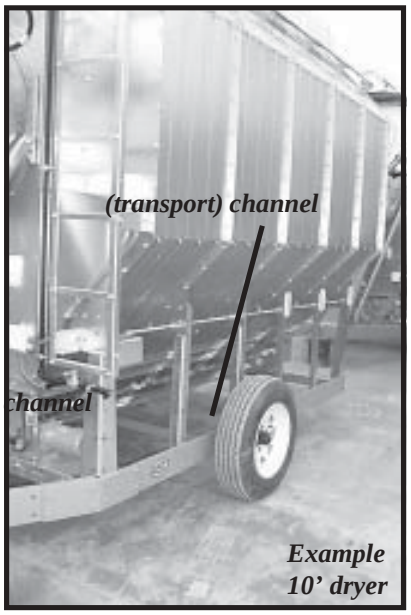


Photo 10-6 ***TK-01*** *installed.*

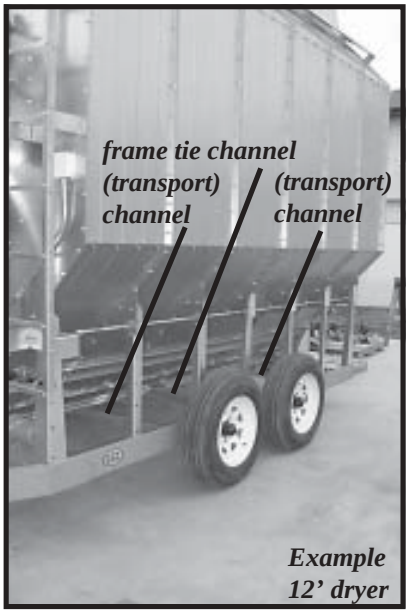


Photo 10-7 ***TK-02*** *installed.*

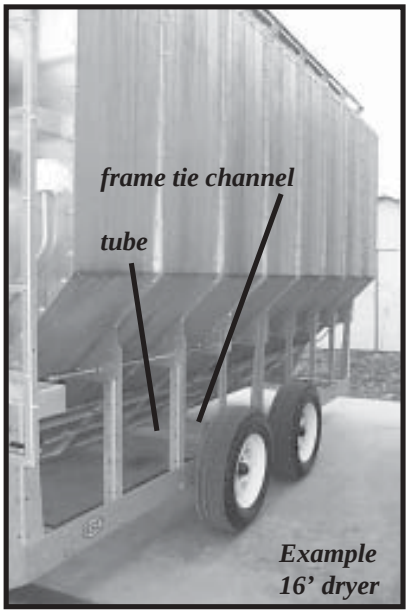


Photo 10-8 ***TK-02 S*** *installed.*

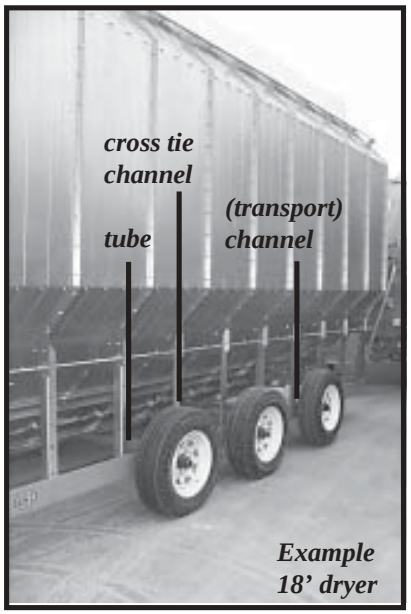


Photo 10-9 ***TK-03*** *installed.*

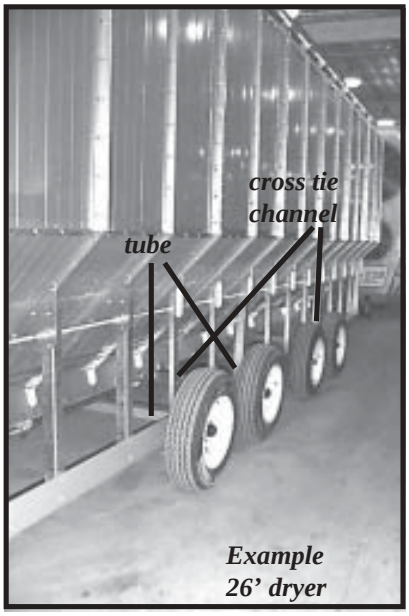


Photo 10-10 ***TK-04*** *installed.*

If dryer requires **TK-01** transport kit, install as follows.

Use 5/8”x1 3/4” hex head bolts with 5/8” locknuts.

Loosely bolt one TRANSPORT SINGLE WHEEL ASSEMBLY in pre-punched bolt holes on each side of dryer as follows.

To install TRANSPORT SINGLE WHEEL ASSEMBLY to bottom of LH and RH SIDE RAIL ANGLES (D51-0001 and D51-0002), insert (2) 1/2”x2 1/2” hex head bolts with 1/2” flat washer through each TRANSPORT SINGLE WHEEL ASSEMBLY and SIDE RAIL ANGLES. Slide on 1/2” flat washer, then 1/2” locknut on 1/2”x2 1/2” hex head bolt.

Loosely bolt AXLE CROSS CHANNEL in center hole of RH and LH TRANSPORT SINGLE WHEEL ASSEMBLY. (Photo 10-11)

Tighten all 5/8”x1 3/4” hex head bolts and locknuts on TK-01, then tighten 1/2”x 2 1/2” hex head bolts, 1/2” locknuts.

Install TIRE AND RIM ASSEMBLY (D01-0189) to TRANSPORT SINGLE WHEEL ASSEMBLY. Put lugnuts on and tighten. (Photo 10-12)

If dryer requires **TK-02** transport kit, install as follows.

☛ TK-02 is composed of (2) TK-01 transport kits.

Install rear TK-01 as in TK-01 step.

Install front TK-01 in pre-punched holes in front of rear TK-01 installation.

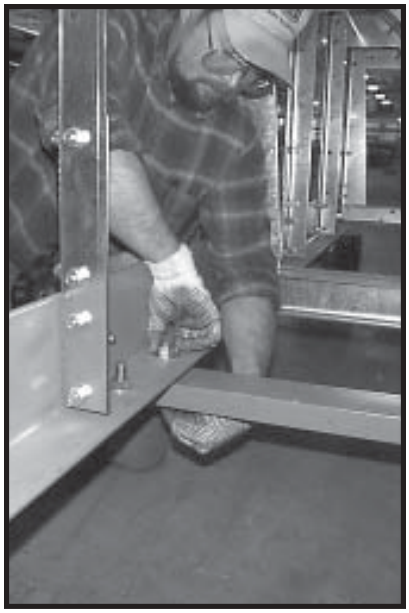


Photo 10-11 Loosely bolting axle cross channel in center hole of RH and LH transport single wheel assembly.

Photo 10-12 Putting lug nuts on transport single wheel assembly.

☛ HITCH, INNER TUBE WELDMENT will be installed after HITCH WELDMENT is installed.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendix G "AIRMIXER CANS by Dryer Length", etc.

11. Airmixer Cans

AIRMIXER CANS (Photo 11-1) will be placed inside dryer before dryer is enclosed by (FRONT and REAR) END PANELS.

See Appendix G "AIRMIXER CANS by Dryer Length" for number, diameter, and placement of AIRMIXER CANS in dryer.

☛ AIRMIXER ACCESS PANEL (if required) provides access to auger, and is installed on AIRMIXER CAN before shipping. (D01-0954)
(Photos 11-1 and 11-2)

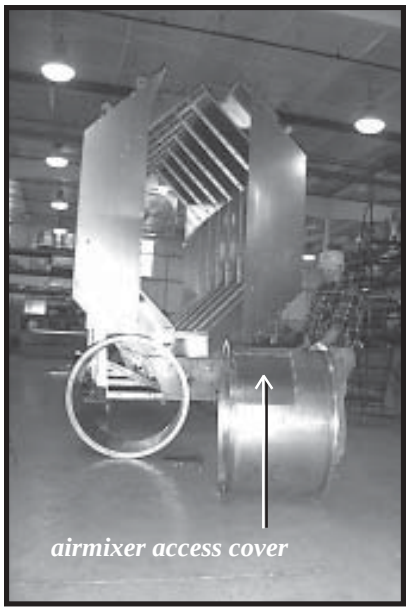


Photo 11-1 Example (2) 36" airmixer cans for 12' dryer.

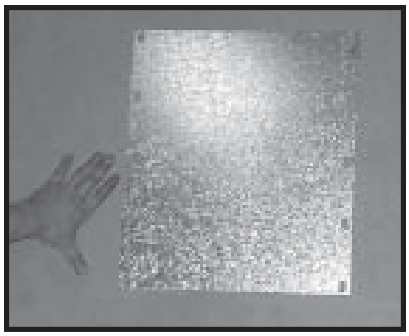


Photo 11-2 Airmixer access panel.

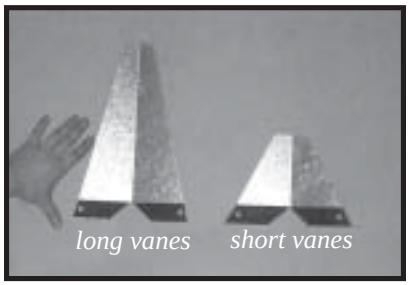


Photo 11-3 Airmixer long vanes and airmixer short vanes.

11.1. Install required AIRMIXER CANS as listed below.

AIRMIXER CAN diameter	PART #
26" S*	D01-0967
26" L** (with access plate)	D01-0968
28" S	D01-0950
28" L (with access plate)	D01-0951
36" L (with access plate)	D01-1303
40" L (with access plate)	D01-1218
42"	CD-0192

11.2. Install required AIRMIXER VANES to front AIRMIXER CAN as follows.

AIRMIXER SHORT VANE (Install to 28" S, 28" L, 26" S, and 26" L cans.) (CD-0228)

AIRMIXER LONG VANE (Install to all other cans.) (CD-0083) (Photo 11-3)

* Short (8") ** Long (15")

Step 11 Airmixer Cans

Use the following hardware.
5/16”x3/4” truss head bolts
5/16” whiz nuts

☛ Only front AIRMIXER CAN is installed with AIR-MIXER VANES.

11.3. Loosely bolt AIR-MIXER VANES around inside circumference of front AIRMIXER CAN.
(D01-0954)
(Photo 11-4)

☛ Insert 5/16”x3/4” truss head bolts toward outside of AIRMIXER CAN.

11.4. After all AIRMIXER VANES are installed, tighten bolts. (Photo 11-5)

11.5. From front of dryer, place rear AIRMIXER CAN (without AIRMIXER VANES) inside dryer.

Make room for front AIR-MIXER CAN (with AIR-MIXER VANES). Then place front AIR MIXER CAN in dryer with VANES pointing to rear of dryer. (Photo 11-6)

☛ If front AIRMIXER CAN has AIR MIXER ACCESS PANEL, it will provide access to auger, and should be positioned down and to the rear.

Photo 11-4 Installing airmixer vanes on air mixer can.

Photo 11-5 Tightening bolts on airmixer vanes.

Photo 11-6 Placing airmixer cans in dryer.

AIRMIXER CANS placed inside dryer will in later steps form AIRMIXER ASSEMBLY that installs through FRONT END PANEL to connect with the FAN-HEATER.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

12. Front End Panel

Use required FRONT END PANEL listed below. (Photo 12-1)

FRONT END PANEL 26" & 26" & 26"*
(D01-0007)

FRONT END PANEL 28"
(D01-0102)

FRONT END PANEL 36"
(D51-0004)

FRONT END PANEL 36" LP**
(D01-0346)

FRONT END PANEL 36" & 26"
(D81-0019)

FRONT END PANEL 36" & 36"
(D61-0018)

FRONT END PANEL 40"
(D01-1459)

FRONT END PANEL 40" & 28"
(D71-0021)

FRONT END PANEL 40" & 40"
(D71-0006)

FRONT END PANEL 42"
(D51-0131)

FRONT END PANEL 42" & 28"
(D101-0020)

* Cutout(s) diameter for FAN AIRMIXER.
** LP = Low Profile

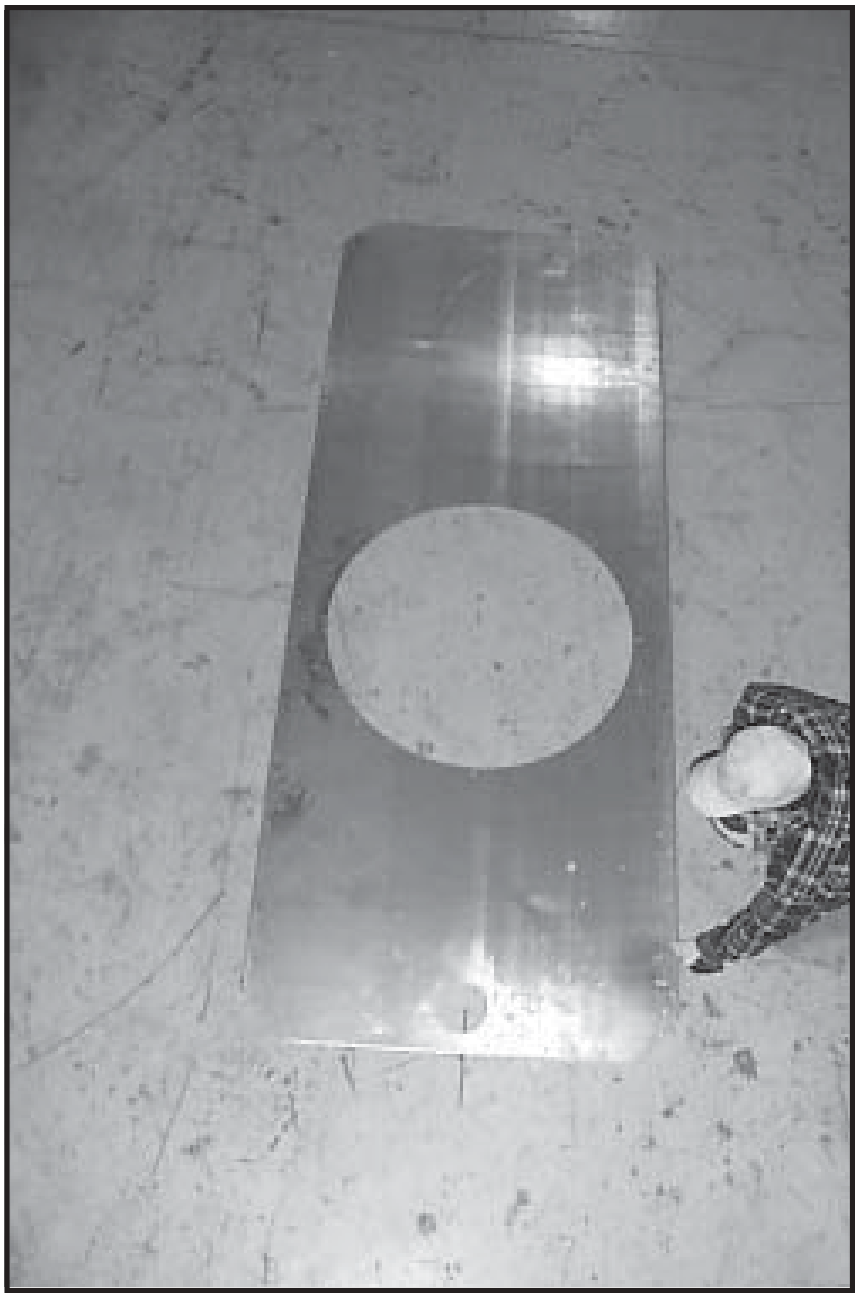


Photo 12-1 Example front end panel-36", for 12' dryer.

Step 12 Front End Panel

Install FRONT END PANEL using the following parts.

BOTTOM FRONT ANGLE BRACKET
(D01-1376) (Photo 12-2)

TOP ANGLE BRACKET
(D01-0044) (Photo 12-2)

AUGER ACCESS DOOR
(D01-0076) (Photo 12-3)

PLENUM CLOSURE DOOR LH ANGLE
(D01-1136) (Photo 12-4)

12.1. Using 5/16”x3/4” whiz bolts and 5/16” whiz nuts, bolt adjustable slots on TOP ANGLE BRACKET (beveled edged out) (D01-0044) to top of FRONT END PANEL. Tighten TOP ANGLE BRACKET flush with top of FRONT END PANEL. (Photo 12-5)

12.2. Forklift bottom of FRONT END PANEL off ground.

Using 5/16”x3/4” whiz bolts and 5/16” whiz nuts, loosely bolt BOTTOM FRONT ANGLE BRACKET (with beveled edge against FRONT END PANEL) (D01-1376) to bottom of FRONT END PANEL. (Photo 12-6)

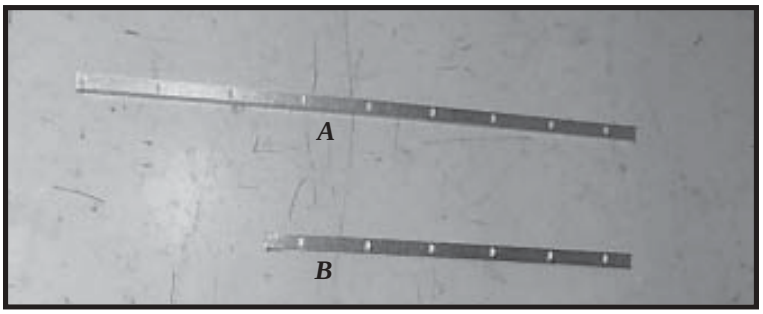


Photo 12-2 ***A.*** *Bottom front angle bracket.*
B. *Top angle bracket.*

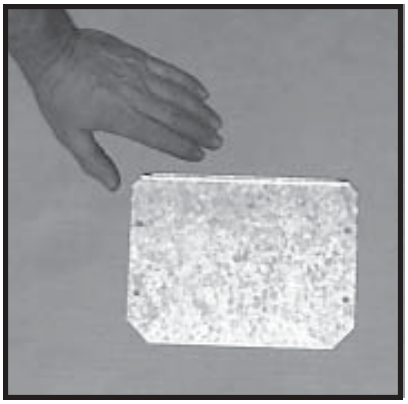


Photo 12-3 Auger access door.

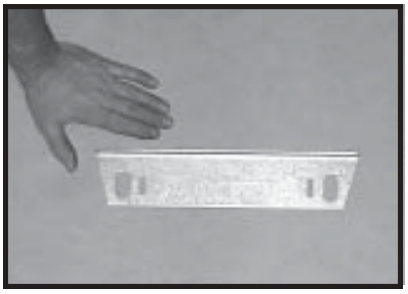


Photo 12-4 Plenum closure door angle

Photo 12-5 Bolting top angle bracket to top of front end panel.

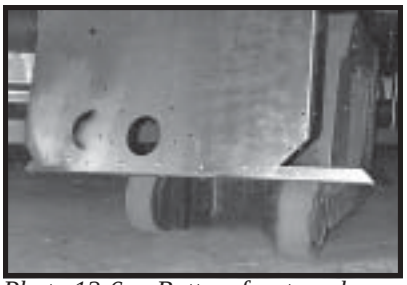


Photo 12-6 Bottom front angle bracket bolted to bottom of front end panel.

12.3. Remove temporary whiz bolt installed over auger access cutout (at 2:00).

12.4. Forklift FRONT END PANEL onto front of dryer. (Photo 12-7)

Use punches to align and secure FRONT END PANEL to COLUMN END PANELS (D31-0307) and BOTTOM AUGER BEARING PLATE (D01-1374) (Photo 12-8).

Photo 12-7 Forklifting front end panel onto front of dryer.

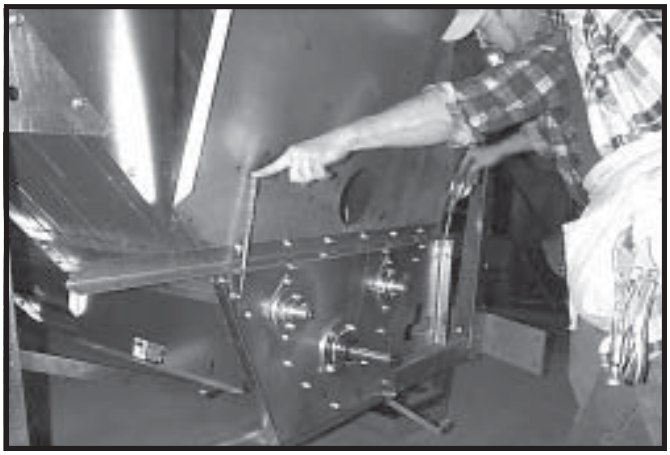


Photo 12-8 Aligning front end panel to bottom auger bearing plate.

12.5. Loosely bolt FRONT END PANEL to RH and LH COLUMN END PANEL (D31-0307) up to about six feet. Remove forklift. (Photo 12-9)

Photo 12-9 Loosely bolting front end panel to column end panel up to about six feet.

12.6. Install remaining hardware as follows.

☛ Refer to Photo 12-10 on following page for hardware placement.

Using 5/16”x3/4” whiz bolts and 5/16” whiz nuts loosely bolt FRONT END PANEL to:

METER ROLL UPPER SHIELD ASSEMBLIES (D01-1180),
PLENUM BOTTOMS (D01-1225),
COLUMN END PANELS (D31-0307),
PLENUM TOPS (D01-0126),
ROOF SHEETS (D01-0127),
and HOPPER SHEETS (D01-0128).

Use 5/16”x3/4” hex head self tapping bolts in four corners of FRONT END PANEL (in four holes which fasten FRONT END PANEL to COLUMN END PANELS (D31-0307).

Move up RH and LH GUSSET TOP ANGLE (D01-0152 to D01-0153) to top two holes in ROOF SHEETS (D01-0127).

After all FRONT END PANEL hardware is loosely installed, tighten inside and outside seams. Tighten all 5/16”x3/4” whiz bolts and 5/16” whiz nuts, 3/8”x1” whiz bolts and 3/8” whiz nuts, and 5/16”x3/4” hex head self tapping bolts.

Fasten ACCESS DOOR (D01-0076) over service hole with 1/4”x1/2” sheet metal screws.

☛ The second bolt from right on BOTTOM FRONT ANGLE BRACKET (D01-1376) that fastens BOTTOM AUGER BEARING PLATE (D01-1374) must be a 5/16”x3/4” truss head bolt, inserted facing upward to allow clearance for *#40, 83.5” METER ROLL CHAIN (D01-0404).*

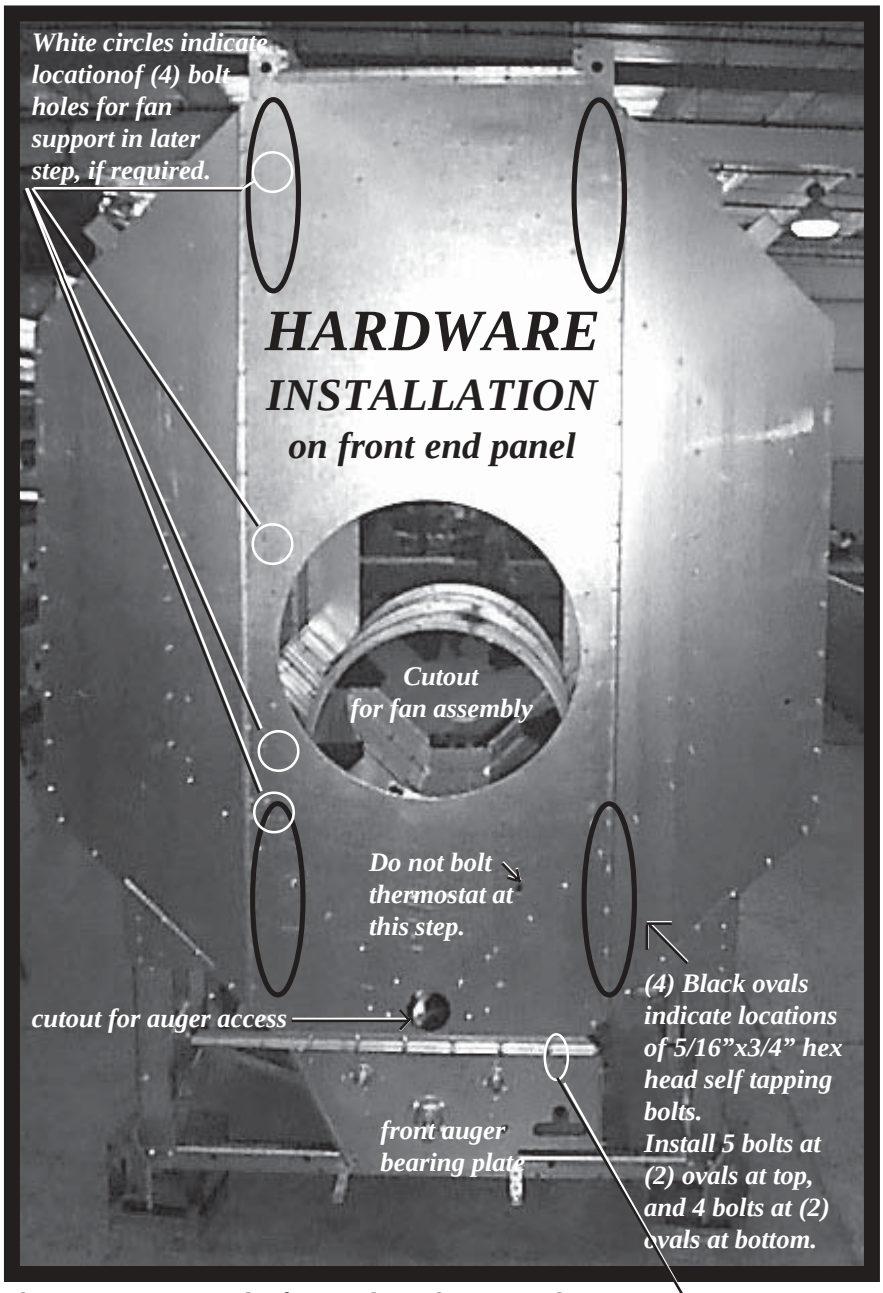


Photo 12-10 Example: front end panel-36”, 12’ dryer.

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts to install FRONT END PANEL, except as noted in Photo 12-10.

12.7. After FRONT END PANEL is installed, install CAPILLARY BRACKETS (D01-0123) (Photo 12-11) on LH side of PLENUM WALL (D31-0012).

Position CAPILLARY BRACKETS at level with center of FRONT END PANEL cutout for AIRMIXER CAN.

Starting at front of dryer, install up to 7 CAPILLARY BRACKETS depending on dryer size.

Using existing 5/16”x3/4” whiz bolts and 5/16” whiz nuts in PLENUM WALL seams, bolt (1) CAPILLARY BRACKET on front side of each seam.
(Photos 12-12 and 12-13)

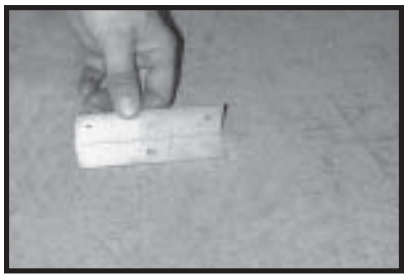


Photo 12-11 Capillary bracket.

☛ THERMOSTAT capillaries install to CAPILLARY BRACKETS in later step.

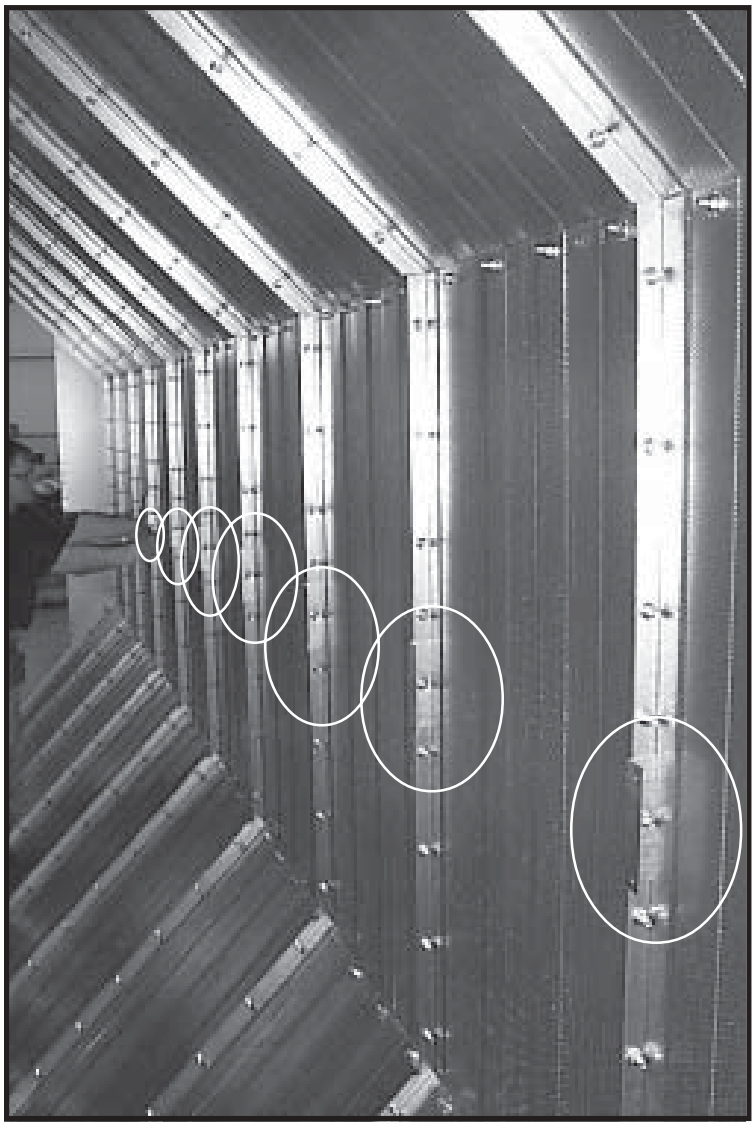


Photo 12-13 Installing capillary brackets.

Photo 12-12 Close up - installing capillary brackets.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

13. Rear End Panel

Use required REAR END PANEL listed below. (Photo 13-1)

For 6', 8' and 10' dryers:
REAR END PANEL - LP*
(D01-0346)

For larger dryers:
REAR END PANEL - 1 DOOR
(D51-0115)

REAR END PANEL - 2 DOOR
(D61-0215)

REAR END PANEL - 3 DOOR
(D31-0311)

* LP = Low Profile

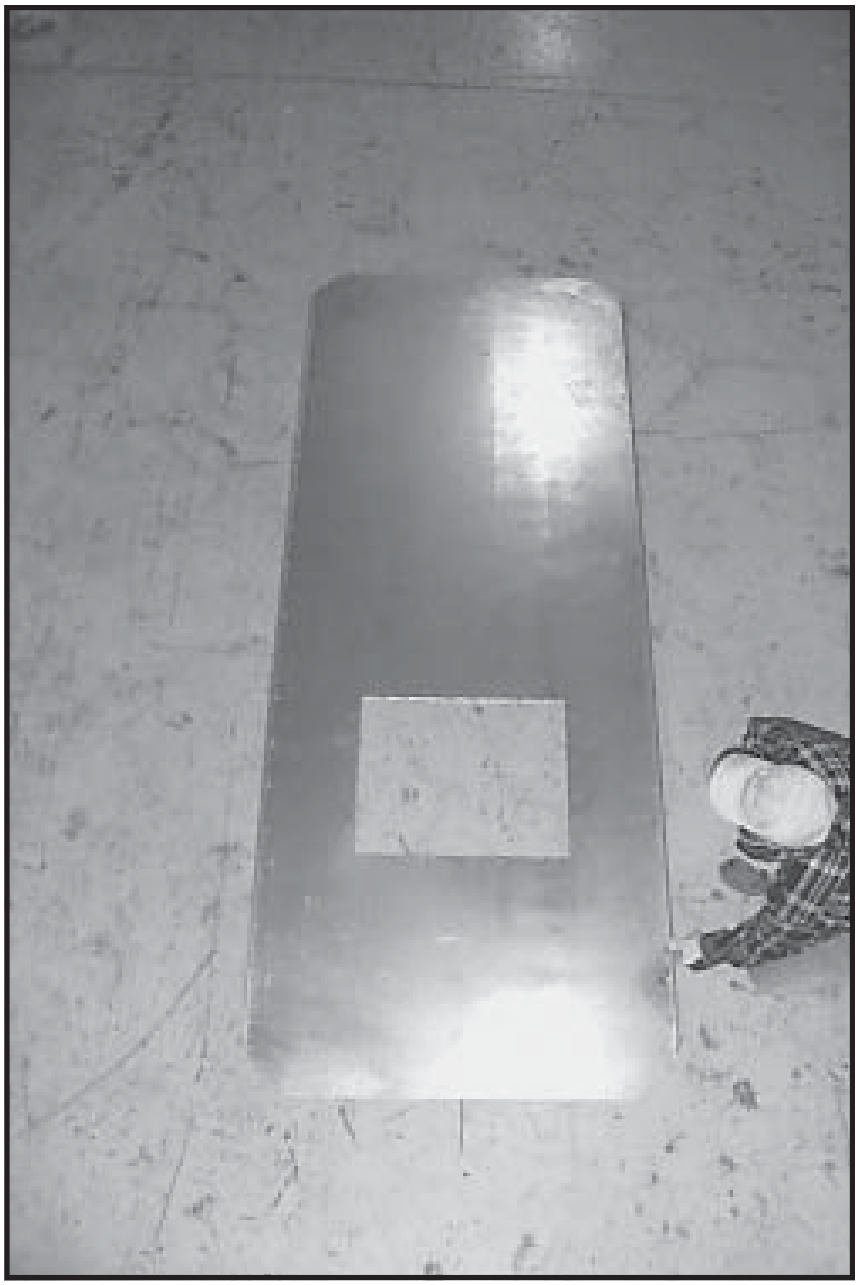


Photo 13-1 Example - rear end panel for 12' dryer with (1) rear door assembly cutout.

Step 13 Rear End Panel

Install the following parts to REAR END PANEL. (Photo 13-2)

TOP ANGLE BRACKET (D01-0044)

BOTTOM REAR ANGLE BRACKET (D01-0043)

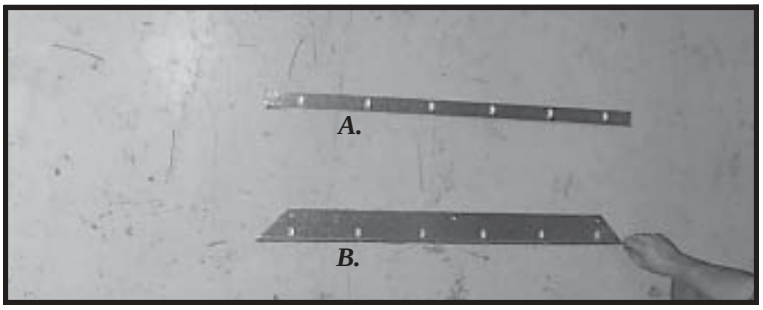


Photo 13-2 ***A.*** *Top angle bracket.*
B. *Bottom rear angle bracket.*

13.1. Using 5/16”x3/4” whiz bolts and 5/16” whiz nuts, bolt adjustable slots on TOP ANGLE BRACKET (beveled edged out) (D01-0044) to top of REAR END PANEL. Tighten TOP ANGLE BRACKET flush with top of REAR END PANEL.

13.2. Forklift bottom of REAR END PANEL off ground.

Using 5/16”x3/4” whiz bolts and 5/16” whiz nuts, loosely bolt BOTTOM REAR ANGLE BRACKET (D01-0043) (with beveled edge against bottom of REAR END PANEL). (Photo 13-3)

Photo 13-3 Bottom rear angle bracket bolted to bottom of rear end panel.

13.3. Remove temporary whiz bolts installed through REAR PLENUM CLOSURE PANEL.

13.4. Forklift REAR END PANEL onto rear of dryer. (Photo 13-4)

Use punches to align and secure REAR END PANEL to COLUMN END PANELS (D31-0307) and DISCHARGE BEARING PLATE (D31-0120).

13.5. Loosely bolt REAR END PANEL to RH and LH COLUMN END PANEL (D31-0307) up to about six feet. Remove forklift.

13.6. Loosely bolt REAR END PANEL as follows.

Using 5/16”x3/4” whiz bolts and 5/16” whiz nuts loosely bolt REAR END PANEL to:

METER ROLL UPPER SHIELD ASSEMBLIES (D01-1180),
PLENUM BOTTOMS (D01-1225),
COLUMN END PANELS (D31-0307),
PLENUM TOPS (D01-0126),
ROOF SHEETS (D01-0127),
and HOPPER SHEETS (D01-0128).

Photo 13-4 Lifting rear end panel onto rear of dryer.

13.6. continued
Use 5/16”x3/4” hex head self tapping bolts in four corners of REAR END PANEL (in four holes which fasten REAR END PANEL to COLUMN END PANELS (D31-0307).

13.6. continued
Move up RH and LH GUSSET TOP ANGLE (D01-0152 to D01-0153) to top two holes in ROOF SHEETS (D01-0127).

13.7. After all hardware is loosely bolted in REAR END PANEL, tighten inside and outside seams. Tighten all 5/16”x3/4” whiz bolts and 5/16” whiz nuts, 3/8”x1” whiz bolts and 3/8” whiz nuts, and 5/16”x3/4” hex head self tapping bolts.

☛ There are no 5/16”x3/4” truss head bolts on BOTTOM REAR ANGLE BRACKET (D01-0043).

☛ After tightening inside seams and outside seams including GUSSET PLATES (D01-0004), tighten (5) 1/2” bolts on CORNER LEGS (D01-0007).

☛ Fill (3) sets of three-holes on LH side of REAR END PANEL with 5/16”x3/4” hex head self-tapping bolts.

13.8. Bolt (rear door plenum angle) PLENUM CLOSURE REAR FRAME ANGLE (D01-1217) (Photo 13-5) inside dryer, on REAR END PANEL, under cutout for REAR DOOR ASSEMBLY (D01-1153). Use (2) 5/16”x3/4” whiz bolts and 5/16” whiz nuts. (Photo 13-6)

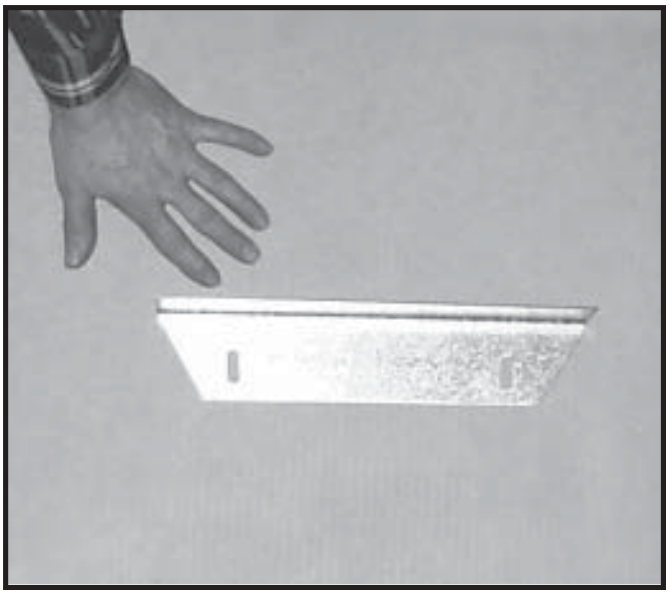


Photo 13-5 Plenum closure rear frame angle (rear door plenum angle).

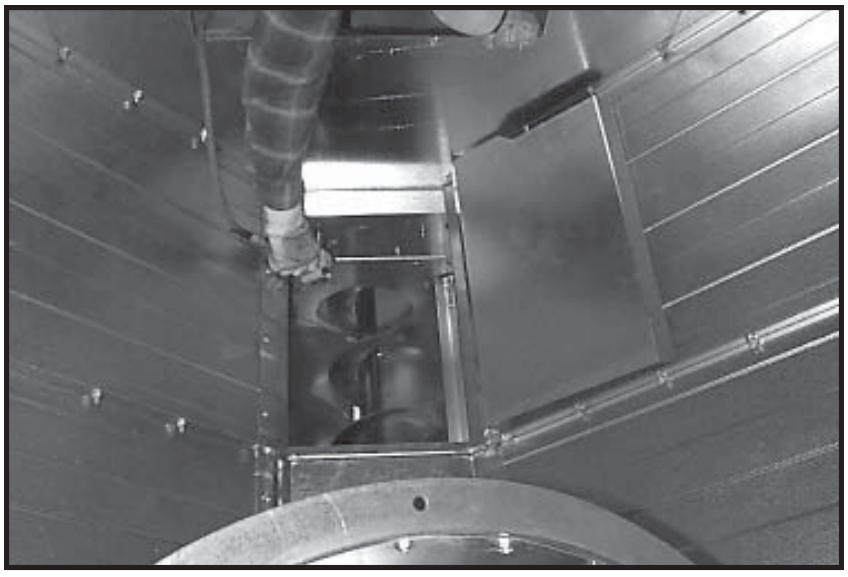


Photo 13-6. Tightening bolts on plenum closure rear frame angle.

13.9. Install frame for REAR DOOR ASSEMBLY (D01-1153) (Photo 13-7) with the following parts. (Photo 13-8)

REAR DOOR ANGLES - TOP AND BOTTOM (D01-0396)

REAR DOOR ANGLES - SIDES (D01-0395)

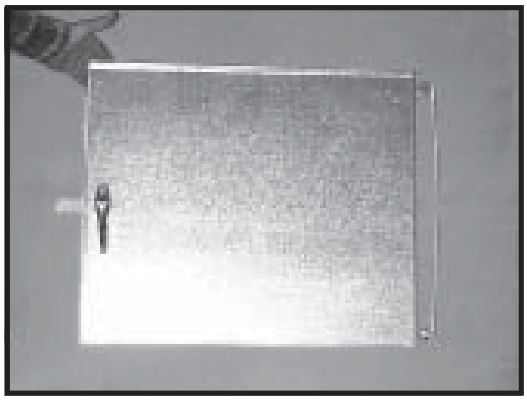


Photo 13-7 Rear door assembly.

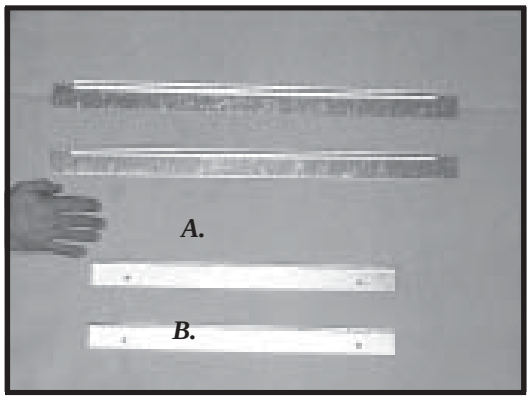


Photo 13-8 ***A.*** *Rear door angles - top and bottom.*
B. *Rear door angles - sides.*

Install frame for REAR DOOR ASSEMBLY as follows.

13.9.1. Loosely bolt TOP, BOTTOM and SIDE REAR DOOR ANGLES to outside of cutout on REAR END PANEL with 5/16”x3/4” whiz bolts and 5/16” whiz nuts. Fit together as tightly as possible.

13.9.2. Square door frame and tighten all bolts. (Photo 13-9)

☛ Do not tighten (2) RH bolts where REAR DOOR ASSEMBLY will install.

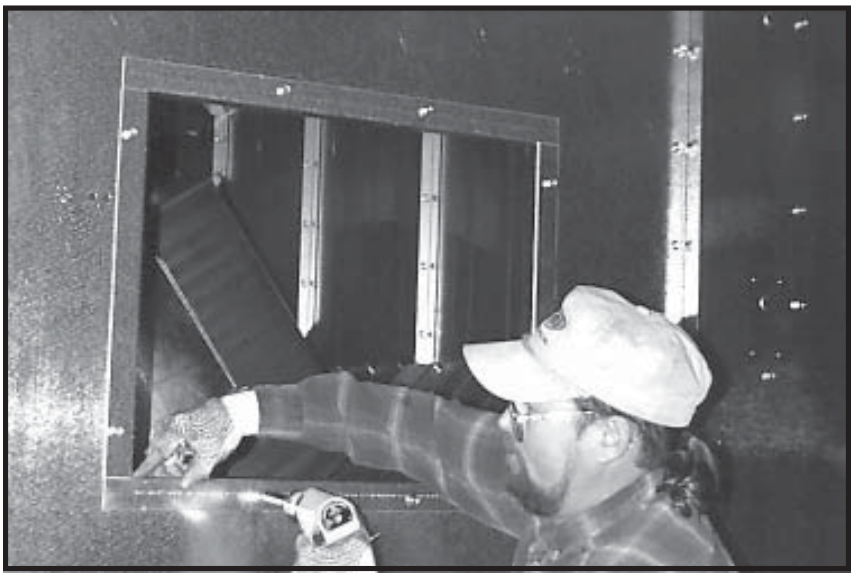


Photo 13-9 Tightening frame for rear door assembly.

13.10. Bolt LATCH BRACKET (D01-0397) (Photo 13-10) for REAR DOOR ASSEMBLY inside REAR END PANEL with 5/16”x3/4” whiz bolts and 5/16” whiz nuts. (Photo 13-11)

Tighten all bolts except RH REAR DOOR ANGLE-SIDE.

Loosely bolt door hinges.

13.11. Install REAR DOOR ASSEMBLY (D01-1153) as follows.

13.11.1. Remove 5/16” whiz nuts from RH REAR DOOR ANGLE-SIDE (D01-0395)

Install REAR DOOR ASSEMBLY on existing 5/16”x3/4” whiz bolts on inside of REAR END PANEL. (Photo 13-12)

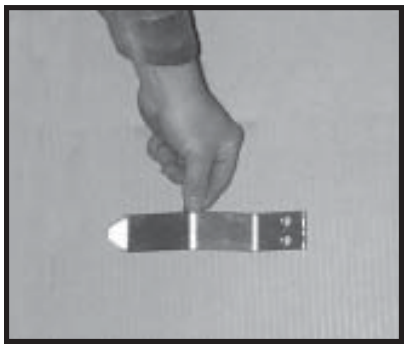


Photo 13-10 Latch bracket.

Photo 13-11 Latch bracket installed.

Photo 13-12 Installing rear door assembly.

13.11.2. Open and shut REAR DOOR ASSEMBLY (D01-1153) to check fit in door frame. (Photo 13-13)

If necessary, adjust REAR DOOR ASSEMBLY.

13.11.3. Adjust bolt on LATCH BAR so door latches securely. (Photos 13-14 and 13-15)

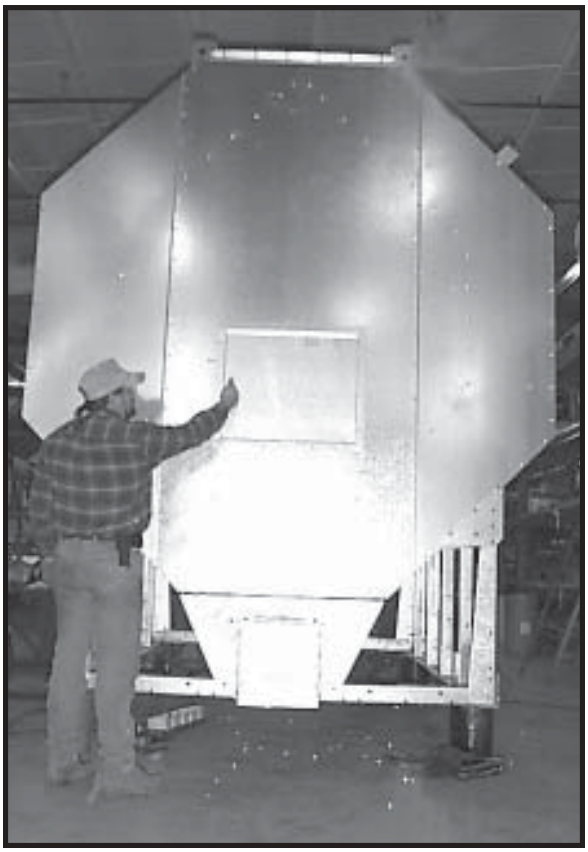


Photo 13-13 Checking fit of REAR DOOR ASSEMBLY.

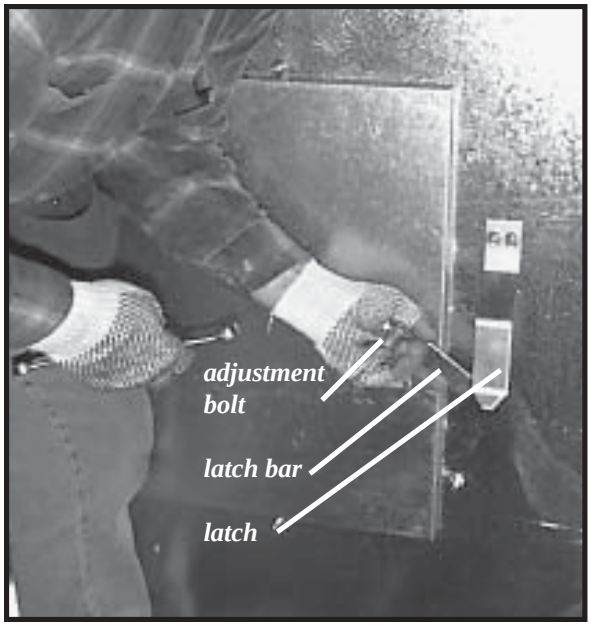


Photo 13-14 Checking latch on rear door assembly.

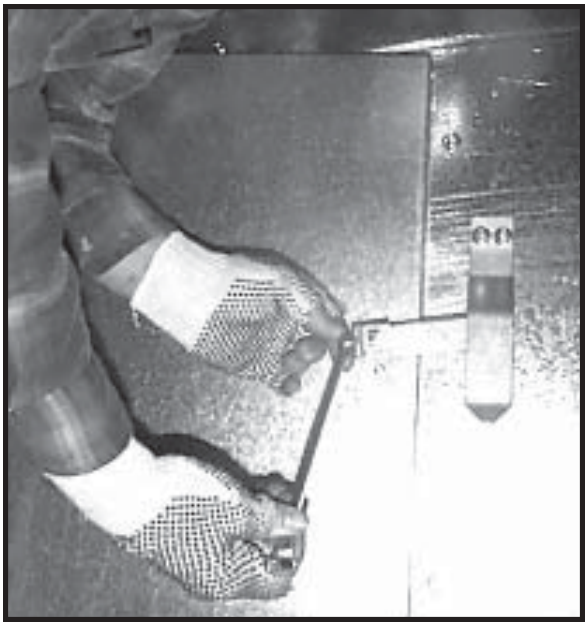


Photo 13-15 Adjusting bolt on latch bar.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

14. Hitch Weldment

Install HITCH WELDMENT. (D01-0029) (Photo 14-1) as follows.

Use 5/8"x1 3/4" hex head bolts and 5/8" locknuts.

14.1. Forklift HITCH WELDMENT between LH and RH HITCH BRACKETS (D01-0011 and D01-0012) at front of dryer.

With punches, align HITCH WELDMENT to RH AND LH HITCH BRACKETS, and loosely bolt in (4) holes on each side. (Photos 14-2 and 14-3)

Photo 14-1 Hitch weldment.

Photo 14-2 Bolting LH side of hitch weldment.

Photo 14-3 Bolting RH side of hitch weldment.

14.2. Make HITCH WELDMENT (D01-0029) level with LH and RH HITCH BRACKETS and tighten (8) bolts. (Photo 14-4)

14.3. Make LH and RH HITCH BRACKETS level with LH and RH SIDE RAIL ANGLES (D51-0001, D51-0002). Tighten (2) 5/8”x 1 3/4” hex head bolts on each side, and tighten (3) 1/2”x1 1/2” hex head bolts and 1/2”x1” heax head bolts on each side. (Photos 14-5 to 14-7)

Photo 14-4 Bolting LH side of hitch weldment to LH hitch bracket.

Photo 14-5 Bolting LH side of hitch weldment.

Photo 14-6 Bolting LH side of hitch weldment.

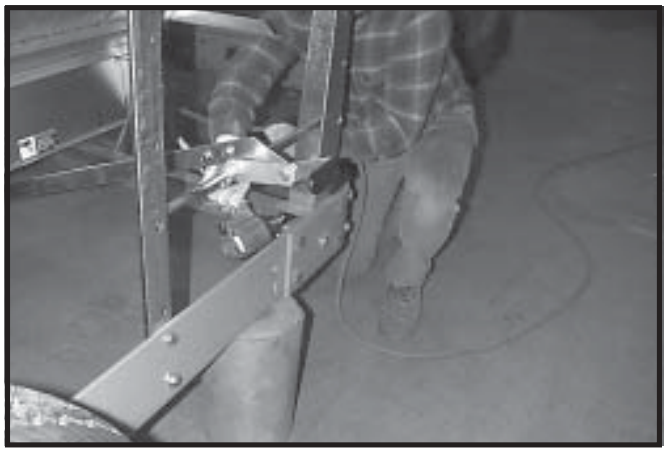


Photo 14-7 Bolting RH side of hitch weldment.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

15. Motors, Sprockets & Chain, Bottom Pullies & Belts

See Chart 15-1 "INSTALLING MOTORS to Portable Grain Dryers".

Install required MOTORS listed below.

SCR MOTOR (Photo 15-1)
(Silicone Controlled Rectifier)

SCR MOTOR, 1/2 HP PC
with GEAR BOX 50:1
(D03-0231)
or
SCR MOTOR, 3/4 HP PC
with GEAR BOX 50:1
(D03-0232)

UNLOAD MOTOR (Photo 15-2)

LOAD MOTOR (Photo 15-3)

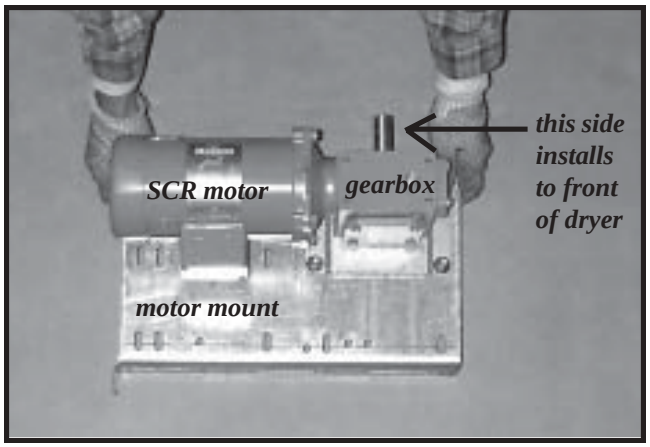


Photo 15-1 Example - SCR motor.

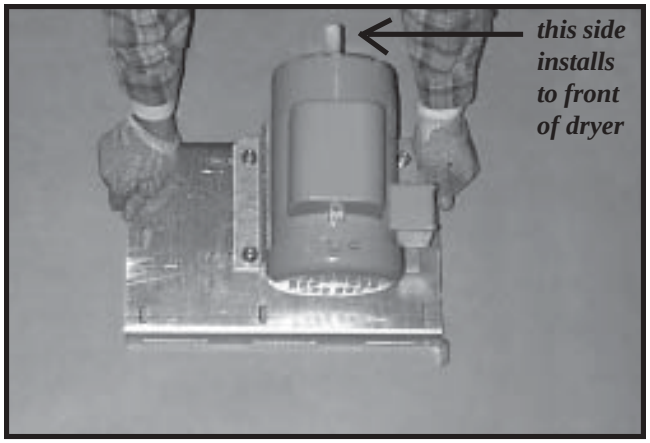


Photo 15-2 Example - Unload motor, 1 phase.

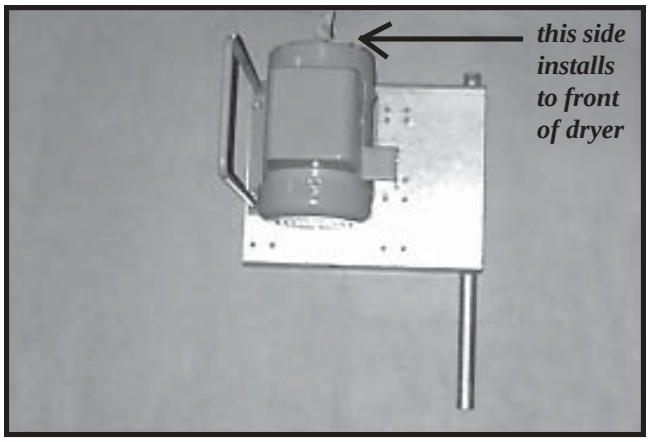


Photo 15-3 Example - Load motor, 1 phase.

INSTALLING MOTORS

to Portable Grain Dryers

Chart 15-1

1 PHASE 220V

Horse Power	Part Number
1 HP	100-1
1 1/2 HP	D03-0309
2 HP	200-1
3 HP	300-1
5 HP	500-1
7 1/2 HP	712-1

3 PHASE 220/480V

Horse Power	Part Number
1 HP	100-3
1 1/2 HP	112-3
2 HP	200-3
3 HP	300-3
5 HP	500-3
7 1/2 HP	712-3
10 HP	1000-3

3 PHASE 380V 50Hz

Horse Power	Part Number
1 HP	100-3-50
1 1/2 HP	112-3-50
2 HP	200-3-50
3 HP	300-3-50
5 HP	500-3-50
7 1/2 HP	712-3-50
10 HP	1000-3-50

3 PHASE 575V

Horse Power	Part Number
2 HP	200-3-5
3 HP	300-3-5
5 HP	500-3-5
7 1/2 HP	712-3-5
10 HP	1000-3-5

15.1. SCR MOTOR, SPROCKETS, and CHAIN installation.

As required by dryer, install required SCR MOTOR listed below.

SCR MOTOR 1/3HP PC
WITH GEAR BOX 50:1
(D03-0231)

OR

SCR MOTOR 3/4HP PC
WITH GEAR BOX 50:1
(D03-0232)

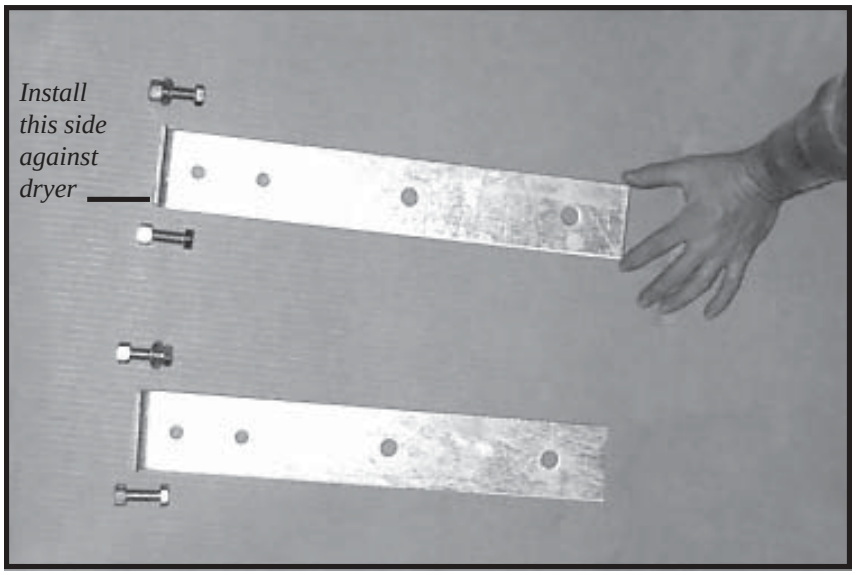


Photo 15-4 Motor mount support brackets (one used for SCR motor and one used for unload motor), nuts, bolts, and washer (for slotted hole on side rails).

Use the following parts to install SCR MOTOR.

MOTOR MOUNT SUPPORT BRACKET
(D01-0016)
(Photo15-4)

(Photo 15-5)
KEY, 3/16”X3/16”X1”
(ANGLE-CUT)
and
KEY, 1/4”X1/4”X1”
(D01-0098)

SCR SPROCKET, H4015x7/8”
(D02-0004)

METER ROLL SPROCKETS, 40H30
(D02-0029)

#40, 83.5” CHAIN
(runs meter drive)
(D01-0404)

SPROCKET IDLER ASSEMBLY
(D01-0196)

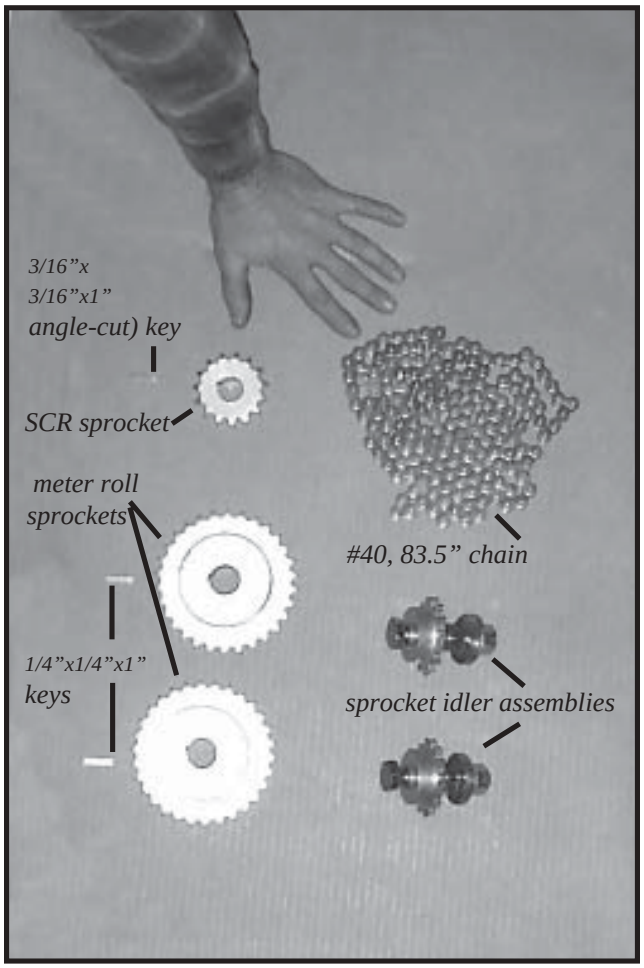


Photo 15-5

15.1. 1. Install SCR MOTOR as follows. Use 1/2”x1” hex head bolts and 1/2” locknuts to install (1) MOTOR MOUNT SUPPORT BRACKET (D01-0016) to front end of LH and RH SIDE RAIL ANGLES.

Front LH side - for SCR MOTOR. Bolt short side of MOTOR MOUNT SUPPORT BRACKET facing to rear of dryer. Tighten bolts. (Photo 15-6)

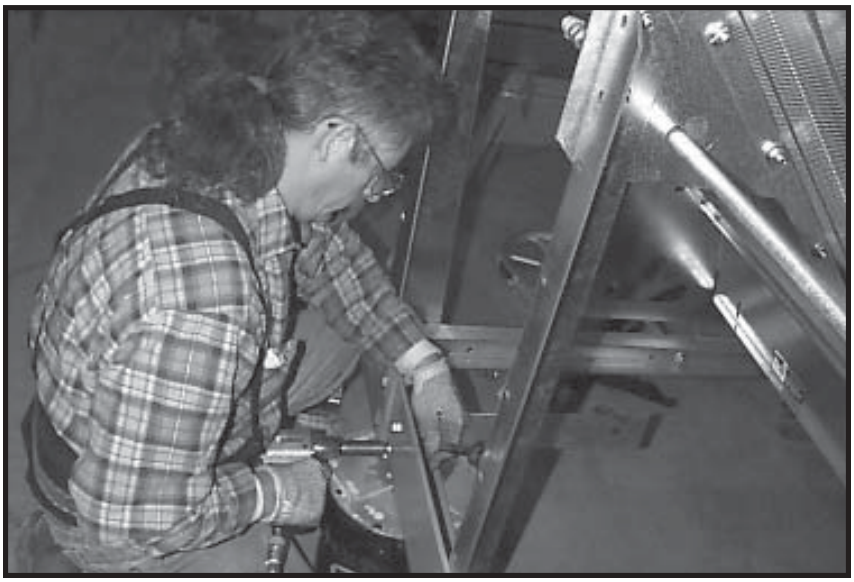


Photo 15-6 Tightening motor mount support bracket (for SCR motor).

Front RH side - for UNLOAD MOTOR in later step. Bolt MOTOR MOUNT SUPPORT BRACKET on RH back side of dryer. Tighten bolts.

15.1. 2. Double-check METER ROLL COLLAR and AUGER COLLAR are locked and tight.

15.1. 3. Install SCR MOTOR with MOTOR MOUNT onto MOTOR MOUNT SUPPORT BRACKET and LH FRAME TIE CHANNEL (D01-0008) as follows.

Remove sprocket from SCR MOTOR.

Insert 5/8”x1 1/2” hex head bolts with 5/8” flat washers through MOTOR MOUNT (middle slot) and FRAME TIE CHANNEL. Slide 5/8” lockwashers and 5/8” nuts on back of FRAME TIE CHANNEL. Leave loose. (Photo 15-7)

Photo 15-7 Inserting bolt in middle slot.

15.1. 4. Slide SCR SPROCKET on SCR MOTOR shaft. Line keyways up and insert 1/4”x1/4” KEY in flush.

15.1. 5. Slide METER ROLL SPROCKET on METER ROLL SHAFT. (Photo 15-8) Insert KEY flush. Tighten setscrews.

Repeat on other METER ROLL SHAFT. (Photo 15-9)

15.1. 6. Install (2) SPROCKET IDLER ASSEMBLIES (D01-0196) to BOTTOM AUGER BEARING PLATE (D01-1374) (Photo 15-10) as follows.

Leave one 5/8” flat washer and 5/8” nut on 5/8”x3 1/2” hex head bolt with sprocket and insert through (2) pre-punched holes in BOTTOM AUGER BEARING PLATE. Place 5/8” flat washers, 5/8” lock washers, and 5/8” nuts on 5/8”x3 1/2” hex head bolts with sprockets.

Leave IDLER SPROCKET ASSEMBLIES loose until after #40, 83.5” CHAIN is installed in later step.

Replace SPROCKET 4015x7/8” (D03-0257) on SCR MOTOR even with shaft, insert 3/16”x3/16” KEY, and tighten setscrew.

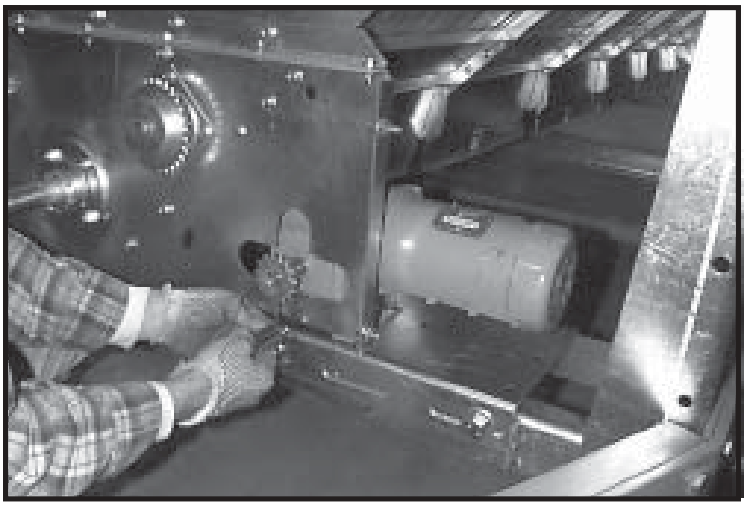


Photo 15-8 Slide meter roll sprocket on meter roll shaft.

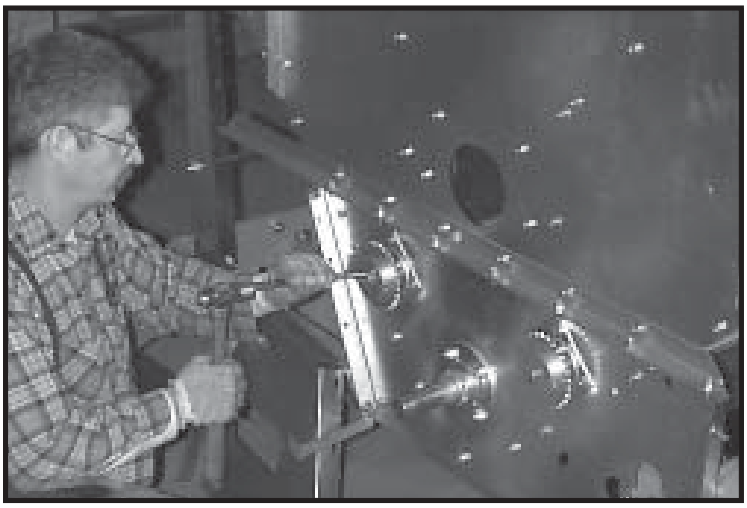


Photo 15-9 Tightening setscrew.

Photo 15-10 Installing sprocket idler assemblies.

15.1. 7. Thread chain around SPROCKETS. (Photo 15-11) and tighten IDLER SPROCKET ASSEMBLIES. Adjust SPROCKETS 40H30 on METER ROLL DRIVE SHAFTS (D01-0006) so all SPROCKETS are in line. Tighten in following order.

15.1.7.1. Tighten setscrews on adjustable BOTTOM IDLER ASSEMBLY.

☛ Lift bottom idler when tightening bolt to allow for later chain adjustment.

15.1.7.2. Tighten setscrews on top SPROCKET IDLER ASSEMBLY.

15.1.8. Move SCR MOTOR and MOTOR MOUNT back so #40, 83.5” CHAIN is tight, and tighten 5/8”x1 1/2” hex head bolts that fasten MOTOR MOUNT to FRAME TIE CHANNEL and MOTOR MOUNT SUPPORT BRACKET.

☛ Install FRONT SHIELD UNLOAD BELT GUARD (D01-1372) after dryer is assembled.

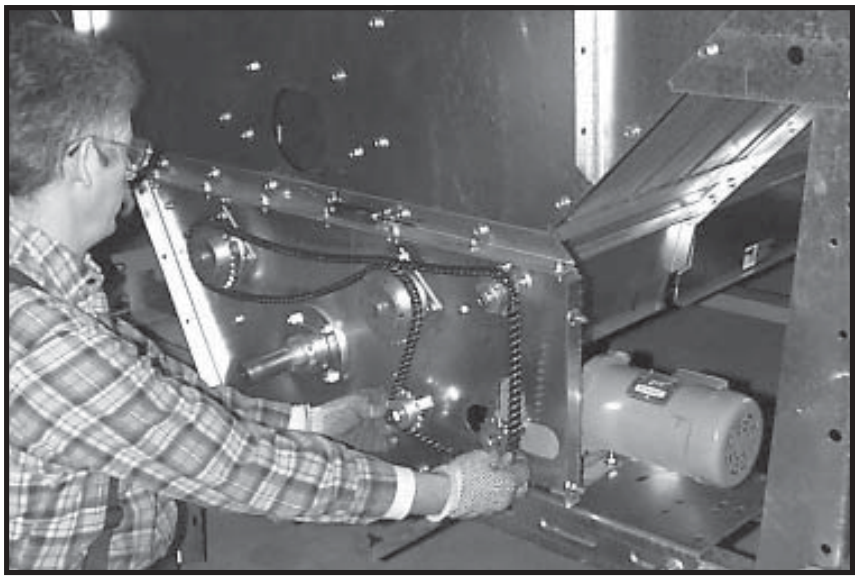


Photo 15-11 Threading chain around sprockets.

15.2. UNLOAD MOTOR, PULLEYS, and BELTS installation.

Install UNLOAD MOTOR as required by dryer.

Use the following parts.

MOTOR MOUNT SUPPORT BRACKET
(D01-0016)
(PHOTO 15-12)

UNLOAD MOTOR ADJUSTMENT BRACKET
(D01-0017)
(Photo 15-13)

UNLOAD FRONT SHIELD BELT GUARD (D01-1372)
(Photo 15-14)

SHEAVE 2BK32,
5/8" bore, x-ph
(D02-0056)

SHEAVE 2TBxxx (16" pulley)

BELT BXxx

BUSHING Q1X 1 1/2"
(D32-0019)

KEY 3/8"x3/8"x2 1/2"
(D31-0137)

and hardware. (Photo 15-15)

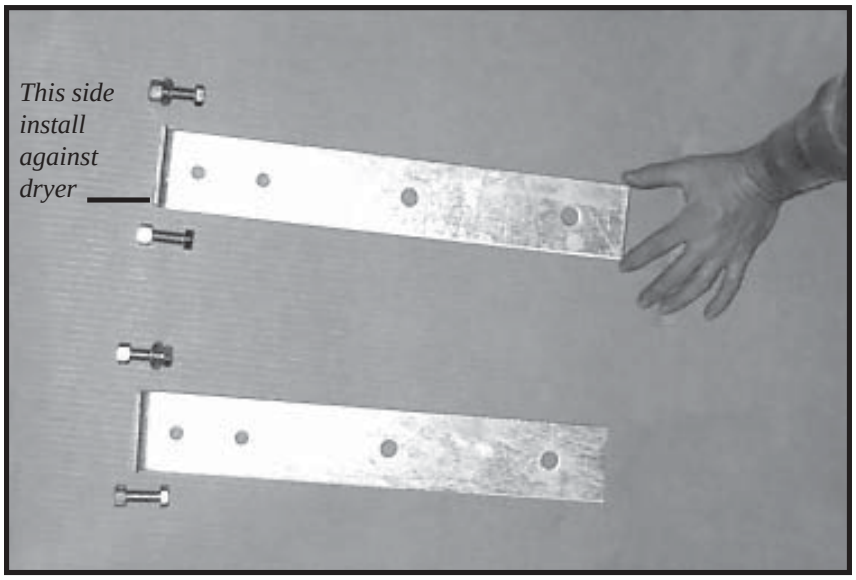


Photo 15-12 Motor mount support brackets (one used for SCR motor and one used for unload motor), nuts & bolts, and washer for slotted hole on side rails.

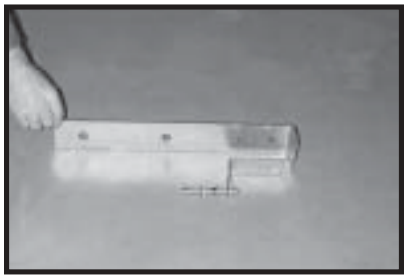


Photo 15-13 Adjustment brackets and hardware.

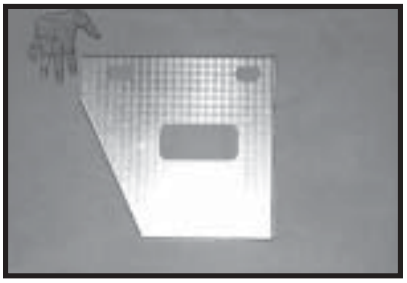


Photo 15-14 Unload front shield belt guard.

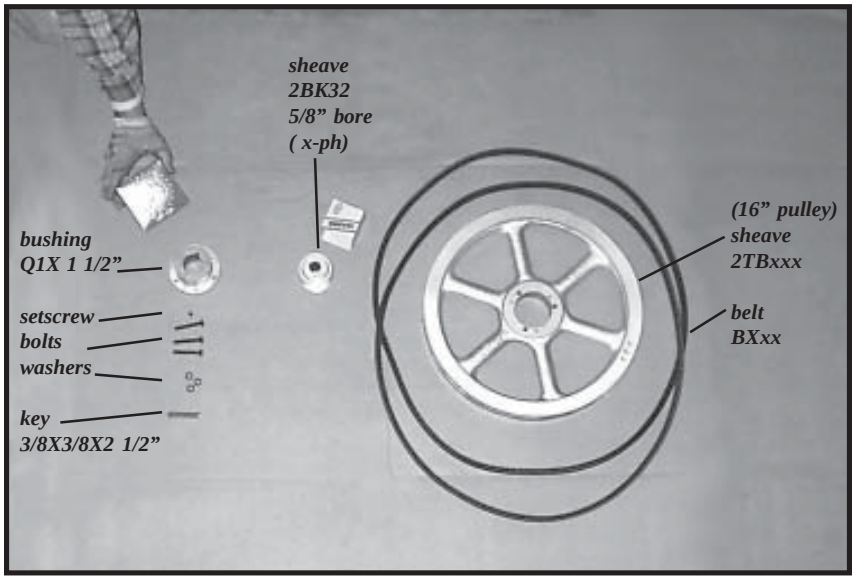


Photo 15-15

15.2. 1. In step 15.1.1. (1) MOTOR MOUNT SUPPORT BRACKET (D01-0016) for UNLOAD MOTOR was installed to front end of RH SIDE RAIL ANGLE.

15.2. 2. Place UNLOAD MOTOR on front TIE CHANNEL and MOTOR MOUNT SUPPORT BRACKET. (Photo 15-16)

Insert (2) 3/8”x4” hex head bolts with 3/8” flat washers through (2) ears on MOTOR MOUNT (D01-0081).

With additional 3/8” whiz nut on each 3/8”x4” hex head bolt, snug bolt facing opposite direction. Insert 3/8”x4” hex head bolts through MOTOR MOUNT ADJUSTMENT BRACKET (D01-0015), and snug bolt 3/8” whiz nut on each. (Photo 15-17)

15.2.3. With 5/16”x3/4” whiz bolts and 5/16” whiz nuts, loosely bolt UNLOAD MOTOR SHROUD (D01-1373) to (3 holes) BOTTOM FRONT BEARING PLATE (D01-1374), (2 holes) to BOTTOM FRONT ANGLE BRACKET (D01-1376), and (2 holes) to FRAME TIE CHANNEL (D01-0008). Tighten bolts. (Photos 15-18 and 15-19)

Photo 15-16 Placing unload motor on front tie channel and motor mount support bracket.

Photo 15-18 Tightening belt guard on unload motor.

Photo 15-17 Installing motor mount adjustment bracket to motor mount support bracket.

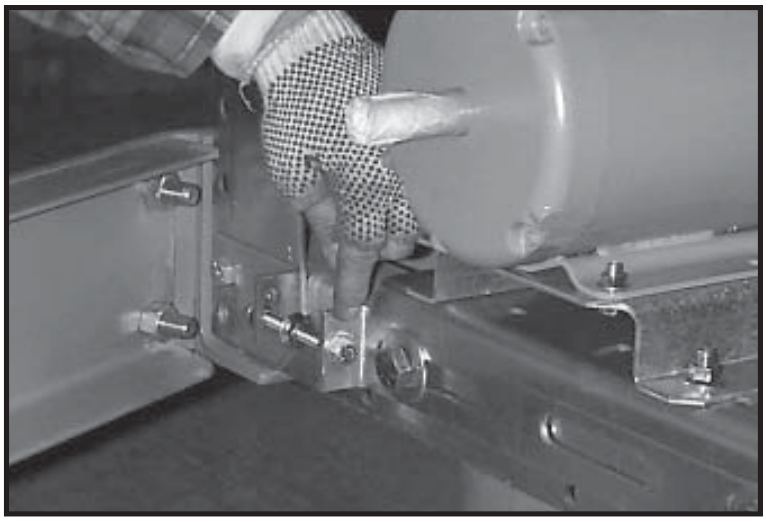


Photo 15-19 RH front of dryer - Tightening bolt adjusts belt tension (with washer on outside).

15.2.4. Facing bolts outward, loosely bolt (2) 3/8”x1” whiz bolts and (2) 3/8” whiz nuts through outside edge of UNLOAD MOTOR SHROUD (D01-1373). Tighten bolts.

15.2.5. Repeat step 15.2.3. on outside edge of BOTTOM AUGER BEARING PLATE (D01-1374).

15.2.6. Install 2BK32 MOTOR SHEAVE (D03-0174) onto shaft of UNLOAD MOTOR. Line up keyways and insert 1/4”x1/4” key.
(Photo 15-20)

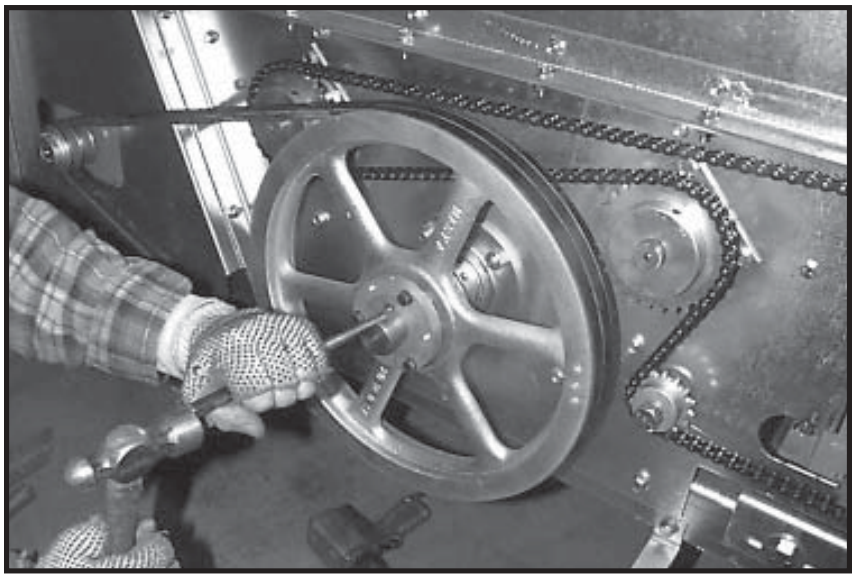


Photo 15-20 Driving key in flush on auger pulley.

15.2.7. Install BUSHING Q1X1 1/2” (D32-0019) to BOTTOM AUGER PULLEY 2TB160 (D52-0001) with (3) bolts provided in box. Install BUSHING Q1X1 1/2” to BOTTOM AUGER DRIVE SHAFT.

15.2.8. Using straight edge, place BOTTOM AUGER PULLEY (D52-0001) approximately 1/4” behind 2BK32 MOTOR SHEAVE (D03-0174).
(Photo 15-21)

Photo 15-21 Aligning belts across pullies with straight edge.

15.2.9. Install BX-75 DRIVE BELTS (D02-0080) and tighten (3) bolts on BUSHING Q1X1 1/2" (D32-0019).

Adjust 2BK32 MOTOR SHEAVE approximately 1/4" behind 2BK32 MOTOR SHEAVE.
(Photos 15-22 and 15-23)

Photo 15-22 Installing belts on auger pulley.

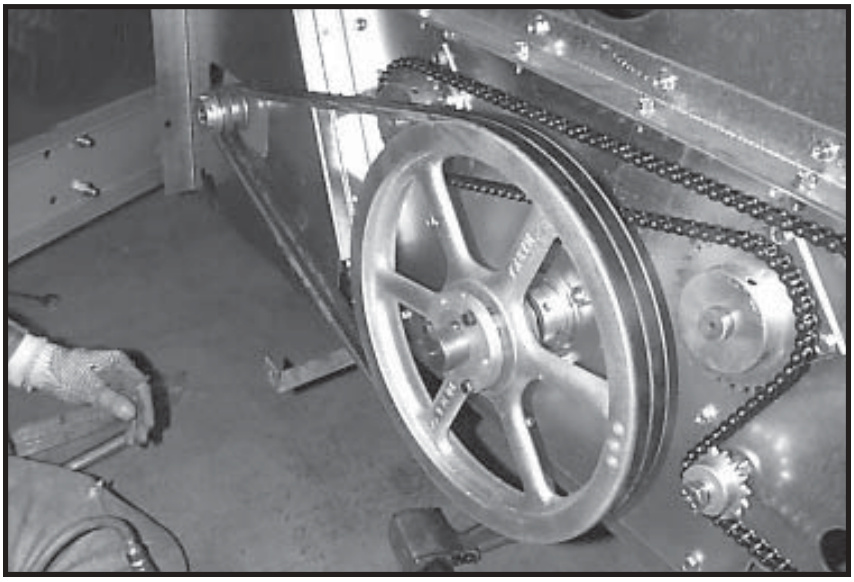


Photo 15-23 Close-up - Belts installed on auger pulley.

15.3. LOAD MOTOR installation.

Install LOAD MOTOR required by dryer.

Use the following hardware.

Pin 1/4”x2” (D02-0055)
5/16”x3/4” whiz bolts
5/16” whiz nuts
(Photo 15-24)

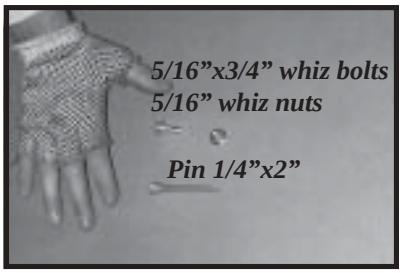


Photo 15-24 Hardware for load motor.

15.3.1. Forklift LOAD MOTOR (pre-assembled with TOP MOTOR MOUNT WELDMENT and TOP HAND HOLD) to top of dryer’s front LH side.

Example - install LOAD MOTOR (200-3-50) with TOP MOTOR MOUNT WELDMENT (D01-0172) and TOP HAND HOLD (D01-0424).

Photo 15-25 Installing load motor.

Slide TOP MOTOR WELDMENT into second RH GUSSET TOP ANGLE (D01-0152), then forward through first RH GUSSET TOP ANGLE. (Photo 15-25)

15.3.2. Insert 1/4”x2” pin through TOP MOTOR MOUNT WELDMENT tube and bend both sides up.
(Photo 15-26)

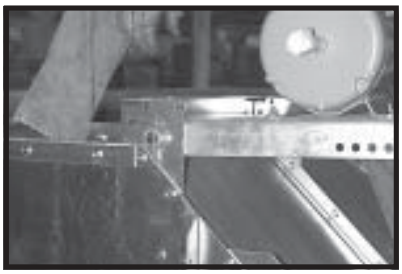


Photo 15-26) Inserting pin through motor mount weldment tube.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

16. Front Fan Support

Use required FRONT FAN SUPPORT (Photo 16-1) as listed in Chart 16-1.

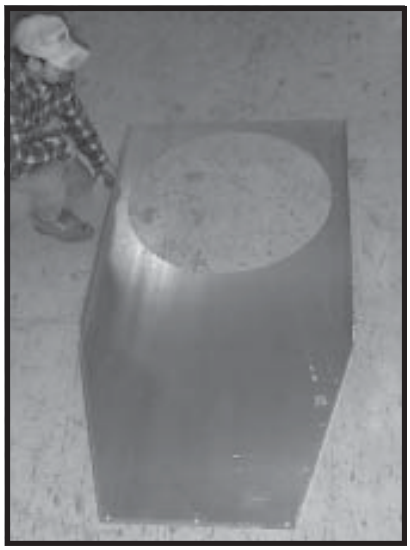


Photo 16-1 Example - front fan support for 12' dryer.

Chart 16-1

FRONT FAN SUPPORT (FAN-HEATER diameter)	PART #
26" & 26" & 26"	D01-0664
28"	D01-0663
28" & 28"	D01-0594
28" & 28"	D01-0593 (stacked modules)
36"	D51-0007
36" & 26"	D81-0020
36" & 36"	D61-0041
40" & 40"	D71-0008
42"	D51-0132
42" & 28"	D101-0021
FAN SUPPORT EXTENSION	D61-0306 (42" fan)
(for single fan, stacked modules)	D01-1179 (28" and 36" fans)

Step 16 Fan Support

Use the following parts to install FRONT FAN SUPPORT.

MOUNT BRACKET, CONTROL PANEL SUPPORT (D01-0090) (Photo 16-2)

FAN SUPPORT STIFFENER (D51-0021) (Photo 16-3)

SUPPORT CONTROL PANEL (D51-0022) (Photo 16-4)

Photo 16-2 Mount bracket control panel support.

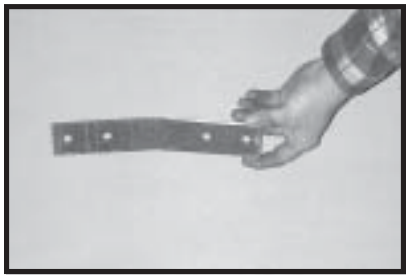


Photo 16-3 Fan support stiffener.

Install required FRONT FAN SUPPORT as follows.

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts except as otherwise specified.

Insert all bolts toward inside of dryer.

16.1. At RH front of dryer, in 4-bolt hole pattern pre-punched in FRONT END PANEL, bolt MOUNT BRACKET CONTROL PANEL SUPPORT (D01-0090) and SUPPORT CONTROL PANEL (D51-0022) back-to-back. Bolt together.

☛ Use 5/16”x3/4” hex head self-tapping bolts to install lowest pair of parts.

Repeat step in (2) remaining 4-bolt hole patterns. (Photo 16-5)

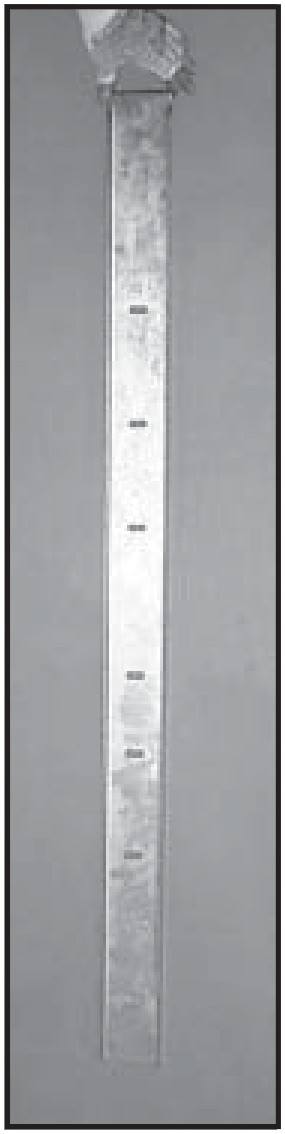


Photo 16-4 Support control panel.

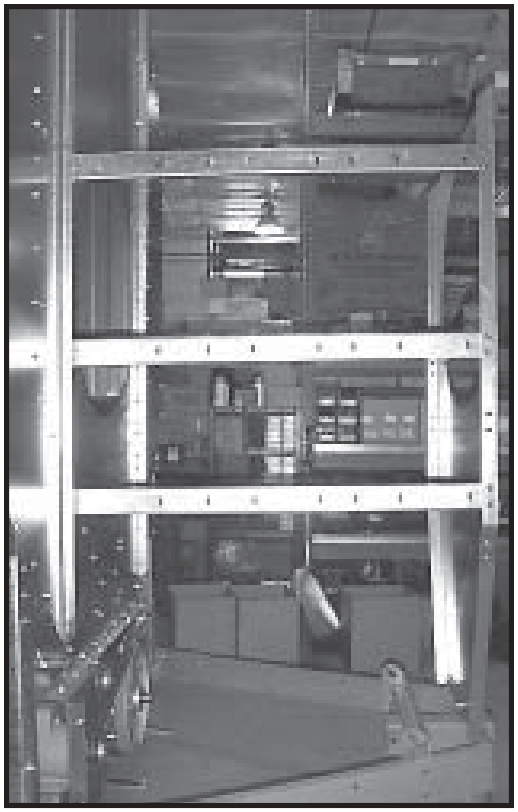


Photo 16-5 Support control panels installed.

16.2. Forklift FRONT FAN SUPPORT onto HITCH WELDMENT (D51-0007). (Photo 16-6)

16.3. With common bolt, snug bolt RH FAN SUPPORT STIFFENER (D51-0021) over notch on RH side of FRONT FAN SUPPORT, and through lowest SUPPORT CONTROL PANEL. (Photo 16-7)

Tighten bottom (2) bolts in RH FAN SUPPORT STIFFENER.

Bolt LH FAN SUPPORT STIFFENER over notch on LH side of FRONT FAN SUPPORT.

16.4. Snug bolt FRONT FAN SUPPORT to two top SUPPORT CONTROL PANELS with 3/8”x1” whiz bolts and 3/8” whiz nuts.

16.5. With 1/2”x1” bolts and 1/2” locknuts, snug bolt FRONT FAN SUPPORT to HITCH WELDMENT.

Photo 16-6 Lifting front fan support onto hitch weldment.

Photo 16-7 Installing RH fan support stiffener with common bolts.

Three-Fan Dryers - Front Fan Support

Front fan support installed to one-module, 3-fan, 22’ dryer.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

17. Wet Bins

Wet bins are not installed to standard top dryers.

Install required WET BINS as listed below.

GALVANIZED, PERFORATED

A. WET BIN SIDE, CENTER, GALVANIZED, PERFORATED (D01-0436)

B. WET BIN SIDE, LH, END GALVANIZED, PERFORATED (D01-0437)

C. WET BIN SIDE, RH, END GALVANIZED, PERFORATED (D01-0438)

GALVANIZED, SOLID

D. WET BIN SIDE, CENTER, GALVANIZED, SOLID (D01-1436)

E. WET BIN SIDE, LH, END, GALVANIZED, SOLID (D01-1437)

F. WET BIN SIDE, RH, END, GALVANIZED, SOLID (D01-1438)

STAINLESS STEEL, PERFORATED

G. WET BIN SIDE, CENTER, STAINLESS STEEL, PERFORATED (D01-0757)

H. WET BIN SIDE, LH, END, STAINLESS STEEL, PERFORATED (D01-0758)

I. WET BIN SIDE, RH, END STAINLESS STEEL, PERFORATED (D01-0759)

(Photos 17-1 and 17-2)

☛ Photo 17-1 shows one set of WET BIN SIDES. Each dryer requires two sets of WET BIN SIDES, one on RH side of dryer and one on LH side.

A. CENTER WET BIN SIDES have bolt holes pre-punched on both ends.

B. (Facing side of dryer), LH WET BIN SIDES have bolt holes on inside LH end, (marked by arrow).

C. (Facing side of dryer) RH WET BIN SIDES have bolt holes on inside RH end, (marked by arrow).

Photo 17-1 Placement of wet bin sides (galvanized, perforated) as they will be installed to dryer. (RH rear view or LH front view)

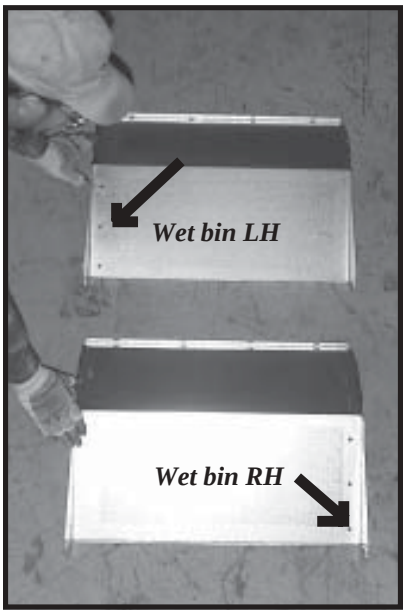


Photo 17-2 Close up pre-punched holes on wet bin sides.

Install WET BINS as follows.

17.1. Start at RH rear of dryer. Install LH WET BIN SIDE END in upright position, to (2) GUSSET TOP ANGLES at pivot points with 5/16”x3/4” whiz bolts and 5/16” whiz nuts. (Photos 17-3 and 17-4)

17.2. Install remaining LH WET BINS evenly to each other, with 5/16”x3/4” hex head bolts and 5/16” locknuts. (Photo 17-5)

Make sure WET BINS are even to each other, and tighten bolts.

17.3. Install RH WET BINS as in step 17.1 and 17.2.

17.4. Fold down WET BINS against ROOF SHEET (D01-0127).

Photo 17-3 Install LH wet bin side end in upright position to (2) gusset top angles (arrows).

Photo 17-4 Use 5/16”x3/4” whiz bolts and nuts at pivot points.

Photo 17-5 Install wet bins evenly.

17.5. WET BIN BRACKETS are tie-downs for transport. (D01-0426) (Photo 17-6).

Install (4) WET BIN BRACKETS (tie-downs) at (4) top corners of dryer as follows.

17.5.1. Bolt top of each WET BIN BRACKET to WET BIN SIDE with 1/4”x1/2” hex head bolt, 1/2” lock nut, and (2) 1/4” flat washers. (Photo 17-7)

☛ LH front WET BIN BRACKET installs to first CENTER WET BIN SIDE from front of dryer.

17.5.2. Bolt bottom of each WET BIN BRACKET to (painted) TOP EDGE ANGLE, with 5/16”x 3/4” whiz bolt and 5/16” whiz nut.

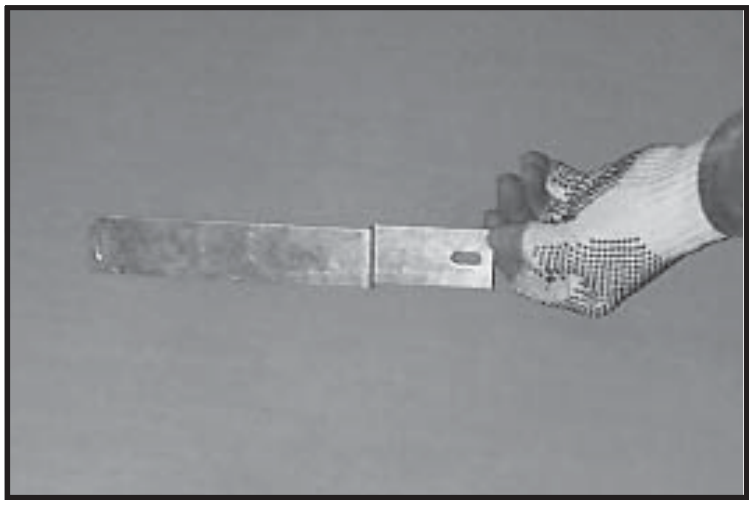


Photo 17-6 Wet bin bracket (tie-down).

Photo 17-7 Wet bins folded down and brackets (tie-downs) installed.

Important Safety Precautions:

All Electrical Connections Must Be Made By Qualified Personnel.

18. Electrical

Series 2000 or C-Series Dryers. Use the following fittings to wire and install electrical parts. (Photo 18-1)

Series 2000 dryer
electrical fittings
(omit fittings in circle).

C-Series
electrical fittings
(include fittings in circle).

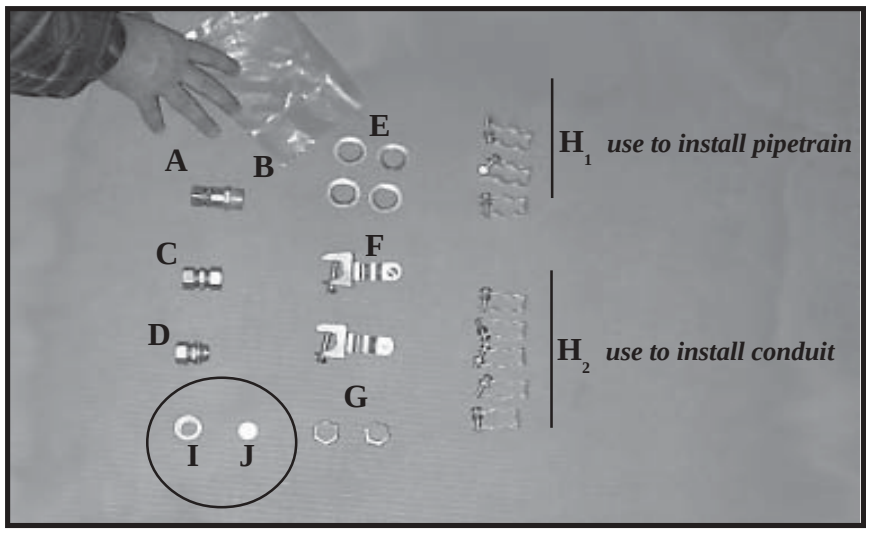


Photo 18-1.

- **A.** 1/2” Compression Connection (D03-0054) (attached to D03-0060)
- **B.** 1/2” EMT to 3/8” flex fitting (D03-0060)
- **C.** 1/2” EMT to 1/2” EMT fitting (D33-0002)
- **D.** 1/2” compression connection (D03-0054)
- **E.** 3/4”-1/2” reducing washer (electrical) (FH-6257)
- **F.** Beam Clamp (D02-0059) (attached to HH-1096)
- **G.** 1/2” nut (FH-1309)
- **H_1** 1/2” conduit clamp (HH-1096)
- **H_2** 1/2” conduit clamp (HH-1096)
- **I.** 1/2” metallic bushing (D03-0055)
- **J.** Press-in cap (D03-0053)

18.1. Install and wire PLENUM PIPE (Photo 18-2).

18.1.1. Series 2000 Dryer.

Use the following parts and hardware.
(Photos 18-3)

PLENUM PIPE
(PG40500AA)

THERMISTER
(plenum temperature sensor)
(D03-0258)

(2) 1/2” nuts (FH-1309)

BEAM CLAMP (D02-0059)

Install and wire PLENUM PIPE and THERMISTER to Series 2000 dryer as follows.

18.1.1. 1. Install BEAM CLAMPS every 6’ through length of dryer.

18.1.1. 2. Install PLENUM PIPE through BEAM CLAMPS. Use (2) 1/2” nuts to connect PLENUM PIPE to FRONT COLUMN END PANEL. (Photo 18-4)

18.1.1. 3. Install and wire THERMISTER in RH rear of dryer. (Photo 18-5)

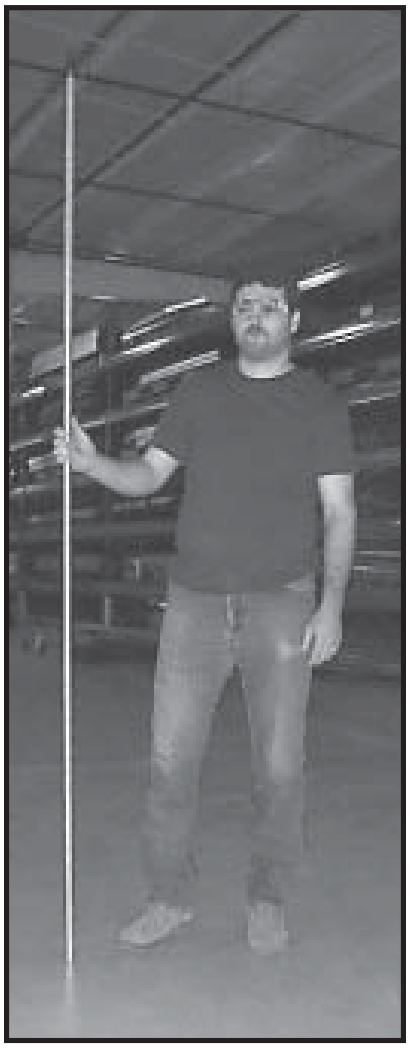


Photo 18-2 Plenum pipe for Series 2000 and C-Series dryers.

Photo 18-3 Plenum pipe installed inside dryer, connects to column end panel.

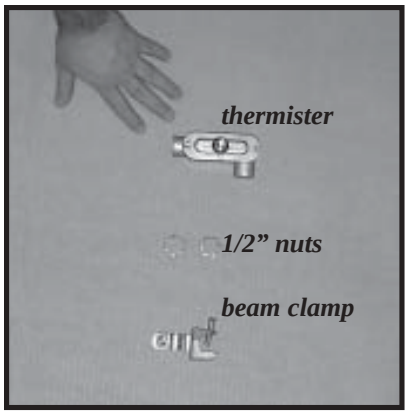


Photo 18-4 Plenum pipe fittings for Series 2000 dryer.

Photo 18-5 Plenum pipe for 3-fan dryer.

Photo 18-6 Thermister installed on plenum pipe inside rear of Series 2000 dryer.

18.1.2. C-Series Dryer.

Use the following parts and hardware.
(Photos 18-7 and 18-8)

PLENUM PIPE
(PG40500AA)

PRESS-IN CAP
(D03-0053)

1/2” METALLIC BUSHING
(D03-0055)

(2) 1/2” nuts (FH-1309)

BEAM CLAMP (D02-0059)

☛ Thermometer is temperature sensor for C-Series dryers.

Install PLENUM PIPE in C-Series dryer as follows.

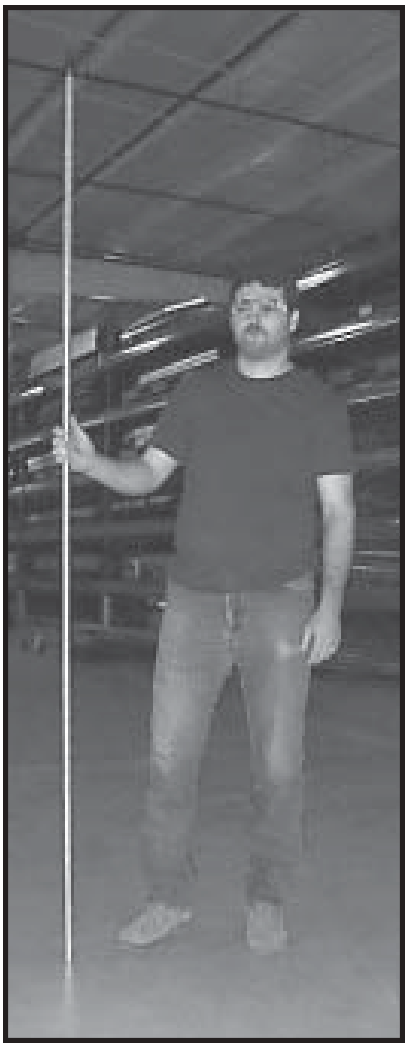


Photo 18-7 Plenum pipe for Series 2000 and C-Series dryers.

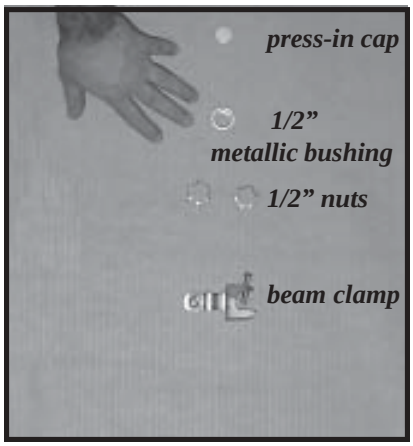


Photo 18-8 Plenum pipe fittings for C-Series dryer.

18.1.2. 1. Install BEAM CLAMPS every 6’ through length of dryer.

18.1.2. 2. Install PLENUM PIPE through BEAM CLAMPS. Use (2) 1/2” nuts to connect PLENUM PIPE to front COLUMN END PANEL.

18.1.2. 3. Press in PRESS-IN CAP and install 1/2” METALLIC BUSHING.

18.2. Install THERMOSTAT ASSEMBLY(S).
(on C-Series dryers only).

(☛ Install THERMOSTAT ASSEMBLY for each FAN-HEATER ASSEMBLY.

Use the following parts and hardware.
(Photo 18-9)

A. THERMOSTAT ASSEMBLY (D01-0184)

B. GROMMET for thermometer (HH-7048)

C. CAPILLARY CLIPS (cable holds) (D02-0023)

D. #10, 16x5/8" self-drilling screws (S-280)

E. CAPILLARY for thermometer

F. THERMOMETER

G. CAPILLARY for thermostat

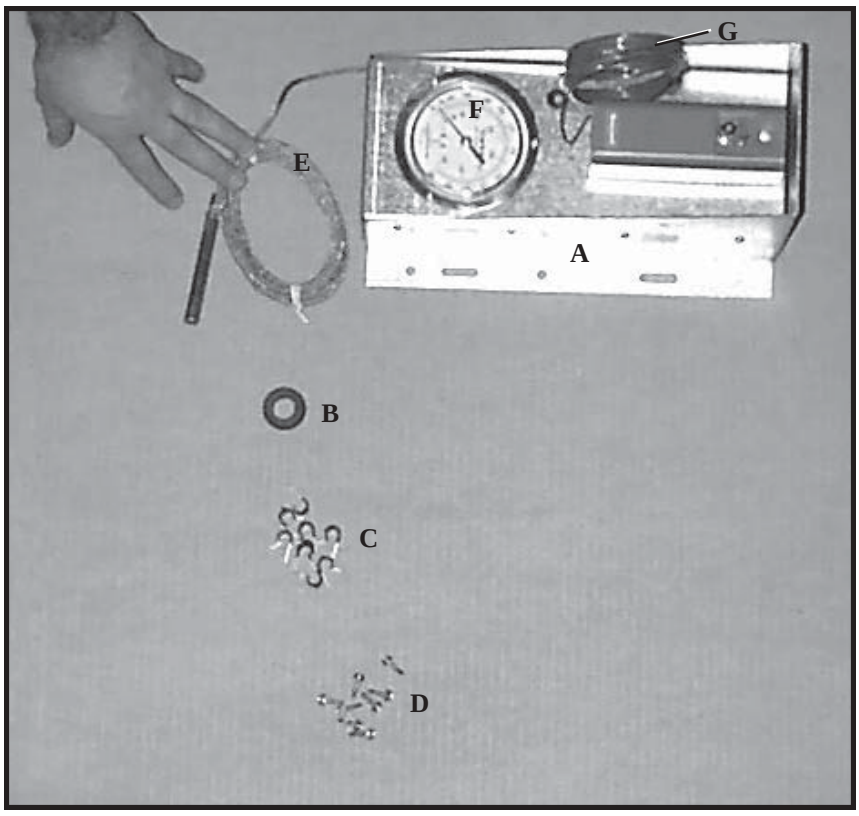


Photo 18-9 Thermostat assembly and hardware.

18.2.1. Install GROMMET in FRONT COLUMN END PANEL.

18.2.2. Install THERMOSTAT ASSEMBLY to FRONT COLUMN END PANEL.

18.2.3. Install CAPILLARY BRACKETS (D01-0123) (Photo 18-10) on LH side of dryer plenum wall. Install in front seven seams of PLENUM WALL (D31-0012), in fifth bolt hole.

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts.

18.2.4. Use CAPILLARY CLIPS install THERMOSTAT ASSEMBLY to CAPILLARY BRACKETS with CAPILLARY CLIPS through dryer plenum. (Photo 18-12)

Photo 18-10 Capillary bracket.

Photo 18-11 Top and bottom capillaries.

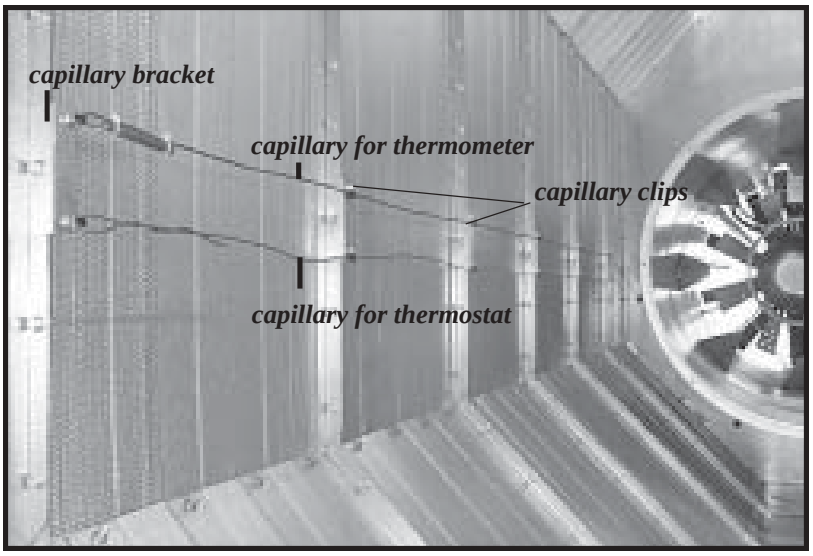


Photo 18-12 Thermostat and thermometer capillaries installed.

Stacked Dryers - Adjustable Thermostats.

Stacked dryers require installation of ADJUSTABLE THERMOSTAT(S) (D04-0106) (Photo 18-13)

☛ ADJUSTABLE THERMOSTAT sets grain temperature.

☛ Install one ADJUSTABLE THERMOSTAT per module.

Install ADJUSTABLE THERMOSTAT to LH side of FRONT END PANEL as illustrated in Photo 18-14.

Photo 18-13 Adjustable thermostat.

Photo 18-14 (2) Adjustable thermostats installed in stacked dryer. Temperature range is 80 degrees to 220 degrees.

Three-Fan Dryers - Adjustable Thermostats.

Three-Fan dryers require installation of ADJUSTABLE THERMOSTAT(S) (D04-0106) (Photo 18-15)

☛ ADJUSTABLE THERMOSTAT sets grain temperature.

☛ Install one ADJUSTABLE THERMOSTAT per module.

Install ADJUSTABLE THERMOSTAT(S) as follows.

A. Install ADJUSTABLE THERMOSTAT(S) in CONTROL BOX using 1/4”-20x1/2” bolts and locknuts.

B. Run capillary down flex conduit with black and white wire.

C. Install RTD SENSORS on capillary and wire in series.

D. Run capillary down EMT in grain column. (Photo 18-16)

Photo 18-15 Adjustable thermostat installed in three-fan dryer. Temperature range is 80 degrees to 220 degrees.

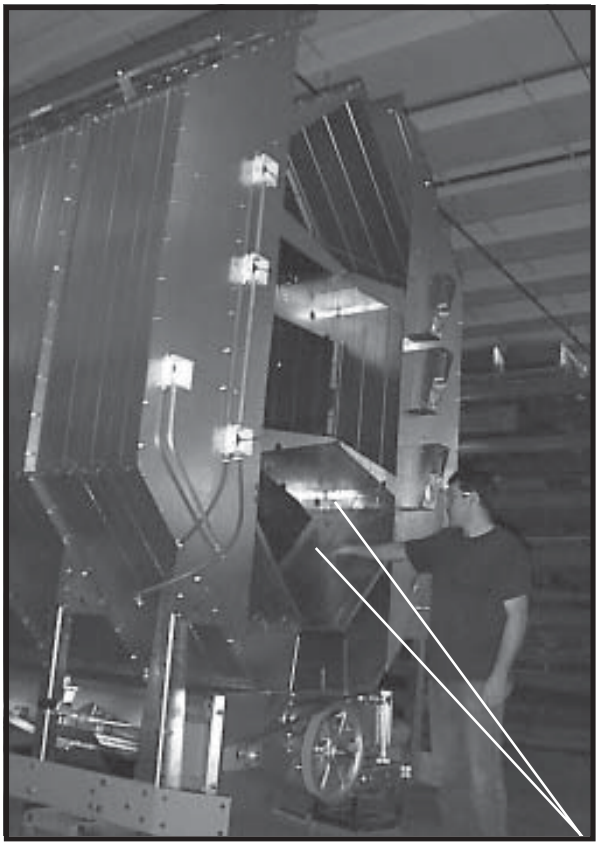


Photo 18-16 Top and bottom capillaries for 3-fan dryer.

18.3. Install EMT and fittings on outside LH side of dryer (Photo 18-17) as follows.

A. 1/2" COMPRESSION FITTING (D03-0054)

B. 1/2" EMT 3/8" FLEX CONDUIT FITTING (D03-0060)

C. EMT (D03-0057)

D. 1/2" COMPRESSION FITTING (D03-0054)

Dryer with front discharge option requires reverse EMT installation.

18.3.1. Slide EMT through GUSSET PLATES.

18.3.2. Install fittings to EMT as diagramed in Photo 18-18).

18.3.3. Connect EMT fitting to rear GUSSET PLATE.

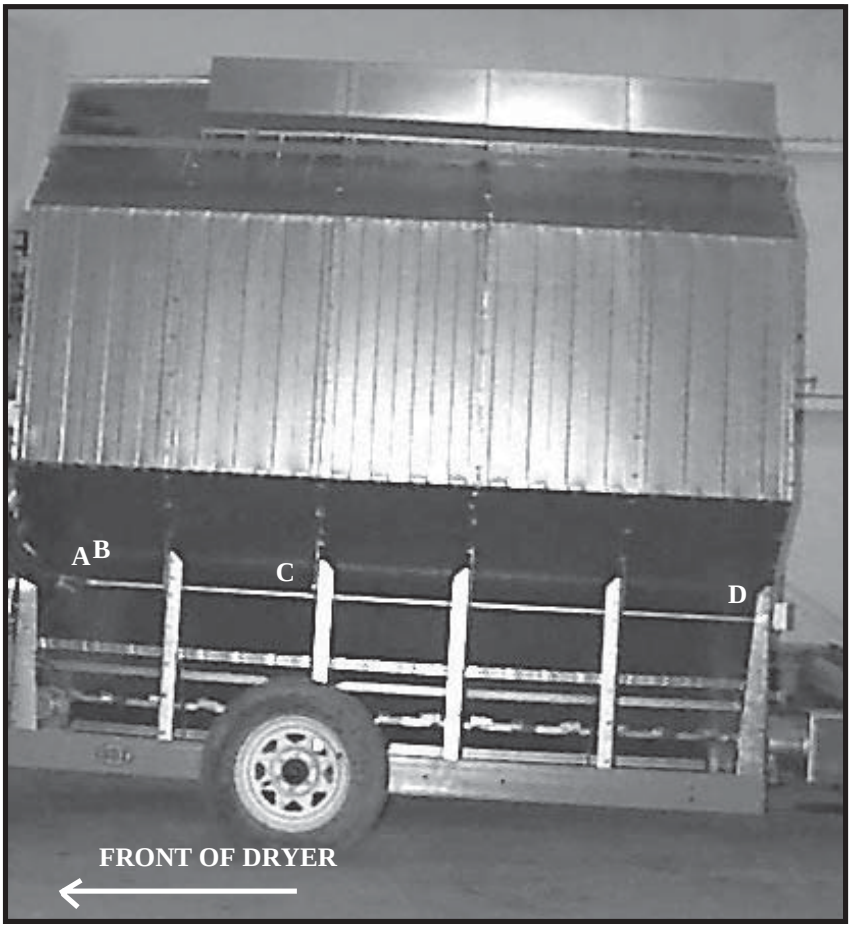


Photo 18-18 Example - EMT fittings installed to 10' dryer.

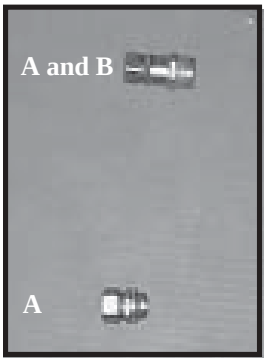


Photo 18-17

18.4. Use the following HANDY BOX parts (Photo 18-19) to install:

LOWER JUNCTION,

UPPER JUNCTION,

GRAIN HI-LIMIT, and

PLENUM HI-LIMIT.

1. HANDY BOX AND LID (D02-0044)

2. GASKET (FLX-2690)

3. NUTS, #10-24 (S-849)

4. SCREWS, #10-24x1" (S-7377) (Use to install handy box lid.)

5. SCREWS, #10-16x5/8" self-drilling (S280) (Use to install handy box.)

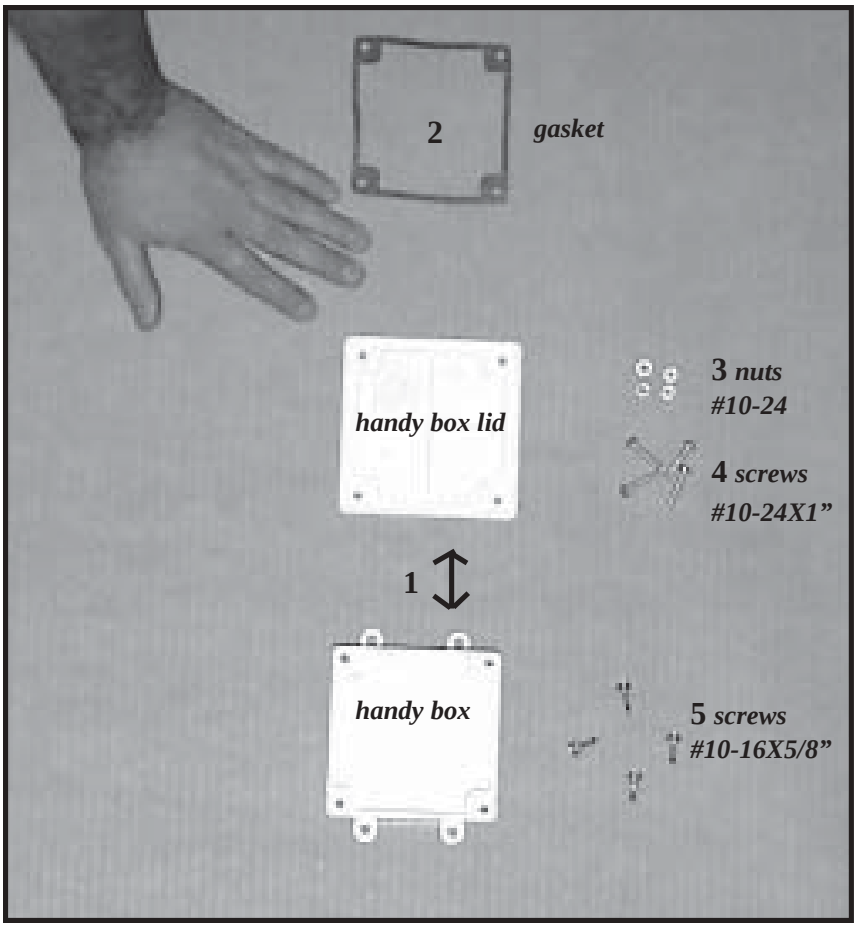


Photo 18-19 Handy box and hardware.

18.4.1. Install **LOWER JUNCTION** (Photo 18-20) as follows.
Example for single fan dryer.

18.4.1.1. Drill holes at dimples and install LOWER JUNCTION to FRONT END PANEL with #10-16x5/8" self-drilling screws. Tighten fittings as they are assembled.

18.4.1.2. Install 1/2" clamp on FRONT END PANEL.

18.4.1.3. Run wires as shown in Photos 18-21 to 18-22).

18.4.1.4. With silicone, caulk around fittings inside HANDY BOX.

18.4.1.5. Install HANDY BOX LID with #10-24x1" SCREWS.

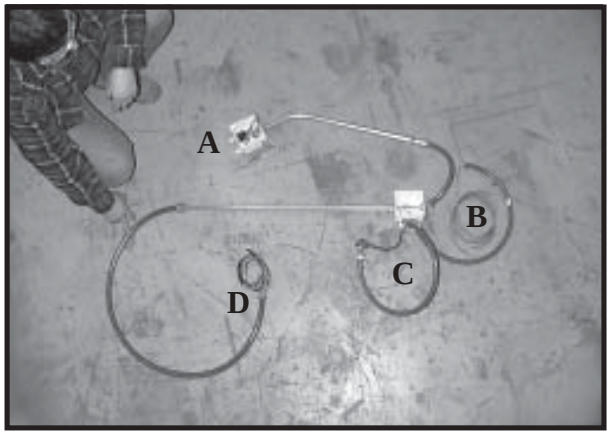


Photo 18-20 Lower Junction.

Lower Junction consists of

A. LH Grain Hi-Limit and wires
B. wires for discharge switch and meter rolls (if required)
C. wires for SCR motor
D. conduit to power box

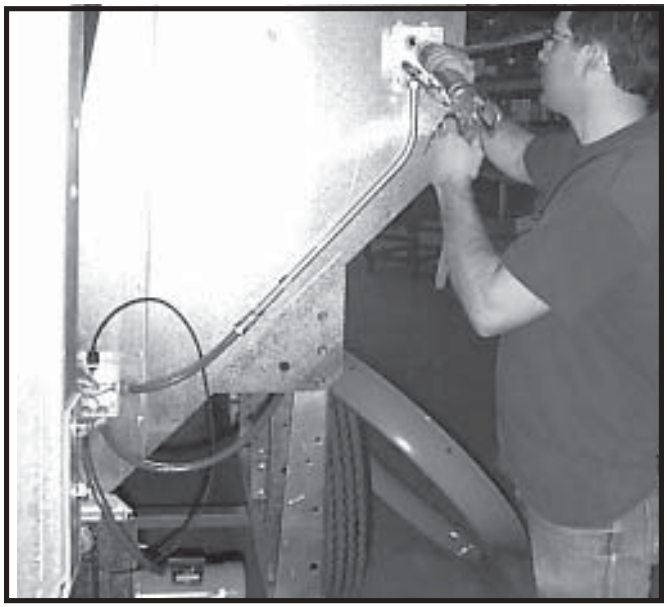


Photo 18-21 Installing lower junction.

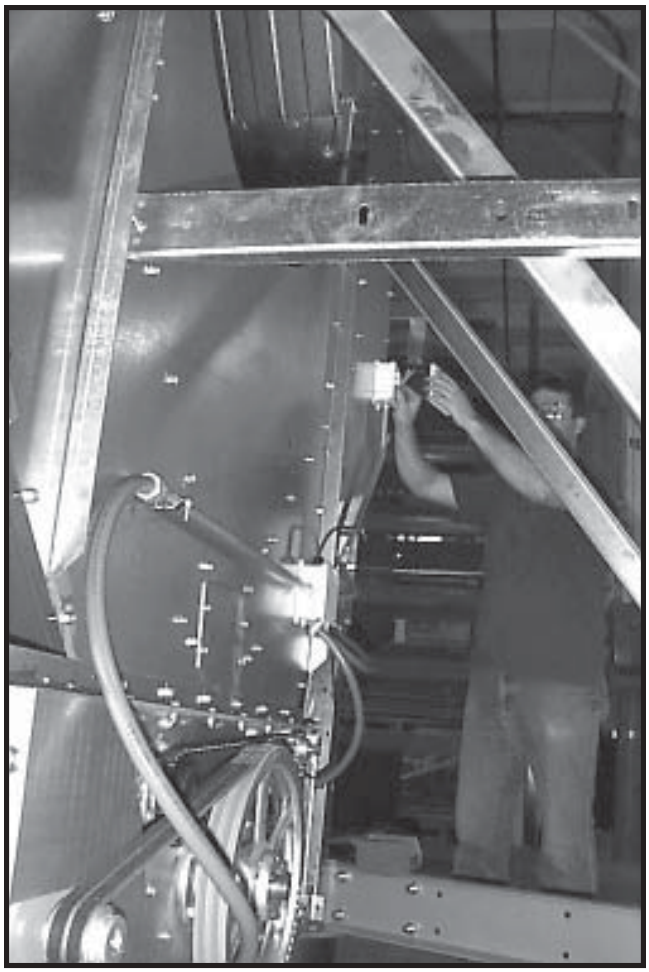


Photo 18-22 Lower Junction installed.

18.4.2. Install **UPPER JUNCTION** (Photo 18-24) as follows.

Example for single fan dryer.

18.4.2.1. Drill holes at dimples and install UPPER JUNCTION to RH FRONT COLUMN END PANEL.

☛ Tighten fittings as they are installed.

18.4.2.2. Install 1/2" CLAMPS.

Photo 18-23 1/2" clamp.

18.4.2.3. Install HANDY BOX LID with #10-24x1" SCREWS. (Photo 18-25)

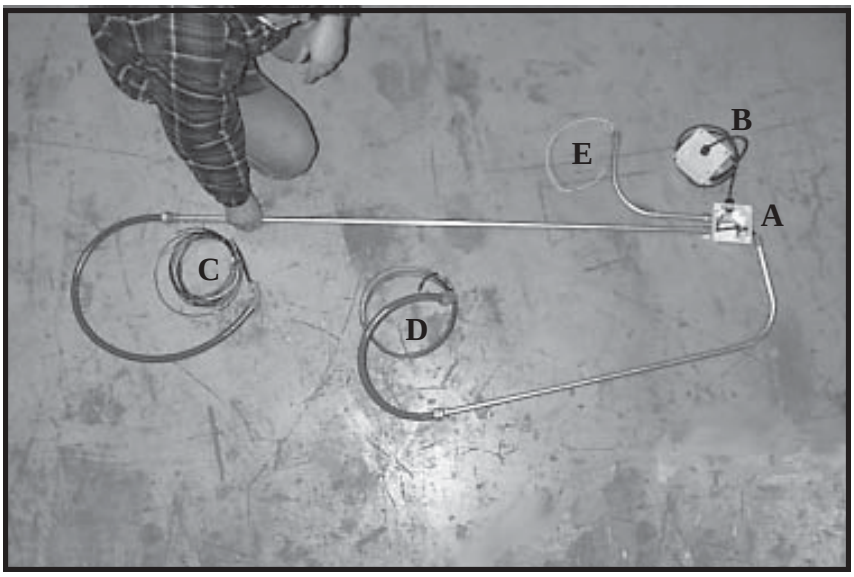


Photo 18-24 Upper junction.

Upper Junction components:
- **A.** Upper junction
- **B.** Mercury switch (D01-0192) (Installed on FILL AUGER in later step.)

Upper Junction wires to:
- **C.** Power box
- **D.** Load motor
- **E.** 90 degree light

Photo 18-25 Upper junction installed.

18.4.3. Install **RH GRAIN HI-LIMIT and PLENUM HI-LIMIT.**

Series 2000
(Photo 18-27)

Install RH GRAIN HI-LIMIT and PLENUM HI-LIMIT to Series 2000 dryer as follows.

18.4.3.1. Drill holes at dimples and install RH GRAIN HI-LIMIT and PLENUM HI-LIMIT to FRONT END PANEL with #10-16x5/8" self-drilling screws. Tighten fittings as they are installed. (Photo 18-26)

18.4.3.2. With silicone, caulk around fittings inside HANDY BOX.

18.4.3.3. Install 1/2" CLAMPS.

Photo 18-26 1/2" clamp.

18.4.3.4. Install HANDY BOX LID with #10-24x1" SCREWS.

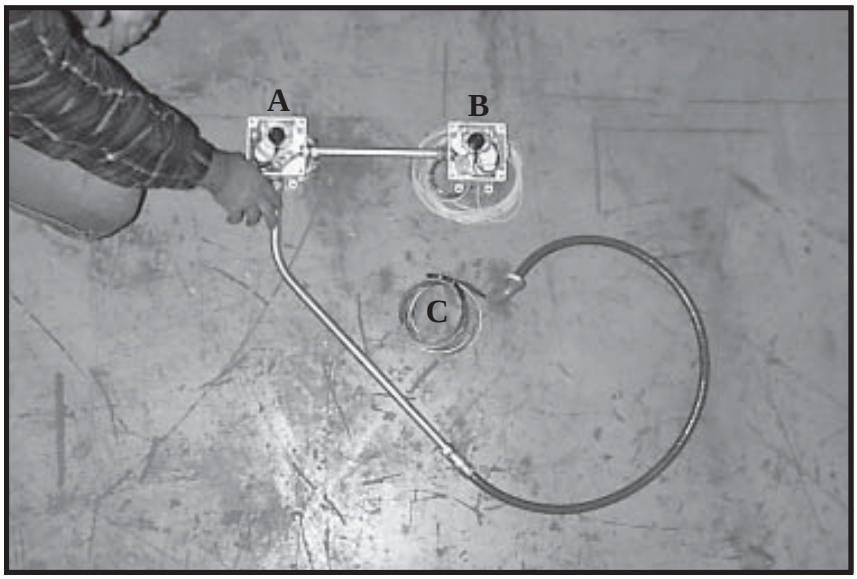


Photo 18-27 RH grain Hi-Limit and Plenum Hi-Limit for Series 2000 dryer.

A. RH Grain Hi-Limit
B. Plenum Hi-Limit
C. wires to power box

C-Series
Install RH GRAIN HI-LIMIT and PLENUM HI-LIMIT to C-Series dryer with PLENUM PIPE to RH COLUMN END PANEL.

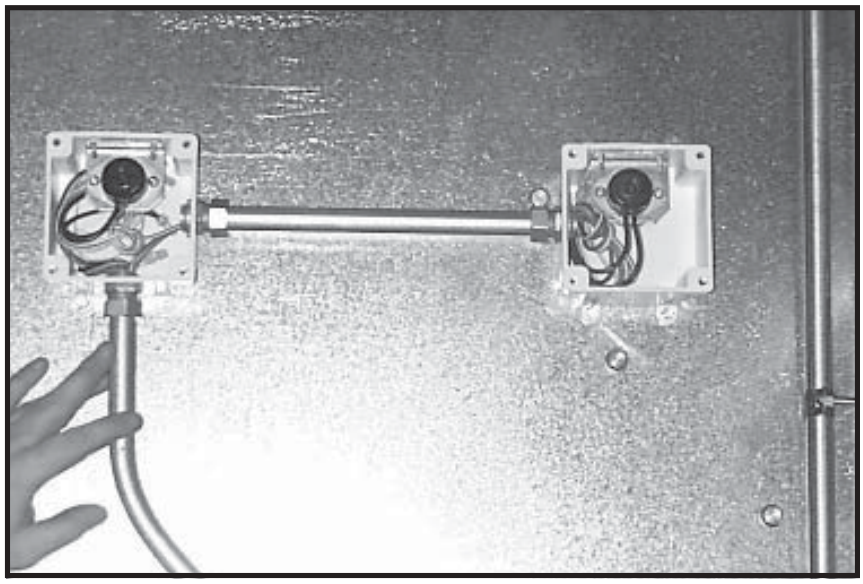


Photo 18-28 RH grain Hi-Limit and Plenum Hi-Limit installed to Series 2000 dryer.

18.5. Install DISCHARGE SWITCH (D01-1216) (Photo 18-29) to Series 2000 dryer, or C-Series dryer.

18.5.1. Series 2000.

Install DISCHARGE SWITCH (D01-0481) to Series 2000 dryer as follows. (Photo 18-29)

18.5.1.1. Bolt DISCHARGE SWITCH to DISCHARGE ASSEMBLY with 1/4" bolts in pre-punched holes.

Photo 18-29 Discharge switch.

18.5.1.2. Drill (4) holes (see photo 18-32 for placement) and install REAR JUNCTION BOX.

18.5.1.3. Install 1/2" CLAMPS.

Photo 18-30 1/2" clamp.

18.5.1.4. Make connections according to wire labels. (Photo 18-33)

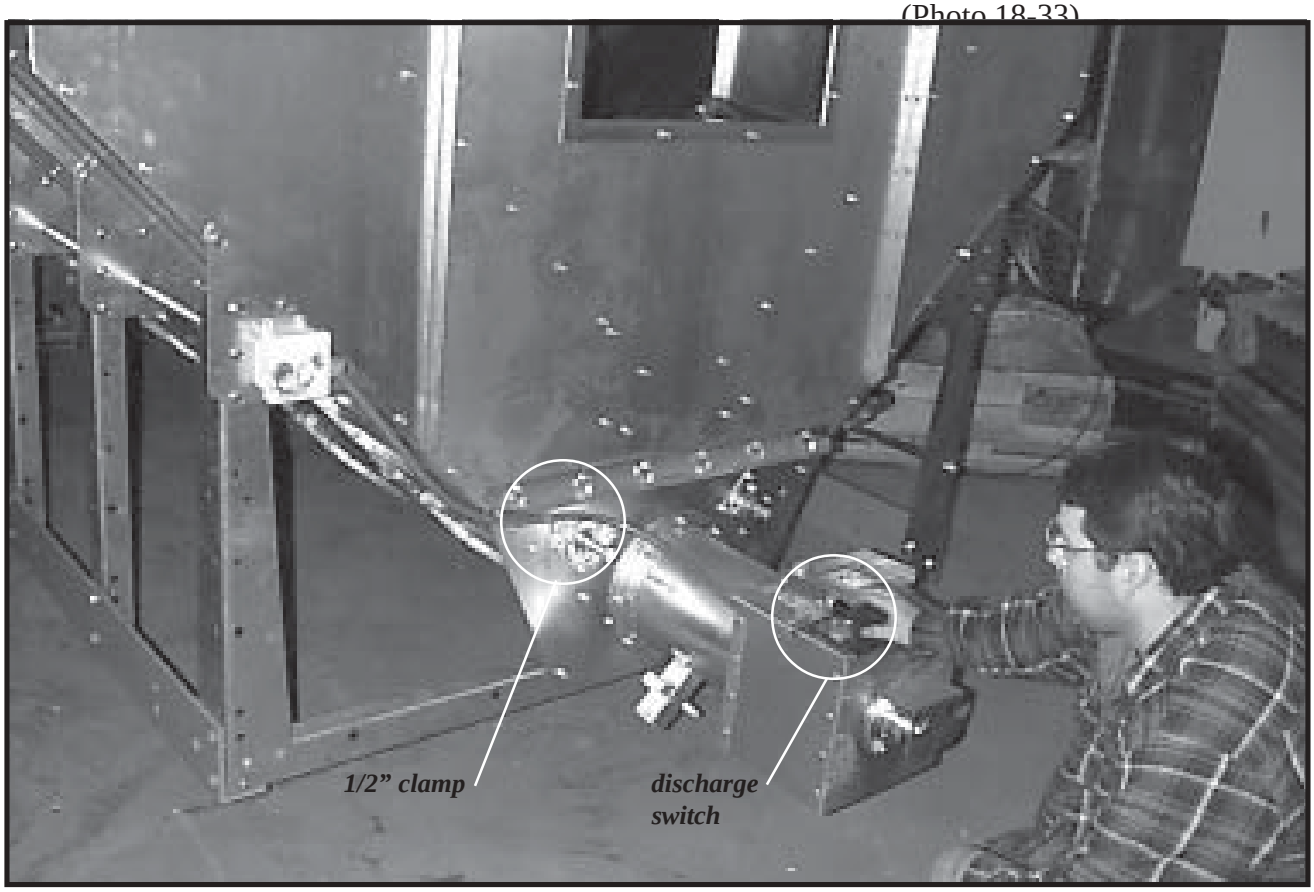


Photo 18-31 Meter roll wiring and discharge switch installed to Series 2000 dryer.

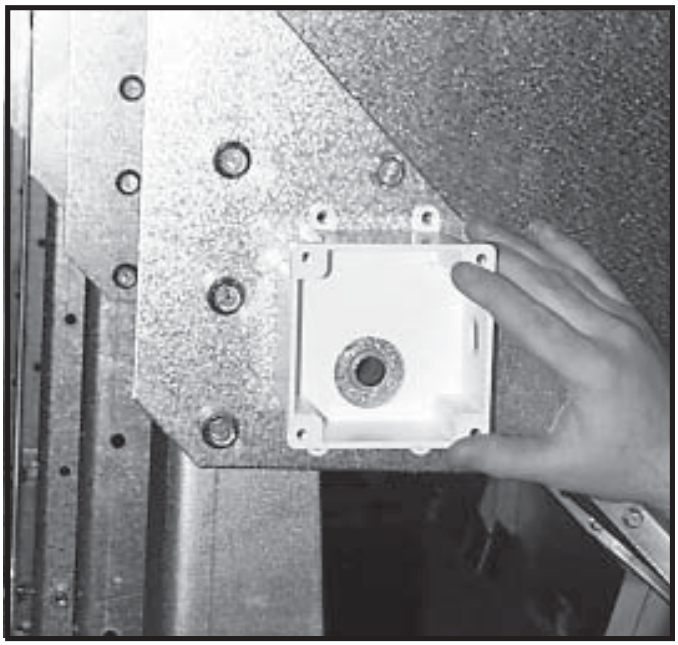


Photo 18-32 Placement of (4) holes drilled for installation of rear junction box.

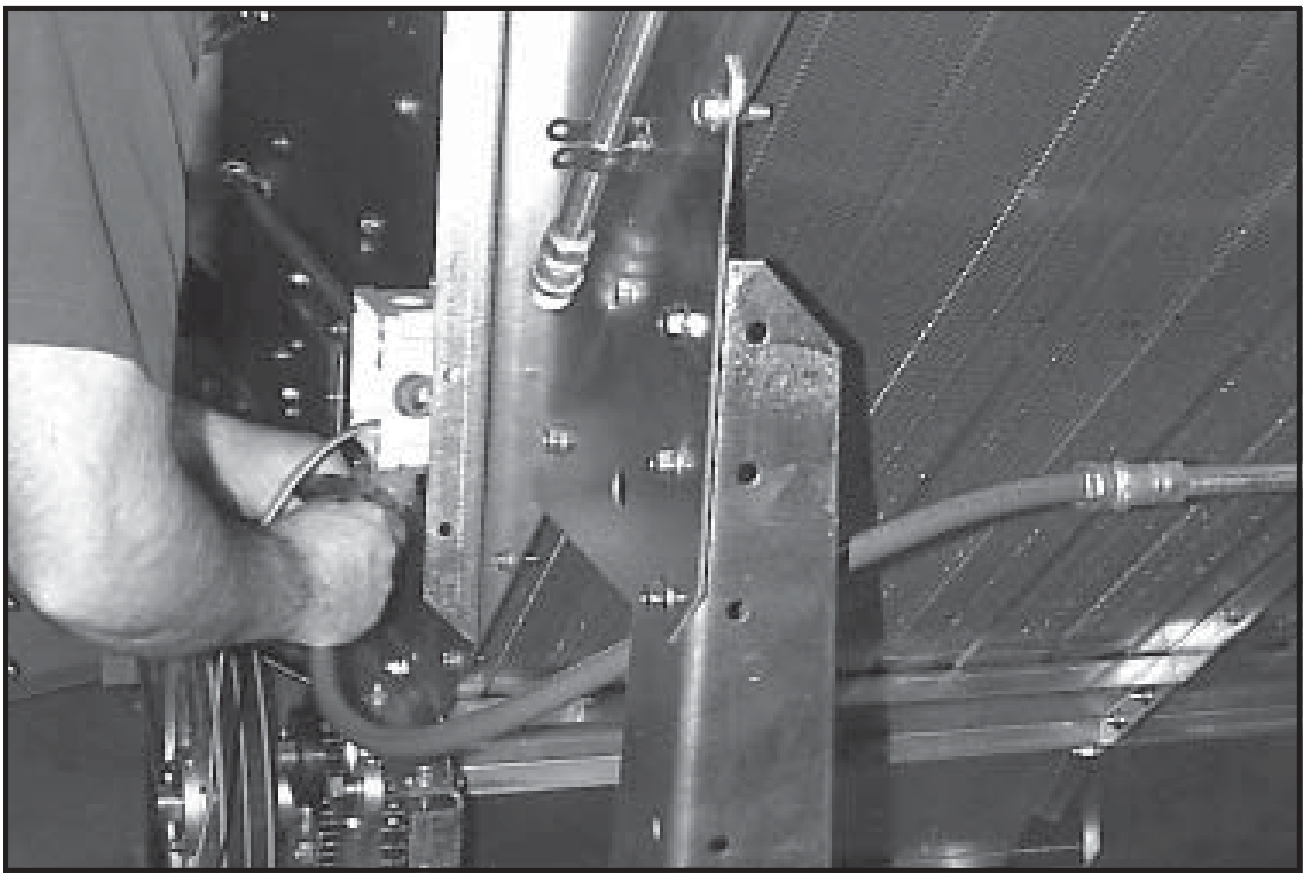


Photo 18-33 Front view - Flex conduit and wires for discharge switch located at rear of dryer.

18.5.1. C-Series.

Install DISCHARGE SWITCH (D01-0481) (Photo 18-36) and METER ROLL ELECTRICAL ASSEMBLY (FH-6972) to C-Series dryer as follows.

18.5.1.1. Bolt DISCHARGE SWITCH to DISCHARGE ASSEMBLY with 1/4" bolts in pre-punched holes.

18.5.1.2. Drill (4) holes (see photo 18-4 for location), and install REAR JUNCTION BOX.

18.5.1.3. Install METER ROLL ELECTRICAL ASSEMBLY with METER ROLL MONITORING GEAR (D01-0451) positioned between (2) sensors. Set setscrew.

18.5.1.4. Connect wires according to wire labels.

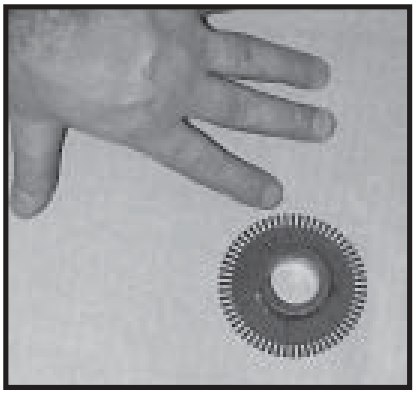


Photo 18-34

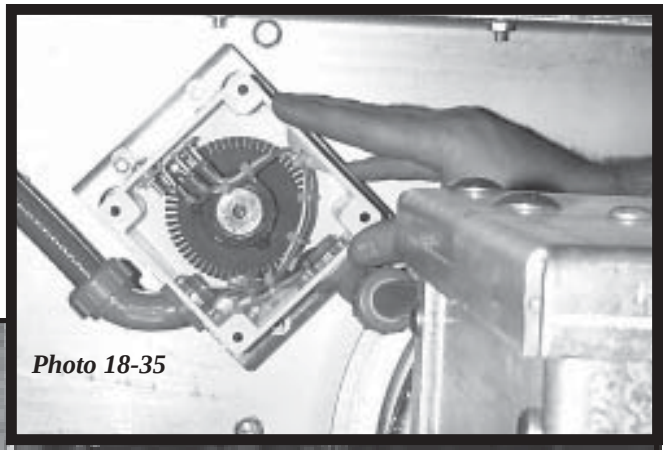


Photo 18-35

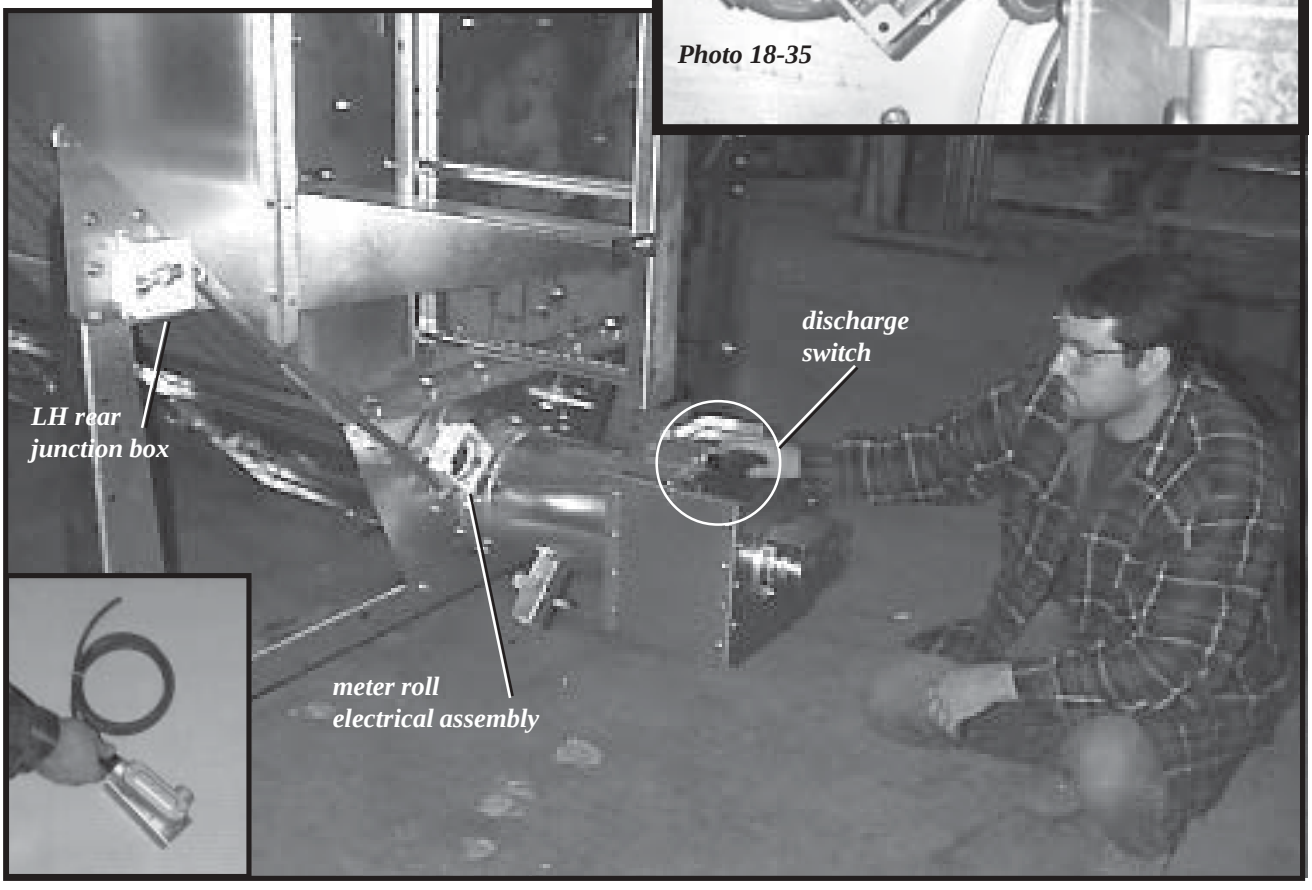


Photo 18-36 Meter roll wiring and discharge switch installed to C-Series dryer.

18.6. Install AIR SWITCH (D01-0672) as follows. (Photo 18-37

18.6.1. Install GROMMET in FRONT END PANEL.

18.6.2. Install AIR SWITCH box to FRONT END PANEL.

18.6.3. Connect wires according to wire labels.

18.6.4. Install AIR SWITCH faceplate to AIR SWITCH box through GROMMET (D03-0171) with #8-32x3/8" screws. (Photos 18-38 & 18-39)

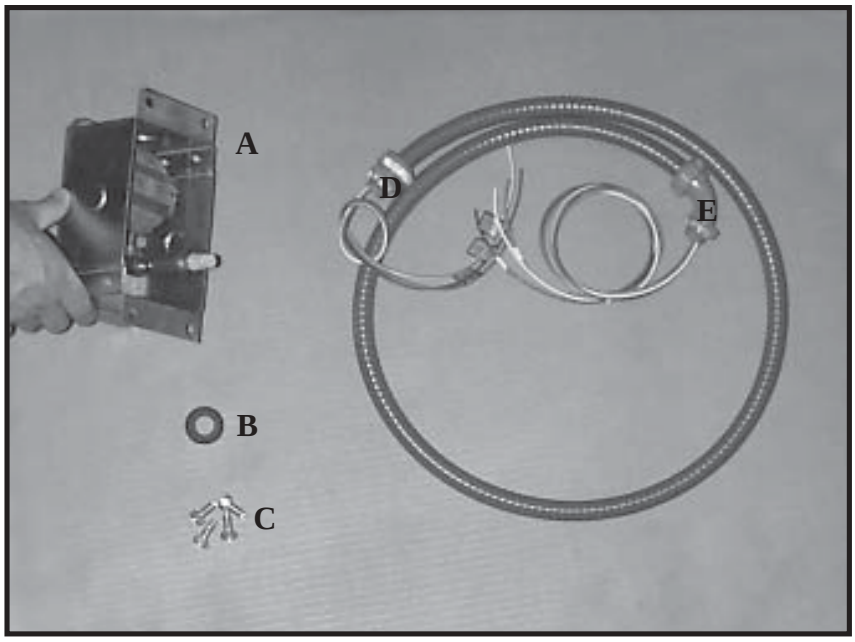


Photo 18-37 Air switch, conduit with fittings and wires.

A. AIR SWITCH (D01-0672)
B. GROMMET (D03-0171)
C. 5/16"-18x3/4" hex bolt (S6495)
D. connects to air switch
E. connects to power box

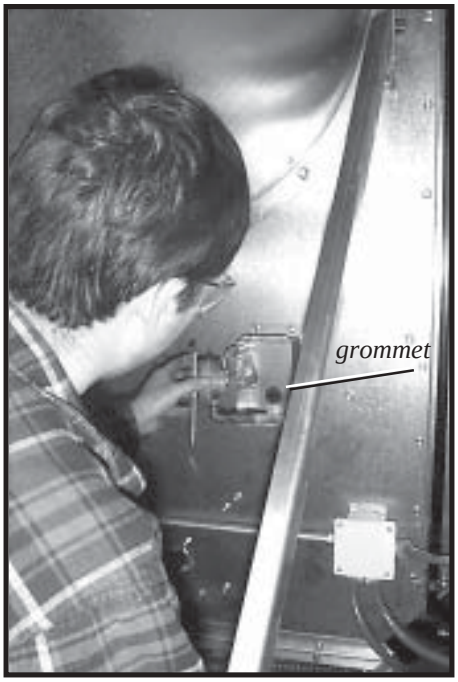


Photo 18-38 Wiring air switch.

Photo 18-39 Air switch installed.

18.7. Install 90 DEGREE LIGHT KIT (D03-0117) with parts provided in kit. (Photo 18-42)

18.7.1. Assemble light as illustrated in Photo 18-40.

18.7.2. Install light in UPPER JUNCTION with self-drilling screws.

18.7.3. Level light, and drill holes in FRONT COLUMN END PANEL.

18.7.4. Install globe and light guard. (Photo 18-41)

Photo 18-40 90 degree light kit assembly sequence.

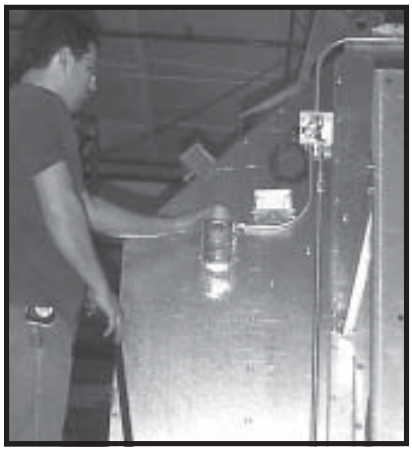


Photo 18-41 90 degree light kit installed.

Photo 18-42 90 degree light kit.

90 DEGREE LIGHT KIT components:

- **A.** 90 degree light and globe
- **B.** guard
- **C.** gasket
- **D.** guard screws
- **E.** screws to mount light to electrical box
- **F.** electrical box
- **G.** 1/4”-20x3/4” self-drilling screws (S-6497)
- **H.** 1/2” conduit plug (D03-0097)

18.8. Wire (3) MOTORS:

LOAD MOTOR,

UNLOAD MOTOR, and

SCR MOTOR,
(Silicone Controlled Rectifier)

18.8.1. Wire **LOAD MOTOR** according to wiring diagram on motor. (Photo 18-43)

18.8.1. continued

Load Motor Rotation by Dryer Fill Type

Rear-fill - clockwise

Front-fill -counterclockwise

☛ Orientation to determine motor rotation is looking at motor drive shaft.

Photo 18-43 Load motor wired, with name plate lifted.

18.8.2. Wire **UNLOAD MOTOR** according to wiring diagram on motor and as follows. (Photo 18-44)

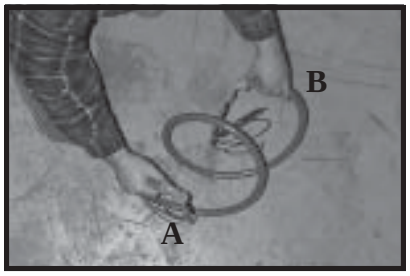


Photo 18-44 Conduit and wires for unload motor.

A. (shorter wires) connect to unload motor
B. (longer wires) connect to power box

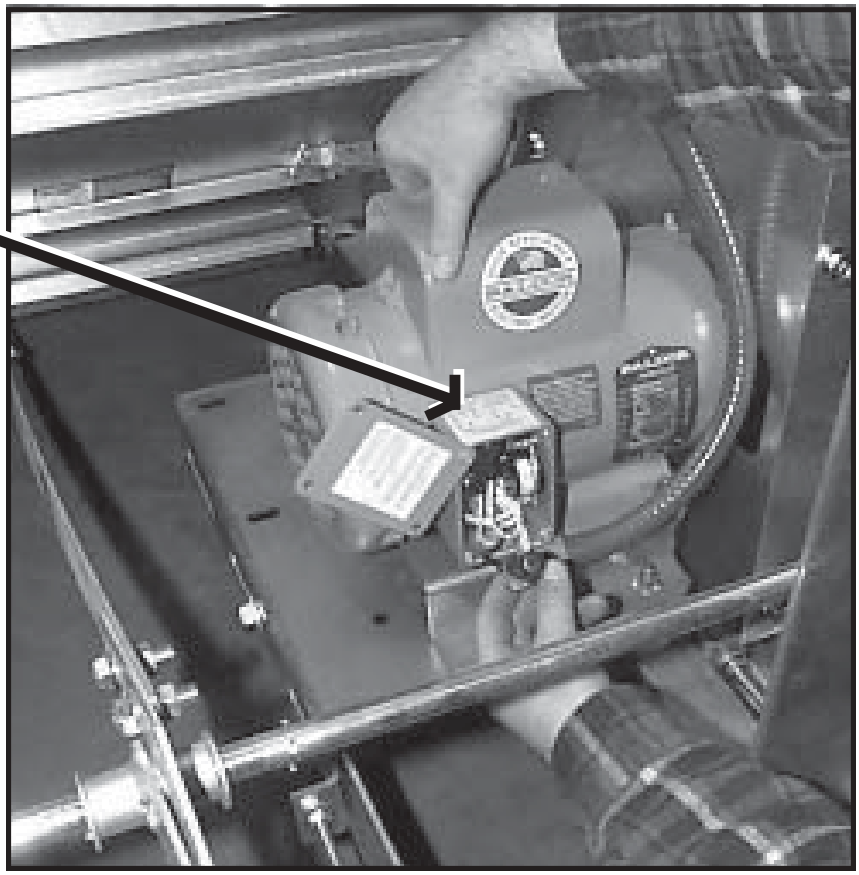


Photo 18-45 Unload motor wired.

Unload Motor Rotation

counterclockwise

☛ Orientation to determine motor rotation is looking at motor drive shaft.

18.8.3. Wire
SCR MOTOR
(Silicone Controlled Rectifier)
according to wire labels.
(Photo 18-46)

SCR Motor Rotation

clockwise.

☛ Orientation to determine motor rotation is looking at motor drive shaft.

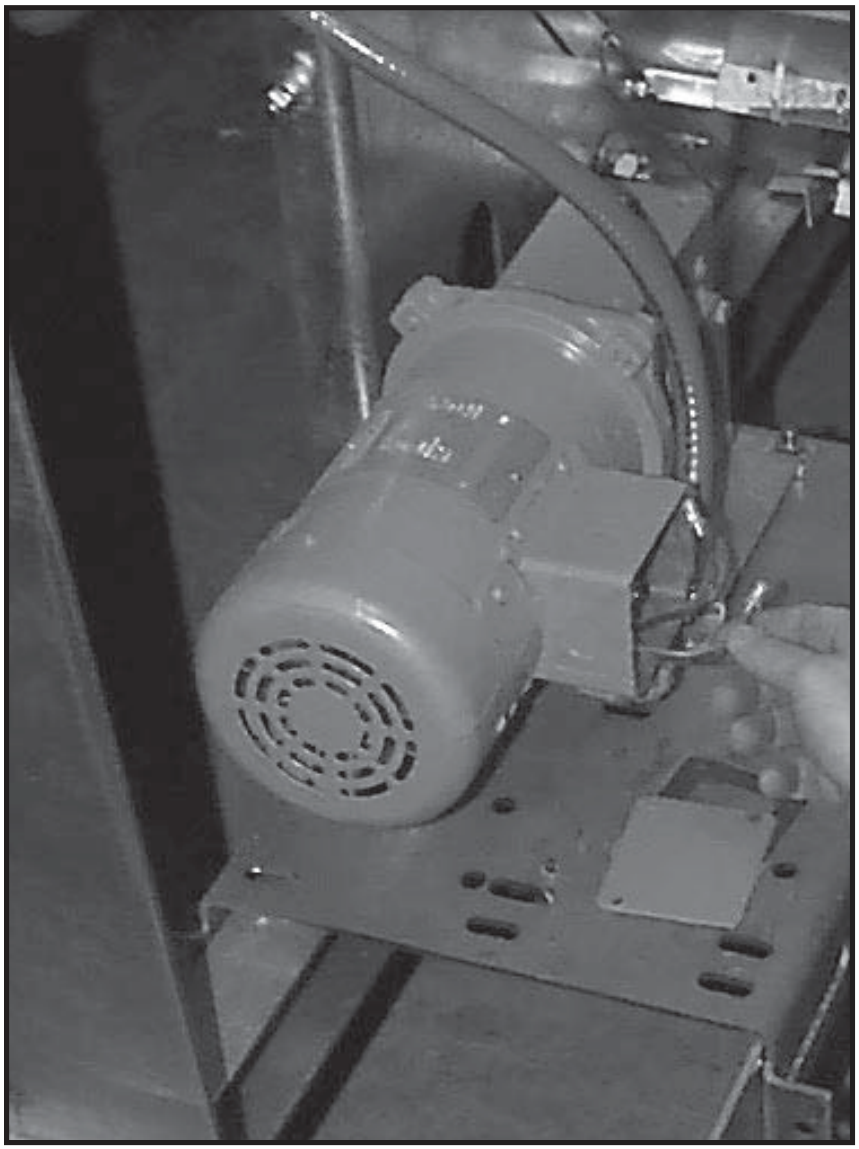


Photo 18-46 SCR motor wired.

18.9. Install **FAN-HEATER ASSEMBLY** (Photo 18-49). with the following parts. (Photos 18-47, 18-48, & 18-50)

☛ FAN-HEATER ASSEMBLY is shipped assembled.

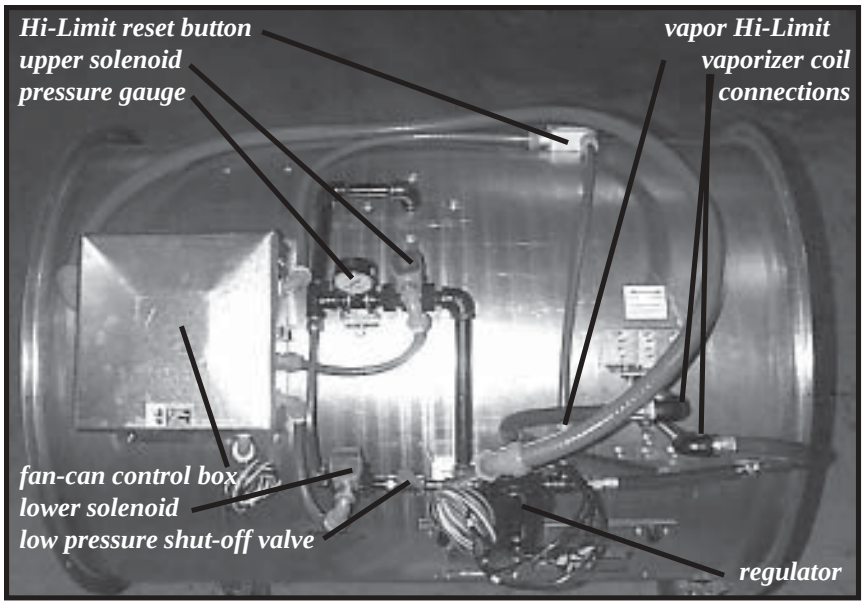


Photo 18-49 Example - LP Fan-Heater Assembly for 10' or 12' dryer.

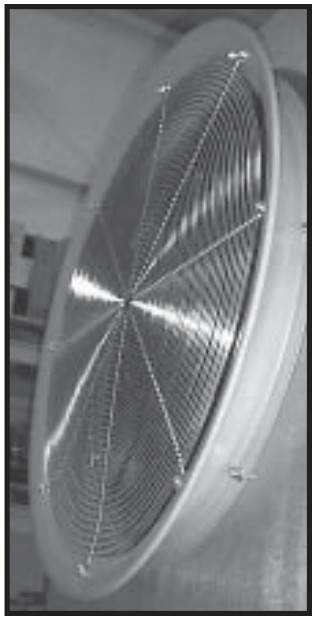


Photo 18-47 Venturi with grill guard.

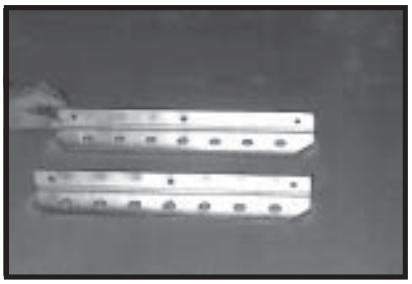


Photo 18-48 Diagonal Support Angles (D31-0129).

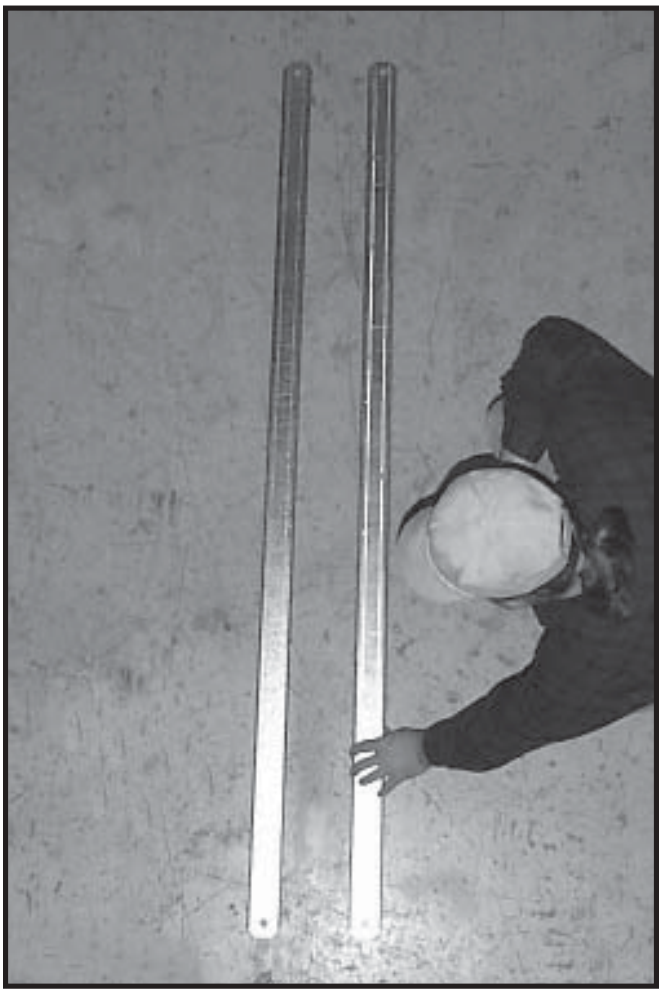


Photo 18-50 Front diagonal support channels (D31-0062).

Photo 16-51 Fan-Heater Assembly - side view.

Photo 16-52 Fan-Heater Assembly - fan end.

Photo 16-53 Fan-Heater Assembly - burner assembly end (vaporizer coil).

Install FAN-HEATER ASSEMBLY as follows.

Example**,** install FAN-HEATER ASSEMBLY to 10’ or 12’ dryer.

Requires two workers to install FAN-HEATER ASSEMBLY.

Use 3/8”x1” whiz bolts and 3/8” whiz nuts unless specified otherwise.

18.9.1. Remove VENTURI with GRILL GUARD from FAN-HEATER ASSEMBLY.

18.9.2. Orient FAN-HEATER ASSEMBLY to its position at front of dryer, fan-end to FRONT FAN SUPPORT and burner-assembly-end to FRONT END PANEL.

Secure FAN-HEATER ASSEMBLY to forklift with lifting straps (nylon, 2”x14’, rating 2000 lb).

18.9.3. Gently forklift FAN-HEATER ASSEMBLY into position on dryer. (Photo 18-54

18.9.4. Suspend VENTURI by one common bolt through FRONT FAN SUPPORT to fan -end of FAN-HEATER ASSEMBLY. (Photo18-55)

Loosely bolt around perimeter.

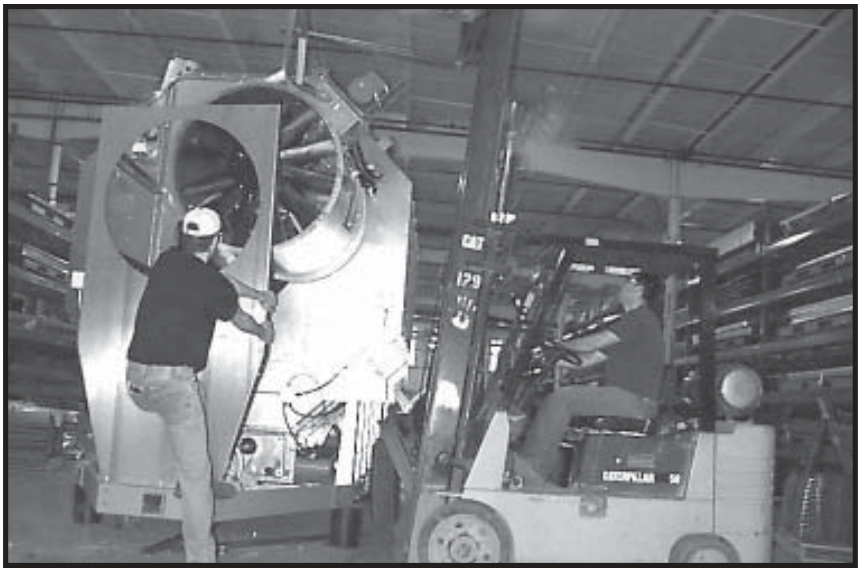


Photo 18-54 Gently lifting fan-heater assembly into position.

Photo 18-55 Loosely bolting venturi through front fan support to fan-end of fan-heater assembly.

☛ AIRMIXER CANS placed inside dryer in previous steps form AIRMIXER ASSEMBLY that installs through FRONT END PANEL to connect with the FAN-HEATER.

18.9.5. With common bolts, loosely bolt burner-assembly-end of FAN-HEATER ASSEMBLY around cutout in FRONT END PANEL to front AIRMIXER CAN.

☛ Position front AIRMIXER CAN with seam side down, access door down, and VANES pointing to the rear of dryer. (Photo 18-58) VANES are in position diagramed in Figure 18-1.

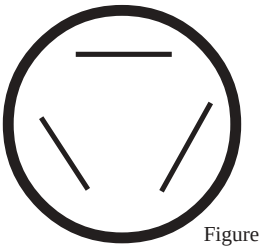


Figure 18-1

EXCEPTION
For 26' or 28', 2-fan dryers, install front AIRMIXER CAN with one VANE on bottom as diagramed in Figure 18-2.

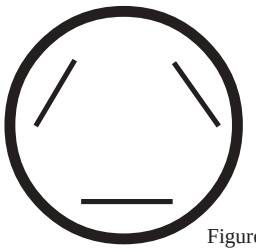


Figure 18-2

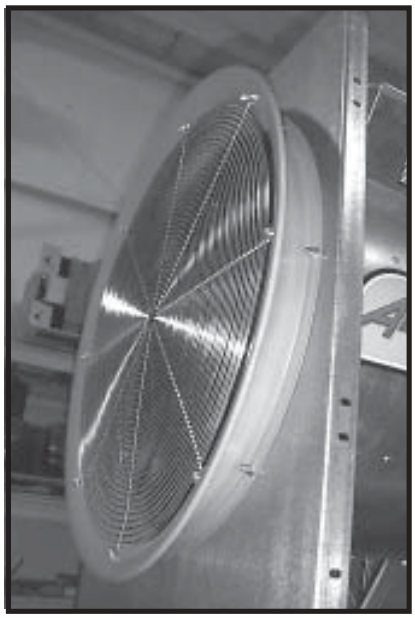


Photo 18-56 Front view - Venturi loosely bolted with common bolts through front fan support to fan-heater assembly.

Photo 18-57 Rear view - Venturi loosely bolted with common bolts through front fan support to fan-heater assembly.

Photo 18-58 Positioning front air mixer can, seam side down, access door down, and vanes pointing to the rear of dryer.

18.9.5. **continued**

☛ Outside person inserts bolts toward inside of dryer. Inside person holds front AIRMIXER CAN in position and secures bolts with nuts. (Photos 18-59 and 18-60)

After all bolts are installed, tighten them.

Photo 18-59 View inside dryer - Securing bolts on front airmixer can with nuts inside dryer.

Photo 18-60 View inside dryer - Securing bolts on front airmixer can with nuts inside dryer.

18.9.6. Install rear AIR MIXER CAN to front AIR MIXER CAN with 5/16”x3/4” whiz bolts and 5/16” whiz nuts to form AIRMIXER ASSEMBLY.

18.9.7. Bolt RH and LH DIAGONAL SUPPORT BRACKETS (D31-0129) to FRONT END PANEL in pre-punched holes on each side of cutout for fan assembly.

18.9.8. Bolt RH and LH FRONT DIAGONAL SUPPORT CHANNELS (D31-0062) to DIAGONAL SUPPORT BRACKETS on FRONT END PANEL with 5/8”x1” hex head bolts and 5/8” locknuts.

18.9.9. Bolt RH and LH FRONT DIAGONAL SUPPORT CHANNELS to HITCH WELDMENT (D01-0029) with 5/8”x1 1/2” hex head bolts, 5/8” flat washers, and 5/8” locknuts. Tighten.

18.9.10. Tighten (3) 1/2”X1” hex head bolts and 1/2” locknuts fastening FRONT FAN SUPPORT to HITCH WELDMENT.

18.9.11. Tighten common bolts in VENTURI/FAN-HEATER ASSEMBLY/FAN SUPPORT.

Photo 18-61 Front diagonal support channel bolted to diagonal support bracket.

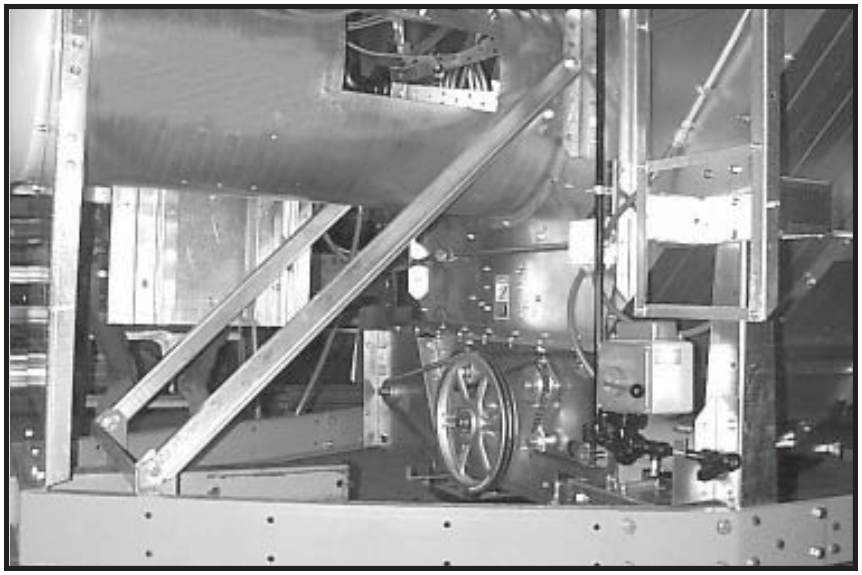


Photo 18-62 Front diagonal support channels bolted to diagonal support brackets and hitch weldment.

Three-Fan Dryers.

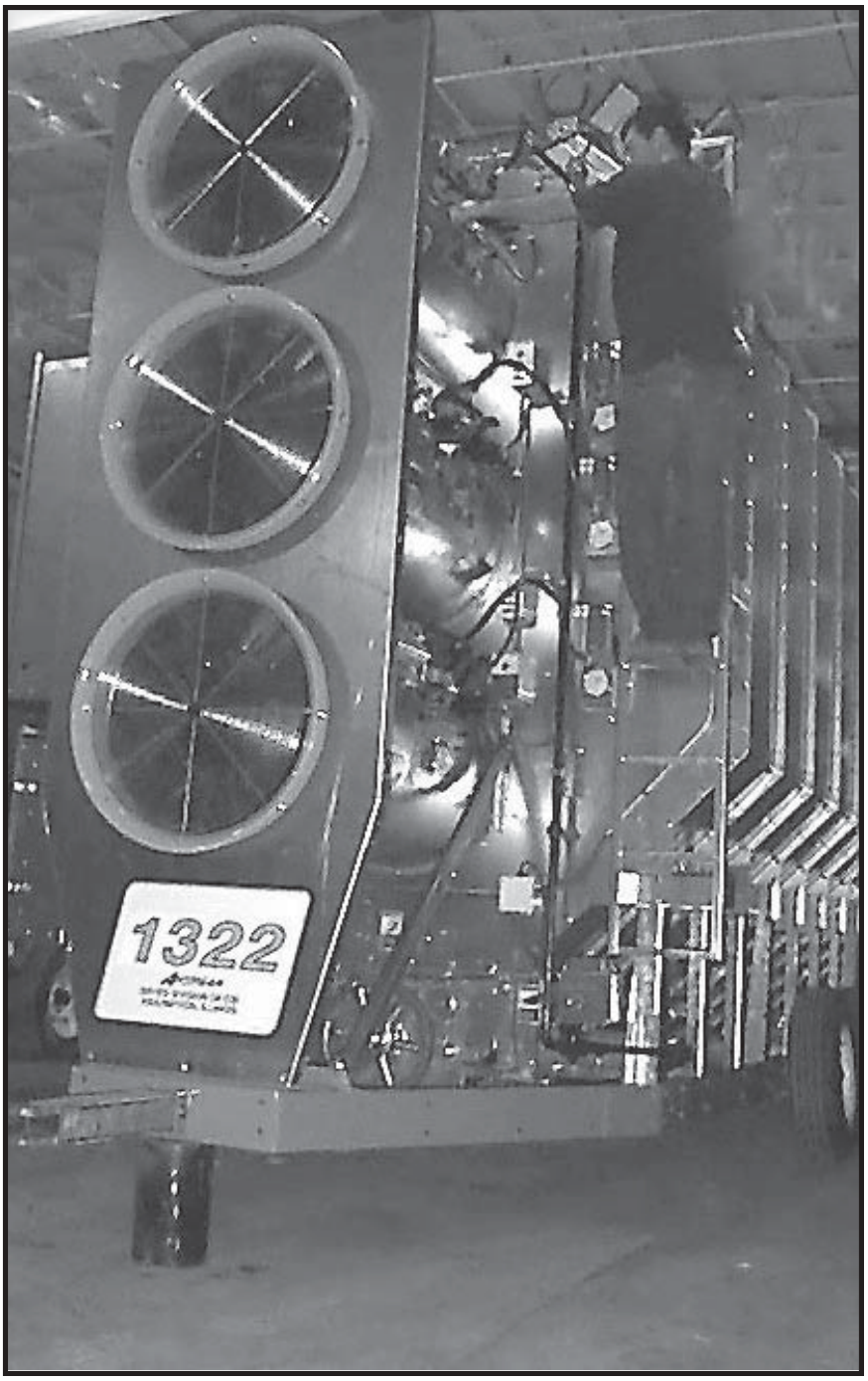


Photo 18-63 (3) Fan-heater assemblies installed to three-fan, 22' dryer.

18.10. Install **PIPETRAIN** for **LP (Liquid Propane)** or **NG (Natural Gas)**.

18.10.1. Install and wire **PIPETRAIN for LP** (Liquid Propane) with (3) 1/2" clamps to FRONT END PANEL as diagramed in Photo 18-66.

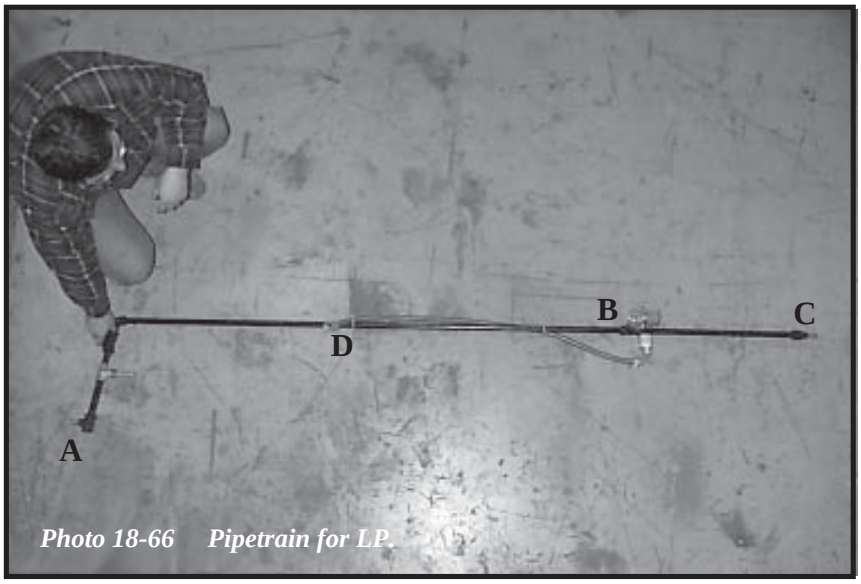


Photo 18-66 Pipetrain for LP.

LP Pipetrain components:

A. fuel intake for pipetrain
B. liquid solenoid
C. pressure release

LP Pipetrain connects to:

D. conduit used to wire solenoid connects to POWER BOX on FAN-HEATER ASSEMBLY.


Photo 18-64 1/2" clamp.

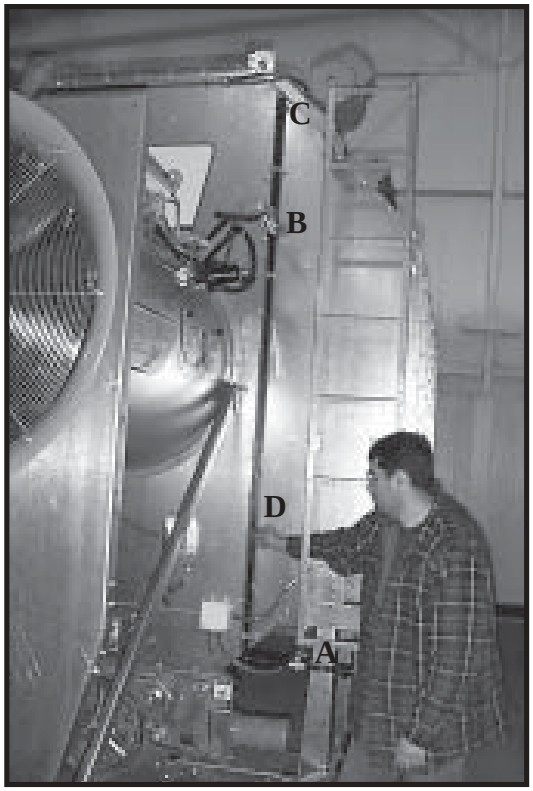


Photo 18-65 Example - LP Pipetrain installed to Series 2000, 10' dryer.

18.10.2. Install **PIPETRAIN for NG** (Natural Gas) on series 2000 dryer as diagramed in Photo 18-69, using parts in Photo 18-70.

Photo 18-67 NG Pipetrain installed.

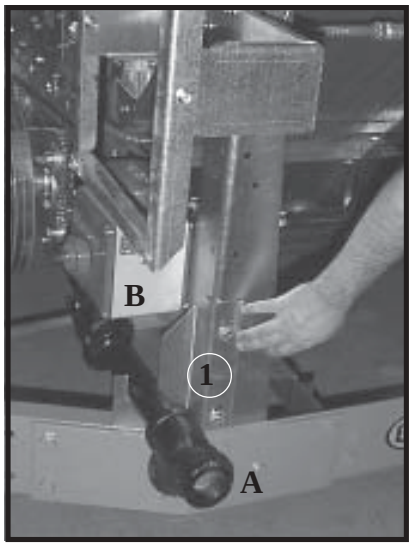


Photo 18-68 Detail - NG pipetrain installed.

1. *natural gas valve carrier bracket*
A. *fuel intake for pipetrain*
B. *maxon gas valve*

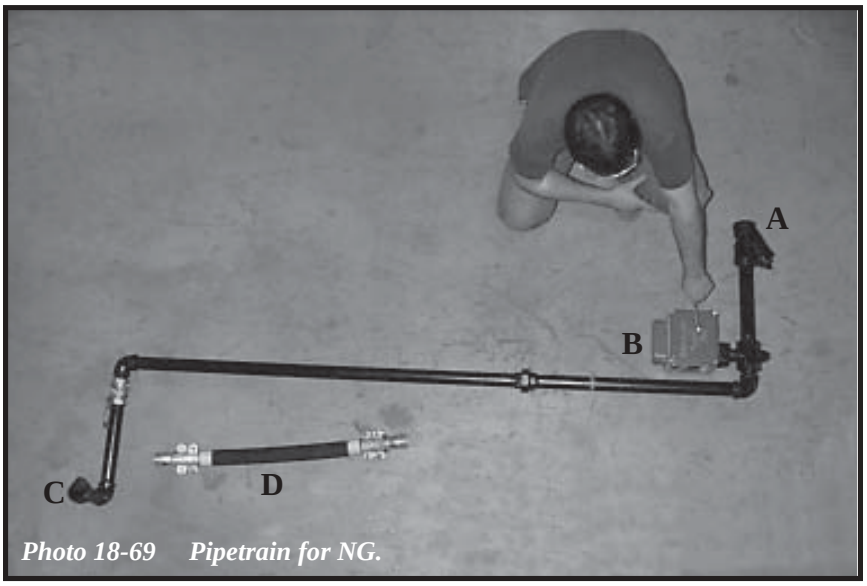


Photo 18-69 Pipetrain for NG.

NG Pipetrain components:

A. fuel intake for PIPETRAIN.
B. maxon gas valve
C. connects to NG hose.
D. NG hose (D68-0019) connects NG PIPETRAIN to FAN-HEATER ASSEMBLY.

Photo 18-__

1. NATURAL GAS VALVE CARRIER BRACKET (D51-0045).
2. GAS MANIFOLD MOUNTING BRACKET (D31-0074).
3. 1 1/2" CLAMPS (S-6643).

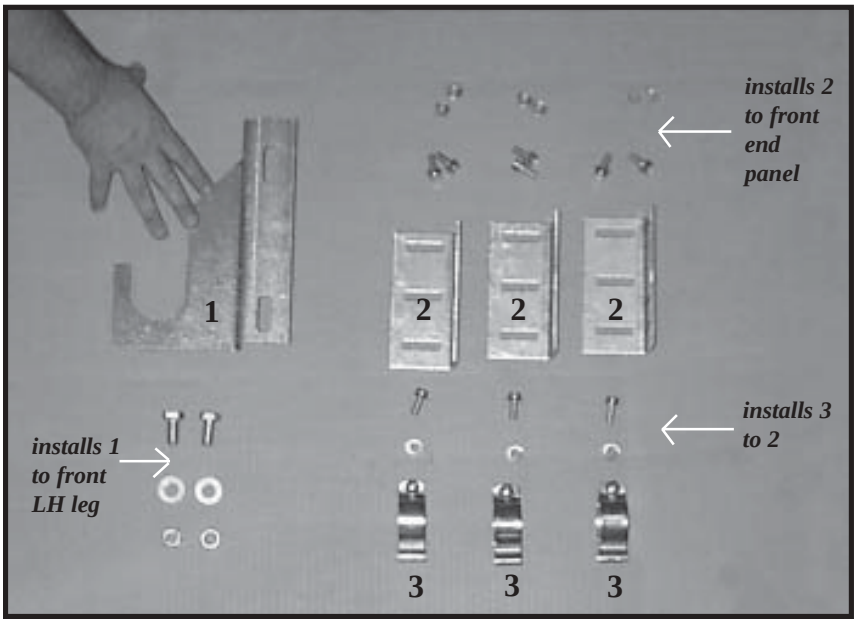


Photo 18-70

Three-Fan Dryers
PIPETRAIN for LP

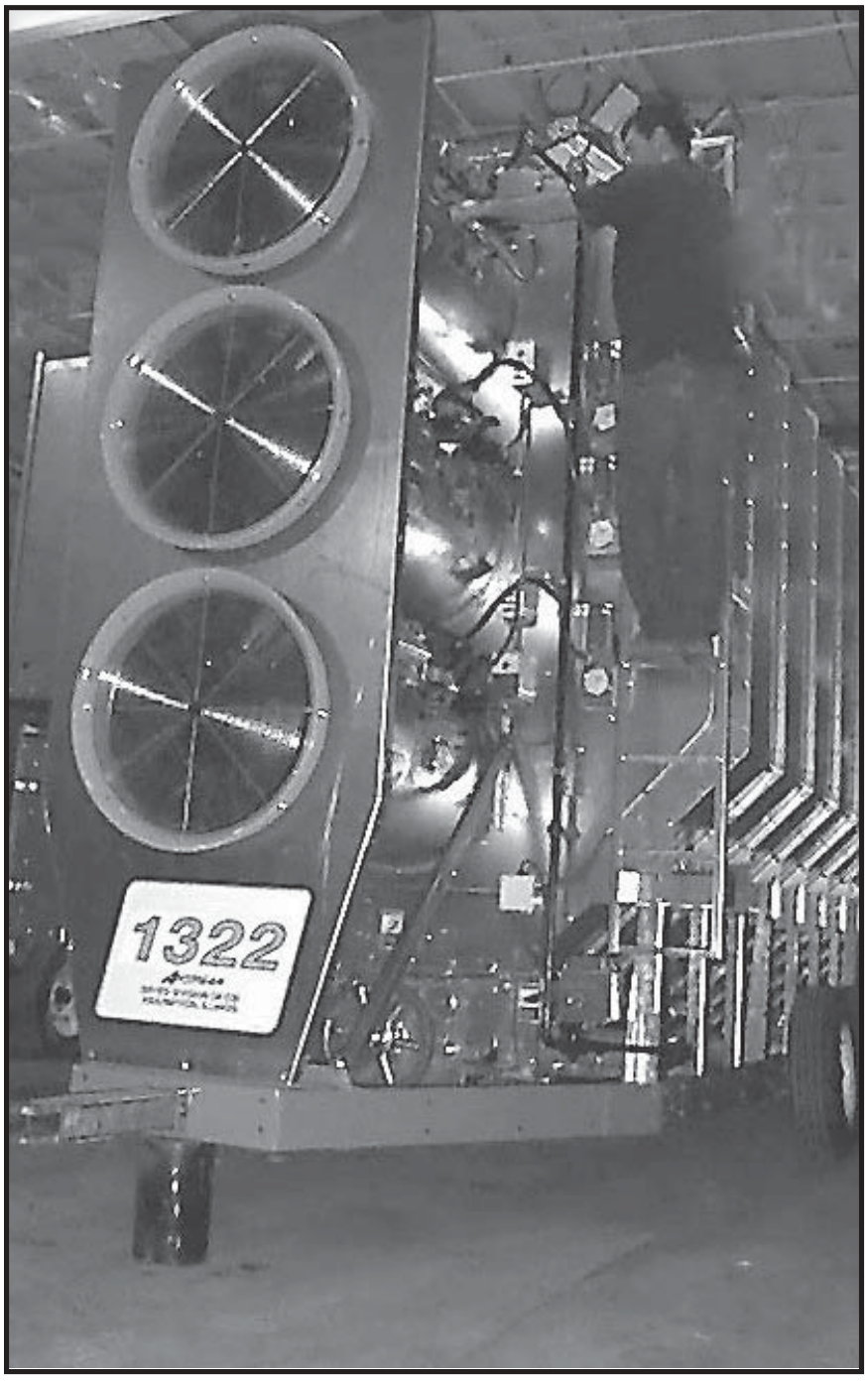


Photo 18-71 Pipetrain installed on three-fan, 22' dryer.

18.11. Install and wire required CONTROL BOX as listed below.

Series 2000.
One-Fan CONTROL BOX

C-Series.
One-Fan CONTROL BOX
Two-Fan CONTROL BOX
Three-Fan CONTROL BOX
Four-Fan CONTROL BOX
Six-Fan CONTROL BOX

CONTROL BOX consists of
A. Power Box
(Photos 18-72 and 18-74)

B. Electronic Monitoring Control System.
(Photos 18-73 and 18-75)

☛ CONTROL BOX is shipped assembled.

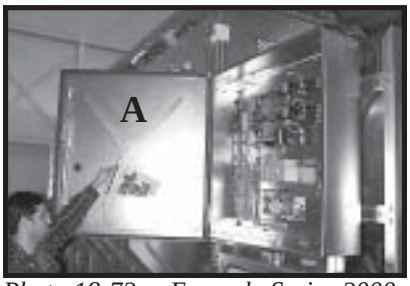


Photo 18-72 Example Series 2000 power box.

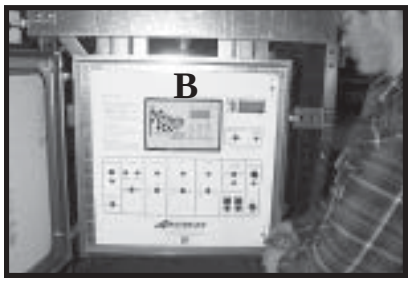


Photo 18-73 Example Series 2000 Electronic Monitoring Control System.

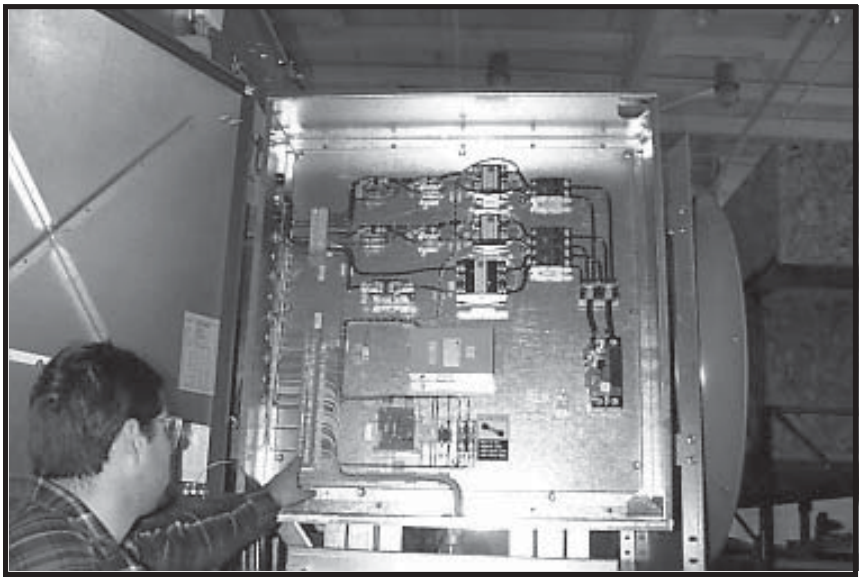


Photo 18-74 Close Up of interior power box final wiring.

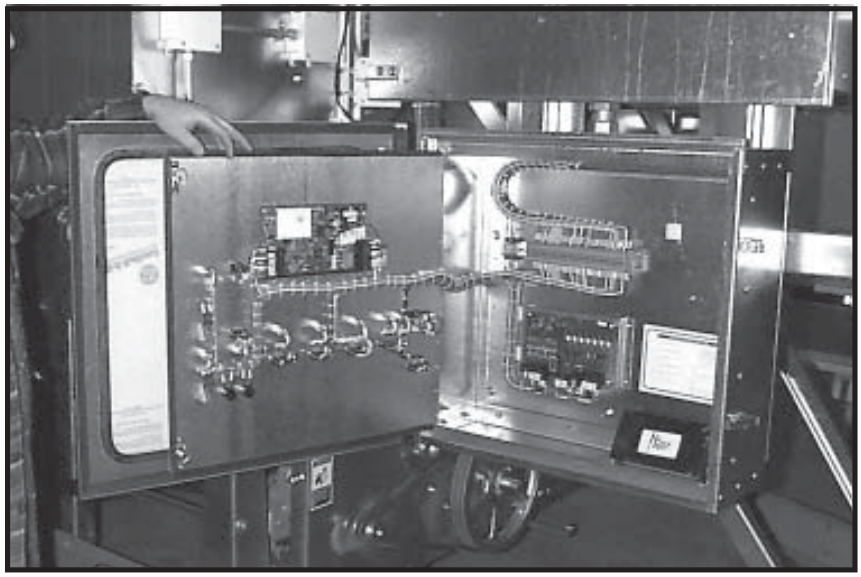


Photo 18-75 Close up interior - control box with Electronic Monitoring Control System, shipped with wiring complete.

Series 2000 or C-Series. Install required CONTROL BOX to dryer as follows.

Example**,** install One-Fan CONTROL BOX to Series 2000, 10’ dryer.

18.11.1. Install required CONTROL PANEL SUPPORTS (D51-0022) (Photos 18-76 & 18-77) as listed below.

Control Panel Supports

One Fan Dryer
Vertical Mounting Channel/sf*
D01-0665 (2 per dryer)

Two Fan Dryer
Vertical Mounting Channel/mf**
D01-0666 (2 per dryer)

Stacked Dryer
Vertical Mounting Channel/Stack
D01-0667 (2 per dryer)

* single fan
** multi-fan

Photo 18-76 Inside view - (2) control panel supports (A) (with control box (B) already installed).

Photo 18-77 Outside view - (2) control panel supports (behind installed control panel).

18.11.2. Forklift CONTROL BOX into position against (2) CONTROL PANEL SUPPORTS on front RH side of dryer. (Photo 18-78)

18.11.3. Loosely bolt CONTOL BOX to (2) CONTROL PANEL SUPPORTS with 3/8”x1” whiz bolts and 3/8” whiz nuts.

18.11.4. Lower CONTROL BOX completely and remove forklift.

18.11.5. Tighten bolts.

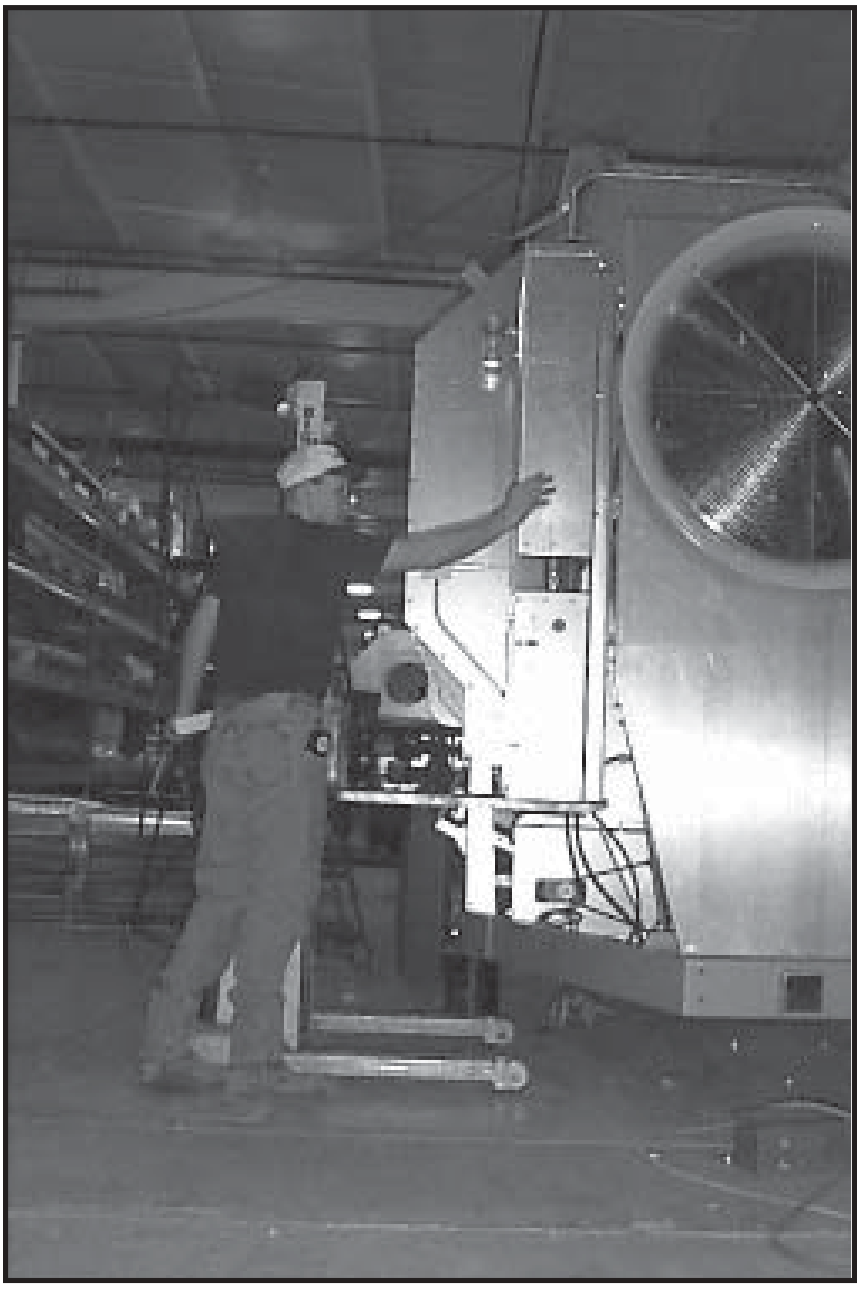


Photo 18-78 Forklifting control box into place on dryer.

18.11.6. Connect wires to POWER BOX.

Run wires in flex conduit to POWER BOX according to diagram on Photo 18-79.

1. fan

2. air switch

3. unload motor

4. upper junction

5. lower junction

6. RH grain hi-limit

☛ Secure with 6” or 8” wire ties.

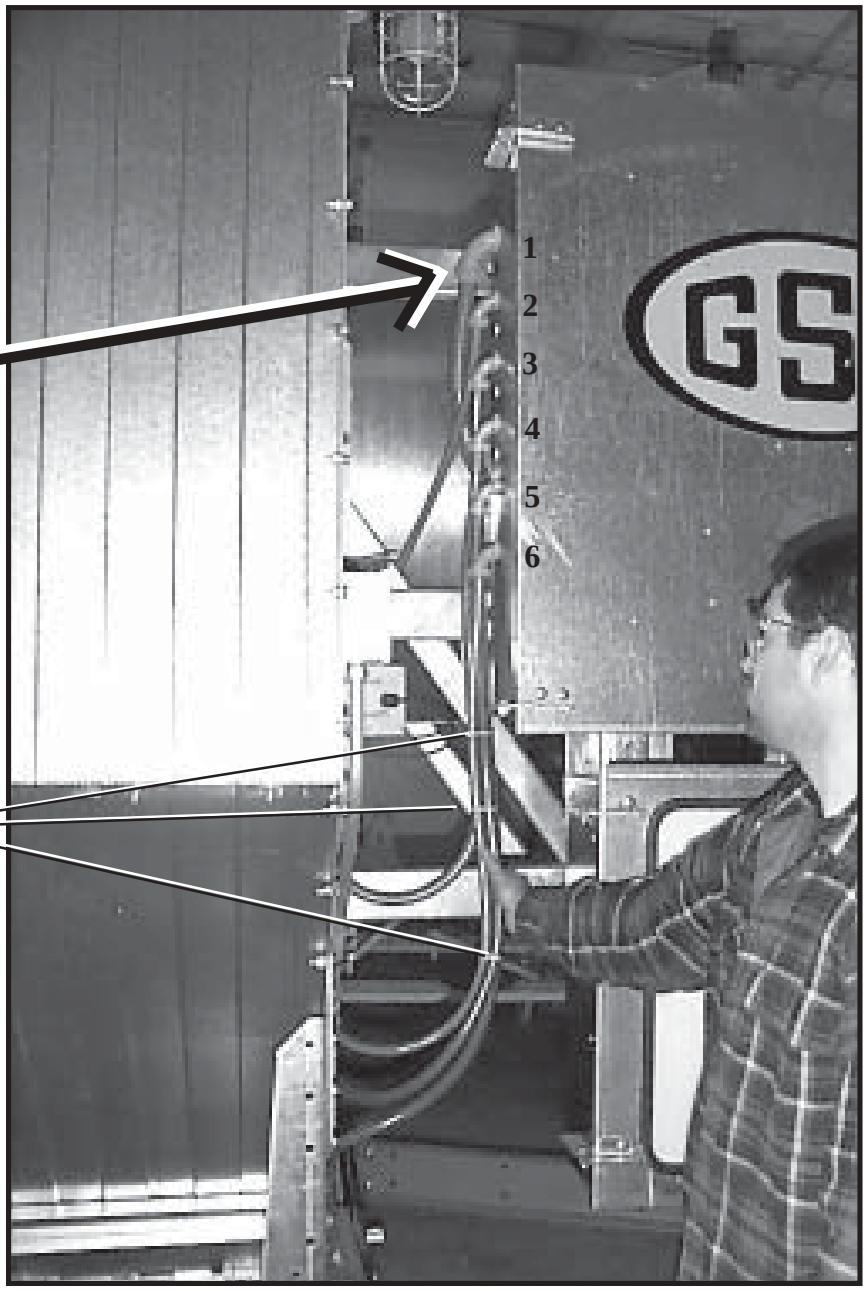


Photo 18-79

18.11.7. Complete wiring inside POWER BOX.

Connect wires inside power box (Photo 18-80) on LH side of terminal strips according to wire labels.

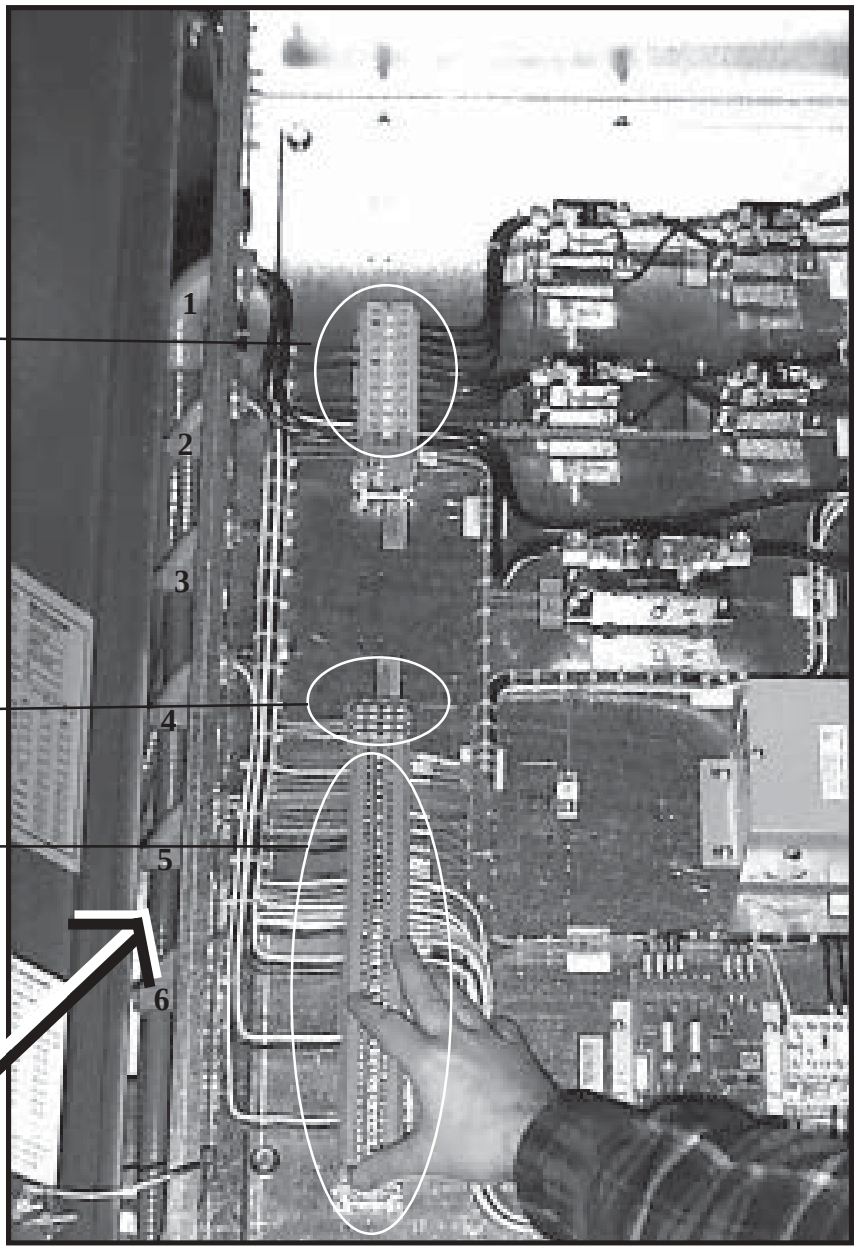


Photo 18-80

Flex conduit connections are as follows:

1. fan

2. air switch

3. unload motor

4. upper junction

5. lower junction

6. RH grain hi-limit

Three-Fan Dryers - Control Box.

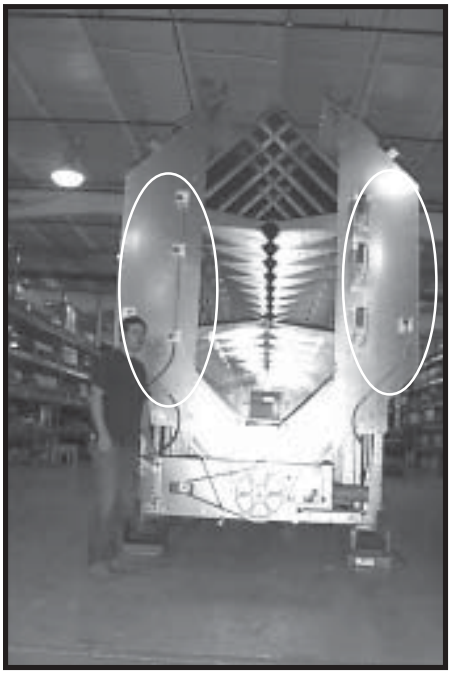


Photo 18-81 Wiring on 22', three-fan dryer before installation of control box.

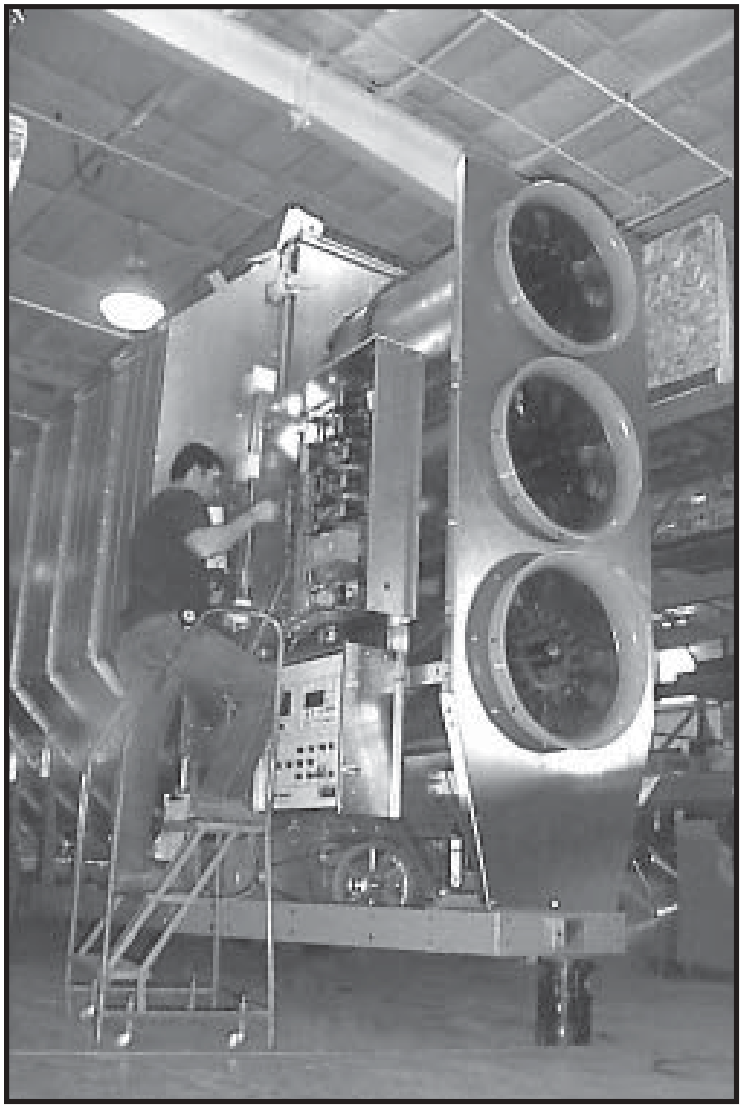


Photo18-82 Installing control box to 22', three-fan dryer.

Stacked Dryers - Wireways.

Wires run down wireway into flex conduit to power box in bottom module.

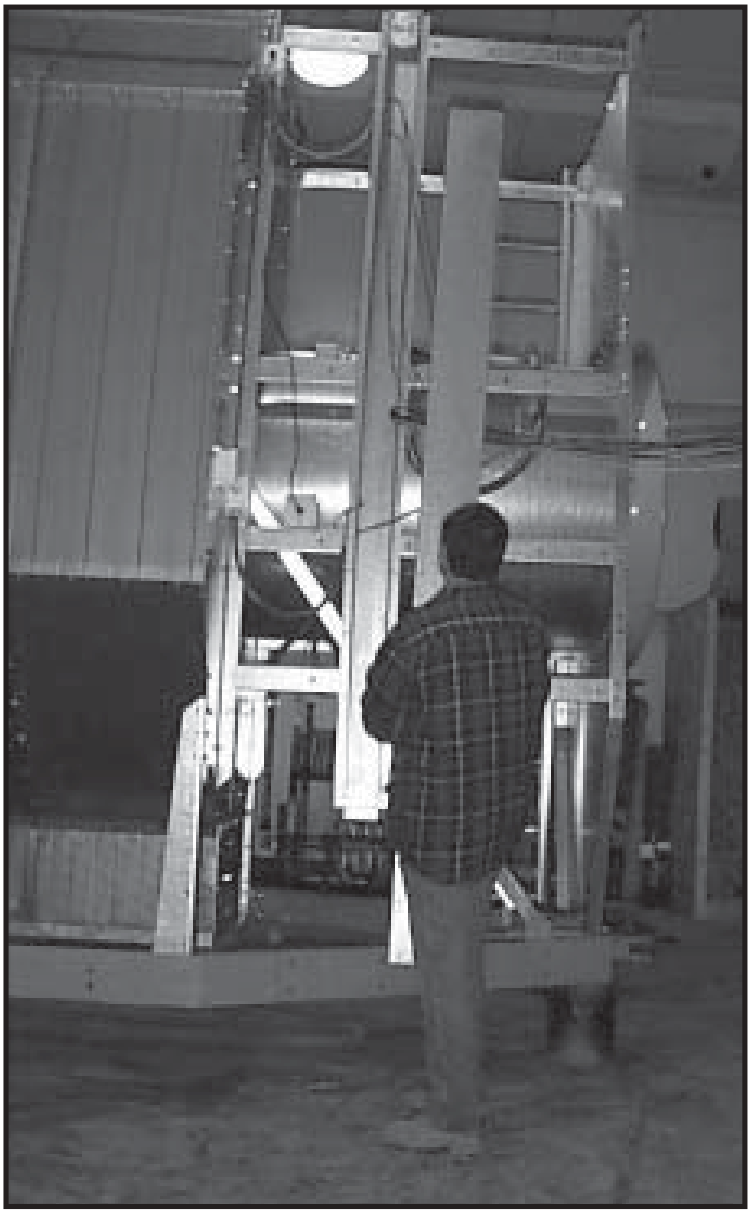


Photo 18-83.

E-Stop.

E-Stop (Emergency Stop)
is pre-installed on control box.

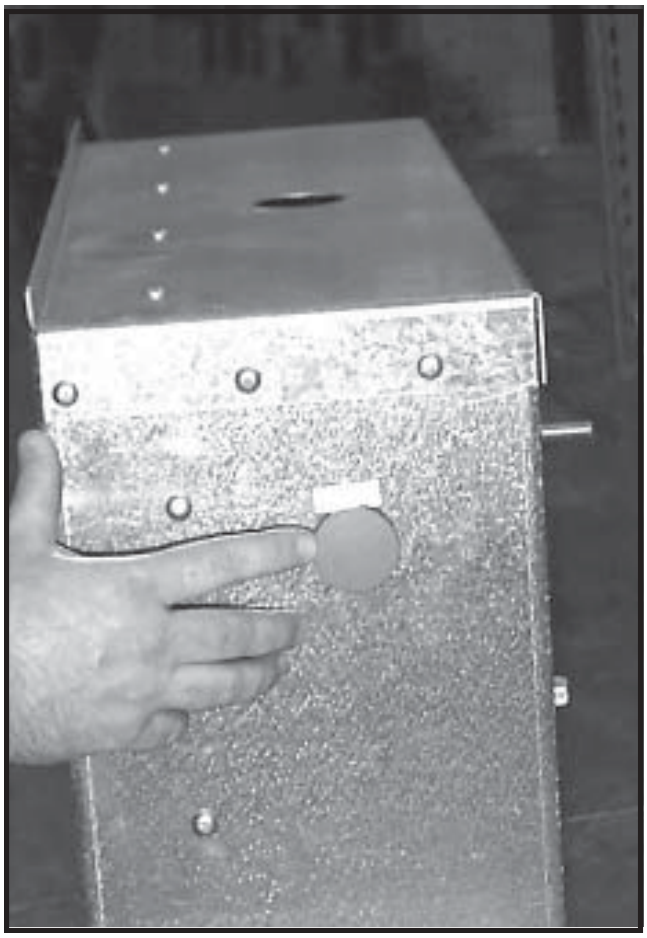


Photo 18-84

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

19. Ladder Assembly

Install LADDER(S) to front of all dryers. Install additional LADDER(S) to rear of 14' and larger dryers.

Install required LADDER(S) as listed.

8' and 10' Dryers
(one ladder to front of dryer)
(D04-0120)

12' Dryers
(one ladder to front of dryer)
(D31-0293)

14' and Larger Dryers
(one ladder to front of dryer)
(one ladder to rear of dryer)
(D31-0293)

Stacked Dryers
(one ladder to front of each module)
(one ladder to rear of each module)
(see last page of Step 19)

Install LADDER(S) to single module dryers using the following parts.

LADDER BRACKET
(D01-1012) (Photo 19-1)

LOWER LADDER BRACKET
(D01-0114) (Photo 19-2)

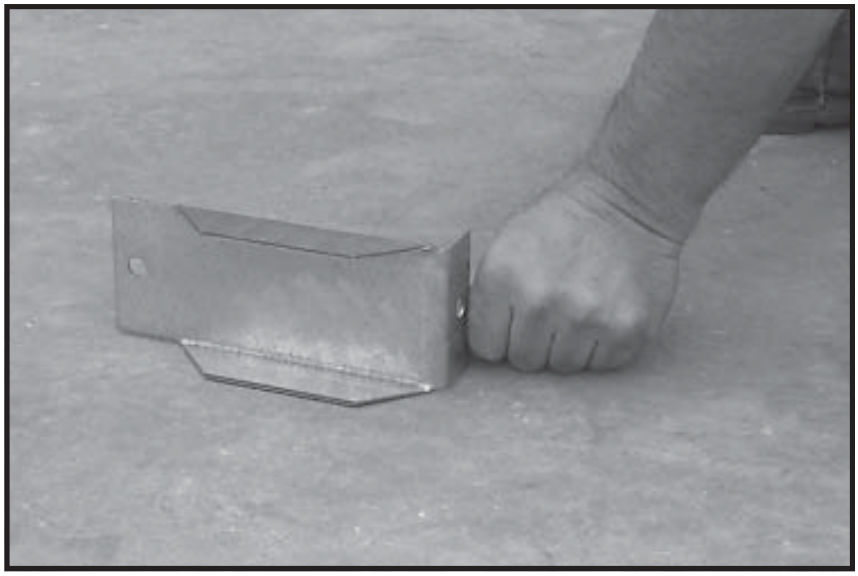


Photo 19-1 Ladder bracket.

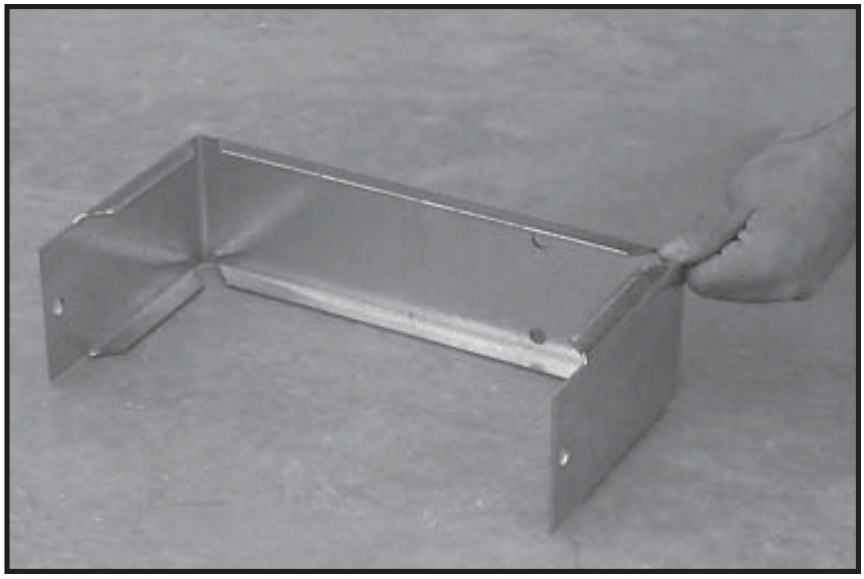


Photo 19-2 Lower ladder bracket.

Use hardware already installed in dryer, 5/16”x3/4” whiz bolt(s), 5/16” whiz nut(s), and washers (large and small).

Example, install LADDER ASSEMBLY to front of 14’ dryer as follows.

19.1. Install LOWER LADDER BRACKET (labeled LB-1 in Photo 19-6) in LH front GUSSET PLATE (D01-0004).

Adapt (conduit access) hole in GUSSET PLATE with large and small washer. (Photos 19-3 and 19-4)

Level LOWER LADDER BRACKET and tighten bolts. (Photo 19-5)

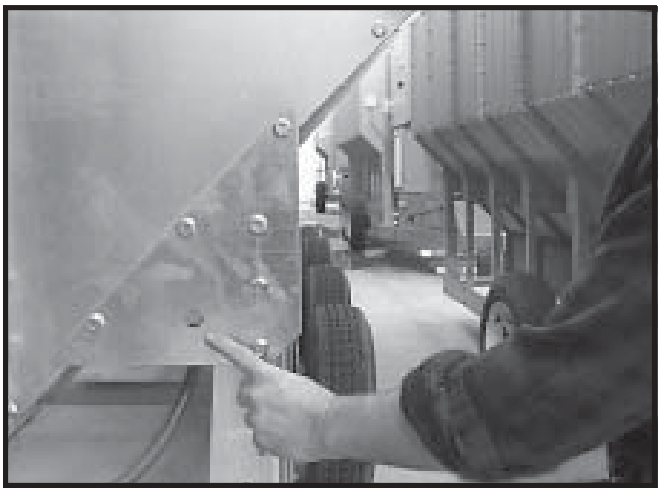


Photo 19-3 Conduit access hole in gusset plate.

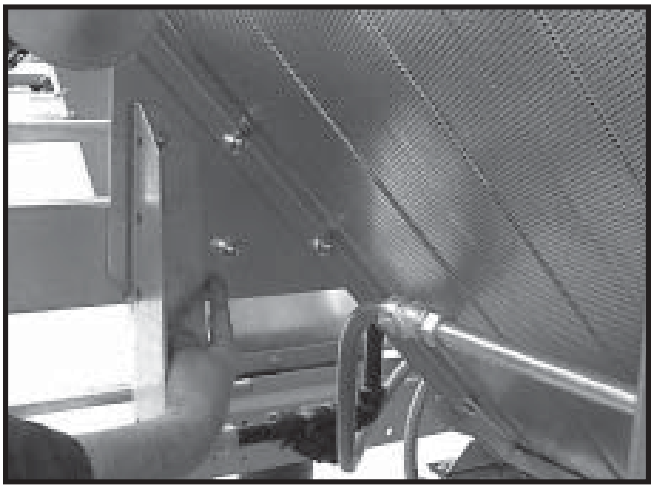


Photo 19-4 Rear view, adapted conduit access hole in gusset plate.

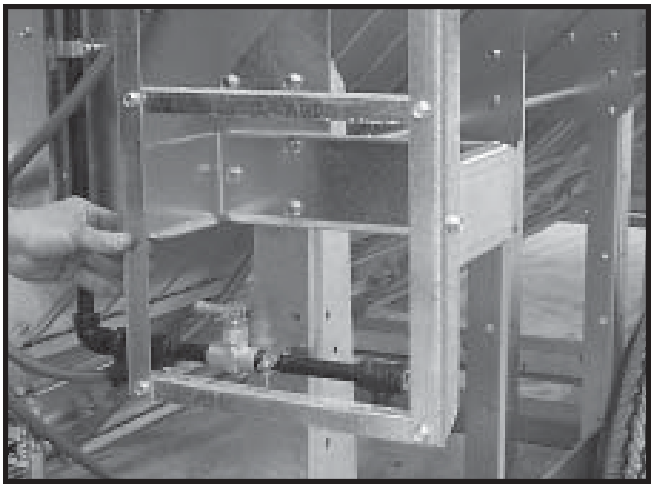


Photo 19-5 Ladder assembly bolted to lower ladder bracket.

(Photo 19-6)

19.2. Bolt LADDER BRACKET LB-2 with existing bolts (4) bolts up on outside dryer wall.

19.3. Bolt LADDER BRACKET LB-3 in top bolt hole of WALL SHEET with existing bolts.

19.4. Bolt LADDER BRACKET LB-4 in 4th hole from bottom of ROOF SHEET.

19.5. Reverse LADDER BRACKET LB-5 from LB-2 orientation, and bolt in 3rd hole from bottom on inside SCREEN WALL.

19.6. Bolt LADDER ASSEMBLY to brackets.

Photo 19-7 Rear ladder installed to 14' dryer.

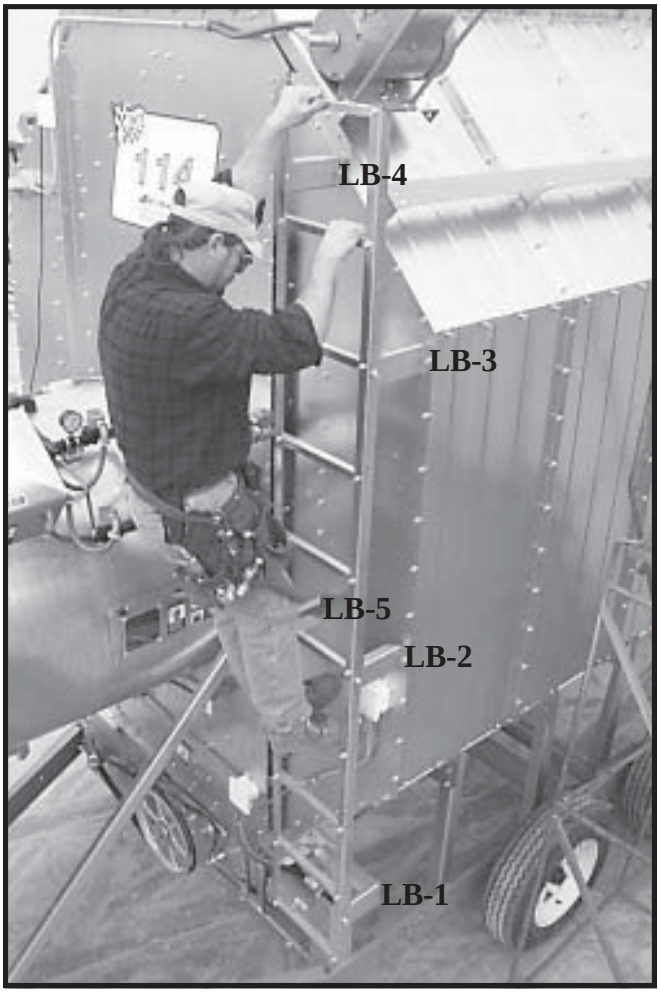


Photo 19-6 Front ladder assembly installed to 14' dryer.

Stacked Dryers

Use the following parts to assemble ladders for stacked dryers. (Photo 19-8)

A. RH STACK LADDER SIDE RAIL (D61-0095)

B. LH STACK LADDER SIDE RAIL (D61-0094)

C. STACK LADDER MOUNTING BRACKET (D61-0097)

D. LADDER RUNG (STACK) (D61-0096)

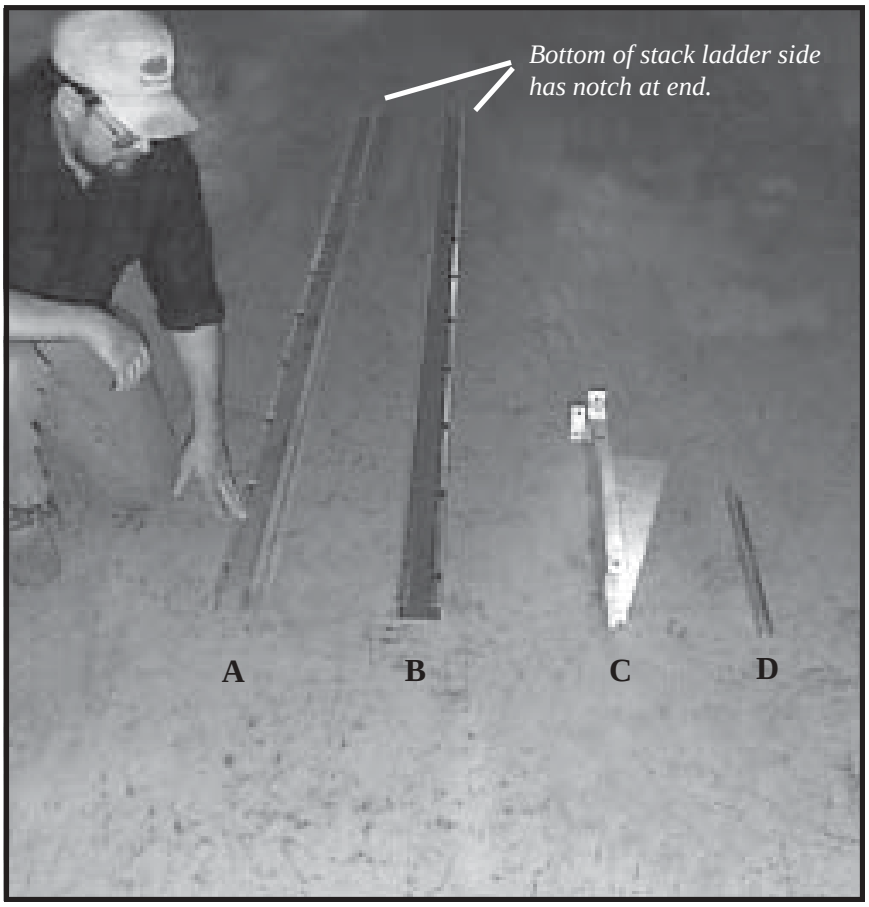


Photo 19-8

Install front ladders to LH front of upper and lower dryer modules.
(Photo 19-9)

Install rear ladders to RH rear of upper and lower modules.
(Photo 19-10)

☛ Rear ladder on lower module is two rungs shorter than rear ladder on upper module.

Photo 19-9 Stacked dryer lower module front ladder

Photo 19-10 Stacked dryer lower module rear ladder

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

20. Lift kit

Install LIFT KIT (D31-0181) (Photo 20-1) to top center of dryer as follows.

Use 5/16"x3/4" whiz bolts and 5/16" whiz nuts.

20.1. Install LIFT KIT with arms in upright position. Place front of LIFT KIT in line with SPLICES on TOP EDGE ANGLES. (Photo 20-2)

Loosely bolt LIFT KIT to top of GARNER BULKHEADS (D01-0101).

20.2. Tighten bolts. (Photo 20-3)

☛ Leave LIFT KIT arms in upright position for installation of TOP AUGER.

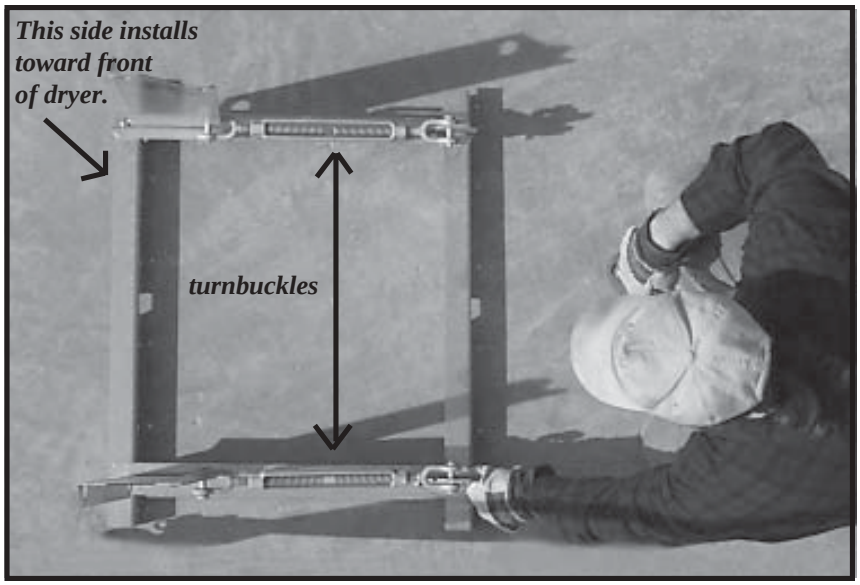


Photo 20-1 Lift kit.

Photo 20-2 Front of lift kit aligned to RH splice on RH top edge angle.

Photo 20-3 Tightening bolts on lift kit. Note lift kit arms are in upright position for installation.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

21. Top Auger

Photos 21-1 and 21-2 show 22' dryer TOP AUGER HOUSING ASSEMBLY as packaged for shipping. (12' dryer assembly requires 2 LIFT KITS.)

Photo 21-1 Front view - top auger housing assembly as packaged for shipping.

Photo 21-2 Rear view - top auger housing assembly as packaged for shipping.

Example, install TOP AUGER HOUSING ASSEMBLY for 14' dryer.

21.1. Fold WET BINS down.

21.2. Forklift TOP AUGER HOUSING ASSEMBLY into position on top of dryer. (Photos 21-3 and 21-4)

Insert WET BIN ENDS in between TOP EDGE ANGLES (D21-0003).

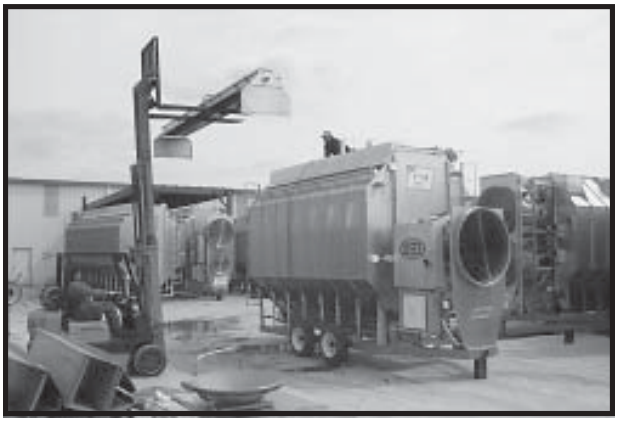


Photo 21-3

Photo 21-4

21.3. At all four corners of TOP AUGER HOUSING ASSEMBLY, use common bolts to bolt WET BIN ENDS to TOP EDGE ANGLES (D01-0003) to GUSSET TOP ANGLES.
(Photos 21-5 through 21-8)

Use 3/8”x1” whiz bolts, 3/8” flat washers, and 3/8” lock nuts.

☛ Insert bolts toward outside of dryer. Tighten each bolt after installing it. Tighten so WET BIN ENDS still move freely.

21.4. Bolt each arm of LIFT KIT (D31-0181) to TOP AUGER HOUSING ASSEMBLY with (1) 3/8”x 1 1/2” whiz bolt, (3) flat washers, and (1) 3/8” lock nut. (Photo 21-9)

☛ Turning turnbuckles on LIFT KIT lifts and lowers TOP AUGER HOUSING ASSEMBLY.

21.5. Remove forklift.

Photo 21-5

Photo 21-6

Photo 21-7

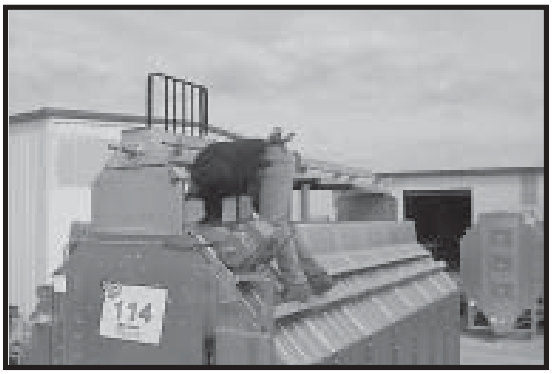


Photo 21-8

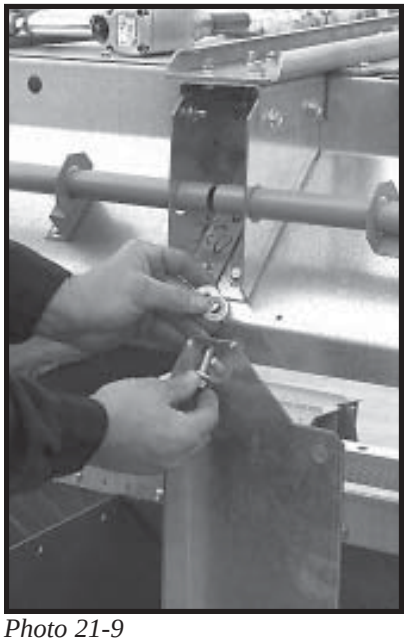


Photo 21-9

21.6. Install the following parts to top front and top rear of dryer.

Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts.

TOP ANGLE BRACKET (D01-0044) (Photo 21-10)

AUGER HOUSING END TIE CHANNEL (D01-0156) (Photo 21-11)

21.6.1. Bolt TOP ANGLE BRACKET back-to-back to previously installed TOP ANGLE BRACKET and to END PANEL. (Photo 21-12)

21.6.2. Bolt AUGER HOUSING END TIE CHANNEL to WET BIN END. (Photo 21-13)

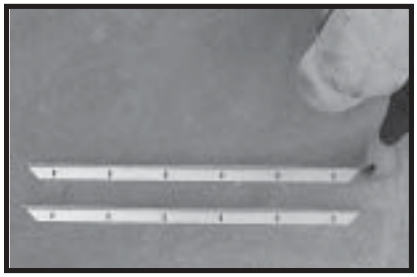


Photo 21-10 Top angle brackets.

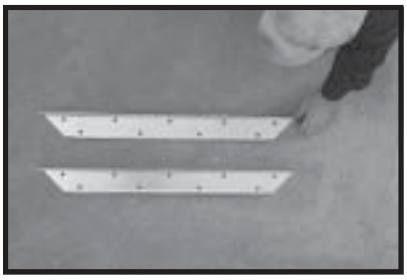


Photo 21-11 Auger housing end tie channels.

Photo 21-12 Rear view - installing top edge angle.

Photo 21-13 Rear view - installing auger housing end tie channel.

21.7. Use 5/16”x3/4” whiz bolts and 5/16” whiz nuts to bolt WET BINS to TOP EDGE ANGLES, and WET BINS to GUSSET TOP ANGLES.

21.7.1. Lift and bolt RH and LH WET BIN ENDS on (4) corners. (Photo 21-14)

21.7.2. Lift CENTER WET BINS into operating position and bolt.
(Photo 21-15)

21.7.3. Start all 1/4”x3/4” self tapping screws on top seam of WET BINS to TOP AUGER HOUSING ASSEMBLY, then tighten. Tighten 5/16”x3/4” whiz bolts on bottom seams.
(Photo 21-16)

Photo 21-14 Bolting LH wet bin end section to wet bin end on top auger housing assembly.

Photo 21-15 Bolting center wet bins to LH wet bin section.

Photo 21-16 Aligning holes in wet bin section to top auger housing assembly.

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

22. Hopper Assembly (fill)

Install HOPPER ASSEMBLY (D01-0193) (Photo 22-1) over grain intake opening at top rear of dryer with the following hardware.

(10) 1/4"-20x5/8" self-drilling screws (S-6497)
(6) 5/16"x3/4" whiz bolts (S-6606)
(6) 5/16" whiz nuts (S-3611)

Install HOPPER ASSEMBLY as follows.

22.1. Place HOPPER ASSEMBLY over grain intake opening in AUGER HOUSING END (D31-0028). (Photos 22-2 and 22-3)
22.2. Bolt rear of HOPPER ASSEMBLY with (3) 5/16" x3/4" whiz bolts and 5/16" whiz nuts. (Photo 22-4)
22.3. Drill front of HOPPER ASSEMBLY, then install (3) 5/16"x3/4" whiz bolts and 5/16" whiz nuts.
22.4. Install (10) self drilling screws inside HOPPER ASSEMBLY fastening it to TOP AUGER TROUGH SIDES.

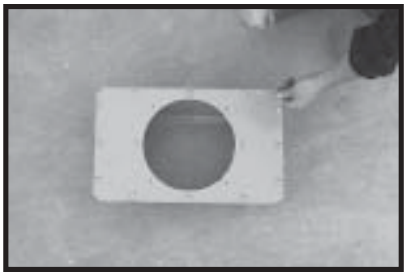


Photo 22-1 Hopper assembly (fill).

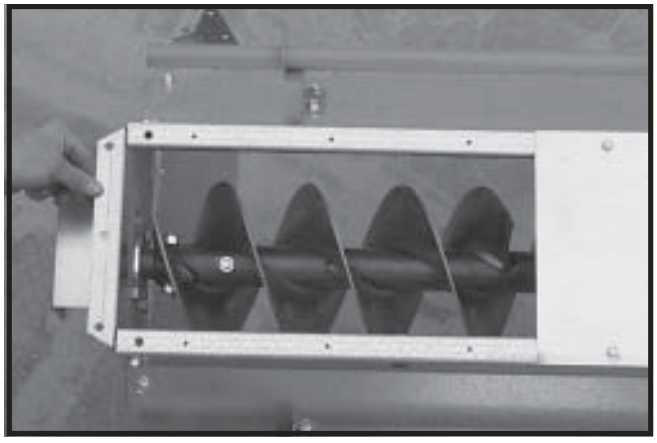


Photo 22-2 Dryer grain intake opening.

Photo 22-3 Placing hopper assembly (fill).

Photo 22-4 Bolting rear of hopper assembly (fill).

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

23. Guards and Top Pulleys

23.1. Install FRONT SHIELD UNLOAD BELT GUARD (D01-1372) (Photo 23-1) as follows.

23.1.1. Slide FRONT SHIELD UNLOAD BELT GUARD on (2) loose 3/8"x1" whiz bolts on UNLOAD MOTOR SHROUD (D01-1373), and (2) loose 3/8"x1" whiz bolts on BOTTOM AUGER BEARING PLATE (D01-1374).

23.1.2. With 5/16"x3/4" hex head self tapping bolts, bolt FRONT SHIELD UNLOAD BELT GUARD to BOTTOM SPACER BRACKETS (D01-0065).

23.1.3. Tighten 5/16"x3/4" hexhead self tapping bolts.

Replace 3/8" whiz nuts on 3/8"x1" whiz bolts and tighten. (Photo 23-2)

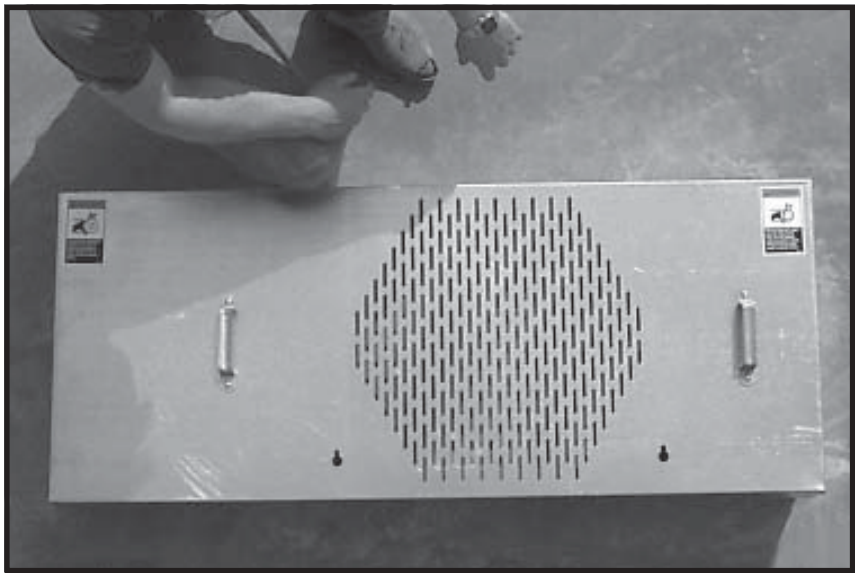


Photo 23-1 Front shield unload belt guard.

Photo 23-2 Front shield unload belt guard installed.

23.2. (At front of dryer), bolt BELT GUARD MOUNTING BRACKET (D01-0155) to TOP AUGER HOUSING ASSEMBLY with 5/16”x3/4” whiz bolts and 5/16” nuts. (Photos 23-3 and 23-4)

☛ If necessary, smooth LOAD MOTOR DRIVE SHAFT and TOP AUGER DRIVE SHAFT with hardware cloth.
(Photo 23-5)

23.3. Install 1/2”x6” TURNBUCKLE (D01-0465) to TOP MOTOR MOUNT WELDMENT (D01-0170) and ANCHOR BRACKET (D01-0170) with (2) turnbuckle pins and (2) cotter pins supplied with TURNBUCKLE. (Photo 23-6)

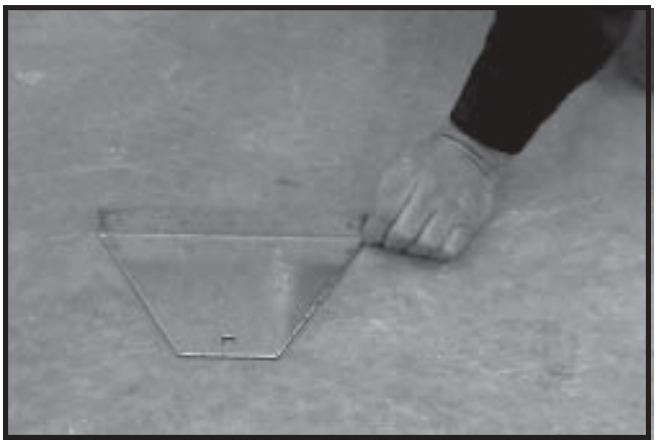


Photo 23-3 Belt guard mounting bracket.

Photo 23- 4 Bolting belt guard mounting bracket to top auger housing assembly.

Photo 23-5 Smoothing drive shafts.

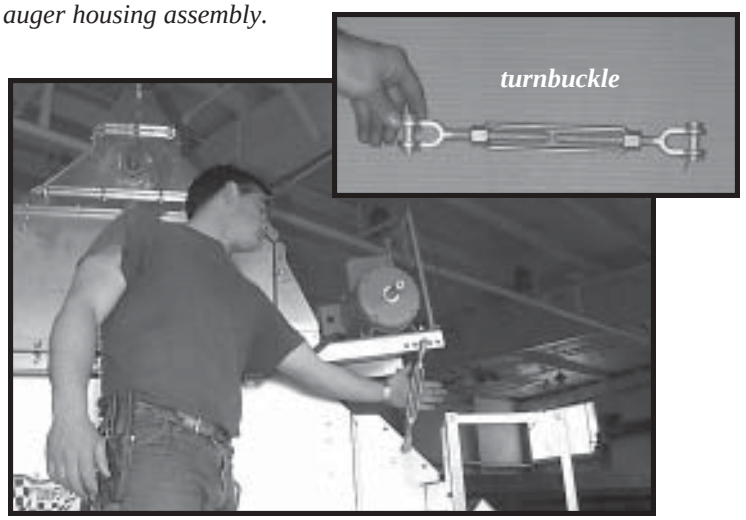


Photo 23-6 Turnbuckle installed.

23.4. Install TOP AUGER BELT GUARD BODY (D01-0453) (Photo 23-7) as follows.

☛ TOP AUGER BELT GUARD FRONT COVER (D01-0452) (Photo 23-8) is installed after pulleys and belts installation in later step.

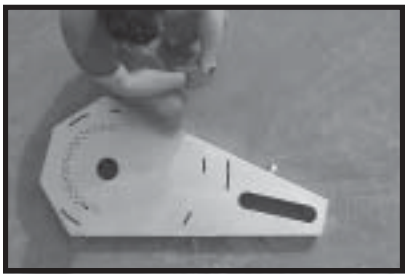


Photo 23-7 Top auger belt guard body.

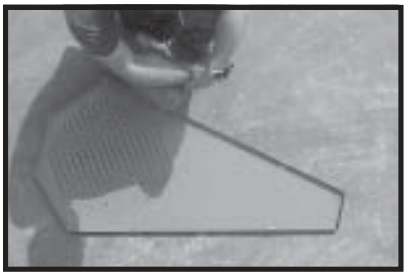


Photo 23-8 Top auger belt guard front cover.

23.4.1. Install (3) bolts for TOP AUGER BELT GUARD BODY as illustrated in Photos 23-9 and 23-10.

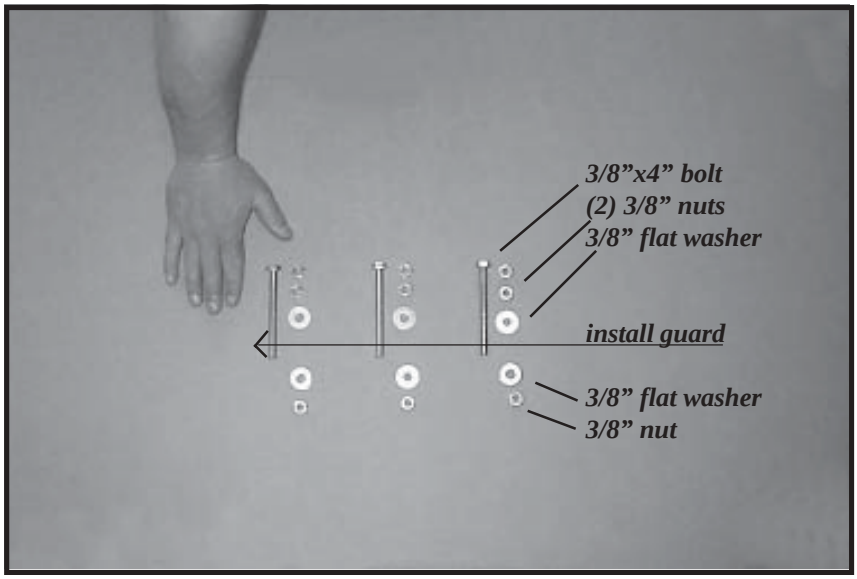


Photo 23-9 Hardware to install top auger belt guard body.

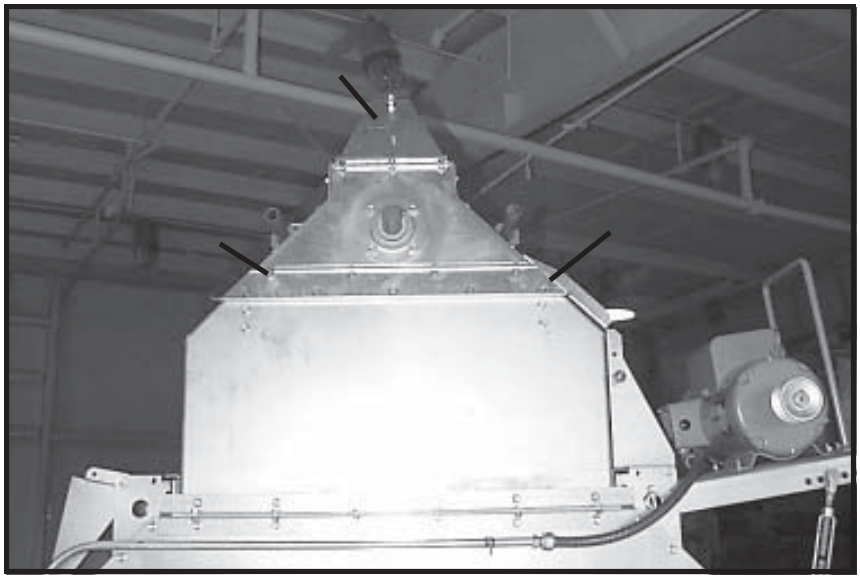


Photo 23-10 Insert (3) bolts for top auger belt guard body at arrows.

23.4.2. Place TOP AUGER BELT GUARD BODY (D01-0453) over (3) bolts, centering cutout on LOAD MOTOR DRIVE SHAFT. (Photo 23-11)

Install nuts and tighten.

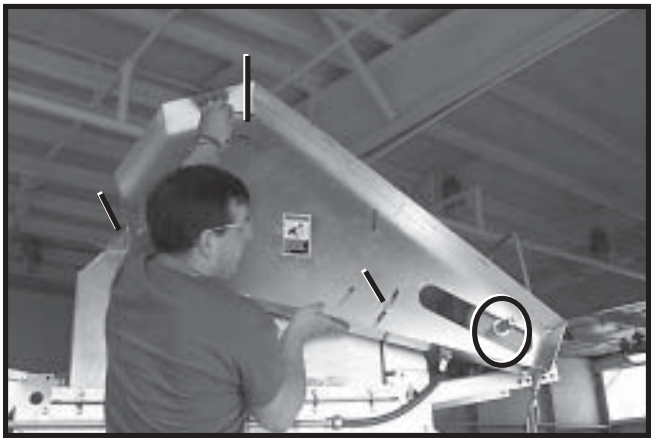


Photo 23-11 Placing top auger belt guard body over (3) bolts (arrows), with cutout centered on load motor drive shaft (circle.)

Standard Top Dryer
For standard top dryers, install TOP AUGER BELT GUARD BODY over top auger belts on RH front of dryer.

Use the following parts.

TOP AUGER BELT SHIELD (D21-0035)

BELT GUARD CLIP (D01-1278)

23.5. Install the following parts illustrated in Photo 23-12.

SHEAVE, 16”, 2 GROOVE
with 1/4”x 1 1/2” KEY
(D52-0001)

BUSHING, Q1-1 1/2” SPLIT
(TAPERED)
with 3/8”x 2 7/8” KEY
(D32-0019)

MOTOR DRIVE PULLEY
(varies on motor size)

BELT BX 97
(D01-0464)

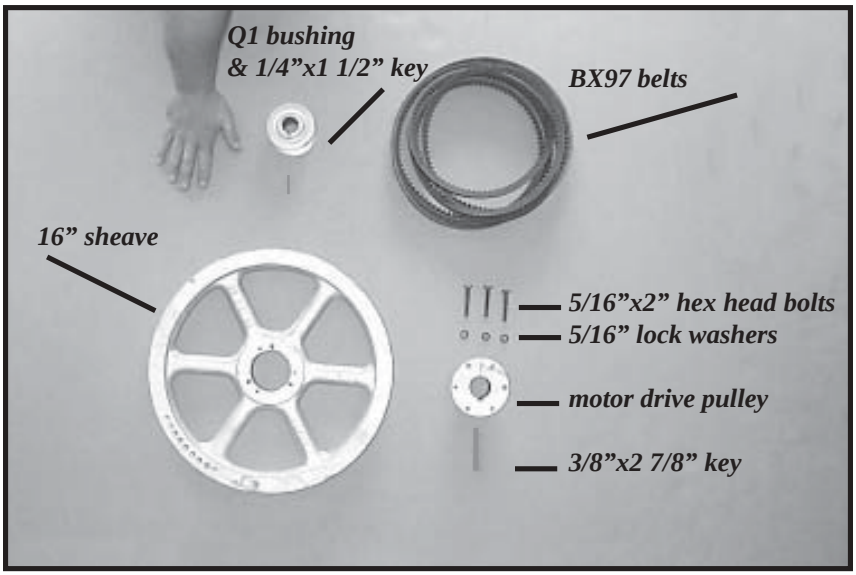


Photo 23-12

23.5.1. Make sure KEY is in keyway, then slide MOTOR DRIVE PULLEY on LOAD MOTOR DRIVE SHAFT. (Photo 23-13)

Set setscrew.

23.5.2. Make sure KEY is in keyway, then place 16" SHEAVE (D52-0001) on AUGER DRIVE SHAFT.

Insert Q1 BUSHING, 1 1/2" SPLIT (tapered) (D32-0019) on AUGER DRIVE SHAFT.

Seat Q1 BUSHING with wooden (or non-metal mallet). Install (3) bolts. (Photo 23-14)

Set setscrew

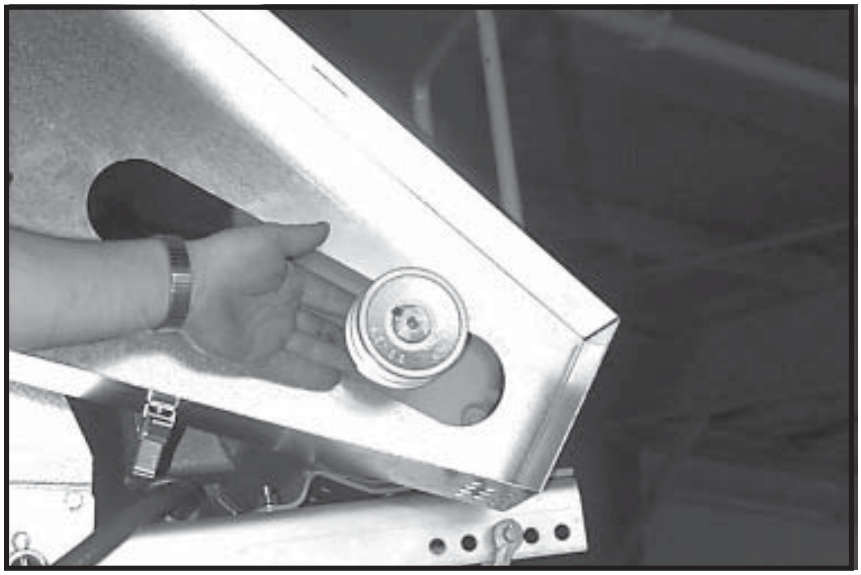


Photo 23-13

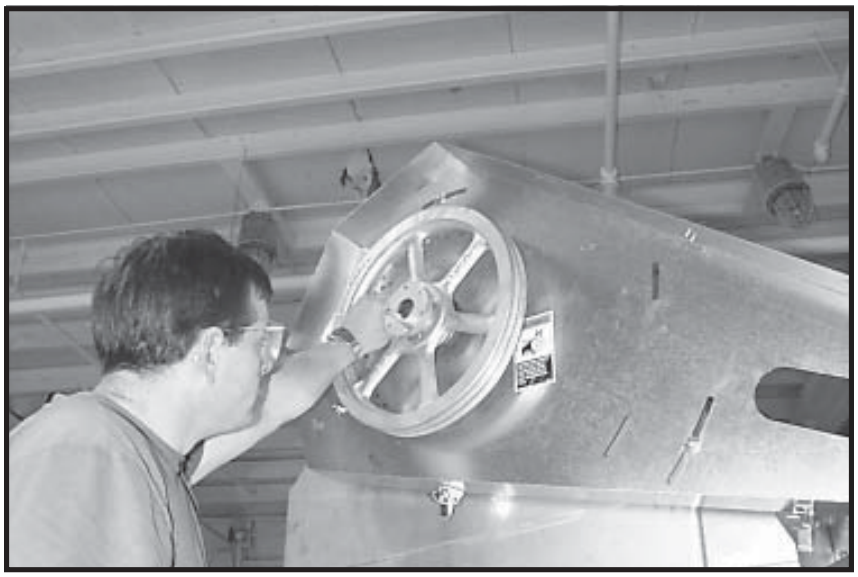


Photo 23-14

23.5.3. Thread (2) BX97 BELTS (D01-0464) from MOTOR DRIVE PULLEY to 16” SHEAVE.
(Photo 23-15)

Check line of belts to be sure pulleys are in line.
(Photo 23-16)

To tighten belts, turn 1/2 x16” TURNBUCKLE (D01-0465).

23.5.4. Clip TOP AUGER BELT GUARD FRONT COVER (D01-0452) to TOP AUGER BELT GUARD BODY.
(Photos 23-17 and 23-18)

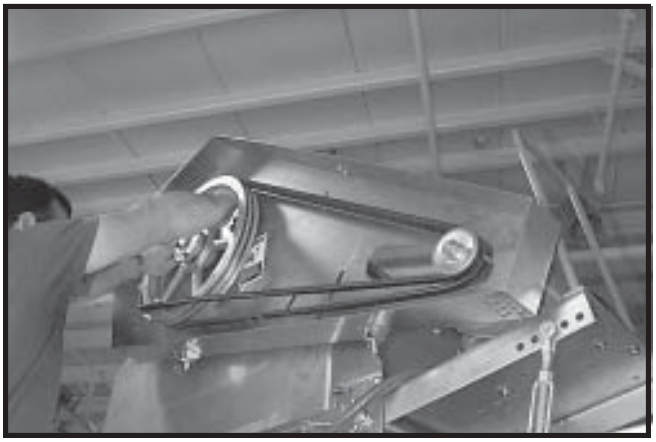


Photo 23-15

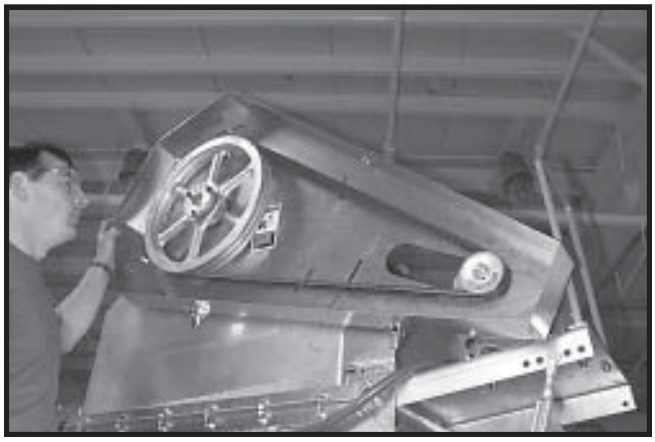


Photo 23-16

Photo 23-17

Photo 23-18

Important Safety Precautions: Dryer has sharp edges.
These sharp edges may cause serious injury.
Use appropriate Personal Protective Equipment.
Use proper lifting techniques.

See Appendices for "Recommended Tools and Equipment List", "Hardware List", etc.

24. Latch Meter Roll Access Doors

Latch METER ROLL ACCESS DOORS (D01-0193) (Photo 24-1) with the following parts.

DOOR LATCH (for METER ROLL ACCESS DOOR) (D01-0039)

HAIRPIN CLIP
3/32"x2 1/2", cotter pin #14 (S-6552)

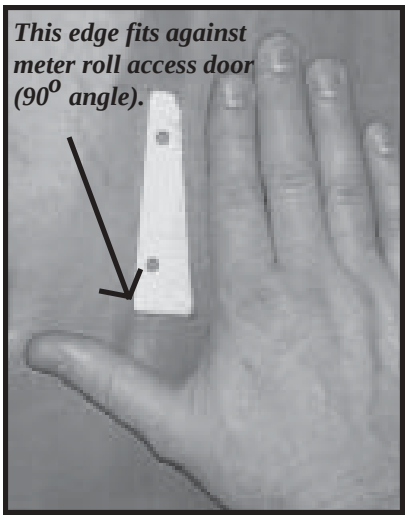


Photo 24-1 Meter roll access door latch.

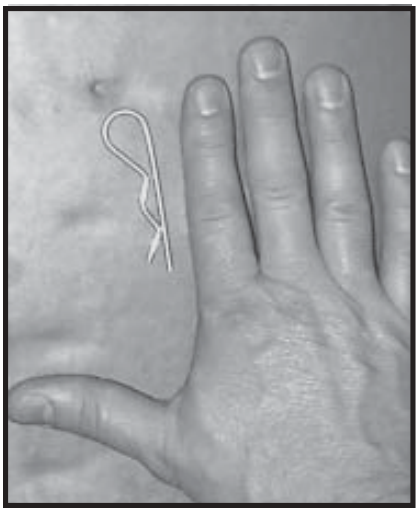


Photo 24-1 Hairpin clip.

Latch METER ROLL ACCESS DOORS as follows.

After dryer is completely assembled, fasten METER ROLL ACCESS DOORS (D01-0045) closed by inserting DOOR LATCHES through ears on TROUGH PANEL WELDMENTS (D01-0048).

Secure with HAIRPIN CLIPS (S-6552).

Photo 24-3 Inserting meter roll door latch through ears on trough panel weldment and securing with hairpin.

25. Check Safety Decals

Check all safety decals on assembled portable grain dryer.

Refer to “Safety First” and “Safety Decals on Dryer” sections at the beginning of this manual.

The “SAFETY DECALS ON DRYER” section identifies and gives the location of all safety decals that should be on each portable grain dryer. The safety decals are listed in numerical order.

Safety decals are placed on the appropriate dryer parts prior to shipping. The purpose of the safety decals on the dryer is to immediately alert the operator to the hazards of an operating dryer.

If the required safety decals are not on your dryer, or if they are damaged, immediately contact Grain Systems for replacement safety decals.

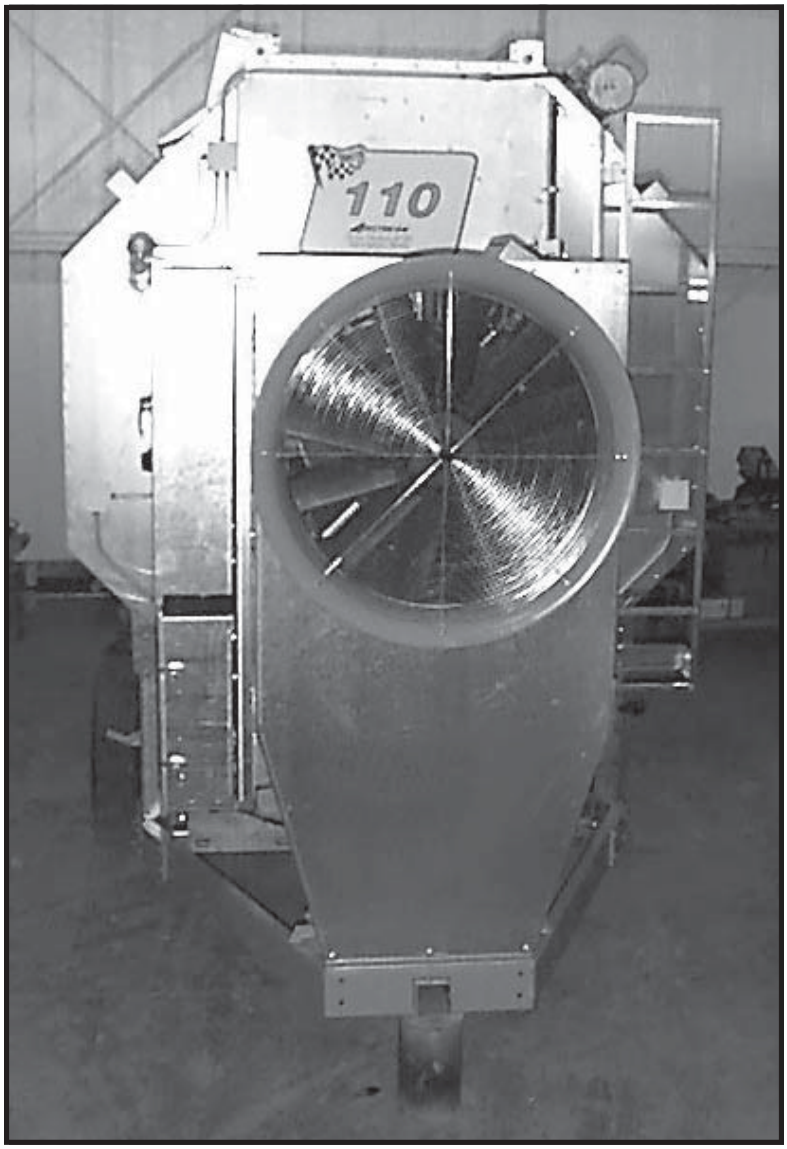


Photo 25-1 Check all safety decals on assembled dryer.

26. Final Assembly Checklist 

___ Check that all screens are rough side out.

___ Check for loose bolts on dryer. Tap screens and panels, and listen for rattles.

___ Check that grommets are installed on EMT conduit running to back of dryer.

___ Remove all metal filings from anywhere in dryer.

___ Check that bottom belt guard is installed correctly and motors are not pushing guards out.

___ Make sure SCR gearbox has oil.

___ Make sure motors are level (front to back).

___ Tighten all conduit fittings.

___ Tighten loose wires.

___ Check sensor electrical boxes and rear junction box are siliconed.

___ Check ground lug is installed.

___ Check ground cable is installed between power box door and control box.

___ Check that each wire has label in both control boxes.

___ Check that both control box doors close without binding and will seal properly.

___ Check that safety disconnect works properly.

___ Remove any loose material from control boxes.

___ Check that unused electrical conduit holes have been plugged and siliconed.

___ Transport kit (if required). Tire pressure = 55 psi. Wheels greased. Lug nuts and bolts tight. Hitch installed.

___ Check angles for rear plenum cover are installed on multi-fan dryers.

Inspected by:_____ **Date:** _____

Approved by: _____ **Date:** _____

DRYER ORIENTATION - RH and LH

Portable Dryer - Front View

Appendix B

INSTALLATION DIMENSIONS

FOR SINGLE MODULE GRAIN DRYERS

This manual describes how to assemble the C-Series portable grain dryer, all models. Refer to the "Portable Dryer Specifications" manual for the specifications and capacities of each specific dryer. The following is some general information that applies to all dryer models.

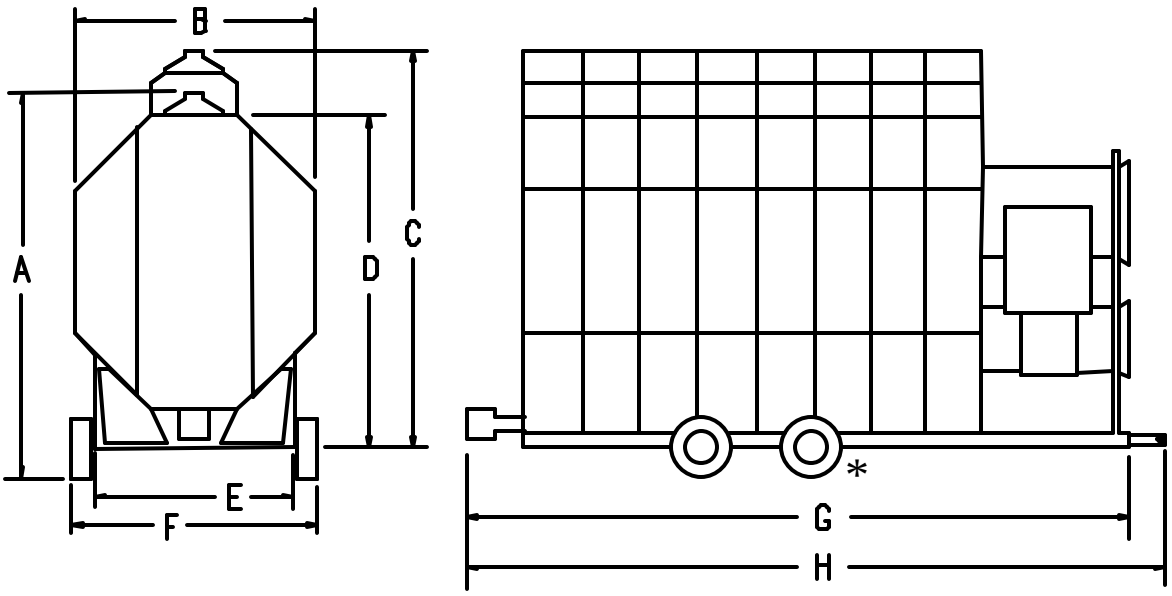


Diagram of dryer dimensions.

Dryer Basket	A Transport Height	B Installed Width	C Installed Height Wet Bin	C Installed Height Standard Top	D Height w/o Wet Bin	E Frame Width	F Transport Width	G Installed Length	H Transport Length	Installed Weight Range**
8 ft.	11' 11"	8'	13'	11' 6"	10' 3"	6' 5"	8'	15' 2''	17' 2''	4,000 - 4,200#
10 ft.	11' 11"	8'	13'	11' 6"	10' 3"	6' 5"	8'	17' 2''	19' 2''	4,700 - 5,000#
12 ft.	13' 5"	8'	14' 6"	13'	11' 9"	6' 5"	8'	19' 2''	21' 2''	5,400 - 6,100#
14 ft.	13' 5"	8'	14' 6"	13'	11' 9"	6' 5"	8'	21' 2''	23' 2''	6,400 - 7,200#
16 ft.	13' 5"	8'	14' 6"	13'	11' 9"	6' 5"	8'	23' 2''	25' 2''	7,500 - 7,600#
18 ft.	13' 5"	8'	14' 6"	13'	11' 9"	6' 5"	8'	25' 2''	27' 2''	7,930 - 8,260#
20 ft.	13' 5"	8'	14' 6"	13'	11' 9"	6' 5"	8'	27' 2''	29' 2''	9,200 - 9,400#
22 ft.	13' 5"	8'	14' 6"	13'	11' 9"	6' 5"	8'	29' 2''	31' 2''	9,900 - 10,500#
26 ft.	13' 5"	8'	14' 6"	13'	11' 9"	6' 5"	8'	33' 2''	35' 2''	12,100 - 12,300#

☛ Best vehicle to pull portable dryer is one-ton truck (3/4 ton minimum), with hitch height of 16" to 17".

---

* Transport kit (with wheels) is optional. Refer to "Dryer Towing and Installation" manual.

** Weight less transport kit, tire and rim assembly.
Transport kit weight ranges from 170 - 858#.

Appendix C

RECOMMENDED TOOLS and EQUIPMENT LIST

Important Safety Precautions: Dryer Parts have sharp edges.
Use Appropriate Personal Protective Equipment.
Use proper lifting technique.

Recommended Tools and Equipment:

Phillips head screwdriver
banding cutters, or equivalent equipment
forklift(s) or hoist
lifting straps, 2"x14', nylon, rating 2000 pounds
3-ton floor jack
2 sets of raised, level, stable work supports - (4) 31" supports and (4) 13" supports
(Steel sawhorses 30" X 80" are ideal supports for initial dryer main frame assembly.)
side cut pliers
locking pliers (vise grips)
3/8"alignment punches
tape measure
1/2" drive sockets: 3/4", 5/8", 11/16", 13/16", 15/16" *1-1/8"
3/8" drive sockets: 3/8", 7/16", 1/2", 9/16"
1/2" drive impact gun or rachet
3/8" drive impact gun or rachet
wrenches: 1/2", 7/16", 9/16", 5/8", 11/16", 3/4", 15/16" *1-1/8"
3/8" drive 6" extension, use impact gun if available
13 ounce ball-peen hammer
lead hammer
hex wrenches (allen wrenches): 1/8", 5/32", 3/16"
tongue and groove pliers
12" level
2 ton floor jack
3/8" drill and assorted drill bits
ladder, 3' and 8'
scaffolding
3 1/2' bar clamp
6" or 8" wire ties (for electrical wiring)
wooden (or non-metal) hammer/mallet, 14 ounce

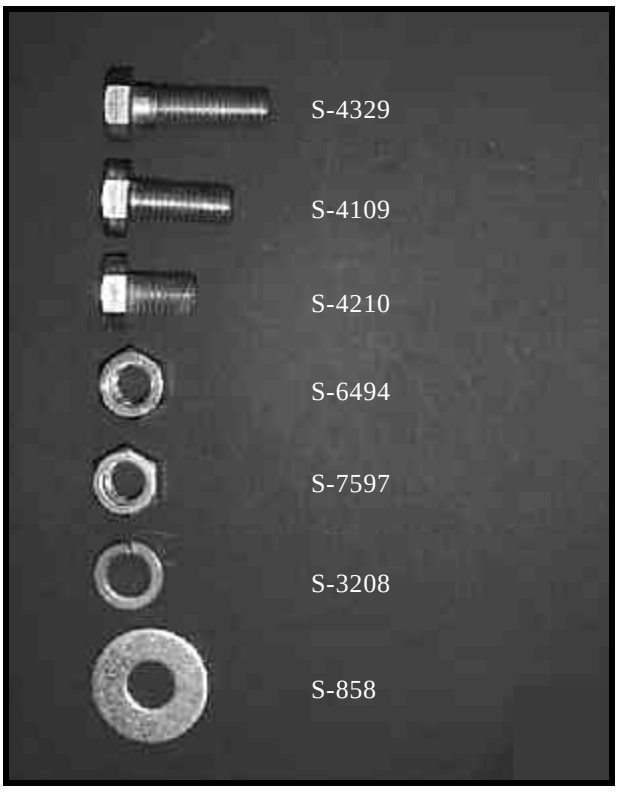
* 1-1/8" is needed if there is a transport kit.

HARDWARE

This hardware is used to assemble dryer mainframe, augers, screens, basket assembly, hitch, fan, motors, control box, and ladders.

☛ Photos not to scale.

PART NAME	PART NUMBER
3/4”	
Bolt 3/4” - 10 x 5 1/2” hex head cap screw* grade 8	S-6638
Nut 3/4” - 10 deformed hex lock**	S-6639
Washer 3/4” wrought iron (zinc)***	S-866



5/8”	
Bolt 5/8” - 11 x 2” hex head cap screw grade 8 zinc	S-4329
Bolt 5/8” - 11 x 1 1/2” hex head cap screw tap grade 8	S-4109
Bolt 5/8” - 11x 1” hex head cap screw grade 8	S-4210
Nut 5/8” - 11 deformed hex lock	S-6494
Nut 5/8” hex	S-7597
Washer 5/8” lockwasher split medium	S-3208
Washer 5/8” wrought iron (zinc)	S-858

* EXAMPLE
3/4” is diameter
10 is threads per inch
5 1/2” is length

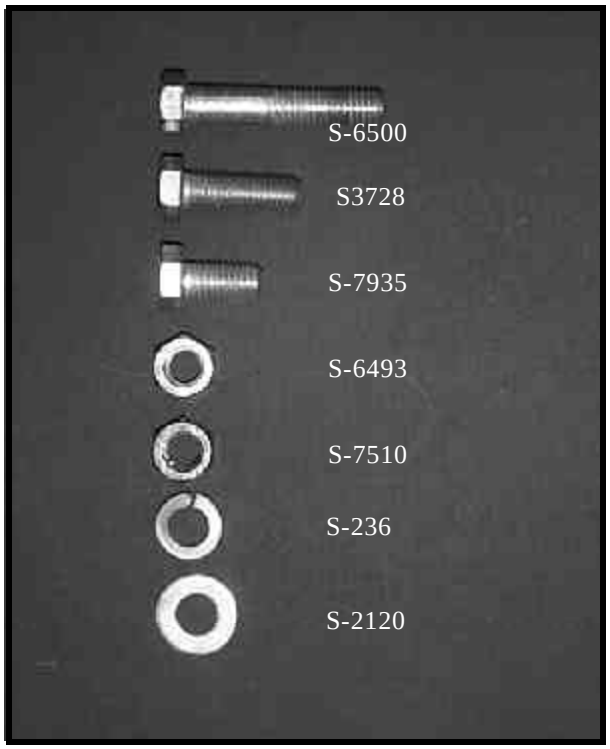
** deformed hex lock nuts are marked by 3 indentations

*** (coated with zinc)

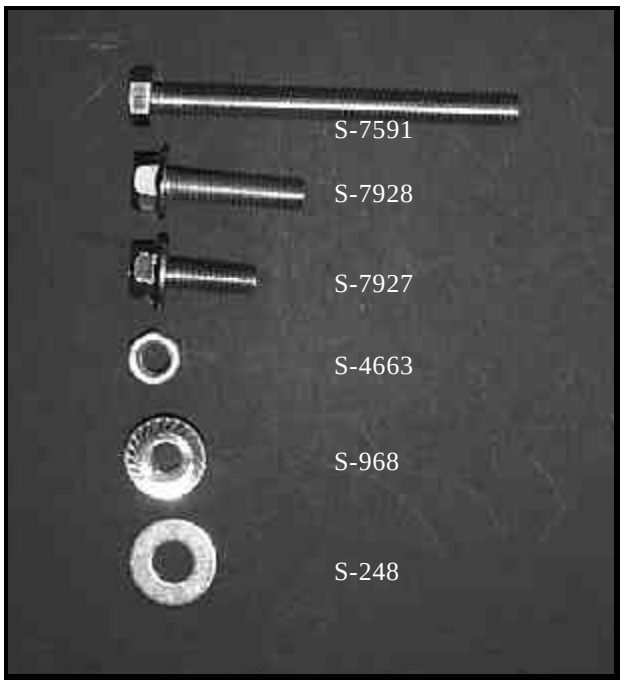
HARDWARE continued

This hardware is used to assemble dryer mainframe, augers, screens, basket assembly, hitch, fan, motors, control box, and ladders.

☛ Photos not to scale.



PART NAME	PART NUMBER
1/2"	
Bolt 1/2" - 13 x 2 1/2" hex head cap screw grade 5	S-6500
Bolt 1/2" - 13 x 1 1/2" hex head cap screw grade 8	S3728
Bolt 1/2" - 13 x 1" hex head cap screw zinc grade 5	S-7935
Nut 1/2" - 13 deformed lock	S-6493
Nut 1/2" - 13 hex zinc grade 2	S-7510
Lockwasher 1/2" split	S-236
Washer 1/2" zinc	S-2120



3/8"	
Bolt 3/8" - 16 x 4" zinc grade 2	S-7591
Bolt 3/8" - 16 x 1 1/2" hex flange head	S-7928
Bolt 3/8" - 16 x 1" hex flange head	S-7927
Nut 3/8" - 16 deformed lock	S-4663
Nut 3/8" - 16 wide flange whiz lock serrated grade	S-968
Washer 3/8" wrought iron (zinc)	S-248

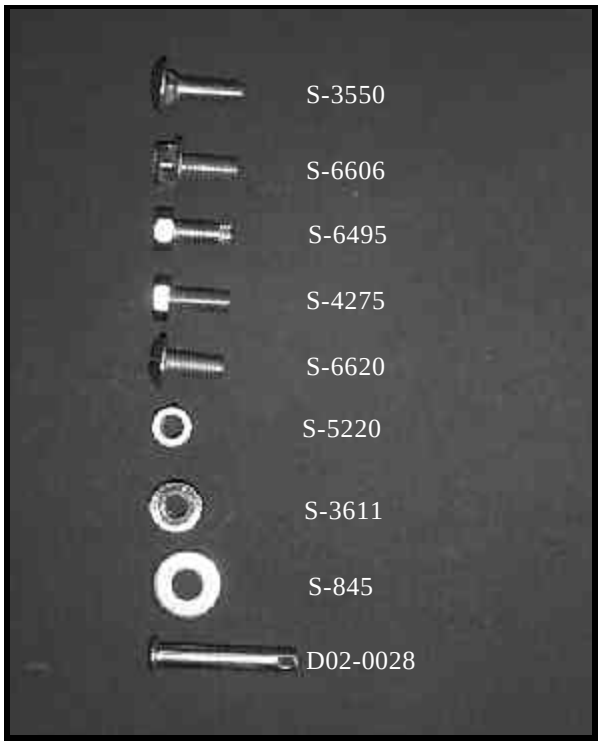
HARDWARE continued

This hardware is used to assemble dryer mainframe, augers, screens, basket assembly, hitch, fan, motors, control box, and ladders.

☛ Photos not to scale.

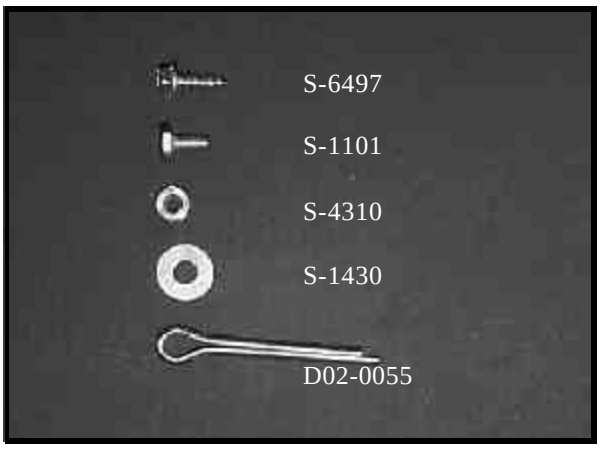
5/16”

PART NAME	PART NUMBER
Bolt Carriage 5/16” - 18 x 1” less nut	S-3550
Bolt 5/16” - 18 x 3/4” whiz tap grade 5	S-6606
Bolt 5/16” - 18 x 3/4” hex head Type “F”	S-6495
Bolt 5/16” - 18 x 3/4” hex head Tap grade 5	S-4275
Bolt 5/16” - 18 x 3/4” slotted serrated truss head	S-6620
Nut 5/16” - 18 hex 3/way lock	S-5220
Nut 5/16” - 18 flanged whiz	S-3611
Washer 5/16” wrought iron flat	S-845
Pin 5/16” x 1 3/4” clevis	D02-0028



1/4”

Screw 1/4” - 20 x 3/4” hex washer head TEK	S-6497
Bolt 1/4” - 20 x 1/2” hex head cap screw grade 2	S-1101
Nut 1/4” - 20 deformed lock grade 2	S-4310
Washer 1/4” wrought iron flat	S-1430
Pin 1/4” x 2” cotter	D02-0055

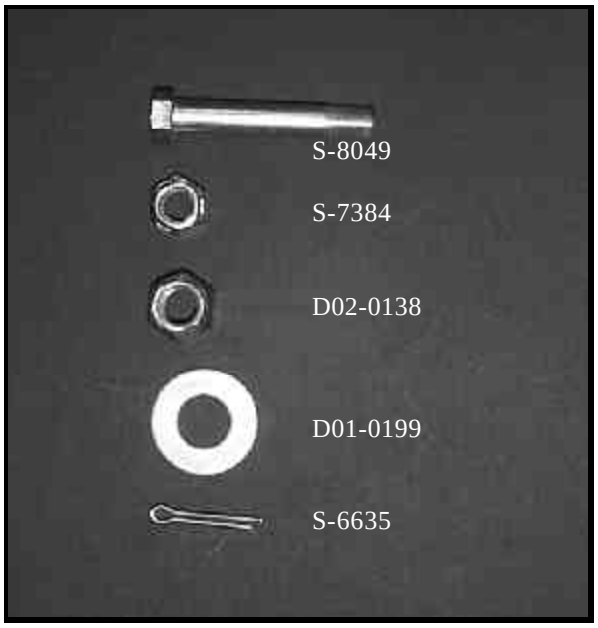


HARDWARE continued

This hardware is used to assemble dryer mainframe, augers, screens, basket assembly, hitch, fan, motors, control box, and ladders.

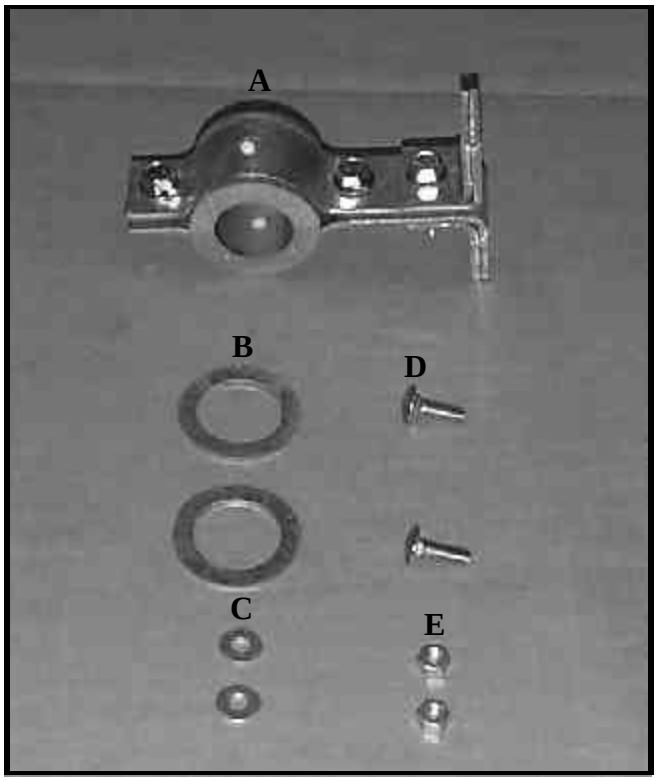
☛ Photo not to scale.

PART NAME	PART NUMBER
additional sizes"	
Bolt 7/16" - 14 x 2 1/2" hex head cap screw grade 8	S-8049
Nut 7/16" x 14 lock	S-7384
Lug nut for dryer hub 1/2"	D02-0138
Washer 2" - 1/32 machinery	D01-0199
Pin 1/8" x 1" cotter	S-6635



HARDWARE continued

☛ Photo not to scale.



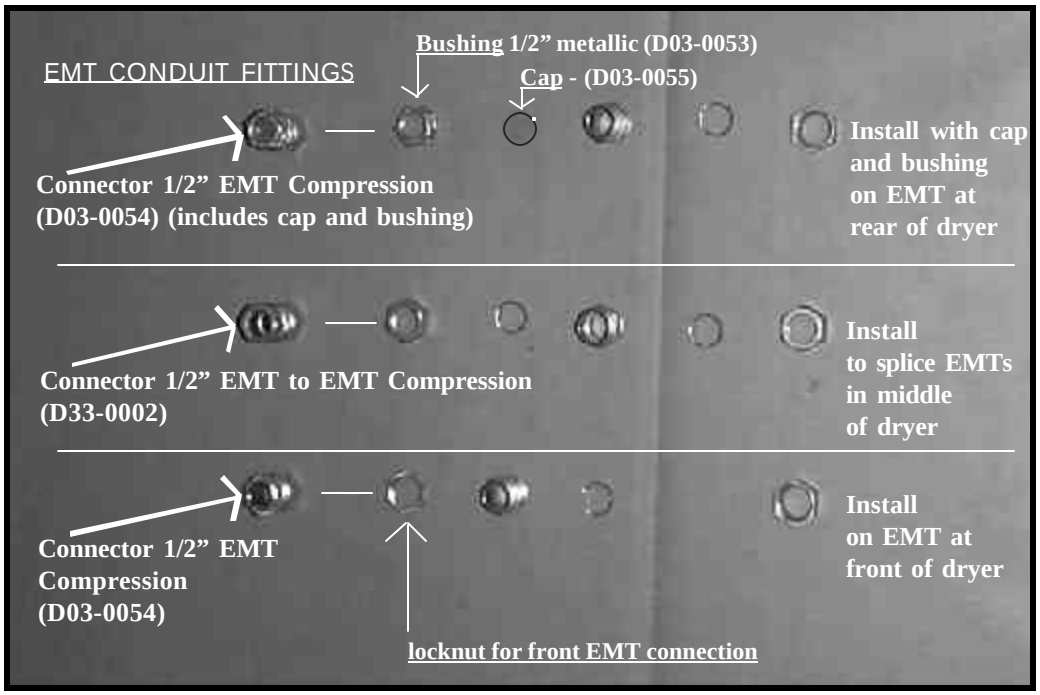
Hanger bearing assembly and auger hardware sizes listed below.

A. (1) HANGER BEARING ASSEMBLY (D01-1246)
B. (2) HANGER BEARING MACHINE WASHER 2/25”x1/5” (D31-0048)
C. (2) 5/16” wrought iron flat washers
D. (2) 5/16”-18x1” carriage bolts,
E. (2) 5/16”-18 hex 3/way locknuts

HARDWARE continued

☛ Photo not to scale.

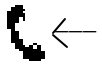
EMT conduit fittings for 22’ dryer—— with exploded view to right of each fitting.
*EMT = Electrical Metallic Transit.



HAIRPIN CLIP
S-6552
3/32” diameter
length 2 1/2”
cotter pin #14

Appendix E

GLOSSARY OF ASSEMBLY TERMS

TERMS	MEANING
assembly	parts bolted together.
bolt	unless modified, bolt means to tightly bolt for final assembly.
loosely bolt	bolt loosely to allow easy addition of parts later in assembly.
snug bolt	tighten bolt snug with fingers to hold in place, will tighten later.
tighten bolt	bolt tightly for final assembly.
common bolt	insert bolt through all parts to be held together.
existing bolts	bolts already installed in dryer.
column	space between two hopper bulkheads, bounded by inside and outside dryer screens, 2' wide is standard.
icon	a small symbol that simplifies message for quick reader recognition, for example:  this icon indicates communication options: phone, fax, e-mail, internet.
orientation	facing front of dryer, Right Hand (RH) side of dryer is on right, Left Hand (LH) side of dryer is on left.
weldment	parts welded together.

Appendix F

U.S. TO METRIC CONVERSION TABLES

Refer to the conversion tables in Appendix F for conversions from U.S. measures to metric measurements.

To assemble this grain dryer, you may need standard U.S. dimension tools. However, some metric tools will fit on U.S. dimension hardware.

Inch Conversion Table

Fractions	Decimals	Millimeters		Fractions	Decimals	Millimeters
1/64	.0156	.3969		33/64	.5156	13.0969
1/32	.0313	.07938		17/32	.5313	13.4938
3/64	.0469	1.1906		35/64	.5469	13.8906
1/16	.0625	1.5875		9/16	.5625	14.2875
5/64	.0781	1.9844		37/64	.5781	14.6844
3/32	.0938	2.3813		19/32	.5938	15.0813
7/64	.1094	2.7781		39/64	.6094	15.4781
1/8	.125	3.1750		5/8	.625	15.8750
9/64	.1406	3.5719		41/64	.6406	16.2719
5/32	.1563	3.9688		21/32	.6563	16.6688
11/64	.1719	4.3656		43/64	.6719	17.0656
3/16	1.875	4.7625		11/16	.6875	17.4625
13/64	.2031	5.1594		45/64	.7031	17.8594
7/32	.2188	5.5563		23/32	.7188	18.2563
15/64	.2344	5.9531		47/64	.7344	18.6531
1/4	.250	6.3500		3/4	.750	19.0500
17/64	.2656	6.7469		49/64	.7656	19.4469
9/32	.2813	7.1438		25/32	.7813	19.8438
19/64	.2969	7.5406		51/64	.7969	20.2406
5/16	.3125	7.9375		13/16	.8125	20.6375
21/64	.3281	8.3344		53/64	.8281	21.0344
11/32	.3438	8.7313		27/32	.8438	21.4313
23/64	.3594	9.1281		55/64	.8594	21.8281
3/8	.375	9.5250		7/8	.875	22.2250
25/64	.3906	9.9219		57/64	.8906	22.6219
13/32	.4063	10.3188		29/32	.9063	23.0188
27/64	.4219	10.7156		59/64	.9219	23.4156
7/16	.4375	11.1125		15/16	.9375	23.8125
29/64	.4531	11.5094		61/64	.9531	24.2094
15/32	.4688	11.9063		31/32	.9688	24.6063
31/64	.4844	12.3031		63/64	.9844	25.0031
1/2	.500	12.7000		1	1.000	25.4000

Appendix F

U.S. TO METRIC CONVERSION TABLES

Conversion Factors

Multiply	by	To Obtain
British Thermal Unit (Btu)	2.928×10^{-4}	kilowatt · hr (kWh)
Btu/hr	3.930×10^{-4}	horsepower (hp)
Btu/hr	0.293	watt (W)
horsepower (hp)	745.7	watt (W)
inch (in)	2.540	centimeter (cm)
foot (ft)	0.3048	meter (m)
pound-mass (lbm avdp*)	0.454	kilogram (kg)
pounds per square inch (psi)	6,895	Pascal (Pa)
bushels (bu)	0.03524	cubic meter (m^3)
°F (Fahrenheit)	(F°-32) / 1.8	°C (Celsius)
°C (Celsius)	1.8 (C°) + 32	°F (Fahrenheit)

* avdp = avoirdupois

Appendix F

U.S. TO METRIC CONVERSION TABLES

AWG* Wire Gage
(solid conductor wire)

AWG Gage No.	Cross-sectional Area		Diameter of solid wire	Circular
	mm^2	$inches^2$	mm	mils
32	.0032	0.00005	0.0202	63.2
30	0.0505	0.000079	0.255	100.5
28	0.0806	0.000125	0.321	159.8
26	0.129	0.000199	0.405	254
	0.196	0.000304	0.5	387
24	0.205	0.000317	0.511	404
	0.283	0.00483	0.6	558
20	0.518	0.000802	0.812	1022
	0.75	0.001162	0.977	1480
18	0.821	0.001272	1.022	1620
	1	0.00155	1.128	1973
16	1.307	0.002026	1.29	2580
	1.5	0.002325	1.382	2960
14	2.082	0.003228	1.628	4110
	2.5	0.003875	1.784	4934
12	3.309	0.005129	2.053	6530
	4	0.0062	2.257	7894
10	5.26	0.008152	2.588	10380
	6	0.0093	2.763	11841
8	8.365	0.012967	3.264	16540
	10	0.0155	3.568	19735
6	13.296	0.02061	-	26240
	16	0.0248	-	31576
4	21.15	0.03278	-	41740
	25	0.0388	-	49338
2	33.62	0.0521	-	66360

* American Wire Gage.

AIRMIXER CAN PLACEMENT by Dryer Length

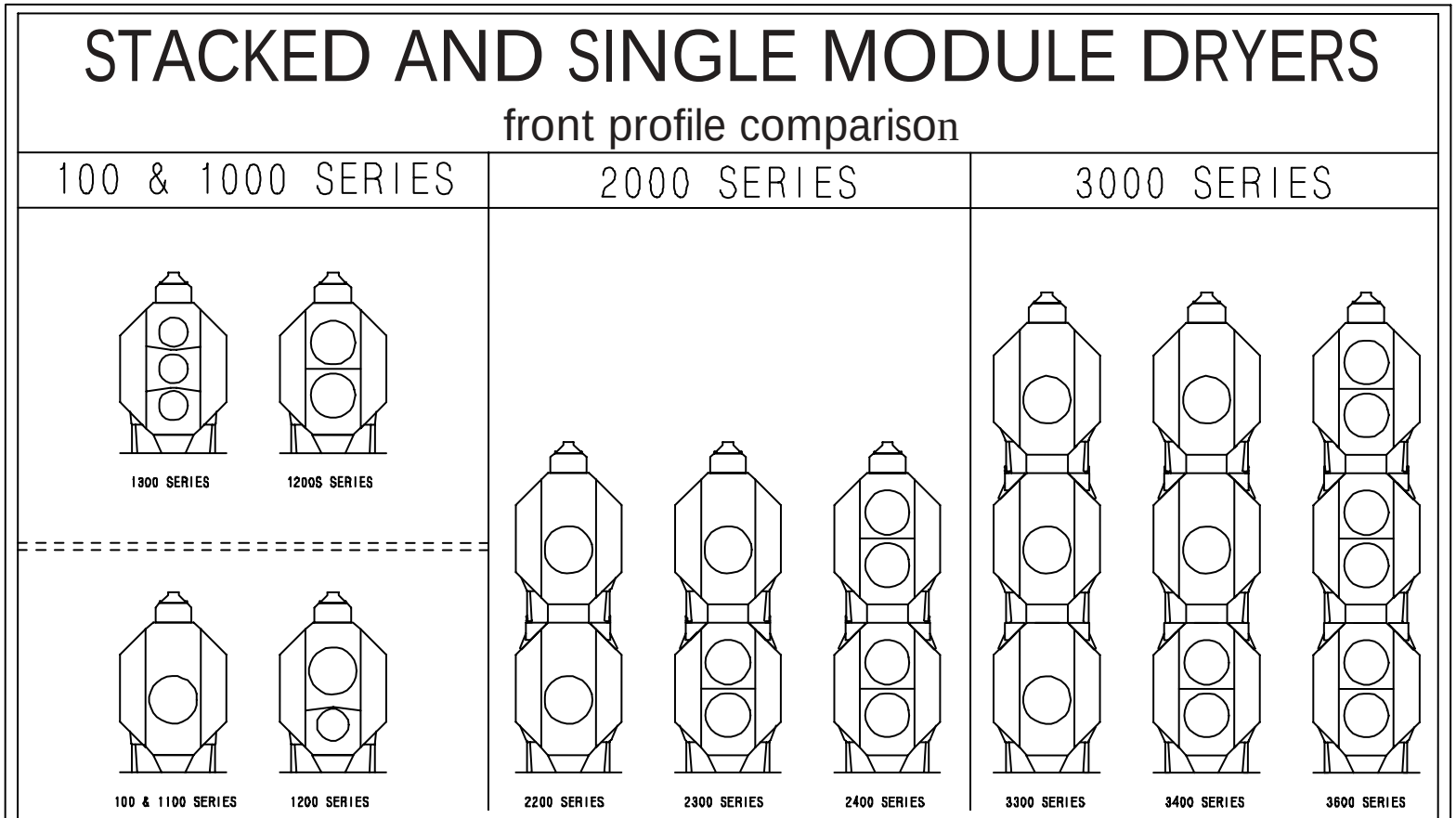
Number, Diameter, and Placement of Airmixer cans In Dryer.
*for Single Module and Stacked Dryers**

DRYER LENGTH (Front of Dryer ↓)		**DIAMETER of Airmixer Cans**	
ONE FAN MODULE			
6', 8'		28" S*	28" L**
10', 12'		36"	36"
14', 16', 18', 20', 22', 26'		42"	42"
Stacked one fan module dryers require the same number, diameter, and placement of airmixer cans as single module dryers of the same length.			
TWO FAN MODULE			
14', 16', 18'	Top Plenum	36"	36
	Bottom Plenum	26" S	26" L
20', 22', 26'	Top Plenum	42"	42"
	Bottom Plenum	28" S	28" L
TWO FAN MODULE STACKED			
14'	Top Plenum	28" S	28" L
	Bottom Plenum	28" S	28" L
18", 20", 22"	Top Plenum	36"	36"
	Bottom Plenum	36"	36"
26'	Top Plenum	40"	40"
	Bottom Plenum	40"	40"
THREE FAN MODULE			
14', 18', 22'	Top Plenum	26" S	26" L
	Middle Plenum	26" S	26" L
	Bottom Plenum	26" S	26" L

* Short (8") ** Long (15")

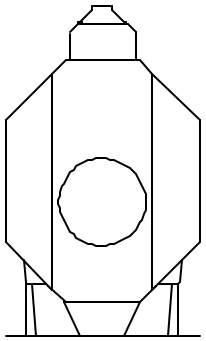
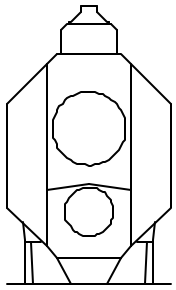
STACKED AND SINGLE MODULE DRYERS

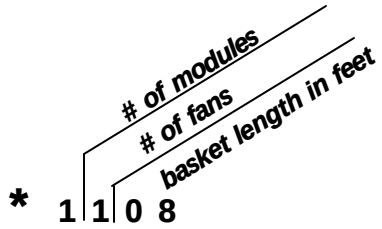
front profile comparison



A module is a standardized unit that can be joined to form larger capacity dryers.
A module is the entire dryer basket. It can have one plenum, two plenums, or three plenums.
A plenum is the chamber that encloses heated air that dries grain.

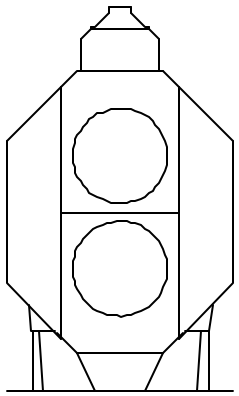
Fan-Heater Assembly

Dryer Model #		Diameter & Placement	
C-Series	**Competitor**		
1108*	108	28”	
1110	110	36”	
1112	112		
1114	114	42”	
1116	116		
1118	118		
1120	120		
1122	122		
1126	126		
			100 & 1100 SERIES
C-Series			
1214		36” top plenum	
1216		26” bottom plenum	
1218			
1220		42” top plenum	
1222		28” bottom plenum	
1226			
			1200 SERIES

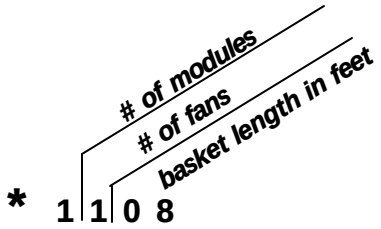


Fan-Heater Assembly

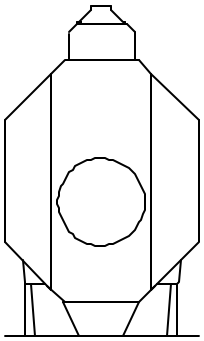
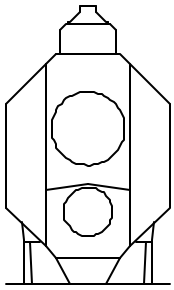
Dryer Model #	Diameter & Placement	
C-Series		
1214H*	28”	top plenum
	28”	bottom plenum
1218H 1220H 1222H	36”	top plenum
	36”	bottom plenum
1226H	40”	top plenum
	40”	bottom plenum

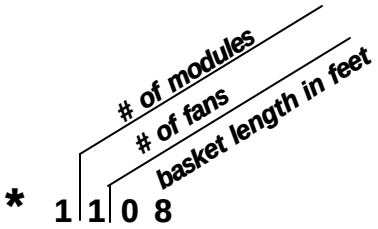


1200S SERIES



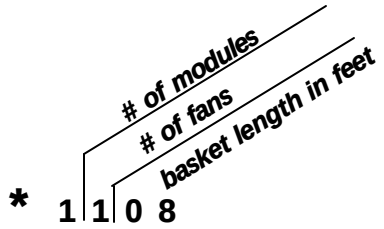
Fan-Heater Assembly

Dryer Model #		Diameter & Placement		
C-Series	**Competitor**			
1108*	108	28”		
1110 1112	110 112	36”		
1114 1116 1118 1120 1122 1126	114 116 118 120 122 126	42”		100 & 1100 SERIES
C-Series				
1214 1216 1218		36” 26”	top plenum bottom plenum	
1220 1222 1226		42” 28”	top plenum bottom plenum	1200 SERIES

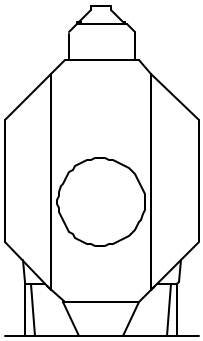
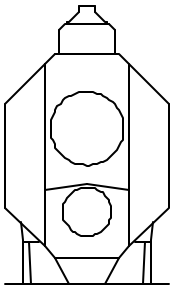


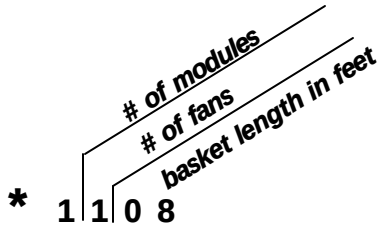
Fan-Heater Assembly

Dryer Model #	Diameter & Placement	
C-Series		
1108*	28”	
1110 1112	36”	
1114 1116 1118 1120 1122 1126	42”	
1214 1216 1218	36” 26”	top plenum bottom plenum
1220 1222 1226	42” 28”	top plenum bottom plenum



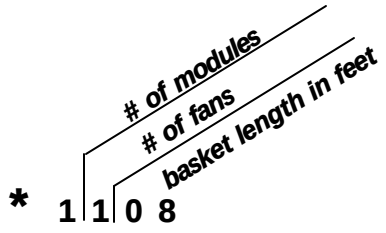
Fan-Heater Assembly

Dryer Model #		Diameter & Placement		
C-Series	**Competitor**			
1108*	108	28”		
1110 1112	110 112	36”		
1114 1116 1118 1120 1122 1126	114 116 118 120 122 126	42”		100 & 1100 SERIES
C-Series				
1214 1216 1218		36” 26”	top plenum bottom plenum	
1220 1222 1226		42” 28”	top plenum bottom plenum	1200 SERIES

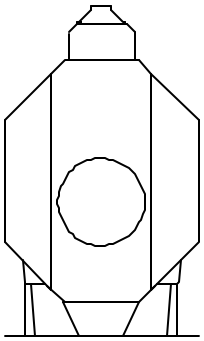
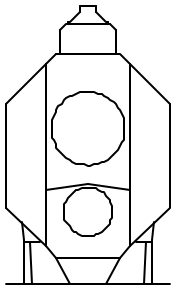


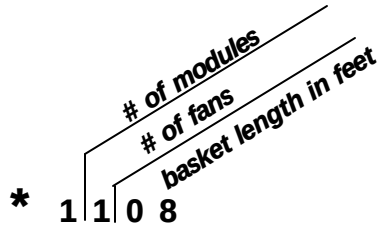
Fan-Heater Assembly

Dryer Model #	Diameter & Placement	
C-Series		
1108*	28”	
1110 1112	36”	
1114 1116 1118 1120 1122 1126	42”	
1214 1216 1218	36” 26”	top plenum bottom plenum
1220 1222 1226	42” 28”	top plenum bottom plenum



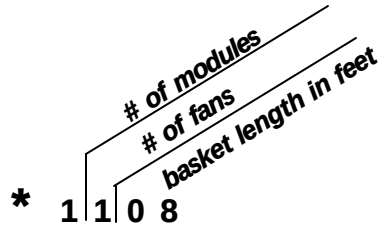
Fan-Heater Assembly

Dryer Model #		Diameter & Placement		
C-Series	**Competitor**			
1108*	108	28”		
1110 1112	110 112	36”		
1114 1116 1118 1120 1122 1126	114 116 118 120 122 126	42”		100 & 1100 SERIES
C-Series				
1214 1216 1218		36” 26”	top plenum bottom plenum	
1220 1222 1226		42” 28”	top plenum bottom plenum	1200 SERIES



Fan-Heater Assembly

Dryer Model #	Diameter & Placement	
C-Series		
1108*	28”	
1110 1112	36”	
1114 1116 1118 1120 1122 1126	42”	
1214 1216 1218	36” 26”	top plenum bottom plenum
1220 1222 1226	42” 28”	top plenum bottom plenum



Appendix J

HELP AND RESOURCES

The following documentation is shipped with each portable grain dryer:

"Dryer Operation and Service Manual"
"Dryer Parts" manual
"Dryer Troubleshooting and Reference Manual"
"Portable Dryer Specifications" manual
"Dryer Towing and Installations" manual
"Start Up Dryer Features" (video)

"Packing List"

Address correspondence to:

1004 East Illinois Street
Post Office Box 20
Assumption, IL 62510-0020
United States of America

Or call:

U.S. telephone: 217.226.4421
U.S. toll free fax: 1.800.353.5329
international fax: 217.226.3404
e-mail: gsisales@grainsystems.com
internet: http:/www.grainsystems.com

Refer to:

PNEG-663
Printing Date: 1998
Revision Date: December 1997

Please contact Grain Systems with any comments or suggestions for improvement in product or service.

Revisions since last printing are listed below.

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U.S. toll free fax: 1.800.353.8306
International fax: 217.226.3404
e-mail: gsisales@grainsystems.com
internet: http:/www.grainsystems.com

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