OWNER'S MANUAL

Trans-Fer

Models 700, 1200, 1700, & 2100

Pneumatic Systems

CE

DAVID MANUFACTURING CO.

1600 12th Street N.E., Mason City, Iowa USA 50401 641-424-7010

SAFETY GUIDELINES

This manual contains information that is important for you, the owner/operator, to know and understand. This information relates to protecting ***personal safety*** and ***preventing equipment problems***. It is the responsibility of the owner/operator to inform anyone operating or working in the area of this equipment of these safety guidlines.To help you recognize this information, we use the symbols that are defined below.

Please read the manual and pay attention to these sections. Failure to read this manual and it's safety instructions is a misuse of the equipment and may lead to serious injury or death.

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

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

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

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

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

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

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WARRANTY
for
Trans-Fer Pneumatic System

The guarantee is for one year from date of installation to be free of defects in material or workmanship when properly installed and operated in accordance with instructions in this booklet. Warranted parts will be exchanged F.O.B. Mason City, Iowa without charge to the user. Damage resulting from negligence voids the warranty. Warranty does not include labor, installation or delivery of replacement parts.

Electric motors are covered by the warranties of the respective manufacturers. Electric service centers are located in all regions. Consult your dealer.

The Warranty and liability of David Manufacturing Company, its distributors, dealers and agents is limited to replacement, without charge, of defective parts, as outlined above. DMC makes no other warranties, express or implied except as stated herein, and disclaims all obligations and liabilities other than specified.

The Manufacturer reserves the right to make changes in specifications or prices without incurring obligation on previously produced merchandise.

EC DECLARATION OF CONFORMITY 8017030

David Manufacturing Company
1600 12th Street NE
Mason City, IA 50401
USA

Declares that:

Machine name: Pneumatic Trans-Fer System

Type/Model: Model 700,1200 &1700

Machine description/uses:

The primary function of the Pneumatic Trans-Fer System is to move material (primarily grain) from one central location to several different destinations. It does this by mechanically introducing grain into a stream of moving air and having the air carry the grain in either 4”(101.5mm) or 5”(127mm) diameter tubes. The typical operating pressures range is from 3 psi (20.7 kpa) to 8 psi (55.2 kpa); the maximum distance is 400 feet (122 m).

Conforms to the EC Directive 89/392/EEC, (amended by Council Directive 91/368/EEC), the Machinery Directive, and in particular, the Essential Health and Safety Requirements that apply to it. Specifically to:

Schedule 1: General Points

Signed

Keith Braun

Keith Braun

for David Manufacturing Company

⚠ CAUTION ⚠

Maintenance and Service

It is essential in undertaking any maintenance or servicing of the Trans-Fer System that a safe system of work is strictly followed. Failure to do so may result in serious injury to the operator. Before carrying out any work on the Trans-Fer:

Prior to inspecting, servicing, lubricating or adjusting the Trans-Fer, ensure the isolator switch is locked into the “OFF” position with the only key in your possession.

All electrical wiring should be in accordance to BS767:1992. Be sure equipment is properly grounded.

Individual service manuals for the blower and airlock are included with the Transfer.

Follow all safety recommendations listed in these manuals.

Make sure that the Trans-Fer blower and airlock assemblies are anchored securely in their operating positions to prevent operating vibrations from moving the units.

Remember to replace all guards before restarting the Trans-Fer system.

⚠ CAUTION ⚠

OPERATION

Before operating, familiarize yourself with the machine. It will help you operate your Trans-Fer System more efficiently, with better quality returns to you.

FOR SAFETY SAKE

1. Read and understand the Owner's Manual.
2. Keep all safety shields in place.
3. Attach all safety decals as required.
4. Prior to inspecting, servicing, lubricating or adjusting the Trans-Fer, ensure the isolator switch is locked in the "OFF" position with the only key in your possession.
5. Do not wear loose-fitting clothing while operating machinery.
6. Keep hands and feet away from moving parts. Be sure all people are clear of equipment before start-up.
7. Do not use plastic tubing for conveying material. Static electricity can accumulate and become dangerous.
8. Make sure that all people are clear of the storage area where material is being conveyed.
9. Make sure that the storage area is well vented to prevent pressure build up by the conveying air.

NOTICE OF DUST HAZARD:
Decals indicating the possibility of dust are provided in the owners manual and should be applied to the conveyor feeding the airlock and at the discharge point. There is a high risk of dust being created during operation of the Trans-Fer, primarily at the discharge point in the storage area. The level of dust will vary with the type and condition of the material being conveyed and the operator should make an assessment of the risk as required in the EU under the Control of Substances Hazardous to Health Regulations. They should then implement appropriate control measures to reduce the risks to health.

NOTICE OF NOISE HAZARD:
Noise emitted by the Trans-Fer may be harmful to hearing with prolonged exposure. Avoid working in the vicinity of the blower unless hearing protection is utilized. Apply the noise hazard decal provided with the owners manual to the top surface of the blower belt shield. Optional silencers are also available to diminish the noise level.

THE DECALS SHOWN ON THIS PAGE MUST BE DISPLAYED AS SHOWN

REPLACEMENTS ARE AVAILABLE UPON REQUEST

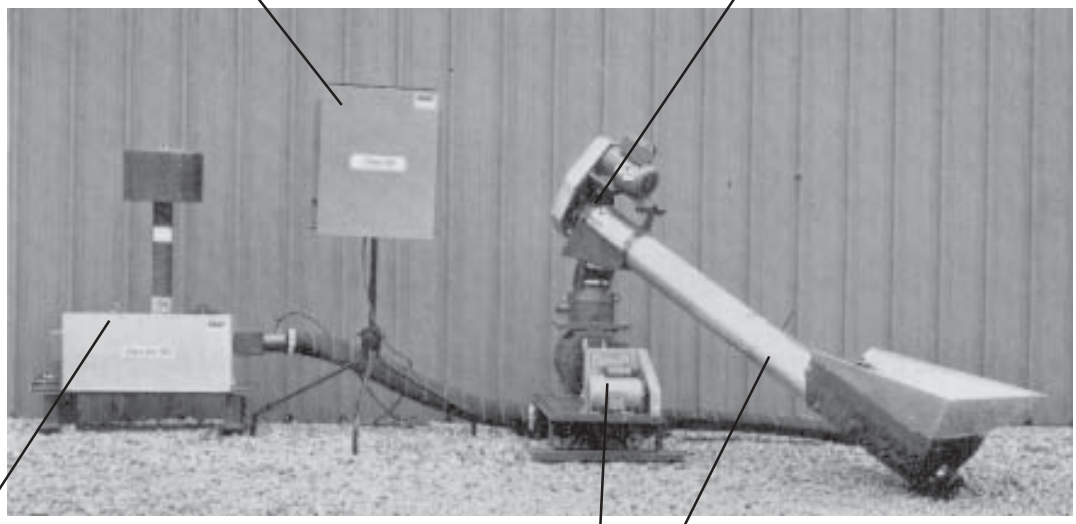
Write to: David Manufacturing Co.,
1600 12th St. NE
Mason City, IA 50401 USA

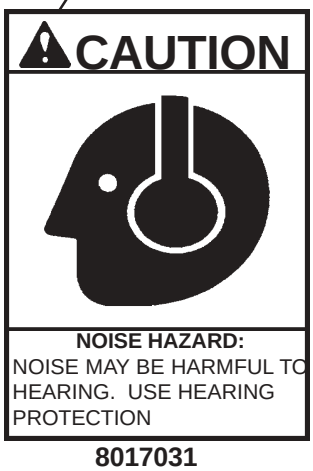
Email: dmc@netins.net

Please note:
1. The decals on this page are not actual size.
2. Keep all decals wiped clean at all times.
3. All decals must be replaced if they are destroyed, missing, painted over, or can no longer be read.

801L010 (Decal on inside of control box)

104L0014





8017031

205L004

MAINTENANCE SCHEDULE

Initial Start-Up

1. Duroflow Blower	1. Oil level with middle of sight glass (DMC #MS5389 synthetic oil.) (Mobil #SHC630)
2. Roots Blower	2. Oil level to check plug (CDMC#MS5389#SHC630)
3. Gear Reducer	3. Oil level to check plug (SAE90)
4. Air Filter	4. Installed properly
5. V-belts	5. Tensioned and aligned
6. Chain	6. Tensioned and aligned
7. Tubing System	7. All couplers tight All tubing connections have good fit Tubing laid out straight Elbows fitting properly

After 1st 10 Hours and Daily

1. Blowers and Reducer	1. Check all oil levels
2. Air Filter	2. Check for excessive dust build-up
3. V-belts	3. Check tension alignment
4. Tubing	4. Check all connections for leaks and signs of separating

Weekly

1. Roots Blower	1. Grease bearings until grease comes out of relief fitting
2. Chain	2. Oil

500 Hours or 6 Months

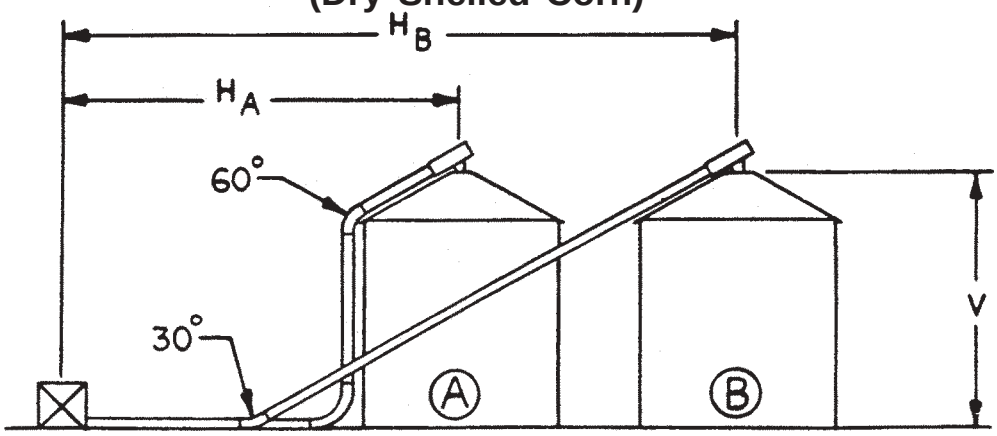
1. Duroflow	1. Drain oil and replace with 30 oz. of DMC #MS5389 synthetic oil. (fill to middle of sight glass)
2. Roots Blower	2. Drain oil and replace with 16 oz. Of 10W40 (fill to oil level plug)

Extended Shut Down

DISCONNECT MAIN POWER TO UNIT

1. Blower	1. Remove outlet assembly and spray oil on lobes while rotating by hand, to prevent rust Keep hands and objects out of blower Re-install outlet assembly
2. Airlock	2. Coat interior with oil, while rotating by hand, to prevent rust
3. Chain	3. Oil chain to prevent rust

TRANS-FER CAPACITIES
(Dry Shelled Corn)



For Bin A: Example: V = 35 ft. H = 60 ft.
One 90° and one 60° elbow
Total Tube Length = 60' plus (2x35') plus (2x10')= 150 ft.
Capacity from Chart = 750 BPH (Trans-Fer 700 - 15 HP)
1600 BPH (Trans-Fer 1500 - 30 HP)

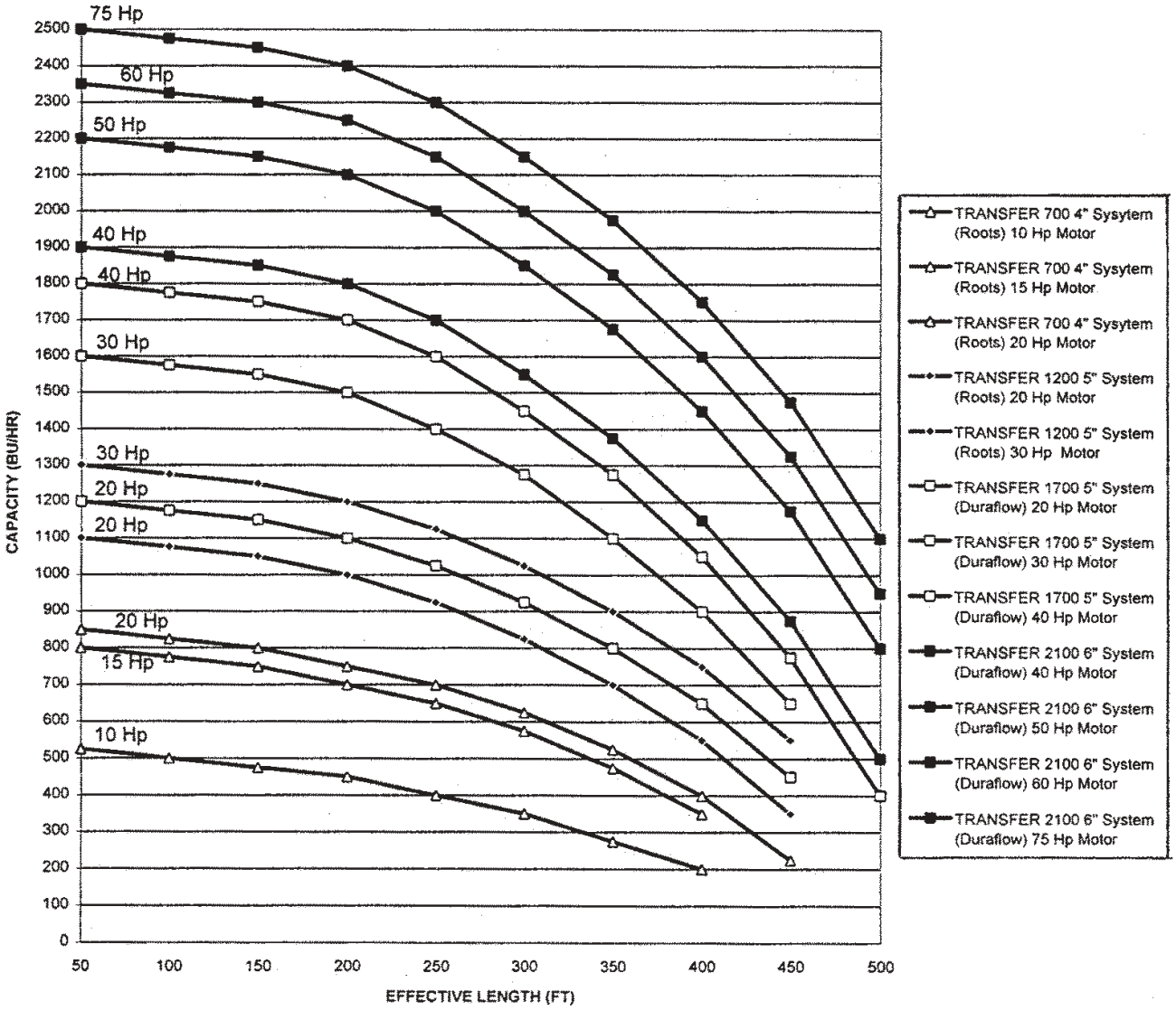
For Bin B: Example: V = 35 ft. H = 160 ft.
One 30° elbow
Total Tube Length = 160' plus (2x35') plus 5' = 235 ft.
Capacity from Chart = 665 BPH (Trans-Fer 700 - 15 HP)
1430 BPH (Trans-Fer 1500 - 30 HP)

Trans-fer Capacities

Effective Length		Trans-Fer 700 4" System (Roots) Motors			Trans-Fer 1200 5" System (Roots) Motors		Trans-Fer 1700 5" System (DuroFlow) Motors			Trans-Fer 2100 6" System (DuroFlow) Motors			
		10 HP	15 HP	20 HP	20 HP	30 HP	20 HP	30 HP	40 HP	40 HP	50 HP	60 HP	75 HP
Ft	M	Metric Ton/Hour			Metric Ton/Hour		Metric Ton/Hour			Metric Ton/Hour			
50	15.2	14.2	21.6	23.0	29.7	35.1	32.4	43.2	48.6	51.4	59.5	63.5	67.6
100	30.5	13.5	20.9	22.3	29.1	34.5	31.8	42.6	48.0	50.7	58.8	62.8	66.9
150	45.7	12.8	20.3	21.6	28.4	33.8	31.1	41.9	47.3	50.0	58.1	62.2	66.2
200	61.0	12.2	18.9	20.3	27.0	32.4	29.7	40.5	45.9	48.6	56.8	60.8	64.9
250	76.2	10.8	17.6	18.9	25.0	30.4	27.7	37.8	43.2	45.9	54.1	58.1	62.2
300	91.4	9.5	15.5	16.9	22.3	27.7	25.0	34.5	39.2	41.9	50.0	54.1	58.1
350	106.7	7.4	12.8	14.2	18.9	24.3	21.6	29.7	34.5	37.2	45.3	49.3	53.4
400	121.9	5.4	9.5	10.8	14.9	20.3	17.6	24.3	28.4	31.1	39.2	43.2	47.3
450	137.2	-	-	6.1	9.5	14.9	12.2	17.6	20.9	23.6	31.8	35.8	39.9
500	152.4	-	-	-	-	-	-	-	10.8	13.5	21.6	25.7	29.7

Effective tube length is determined by adding the horizontal length, twice the vertical height and 10 feet for every elbow of 45° or greater. Add five feet for each elbow less than 45°. Use the horizontal run and add the vertical rise of inclined systems to calculate the effective length.

CAPACITY CHART
4", 5", & 6" Systems



TRANS-FER SET-UP PROCEDURES

1. The air filter extension tube and housing are connected to the blower inlet by a compression coupler (See Photos 1, 2 & 3). For extended filter life, if the pneumatic system is being operated in extremely dirty conditions, a longer extension tube can be used between the blower inlet and the air filter. BE SURE the air filter is positioned so that routine inspection and service can be performed.

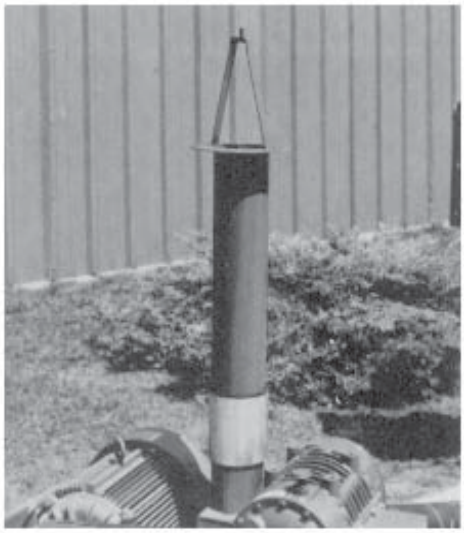


Photo 1

2. Place the air filter element with pre-filter on the base and cover with the filter canister using the 3/8" wing nut and washer. The wing nut does not need to be more than finger tight (See Photos 2 & 3).

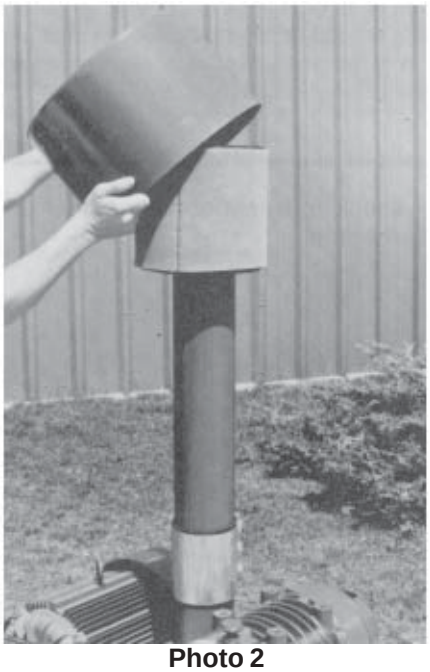


Photo 2

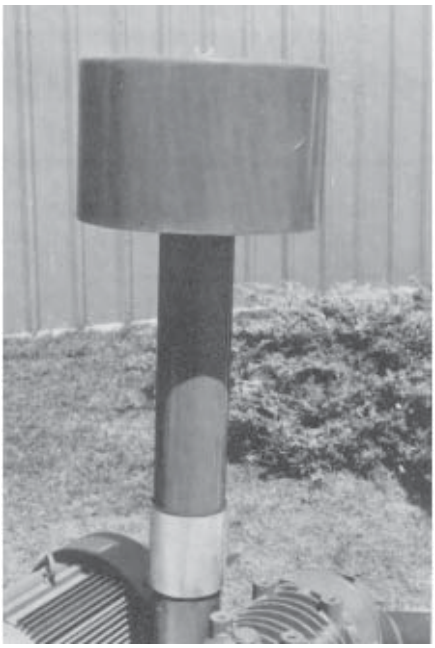


Photo 3

3. Check the motor name plate for the correct motor frame size. Then refer to Drawing 5 on page 11 to determine proper mounting holes and spacing of the motor mount channel. The spacing of the motor mount channels is changed by moving the channel to the proper notch cut into the main base of the blower platform. See Photo 4 on the next page and Drawing 5 on page 11. Finish by bolting the motor securely to the channels. Leave the four 1/2" carriage bolts, which hold the channels to the main frame, loose.

4. Place the 3B - 8-15/16" pulley onto the motor shaft and align it with the blower pulley. See Photo 5 on the next page.

TRANS-FER SET-UP PROCEDURES (continued)

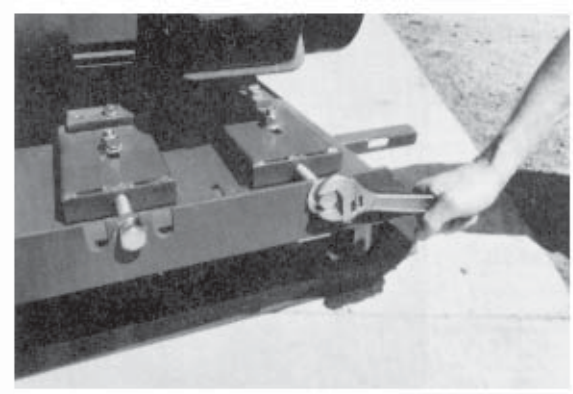


Photo 4

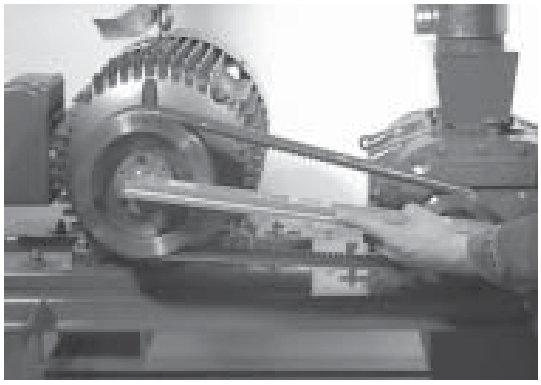


Photo 5

5. Place the matching set of BX-60 V-belts on the pulleys. Tighten the belts by evenly turning the cap screws clockwise. Belts should have 3/8" deflection at ten pounds pressure per belt. See Photo 4.

6. Keeping the motor in proper alignment is necessary and can be accomplished by using an open end wrench to turn the nut on the opposite motor mount channel, moving the channel either direction until proper alignment is achieved. Squaring up the motor can change the tension of the belts. Recheck alignment and tension. Finish Step 3 by tightening the four 1/2" bolts left loose earlier. See Photos 6 & 7.

Rotate the motor by hand and listen for any rubbing or knocking by either the motor or the blower. When the motor is wired, it must be checked for proper rotation.

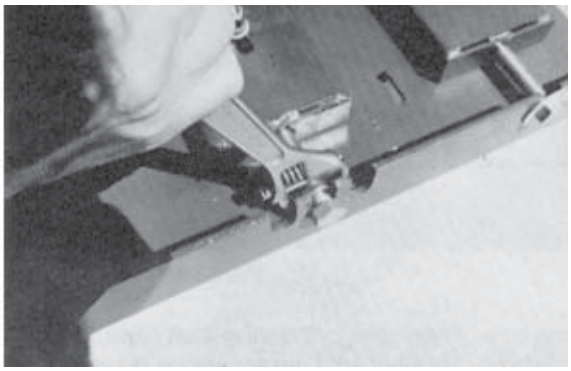


Photo 6

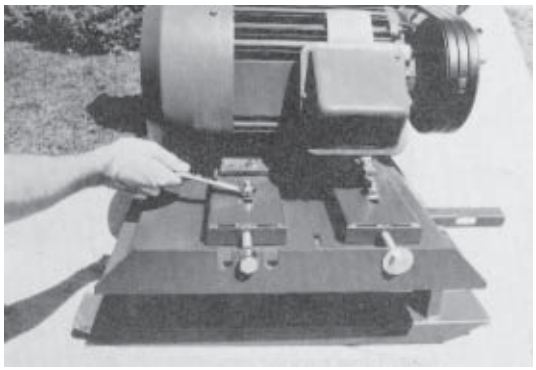


Photo 7

7. Check the oil level of the blower. The oil level should be at the center of the sight glass on Duroflow Blowers. For Roots Blowers, remove the lower level check plug. The oil level should be level to the check plug. Add DMC #MS5389 (Mobil Oil #SHC 630), if required, through the breather plug on top of the blower case. See Photo 8 on the next page. See the Maintenance Schedule on page 32 for the frequency of oil changes.

8. Using four (4) 5/16" x 1" carriage bolts, washers, and nuts, mount the motor to the airlock deck. Place the 3-1/4" OD A-Groove Pulley on to the motor shaft and align to pulley on reduction gear case. See Photo 9.

TRANS-FER SET-UP PROCEDURES (continued)

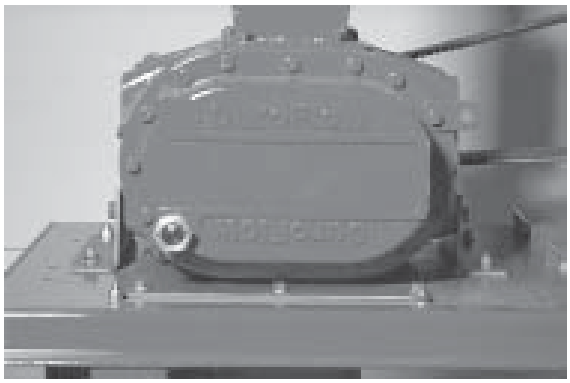


Photo 8

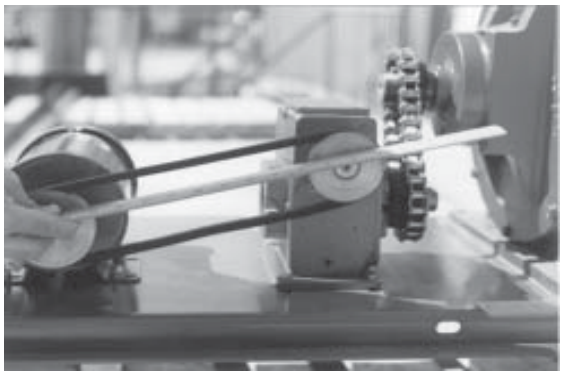


Photo 9

9. Next, place the A-31 belt onto the pulleys. Tighten the belt to its proper tension of 3/8" deflection at ten pounds of pressure by turning the 3/8" cap screw as shown in Photo 10. Tighten the four 5/16" nuts on the motor base. Replace the belt shield.

10. Check the oil level in the gearbox by removing the plug and noting if the oil is at this level. Add SAE 80-90 gear lubricant if required. See Photo 11.

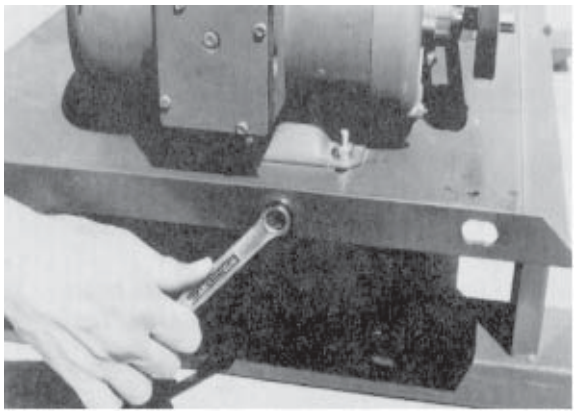
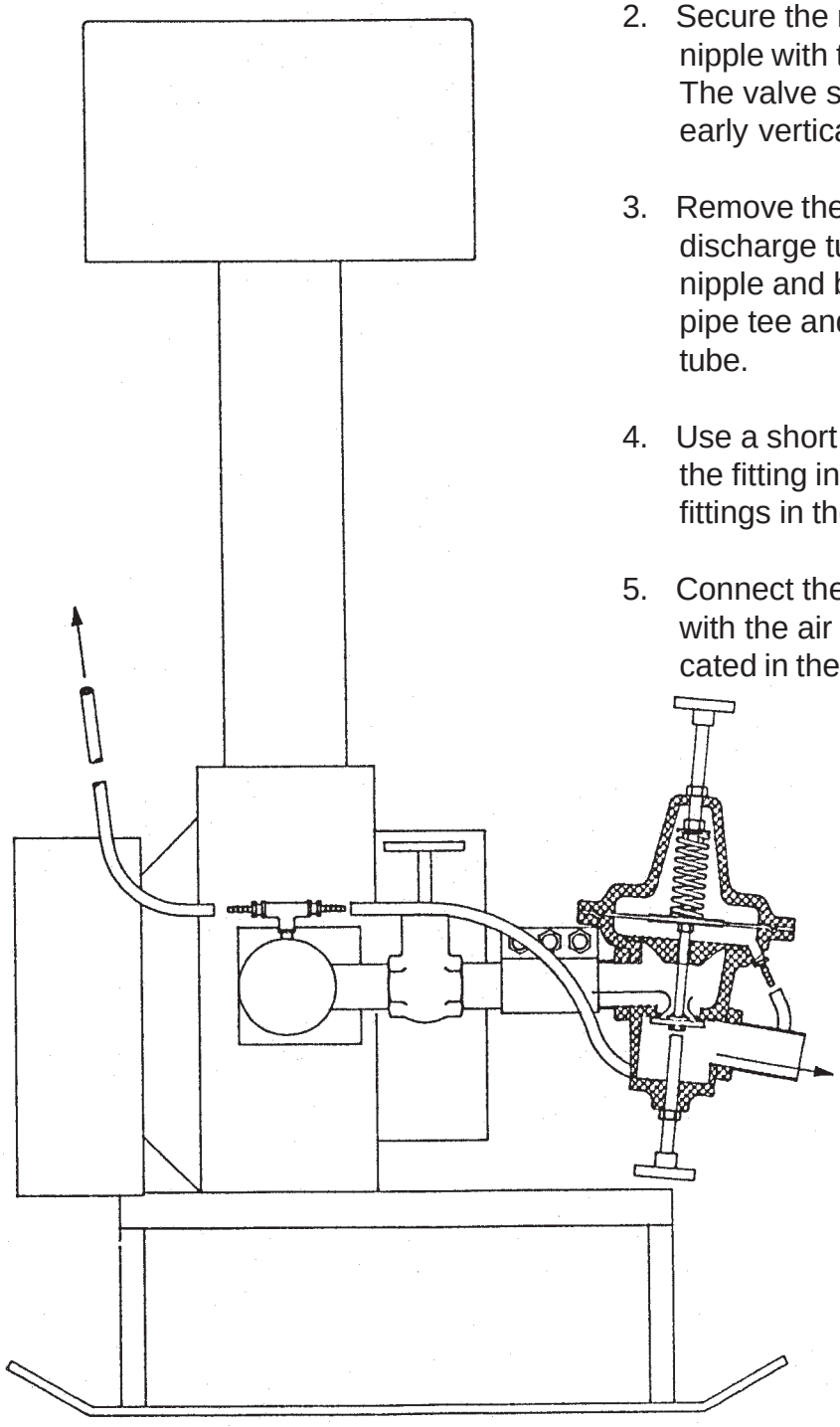


Photo 10

Photo 11

THE SET-UP OF THE TRANS-FER PNEUMATIC AIR SYSTEM IS NOW COMPLETE.

REGULATOR VALVE INSTALLATION



1. Thread the 4” long pipe nipple into the outlet of the gate valve. Make sure that the gate valve is completely open.

2. Secure the regulator valve to the pipe nipple with the compression clamp. The valve should be mounted in a early vertical position.

3. Remove the brass fitting form the discharge tube. Assemble the pipe nipple and both brass fittings to the pipe tee and thread into the discharge tube.

4. Use a short piece of hose to connect the fitting in the valve with one of the fittings in the discharge tube.

5. Connect the other fitting in the valve with the air pressure limit switch located in the Trans-Fer control box.

REGULATOR VALVE OPERATING INSTRUCTIONS

1. Loosen the locking nut on the top threaded rod and turn the handle counter-clockwise (loosen it) until no spring pressure can be felt on the valve diaphragm.

2. Loosen the locking nut on the bottom threaded rod and turn the handle clockwise until it stops. The valve is now completely closed.

3. Loosen the bottom threaded rod 2 complete turns and lock in place with the locking nut. This sets the maximum amount that the valve can open.

4. Start the air system and manually set the feed rate at the expected medium rate of discharge from the dryer.

5. Turn the top adjusting rod clockwise (tighten) until air starts to be discharged from the valve.

6. Continue to slowly tighten the top rod and increase the volume of discharged air until the grain is being discharged at a low enough rate to prevent grain damage. Adjust the valve a small amount and then wait for the system to respond to that change before making further adjustments.

7. If the line pressure cycles between too high and too low, then the amount that the valve can open should be decreased. Loosen the locking nut on the bottom adjusting rod and tighten the rod in small increments until the oscillation stops.

8. Check the valve operation by setting the feed rate from the dryer to the lowest expected discharge rate.

9. As the line pressure decreases due to the lower feed rate, the valve will open and discharge more air to slow the velocity of the grain.

10. If surging occurs then more air is required. Turn the top adjusting rod counter-clockwise (loosen) to decrease the amount of air being discharged.

11. If the grain velocity is too fast, then turn the top adjusting rod clockwise (tighten) to increase the volume of discharged air and slow the grain velocity.

12. Secure the position of the top and bottom rods with the locking nuts after the valve has been adjusted.

13. Use the manual gate valve to clean a plugged system to avoid having to readjust the compensating valve.

TRANS-FER INSTALLATION INSTRUCTIONS

1. Determine the most convenient location for the airlock and blower. Take into consideration the direction of the prevailing winds. It is important to locate the blower in as clean an environment as possible. This greatly reduces the maintenance requirements on the air filter system. The distance between the blower and the airlock should be as short and straight as possible. This keeps airflow restrictions to a minimum. When the distance between the airlock and blower is over 10 feet, it is better to use galvanized pipe with short flex hose on the ends to couple the units together.

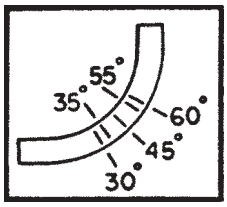
2. The noise level of the blower unit can be reduced by placing the unit behind a wall, barrier, or in a small building. If this is done, make sure that the building has adequate ventilation for both air intake and cooling of the blower and motor.

3. The grain discharge chute on the airlock is assembled at the factory so that grain movement is at 90° to the length of the skid. This orientation can be changed by removing the mounting hardware at the base of the airlock and rotating the discharge chute to the preferred direction. Be sure to keep the gasket in place between the skid and the discharge chute. Note that the airlock itself is sealed to the skid surface and does not need to be moved to redirect the discharge chute. NOTE: A minimum of 10 feet is needed between the airlock discharge and the first elbow in the system.

4. Determine the best routing of the galvanized steel pipe from the airlock to the storage areas. Use galvanized elbows for changing the grain direction. This will give better performance and longer life than flexhose.

5. Bolt the tube mounting brackets to the desired location using at least two (2) mounting brackets on the vertical wall and two (2) on the roof of the grain bin. The mounting brackets can be formed to match existing hole patterns in the bin. See Trans-Fer Accessories on Pages 15-16.

6. Determine the number and degree of arc required in the elbows. The 90° and 60° elbows are standard - different lengths of arc can be cut from these standard elbows. NOTE: A MINIMUM OF EIGHT (8) FEET BETWEEN ELBOWS IS REQUIRED FOR PROPER OPERATION.



Drawing 3

7. Cut the steel tubing to the required length and fasten it together with compression couplings. The ends must be cut square to fit properly. Make sure that the stainless steel gasket protecting sleeve is placed over the joint before tightening the coupler. Tighten the three bolts on the coupler evenly or until the coupler flanges butt together. See Drawing 6 on Page 15.

8. The steel tubing can be laid underground, on top of the ground or placed on blocks. If placed on blocks, the tubing must be supported every 15 feet. If placed underground, the tube should enter and exit the ground at a 45° angle and be coated with a protective tar to prevent corrosion.

TRANS-FER INSTALLATION INSTRUCTIONS (continued)

9. Measure the distance between the airlock and blower. Use flex hose or a combination of flex hose and galvanized tubing to connect the units together. Note that the grain discharge chute on the airlock is tapered and that grain can discharge in either direction.

10. Determine the length of the flex hose required to reach from the airlock to the steel tubing going to the storage area. This should be kept to a minimum and not used for changing the direction of the grain flow. Cut the length of the flex hose needed, secure the end of the hose to the airlock by use of a 2-bolt clamp. The other end may be attached either directly to the galvanized tube or to a barbed female camlock with a 2-bolt clamp. See Drawing 7 on Page 16.

11. Install all tubing required to transfer grain to your storage areas. See Drawing 6 and 7 on Pages 15-16.

12. To attach the deadhead deflector to the tubing, simply slide the deadhead deflector onto the tubing and tighten the clamp provided. Flexible galvanized tubing can be attached to the deadhead downspout if needed. See Drawing 7 on Page 16. If a cyclone is used, an elbow and mounting brackets are needed.

13. Select a location to mount the electrical control box that is accessible and easily reached should shut down of unit be necessary. It should be close enough to the blower to run the 30 feet of rubber pressure hose between the blower and the control box. Otherwise, a longer length of hose must be ordered.

TRANS-FER OPERATION GUIDELINES

1. Be aware of the quality of grain that is entering and leaving the Trans-Fer system. Grain damage can occur with any pneumatic system unless care is taken to adjust the velocity of the grain. This can be done by opening or closing the outlet gate valve on the blower outlet of the Trans-Fer. Opening the valve will let air out of the tubing system which will slow the velocity of the air and grain in the tubing system. A recommended procedure is to open the valve slowly until the line pressure begins to surge and then to close it by 1/2 turn. This will provide the slowest possible grain velocity for any tubing system. This procedure for adjusting the air velocity should be repeated for each different tubing layout and capacity change. The use of a sight glass is recommended to provide a visual observation of the grain velocity.

2. If the tubing system should become plugged, place the air pressure limit switch to the "Off" position, switch the airlock and auxiliary equipment to "Off" and the blower to "Manual". Note the opening of the outlet gate valve, then open it completely so all the air is exhausted when the blower is started.

!!CAUTION!! Do not stand next to the exhausted air.

Push the start button and the blower will start. Slowly close the outlet gate valve until the grain starts moving and clears the tube. Adjust the valve as explained in Step 1. It should be the same as noted before adjusting. Operate the airlock and auxiliary equipment in "Manual" until all grain is out of the system.

3. The air pressure limit switch should always be in the "On" position during routine operation to provide protection to the blower against overload conditions. The air pressure limit is set at the factory to shut down the system at 10 p.s.i. If adjustment is needed, rotate the adjusting screw counterclockwise to lower the pressure limit, or clockwise to increase the pressure limit. A one-half (1/2) turn of the screw will change the pressure limit one (1) p.s.i. NOTE: If the pressure limit is set below five (5) p.s.i., the switch may not reset and allow the Trans-Fer to run. See Drawing 2.

4. The air filter element should be inspected daily and cleaned when required. Both the poly-foam pre-filter and the filter element can be cleaned by blowing air through them or washing them with mild detergent and water. A restricted air filter will cause a system to become plugged. It should always be inspected whenever plugging occurs.

5. The airlock is provided with a housing that incorporates grain shear protection. This housing can be removed if desired, but another form of grain shear protection should be provided to prevent grain damage.

TRANS-FER OPERATION GUIDELINES (continued)

6. GUIDELINES FOR OPERATION OF AIR SYSTEMS:

a) Grain in a Trans-Fer system running at full capacity will move at about 60% of the air speed. A system operating at low capacities will move grain at 80-90% of the air speed.

b) Decreasing the amount of air in the system (opening the hand gate valve) will cause the grain to move slower and also cause the air pressure to rise. (Essentially, the grain is causing the air to “pile up”.)

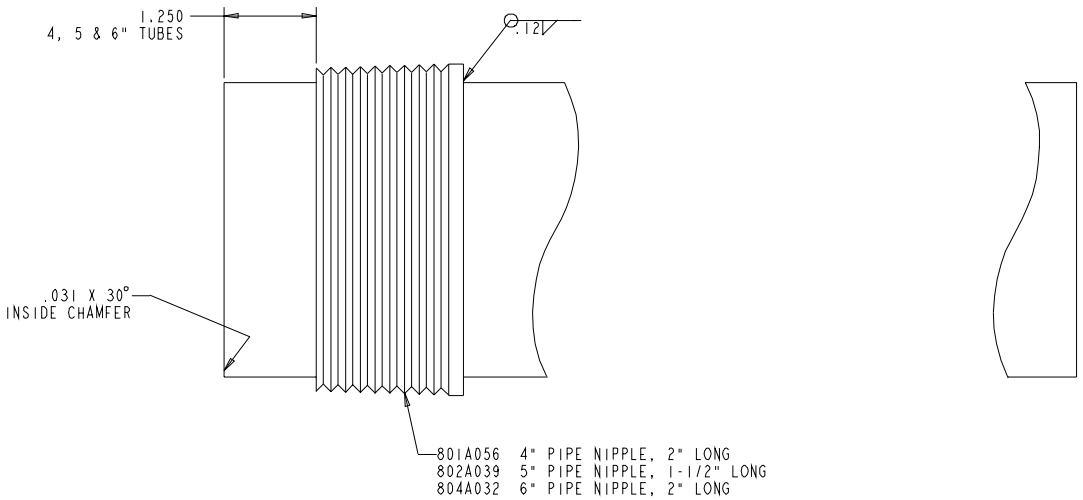
c) Increasing the air in a system (closing the gate valve) will increase the grain velocity and lower the pressure.

d) TYPICAL RUNNING CONDITIONS ARE:
A 4” system running full with 15 HP will have a system pressure of 4-5 psi.
A 5” system running full with 30 HP will have a system pressure of 5-6 psi.
A 5” system running full with 40 HP will have a system pressure of 6-7 psi.

7. RECOMMENDATIONS FOR OFF-SEASON STORAGE:
The blower and airlock have precision machined components and must be protected to prevent corrosion and rust from forming on the blower lobes and airlock vanes. These parts should be coated with motor oil after each drying season. (Spray lubricants such as WD-40 do not usually provide adequate protection.)

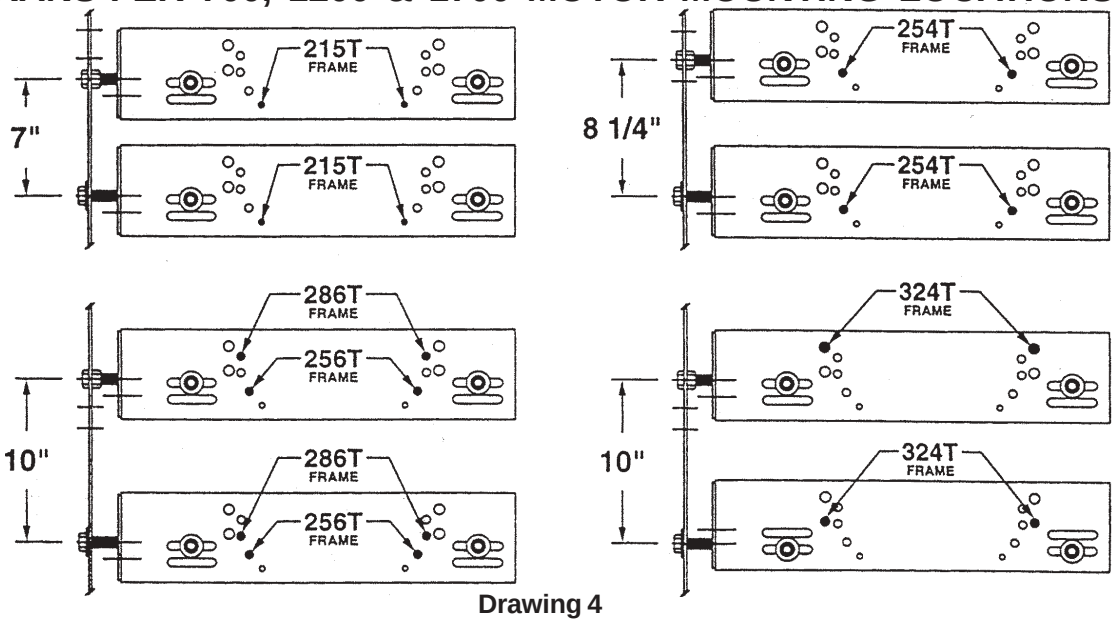
Both the airlock and blower skids should be stored in a dry building with all the openings covered or plugged. If it is not possible to remove the skids from the bin sites, then they should be carefully protected from the weather and the piping system disconnected from the blower and airlock. This is important to prevent condensation from collecting in the airlock and blower. NOTE: The feed-in auger is not rain tight and will allow water to collect in the airlock. It should be covered when not in operation.

FIELD WELDING OF PIPE ADAPTORS



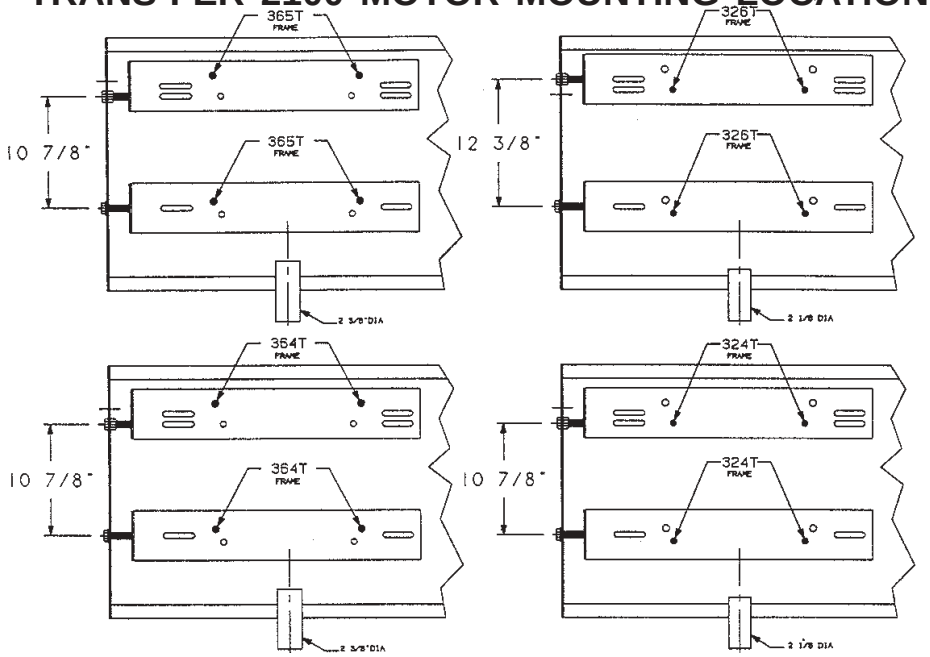
Drawing 4a

TRANS-FER 700, 1200 & 1700 MOTOR MOUNTING LOCATIONS



Drawing 4

TRANS-FER 2100 MOTOR MOUNTING LOCATIONS



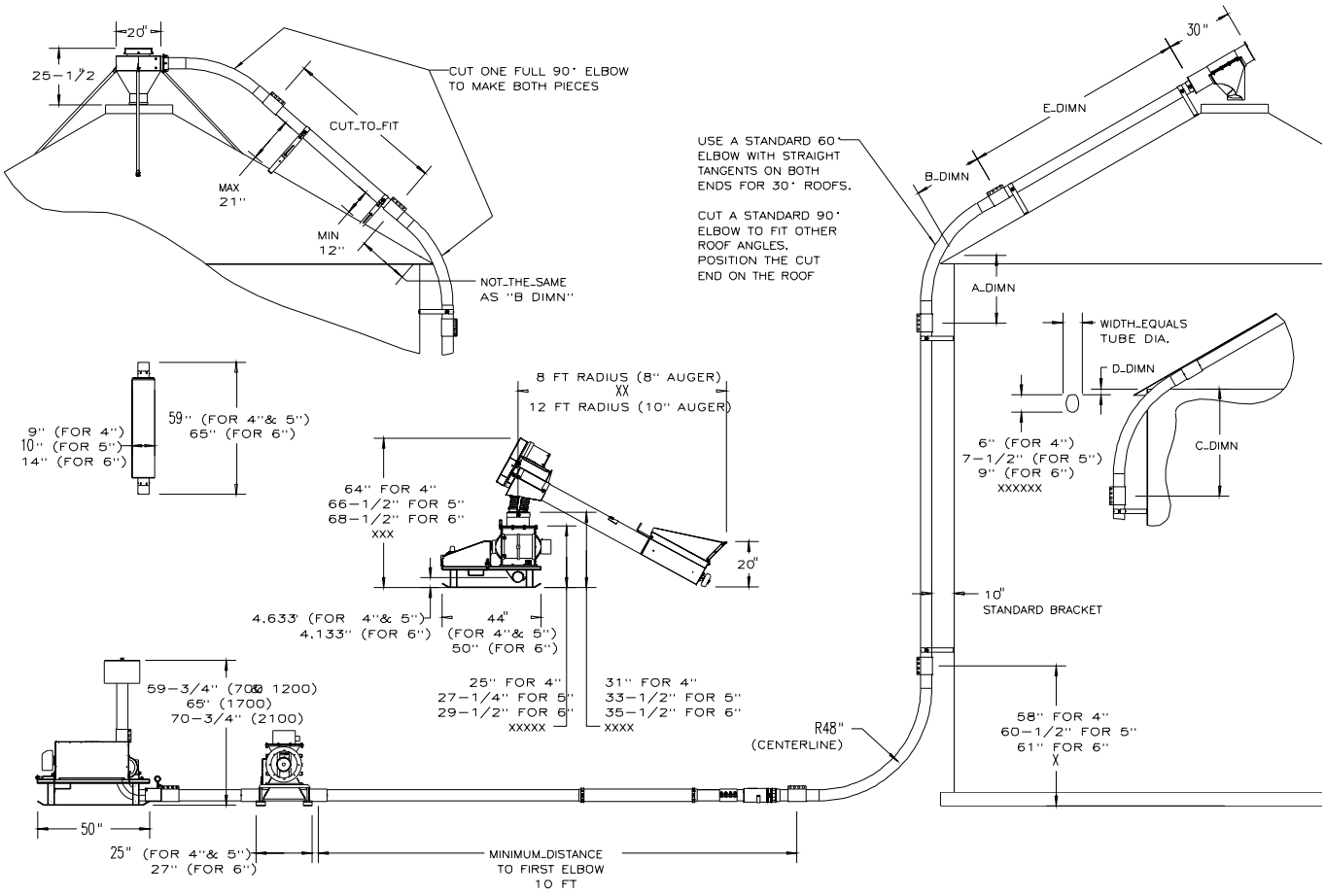
Drawing 5

TRANS-FER MOTOR CHART

Motor Part #	Horsepower	Frame Size	Shaft Diam.	Voltage	Phase
FDL3737TM	10	215T	1-3/8	230	1
3EL5119	10	F215T	1-3/8	230/440	3
3EL5132	15	256T	1-5/8	230	1
M2333T	15	254T	1-5/8	230/440	3
M2334T	20	s56T	1-5/8	230/440	3
M4104T	30	286T	1-7/8	230/440	3
M4110T	40	324T	2-1/8	230/440	3
M4115T	50	326T	2-1/8	230/440	3
M4314T	60	364T	2-3/8	230/440	3
M4316T	75	365T	2-3/8	230/440	3

TRANS-FER DIMENSIONS & ACCESSORIES

Drawing 6



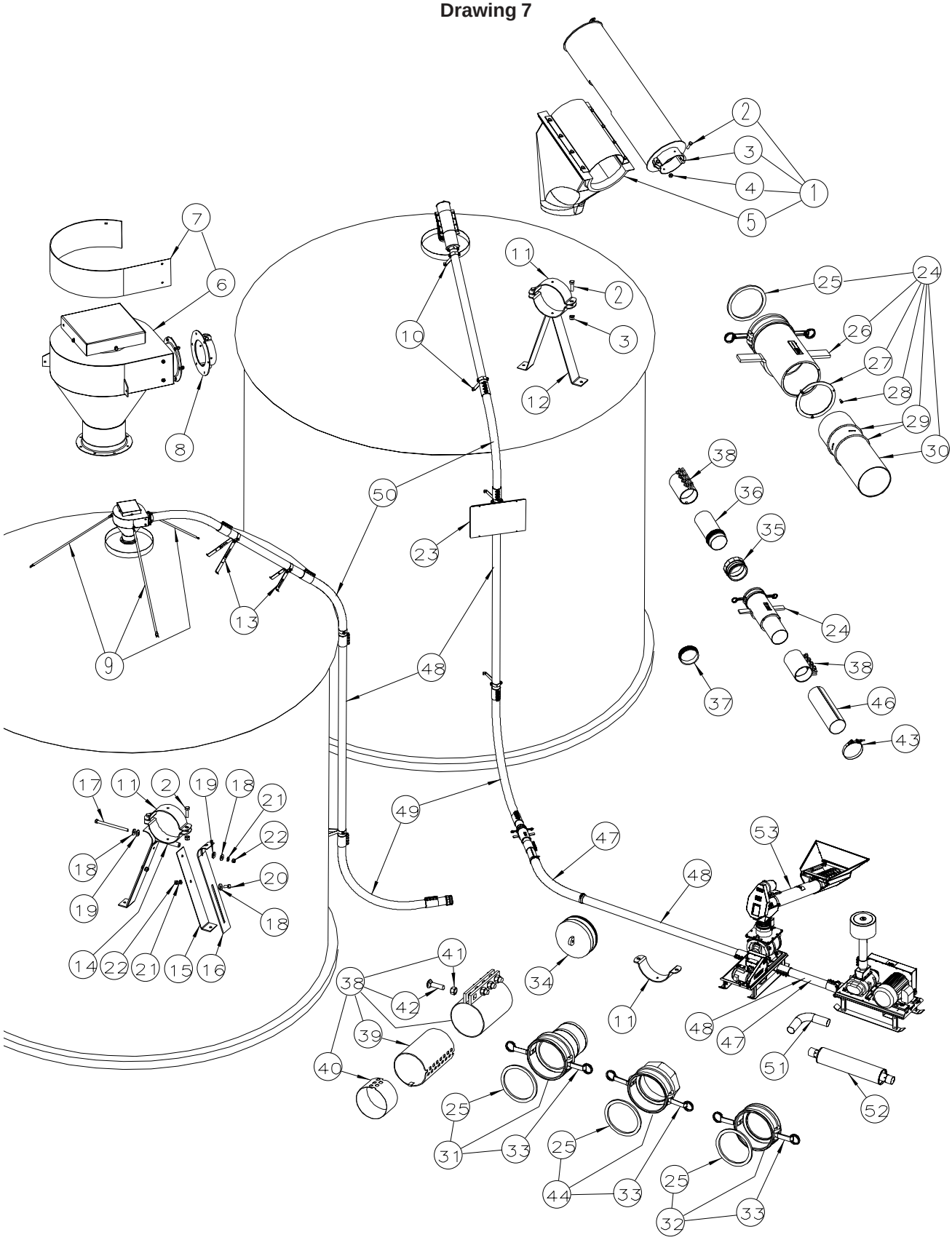
*** Add 10" to E dimension if roof elbow has been cut from a Standard 90° Elbow.**

SYSTEM SIZE	ROOF ANGLE	REFERENCE DIMENSION												
		A	B	C	D	E								
						18' DIA	21' DIA	24' DIA	27' DIA	30' DIA	33' DIA	36' DIA	42' DIA	48' DIA
4"	25	31"	23"	47 1/2"	5 3/4"	7' 1"	8' 9"	10' 5"	12' 1"	13' 9"	15' 5"	17' 1"	20' 5"	23' 9"
	30	29"	29"	46 "	3 1/2"	7' 1"	8' 9"	10' 5"	12' 1"	13' 9"	15' 5"	17' 1"	20' 5"	23' 9"
	35	27"	19"	45"	2 1/2"	8' 6"	10' 2"	11' 10"	13' 6"	15' 2"	16' 10"	18' 6"	21' 10"	25' 2"
5"	25	32 1/2""	22 1/2"	50"	4 1/2"	7'	8' 9"	10' 6	12' 3"	14'	15' 9"	17' 6"	21'	24' 6"
	30	30 1/2"	30 1/2"	49"	3 1/4"	6' 10"	8' 7"	10' 4"	12' 1"	13' 10"	15' 7"	17' 4"	20' 10"	24' 4"
	35	28 1/2"	18 1/2"	48"	2 1/4"	8' 6"	10' 3"	12'	13' 9"	15' 6"	17' 3"	19'	22' 6"	26'
6"	25	32 1/4"	22 1/4"	51"	4 1/2"	7' 3"	9' 1"	10' 11"	12' 9"	14' 7"	16' 5"	18' 3"	21' 11"	25' 7"
	30	30 1/4"	30"	50"	3"	7' 1"	8' 11"	10' 9"	12' 7"	14' 5"	16' 3"	18' 1"	21' 9"	25' 5"
	35	28 1/4"	18"	49"	2"	8' 8"	10' 6"	12' 4"	14' 2"	16'	17' 10"	19' 9"	22' 4"	27'

TRANS-FER ACCESSORIES PARTS

See next two pages for individual parts listings

Drawing 7



ACCESSORY PARTS LIST (continued on next page)

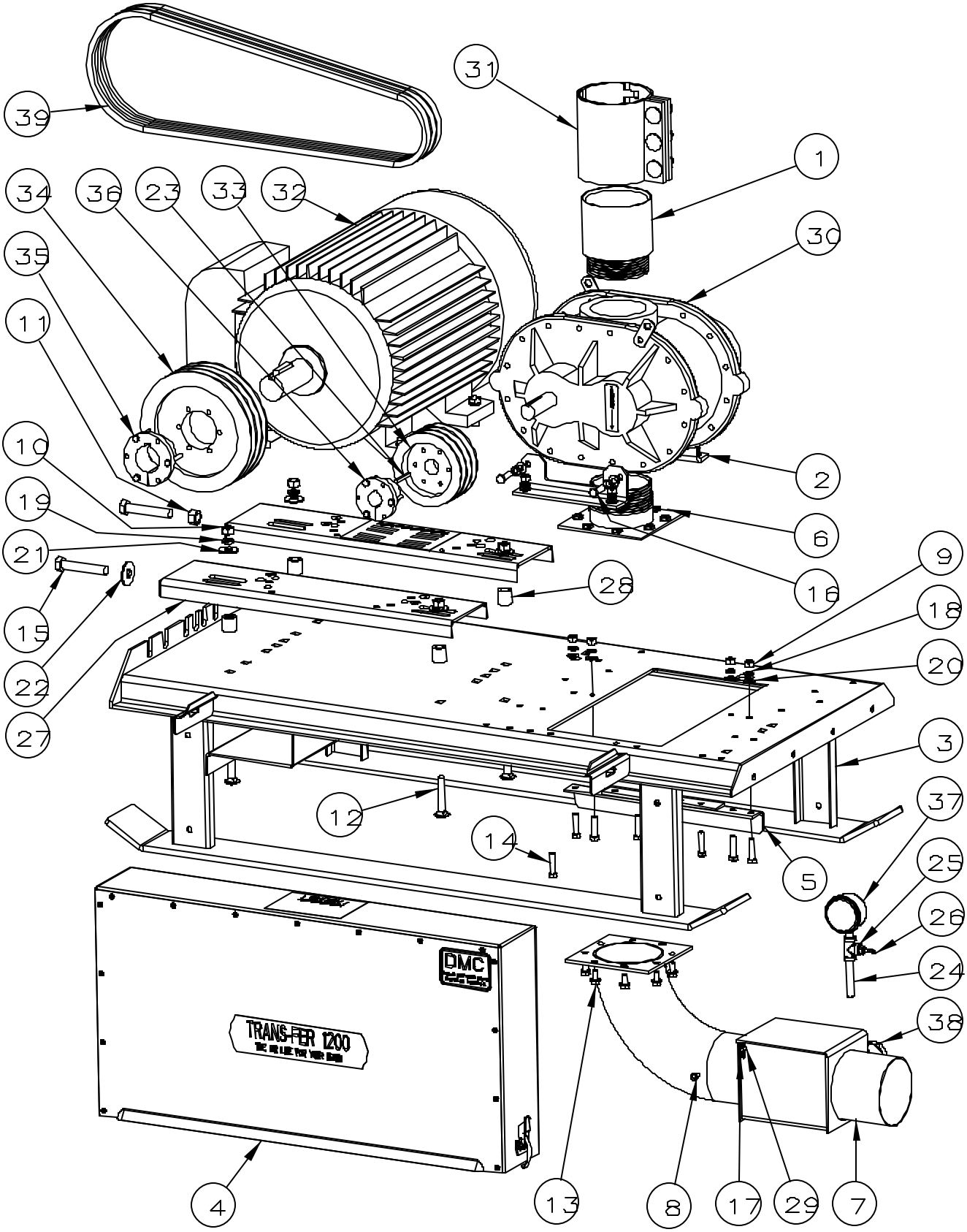
Index	700 (4")	1200 (5")	1700 (5")	2100 (6")	Description
1	801A062	802A025	802A025	804A027	DEADHEAD DEFLECTOR ASSEMBLY
2	2FH0856	2FH0856	2FH0856	2FH0856	BOLT– HEX,STD THRD–GRD 2 3/8–16 UNC X 1–1/4,PLTD
3	1FH0765	1FH0765	1FH0765	1FH0765	NUT– HEX, 3/8–16 UNC FINISHED, PLTD, GRADE 2
4	801A057	802A033	802A033	804A028	DEADHEAD DEFLECTOR TUBE ZINC PLATED
5	GK2513	GK1503	GK1503	GK1504	SPOUT– PLASTIC, 60 DEGREE
6	801A031	801A031	801A031	801A031	CYCLONE ASSEMBLY
7	8011267	8011267	8011267	8011267	WEAR STRIP– CYCLONE, ABRASION RESISTING STEEL
8	801A160	802A089	802A089	804A054	CYCLONE ADAPTOR ASSEMBLY
9	801N037	801N037	801N037	801N037	CYCLONE MOUNTING BRACKET BUNDLE OF 3 LEGS
10	801A032	802A023	802A023	804A023	TUBE SUPPORT BRACKET ASSEMBLY
11	201C0002	206C0086	206C0086	601B0003	CLAMP– BAND (GALVANIZED)
12	801A033	802A029	802A029	804A024	TUBE SUPPORT BRACKET ZINC PLATED
13	801A068	802A024	802A024	804A025	TUBE SUPPORT BRACKET ASSEMBLY (ADJUSTABLE)
14	801A073	802A031	802A031	804A026	CLAMP– BAND, W/TUBE ZINC PLTD(ADJ TUBE SPRT)
15	801A071	801A071	801A071	801A071	SUPPORT– LEG INSIDE
16	801A072	801A072	801A072	801A072	SUPPORT– LEG OUTSIDE
17	2FH0844	2FH0844	2FH0844	2FH0844	BOLT– HEX,STD THRD–GRD 2 5/16–18 UNC X 5", PLTD
18	3FH0864	3FH0864	3FH0864	3FH0864	WASHER– FLAT, STANDARD 5/16, PLTD
19	3FH0977	3FH0977	3FH0977	3FH0977	WASHER– CUPPED,(SPECIAL) 7/8 OD X 11/32 ID X 3/16 THICK
20	2FH0828	2FH0828	2FH0828	2FH0828	BOLT– HEX,STD THRD–GRD 2 5/16–18 UNC X 3/4, PLTD
21	3FH0790	3FH0790	3FH0790	3FH0790	WASHER– LOCK, REGULAR 5/16, PLTD
22	1FH0764	1FH0764	1FH0764	1FH0764	NUT– HEX, 5/16–18 UNC FINISHED, PLTD, GRADE 2
23	8019043	8029019	8029019	8049023	AIR SYSTEM SIGN WITH MOUNTING BRACKETS
24	8011275	8021162	8021162	8041157	TELESCOPING FEMALE CAMLOCK ASSEMBLY
25	801A086	802A048	802A048	804A111	GASKET FOR FEMALE CAMLOCKS AND CAPS
26	8011272	8021165	8021165	8041160	TELESCOPING CAMLOCK BODY WELDMENT
27	8011271	8021164	8021164	8041159	RING– TELESCOPING CAMLOCK
28	2FH0532	2FH0532	2FH0532	2FH0532	SCREW– MACH, FILLIST, HD #10–32 UNC X 1/2, PLTD
29	PT0849	PT0853	PT0853	PT0850	O–RING
30	8011308	8021231	8021231	8041296	TUBE– W/STOP, WELDMENT TELESCOPING CAMLOCK

ACCESSORY PARTS LIST (continued from previous page)

Index	700 (4")	1200 (5")	1700 (5")	2100 (6")	Description
31	801A029	802A020	802A020	804A021	FEMALE CAMLOCK (MACHINED)
32	801A030	802A021	802A021	804A020	FEMALE CAMLOCK CAP
33	801A201	801A201	801A201	804A112	CAMLOCK LEVER– RING & PIN FOR FEMALE CAMLOCK & CAP
34	801A028	802A019	802A019	80AA019	MALE CAMLOCK PLUG
35	801A027	802A018	802A018	804A018	MALE CAMLOCK (MACHINED)
36	801A054	802A026	802A026	804A030	THREADED ADAPTOR ZINC PLATED
37	801A056	802A039	802A039	804A032	PIPE NIPPLE
38	80A026	802A017	802A017	------	COMPRESSION COUPLER 3 BOLT
	801A211	802A107	802A107	------	COMPRESSION COUPLER 4 BOLT
	------	------	------	804A015	COMPRESSION COUPLER 5 BOLT
39	801A158	802A075	802A075	------	COUPLER RUBBER GASKET 3 BOLT
	801A212	802A108	802A108	------	COUPLER RUBBER GASKET 4 BOLT
	------	------	------	80A016	COUPLER RUBBER GASKET 5 BOLT
40	801A157	802A074	802A074	804A017	COUPLER GASKET PROTECTOR
41	1FH0769	1FH0769	1FH0769	1FH0769	NUT– HEX, 5/8–11 UNC FINISHED, PLTD, GRADE 2
42	2FH5906	2FH5906	2FH5906	2FH5906	BOLT– CAR,STD THRD–GRD 5 5/8–11 UNC X 2–1/4, PLTI
43	MS0365	MS0366	MS0366	MS5387	HOSE CLAMP HEAVY DUTY T–BOLT
44	8011236	8021121	8021121	8041125	CAMLOCK–"D" ALUM. COUPLER (MACHINED)
46	801A202	802A094	802A094	804A057	SIGHT GLASS CLEAR TUBE W/COPPER STRIP
47	MS0047	MS0061	MS0061	MS5386	FLEXIBLE RUBBER HOSE (ORDER PER FOOT)
48	MS0214	MS0213	MS0213	MS0212	14 GA GALVANIZED TUBING (20 FT LONG)
	MS0215	MS0217	MS0217	MS0221	14 GA GALVANIZED TUBING (40 FT LONG)
49	801A025	802A015	802A015	804A014	90' ELBOW 11 GA GALV, 4 FT R.
50	8011235	8021120	8021120	8041124	60' ELBOW 11 GA GALV, 4 FT R.
51	8011281	8021203	8021203	8041164	90° ELBOW (SMALL RADIUS) FOR USE ON AIR SIDE LINES ONLY
52	801B034	802B009	802B009	804B001	SILENCER
53	801N004	801N004	801N004	801N004	8" X 8' FEED–IN AUGER WITH HOPPER
	------	------	------	804N015	10" X 12' FEED–IN AUGER WITH HOPPER
	801N017	801N017	801N017	------	8" X 8' FEED–IN AUGER (GIMBAL OR STRAIGHTOUT SWIVEL)

TRANS-FER 700 & 1200 BLOWER

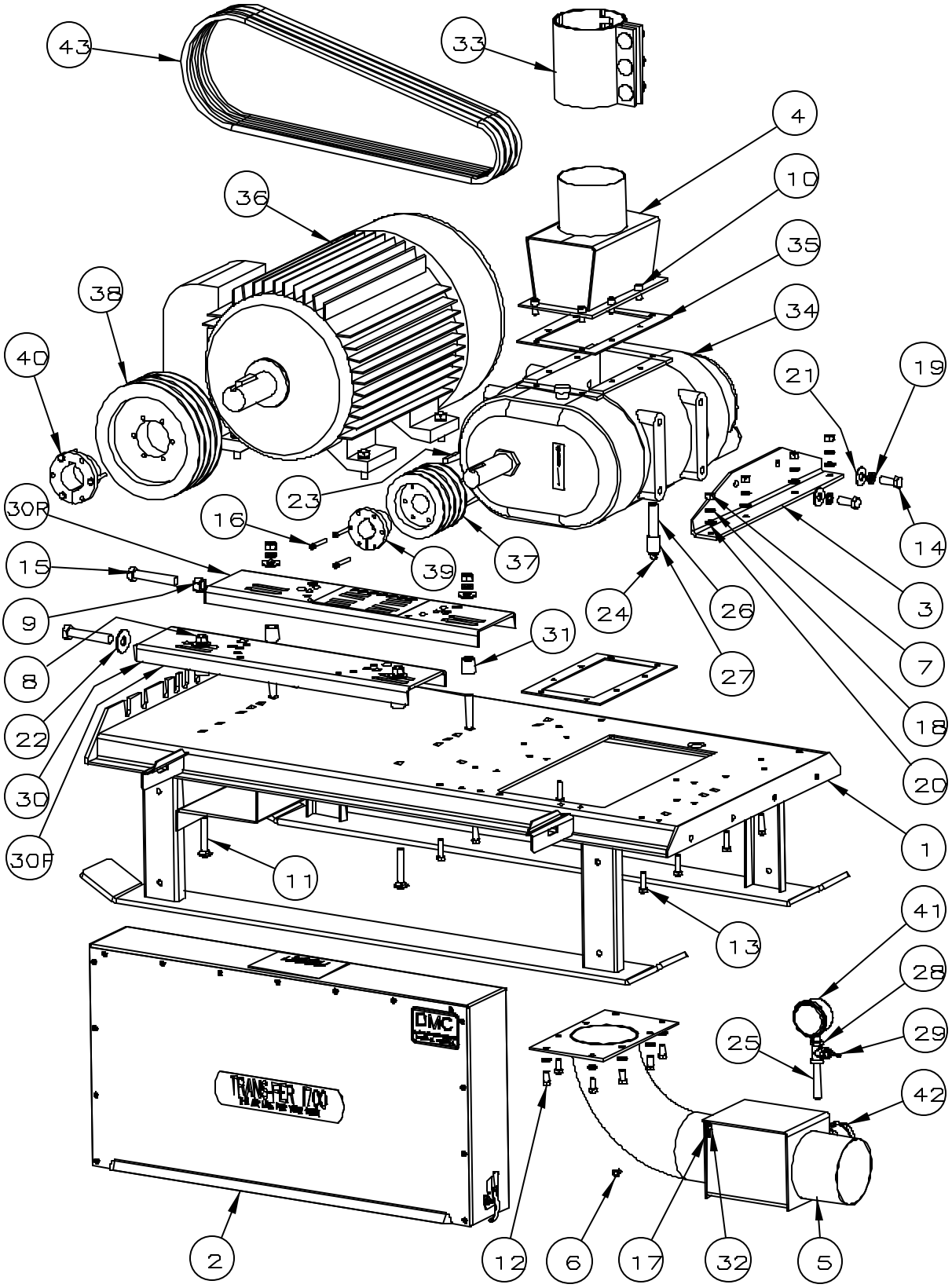
Drawing 8



TRANS-FER 700 & 1200 BLOWER PARTS LIST

INDEX	PART	DESCRIPTION	QTY
1	8011246	BLOWER INLET– 5" THREADED WELDMENT (700 & 1200)	1
2	8011247	ANGLE– BLOWER, (T.F. 700 & 1200)	2
3	8011250	SKID– BLOWER, WELDMENT (700,1200,1700,2100)	1
4	8011256	SHIELD– BLOWER, ASSEMBLY (700,1200,1700,2100)	1
5	8021173	ANGLE– BLOWER OUTLET, WELDMENT, (T.F.700 AND 1200)	1
6	8021181	ADAPTOR– BLOWER OUTLET, WELDMENT, (T.F.700 & 1200)	1
7	8011284	ELBOW– BLOWER OUTLET, WELDMENT, (T.F. 700, 4")	1
	8021184	ELBOW– BLOWER OUTLET, WELDMENT, (T.F. 1200, 5")	1
8	1EL2003	INSULATOR– SCREW .26 ID X .51 FLG X .75 L	2
9	1FH0765	NUT– HEX, 3/8–16 UNC FINISHED, PLTD, GRADE 2	8
10	1FH0767	NUT– HEX, 1/2–13 UNC FINISHED, PLTD. GRADE 2	4
11	1FH0769	NUT– HEX, 5/8–11 UNC FINISHED, PLTD, GRADE 2	1
12	2FH0677	BOLT– CAR,STD THRD–GRD 2 1/2–13 UNC X 2–1/2, PLTD	4
13	2FH0853	BOLT– HEX,STD THRD–GRD 2 3/8–16 UNC X 3/4, PLTD	8
14	2FH0857	BOLT– HEX,STD THRD–GRD 2 3/8–16 UNC X 1–1/2,PLTD	8
15	2FH1043	BOLT– HEX,STD THRD–GRD 2 5/8–11 UNC X 3–1/2, PLTD	2
16	2FH5293	BOLT– HEX,STD THRD–GRD 5 3/8–16 UNC X 1–1/4,PLTD	4
17	3FH0712	PIN–COTTER, STANDARD 1/8" X 3/4" LONG,	1
18	3FH0791	WASHER– LOCK, REGULAR 3/8", PLTD	20
19	3FH0793	WASHER– LOCK, REGULAR 1/2", PLTD	8
20	3FH0865	WASHER– FLAT, STANDARD 3/8", PLTD	12
21	3FH0867	WASHER– FLAT, STANDARD 1/2", PLTD.	4
22	3FH0869	WASHER– FLAT, STANDARD 5/8", PLTD.	1
23	3FH1030	KEY– SQUARE 1/4" X 2"	1
24	4FH0509	FITTING– NIPPLE, PIPE 1/4 X 3", GALV	1
25	4FH0581	FITTING– TEE, PIPE, 1/4 FPT, (GALV)	1
26	4FH0971	FIT– HOSE BARB, 1/4 X 1/4 MPT, (BRASS)	1
27	801A113	MOTOR MOUNT– BLOWER WELDMENT (700 TO 1700)	2
28	801A116	SPACER– MOTOR MOUNT	4
29	8011315	ROD– CHECK VALVE PILOT T F 700	1
	801A190	ROD– CHECK VALVE PILOT T F 1200, 1700	1
30	801A196	BLOWER– (T.F. 700 & 1200) ASSEMBLY/STORAGE(MF 8011276)	1
31	802A017	COUPLER– COMPRESSION, 5" 3 BOLT, W/GSKT & PROTECTOR	1
32	FDL3737TM (FOR 700)	MOTOR– 10HP, 1PH 230V, TEFC, (1–3/8" SHAFT)	1
	3EL5119 (FOR 700)	MOTOR– 10HP, 3PH 230/440V, TEFC, (1–3/8" SHAFT)	1
	3EL5069 (FOR 700)	MOTOR– 15HP, 1PH 230V, TEFC, (1–5/8" SHAFT)	1
	M2333T (FOR 700)	MOTOR– 15HP, 3PH 230/440V, TEFC, (1–5/8" SHAFT)	1
	M2334T (FOR 700 OR 1200)	MOTOR– 20HP, 3PH 230/440V, TEFC, (1–5/8" SHAFT)	1
	M4104T (FOR 1200)	MOTOR– 30HP, 3PH 230/440V, TEFC,	1
33	PT0664 (FOR 700)	PULLEY–(ARM) QD STYLE 7.75" OD X SK BUSH–3AB	1
	PT0602 (FOR 1200)	PULLEY–(SOLID) QD STYLE 5.50" OD X SD BUSH–3AB	1
34	PT0666	PULLEY– (ARM) QD STYLE 8.95" OD X SK BUSH–3AB	1
35	PT0778	BUSHING– (QD STYLE) SK, 1–3/8" BORE	1
	PT0780	BUSHING– (QD STYLE) SK, 1–5/8" BORE	1
	PT0782	BUSHING– (QD STYLE) SK, 1–7/8" BORE	1
36	PT0772 (FOR 700)	BUSHING– (QD STYLE) SK, 1–1/8" BORE	1
	PT0794 (FOR 1200)	BUSHING– (QD STYLE) SD, 1–1/8" BORE	1
37	PT1127	GAUGE– (PRESSURE) 2–1/2" 0 TO 15 PSI	1
38	PT1132	VALVE– (GATE) 1–1/2 NPT, NONRISE STEM	1
39	PT0535	BELT–V, (COGGED) BX60 .66" TOP, .41" THICK	3

TRANS-FER 1700 & 2100 BLOWER

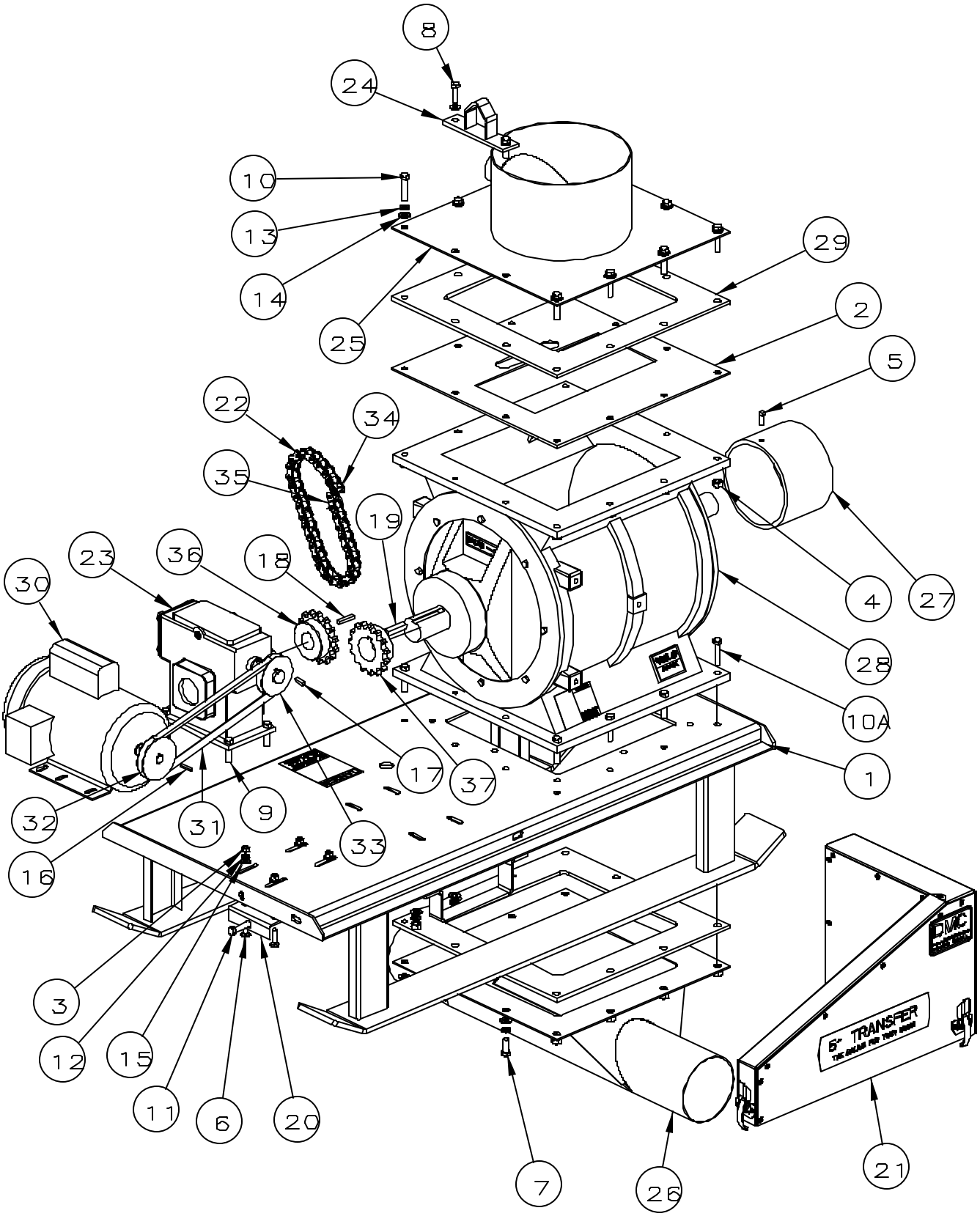


TRANS-FER 1700 & 2100 BLOWER - Parts List

INDEX	PART	DESCRIPTION	QTY
1	B011250	SKID– BLOWER, WELDMENT (700,1200,1700,2100)	1
2	B011256	SHIELD– BLOWER, ASSEMBLY (700,1200,1700,2100)	1
3	B021127	ANGLE– BLOWER, (4509) (T.F. 1700)	2
	B041173	BLOWER MOUNT– WELDMENT (T.F. 2100)	2
4	B021130	BLOWER INLET– 5" WELDMENT (1700)	1
	B041144	BLOWER INLET– 6" WELDMENT (2100)	1
5	B0211B5	ELBOW– BLOWER OUTLET, WELDMENT, (T.F. 1700, 5"OD)	1
	B041166	ELBOW– BLOWER OUTLET, WELDMENT, (T.F. 2100, 6")	1
6	1EL2003	INSULATOR– SCREW .26 ID X .51 FLG X .75 L	2
7	1FH0765	NUT– HEX, 3/8–16 UNC FINISHED, PLTD, GRADE 2	8
8	1FH0767	NUT– HEX, 1/2–13 UNC FINISHED, PLTD. GRADE 2	4
9	1FH0769	NUT– HEX, 5/8–11 UNC FINISHED, PLTD, GRADE 2	1
10	2FH0444	SCREW– CAP, SOCKET HEAD 3/8–16 UNC X 3/4, GRD 2	8
11	2FH0677	BOLT– CAR,STD THRD–GRD 2 1/2–13 UNC X 2–1/2, PLTD	4
12	2FH0853	BOLT– HEX,STD THRD–GRD 2 3/8–16 UNC X 3/4, PLTD	8
13	2FH0856	BOLT– HEX,STD THRD–GRD 2 3/8–16 UNC X 1–1/4,PLTD	8
14	2FH0904	BOLT– HEX,STD THRD–GRD 2 1/2–13 UNC X 1–1/4,PLTD	4
15	2FH1043	BOLT– HEX,STD THRD–GRD 2 5/8–11 UNC X 3–1/2, PLTD	2
16	2FH5055	SCREW– CAP, SOCKET HEAD 1–4–20 UNC X 1–3/4,GRDB	3
17	3FH0712	PIN– COTTER, STANDARD 1/8" X 3/4" LONG	1
18	3FH0791	WASHER– LOCK, REGULAR 3/8", PLTD	16
19	3FH0793	WASHER– LOCK, REGULAR 1/2", PLTD	12
20	3FH0865	WASHER– FLAT, STANDARD 3/8", PLTD	8
21	3FH0867	WASHER– FLAT, STANDARD 1/2", PLTD.	8
22	3FH0869	WASHER– FLAT, STANDARD 5/8", PLTD.	1
23	3FH1040	KEY– SQUARE, 3/8" X 1–3/4"	1
24	4FH0295	FIT– PLUG, PIPE (SQUARE) 3/8, SCH 80	1
25	4FH0509	FIT– NIPPLE, PIPE 1/4 X 3", GALV	1
26	4FH0511	FIT– NIPPLE, PIPE 3/8 X 3, (SCH 80)	1
27	4FH0565	FIT– COUPLER, PIPE 3/8 FPT (SCH 80)	1
28	4FH0581	FIT– TEE, PIPE, 1/4 FPT, (GALV)	1
29	4FH0971	FIT– HOSE BARB, 1/4 X 1/4 MPT, (BRASS)	1
30	B01A113	MOTOR MOUNT– BLOWER WELDMENT (700 TO 1700)	2
30F	B04A066	MOTOR MOUNT– BLOWER WELDMENT (2100) (FRONT)	1
30R	B04A068	MOTOR MOUNT– BLOWER WELDMENT (2100) (REAR)	1
31	B01A116	SPACER– MOTOR MOUNT	4
32	B01A180	ROD– CHECK VALVE PIVOT T.F. 1200, 1700	1
	B041203	ROD– CHECK VALVE PIVOT T.F. 2100	1
33	B02A017	COUPLER– COMPRESSION, 5" 3 BOLT, W/GSKT & PROTECTOR	1
	B04A015	COUPLER– COMPRESSION, 6" 5 BOLT, W/GSKT & PROTECTOR	1
34	B02A056	BLOWER– (TF. 1700) ASSEMBLY/STORAGE(MF B021161)	1
	B04A012	BLOWER– (TF. 2100) ASSEMBLY \STORAGE (MF B041156)	1
35	B02B006	GASKET– TF1700/DUROFLOW	2
	B04A114	GASKET– TF 2100/DUROFLOW	2
36	M2334T (FOR 1700)	MOTOR– 20HP, 3PH 230/440V, TEFC,	1
	M4104T (FOR 1700)	MOTOR– 30HP, 3PH 230/440V, TEFC,	1
	M4110T (FOR 1700& 2100)	MOTOR– 40HP, 3PH 230/440V, TEFC,	1
	M4115T (FOR 2100)	MOTOR– 50HP, 3PH 230/440V, TEFC,	1
	M4314T (FOR 2100)	MOTOR– 60HP, 3PH 230/440V, TEFC,	1
	M4316T (FOR 2100)	MOTOR– 75HP, 3PH 230/440V, TEFC,	1
37	PT0736 (1700 & 40HP 2100)	PULLEY–(SOLID) QD STYLE 4.85" OD X SD BUSH–4AB	1
	PT0668 (FOR 50 & 60HP 2100)	PULLEY–(SOLID) QD STYLE 4.85" OD X SD BUSH–5AB	1
	PT0669 (FOR 75HP 2100)	PULLEY–(SOLID) QD STYLE 4.85" OD X SD BUSH–6AB	1
38	PT0737 (1700 & 40HP 2100)	PULLEY– (ARM) QD STYLE 8.85" OD X SK BUSH–4AB	1
	PT0671 (FOR 50 & 60HP 2100)	PULLEY– (WEB) QD STYLE 8.85" OD X SF BUSH–5AB	1
	PT0672 (FOR 75HP 2100)	PULLEY– (WEB) QD STYLE 8.85" OD X SF BUSH–6AB	1
39	PT0778	BUSHING– (QD STYLE) SD, 1–7/16" BORE,	1
40	PT0780	BUSHING– (QD STYLE) SK, 1–5/8" BORE	1
	PT0782	BUSHING– (QD STYLE) SK, 1–7/8" BORE	1
	PT0784	BUSHING– (QD STYLE) SK, 2–1/8" BORE	1
	PT0774	BUSHING– (QD STYLE) SF, 2–1/8" BORE	1
	PT0786	BUSHING– (QD STYLE) SF, 2–3/8" BORE	1
41	PT1127	GAUGE– (PRESSURE) 2–1/2" 0 TO 15 PSI	1
42	PT1132	VALVE– (GATE) 1–1/2 NPT, NONRISE STEM	1
43	PT0535	BELT–V, (COGGED) BX60 .66" TOP, .41" THICK	A/R

TRANS-FER 700, 1200, 1700 & 2100 AIRLOCK

Drawing 9



TRANS-FER 700, 1200, 1700 & 2100 AIRLOCK

INDEX	PART	DESCRIPTION	QTY
1	8011265	SKID- AIRLOCK WELDMENT (700.1200.1700)	1
	8041150	SKID- AIRLOCK WELDMENT (2100)	1
2	8011292	SHEAR BRACKET & WIPER- ASSEMBLY (T.F. 700)	1
	8021208	SHEAR BRACKET & WIPER- ASSEMBLY (T.F. 1200 & 1700)	1
	8041176	SHEAR BRACKET & WIPER- ASSEMBLY (T.F. 2100. 40 HP)	1
	8041177	SHEAR BRACKET & WIPER- ASSEMBLY (T.F.2100. 50.60.75HP)	1
3	1FHD764	NUT- HEX. 5/16-18 UNC FINISHED. PLTD. GRADE 2	4
4	1FHD765	NUT- HEX 3/8-16 UNC FINISHED. PLTD. GRADE 2	20
5	2FHD6D4	SCREW- SET SQUARE HEAD 5/16-18 UNC X 3/4. PLTD	1
6	2FHD646	BOLT-CAR STD THRD-GRD 2 5/16-18 UNC X 1. PLTD	4
7	2FHD855	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 1. PLTD	4
8	2FHD859	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 2.PLTD (T.F. 700)	2
	2FHD856	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 1-1/4.PLTD (T.F. 1200 & 1700)	4
	2FHD855	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 1. PLTD (T.F. 2100)	8
9	2FHD857	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 1-1/2.PLTD (T.F. 700. 1200. 1700)	4
	2FHD856	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 1-1/4.PLTD (T.F. 2100)	4
10	2FHD858	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 1-3/4.PLTD (T.F. 700. 1200. 1700. 2100)	8
10A	2FHD858	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 1-3/4.PLTD (T.F. 700. 1200. 1700)	8
	2FHD859	BOLT- HEX STD THRD-GRD 2 3/8-16 UNC X 2.PLTD (T.F. 2100)	8
11	2FH1D35	BOLT- HEX FULL THRD-GRD 2 3/8-16 UNC X 3	1
12	3FHD79D	WASHER- LOCK REGULAR 5/16. PLTD	4
13	3FHD791	WASHER- LOCK REGULAR 3/8". PLTD	28
14	3FHD865	WASHER- FLAT STANDARD 3/8". PLTD	26
15	3FHD847	WASHER- FLAT SAE 5/16. PLTD	4
16	3FH1D15	KEY- SQUARE 3/16" X 1"	1
17	3FH1D24	KEY- SQUARE 1/4" X 3/4"	1
18	3FH1D28	KEY- SQUARE 1/4" X 1-1/2"	1
19	3FH1040	KEY- SQUARE 3/8" X 1-3/4"	1
20	801A136	PLATE- MOTOR TIGHTENER WELDMENT (AIRLOCK)	1
21	801A138	SHIELD- AIRLOCK ASSEMBLY (T.F.700. 1200. 1700)	1
	804A074	SHIELD- AIRLOCK ASSEMBLY (T.F. 2100)	1

INDEX	PART	DESCRIPTION	QTY
22	801A205	CHAIN- ROLLER(4"AIRLOCK) (M/F PT1020, 20.25"LONG)	1
	801A148	CHAIN- ROLLER(5"AIRLOCK) (M/F PT1020, 21.75"LONG)	1
	804A053	CHAIN- ROLLER(6"AIRLOCK) (M/F PT1020, 24.75"LONG)	1
23	801A151	WORM GEAR DRIVE BOX- (WINSMITH #926-DT)	1
24	801A018	LIFT HOOK- 4" AIRLOCK WELDMENT	1
	802A037	LIFT HOOK- 5" AIRLOCK WELDMENT	1
	804A042	LIFT HOOK- 6" AIRLOCK WELDMENT	1
25	801A020	INTAKE SPOUT- 4" AIRLOCK WELDMENT (T.F. 700)	1
	802A038	INTAKE SPOUT- 5" AIRLOCK WELDMENT (T.F. 1200, 1700)	1
	804A044	INTAKE SPOUT- 6" AIRLOCK WELDMENT (T.F. 2100, 40 HP)	1
	804A104	INTAKE SPOUT- 6" AIRLOCK WELDMENT(T.F.2100, 50,60,75HP)	1
26	801A130	ADAPTOR- DISCHARGE, 4" WELDMENT (T.F. 700)	1
	802A061	ADAPTOR- DISCHARGE, 5" WELDMENT (T.F. 1200, 1700)	1
	804A047	ADAPTOR- DISCHARGE, 6" WELDMENT (T.F. 2100)	1
27	802A066	SHIELD- SHAFT, 4",5" & 6" AIRLOCK	1
28	801A214	AIRLOCK- 5" (TF. 700) (SMOOT #FT-12, 1-1/2")	1
	802A071	AIRLOCK- 5" (TF. 1200, 1700) (SMOOT #FT-14, 1-3/4")	1
	804A013	AIRLOCK- 6" (TF. 2100) (SMOOT #FT-16, 1-3/4")	1
29	801C008	GASKET- (FOR FT-12) T.F. 700/SMOOT	2
	802C008	GASKET- (FOR FT-14) T.F. 1200, 1700/SMOOT	2
	804A113	GASKET- (FOR FT-16) T.F. 2100/SMOOT	2
30	FDL3510M	MOTOR- 1HP, 1PH 115/220/440V, 60 HZ,	1
31	PT0403	BELT-V, A31 .50" TOP, .31" THICK,	1
32	PT0618	PULLEY- (FLAT) FIXED BORE 3.25" OD X .62" ID -1A	1
33	PT0622	PULLEY- (FLAT) FIXED BORE 3.00" OD X 1.00" ID -1A	1
34	PT1051	LINK- CONNECTING, #60 3/4" PITCH, SPRING CLIP	1
35	PT1054	LINK- OFFSET, #60 3/4" PITCH, SLIP FIT (T.F. 700, 1200, 1700 ONLY)	1
36	PT1106	SPROCKET- (HUB TYPE) 15 TOOTH, 1-1/4"ID, #60	1
37	PT1083	SPROCKET- (HUB TYPE) 15 TOOTH, 1-1/2"ID, #60 (T.F. 700)	1
	PT1107	SPROCKET- (HUB TYPE) 15 TOOTH, 1-3/4"ID, #60 (T.F 1200, 1700, 2100)	1

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS

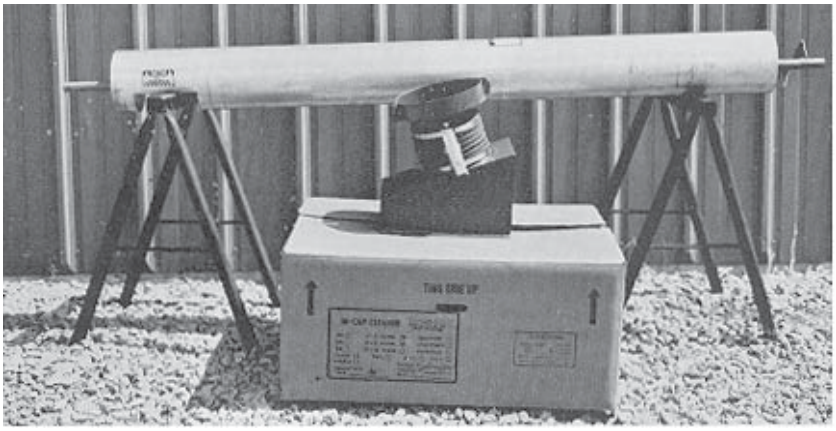


Photo 12

COMPONENT PARTS
FOR 8” FEED-IN AUGER

1. Place the sealed bearing between the bearing flanges and bolt the set to the augerhead. BE SURE the eccentric lock is to the outside. Use two 5/16” x 3/4” carriage bolts, lock washers and nuts. See Photo 13. Leave the bolts loose so the bearing can self-align on the shaft.

2. Slide the stub shaft into the upper end of the auger flighting. BE SURE the keyway is left exposed. Fasten with two 3/8” x 1-3/4” Grade 5 bolts, and 3/8” lock nuts. See Photo 14.

3. Place the auger head over the auger tube, sliding the stub shaft through the bearing. See Photo 15.

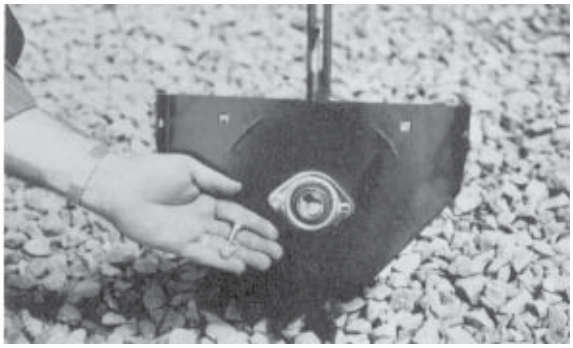


Photo 13

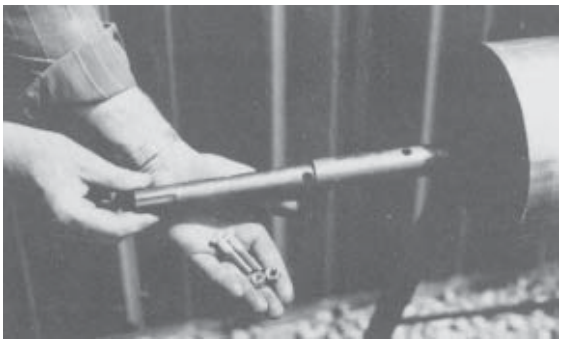


Photo 14

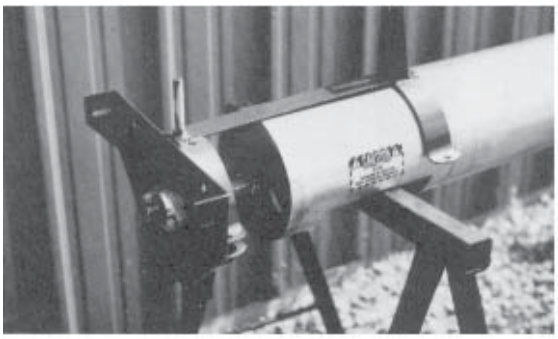


Photo 15

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS (continued)

4. Install the locking collar onto the bearing. BE SURE to lock the collar with the rotation of the shaft, clockwise when looking at the auger head. The auger shaft should stick through the locking collar 1-5/8”. Securely tighten the locking collar and set screw. Tighten the two (2) 5/16” carriage bolts. See Photos 16 & 17.

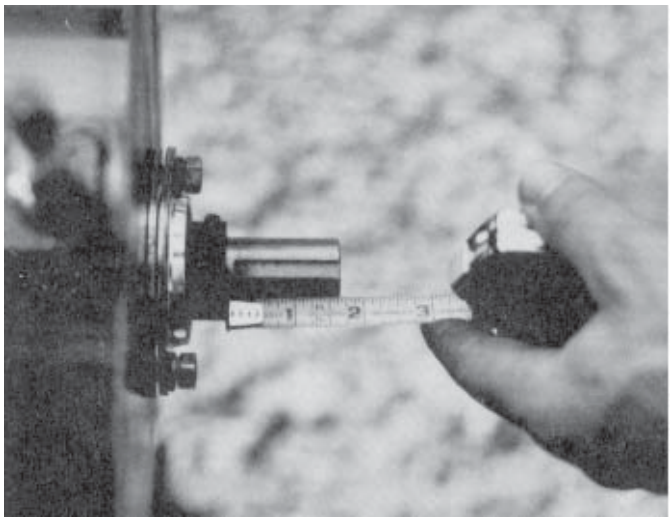


Photo 15

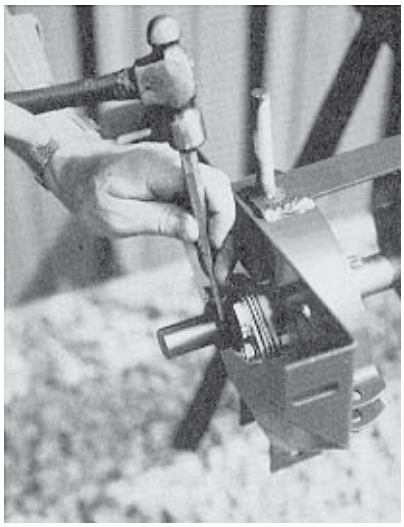


Photo 16

5. Slide one two (2) inch strap bracket under the top strap of the auger head, then fasten the auger head and the discharge securely to the auger tube with 3/8” x 1-1/4” bolts and nuts. Be sure the head is straight with the discharge opening on the tube, then tighten to the tube. See Photos 18 & 19.

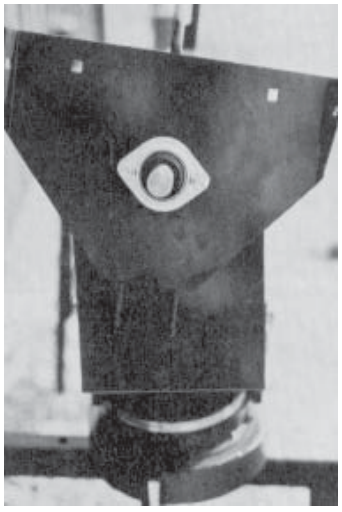


Photo 18 - Incorrect

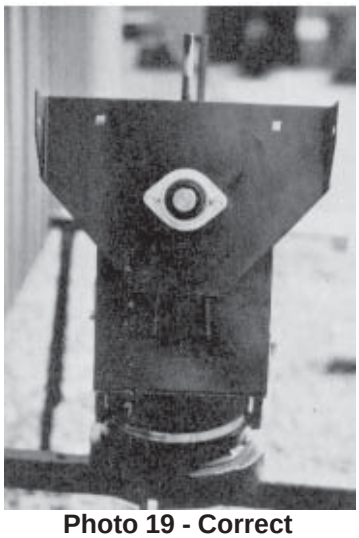


Photo 19 - Correct

6. Thread a 1/2” nut onto the threaded stub bolt on the auger head. Slide the motor mount angle over the stub bolt and thread another 1/2” nut over the angle. Install the motor mount base plate to the auger head using two (2) 3/8” x 3/4” carriage bolts, lock washers and nuts. DO NOT TIGHTEN AT THIS TIME. See Photos 20 & 21 on the next page.

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS (continued)

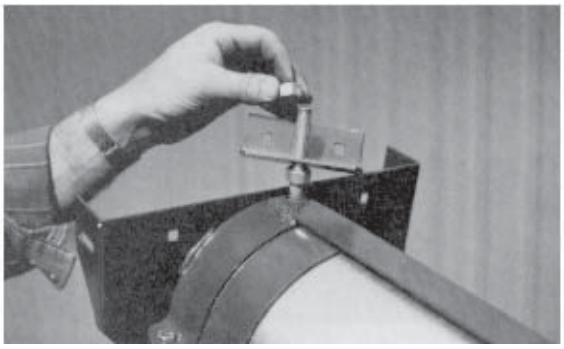


Photo 20

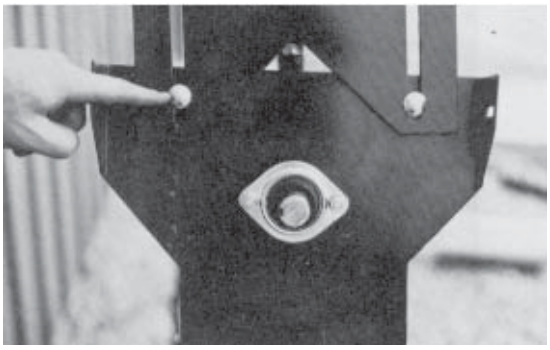


Photo 21

7. Put two (2) 5/16” x 3/4” carriage bolts, lock washers and nuts through the motor mount angle, and the motor mount base plate. See Photo 22.

8. Using a 5/16” carriage bolt, lock washer and nut, bolt the rear of the motor mount base plate to the rear support on the auger head. See Photo 23.

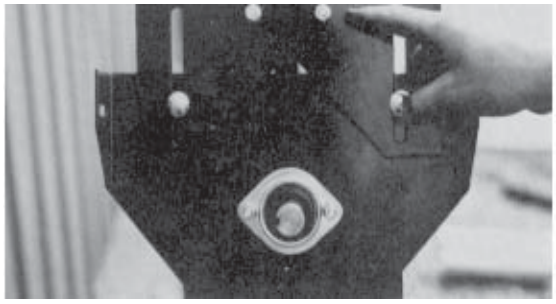


Photo 22

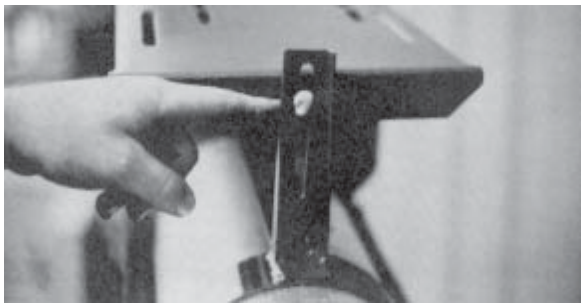


Photo 23

9. Install the 1/4” key and the 12” pulley onto the shaft, hub first. Have the shaft flush with the outer edge of the pulley. Tighten the set screws. See Photos 24 & 25.

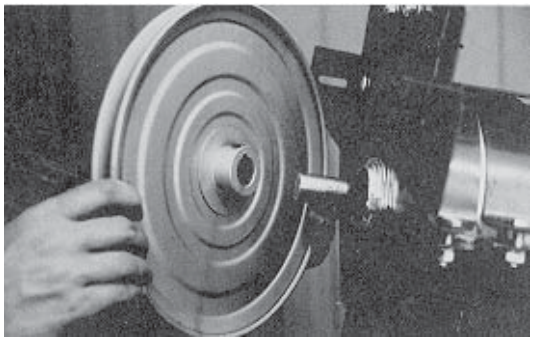


Photo 24

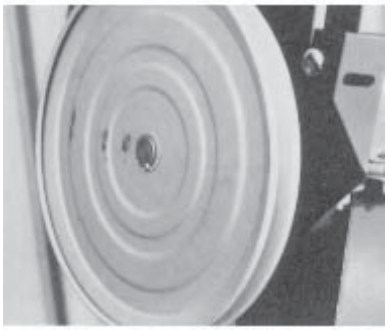


Photo 25

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS (continued)

10. Bolt the motor to the motor mount base plate using four (4) 5/16” x 1” hex bolts, flat washers, lock washers, and hex nuts. NOTE: These bolts are not supplied. See Photo 26.

Photo 26

11. Put the 3/16-inch key and 7/8” x 3-1/2” pulley onto the motor shaft. Align the motor pulley with the 12-inch auger pulley, tighten the set screw and install the belt. Adjust the belt tension by raising the 1/2 inch nuts on the threaded stub bolts. After the belt adjustment has been made, tighten all bolts left loose during the motor mounting assembly. See Photos 27 & 28.

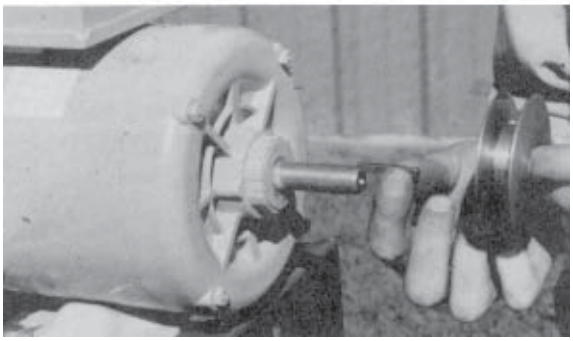


Photo 27

!!CAUTION!!

The auger motor must be wired for the same voltage as the Trans-Fer control box and checked for proper rotation of the auger.

HAVE A QUALIFIED ELECTRICIAN DO THE MOTOR WIRING. KEEP PEOPLE AND CLOTHING AWAY FROM THE AUGER WHEN TESTING FOR PROPER ROTATION.

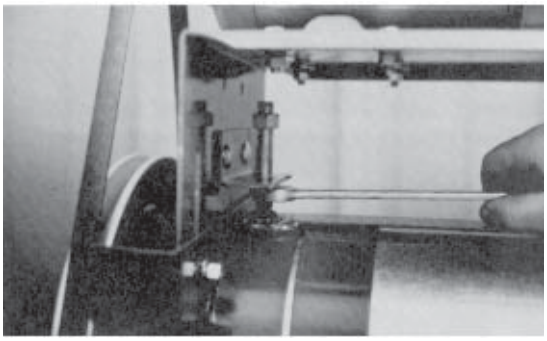


Photo 28

12. Using two 5/16” carriage bolts, lock washers and nuts, bolt the belt shield to the tabs on the auger head. See Photo 29**.**

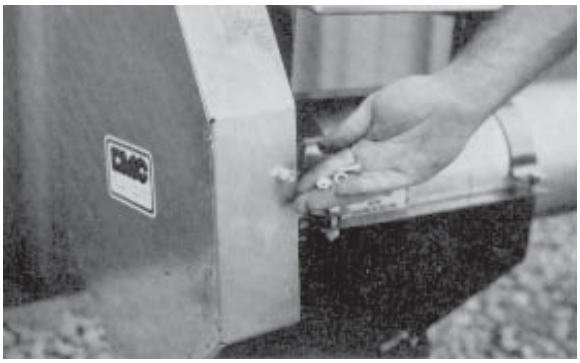


Photo 29

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS (continued)

13. Put the wooden bearing between the bearing flanges and bolt it to the tail cage hopper with three (3) 3/8” x 3/4” carriage bolts, lock washers and nuts. See Photo 30.

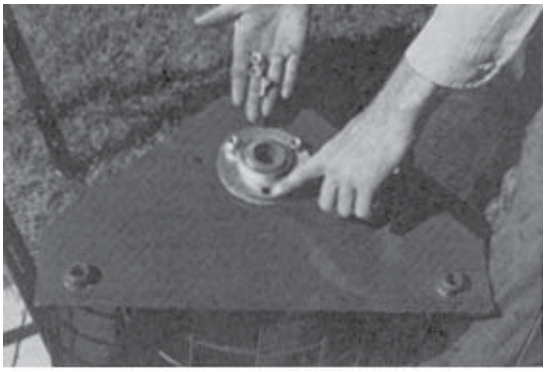


Photo 30

14. Install the hopper wheel bracket, using two (2) 3/8” x 3/4” carriage bolts, flat washers, lock washers and nuts. Slide two (2) 5/8” SAE washers on to the shaft, then the wheel, and another 5/8” SAE washer. Finish by installing a 1-1/4” cotter pin. See Photos 31 & 32.

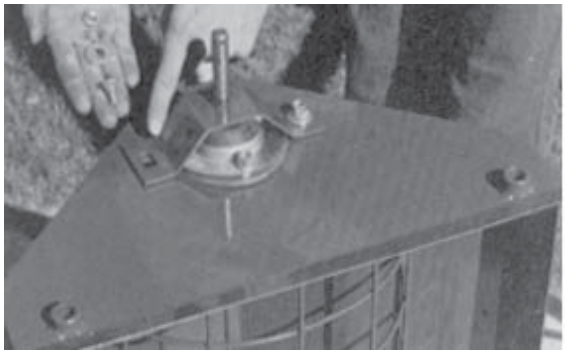


Photo 31

Photo 32

15. Slide the flow restrictor tube into the intake end of the auger tube with the nut welded on to the restrictor tube on the outer end. See Photo 33.

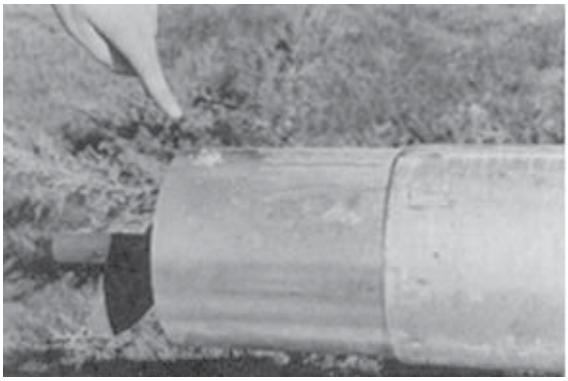


Photo 33

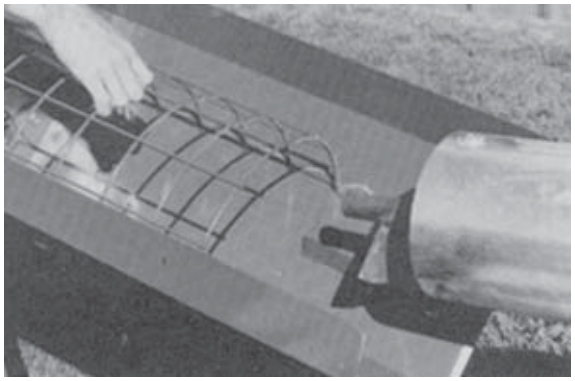


Photo 34

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS (continued)

16. Put the tail cage hopper assembly onto the auger tube. Insert the end of auger shaft into the wooden bearing. Secure the tail cage hopper assembly to the auger tube by using two (2)- 2 inch strap brackets. Put the two (2) inch strap bracket with the pipe and threaded nut toward the top of the tail cage assembly as shown in Photo 34 & 35. Securely fasten with four (4) 3/8” x 1-1/4” hex head bolts as shown in Photo 36.

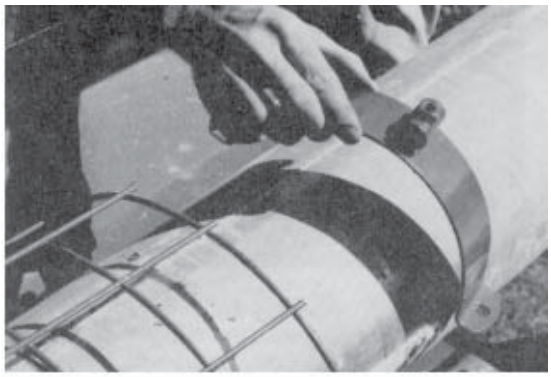


Photo 35

Photo 36

17. Put the blunt end of the guide rods into the bushings provided at the back of the hopper. Align the holes in the rod with those in the bushing and secure with 1/8” x 1-1/4” cotter pins as shown in Photos 37 & 38.

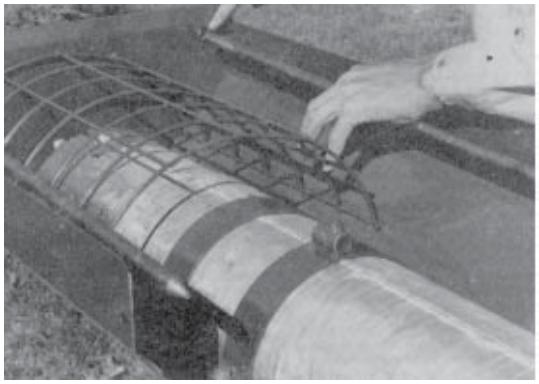


Photo 37

Photo 38

18. Place the flow restrictor adjustment handle through the bushing welded to the two (2) inch strap brackets and bolt it onto the flow restrictor tube with a 5/16” x 3/4” hex head bolt and lock washer. Finish by turning the wing bolt into the nut welded on the bushing of the strap bracket. See Photos 39, 40 & 41.

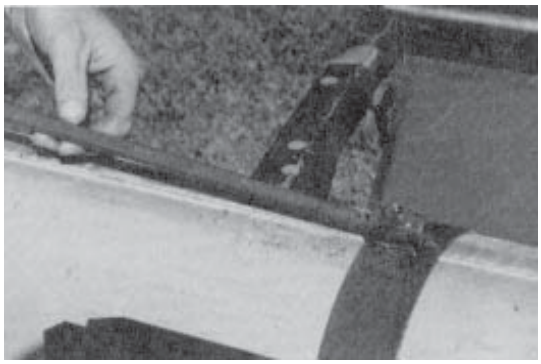


Photo 39

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS (continued)

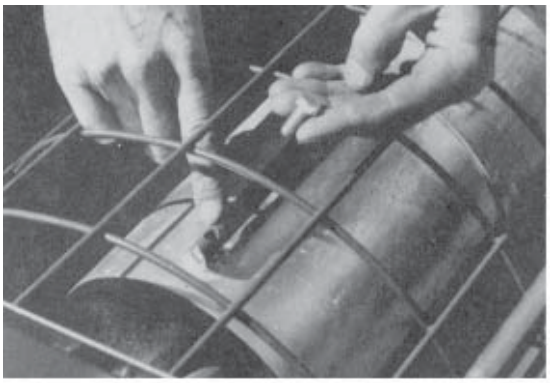


Photo 40

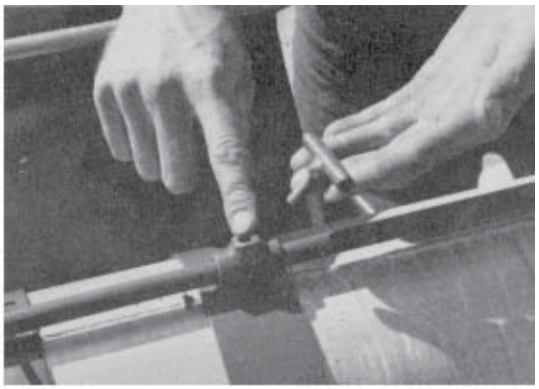


Photo 41

19. Install the hopper latch and upper glide rod support bracket by placing the ends of the glide rod support bracket through the holes in the hopper and onto the pointed guide rod ends. Fasten the latch to the hopper with the two 3/8” flat washers and two cotter pins. See Photos 42 and 43.

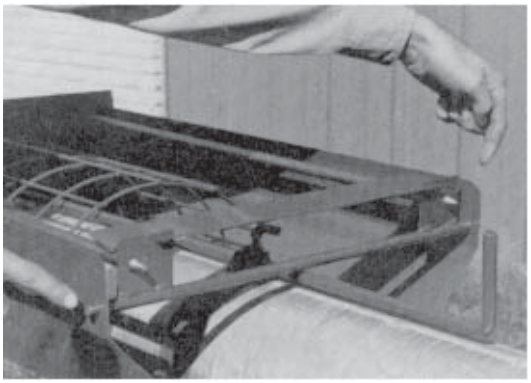


Photo 42

Photo 43

20. Assemble the hopper extensions using six 1/4” x 1/2” pan head machine screws and 1/4” hex head flanged whiz lock nuts. Once the upper extensions are assembled, fasten the glide rod guides to the upper extension using ten 1/4” x 1/2” pan head machine screws. See Photos 44 and 45. BE SURE to install bolts as shown in the photo.

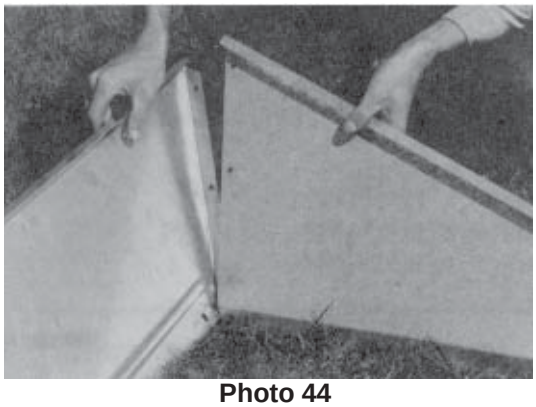


Photo 44

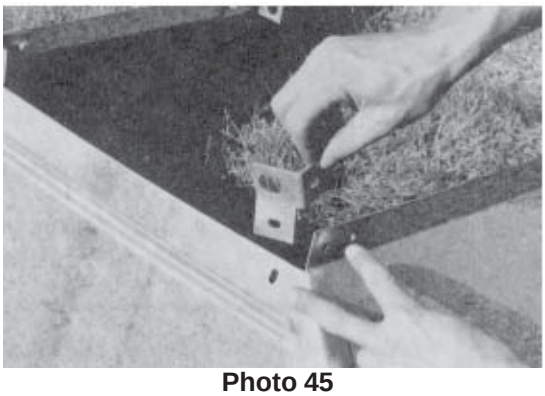


Photo 45

8” X 8” FEED-IN AUGER ASSEMBLY INSTRUCTIONS (continued)

21. Slide the hopper extension assembly onto the guide rods. Lift up the latch and finish the assembly by placing hair pin clips through the holes of the guide rods. See Photos 46 and 47.

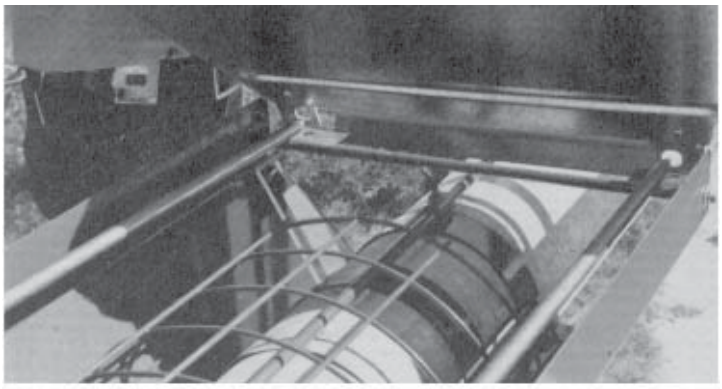


Photo 46

Photo 47

Completed Auger

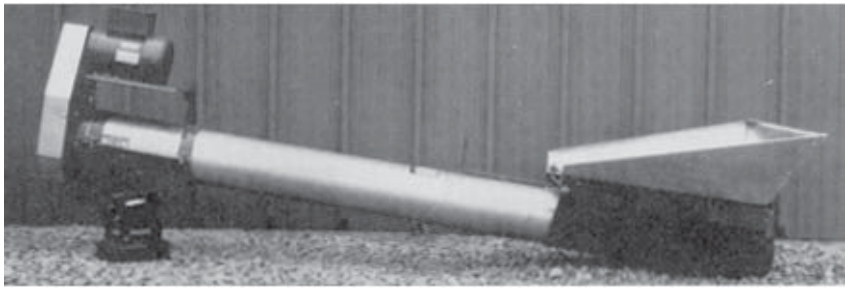


Photo 48

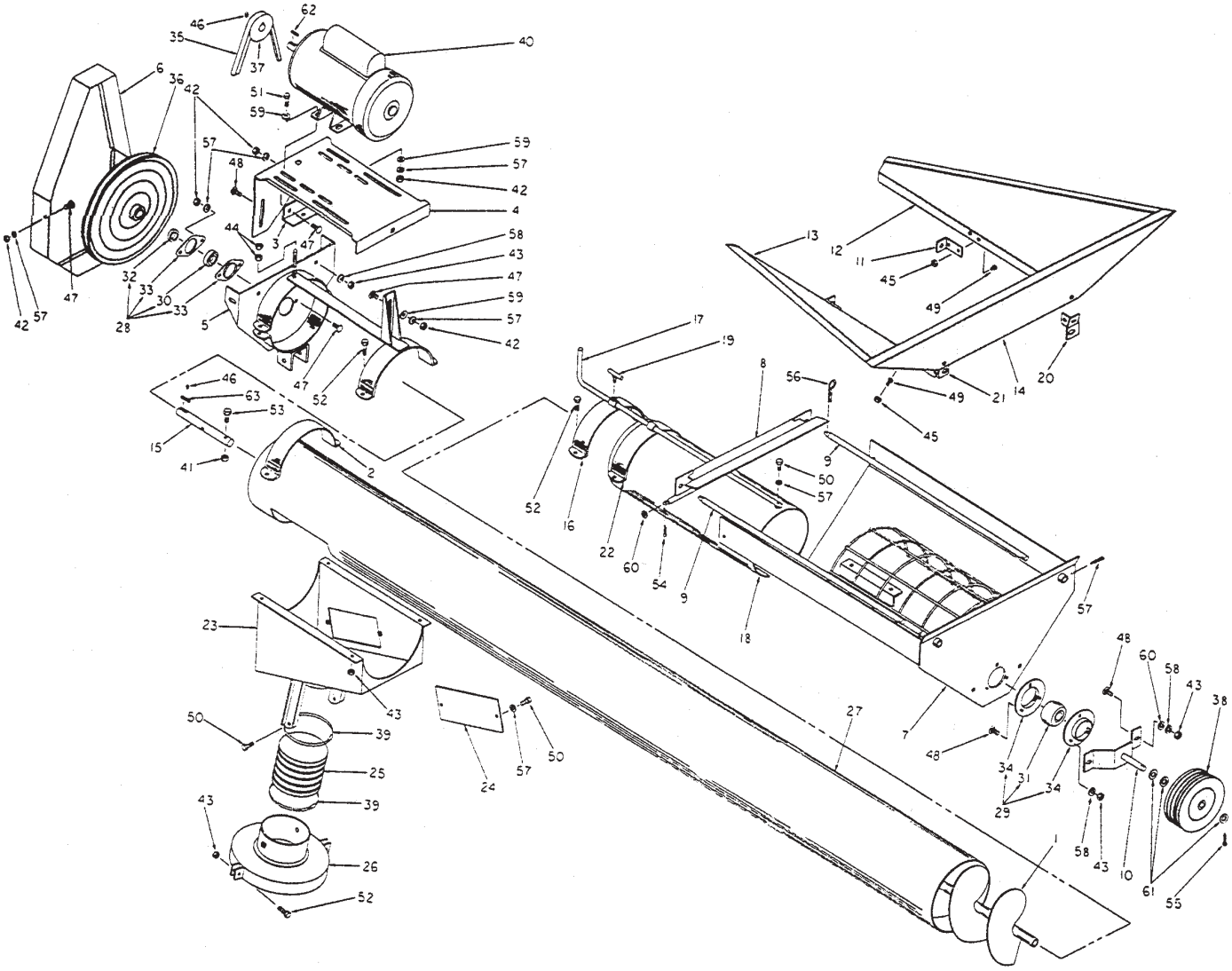
OPERATE AUGER BRIEFLY AND OBSERVE FOR PROPER ROTATION.
Change wires in motor if rotation correction is needed.

!!CAUTION!!

KEEP HANDS, FEET AND LOOSE CLOTHING CLEAR OF ROTATION PARTS!

The auger assembly is now completed.

8” x 8’ FEED-IN AUGER
Drawing 10



8” x 8’ FEED-IN AUGER and 10” x 12’ PARTS LIST

Ref. #	8” x 8’ Part #	10” x 10’ Part #	# Required	Description
1.	202C0140	206C0022	1	7” OD Auger, 8”
2.	205C0002	206C0007	1	2” Strap Bracket
3.	205C0003	205C0003	1	Motor Mount Angle
4.	205C0005	205C0005	1	Motor Mount Base Plate
5.	205C0008	804A115	1	Auger Head
6.	205C0012	205C0012	1	Motor Belt Shield
7.	205C0016	206C0015	1	Tail Cage Hopper
8.	205C0022	205C0022	1	Latch and Glide Rod Support
9.	205C0025	205C0025	2	Glide Rod
10.	205C0027	205C0027	1	Hopper Wheel Bracket
11.	205C0030	205C0030	2	Glide Rod Guide
12.	205C0031	205C0031	1	Right Sliding Hopper Sheet
13.	205C0032	205C0032	1	Left Sliding Hopper Sheet
14.	205C0038	205C0038	1	Sliding Hopper End Sheet
15.	205C0039	206C0089	1	Stub Shaft
16.	205C0040	206C0008	1	Flow Restrictor Strap Bracket
17.	205C0043	206C0030	1	Flow Restrictor Adjustment Handle
18.	205C0044	206C0016	1	Flow Restrictor Tube
19.	205C0054	2FH0428	1	Wing Bolt
20.	205C0056	205C0056	1	Right End Glide Rod Guide
21.	205C0057	205C0057	1	Left End Glide Rod Guide
22.	205C0060	206C0032	1	Flow Restrictor Strap Bracket, Without Nut
23.	802A077	804A091	1	Discharge Hopper
24.	801A043	801A043	1	Access Hole Cover
25.	802A083	804A103	1	Flexible Connecting Tube
26.	802A084	804A097	1	Airlock Grain Intake Cover
27.	801C001	206C0018	1	Auger Tube, 8” x 7’
28.	PT0115	PT0115	1	Eccentric Lock Bearing, 1” (Complete)
29.	PTO124	PT0129	1	Wood Bearing, 1-1/4” (Complete)
30.	PT0203	PT0203	1	Bearing, Sealed with Eccentric Locking Collar, 1”
31.	PT0219	PT0229	1	Wood Bearing, 1-1/4” bore
32.	PT0401	PT0401	1	Collar, Eccentric Lock, 1”
33.	PT0420	PT0420	2	2 Hole Bearing Mounting Flange
34.	PT0424	PT0424	2	3 Hole Center Flange Mount
35.	PT0490	PT0490	1	B-48 V-Belt
36.	PT0681	PT0684	1	Pulley, 1” x 12”, B Section
37.	PT0706	——	1	Pulley, 3” x 5/8” - 1B (for 3EL5097)
	PT0627	——	1	Pulley, 3” x 7/8” - 1B (for 3EL5100)
	——	PT0708	2	Pulley, 3” x 1-1/8” - 1B
38.	MS0021	MS0021	1	6” Rubber Wheel
39.	MS0368	——	2	Worm Gear Clamp 6-1/2” - 8-1/2”
	——	MS0309	2	Worm Gear Clamp 12 5/6” OD
40.	3EL5097	——	1	Motor, 1-1/2 HP, 1 PH
	3EL5100	——	1	Motor, 1-1/2 HP, 3 PH
	——	M3611T	1	Electric Motor 3 HP-230/440V- 3PH-182T frame
41.	1FH0736	1FH0736	2	Lock Nut, 3/8”
42.	1FH0764	1FH0764	11	Hex Nut, 5/16”
43.	1FH0765	1FH0765	15	Hex Nut, 3/8”
44.	1FH0767	1FH0767	2	Hex Nut, 1/2”
45.	1FH0995	1FH0995	16	Hex Flange Whiz Lock Nut, 1/4”
46.	2FH0512	2FH0512	3	Socket Head Set Screw, 5/16” x 5/16”
47.	2FH0645	2FH0645	7	Carriage Bolt, 5/16” x 3/4”
48.	2FH0659	2FH0659	7	Carriage Bolt, 3/8” x 3/4”
49.	2FH0747	2FH0747	16	Pan Head Machine Screw, 1/4” x 1/2”
50.	2FH0828	2FH0828	5	Hex Bolt, 5/16 x 3/4”
51.	2FH0830	——	4	Hex Bolt, 5/16” x 1”
52.	2FH0856	2FH0856	12	Hex Bolt, 3/8” x 1-1/4”
53.	2FH1057	——	2	Hex Bolt, 3/8” x 1-3/4”, Grade 5
	——	2FD1058	2	3/8” x 2” Hex hd grade 5 bolt
54.	3FH0712	3FH0712	2	Cotter Pin, 1/8” x 3/4”
55.	3FH0714	3FH0714	3	Cotter Pin, 1/8” x 1-1/4”
56.	3FH0770	3FH0770	2	Cotter Hair Pin, 1/8” x 2-3/8”
57.	3FH0790	3FH0790	14	Lock Washer, 5/16”
58.	3FH0791	3FH0791	7	Lock Washer, 3/8”
59.	3FH0864	3FH0864	9	Flat Washer, 5/16”
60.	3FH0865	3FH0865	4	Flat Washer, 3/8”
61.	3FH0952	3FH0952	3	Flat Washer, 5/8” SAE
62.	3FH1015	——	1	Square Key, 3/16” x 1”
63.	3FH1026	——	1	Square Key, 1/4” x 1”
	———	3FH1030	2	1/4” x 2” square key

TROUBLE SHOOTING

PROBLEM	SOLUTION
System Plugs Up	1. Check belt tension on air blower and tighten if loose. 2. Check air filter and clean out. Locate in a place where there is less dust. 3. Check tubing system for any obstructions. 4. Reduce feed-in rate. 5. Air pressure switch setting may be too low. 6. Outlet gate valve too far open.
Excessive Grain Damage	1. Feed-in auger may be overfeeding airlock, causing vanes to shear off grain. Reduce feed rate. 2. Air velocity may be excessive. Slow air blower by changing pulleys or by opening gate valve. 3. Damage can occur if system is running at less than full capacity. Increase feed rate. 4. Rubber hose used to change grain direction, or used for extended lengths. 5. Airlock shear protector installed wrong.
Airlock Stops or is Noisy	1. A foreign object may have become lodged in the airlock vanes. 2. Check belt tension. 3. Check gearbox drive. 4. The rotor vanes may be rubbing on the ends of the airlock. Check clearance at both ends of rotor and center in housing by loosening the set screws in the bearings on both ends of the rotor shaft and moving rotor. Tighten set screws after repositioning. 5. The rotor vanes may have become rusted to the airlock housing. The airlock can be broken loose by using a pipe wrench on the exposed rotor shaft. CAUTION: The worm drive gearbox cannot be driven in reverse and can be damaged. Remove the airlock drive chain before attempting to turn the airlock by hand. 6. “U” cup packings on rotor too tight. (Contact DMC)

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