

The Clipper Eclipse 334



The Clipper Eclipse 334 is the second in a line of small to moderate sized cleaners designed to meet low maintenance and easy cleanout requirements of today's seedsman. The 334 is engineered to fill the need for a conveniently sized, versatile cleaner, and is designed to be portable or stationary. The Eclipse 334 utilizes ball trays for screen cleaning and an efficient air flow design for effective sizing and separation.

Screens & Commodity Flow

The Clipper Eclipse 334 features three (3) screen decks. Each screen is 34"x 34". The top screen removes product larger than the desired seed. The "scalped off" material exits the front of the machine, while the good product falls through the screen.

The bottom two screen decks can be configured in either a split-sift or scalp-sift configuration. Trash, weed seeds, foreign material, and splits drop through the bottom sift screens while the good product passes over them.

Next, the product is routed through a positive column of air from the bottom fan. The aspiration effectively removes any lightweight trash and dust that may have remained after screening.

Clipper offers over 175 different sizes of perforated metal or wire mesh material to accommodate virtually all agricultural commodities.

Construction & Options

Construction features a heavy-duty tubular steel frame with a balanced counter throw, and a shoe made from high performance 13-ply marine grade hardwood laminant. The Eclipse 334 allows for easy connection to an auger or vibratory conveyor. An expanded surge hopper and bagging option are also available.



1440 SOUTH ADAMS STREET, BLUFFTON IN 46714 (260) 824-3400, (800) 248-8318, FAX (260) 824-5463
info@atferrell.com www.clipperseparation.com

The Clipper Eclipse 334

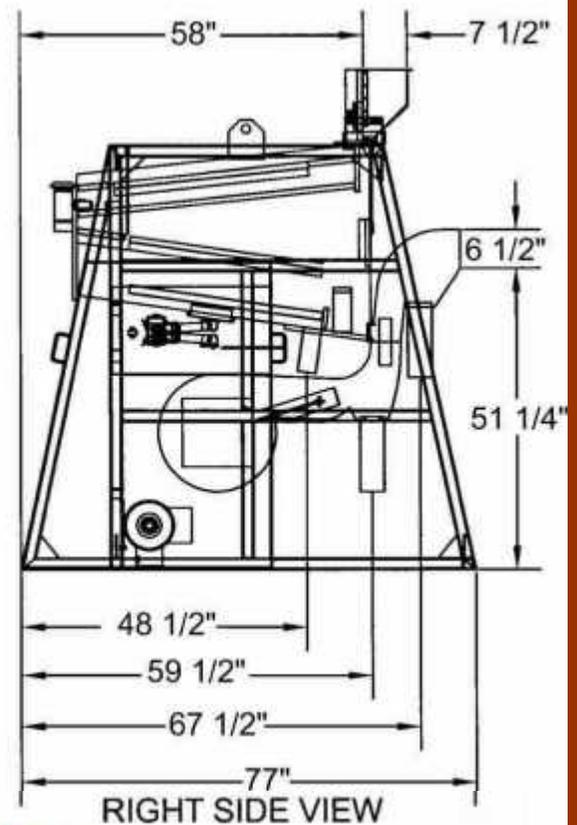
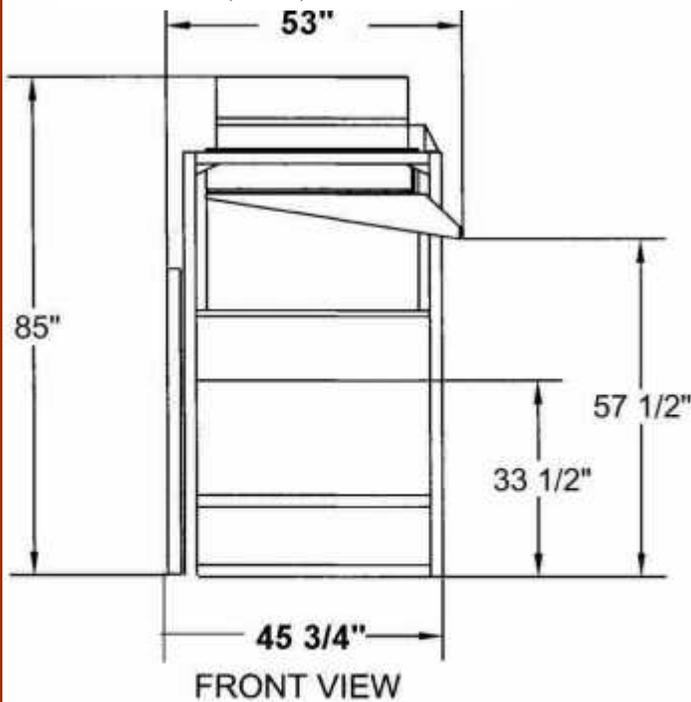
Capacities

Commodity	Fast Clean	Precision Clean
Soybeans, wheat, corn	250 BPH / 6.0 MTH	120 BPH / 3.0 MTH
Rice, oats	190 BPH / 2.75 MTH	75 BPH / 1.1 MTH

BPH = bushels per hour MTH = metric tons per hour

*NOTE: Capacities may vary depending on seed condition, moisture content, seed varieties, types and volumes of contaminants to be separated and the percentage of foreign material acceptable in final product. Capacities also vary depending on product flow through the cleaner. Capacities shown above are for the split-flow arrangement.

Dimensions (inches)



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INTRODUCTION

We cannot possibly answer all questions about the operation of CLIPPER CLEANERS in this manual. We will try to give you basic information on the installation of your cleaner, various adjustments for greater efficiency and a list of screen suggestions for top performance from your cleaner.

There is nothing complex about the operation of the Eclipse 334. The operator has to familiarize himself with the machine and take time to study the shapes and characteristics of the different commodities to be cleaned.

A commodity is cleaned to separate the good, marketable product from all impurities. From a mechanical point of view poor cleaning is in most cases, caused by lack of proper screens, improper use of screens or faulty regulation of the cleaner.

Perforations in the top screen should be just large enough to let the commodity being cleaned fall through readily and small enough to scalp off foreign material such as sticks, stems, chaff and larger seeds, or grain other than the product being cleaned. For most commodities a round hole top screen is recommended.

After the round hole top screen has removed the objectionable foreign material larger than the commodity being cleaned, the perforations of the lower two screens go to work. Both bottom screens must have the same screen size in them if the machine is set up as a split flow in the bottom two screens. The bottom two screens removes foreign material smaller than the product being cleaned. Any immature kernels, sand, dirt, or small weed seeds drop through the bottom two screen and the good commodity passes over the bottom two screens. For most commodities, an oblong sifting bottom screen is recommended.

Multiple screen cleaners permit normal top and bottom separations, plus additional separations by shape. Screen recommendations for cleaning grain and seed are furnished with this manual.

The purpose of air separations are to remove all possible light material without waste of good grain or seed, and to control dust. Instructions for regulating and controlling the air separations are given in this manual.

LOCATION

Careful consideration must be given to selecting the proper location for the cleaner or the best results in efficiency and convenience cannot be expected. All models should be fastened to a solid, level floor or foundation. **THE ENTIRE BASE OF THE MACHINE SHOULD BE SUPPORTED. 3/8" grade 5 bolts are recommended. If a exiting machine is being replaced, in almost all cases the exiting mounting stand will not be built heavy enough to support the new machine being installed.**

The cleaner should be placed with the fan discharge opening facing, and a short distance away from an outside wall. Screens are inserted and withdrawn at the front of the cleaner. Allow clearance for the operator to make screen changes. The largest screen size that can be used is 34" x 42 ". **The normal screen size provided with the machine is 34" x 34"**. Allow room around the cleaner for the operator to make adjustments and service the machine. Do not install spouting in a position that will interfere with the controls or maintenance. Eventually worn parts must be replaced so allow room to pull all shafts and spouts .

The cleaned grain discharges from the under side of the cleaner, so it should be placed on a floor with a pit or basement underneath so that an elevator with its receiving spout three or four feet below the floor can be used to raise the grain. If the elevator cannot be carried below the floor, and there is sufficient head room, the cleaner may be placed on a solid platform high enough above the floor to allow the grain to flow into the elevator or sacking spout, or tot bag. Screenings and air liftings discharge from built-in spouts in the cleaner. Provision must be made to handle this material.

The Cleaner hopper is a feeder mechanism - not a storage bin. Cleaners work best when equipped with a surge bin above the hopper to provide a steady supply of the commodity to the hopper. The grain supply to the surge hopper may be by spout from bins located on the floor above or by means of an elevator from a sink or dump hopper on the same level or lower than the cleaner. Spouts must have a fall of at least seven feet in ten to provide free flow and should be carried directly at an angle instead of making right angle jogs. **The feed hopper works best when it is feed across the width of the hopper inlet opening. If a full width feed cannot be used, an inverted y transition with a 16" distance between the spouts is the second best style. This would drop the product to each side of the hopper**

AIR DISCHARGE

Improper air trunking installation from the cleaner and into the collector causes up to 90% of the difficulties in conjunction with improper air movement. Sharp turns, improper junctions, poor connections and poor collection equipment will all contribute to air deficiency in a cleaner. Improper air clearance also results in a very dirty, dusty plant operation. The Eclipse bottom fan **DOES NOT** develop sufficient velocity for a cyclone-type collector to be used because of back pressure created by filters or cyclones. An in line booster fan can be used to provide the additional air required.

FIELD WIRING INSTRUCTIONS

Eccentric Drive 60 Hz Three Phase Power

The eccentric drive consists of a 2 HP, 1800 RPM, 230/460 Volt, 3 Phase, T E F C motor and drive. A T Ferrell Corp does not supply wiring from the motor.

Optional Eccentric Drive 60 Hz Single Phase Power

The eccentric drive consists of a 2 HP, 1800 RPM, 115/230 Volt, 1 Phase, T E F C motor and drive . Wiring has been supplied by A T Ferrell Corp from the motor to the switch box

Optional Eccentric Drive 50 Hz Single Phase Power

The eccentric drive consists of a 2 HP, 1500 RPM, 200 Volt, 1 Phase, T E F C motor and drive . Wiring has been supplied by A T Ferrell Corp from the motor to the switch box .

Optional Eccentric Drive 50 Hz Three Phase Power

The eccentric drive consists of a 2 HP, 1500 RPM, 200/380 Volt, 3 Phase, T E F C motor and drive . Wiring has been supplied by A T Ferrell Corp from the motor to the switch box

SECTION II

HOW TO CHANGE ECCENTRIC SHAFT AND OR ECCENTRIC ASSEMBLIES

1. **Record location of all parts including shaft and eccentric assemblies.**

NOTE-----

NOTE-----

NOTE-----

2. Remove drive belts.
3. Remove bolts fastening pitman arm to the shoe
4. Unbolt pitman arm from eccentric assembly
5. Remove bolts from outer bearings. Loosen lock collars.
6. Shaft with attached bearings and sheaves can now be removed .
7. Remove sheaves, bearings, keys, file set screw burrs, and oil shaft lightly.
8. Assemble by reversing above steps.

SECTION III

CHOOSING THE RIGHT SCREEN

The top scalping screen are ordinarily chosen with an opening large enough to quickly drop through the good commodity and direct the "overs" or scalpings off the screen end. The sifting or finishing screens are selected with an opening that is just small enough to hold up the commodity and drop through the "fines".

Perforations in the top screen should be just large enough to let the commodity being cleaned fall through readily and small enough to scalp off foreign material such as sticks, stems, chaff and larger seeds, or grain other than the product being cleaned. For most commodities a round hole top screen is recommended.

After the round hole top screen has removed the objectionable foreign material larger than the commodity being cleaned, the perforations of the lower two screens go to work. **Both bottom screens must have the same screen size in them if the machine is set up as a split flow in the bottom two screens.** The bottom two screens remove foreign material smaller than the product being cleaned. Any immature kernels, sand, dirt, or small weed seeds drop through the bottom two screen and the good commodity passes over the bottom two screens. For most commodities, an oblong sifting bottom screen is recommended. If split flow is not desired in the bottom two screens the flow can be changed to be a scalp sift set up in the bottom two screens. **In this case the second screen must be different and larger than the bottom screen.** To change to this set do the following

- 1 Take the pan out between the second and third screens.
- 2 Remove the splitter that slides into the second screenway and replace it with a screen blank that has been provided with the machine.

When selecting screens for any kind of seed or grain, it is always necessary to take into consideration the condition of the commodity and the foreign material (FM) mixed with it. It is frequently necessary to use screens that will remove a small percentage of the good commodity with the foreign material in order to make the end product marketable. Screen recommendations are located in this manual

It is advisable to have an assortment of our hand testing screens. By testing a handful of grain or seed before cleaning, you can determine in advance the exact perforation size of mesh to use and what separation can be made with the screens, and also what will have to be done by the air. You can also determine what benefit would be derived from recirculating any part of the stock, which cannot be improved by any change in setting in the original run.

If you do not have the proper screens to clean a particular lot, send us a six ounce sample and we will make a screen selection for you. Send your samples to A T Ferrell Company Attn: Sales Department, 1440 South Adams Street , Bluffton, Indiana 46714.

PLACING SCREENS IN CLEANER

When removing blanks and splitters for the first time it is advisable for you to mark each part with the location of where the part came out of the machine. For example “ Top screen, back 4” blank “

Screens may be withdrawn or replaced from the front of the cleaner by dropping the front door down. The screens slide in the screenways and are removed with the ball tray. Screens should be cleaned before storing.

When placing screens, ball trays and blanks back into the machine after cleanup, it's best to start on the bottom screen. When placing the screen, ball tray and blanks into the screenway, slide each section into the screenway. After the screen and accessory pieces have been correctly positioned, slide them back as far as possible against the screen stops. The lips on all screens and/or blanks will always be facing down hill and should be lipped over the next screen or blank. The ball trays contain five balls per compartment and should be checked periodically for wear. If the ball diameters are less than 1-5/16 inches, or have lost some of their bounce they should be replaced.

PRODUCT DISCHARGES

Before operating this equipment be sure that all discharges are properly spouted so that all material is efficiently transported from the machine.

The Eclipse REFERENCE ILLUSTRATION shows each of the product discharges. The discharges are as follows:

1. Scalping Discharges: There is one top screen discharge included (item 3) on the shoe.
2. Siftings Discharges: There are two siftings discharges included (item 4 and 5) on the shoe if the two bottom screens are run in the Split-flow setup .
3. Air Discharges: All heavy air liftings trash discharges out of one spout (item 7) All air discharges from one air duct located at the back of the machine (item 9).
4. Clean Grain Discharge: The good product is discharged through the bottom of the machine (item 10) .

TRIAL RUN

WARNING!

Do not attempt to install, connect power to operate or service this machine without proper instruction and until you have been thoroughly trained in its use by your employer.

THE FOLLOWING ARE GENERAL GUIDELINES ONLY. YOUR SETTINGS WILL PROBABLY VARY FROM THESE

With the proper screens in place and a supply of commodity to be cleaned in the storage bin hopper above the cleaner, you are now ready to make an initial run to get the correct regulations of the feed, shoe shake and air separations.

Please refer to the REFERENCE ILLUSTRATION to reference the following numbers. With the internal gate inside the inlet hopper closed (1) start the machine. Set both the bottom air slides at 1/2 way. The eccentric (7) shaft speed is already set at 400 RPM at the factory.

INLET HOPPER

Open the internal hopper gate until about 1/2 to 3/4 of the top screen in the shoe is covered. Variations to this will occur if you are trying to run a close tolerance between seed size and hole size of screen.

AIR SETTINGS

Take a sample of the product coming out of the settling chamber discharge . The air is set properly when a very small amount of good looking seed is present in this discharge. This seed usually will be the lightest of the good seed. If there is an excess amount of good seed, close the two air slide gates on the bottom fan until there are only a few good seeds in the settling chamber discharge. **Please wait 10 seconds for the adjusted setting to be discharged out the discharge.** If there are no good looking seeds in the discharge, open the slide gates until a small amount of good seed appears in the settling chamber discharge

GENERAL MAINTENANCE

Be sure all shaft and eccentric bearings are properly lubricated with a good grade of pressure gun grease. All shaft and eccentric bearings should be lubricated after every 250 hours of operation. For cleaners operating in extreme seasonal ambient temperatures the type of grease used should take into account the seasonal temperature changes. The cleaner should be lubricated at regular intervals depending on the service.

DATES: -----

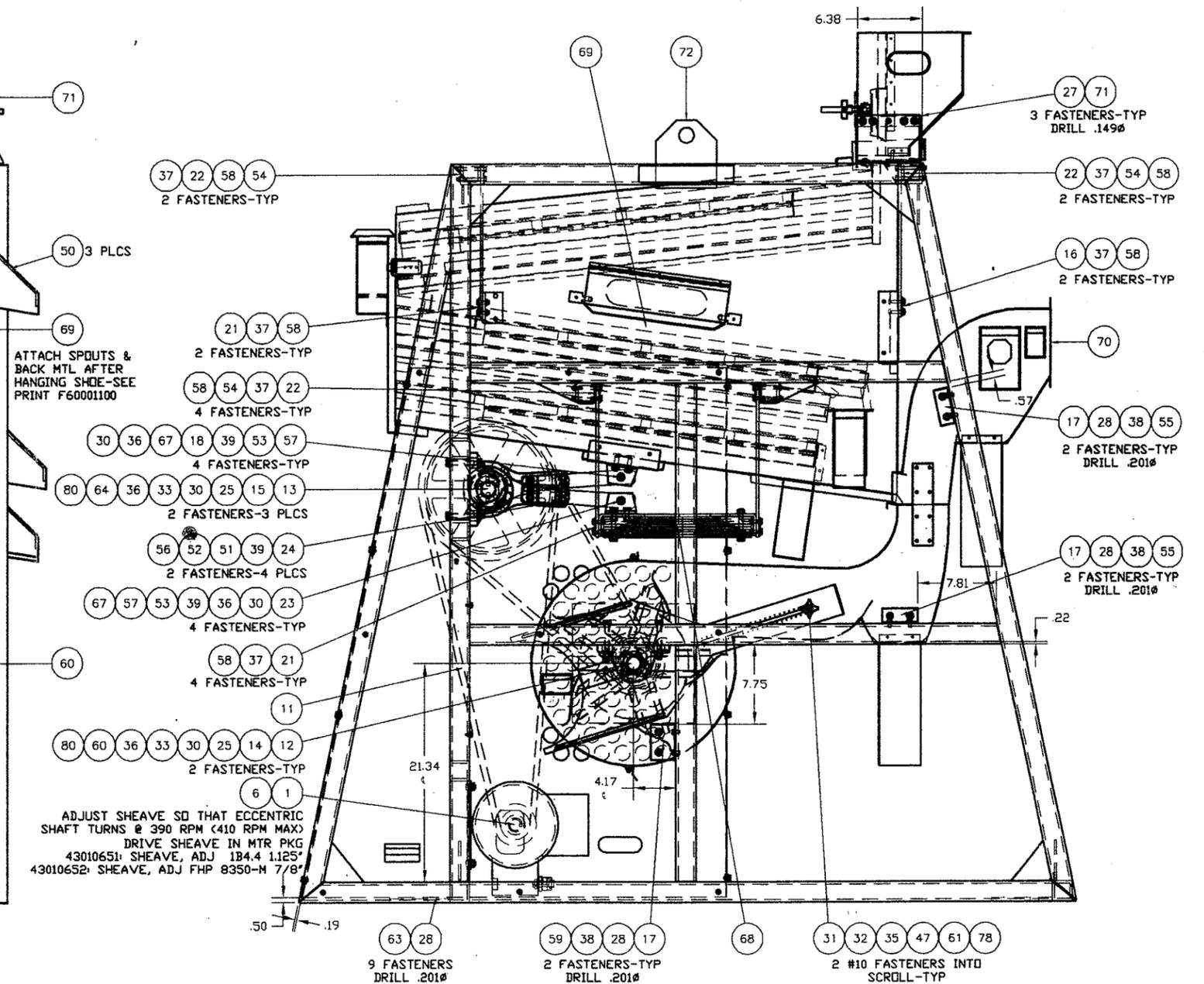
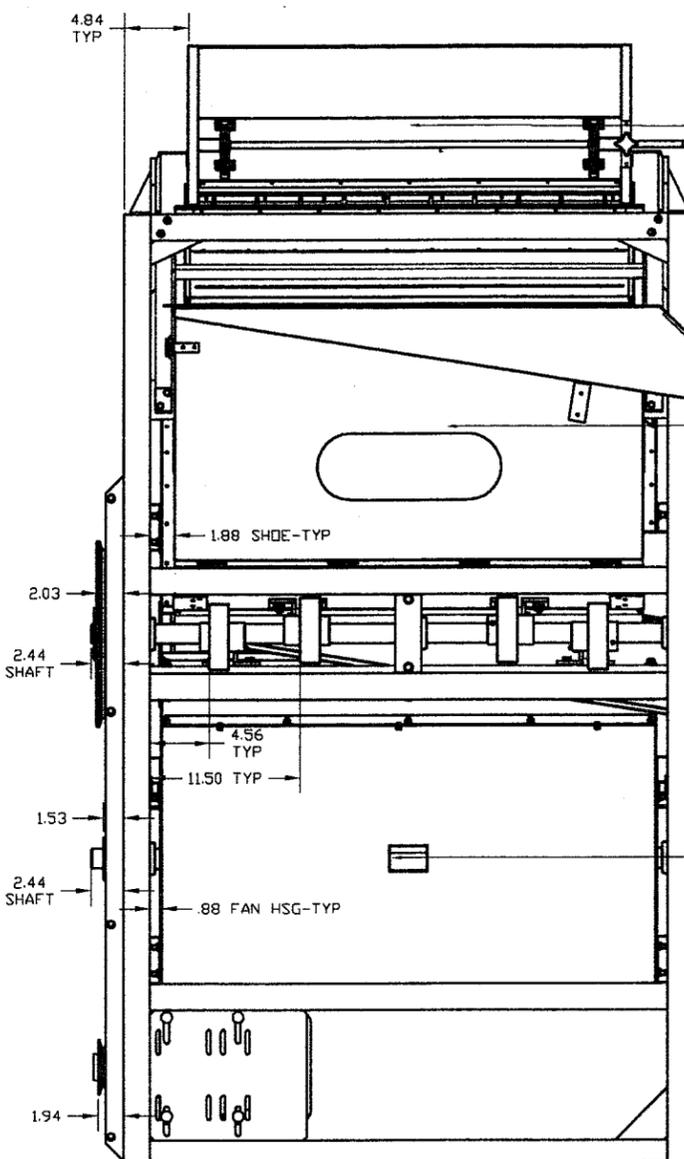
WARNING!

Periodic attention **MUST BE GIVEN** to tighten all bolts and screws. Check weekly for the first few months of operation. **DO NOT OVER-TIGHTEN.**

WARNING!

Do not attempt to work on, clean or service this equipment or open or remove any protective cover, guard, grate or maintenance panel until the **power** has been **turned off** and **locked** out and the machine has come to a **complete stop.**

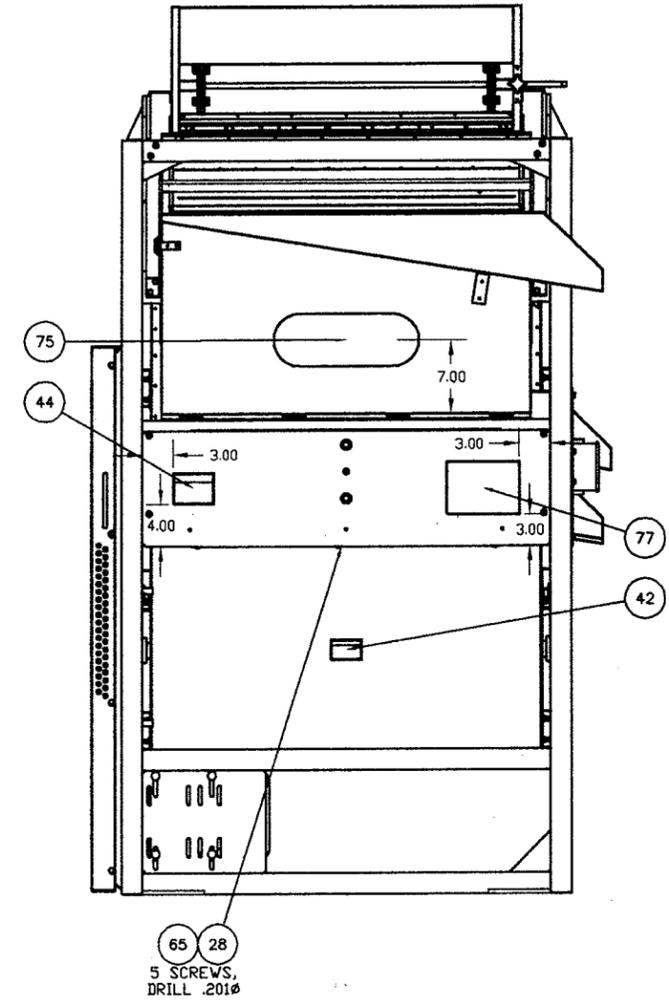
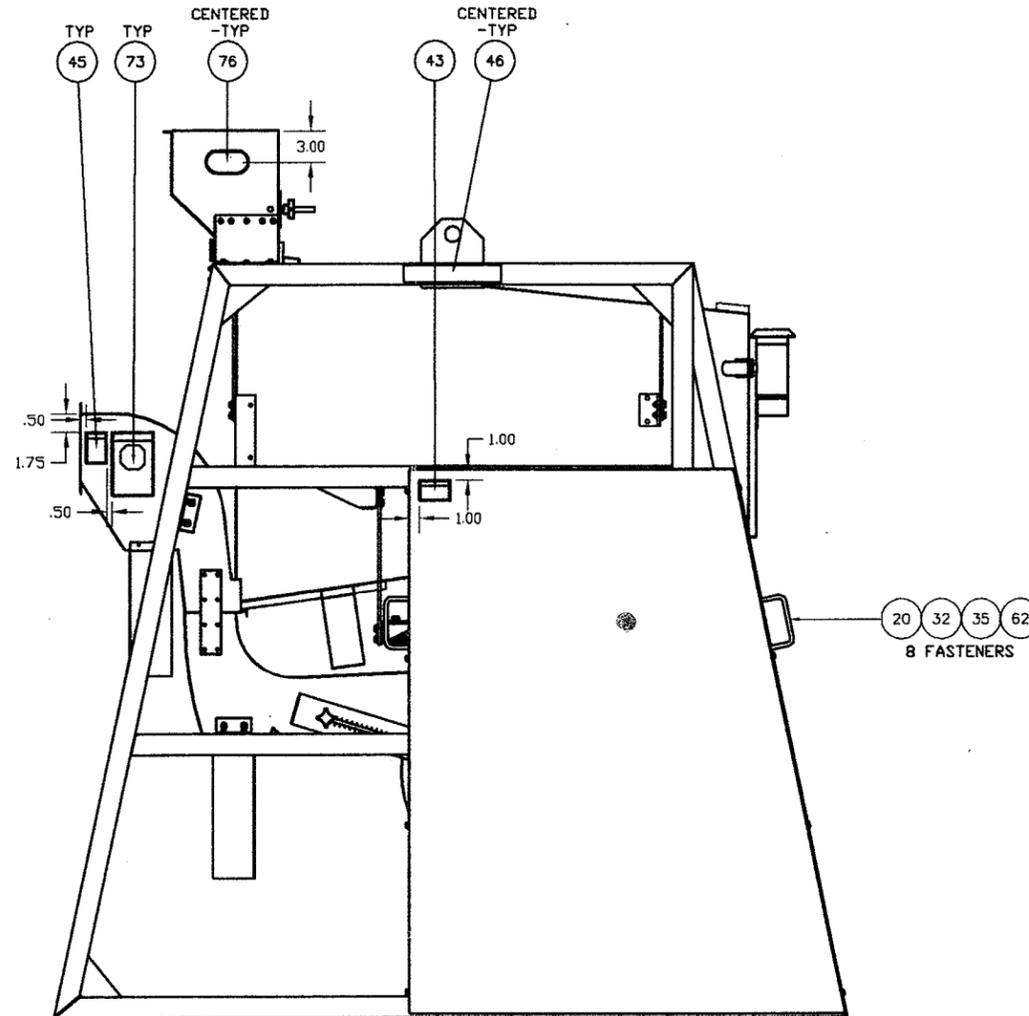
80	F92401080	5	BEARING, PB 1.50" VAK
79	F88500016	1	TAG-CLEAN SEED DISCHARGE
78	F83453403	4	SMS, #10 X 3/4" PAN HD
77	F82700011	1	TAG-GUARD MACHINE WARNING
76	F80003616	2	DECAL, CLIPPER, 2.25 X 7.00"
75	F80003615	2	DECAL, CLIPPER, 5 X 14"
74	F80003539	1	DECAL-NAME PLATE, CLIPPER
73	F80003538	2	DECAL, WARNING STOP
72	F60004100	1	FRAME WLDMT, ECLIPSE 334
71	F60003100	1	HOPPER ASSY, ECLIPSE 334
70	F60002100	1	FAN HOUSING ASSY, ECLIPSE 334
69	F60001100	1	SHOE ASSY, ECLIPSE 334
68	F60000120	1	COUNTERWEIGHT ASSY, ECLIPSE 334
67	F60000119	4	ECCENTRIC BOLT, ECLIPSE 334
66	F60000115	1	PANEL, ELECTRIC MNT, ECLIPSE 334
65	F60000114	1	PANEL, FRONT, ECLIPSE 334
64	F60000111	1	SHAFT, ECC 1.50 X 45.88", ECLIPSE 334
63	F60000109	1	BK PLT, DRV GD, RH, ECLIPSE 334
62	F60000107	1	GUARD, DRIVE RH, ECLIPSE 334
61	F60000105	2	SLIDE, AIR ADJUSTMENT, ECLIPSE 334
60	F60000104	1	SHAFT, FAN 1.50X45.88", ECLIPSE 334
59	F60000103	2	MNT BRKT, LONG, FAN HSG, ECLIPSE 334
58	F60000102	16	CAP, HANGER, ECLIPSE
57	F60000013	4	FASTENER, PITMAN .41#
56	F60000012	4	PITMAN ARM, ECLIPSE
55	F60000002	4	MNT BRKT, RH, FAN HSG, ECLIPSE 324
54	F60000001	8	HANGER, SHOE, ECLIPSE
53	F19804702	4	FASTENER, PITMAN .50#
52	F19503600	2	ECC ASSY 1.50" BRNG, .50" THROW
51	F19503600	2	ECC ASSY 1.50" BRNG, .50" THROW
50	80015508	72	TRIM, BLK VINYL DUAL LIP #6
49	80010516	1	PLUG, NYLON .88" FINISHING
48	80006509	1	LABEL, DANGER KEEP HANDS CLEAR
47	80006003	2	KNOB, FOUR PRONG 1/4-20 X 1.00"
46	80003692	2	DECAL, ECLIPSE 334
45	80003648	2	DECAL, WARNING AIR BLAST
44	80003647	1	DECAL, WARNING MOVING PART
43	80003643	1	DECAL, WARNING BELT & CHAIN
42	80003642	2	DECAL, WARNING FAN BLADE
41	80003568	1	DECAL, DANGER, CVR SECURED
40	70001021	5	CLAMP, CONDUIT 1/2"
39	66784400	28	NUT, HEX LOCK SERR FLNG, 3/8-16
38	66783800	12	NUT, LOCK SERR FLNG, 5/16-18 PLT
37	66783300	32	NUT, HEX LOCK SERR FLNG, 1/4-20 PLT
36	66444400	14	WASHER, LOCK 3/8" PLT
35	66443300	10	WASHER, LOCK 1/4" PLT
34	66442600	3	WASHER, LOCK #10
33	66404400	10	WASHER, FLAT 3/8" PLT
32	66403300	10	WASHER, FLAT 1/4"
31	66402600	4	WSHR, FLAT #10
30	66084400	14	NUT, HEX 3/8-16 PLT
29	66082600	3	NUT, HEX 10-24 PLT
28	65483312	30	SCW, MACH 1/4-20X1/2" HX SLT HD T/C
27	65482617	8	SCW, 10-24 X 1/2" HX SLT HD T/C
26	65482212	4	SCW, MACH 8-32X1/2" HX SLT HD T/C
25	62584446	10	HHCS, 3/8-16 X 3.50"
24	62584426	8	HHCS, 3/8-16 X 1.25"
23	62584422	8	HHCS, 3/8-16 X 1.00" PLT
22	62583339	16	HHCS, 1/4-20 X 2.75"
21	62583322	12	HHCS, 1/4-20 X 1.00"
20	62583312	8	HHCS, 1/4-20 X 1/2"
19	62342608	3	SCW, MACH PAN SLT HD 10-24X3/8" PLT
18	60284428	8	BOLT, CARR 3/8-16 X 1.50"
17	60283828	12	BOLT, CARR 5/16-18 X 1.50"
16	60283328	4	BOLT, CARR 1/4-20 X 1.50"
15	44010918	1	BSHG, QD SK 1.500"
14	44010518	1	BSHG, QD SDS 1.500"
13	43120280	1	SHEAVE, 2B13.6 SK
12	43110123	1	SHEAVE, 1B5.8 SDS
11	40000520	21	V-BELT SZ B LINK TYPE PWR TWST
10	31014021	1	COVER, CLOSED, GANG BOX
9	31014019	1	BOX, GANG 1/2" FSC
8	31011503	2	NUT, WIRE #30-174
7	31008501	1	RING, TERMINAL #10 INSULATED
6	31002712	1	CONN, 1/2" L/T STR NYL
5	31001702	7	CONDUIT, LIQ-TITE 1/2"
4	303311600	102	WIRE, LEAD #16 GREEN
3	30311600	102	WIRE, LEAD #16 BLACK
2	30301600	102	WIRE, LEAD #16 WHITE
1	-	1	MTR PKG-SEE SALES ORDER
Item	PART NUMBER	Qty	DESCRIPTION



NOTES:
1: DO NOT SCALE FROM DRAWING.

CAD NO MANUAL CHANGES (EXCEPT AS NOTED)		A DIVISION OF AT, FERRELL COMPANY SINCE 1988		BLUFFTON, INDIANA, U.S.A.	
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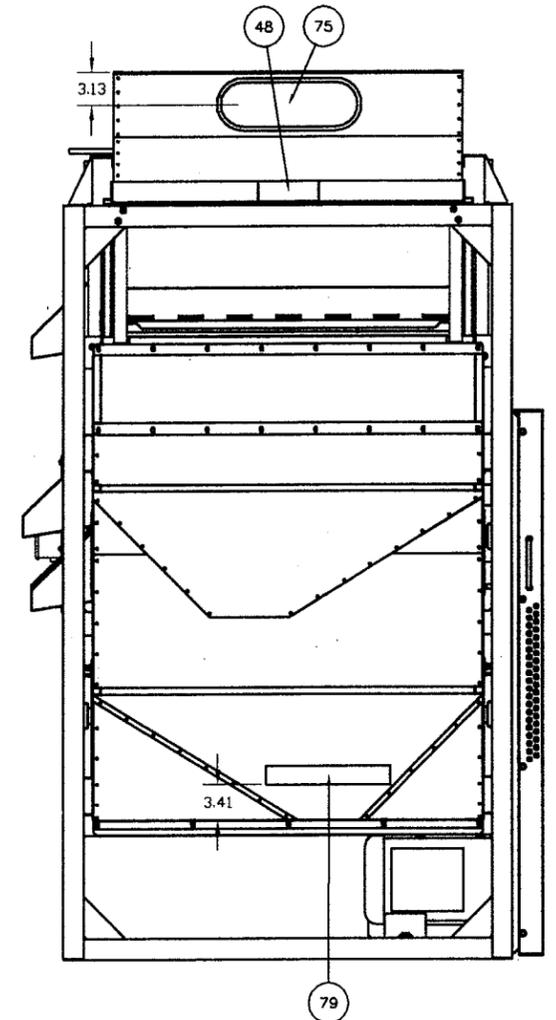
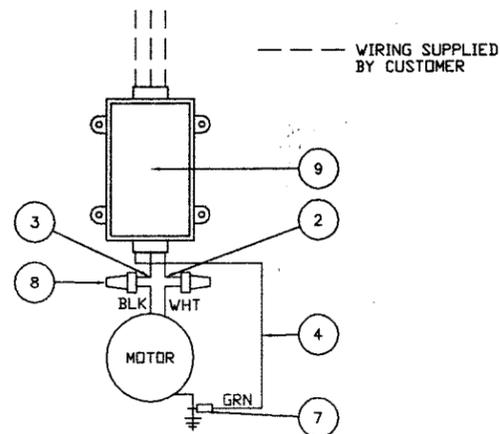
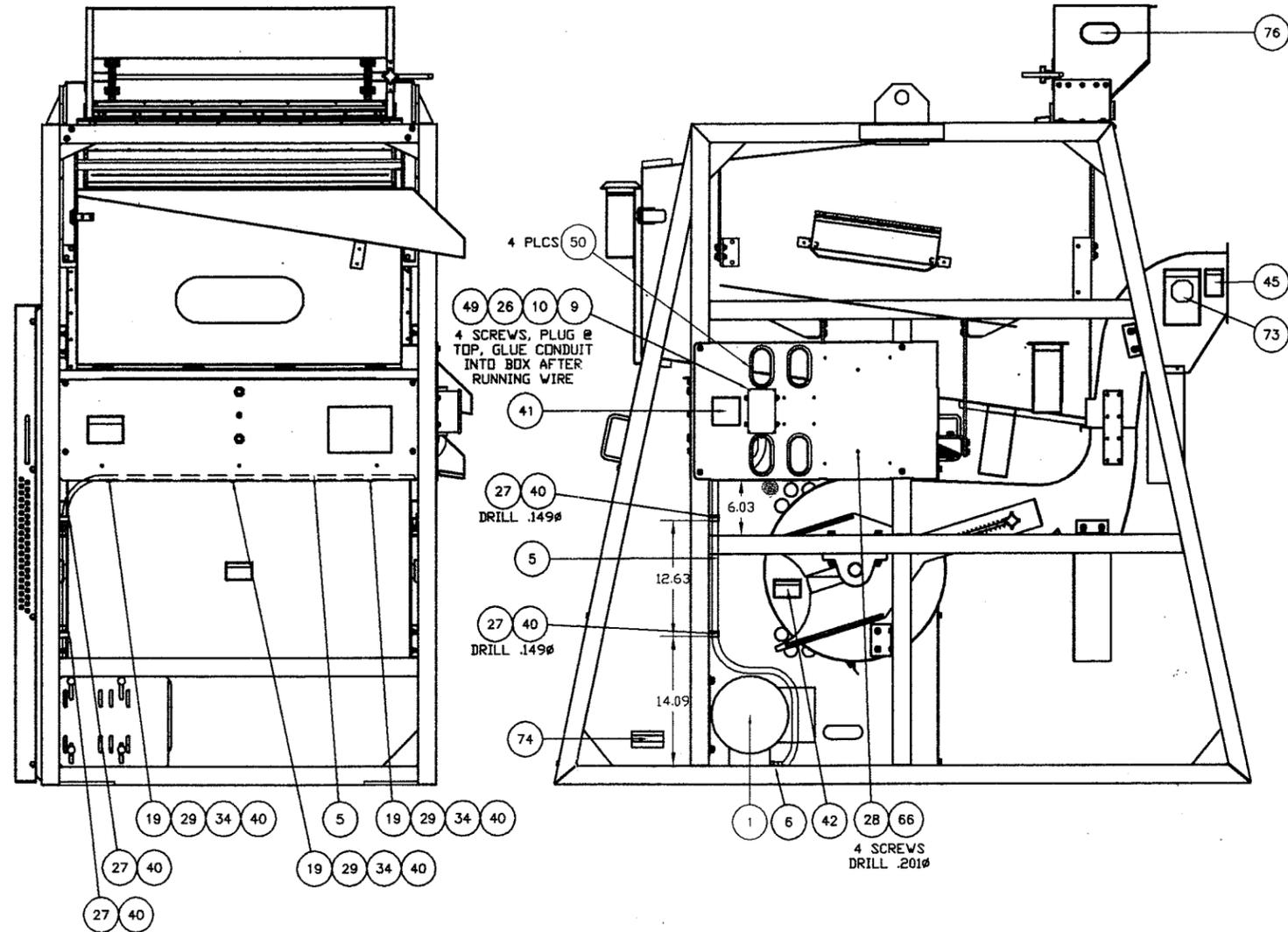
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61	F60000105	2	SLIDE, AIR ADJUSTMENT, ECLIPSE 334
60	F60000104	1	SHAFT, FAN 1.50X45.88", ECLIPSE 334
59	F60000103	2	MNT BRKT, LONG, FAN HSG, ECLIPSE 334
58	F60000102	16	CAP, HANGER, ECLIPSE
57	F60000013	4	FASTENER, PITMAN .41#
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17	60283828	12	BOLT, CARR 5/16-18 X 1.50"
16	60283328	4	BOLT, CARR 1/4-20 X 1.50"
15	44010918	1	BSHG, QD SK 1.500"
14	44010518	1	BSHG, QD SDS 1.500"
13	43120280	1	SHEAVE, 2B13.6 SK
12	43110123	1	SHEAVE, 1B5.8 SDS
11	40000520	21	V-BELT SZ B LINK TYPE PWR TWST
10	31014021	1	COVER, CLOSED, GANG BOX
9	31014019	1	BOX, GANG 1/2" FSC
8	31011503	2	NUT, WIRE #30-174
7	31008501	1	RING, TERMINAL #10 INSULATED
6	31002712	1	CONN, 1/2" L/T STR NYL
5	31001702	7	CONDUIT, LIQ-TITE 1/2"
4	303311600	102	WIRE, LEAD #16 GREEN
3	303311600	102	WIRE, LEAD #16 BLACK
2	30301600	102	WIRE, LEAD #16 WHITE
1	-	1	MTR PKG-SEE SALES ORDER
Item	PART NUMBER	Qty	DESCRIPTION



NOTES:
1: DO NOT SCALE FROM DRAWING.

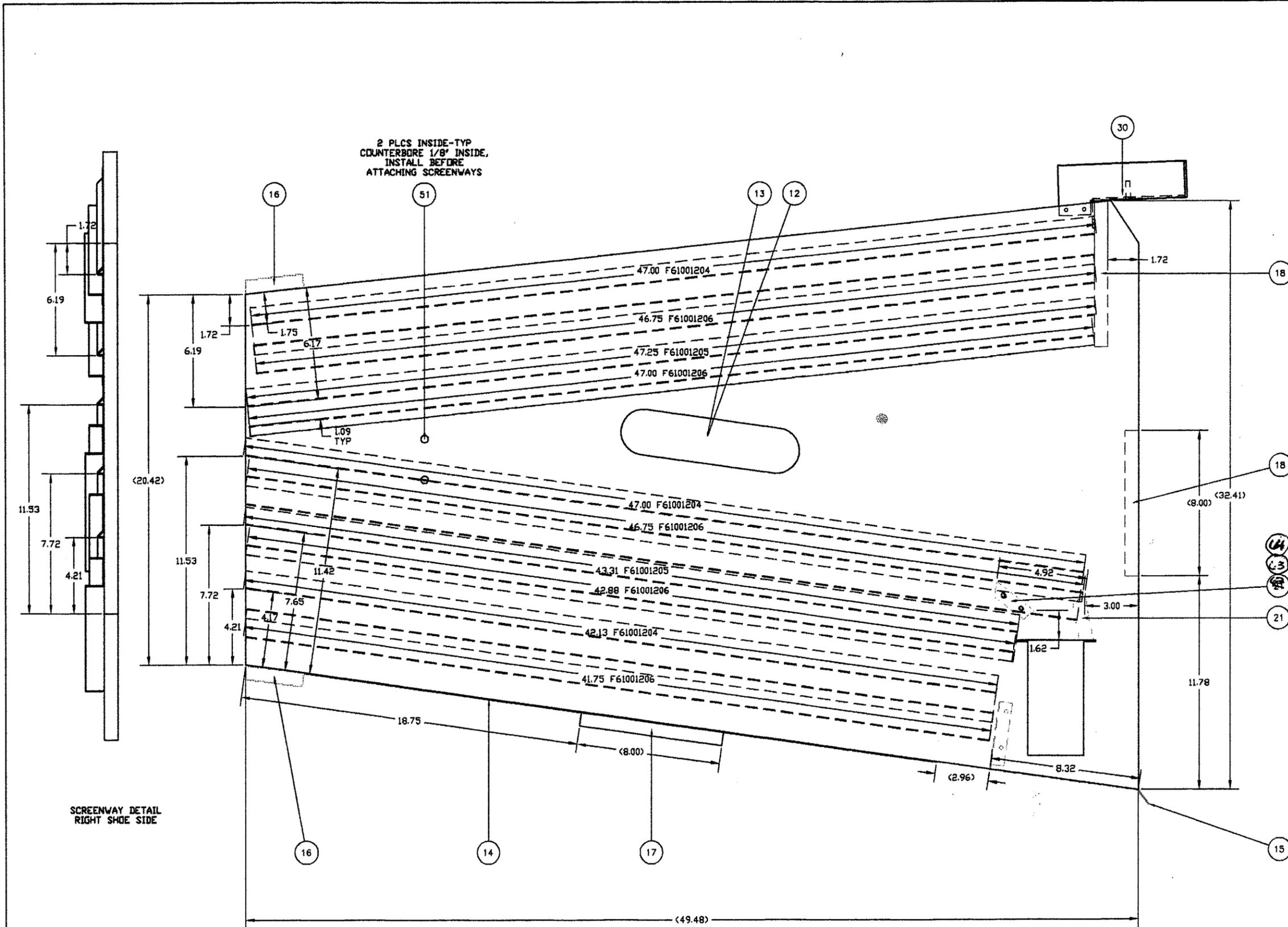
CAD NO MANUAL CHANGES		TOLERANCES (EXCEPT AS NOTED)		A DIVISION OF AT. FERRELL COMPANY		BLUFFTON, INDIANA, U.S.A.	
DECIMAL: ± .005	FRACTIONAL: ± 1/32	ANGULAR: ± 1/2°	DATE: 5/31/01	SIZE: D	DRAWING NO.:	F6000100	SHEET: 2 of
DRAWING TITLE: CLEANER ASSY, ECLIPSE 334				SCALE: 1/8		DRAWN BY: DJ	
APPROVED BY: X.X.X.				APPROVED BY: X.X.X.			

80	F92401080	5	BEARING, PB 1.50" VAK
79	F88500016	1	TAG-CLEAN SEED DISCHARGE
78	F83453403	4	SMS, #10 X 3/4" PAN HD
77	F82700011	1	TAG-GUARD MACHINE WARNING
76	F80003616	2	DECAL, CLIPPER, 2.25 X 7.00"
75	F80003615	2	DECAL, CLIPPER, 5 X 14"
74	F80003539	1	DECAL-NAME PLATE, CLIPPER
73	F80003538	2	DECAL, WARNING STOP
72	F60004100	1	FRAME WLDMT, ECLIPSE 334
71	F60003100	1	HOPPER ASSY, ECLIPSE 334
70	F60002100	1	FAN HOUSING ASSY, ECLIPSE 334
69	F60001100	1	SHOE ASSY, ECLIPSE 334
68	F60000120	1	COUNTERWEIGHT ASSY, ECLIPSE 334
67	F60000119	4	ECCENTRIC BOLT, ECLIPSE 334
66	F60000115	1	PANEL, ELECTRIC MNT, ECLIPSE 334
65	F60000114	1	PANEL, FRONT, ECLIPSE 334
64	F60000111	1	SHAFT, ECC 1.50 X 45.88", ECLIPSE 334
63	F60000109	1	BK PLT, DRV GD, RH, ECLIPSE 334
62	F60000107	1	GUARD, DRIVE RH, ECLIPSE 334
61	F60000105	2	SLIDE, AIR ADJUSTMENT, ECLIPSE 334
60	F60000104	1	SHAFT, FAN 1.50X45.88", ECLIPSE 334
59	F60000103	2	MNT BRKT, LONG, FAN HSG, ECLIPSE 334
58	F60000102	16	CAP, HANGER, ECLIPSE
57	F60000013	4	FASTENER, PITMAN .41#
56	F60000012	4	PITMAN ARM, ECLIPSE
55	F60000002	4	MNT BRKT, RH, FAN HSG, ECLIPSE 324
54	F60000001	8	HANGER, SHOE, ECLIPSE
53	F19804702	4	FASTENER, PITMAN .50#
52	F19503600	2	ECC ASSY 1.50" BRNG, .50" THROW
51	F19503600	2	ECC ASSY 1.50" BRNG, .50" THROW
50	80015508	72	TRIM, BLK VINYL DUAL LIP #6
49	80010516	1	PLUG, NYLON .88" FINISHING
48	80006509	1	LABEL, DANGER KEEP HANDS CLEAR
47	80006003	2	KNOB, FOUR PRONG 1/4-20 X 1.00"
46	80003692	2	DECAL, ECLIPSE 334
45	80003648	2	DECAL, WARNING AIR BLAST
44	80003647	1	DECAL, WARNING MOVING PART
43	80003643	1	DECAL, WARNING BELT & CHAIN
42	80003642	2	DECAL, WARNING FAN BLADE
41	80003568	1	DECAL, DANGER, CVR SECURED
40	70001021	5	CLAMP, CONDUIT 1/2"
39	66784400	28	NUT, HEX LOCK SERR FLNG, 3/8-16
38	66783800	12	NUT, LOCK SERR FLNG, 5/16-18 PLT
37	66783300	32	NUT, HEX LOCK SERR FLNG, 1/4-20 PLT
36	66444400	14	WASHER, LOCK 3/8" PLT
35	66443300	10	WASHER, LOCK 1/4" PLT
34	66442600	3	WASHER, LOCK #10
33	66404400	10	WASHER, FLAT 3/8" PLT
32	66403300	10	WASHER, FLAT 1/4"
31	66402600	4	WSHR, FLAT #10
30	66084400	14	NUT, HEX 3/8-16 PLT
29	66082600	3	NUT, HEX 10-24 PLT
28	65483312	30	SCW, MACH 1/4-20X1/2" HX SLT HD T/C
27	65482617	8	SCW, 10-24 X 1/2" HX SLT HD T/C
26	65482212	4	SCW, MACH 8-32X1/2" HX SLT HD T/C
25	62584446	10	HHCS, 3/8-16 X 3.50"
24	62584426	8	HHCS, 3/8-16 X 1.25"
23	62584422	8	HHCS, 3/8-16 X 1.00" PLT
22	62583339	16	HHCS, 1/4-20 X 2.75"
21	62583322	12	HHCS, 1/4-20 X 1.00"
20	62583312	8	HHCS, 1/4-20 X 1/2"
19	62342608	3	SCW, MACH PAN SLT HD 10-24X3/8" PLT
18	60284428	8	BOLT, CARR 3/8-16 X 1.50"
17	60283828	12	BOLT, CARR 5/16-18 X 1.50"
16	60283328	4	BOLT, CARR 1/4-20 X 1.50"
15	44010918	1	BSHG, QD SK 1.500"
14	44010518	1	BSHG, QD SDS 1.500"
13	43120280	1	SHEAVE, 2B13.6 SK
12	43110123	1	SHEAVE, 1B5.8 SDS
11	40000520	21	V-BELT SZ B LINK TYPE PWR TWST
10	31014021	1	COVER, CLOSED, GANG BOX
9	31014019	1	BOX, GANG 1/2" FSC
8	31011503	2	NUT, WIRE #30-174
7	31008501	1	RING, TERMINAL #10 INSULATED
6	31002712	1	CONN, 1/2" L/T STR NYL
5	31001702	7	CONDUIT, LIQ-TITE 1/2"
4	303311600	102	WIRE, LEAD #16 GREEN
3	30311600	102	WIRE, LEAD #16 BLACK
2	30301600	102	WIRE, LEAD #16 WHITE
1	-	1	MTR PKG-SEE SALES ORDER
Item	PART NUMBER	Qty	DESCRIPTION



NOTES:
1: DO NOT SCALE FROM DRAWING.

CAD NO MANUAL CHANGES		TOLERANCES (EXCEPT AS NOTED)	
DECIMAL: .005 ± .000		FRACTIONAL: ± 1/32	
ANGULAR: ± 1/2°		DATE: 5/31/01	
DRAWING TITLE: CLEANER ASSY, ECLIPSE 334		SIZE: D	
DRAWING NO.: F60000100		SHEET: 3 of 3	



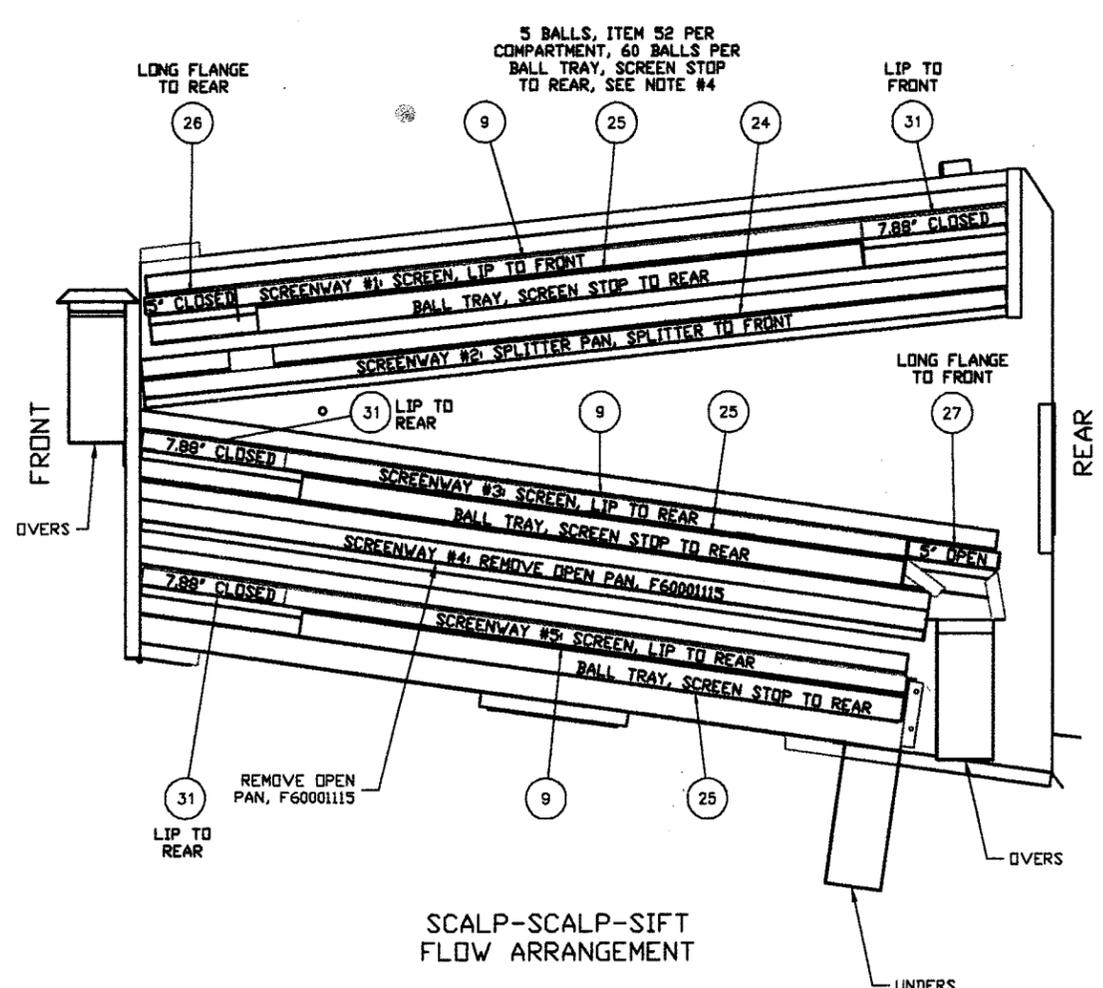
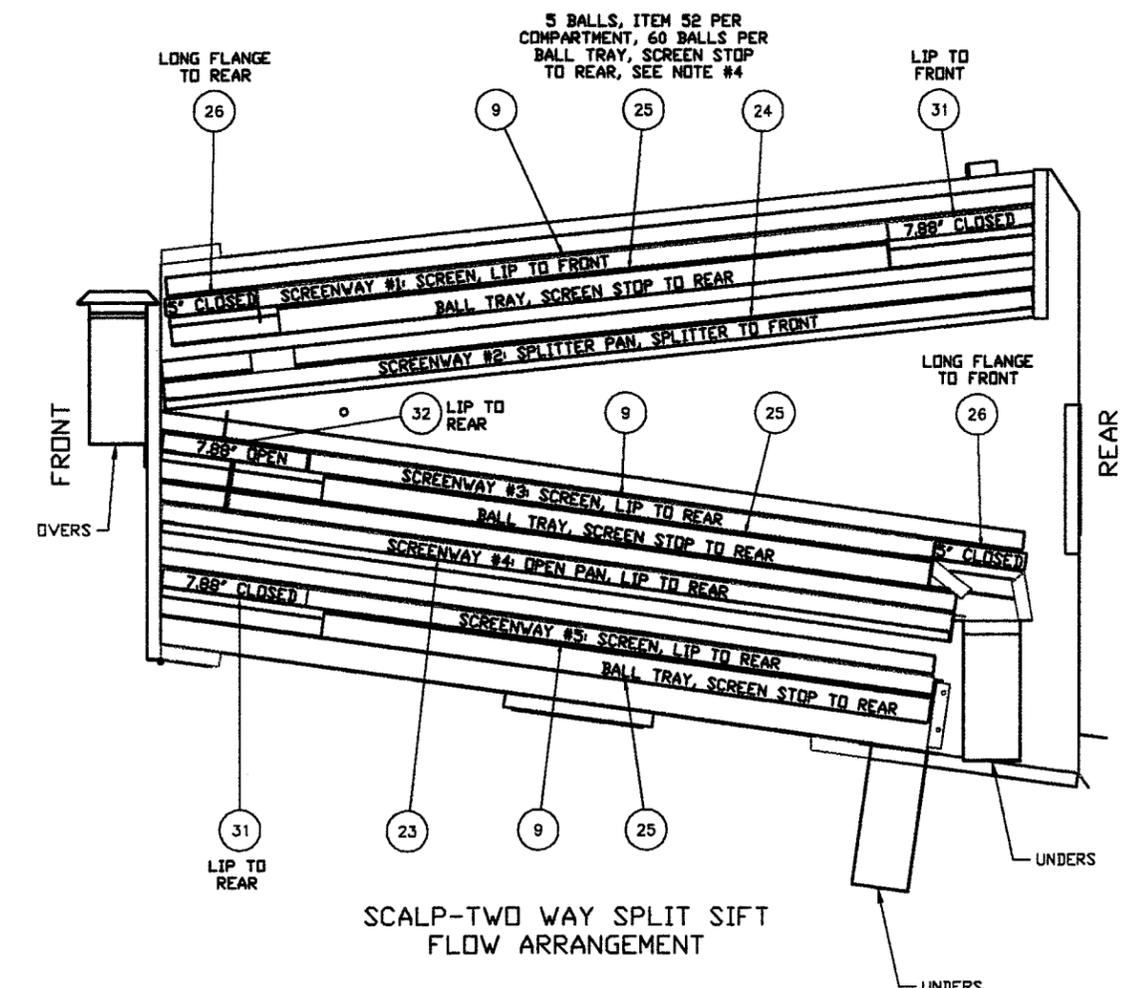
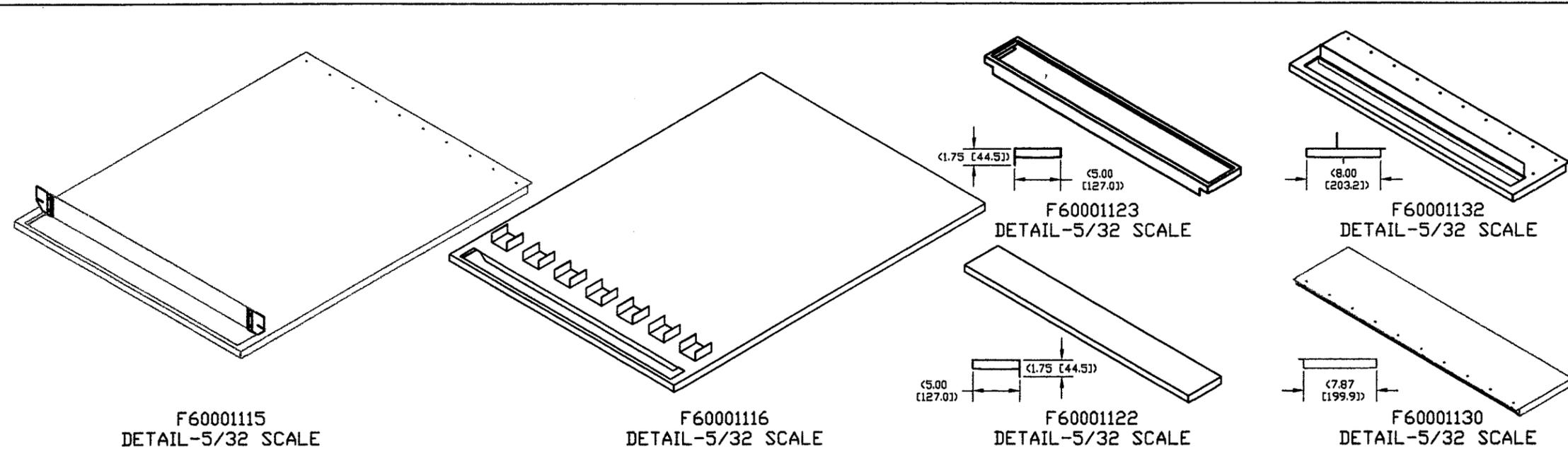
64 UG78300 4 NUT, HEX SERR LOCK 1/4-20
 63 F70010516 4 BOLT, ELEV 1/4-20 X 1.25"
 62 F6001140 1 STOP, SERN DEFL SHOE 334

Item	PART NUMBER	Qty	DESCRIPTION
61	F99300050	2	SNAP-LUDWIG 1A
60	F98600005	2	LATCH, 61230M012B
59	F98600005	2	STRIKE, SCD20850-8XZE
58	F98200008	4	HINGE, 3.00" TEE
57	F97500006	33	BELTING, CANVAS 3.63"
56	F91182004	39	BLTG, 1/16 X 1.50" 2-PLY RUBBER
55	F83453402	340	SCW, SMS #8 X 3/4" PAN PHP HD
54	F83200011	5	RIVET, POP SDS84 .188 X .125-.250"
53	F82011404	20	BOLT, CARR 1/4-20 X 1.25"
52	F80026101	180	BALL, RUBBER 1.38" BLACK
51	F80016013	4	BOLT, ELEV 3/8-16 X 1.75"
50	F82241465	1	DOOR WLDMT, INSP PORT, BTM SHOE, TITAN
49	F81001206	4	SCREENWAY RAIL III, 46.75"
48	F81001206	2	SCREENWAY RAIL III, 41.75"
47	F81001206	2	SCREENWAY RAIL III, 47.00"
46	F81001206	2	SCREENWAY RAIL III, 42.88"
45	F81001205	1	SCREENWAY RAIL II, 43.31" RH 6"
44	F81001205	1	SCREENWAY RAIL II, 47.25" LH 6"
43	F81001205	1	SCREENWAY RAIL II, 47.25" RH 6"
42	F81001205	1	SCREENWAY RAIL II, 43.31" LH 6"
41	F81001204	1	SCREENWAY RAIL I, 47.00" LH 6"
40	F81001204	1	SCREENWAY RAIL I, 42.13" RH 6"
39	F81001204	1	SCREENWAY RAIL I, 47.00" RH 6"
38	F81001204	1	SCREENWAY RAIL I, 47.00" LH 6"
37	F81001204	1	SCREENWAY RAIL I, 47.00" RH 6"
36	F81001204	1	SCREENWAY RAIL I, 42.13" LH 6"
35	F80001138	1	BRKT, SUPPORT II, SPOUT, ECLIPSE 334
34	F80001137	1	BRKT, SUPPORT, SPOUT, ECLIPSE 334
33	F80001135	1	CROSS BD, BTM, DISCH SPOUT, ECLIPSE 334
32	F80001132	1	BLANK ASSY, OPEN 7.88" W/LIP #7
31	F80001130	3	BLANK ASSY, CLOSED 7.88" W/LIP #7
30	F80001129	1	PAN, FEEDER, ECLIPSE 334
29	F80001128	1	BACK MTL, SHOE, ECLIPSE 334
28	F80001124	1	DOOR, SHOE, ECLIPSE 334
27	F80001123	1	BLANK, OPEN, 5.00" ECLIPSE 334
26	F80001122	2	BLANK, CLOSED, 5.00" ECLIPSE 334
25	F80001117	3	BALL TRAY WLDMT, 33 X 34", ECLIPSE 334
24	F80001116	1	BLANK PAN, SPLITTER 50/50, ECLIPSE 334
23	F80001115	1	BLANK PAN ASSY, OPEN, ECLIPSE 334
22	F80001114	3	SPOUT, DISCHARGE, ECLIPSE 334
21	F80001110	2	CROSS BD, DEFLECTOR, ECLIPSE 334
20	F80001109	1	CROSS BD, BTM REAR, ECLIPSE 334
19	F80001108	1	CROSS BD, APRON, ECLIPSE 334
18	F80001107	2	CROSS BD, INTERNAL, ECLIPSE 334
17	F80001106	1	CROSS BD, BTM, ECLIPSE 334
16	F80001105	2	CROSS BD, FRONT, ECLIPSE 334
15	F80001104	1	BTM MTL, REAR, ECLIPSE 334
14	F80001103	1	BTM MTL, SHOE, ECLIPSE 334
13	F80001102	1	SIDE, LH, SHOE, ECLIPSE 334
12	F80001101	1	SIDE, RH, SHOE, ECLIPSE 334
11	F80001013	4	HANGER BRKT, REAR, ECLIPSE
10	F80001012	2	HANGER BRKT, FNT, ECLIPSE
9	F10503902	3	SCRN ASSY, 34X34.08" #7 W/LIP
8	F03805600	1	RUBBER HOLD-DOWN STRIP, 33.00"
7	F03805600	10	RUBBER HOLD-DOWN CAP .75 X 80"
6	70010921	42	SCW, #6 X.75" BUGLE HD DRYWALL
5	88444400	4	WASHER, LOCK 3/8"
4	88443300	20	WASHER, LOCK 1/4"
3	88084400	4	NUT, HEX 3/8-16
2	88083300	20	NUT, HEX 1/4-20
1	85482617	9	SCW, #10 X 1/2" SLOT HX HD T/C

NOTES:
 1: DO NOT SCALE FROM DRAWING.
 2: ONE PIECE REQUIRED PER F80001100; ECLIPSE 334 ASSY.
 3: CUT F03805600: RUBBER HOLD-DOWN CAP, THE SAME LENGTH AS RAIL (F81001204 & 05) BEING COVERED.
 4: CUT F91182004: BLTG, 1/16 X 1.50" 2-PLY, 2.00" LONG THAN THE LENGTH OF RAIL (F81001204 & 05) BEING COVERED, ROLL FRONT EDGE UNDER 2.00".

ATOS0012 816/05 ADDT02-04

CAD NO MANUAL CHANGES
 POLYMER (EXCEPT AS NOTED)
 A DIVISION OF AT FEDERAL CORP
 SINCE 1988
 CLIPPER
 BOSTON, MASS. U.S.A.
 DRAWN BY: DJ
 APPROVED BY: X.X.X.
 SCALE: 3/8
 SHEET: 1 of 3
 DATE: 5/18/01
 DRAWING NO.: F80001100
 SHEET: 1 of 3



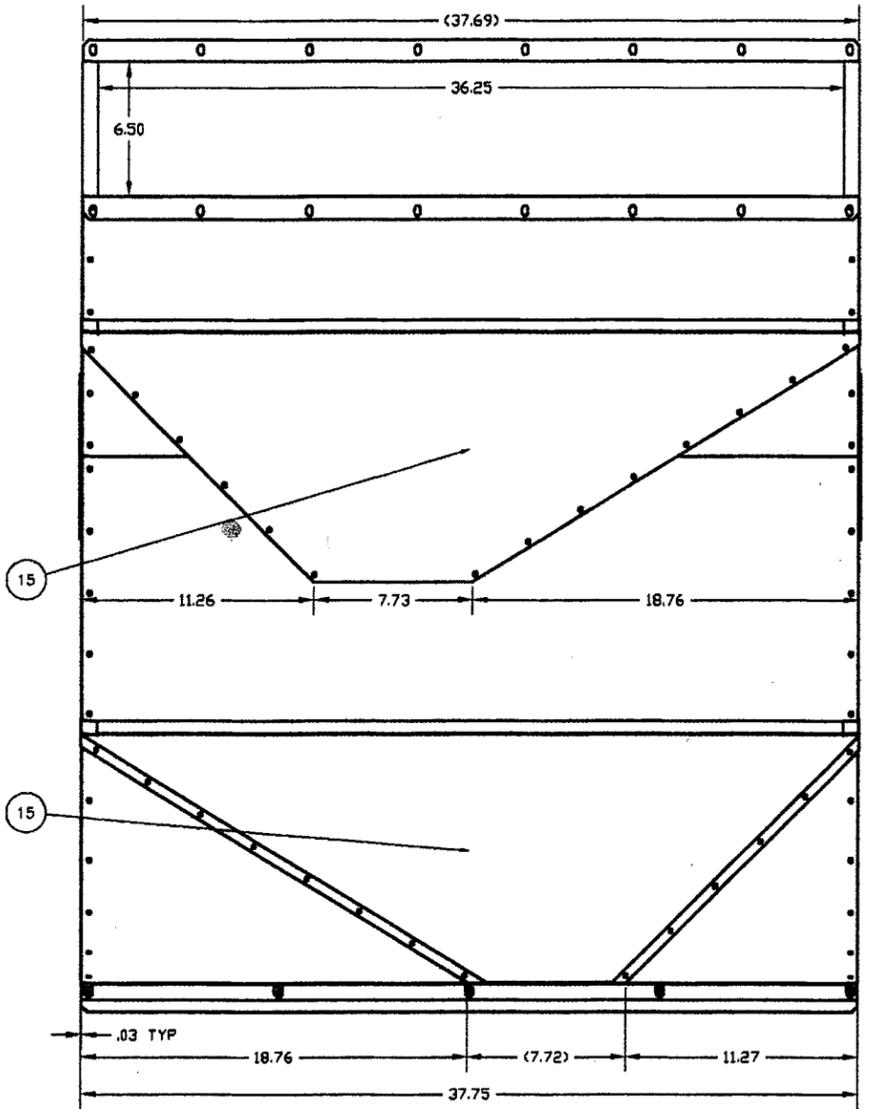
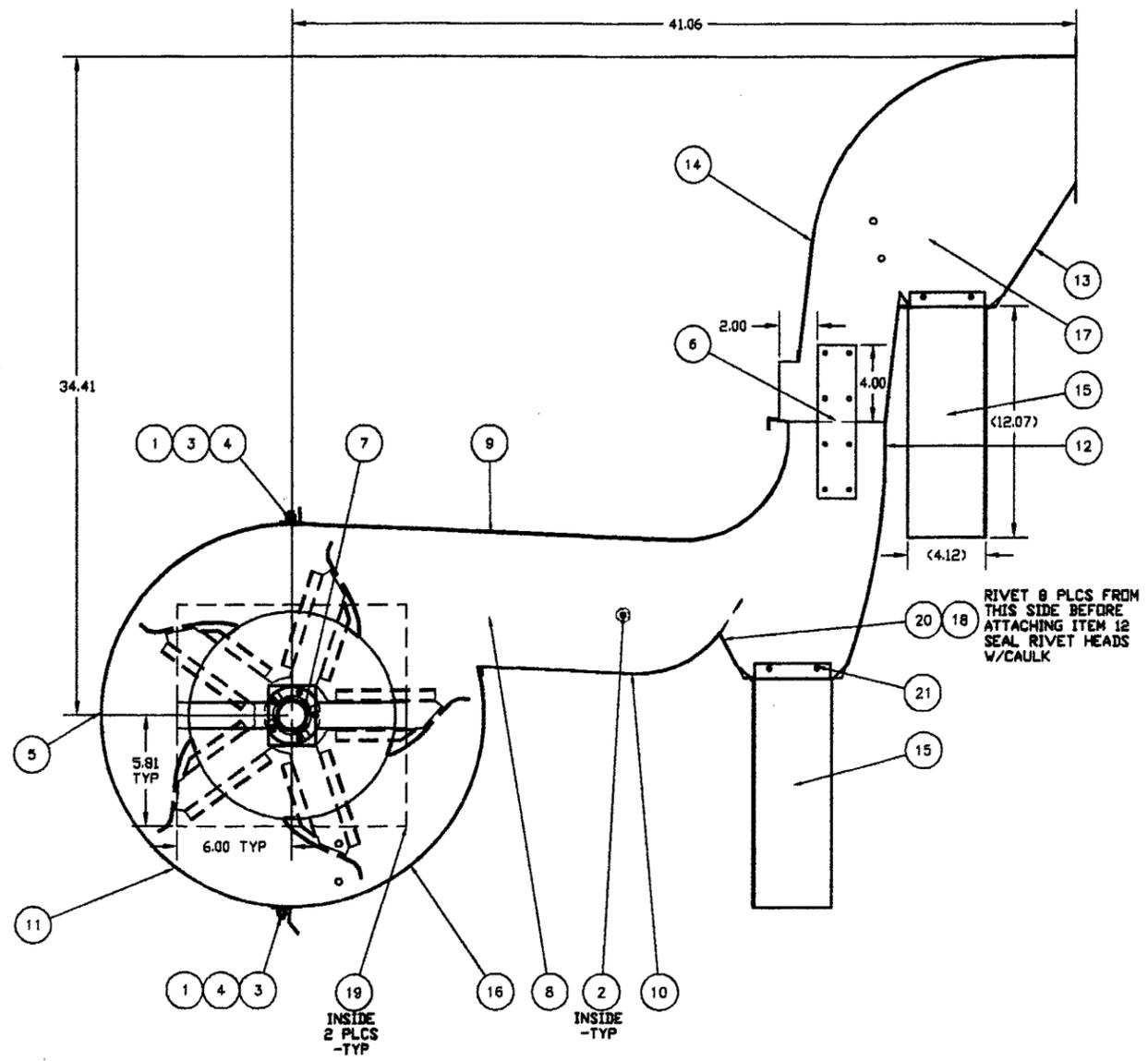
NOTES:
 1: DO NOT SCALE FROM DRAWING.
 2: ONE PIECE REQUIRED PER F60001100: ECLIPSE 334 ASSY.
 3: 5 BALLS (F80026101) PER BALL TRAY COMPARTMENT, 60 BALLS TOTAL PER BALL TRAY.
 4: INSERT BALL TRAYS WITH THE SCREEN STOP TO THE REAR OF THE SHOE, BEFORE INSERTING CORRESPONDING SCREEN ABOVE BALL TRAY.
 5: SEE SALES ORDER FOR SCREEN ARRANGEMENT.
 6: ALTERNATIVE UNITS [X.X] IN MILLIMETERS.

61	F99300050	2	SNAP-LUDWIG 1A
60	F98600005	2	LATCH, 61230M01ZB
59	F98600005	2	STRIKE, SCD20650-9XZE
58	F98200008	4	HINGE, 3.00" TEE
57	F97500006	33	BELTING, CANVAS 3.83"
56	F91152004	39	BLTG, 1/16 X 1.50" 2-PLY RUBBER
55	F83453402	340	SCW, SMS #8 X 3/4" PAN PHP HD
54	F83200011	5	RIVET, POP SDS64 .188 X .125-.250"
53	F82011404	20	BOLT, CARR 1/4-20 X 1.25"
52	F80026101	180	BALL, RUBBER 1.38" BLACK
51	F80018013	4	BOLT, ELEV 3/8-16 X 1.75"
50	F82241485	1	DOOR WLDMT, INSP PORT, BTM SHOE, TITAN
49	F81001206	4	SCREENWAY RAIL III, 46.75"
48	F81001206	2	SCREENWAY RAIL III, 41.75"
47	F81001206	2	SCREENWAY RAIL III, 47.00"
46	F81001206	2	SCREENWAY RAIL III, 42.88"
45	F81001205	1	SCREENWAY RAIL II, 43.31" RH 6"
44	F81001205	1	SCREENWAY RAIL II, 47.25" LH 6"
43	F81001205	1	SCREENWAY RAIL II, 47.25" RH 6"
42	F81001205	1	SCREENWAY RAIL II, 43.31" LH 6"
41	F81001204	1	SCREENWAY RAIL I, 47.00" LH 6"
40	F81001204	1	SCREENWAY RAIL I, 42.13" RH 6"
39	F81001204	1	SCREENWAY RAIL I, 47.00" RH 6"
38	F81001204	1	SCREENWAY RAIL I, 47.00" LH 6"
37	F81001204	1	SCREENWAY RAIL I, 47.00" RH 6"
36	F81001204	1	SCREENWAY RAIL I, 42.13" LH 6"
35	F60001138	1	BRKT, SUPPORT II, SPOUT, ECLIPSE 334
34	F60001137	1	BRKT, SUPPORT, SPOUT, ECLIPSE 334
33	F60001135	1	CROSS BD, BTM, DISCH SPOUT, ECLIPSE 334
32	F60001132	1	BLANK ASSY, OPEN 7.88" W/LIP #7
31	F60001130	3	BLANK ASSY, CLOSED 7.88" W/LIP #7
30	F60001129	1	PAN, FEEDER, ECLIPSE 334
29	F60001128	1	BACK MTL, SHOE, ECLIPSE 334
28	F60001124	1	DOOR, SHOE, ECLIPSE 334
27	F60001123	1	BLANK, OPEN, 5.00" ECLIPSE 334
26	F60001122	2	BLANK, CLOSED, 5.00" ECLIPSE 334
25	F60001117	3	BALL TRAY WLDMT, 33 X 34", ECLIPSE 334
24	F60001116	1	BLANK PAN, SPLITTER 50/50, ECLIPSE 334
23	F60001115	1	BLANK PAN ASSY, OPEN, ECLIPSE 334
22	F60001114	3	SPOUT, DISCHARGE, ECLIPSE 334
21	F60001110	2	CROSS BD, DEFLECTOR, ECLIPSE 334
20	F60001109	1	CROSS BD, BTM REAR, ECLIPSE 334
19	F60001108	1	CROSS BD, APRON, ECLIPSE 334
18	F60001107	2	CROSS BD, INTERNAL, ECLIPSE 334
17	F60001106	1	CROSS BD, BTM, ECLIPSE 334
16	F60001105	2	CROSS BD, FRONT, ECLIPSE 334
15	F60001104	1	BTM MTL, REAR, ECLIPSE 334
14	F60001103	1	BTM MTL, SHOE, ECLIPSE 334
13	F60001102	1	SIDE, LH, SHOE, ECLIPSE 334
12	F60001101	1	SIDE, RH, SHOE, ECLIPSE 334
11	F60001013	4	HANGER BRKT, REAR, ECLIPSE 334
10	F60001012	2	HANGER BRKT, FNT, ECLIPSE 334
9	F10503902	3	SCRN ASSY, 34X34.06" #7 W/LIP
8	F03805600	1	RUBBER HOLD-DOWN STRIP, 33.00"
7	F03805600	10	RUBBER HOLD-DOWN CAP .75 X 80"
6	70010521	42	SCW, #8 X.75" BUGLE HD DRYWALL
5	66444400	4	WASHER, LOCK 3/8"
4	66443300	20	WASHER, LOCK 1/4"
3	66084400	4	NUT, HEX 3/8-16
2	66083300	20	NUT, HEX 1/4-20
1	65482617	9	SCW, #10 X 1/2" SLOT HX HD T/C

CAD NO MANUAL CHANGES
 TOLERANCES (EXCEPT AS NOTED)
 DECIMAL: NONE
 FRACTIONAL: 1/32
 ANGULAR: 1/2°

SCALE: 7/32
 DRAWN BY: DJ
 APPROVED BY: S.X.X.X.

DRAWING TITLE: SHOE ASSY, FLOW ARRANGEMENTS, ECLIPSE 334
 DATE: 7/15/03
 SIZE: D
 SHEET: 3 of 3



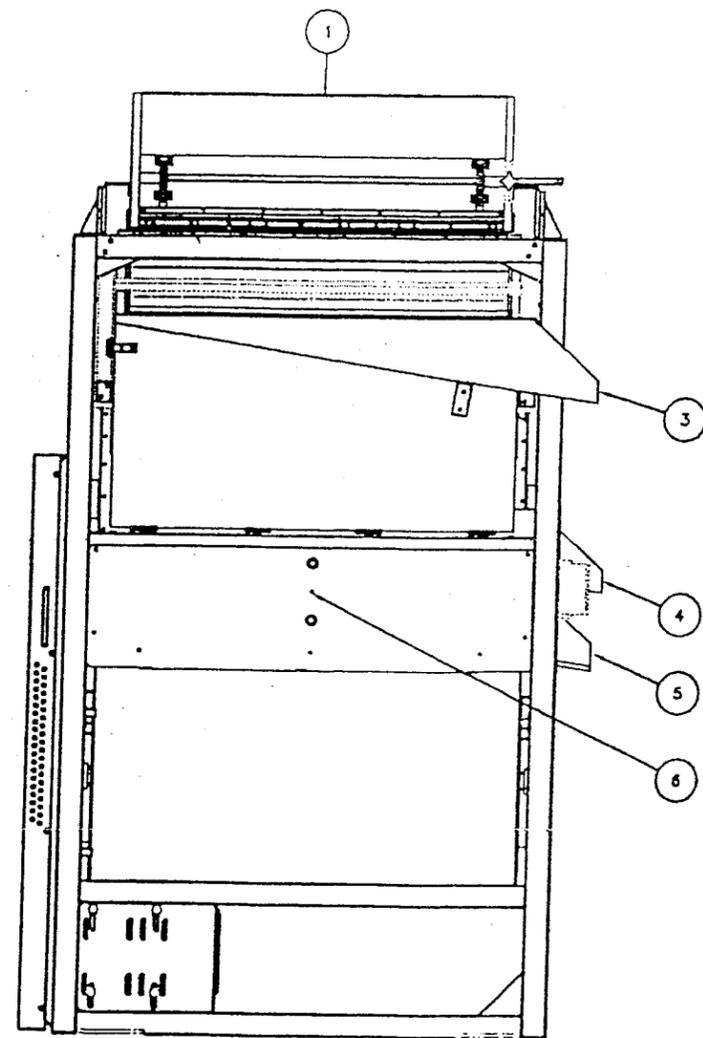
NOTES:
 1: DO NOT SCALE FROM DRAWING.
 2: ONE PIECE REQUIRED PER F60000100; CLEANER ASSY, ECLIPSE 334.

21	F83453402	134	SMS, #8 X 3/4" PAN HD
20	F83200011	8	RIVET-POP SDS64 .188X.125-.250
19	F81003099	4	GUARD, INLET, BTM FAN CNOST
18	F80002118	1	DEFLECTOR, AIR, FAN HSG, ECLIPSE 334
17	F80002117	2	SIDE, HOOD, ECLIPSE 334
16	F80002115	1	WRAPPER, LWR, FAN SCROLL, ECLIPSE 334
15	F80002113	2	CATCHALL ASSY, ECLIPSE 334
14	F80002112	1	WRAPPER, UPPER, FAN HOOD, ECLIPSE 334
13	F80002111	1	WRAPPER, LOWER, FAN HOOD, ECLIPSE 334
12	F80002110	1	WRAPPER, REAR, FAN TRANS, ECLIPSE 334
11	F80002109	1	HATCH, FAN HOUSING, ECLIPSE 334
10	F80002108	1	WRAPPER, LOWER, FAN TRANS, ECLIPSE 334
9	F80002107	1	WRAPPER, UPR, FAN SCROLL, ECLIPSE 334
8	F80002105	2	SIDE, FAN HOUSING, ECLIPSE 334
7	F80002101	1	FAN WHEEL ASSY, ECLIPSE 334
6	F07303500	2	STRAP IRON, SETTLING CHAMBER, 8X8"
5	80014007	12	TAPE, 3/8 X 1/2" POLYURETHANE
4	86443300	10	WASHER, LOCK 1/4" PLT
3	86403300	10	WASHER, FLAT 1/4"
2	86383300	2	T-NUT, 1/4-20 PLT
1	86083300	10	HEX NUT, 1/4-20
Item	PART NUMBER	Qty	DESCRIPTION

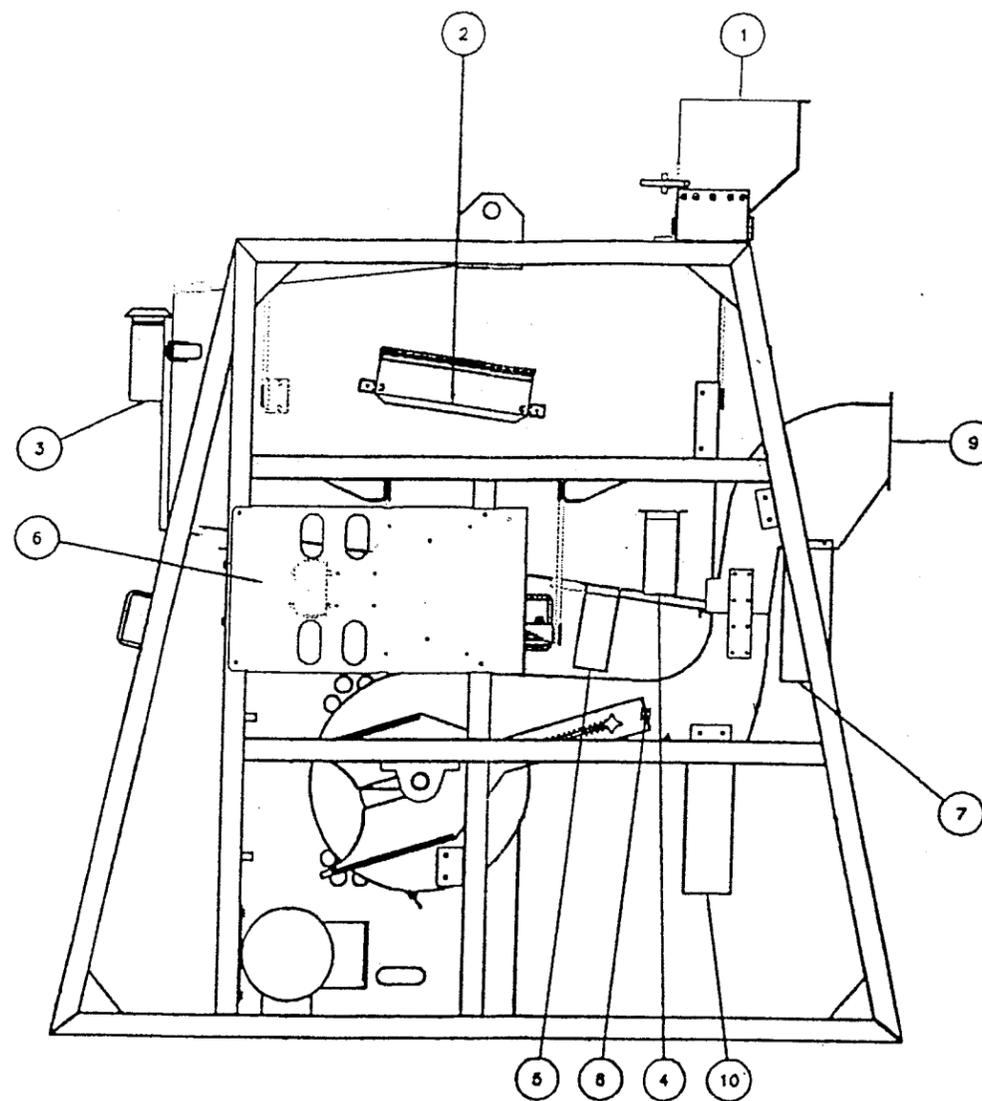
CAD
 NO MANUAL CHANGES
 TOLERANCES (UNLESS NOTED)
 DECIMALS: FRACTIONS: NONE
 ANGULAR: 1/2

APPROVED BY: X.X.X.
 DRAWN BY: DJ
 SCALE: 1/4
 DATE: 5/18/01
 SHEET: 1 of 1

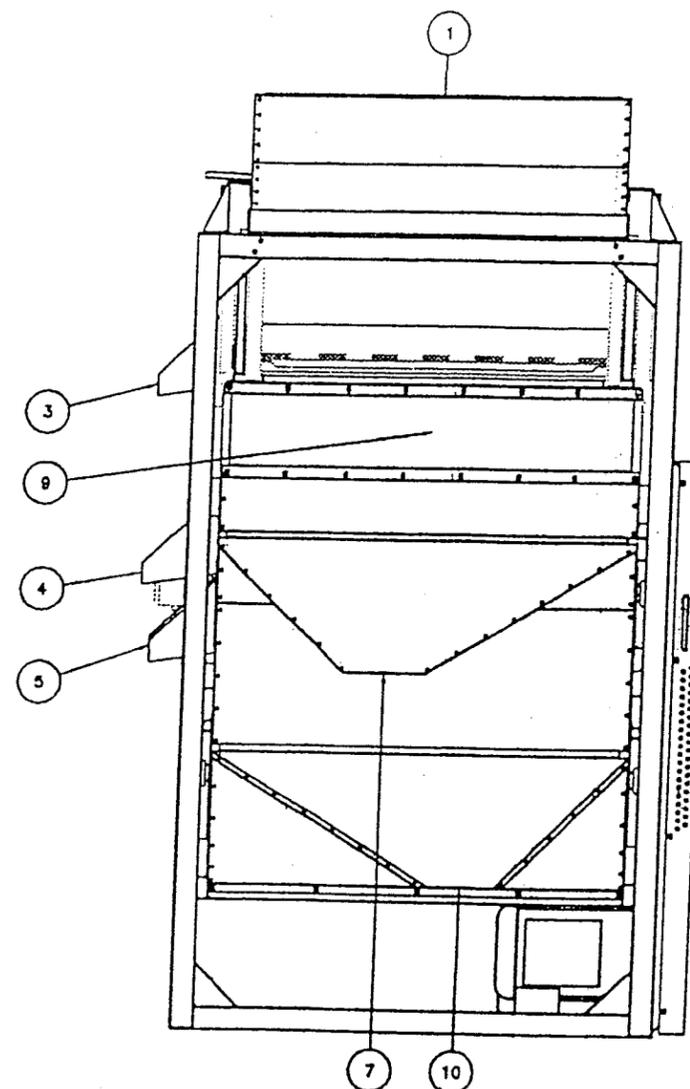
FAN HOUSING ASSY, ECLIPSE 334
 F60002100



FRONT VIEW



RIGHT SIDE VIEW



REAR VIEW

NOTES:
 1: DO NOT SCALE FROM DRAWING.
 2: SHIPPING WEIGHT: 1674 LBS (850 kg) WITH SHIPPING SKID.
 3: PAN AIR = 2050 CFM (83.3 cuM).
 4: .50" (12.70 mm) SHOCK TOTAL THICK.

CAD			
NO MANUAL CHANGES	<ul style="list-style-type: none"> • 3000000000 • 3000000000 • 3000000000 • 3000000000 • 3000000000 	1. MEMBER OF A.T. BONDING COMPANY 2. MADE IN U.S.A.	
TOLERANCES UNLESS OTHERWISE SPECIFIED	FROM: NONE DRAWN: 6/2/01 CHECKED: 6/2/01 APPROVED: 6/2/01	SCALE: 1/8 DRAWN BY: DJ CHECKED BY: X.X.X.	APPROVED BY: X.X.X.
OPERATION REFERENCE, ECLIPSE 334			
PROGRAM: 4 VY	DATE: 5/30/01	DESIGN: D	DRAWING NO.: F60000100-OR SHEET: 1 of 1