

SERVICE MANUAL
AND
PARTS CATALOG
FOR YOUR
SUPER 49BD



Grain, Seed and Bean Cleaners

1440 SOUTH ADAMS STREET BLUFFTON, INDIANA 46714 (800) 248-8318
Updated 5-13-2021

www.atferrell.com

SUPER 49BD CLEANER PARTS SET UP WITH BRUSH SCREEN CLEANING

Top Fan Section

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
All	26	Not Available	1	Air Trunk Assembly Complete (Includes Below)
5	3	F01600700	1	Fan Shaft 1-15/16" X 64-1/4"
10	3	F92401150	2	1-15/16" Pillow Block Bearing
18	3	F05502300	2	6" Wide Hide Static Fan Assembly
215	26	F05501201	1	Right Side Top Fan Housing Assembly (Includes 2 Sides & Metal)
215	26	F05501204	1	Left Side Top Fan Housing Assembly(Includes 2 Sides & Metal)
15	1	F05003900	2	Top Fan Bleeder Inlet Slide Assembly
12	1	F04303132	1	Adjusting Handle & Rod 32" Long (Includes Handle With Knob)
12	1	F04303118	1	Adjusting Handle & Rod 18" Long (Includes Handle With Knob)
**	1	F04001600	1	Hand Crank Handle with wood Knob
4	1	F05313000	2	Adjusting handle shaft Bearing
	1	F01013500	2	Valve Control Assy Complete See attached picture

**Note: Front of the Machine is Where the Screens are Inserted Into the Machine.
Discharge Spouts are Determined by Standing at the Front and Facing the Machine.
Right Hand Discharge Spouts Would Discharge Towards Your Right Hand.**

TOP AIR DISCHARGE VALVE ASSEMBLY

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
21	ALL	F04500000	1	Complete Valve (9 wide)(Shaft not Included)
20	4	F01618000	1	Top Valve Shaft 1" x 48"
22	4	F04800010	1	Hinged Gate Weldment (9 wide)
**		F04600510	1	Gate Board
**		F92700004	2	Gate Springs
23	4	F04501401	1	#9 Discharge Roll Assemblby with Flanges (Around 30" Long) Measure Roll Length
25	4	40000038	4	1" Bore Flangette Stampings
186	4	F92460200	2	1" Bearing

NOTE: ASSEMBLY DOES NOT INCLUDE DRIVE SHEAVES OR SHAFT

****Refers to the previous listing number. May give parts within that assembly, right side-left side numbers, or numbers for parts that are specific to RH or LH machines.**

BRUSH SCREEN CLEANING SYSTEM

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
39	7	F01003001	3	Brush Adjusters-Control Side / Left Hand Side(Includes Parts Below)
	7	F01106101	1	Brush Idler Plate Left Hand
42	7	F01105400	1	Adjustments Handle with Spring
42	7	F82080060	1	Shoulder Bolt for Brush Adjuster
38	7	F01004902	3	Brush Adjusters - Idler Side / Right Hand Side(Includes Parts Below)
	7	F01106104	1	Brush Adjusting Plate Right Hand
43	7	F01106300	1	Idler Arm Support
43	7	F82080060	1	Shoulder Bolt for Brush Adjuster
39	7	F01003002	3	Brush Adjusters-Control Side / Right Hand Side(Includes Parts Below)
**	7	F01106003	1	Brush Idler Plate Right Hand
42	7	F01105400	1	Adjustments Handle with Spring
42	7	F82080060	1	Shoulder Bolt for Brush Adjuster
38	7	F01004901	3	Brush Adjusters - Idler Side / Left Hand Side (Includes Parts Below)
		F01106001	1	Brush Adjusting Plate Left Hand
43	7	F01106300	1	Idler Arm Support
43	7	F82080060	1	Shoulder Bolt for Brush Adjuster
		F01000200	12	Rope Sheave Assembly Complete See attached picture
		F09500200	12	Brush Carrier Assembly 18" x 46" See attached picture 10
		F01612101	3	Brush Carrier Shafts 1-3/16" x 52"
		F97700063	50	Wirelon Plastic Coated Steel Cable (In Feet)

BOTTOM FAN ASSEMBLY

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
		F01612410	1	Fan Shaft 1-1/2" X 62-1/2" (Includes Keys) See attached picture 11 & 12
		Not Available	2	6715 Halfmoon Bridgetree Housing with Bearing
		F92400022	2	Bearing <u>Insert Only</u> for Above
		Note: If housing is bad Items below must be substituted		
		F92401080	2	1-1/2" Pillow Block Bearing
		F02707300	2	Bridgetree Mounting Angle for Bearing
201	25	F06302020	1	Bottom Drum Iron 42-5/8" x 80"
203	25	F06302120	1	Discharge Chute 4"
204	25	F06304303	1	Breast Iron 42-5/8" x 26-1/2"

ECCENTRIC SHAFT ASSEMBLY

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
		F01623500	1	Eccentric Shaft 1-1/2" X 66-1/2" (Includes Keys) See attached pictures 15 & 16
		Not Available	2	6714 Halfmoon Flange Bearing
		F92400022	1	1-1/2" Bearing <u>Insert Only</u> for Below
		F92053126	1	6714 Flange Bearing Conversion Kit
		Not Available	1	7475 1-1/2" Halfmoon Bearing Complete w/Bearing
		F92400026	1	1-1/2" Halfmoon Bearing <u>Insert Only</u> for Above
		F19503600	2	1-1/2" Throw Eccentric Assembly Complete See attached picture 15B

NOTE: A FEW OF THE NEWER MACHINES HAD COUNTERWEIGHTS ADDED TO THE ECCENTRIC SHAFT

F01104600	4	Counterweight Ends
F01804410	2	Counterweight 11"

MAIN SHOE ASSEMBLY

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
		Not Available	1	Bottom Shoe Complete with Rockers (Old Number F030067--)
		F03118601	1	Right Shoe Side
		F03118602	1	Left Shoe Side
		F03120202	1	Pitman Board 3/4" x 7-1/2" x 45-1/8"
		F03101720	2	Wood Sand Spout Track (Cut to Length)
		F03301001	2	Metal Sand Spout Guide
		F08308302	1	Sand Spout Left Hand Machines (Check Measurements)
		F08308301	1	Sand Spout Right Hand Machines (Check Measurements)
		F08302230	1	Second Straw Spout Left Hand Machines (Check Measurements)
		F08302200	1	Second Straw Spout Right Hand Machines (Check Measurements)
		F01200203	4	Rocker adjusting system See attached picture
		F03500200	2	Top Rocker Assembly Complete See attached drawing
		F03500300	1	Bottom Rocker Assembly Complete See attached drawing
		F03016510	2	Front Hanger with Block on Both Sides
		F03102601	2	Shoeside Hanger Support Block
		F03016520	3	Back Shoe Hanger with Block

**Note: Front of the Machine is Where the Screens are Inserted Into the Machine.
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Right Hand Discharge Spouts Would Discharge Towards Your Right Hand.**

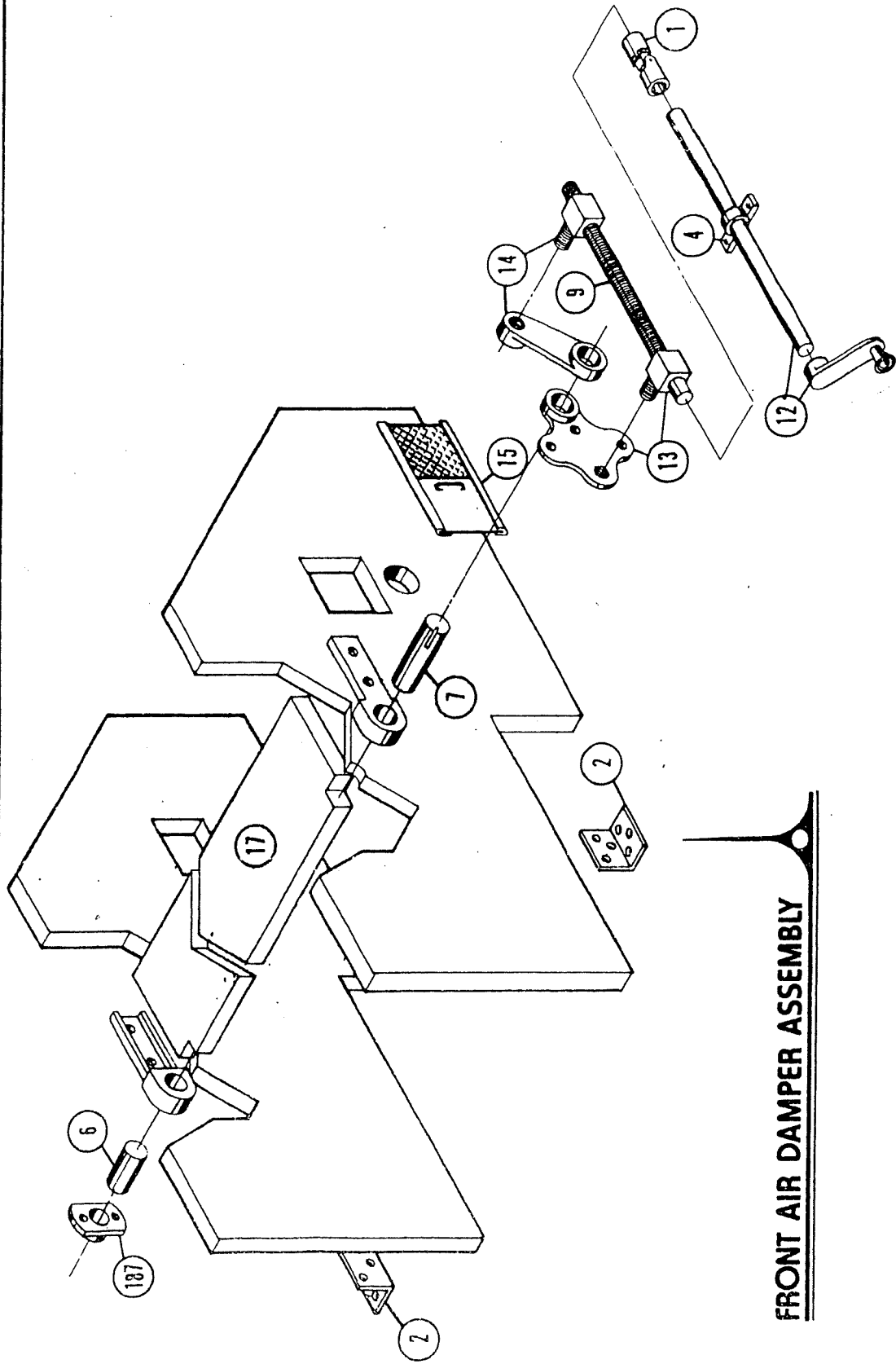
F01002803	1	Single Belt Idler Assembly Complete 5-1/2" See attached drawing
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**The Following Are the Ball Tray Kit Parts That were
Installed on the Super 49BD Cleaners in the Past**

**Old Style Ball Trays with 1" Square Turkey Wire That Came Out
With the Screens. Ball Trays were not attached to the Screens.**

F90005062	3	Ball Tray Weldment for 1 Piece Screens (NEW PUNCHED STYLE)
F80026102	324	White 1-3/8" Balls
		or
F90005063	3	Ball Tray Weldment for 2 Piece Screens (Bottom 26" Section) (NEW PUNCHED STYLE)
F90005069	3	Ball Tray Weldment for 2 Piece Screens (Top 34" Section) (NEW PUNCHED STYLE)
F80026102	324	White 1-3/8" Balls (54 Per Tray)
F11301707	6	Ball Tray Support Rail 24"
F11301708	6	Ball Tray Support Rail 31"

BLUE PRINT NUMBER 100-15-1017



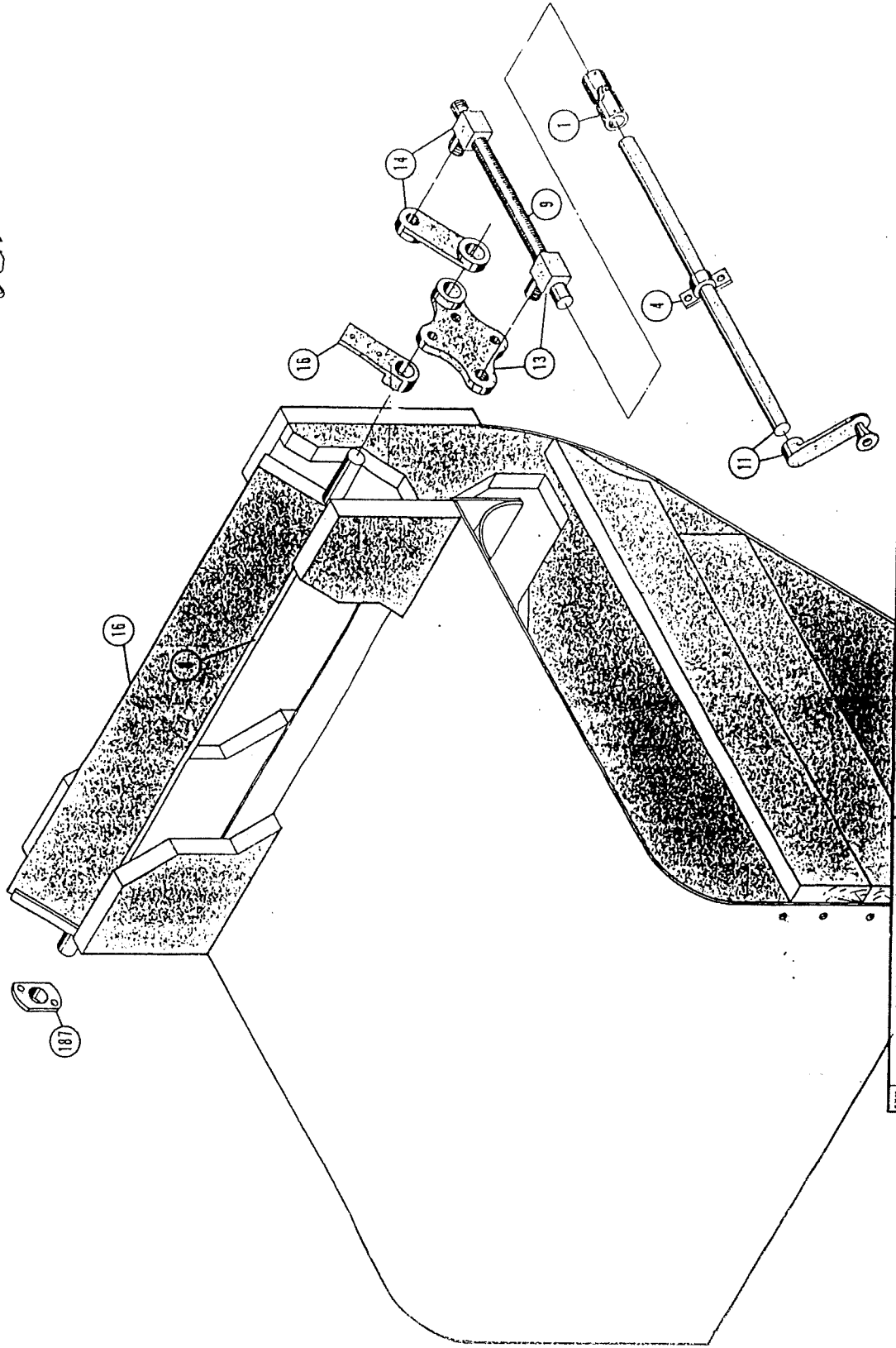
FRONT AIR DAMPER ASSEMBLY

FERRELL - ROSS
SAGINAW, MICH.
MACH. NO.
DWG. NO.

front air damper assembly

SYM.	REVISION	DATE	BY	DATE	SCALE	DATE

BACK AIR DAMPER : TOP FAN SECTION

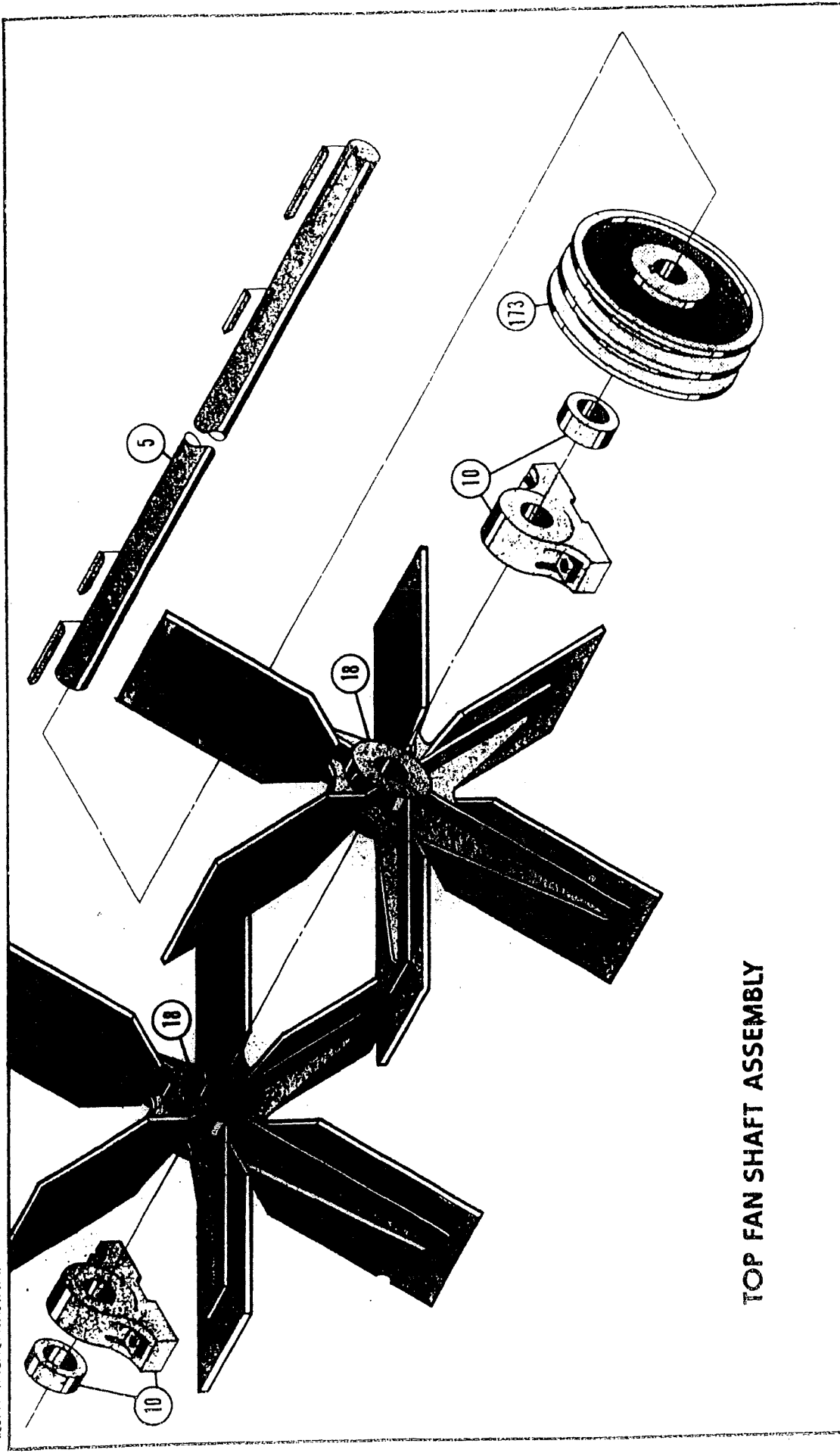


FERRELL - ROSS
SAGINAW, MICH.
DWG. NO.

back air damper

REV.	REVISION	DATE	SCALE	DATE

BLUP PRINT SUPPLY NO. 152-818174



TOP FAN SHAFT ASSEMBLY

REV	REVISION	DATE	DR	DATE	DR	DATE	DR

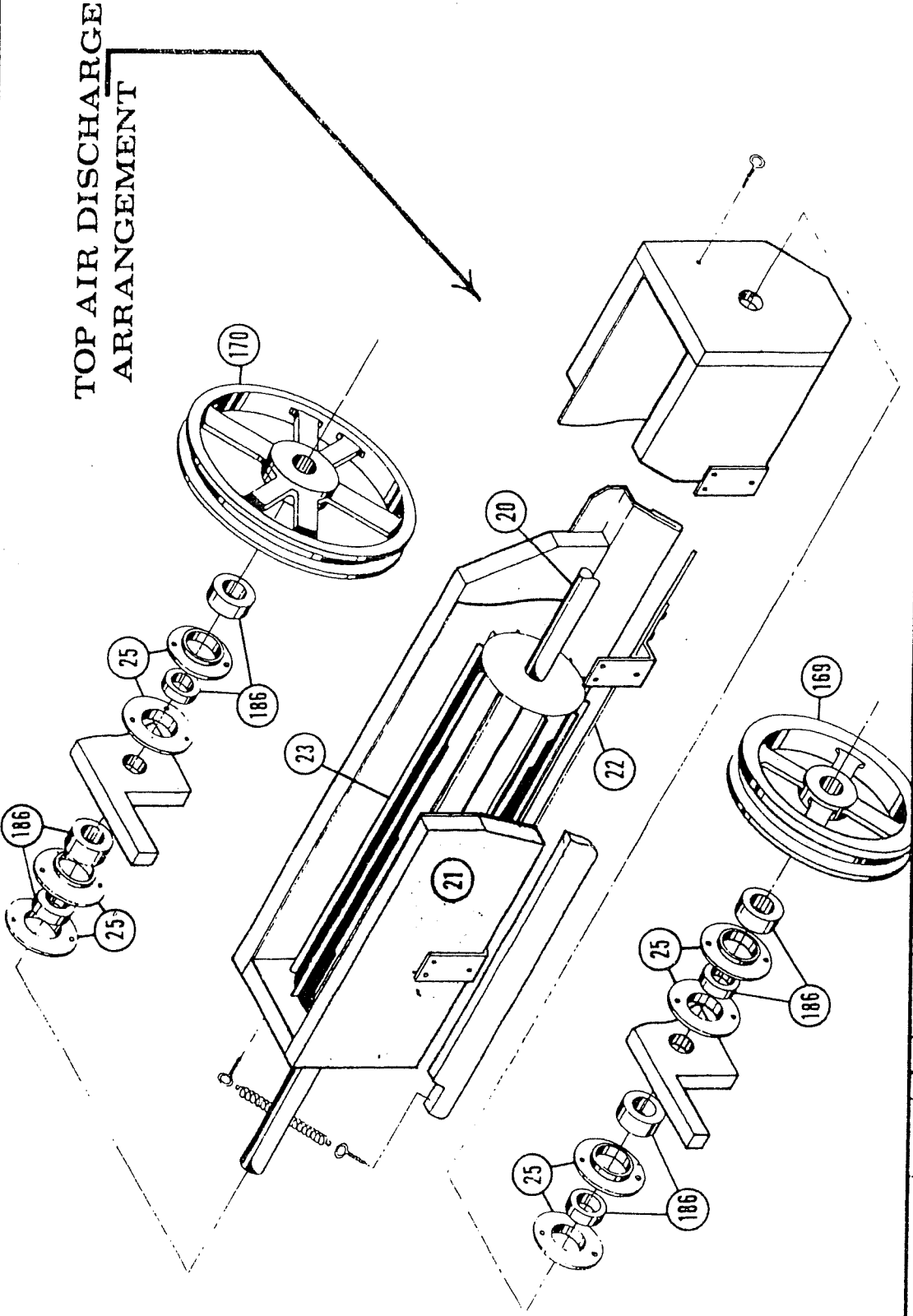
top fan shaft assembly

DWN. BY JDB SCALE 12-28-77 DATE

FERRELL - ROSS
SAGINAW, MICH.

DWG. NO.

MACH. NO.



TOP AIR DISCHARGE
ARRANGEMENT

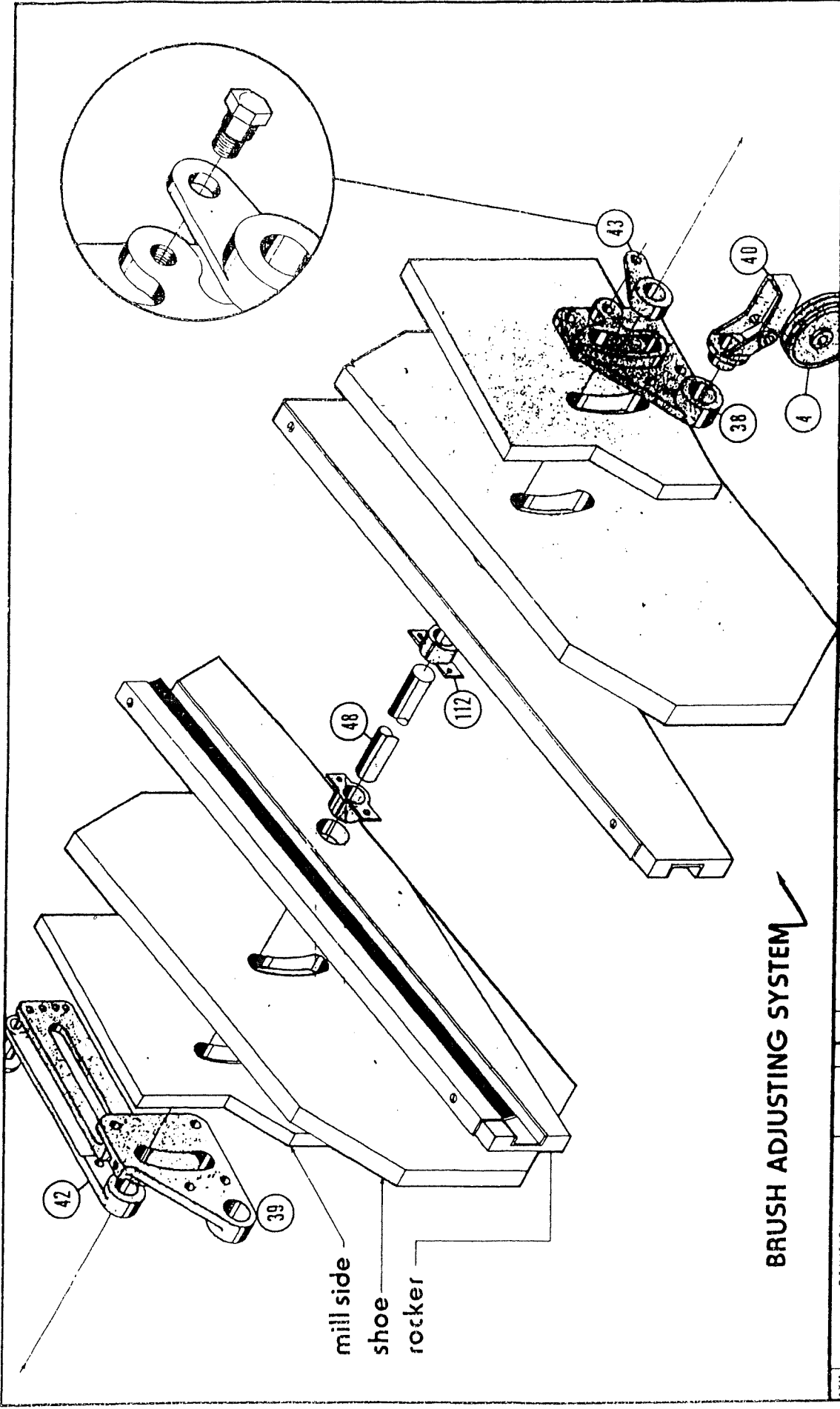
FERRELL - ROSS
SAGINAW, MICH.
MACH NO.
DWG NO.

- top air discharge arrangement

DATE 12-30-77
DRAWN BY J.D.B. SCALE

SYM	REVISION	DATE	DR

BLISS PRINT SUPPLY AND DISTRIBUTION

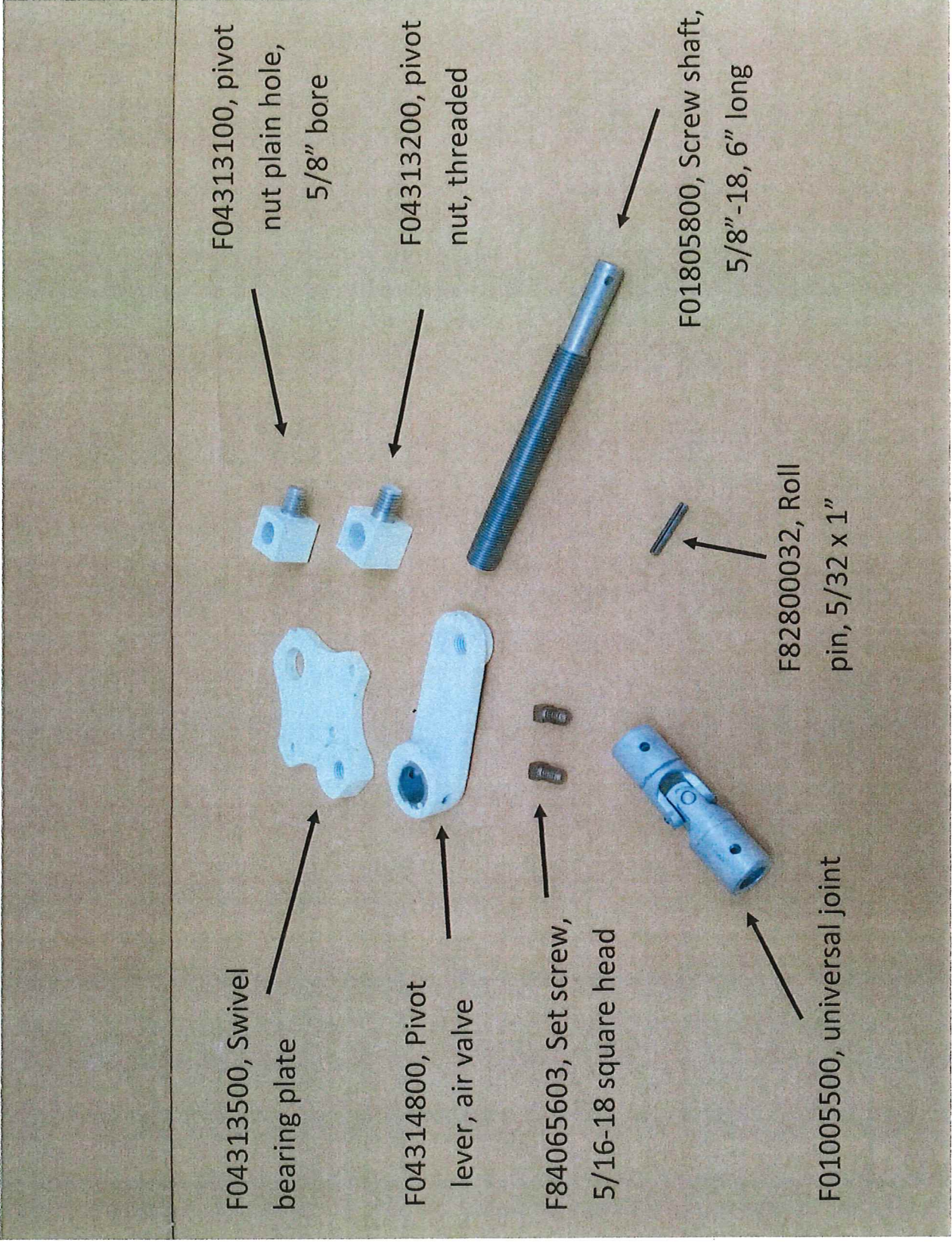


BRUSH ADJUSTING SYSTEM

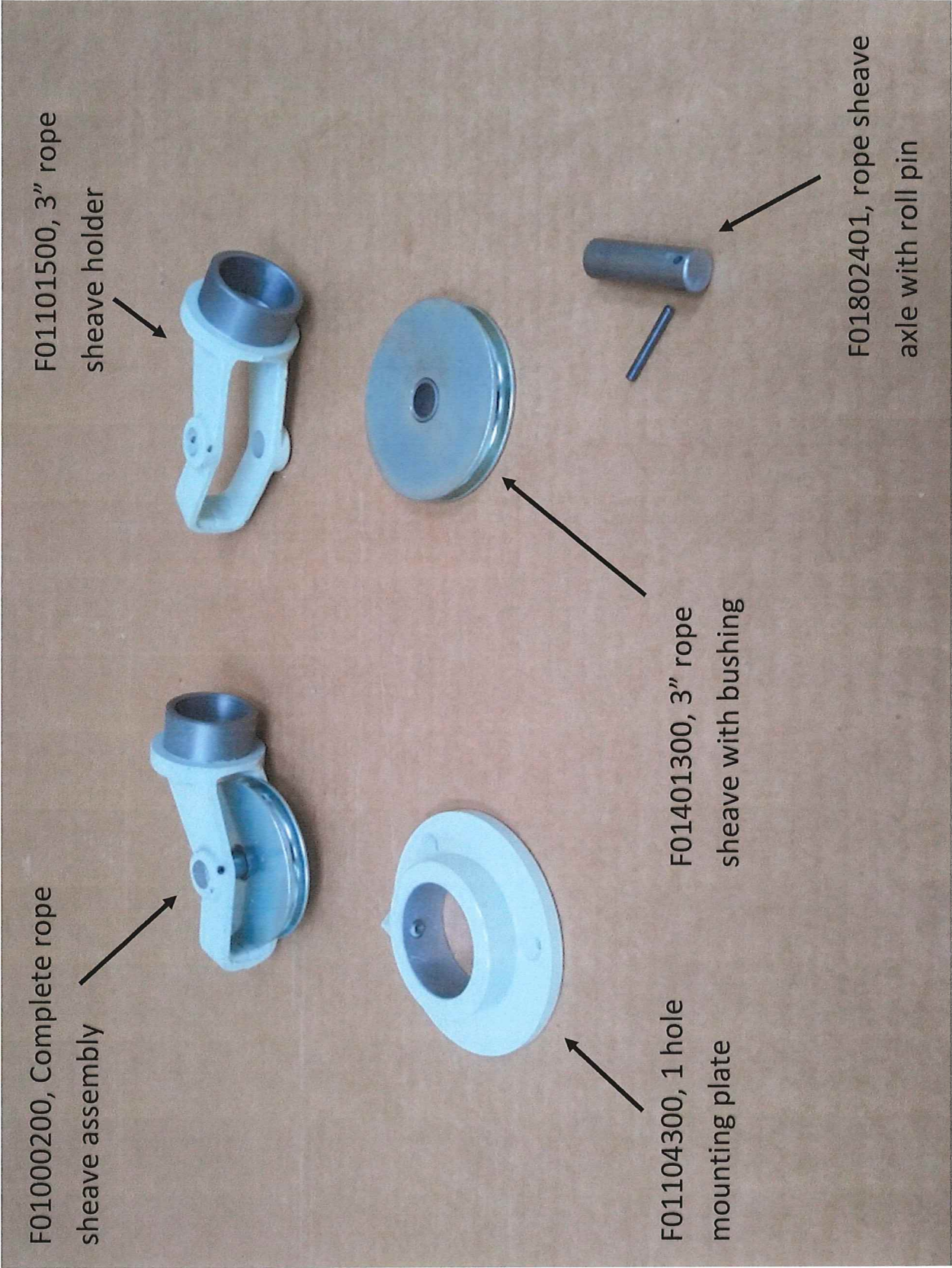
SYN	REVISION	DATE	DR.	DWG. BY	SCALE	DATE	DWG. NO.	MACH. NO.

FERRELL - ROSS
SAGINAW, MICH.

brush adjusting system



F01013500, Gate valve adjusting assembly, ALL



F01000200, Complete rope sheave assembly

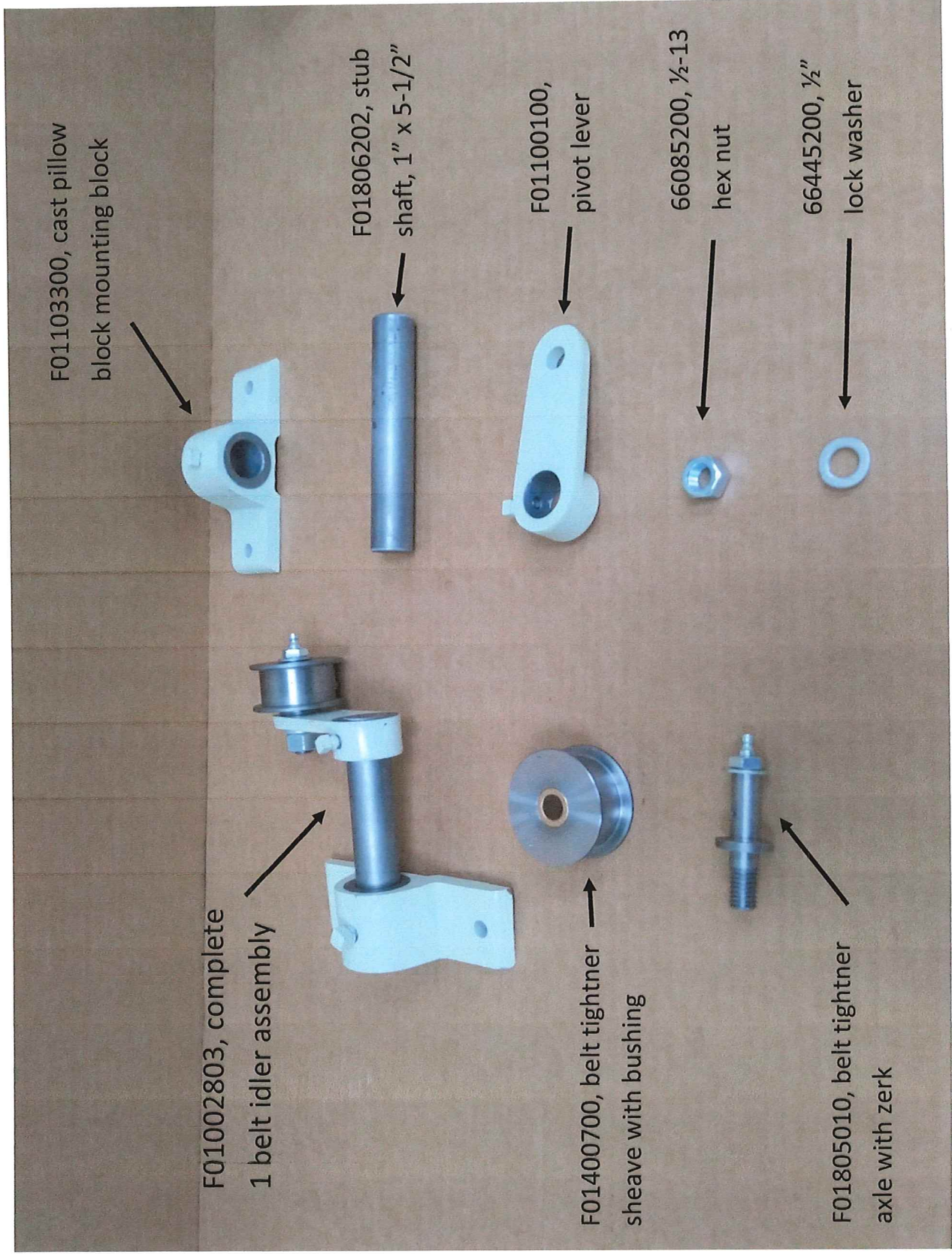
F01101500, 3" rope sheave holder

F01104300, 1 hole mounting plate

F01401300, 3" rope sheave with bushing

F01802401, rope sheave axle with roll pin

3" Rope sheave assembly



F01103300, cast pillow block mounting block

F01806202, stub shaft, 1" x 5-1/2"

F01100100, pivot lever

66085200, 1/2-13 hex nut

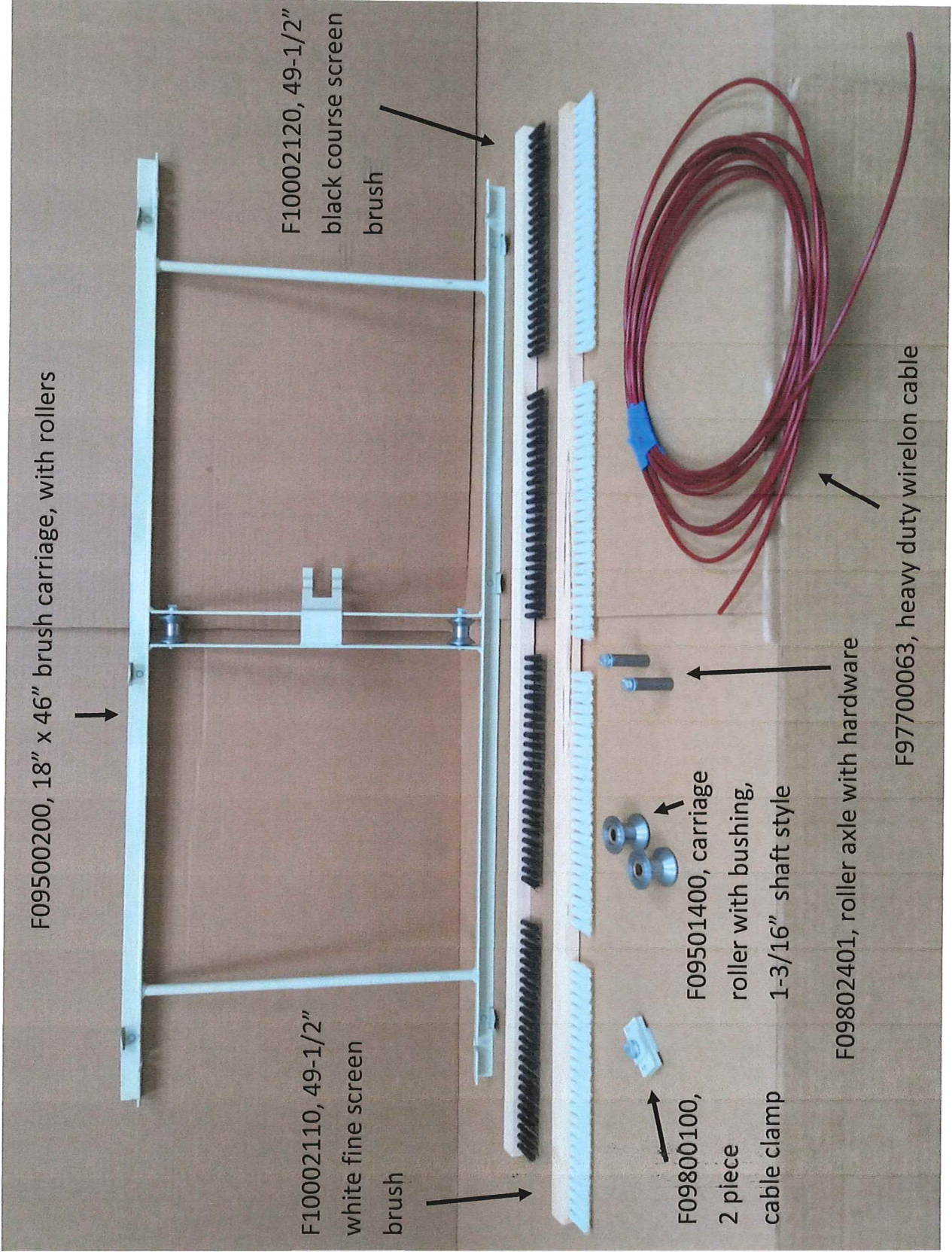
66445200, 1/2" lock washer

F01002803, complete 1 belt idler assembly

F01400700, belt tightener sheave with bushing

F01805010, belt tightener axle with zerck

Belt tightener assembly



F09500200, 18" x 46" brush carriage, with rollers

F10002120, 49-1/2" black course screen brush

F10002110, 49-1/2" white fine screen brush

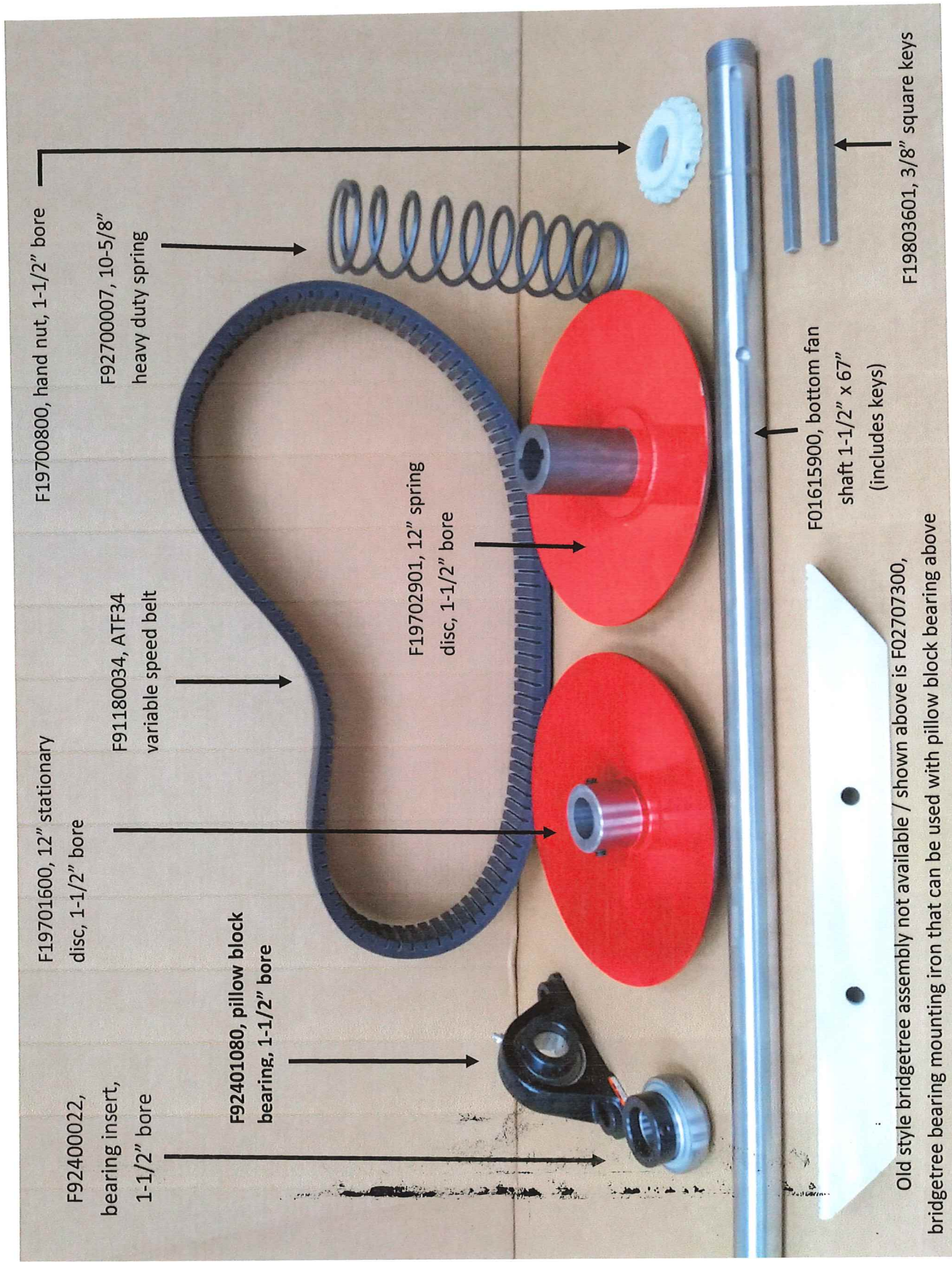
F09501400, carriage roller with bushing, 1-3/16" shaft style

F09800100, 2 piece cable clamp

F09802401, roller axle with hardware

F97700063, heavy duty wirelon cable

Brush carriage, with accessories, page 10



F19700800, hand nut, 1-1/2" bore

F92700007, 10-5/8" heavy duty spring

F19701600, 12" stationary disc, 1-1/2" bore

F91180034, ATF34 variable speed belt

F19702901, 12" spring disc, 1-1/2" bore

F92400022, bearing insert, 1-1/2" bore

F92401080, pillow block bearing, 1-1/2" bore

F01615900, bottom fan shaft 1-1/2" x 67" (includes keys)

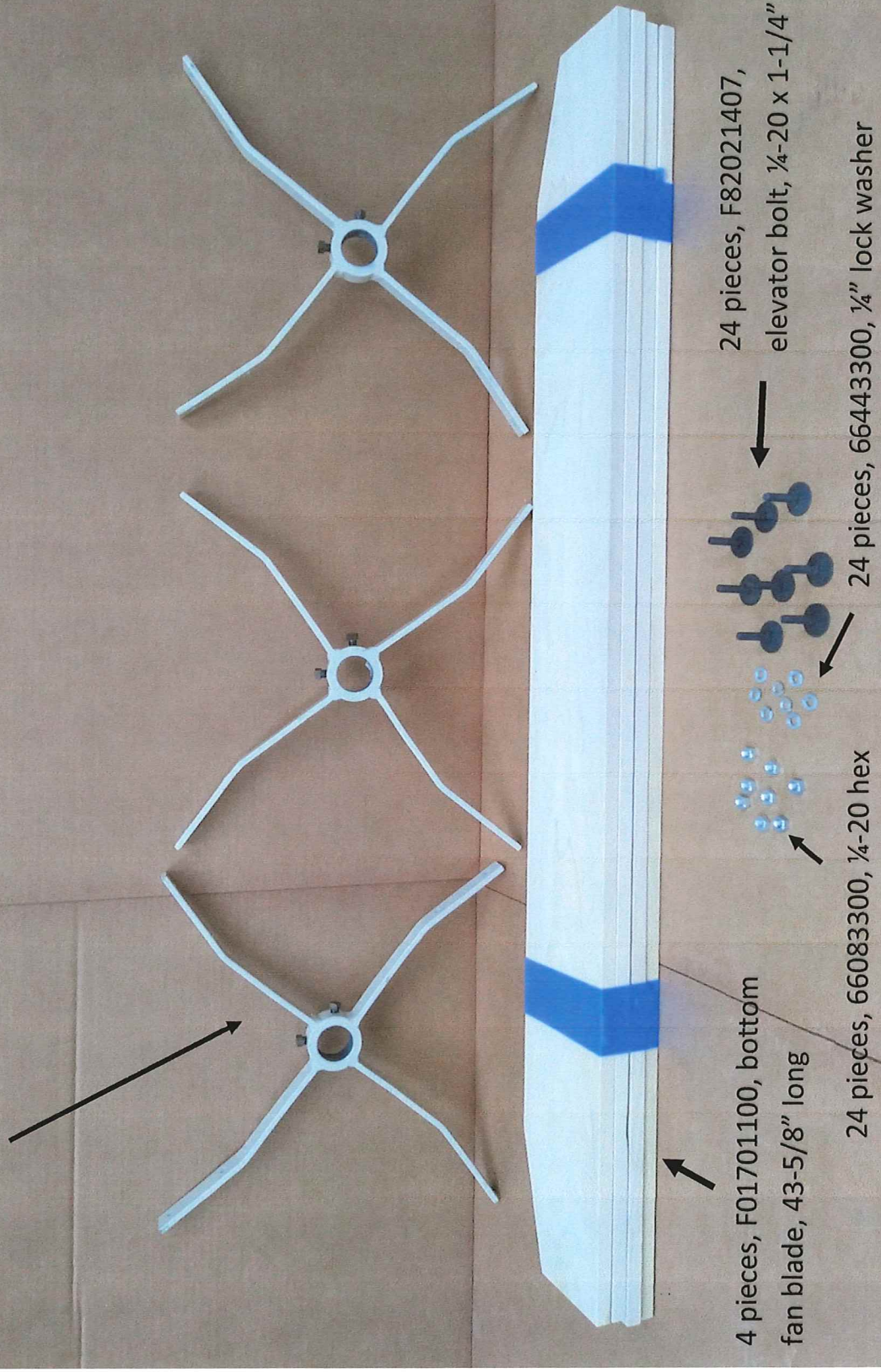
F19803601, 3/8" square keys

Old style bridgetree assembly not available / shown above is F02707300, bridgetree bearing mounting iron that can be used with pillow block bearing above

Bottom fan shaft assembly, page 11

3 pieces, F06001000, bottom fan spider, 1-1/2" bore

F06002681, complete bottom fan assembly



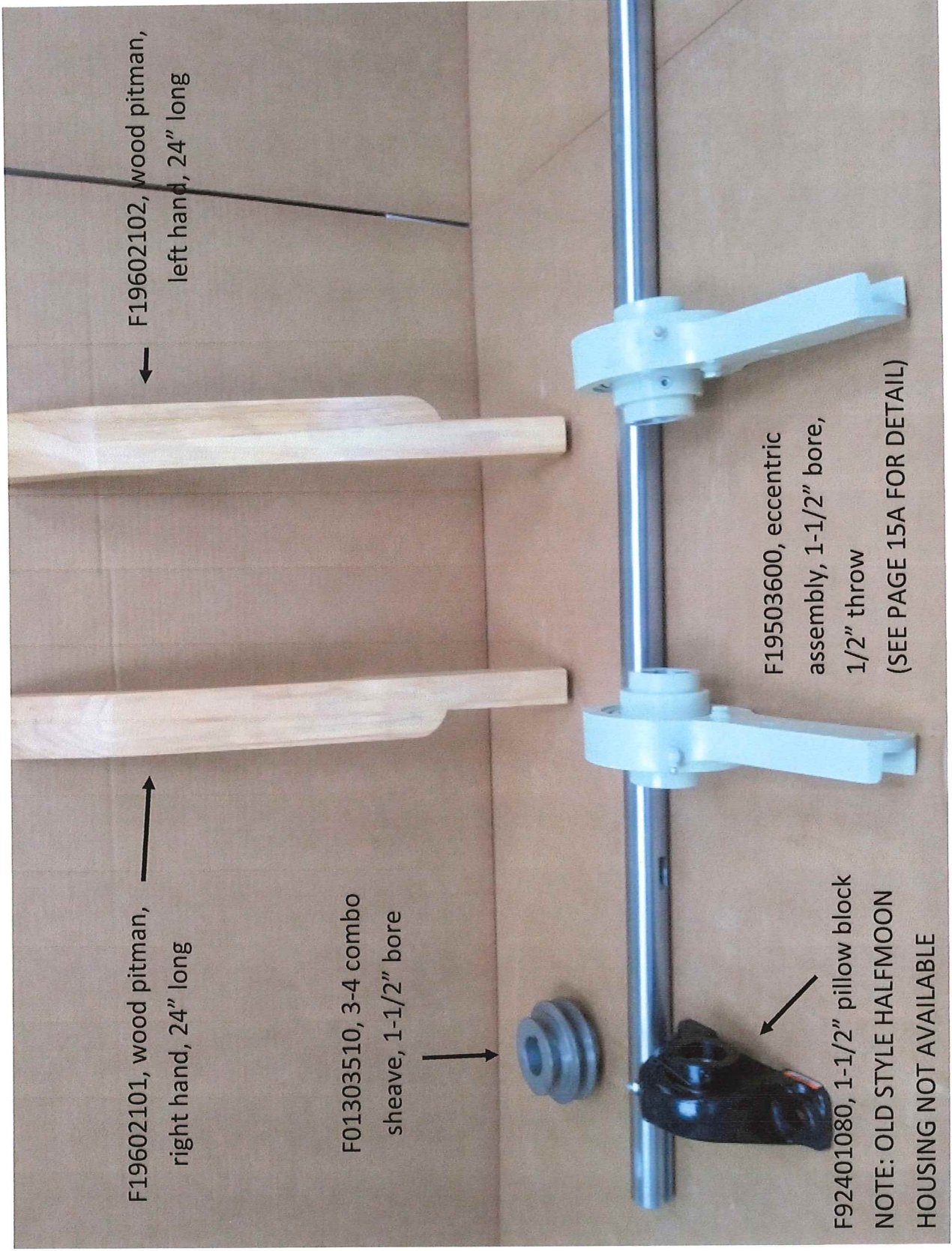
4 pieces, F01701100, bottom fan blade, 43-5/8" long

24 pieces, F82021407, elevator bolt, 1/4-20 x 1-1/4"

24 pieces, 66443300, 1/4" lock washer

24 pieces, 66083300, 1/4-20 hex

bottom fan assembly, 1-1/2" bore, 9 wide, page 12



F19602101, wood pitman, right hand, 24" long

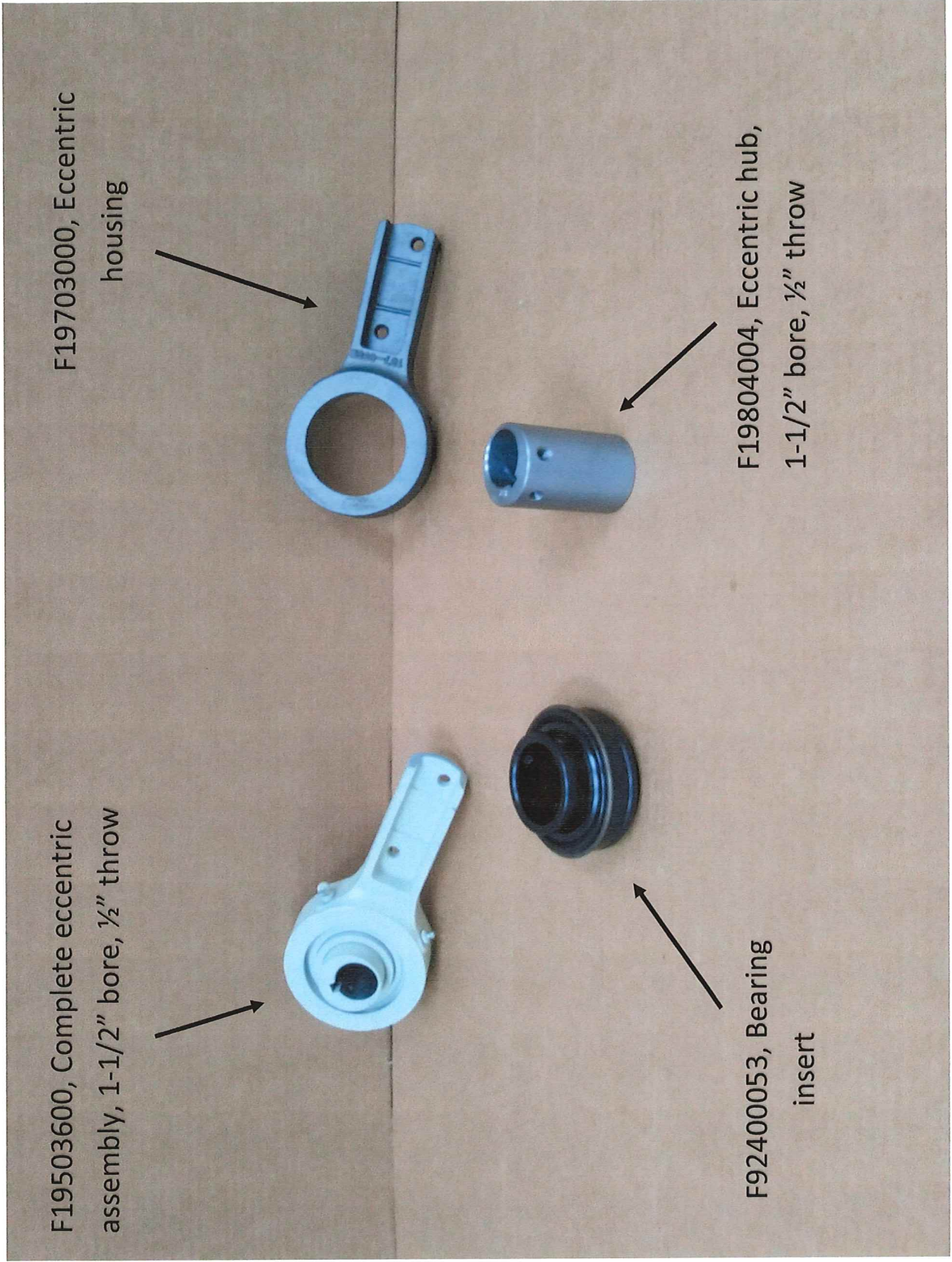
F19602102, wood pitman, left hand, 24" long

F01303510, 3-4 combo sheave, 1-1/2" bore

F19503600, eccentric assembly, 1-1/2" bore, 1/2" throw
(SEE PAGE 15A FOR DETAIL)

F92401080, 1-1/2" pillow block
NOTE: OLD STYLE HALFMOON HOUSING NOT AVAILABLE

Eccentric shaft, wood pitmans, page 15



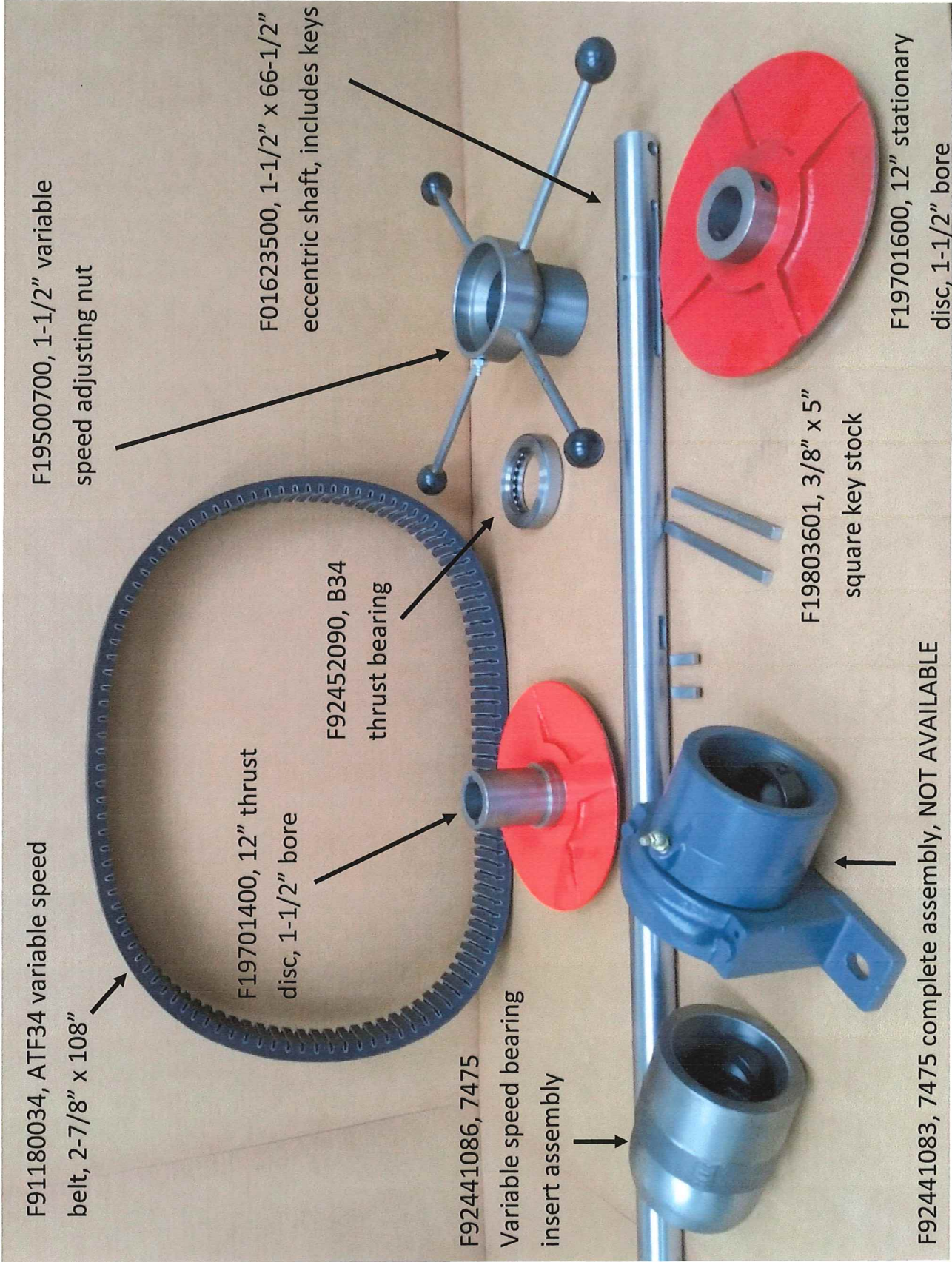
F19703000, Eccentric housing

F19804004, Eccentric hub, 1-1/2" bore, 1/2" throw

F19503600, Complete eccentric assembly, 1-1/2" bore, 1/2" throw

F92400053, Bearing insert

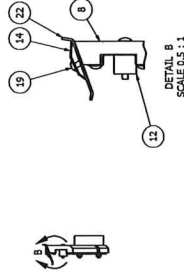
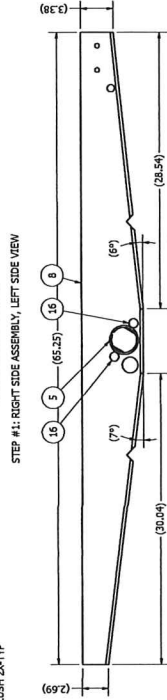
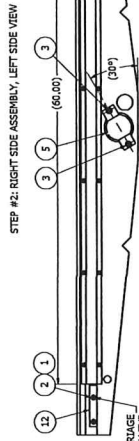
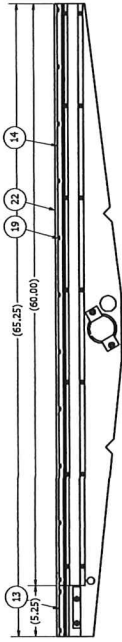
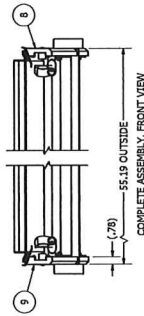
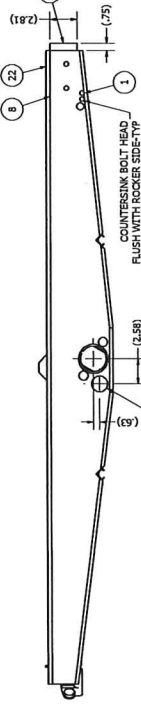
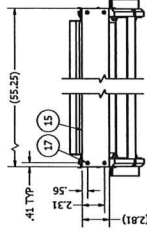
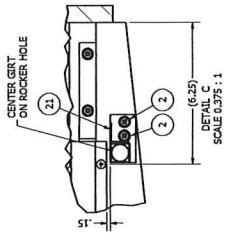
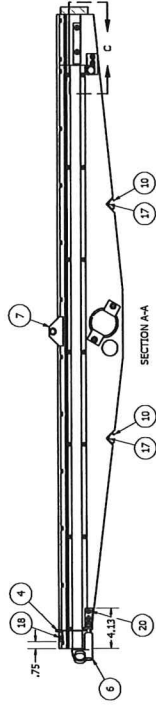
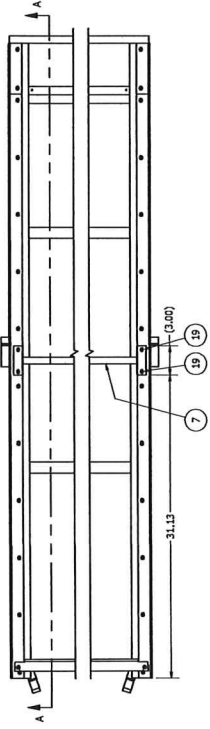
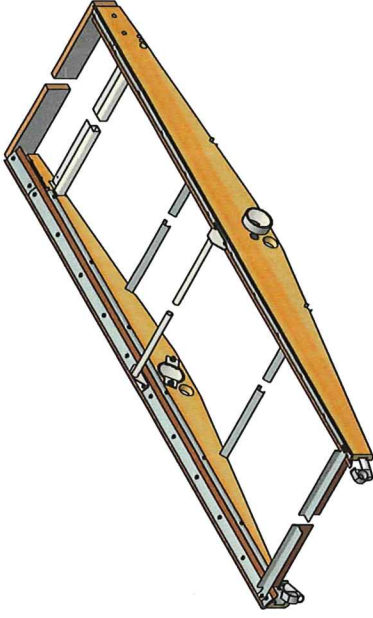
Eccentric assembly, page 15B



Eccentric shaft assembly, Super 49, page 16

REV	DESCRIPTION	DATE	APPROVED
A	REVISED TO ADD PARTS 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22	11/29/2012	amhinson
B	REWORKING CAD WAS C SIZE	11/29/2012	amhinson
C	PHOTOGRAPH WAS 900003509, ADD F11307268	11/29/2012	amhinson
D	ROTATE ROCKER CHIPS 30 DEG, ADD F03508000, 62829255 & 62785800 WAS F03508000	11/29/2012	amhinson

REVISION HISTORY



SCALE 0.5 : 1



NOTES:
 1. DO NOT SCALE FROM DRAWING.
 2. ALL DIMENSIONS ARE IN INCHES UNLESS OTHERWISE SPECIFIED.
 3. ONE PIECE REQUIRED PER R3008106/07: SHOE ASSY, BOTTOM LH/RH W/ROCKERS, 69A & D.

ITEM	PART NUMBER	QTY	DESCRIPTION
22	F1152006	2	BELTING, 3 PLY FSK/FS 2.50 X 65.25"
21	F0000504	1	GIRT W/DMT, ROCKER ADJ, TELESCOPING, #8
20	F0345403	4	SMS PAIN X HD, #10 X 3/4"
19	F0345402	5	SMS PAIN X HD, #8 X 1.00"
18	F0344401	8	SMS PAIN X HD, #8 X 1.00"
17	F0344401	8	SMS FLAT GROSS HEAD #10 X 1.50"
16	R82021407	4	BOLT, ELEV 1/4-20 X 1.25"
15	F11307205	1	BOARD, REAR, SPOUT GIRT 2.81", 5498D
14	F0380100	2	CAP RUBBER HOLDING, ROCKER, 60.00"
13	F0380100	2	CAP RUBBER HOLDING, ROCKER, 5.25"
12	F0380100	2	CAP RUBBER HOLDING, ROCKER, 60.00"
11	F0380001	2	BRACE, BOTTOM, ROCKER, #8
10	F0380001	2	BRACE, BOTTOM, ROCKER, #8
9	F03800300	1	SIDE ROCKER, LH TOP, BOTTOM SHOE, 288D
8	F03800300	1	SIDE ROCKER, RH TOP, BOTTOM SHOE, 288D
7	F03800805	1	GIRT W/DMT, PIPE, ROCKER #8
6	F03508000	1	SCREEN HOOD ASSY, STANDARD
5	F03508000	1	SCREEN HOOD ASSY, STANDARD
4	F03508000	1	SCREEN HOOD ASSY, STANDARD
3	F03508000	1	SCREEN HOOD ASSY, STANDARD
2	66782600	8	NUT, HEX SERB LOCK 10-24
1	60282626	8	BOLT, CARB 10-24 X 1.25"

CAD

NO MANUAL CHANGES TO THIS DRAWING. ANY CHANGES TO THIS DRAWING MUST BE APPROVED BY THE ORIGINAL DESIGNER AND THE APPROVED BY THE ORIGINAL DESIGNER.

APPROVED BY: amhinson

DATE: 11/29/2012

SCALE: 0.5:1

PROJECT: R3008106/07: SHOE ASSY, BOTTOM LH/RH W/ROCKERS, 69A & D

REVISED BY: amhinson

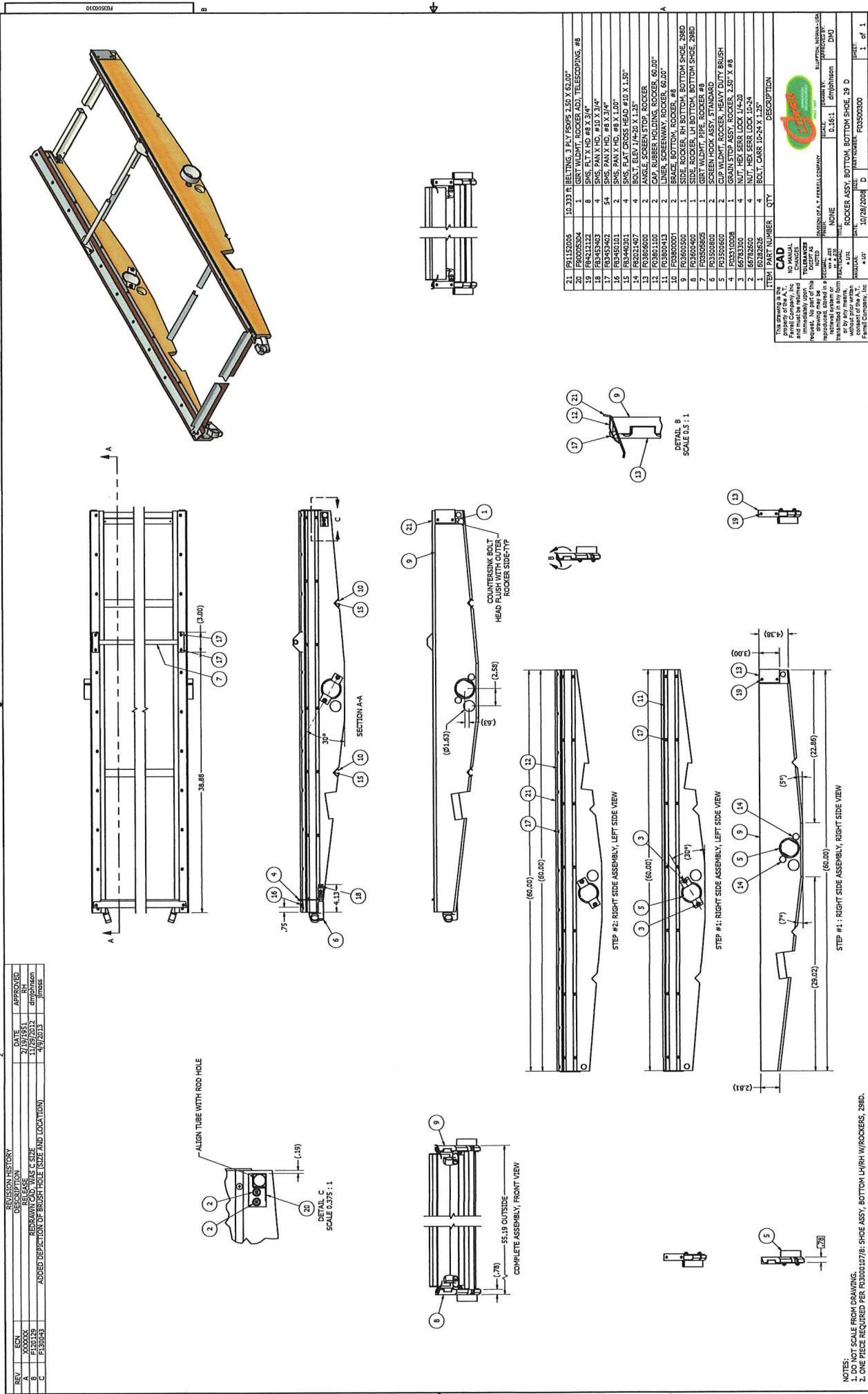
DATE: 11/29/2012

PROJECT: R3008106/07: SHOE ASSY, BOTTOM LH/RH W/ROCKERS, 69A & D

SCALE: 0.5:1

SHEET: 1 OF 1

REV	BY	DATE	DESCRIPTION	APPROVED
A	SK	11/29/11	REVISED	
B	SK	11/29/11	REWORKING CAD WAS C SIZE	emp
C	SK	4/9/2013	ADDED DESCRIPTION OF BRUSH HOLE (SIZE AND LOCATION)	mp

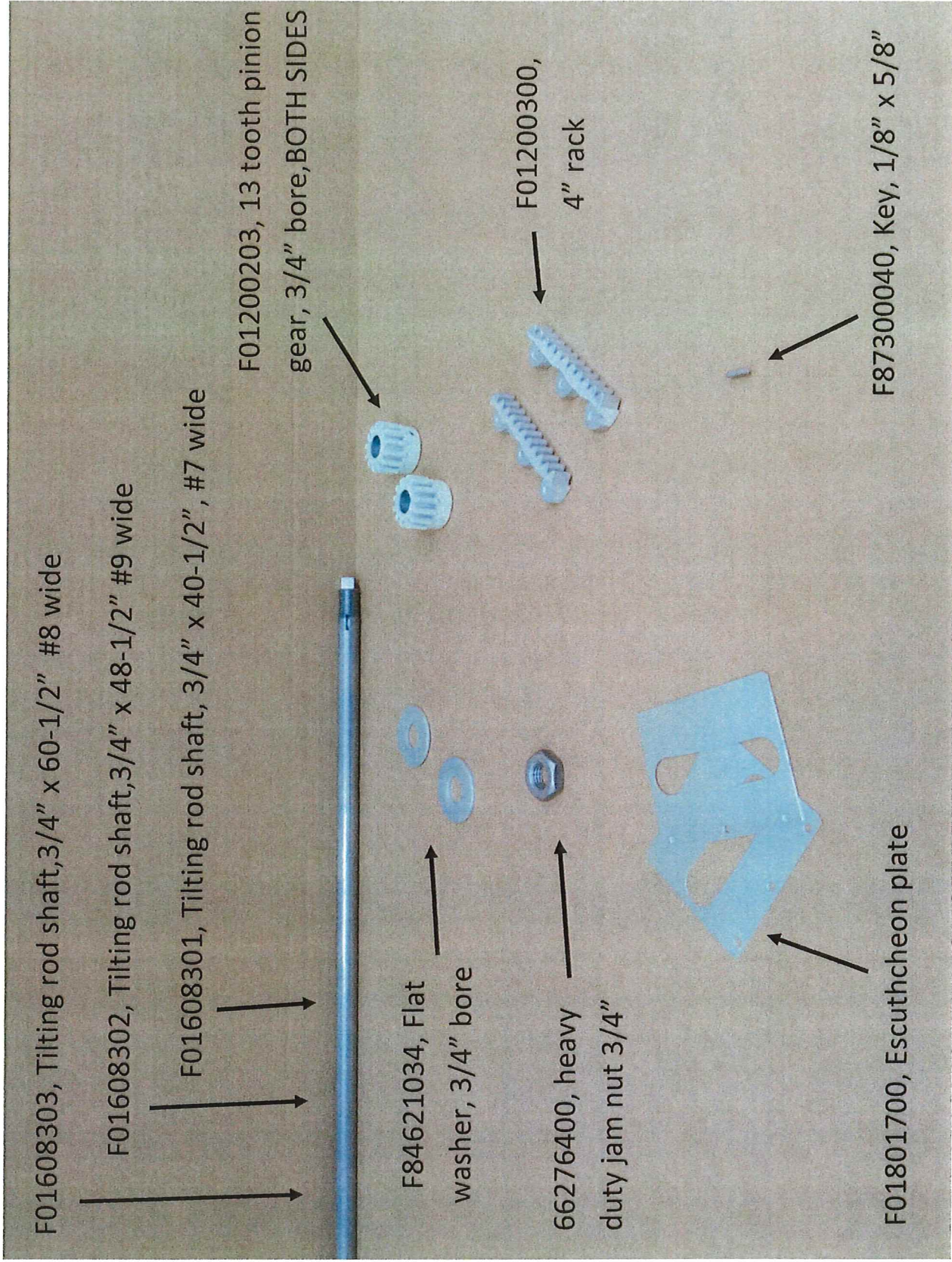


NOTES:
 1. LIST SCALE FROM DRAWING.
 2. ONE PIECE REQUIRED PER F03000107/R. SHOE ASSY, BOTTOM L/HRH W/ROCKERS, 298D.

ITEM	PART NUMBER	QTY	DESCRIPTION
21	F01152005	10.333	1 BELTING, 3 PLY PSWVS 2.50 X 62.00"
20	F02053504	1	SKT, W/FLY W/ROCKERS, TELESCOPING, #8
19	F04554013	4	SMS, FL Y, HD, #10 X 3/4"
18	F04554013	4	SMS, PAN X, HD, #10 X 3/4"
17	F03453402	54	SMS, PAN X, HD, #8 X 3/4"
16	F03450101	4	SMS, PAN X, HD, #8 X 1.00"
15	F03450101	4	SMS, FLAT CROSS HEAD #10 X 1.50"
14	F02021407	4	BOLT, ELEV 1/4-20 X 1.25"
13	F03006000	2	ANGLE, SCREEN STOP, #8 ROCKER
12	F03006013	2	LINER, SCREENWAY, ROCKER, 60.00"
11	F03006001	2	BRACE, BOTTOM, ROCKER, #8
10	F03600500	1	SIDE, ROCKER, RH BOTTOM, BOTTOM SHOE, 298D
9	F03600400	1	SIDE, ROCKER, LH BOTTOM, BOTTOM SHOE, 298D
8	F02050805	1	GIRT W/FLY, PIPE, ROCKER #8
7	F03006000	2	SCREEN HOOK ASSY, STAINLESS
6	F03006000	2	SCREEN HOOK ASSY, STAINLESS
5	F03006000	2	GRANIT STOP ASSY, ROCKER, 2.50" X #8
4	F02033000	4	NUT, HEX SERR LOCK 1/4-20
3	F02033000	4	NUT, HEX SERR LOCK 1/4-20
2	F02033000	4	NUT, HEX SERR LOCK 1/4-20
1	F02033000	4	BOLT, CARR 1/4-20 X 1.25"

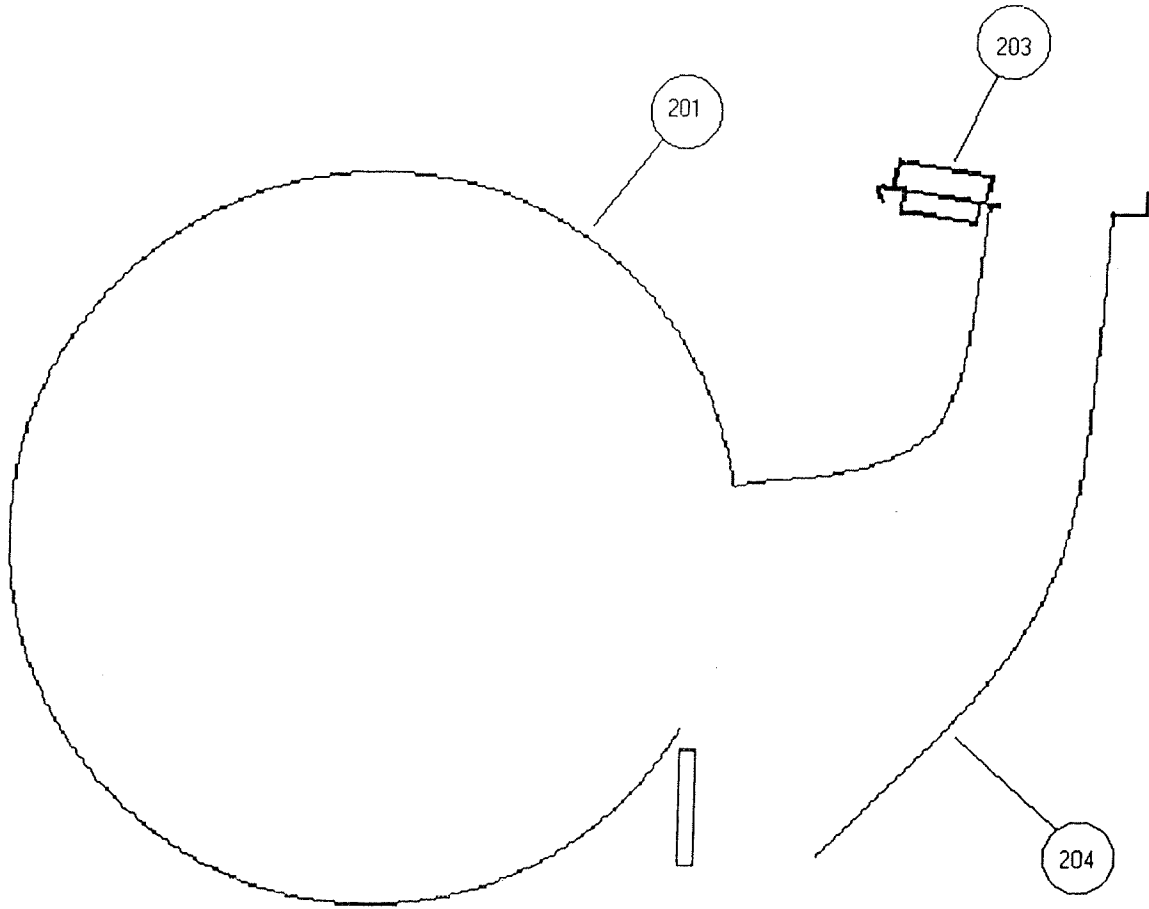
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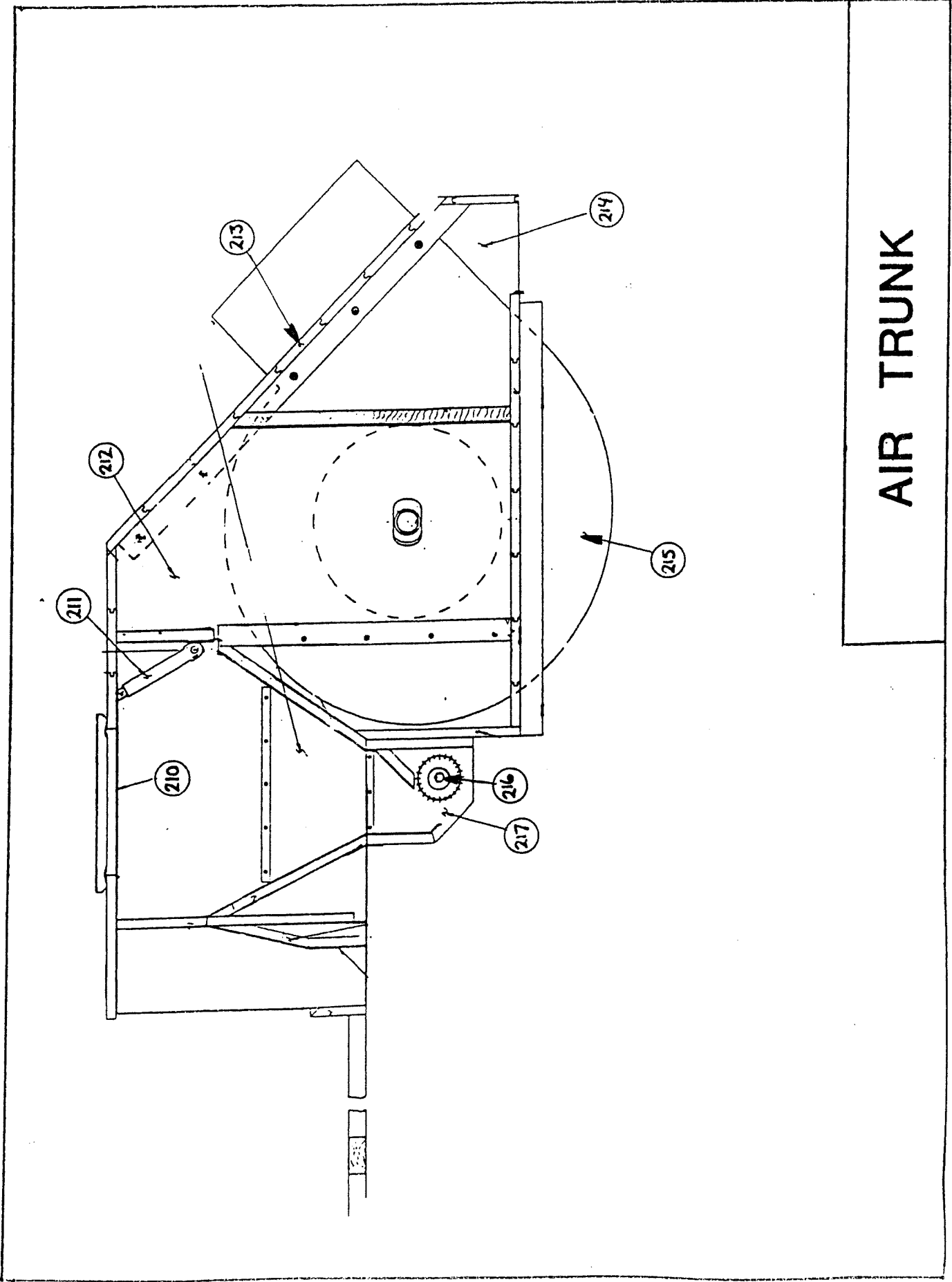
DATE: 10/28/2008
 Dwg No: F03000300
 1 of 1



Screen rocker adjusting assembly

Bottom Fan Metal





AIR TRUNK