

SERVICE MANUAL
AND
PARTS CATALOG
FOR YOUR
SUPER 47B



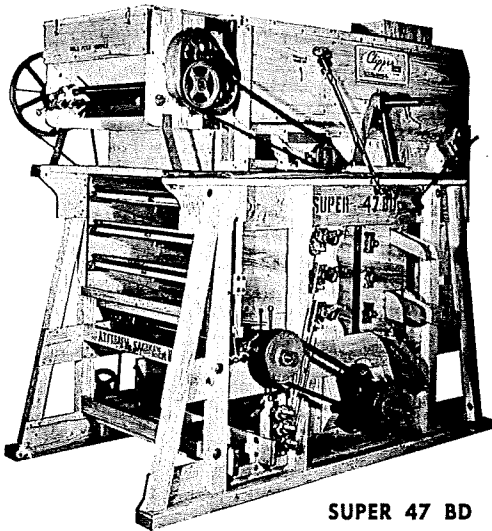
Grain, Seed and Bean Cleaners

1440 SOUTH ADAMS STREET BLUFFTON, INDIANA 46714 (800) 248-8318
Updated 5-14-2021

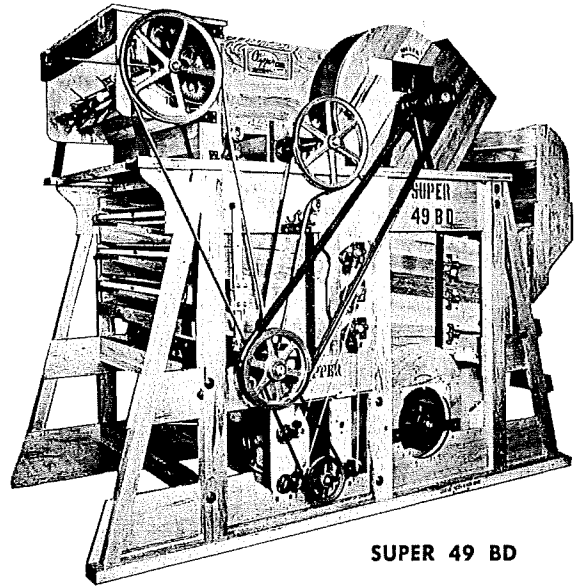
www.atferrell.com

THE SUPER 40 SERIES

Grass and Clover Seed Cleaners



SUPER 47 BD



SUPER 49 BD

In this series B designates 3-screen construction — D designates dustless or top fans construction.

The last numerical digit in the model number indicates the width of screens — 8 = 54 x 60 inch frame, 9 = 42 x 60 inch frame and 7 = 34 x 42 inch frame.

This Super 40 Series contains the following 12 models:

3-screen dustless	3-screen single fan
498-BD	498-B
49-BD	49-B
47-BD	47-B
2-screen dustless	2-screen single fan
498-D	498-A
49-D	49-A
47-D	47-A

Standard equipment of each of these models includes the following Clipper features:

- Clipper Bottom Blast Fan controlled by the variable air regulator
- Adjustable Pitch Screens for determining the speed of the seed travel over the screens
- Double Traveling Screen Brushes under each screen to automatically keep screens clean
- Instant Acting Brush Adjustment to compensate for bristle wear
- Anti-Friction Bearings throughout (ball bearing eccentrics and main bearings)
- V-belt Drives

The three-screen models in this classification such as the 47-BD and 49-BD (illustrated above) do an exceptional cleaning job on clovers and grass seeds.

for example — when cleaning red clover —

1. A $3/64$ x $5/16$ top screen removes dock, hares ear mustard, ragweed and other weed seeds only slightly larger than the clover.
2. A $1/15$ or $1/16$ middle screen is the smallest round hole screen that will pass the good seed and remove sticks, stems and other trash only slightly larger than the clover.
3. The properly selected lower screen, usually a 6 x 22 wire mesh, will make a thorough separation of small weed seeds, dirt and immature seeds of the crop being cleaned.

The three-screen dustless models, for reasons above, permit close, thorough cleaning of clovers and grasses that would otherwise have to be run twice through a two-screen machine and even through a 60 Series cleaner when the short scalper screen cannot be selected for close work.

These models will also effectively clean Grains, Beans and Peas for seed stock, however, the factory recommends the special screen arrangement advantages of the 60 Series models.

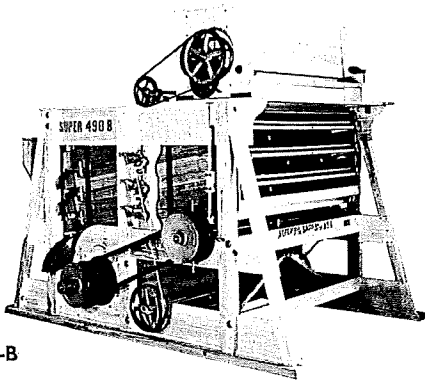
Two-screen models are used extensively where one top screen and one lower screen separation is adequate to do the job. In other words, when two top screen separations are unnecessary (refer to reverse page describing the two-screen models).

See other side for illustrations of each style and complete specifications.

SUPER 40 SERIES

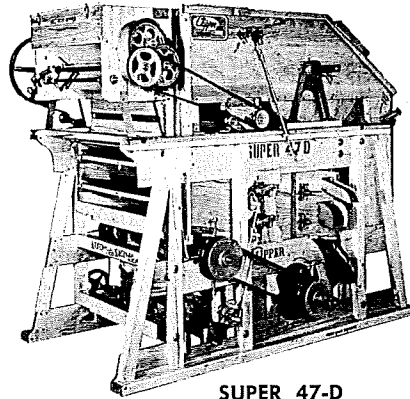
The two-screen cleaners are built approximately 7 inches lower in overall height than the three-screen models making them suitable for installations which require minimum head room.

Four of the 40 Series models can be supplied (as a packaged unit) with their own twin elevating system. This arrangement is completely illustrated and described on the Super 100 Series catalog page.

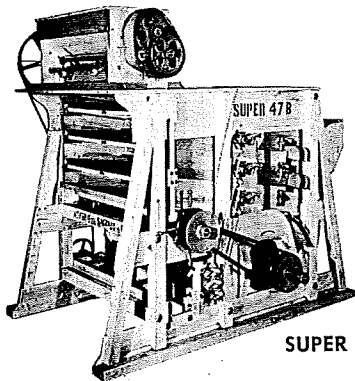


SUPER 498-B

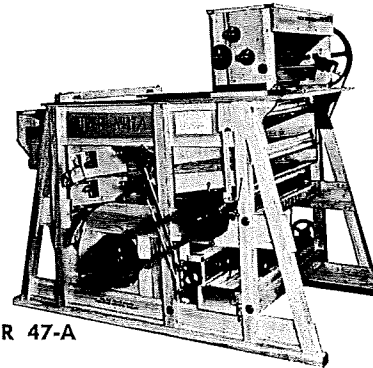
Shown with Cotton Seed Hopper recommended for cotton seed, brome and other grass seeds likewise difficult to feed.



SUPER 47-D



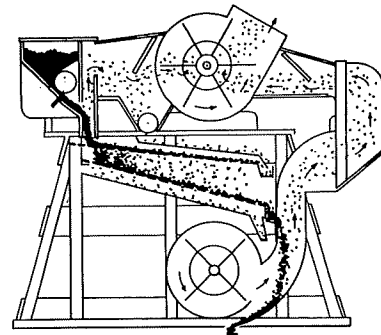
SUPER 47-B



SUPER 47-A

OPERATIONAL DETAILS FOR 2 SCREEN DUSTLESS CLEANING

The diagram at the right indicates the cleaning action of dustless type cleaners with two screens. As the seed is discharged from the hopper in a uniform layer across the full width of the top screen, it passes through an air leg connected to one of the top suction fans and dust and light chaffy material is removed. The heavier trash settles in the large settling chamber and is discharged at the side of the cleaner. The light dust is blown into the dust house or cyclone collector. After the seed passes through the top scalping screen and over the bottom sifting screen, it enters the vertical air column of synchronized blast and suction for a final, rapid air separation by weight to select only the choice, plump, full-weight kernels. The top suction fan on the left, synchronized with the bottom blast fan, removes the light-weight foreign material and dust left after the screening action. The heavier material removed settles in the settling chamber and the dust is blown out into the dust house or cyclone collector.



SPECIFICATIONS — CAPACITIES

Screen Cleaning Brushes on all Super 40 Series models are powered by the No. 80 Roller Chain Brush Drive.

Model number.....	47-A	47-B	47-D	49-A	49-B	498-A	498-B	47-BD	49-D	498-D	49-BD	498-BD
Screen size.....	34 x 42	34 x 42	34 x 42	42 x 60	42 x 60	54 x 60	54 x 60	34 x 42	42 x 60	54 x 60	42 x 60	54 x 60
Bu. per hr.—Seeds.....	30-50	30-50	30-50	60-80	60-80	75-100	75-100	30-50	60-80	75-100	60-80	75-100
Bu. per hr.—Seed grain..	50-100	50-100	50-100	100-150	100-150	130-200	130-200	50-100	100-150	130-200	100-150	130-200
Bu. per hr.—Beans.....	75-150	75-150	75-150	200-300	200-300	250-400	250-400	75-150	200-300	250-400	200-300	250-400
No. of screens in cleaner.	2	3	2	2	3	2	3	3	2	2	3	3
No. of screens furnished..	12	12	12	12	12	12	12	12	12	12	12	12
Extreme length.....	79"	79"	91"	107"	107"	119"	107"	91"	114"	114"	114"	114"
Extreme width.....	59"	59"	62"	73"	73"	85"	85"	62"	73"	85"	73"	85"
Width between sills.....	38"	38"	38"	46"	46"	58"	58"	38"	46"	58"	46"	58"
Height to top of hopper..	69"	76"	76"	72"	80"	72"	80"	83"	81"	81"	87"	87"
Height to drive shaft....	28"	28"	70"	29"	29"	29"	29"	70"	76"	76"	76"	76"
Drive shaft speed (RPM)..	410	410	900	410	410	410	410	900	900	900	900	900
Horsepower required....	1½	1½	5	3	3	3	3	5	7½	10	7½	10
Shipping weight (lbs.)...	1200	1300	1800	2000	2100	2200	2350	2000	2800	3000	2900	3200

SUPER 47B CLEANER PARTS SET UP WITH BRUSH SCREEN CLEANING

BRUSH SCREEN CLEANING SYSTEM

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
38	7	F01004901	3	Brush Adjusters - Idler Side (Left Hand Side)
**	7	F01004902	3	Brush Adjusters - Idler Side (Right Hand Side)
43	7	F01106300	3	Idler Arm Support
**	7	F82080060	3	Bolt for Brush Adjusters (Both Sides)
39		Not Available	3	Brush Adjusters-Control Side (Left Hand Side)
**	7	F01003002	3	Brush Adjusters - Control Side (Right Hand Side)
42	7	F01105400	3	Adjustment Handle with Spring, (9.5" long)
**	7	F82080060	3	Bolt for Brush Adjusters (Both Sides)
		F01000200	8	Rope Sheave Assembly Complete See attached picture
		F09500600	2	Brush Carrier Assembly 15" x 27" (Brushes not included) See attached picture 10
		F97700003	35	Wirelon Plastic Coated Steel Cable (In Feet)
		F01612107	2	Brush Carrier Shafts 1 3/16" x 44-9/16" <u>SEE NOTE BELOW</u>

NOTE: SOME OLDER MACHINES HAVE A 1" BRUSH CARRIER SHAFT THAT IS TURNED DOWN TO 3/4" ON EACH END (F01605804) AND USE 1" ROLLERS (F09501300)

****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.**

BOTTOM FAN ASSEMBLY
With 1-1/2" Shaft

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
		F01632400	1	Fan Shaft 1-1/2" X 59" (Includes Keys) See attached pictures 11 & 12
		Not Available	2	6715 Halfmoon Bridgetree Housing with Bearing
		F92400022	2	Bearing <u>Insert Only</u> for Above

BOTTOM FAN ASSEMBLY
With 1-3/16" Shaft

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
		F01608000	1	Fan Shaft 1-3/16" x 53" See attached pictures 11 & 12

ECCENTRIC SHAFT ASSEMBLY With 1-1/2" Shaft

ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
		F01603800	1	Eccentric Shaft 1-1/2" X 58" (Includes Keys) See attached pictures 15 & 16
		Not Available	2	6714 Halfmoon Flange Bearing (Old Style Housing)
		F92400022	1	1-1/2" Bearing <u>Insert Only</u> for Above
		F92053126	1	6714 Flange Bearing Conversion Kit
		F01104600	2	Counterweight Ends
		F19805200	1	Counterweight 19-13/16"
		F19503600	2	1-1/2" Throw Eccentric Assembly Complete See attached picture 15B
		F01002803	1	Belt Idler Assembly Complete 5-1/2" See attached picture

MAIN SHOE ASSEMBLY

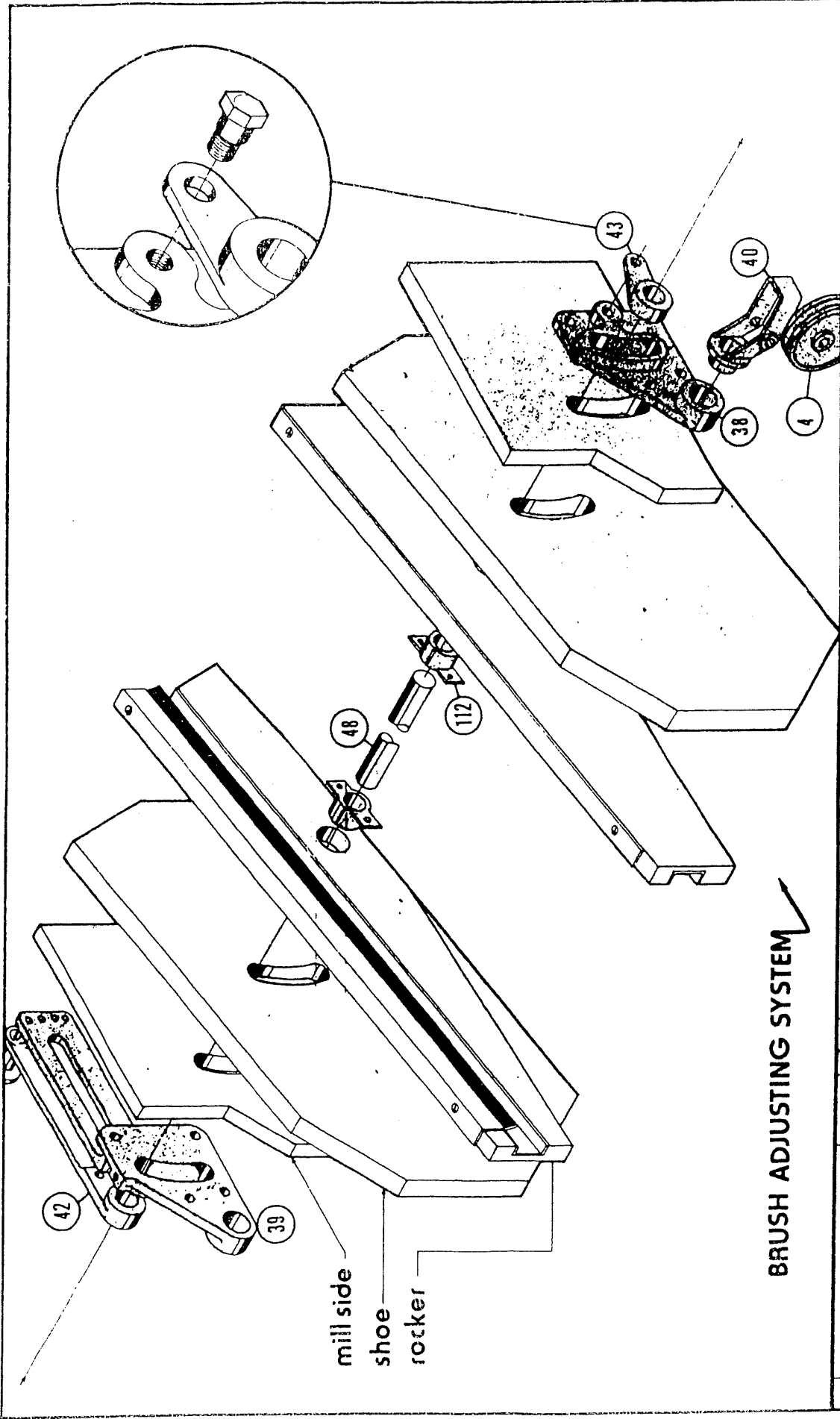
ITEM NO.	PAGE NO.	PART NUMBER	QTY.	DESCRIPTION
		F0300940-	1	Bottom Shoe Complete with Rockers (NOT AVAILABLE)
		F03121501	1	Right Shoe Side
		F03121502	1	Left Shoe Side
		F03109500	1	Pitman Board 3/4" x 7-1/2" x 37"
		F03016510	2	Front Hanger with Block , Both Sides
		F03102601	2	Shoeside Hanger Support Block
		F03016520	2	Back Shoe Hanger with Block
		F03101720	2	Wood Sand Spout Track (Cut to Length)
		F03301002	2	Metal Sand Spout Guide (Cut to Length)
		F08306302	1	Sand Spout Left Hand Machines (Check Measurements)
		F08306301	1	Sand Spout Right Hand Machines (Check Measurements)
		F08301101	1	Straw Spout Left Hand Machines (Check Measurements)
		F08301100	1	Straw Spout Right Hand Machines (Check Measurements)
		F08301101	1	Second Straw Spout Left Hand Machines (Check Measurements)
		F08301100	1	Second Straw Spout Right Hand Machines (Check Measurements)
		F08305700	1	Straw Spout-Machines Built after 1974 (Check Measurements)
		F03401500	1	Canvas Apron Assembly
		F03501300	2	Top and Middle Rocker Assembly Complete See attached drawing
		F03501200	1	Bottom Rocker Assembly Complete See attached drawing

**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.**

**The Following Are the Ball Tray Kit Parts That were
Installed on the Super 47 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.**

F90005067	3	Ball Tray Weldment for 1 Piece Screens (New Style)
F80026101	216	Black 1-3/8" Balls
F11301710	6	Ball Tray Support Rail 23"
F11301716	6	Ball Tray Support Rail 14"



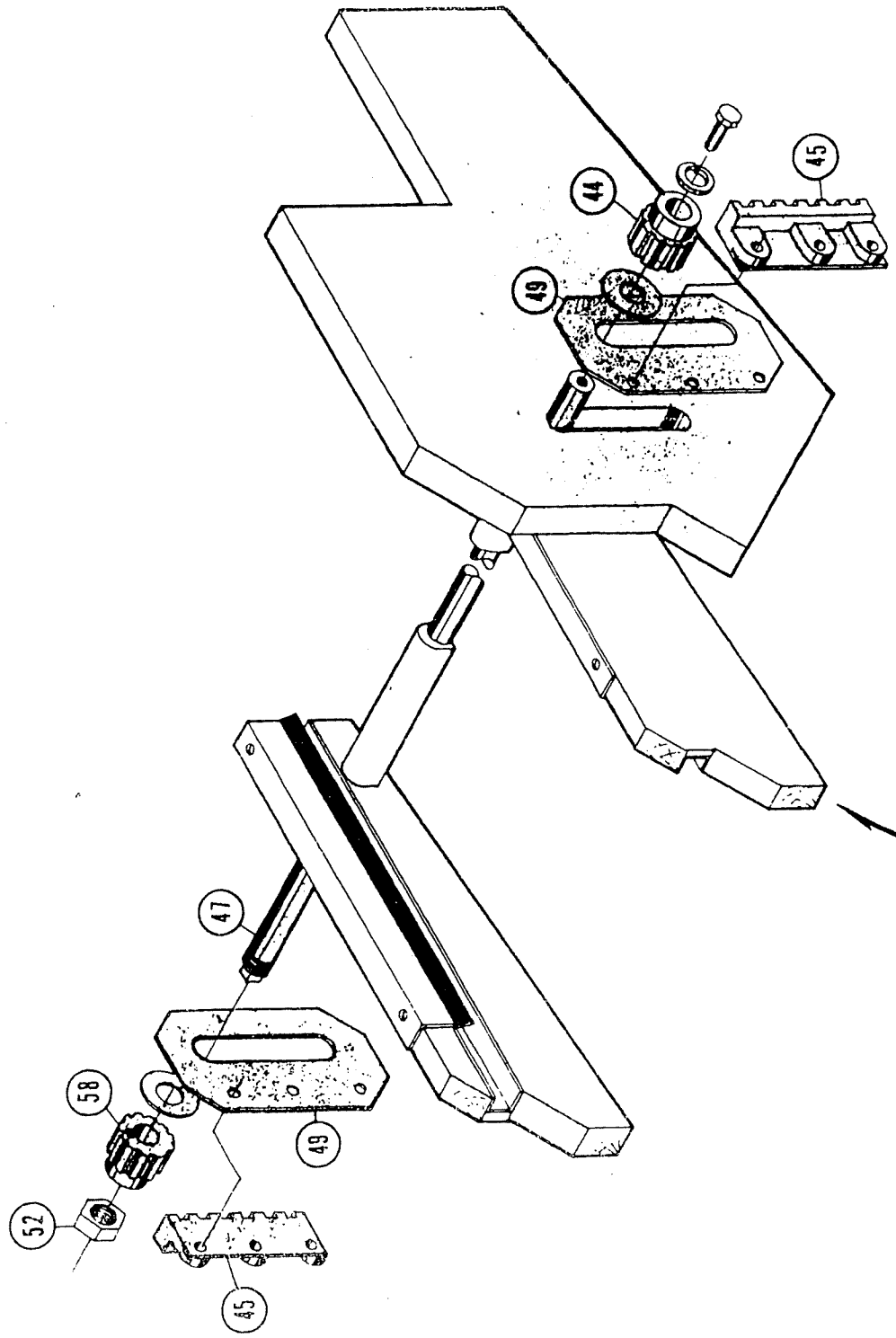
PL. OF PRINT SUPPLY AND ENGR'G

mill side
shoe
rocker

BRUSH ADJUSTING SYSTEM

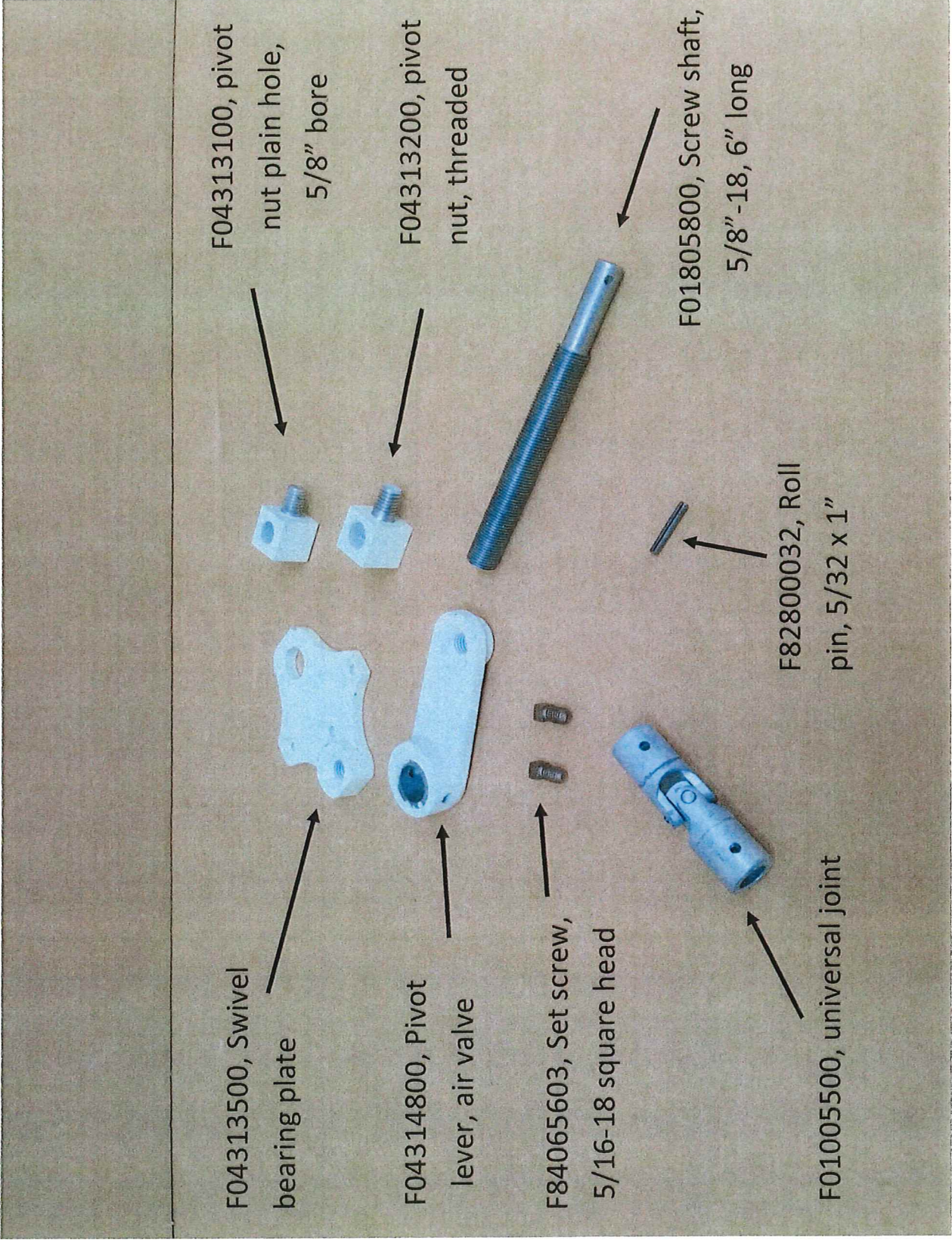
REVISION		DATE	DR.	DWG. BY	SCALE	DATE	DWG. NO.		
MACH. NO.							FERRELL - ROSS SAGINAW, MICH.		

BLUE PRINT SUPPLY HOUSE BOSTON

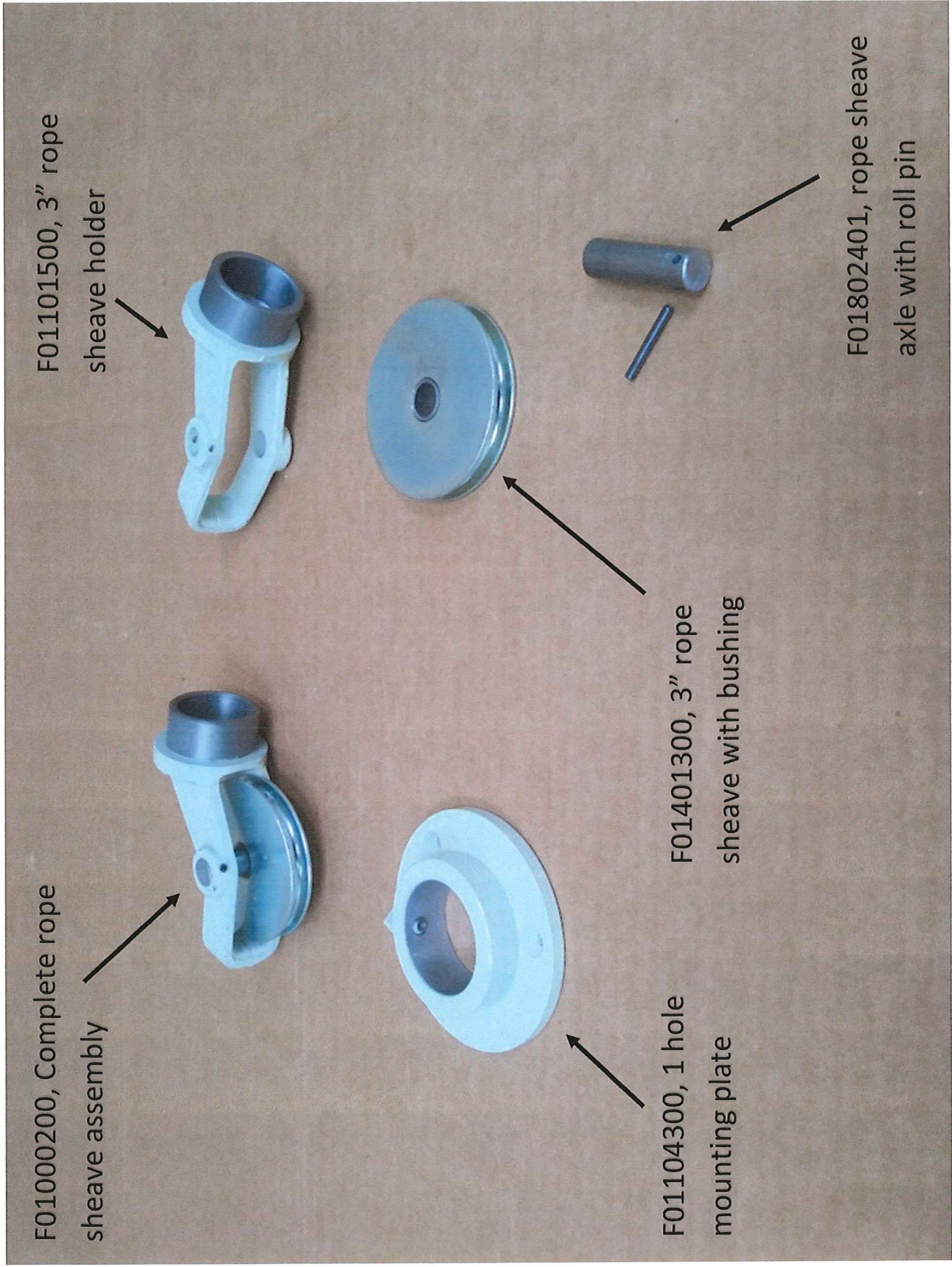


TILTING ROD ASSEMBLY

SYN		REVISION	DATE	DR	DWG. NO		MACH NO	
					tilting rod assembly		FERRELL - ROSS	
					SCALE		SAGINAW, MICH.	
					DATE		DWG NO	



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



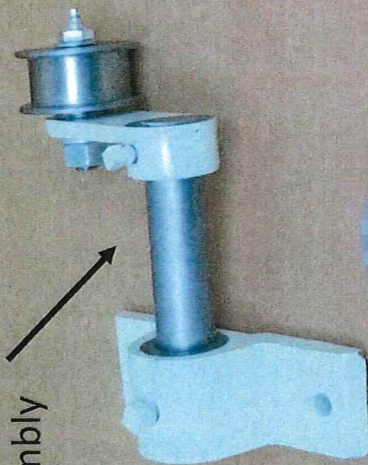
66085200, 1/2-13
hex nut



66445200, 1/2"
lock washer



F01002803, complete
1 belt idler assembly



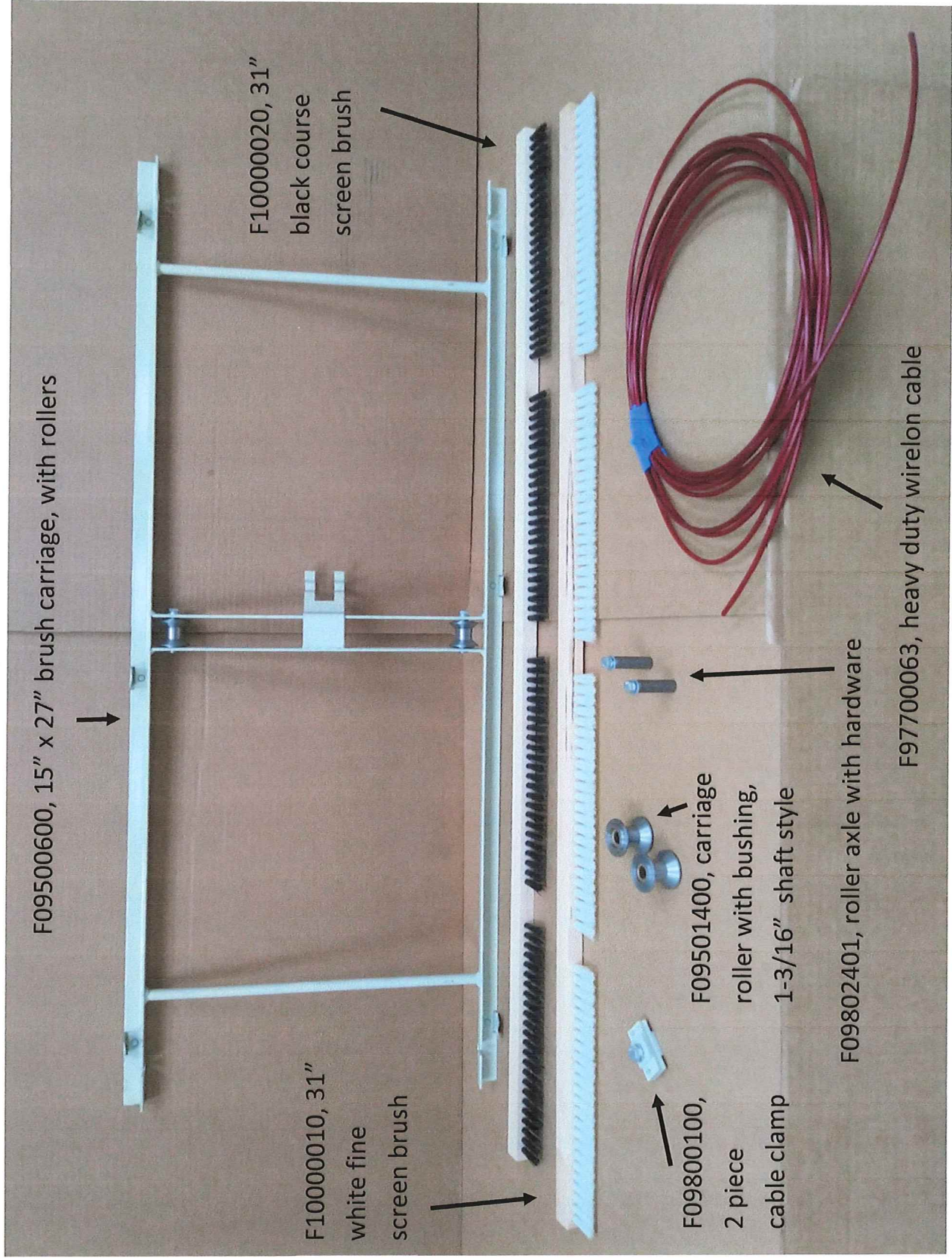
F01400700, belt tightener
sheave with bushing



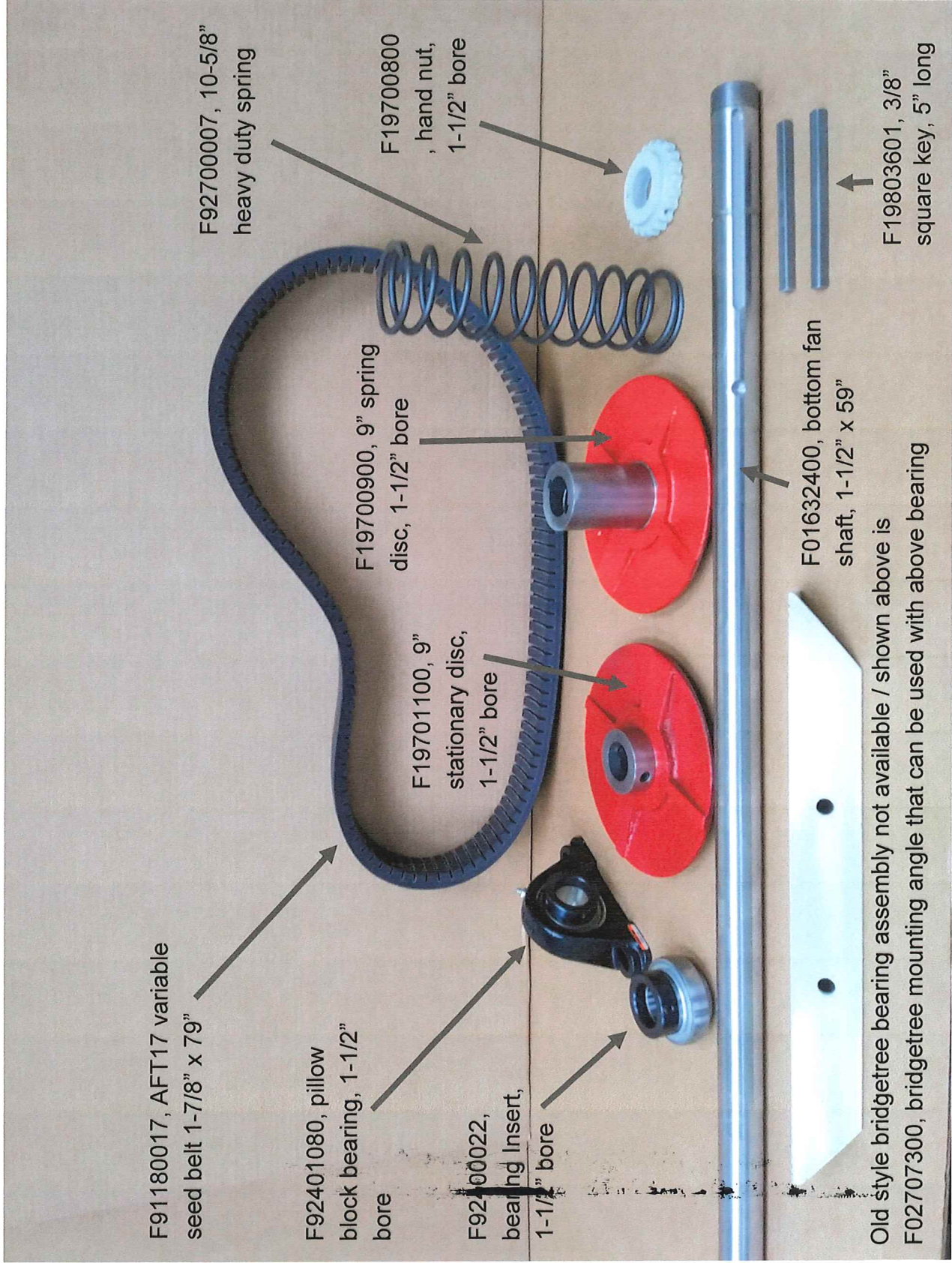
F01805010, belt tightener
axle with zerck



Belt tightener assembly



Brush carriage, with accessories, page 10



F91180017, AFT17 variable seed belt 1-7/8" x 79"

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

F92000022, bearing insert, 1-1/2" bore

F19701100, 9" stationary disc, 1-1/2" bore

F19700900, 9" spring disc, 1-1/2" bore

F92700007, 10-5/8" heavy duty spring

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

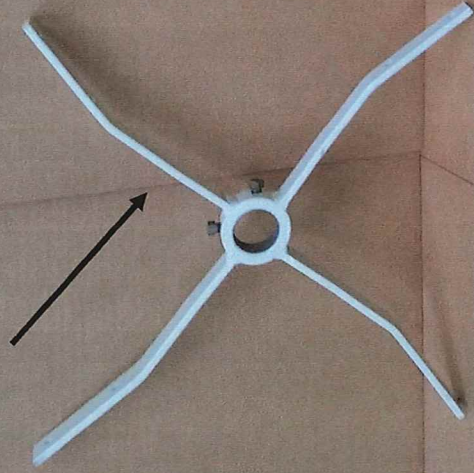
F01632400, bottom fan shaft, 1-1/2" x 59"

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

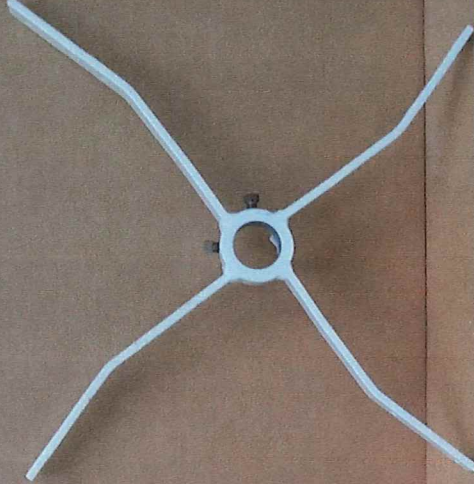
F19803601, 3/8" square key, 5" long

Bottom fan shaft assembly assembly, page 11

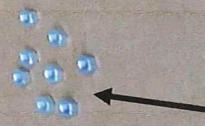
2 pieces, F06001000, bottom fan spider, 1-1/2" bore



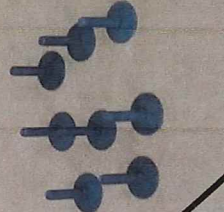
F06002682, complete bottom fan assembly



4 pieces, F01701104, bottom fan blade, 35-5/8" long

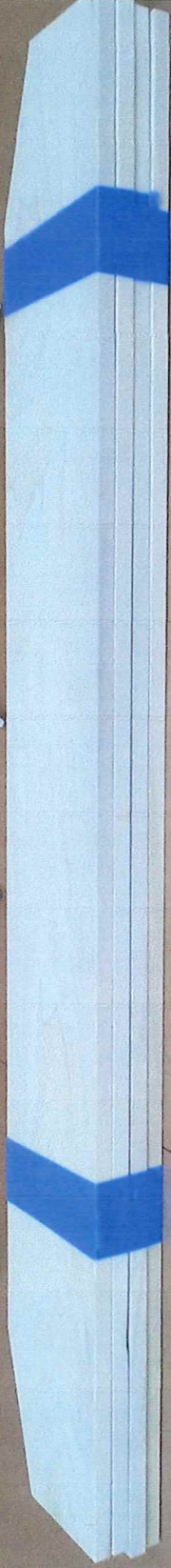


16 pieces, 66083300, 1/4-20 hex nut

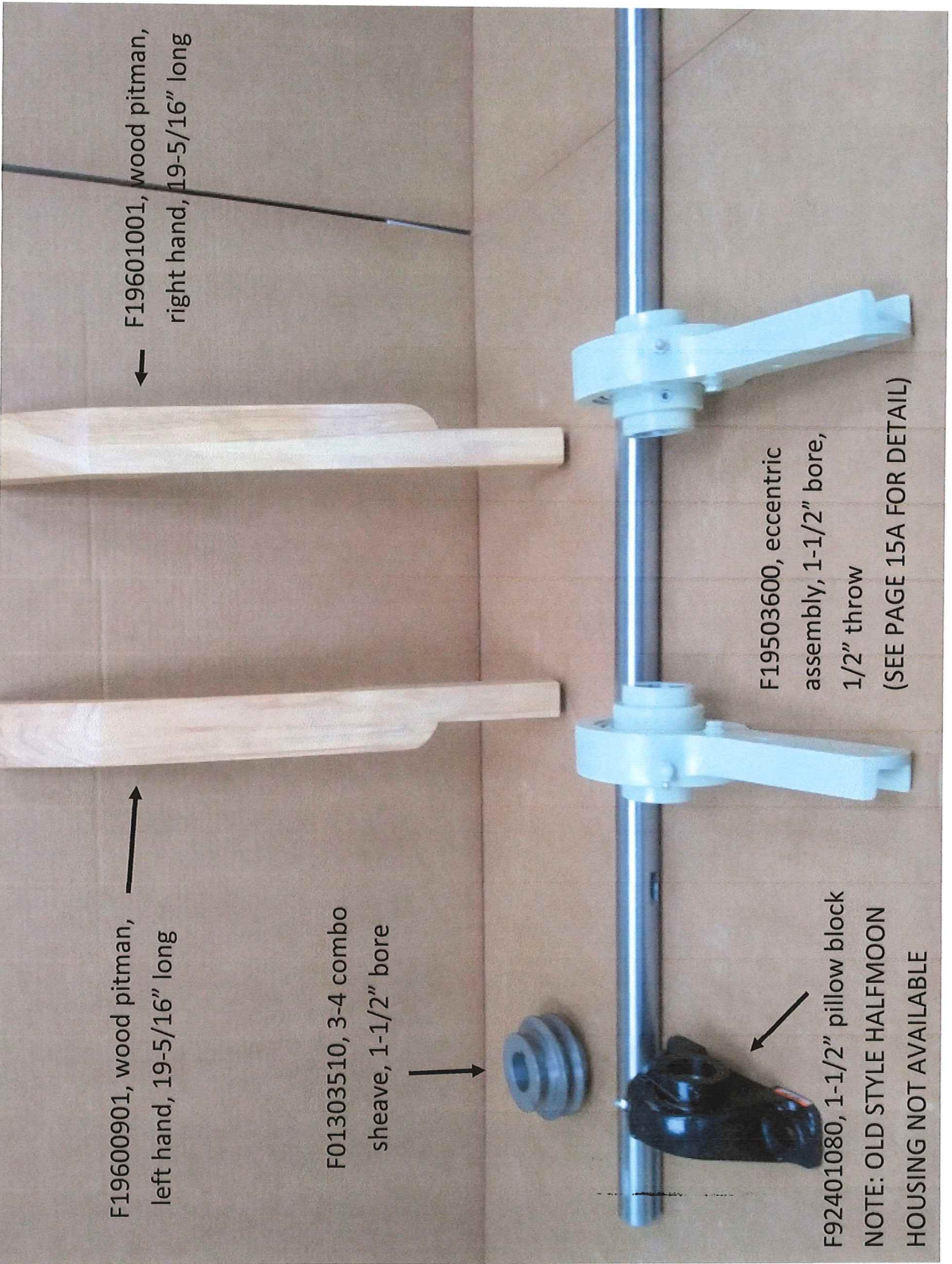


16 pieces, F82021407, elevator bolt, 1/4-20 x 1-1/4"

16 pieces, 66443300, 1/4" lock nut



Bottom fan assembly, 1-1/2" shaft, 7 wide, page 12



F19600901, wood pitman,
left hand, 19-5/16" long

F19601001, wood pitman,
right hand, 19-5/16" 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

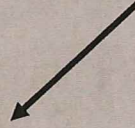
F19503600, Complete eccentric assembly, 1-1/2" bore, 1/2" throw



F19703000, Eccentric housing

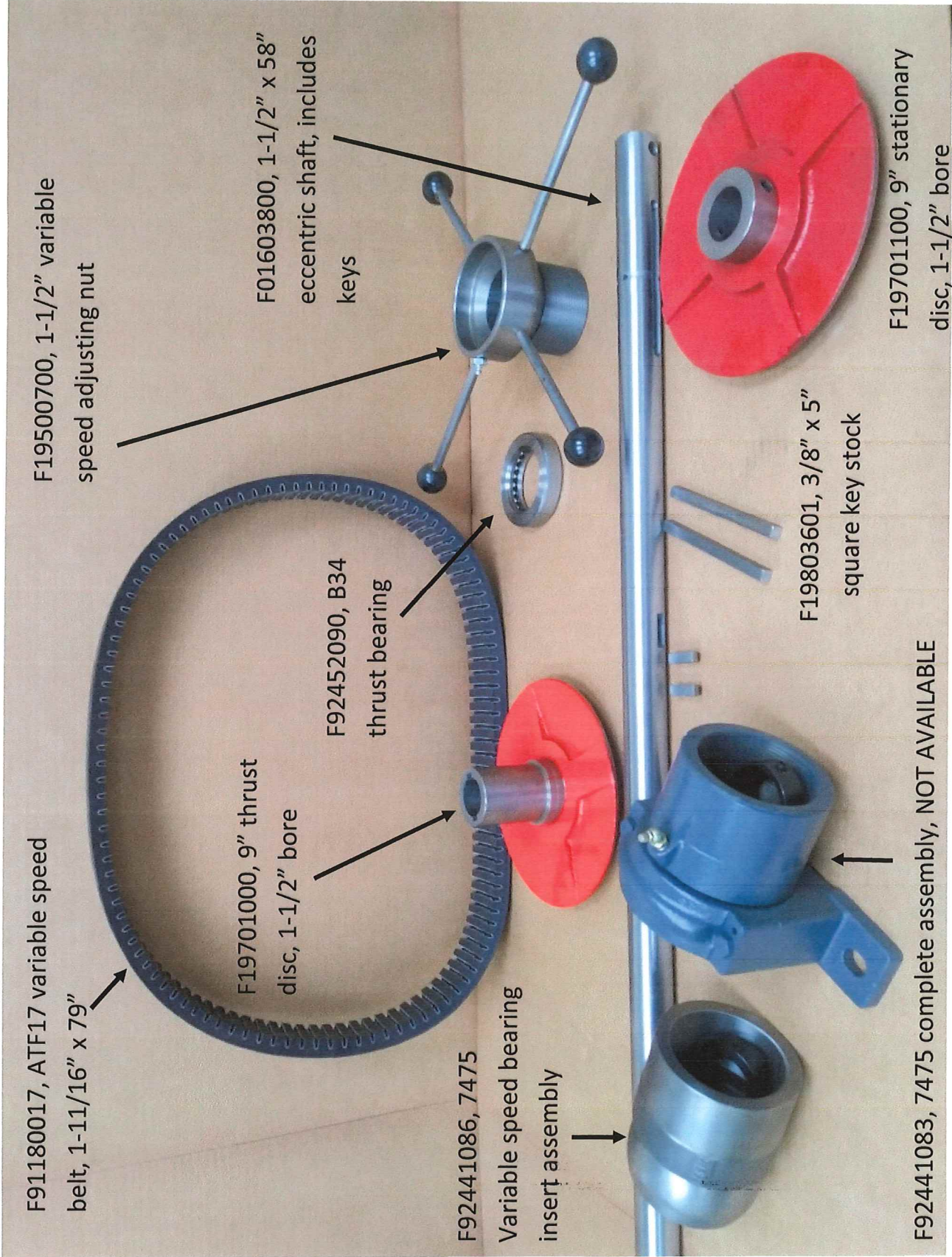


F19804004, Eccentric hub, 1-1/2" bore, 1/2" throw

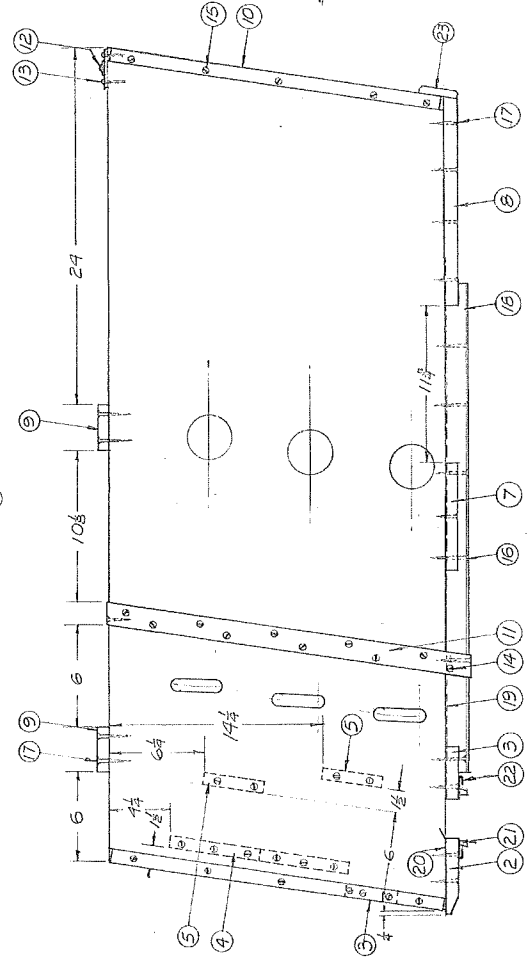
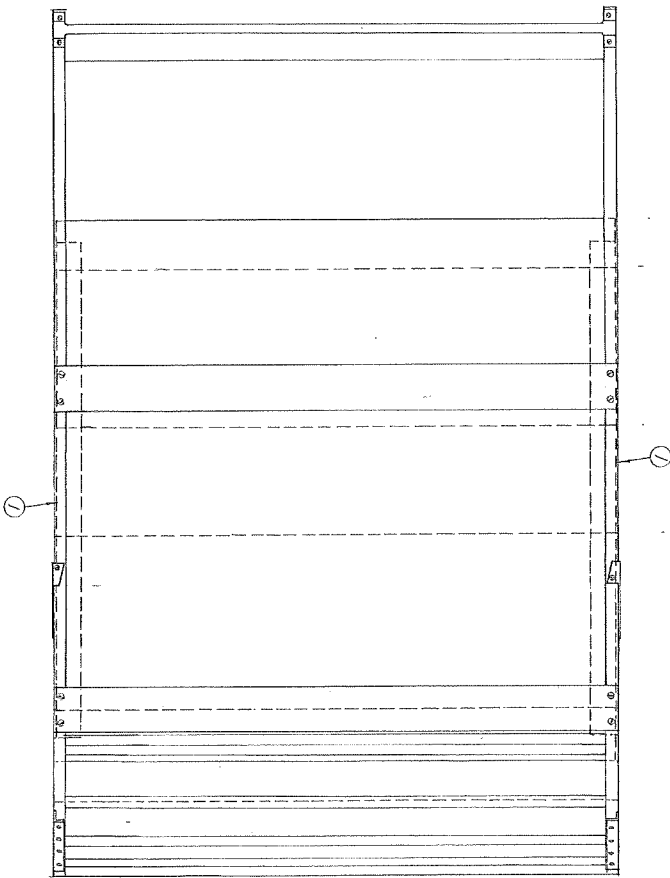


F92400053, Bearing insert





Eccentric shaft assembly, Super 47,67 page 16



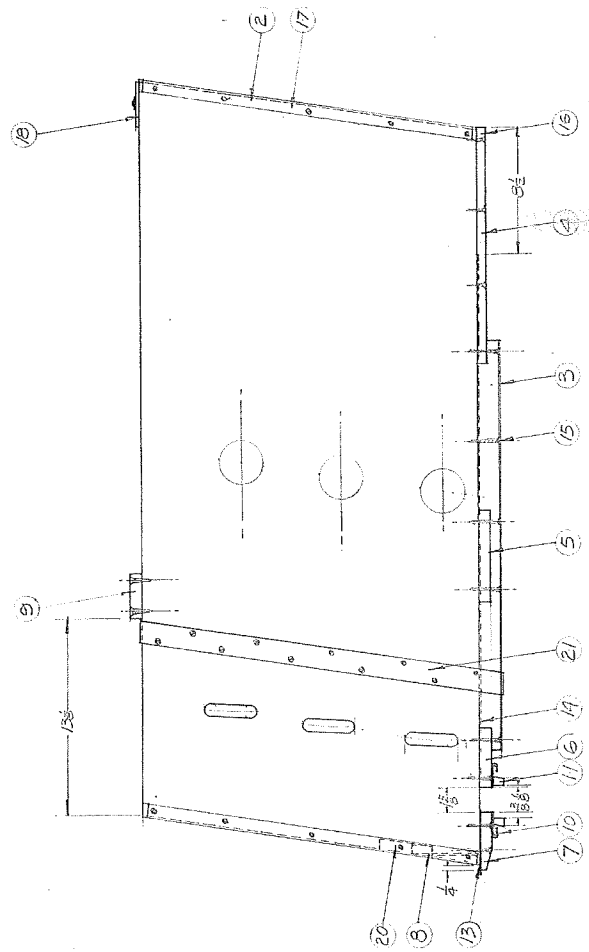
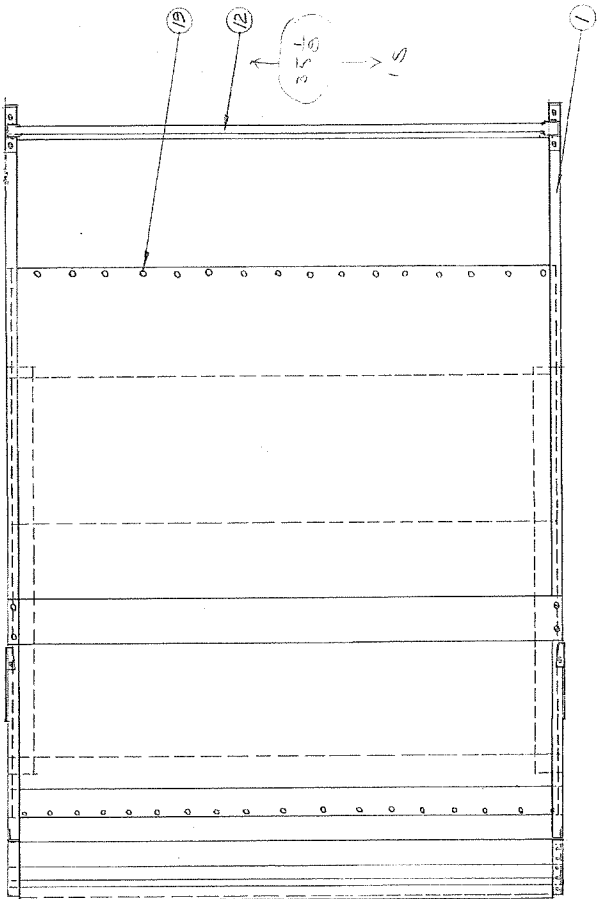
NOTE:
FOR SHOE WITH ROCKERS INCLUDED USE: 30-094-C

ITEM NO.	QTY	DESCRIPTION	MATERIAL	FINISH
1	1	BOARD-SAND	PINE	7 x 3 1/2
2	2	GUIDE-SPOUT	SPL	
3	2	TRACK-SPOUT	PINE	
4	1	LINER-NOSING BRD	SPL	24 GA-
5	1	METAL-BOTTOM	SPL	
6	2	RUNNER-SHOE OAK		
7	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
8	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
9	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
10	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
11	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
12	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
13	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
14	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
15	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
16	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
17	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
18	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
19	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
20	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
21	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
22	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2
23	2	SCREWS-#10 WOOD	SPL	NO. 10-1 1/2

ITEM PART NO.	RECD PART NAME	MATL REMARKS
1	ASSEMBLY	
2	SHOE	
3	SHOE	
4	SHOE	
5	SHOE	
6	SHOE	
7	SHOE	
8	SHOE	
9	SHOE	
10	SHOE	
11	SHOE	
12	SHOE	
13	SHOE	
14	SHOE	
15	SHOE	
16	SHOE	
17	SHOE	
18	SHOE	
19	SHOE	
20	SHOE	
21	SHOE	
22	SHOE	
23	SHOE	

MICROFILMED
DATE JUN 22 1964

A. T. FERRELL & CO.
MACHINE WORK
SHEET NO. 30-094



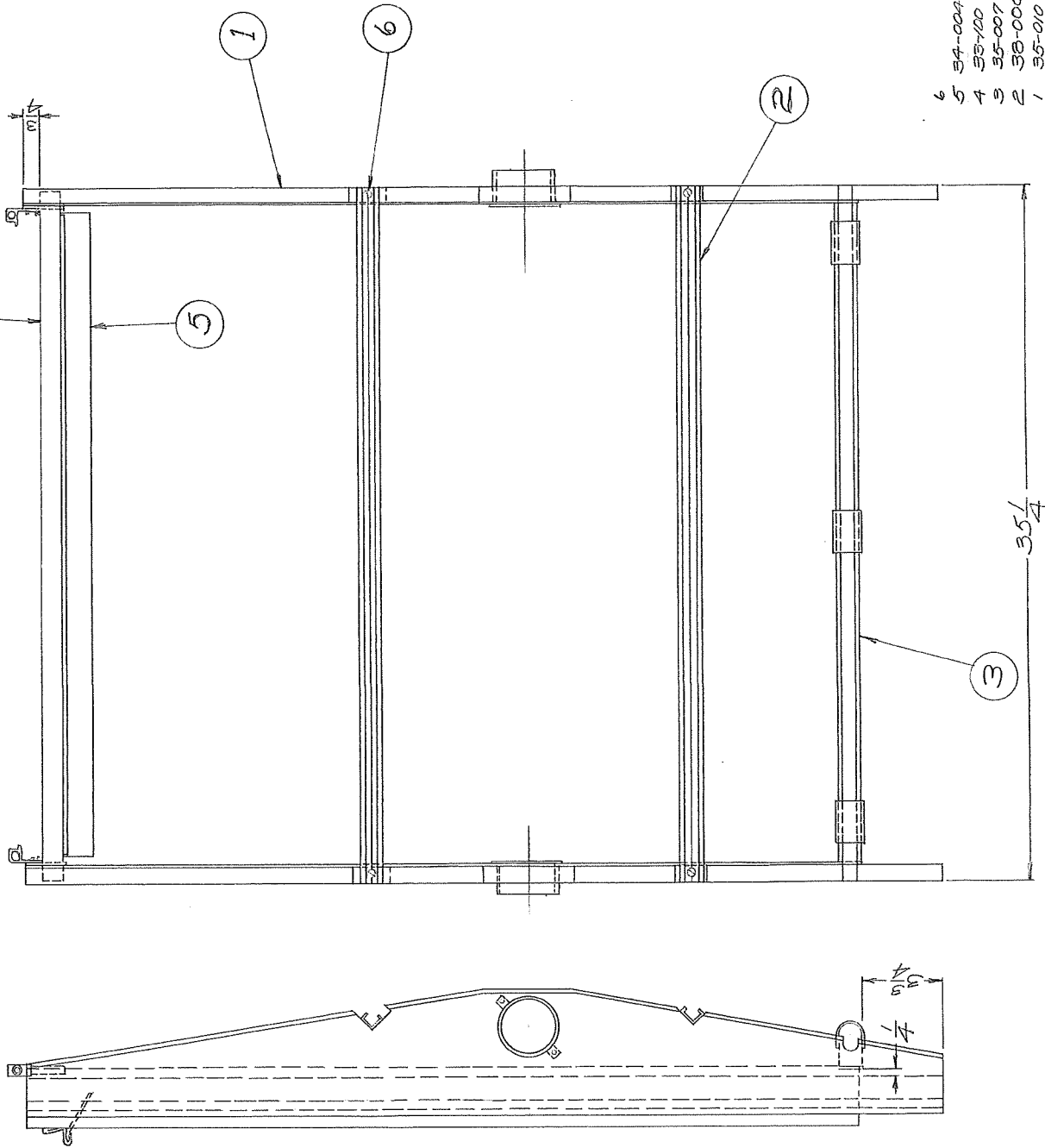
NOTE:
FOR SHOE WITH ROCKERS INCLUDED USE:
L.H. - 30-087-2C
R.H. - 30-087-5C

21	BB-109	2	SIDE BRACE	116 ^W
20	BO-002	2	SPRINGS-APRON	
19	60	1/2"	NO. 14 NAIL	
18		3/4"	NO. 8 WDSCREW	
17		40	1/8" NO. 10 "	
16		24	1/8" NO. 10 "	
15		1/2	2"-NO. 10 WDSCREW	
14	BB-099	1	IRON-SHOE	207 ^W
13	BB-106	1	STRIP-NOSING	206 ^W
12	BO-003	1	ASSY-PIPE S/ST	
11	BI-116	2	TRACK-SPOUT	SPT-02
10	SB-107	2	GUIDE-SPOUT	20 ^W
9	SI-114	1	BOARD-TOP	PINE
8	SI-111	1	BOARD-BACK	PINE
7	SI-112	1	NOSING-SHOE	PINE
6	SI-112	1	BOARD-BACK BOTTOM	PINE
5	SI-113	1	"	CENTER BOTTOM PINE
4	SI-115	1	"	FRONT BOTTOM PINE
3	SI-117	2	RUNNER-SHOE	OAK
2	SI-172	4	IRON-SHOE END	1/8"
1	SI-209	2	SIDE-SHOE	OAK L.R. S.R.

ITEM PART NO. QUANTITY PART NAME MATL. REMARKS
SHOE-ASSEMBLY
DATE 7-15-53 DRAWN BY
A. T. FERRELL & CO. 1-7-5
SHEET NO. 30-087

30-087-C L.H.
30-087-1C R.H.

MICROFILMED
DATE JAN 19 1964

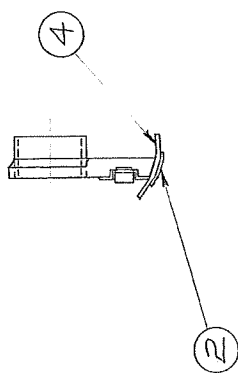
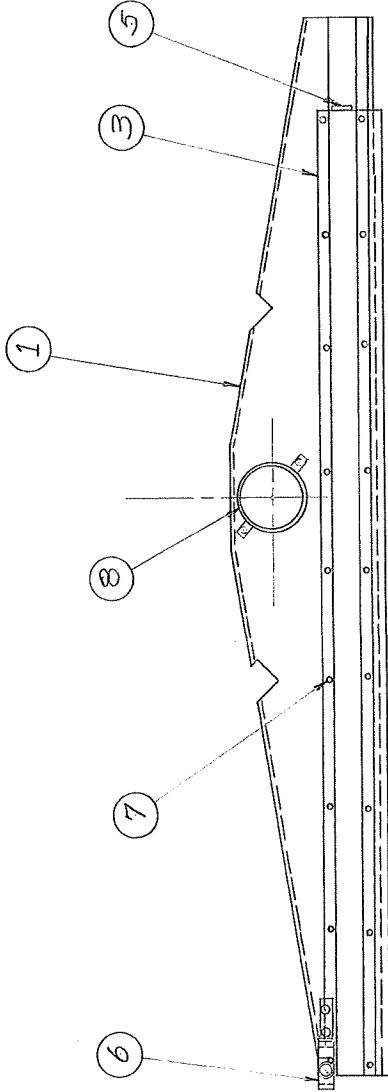


- 6 WOODSCREW STD 3/4" 8 F.H.
- 5 34-004 1 STRENGTH-GRAIN STOP RUBBER
- 4 33-700 1 GRAIN STOP SH.ST
- 3 35-007 1 ADJUSTING GIRT ASBL
- 2 38-000 2 BOTTOM BEAR
- 1 35-010 2 ROCKER ARM ASSY L.H. & R.H.

ITEM PART NO	REQD	PART NAME	MATL	REMARKS
TOP ROCKER ASSEMBLY				
DWN. BY: A	TRD. BY:	CHK. BY:	SCALE: 3/4" = 1"	DATE: 2-57
A. T. FERRELL & CO.			WORKING NO. 38-A	DATE: FEB 4 1947
			BRUNNEN, INCH.	SHEET NO. 35-013

MICROFILMED
DATE FEB 4 1947

POST-1000



ROCKER ARM ASSEMBLY - TOP
2 REQD

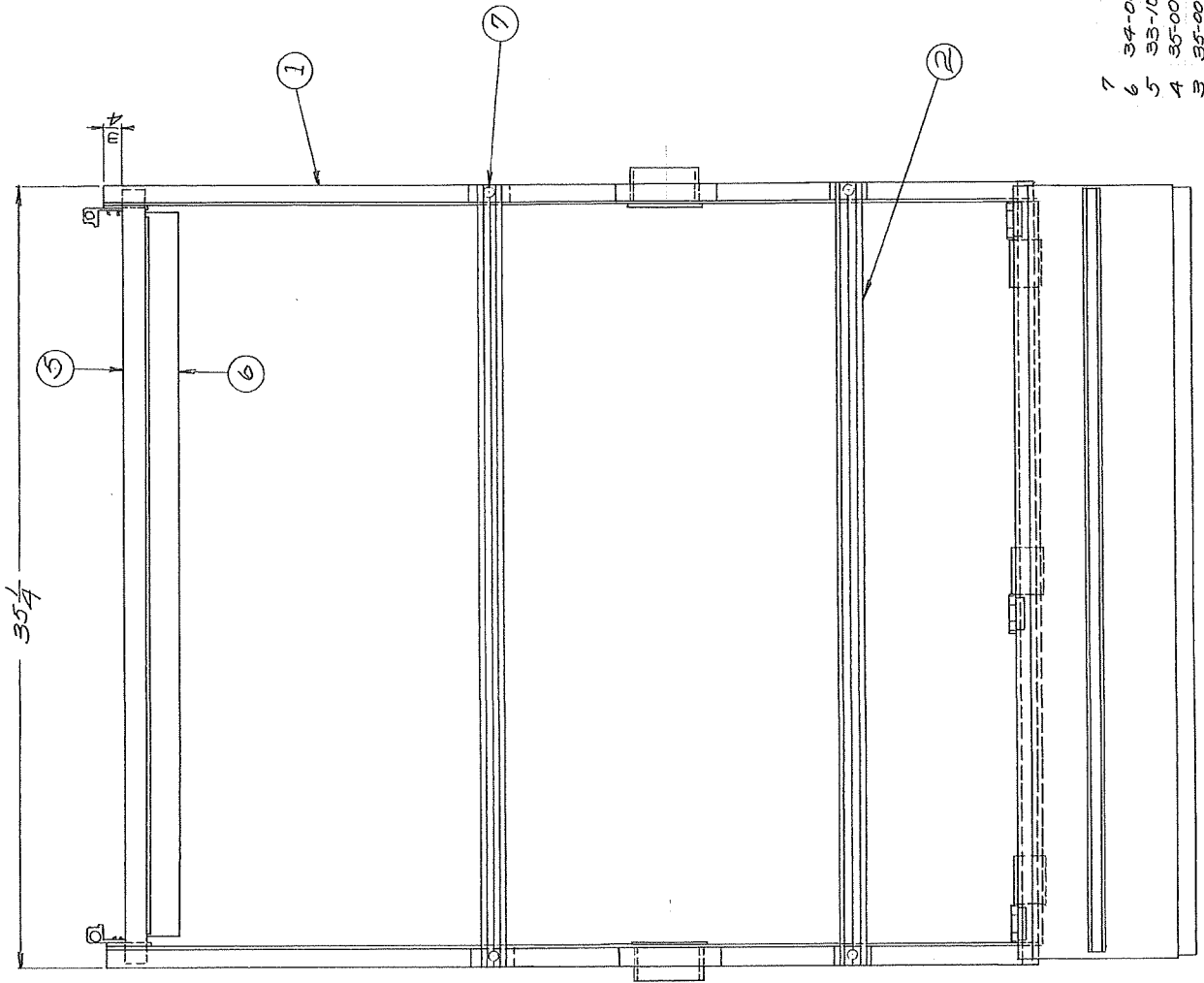
PK 03501001 - 1 REQD AS SHOWN R.H.
PK 03501002 - 1 L.H. REQD.

① 8	FC35C3PCD	1	CUP ASSEMBLY	R.H.
7		18	1/2" 14 WOODSCREW	
6	35-008	1	SCREEN HOOK	
5	38-010	1	STOP-SCREEN SH.ST.	
4	39-002	1	STRIP-SCREEN RUBBER	
3	38-021	1	SCREENWAY SH.ST.	
2	38-020	1	STRIP-RUBBER HOLDING SH.ST.	
1	36-008	1	ARM-TOP ROCKER PINE	L.H. & R.H.
ITEM PART N°	REQD	PART NAME	MATL	REMARKS

ROCKER ARM - TOP ASSEMBLY	
DWN BY: EA	TRD. BY:
DATE: 7-31-57	SCALE: 3/4" = 1"
A. T. FERRELL & CO.	
SAGINAW, MICH.	
DATE: 7-31-57	BY: EA
CHKD BY: EA	APP'D BY: EA
SHEET NO. 35-010	

MICROFILMED

DATE: 7-31-57



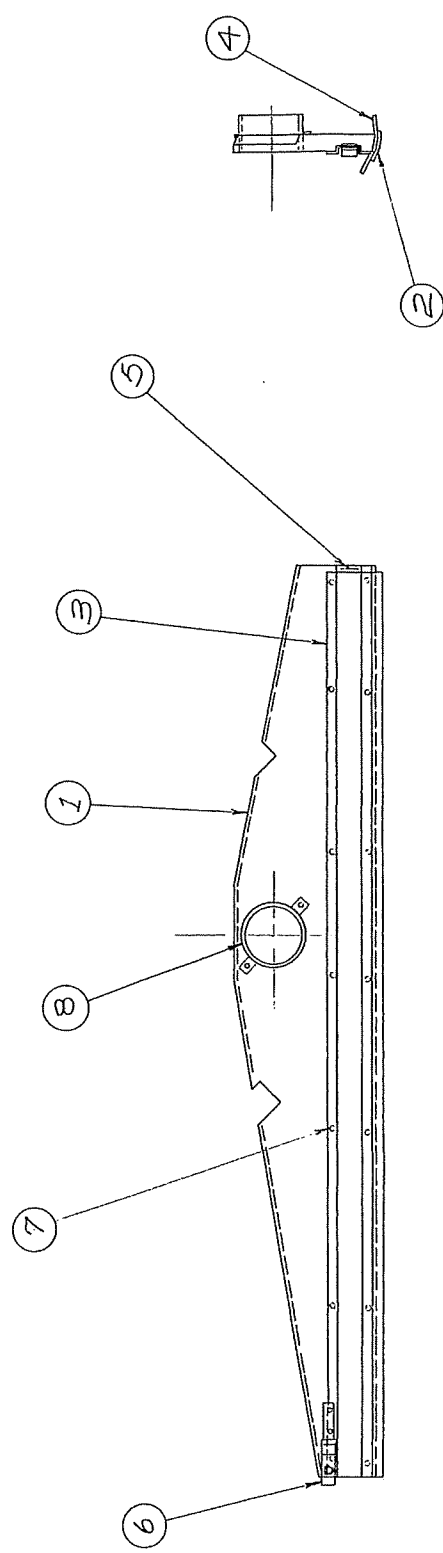
- 7 34-004 18 WOODSCREW STD. 3/4" x 8 F.H.
- 6 34-004 1 STRIPING-GRAIN STOP RUBBER SH. ST.
- 5 33-100 1 GRAIN STOP
- 4 35-009 1 APRON ASSY
- 3 35-007 1 ADJUSTING GIRT ASSY.
- 2 38-000 2 BOTTOM BRACE SH. ST.
- 1 35-011 2 ROCKER ARM ASSY. L.H. & R.H.

ITEM PART N°	QTY	PART NAME	MATL	REMARKS
		ROCKER		
		ROCKER		
		ASSEMBLY		

MICROFILMED
DATE: FEB 7 1981

OWN. BY: A
 DATE: 8-3-57
 SCALE: 3/4"
 A. T. FERRELL & CO.
 BOSTON, MASS.
 SHEET NO. 35-012

A ECU # F880080 1-26-85 JH



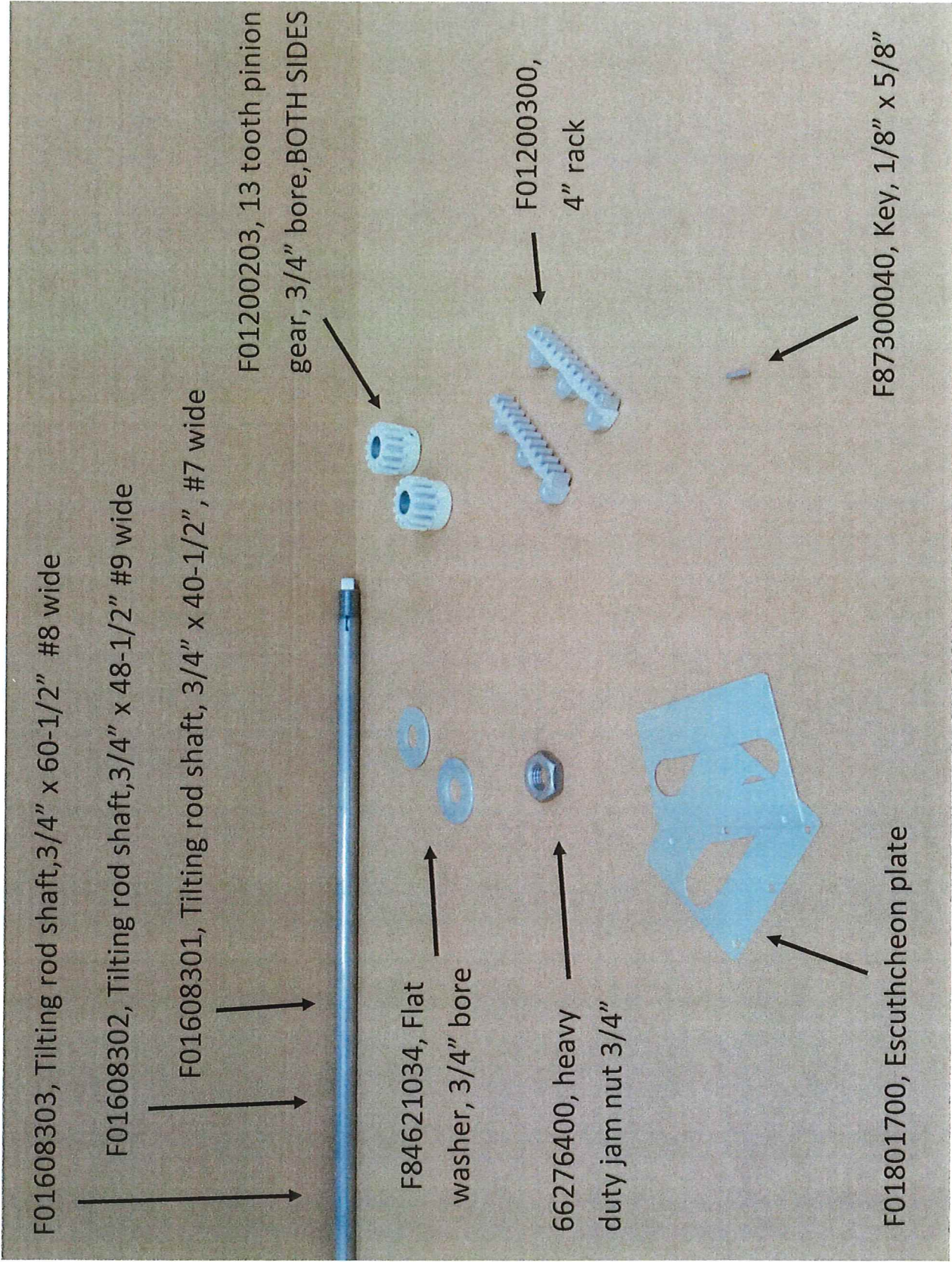
- ⑧ 8 FO3505900 / CUP ASSEMBLY R.H.
- ⑦ 7 35-008 / 18 1/2" 14 WOODSCREW
- ⑥ 6 35-008 / SCREEN HOOK
- ⑤ 5 38-010 / STOP-SCREEN SHST
- ④ 4 38-002 / STRIP-RUBBER RUBBER
- ③ 3 38-021 / SCREENWAY SH ST
- ② 2 38-020 / STRIP-RUBBER HOLDING SH ST
- ① 1 36-009 / ARM-BOTTOM ROCKER PINE L.H. R.H.

ROCKER ARM ASSEMBLY - BOTTOM
 2 REED

PH 03501101 - 1 REED AS SHOWN R.H.
 PH 03501102 - 1 L.H. REED

OWN BY:	TRD BY:	CHK BY:
DATE: 8-7-47	SCALE: 3/4" = 1"	MSH NO. 38-010
A. T. FERRELL & CO. SAGINAW, MICH.		
SHEET NO. 35-011		

MICROFILMED
 DATE FEB 1 1981



Screen rocker adjusting assembly