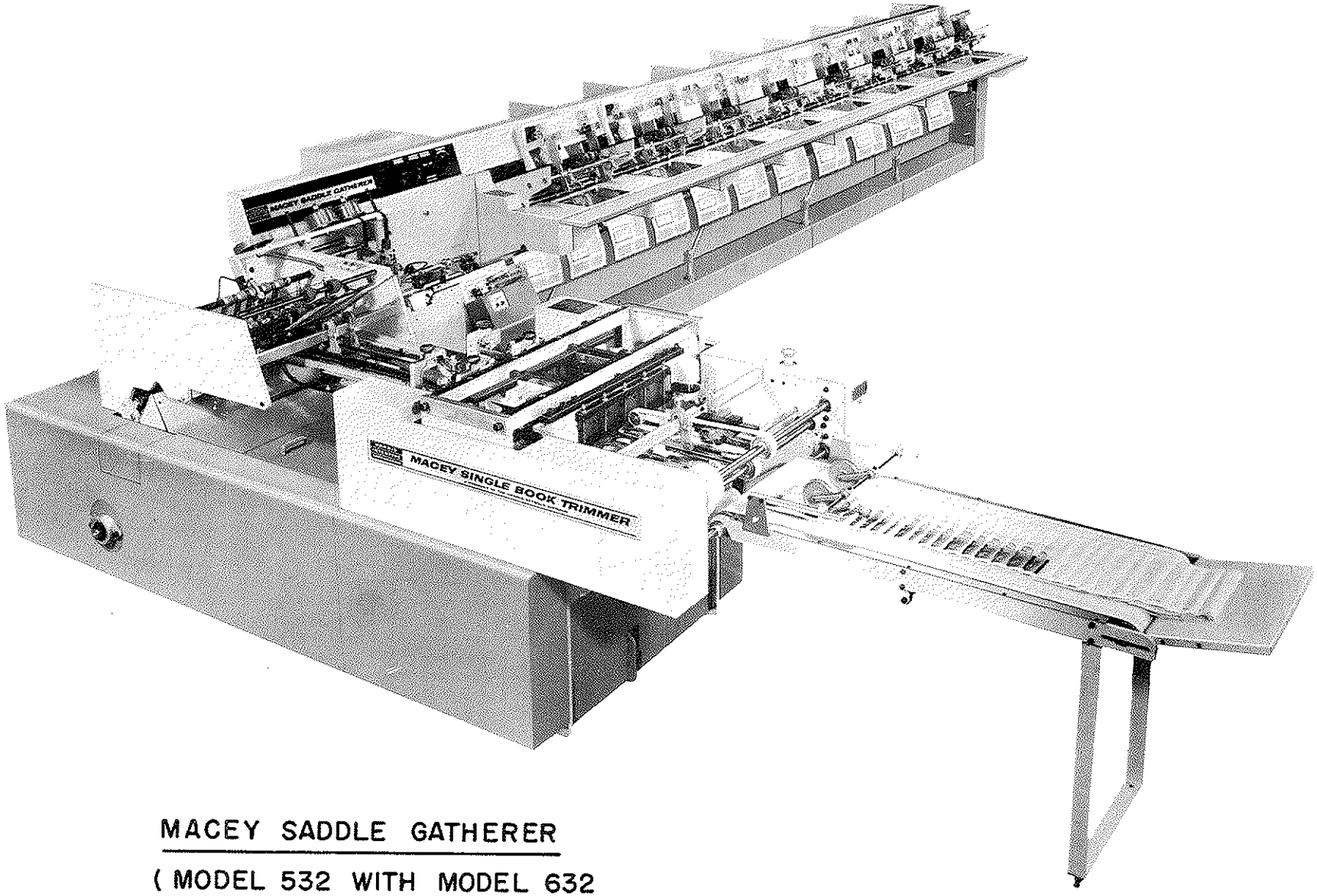
Model 532-L
Serial 473

MACEY
SADDLE BINDER
MODELS 531 - 532



MACEY SADDLE GATHERER

(MODEL 532 WITH MODEL 632
SINGLE BOOK TRIMMER)

HARRIS-SEYBOLD COMPANY

MODEL SPECIFICATIONS
(Subject to Change Without Notice)

MODEL
531 & 532

MACHINE: MACEY SADDLE GATHERER

SPECIFICATIONS:

SHEET SIZE (UNTRIMMED)	MAXIMUM 12 1/2" x 20 ~~3/4~~" MINIMUM 3" x 5 5/8" MINIMUM LAP FOR PIN FEEDING 1/4" 1/2' MAXIMUM THICKNESS OF BOOK
NUMBER OF STATIONS	2 STATIONS WITH MULTIPLES OF 2 STATION ADDITIONS
SPEED (CYCLES PER HOUR)	INFINITELY VARIABLE FROM 2900 TO 8500. PRODUCTION SPEED DEPENDS ON SIZE, THICKNESS, NUMBER OF STATIONS AND KIND AND CONDITION OF STOCK AND OTHER OPERATING CONDITIONS
FEEDER	SIGNATURES ON EDGE. 8" CONTINUOUS PILE CAPACITY. VACUUM SEPARATION, MECHANICAL GRIPPERS WITH ROTARY TRANSFER. TWO-TO-ONE GEARING IS STANDARD EQUIPMENT
SIGNATURE OPENERS	MECHANICAL AND/OR VACUUM AT ALL STATIONS
DETECTOR	PACK INSPECTOR BEFORE STITCHER DETECTS BOTH "OVER" AND "UNDER" BOOKS. AUTOMATIC THROW-OUT OF STITCHER AND REJECTION OF INCORRECT BOOKS. THREE CONSECUTIVE INCORRECT BOOKS STOPS MACHINE
GANG STITCHER	* STITCHES UP TO 3/16" THICKNESS THROUGH CROWN OF BOOK. TWO 26 ACME CHAMPION HEADS FURNISHED. MACHINE IS FACTORY EQUIPPED TO RUN SIX (6) HEADS. BOSTITCH HEADS 26D CAN BE SUBSTITUTED AT EXTRA CHARGE, 1/4" THROUGH CROWN WITH BOSTITCH HEADS.
SADDLE CHAIN	CROWNED CHAIN WITH EASILY REMOVABLE PUSHERS FOR ONE INCH STAGGER STITCHING
AIR AND VACUUM SUPPLY	VACUUM PUMP FOR FEEDERS AND SEPARATE VACUUM PUMP FOR SIGNATURE OPENING. AIR BLOWERS FOR POCKETS
REFEED STATIONS	OPTIONAL AT EXTRA CHARGE, BEFORE STITCHER AND/OR END OF MACHINE
CONTROLS	"JOG", "STOP" AND "START" PUSH BUTTONS CONVENIENTLY LOCATED. ON-OFF SWITCHES FOR EACH PUMP MOTOR.
POWER REQUIRED	5 HP DRIVE MOTOR 1 1/2 HP FEEDER PUMP MOTOR 1 1/2 HP OPENER PUMP MOTOR

* Changed since last issue

Supersedes 2-9-68
H-S FORM 624-1A

Approved Carl H. Heigl CARL H. HEIGL

Date 4-11-68

HARRIS-SEYBOLD COMPANY

MODEL SPECIFICATIONS
(Subject to Change Without Notice)

MODEL
531 & 532

MACHINE: MACEY SADDLE GATHERER

POWER REQUIRED (CONTINUED) . . . STANDARD VOLTAGE: 220-3-60;
ALTERNATE 440-3-60 OR
208-3-60
ALL OTHERS AT EXTRA CHARGE

GENERAL:

FLOOR SPACE . . . . . SEE FLOOR PLANS
CRATED WEIGHT (APPROX.) . . 4 STATION WITH STITCHER -- 7,000 LBS.
6 STATION WITH STITCHER -- 8,500 LBS.
8 STATION WITH STITCHER -- 9,000 LBS.

NOTE:

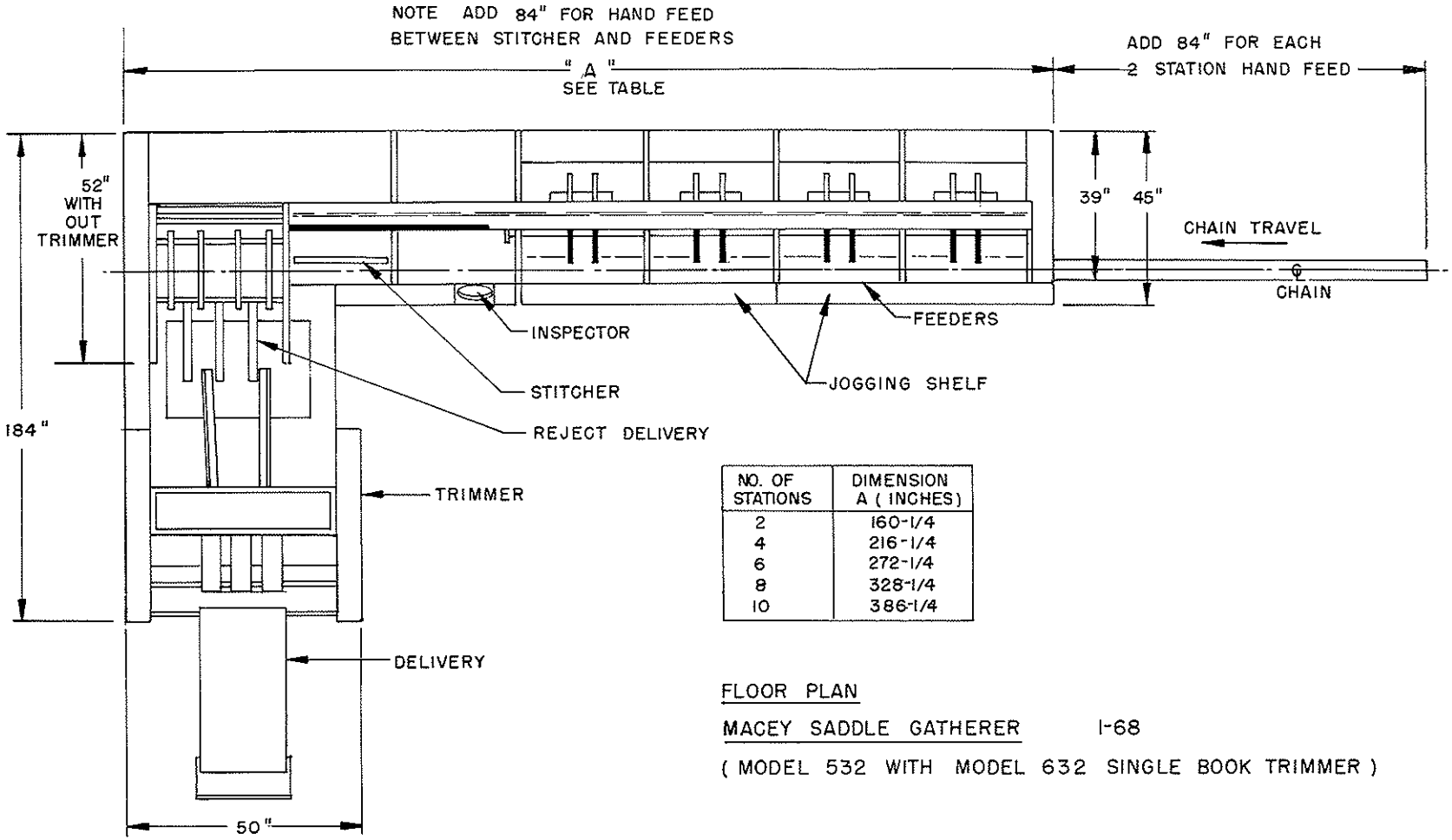
IF LAP IS ON HIGH PAGE SIDE OF SIGNATURE, MODEL 532 IS RECOMMENDED;
IF LAP IS ON LOW PAGE SIDE OF SIGNATURE, MODEL 531 IS RECOMMENDED.

STANDARD EQUIPMENT FURNISHED WITH EACH MACHINE:

AIR BLOWERS AT EACH POCKET
PAPER JOGGING PLATFORMS
OVER AND UNDER BOOK INSPECTOR
ELECTRICAL MOTOR AND CONTROLS
FEEDER OVERLOAD CLUTCH
2: 1 GEARING ON FEEDERS
INSTALLATION AND OPERATING INSTRUCTIONS (DOMESTIC ORDERS ONLY)

OPTIONAL EQUIPMENT AVAILABLE AT EXTRA CHARGE:

MISFEED DETECTORS AT EACH POCKET, ATTACHMENT MODEL 526
BOSTITCH STITCHING HEADS
EXTRA ACME STITCHING HEADS
HAND FEED SECTION (PROVIDES FOR TWO FEEDING POSITIONS BETWEEN STITCHER AND FEEDER. ATTACHMENT MODEL 537 RH OR 538 LH)
HAND FEED SECTION (PROVIDES FOR TWO FEEDING POSITIONS AT TAKE-UP END ATTACHMENT MODEL 535 RH OR 536 LH)



NO. OF STATIONS	DIMENSION A (INCHES)
2	160-1/4
4	216-1/4
6	272-1/4
8	328-1/4
10	386-1/4

FLOOR PLAN

MACEY SADDLE GATHERER I-68

(MODEL 532 WITH MODEL 632 SINGLE BOOK TRIMMER)

TABLE OF CONTENTS

MACEY SADDLEBINDER

MODELS 531 & 532

RECEIVING

The equipment is shipped either as an assembled unit or as a number of smaller units and requires a minimum of erection on the customer's floor. All units are prewired to facilitate easy installation. Miscellaneous parts and tools are packed in an accessory box.

Before accepting the machine from the transportation company, a preliminary examination should be made for any possible damage in shipment. If there is any evidence of damage, a notation to that effect should be made on the Bill of Lading. The Harris-Seybold Sales Office should be notified immediately for the proper procedure.

UNCRATING

When removing the crate, care should be taken so that the painted finished surfaces of the machine are not damaged. Check carefully for loose parts and tools shipped with the machine. The process of removing the machine from the skids is usually done by professional riggers, and they should be cautioned against twisting or bending the machine.

Leveling

The machine must be leveled horizontally and laterally. Place a spirit level on the metal tie rods nearest the floor to establish proper alignment. The transfer wheel shaft may also be used for leveling the machine lengthwise. Leveling screws at each frame are used to achieve proper level.

ASSEMBLY

On the machine that is shipped in sections, the following procedure should be used in assembly:

1. Oil the end of shafts before slipping into couplings.
2. Air and vacuum manifold - Make sure the air holes are all in line before assembly. Rubber 'O' rings must be placed at the manifold tube butt ends.
3. At this point slide the sections together, stopping when lower tie bars butt against the adjacent frames.
4. Level the machine with leveling screw.
5. Connect wiring in wire raceway.
6. Thread the conveyor chain through the machine. Re-tighten the chain take-up screw.

ELECTRICAL CONNECTIONS

This machine is shipped with electrical equipment installed including overload protection for motors, and all panels are prewired at the factory. However, Harris-Seybold does not provide the wiring up to the control panel, nor the supply to a main line fused disconnect switch.

A fused safety switch should be installed in the main power line. This switch should be placed in the vicinity of the machine. Pull the safety switch whenever the machine is not in operation; nights, weekends, repairs, etc.

Check the specifications on the motors to see that they correspond with the voltage, cycle, and phase of the electrical power to be used. Occasionally transformers are supplied to match the line power with the machine motor requirements.

When making the electrical connections to the starter box, check the direction of rotation of the drive motor. This can readily be done by jogging the machine and observing the rotation of the rotary gripper wheels. The pump motors must revolve counter-clockwise when facing the pulleys. The pump drive belts can be removed to check their rotation. Caution: Do not operate the

machine for prolonged periods when testing the motor rotations.

LUBRICATION

The machine must be carefully lubricated prior to production operation and should at all times thereafter be thoroughly lubricated. Most of the points of lubrication are fitted with oil cups or grease fittings. All points of lubrication are noted on the lubrication chart. For lubrication of this machine, we recommend the following:

Oil Cups & Oil Holes	A good quality machine oil must not gum or corrode in service. Viscosity 150 to 300 Sec. at 100 degrees F. Saybolt Universal.
Ball Bearings, Chain Guides	A smooth, short fibre grease for ball or roller bearings (approximately 300 penetration worked at 77 degrees F) made from mineral oil approximately 300 SUV at 100 degrees F.
Spur Gears and Cams	A high quality lubricant. Recommended lubricant is Grease #B-576MS made by Non-Fluid Oil Corporation. (Macey Part No. S-5-145).
Gast Pump	See enclosed manufacturer's specifications.

VACUUM AND AIR PUMPS

The oil reservoir assembly is shipped separately to prevent breakage, and must be screwed into top of pump assembly. The oil reservoir cup must be kept filled. The recommended lubrication and maintenance of the pumps is described in detail at the back of this manual.

SEQUENCE OF OPERATION

1. The transfer wheel rotates, with grippers open, toward feeder where signatures are standing on edge.

2. Suction cups on pivot bar seal on the bottom of the signature and bend signature down for transfer to gripper wheel.

3. Gripper closes on signature as vacuum valve opens and releases suction.

4. Gripped signature is removed from feeder and transferred to opener cradle below transfer wheel where grippers release the signature. When one signature is released, the other gripper repeats the above operation.

5. Parallel chains on the opener cradle push the signature toward front of machine into opener wheel.

6. The opener wheel engages signature and opens it either by vacuum or pierce pins. This is determined by the type of signature (with or without lip).

7. Opener wheel pulls signature away from parallel chains, and outside suction cups assist in separation for drop to saddle sword.

8. Pusher fingers on saddle chain slide signature off the sword and onto saddle chain.

9. The saddle conveyor chain carries counted signatures under the inspector wheel which gages for missing or extra signatures.

10. Shuttle grippers pulls collated signatures from chain and transfers them under stitcher heads and releases; if gather was of correct thickness the book will be stitched, if incorrect thickness, the stitcher will not operate.

11. Shuttle grippers will again grip the counted signatures and transfer them to ejector rollers.

12. If gather was of correct thickness, collated signatures will be routed toward entry conveyor on trimmer; if incorrect thickness, gather will be deflected into a reject tray for later de-collating to salvage signatures for reuse. (If three incomplete gathers are processed in a row, machine will automatically stop. The machine operator can then correct the malfunction.)

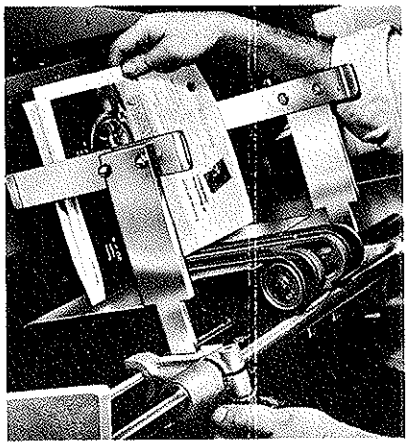
13. The completely stitched gather is placed on the entry conveyor of the trimmer and is pushed by chain fingers toward the knives. The gather is then transferred to a set of intermittent chains which carries it between the side knives. The gather is confined by stop fingers in the front by the chain fingers in the back, and on both sides by side tampers to completely confine gather. Knives then cut head and tail of gather at the same time.

14. The intermittent chains start and transfers the book into intermittently driven tapes for face cut, the tapes pull gather from chains against stops and knife makes the face cut.

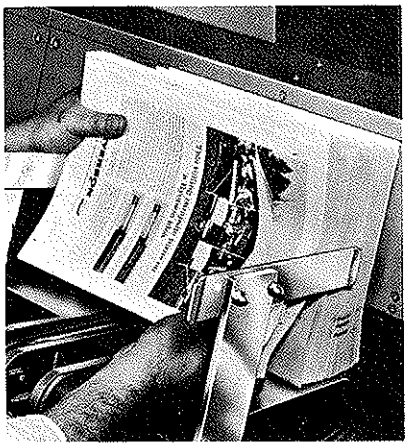
15. Intermittent tapes move completed book toward delivery belt, where a sensor lever is depressed by the completed book. This activates a switch for a counter and also lets delivery conveyor index.

SET-UP PROCEDURE

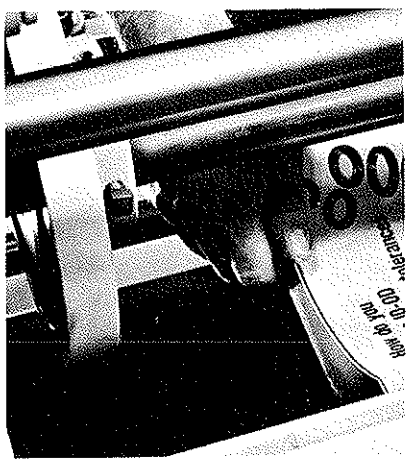
The following is the recommended procedure for setting up the Saddlebinder. The Single Book Trimmer should be set up before proceeding with the following steps.



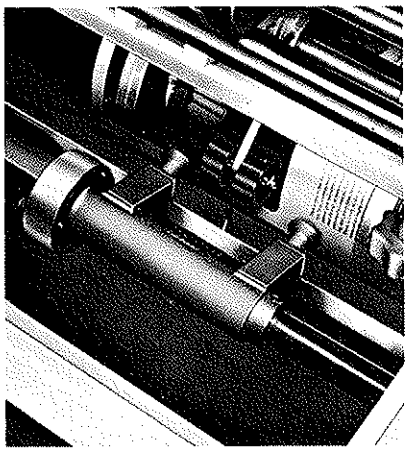
Step 1. Adjust the feeder sides to the size of the material. The material may be bowed by adjusting the side guides 1/16" to 1/8" smaller than the material size.



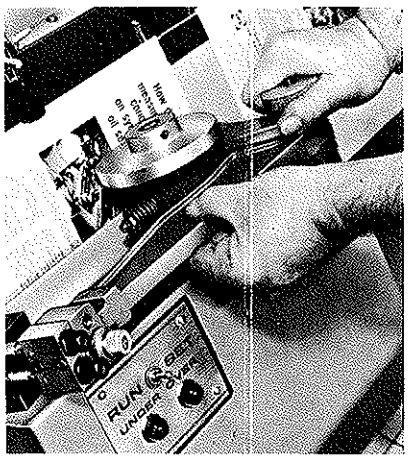
Step 2. Jog the signatures against the backbone. The wooden platforms at the front of the machine are provided for jogging the material.



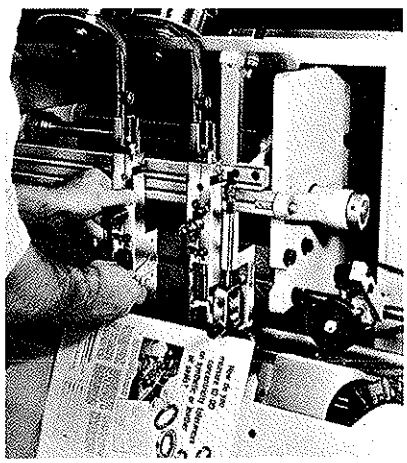
Step 3. Adjust signature transfer cradle guides. Allow approximately 1/8" to 1/4" clearance between the edge of the signature and the guide.



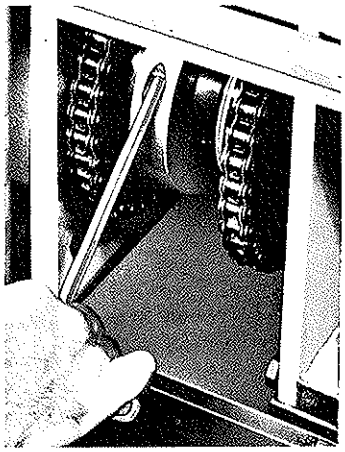
Step 4. Adjust openers for either pin or vacuum opening of signature. The lugs on the parallel cradle chains may be staggered to skew the signature to assist in opening.



Step 5. Put the toggle switch in the "set" position. Loosen pack inspector hand knob, with the correct thickness under the wheel, and re-tighten knob.



Step 6. Position stitcher heads for the desired location of the stitch on the backbone of the book. Align clinchers with the heads.



Step 7. Loosen split clamp ring and advance or retard saddle chain to center book for entry into trimmer. This procedure is described later in this manual.

Step 8. Jog the machine to check the operation of all functions. Finally adjust the speed of the main drive motor for maximum production.

FEEDER SHUT-OFF VALVES

If a feeder is not used the feeder vacuum valve must be shut off. This valve is located behind the feeder front plate and can be operated from the front of the machine. To shut off the valve raise the stem manually and turn the stem a quarter turn which will lock out the valve.

OPENER DRUM ADJUSTMENT

For feeding signatures with lips, the pins in the opener drum should protrude about 1/4" above the surface. Place a sample gather on the opener chain cradle with the backbone against the chain lugs. Jog the machine until the edge of the lip is over the center of the opener drum. Manually rotate the opener drum until the pins pierce the center of the lip.

For feeding signatures without lips, follow the above procedure except rotate the opener drum until the suction cups in the drum are 1/8" behind the leading edge of the signature. Pet cock valves are used for turning on the vacuum to the opener drum suction cups.

Another pair of suction cups are provided for opening the outside or top of the signature. These cups may also be used to control the drop off of the signature to the saddle chain when opening with pins. In this case the cups should contact the material near the backbone. The cups, without vacuum, will act as a brake and slow down the drop off to the saddle chain.

Auxiliary outboard suckers are provided for an aid to open long signatures.

TIMING FEEDERS TO SADDLE CHAIN

The feeders can be timed in relation to the saddle conveyor chain fingers by loosening the split clamp ring located at the back of the machine and adjacent to first feeder frame. Rotate the feeders, including the opener drum, so that the signature drops on the sword about 3" to 4" ahead of the chain finger. Retighten clamp ring.

SWORD JOGGER BRUSHES

Jogger brushes are located at each sword for the purpose of registering each signature against the conveyor finger. They also serve the purpose of preventing the signature from raising up and contacting the sword on the adjacent pocket.

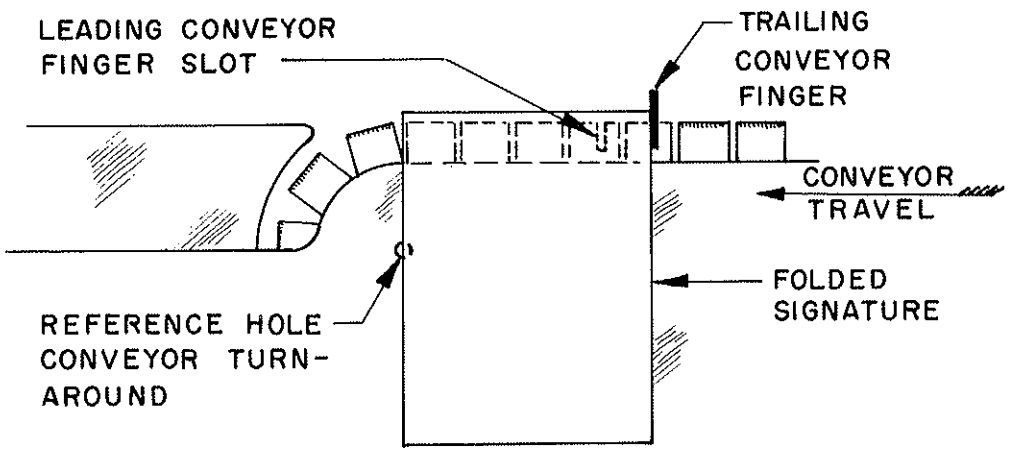
STITCHING SECTION

Refer to operating instructions and parts manual furnished with stitcher for threading instructions, wire sizes, parts lists, etc.

Move the stitcher heads to the desired location of the stitches on the book. Align the clincher assembly exactly under the heads. The knurled knob on the outside of the stitcher frames is for adjusting the heads to the thickness of the book to be stitched. Two "T" handle screws lock the adjustment in place.

CHAIN FINGER TO SHUTTLE GRIPPER ADJUSTMENT

1. Jog machine until the shuttle has moved toward the feeders as far as it will go. (This is the stitcher "0" position.)
2. Loosen the clamp collar on the conveyor and inspector drive sprockets. (Inside front door under inspector console.)
3. Fold in half the longest signature of the job to be run. Place the edge of the folded signature next to the reference hole in front of the conveyor turn-around as shown below.
4. Move the trailing conveyor chain finger so it touches the opposite edge of the signature. Tighten clamp collar securely.



SHUTTLE STROKE ADJUSTMENT

For books with long folds it may be necessary to change the stroke or length of movement of the shuttle bar. Conversely books with short folds can be run on the short shuttle bar movement. The following is the suggested procedure for making this adjustment.

1. Open large access door beneath the trimmer entry conveyor.
2. Jog machine until shuttle crank is visible and accessible, approximately half way in the forward stroke.
3. Shut off "Power Control" toggle switch on main control console.
4. Loosen nut on end of crank pin approximately 1/4" (It is not necessary to remove nut).
5. Grasp loosened crank pin and lift out and in direction of the other detent. The detent on the bigger radius is for 21" stroke, the detent closest to the center of the shuttle flywheel is for 14" stroke.
6. Seat crank pin in detent desired and lock securely.
7. If shuttle is set for 14" stroke, chain pusher fingers must be at 14" chain spacing. If set for 21" stroke, remove all pusher finger by brass chain lugs to get 28" chain spacing.

   Note: Under no circumstance run the machine at 21" shuttle stroke with 14" chain pitch or the chain fingers will be damaged.
8. Set conveyor chain finger to shuttle gripper as previously described to prevent damage.
9. Move "Stroke" toggle switch to match stroke of shuttle.
10. Turn on "Power Control" switch and proceed with setting up the machine.

INSPECTOR ADJUSTMENT

1. Put inspection toggle switch to "Set" position.
2. Jog machine into proper position with the gage wheel resting on the sample gather. The keyway in the gage wheel will be up and both inspector indicator lights will be on.
3. Loosen large knurled lock nut which locks both levers together. The gage wheel will compress sample book under proper pressure and gage arm will assume the proper position against the gage arm stop pin. (Lift gage arm and insert sleeve (Fig. 4, Det. 33) between gage arm and gage arm stop pin.) This will compensate for back-lash in the gaging linkage. Retighten the knurled knob and slide the sleeve down away from the gage arm.
4. Adjust Micro-Adjusting Screws on gage arm until each light goes off - both minus switch and light and plus switch and light must be adjusted independently. After light just goes off, turn adjusting screw 1/4 turn or more to compensate for the machine running. A careful adjustment here will insure proper inspection of signatures.
5. Put inspection toggle switch to "Run" position to run the job. If good books are being rejected, setting may be too close, repeat the above operations, or put switch on "Set" position to see which setting (over or under) is set incorrectly, and make proper adjustment, then reset the switch to "Run". An alternate method of checking the inspector setting is to remove the thinnest signature of the gather and observe if the set will be rejected. Adding a thin signature should also cause the set to be rejected. Further adjustment of the micro adjusting

screws is generally unnecessary when changing from one job to another. Merely insert the sleeve, tighten and then retighten the knurled knob with the book in the proper position.

6. This set up procedure is identical for 14" or 21" stroke.

TWO-TO-ONE CYCLING OF FEEDERS

The feeders can be made to operate at half speed of the stitcher and saddle chain. This makes it possible to feed the same signature from adjacent pockets. When the feeder is operating at half speed, signatures which are difficult to feed or open can be handled at a lower rate of speed.

To operate the feeders at half speed, move the clamp ring so that the larger sprocket on the feeder is driven. This clamp ring is located at the back of the machine on the outside of the first feeder frame. The saddle chain must be set at 28" spacing.

CONVEYOR OVERLOAD CLUTCH

The parallel chains in the opener cradle are protected by an overload clutch. Three spring loaded balls provide the driving means for the conveyor shaft. Driving pressure may be increased or decreased by turning the adjusting nut on the clutch. Set screws lock this nut to the mating threaded part. Extreme pressure such as caused by a malfunction in the opener chains will cause the clutch to become disengaged and a trip switch will become activated. The clutch may be reset by jogging the machine until the balls become reseated.

TIMING PROCEDURE FOR SADDLEBINDER

1. Set machine at "0" position which is when the shuttle bar is in its extreme position toward the feeders.

2. Set chain fingers to shuttle for signature size as previously described.

3. Set center of inspection gage wheel to inspect ~~3-1/2~~ 2 1/2" ahead of rear chain pusher finger position.

4. Set by-pass switch collar located under inspector guard to just start to operate micro switch, the 2 buttons in line and facing up toward the micro switches.

5. ~~Jog the machine until the clinchers are all the way up. (280°). Set rotary timing switch in electrical console to operate switch marked #4.~~ SEE DEG # C-550-0-6016 FOR TIMING INSTRUCTIONS

6. Check electrical sequence for 21" stroke and 28" chain pitch.
   a. Set shuttle stroke at 21" (outside detent)
   b. Set stroke switch at 21
   c. Move inspector and chain drive collar to high speed - (chain will move 28" per cycle of the shuttle)

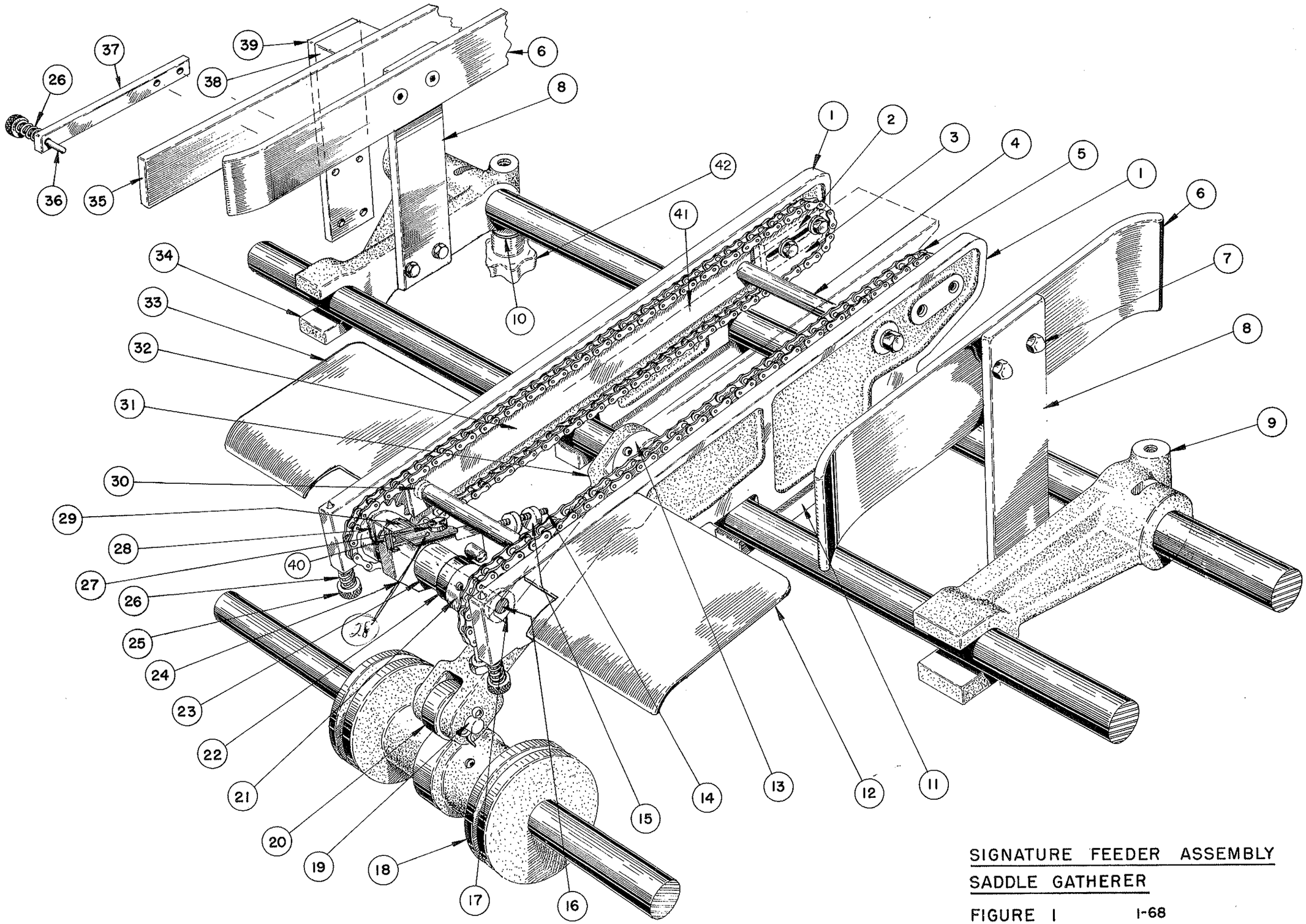
7. Check electrical sequence for 14" stroke and 14" chain pitch.
   a. Set shuttle stroke at 14" (inside detent)
   b. Set stroke switch at 14"
   c. Move inspector and chain drive collar to low speed (chain will move 14" per cycle of shuttle)
   d. Insert chain pusher fingers each pitch

NOTE: Under no circumstance run chain with pushers at 1/4" high speed with shuttle at 21" stroke.

FIGURE 1

SADDLE GATHERER
SIGNATURE FEEDER ASSEMBLY

NO.	DESCRIPTION	PART NO.
1	Hopper Feed Frame	C-520-0-223
2	Take Up Spacer	A-520-0-1113
3	Chain Take-Up	A-520-0-1106
4	Frame Spacer	A-520-0-1105
5	# 35 Chain	S-8-454
6	Side Guide	A-520-0-1017
7	$\frac{1}{4}$ - 20 Acorn Nut	S-1-899
8	Hopper Bracket	A-520-0-1076
9	Hopper Side Guide Slide L.H.	B-520-0-197
10	Washer - 3/8 Flat	S-1-815
11	Feed Frame Clamp	A-520-0-1059
12	Side Plate L.H.	B-520-0-225
13	Collar	A-520-0-1136
14	Hopper Feed Rod	A-520-0-1082
15	Feed Weight	A-520-0-1083
16	Shaft	A-520-0-1258
17	Spacer	A-520-0-1109
18	Opener Pierce Wheel	A-520-0-217
19	Pin	A-520-0-1060
20	N.D. Bearing #77501	S-7-343
21	Sprocket	A-520-0-1257
22	Spacer	A-520-0-1260
23	Torrington Clutch	S-8-462
24	Housing - Clutch	A-520-0-1240
25	Stripper Screw	A-520-0-1028
26	Spring	S-2-243
27	Stripper Lock Screw	A-320-0-1018
28	Index Feeder 520-00-1164	~~A-320-0-1008~~
29	Spacer	A-520-0-1259
30	Spacer	A-520-0-1110
31	Hopper Feed Drive Arm	B-520-0-226
32	Chain Track	A-520-0-1108
33	Side Plate R.H.	B-520-0-224
34	Hopper Side Guide Slide R.H.	B-520-0-196
35	Side Guide (Optional for small books)	A-520-0-1111
36	Side Stripper Scr. (Optional)	A-520-0-1205
37	Side Stripper (Optional)	A-520-0-1204
38	Filler (Optional for small books)	A-520-0-1112
39	Hopper Bracket Style "B"	B-520-0-1162
40	Nylock Button Hd. scr.	S-1-921
41	Hopper Feeder Center Plate	B-520-0-227
42	Stud & Knob	A-520-0-1020



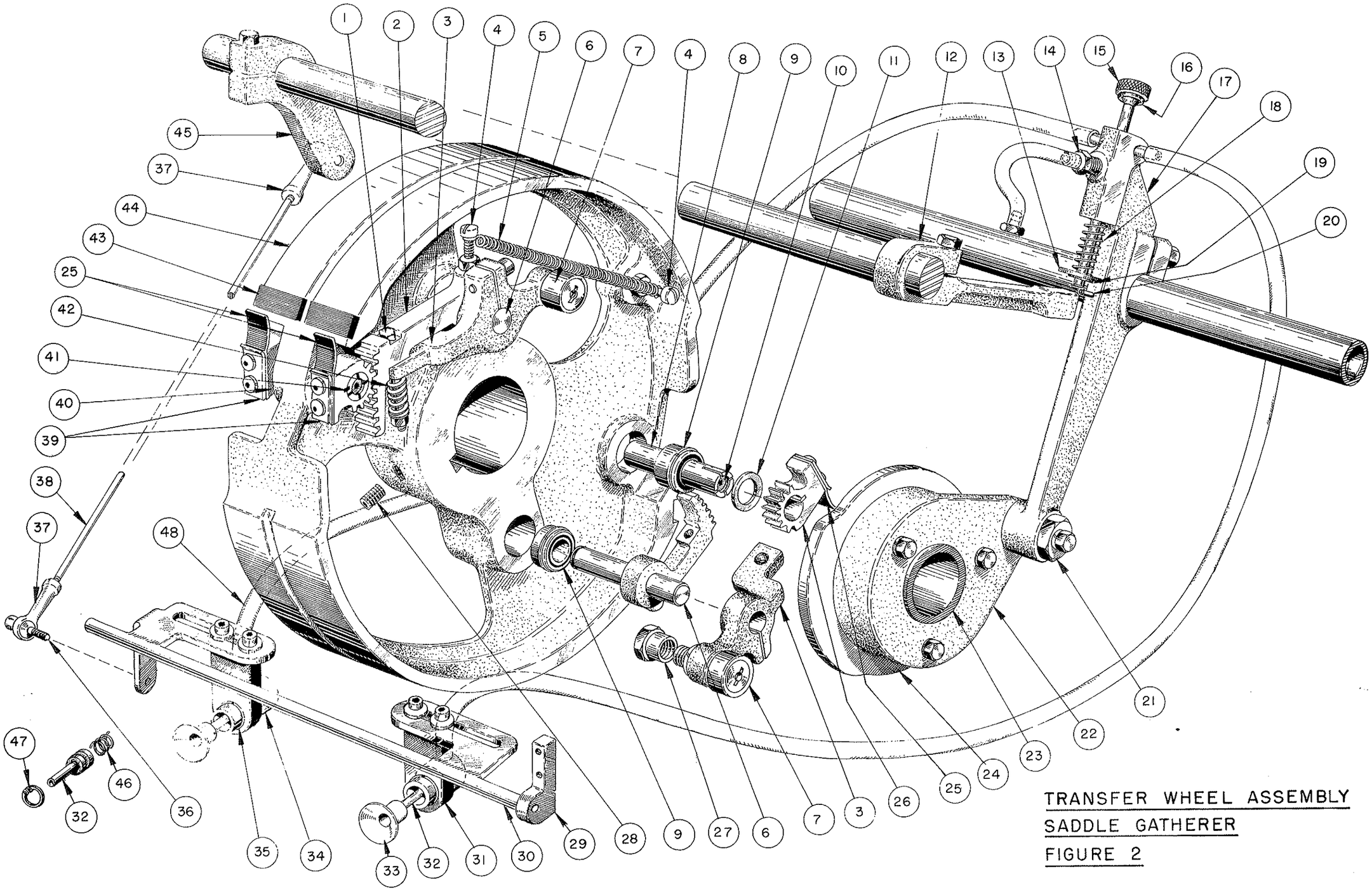
SIGNATURE FEEDER ASSEMBLY
SADDLE GATHERER

FIGURE 1 1-68

FIGURE 2

SADDLE GATHERER
ROTARY TRANSFER WHEEL

NO.	DESCRIPTION	PART NO.
1	1/4-20 x 2 3/4 Hex. Hd. Cap Scr.	S-1-112
2	Gripper Gear Segment	B-520-0-162
3	Spring Arm	B-520-0-161
4	Spring Anchor	A-600-0-1431
5	Spring - Dieco #9	S-2-338
6	Gear Segment Shaft	A-520-0-1003
7	1" Cam Follower	S-7-203
8	Gripper Shaft	A-520-0-1002
9	Ball Bearing	S-7-335
10	1/8" Pipe Plug	S-4-100
11	Pinion Washer	A-520-0-1007
12	Valve Trip Arm	A-520-0-233
13	Locking Washer	A-520-0-1160
14	1/4 Tube to 1/8 Pipe Fitting	A-100-0-1175
15	Valve Stem	A-520-0-1133
16	"O" Ring	S-7-360
17	Cam Anchor & Valve Body	B-520-0-232
18	Valve Spring	A-520-0-1134
19	Truarc Ring	S-2-263
20	Roll Pin	S-2-199
21	Cam Anchor Adv.	A-520-0-1012
22	Gripper Cam Holder	B-520-0-159
23	Bearing FF-2203-2	Part of Det. 22
24	Gripper Cam	B-520-0-1010
25	Gripper Spring	A-520-0-1008
26	Gripper Pinion	A-520-0-1000
27	Nut Spring Detent	A-520-0-1011
28	Soc. Set Scr. 3/8-16 x 3/4	S-1-559
29	Sucker Tube Pivot	A-300-0-1122
30	Sucker Pivot Bar	B-520-0-180
31	Sucker Holder	A-520-0-231
32	Piston	A-300-0-1051
33	Suction Cup	A-520-0-1245
34	Suction Cup Body	A-300-0-1052
35	Truarc Snap Ring	S-2-271
36	Soc. Hd. Cap Scr. #10-24 x 1/2	S-1-275
37	Heim Rod End Brg.	S-7-214
38	Sucker Operating Link	A-500-0-1015
39	Gripper Stiffener	A-520-0-1009
40	Gripper Holder	A-520-0-183
41.	1/8 Sq. Key x 5/8 Lg.	S-8-233
42	Spring - H.P. 12-A	S-2-347
43	Gripper Anvil	A-520-0-1132
44	Transfer Wheel	D-520-0-174
45	Sucker Operating Lever	A-300-0-27
46	Spring	A-300-0-1104
47	Truarc Snap Ring	S-2-255
48	Tygon Tubing	S-9-110
(Not Shown)	Plastic Opener Guard	B-520-0-1095

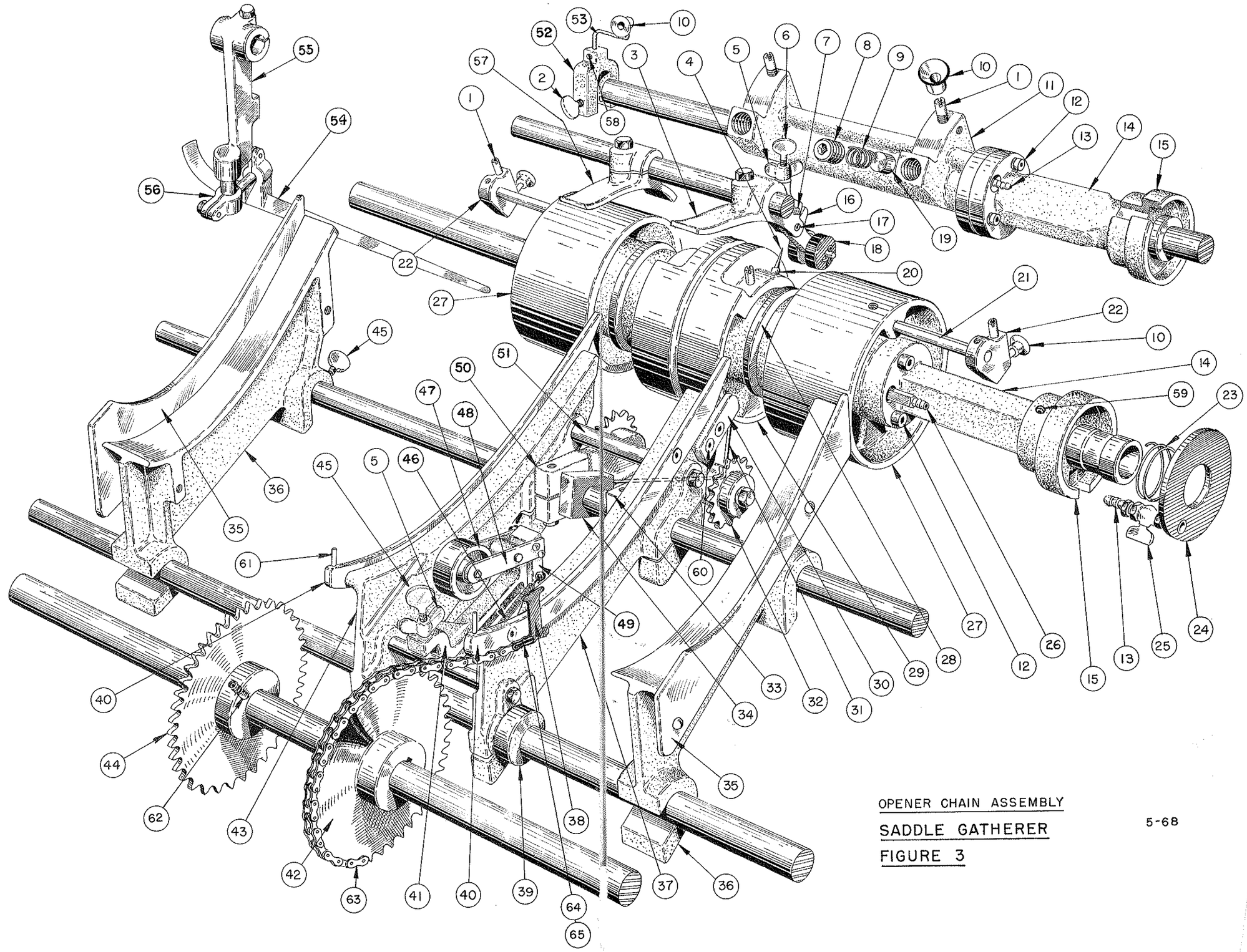


TRANSFER WHEEL ASSEMBLY
SADDLE GATHERER
FIGURE 2

FIGURE 3

OPENER CHAIN ASSEMBLY

NO.	DESCRIPTION	PART NO.
1	Sucker Holder	A-500-0-1683
2	Thumb Scr.	S-1-796
3	Opener Roller Brkt.	B-520-0-215
4	Opener Pin	S-2-367 -- 200-2211
5	Wing Nut 1/4 - 20	S-1-810
6	Thumb Screw 1/4 - 20 x 2 1/4	S-916
7	Spring	S-2-253
8	3/4 - 10 Set Scr.	S-1-918
9	Spring	S-2-360
10	Vacuum Cup	A-520-0-1168
11	Outside Opener Holder	B-520-0-204
12	1/4 - 20 x 2 1/2 Allen Cap Scr.	S-1-294
13	1/8 Pipe to Hose Conn.	A-100-0-1175
14	Opener Wheel Valve Spacer (520 Machine)	B-520-0-206
	Opener Wheel Valve Spacer (Single Pocket Feeder)	B-520-0-238
15	Driver	A-520-0-207
16	Opener Roller Pivot	A-520-0-1058
17	Roll Pin 1/4 Dia. x 3/4 Lg.	S-2-216
18	Roller	S-2-363
19	Friction Shoe	A-520-0-1021
20	Opener Pin Holder	A-520-0-1031
21	Sucker Holder Slide-Opener (Optional Equipment)	A-520-0-1101
22	Outboard Sucker Holder Opener (Optional Equipment)	A-520-0-1100
23	Valve Plate Spring	A-520-0-1036
24	Opener Valve Plate	A-520-0-1035
25	1/8 Vacuum Cock	S-4-123
26	Opener Hose Conn.	A-520-0-1042
27	Opener Guide Wheel	B-520-0-205
28	Chain Guide	A-520-0-1041
29	Center Opener Drum	C-520-0-203
30	Opener Chain Guide	A-520-0-1074
31	Center Stripper	A-520-0-1197
32	Diamond Unimount	S-8-446
33	Split Arm	B-520-0-1229
34	Opener Center Stripper Holder	A-520-0-1096
35	Opener Side Guide	B-520-0-1080
36	Opener Slide Guide	C-520-0-219
37	Opener Cain Track Bracket	C-520-0-230
38	Chain Finger	A-520-0-1019
39	Opener Chain Guide	A-520-0-1073
40	Paper Guide	C-520-0-1065
41	Holder-Tension Roll	A-520-0-240
42	Opener Chain Drive Sprocket	A-520-0-1056
43	" " Track Bracket	C-520-0-229
44	" " Adj. Sprocket	A-520-0-1057
45	Thumb Screw $\frac{1}{4}$ - 20 x $1\frac{1}{4}$	S-1-792
46	Spring	S-8-106
47	Faultless Caster	S-2-363
48	Plates-Tension Roller	A-520-0-1210
49	Stop-Tension Roller	A-520-0-1209
50	Split Arm	B-520-0-1228
51	Spacer	A-520-0-1105
52	Opener Hold-up Clamp (Opt.)	A-520-0-1182
53	Opener Hold-up	A-520-0-1183
54	Sword	C-520-0-189
55	Sword Bracket	A-520-0-212
56	Sword Holder	A-520-0-213
57	Opener Paper Guide	B-520-0-216
58	$\frac{1}{4}$ - 20 x 3/8 set screw	S-1-538
59	$\frac{1}{4}$ - 20 x 3/8 set screw (Brass Tip)	S-2-923
60	No. 10-24 x $\frac{1}{2}$ flat hd. scr.	S-1-451
61	Roll Pin 1/8 dia. x 1" Lg.	S-2-202
62	Brass Shoe	A-500-0-1127
63	#41 Chain & $14\frac{1}{2}$ lg.	S-8-203
64	Lock Plate	S-8-303
65	Spring	S-8-304
Not Shown	Opener Contour Guide Spacer	520-0-220
Not Shown	Opener Center Guide	B-520-0-1084
Not Shown	Pierce Pin Wrench	A 520-0-1137
Not Shown	Opener Wrench Adjuster	A-520-0-1165



OPENER CHAIN ASSEMBLY

SADDLE GATHERER

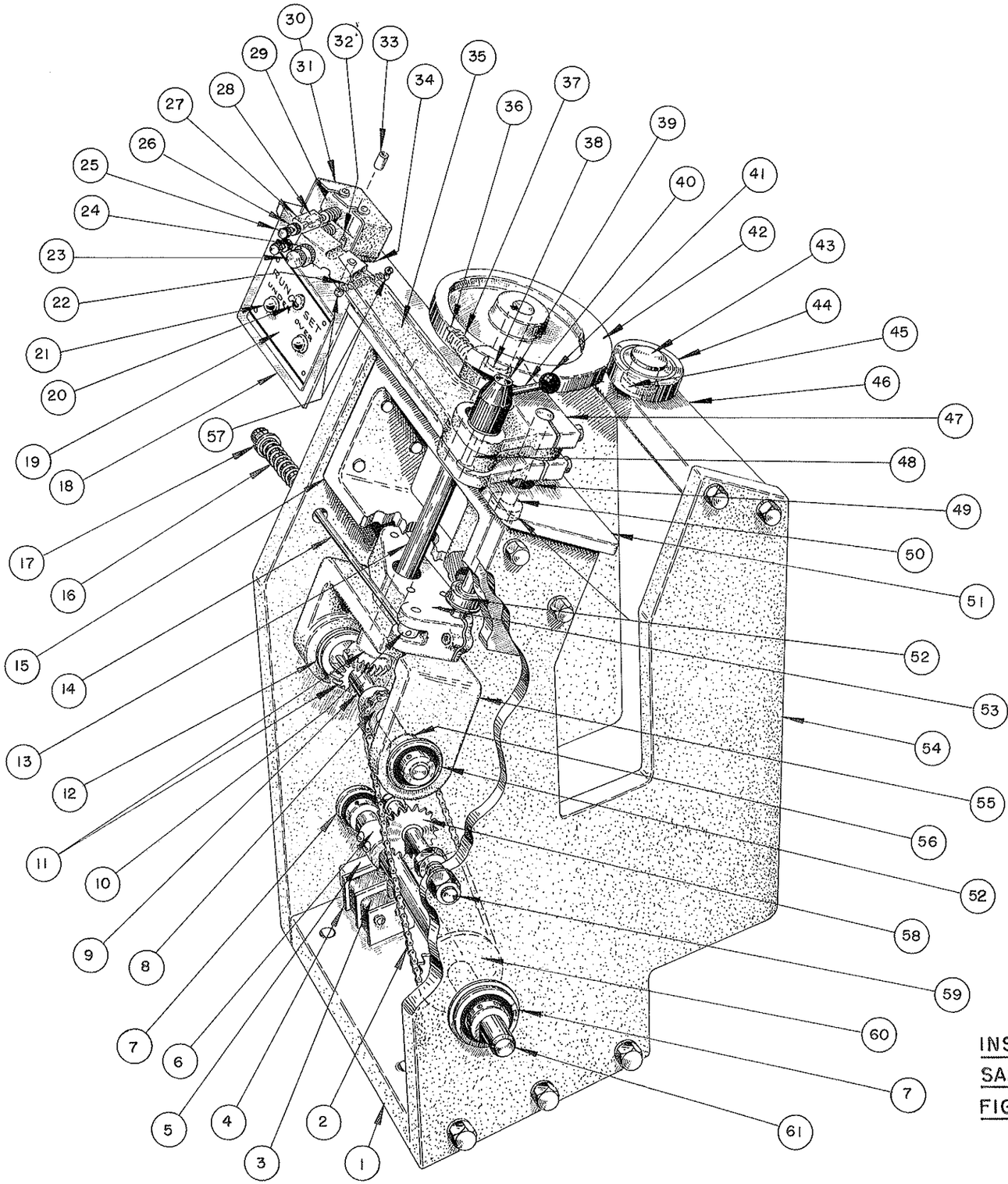
FIGURE 3

5-68

FIGURE 4

SADDLE GATHERER
INSPECTOR ASSEMBLY

NO.	DESCRIPTION	PART NO.
1	Frame Anchor Plate	B-530-0-1160
2	#41 Chain 28 1/2"+ Conn. Link	S-8-391
3	Inspector By-Pass Sw.	S-11-143
4	Insulator Spacer	A-530-0-1203
5	Spacer	A-530-0-1321
6	Inspector Switch Cam	A-530-0-1167
7	Bearing ER-20	S-7-315
8	Cullman Sprocket #41B15	S-8-367
9	Inspector Drive Shaft	A-530-0-1288
10	Spring Rod End	A-530-0-1150
11	Inspector Miter Gear	A-530-0-1286
12	Bearing	S-7-335
13	Gage Wheel Shaft	A-530-0-1285
14	Spring Rod	A-530-0-1149
15	Inspector Pivot Bracket	B-530-0-107
16	Compression Spring	S-2-374
17	5/16-18 Flexloc Nut	S-1-804
18	Insp. Set Switch Plate	A-530-0-1330
19	Inspector Switch Plate	A-530-0-1229
20	Toggle Switch	S-11-410
21	Dialight	S-11-233
22	Gage Arm Return Spring	S-2-373
23	Adjusting Screw	A-100-0-1018
24	Lock Nut	A-100-0-1014
25	Micro Adj. Screw	A-100-0-1009
26	Micro Adj. Scr. Locknut	A-100-0-1050
27	Micro Adj. Block	A-100-0-1366
28	Micro Adj. Slide	A-100-0-1006
29	Micro Switch	S-11-405
30	Switch Cover L.H.	A-531-0-1213
31	Switch Cover R.H. (Shown)	A-532-0-1018
32	Roll Pin 5/16 x 2"	S-2-228
33	Insp. Set Up Gage	A-530-0-1336
34	Insp. Switch Spacer	A-530-0-1166
35	Gage Arm	B-530-0-74
36	5/16-18 x 2" Set Scr.	S-1-554
37	Dieco Comp. Spring	S-2-302
38	Inspector Brake	A-530-0-1250
39	Locking Lever Assy.	S-2-371
40	Part of S-2-371	
41	Part of S-2-371	
42	Gage Wheel	B-530-0-72
43	Stud	A-530-0-1157
44	N.D. Bearing	S-7-346
45	Spacer	A-530-0-1154
46	Anvil Support	A-530-0-1155
47	Gage Wheel Pivot Bracket	B-530-0-73
48	Carriage Bolt 3/8-16 x 2 1/2	S-1-919
49	Bearing Spacer	A-530-0-1152
50	Gage Arm Pivot Shaft	A-530-0-1164
51	Inspector Sw. Plate	B-530-0-1329
52	Bearing	S-7-345
53	Insp. Drive Bracket Clamp	B-530-0-109
54	Inspector Frame	D-530-0-70
55	Inspector Drive Bracket	C-530-0-108
56	Insp. Drive Shaft Collar	A-530-0-1289
57	Spring Anchor	A-600-0-1265
58	Idler Sprocket	A-530-0-1287
59	Stud 1 2-13 x 3 1/2 Hex. Hb.	S-1-176
60	Drive Chain Sprocket	A-520-0-1056
61	Inspector Drive Shaft	B-530-0-1089



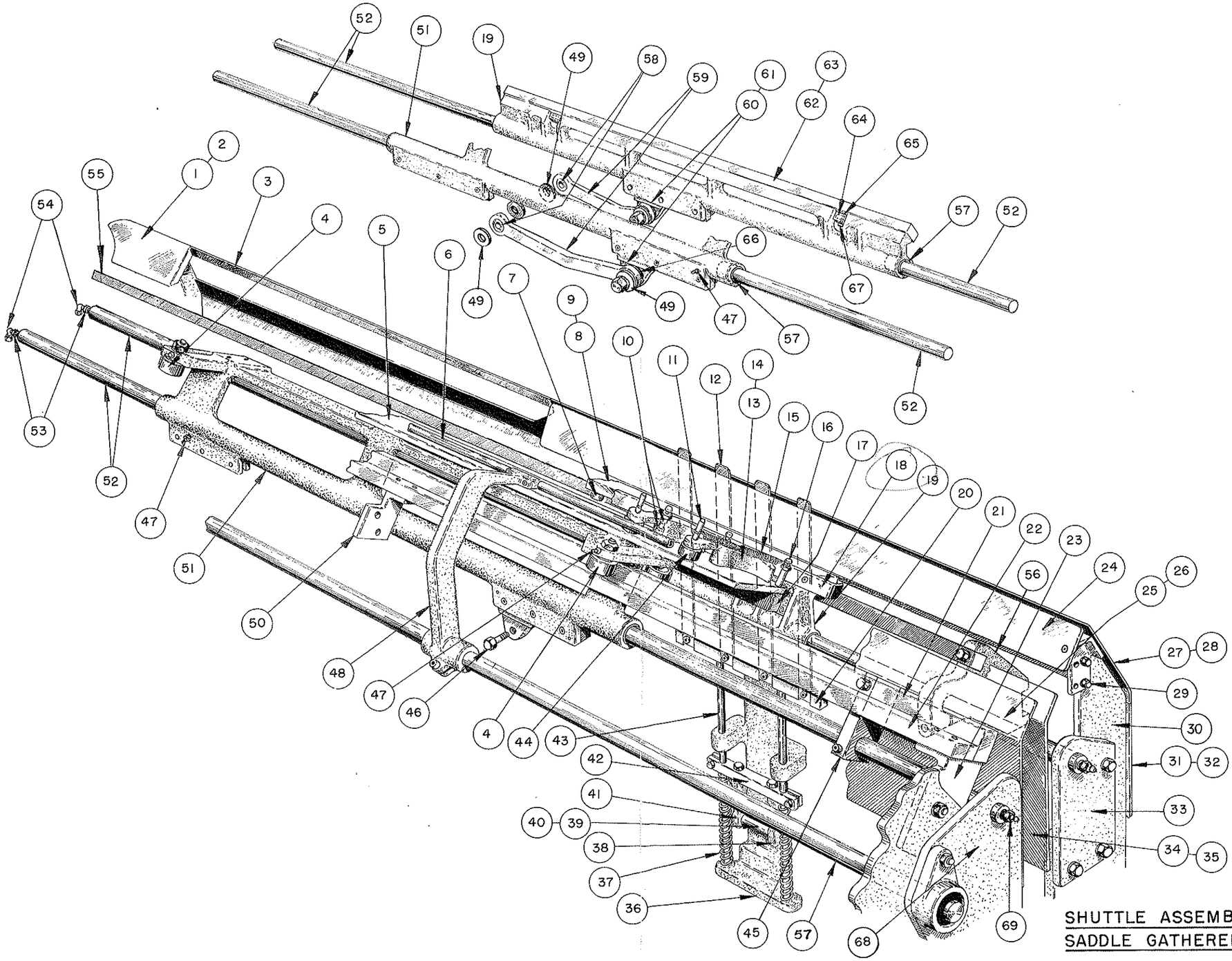
INSPECTOR ASSEMBLY
SADDLE GATHERER
FIGURE 4

5-68

FIGURE 5

SADDLE GATHERER
SHUTTLE ASSEMBLY

NO.	DESCRIPTION	PART NO.
1	Conveyor Sprocket Bracket	D-532-0-4
2	Conveyor Sprocket Bracket	D-531-0-86
3	Paper Guide Stapler	A-530-0-1216
4	1" Cam Follower	S-7-203
5	Outer Shuttle Plate	C 530-0-1141
6	Gripper Operating Bar	B-530-0-1137
7	Cam Follower	S-7-348
8	Inner Shuttle Bar	B-531-0-1207
9	Inner Shuttle Bar	B-532-0-1020 (shown)
10	Garlock Bushing In Gripper Finger	S-7-361
11	Gripper Finger Roller Stud	A-530-0-1105
12	Ejector Blade	A-530-0-1103
13	Gripper Finger	A-531-0-89
14	Gripper Finger	A-532-0-3 (shown)
15	Gripper Spring	A-530-0-1117
16	Gripper Finger Pivot Stud	A-530-0-1106
17	Shuttle Plate	C-530-0-1142
18	Inner Shuttle Plate	B-530-0-1140
19	Inner Shuttle	D-530-0-89
20	Ejector Blade Bracket	B-530-0-65
21	Outer Shuttle Guide	B-530-0-1195
22	Outer Shuttle Guide Bracket	B-530-0-1196
23	L.H. Outer Shuttle Guide Bracket	B-530-0-1197
24	Rear Paper Guide	B-530-0-1228
25	Inside Paper Guide	C-531-0-1214
26	Inside Paper Guide	C-532-0-1004 (shown)
27	Front Paper Guide	D-532-0-1003 -A (shown)
28	Front Paper Guide	B-531-0-1216 -A
29	Mounting Bracket	A-530-0-134
30	Stitcher Frame	D-530-0-34
31	Front Paper Guide	D-531-0-1216 -B
32	Front Paper Guide	D-532-0-1003 -B (shown)
33	Shuttle Support Inside	A-530-0-1184
34	Rear Paper Guide	D-531-0-1215
35	Rear Paper Guide	D-532-0-1005 (shown)
36	Ejector Drive Bracket	D-530-0-62
37	Ejector Spring	A-530-0-1257
38	Ejector Drive Arm	B-530-0-88
39	Drive Arm Stud	A-530-0-1258
40	Bushing	S-7-347
41	Ejector Drive Arm	A-530-0-87
42	Ejector Drive Bar	A-530-0-1256
43	Ejector Rod	A-530-0-1255
44	N. D. Bearing	S-7-343
45	Arm-Shuttle Support	A-530-0-1457
46	Bolt $\frac{1}{2}$-13 x $1\frac{1}{4}$ Hex. Hd.	S-1-167
47	Grease Fitting $\frac{1}{4}$-28 thrd.	S-5-121
48	Gripper Operating Lever	B-530-0-57
49	Steel Washer $\frac{1}{2}$	S-1-747
50	R.H. Outer Shuttle Guide Brkt.	B-530-0-1198
51	Outer Shuttle	D-530-0-90
52	Shuttle Guide	A-530-0-1136
53	Shuttle Lube Screw	A-530-0-1230
54	Grease Fitting	S-5-133
55	Bar-Shuttle Back Up	A-530-0-1434
56	Shuttle Bracket	B-530-0-129
57	Garlock Bushing	S-7-403
58	Heim Unibal #LHBVV-8	S-7-379
59	Shuttle Conn. Lever	B-530-0-115
60	Shuttle Driver Bracket R.H.	B-531-0-92
61	Shuttle Driver Bracket L.H.	B-532-0-15
62	Inner Shuttle Bar R.H.	B-531-0-1207
63	Inner Shuttle Bar L.H.	B-532-0-1020
64	Inner Shuttle Slide Swivel	A-530-0-1367
65	Inner Shuttle Slide	A-530-0-1365
66	Bronze Washer	A-530-0-1384
67	Arm Shuttle Support	A-530-0-1457
68	Shuttle Support Outside	B-530-0-78
69	Grease Fitting 1/8 pipe	S-5-105



5-68

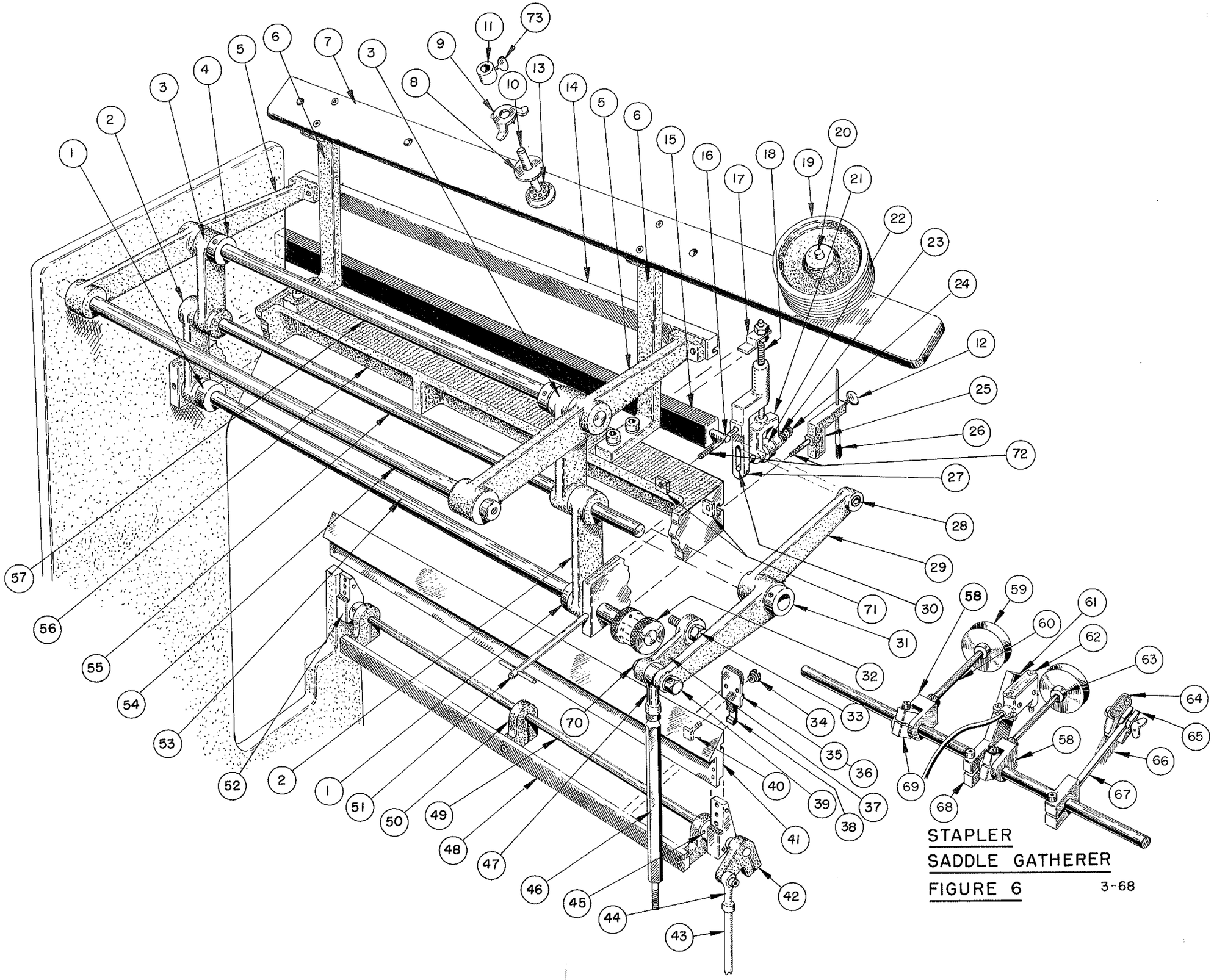
SHUTTLE ASSEMBLY
SADDLE GATHERER FIGURE 5

FIGURE 6

SADDLE GATHERER - STAPLER

NO.	DESCRIPTION	PART NO.
1	Stapler Eccentric	A-530-0-1119
2	Lower Stapler Link	A-530-0-48
3	Upper Stapler Link	A-530-0-49
4	1" Collar	S-8-224
5	Stapler Wire Draw Lever	B-530-0-55
6	Stapler Wire Spool Bracket	B-530-0-64 B-531-0-1218
7	Stapler Wire Spool Bar	A-532-0-1037
8	Acme Spool Washer	S-12-205
9	Acme Spool Friction	S-12-207
10	Wire Spool Shaft	A-500-0-1180
11	Wire Spool Collar	S-12-209
12	1/4 - 20 x 5/8 Thumb Screw	S-1-798
13	Acme Spool Bearing	S-12-206
14	Wire Draw Bar	A-530-0-1126
15	Stapler Drive Bar	B-530-0-1125
16	Stapler Drive Bar Pin	A-530-0-1118
17	V - Roller Lift Plate	A-530-0-1276
18	V - Roller Adj. Rod	A-500-0-1353
19	Sheave (6) Groove	S-12-211
20	Stapler Wire Guide Shaft	A-530-0-1104
21	V - Roller Yoke	A-500-0-55
22	V - Roller - Small	A-500-0-1351
23	Lock Nut 3/8 - 24 Thrd.	A-100-0-1014
24	V - Roller Side Adj. Knob	A-500-0-1354
25	Stapler Brush Holder	A-530-0-96
26	Brush	A-100-0-1326
27	V - Roller Bracket	B-500-0-56
28	Torrington Brg. #B-912-OH	S-7-352
29	Stapler Drive Lever	B-530-0-54
30	V - Roller Pin	A-500-0-1352
31	1 1/4" Collar	S-8-277
32	Wire Draw Adj. Knob	B-530-0-1194
33	Idler Link Stud	A-530-0-1245
34	Clincher Stud Nut	S-12-170
35	Clincher Assy. (Acme)	S-12-204
36	Clincher Point (Acme)	S-12-216
37	Stapler Idler Link	A-530-0-50
38	Clincher Slide (Acme)	S-12-222
39	1/2 - 13 x 2 1/4 Bolt	S-1-171
40	Clincher Binder Bolt (Acme)	S-12-169
41	Clincher Support	C-530-0-106
42	Lever Clincher Drive	A-530-0-63
43	Draw Bar Clincher	A-530-0-1172
44	Unibal #HFLVV-7	S-7-381
45	3/4" Collar	S-8-223
46	Draw Bar Stitcher	A-530-0-1171
47	Unibal 1/2-20 #HF-8G	S-7-286
48	Drive Bar Clincher	B-530-0-1127
49	Clincher Pivot Shaft	A-530-0-1135
50	Clincher Bar Lever	A-530-0-51
51	Stapler Lock Screw	A-530-0-1191
52	Clincher Support Brkt.	A-530-0-1327
53	Stapler Adj. Bar	B-530-0-1139
54	Wire Draw Pivot	A-530-0-1112
55	Stapler Drive Bar Pivot	A-530-0-1114
56	Stapler Support Plate	C-530-0-60
57	Stapler Wire Draw Bar	A-530-0-1113
58	Yoke-Roller Arm	A-530-0-81
59	"Vee" Roller-Large	A-500-0-1350
60	Rod-Crown Guide	A-530-0-1193
61	Switch Spacer	A-530-0-1192
62	Micro Switch	S-11-312
63	1/4 I.D. Collar	S-8-219
64	Brush Holder	A-530-0-1290
65	Brush Mtg. Block	A-530-0-1291
66	Jogging Brush	A-500-0-1258
67	Brush Holder	B-530-0-1146
68	Switch Arm	A-530-0-79
69	Arm-Roller Stop	A-530-0-80
70	Idler Link Bushing	A-530-0-1443
71	Clamp Plate	A-500-0-1355
72	Screw	A-500-0-1356
73	Thumb scr.	S-12-208

Details: 17, 18, 21, 22, 23, 24, 27, 30, 71, 72 Centering Device Assembly 8-530-0-6007



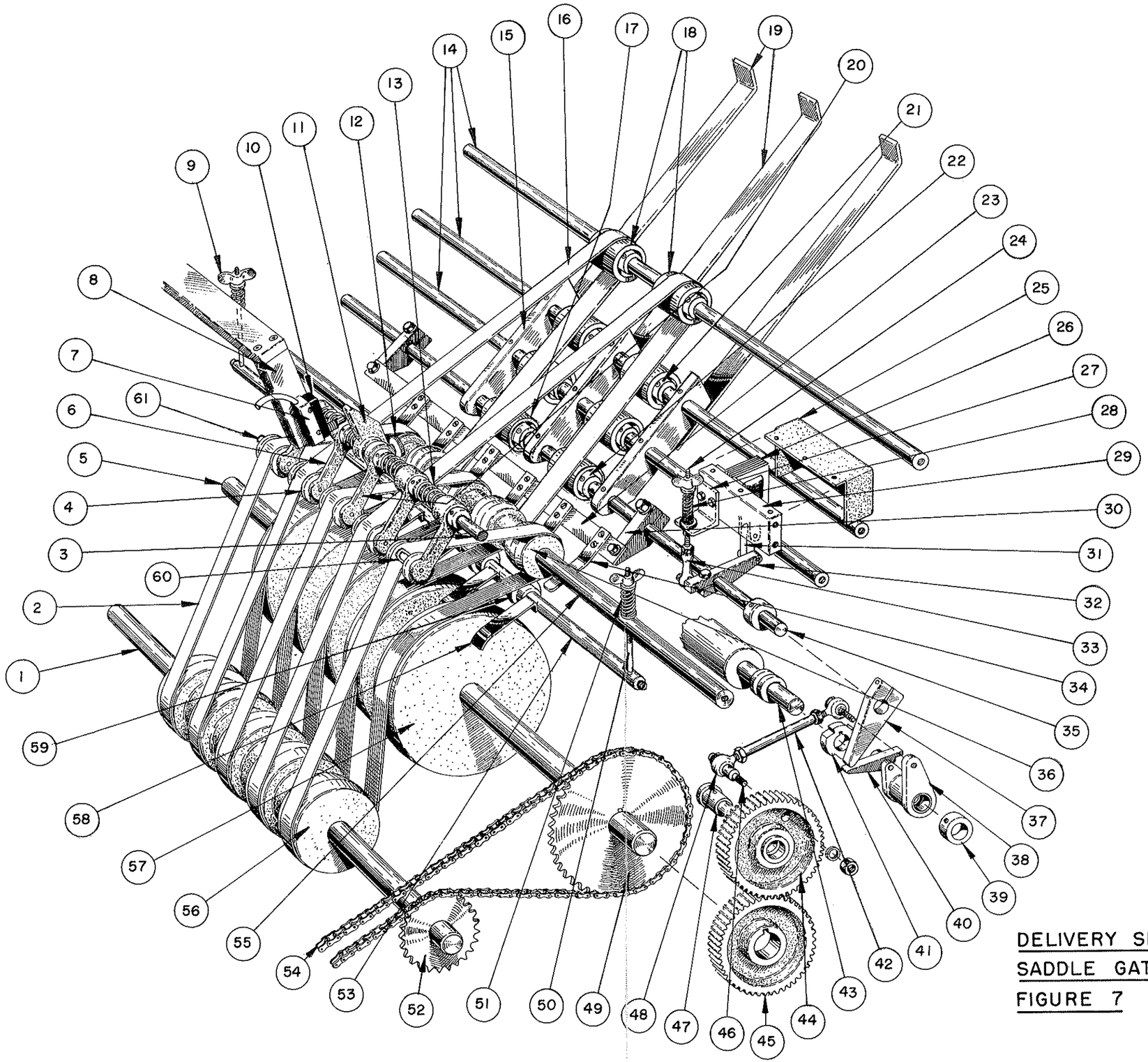
STAPLER
SADDLE GATHERER
FIGURE 6 3-68

FIGURE 7

SADDLE GATHERER
DELIVERY SECTION

NO.	DESCRIPTION	PART NO.
1	Delivery Roller Shaft	A-530-0-1260
2	Tape Belt	S-12-522
3	Roller Shaft	A-530-0-1263
4	Del. Take-Up Idler	A-500-0-1125
5	Ejector Pulley Shaft	A-530-0-1307
6	Del. Tape Take-Up	A-500-0-34
7	Switch Enclosure	S-11-139
8	Del. Tape Switch Holder	A-530-0-1253
9	Wing Nut 3/8 - 16	S-1-856
10	Micro Switch	S-11-405
11	Del. Tape Switch Trip	A-530-0-86
12	Lock Knob	S-2-370
13	Torsion Spring	A-500-0-1118
14	Idler Shaft	A-530-0-1262
15	Rej. Del. Support	B-500-0-1784
16	Tape Belt-Long	S-12-523
17	Reject Roller	A-530-0-1437
18	Reject Roller	A-530-0-1438
19	Reject Basket Strip	A-500-0-1786
20	Del. Tape Take-Up	A-520-0-1259
21	Bearing	S-7-397
22	Bearing	S-7-237
23	Rej. Blade Support	B-530-0-1378
24	Pressure Rod	A-500-0-1772
25	Solenoid Cover	B-500-0-1783
26	Solenoid	S-11-313
27	Spring Plate	A-500-0-1767
28	Dieco Spring	S-2-330
29	Solenoid Mtg. Bracket	A-500-0-1766
30	Rej. Blade Support Lever	A-500-0-1769
31	Solenoid Link	A-500-0-1771
32	Reject Lever	A-500-0-1770
33	Uniball #HF-4	S-7-215
34	Reject Finger	A-500-0-1768
35	Idler Shaft	A-530-0-1261
36	Ejector Idler Roller	B-530-0-92
# 37	Pawl Trip Arm	A-530-0-1314
# 38	Pawl Arm	B-530-0-99
# 39	1" Collar	S-8-224
# 40	Pawl	A-530-0-1304
# 41	Ratchet	A-530-0-1305
# 42	Conn. Rod	A-530-0-1311
# 43	Belt Conv. Shaft	A-530-0-1306
# 44	Crank Gear	A-530-0-1303
# 45	Drive Gear	B-600-0-1414
# 46	Conn. Rod Drive Pin	A-530-0-1309
# 47	Crank Gear Stud	A-530-0-1308
# 48	Heim Uniball HM 8G	S-7-285
49	Sprocket	A-600-0-1300
50	Paper Guide Shaft Support	A-500-0-1253
51	Dieco Spring	S-2-315
52	Driven Sprocket	A-530-0-1347
53	Adjustable Idler Shaft	B-530-0-1265
54	Chain #41 x 59 1/2	S-8-440
55	Idler Shaft	A-530-0-1264
56	Ejector Tape Pulley	B-530-0-93
57	Ejector Pulley	B-530-0-94
58	Guide Finger	A-500-0-1778
59	Bearing	S-7-237
60	Nyliner Bearing	S-7-242
61	Shoulder Scr. 5/16 x 1 1/2 lg.	S-2-117

Parts are only used on Saddle Binder with belt conveyor delivery, no trimmer.



DELIVERY SECTION
SADDLE GATHERER
FIGURE 7 5-68

FIGURE 8

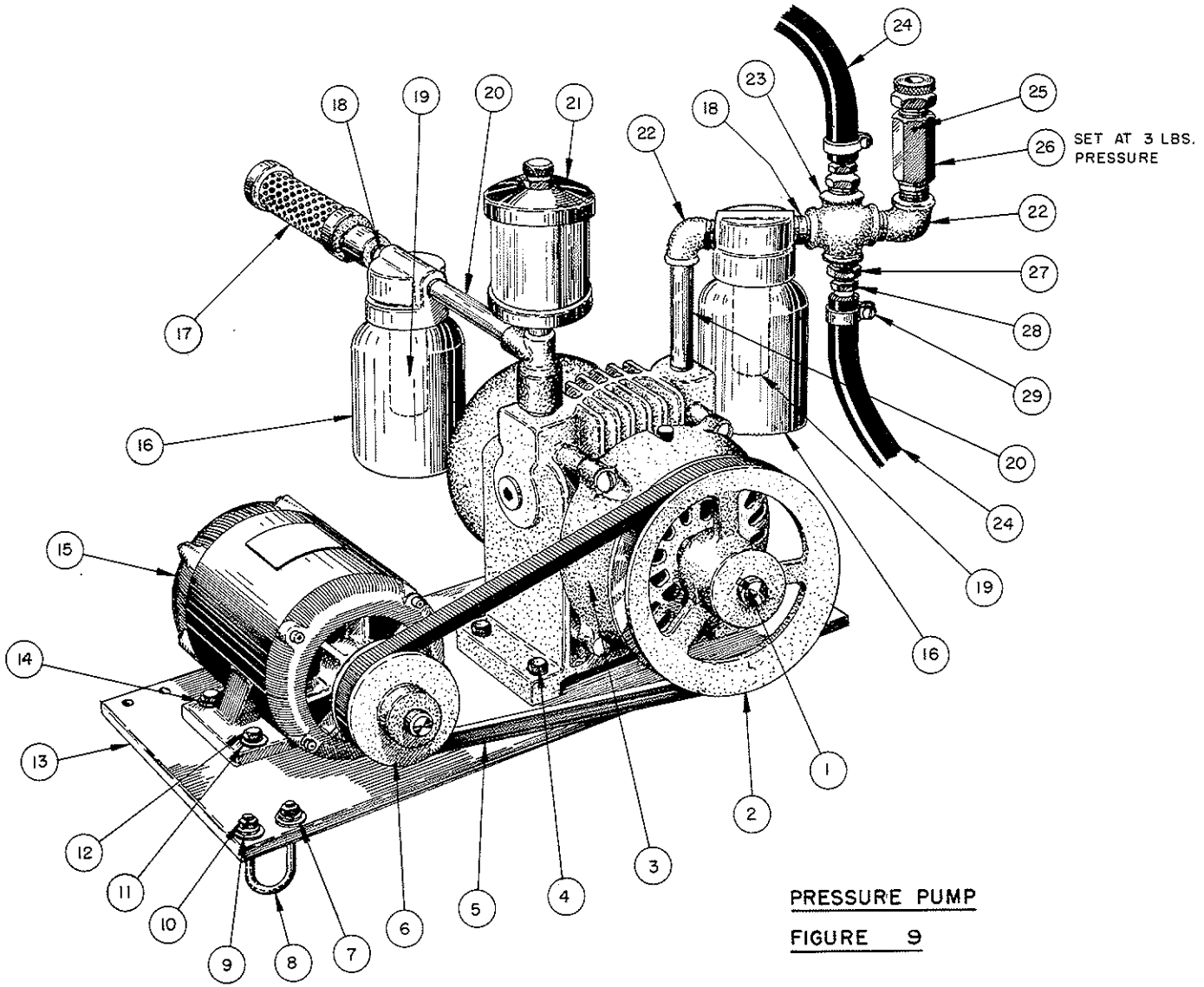
DRIVE TRAIN

NO.	DESCRIPTION	PART NO.
1	#50 Chain 73 1/8 Lg.	S-8-432
2	#50 Chain 78 1/8 Lg.	S-8-433
3	Diamond Unimount	S-8-447
4	Slide	A-520-0-1048
5	Drive Sprocket	A-520-0-1056
6	Drive Hub	B-530-0-1085
7	Opener Chain - Drive Shaft	B-520-0-1064
8	Sprocket 50A-36G	B-530-0-1086
9	Clamp Ring	B-530-0-1084
10	Inspector Drive Chain	S-8-391
11	Spreader	B-520-0-1052
12	Crown Chain Link	A-530-0-1095
13	Conn. Link	A-530-0-1097
14	Bearing ER-20	S-7-315
15	Ball Bearing	S-7-335
16	Conveyor Drive Shaft	B-530-0-1088
17	Clutch Solenoid	S-11-313
18	Bevel Gear	B-530-0-1080
19	Bearing #ER-16	S-7-121
20	#50 Chain	S-8-434
21	Gear Spacer	A-530-0-1187
22	Latch Stud	A-530-0-1177
23	Clutch Latch	A-530-0-1332
24	Clutch Solenoid Link	A-530-0-1178
25	Stitcher Drive Draw Bar	A-530-0-1171
26	Gripper Operating Pivot Bar	B-530-0-1131
27	Bearings	S-7-289
		S-7-364
		S-7-355
		S-7-356
		S-7-357
28	Shaft - Cam Lever	A-530-0-1134
29	Bearings	S-7-358
		S-7-359
30	Shuttle Pin	A-530-0-1110
31	Gripper Operating Bar	B-530-0-1137
32	Shuttle Lever	D-530-0-117
33	Clincher Cam Lever	C-530-0-58
34	Shuttle Conn. Lever	D-530-0-66
35	Stitcher Draw Bar	A-530-0-1172
36	Gripper Operating Drive Lever	A-530-0-52
37	Shaft	B-600-0-1648
38	Clincher Drive Lever	A-530-0-63
39	Drive Chain To Trimmer	S-8-437
40	Trimmer Drive Hub	B-600-0-1649
41	Collar 1¼" I.D.	S-8-277
42	Sprocket	B-600-0-1647
43	Sprocket	B-600-0-1646
44	Gripper Open Bar Lever	B-530-0-57
45	Idler Sprocket	S-8-446
46	#41 Chain	S-8-374
47	Bearing SFT-32	S-7-220
48	Take-Up Block	A-600-0-1491
49	Timing Belt	S-8-474
50	# 531 Shuttle Crank	D-531-0-88
	# 532 Shuttle Crank	C-532-0-11
51	Delivery Idler Sprocket	B-530-0-1133
52	Delivery Drive Chain #41	S-8-440
53	Take-Up Bracket	A-530-0-1183
54	Ring Gear & Pinion	S-8-548
55	Spacer (No Trimmer)	A-530-0-1312
	Spacer (with Trimmer)	A-530-0-1182
56	Bearing #455509	S-7-340
57	Pinion Gear & Ring	S-8-548
58	Sprocket	S-8-544
59	Spacer between Cones	S-7-415
60	Sprocket	A-530-0-1449
61	Rollers & Cone	S-7-405
62	Flywheel	C-530-0-59
63	Timing Belt	S-8-511
64	Bracket - Motor Mount	C-530-0-121
65	Guard - Limit Switch	B-530-0-1400
66	Switch	S-11-143
67	Channel - Limit Switch Mtg.	B-530-0-1399
68	Gear Motor	S-11-460
69	Drive Gear	A-530-0-1286
70	Arm - Switch Actuator	A-530-0-1460
71	Bolt - Nut Pivot	S-7-416
72	Pulley - Motor	S-8-510
73	Bracket - Motor Base	B-530-0-135
74	Screw - Motor Base Drive	A-530-0-1392
75	Nut - Motor Base	A-530-0-125
76	Motor	A-8-302-2
77	Motor Base	C-530-0-1458
78	Collar	S-8-277
79	Bracket - Motor Base Pivot	B-530-0-124
80	Motor Spacer	B-530-0-1446
81	Coupling - Universal	A-530-0-1396
82	Shaft - Driven Gear	A-530-0-1393
83	Locknut	A-530-0-1447
84	Torr. Thrust Washer	S-7-391
85	Bearing Cup	S-7-406
86	Gear - Motor Base Drive	A-530-0-1395
87	Bearing	S-7-342
88	Bearing N.D. #455606	S-7-341
89	Gear Box	D-530-0-103
90	Flywheel Shaft	C-530-0-36
91	Gear Box Spacer	C-530-0-104
	# 532 Drive Shaft 24¼" Lg.	A-532-0-1039
92	# 531 Drive Shaft 30" Lg.	A-531-0-1226
93	Crank Pin	A-530-0-1081
94	Crank Pin Stud	A-530-0-1082
95	Delivery Drive Sprocket	B-530-0-1130
96	Ejector Cam	C-530-0-44
97	Take-Up Arm	A-530-0-1122
98	Cam Follower 1½ Dia.	S-7-233
99	Ejector Lever	C-530-0-45
100	Unibal ½ R.H.	S-7-286
101	Cam-Shuttle Operating	C-530-0-101
102	Unibal ½" L.H.	S-7-287
103	Cam Followerer 1½" Dia.	S-7-233
104	Gripper Cam Lever	B-530-0-102
105	Cam Followerer 1" Dia.	S-7-203
106	# 531 Gripper Operating Cam	B-531-0-82
	# 532	B-532-0-10
107	Sealmaster SFT-20	S-7-244
108	Coupling	A-520-0-1169
109	Shaft 8 3/4 Lg.	A-530-0-1376
110	Nylon Actuator Button	A-530-0-1452
111	Contact Actuator Lever	A-530-0-1442
112	Timing Switch Contact	A-24-013-1
		A-530-0-1371
113	Contact Block	C-530-0-133
114	Bearing - Timing Switch	A-530-0-1444
115	Shaft	A-530-0-1444
116	Sprocket	A-530-0-1440
117	Clutch Drive Gear	A-530-0-175
118	Clutch Drive Hub	B-530-0-1179
119	Stapler Clutch Shaft	B-530-0-1174
120	Clutch	S-12-286
121	Sealmaster Brg. SFT-16	S-7-229
122	Timing Chain	S-8-438
123	# 531 Stitcher Drive Hub	A-531-0-81
	# 532 Stitcher Drive Hub	A-532-0-9
124	Timing Switch Drive Sprocket	A-530-0-1185
125	Stapler Rod End	A-530-0-77
126	Sprocket	A-530-0-1346
127	Sprocket	S-8-425
	Hub	S-8-429
128	Sprocket	S-8-428
	Hub	S-8-431
129	# 531 Drive Shaft 27 3/8 Lg.	A-531-0-1227
	# 532 Drive Shaft 33 1/8 Lg.	A-532-0-1040
130	Chain Take-Up Arm	A-530-0-1248
131	# 50 Chain	S-8-435
132	Shaft	B-530-0-1089
133	Coupling	A-520-0-1169
134	Sprocket	A-530-0-1346
135	Sprocket	S-8-425
136	Bearing SFT - 32	S-7-220
137	Shaft - 1¼ Dia.	A-520-0-1039
138	Hub	S-8-429
139	Chain Conn. Link #50	S-8-411
140	Switch Mtg. Bracket	A-520-0-1239
141	Guard - Switch R.H.	A-521-0-1015
	L.H.	A-522-0-1020
142	Micro Switch	S-11-407
143	Nut-Clutch Adjusting	A-520-0-1232
144	Spring	S-2-309
145	Pin - Clutch	A-520-0-1230
146	Ball	S-7-388
147	Snap Ring	S-2-295
148	Q.D. Hub Adapter	S-8-514
149	Shaft	B-520-0-1237
150	Q.D. Hub ¼" Bore	S-8-515
151	Key	S-8-248
152	Coupling - Clutch Driven	B-520-0-244
153	Plate - Clutch Pressure	A-520-0-1231
154	Plate - Switch Actuator	A-520-0-1233
155	Cam Followerer	S-7-203
156	Sucker Cam	C-520-0-200
157	Sucker Cam Lever	B-520-0-194
158	Sucker Drive Arm	A-520-0-1025
159	Sucker Drive Links	A-520-0-1023
160	Driven Gear	B-520-0-1032
161	Pierce Wheel Drive Gear	A-520-0-1022
162	Driven Gear	B-520-0-1032
163	Idler Gear	B-520-0-1078
164	Drive Gear	B-520-0-214
165	Idler Gear	B 520-0-1078
166	Drive Gear	B-520-0-1077
167	M-I-Links	S-8-321
168	Chain Finger	A-531-0-1206
169	Chain Finger	A-532-0-1019
170	Chain Finger Link	B-530-0-1091
171	Attachment Link M-I	
172	Crown Chain Link	A-530-0-1095
173	Crown Chain Conn. Link	A-530-0-1097
174	Set Screw	S-1-536
175	Spring	A-530-0-1094
176	Ball	S-7-273
177	Double Chain Finger	A-530-0-1092
178	Anchor-Brake Spring	A-530-0-119
179	Spring Rod	A-530-0-1189
180	Spring	S-2-382
181	Shoe	A-530-0-1180
182	Drum	A-520-0-1156
183	Clutch Pin	S-12-288
184	Spring	S-12-283
185	Sprocket	A-520-0-1037
186	Shaft-Motor Base Pivot	B-530-0-1459
187	Motor Plate	C-530-0-1458
188	Oilite Bearing	S-7-416
189	Bracket	B-530-0-135

FIGURE 9

AIR PUMP

NO.	DESCRIPTION	PART NO.
1	3/16 SQ. X 1¼ LG. KEY	S-8-240
2	6" DIA. PULLEY	S-8-315
3	GAST PUMP #2565 V-26	S-6-100
4	HEX. HD CAP SCRS. 3/8 - 16 x 2"	S-1-141
5	VEE BELT 4L 350	S-8-320
6	3" DIA. PULLEY	S-8-313
7	5/16 FLAT WASHER	S-1-744
8	"U" BOLT	S-1-850
9	5/16 LOCK WASHER	S-1-720
10	5/16 - 18 HEX NUT	S-1-759
11	3/8 FLAT WASHER	S-1-745
12	3/8 - 16 x 1" HEX. HD CAP SCR.	S-1-137
13	PUMP PLATE	C-520-0-1014
14	3/8 LOCK WASHER	S-1-721
15	1½ H.P. MOTOR	S-11-300
16	METAL CUP #AA75	S-6-138
17	AIR INTAKE MUFFLER	S-6-147
18	3/4" SHT. NIPPLE	S-4-148
19	FELT FILTER	S-6-106
20	3/4 x 7" NIPPLE	S-4-153
21	OIL RESERVE ASSY.	S-6-130
22	3/4" STREET ELL	S-4-111
23	3/4" CROSS	S-4-191
24	9/16 I.D. (2) PLY HOSE	S-4-161
25	ROLL PIN 1/8 DIA.	S-2-198
26	PRESSURE REL. VALVE	S-6-192
27	3/4 x 1/2 BUSHING	S-4-116
28	HOSE CONNECTOR	A-520-0-1099
29	HOSE CLAMP	S-4-159



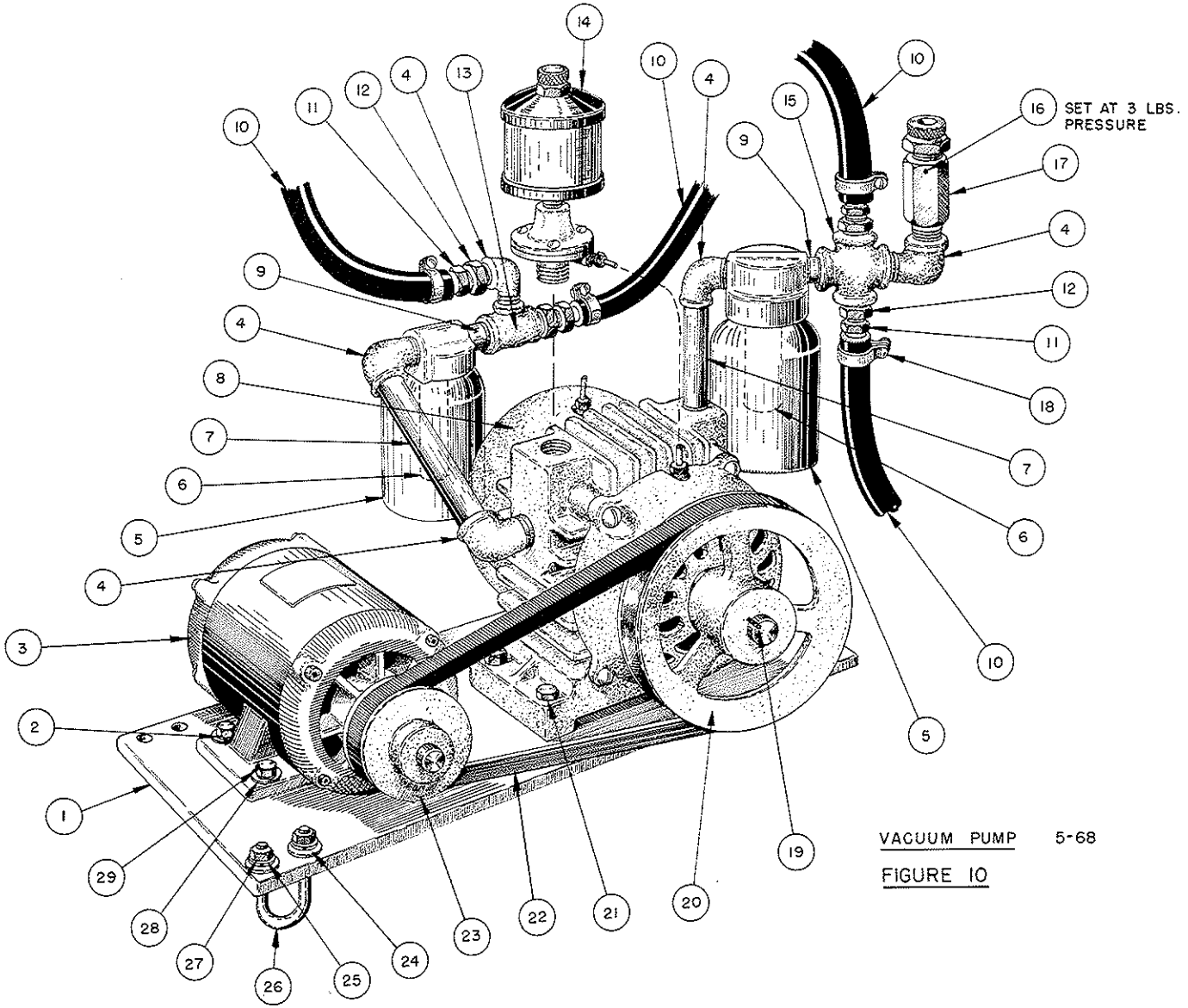
PRESSURE PUMP

FIGURE 9

FIGURE 10

VACUUM PUMP

NO.	DESCRIPTION	PART NO.
1	Pump Plate	C-520-0-1014
2	3/8 Lockwasher	S-1-721
3	1½ H.P. Motor	S-11-300
4	3/4" Street Ell	S-4-111
5	Metal Cup No. AA75	S-6-138
6	Felt Filter	S-6-106
7	3/4 x 7" Nipple	S-4-153
8	Gast Pump - No. 2565 V-26	S-6-100
9	3/4 X Short Nipple	S-4-148
10	9/16 I.D. (2) Ply Hose	S-4-161
11	Hose Connector	A-520-0-1099
12	3/4 x 1/2 Bushing	S-4-116
13	3/4 Tee	S-4-108
14	Oil Reserve Assy.	S-6-130
15	3/4 Cross	S-4-191
16	1/8 Dia. Roll Pin	S-2-198
17	Pressure Rel. Valve	S-6-192
18	Hose Clamp	S-4-159
19	3/16/SP. x 1¼ lg. key	S-8-240
20	6" Dia. Pulley	S-8-315
21	3/8 - 16 X 2" Hex. Hd. cap scr.	S-1-141
22	Vee Belt 4L350	S-8-320
23	3" Dia. Pulley	S-8-313
24	5/16 " Flat Washer	S-1-744
25	5/16 " Lockwasher	S-1-720
26	"U" Bolt	S-1-850
27	5/16 - 18 Hex. Nut	S-1-759
28	3/8 Flat Washer	S-1-745
29	3/8-16 x 1" Hex. hd. cap scr.	S-1-137

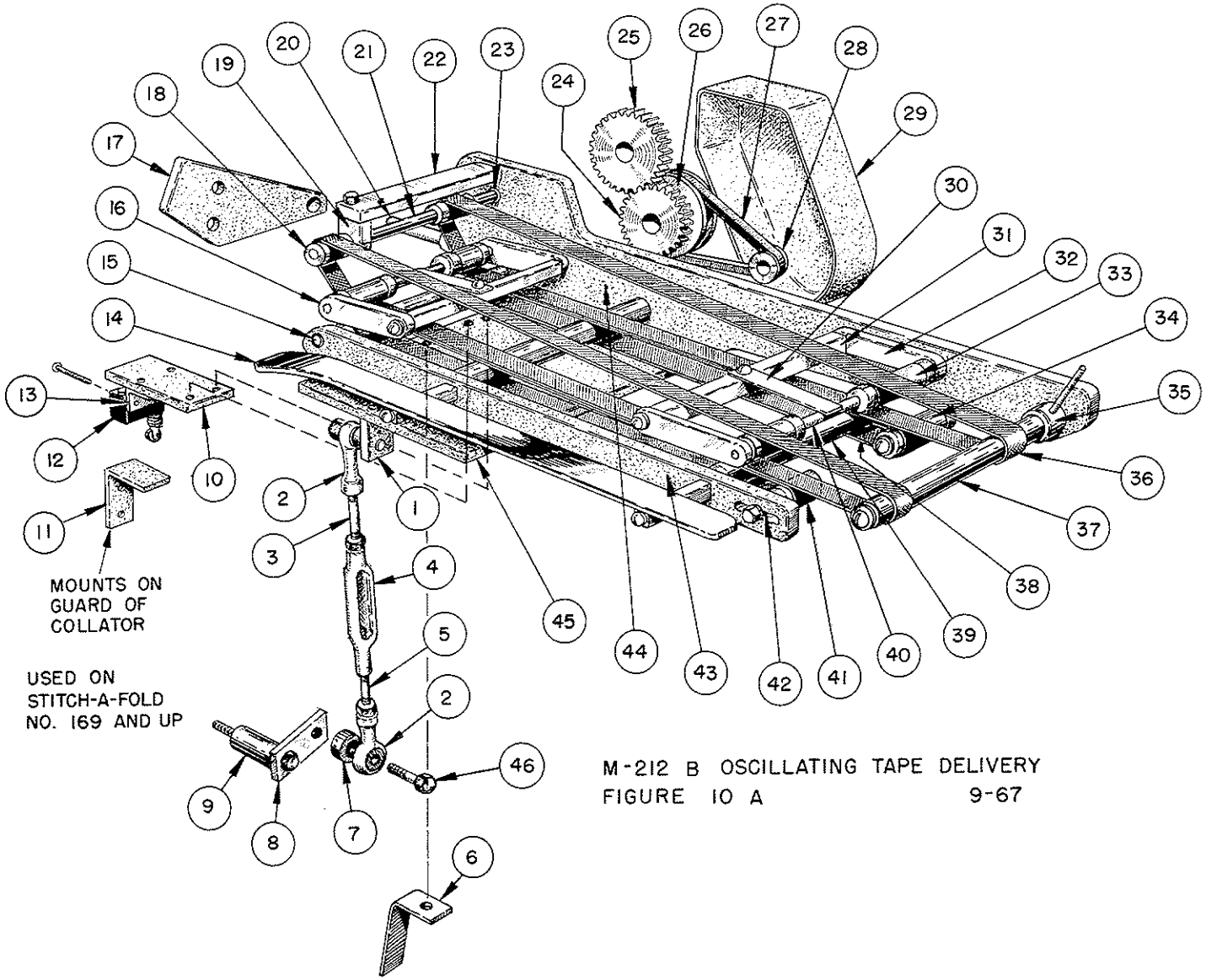


VACUUM PUMP 5-68

FIGURE 10

M-212 B OSCILLATING TAPE DELIVERY

NO.	DESCRIPTION	PART NO.
1	Bearing Block	S-13-740
2	Uniball	S-7-217
3	Threaded Rod	S-13-742
4	Turnbuckle	S-13-704
5	Threaded Rod	S-13-743
6	Switch Protector Angle	S-13-772
7	Washer	S-13-771
8	Plate	S-13-744
9	Stand-Off	S-13-746
10	Switch Plate	S-13-768
11	Switch Actuator Angle	S-13-770
12	Micro Switch	S-16-124
13	Switch Mounting Angle	S-13-769
14	Flat Guide Plate	S-13-767
15	Lower Drive Shaft	S-13-706
16	Outside Arm	S-13-707
17	Mounting Bracket	S-13-736
18	Drive Crown Pulley	S-13-708
19	Bearing Block	S-13-709
20	Unit Pivot	S-13-754
21	Upper Drive Shaft	S-13-711
22	Bearing Support	S-13-712
23	Needle Bearing	S-13-713
24	Steel Spur Gear	S-13-714
25	Fibre Spur Gear	S-13-715
26	Tape Unit Pulley	S-13-716
27	Vee Belt	S-13-719
28	Motor Pulley	S-13-720
29	Belt Guard	S-13-721
30	Tension Leaf	S-13-722
31	Arm Support	S-13-723
32	Inside Arm	S-13-724
33	Upper Idler	S-13-725
34	Lower Crown Idler	S-13-726
35	Eccentric	S-13-764
36	Upper Tape	S-13-730
37	Double Crown Idler	S-13-729
38	Lower Tape	S-13-763
39	Long Idler	S-13-731
40	Upper Idler Shaft	S-13-732
41	Crown Idler	S-13-733
42	Idler Shaft	S-13-734
43	Small Side Plate	S-13-766
44	Large Side Plate	S-13-765
45	Motor Mtg. Plate	S-13-754
46	3/8 - 16 x 3¼ Hex. Cap Scr.	S-1-146



M-212 B OSCILLATING TAPE DELIVERY
FIGURE 10 A 9-67

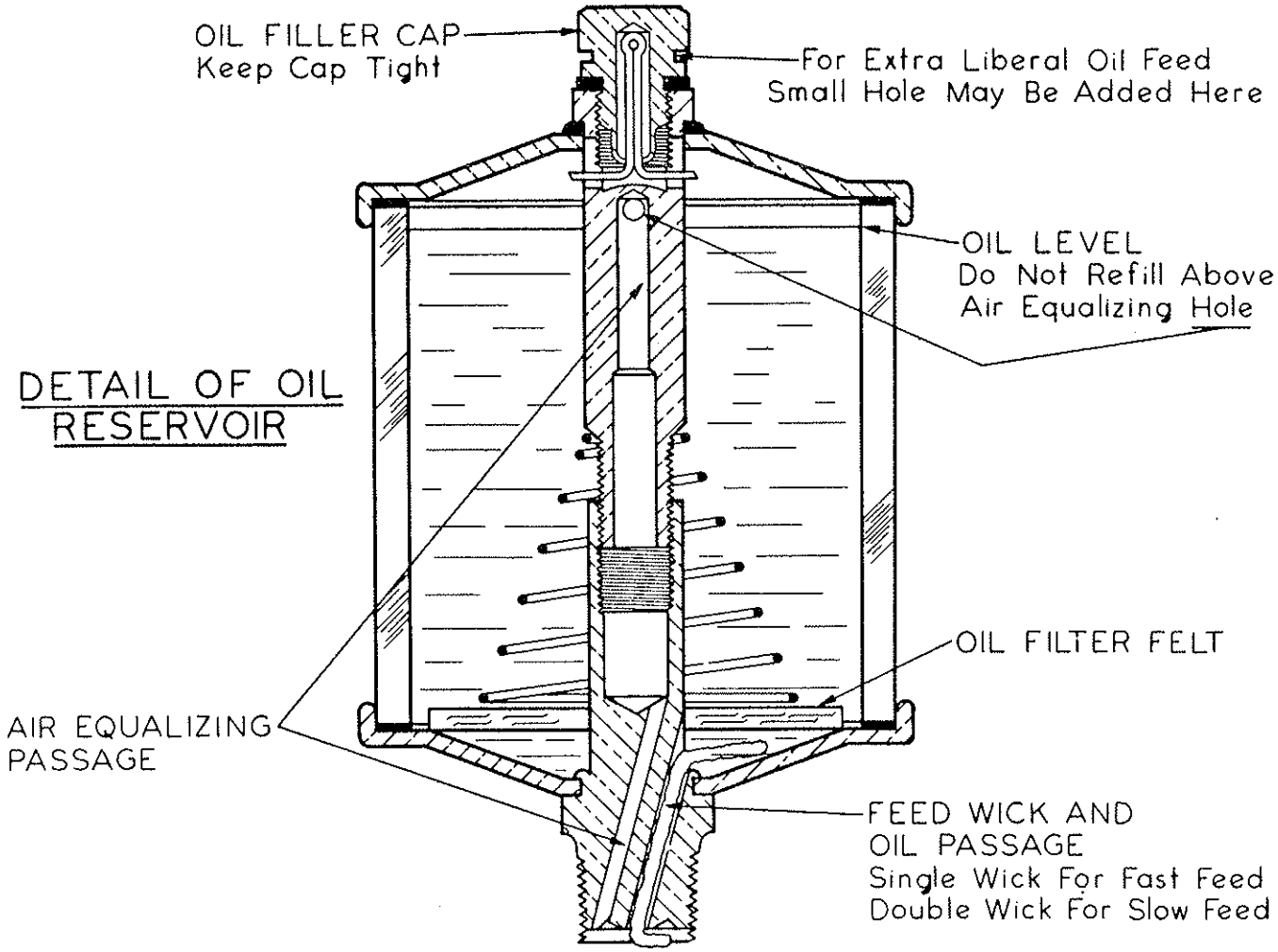


FIG. 11

OPERATION OF OIL RESERVOIR

HOW TO FILL AND OPERATE OIL RESERVOIRS: (1) While pump is running insert slender spout of oil can through filler hole and downward at a 45 degree angle through either of two side holes in filler opening. If possible have spout extend clear of center post so oil won't run into air equalizer passage in post. (2) Do not fill above bottom of top flange to avoid oil reaching air equalizer hole. (3) Leave cap off a few minutes while pump is running after filling so any oil will be sucked out of equalizer passage. (4) Replace and tighten filler cap.

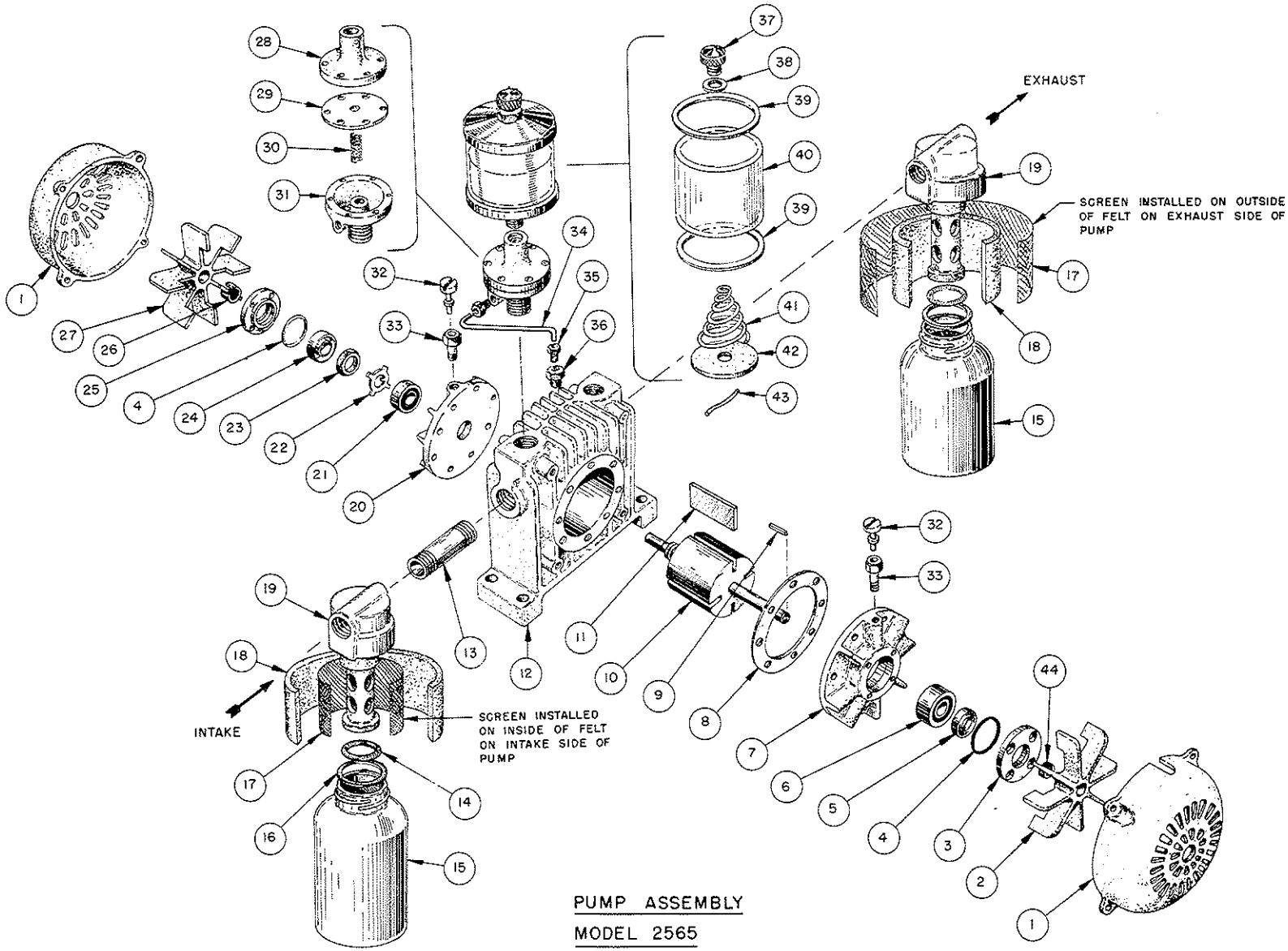
OIL FEED CONTROL: Simple gravity oiling system depends upon keeping air equalizer passage open and on choice of wicks (smokers' pipe cleaners). Slow feed with double wick, twice as fast with single wick. Standard feed is a double wick on small (4 oz.) cup, and a single wick on large (8 oz.) cup, so one filling lasts equally long. Time may vary from 50 to 200 hours operation according to how air pump is used. Above wick selection is changed on special applications.

IMPROPER FEED: May be caused by oil filled equalizer passage, loose filler cap, or defective wick. Change wicks if they appear defective for any of following reasons. Additives in some oils (especially S.A.E. automotive types) may cause rust in steel core of pipe cleaner or a jelly-like deposit in wick.

TO CHANGE WICKS: (1) Unscrew oil reservoir from lubricator casting and pull old wick out of bottom using pliers. (2) Insert new wick (if double, insert doubled end first) from bottom until you feel it touch strainer felt. (3) Cut off end about ⅛ inch longer than bottom of oiler. BE SURE WICK IS IN **CENTER** HOLE AND NOT SIDE HOLE. (4) Bend end at 90 degrees **away** from side hole.

FIGURE 12

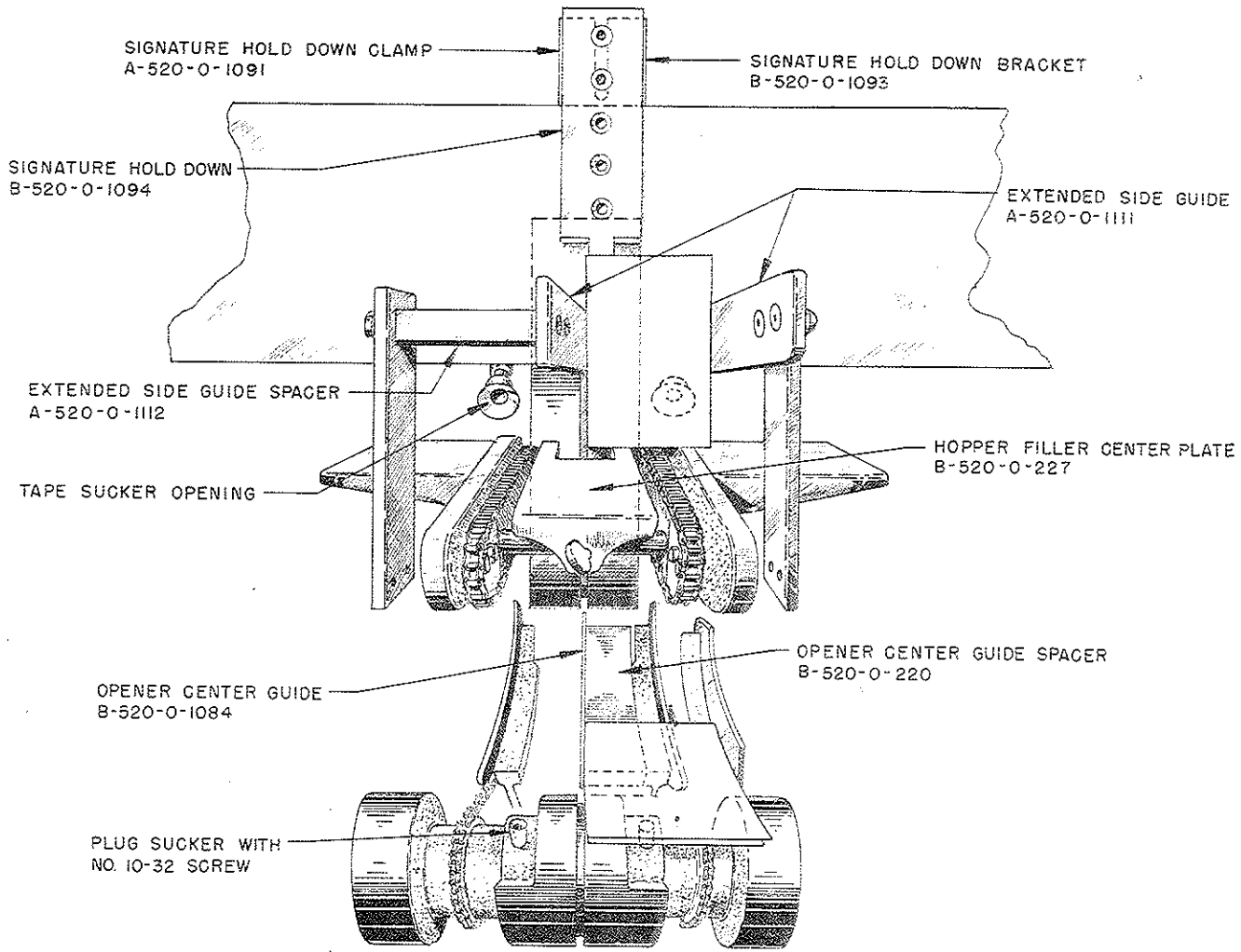
REF. NUMBER	DESCRIPTION	PART NUMBER
1	FAN GUARD	AC 102 B
2	COOLING FAN DRIVE END	AA 757-¾
3	END CAP DRIVE END	AA 856
4	"O" RING	AC 808
5	SHAFT SEAL, DRIVE END	AC 848
6	BALL BEARING, DRIVE END	AA 735
7	END PLATE, DRIVE END	AA 846
8	BODY (SPACER) GASKET	D 330
9	COUPLING KEY	AB 136 D
10	ROTOR ASSEMBLY	AC 840
11	VANE	AA 750 D
12	BODY	AC 101 F
13	¾" NIPPLE	
14	SPRING	S-6-101
15	METAL CUP	S-6-130
16	COVER GASKET	AA 405
17	FILTER SCREEN	A-100-0-1225
18	FELT	S-6-106
19	COVER	S-6-160
20	END PLATE, DEAD END	AA 846
21	BALL BEARING, DEAD END	AA 755
22	LOCK WASHER	AB 124 A
23	LOCK NUT	AB 123
24	SHAFT SEAL, DEAD END	AC 849
25	END CAP, DEAD END	AA 857
26	FAN TOLERANCE RING, DEAD END	AD 123
27	COOLING FAN, DEAD END	AA 757A-5/8
28	UPPER BODY	V 10 A
29	DIAPHRAGM	V 33
30	SPRING	V 34
31	LOWER BODY	V 11 B
32	OILER CAP	AA 11 B
33	OILER BODY	AA 10
34	OIL TUBE	V 59
35	COMPRESSION FITTING	V 31
36	CONNECTOR	V 32 A
37	FILLER PLUG & RETAINER KEY	AA 269
38	FILLER PLUG GASKET	AA 265
39	CYLINDER GASKET	AA 968 A
40	GLASS CYLINDER	AA 967
41	SPRING	AA 274
42	OIL STRAINER FELT	AA 56 B
43	FEED WICK	AA 973
44	FAN TOLERANCE RING-DRIVE	AD 122



PUMP ASSEMBLY

MODEL 2565

FIG. 12



POST CARD
FEEDER ATTACHMENT
FIGURE 13

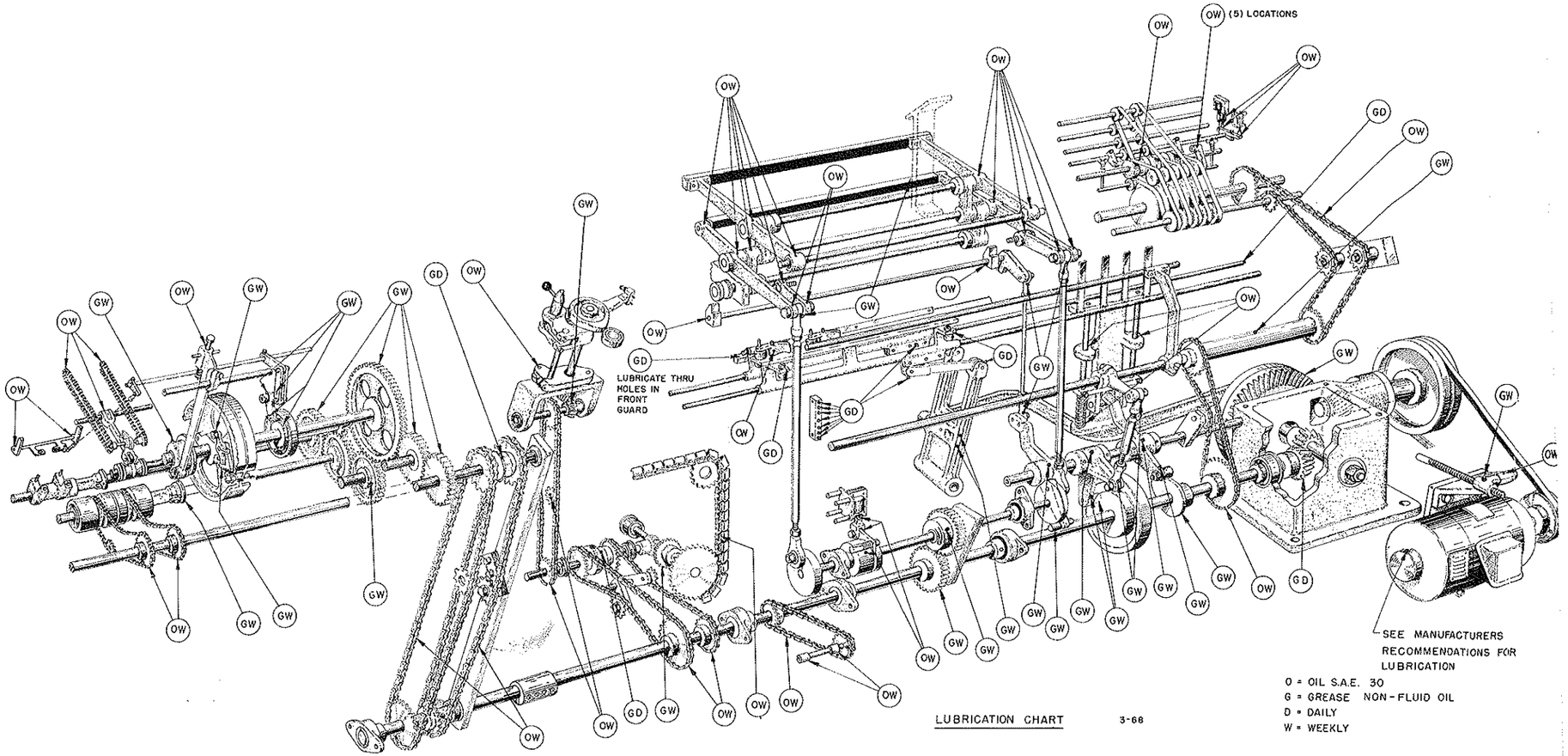

OW
(5) LOCATIONS
GD
GW
LUBRICATE THRU HOLES IN FRONT GUARD
SEE MANUFACTURERS RECOMMENDATIONS FOR LUBRICATION
O = OIL S.A.E. 30
G = GREASE NON-FLUID OIL
D = DAILY
W = WEEKLY
LUBRICATION CHART 3-66

FIGURE 14

INSTRUCTION MANUAL

ELECTRICAL CONTROLLER

MACEY SADDLE GATHERER

MODEL 03-290-1

SERIAL NO._____

5 H.P. DRIVE

208-220 VOLTS
3 PHASE
60 CYCLES

MACEY PLANT
HARRIS-SEYBOLD COMPANY
13835 ENTERPRISE AVENUE
CLEVELAND, OHIO 44135
TELEPHONE 267-6600
AREA CODE 216

TABLE OF CONTENTS

SEQUENCE OF OPERATION
ELECTRICAL MEMORY

THE TIMING SWITCHES LS7 AND LS8 PERMIT THE INSPECTOR CAM TO OPERATE AT ITS PROPER TIME. THE SWITCHES MUST BE SET TO CLOSE AFTER THE CAM HIGH ON THE WHEEL HAS MADE CONTACT WITH THE BOOK AND BEFORE THE CAM HIGH HAS MOVED OFF THE BOOK. LS7 IS OPERATED TWICE PER SHAFT REVOLUTION TO ACCOUNT FOR THE GEAR INCREASER CONNECTING THE WHEEL TO THE SHAFT. THIS IS USED ONLY ON 14" - 28" STROKE. ON 21" STROKE, 28" SPACING ON THE CHAIN IS USED AND INSPECTION IS IN EFFECT EVERY OTHER REVOLUTION OF THE GAGE WHEEL. THE 14" - 28" STROKE SWITCH CONTROLS WHICH LIMIT SWITCH (LS7 OR LS8) WILL BE USED.

INSPECTOR SWITCHES LS9 AND LS10 DETERMINE THE THICKNESS OF THE GATHERED BOOK. THE MINUS SWITCH (LS9) IS HELD CLOSED AND IS OPENED BY A PROPER BOOK. THE PLUS SWITCH (LS10) IS HELD OPEN AND IS CLOSED BY A BOOK THAT IS OVERSIZED. IF LS9 IS NOT OPENED (TOO SMALL) OR LS10 IS CLOSED (TOO LARGE), RELAY 1 IS ENERGIZED. BOTH GAGING INDICATING LIGHTS GO ON AT THIS TIME AND WILL STAY ON WHILE RELAY 1 IS ENERGIZED. WITH SET-RUN SWITCH ON "SET", THE LIGHTS WILL INDICATE WHETHER AN OVER OR UNDER BOOK IS UNDER THE INSPECTOR CAM. PLACE ON "SET" WHILE RUNNING TO DETERMINE IF INSPECTOR IS SET TOO CLOSELY.

RELAY No. 1: PICKED UP THROUGH TIMING SWITCH LS7 OR LS8 AND INSPECTOR SWITCH LS9 OR LS10.

RELAY No. 2: (STITCH WITHHELD) PICKED UP THROUGH RELAY 1 CONTACTS AND LS2 ~~320°~~ 0° 360°

RELAY No. 3: (SIGNAL HOLD) PICKED UP THROUGH RELAY 2 CONTACTS AND LS3 ~~300°~~ 330°

RELAY No. 4: (REJECT 21) PICKED UP THROUGH RELAY 3 CONTACTS AND LS4 ~~280°~~ 300°

RELAY No. 5: (REJECT 14) PICKED UP THROUGH RELAY 4 CONTACTS AND LS5 ~~260°~~ 270°

TRIPLE REJECT STOP: IF RELAY 1, 2, 3 AND 4 ARE OPERATED (AN INDICATION THAT THREE BAD BOOKS HAVE PASSED THE INSPECTOR) THE SADDLE GATHERER WILL STOP. THIS FEATURE CAN BE TURNED OFF BY THE 3 BOOK-ON-OFF SWITCH ON THE CONTROL PANEL.

MAINTENANCE AND SERVICE

PREVENTIVE MAINTENANCE

THE ENCLOSURE, HOUSING THE ELECTRICAL COMPONENTS, SHOULD BE VACUUMED PERIODICALLY TO REMOVE THE AMBIENT DUST AND DIRT WHICH MAY ACCUMULATE.

ALL ELECTRICAL CONTACTS SHOULD BE INSPECTED AT REGULAR INTERVALS AND REPLACED WHEN SERVICE WEAR OR BURNING HAS DISPLACED MOST OF THE WORKING CONTACT MATERIAL. ALL RELAY CONTACTS ARE VISIBLE FOR INSPECTION UNDER OPERATING CONDITIONS. THE STARTER CONTACTS ARE EASILY INSPECTED BY REMOVING THE COVER ASSEMBLY.

TROUBLE SHOOTING

THE CIRCUIT FOR THE MACEY SADDLE GATHERER IS RELATIVELY SIMPLE AND CAN BE EASILY UNDERSTOOD BY COMPETENT ELECTRICIANS. IF TROUBLE SHOOTING IS NECESSARY, THE MAINTENANCE MAN SHOULD FOLLOW THE PRINT C-530-0-5003 WHICH GRAPHICALLY ILLUSTRATES THE ELECTRICAL SWITCHING SEQUENCE WITH REFERENCE TO THE MECHANICAL SEQUENCE OF THE MACHINE. WITH A WORKING KNOWLEDGE OF THE ELECTRICAL AND MECHANICAL TIMING, THE ELECTRICIAN CAN THEN FOLLOW THE ELECTRICAL SCHEMATIC DIAGRAM C-03-290-1.

BOTH OF THE ABOVE MENTIONED PRINTS CAN BE FOUND IN THE REAR OF THIS MANUAL.

1. MALFUNCTION: ALL BOOKS ARE BEING STITCHED INCLUDING OVER AND UNDERSIZED BOOKS.

   TEST PROCEDURE:

   (A) CHECK FOR 110 VOLTS ACROSS THE COIL FOR RELAY #2 WHEN A BAD BOOK IS UNDER THE STITCHER HEADS.

   (B) IF THE VOLTAGE IS ZERO THE TROUBLE WILL BE FOUND IN THE FAILURE OF RELAY #1 TO ENERGIZE OR THE IMPROPER TIMING OF LS2.

   (C) IF THE VOLTAGE IS 110 VOLTS AND THE RELAY IS DROPPED OUT, THE COIL IS DEFECTIVE AND REPLACEMENT OF PLUG-IN RELAY IS NECESSARY.

   (D) IF THE VOLTAGE IS 110 AND THE RELAY IS ENERGIZED, CHECK TO SEE IF THE NORMALLY CLOSED CONTACTS HAVE OPENED.

2. MALFUNCTION: ALL BOOKS ARE BEING REJECTED; INCLUDING GOOD BOOKS.

TEST PROCEDURE:

(A) BE SURE THAT THE REJECT SOLENOID IS NOT JAMMED IN THE REJECT POSITION (DOWN POSITION).

(B) RELAY #4 AND #5 MAY BE JAMMED CLOSED.

3. MALFUNCTION: NO BOOKS ARE BEING REJECTED INCLUDING BAD BOOKS BUT BAD BOOKS ARE NOT BEING STITCHED.

TEST PROCEDURE:

(A) CHECK FOR DEFECTIVE REJECT SOLENOID (OPEN CIRCUIT).

(B) CHECK IF RELAY #4 OR #5 ARE ENERGIZING IN THEIR PROPER CYCLE. (SEQUENCE CHART C-530-0-5003

(C) CHECK FOR VOLTAGE ACROSS RELAYS 4 OR 5 IF THEY ARE FAILING TO ENERGIZE.

4. MALFUNCTION: ALL BOOKS ARE PASSING ON TO THE DELIVERY TABLE - GOOD AND BAD.

TEST PROCEDURE:

(A) CHECK IF THE MEMORY RELAYS I THROUGH 5 ARE ENERGIZING IN PROPER SEQUENCE.

(1) IF RELAY #I DOESN'T ENERGIZE THE REMAINING RELAYS WILL NOT ENERGIZE.

(B) CHECK THE TIMING OF LIMIT SWITCHES LS9 AND LSIO WITH RESPECT TO THE TIMING OF LS7 AND LS8. FOLLOW SEQUENCE SHOWN ON C-530-0-5003

5. MALFUNCTION: MACHINE WILL JOG BUT NOT RUN.

TEST PROCEDURE:

(A) BE SURE THAT THE JOG AND RUN PUSH BUTTONS ARE BOTH DEPRESSED SIMULTANEOUSLY ON ANY ONE STATION.

(B) WITH A RUN AND JOG BOTH DEPRESSED, CHECK IF CR IS ENERGIZED.

(1) CHECK FOR 110 VOLTS FROM 14 TO 12 ON RELAY CR.

(2) IF 110 VOLTS IS PRESENT THE COIL OF CR IS PROBABLY DEFECTIVE. CHANGE.

(3) IF 110 VOLTS IS NOT PRESENT CHECK RUN BUTTONS PARTICULARLY FROM POINTS 13 AND 14 FOR POWER AVAILABILITY.

6. MALFUNCTION: THE MACHINE WILL JOG FROM THE STITCHER STATION ONLY BUT NOT FROM ANY OF THE OTHER JOGGING STATIONS.

TEST PROCEDURE: (A) CHECK ALL THE JAM SWITCHES FOR LODGED PAPER. THE DELIVERY JOG STATION OVER-RUNS THE JAM SWITCH CIRCUIT.

HOW TO GET SERVICE

CALL YOUR LOCAL HARRIS-SEYBOLD COMPANY DISTRICT OFFICE.

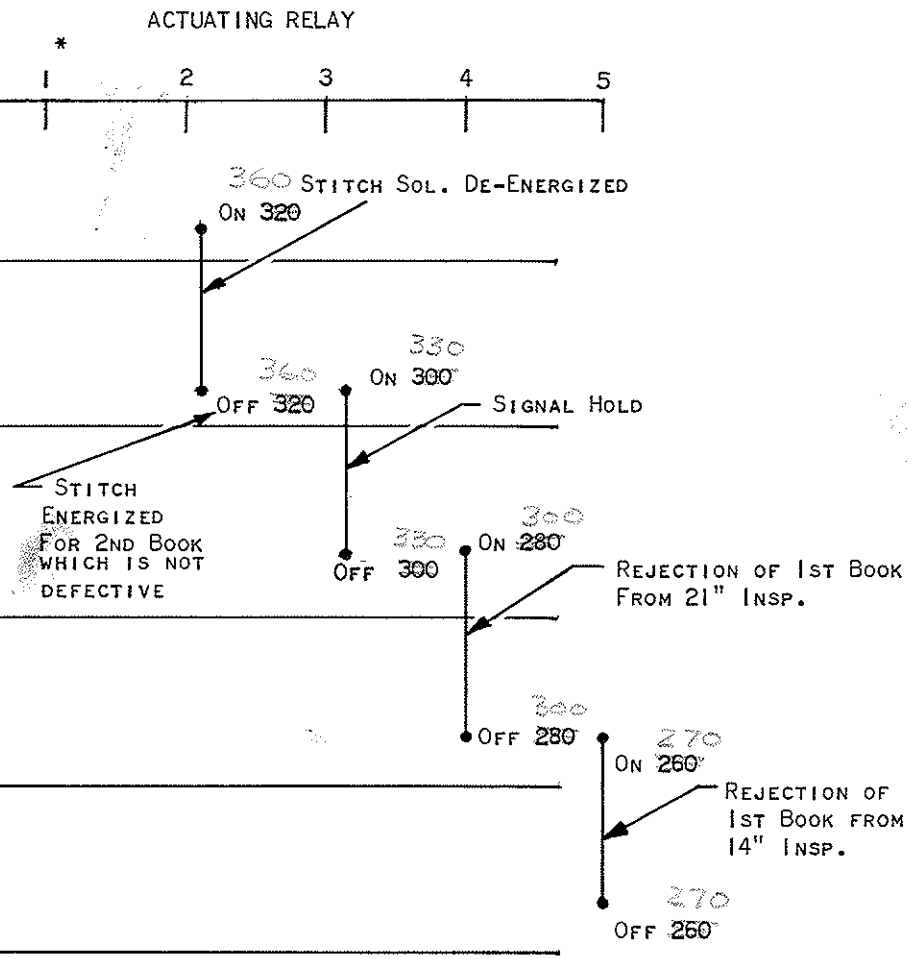
SUGGESTED SPARE PARTS

		FOR PART NUMBER	SUGGESTED QUANTITY
FUSE 3 2/10 AMP (F)		A-21-015-2	4
CONTACT ASSEMBLY (M)	A-33-045-1		1 SET
COIL FOR M	A-33-045-1		1
RELAY: CR	A-41-015-1		1
RELAY: R1, 2, 3, 4, & 5 (MEMORY)	A-41-083-1		1
BULB: NE-51	S-11-232		6

ALL ELECTRICAL COMPONENTS ARE STOCKED AT THE MACEY PLANT FOR CUSTOMER CONVENIENCE. AREA 216-267-6600. CONTACT SPARE PARTS DEPARTMENT.

SEQUENCE FOR "ONE" DEFECTIVE BOOK

ACTUATING LIMIT SWITCH			CAM POSITION DEGREE
1 ST. REV.	(LS7)	14" INSPECT.	0
			90
	(LS8)	21" INSPECT.	180
			270
	(LS2)		360
2ND. REV.			0
			90
			180
	(LS3)		270
			360
3RD. REV.			0
			90
			180
	(LS4)		270
			360
4TH REV.			0
			90
			180
	(LS5)		270
			360
5TH REV.			0
			90
			180
			270
			360

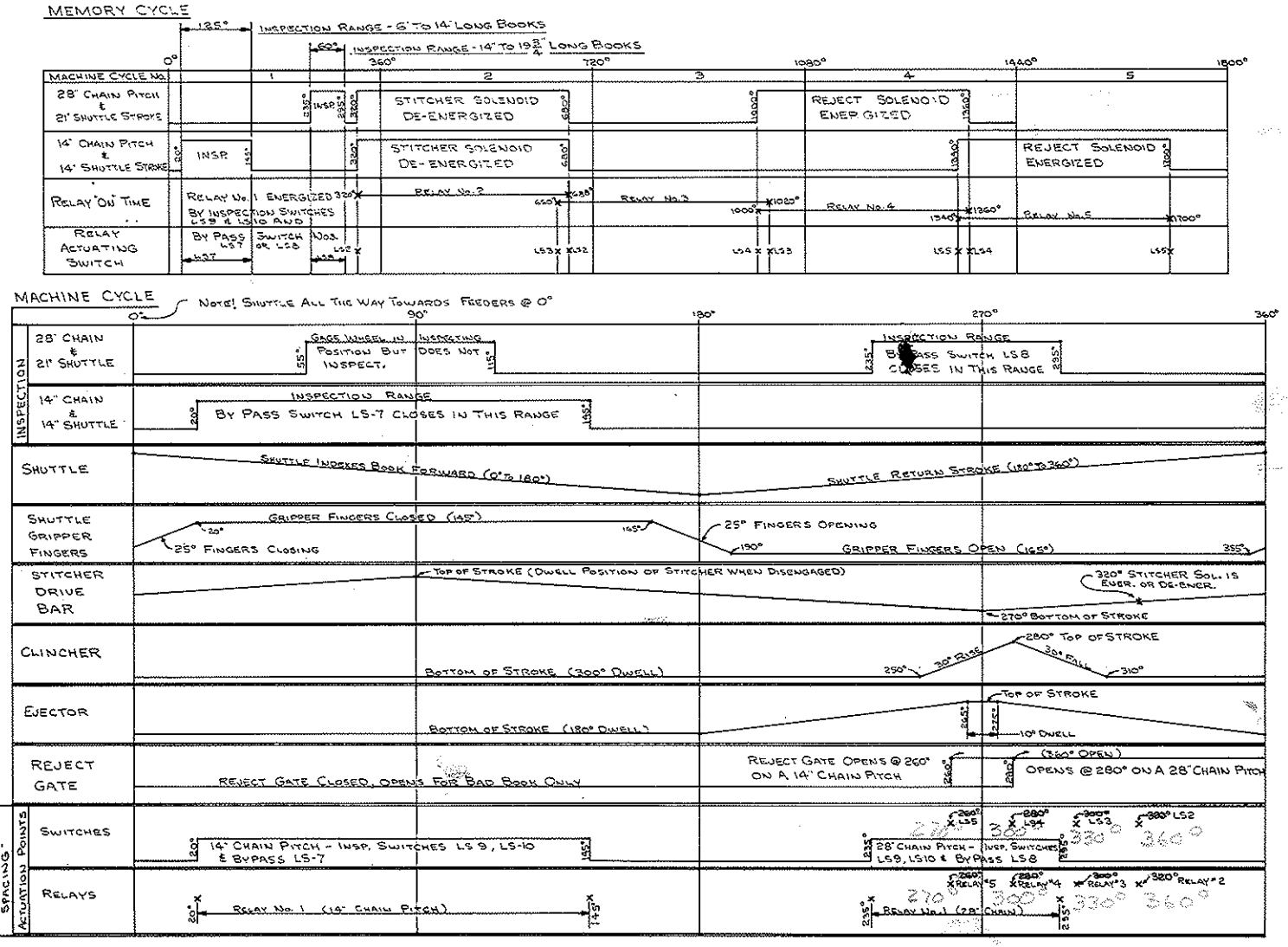


* RELAY 1 MAY BE ENERGIZED BETWEEN 55° TO 115° FOR 28 INCH STROKE OR 20° TO 145° FOR 14 INCH STROKE

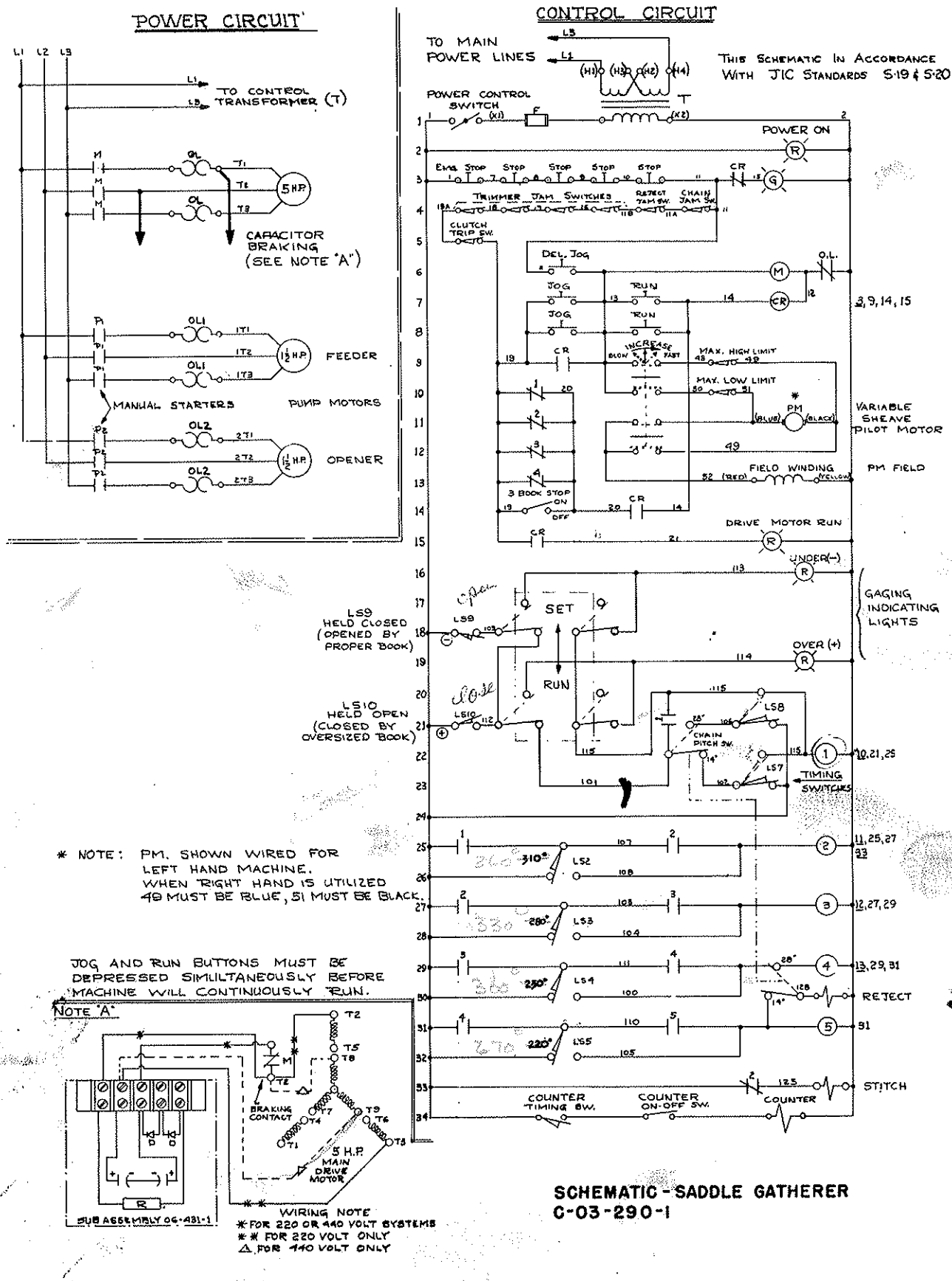
NOTE: DURING THE FIRST REVOLUTION LS9 OR LS10 IS SENSING AN "UNDER" OR "OVERSIZED" BOOK IN ORDER TO PROVIDE CONTINUITY FOR SUBSEQUENT SEQUENCE OF RELAY OPERATION.

TRIPLE REJECT STOP: IF RELAYS 1, 2, 3, AND 4 ARE ALL ENERGIZED, INDICATING THAT THREE DEFECTIVE BOOKS HAVE PASSED THE INSPECTOR, THE MACHINE WILL AUTOMATICALLY STOP. SEE REFERENCE PRINT D-03-290C-2

CONTROLLER MODEL 03-290
220/440 V. 3 ϕ 60 CYCLE



TIMING DIAGRAM FIGURE 11



SCHEMATIC - SADDLE GATHERER
C-03-290-1

NOTE !
(P.C.S.) = POWER CONTROL SWITCH
(3 B.S.) = 3 BOOK STOP SWITCH
(14-28 S) = 14" - 28" CHAIN PITCH SWITCH

LIMIT SWITCHES

3 H.P. DRIVE MOTOR

T8. T9 FOR 440 VOLT CONN. ONLY

1/2" FLEX. 30" LG.

DRIVE MOTOR JUNCTION BOX

LOW SPEED 51 BLUE

HIGH SPEED 49 BLACK

2 YEL. 52 RED 49 BLACK 51 BLUE

1/15 H.P. GEARMOTOR PM

1/2" CONDUIT 20-3/4" LG.

NOTE : PM SHOWN WIRED FOR LEFT HAND MACHINE. WHEN RIGHT HAND IS UTILIZED 49 MUST BE BLUE, 51 MUST BE BLACK

ROTATION

LS2 LS3 LS4 LS5

LEDEX TIMING SWITCH
M-531 (RIGHT HAND) MODEL

SEE DRG NO C-530-0-6016

OVERLOAD CLUTCH SWITCH

PUMP MOTORS

FEEDER — RED 1T1, WH 1T2, BLK 1T3

OPENER — BLUE 2T1, YEL. 2T2, 2T3 PURPLE

P2
2T3 2T2 2T1 1T3 1T2 1T1
15 14 13 11 2 8
21 19A 19

MANUAL PUMP STARTERS
"P1" 14 BLACK (M) (P2) L1 L2 L3 OL1 1T1 1T2 1T3 P2
"P2" 14 BLACK (P1) L1 L2 L3 OL2 2T1 2T2 2T3 P2

JOG / RUN / STOP — 13 19 14 9 8 13 15 21 2

TO REMAINING FEEDER P.B. STATIONS. (10 & 11 TO SERIES STOP P.B.)

P2
1T1 1T2 1T3 2T1 2T2 2T3
8 2 11 13 14 15
19 19A 21

CONTROLLER

"M" PART NO. A-33-045-1

440 VOLT CONN. ONLY — (M)(02)(M) T2 T3 T1
220 VOLT CONN. ONLY — (M)(M)(M) T2 T3 T1

RED DOT / RED DOT
ASSEMBLY A-06-431-1

(T) (PSI) 2 L1 — (TB1) 13 T11 — (CR) (PSI) 12 L2 — (T) L3

T1 (02) — T2 (02)(TB1) — T2 (02)(TB1) — T3 (02)(TB1)

440 VOLT CONN. ONLY — T8 (02) (M)
220 VOLT CONN. ONLY

(02) (01) (05) (04) (07) (06) (PCS) (P2)
A-53-010-1

"T" (N) L1 (N) L3 — X1 X2 — 2 (R4) (M) (TB)
(POWER CONTROL SW.)

TERMINAL S-11-182

RELAY A-41-047-1 OR A-41-083-1
RELAY SOCKET NO. A-14-130-1

(R5) (R4) (R3) (R2) (R1)

(14-285)

(P2) (38S) (N) (38SX R4) (04X 05) (07X P2)
(SCS) (M) (CR) 19 19 12 20 11 13 21 14 15
(04) (05) (P2)

ROTATION
LS2 LS3 LS4 LS5

LEDEX TIMING SWITCH
NOTE: THIS SWITCH WIRING IS FOR 532 (LEFT HAND) MODELS ONLY. SEE ABOVE FOR M-531

SEE DRG NO C-530-0-6016

POWER CONTROL (T8) R (R4) 1 2 OFF (T) ON X1
3 BOOK STOP (CR) 19 ON (CR) OFF 20
CHAIN PITCH (RI) 101 (01) 123 (CR) 102 (07) 14" 28" 106 (R4) 100

SPEED CONTROL SWITCH
(02) 52 — SLOW FAST — (CR) 15
TOP 51 (02) 49 (02) BOT 50 (02) 48 (02)

O1 REJECT SOLENOID 128 2

SPEED CONTROL SWITCH
SLOW NORMAL FAST
51 52 49 48 13 50

PLUG-IN RELAY CONFIGURATION
COIL 2 6 10
1 6 11
4 3 5 7 8 9

O3 TELEPHONE CORD

REJECT JAM SWITCH 11A 11B

5-11-80 06

O4

JOG / RUN / STOP — 13 11 14 8 7 6 15 21 2 R
STITCHER PUSH BUTTON STATION

O5 1/2" CONDUIT 21-1/2" LG.

JUNCTION BOX 4" OCT.

15 13 7 1 19A
21 14 11 2 11B

1/2" FLEX. 85" LG. (SEE A-06-436-1)

TRIMMER JAM SWITCHES 16 17 18 110

TRIMMER JUNCTION BOX 19A 17 1 11B

NOTE: WHEN SHIPPED WITHOUT TRIMMER, JUMPER 19A TO 11B AND 1 TO 7

19A 3" 11B 1 3" 7

JOG / RUN / STOP — 13 11 14 1 7 8 15 21 2 R
TRIMMER PUSH BUTTON STATION

YELLOW PACE CUT JAM SWITCH 110A 11B 2

TOTAL COUNTER — (NC) (C) N.C. COUNTING SW.

NOT USED TAPE LEAD

POWER 3 — COMMON 10 — POWER 6 — ON-OFF SW. 4

PULSE 12 N.C. — PULSE 9 — PULSE 3 (C) (NC) COUNTING SWITCH — 11 N.O. BATCH CONTROL SOLENOID

OPTIONAL EQUIP. MODEL 634 A CYCLO-MASTER COUNTER

O6 1/2" CONDUIT 21" LG.

125 2 STITCHER SOL.

O7

INSPECTION SWITCH LS9 109 LS10 112

CHAIN JAM SWITCH 11A 11

TELEPHONE CORD 11A 11 L1 L2 L3

14 BLACK 12" LG.

INCOMING POWER LEADS

RUN - SET SWITCH 109 112 115 115 112 101 113 101 114 R R
UNDER OVER

1/2" FLEX. 33" LG.

LS7 102 LS8 106 115 115
TIMING SWITCHES

INSPECTOR JUNCTION BOX 115 101 2 102 106

INTERCONNECTION AND WIRING
D-03-290 B-2

10-69