

# **OPERATING INSTRUCTIONS AND PARTS MANUAL**

**FOR INSTALLATION / MAINTENANCE / ADJUSTMENT**



**STANDARD & SPECIAL MACHINES AND STITCHING WIRE**

# IMPORTANT

**THE IDEAL STITCHER FURNISHED YOU IS A:**

Model \_\_\_\_\_

Serial No. \_\_\_\_\_

Wire Size \_\_\_\_\_

Crown Width \_\_\_\_\_

Cutter Blade Size \_\_\_\_\_

Motor: \_\_\_\_\_ HP. \_\_\_\_\_ RPM \_\_\_\_\_ PHASE

Always give the Type, Serial Number, Model Number, Wire Size, and Crown Width of your IDEAL STITCHER when ordering parts, or requesting information.

## WARRANTY INFORMATION

"Your new wire stitchee is warranted to be free from defects for a period of six calendar months from the date of manufacture. This warranty does not cover, nor does it intend to cover, abuse as defined by the manufacturer, or wear and tear parts. Should there be any questions concerning the type of warranty or the scope of the warranty, they should be directed in writing to the manufacturer, who will respond in writing. Your Ideal Wire Stitchee has been manufactured, like many other Ideal Stitchees, under the strictest quality control processes and shall provide many years of trouble free service with proper care and maintenance. You must read your manual carefully, and if you have any questions, please contact the manufacturer. Good Luck in using your IDEAL WIRE STITCHEE in the many future years ahead. And as a final note, please order only genuine IDEAL REPLACEMENT PARTS and Ideal approved Stitchee Wire."

### STANDARD STAPLE SIZES



The crown of a staple is measured inside the legs.

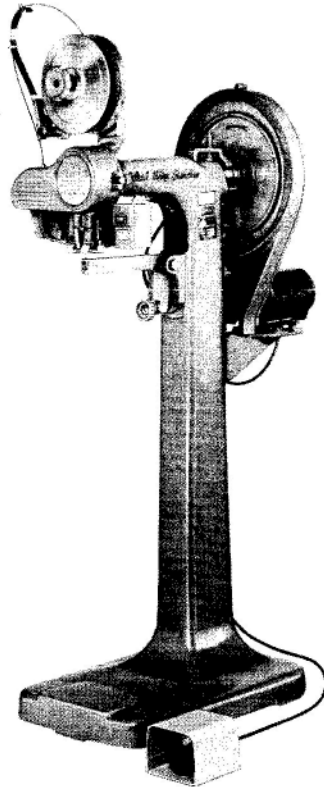


The leg length is measured this way from top to bottom.

### STANDARD SIZE CUTTER BLADES AND LEG LENGTH PRODUCED WHEN USED ON 7/16" CROWN MACHINES

	7/16" Crown
1/16" Blade makes	1/4" Leg
1/8" Blade makes	5/16" Leg
3/16" Blade makes	3/8" Leg
1/4" Blade makes	7/16" Leg
5/16" Blade makes	1/2" Leg
3/8" Blade makes	9/16" Leg

**IDEAL STRAIGHT ARM STITCHER**



The IDEAL Straight-Arm Stitcher can be used in a multitude of applications, not only in box-making but in packing, assembling, ticketing, and manufacturing—especially in fastening operations.

Carefully designed to give low-cost dependable service the IDEAL Straight-Arm Stitcher can be employed to effectively reduce costs in any of the following operations:

- General box work
- Closing mattress boxes
- Attaching wood handles to baskets
- Attaching small articles to display cards
- Stitching solid fibre or corrugated beer and beverage cases
- Assembling suit boxes
- Attaching rope handles to shopping bags
- Closing cellophane bags containing potato chips, cookies, candy, etc.
- Attaching cloth to wood (flags, folding chairs, etc.)
- Attaching tickets to gloves and other articles
- Display card and box work
- Stitching paper coal bags
- Stitching seams of heavy-duty work gloves
- Assembling rag board and upholstery in automobiles

**SPECIFICATIONS**

Model - IS 1244	12 inch Straight-Arm Stitcher
Capacity	Up to 300 pt. Board
Maximum Thickness	3/8"
Height from Floor to Stitching Point	44"
Wire Size 020 x 103 Or	Optional
Speed	260 stitches per minute
Variable Speed Optional At Slight Additional Cost.	
Base Measurements	30"x18"
Weight (crated)	435 lbs.
Weight of Machine only	365 lbs.

Also available in 20, 25, 30, 36, and 42 inch throat sizes and wide crown stitcher models.

**IDEAL BOTTOM STITCHER**

Carton bottoms are sealed more efficiently and more economically by steel-wire stitching than by any other method. Stronger and cleaner than glue or tape, steel-wire stitching also saves time, labor, money, and losses in shipping.

Climatic conditions inside or outside the plant cannot weaken or otherwise affect IDEAL sealed cartons. There is no waiting for adhesive to set—as soon as they are stitched, cartons may be packed. One operator can turn out from 200 to 800 cartons an hour, depending on the experience of the operator and the size of the carton. The saving in labor varies from 40% to 60% and the cost of the steel wire used is as little as 5¢ for 100 cartons.

**ANYONE CAN OPERATE IT**

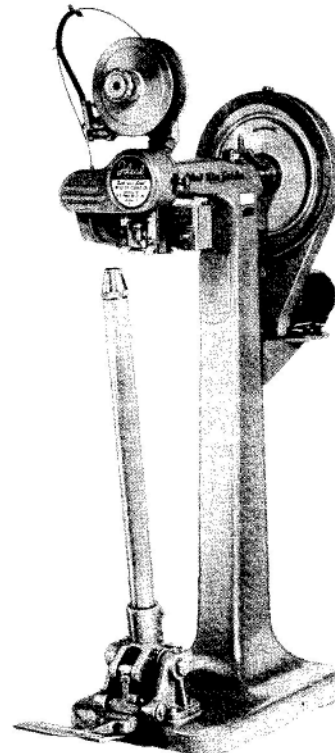
IDEAL Stitchers are so easy to operate that any inexperienced girl needs only a few minutes of instruction before going to work. The carton is simply placed over the clincher post with bottom flaps folded over into position for stitching. The treadle is then depressed to move the box into stitching position. When the operator's foot comes in contact with the floor switch the machine is tripped and the operation completed.

Machine speed can always be adjusted to the speed and experience of the operator. No resetting is required for different sizes of cartons.

**SPECIFICATIONS**

Model - IB 1240	12 inch Bottom Stitcher
Capacity	Handles Cartons up to 24" square and 40" deep
Maximum Thickness	3/8"
Height from Floor to Stitching Point	44"
Wire Size 020 x 103 Or	Optional
Speed	260 stitches per minute
Variable Speed Optional At Slight Additional Cost.	
Base Measurement	30"x18"
Weight (crated)	470 lbs.
Weight of Machine only	400 lbs.

Also available in 20, 25, and 30 inch throat sizes as well as wide crown models.



## INSTALLATION INSTRUCTIONS

1 - **EXAMINATION** - Before uncrating, examine your stitcher for any visible damage in transit. If damaged, do not uncrate the machine. Notify the carrier or trucking company who delivered the machine and also your IDEAL STITCHER Representative.

2 - **UNCRATING STITCHER** - (A) Remove the end of the crate at which the motor is located. (B) Remove the two bolts which hold the base of the stitcher to the bottom of the crate. (C) Remove the cross brace in the upper half of the crate which holds the stitcher in position. (D) Pull the stitcher from the crate by grasping the heavy casted column and motor bracket. **DO NOT PULL ON GEAR GUARD.**

After the machine is removed from the crate **DO NOT PULL OR PUSH ON THE POST OR ARM OF THE STITCHER**, as this can put the clincher block out of adjustment.

3 - **LOCATION FOR STITCHER** - Place the stitcher on a level and solid footing to prevent excessive vibration. This is necessary when the machine is not bolted to the floor.

4 - **CLEAN THE STITCHER** - When the machine is shipped from our factory it is coated with a rust-resistant compound. Remove this coating with a grease solvent before operating.

5 - **LUBRICATION** - After cleaning, your stitcher should be lubricated at all oiling points as shown on drawing A-10,027, page 5. Use SAE 20 oil for all lubrication. The machine should be oiled at least once every eight operating hours. The motor, every 2000 hours. For further instructions read page 4.

6 - **CHECK MOTOR** - The type of motor for your machine was specified on your purchase order. These specifications are repeated on a tag which is attached to your motor. Check this motor tag before connecting the machine to electric current.

7 - **MOUNTING THE WIRE SPOOL BRACKET** - After removing the wire spool, bracket and spool holder from the crate, mount your wire spool bracket as shown on drawing A-10,028 on page seven. There are two hexagon head screws furnished with the bracket for mounting. To install wire spool in spool holder, unscrew plate and place spool of wire over bushing. Replace plate and screw down firmly. Place spool holder on spool holder bracket stud so that wire leads off bottom of spool. Now cut wire ties or nylon tape, holding the coil of wire. **NOTE - DO NOT CUT THESE TIES** until the coil of wire is on the spool. Hold end of wire until you thread the machine.

8 - **THREADING THE STITCHER** - Thread the wire off the bottom of the spool through the loops, wire check part A-336, wire feed tubes part No. AA-349B and cutter tube A-316 as shown on drawing A-10,028, page 7.

**NOTE** - The above is the proper method for threading the Ideal wire stitcher using a five or ten pound coil holder. On 25-pound coil holder the wire is threaded from the top of the roll, as shown in figure A illustrated below.

9 - **TO SET MACHINE FOR STITCHING** - To set your machine properly, follow these four important steps.

(A) Lower the clincher part A-437 as far as possible by turning the knurled adjusting nut to its lowest position.

(B) Step on foot pedal and turn the fly wheel by hand until the former housing is at the lowest point of its stroke.



(C) Place a piece of material to be stitched over the clincher part No. A-437 or if the work is solid fibre, turn the adjusting knurled nut until the material is held firmly between the clincher and the former. If the work material is corrugated board, turn the knurled adjusting nut until clincher and formers make a slight compression on the work material.

(D) Return stitcher to neutral by rotating fly wheel until it turns freely.

The above refers to all post type stitchers. For arm type stitchers, adjust hand wheel part No. AA-67 to the lowest possible position by turning to the left and then follow same procedure as on post stitcher.

**OPERATING INSTRUCTIONS**

**WARNING**

PREVENT ACCIDENTS BY FOLLOWING THESE RULES . . .

1. DO NOT PUT YOUR HANDS NEAR AREA TO BE STITCHED WHEN MACHINE IS OPERATING
2. TURN THE MOTOR OFF WHEN THE STITCHER IS NOT IN USE.

Turn ON the power and place the work material over the clincher. Make sure that the box is in the correct position for stitching (figures show the correct placement of stitches). →

**POST STITCHERS:**

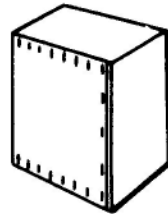
Press down on the foot pedal (or electric trip if the machine is so equipped) gradually until the post is locked in an upright position. Then press the pedal down the rest of the way to engage the clutch. The machine will continue to stitch until the pedal is raised slightly.

**ARM, TOP AND SEAM STITCHERS:**

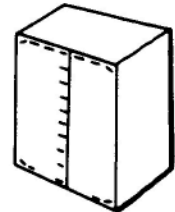
The clutch is engaged by stepping on the foot pedal (or electric trip if the machine is so equipped). These models will also continue to stitch while the pedal is held down.

**NOTE**

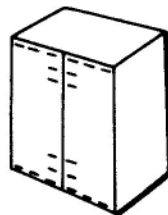
According to the Consolidated Freight Classification Rulings, wire stitches used to close corrugated and solid fibre shipping boxes should be placed not more than 2-1/2" apart along the edges of the flaps. While the number of stitches required depends primarily on the size of the box, the weight of the contents should also be considered. A box with a heavy load will often need more than the minimum number of stitches.



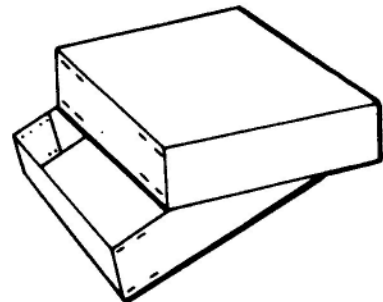
Bottom stitching of full flap slotted container (F.F.S.C.).



Top stitching of overlap slotted container (O.S.C.).



Bottom stitching of regular slotted container (R.S.C.).



Side and end stitching of telescope container.

*Instructions for the Care and Operation*  
**of IDEAL Wire Stitchers**

**CAUTION: DISCONNECT POWER SOURCE BEFORE SERVICING OR ADJUSTING**

Lubrication — Oil thoroughly every eight working hours including several drops of oil in the FORMER and DRIVER mechanism.

Fill oil holes in top of slide box (see drawing A-10,027 ). See page 2.

Use good oil equivalent to No. 20 motor oil.

Do not lubricate brake shoe. It must be kept dry.

A hot motor does not indicate need of oiling. A new motor should run 1000 working hours before lubrication is required.

Important — Do not use graphite in working mechanisms. Light Cup Grease can be used in main cam groove as illustrated on page 2 of Lubrication Diagram.

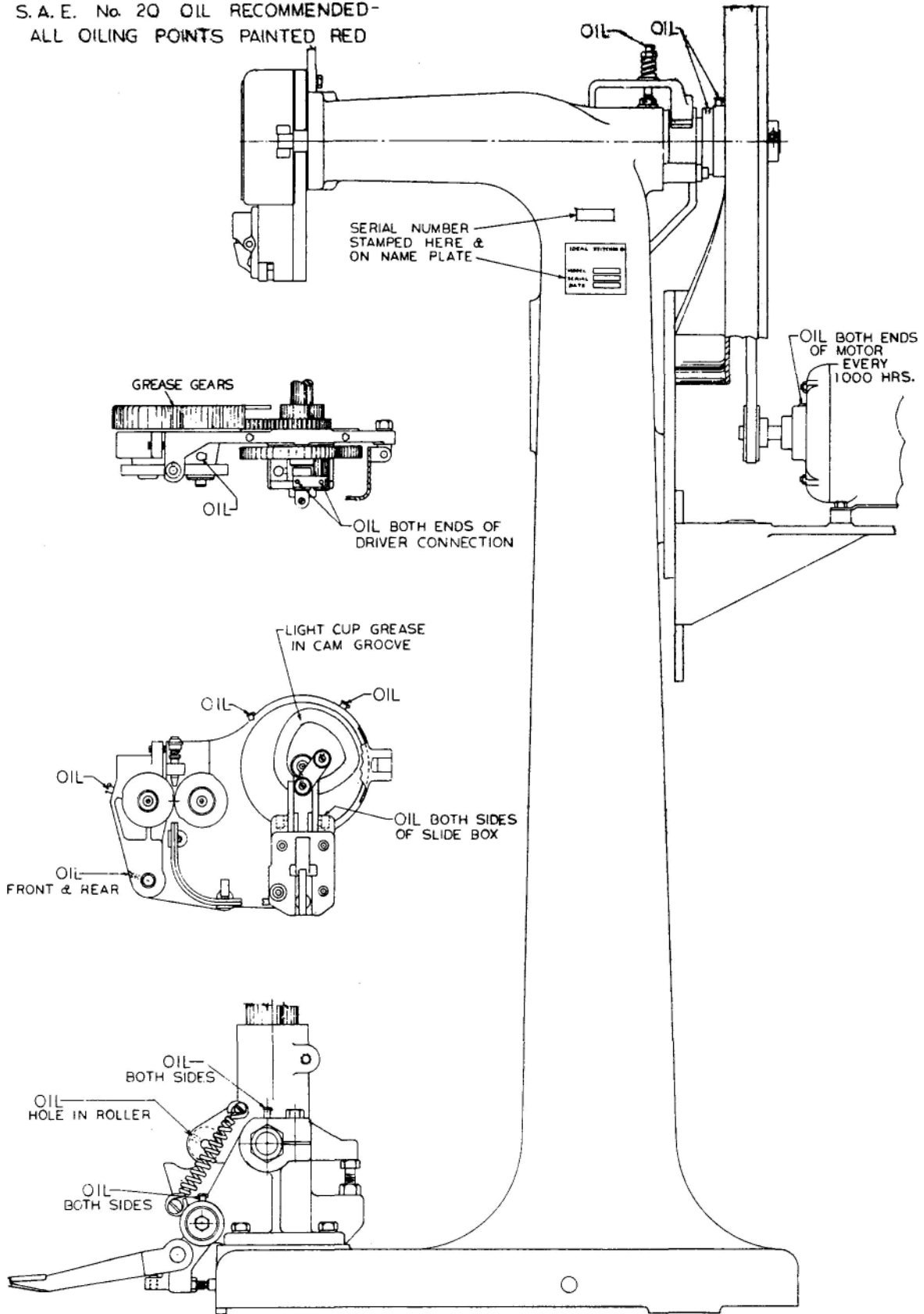
Cleaning — A clean machine is essential if highest operating efficiency is to be maintained. This applies to any machine. Clean the wire check at least once a month. It picks up dirt and wire filings.

Threading — When threading see that the wire is held tightly in the wire spool. To thread the machine place wire spool in position so wire feeds from under side. Feed wire down through guides, etc. (see chart A-10,028 - see page 7), and down into head of machine. Before turning on power, form one staple by turning the machine over by hand. Be sure this staple does not stick in the anvil. Remove this staple. The machine is now ready for operation.

## **IMPORTANT**

Do not allow operator to tamper with the machine unless he fully understands its mechanism. The simplicity of IDEAL design enables any operator after ordinary instruction to make the usual operating adjustments. However, when in doubt, or when parts must be removed and replaced, call the plant maintenance man, or our service and advice is as near as your telephone. Do not hesitate to call on us.

S. A. E. No. 20 OIL RECOMMENDED-  
ALL OILING POINTS PAINTED RED



LUBRICATION DIAGRAM

## REPLACEMENT OF REVERSIBLE PARTS AND MINOR ADJUSTMENTS

**Adjusting Machine to Thickness of Work** — Machine must be adjusted whenever there is a change in the thickness of work. To make such adjustments place the work in the machine and turn the machine over by hand until the FORMER and DRIVER reaches the lowest point of travel. Turn up the clincher post using knurled nut (if a Straight-Arm machine turn up clincher arm) until work is held firmly.

**To Change Lengths of Staple Legs** — The thickness of the material to be stitched naturally determines the length of the staple legs required. The length of the left staple leg increases with the thickness of CUTTER BALDE A-304. The right staple leg length is adjusted by means of the Feed Wheels.

By feeding more wire the leg is increased and by feeding less wire the opposite is true. To adjust, loosen screw "A" (refer to chart A-10,028 - page 7) to loosen feed wheel on shaft, then turn the feed wheel to the right for more wire or to the left for less wire.

As more of the feeding cam of the left Feed Wheel is allowed to contact the feeding cam of the right Feed Wheel, the amount of wire fed through is increased. The reverse is also true. Consequently, in changing staple leg size, it is not only necessary to change the Cutter Blade but to adjust the wire feed.

**PRECAUTION:** Remove the Cutter Tube A-316 when changing to a Cutter Blade of another size.

**To Set Clincher Block** — Refer to Chart A-10,028 - page 7. When the block, Part A-437 becomes worn on one side, reverse it. It is designed for double life.

**Cutter Blades - Part A-304** — Are also reversible. The cutting edge of the cutter blade must be very sharp. When both edges have become worn, order new blades.

**Cutter Tubes - A-316** — When inserting a new cutter tube, be certain that the machine is in the idle position with the FORMER and DRIVER at the highest point of its travel. Insert the tube with the slotted side toward the back of the machine (this applies only where flat ribbon wire is used). Push the cutter tube into the head of the machine until it touches the CUTTER BLADE. Hold tightly in that position while tightening screw "C."

**If the Machine Repeats** — The Brake Shoe, or Band, is wearing or has loosened up. To eliminate this trouble merely tighten the Brake Shoe or Band. PART #A-427.

**If the Clutch Pin Clicks** — After the machine is operating, the Brake Shoe or Band is too tight or too loose. Loosen up a bit on Brake Adjusting Screw. PART #A-427.

**Proper Braking** — When the machine is braking properly, the oil hole in the clutch hub will stop at the top as shown on Drawing A-10,027 Lubrication Chart.

**CAUTION: DISCONNECT POWER SOURCE BEFORE SERVICING OR ADJUSTING**

WITH SCREW DRIVER IN A-132 SLOT AND WRENCH ON NUT, TURN A-132 STUD AGAINST A-165 SPRING PRESSURE UNTIL TENSIONED. THEN LOCK NUT.

WIRE MUST LEAD OFF BOTTOM OF SPOOL AND MUST BE THREADED THRU TENSION TUBE STAPLES AS SHOWN BY DOTTED LINE

AA-130 TENSION TUBE

WITH FEED WHEELS IN IDLE POSITION, PRESS DOWN ON KNURLED COLLAR TO THREAD WIRE THRU AA-336 WIRE CHECK AND AA-349-B WIRE GUIDE ASSEMBLIES.

IF HALF OVAL WIRE IS USED ALWAYS ORDER IDEAL OVAL QUT FOR BEST PERFORMANCE

TOP HOLE 5" SPOOL  
BOTTOM HOLE 10" SPOOL

SPOOL NUT A-647-A

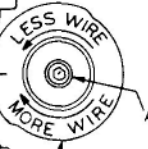
A-132 STUD

A-165 SPRING

A-673 NUT

A-419 WIRE SPOOL BRACKET AND TENSION TUBE ASSEMBLY MOUNTS ON REAR OF HEAD PLATE

AA-336  
A-1153  
A-1154  
A-1219



A-326-B  
AA-349-B

A-316

WHEN FEED ROLLS ARE IDLE, MARKS SHOULD BE OPPOSITE. TO FEED MORE OR LESS WIRE LOOSEN SCREW 'A' AND TURN FEED ROLL A-326-B IN DESIRED DIRECTION LOCK SCREW 'A' WITH A SHARP TAP ON WRENCH.

CLINCHER BLOCK A-437 SHOULD BE ADJUSTED TO BE EXACTLY IN CENTER OF STAPLE. LOCK FIRMLY IN PLACE WITH SCREW 'B'.

A-304

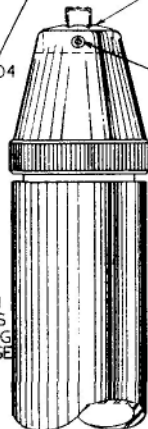
B

KNURLED NUT TO BE ADJUSTED UP OR DOWN FOR DIFFERENT THICKNESSES OF BOARD.

A-1374 SCR

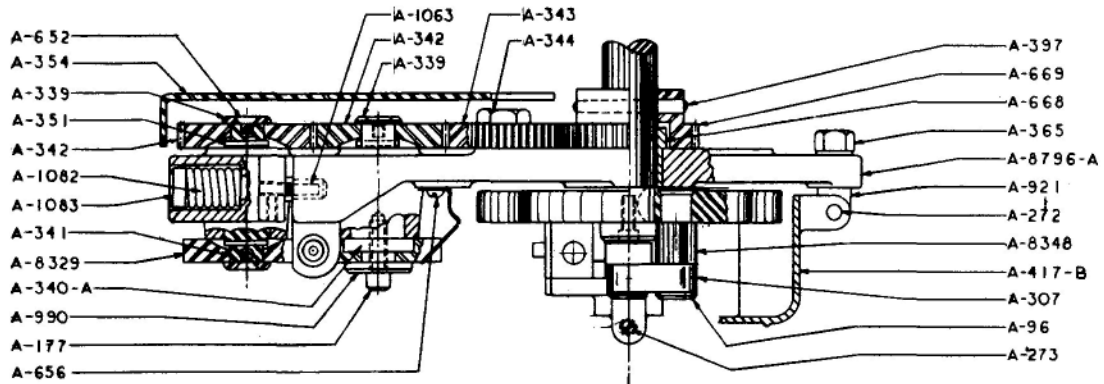
TO CHANGE STAPLE LEG LENGTH REFER TO CUTTER BLADE CHART AND INSTALL DESIRED CUTTER BLADE. READJUST A-316 CUTTER TUBE AND LOCK SECURELY WITH SCREW 'C' ADJUST FEED ROLL A-326-B UNTIL STAPLE LEGS ARE EVEN.

**CAUTION:** STUDY ILLUSTRATION CAREFULLY AND SET CUTTER TUBE FLUSH WITH CUTTER BLADE EXACTLY AS SHOWN. INCORRECT SETTING MAY CAUSE SEVERE DAMAGE TO MACHINE.  
INSTALL CUTTER TUBE WITH WIRE GLOT TOWARD REAR OF MACHINE.



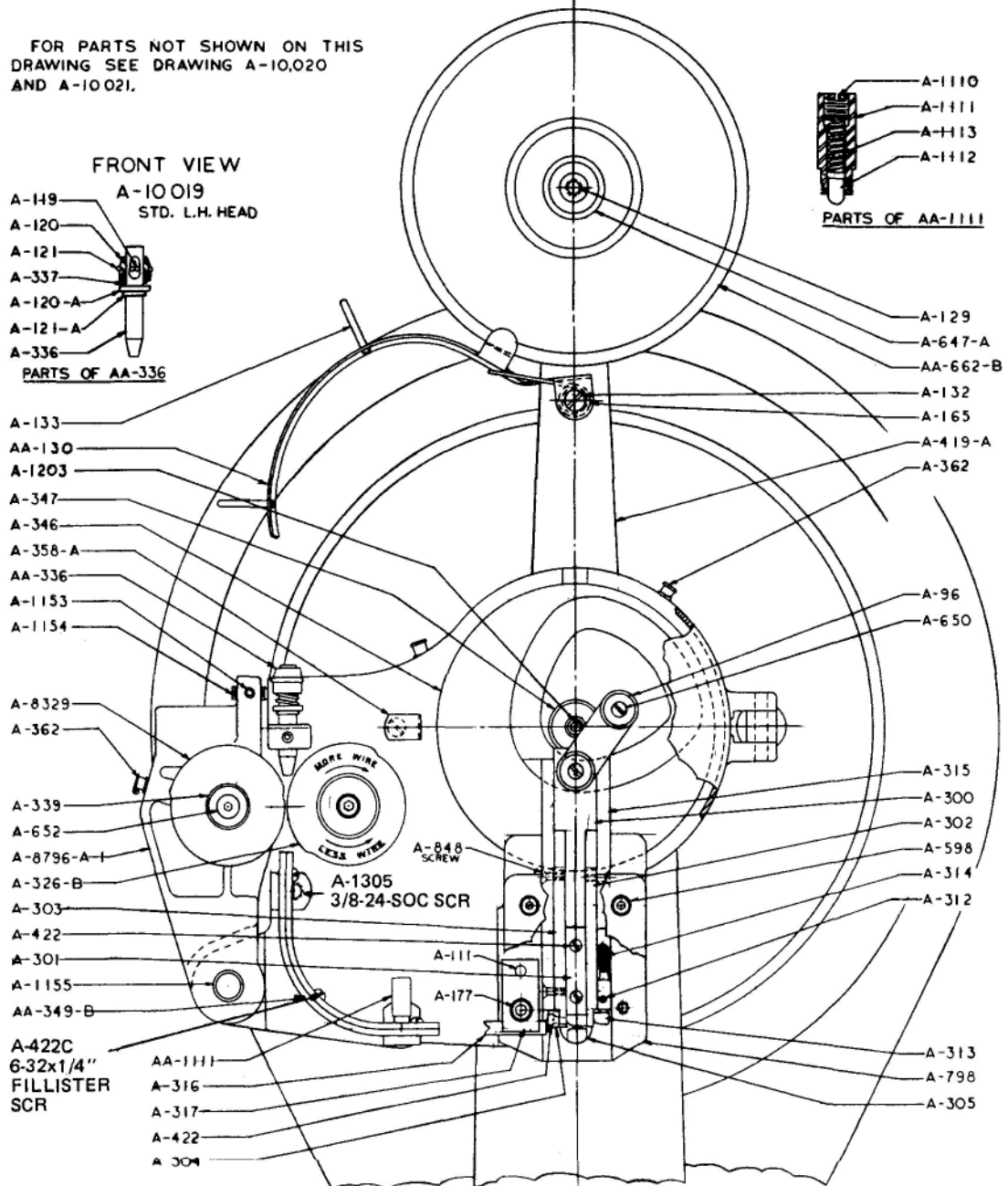
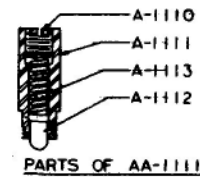
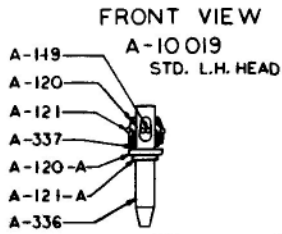
CUTTER BLADE CHART

	CUTTER BLADE NO.	THICKNESS OF BLADE	STAPLE LEG 'L'
	A-304 - 1/8	1/8	5/16
	A-304 - 3/16	3/16	3/8
	A-304 - 1/4	1/4	7/16
	A-304 - 5/16	5/16	1/2
	A-304 - 3/8	3/8	9/16



**IMPORTANT NOTE:**  
 WHEN ORDERING PARTS,  
 GIVE NAME AND NUMBER OF PART. BE SURE  
 TO INCLUDE SERIAL NUMBER OF MACHINE.

FOR PARTS NOT SHOWN ON THIS  
 DRAWING SEE DRAWING A-10,020  
 AND A-10,021.



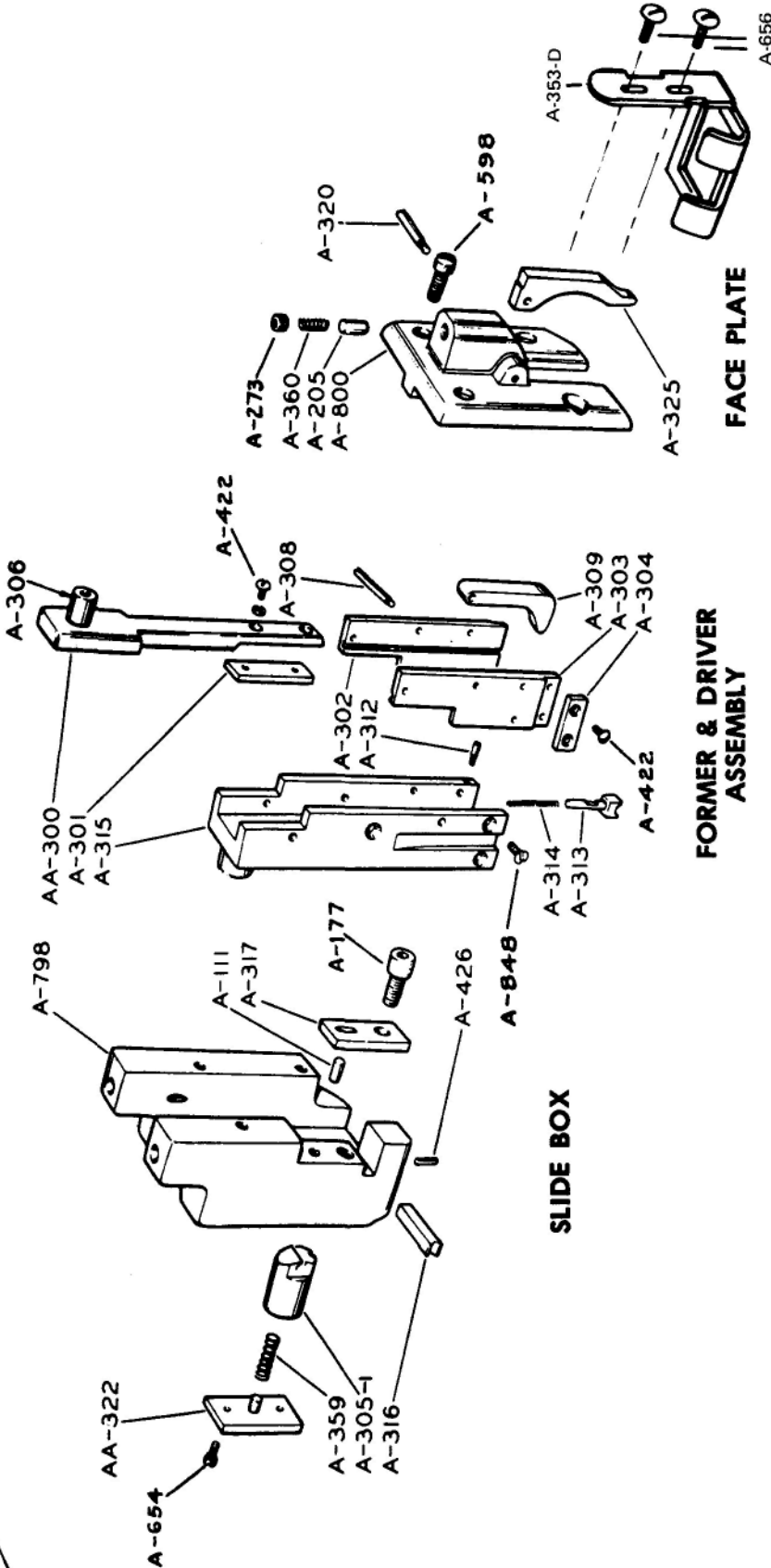
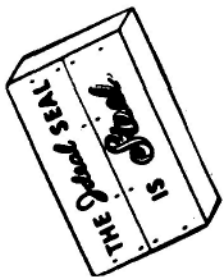
**LIST OF PARTS SHOWN ON DRAWING A-10,019  
STANDARD L. H. HEAD ASSEMBLY  
FRONT VIEW**

A-96	Driver Connection Washer	A-656	Cam Cover Latch Screw
A-111	Dowel Pin	A-668	Head Plate Bushing
A-129	Wire Spool Stud	A-669	Feed Drive Gear
A-132	Tension Tube Stud	A-798	Slide Box
A-165	Tension Tube Spring	A-848	Former Leg Screw
A-177	Cutter Tube Clamp Screw	A-921	Cam Cover Stud
A-272	Cam Guard Hinge Pin	A-990	R. H. Feed Roll Washer
A-273	Plunger Set Screw	A-1063	Feed Roll Hinge Stop
A-300	Driver	A-1082	Feed Roll Hinge Spring
A-301	Driver End	A-1083	Shoulder Bolt
A-302	Former Leg - R. H.	A-1153	Set Screw
A-303	Former Leg - L. H.	A-1154	Set Screw
A-304	Cutter Blade	A-1155	Feed Roll Hinge Pin
A-305	Anvil	A-1203	Washer Screw
A-307	Driver Connection	A-8329	L. H. Feed Roll
A-312	Former Plunger Screw	A-8796-A	Head Plate
A-313	Former Plunger	A-8796-A-1	Feed Roll Hinge
A-314	Former Plunger Spring		SUB-ASSEMBLIES
A-315	Former Housing	AA-130	Wire Tension Tube Assembly
A-316	Cutter Tube	A-130	Wire Tension Tube
A-317	Cutter Tube Clamp	A-133	Wire Tension Tube Staple
A-326-B	Feed Roll - R. H.	A-135	Brake Lining
A-339	Feed Roll Washer L. H.	A-650	Screw
A-340-A	Feed Roll Shaft - R. H.	AA-336	Wire Check Assembly
A-341	Feed Roll Shaft - L. H.	A-119	Wire Check Pin
A-342	Feed Roll Gear	A-120	Wire Check Sleeve
A-343	Idler Gear	A-120-A	Wire Check Washer
A-344	Idler Gear Screw	A-121	Pin Retainer
A-346	Former Cam	A-121-A	Spring Retainer
A-347	Cam Retaining Washer	A-336	Wire Check Body
A-351	Feed Roll Drive Pin	A-337	Spring
A-354	Gear Guard	AA-349-B	Wire Guide Assembly
A-358-A	Cam Cover Latch	A-349-B	Wire Guide Bottom Plate
A-362	Oil Hole Cover	A-350-A	Wire Guide Top Plate
A-365	Hex. Nut	AA-1111	Wire Guide Plunger Assembly
A-397	Drive Gear Pin	A-1110	Set Screw
A-417-B	Cam Cover	A-1111	Plunger Sleeve
A-419-A	Wire Spool Bracket	A-1112	Plunger
A-422	Driver End or Cutter Blade Screw	A-1113	Spring
A-422-C	6-32x1/4" Fillister HD SCR.	AA-662-B	Wire Spool Assembly
A-598	Face Plate Screw	A-1305	Wire Guide SCR. 3/8-24x1" SOC.CAP. SCR.
A-647-A	Wire Spool Knob		
A-650	Driver Connection Screw		
A-652-	L.H. Feed Roll Screw		

EXPLODED VIEW OF SLIDE BOX & ASSEMBLY

**EXPLODED VIEW OF SLIDE BOX — FORMER & DRIVER ASSEMBLY**

WHEREVER SIZE WILL ALLOW PARTS ARE STAMPED WITH NUMBERS TO SIMPLIFY ORDERING



**FORMER & DRIVER ASSEMBLY**

**SLIDE BOX**

**FACE PLATE**

— ASSEMBLED UNITS —

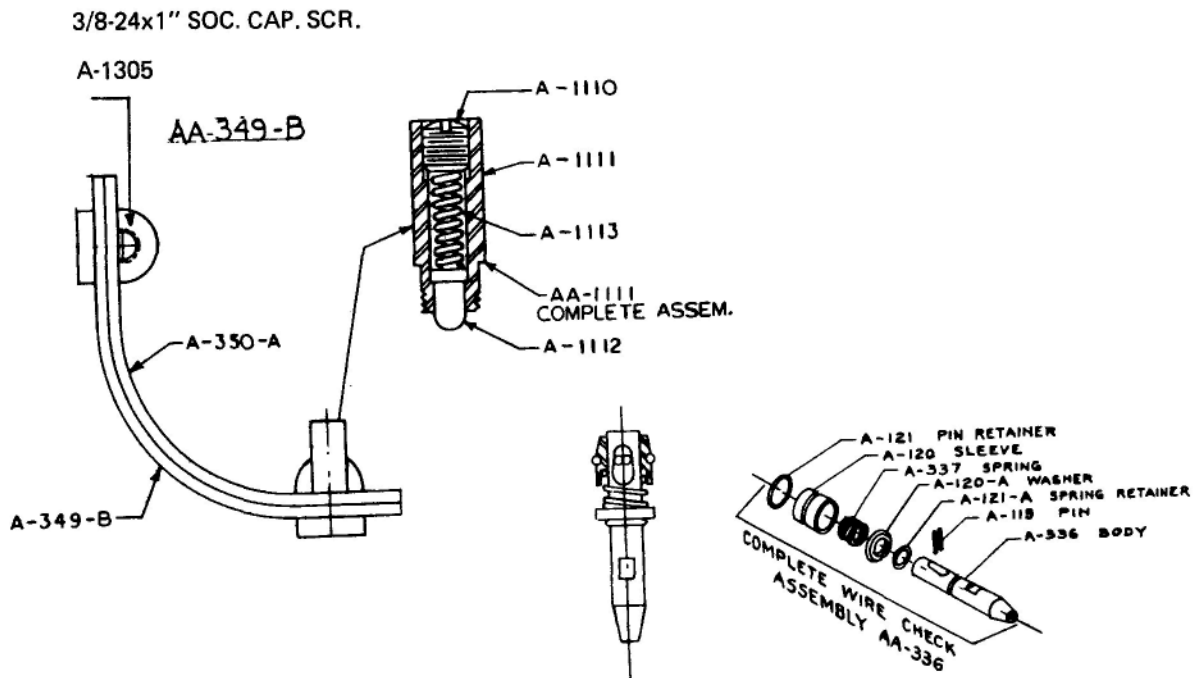
- AA-4 Face Plate Complete — consists of A-800, A-205, A-320, A-325, A-360.
- AA-315 Former & Driver Complete — consists of A-300, A-301, A-302, A-303, A-304, A-306, A-308, A-309, A-310, A-311, A-312, A-313, A-314, A-315.
- AA-798 SLIDE BOX COMPLETE CONSISTS OF  
 A-798, A-111, A-317, A-177, A-426,  
 A-316, A-305, A-359, A-654 (2) and AA-322  
 A-353-D-Finger Guard, L.H. with 2 - A-656 - RD. HD. SCR.



**LIST OF PARTS ON EXPLODED VIEW OF SLIDE BOX  
FORMER & DRIVER ASSEMBLY**

- |                                      |  |
|--------------------------------------|--|
| A-111 Dowel Pin                      | A-314 Former Plunger Spring              |
| A-177 Cutter Clamp Screw             | A-315 Former Housing                     |
| A-205 Supporter Plunger Spring Pin   | A-316 Cutter Tube                        |
| A-273 Supporter Plunger Spring Screw | A-317 Cutter Tube Clamp                  |
| A-300 Driver                         | A-320 Supporter Plunger Pivot Pin        |
| A-301 Driver End                     | AA-322 Anvil Spring Plate                |
| A-302 Former Leg R. H.               | A-325 Supporter Plunger                  |
| A-303 Former Leg L. H.               | A-353D Finger Guard                      |
| A-304 Cutter Blade                   | A-359 Anvil Spring                       |
| A-305 Anvil                          | A-360 Supporter Plunger Spring           |
| A-306 Driver Pin                     | A-422 Cutter Blade and Driver End Screws |
| A-308 Supporter Stud                 | A-426 Anvil Stop                         |
| A-309 Supporter                      | A-598 Face Plate Screw                   |
| A-310 Former Roller                  | A-654 Anvil Spring Plate Screw           |
| A-311 Former Pin                     | A-656 Finger Guard Screws                |
| A-312 Former Plunger Screw           | A-798 Slide Box                          |
| A-313 Former Plunger                 | A-848 Former Leg Screws                  |

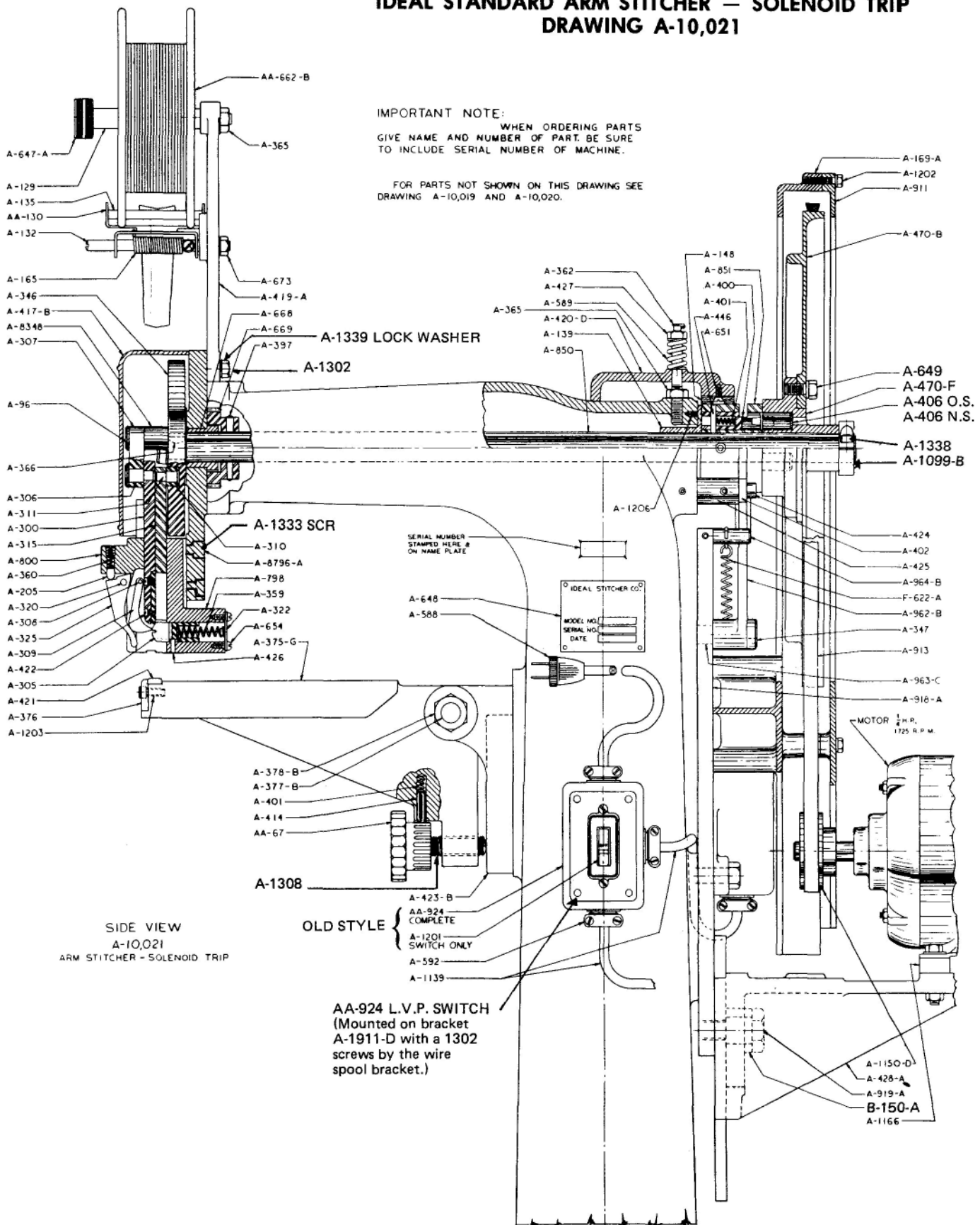
**ASSEMBLY WIRE GUIDE  
And  
COMPLETE WIRE CHECK ASSEMBLY AA-336**



### IDEAL STANDARD ARM STITCHER — SOLENOID TRIP DRAWING A-10,021

**IMPORTANT NOTE:**  
WHEN ORDERING PARTS  
GIVE NAME AND NUMBER OF PART. BE SURE  
TO INCLUDE SERIAL NUMBER OF MACHINE.

FOR PARTS NOT SHOWN ON THIS DRAWING SEE  
DRAWING A-10,019 AND A-10,020.



SIDE VIEW  
A-10,021  
ARM STITCHER - SOLENOID TRIP

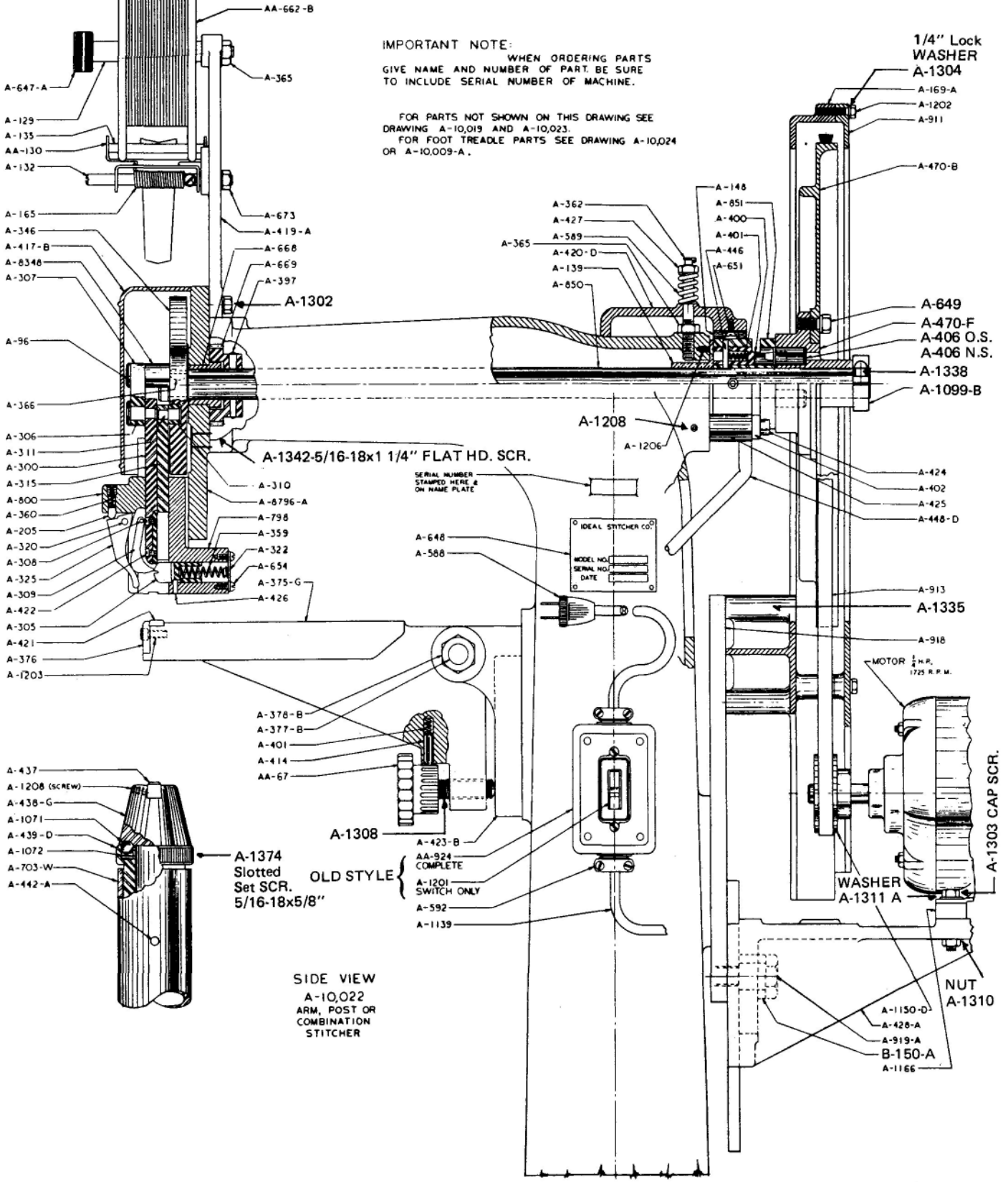
OLD STYLE {  
A-1201 SWITCH ONLY  
A-592  
A-1139

AA-924 L.V.P. SWITCH  
(Mounted on bracket  
A-1911-D with a 1302  
screws by the wire  
spool bracket.)

**LIST OF PARTS SHOWN ON DRAWING A-10,021  
STANDARD ARM STITCHER — SOLENOID TRIP**

A-96	Driver Connection Washer	A-589	Brake Shoe Spring
A-129	Wire Spool Stud	A-592	Wire Connecting Fitting
A-132	Tension Tube Stud	A-647-A	Wire Spool Knob
A-139	Rear Drive Shaft Bushing	A-648	Name Plate
A-148	Brake Shoe Lining	A-649	Cap Screw
A-165	Tension Tube Spring	A-651	Machine Screw
A-169-A	Drive Pulley Guard	A-654	Machine Screw
A-205	Supporter Plunger Pin	A-668	Head Plate Bushing
A-273	Plunger Set Screw	A-669	Drive Gear
A-300	Driver	A-673	Hex. Nut
A-305	Anvil	A-798	Slide Box
A-306	Driver Pin	A-850	Drive Shaft - 12" Throat Machine
A-307	Driver Connection	A-851	Clutch Hub
A-308	Supporter Stud	A-911	Drive Pulley Cover
A-309	Supporter	A-913	V-Belt
A-310	Former Roller	A-918-A	Motor Base Support
A-311	Former Pin	A-919-A	Motor Base Shoulder Bolt
A-315	Former Housing	A-962-B	Clutch Toggle Lever
A-320	Plunger Pivot Pin	A-963-C	Eccentric Stud
A-322	Anvil Spring Plate	A-964-B	Stop Pin
A-325	Supporter Plunger	A-1099-B	Split Collar
A-346	Former Cam	A-1139	Electric Connecting Cord 30" Long
A-347	Cam Retaining Washer	A-1150-D	Motor Pulley
A-359	Anvil Spring	A-1166	Motor Mount
A-360	Supporter Plunger Spring	A-1170	Drive Shaft - 20" Throat Machine
A-362	Oil Hole Cover	A-1202	Cap Screw
A-365	Hex. Nut	A-1203	Cap Screw
A-366	Cam Key	A-1208	Clutch Latch Scr. Stud.
A-375-G	Clincher Arm	A-1206	Rear Bushing Screw
A-376	Clincher Block Clamp	A-1333	SOC HD CAP SCR. 5/16-18x7/8" SLIDE BOX (3 REQ)
A-377-B	Clincher Arm Fulcrum Bolt	A-1338	Collar Cap Screw
A-378-B	Hex. Nut	A-1302	Hex HD. SCR. 5/16-18x1" Hex.
A-397	Drive Gear Pin	A-1304	1/4" Lock Washer
A-400	Clutch Pin	A-1338	Collar Cap Screw
A-401	Clutch Spring	A-8348	Cam Stud
A-402	Clutch Latch	A-8796-A	Head Plate
A-406	Drive Pulley Clutch Pin (Old Style)	B-150	Motor Bracket Washer
A-406-B	Drive Pulley Clutch Pin (New Style)	F-622-A	Toggle Lever Spring
A-414	Knob Lock Pin	A-1339	5/16 Lock Washer
A-417-B	Cam Cover		<b>SUB-ASSEMBLIES</b>
A-419-A	Wire Spool Bracket	A-1308	5/8-11 - Jam Nut
AA-420-D	Brake Shoe with Lining A 148	AA-67	Clincher Arm Adjusting Knob
A-421	Clincher Block	A-412	Knob
A-422	Driver End & Cutter Blade Screw	A-413	Stud
A-423-B	Clincher Arm Bracket	AA-130	Wire Tension Tube Assembly
A-424	Clutch Latch Pin	A-130	Wire Tension Tube
A-425	Clutch Latch Spacer	A-133	Wire Tension Tube Staple
A-426	Anvil Stop Pin	A-135	Brake Lining
A-427	Brake Adjusting Screw	A-650	Screw
A-428-A	Motor Bracket	AA-662-B	Wire Spool Assembly
A-446	Clutch Hub Screw	AA-924-A	L.V.P. Switch
A-470-B	Drive Pulley		(Mounted on Brkt. A-1911-D with
A-470-F	Drive Pulley Hub		A-1302 Screws by the Wire Spool Brkt.)
A-588	Motor Cord & Plug	AA-924	Starting Switch Assembly } Old Style
		A-1201	Starting Switch only }

**DRAWING A-10,022**  
**SIDE VIEW — ARM & POST — LATE STYLE**



**IMPORTANT NOTE:**  
WHEN ORDERING PARTS  
GIVE NAME AND NUMBER OF PART. BE SURE  
TO INCLUDE SERIAL NUMBER OF MACHINE.

FOR PARTS NOT SHOWN ON THIS DRAWING SEE  
DRAWING A-10,019 AND A-10,023.  
FOR FOOT TREADLE PARTS SEE DRAWING A-10,024  
OR A-10,009-A.

1/4" Lock  
WASHER  
A-1304

A-1342-5/16-18x1 1/4" FLAT HD. SCR.

SERIAL NUMBER  
STAMPED HERE &  
ON NAME PLATE

IDEAL STITCHER CO.  
MODEL NO.  
SERIAL NO.  
DATE

A-1374  
Slotted  
Set SCR.  
5/16-18x5/8"

OLD STYLE

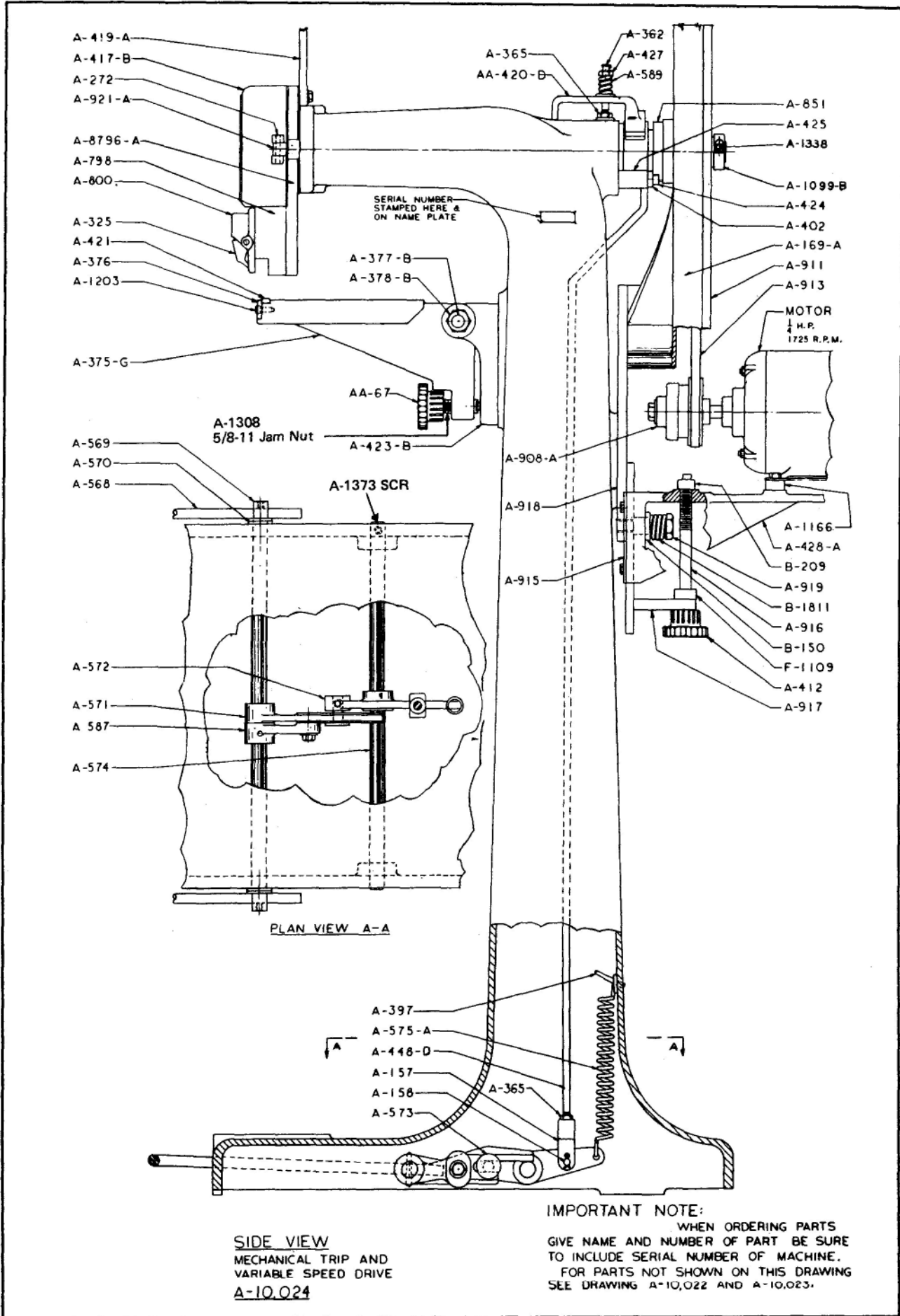
SIDE VIEW  
A-10,022  
ARM, POST OR  
COMBINATION  
STITCHER

**LIST OF PARTS SHOWN ON DRAWING A-10,022  
ARM, POST OR COMBINATION STITCHER  
MECHANICAL TRIP**

IDEAL STITCHERS

A-96	Driver Connection Washer	A-589	Brake Shoe Spring
A-129	Wire Spool Stud	A-592	Wire Connecting Fitting
A-132	Tension Tube Stud	A-647-A	Wire Spool Knob
A-135	Tension Tube Leather	A-648	Name Plate
A-139	Rear Drive Shaft Bushing	A-649	Cap Screw
A-148	Brake Shoe Lining	A-651	Machine Screw
B-150A	5/8" Washer, N.S.	A-654	Machine Screw
A-165	Tension Tube Spring	A-668	Head Plate Bushing
A-169-A	Drive Pulley Guard	A-669	Drive Gear
A-205	Supporter Plunger Pin	A-673	Hex. Nut
A-273	Plunger Set Screw	A-703-W	Clincher Post
A-300	Driver	A-798	Slide Box
A-305	Anvil	A-800	Face Plate
A-306	Driver Pin	A-838	Clincher Post Holder for Combination Models only (Not Shown On Drawing)
A-307	Driver Connection	A-850	Drive Shaft - 12" Throat Machine
A-308	Supporter Stud	A-851	Clutch Hub
A-309	Supporter	A-911	Drive Pulley Cover
A-310	Former Roller	A-913	V-Belt
A-311	Former Pin	A-918	Motor Base Support
A-315	Former Housing	A-919-A	Motor Base Shoulder Bolt
A-320	Plunger Pivot Pin	A-1071	Ball
A-322	Anvil Spring Plate	A-1099-B	Split Collar
A-325	Supporter Plunger	A-1072	Spring
A-346	Former Cam	A-1139	Electric Connecting Cord - 30" Long
A-359	Anvil Spring	A-1150-D	Motor Pulley Constant Speed
A-360	Supporter Plunger Spring	A-1166	Motor Mount
A-362	Oil Hole Cover	A-1170	Drive Shaft - 20" Throat Machine
A-365	Hex Nut	A-1201	Switch
A-366	Cam Key	A-1202	Cap Screw
A-375-G	Clincher Arm	A-1203	Cap Screw
A-376	Clincher Block Clamp	A-1311A	5/16 Flat Washer
A-377-B	Clincher Arm Fulcrum Bolt	A-1206	Rear Bushing Screw
A-378-B	Hex. Nut	A-1323	1/4" Lock Washer
A-397	Drive Gear Pin	A-1208	Clincher Post Screw
A-400	Clutch Pin	A-1335	SCR Guard 5/16-18x2 1/2" SOC. CAP. SCR.
A-401	Clutch Spring	A-1302	SCR 5/16-18x1 Hex
A-402	Clutch Latch	A-1304	1/4" Lock Washer
A-406	Drive Pulley Clutch Pin (Old Style)	A-8348	Can Stud
A-406-B	Drive Pulley Clutch Pin (New Style)	A-1303	Motor Cap Scr, 5/16-18x1 1/2" Hex
A-414	Knob Lock Pin	A-8796-A	Head Plate
A-417-B	Cam Cover	B-150A	Motor Bracket Washer
A-419-A	Wire Spool Bracket	A-1374	SCR. Lock Clincher Head in Nut 5/16-18x5/8 Slotted SCR
AA-420-D	Brake Shoe with Lining A 148		
A-421	Clincher Block		<b>SUB-ASSEMBLIES</b>
A-422	Driver End & Cutter Blade Screw	AA-67	Clincher Arm Adjusting Knob
A-423-B	Clincher Arm Bracket	A-412	Knob
A-424	Clutch Latch Pin	A-1342	SCR.5/16-18x1 1/4" Flat HD. SOC.
A-425	Clutch Latch Spacer	A-413	Stud
A-426	Anvil Stop Pin	AA-130	Wire Tension Tube Assembly
A-427	Brake Adjusting Screw	A-130	Wire Tension Tube
A-428-A	Motor Bracket	A-133	Wire Tension Staple
A-437	Clincher Block	A-135	Brake Lining
A-438-G	Clincher Head	A-650	Screw
A-439-D	Clincher Block Adjusting Nut	AA-662-B	Wire Spool Assembly
A-442-A	Clincher Post Adjusting Screw Pin	AA-924-A	L.V.P. Switch
A-446	Clutch Hub Screw	AA-924	Starting Switch Assembly
A-448-D	Clutch Trip Rod	A-1201	Starting Switch Only
A-470-B	Drive Pulley	A-1308	5/8-11 Jam Nut
A-470-F	Drive Pulley Hub		
A-588	Motor Cord & Plug		

Old Style 15



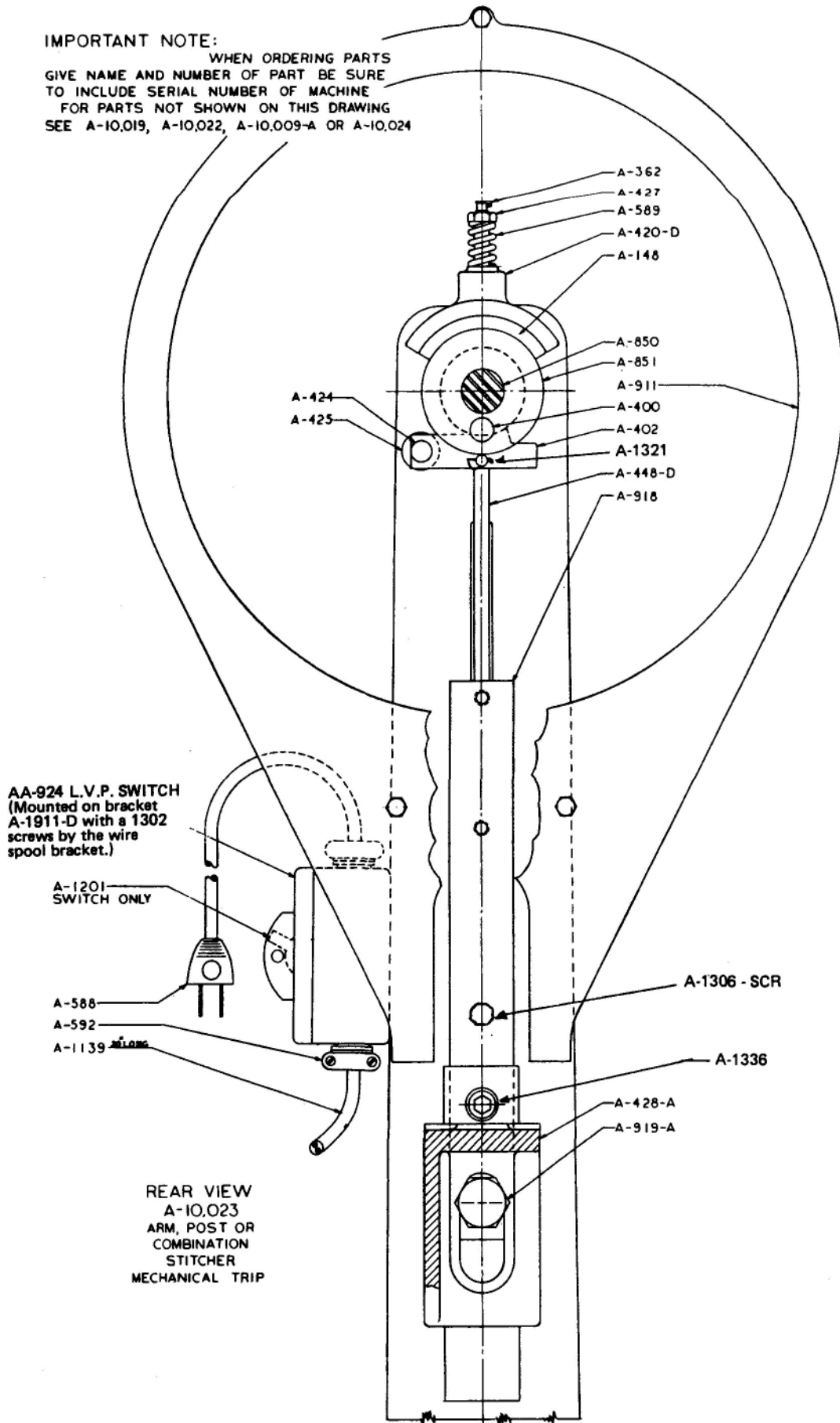
SIDE VIEW  
MECHANICAL TRIP AND  
VARIABLE SPEED DRIVE  
A-10,024

IMPORTANT NOTE:  
WHEN ORDERING PARTS  
GIVE NAME AND NUMBER OF PART BE SURE  
TO INCLUDE SERIAL NUMBER OF MACHINE.  
FOR PARTS NOT SHOWN ON THIS DRAWING  
SEE DRAWING A-10,022 AND A-10,023.

**LIST OF PARTS SHOWN ON DRAWING A-10,024  
MECHANICAL TRIP AND VARIABLE SPEED DRIVE**

A-157	Clevis	A-574	Clutch Trip Shaft
A-158	Pin	A-575-A	Clutch Trip Spring
A-169-A	Drive Pulley Guard	A-587	Treadle Adjusting Arm
A-272	Cam Guard Hinge Pin	A-589	Brake Shoe Spring
A-325	Supporter Plunger	A-649	Cap Screw
A-362	Oil Hole Cover	A-798	Slide Box
A-365	Hex. Nut	A-800	Face Plate
A-375-G	Clincher Arm	A-851	Clutch Hub
A-376	Clincher Block Clamp	A-908-A	Motor Pulley For Variable Speed
A-377-B	Clincher Arm Fulcrum Bolt	A-911	Drive Pulley Cover
A-378-B	Hex. Nut	A-913	V-Belt
A-397	Drive Gear Pin	A-915	Motor Base Gib
A-402	Clutch Latch	A-916	Adjusting Screw
A-412	Adjusting Knob	A-917	Adjusting Screw Bracket
A-417-B	Cam Cover	A-918	Motor Base Support
A-419-A	Wire Spool Bracket	A-919	Motor Base Shoulder Bolt
AA-420-D	Brake Shoe with Lining A-148	A-921-A	Cam Guard Stud
A-421	Clincher Block	A-1099-B	Split Collar
A-423-B	Clincher Arm Bracket	A-1166	Motor Mount
A-424	Clutch Latch Pin	A-1203	Cap Screw
A-425	Clutch Latch Spacer	A-1338	Collar Cap Screw
A-427	Brake Adjusting Screw	A-8796-A	Head Plate
A-428-A	Motor Bracket	B-150	Motor Bracket Washer
A-448-D	Clutch Trip Rod	B-209	Set Collar
A-568	Treadle	B-1811	Spring
A-569	Treadle Shaft	F-1109	Set Collar
A-570	Collar	AA-67	Clincher Arm Adjusting Knob
A-571	Treadle Shaft Arm	A-412	Knob
A-572	Clutch Trip Rod Arm	A-413	Stud
A-573	Stud	A-1373	SCR. 5/16-18x1/2" SOC. Set Patch Lock SCR.
		A-1308	5/8-11 Jam Nut

**IMPORTANT NOTE:**  
 WHEN ORDERING PARTS  
 GIVE NAME AND NUMBER OF PART BE SURE  
 TO INCLUDE SERIAL NUMBER OF MACHINE  
 FOR PARTS NOT SHOWN ON THIS DRAWING  
 SEE A-10,019, A-10,022, A-10,009-A OR A-10,024



REAR VIEW  
 A-10,023  
 ARM, POST OR  
 COMBINATION  
 STITCHER  
 MECHANICAL TRIP



**LIST OF PARTS SHOWN ON DRAWING A-10,023  
ARM, POST OR COMBINATION STITCHER  
MECHANICAL TRIP**

A-148	Brake Shoe Lining	
A-362	Oil Hole Cover	
A-400	Clutch Pin	
A-402	Clutch Latch	
AA-420-D	Brake Shoe with Lining	A-148
A-424	Clutch Latch Pin	
A-425	Clutch Latch Spacer	
A-427	Brake Adjusting Screw	
A-428-A	Motor Bracket	
A-448-D	Clutch Trip Rod	
A-588	Motor Cord & Plug	
A-589	Brake Shoe Spring	
A-592	Wire End Fitting	
A-850	Drive Shaft	
A-851	Clutch Hub	
A-911	Drive Pulley Cover	
A-918	Motor Base Support	
A-919-A	Motor Base Shoulder Bolt	
A-1139	Electric Connecting Cord - 30" Long	
AA-924-A	L.V.P. Switch	
AA-924	Starting Switch Assembly	} Old Style
A-1201	Starting Switch Only	
A-1306	CAP. SCR.	
A-1336	SOC. CAP. SCR. 1/2-13x1 1/4" AOX. CAP SCR.	
A-1321	3/32x3/4 Cotter Pin	

**IMPORTANT NOTE:**  
 WHEN ORDERING PARTS,  
 GIVE NAME AND NUMBER OF PART. BE SURE  
 TO INCLUDE SERIAL NUMBER OF MACHINE ON  
 WHICH THEY ARE TO BE USED.  
 FOR PARTS NOT SHOWN ON THIS DRAWING  
 SEE A-10019 AND A-10021

AA-924

OLD STYLE

AA-924 L.V.P. SWITCH  
 A-1201  
 (Mounted on bracket  
 A-1911-D with a 1302 screws  
 by the wire spool bracket.)

A-1201  
 SWITCH ONLY

A-588

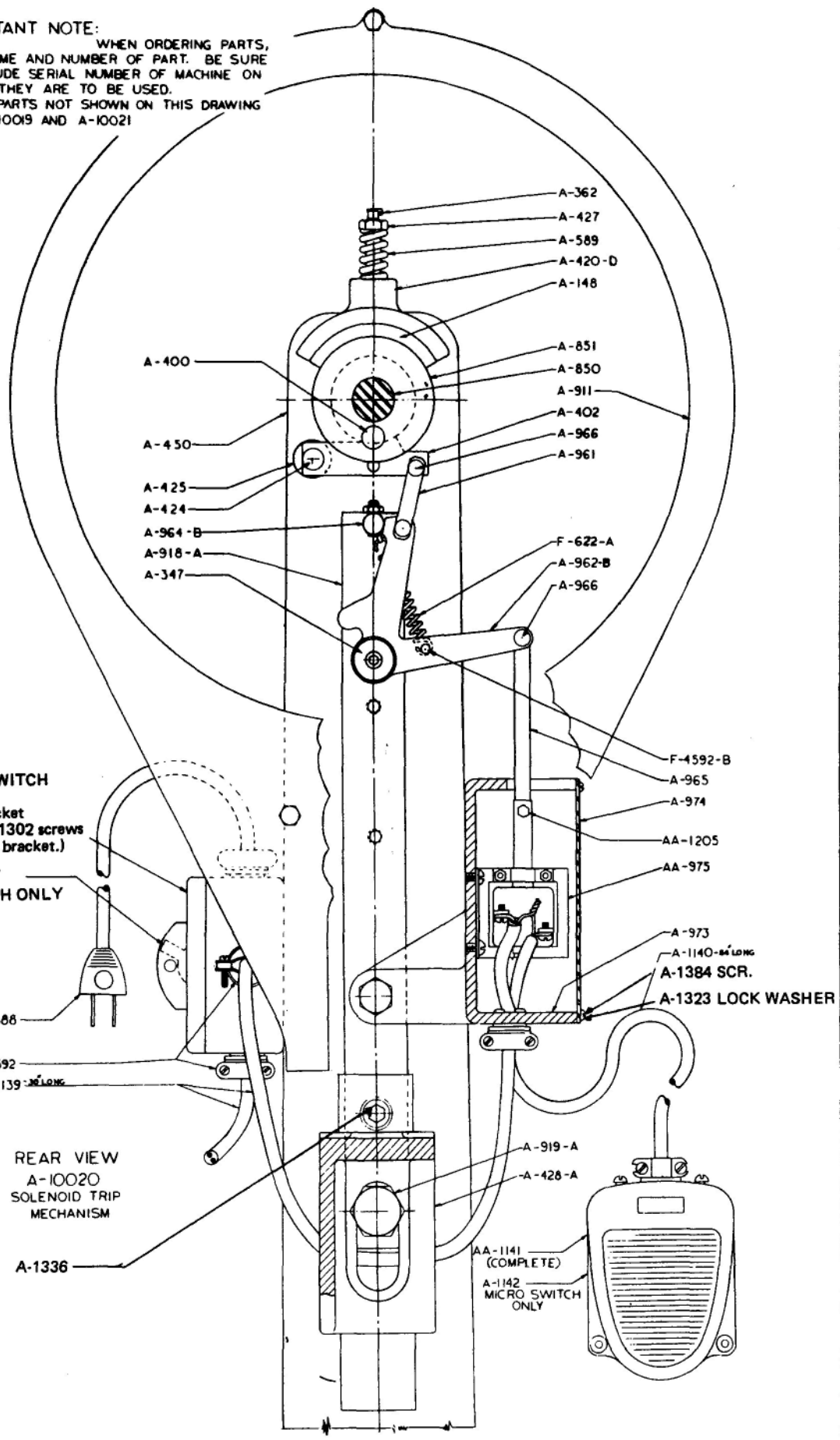
A-592

A-1139 - 3/16" LONG

REAR VIEW  
 A-10020  
 SOLENOID TRIP  
 MECHANISM

A-1336

AA-1141  
 (COMPLETE)  
 A-1142  
 MICRO SWITCH  
 ONLY



A-362  
 A-427  
 A-589  
 A-420-D  
 A-148

A-400  
 A-450  
 A-425  
 A-424  
 A-964-B  
 A-918-A  
 A-347

A-851  
 A-850  
 A-911  
 A-402  
 A-966  
 A-961

F-622-A  
 A-962-B  
 A-966

F-4592-B  
 A-965  
 A-974  
 AA-1205  
 AA-975

A-973  
 A-1140-84 LONG  
 A-1384 SCR.  
 A-1323 LOCK WASHER

A-919-A  
 A-428-A

**LIST OF PARTS SHOWN ON DRAWING A-10,020  
REAR VIEW — SOLENOID TRIP**

A-148	Brake Shoe Lining
A-347	Washer
A-362	Oil Hole Cover
A-400	Clutch Pin
A-402	Clutch Latch
AA-420-D	Brake Shoe with Lining A-148
A-424	Clutch Latch Pin
A-425	Clutch Latch Spacer
A-427	Brake Adjusting Screw
A-428-A	Motor Bracket
A-450	Stand
A-588	Motor Cord & Plug
A-589	Brake Shoe Spring
A-592	Wire End Fitting
A-850	Drive Shaft
A-911	Drive Pulley Cover
A-918-A	Motor Base Support
A-919-A	Motor Base Shoulder Bolt
A-961	Clutch Toggle Link
A-962-B	Clutch Toggle Lever
A-964-B	Clutch Toggle Lever Stop
A-965	Solenoid Connecting Link
A-966	Stud
A-971	Micro Switch Only
A-973	Solenoid Housing
A-974	Cover - Solenoid Housing
A-1139	Electric Connecting Cord - 30" Long
A-1140	Electric Connecting Cord - 84" Long
F-622-A	Toggle Lever Spring
F-4592-B	Spring Pin

**SUB ASSEMBLIES**

AA-924	L.V.P. Switch	
AA-924	Starting Switch Assembly	} Old Style
A-1201	Starting Switch Only	
AA-975	Solenoid Assembly	
A-1210	Stator	
A-1211	Core	
A-1212	Coil	
AA-1141	Foot Operated Switch Assembly	
A-1142	Micro Switch	
AA-1205	Solenoid Connecting Bolt Assembly	
A-1336	SOC. CAP. SCR. 1/2-13x1 1/4" SOC. CAP.	
A-1384	SCR. 1/4"-20x1/2" RD. HD.	
A-1223	1/4" Lock Washer	

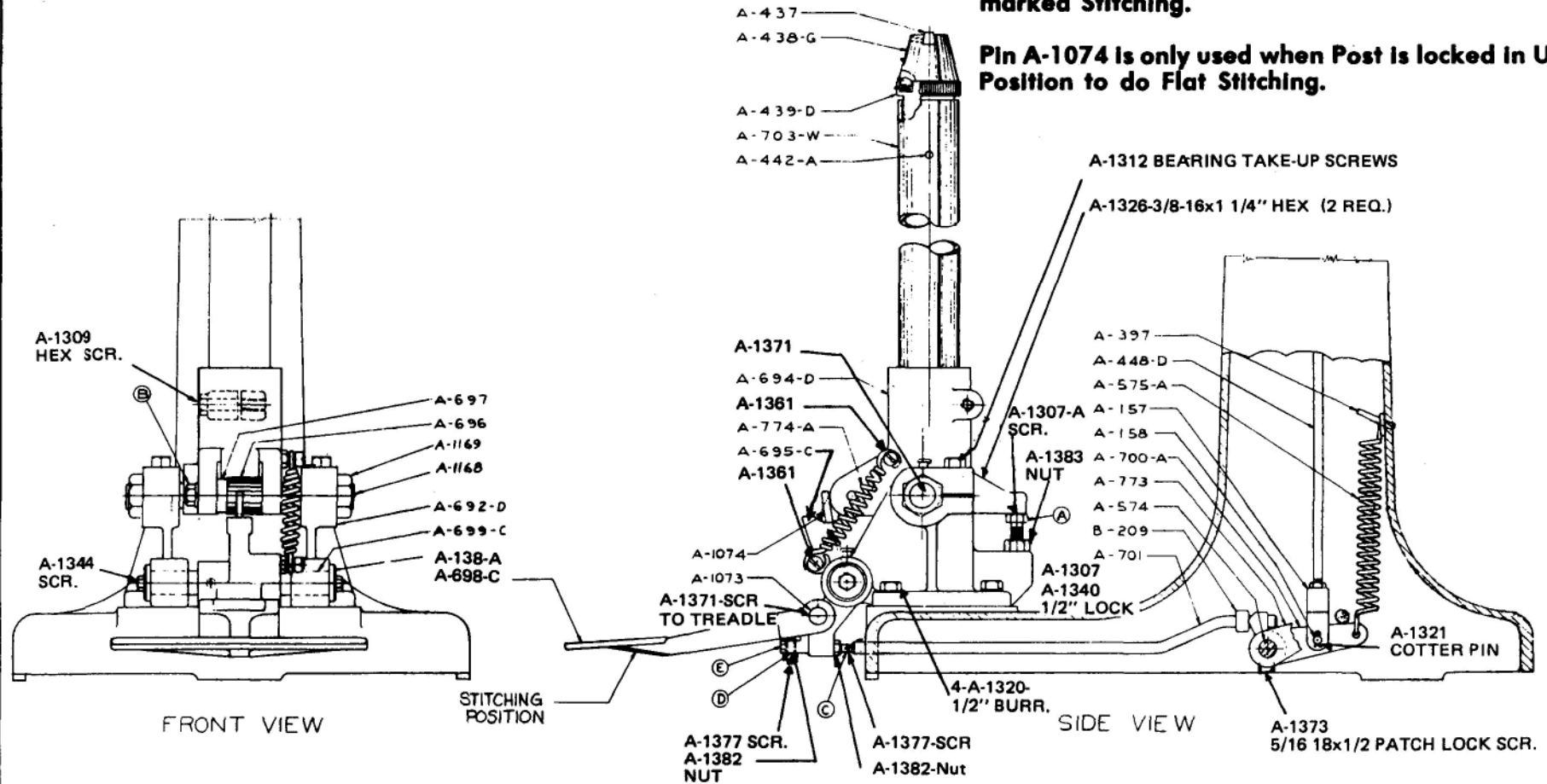
**IDEAL LATE STYLE — SINGLE PEDAL  
FOR CARTON BOTTOM STITCHING**

**INSTRUCTION FOR SETTING**

Place Clincher Post Treadle A-698C in Stitching position as illustrated — adjust Screw "A" to locate Clincher Block A-437 so that staple will clinch just ahead of the center of Clincher Block. Then adjust Eccentric Bushing A-697 by loosening Screw "B" until Post is locked firmly on high of Cam A-695C between Roller A-696 and Screw "A".

Screw "C" is adjusted so that Clutch is released to permit stitching when Treadle Lever is in position marked Stitching.

Pin A-1074 is only used when Post is locked in Upright Position to do Flat Stitching.

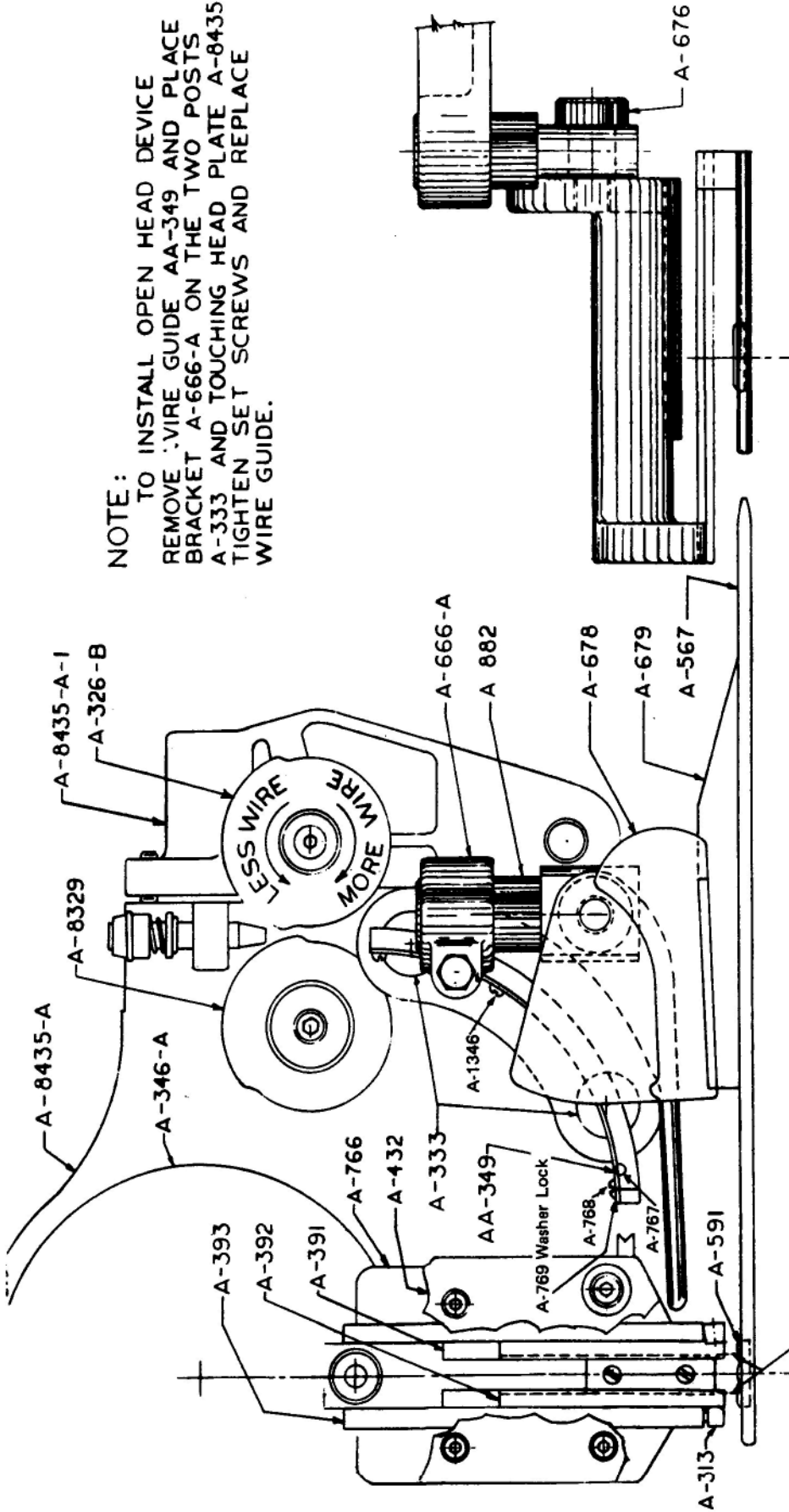


**IDEAL LATE STYLE – SINGLE PEDAL  
FOR CARTON BOTTOM STITCHING  
#A-10009-AB**

No.	
A-138	Washer
A-157	Clevis—Clutch Rod
A-158	Clevis Pin—Clutch Rod
B-209	Set Collar
A-397	Taper Pin #4 x 2"
A-437	Clincher Block
A-438-G	Clincher Block Holder
A-439-D	Clincher Block Adj. Nut
A-448-D	Clutch Shifter Rod
A-574	Clutch Shifter Shaft
A-575-A	Shifter Rod Arm Spring
A-692-D	Clincher Post Base
A-694-D	Clincher Post Bracket
A-695-C	Clincher Post Cam
A-696	Clincher Post Cam Roll
A-697	Cam Roll Bushing
A-698-C	Treadle
A-699-C	Treadle Shaft
A-700-A	Clutch Shifter Rod Arm
A-701	Clutch Operating Rod
A-703-W	Clincher Post
A-773	Clutch Shifter Arm Stop Lever
A-774-A	Clincher Post Spring
A-1073	Treadle Pin
A-1074	Pin To Hold Post in Stitching Position (Use For Stitching Flat Work Only)
A-1168	Clincher Post Bracket Trunnion
A-1169	Hex Nuts for Trunnion (2 required)
A-1344	Hex SCR. 3/8-16x1/2" Hex
A-1307	Hex SCR. 1/2-13x 1 1/4" Hex Base SCR.
A-1309	Hex SCR. 1/2-13x2" HexPost Brkt.
A-1361	3/8" Groove Pin
A-1312	3/8"-16x 1 3/4" Hex Base Bearing Take Up SCR.
A-1326	3/8-16x 1 1/4" Hex Post Brkt. SCR. to Lock Trunnion Bolt A-1168
A-1340	1/2" Lock Washer
A-1371	1/4"-20x1/4" SOC. Set SCR. for Treadle
A-1321	3/32x3/4" Cotter Pin
A-1377	3/8-16x1 SOC. Set SCR.
A-1382	3/8-16-Jam Nut
A-1320	1/2" Burr to Hold Foot Cover Guard
A-1383	1/2-13 Jam Nut to Lock Post Brkt. Stop.
A-1307-A	1/2-13x1 3/4" Hex SCR. Post Brkt. Stop.

**DRAWING ON 45° ANGLE  
HEAD AND OPEN HEAD DEVICE**

**NOTE:**  
TO INSTALL OPEN HEAD DEVICE  
REMOVE WIRE GUIDE AA-349 AND PLACE  
BRACKET A-666-A ON THE TWO POSTS  
A-333 AND TOUCHING HEAD PLATE A-8435-A.  
TIGHTEN SET SCREWS AND REPLACE  
WIRE GUIDE.



STAPLE LEGS SHOULD STRIKE  
JUST INSIDE THE HIGH SPOTS  
ON CLINCHER BLOCK.

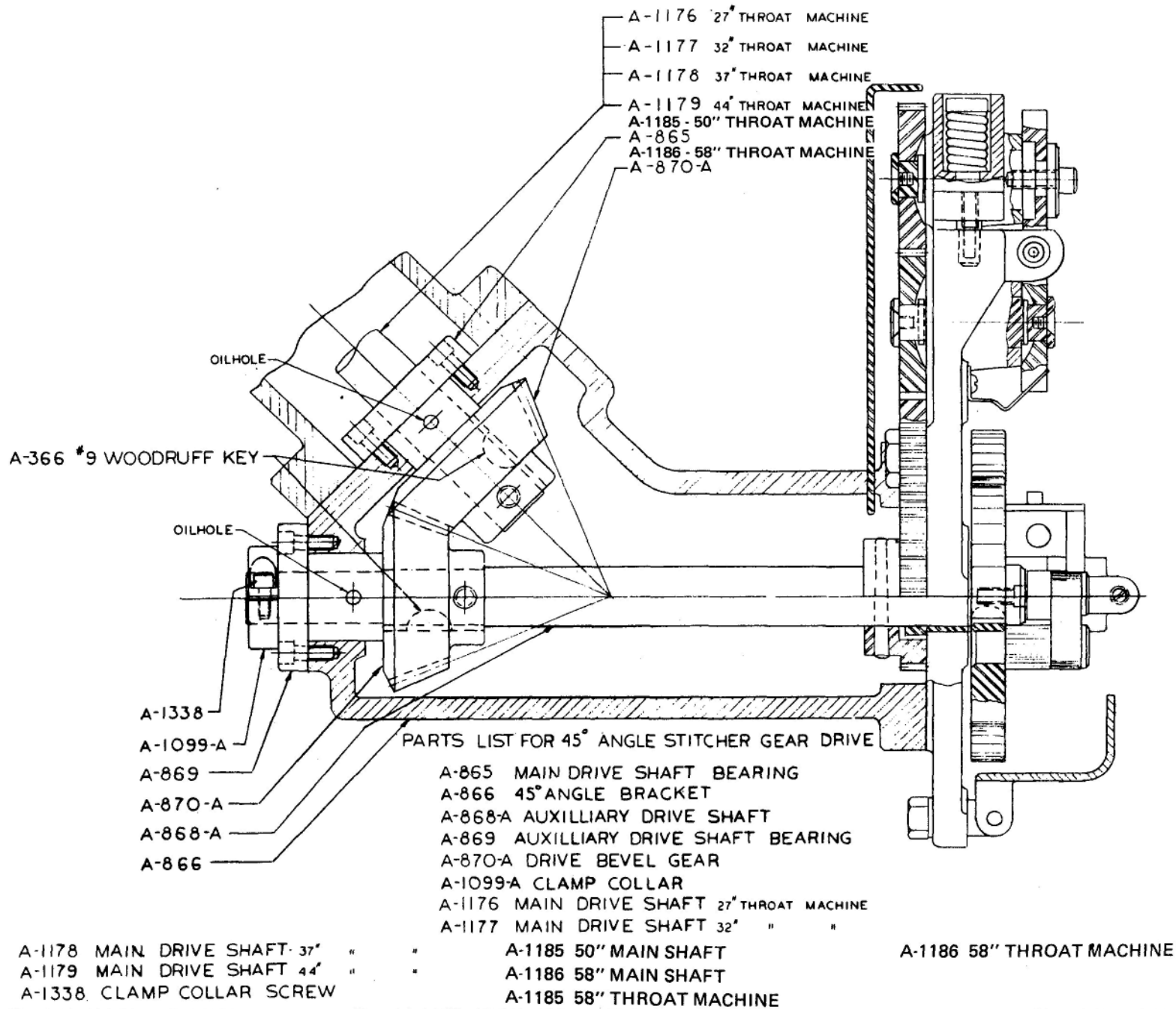
**PARTS FOR OPEN HEAD DEVICE**

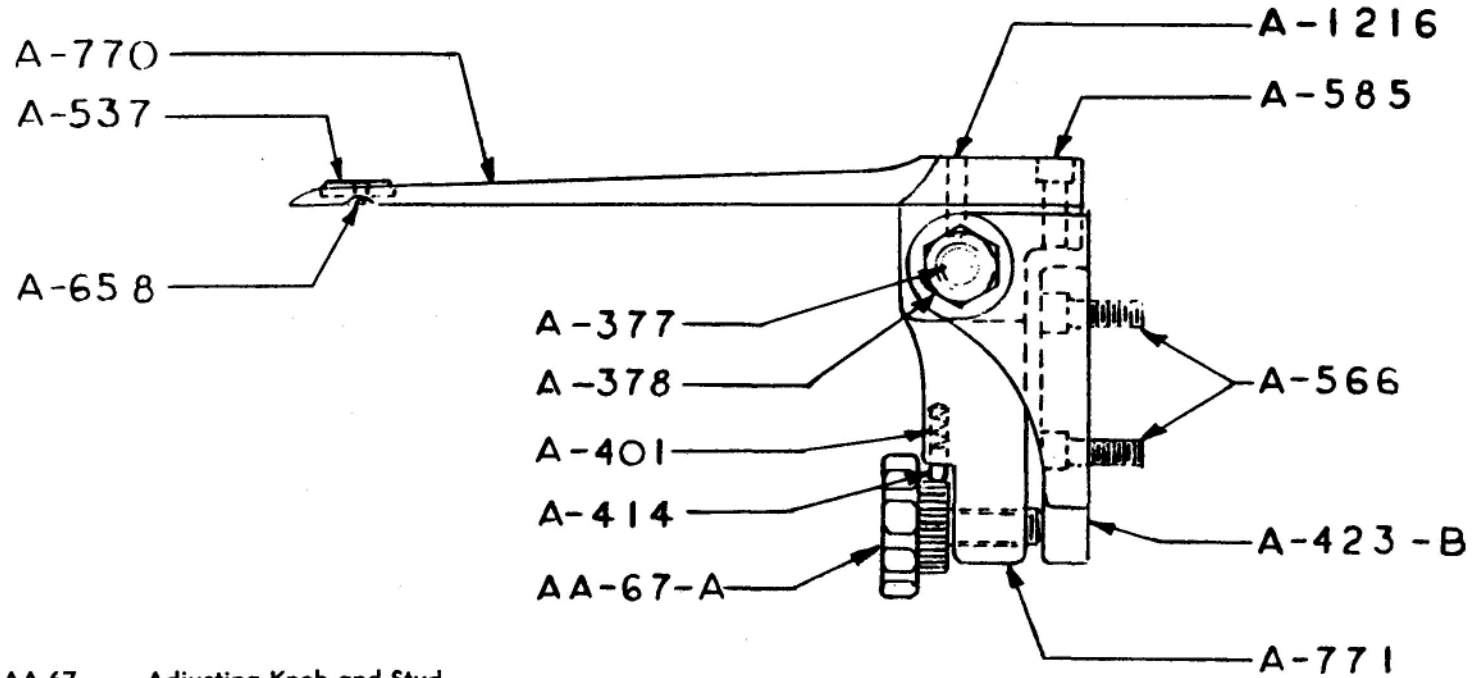
- A-1346 Wire Guide SCR. 6-32x1/4" RD. HD.
- A-567 Clincher Plate
- A-591 Clincher Block
- A-666-A Mounting Bracket
- A-676 Pivot Stud
- A-678 Swivel Bracket
- A-679 Spacer
- A-882 Adjusting Stud

**PARTS CONT'D**

- A-768 Friction Spring
- A-767 Friction Roller
- A-769 Lock Washer #6
- A-875-E Clincher Block For Arm

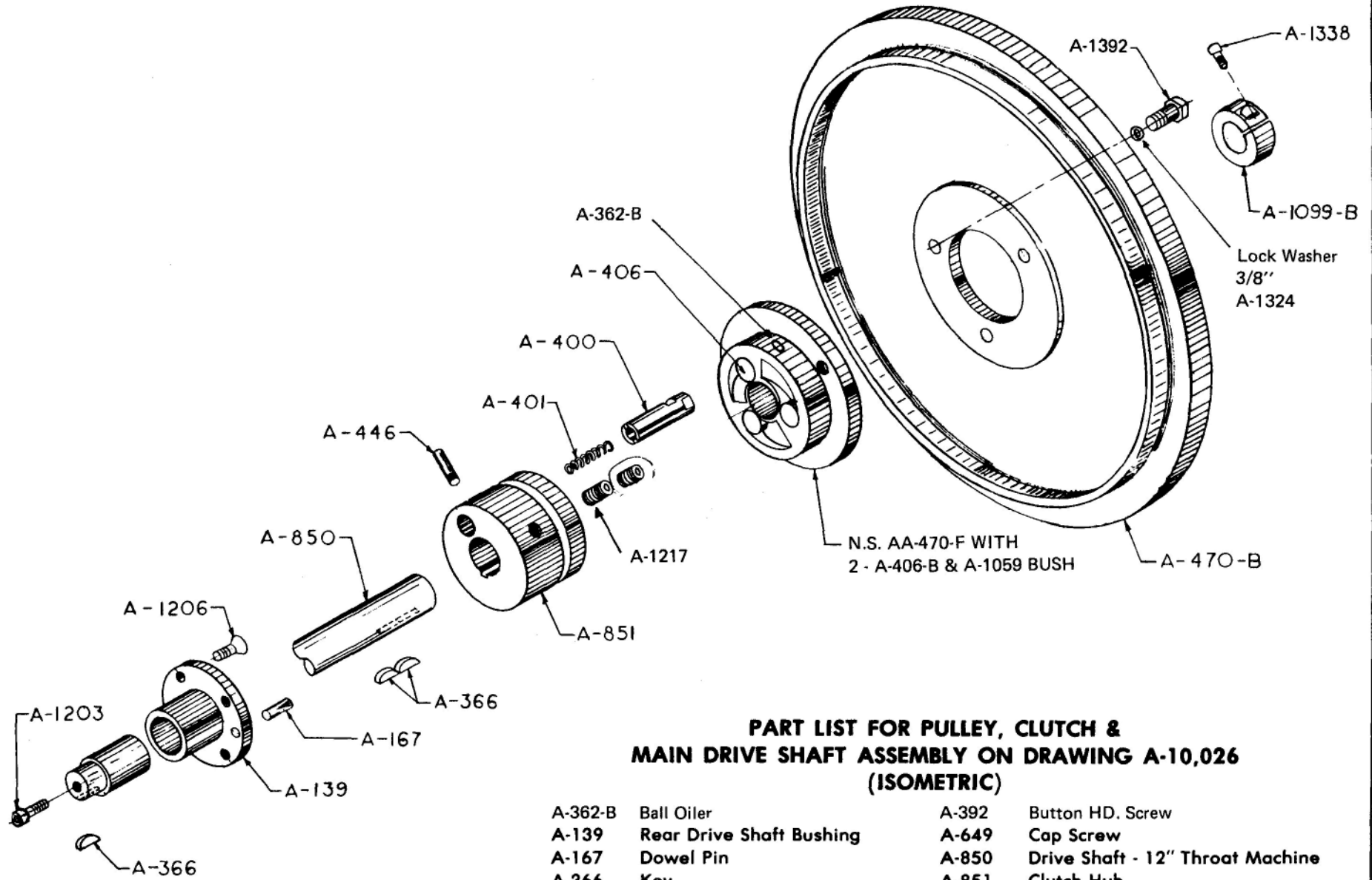
THIS TYPE OF OPEN HEAD DEVICE  
IS USED ONLY ON THE FOLLOWING  
IDEAL 45° ANGLE HEAD STITCHERS:  
MODEL IS - 4276  
" " IS - 4326  
" " IS - 4376





AA-67	Adjusting Knob and Stud
A-377	Pivot Bolt
A-378	Pivot Bolt Nut
A-401	Spring
A-414	Knob Lock Pin
A-423-B	Arm Support Bracket
A-537	Clincher Block
A-566	Arm Bracket Screw
A-585	Cap Screw
A-658	Clincher Block Screw
A-770-12	12" Thin Blade
A-770-20	20" Thin Blade
A-770-25	25" Thin Blade
A-771	Blade Pivot Bracket
A-1216	Dowel Pin





**PART LIST FOR PULLEY, CLUTCH & MAIN DRIVE SHAFT ASSEMBLY ON DRAWING A-10,026 (ISOMETRIC)**

A-362-B	Ball Oiler	A-392	Button HD. Screw
A-139	Rear Drive Shaft Bushing	A-649	Cap Screw
A-167	Dowel Pin	A-850	Drive Shaft - 12" Throat Machine
A-366	Key	A-851	Clutch Hub
A-400	Clutch Pin	A-1099-B	Split Collar
A-401	Clutch Spring	A-1203	Washer Screw
A-406	Drive Pulley Clutch Pin	A-1206	Bushing Screw
A-446	Clutch Spring Retaining Screw	A-1209	Set Screw
A-470-B	Drive Pulley	A-1218	Set Screw
A-470-F	Drive Pulley Hub with A-1059 Bush	A-1338	Collar Cap Screw
		A-1342	3/8" Lock Washer

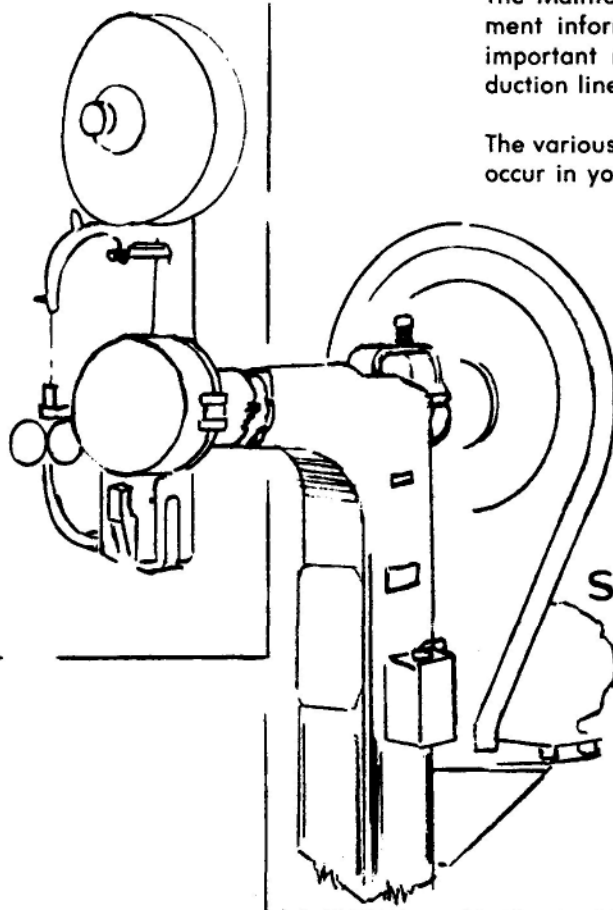
### MAINTENANCE TROUBLE SHOOTING AND ADJUSTMENTS

The Maintenance, Trouble Shooting and Adjustment information in this section plays a very important role in eliminating or reducing production line down time.

The various kinds of mechanical trouble that may occur in your stitcher are described below.

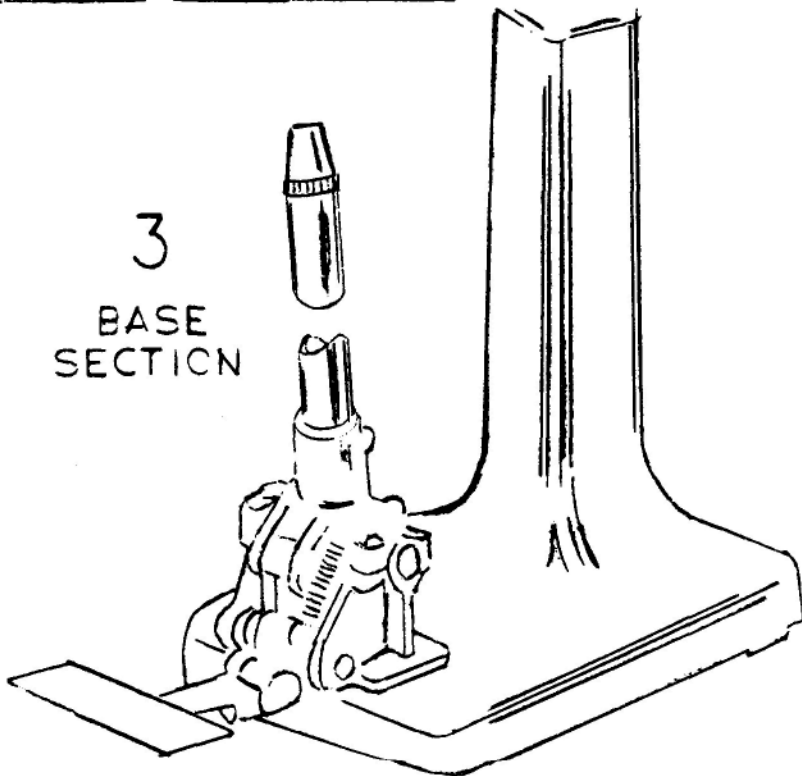
The former and driver assembly should be removed and cleaned at least every 30 days. At this time, the former screws should be tightened and any burrs in the screw slots should be rubbed down with emery cloth.

1  
HEAD  
SECTION



2  
REAR  
SECTION

3  
BASE  
SECTION

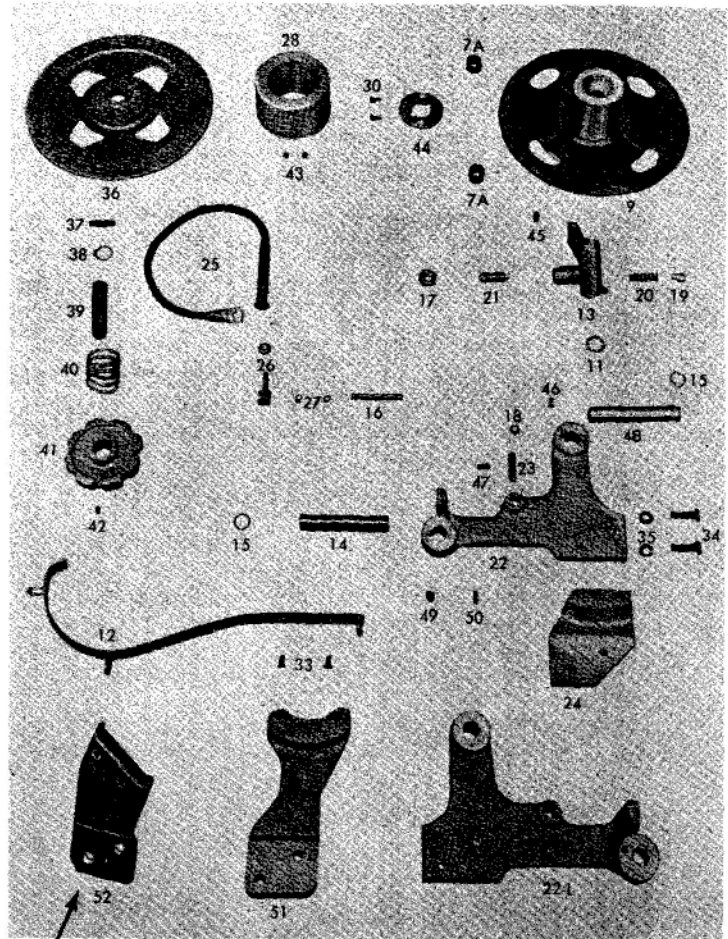


## AA-662D / 25 POUND CONTROLLED WIRE COIL HOLDER

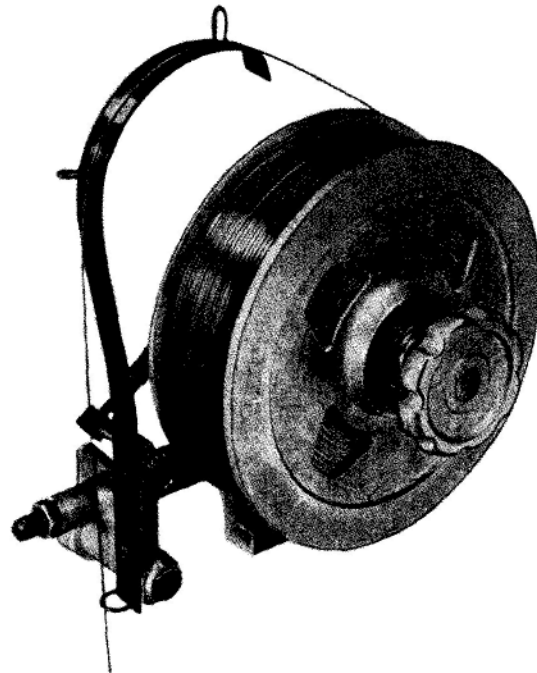
Can also be used with 5 and 10 pound coils.

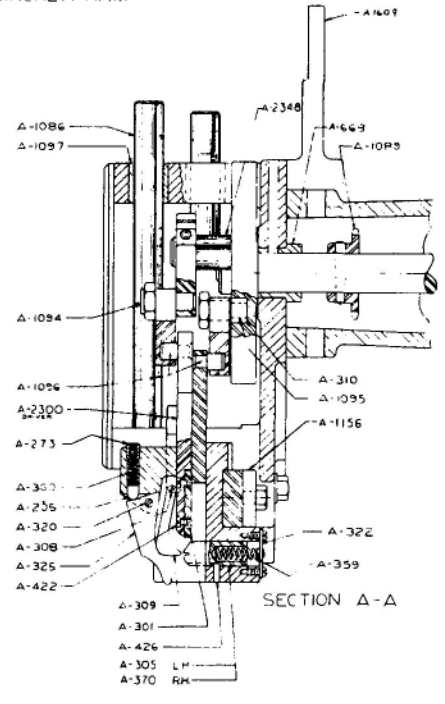
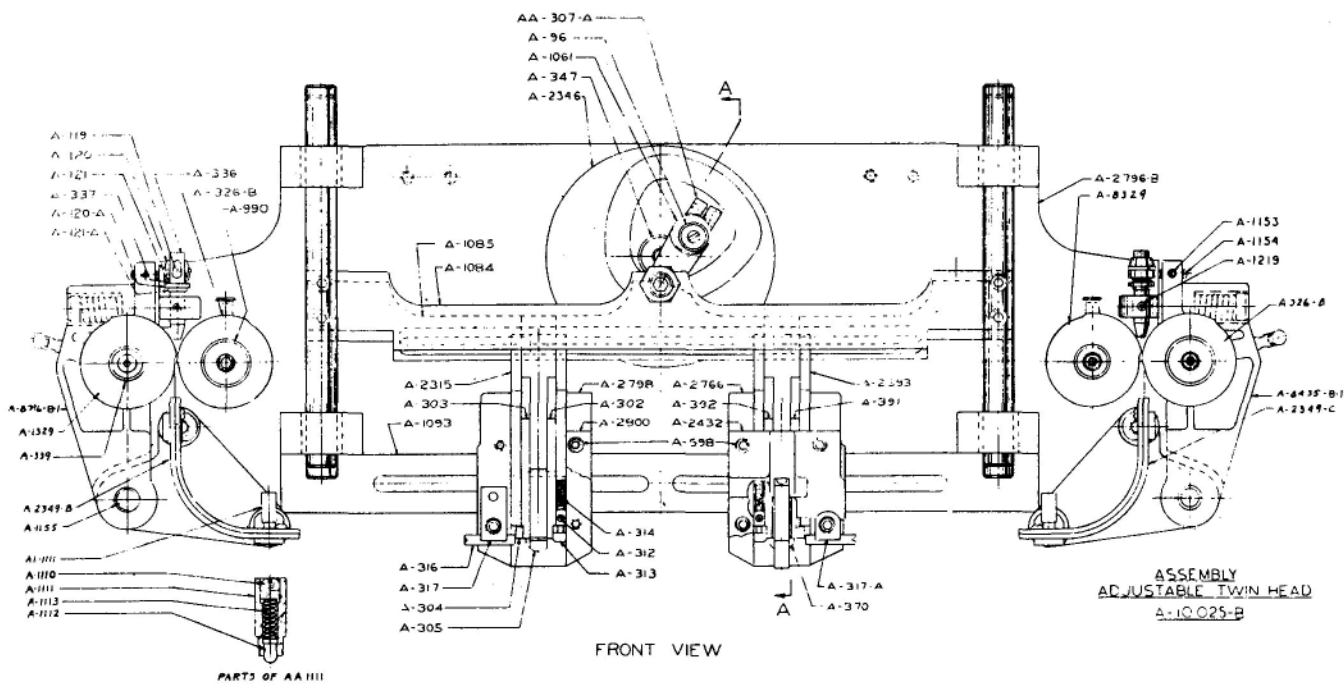
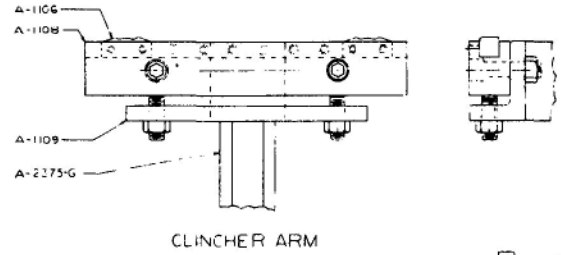
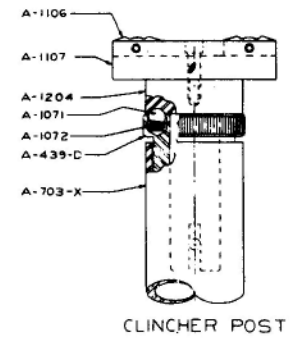
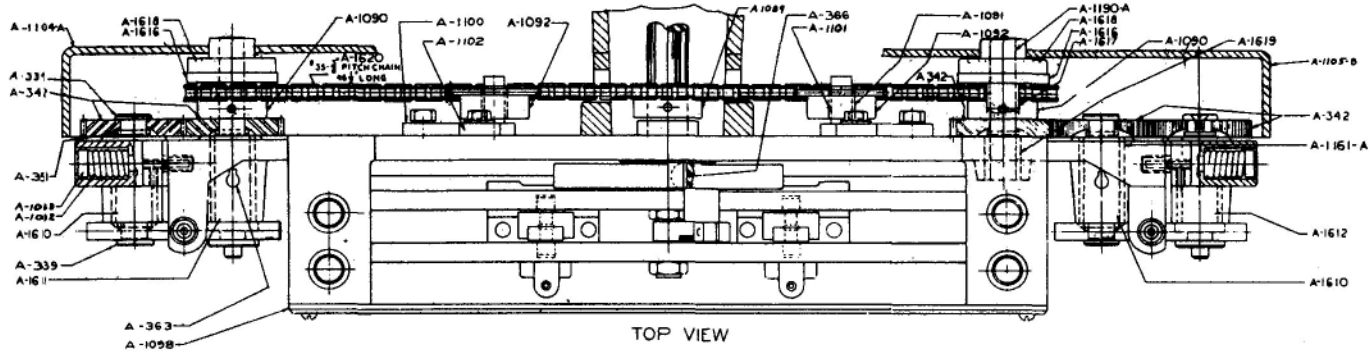
Numbers following the D letters on parts list . . . show on parts photograph . . .

- A-662-D-7A Bearing, Oilite
- A-662-D-9 Rear Plate, Spool Holder
- A-662-D-11 Lock Washer, Main Shaft
- A-662-D-12 Spring, Wire Tension Control
- A-662-D-13 Braking Block, Tension Spring
- A-662-D-14 Shaft, Braking Block
- A-662-D-15 Lock Ring, Main and Block Shaft
- A-662-D-16 Stud, Brake Swivel Connecting
- A-662-D-17 Lock Nut, Brake Tension Adjusting Screw
- A-662-D-18 Lock Ring, Brake Belt Anchor Stud
- A-662-D-19 Plunger, Brake Tension Spring
- A-662-D-20 Spring, Brake Tension
- A-662-D-21 Screw, Brake Tension Adjusting
- A-662-D-22 Main Casting, Spool Bracket (R.H.)
- A-662-D-22L Main Casting, Spool Bracket (L.H.)
- A-662-D-23 Stud, Brake Belt Anchor
- A-662-D-24 Mount, Spool Bracket (Inland)\*
- A-662-D-25 Belt Assembly, Brake w/Swivel
- A-662-D-26 Stud and Lock Nut, Brake Tension Swivel
- A-662-D-27 Lock Ring, Brake Swivel Stud
- A-662-D-28 Spacer, 3-3/4" Core
- A-662-D-30 Screw, Flat Head (2-1/2" Core)
- A-662-D-31 Screw, Flat Head (3-3/4" Core)
- A-662-D-33 Screw, Flat Head
- A-662-D-34 Cap Screw, Hex Head (Inland 2" length) (Bliss 1-1/2" length)
- A-662-D-35 Lock Washer
- A-662-D-36 Face Plate, Spool Holder
- A-662-D-37 Roll Pin, Face Plate Release Assy.
- A-662-D-38 Lock Ring, Face Plate Release Assy.
- A-662-D-39 Shaft, Face Plate Release Assy.
- A-662-D-40 Spring, Face Plate Release Assy.
- A-662-D-41 Knob, Face Plate Release Assy.
- A-662-D-42 Set Screw, Knob
- A-662-D-43 Set Screw, Spacer (3-3/4" Core)
- A-662-D-44 Cam, Spool Lock
- A-662-D-45 Set Screw, Brake Swivel Connecting Stud
- A-662-D-46 Set Screw, Main Shaft
- A-662-D-47 Set Screw, Brake Belt Anchor Stud
- A-662-D-48 Shaft, Main Spool
- A-662-D-49 Set Screw, Brake Block Shaft
- A-662-D-50 Roll Pin, Block Stop
- A-662-D-51 Mount, Spool Bracket
- A-662-D-52 Mount, Spool Bracket



2 Screws  
5/16-18x1" Long  
HEX HD. SCR.





ASSEMBLY ADJUSTABLE TWIN HEAD A-10025-B

PARTS OF A-1111

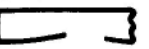


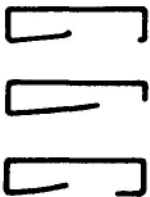
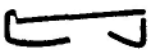
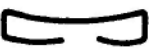
**LIST OF PARTS SHOWN ON DRAWING A-10025-B  
ADJ. TWIN HEAD ASSEMBLY**

A-96	Drive Connection Washer	A-598	Face Plate Screws	A-1156	Slide Box Clamp
A-119	Wire Check Pin	A-668	Head Plate Bushing	A-1161-A	Feed Roll Shaft Bushing
A-120	Wire Check Sleeve	A-703-X	Clincher Post	A-1190-A	Idler Gear Shaft
A-120-A	Wire Check Washer	A-990	Feed Wheel Washer Rt. Hd.	A-1204	Clincher Head
A-121	Wire Check Pin Retainer	A-1061	Eccentric Driver Connection Bushing	A-1219	Wire Check Set Screw
A-121-A	Wire Check Spring Retainer	A-1071	Ball, Clincher Block Adj. Nut	A-1609-R	Wire Spool Bracket - Rt. Sd.
A-205	Supporter Plunger Spring Pin	A-1072	Spring, Clincher Block Adj. Nut	A-1609-L	Wire Spool Bracket - Lt. Sd.
A-273	Supporter Plunger Set Screw	A-1082	Feed Roll Hinge Spring	A-1610	Feed Roll Shaft
A-301	Driver End	A-1083	Feed Roll Shoulder Bolt	A-1611	Feed Roll Shaft
A-302	Former Leg Rt. Hd.	A-1084	Driver Bar	A-1612	Feed Roll Shaft
A-303	Former Leg. Lt. Hd.	A-1085	Former Bar	A-1616	Flange Brg. Plate
A-304	Cutter Blade	A-1086	Guide Bar Shaft	A-1617	Flange Brg. Plate Stud
A-305	Anvil Lt. Hd.	A-1089	Drive Sprocket	A-1618	Flange Bearing
AA-307-A	Adj. Driver Connection	A-1090	Feed Roll Drive Sprocket	A-1619	Idler Shaft Bushing
A-308	Supporter Stud	A-1091	Idler Sprocket Bronze Bushing	A-1620	Feed Roll Drive Shaft
A-309	Supporter	A-1092	Idler Sprocket	A-2300	Driver Bar with Square Pin
A-310	Former Roller	A-1093	Slide Box Bar	A-2315	Former Housing Lt. Hd.
A-312	Former Plunger Screw	A-1094	Driver Pin	AA-2315	Former & Driver Complete - Lt. Sd.
A-313	Former Plunger	A-1095	Former Bar Pin	A-2346	Former Cam
A-314	Former Plunger Spring	A-1096	Driver Pin or Former Pin	AA-2346	Former Cam with Stud A-2348
A-316	Cutter Tube	A-1097	Guide Rod Bushing	A-2348	Former Cam Stud
A-317	Cutter Tube Clamp Lt. Hd.	A-1098	Front Cover Guard	A-2349-B	Wire Feed Tube Lt. Sd.
A-317-A	Cutter Tube Clamp Rt. Hd.	A-1100	Idler Gear Take-Up Bracket	A-2349-C	Wire Feed Tube Rt. Sd.
A-320	Supporter Plunger Pivot Pin	A-1101	Pin for Take-Up Bracket	A-2375-G	Clincher Arm
A-322	Anvil Spring Plate	A-1102	Idler Gear Bracket Clamp	A-2393	Former Housing Rt. Hd.
A-325	Supporter Plunger	A-1102	Idler Gear Bracket Clamp	AA-2393	Former & Driver Complete - Rt. Sd.
A-326-B	Rt. Hd. Feed Wheel	A-1104-A	Lt. Hd. Gear Guard	A-2432	Rt. Hd. Face Plate
AA-336	Wire Check Complete	A-1105-B	Rt. Hd. Gear Guard	AA-2432	Rt. Hd. Face Plate Complete
A-336	Wire Check Body Only	A-1106	Clincher Block	A-2766	Rt. Hd. Slide Box
A-337	Wire Check Spring	A-1107	Clincher Block Holder for Post	A-2796-B	Head Plate
A-339	Feed Wheel Washer Lt. Hd.	A-1108	Clincher Block Holder for Arm	A-2798	Lt. Hd. Slide Box
A-342	Feed Wheel Gear	A-1109	Clincher Arm End Angle	A-2800	Lt. Hd. Face Plate
A-347	Former Cam Retaining Washer	AA-1111	Wire Friction Tube Complete	AA-2800	Lt. Hd. Face Plate Complete
A-351	Feed Wheel Drive Pin	A-1110	Wire Feed Tube Friction Screw	A-8329	Lt. Hd. Feed Wheel
A-359	Anvil Spring	A-1111	Wire Feed Tube Friction Body	A-8435-B-1	Rt. Hd. Feed Roll Hinge
A-360	Supporter Plunger Spring	A-1112	Wire Feed Tube Plunger	A-8796-B-1	Lt. Hd. Feed Roll Hinge
A-363	Oil Hole Cover	A-1113	Wire Feed Tube Plunger Spring		
A-370	Anvil Rt. Hd.	A-1153	Feed Roll Hinge Set Screw		
A-391	Former Leg Rt. Hd.	A-1154	Feed Roll Hinge Screw		
A-392	Former Leg Lt. Hd.	A-1155	Feed Roll Hinge Pin		
A-422	Cutter Blade or Driver End Screw				
A-426	Anvil Stop Pin				
A-439-D	Clincher Block Adj. Nut				

**CAUTION: DISCONNECT POWER SOURCE BEFORE SERVICING OR ADJUSTING**





IDEAL STITCHERS

**① HEAD**

TROUBLE	POSSIBLE CAUSE
<b>A. Defective Stitches</b>	
1. One or both legs buckled  NOTE: Since buckled legs are often concealed by the board and may appear the same as a short leg, always remove two or more stitches to see which condition is occurring.	1. Clincher block is worn or improperly aligned 2. Insufficient compression 3. Unequal leg length 4. Burred stitch leg 5. Incorrect wire size 6. Insufficient arc in wire 7. Worn former legs 8. Broken plunger spring 9. Worn anvil
2. Wrinkled crown 	
3. One leg is consistently too short or too long 	1. Right-hand feed wheel improperly adjusted —single-head stitcher 2. Right-hand feed wheel improperly adjusted —dual-head stitcher
4. Varying leg length 	1. Excessive tension on nut of 10-pound coil holder 2. Excessive brake tension on 25-pound coil holder 3. Dirty or worn check pawl 4. Broken tension spring on 10-pound coil holder 5. Broken wire guide assembly on 25-pound coil holder 6. Excessive tension on wire straightener 7. Wire guide friction not operating 8. Former plunger not operating
5. Corner of crown distorted or fractured 	1. Excessive compression 2. Broken driver end 3. Worn former legs 4. Clincher block improperly aligned or worn 5. Incorrect wire size 6. Worn anvil
6. Stitch crown not flat and legs not bent back into board 	1. Insufficient compression

## Trouble Shooting

TROUBLE	POSSIBLE CAUSE
<b>D. Broken cutter tube</b>	
	1. Tube has been improperly inserted 2. Dull tube or cutter blade
<b>E. Sheared screws on cutter blade</b>	
	1. Tube has been improperly inserted 2. Dull tube or cutter blade
<b>F. Machine speed is less than normal</b>	
	1. Loose V-belt 2. Motor failure 3. Incorrect motor size 4. Brake bracket too tight
<b>G. Stitch is driven before clincher block is in position</b>	
	1. Roller lever is improperly adjusted on mechanical post 2. Post set screw is improperly adjusted on Electro-Power Post
<b>② REAR</b>	
NOTE	
<i>Always drive one stitch under power since clicking noise will normally occur when motor is turned on after machine has been turned over by hand.</i>	
	1. Broken clutch pin 2. Broken clutch pin spring 3. Worn drive pins 4. Brake is improperly adjusted
<b>B. Rapid wear of V-belt</b>	
	1. Improper tension 2. Motor pulley improperly aligned with main drive wheel 3. Oil on V-belt

<p>7. One or both legs turn out</p> 	<ol style="list-style-type: none"> <li>1. Clincher block improperly aligned</li> <li>2. Dull or improperly adjusted cutter blade and tube</li> <li>3. Loose post</li> </ol>
<p>8. Flat piece of wire</p> 	<ol style="list-style-type: none"> <li>1. Former plunger is not operating</li> <li>2. Broken anvil spring</li> <li>3. Excessive tension on nut of 10-pound coil holder</li> <li>4. Excessive brake tension on 25-pound coil holder</li> </ol>
<p>9. Stitches come out in pieces</p> 	<ol style="list-style-type: none"> <li>1. Former plunger is not operating</li> <li>2. Cutter tube has been improperly inserted</li> <li>3. Incorrect wire size</li> </ol>
<p>10. Both stitch legs are either too long or too short</p> 	<ol style="list-style-type: none"> <li>1. Improper size of cutter blade</li> </ol>

**Trouble Shooting**

TROUBLE	POSSIBLE CAUSE
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**B. Wire buckles between the feed wheels and wire guide.**

	<ol style="list-style-type: none"> <li>1. Machine operated without work under head</li> <li>2. Dull or incorrectly adjusted cutter blade or tube</li> <li>3. Short wire draw</li> <li>4. Incorrect timing on dual-head stitcher</li> <li>5. Incorrect timing on single-head stitcher</li> <li>6. Worn or flattened former roller</li> <li>7. Wire straightener out of adjustment</li> <li>8. Former plunger is not operating</li> <li>9. Wire guide friction is not operating</li> </ol>
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**C. Wire tangles on coil holder**

	<ol style="list-style-type: none"> <li>1. Loose brake on 25-pound coil holder</li> <li>2. Nut on 10-pound coil holder is too close</li> <li>3. Side plate not screwed on tight</li> </ol>
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**C. Motor hums or grinds**

	<ol style="list-style-type: none"> <li>1. Check to see if motor specifications are the same as your power supply</li> </ol>
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**D. Stitcher repeats without pressure on the foot pedal**

	<ol style="list-style-type: none"> <li>1. Brake is too loose</li> <li>2. Excessive oil on clutch hub</li> <li>3. Broken clutch pin</li> <li>4. Broken clutch plate</li> <li>5. Main drive wheel is frozen on drive shaft</li> </ol>
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**3 BASE**

**A. Machine won't stitch when foot pedal is pressed as far as possible**

	<ol style="list-style-type: none"> <li>1. Set screw on foot pedal requires adjusting</li> <li>2. Stitcher is not placed on a level floor</li> <li>3. Worn clutch plate</li> <li>4. Defective micro-switch or electric trip</li> <li>5. Loose wire connection on micro-switch or electric trip</li> <li>6. Defective solenoid</li> </ol>
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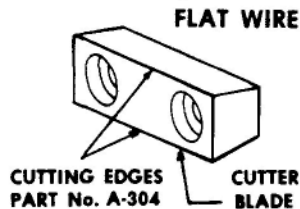
**B. Post does not return or returns slowly when pressure is removed from foot pedal**

	<ol style="list-style-type: none"> <li>1. Pivot stud is too tight on mechanical post</li> <li>2. Pivot stud is too tight on Electro-Power Post</li> <li>3. Clincher post spring is too weak on mechanical post</li> <li>4. Clincher post spring is too weak on Electro-Power Post</li> <li>5. Clincher post is not lubricated</li> </ol>
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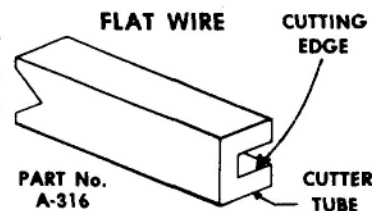


**MAINTENANCE**

(A) **CUTTER BLADE AND CUTTER TUBE** — The cutter blade and tube cut the wire prior to the forming of the stitch. To insure a good clean cut of the wire, the cutter blade part No. A-304 and the cutter tube part A-316 must be kept sharp and the cutter tube properly inserted in the slide box A-798. The cutter tube should always be inserted with the slot towards the back of the machine. Always check both of these parts, since they operate as a unit. Replacing one and leaving the other dull, will not remedy the trouble. The blade part No. A-304 is reversible and both cutting edges should be used before replacing.



The lower edge of a dull cutter tube part No. A-316 will often snap off because the wire does not shear off properly and sometimes becomes wedged between the cutter tube and the blade. Occasionally a heavy burr on the end of the wire will cause it to stick in the anvil part No. A-305. This in turn, will result in the buckling of the wire between the feed wheels Nos. A-326B and A-8329 and the wire guide AA-349B.



The tube can be removed by releasing or loosening the cutter tube clamp screw A-177. To remove the cutter blade, step on the foot pedal and rotate the main drive wheel part No. A-470-B in the direction indicated by the red arrow until the former and driver unit AA-315 reaches the lowest point of its stroke. Then remove the cutter blade screws A-422. The old cutter blade can now be removed. When re-assembling always replace the cutter blade first and return the machine to neutral by completing the revolution of the main drive wheel, part No. A-470-B. Then insert the cutter tube A-316 with the slot toward the rear of the machine and press lightly against the lower edge of the cutter blade, while tightening the cutter tube clamp screw part No. A-177. This is shown in complete detail on page seven in figure A. Always make the first stitch by hand before turning on the power. If the tube is inserted incorrectly when the machine is not in neutral position it will extend beyond the cutter blade part No. A-304 and cause the tube to break, the cutter blade screws to shear off, or the lower part of the housing below the tube to crack off when the stroke is completed.

For some special stitching applications requiring an unusually short wire draw, a specially hardened left former leg is used as a cutter blade. The left former leg cannot be reversed when it becomes dull (as a cutter blade can) but must be replaced with a new former leg.

(B) **CLINCHER BLOCK** — The purpose of the clincher block part No. A-437 for the post machine or A-421 for the arm stitcher is to turn back the legs of the stitch after they have penetrated the work material. To do this, the legs must strike the block with equal spacing from the outside edges of the grooves, as shown in figure 1.

To test this alignment, drive five or ten stitches into a section of your work. The high spots on either side of the clincher block will leave impressions on the under side of the material being stitched.

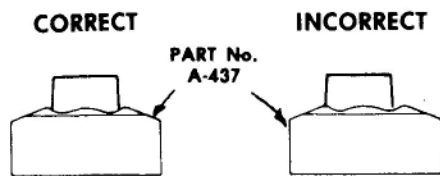


Figure 1

It is an easy matter then to see if the space between the point each stitch leg penetrates the board and the impression of the clincher block are equal. If one leg is closer to the impression on the material than the other, the clincher block will require adjustment; either to the right or left.

(C) **CHECK PAWL** — The check pawl part No. AA-336 permits the wire to flow forward into the stitching head but prevents it from moving in a reverse direction when the wire is being cut off. When it does not function properly the wire slips backward and causes short leg stitches. This condition is usually caused by an accumulation of dirt and wire chips which prevents the small rollers that grip the wire from moving freely.

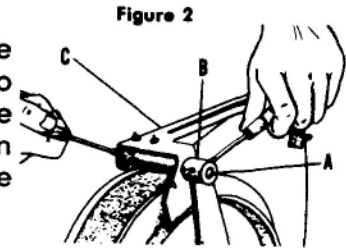
To clean, remove the wire from the pawl by pressing down on the sleeve and pushing the wire down slightly. Then pull the wire out and withdraw from the check pawl. The check



pawl part No. AA-336 can now be removed by removing the lock screw part No. A-1219 shown on drawing A-10,028 page 7. Clean the pawl by shaking it in any grease cutting agent. After cleaning and drying, insert a 6" piece of wire in the pawl and attempt to pull it in the reverse direction. If all the dirt has been removed and it continues to slip, replace with a new part.

(D) SPOOL HOLDER TENSION AND BRAKE ADJUSTMENT — All Ideal wire stitchers are equipped with 10-pound wire coil holders as standard equipment. This coil holder can be used with either five or ten pound coils and the braking feature is automatic after the coil holder is placed in position and the stud part No. A-132 and lock nut A-673 are adjusted as recommended on page 7 drawing A-10,028. This appears on the upper right hand corner of the drawing.

25-POUND COIL HOLDER, BRAKE ADJUSTMENT — This is made before shipment. If further adjustments are necessary, use two screw drivers, with the one in the right hand held securely in brake shaft (Index A, figure 2). Left hand operates screw driver to loosen set screw (Index B, figure 2). Turn brake bracket shaft clockwise to tighten brake-counter-clockwise to loosen brake.



Brake pressure must not be too tight. However, there should be sufficient tension to apply the brake smoothly and prevent the wire coil from over-running.

To adjust the brake: (1) Turn the brake bracket shaft counterclockwise until the wire guide assembly (Index C, figure 2) falls limp. (2) Turn the brake bracket shaft clockwise until the slack is removed and the brake shoe is just touching the brake drum. (3) Make one more full turn on the brake bracket shaft. (4) Tighten set screw.

Be sure that the brake drum is kept clean. Dirt and rust will cause the brake to grab and prevent the coil holder from coming to a smooth, gradual stop.

If the wire guide assembly is broken, the brake on the coil holder will not function. Replace the wire guide assembly.

(E) FORMER PLUNGER — Former plunger part No. A-313 holds the end of the wire firmly while it is being cut off by the cutter blade part No. A-304. Without this pressure, the wire would spring forward. This causes (1) a short left stitch leg or (2) a long right stitch leg or (3) the wire to fall out of the anvil part No. A-305, as a straight piece or (4) the wire to slip to one side so that it does not line up with the grooves in the former legs.

To test the operation of the former plunger: (1) step on the foot pedal and turn the drive wheel A-470-B in the direction of the red arrow until the former and driver assembly part No. AA-315 is at the lowest point of its stroke, (2) apply upward pressure with your finger on the former plunger. This should cause the plunger to retract easily into the former housing part No. A-315 and spring outward when released.

If the plunger is stuck in the housing, loosen the plunger screw A-312 and pry the plunger loose. The plunger often sticks because it is dirty or requires oiling. Place a drop of oil on the plunger each time the rest of the machine is lubricated.

If the plunger is bent, it can usually be straightened. If broken, it must be replaced. A weak or broken plunger spring A-314 will not exert sufficient pressure against the wire. It must be replaced.

A worn plunger blocks the path of the wire as it is being fed. This causes the wire to buckle between the feed wheels and the wire guide. Replace the plunger.

WIRE GRIPPER PIN — Used only in certain applications in place of part No. A-313 former plunger screw, & No. A-314 former plunger spring. The wire gripper pin performs the same function as the former plunger; that is, it holds the wire securely while it is being cut by the cutter blade.

To Install Wire Gripper Pin-Type Anvil: (See figure 3)

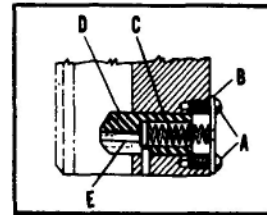


Figure 3

1. Remove former plunger screw, former plunger and former plunger spring.
2. Remove present anvil by loosening anvil plate screws (Index A), removing plate (Index B) and spring (Index C). Insert new anvil (Index D), placing the wire gripper pin (Index E) in place. Use spring from the old anvil to exert pressure on the pin and anvil. (Insert wire gripper pin as a complete unit.)
3. Replace anvil plate and screws.

(F) SUPPORTER PLUNGER SPRING — The supporter part No. A-309 supports the legs of the stitch until they have started to drive into the work material. This is held in position by the supporter plunger part No. A-325. The supporter plunger is backed by the plunger spring part No. A-360.

To test the spring, pull outward on the supporter plunger. If no pressure is required, the spring is broken and should be replaced.

A broken spring can be removed from the face plate by unscrewing the spring retaining screw A-273. After making sure that the supporter plunger pin part No. A-205 is in place, install a new plunger spring. The spring retaining screw should be replaced so that it is flush with the top of the hole in the face plate.

(G) MECHANICAL POST — The function of the post is to provide a rigid support for the clincher block part No. A-437. Any side movement in this part causes the clincher block to be improperly aligned with the stitch legs. For this reason, never move the stitcher by pulling or pushing on the post. There are a number of simple adjustments which can be made on the post by simply referring to page 22 drawing No. A-10,009 AB, which in further detail explains these adjustments.

(H) FORMER LEGS — The former legs part No. A-302 and A-303 perform two functions. No. 1 — they bend the wire over the anvil to form a stitch and No. 2 act as a guide until the stitch is driven into the work material.

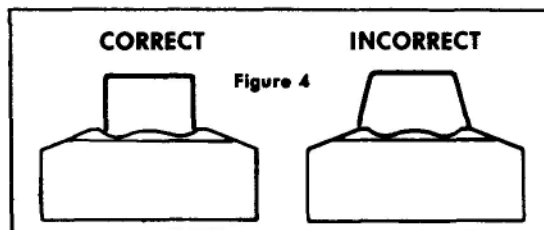


Figure 4

When the former legs become worn, the stitch legs are not bent sharply over the anvil and tend to flare outward instead of staying at approximately right angles to the crown. The legs of the stitch hit the clincher block improperly and buckle or fracture the corner of the crown of the staple. (See Figure 4.)

If the former legs are worn, they must be replaced. Remove the former and driver assembly and then remove the former leg screws A-848.

When installing former legs, screw one leg lightly to the former housing part No. A-315 and leave the second leg loose. Then, with the drive end part No. A-301 loosely attached, insert the driver part A-300 and tighten the both legs and driver end. After all the screws are tightened, the driver bar should fit snugly, but not so tight that you cannot move it up and down in the housing by hand.

Since a worn anvil part No. A-305 can cause similar symptoms, refer to the following paragraph.

(I) ANVIL — After a stitch has been driven, a new length of wire is fed into the stitching head and comes to rest with equal lengths on each side of the anvil. This part forms the support over which the wire is bent into a U shape by the former legs.

Sometimes, the corners of the anvil part No. A-305 become worn from long use. Worn anvil corners prevent the stitch legs from being bent properly. The legs tend to flare out and strike the clincher block improperly. Replace the anvil if it is worn.

The anvil is backed by an anvil spring part No. A-359, which keeps it constantly in position to receive the wire. If this spring breaks and the anvil is not kept in proper position, the wire comes out in a single straight piece.

The anvil can be removed by loosening the two anvil plate screws part A-654 which hold the anvil plate A-322 in place. The spring is removed by the same procedure. Before installing a new anvil or replacing the old one, clean and oil the hole in the slide box in which the anvil fits. If installing a new part, check to see that it is the proper size for your machine by comparing with your old one. There is only one way to insert the anvil since it is slotted on the bottom to receive the anvil stop pin part No. A-426. This pin prevents the anvil from rotating or moving too far forward. After installing, press against the anvil to see that it retracts freely.

Occasionally, a new anvil with sharp corners will cut into the stitches and cause them to crack. Do not try to round off the corners. Return the part to the factory.

Since worn former legs can cause similar symptoms, refer to paragraph H.

(J) **INCORRECT WIRE SIZE** — The size of wire which should be used varies with the type of work material. If you are in doubt about the correct machine set up to accommodate a change in your material specifications, consult your Ideal Stitcher representative or send samples to our office.

When there has been no change in your stitching job and your stitcher is set to accommodate a certain size of wire, the use of a different size wire will cause defective stitches. Check the wire size which appears both on the shipping case and the inside core liners.

(K) **DRIVER END** — The driver end A-301 fits into the recessed section of the lower end of the driver bar A-300. It drives the stitch into the work material by applying pressure directly over the stitch legs.

If your machine is equipped for flat wire stitching, the driver end is reversible, providing it is not a special type with radius end. If your machine is equipped for Arcuate Wire Stitching, the drive end is not reversible.

Occasionally, the tip of the driver end is chipped from excessive compression or stitching without work material under the head of the machine. The driver end also wears from normal use. When this happens, the part should be reversed or replaced.

A very loose fit of the driver bar indicates that either this part or the former legs A-302 and A-303 are worn and must be replaced.

(L) **CLUTCH PIN** — Power from the main drive wheel part No. A-470-B is delivered to the drive shaft A-850 through the engagement of the clutch pin part No. A-400 with the main drive wheel pins part No. A-406-B. This complete assembly can be seen in perfect detail on page 27 drawing No. A-10,026. The clutch pin gradually wears with use and eventually causes a clicking noise. The machine will not stitch when the pin becomes badly worn and does not engage with the main drive wheel pin. The same condition occurs when a broken clutch pin spring part No. A-401 cannot push the clutch pin part A-400 out of the clutch hub part or when the clutch plate A-402 raises a burr on the pin and causes it to stick in the hub.

Occasionally, the machine will continue to stitch because the clutch pin breaks and becomes wedged between the main drive wheel pin A-406 and the clutch hub A-851.

**TO REPLACE THE PIN OR SPRING** — (1) Remove the pulley guard cover (2) slip off the vee belt and unscrew the cap screw part No. A-649 from the end of the drive shaft. (3) Lift the main drive wheel off the shaft part No. A-850 (4) While holding your hand over the clutch pin part No. A-400 to prevent it from springing forward, step on the foot pedal.

This will release the pin. (5) Push in the new clutch pin, making certain that it works freely and does not bind. **BE SURE THAT THE CLUTCH PIN SPRING A-401 is in the clutch pin before inserting it into the clutch.** (6) Release the pressure on the foot pedal. You may now reassemble the machine and turn it over by hand to make sure that it is working properly.

**(M) DRIVE PINS** — Each main drive wheel contains three drive pins part No. A-406. The clutch pin A-400 engages these pins causing the main drive shaft part No. A-850 to rotate. The drive pins wear with use and must be replaced. However, the original pins can be given a quarter turn and used a second time. See Page 27 drawing No. A-10,026 for detail.

To replace or turn the drive pins: (1) remove the guard (2) slip off the vee belt and unscrew the cap screw A-649 from the end of the drive shaft. (3) Lift the main drive wheel A-470-B off the shaft. (4) Insert a drift pin in the holes and knock the drive pins out. (5) Re-insert drive pins. Make sure that the tops are flush with the top surface of the main drive wheel hub part No. A-470-C.

**(N) WIRE GUIDE FRICTION** — (This part is supplied only with machines that are equipped for flat stitching wire.)

This wire guide friction part No. AA-1111 shown on the head assembly drawings exerts constant pressure on the stitching wire as it passes through the wire guide part No. AA-349-B. This pressure prevents the slack wire which sometimes occurs between the check pawl A-336 and the cutter blade part No. A-304 from creeping forward and protruding from the cutter tube part No. A-316. If this should happen, the cutter blade (on the upstroke) bends the end of the wire and forms a large burr which will stick in the anvil part No. A-305, and cause the wire to buckle, or cause a defective stitch. This complete wire check assembly part No. AA-1111 should work properly if no parts are missing. (See figure 5.)

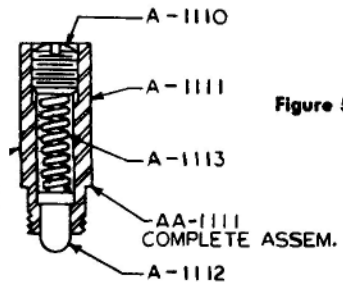


Figure 5

**(O) VEE BELT** — The vee belt A-913 transmits the power from the motor pulley to the main drive wheel part No. A-370-B. An improperly adjusted belt will wear out rapidly. If the belt is too loose, the machine runs slower than normal; if the belt is too tight, it will cause excessive wear on the main drive wheel and on the drive shaft.

A properly adjusted belt fits snugly on the main pulley and the motor pulley of the machine. These two parts should be centered so that the belt runs in a straight line.

Since the vee belt contains rubber, make certain that it is kept free of oil, which will cause the belt to rot and slip.

**(P) BRAKE BRACKET** — Part No. A-420-D. The brake bracket exerts a constant pressure on the clutch part No. A-851 so that the machine always stops in a neutral position. If the brake is too loose, the machine will repeat and continue to stitch even after pressure is released from the foot pedal. If the brake is too tight, it will often slow down the machine by creating a drag on the motor. This causes the motor to heat up. Excessive brake tension occasionally will cause a clicking noise in the clutch.

**(Q) FORMER ROLLER PART NO. A-310**—The former roller part No. A-310 is mounted on the rear of the former housing part A-315 by means of the roller stud A-311. It rides in the track of the former cam part No. A-346 and is the means by which the former and driver assembly AA-315 is raised and lowered for each stroke. Excessive compression of the work material or jamming of the machine will cause the roller to flatten, as in figure 6. Lack of oil will cause this part to bind on the stud and not rotate properly. More often, the lack of oil will cause the roller to wear on the stud, creating a loose fit. See Fig. 6 Detail A Roller and Detail B Stud.

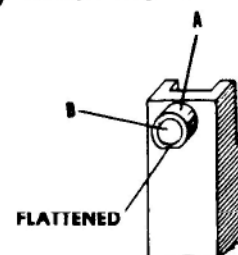


Figure 6

As a result of this wear, the former and driver assembly rides too low. In addition, the cutter blade will not clear the exit of the cutter tube when the formers are at the highest point of their stroke. This causes the wire to buckle between the feed wheels and the feed tube. To check the former roller, remove the former and driver assembly. If the roller is worn, it must be replaced by driving the stud part No. A-311 out. The new stud and roller should be driven on and the stud peened over and filed flush with the surrounding surface. It is very important that the stud be driven in straight so that the roller will ride flat in the cam.

Oil roller before replacing former and driver unit.

(R) — CLUTCH PLATE PART NO. A-402. The clutch plate part No. A-402 holds the clutch pin part A-400 in a retractive position in the clutch A-851. When the foot pedal is depressed, the clutch plate should lower sufficiently to clear the clutch pin, allowing the pin to spring forward and engage the drive pins on the drive wheel.

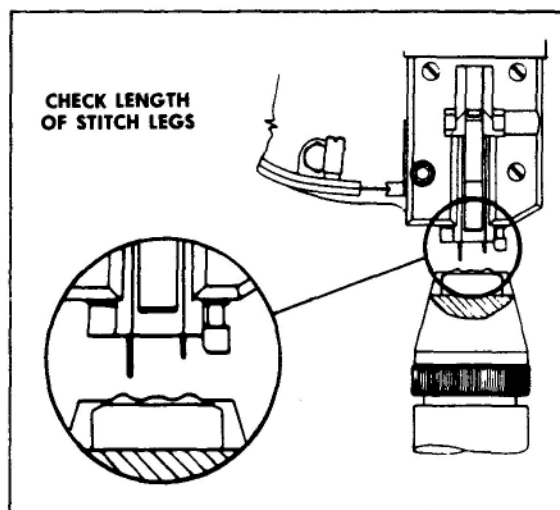
The proper setting of the foot pedal permits approximately 1/16" clearance between the clutch plate and the clutch pin when the pedal touches the floor.

If the tip of the clutch plate breaks, the machine will continue to stitch without pressure on the foot pedal. The plate can be replaced by removing the cotter pin which holds it to the trip rod.

(S) MAIN DRIVE WHEEL — PART NO. A-470-B and A-470-F. While the motor is running, the main drive wheel rotates constantly on the drive shaft part No. A-850, drawing No. A-10,026 page 27. When the foot pedal is depressed the clutch pin engages the drive pins and causes the shaft to rotate. If the main drive wheel is not oiled sufficiently, it will wear rapidly. Excessive tension on the vee belt will also cause wear of this part. Occasionally, the main drive wheel will freeze on the shaft and the machine will stitch without pressure on the foot pedal. To free the drive wheel, remove the guard, slip off the vee belt, unscrew the cap screw from the end of the drive shaft and fill the drive wheel oil cup with a light penetrating oil. If the drive wheel cannot be removed from the shaft by hand, place a wooden block near the drive wheel hub part No. A-470-F and pound off with a hammer. After the drive wheel has been removed from the shaft, clean the oil groove, clean the bearing surface of the drive wheel and polish the drive shaft with a light emery cloth, removing all burrs. Oil the bearing surfaces well with SAE 20 oil and reassemble.

Figure 7

TO TEST THE LENGTH OF THE STITCH LEGS: (See Figure 7.)



- 1 - Turn off the motor.
- 2 - Step on the foot pedal and turn the flywheel slowly until the formers and the driver bar pushes the stitch partially out of the former legs.
- 3 - Check lower part of the stitch legs to see if they are uneven.
- 4 - If the leg length is uneven, turn flywheel until formers and driver are at the highest point of their stroke.
- 5 - Adjust right hand feed wheel part # A-326B for more or less wire to make right hand leg length equal to left hand leg.

TO ADJUST THE FEED WHEELS: (See Page 7 — Drawing No. A-10,028 or Figure 7) If you are unable to get proper leg length, check spacing between the feed wheels.

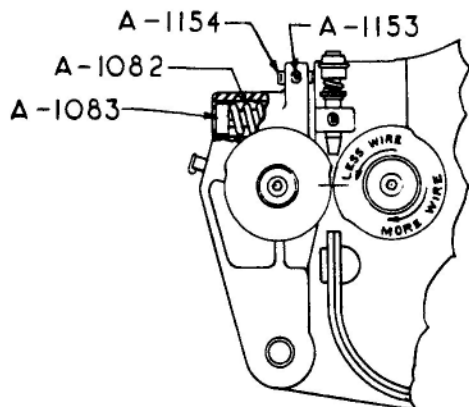


**FEED WHEEL SPACING FOR VARIOUS THICKNESS OF WIRE**

Wire Thickness	.017 and .020	.023 and .024	.028
Opening between Feed Wheels	.008	.010	.012

**TO CHECK SPACING OF FEED WHEELS:**

- 1 - Remove the wire from the stitcher.
- 2 - Turn flywheel until high spots of feed wheels face each other.
- 3 - Check spacing with feeler gauge. Adjust spacing according to the chart.



**TO ADJUST FEED WHEELS:**

- 1 - Loosen lock screw part No. A-1153.
- 2 - Turn set screw part No. A-1154 to desired position.
- 3 - Lock set screw by tightening lock screw part A-1153.
- 4 - Turn flywheel until former and driver are at the highest point of the stroke. Occasionally a groove is worn in one or both of the feed wheels. This causes the wire to slip and results in uneven leg lengths.

**ARCUATE WIRE — MACHINES EQUIPPED FOR ARCUATE WIRE STITCHING**

The relationship of the flat on the cam plate (Index A, figure 8) with the flat on the right hand feed wheel (Index B, figure 8), determines the amount of wire which is fed into the machine.

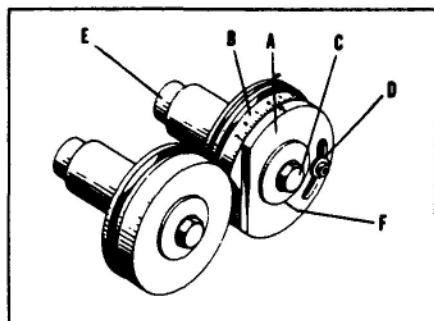


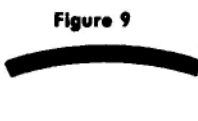
Figure 8

The right hand feed wheel controls the length of the right stitch leg. Move cam plate clockwise to obtain less wire draw — counterclockwise to obtain more wire.

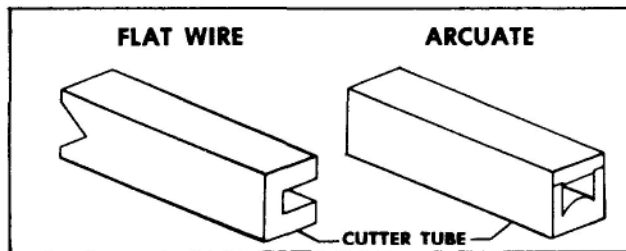
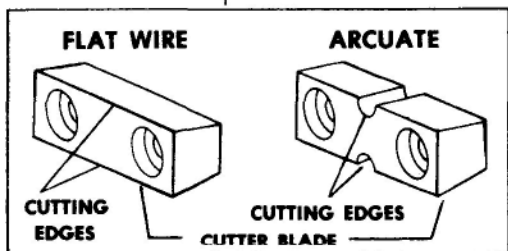
**NOTE**

The length of the left stitch leg is determined by the thickness of the cutter blade.

**TO ADJUST THE CAM PLATE:** Turn off the motor and loosen feed wheel screw (Index C, figure 8). Since turning this screw causes the gears to rotate unless held in place, it is necessary to apply clockwise pressure on a screw driver inserted in the driver link. Loosen Allen cap screw (Index D, figure 8) and turn cam as required. The top side of the right hand feed wheel has graduated markings. Move the arrow on the cam plate left one mark to increase the right leg 1/8"; move the arrow right one mark to decrease the right leg 1/8". After making cam plate adjustment, tighten Allen cap screw and feed wheel screw while applying counterclockwise pressure on the screw driver inserted in the driver link. This operation should be repeated until the lengths of stitch legs are equal or there is not more than a 1/64" variation.



**Figure 9** .024" CORRECT AMOUNT OF ARC FOR ARCUATE STITCHING  
to .026" Unless there is a correct amount of arc in the wire (figure 9) the stitches may not penetrate or clinch properly.



TYPE OF CUTTER TUBES USED FOR FLAT AND ARCUATE WIRE STITCHING