# **OPERATING INSTRUCTIONS**

## AND PARTS MANUAL

1-¼ INCH .020x.103 ARCHED WIRE 1-¼ INCH .028x.103 FLAT WIRE Conforms to OSHA requirements in the U.S.A.

## FOR INSTALLATION/MAINTENANCE/ADJUSTMENT



**STANDARD & SPECIAL MACHINES AND STITCHING WIRE** 

IMP	ORTANT	WIRE GOES IN FLAT
The Ideal Sti	tcher Furnished You, Is:	
MODEL: SERIAL NUMBER:		
WIRE SIZE:		AND COMES OUT ARCHED
CROWN WIDTH:		
CUTTER BLADE SIZE	:	FOR A STRONGER STAPLE
MOTOR:	H.P.:	
RPM:	PHASE:	-
When ordering please supply th above or se	parts or requesting information ne specifications outlined and a sample of your staple	
	Always give the Type, S Number, Wire Size, and C IDEAL STITCHER when a questing information.	erial Number, Model Crown Width of your ordering parts, or re-
CROWN is measured inside	the legs	g LENGTH is measured top to bottom

#### WARRANTY INFORMATION

"Your new wire stitcher 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 Stitcher has been manufactured, like many other Ideal Stitchers, 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 STITCHER in the many future years ahead. And as a final note, please order only genuine IDEAL REPLACEMENT PARTS and Ideal approved Stitching Wire."

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#### INSTALLATION INSTRUCTIONS

**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 and your Ideal Stitcher representative.

**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 bottom of crate. (C) Remove the cross brace which holds the stitcher in position in upper half of the crate. (D) Pull the stitcher from the crate by grasping the heavy cast iron column and motor bracket, or pull on the pulley 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.

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

**CHECK MOTOR:** The type of motor for your machine was specified on your purchase order. Check the motor specification plate before connecting the stitcher to electric current.

**LUBRICATION:** When the machine is shipped from our factory, it is coated with an oil base rust preventitive, which need not be cleaned prior to operation. Your stitcher should be lubricated at all oiling points indicated in red on the machine. Use SAE 20 Oil for all lubrication. The machine should be oiled at least once, with a few drops of oil, every 8 operating hours.

**THE MOTOR** should not be oiled until the first 2000 hours of operation have been completed; and then every 1000 hours thereafter.

**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 10012-A (page 3). There are 2 hexagon head screws furnished with the bracket for mounting.

TO INSTALL WIRE ON THIS SPOOL HOLDER, push and turn hand wheel knob (A 662-D41) on coil holder 1/4 turn. This will allow front flange (A 662-D36) to be removed. Place the coil of wire over the coil holder spindle. Be sure that the wire will unravel from the TOP of the coil. Replace the front flange, pushing on hand knob and turning 1/4 turn until it locks in place. Cut binding wires or tape holding the end of the wire, so that the coil does not unravel. Cut approximately 6 inches of wire from the end, so that you have a straight piece of wire to lead down around the wire tension control spring (Part No. A 662-D12), and into the wire check (AA 336); as shown on drawing A 10011-A (page 2). It will be necessary to push down on the wire check collar (Part No. A 120) which releases the 2 wire check pins (A 119), allowing the wire to be threaded down between the pins; and then between the feed wheels, and into the curved wire feed tube (Part No. AA 349); then through the cutter tube (Part No. A 8316). See that the wire runs through the machine until it emerges a few inches from the right hand side of the head.

**PROCEDURE TO START STITCHING:** Machine is set at the factory to stitch 2 thicknesses of 275 point board, or the particular sample submitted by the customer. Switch on power and place scrap piece of corrugated material on top of clincher block. Step on pedal to make one staple, so that the surplus piece of wire in the machine, is ejected. Stitcher is now ready for operation.

**PLACE BOX OVER POST:** Press down on foot pedal gradually until post is located in an upright position. Then press pedal down the rest of the way to engage the clutch. The machine will continue to stitch until the pedal is raised, disengaging the main pulley from the clutch. Removal of the foot from the pedal, allows the post to come forward, so that the box can be removed.



#### PLACING THE STAPLES 5 INCHES APART

is approved by Uniform Freight Classification, Rule 41, and The National Container Committee. Direction and placement pattern can be varied.

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-	-		-	



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A-96	Driver Connection Washer
A-177	Cutter Tube Clamp/Feed Wheel Screw
A-272	Cam Guard Hinge Pin
A-300U-0	Driver: .028x.103 Flat Wire
A-300U-2-A	Driver: .020x.103 Arched Wire
A-305U-2-A	Anvil
A-306	Driver Pin
A-307	Driver Connection
A-309-U	Supporter
A-310	Former Roller
A-311	Former Roller Pin
A-315-U-0	Former W/Roller & Pin .028x.103 Wire
A-315-U-2-A	Former W/Roller & Pin .020x.103 Arched Wire
A-316-2	Cutter Tube: .028x.103 Wire
AA-316-2A	Cutter Tube: .020x.103 Arched Wire
A-317	Cutter Tube Clamp
A-336-2	Wire Check Body Only
AA-336-2	Wire Check Complete
A-339	Feed Gear Washer
A-342	Feed Wheel Gear
A-343	Head Idler Gear
A-344	Head Idler Gear Stud
A-347	Former Cam Retaining Washer
AA-349-B-0	Wire Guide: .028x.103 Wire
AA-349-B-2-A	Wire Guide: .020x.103 Arched Wire
A-351	Feed Wheel Gear Drive Pin
A-354	Head Gear Guard
A-358-B	Cam Guard Cover Latch
A-362	Oiler
A-417-F	Cam Cover
A-598	Face Plate Screws
A-650	Driver Connection Washer Screw

AA-662-D	25 Pound Coil Holder Complete
A-662-D-12	Wire Tension Control Spring
A-662-D-25	Belt Assembly, Brake W/Wwivel
A-662-D-26	Stud and Lock Nut
A-662-D-41	Face Plate Release Knob
A-668	Head Plate Bushing
A-669	Head Drive Gear
A-921	Cam Guard Stud
A-990	Feed Wheel Washer
A-1052	R.H. Feed Wheel Only; Arched Wire
AA-1052	R.H. Feed Wheel Assembly With
A-1053 Plate & A	-1331 Screw
A-1053	R.H. Feed Wheel Cam Plate
A-1054	Feed Wheel Cam Plate Washer
A-1056	L.H. Feed Wheel; Arched Wire
A-1063	Feed Roll Hinge Stop
A-1079	R.H. and L.H. Feed Wheel Shaft
WSA-1080	Anvil Post
A-1082	Feed Roll Hinge Spring
A-1083	Feed Roll Shoulder Bolt
AA-1111	Feed Tube Friction Assembly
A-1154	Feed Roll Hinge Screw
A-1331	Cam Plate Washer Screw
A-3072	Anvil Bracket
A-3075	Anvil Spring
A-3076	Anvil Spring Stud
WSA-8346	Former Cam
A-8348	Former Cam Stud
A-879.6-A	Head Plate
A-8796-A-1	Head Plate Hinge
UA-8798	Slide Box
WS-A-8800	Face Plate
110-569	Cutter Blade; Arched Wire
202-188	Cutter Blade Screw



#### PARTS SHOWN ON PAGE 6

A-96	Connection Washer	A-662-D-36	Face Plate
A-119	Wire Check Pin	A-662-D-40	Plate Release Knob Assembly
A-120	Check Sleeve	A-662-D-41	Plate Release Knob
A-120-A	Check Washer	A-662-D-48	Main Spool Shaft
A-121	Check Pin Retainer	A-669	Head Drive Gear
A-121-A	Washer Retainer	A-850	Drive Shaft; 12" Throat Machine
A-305-U2-A	Anvil	A-1110	Feed Tube Friction Screw
A-309-U	Supporter	A-1111	Feed Tube Friction Body
A-336	Wire Check Body	AA-1111	Feed Tube Friction Assembly
AA-336-2	Wire Check Assembly	A-1112	Feed Tube Friction
A-337	Check Spring	A-1113	Feed Tube Friction Spring
AA-349-B-2A	Wire Feed Tube Assembly	A-1170	Drive Shaft For 20" Throat Machine
A-397	Feed Drive Gear Pin	A-1171	Drive Shaft For 25" Throat Machine
A-417-F	Cam Cover	UA-1270	Supporter Bracket Plate
A-437-U	Clincher Block	UA-1271	Supporter Housing
AA-662-D	Coil Holder; Complete	UA-1273	Supporter Plunger
A-662-D-9	Rear Plate	UA-1274	Plunger Roller
A-662-D-12	Tension Control Spring	UA-1274	Supporter Plunger Spring
A-662-D-13	Braking Block	UA-1275	Supporter Plunger Stop Pin
A-662-D-14	Braking Block Shaft	UA-1276	Supporter Pin
A-662-D-22	Spool Bracket	A-1621	Pivot Pin
A-662-D-24	Spool Bracket Mount	A-3076	Anvil Spring Stud
A-662-D-25	Belt Assembly	A-8348	Former Cam Pin





#### LIST OF PARTS SHOWN ON DRAWING A-10012-B ARM, POST OR COMBINATION STITCHER MECHANICAL TRIP

A-139	Rear Drive Shaft Bushing
A-148	Brake Shoe Lining
B-150A	5/8" Washer, N.S.
A-169-A	Drive Pulley Guard
A-362	Oil Hole Cover
A-365	Hex Nut
A-366	Cam Key
A-8375-G	Clincher Arm
WSA-8376	Clincher Block Clamp
A-377-B	Clincher Arm Fulcrum Bolt
A-378-B	Hex. Nut
A-400	Clutch Pin
A-401	Clutch Spring
A-402	Clutch Latch
A-406	Drive Pulley Clutch Pin (Old Style)
A-406-B	Drive Pulley Clutch Pin (New Style)
AA-420-D	Brake Shoe with Lining A 148
A-423-B	Clincher Arm Bracket
A-424	Clutch Latch Pin
A-425	Clutch Latch Spacer
A-427	Brake Adjusting Screw
A-428-A	Motor Bracket
UA-437-U	Clincher Block
A-438-G	Clincher Head
A-439-D	Clincher Block Adjusting Nut
A-442-A	Clincher Post Adjusting Screw Pin
A-446	Clutch Hub Screw
A-448-D	Clutch Trip Rod
A-470-B	Drive Pulley
A-470-F	Drive Pulley Hub
A-588	Motor Cord & Plug
A-589	Brake Shoe Spring
A-592	Wire Connecting Fitting
A-648	Name Plate
A-1392	Button Hd. Scr.
A-651	Mach. Scr.
A-703-W	Clincher Post
A-838	Clincher Post Holder for
	Combination Models only
	(Not Shown On Drawing)

A-850	Drive Shaft - 12" Throat Machine	
A-851	Clutch Hub	
A-911	Drive Pulley Cover	
A-913	V-Belt	
A-918	Motor Base Support	
A-919-A	Motor Base Shoulder Bolt	
A-1099-B	Split Collar	
A-1139	Electric Connecting Cord - 30" Long	
A-1150-D	Motor Pulley Constant Speed	
A-1166	Motor Mount	
A-1170	Drive Shaft - 20" Throat Machine	
A-1201	Switch	
A-1202	Cap Screw	
A-1203	Cap Screw	
A-1311A	5/16 Flat Washer	
A-1206	Rear Bushing Screw	
A-1323	1/4" Lock Washer	
A-1208	Clincher Post Screw	
A-1335	SCR Guard 5/16-18x2 1/2" SOC, CAP. SCR.	
A-1302	SCR 5/16-18x1 Hex	
A-1303	5/16-11 CAP SCR 11/2" Long	
A-1304	1/4'' Lock Washer	
A-1308	5/8-11 Jam Nut.	
A-1324	3/8" Lock Washer	
A-1303	Motor Cap Scr., 5/16-18x1 1/2" Hex	
A-1310	5/16-1P Nut	
B-150A	Motor Bracket Washer	
A-1374	SCR. Lock Clincher Head in Nut 5/16-18x5/8	
	Slotted SCR	
	SUB-ASSEMBLIES	
AA-67	Clincher Arm Adjusting Knob	
A-412	Knob	
A-1342	SCR.5/16-18x1 1/4" Flat HD. SOC.	
A-413	Stud	
AA-924-A	L.V.P. Switch	
AA-924	Starting Switch Assembly	
A-1201	Starting Switch Only	
A-1308	5/8-11 Jam Nut	



#### 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-U	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.



#### 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 (2 Required)
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
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	Mićro Switch
AA-1205	Solenoid Connecting Bold 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



#### 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	Shart, Face Plate Release Assy.
A-662-D-40	Spring, Face Plate Release Assy.
A-662-D-41	Knob, Face Flate 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 Swiver Connecting Stud
A-662-D-46	Set Screw, Main Shart
A-662-D-47	Set Screw, Brake Belt Anchor Stud
A-662-D-48	Snatt, Main Spool
A-662-D-49	Set Screw, Brake Block Shatt
A-662-D-50	Holl 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.



#### STITCHER ADJUSTMENT AND

#### MINOR REPAIR PROCEDURE

**STAPLE LEG ADJUSTMENT FOR ARCHED WIRE MACHINE:** The standard leg length is approximately 1/2 inch when the machine is shipped from the factory. This accommodates anywhere from two to four thicknesses of single wall corrugated. For proper stitching, the legs of the staple should be equal. The length of the left leg is determined by the thickness of the cutter blade, No. 110-569.

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.



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.

**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 inch. Move the arrow right, one mark, to decrease the right leg 1/8 inch. After making cam plate adjustment, tighten Allen cap screw and feed wheel screw, while applying counterclockwise pressure on the screwdriver 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 inch variation.

## CORRECT AMOUNT OF ARC FOR ARCUATE STITCHING:



Unless there is a correct amount of arc in the wire (Figure 9) the stitches may not penetrate or clinch properly.

IF THE STAPLE LEG SIZE IS TO BE CHANGED, it is not only necessary to change the cutter blade thickness, but also adjust the wire feed so that the right leg will be changed accordingly. **CLINCHER BLOCK ADJUSTMENT.** With the switch turned off and the post in position, place a sample of the work to be stitched on top of the clincher block. Step on the foot pedal and slowly turn the pulley by hand to engage the clutch, which will move the former and driver mechanism downward. When this mechanism is at its lowest point, the material should be held snugly between the clincher block and the end of the former. If it is too tight, you can lower the clincher block by unlocking the lock screw in the knurled clincher block adjusting nut, part No. A 439-D. If it is too loose, bring the clincher block adjusting nut up so that the material is compressed enough to hold the material firmly. Remove foot from pedal and continue to turn pulley until machine is in its neutral position.

IF MACHINE IS NOW TURNED ON, a clicking noise may result. Drive one stitch by power with material in place to catch the staple. Clicking noise, which was due to turning machine over by hand, will disappear.



#### CUTTER TUBES:

**AA-316-2A:** 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 so that the narrow opening (which is the cutting edge) is against the cutter blade (Part No. 110-569), with the "U" shaped wire opening in an inverted position. Push the cutter tube into the head of the machine until it touches the CUTTER BLADE. Hold lightly in that position when tightening the cutter tube lock screw (A-177) securely.

**IF THE CLUTCH PIN CLICKS** after the machine is operating, the brake shoe is too tight or too loose. The proper stopping position of the clutch (Part No. A-851) is when the oil hole points directly upward in a 12 o'clock position. If the oil hole in the clutch has not come up far enough to this position, the brake shoe is too tight; and it will be necessary to loosen the brake adjusting screw (Part No. A-417) a quarter turn at a time until the oil hole is stopping correctly.

On the other hand, if the oil hole has gone beyond this stopping position, it will be necessary to tighten the brake adjusting screw a quarter turn at a time, to eliminate the over-running position of the clutch.

IF THE CROWN OF THE STAPLE CRACKS at the corners, this can be caused by too much compression, due to the clincher block being too high, or possibly having the corner of the driver end chipped. Reduce the compression of the staple by lowering the clincher block slightly. If this does not remedy the condition, check the end of the driver (Part No. A-300-U2A) to see if the corners are chipped.

IF BOTH LEGS OF THE STAPLE are spread out so far that they miss the clincher block, it is caused by the grooves in the former (Part No. A-315-U2A) having become worn.

#### STITCHER ADJUSTMENT AND

#### MINOR REPAIR PROCEDURE

**IF ONE LEG MISSES** the clincher block, it may be that the clincher block is out of line, or that there is a burr on the wire at the time the wire is cut off. This diverts the leg as it travels through the material. If a burr is present, replace cutters to insure a sharp cut off.

IF A STRAIGHT PIECE OF WIRE or a partially formed staple falls out of the machine on to the box, this is usually caused by the anvil torsion spring being loose so that the anvil kicks forward prematurely at the moment of cut off. This is corrected by turning stud No. A 3076 to exert more tension on to the spring. To do this, insert an Allen wrench into the left hand side of the anvil spring stud and hold it firmly while the nut on the right hand side is loosened with a wrench. When the nut is loose, you can push the Allen wrench downward approximately a quarter turn and hold it in that position while the nut is retightened. Do not exert too much pressure, as you will shorten the overall length of the spring, reducing its effectiveness. If the spring has become set or overwound, it will be necessary to replace it with a new spring.

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 (No. A-400) with the main drive wheel pins (A-406). This complete assembly can be seen in perfect detail on page 27 (Ideal Stitcher Operating Instructions Book). 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 (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 CLUTCH PIN (A-400), or the spring (A-401):

- 1. With the machine in neutral and the power off, remove the pulley guard cover (A-911).
- 2. Slip off the VEE BELT and remove the split collar (A-1099-B) from the end of the drive shaft (A-850).
- 3. Remove the main drive pulley from the shaft.
- 4. While holding your hand over the clutch pin hole in (A-851) clutch hub, step on the foot pedal so that the clutch plate (A-402) releases the clutch pin.
- Push in the new clutch pin, making certain it works freely and does not bind. Be sure clutch pin spring (A-401) is in the clutch pin, before inserting it into position in the hole of the clutch.
- Hold the pin so the end is flush with the side of the clutch hub, and release the pressure on the foot pedal, so that (A-402) clutch plate will hold the clutch pin in place.
- 7. Reassemble the machine and turn it over by hand to make sure it is working properly.

**DRIVE PINS:** Each main drive wheel contains three drive pins (No. A-406). The clutch pin (A-400) engages these pins, causing the main drive shaft (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.

#### TO REPLACE OR TURN THE DRIVE PINS:

- 1. With the machine in neutral and the power off, remove the pulley guard cover (A-911).
- 2. Slip off the VEE BELT and remove the split collar (A-1099-B) from the end of the drive shaft (A-850).
- 3. Lift the main drive wheel (A-470-B) off the shaft.
- Insert a drift pin in the holes and knock the drive pins out.
- Re-insert drive pins, making sure that the tops are flush with the top surface of the main drive wheel hub (No. A-470-C).

WIRE GUIDE FRICTION: Part No. AA-1111 shown on the head assembly drawing, exerts constant pressure on the stitching wire as it passes through the wire guide (No. AA-349-B).

This pressure prevents the slack wire which sometimes occurs between the check pawl (A-336), and the cutter blade (110-569) from creeping forward and protruding from the cutter tube (AA-316-2A). 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 (A-305-U2-A) and cause the wire to buckle; or cause a defective stitch. This complete wire check assembly (AA-1111) should work properly if no parts are missing. See Figure 5.

VEE BELT: The Vee Belt (A-913) transmits power from the motor pulley to the main drive wheel (A-370-B). An improperly adjusted belt will wear out rapidly. If the belt is too loose, the machine runs slower than normal; and if the belt is too tight it will cause excessive wear on the main drive wheel and 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 it to rot and slip.

**BRAKE BRACKET:** Part No. A-420-D. The brake bracket exerts a constant pressure on the clutch part (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 will occasionally cause a clicking noise in the clutch. FORMER ROLLER PART NO. A-310: It is mounted on the rear of the former housing part (A-315-U2A) by means of the roller stud (A-311). It rides in the track of

the former cam part (WSA-8346) and is the means by which the former and driver assembly (AA-315-U2A) 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 Figure 6 detail "A" Roller, and detail "B" Stud.

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 (A-311) out. The new stud and roller should be driven in 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:** This plate 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 inch 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; PART NO. A-470-B and A-470-F: While the motor is running, the main drive wheel rotates constantly on the drive shaft (A-850). 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 (A-470-C), 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 re-assemble.



in quickly solving reasons for imperfect stitches and making the right adjustment for improving the stitching operation. Most stitching defects are caused by improper adjustments. These staple illustrations will tell you what is wrong. Keeping a most perfect staple will result in better stitching.

For illustration purposes, staples are shown with straight legs. Actually, blank staples made on a machine will have the legs of the staple spread out, due to the inherent springback characteristic contained in the wire. In the actual stitching operation, the material being stapled will support the legs as soon as they protrude out of the former; so that the staple legs will penetrate straight through the material and contact the clincher block.





Ideal Wire Stitchers

### **SPARE PARTS EMERGENCY KIT:**

MANUFACTURING SINCE 1933

#### CONSISTING OF:

1-ANVIL POST (WSA-1080) 1-ANVIL STUD (A-3076) 1-ANVIL SPRING (A-3075) 2-CUTTER BLADES (110-569) 4-CUTTER BLADE SCREWS (202-188) 1-SUPPORTER (A309-U) 1-CLUTCH PIN SPRING (A-401) 1-CLUTCH PIN (A-400) 2-CUTTER TUBES (AA-316-2A)

KITPART NUMBER: UAA-300-11/4" Crown, .020 x .103 ARC

#### CONSISTING OF:

1-ANVIL POST (WSA-1080) 1-ANVIL STUD (A-3076) 1-ANVIL SPRING (A-3075) 2-CUTTER BLADES (110-69) 4-CUTTER BLADE SCREWS (202-188) 1-SUPPORT (A-309-U) 1-CLUTCH PIN SPRING (A-401) 1-CLUTCH PIN (A-400) 2-CUTTER TUBES (AA-316-2A)

KIT PART NUMBER: UAA-400-114" Crown, .028 x .103 Flat Wire

#### RECOMMEND A SPARE PART KIT TO BE KEPT IN YOUR STOCK

