Hamer

AUTOMATED PACKAGING SYSTEMS

RING BAG CLOSER
OPERATION MANUAL

14650 28th Avenue North
Plymouth, MN 55447-4821 USA
TELEPHONE # (763) 231-0100 (800) 927-4674
FAX # (763) 231-0101
WEBSITE: www.hamerinc.com

MADE
IN THE *
USA

IMPORTANT

Some Machine Assembly drawings are labeled with a range of reference Serial Numbers. Refer to the Serial Number Plate on your machine to relate to the correct Machine Assembly drawing.
Those Machine Assembly drawings without reference Serial Numbers should be current to your machine.

MODEL# _____

SERIAL# _____

NOTE: **All photographs and illustrations may not necessarily depict actual models or equipment, but are intended for reference only and are based on the latest product information available at the time of publication.**

All product specifications are subject to change.

WARNING

PERSONAL INJURY MAY RESULT FROM DISREGARDING THE FOLLOWING SAFETY PRECAUTIONS:

- **MACHINE IS TO BE PROPERLY CONNECTED TO YOUR BUILDING SAFETY GROUND.**
- **READ OPERATION MANUAL THOROUGHLY BEFORE OPERATING THIS MACHINE.**
- **DISCONNECT ELECTRICAL AND AIR POWER BEFORE PERFORMING MAINTENANCE OR REPAIR WORK.**
- **DO NOT OPERATE MACHINE WITH SAFETY GUARDS REMOVED.**
- **MACHINE IS TO BE USED ONLY IN A MANNER OUTLINED IN THE OPERATION**
- **MANUAL AND ONLY FOR THE PURPOSE FOR WHICH THE MACHINE WAS DESIGNED.**

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UNCRATING

Under United States Shipping Regulations, damage claims must be collected by the consignee. Do not return shipping-damaged merchandise until after your claim has been established. The HAMER Bag Closing Machine is carefully crated in our plant. Upon receipt, inspect crate for rough handling in shipment. In case of damage, notify freight or express agent at once to call and examine goods regardless of the external condition of the boxes. Follow carrier's instructions as to evidence required for basis of loss due to damage of the machine.

If you require replacement parts, please send us your purchase order and we will forward them promptly.

DO NOT DESTROY PACKING MATERIAL OR BOXES UNTIL CARRIER AGENT HAS EXAMINED THEM.

INSTALLING AND TESTING

Your machine has been fully tested at the factory and is ready to be placed in operation. We recommend you acquaint yourself with the operation of the machine and check it thoroughly before applying power. There are many illustrations throughout the manual to aid in making periodic adjustments. All of the parts on the machine are numbered.

LUBRICATION

It is important to clean and oil your machine daily. A few drops of oil on each moving part every day is all that is necessary. Use SAE 20 oil, and in temperatures below 40 degrees use SAE 10 oil.

As is true with all machines, this machine should be regularly cleaned and oiled and the adjustments properly maintained at all times. Fifty years of HAMER experience has proven: Bag Closers that are adjusted and lubricated daily last as long as 20 years.

SERVICE AND REPLACEMENT OF PARTS

Your dealer carries a complete inventory of parts for your convenience. Orders referred direct to our factory are processed immediately, and, in most cases, are shipped the same day the order is received.

When ordering replacement parts, give the part number, the part name, the model number of the machine, and the serial number of the machine. This will help greatly in supplying the proper part in the least amount of time.

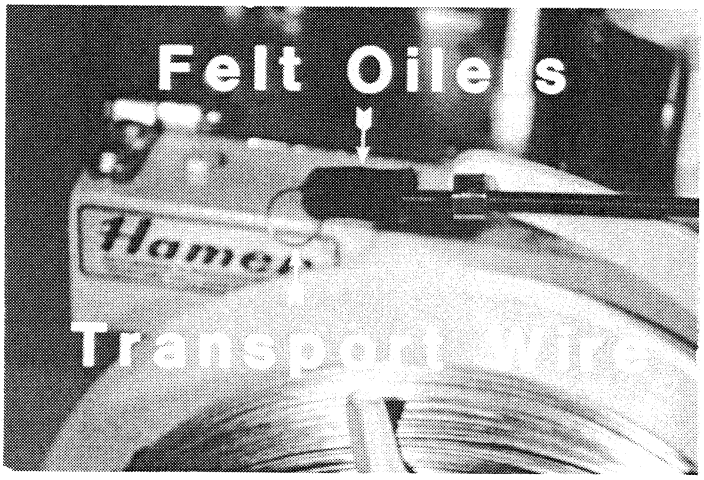
WARRANTY ON RETURNS

Parts on this equipment carry a 90-day warranty from date of shipment from the factory. HAMER INC. must be notified within the 90 day period to guarantee that faulty parts will be replaced at no cost to the customer. Credit for faulty parts under warranty will be issued only upon return of parts to the factory.

INSTALLING WIRE

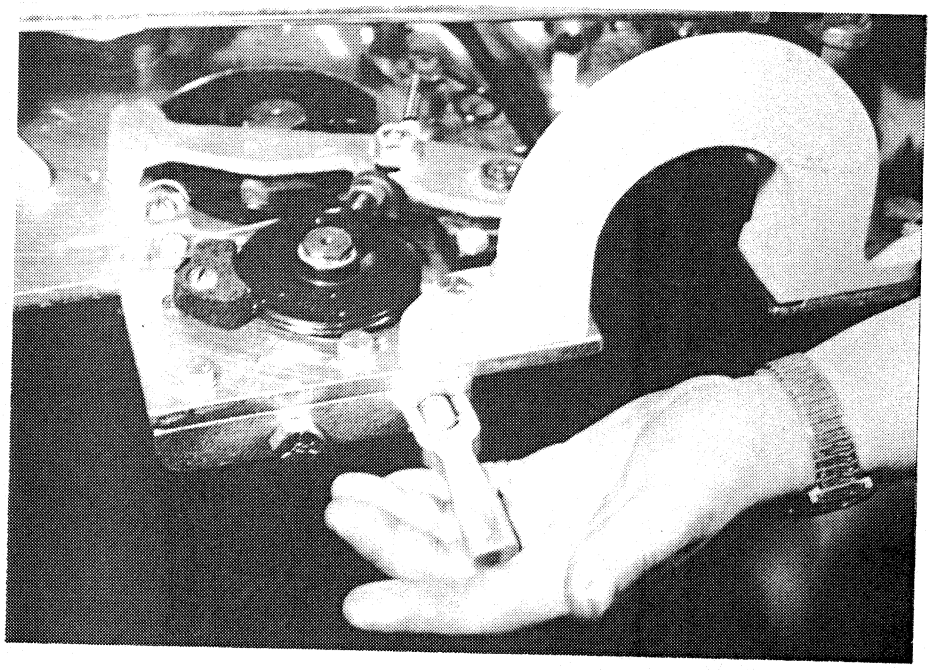
The wire to be used in the HAMER Ring Bag Closing Machine is specially drawn wire to give you the maximum performance in closing bags. For this reason, we guarantee this machine only when using wire provided by HAMER INC., 6521 Cambridge Street, Minneapolis, Minnesota. This wire has been drawn to very close tolerances and is the only wire that will assure you faultless operation. Wire comes in coils of approximately 50 pounds to the coil.

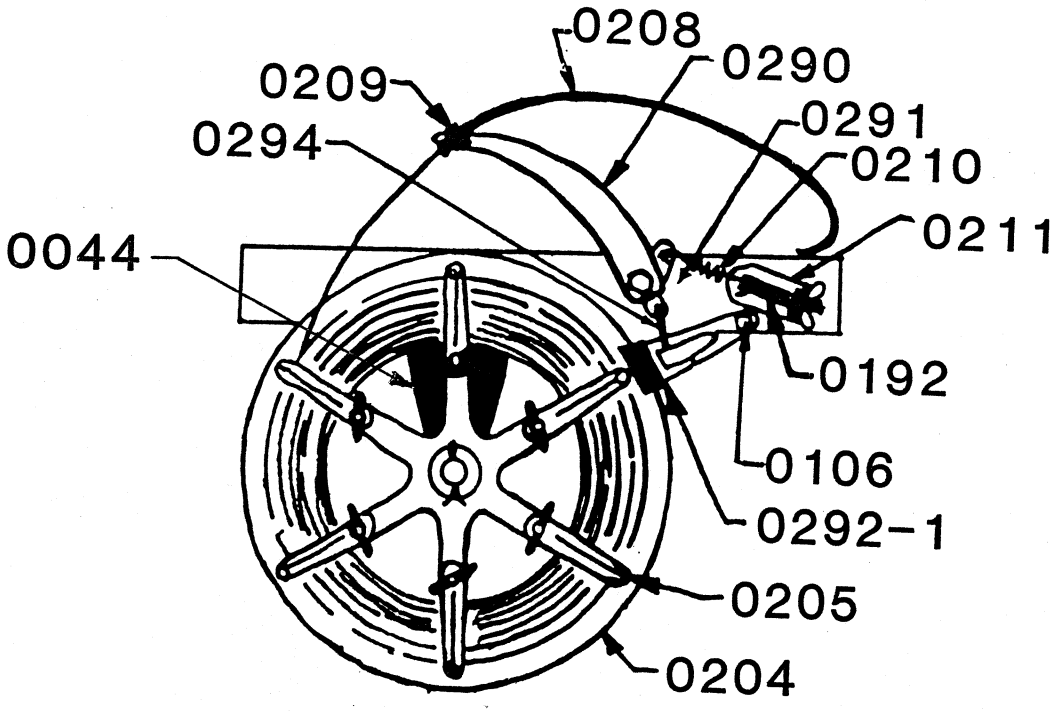
Examine carefully the manner in which the piece of wire has been inserted into the machine at the factory.



Remove this wire and insert new wire as follows:

1. Raise part #0108 to a horizontal position.





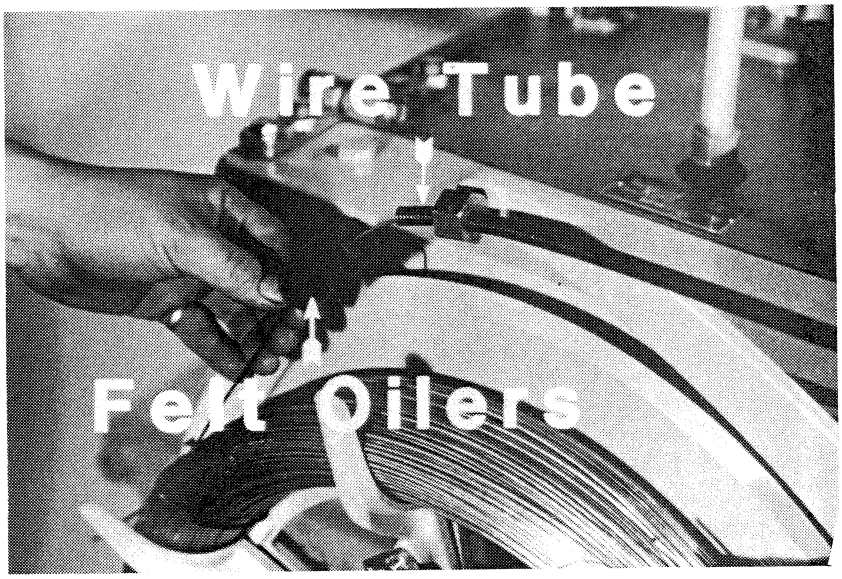
WIRE REEL AND BRAKE ASSEMBLY

Part No.	Description
0044	Wire Reel Bracket
0192	Brake Spring Take-Up Bolt
0204	Wire Reel Wheel W/Studs
0204S	Wire Reel Stud
0205	Wire Reel Horn
0206	Wire Input Felt Oiler
0208	Flexible Wire Tube
0209	Wire Tube Hex Clamp
0210	Brake Shoe Spring
0211	Brake Spring Bracket
0290	Brake Arm
0291	Set Collar for #0294
0292	Brake Shoe
0294	Brake Linkage

2. You will now be able to pull back the wire that is in the machine.

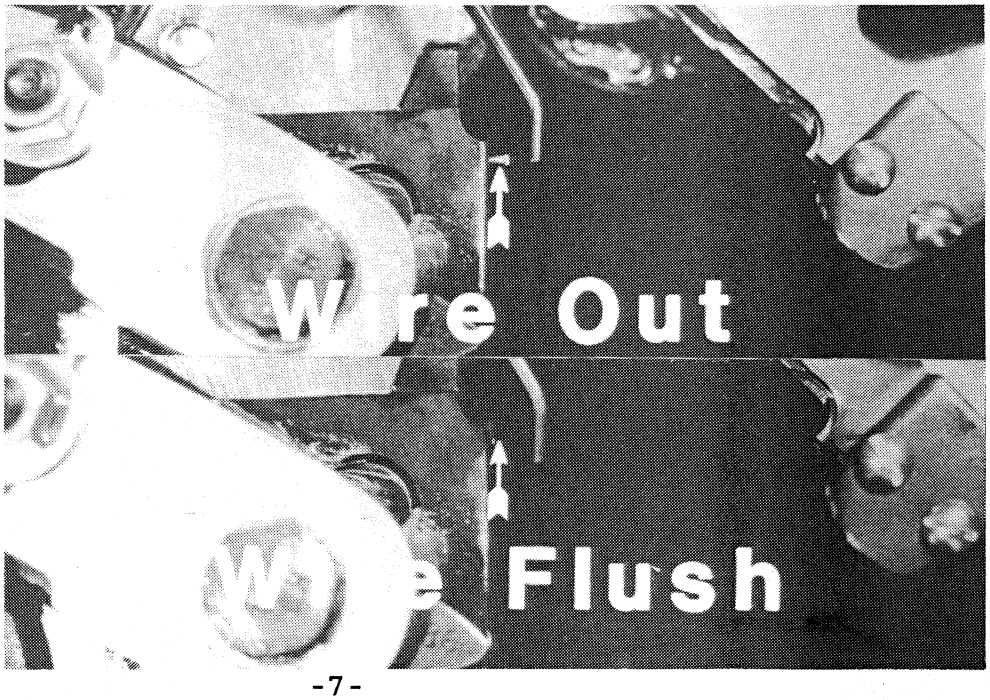
3. The coil must be installed so that the free end of the wire from the coil will feed off the top of the coil in a clockwise direction.

4. After all of the horns have been tightened, holding the coil in place, you can cut the ties one at a time only as it is necessary to free the wire as it is being inserted into the wire feed mechanism. From the coil of wire, insert the loose end through the felt oilers (#0206) and into the wire tube (#0208). We also recommend that at this point you put a few drops of oil on the coil or wire in several places to make it easier for the wire to uncoil.



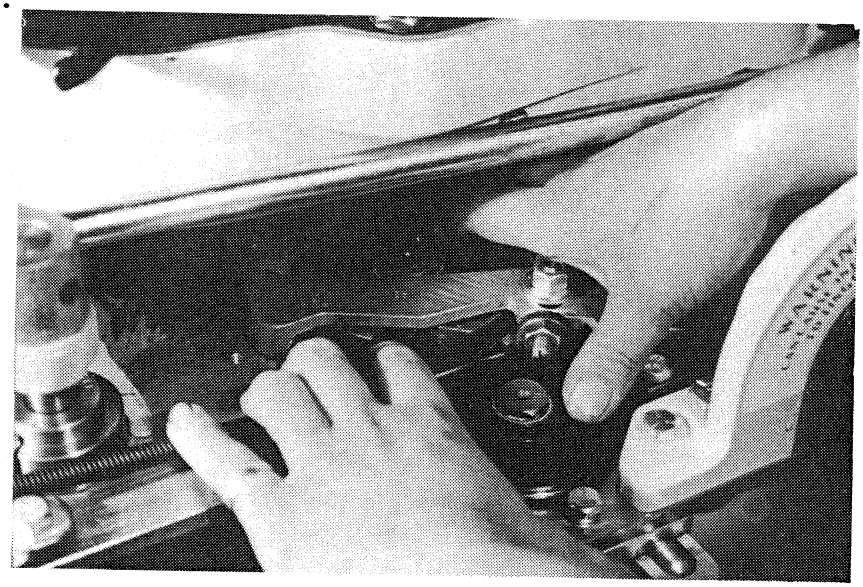
5. Feed the wire through the wire tube until it comes in contact with the wire guide (#0084).

6. Continue feeding wire through wire guide and cutter tube (#0083) until the end of the wire is through #0083 and flush with the opening of the tube.

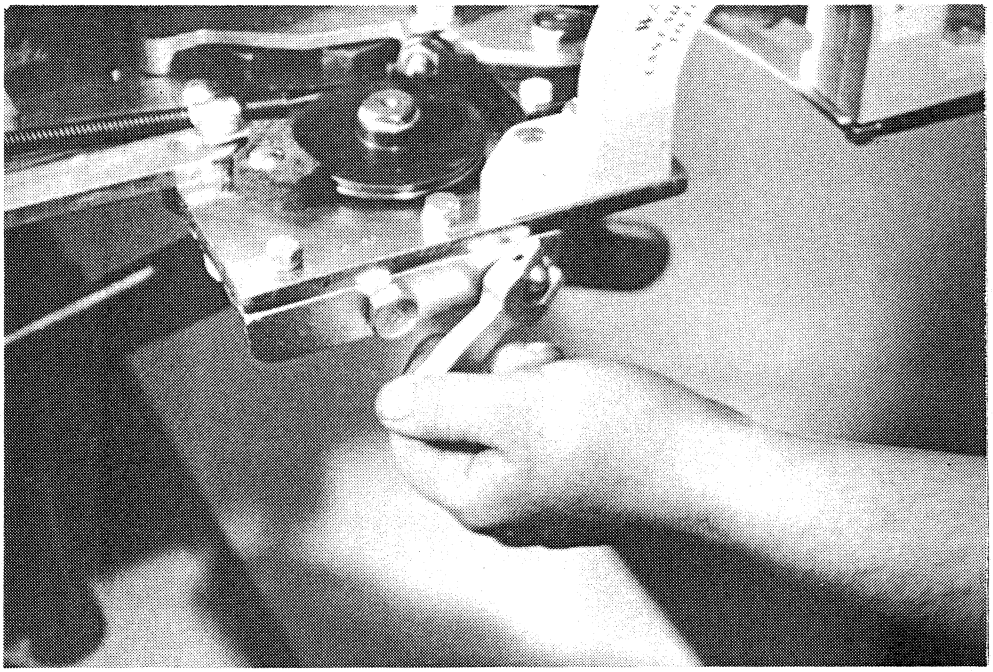


TIMING THE WIRE FEED WHEEL (#0088)

When feeding the wire into the wire feeding mechanism, or at any time when the wire tension lever (#0108) is raised to a horizontal position, the wire feed wheel (#0088) may move out of time with the cam arm (#0129). Always turn #0088 clockwise until it stops against the wire feed lock spring (#0091). This procedure will always put #0088 in its timed position.



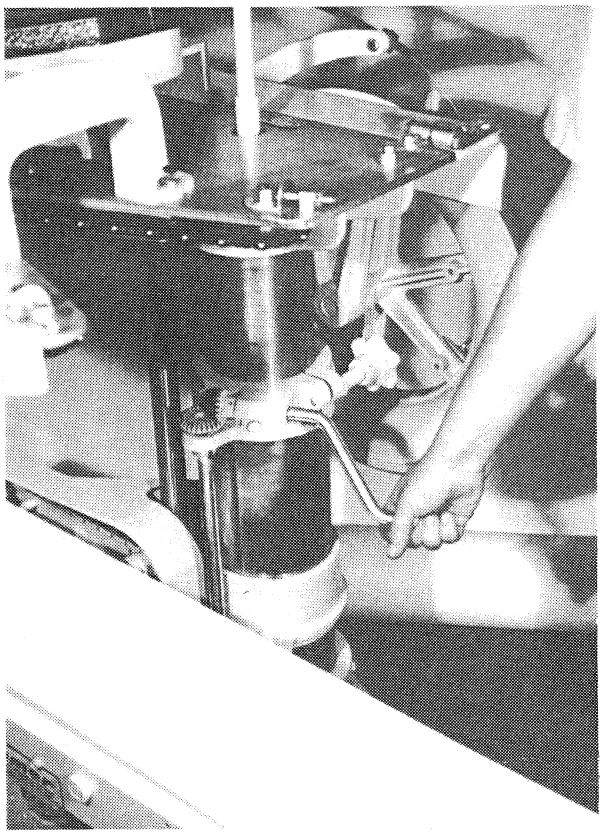
Now put the wire tension lever (#0108) in its vertical or downward position, making sure that the wire is in the groove of the wire feed idler wheel (#0101).



ADJUSTING THE CONVEYOR

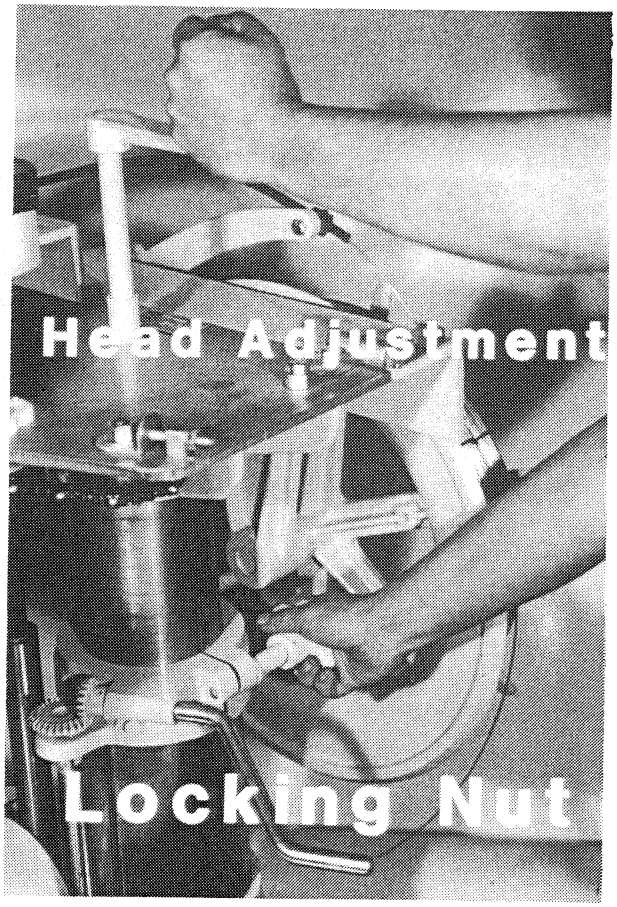
The machine has a conveyor that can be adjusted up and down to put it in the most suitable and efficient height to fit into the rest of your operation. The conveyor is raised and lowered by cranking the conveyor hoist handle (#0064).

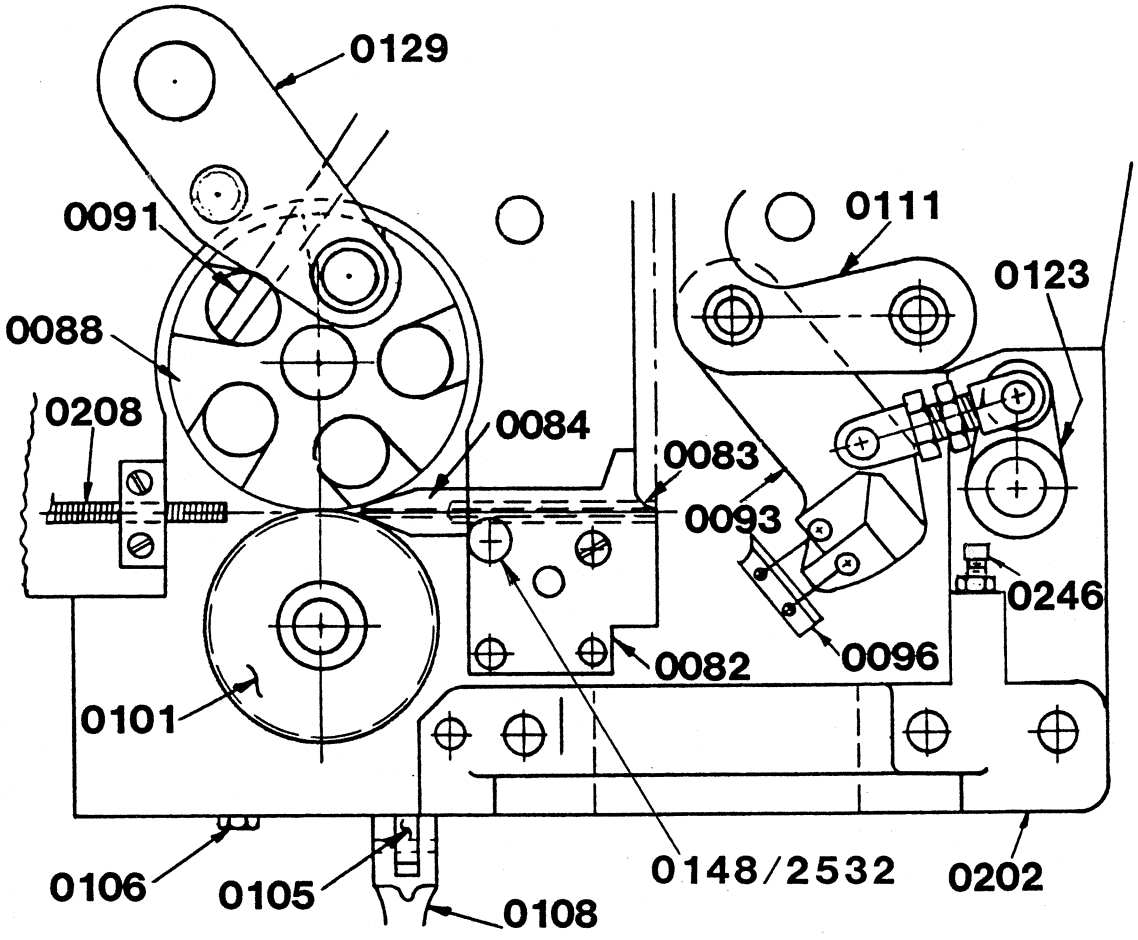
NOTE: DO NOT RAISE CONVEYOR UP OR DOWN BEFORE CHECKING LOCKING NUTS LOCATED UNDER THE CONVEYOR.



ADJUSTING THE BAG CLOSING HEAD

After the conveyor has been adjusted to the proper height, the head can now be raised or lowered to a position most suitable for the size bag being used. [We recommend that the head be adjusted so the bag is 2 1/2" above the feed chains (#0764).] This measurement should be made with a filled bag as it is resting on the conveyor. The head is raised and lowered by unlocking the head lock screw handle (#0042) and turning the head hoisting crank (#0034) until the head is in the desired position. ONCE THIS POSITION IS OBTAINED, RE-LOCK #0042.

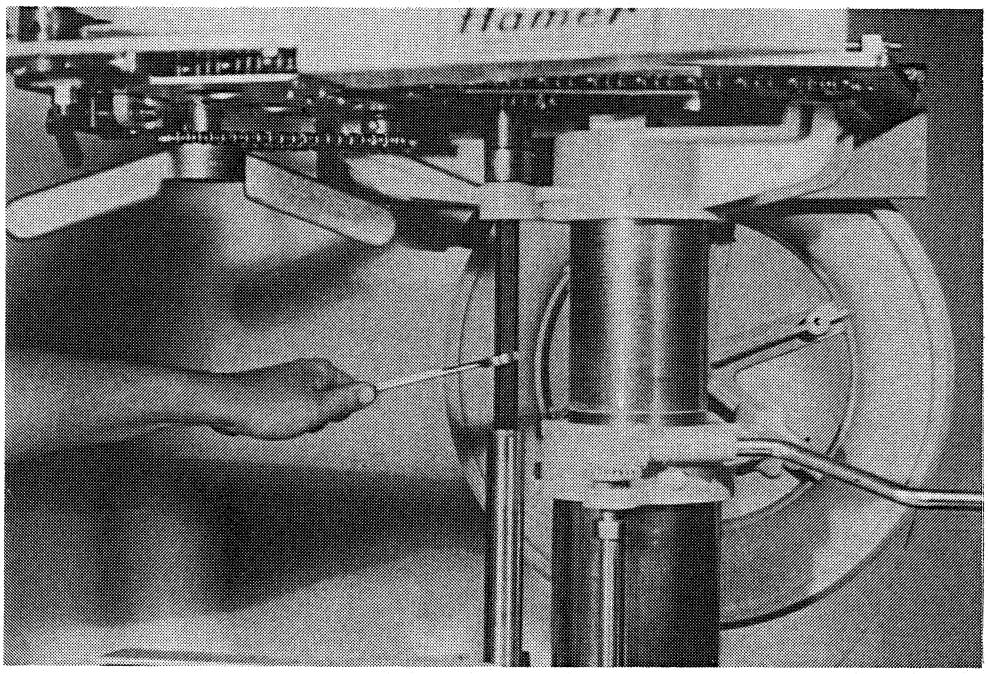




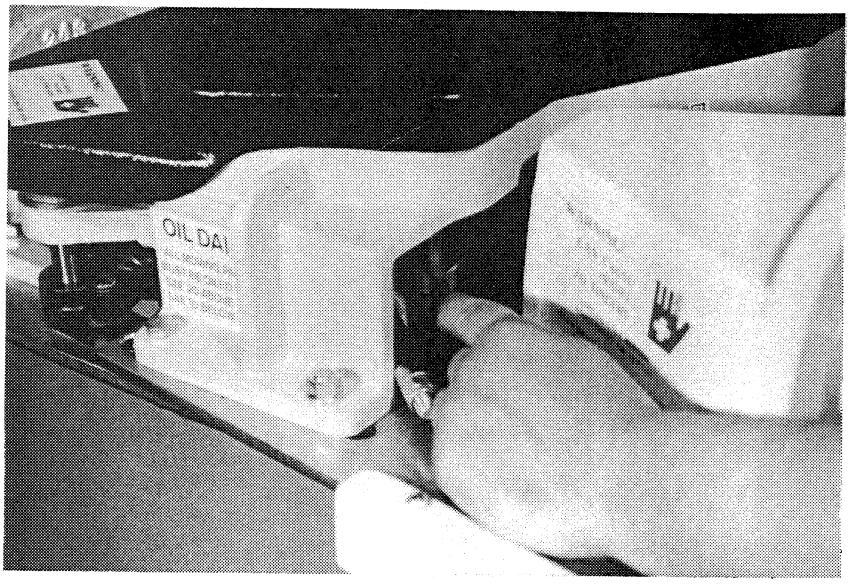
MANUAL OPERATION (Refer To The Above Diagram For The Following Steps)

Without putting power into the machine, use the following procedure to manually operate the machine so that you can carefully observe what happens as a bag passes through the machine.

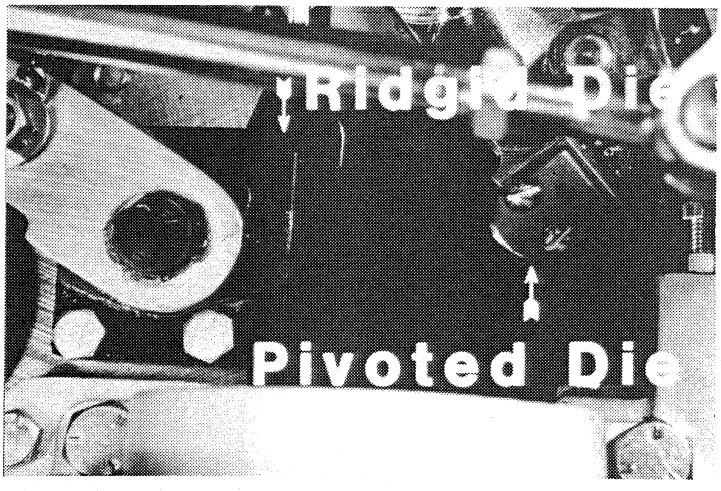
1. Turn the drive shaft (#0036) counter-clockwise with a 3/4" wrench.

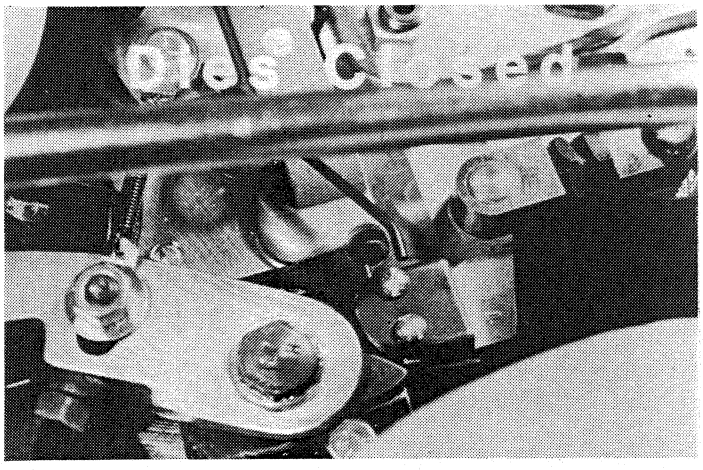


2. After turning #0036 around several times to demonstrate the idling position of the machine, you can activate the cam operation, similar to a bag passing through, by tripping the hand trip lever (#0179T) in a counter-clockwise direction until you hear a click. A tag has been attached to part #0179T to assist you in locating this hand trip lever.



3. Continue turning #0036 and observe the pivot die (#0093) closing against the rigid die (#0082).

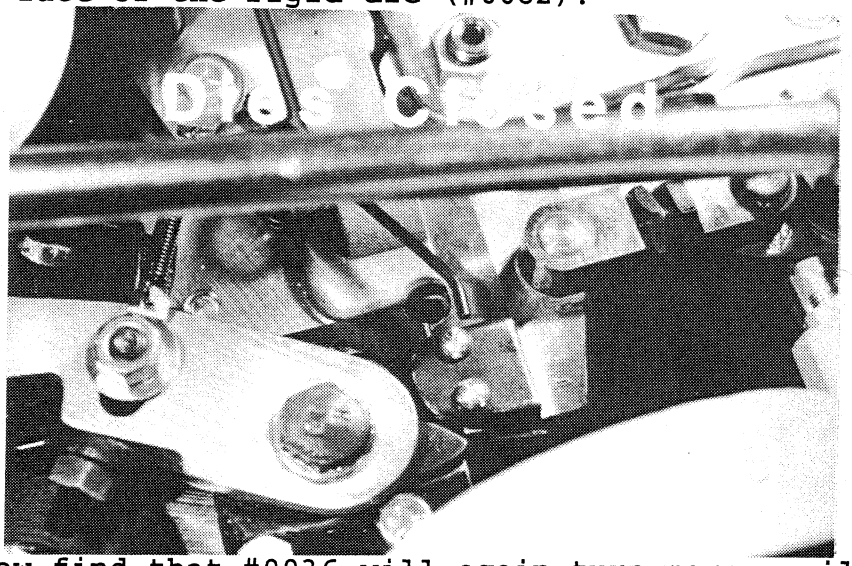




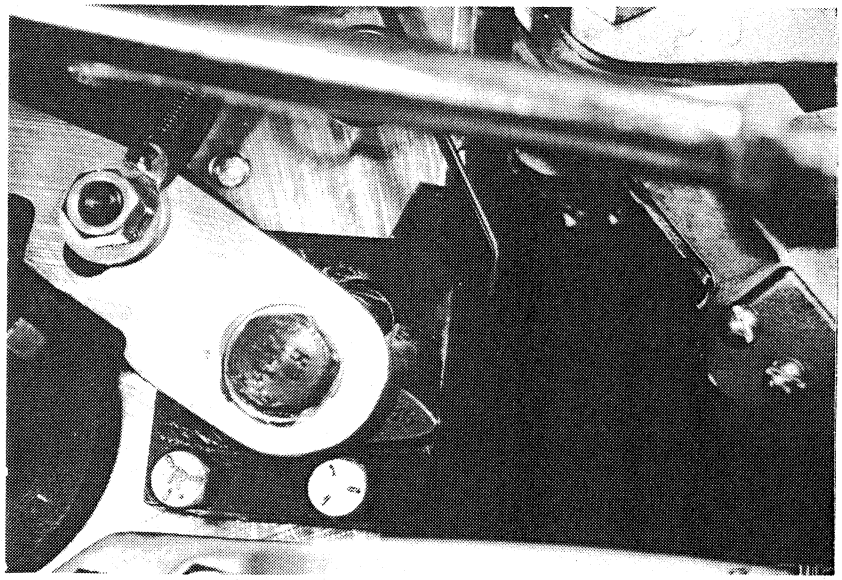
4. Still turning drive shaft #0036, observe the packer die (#0142) move up the channel behind the imaginary bag. After this packer arm has closed against the pivot die (#0093) and rigid die (#0082), you will feel a resistance as the wire feed wheel (#0088) starts feeding wire through the dies.

5. Use additional force to feed this wire around the dies and observe the wire making the ring in the dies.

6. Continue turning the drive shaft (#0036) and observe the cam arm (#0129) coming into contact with the cutter lever (#0085) and you will see the wire being sheared by the pivot die (#0093) sliding across the face of the rigid die (#0082).



7. You will now find that #0036 will again turn more easily and continue turning until the packer die has returned to its original position and the pivoted die has opened up. A ring will either fall out or you will see it being held in one of the grooves of the rigid die. Remove this ring, but do so only when there is no electric power in the machine.



CHECKING THE MACHINE UNDER POWER

After you have become familiar with the operation of the machine by operating it by hand, you are ready to plug the machine into a source of power. BEFORE DOING SO, HOWEVER, BE SURE THAT ALL TOOLS OR OTHER LOOSE OBJECTS ARE REMOVED FROM THE MACHINE. KEEP YOUR HANDS AWAY FROM ALL PARTS OF THE MACHINE WITH THE EXCEPTION OF THE HAND TRIP LEVER (#0179T). Use this trip lever to activate the cycle operation of the machine from its idling position. You will find that the operation is now so fast that it is difficult to observe exactly what is taking place. This is the reason why we stress the importance of the manual operation first. You will find that you will secure a ring without a bag going through the machine the same as in the manual operation. The ring should drop out, but if it should hang in the closing die BE SURE TO DISCONNECT THE POWER BEFORE REMOVING THE RING AND BEFORE TRIPPING THE MACHINE A SECOND TIME. You are now ready to test the machine with filled bags.

Run several filled bags through the machine to make sure that you are securing a proper tie in a proper position on the bag. This should be done by placing the filled bags on the conveyor one at a time. Do not place a second bag on the conveyor until the first one is completely out of the machine.

If you are securing a proper tie in a proper position on the bag, you are now ready to insert the machine into your line of operation. The bags can now be placed one after the other on the conveyor. MAKE SURE THAT THE BAGS ARE AT LEAST 15 INCHES APART ON THE CONVEYOR. THIS IS MOST IMPORTANT BECAUSE OF THE CYCLE PRINCIPAL OF THE MACHINE, REQUIRING THAT ONE CYCLE OF OPERATION BE COMPLETED BEFORE THE SECOND BAG STARTS THE CYCLE OVER AGAIN.

HOW YOUR MACHINE WORKS

When the machine is first turned on it is in an idling position, similar to an automobile that is in neutral. It will continue in this idling position until activated further by a bag as it is being carried through on the conveyor, hitting the trip finger (#0719) which extends across the channel through which the bag passes. When this finger is tripped, it engages a clutch arrangement which commences the movement of a large cam (#0129) that moves in a complete cycle and eventually returns to an idling position.

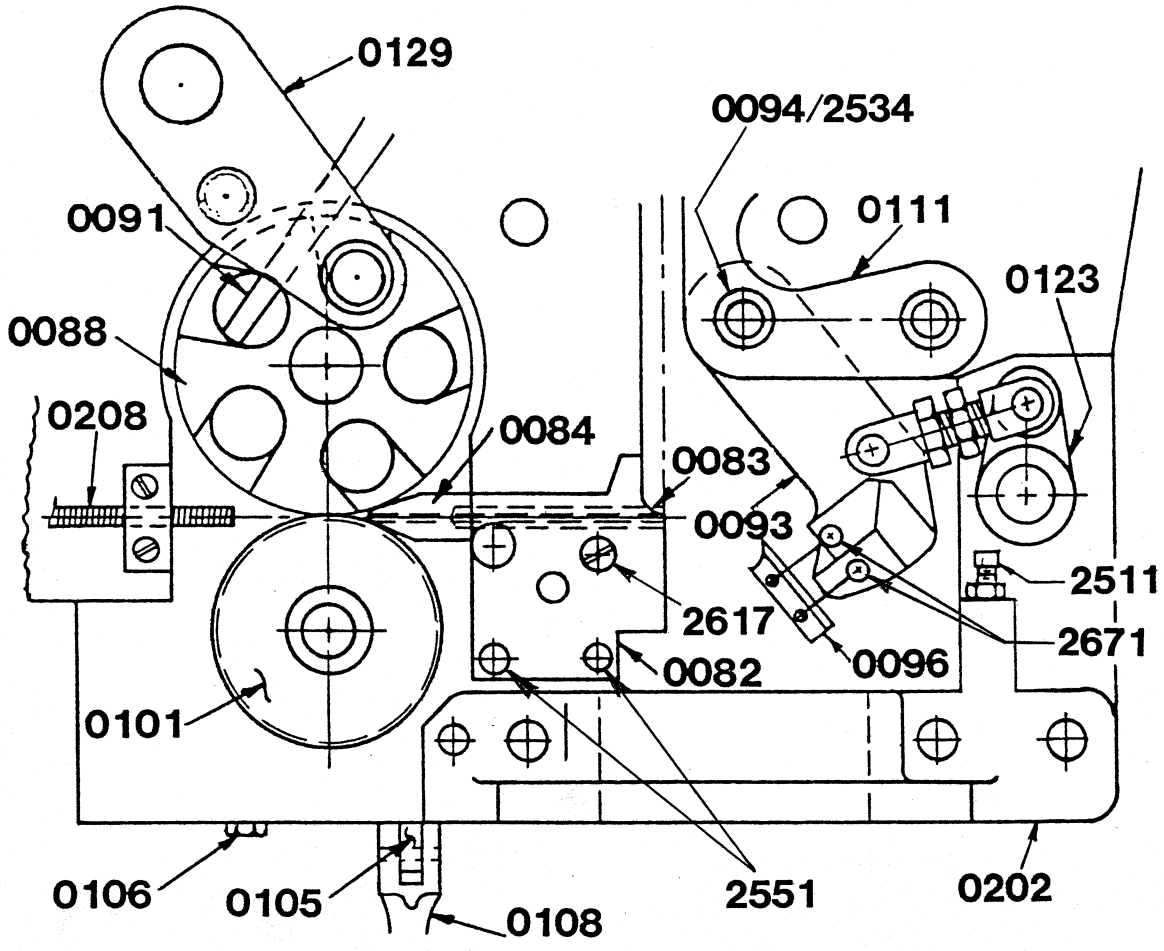
The bottom roller on this cam pushes the die operating arm (#0117) which closes the pivot die (#0093) against the rigid die (#0082), causing a back wall to form to stop the bag from going through the channel. The bag is thereby gathered against this back wall as it moves through the channel.

After the trailing edge of the bag has passed the trip finger, the large cam engages the packer die (#0142) which follows the trailing end of the bag, pushing it against the forward wall and compressing the bag into the dies (Part #0093, #0082, #0142). The bag is now compressed in the closing dies. The cam next comes in contact with the wire feed wheel (#0088).

The cam will turn the wire feed wheel, forcing the wire first through the rigid die (#0082) into the pivot die (#0093) around into the packer die, thereby making a complete circle of wire around the bag as it is being compressed in these three dies.

After this wire has been fed through these dies and actually making an overlap of wire, the cam comes against the cutter lever, which causes leverage against the pivot die, forcing it in a shearing action as it slides along the rigid die, thereby cutting the wire.

The cam then completes the cycle by coming in contact with the die operating arm (#0117) which opens the pivot die and moves the packer arm back to its original idling position. The bag is closed and ejected from the machine.



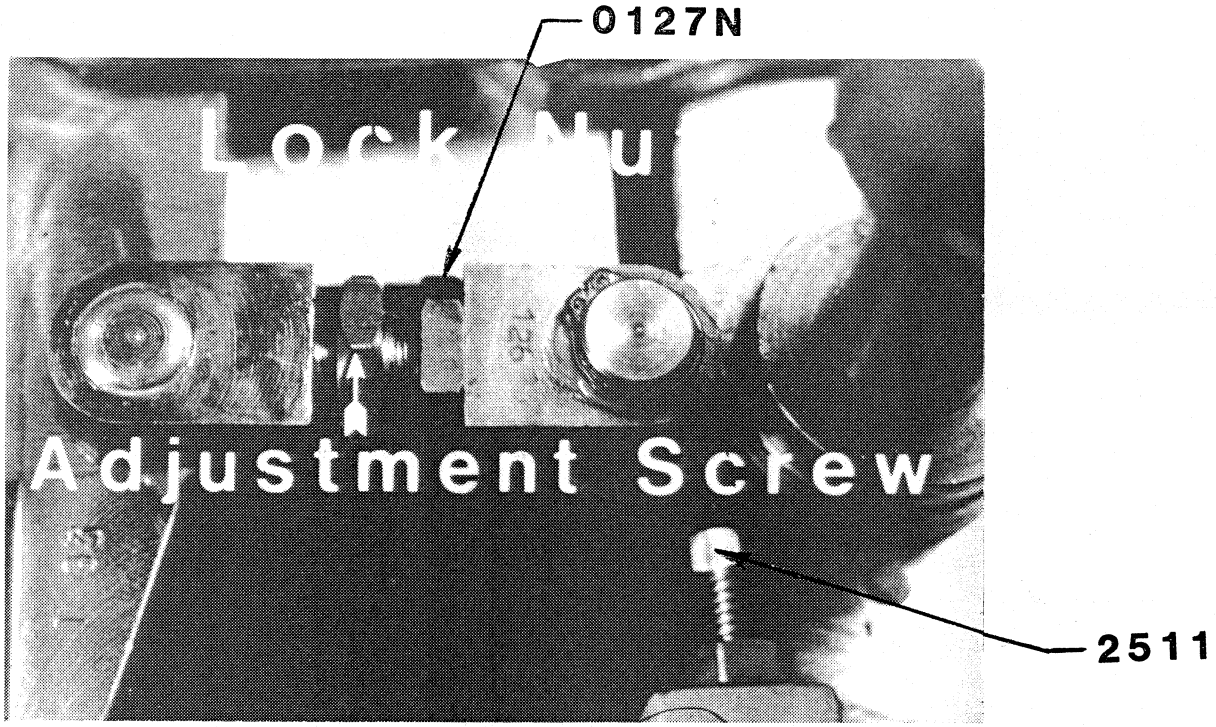
A D J U S T M E N T S

A. ADJUSTMENT OF THE TOGGLE

There are three parts that make up the toggle assembly: Parts #0125, #0126, and #0127. The purpose of this toggle is to maintain moderate pressure of the wire former and cutter (#0096) against the wire feed and cutter tube (#83). The moving action of #0096 across #0083 is what causes the shearing of the wire.

To check the toggle adjustment, manually open and close the pivot die. This is done by turning the two cross-link operating cranks (#0120) by hand. As you close the pivot die all the way, a definite SNAP should be heard as the pivot die (#093) comes in contact with the rigid die #0082 and wire feed and cutter tube (#0083), and the die operating crank (#0123) contacts the stop screw (#0246). If there is not a slight resistance and definite snap, the toggle adjustment should be lengthened as follows:

1. Loosen the lock nut on the die adjusting screw (#0127).



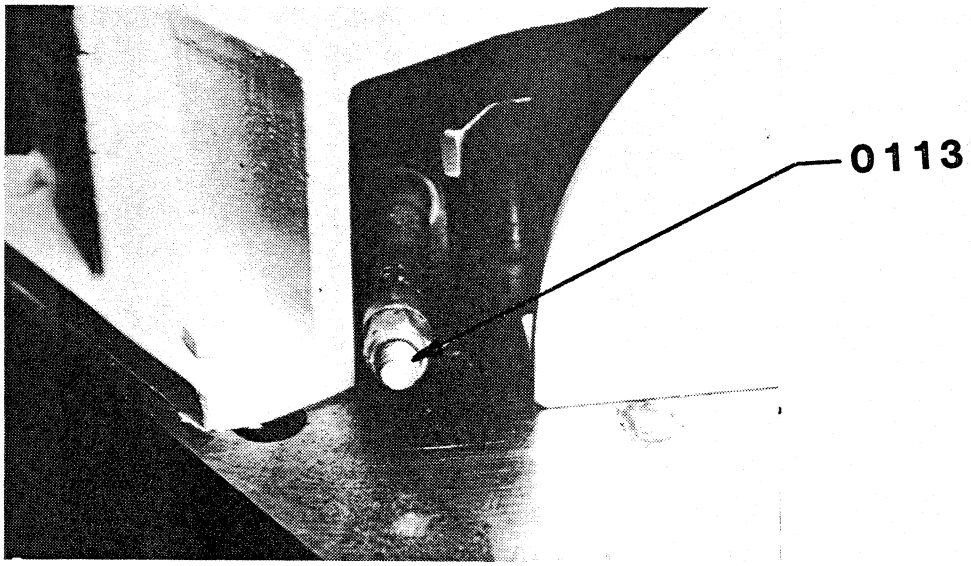
2. Turn #0127 to either lengthen or shorten the toggle. This requires very little turning to maintain proper adjustment.

3. Retighten the lock nut and recheck the adjustment by turning #0120.

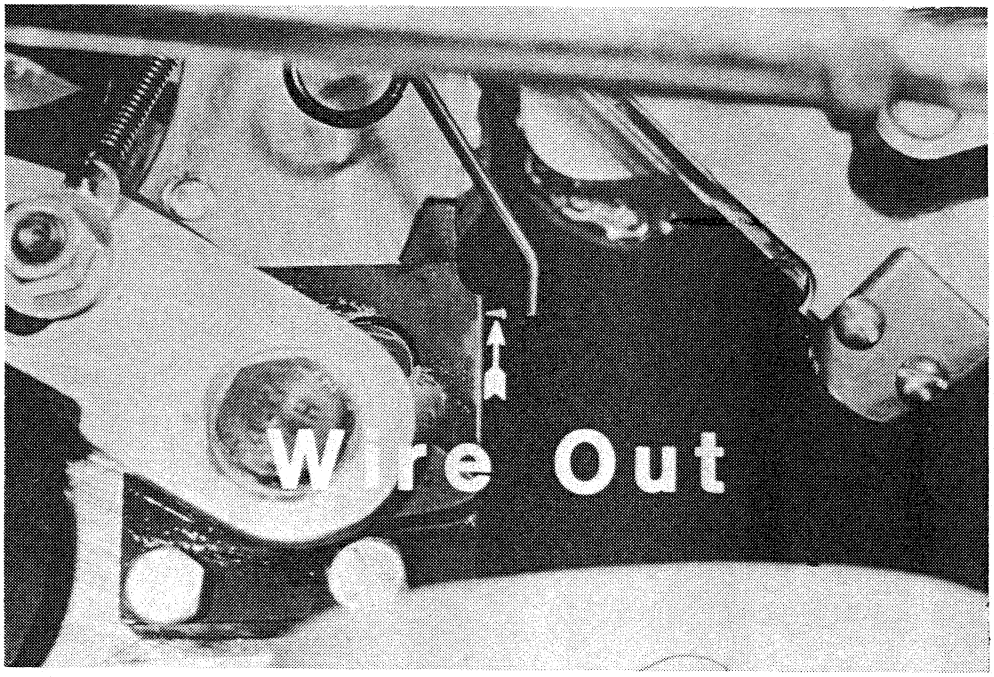
B. ADJUSTMENT OF PIVOT DIE

The pivot die (#0093) has two adjustments. The first has been described under the toggle adjustment. The second positions the pivot die (#0093) and the wire former and cutter (#0096), which is bolted into part #0093 by two screws (#2671). The purpose of this adjustment is to accurately locate #0096 in conjunction with the wire feed and cutter tube (#0083). The wire is fed through #0083 and enters the top groove in #0096. There must be a clearance of approximately 1/32 of an inch between the wire as it comes out of #0083 and the backside groove in #0096. To Adjust:

1. Locate the die adjusting bolt (#0113) and the self-locking nut on #0113.



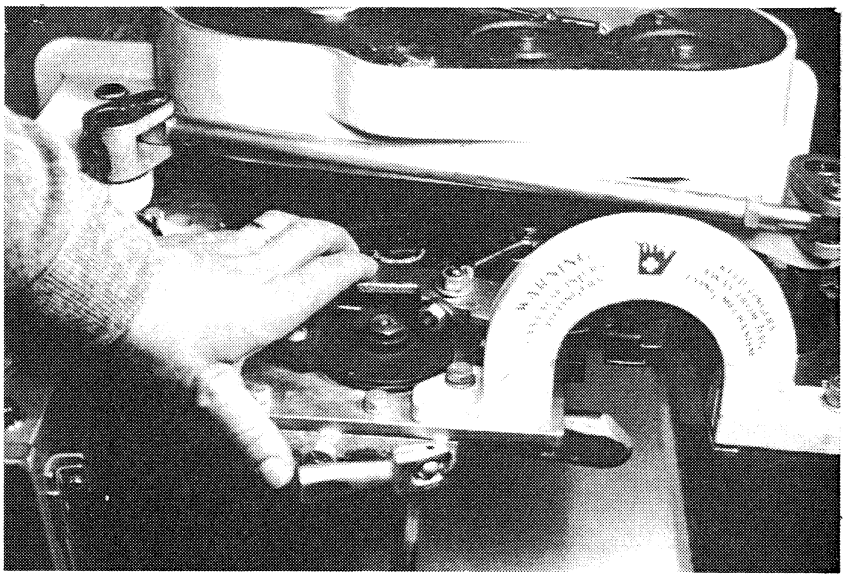
2. After you have located these parts, raise the wire tension lever (#0108) to a horizontal position. Manually feed wire through #0083 until it projects about 1/8 of an inch beyond the face of #0083.



3. Loosen the self-locking nut #0113 about one full turn.

4. Close #0093 manually, by rotating the cross-link operating crank (#0120).

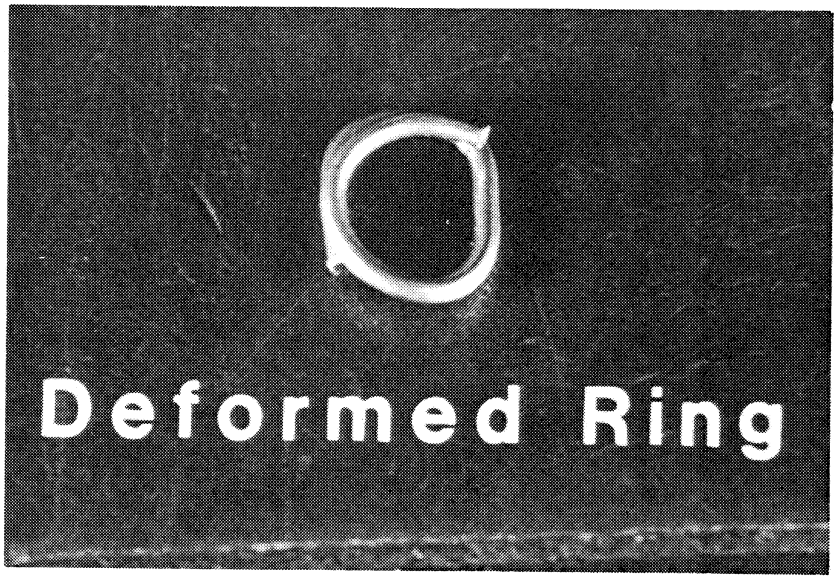
5. Manually pull the cutter lever (#0085) forward until the lower cutter lever #0086 contacts #0093. Using extra force, move #0093 until #0096 contacts the wire that is sticking out of #0083. There should be 1/32 of an inch of movement before contact is made with the wire.



6. Continue to adjust the nut on #0113 to get proper clearance.

You have now completed the second adjustment on #0093. Run the machine through its cycle manually to check this adjustment.

Indication of #0093 needing adjustment would be badly deformed rings in the case of the adjustment being too loose, or no ring at all in the case of the adjustment being too tight.

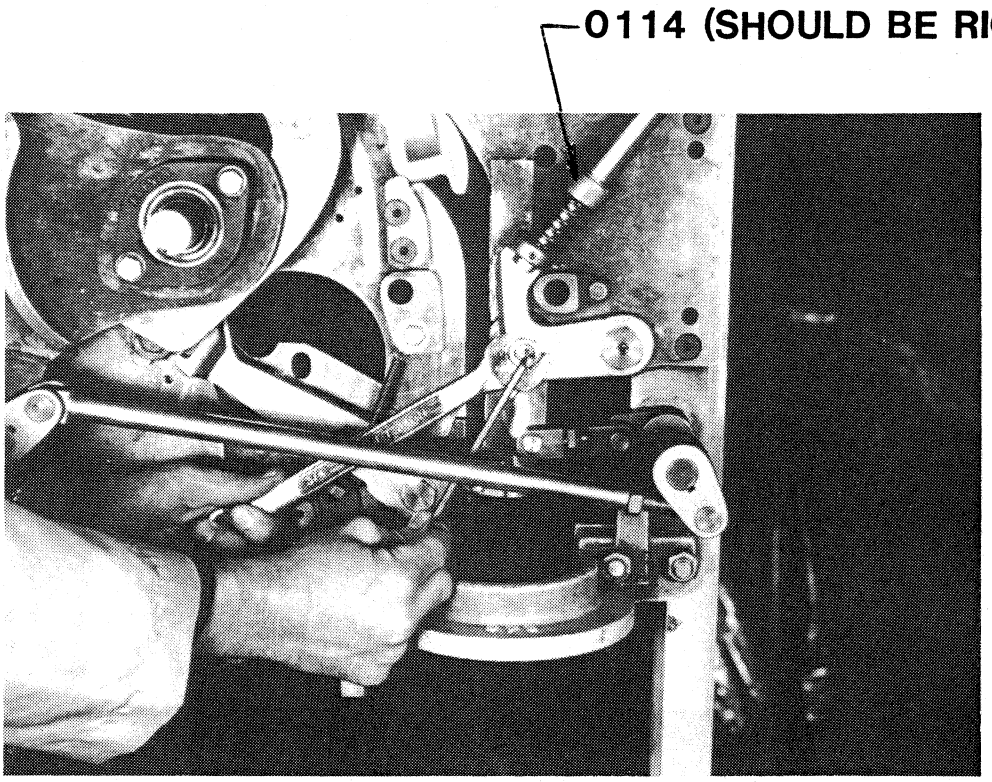


C. PIVOT DIE BOLT

When properly set, you should be able to open and close the pivot die (#0093) by applying slight force with one hand upon the cross-link operating crank (#0120). This bolt maintains a slight resistance between the die hinge (#0111) and the pivot die (#0093). To adjust:

1. Insert and hold a 3/16" allen wrench in the pivot die bolt (#0094).

2. Loosen the lock nut with a 3/4" wrench, holding #0094 in its place.



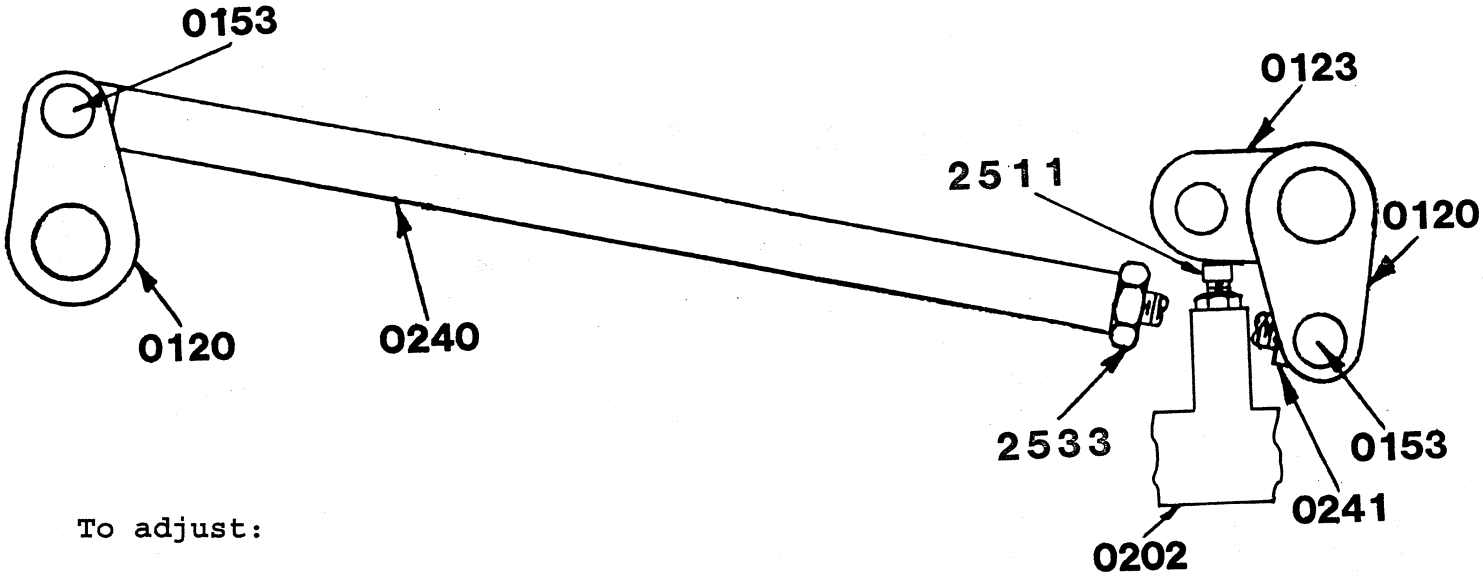
3. Turn the allen wrench counter-clockwise to slightly increase resistance.

4. Tighten the lock nut before you release the allen wrench.

5. Recheck adjustment and repeat steps 1-4 until proper adjustment is obtained.

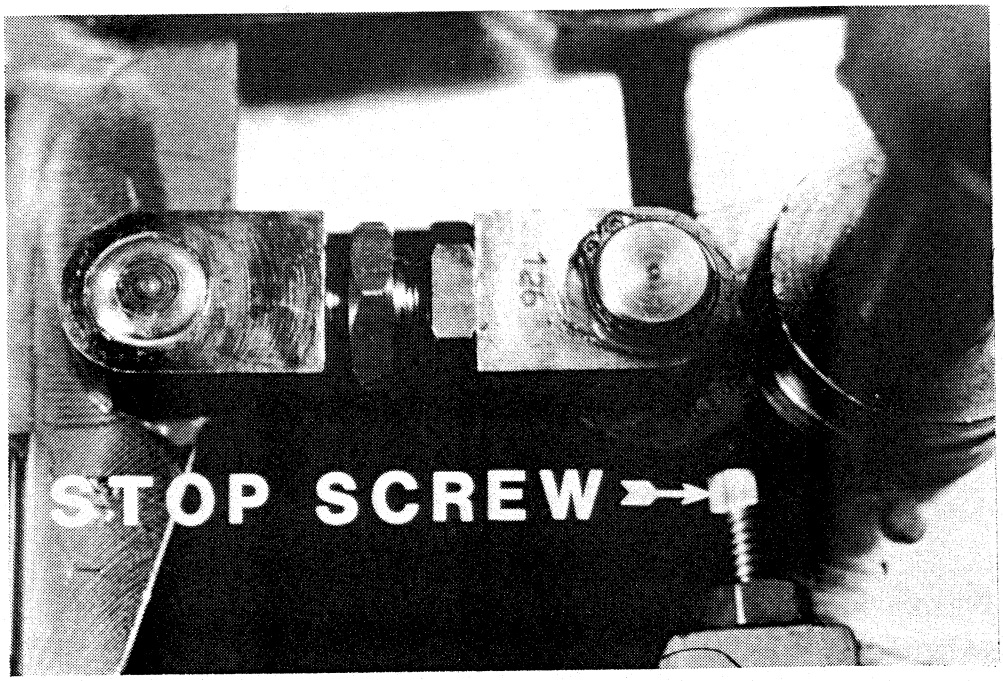
D. ADJUSTMENT OF DIE CLOSING LINKAGE: #0240 AND #0241

The die closing linkage is used to close the pivot die (#0093) against the rigid die (#0082), as explained under the toggle adjustment. In the illustration below locate parts #0246, #0123, #0240, and #0241. Before adjusting the die closing linkage, check all set screws in the following parts for tightness: #0120, #0123, #0118, (Refer to page 33)



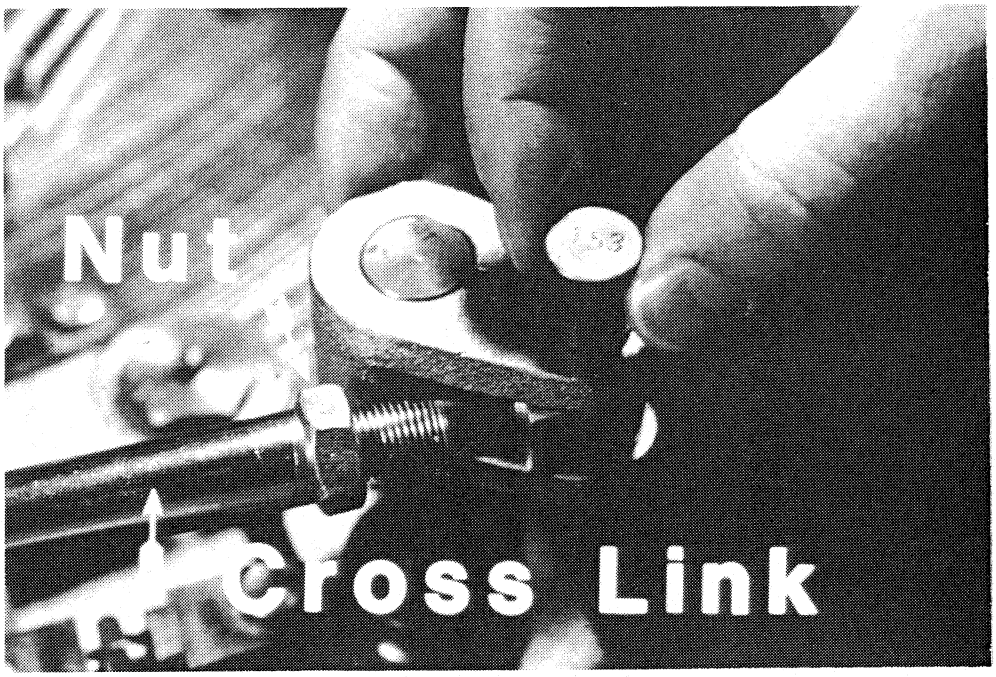
To adjust:

1. Actuate the manual trip lever (#0179T).
2. Slowly turn the drive shaft #0036 counter-clockwise with a 3/4" wrench.
3. As the pivot die (#0093) closes, watch closely the die operating crank (#0123) to see that it closes tightly against #0246.



4. If there is a slight space between #0123 and #0246, the cross-link (#0241) must be lengthened. This is done by removing pin #0153 in #0120.

5. Loosen the lock nut on cross-link screw (#0241) and turn #0241 out 1/2 turn.



6. Re-assemble and again manually operate the machine through its complete cycle, watching that the die operating crank (#0123) comes up against #0246.

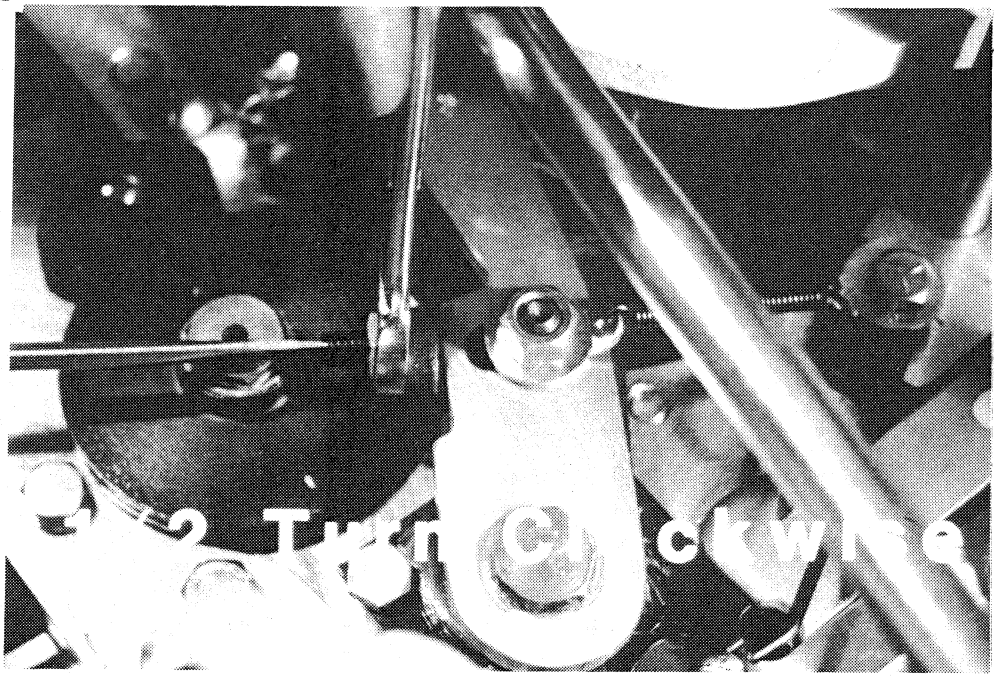
7. If adjustment is satisfactory, retighten the lock nut on #0241. UNDER NO CIRCUMSTANCES SHOULD THE FACTORY-SET ADJUSTMENT ON #0246 BE CHANGED.

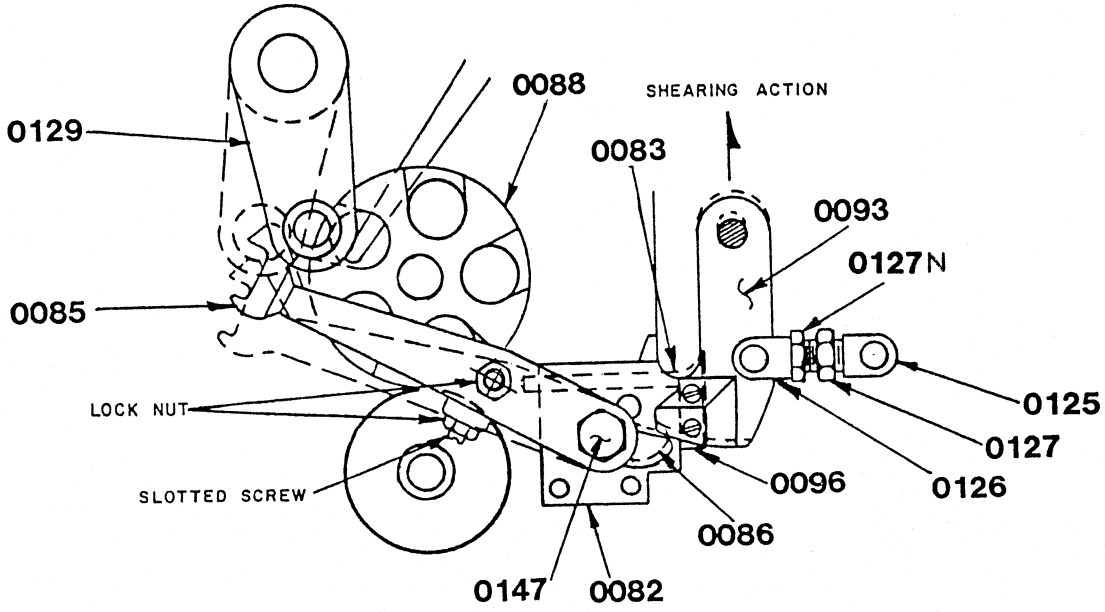
Indications of the need for linkage adjustment would be wire that is not completely sheared even though other adjustments are correct, or the pivot die (#0093) is open with wire protruding straight out of the wire feed and cutter tube (#0083).

E. ADJUSTMENT OF CUTTER LEVER

The wire cutter lever consists of two parts: the upper cutter lever (#0085) and the lower cutter lever (#0086). They are both mounted and pivot on the wire cutter lever bolt (#0147) as illustrated in the diagram below. The cutting or shearing operation occurs as the lower cam roller on the cam arm (#0129) strikes the cam end of the upper cutter lever (#0085). This action moves the pivot die (#0093) containing the wire former and cutter (#0096), and thus shears the wire between #0096 and #0083. You will note that the lower cutter lever (#0086) has a lock nut and a slotted screw for adjustment purposes. Also #0086 has a stud protruding through #0085 with a locking nut affixed to it. To adjust:

1. Loosen the two lock nuts and turn the slotted screw inward 1/2 turn. Tighten lock nuts.





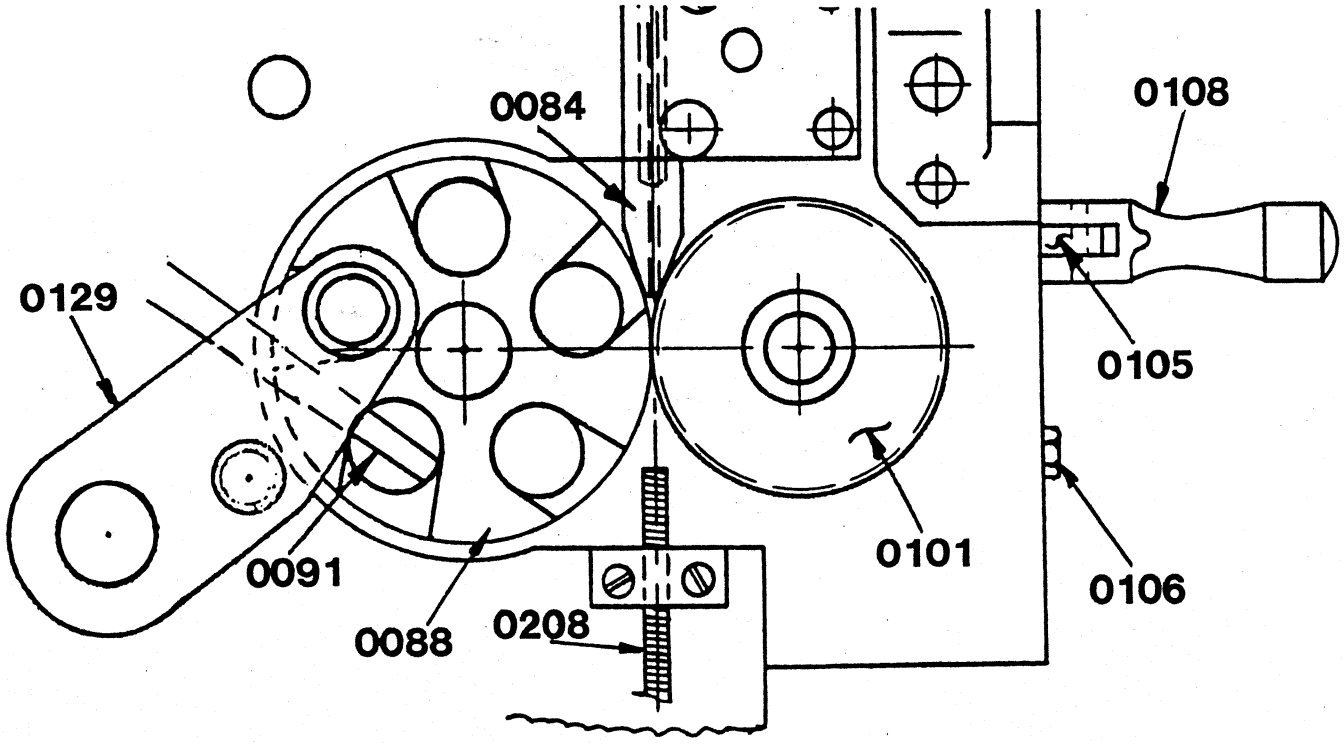
Before this adjustment is made, inspect the cutting edges of the wire guide and cutter tube (#0083) and the cutting edge of the top groove of the wire former and cutter (#0096). If either part is worn or chipped, they must be replaced. At no time should #0086 be adjusted so that when #0093 closes it would come in contact with the tip of #0086. This will cause undue wear to #0093 and will also cause malfunction of the machine.

Indication of the need for adjustment of the cutter lever would be bags not ejecting properly out of dies.

F. WIRE TENSION ADJUSTMENT

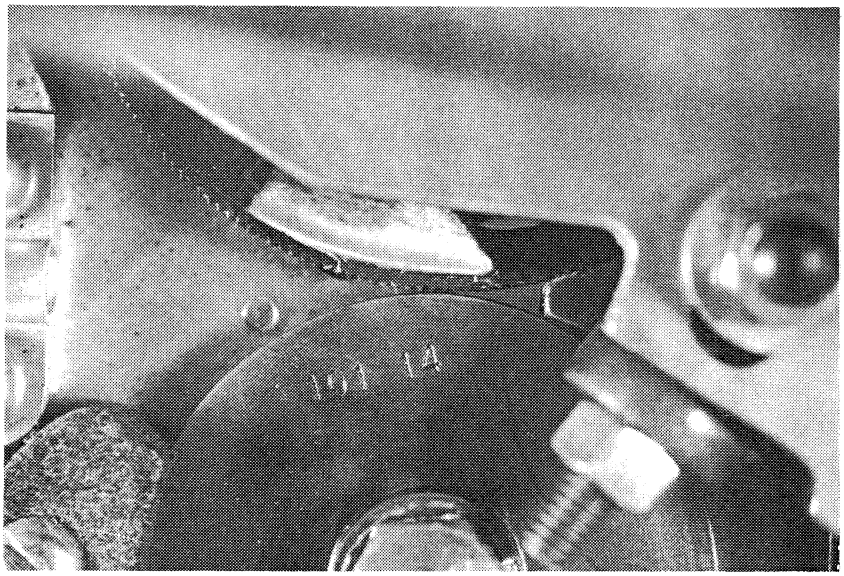
As you will note upon examination of the wire feed wheel (#0088), there are many sharp teeth cut on the outer diameter of this wheel. These teeth are what drive the wire into the wire forming dies. Pressure is applied by the wire feed idler wheel (#0101), forcing the wire against the sharp teeth of #0088. This pressure is regulated by means of spring #0109. Rotating either the wire tension bolt (#0106) or the wire tension lever (#0108) clockwise will increase the amount of pressure applied to #0101.

CAUTION: It is recommended that the teeth on #0088 be cleaned and all other adjustments be checked before the pressure is increased on #0101.



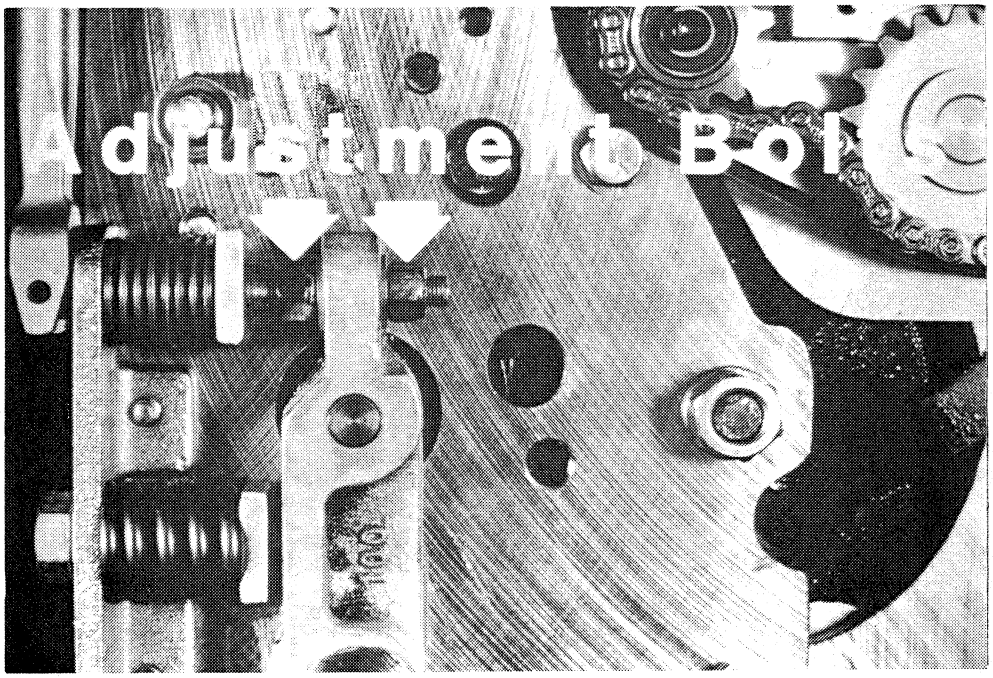
G. WIRE FEED WHEEL ADJUSTMENT

As the teeth on the wire feed wheel (#0088) wear, it will be necessary to increase the amount of pressure applied to the wire feed idler wheel (#0101). To check for adjustment, cut the wire at the end of the wire tube (#0208) and remove the cut off portion. With #0108 in the down position, rotate #0101. Properly adjusted, #0088 should turn freely with #0101, about 1/64 of an inch apart.



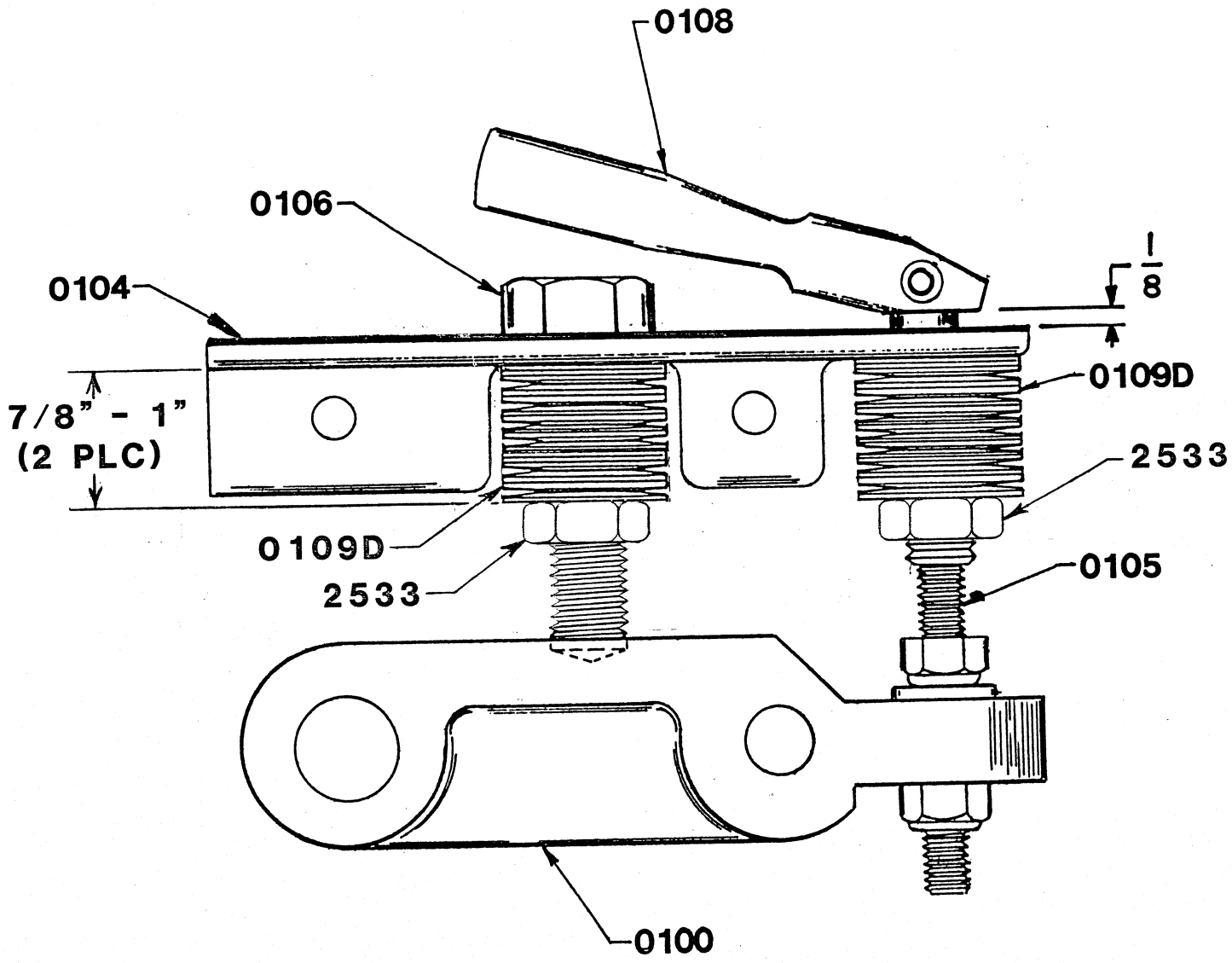
Adjustment:

1. Turn the nuts on the wire tension release bolt (#0105) in or out as needed, checking clearance of #0101 and #0088 as you adjust.



2. When adjustment is correct, tighten inside nut with washer up to the wire idler bracket, then back the nut off 1/2 turn.

3. Reinstall wire; with proper adjustment there should be some play between the wire tension lever (#0108) in the down position and the tension spring bracket (#0104).

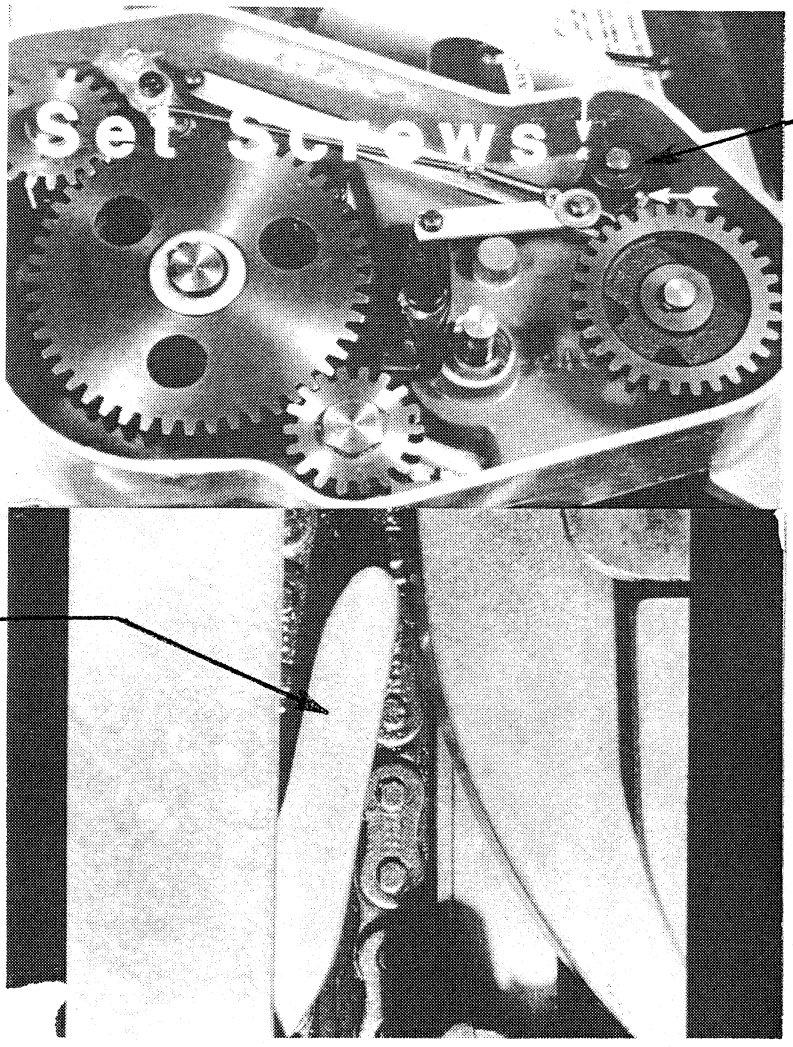


H. TRIP FINGER ADJUSTMENT

Whenever the trip finger (#0719) is changed or re-adjusted, the following procedure must be followed:

1. Hand trip the machine and with a 3/4" wrench turn the drive shaft (#0036) one-quarter turn counter-clockwise.

2. Inside the gear case loosen the two square head set screws in the trip shaft crank (#0225), (Figure 26), and move the trip finger so that the flat side of the trip finger is in the center of the feed chain.



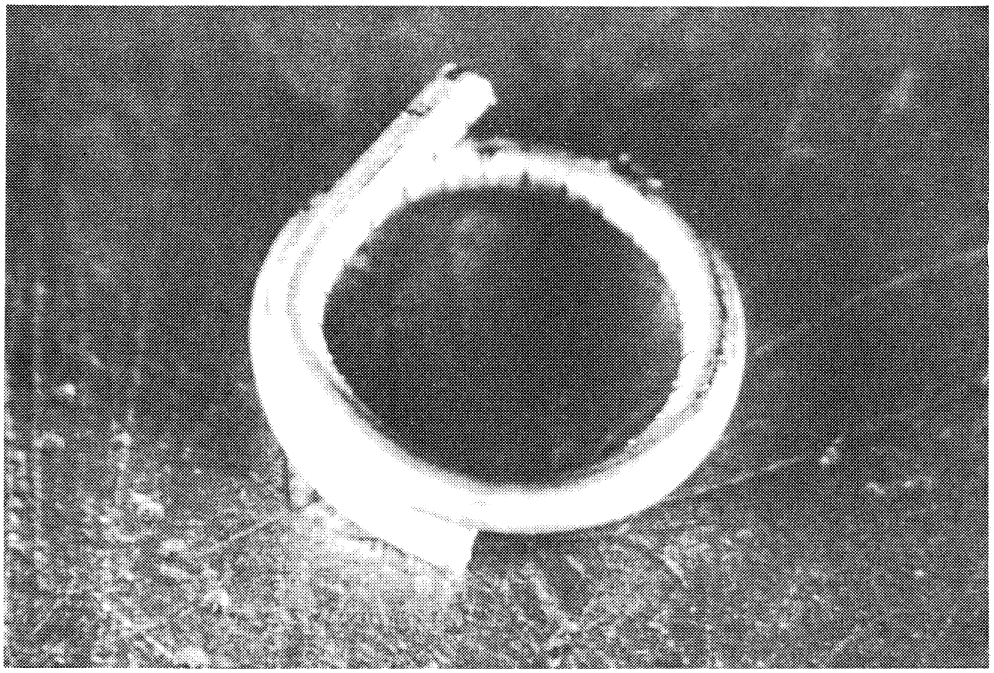
3. Rotate #0225 counter-clockwise until it stops.

4. With #0719 and #0225 in the above position, tighten the two set screws in #0225.

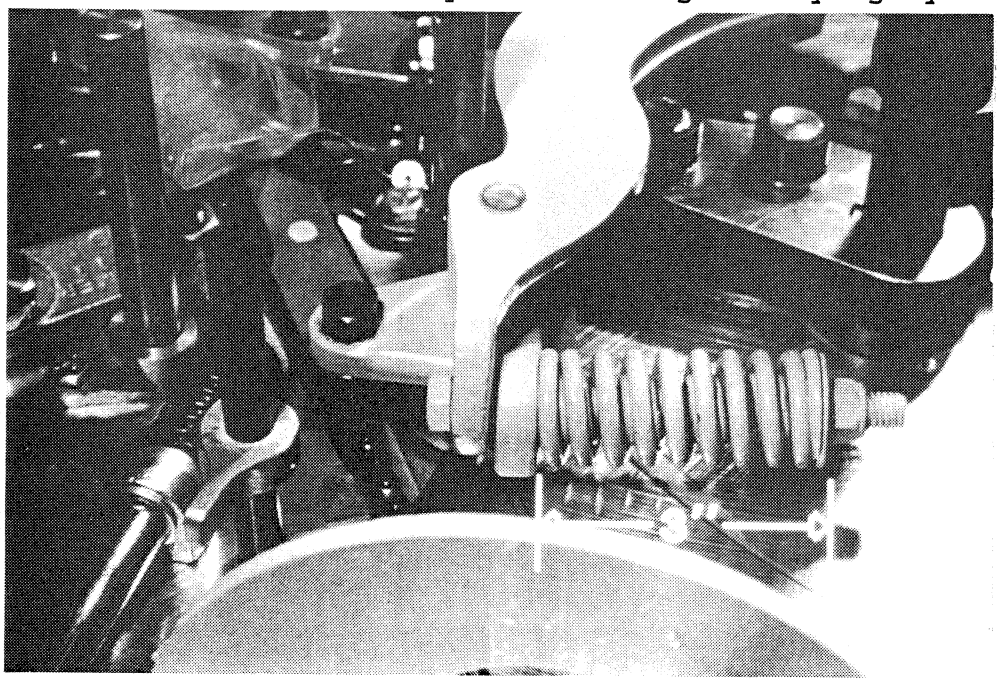
5. The trip finger (#0719) should have up and down clearance so it moves freely.

I. PACKER DIE COMPRESSION SPRING ADJUSTMENT

The pressure applied to the neck of the bag being closed can be regulated. Examine the closures on the bags as they come out of the machine. The ends of the ring should overlap.

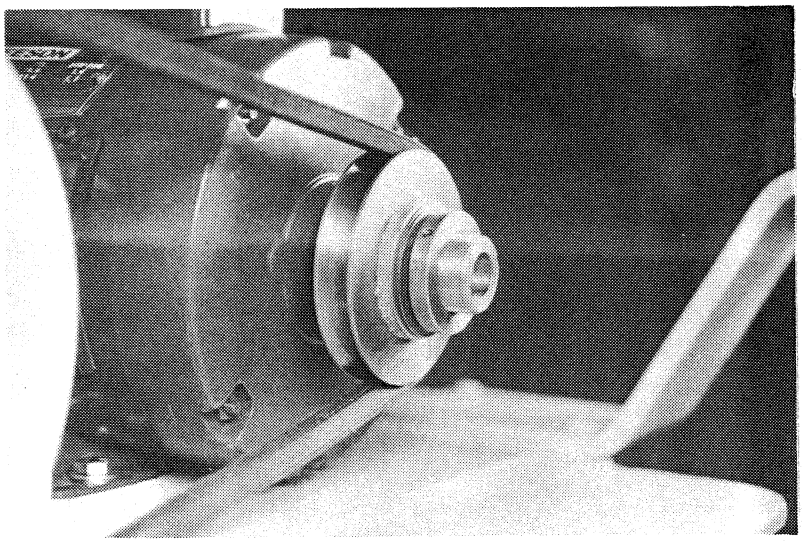


If these ends do not overlap, an adjustment should be made by tightening the hex nut on the packer arm spring assembly (#0150). This adjustment will put more pressure on the packer die (#0142) as it is compressing the bag into the wire dies. Care should be taken not to over-tighten this nut as it will cause unnecessary wear during the tying cycle.



J. MOTOR SLIP CLUTCH

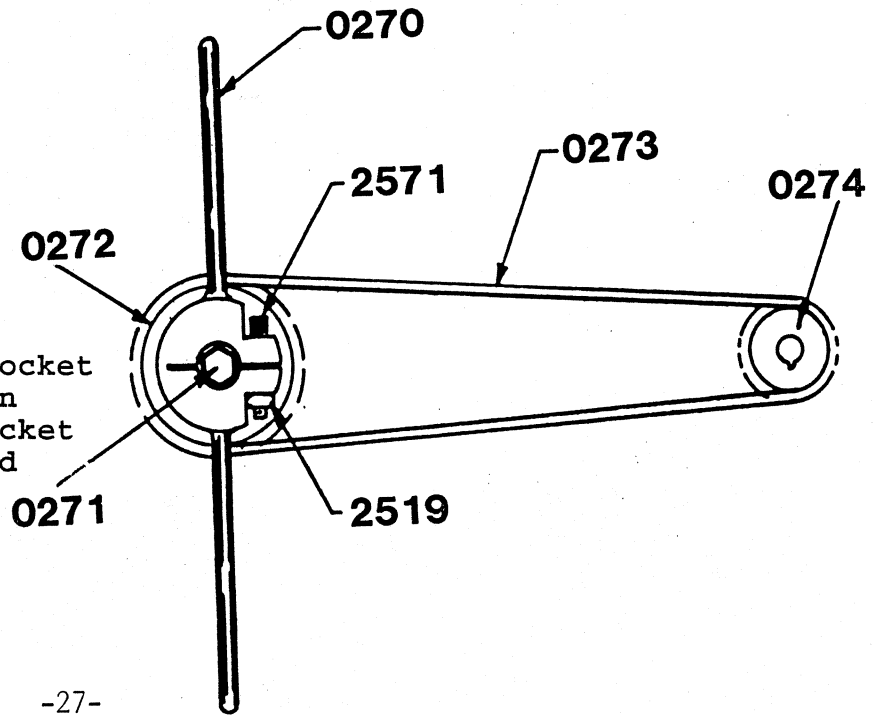
Your machine is equipped with a friction type clutch. In this clutch there is a V-sheave that is driven by two friction disks, one on each side of the sheave. On the outside end of this clutch there is a threaded nut for adjusting purposes. If there is slippage of the V-sheave in this clutch, the adjusting nut should be tightened (clockwise) approximately 1/2 turn.



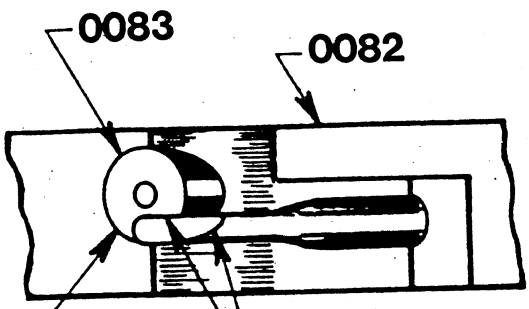
K. EJECTOR (OPTIONAL)

To prevent bags from hanging in the dies after closing a bag, the ejector pushes the bag free. Properly adjusted, the ejector arms are at right angles to the conveyor belt when your machine is in its idling mode. To change adjustment, loosen the allen head bolt and move the ejector to proper setting.

Part No.	Description
0270	Bag Ejector
0271	Ejector Pivot Bolt
0272	Ejector Driven Sprocket
0273	Ejector Drive Chain
0274	Ejector Drive Sprocket
0275	Ejector Chain Guard



L. ALIGNING THE GROOVES ON THE CUTTER TUBE AND RIGID DIE



Grooved surfaces of wire feed tube #0083 must be aligned perfectly with grooved surface in rigid die #0082. All mating edges must be smooth.

Wire feed tube #0083 must be flush with front face of rigid die #0082

M. JAMMING

Your machine will jam when bags are placed too close together, causing the pivot die (#0093) to close on a closed bag before the bag has been ejected from the machine. To clear the jam:

1. Disconnect the power.
2. Raise the tension lever (#0108) to horizontal.
3. Remove the cross-link crank pin (#0153).
4. Manually open the pivot die (#093) and remove the jammed bag.

If a jam occurs in the packer die (#0142):

1. Turn off power.
2. Raise the tension lever (#0108) to horizontal.
3. Remove the left-hand threaded bolt (#0143).
4. Slide the packer die (#0142) back to release the jammed bag.

WARNING

PERSONAL INJURY MAY RESULT

FROM DISREGARDING THE

FOLLOWING SAFETY PRECAUTIONS

-MACHINE IS TO BE PROPERLY CONNECTED TO YOUR BUILDING SAFETY GROUND.

-READ INSTRUCTION MANUAL THOROUGHLY BEFORE OPERATING THIS MACHINE.

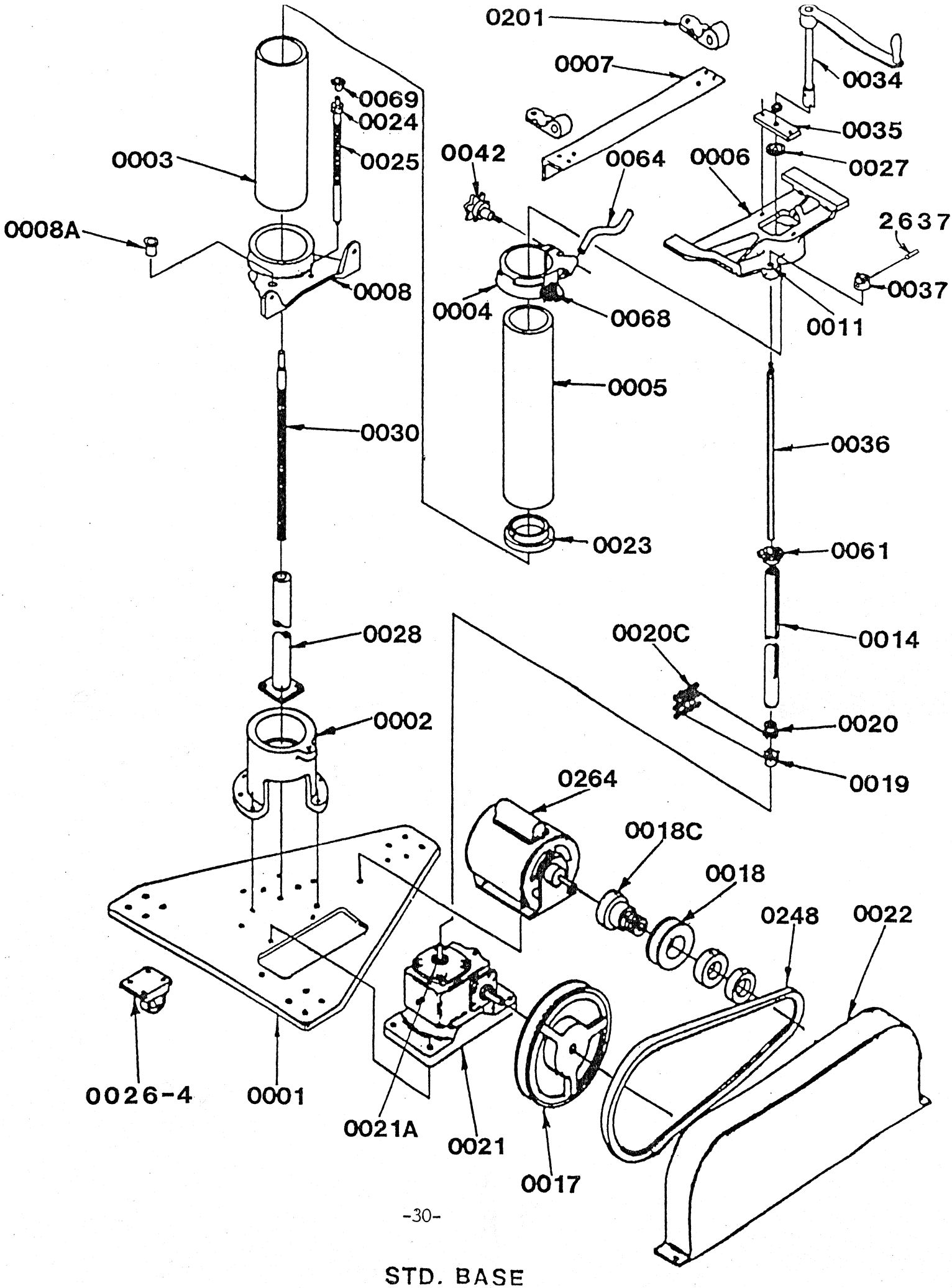
-DISCONNECT ELECTRICAL AND AIR POWER BEFORE PERFORMING MAINTENANCE OR REPAIR WORK.

-DO NOT OPERATE MACHINE WITH SAFETY GUARDS REMOVED.

-MACHINE IS TO BE USED ONLY IN A MANNER OUTLINED IN THE INSTRUCTION MANUAL AND ONLY FOR THE PURPOSE FOR WHICH THE MACHINE WAS DESIGNED.

STANDARD BASE

Part No.	Description
0001	Base
0002	Base Flange
0003	Outside Pedestal Pipe
0004	Outside Pipe Collar Assembly
0005	Inside Pedestal Piper
0006	Head Spider
0007	Head Angle
0008	Conveyor Bracket
0008A	Conveyor Bracket Bushing
0011	Bushing for #0006
0014	Hex Nut Drive Shaft Assembly
0017	V-Belt Pulley
0018	Motor Drive Pulley
0018C	Clutch for Motor Pulley
0019	Sprocket for Reducer Shaft
0020	Sprocket for Hex Drive Shaft
0020C	Double Chain for #0019 and #0020
0021	Gear Reducer Complete
0021A	Reducer Felt Washer
0022	Drive Belt Guard
0023	Pipe Guide
0024	Set Collar for #0025
0025	Conveyor Lift Screw
0026	Swivel Caster
0027	Head Hoist Thrust Bearing
0028	Hoisting Screw Housing Assembly
0030	Hoisting Screw
0031	Hoisting Coupling for #0034
0032	Hoisting Shaft for #0034
0033	Hoisting Crank for #0034
0034	Hoisting Crank Assembly
0035	Hoist Bearing Plate
0036	Upper Drive Shaft
0037	Jaw Clutch (lower)
0042	Head Lock Screw Assembly
0061	Conveyor Drive Pinion
0064	Conveyor Hoist Handle
0069	Conveyor Hoist Pinion
0201	Angle and Place Hinge
0207	Felt Washer for 18C
0248	V Drive Belt
0260A	Motor Switch Only
0260B	Heater for #0260
0260COMPLETE	Motor Switch Complete
0261	Motor Switch Mounting Plate
0262	Electric Cord - Motor to Switch
0263	Electric Cord - Switch to Outlet
0264	3/4 H.P. Electric Motor
2537	Roll Pin - 1/4 x 1-5/8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0036
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0020C
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0002
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0019
0264
0018C
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0248
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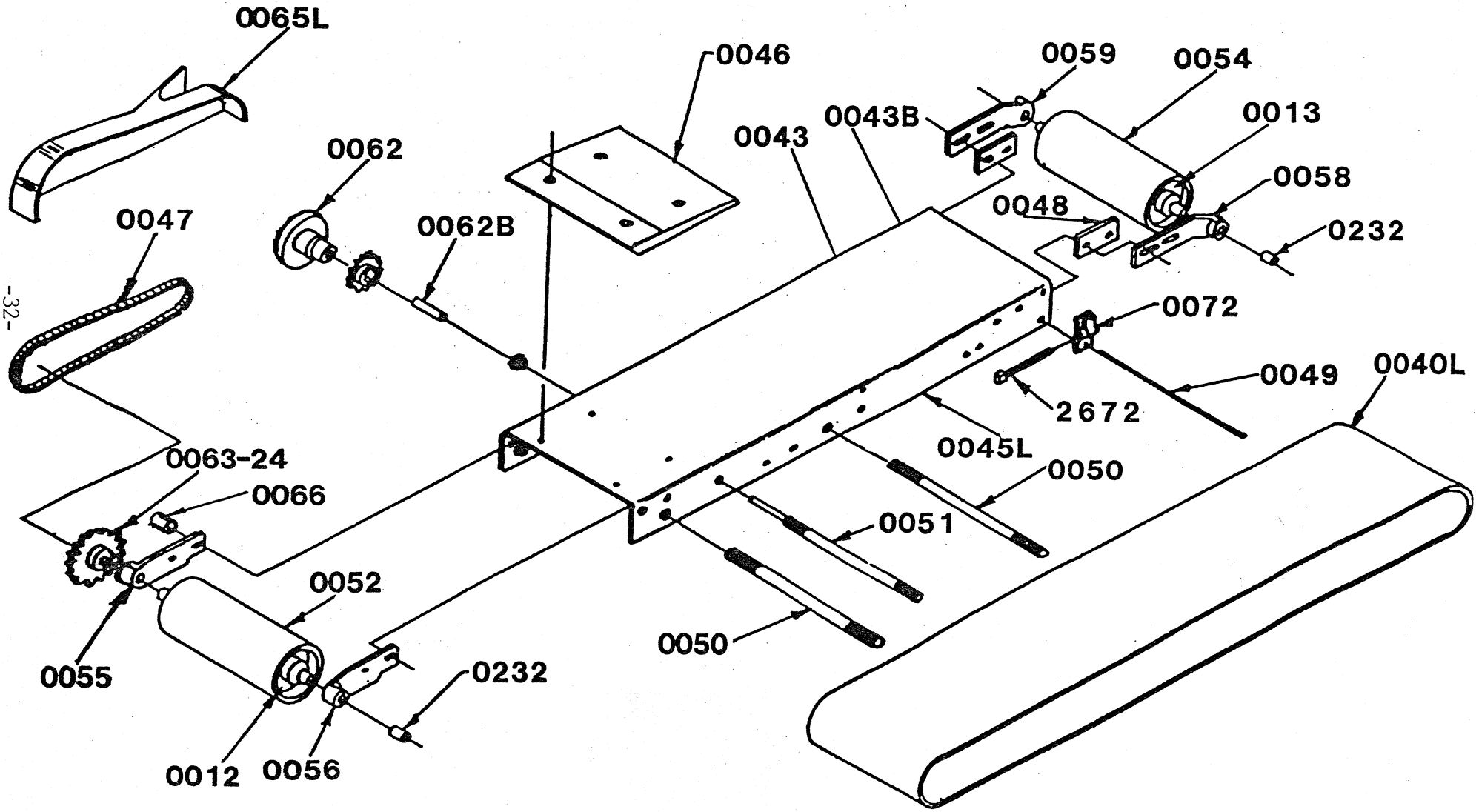
0026-4
0001
0021A
0021
0017

STD. BASE

STANDARD CONVEYOR

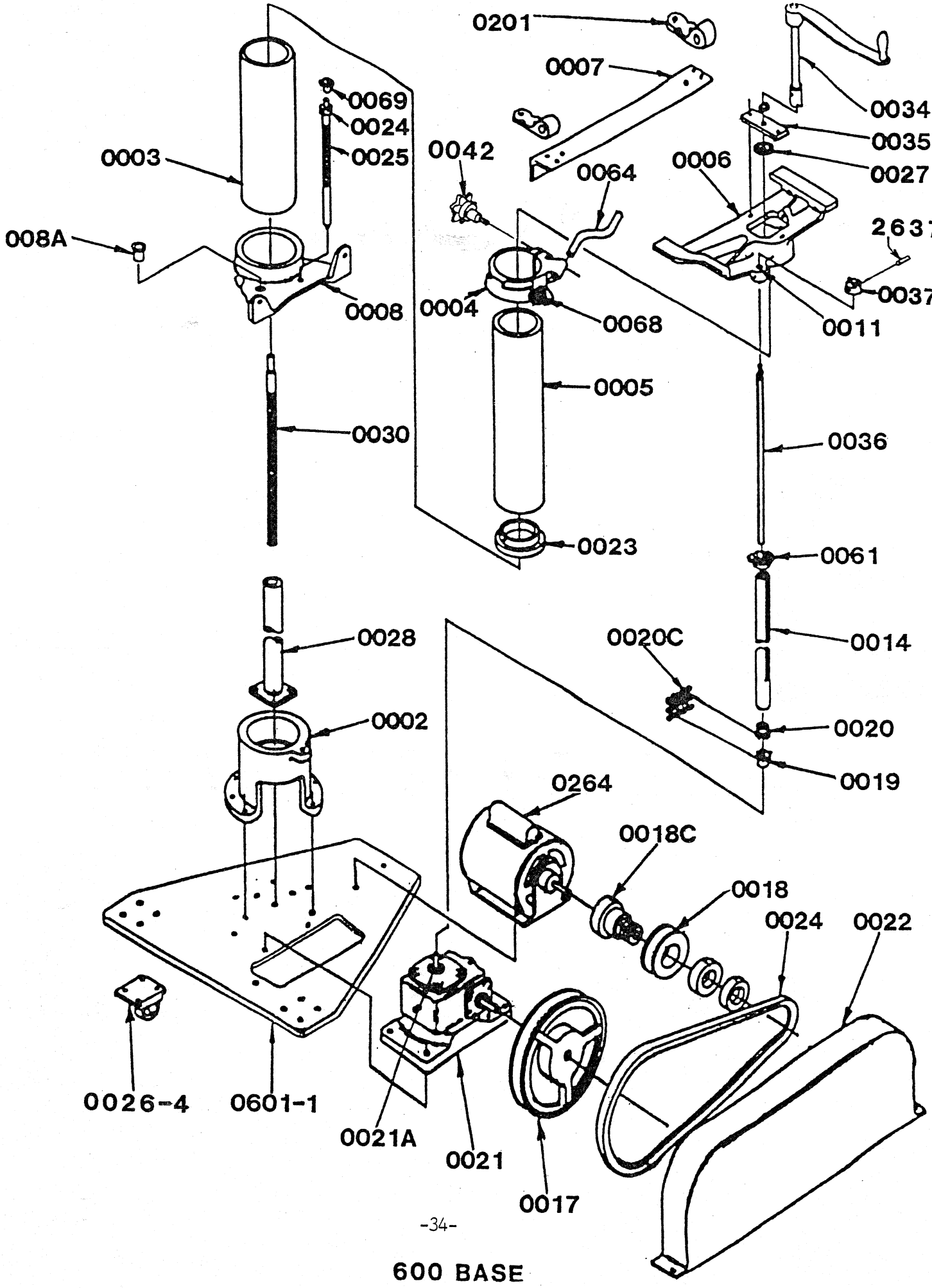
Part No.	Description
0012	Conveyor Pulley End Guard for #0052
0013	Conveyor Pulley End Guard for #0054
0040L	Conveyor Belt Long (96-3/4")
0043	Conveyor Support Plate
0043B	Conveyor Support Yoke
0045L	Conveyor Table Long (40")
0046L	Conveyor Table Riser Long
0047L	Conveyor Drive Chain Long (66 pitches)
0048	Take-Up Adjusting Plate
0049	Conveyor Table Tie Rod
0050	Conveyor Table Support
0051	Conveyor Countershaft
0052	Conveyor Drive Roller
0054	Conveyor Take-Up Roller
0055	Conveyor Drive Bearing R.H.
0056	Conveyor Drive Bearing L.H.
0058	Conveyor Take-Up Bearing L.H.
0059	Conveyor Take-Up Bearing R.H.
0062	Conveyor Drive Gear
0062B	Bushing for #0062 (2 required)
0063-24	Conveyor Drive Sprocket
0065L	Conveyor Chain Guard Long
0066	Conveyor Chain Guard Spacer
0072	Bag Guide End Bracket
0232	Bushing for No's. 0055, 0056, 0058, 0059
2672	Conveyor Adjusting Screw



STD. CONVEYOR

600 BASE

Part No.	Description	Part No.	Description
0002	Base Flange	0263	Elect.Cord-Switch to Outlet
0003	Outside Pedestal Pipe	0264	3/4 H.P. Electric Motor
0004	Outside Pipe Collar Assy.	0601-1	Base Plate
0005	Inside Pedestal Piper	2637	Roll Pin 1/4 x 1-5/8
0006	Head Spider		
0007	Head Angle		
0008	Conveyor Bracket		
0008A	Conveyor Bracket Bushing		
0011	Bushing for #0006		
0014	Hex Nut Drive Shaft Assy.		
0017	V-Belt Pulley		
0018	Motor Drive Pulley		
0018C	Clutch for Motor Pulley		
0019	Sprocket for Reducer Shaft		
0020	Sprocket for Hex Drive Shaft		
0020C	Double Chain for #0019 and #0020		
0021	Gear Reducer Complete		
0021A	Reducer Felt Washer		
0022	Drive Belt Guard		
0023	Pipe Guide		
0024	Set Collar for #0025		
0025	Conveyor Lift Screw		
0026	Swivel Caster		
0027	Head Hoist Thrust Bearing		
0028	Hoisting Screw Housing Assembly		
0030	Hoisting Screw		
0031	Hoisting Coupling for #0034		
0032	Hoisting Shaft for #0034		
0033	Hoisting Crank for #0034		
0034	Hoisting Crank Assembly		
0035	Hoist Bearing Plate		
0036	Upper Drive Shaft		
0037	Jaw Clutch (lower)		
0042	Head Lock Screw Assembly		
0061	Conveyor Drive Pinion		
0064	Conveyor Hoist Handle		
0068	Conveyor Hoist Pinion		
0069	Conveyor Hoist Gear		
0201	Angle and Place Hinge		
0207	Felt #Washer for 18C		
0248	V Drive Belt		
0260A	Motor Switch Only		
0260B	Heater for #0260		
0260COMP	Motor Switch Complete		
0261	Motor Switch Mounting Plate		
0262	Electric Cord - Motor to Switch		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0026-4
0601-1
0021A
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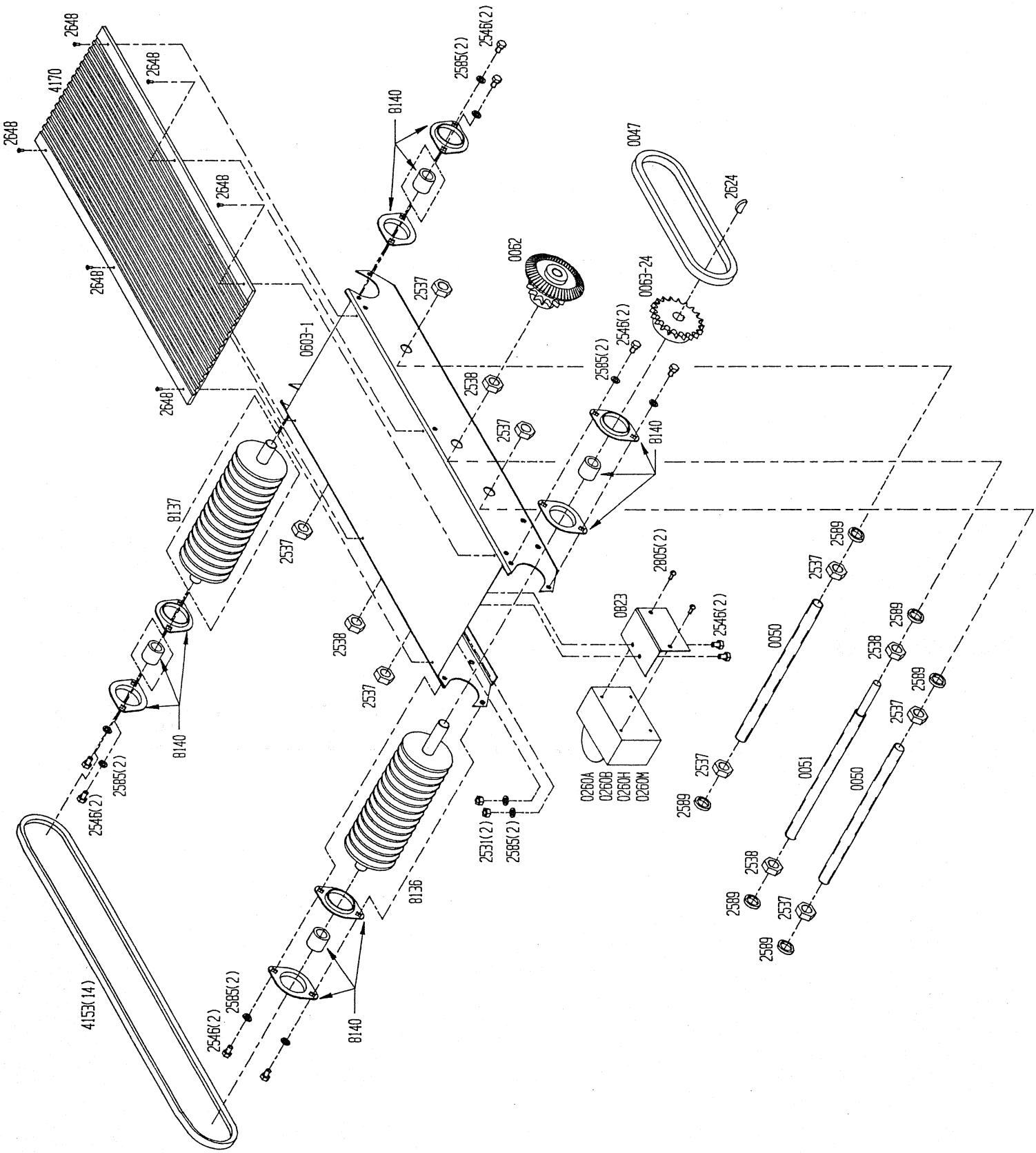
0017

600 BASE

600-1 CONVEYOR

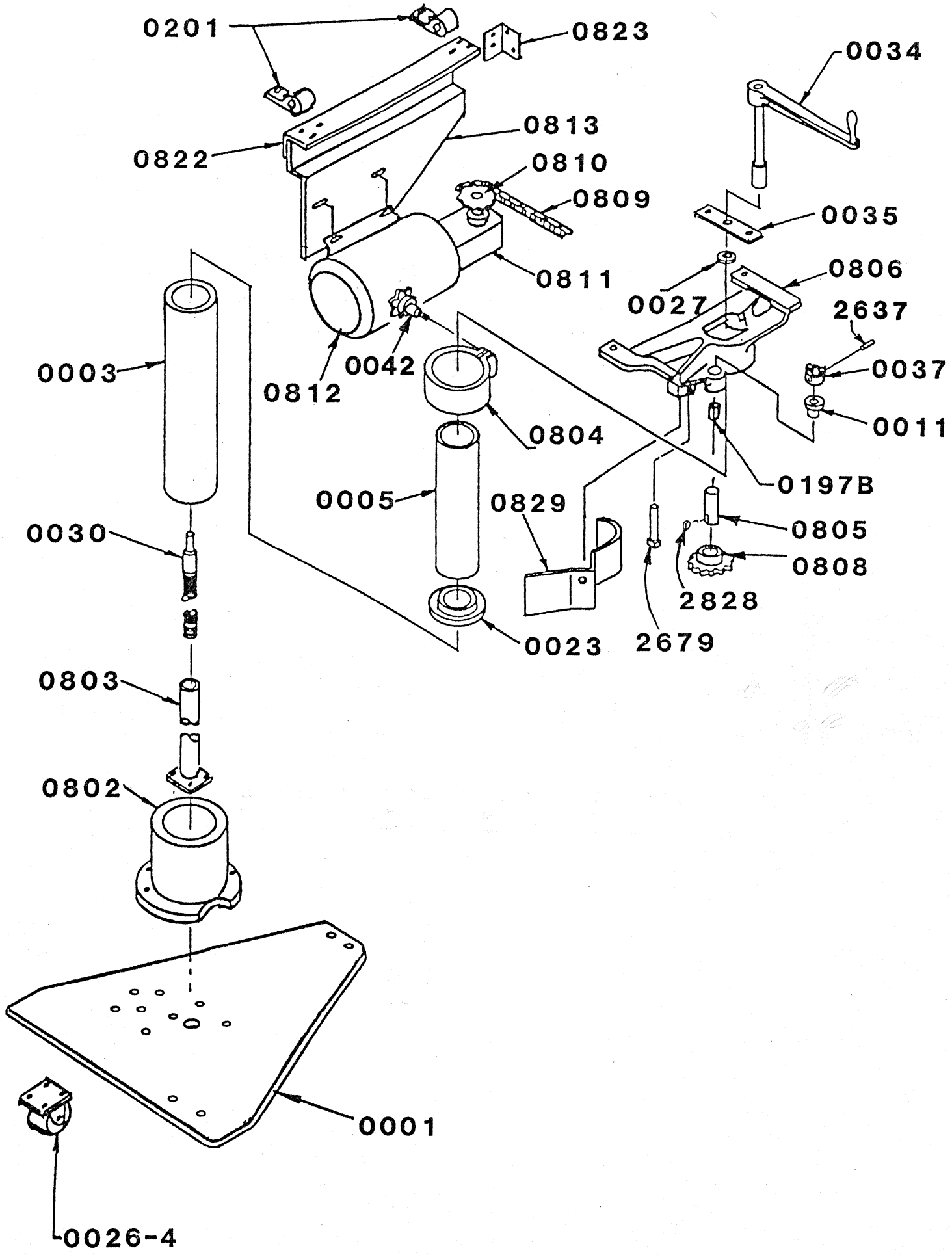
PART NO.	DESCRIPTION
0047	#40 Chain
0050	Conveyor Table Suppout
0051	Conveyor Countershaft
0062	Conveyor Drive Gear Assembly
0063-24	Conveyor Drive Sprocket
0260A	Switch
0260B	Heater
0260H	Switch Guard
0260M	Switch Cover
0603-1	Conveyor Table
0823	Switch Mounting Plate
2531	5/16-18 Hex Nut, Stainless
2537	3/4-10 Hex Jam Nut
2538	3/4-16 Hex Jam Nut
2546	5/16-18 x 1/2" Hex Hd. Cap Screw, Stainless
2585	5/16" Lock Washer, Stainless
2589	3/4" Lock Washer, Stainless
2624	3/16" x 1" Woodruff Key
2648	1/8" x 1/2" Pop Rivet
2805	#10-32 x 1/2" Phlp. Rd. Hd. Cap Screw
4153	Belt
4170	Conveyor Belt Guide
8136	Drive Pulley, 14 Groove
8137	Idler Pulley, 14 Groove
8140	Bearing w/Flange



600-1 CONVEYOR

800 BASE W/O CONV

Part No.	Description
0001	Base
0003	Outside Pedestal Pipe
0005	Inside Pedestal Pipe
0011	Upper Bushing for 0806 (plus 0197B)
0021A	Gear Reducer Felt Washer
0023	Pipe Guide
0026-4	Swivel Caster 4"
0027	Hd Hoist Thrust Bearing
0030	Hoisting Screw
0031	Hoisting Coupling for 0034
0032	Hoisting Shaft for 0034
0033	Hoisting Crank
0034	Hoisting Crank Assy.
0035	Hoisting Bearing Plate
0037	Jaw Clutch (Lower)
0042	Head Lock Screw
0044	Wire Reel Bracket Assembly
0192	Brake spring Tension Bolt
0201	Angle and Plate Hinge
0204	Wire Reel Wheel with studs
0204S	Studs/Wing Nuts for Wire Wheel
0205	Wire Reel Horn
0210	Brake Arm Spring
0211	Brake Spring Bracket
0260A	Switch
0260B	Switch Heater
0260H	Switch Guard
0260M	Switch, Front Cover
0260N	Switch, Back Cover
0263	Electrical Cord
0290	Brake Arm
0291	Set Collar, Brake Linkage Rod
0292-1	Brake Shoe
0294	Brake Linkage
0802	Base Flange
0803	Housing Screw
0804	Outside Pipe Collar
0805	Head Drive Shaft
0806	Head Spider
0808	Sprocket, Head Motor (15 Std. 7/8" Bore)
0809	Chain, #40 (18 Links Incl. Master)
0810	Sprocket, Drive (15 Std. 3/4" Bore)
0811	Head Gear Reducer
0812	Electric Motor, 3/4 HP
0813	Head Motor Bracket
0822	Head Angle
0823	Switch Mount Plate
0829	Head Drive Chain Guard
2679	Reducer Support Bolt
2637	Roll Pin, 1/4 x 1-5/8
2828	Woodruff Key 3/16 x 7/8 Lg.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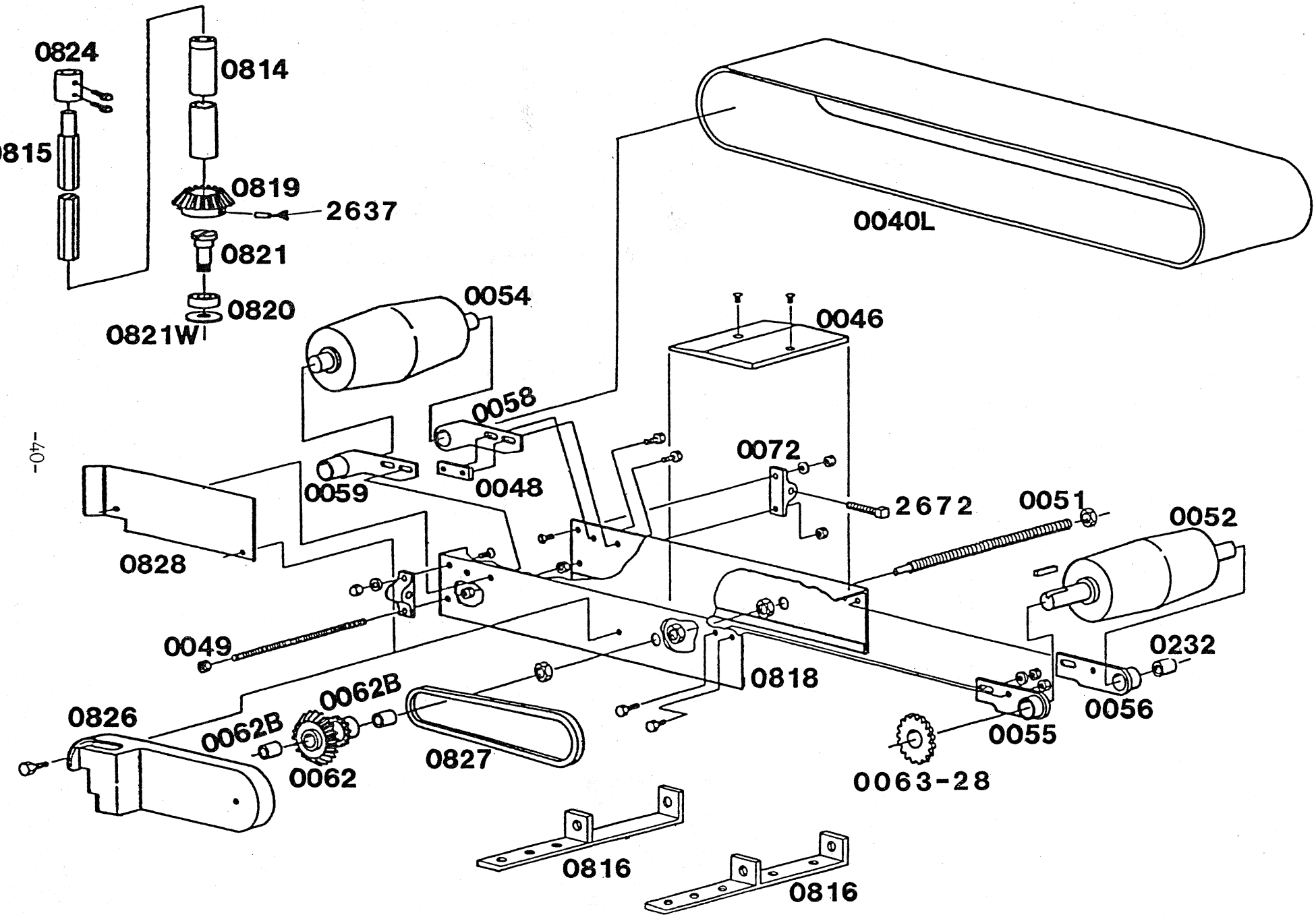
800 BASE

800 CONVEYOR

Part No.	Description
0040L	Conv. Belt (Long 96-3/4")
0046L	Conv. Table Riser - Long - 11-1/2
0048	Take-up Adj. Plate
0049	Conv. Table Tie Rod
0051	Conv. Countershaft
0052	Conv. Drive Roller
0054	Conv. Take-Up Roller
0055	Conv. Drive Bear. (R.H.)
0056	Conv. Drive Bear. (L.H.)
0058	Conv. Take-Up Bear. (L.H.)
0059	Conv. Take-Up Bear. (R.H.)
0062	Conv. Drive Gear/Sprocket w/Bushing
0062B	Brass Bush. for #0062 (2 Required)
0063	Conv. Drive Sprocket
0072	Conv. End Bracket
0232	Brass Bushing for 55,56,58,59
0814	Conv. Hollow Drive Shaft
0815	Conv. Hex Drive Shaft
0816	Conveyor Bracket (Long)
0818	Conveyor Bed
0819	Conveyor Drive Pinion
0820	Conv. Drive Pinion Ball Bearing
0821	Conv. Drive Pinion Shoulder Bolt
0821W	Shim Washer for #0821
0824	Drive Shaft Coupling
0825	Conv. Countershaft Collar
0826	Conv. Chain Guard
0827	Conveyor Drive Chain
0828	Conveyor Bag Guide
2637	Spiral Pin, 1/4 x 1-5/8 Lg.
2672	3/8-16 x 3" Lg. Sq. Head Set Screw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0062B
0062B
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0056
0055
0063-28
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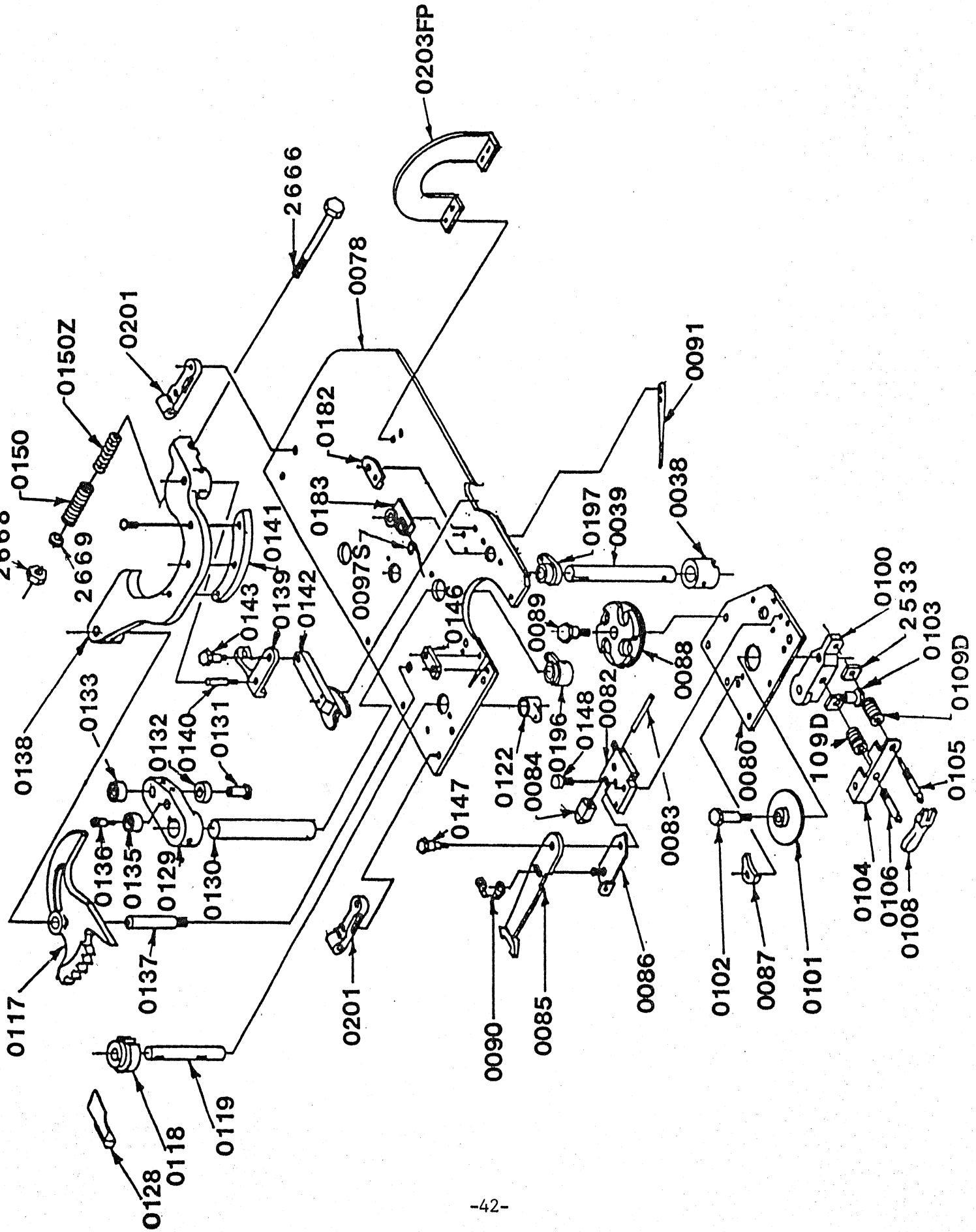
0816

MAIN PLATE

Part No.	Description
0038	Jaw Clutch (Upper)
0039	Head Section Drive Shaft
0078FP	Poly Main Plate
0080FP	Poly Rigid Die Plate
0082	Rigid Die
0083	Wire Guide and Cutter Tube
0084	Wire Guide
0085	Cutter Lever Upper Section
0086	Cutter Lever Lower Section
0087	Wire Wheel Oiler
0088	Wire Feed Wheel
0089	Wire Fd Wheel Brng Blt
0090	Cutter Return Spring
0091	Wire Feed Lock Spring
0097	Kick-Out Spring
0100	Wire Idler Bracket
0101	Wire Feed Idler Bearing Bolt
0102	Wire Feed Idler Bearing Bolt
0103	Pivot Bolt for Tension Bracket
0104	Tension Spring Bracket
0105	Wire Tension Release Bolt
0106	Wire Tension Bolt
0108	Wire Tension Release Lever
0109D	Tension Disc Spring (16 Required)
0117	Die Operating Cam
0118	Die Operating Gear
0119	Die Operating Gear Shaft
0122	Die Closing Shaft Bushing
0122A	Bushing Support for #0122
0122B	Bushing for #0122
0128	Die Operating Gear Guard
0129	Cam Arm
0130	Ejector/Cam Arm Shaft
0131	Bearing Pin for Cam Roller
0132	Lower Cam Roller
0133	Upper Cam Roller
0135	Packer Return Roller
0136	Packer Return Roller Bearing
0137	Packer Arm Bearing
0138	Packer Arm (Includes #0141)
0139	Packer Hinge (With #0140)
0141	Packer Arm Cam Shoe
0142	Packer Die
0143	Packer Die Pivot Bolt
0146	Wire Tube Clamp
0147	Wire Cutter Lever Bolt
0147L	Wire Cutter Lever Bolt Long
0148	Die Clamp Bolt
0149	Packer Spring Bolt, Washer and Nut
0150	Packer Spring (Outside)
0150Z	Packer Spring (Inside)
0183A	Bushing Support for #0183
0183B	Bushing for #0183
0196A	Bushing Support for #0196
0196B	Bushing for #0196
0197A	Bushing Support for #0197
0197B	Bushing for #0197
0201	Angle and Plate Hinge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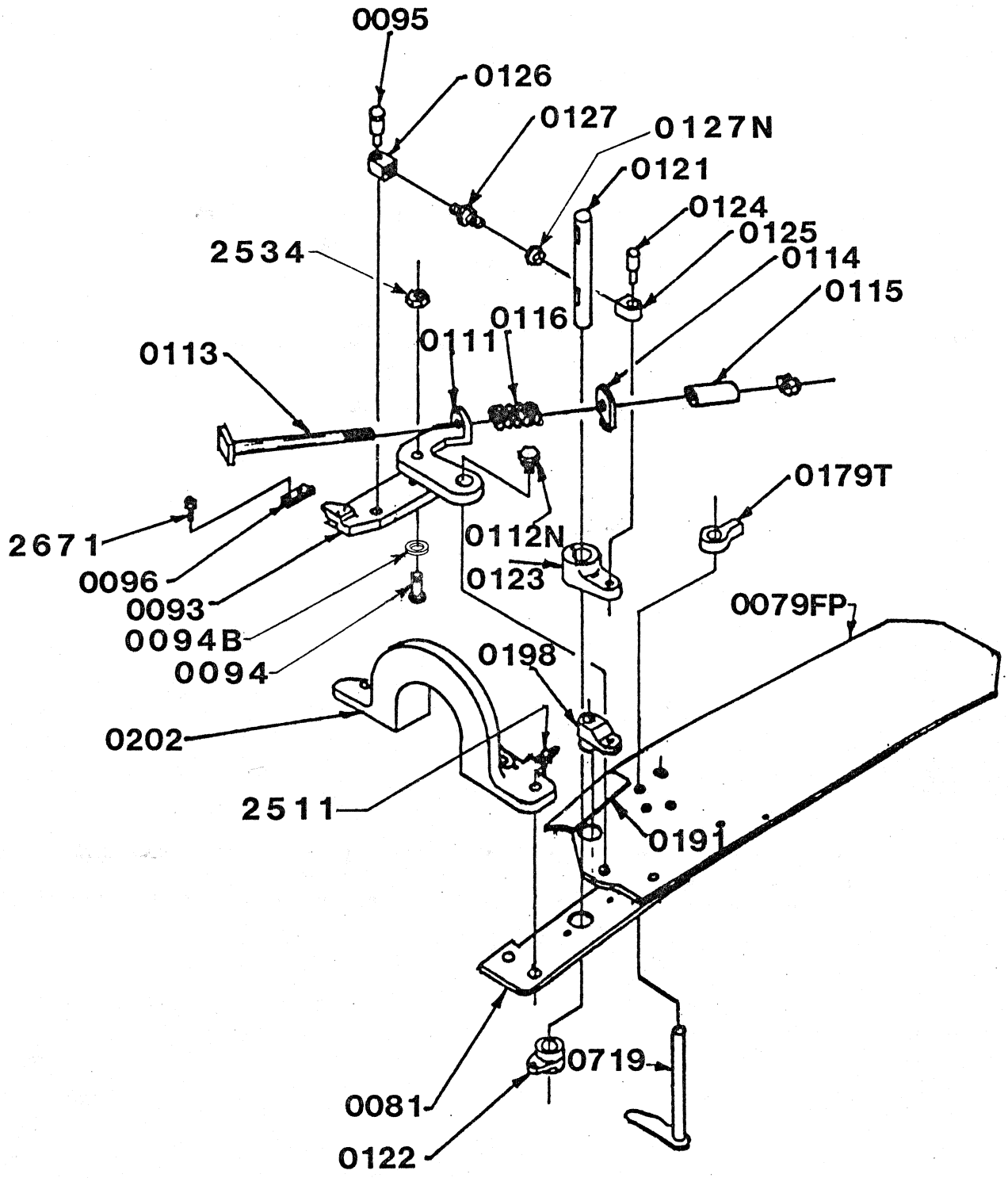
0108
0105

MAIN PLATE

SIDE PLATE

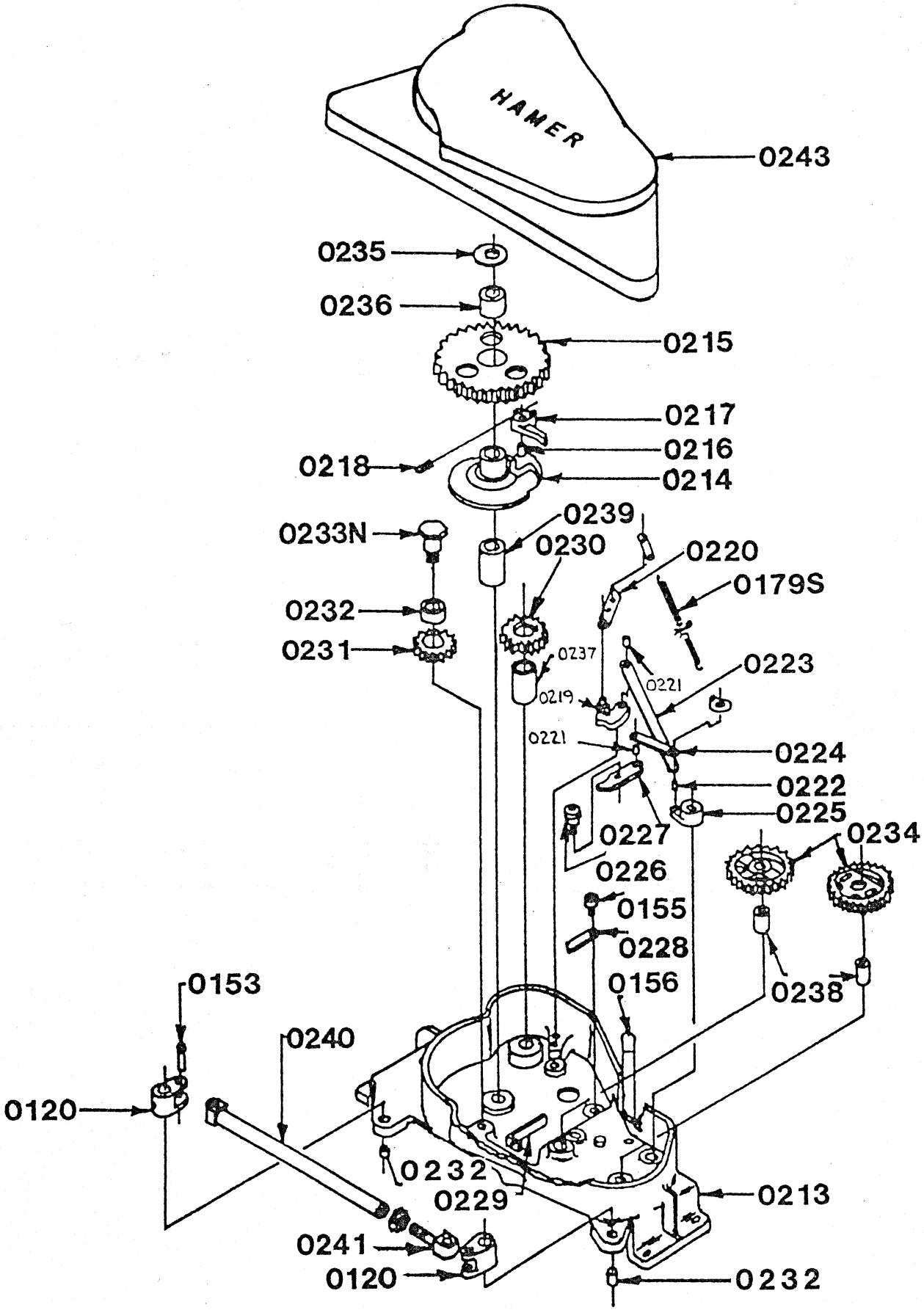
Part No.	Description
0079FP	Poly Side Plate
0081	Left Die Plate
0093	Pivot Die
0094	Pivot Die Bolt
0094B	Brass Washer for #0094
0095	Pivot Die Stud
0096	Wire Former and Cutter
0111	Die Hinge
0112	Die Hinge Pivot Bolt
0113	Die Adjusting Bolt
0114	Adjusting Bolt Bearing
0115	Adjusting Bolt Sleeve
0116	Adjusting Bolt Spring
0121	Die Operating Crank Shaft
0122	Die Closing Shaft Bushing
0122A	Bushing Support for #0122
0122B	Bushing for #0122
0123	Die Operating Crank (Includes #0124)
0124	Die Operating Pin
0125	Die Closing Link L.H.
0126	Die Closing Link R.H.
0127	Die Adjusting Screw
0179T	Hand Trip Lever
0183B	Bushing for #0183 (Replaces #0198B)
0191	Left Packer Guide
0198	Feed Shaft Plate Bushing
0198A	Left Packer Guide
0202	Rear Plate Arch
0246	Adjusting Screw and Nut for #0123 Stop
0317	Screw for #0096
0719	Trip Finger and Shaft
2511	Adjusting Screw & Nut for #0123 Stop
2671	Screw for #0096 (2)


0095
0126
0127
0127N
0121
0124
0125
0114
0115
2534
0116
0111
0113
0179T
2671
0112N
0096
0123
0093
0079FP
0094B
0198
0094
0202
2511
0191
0719
0081
0122

SIDE PLATE

GEAR CASE

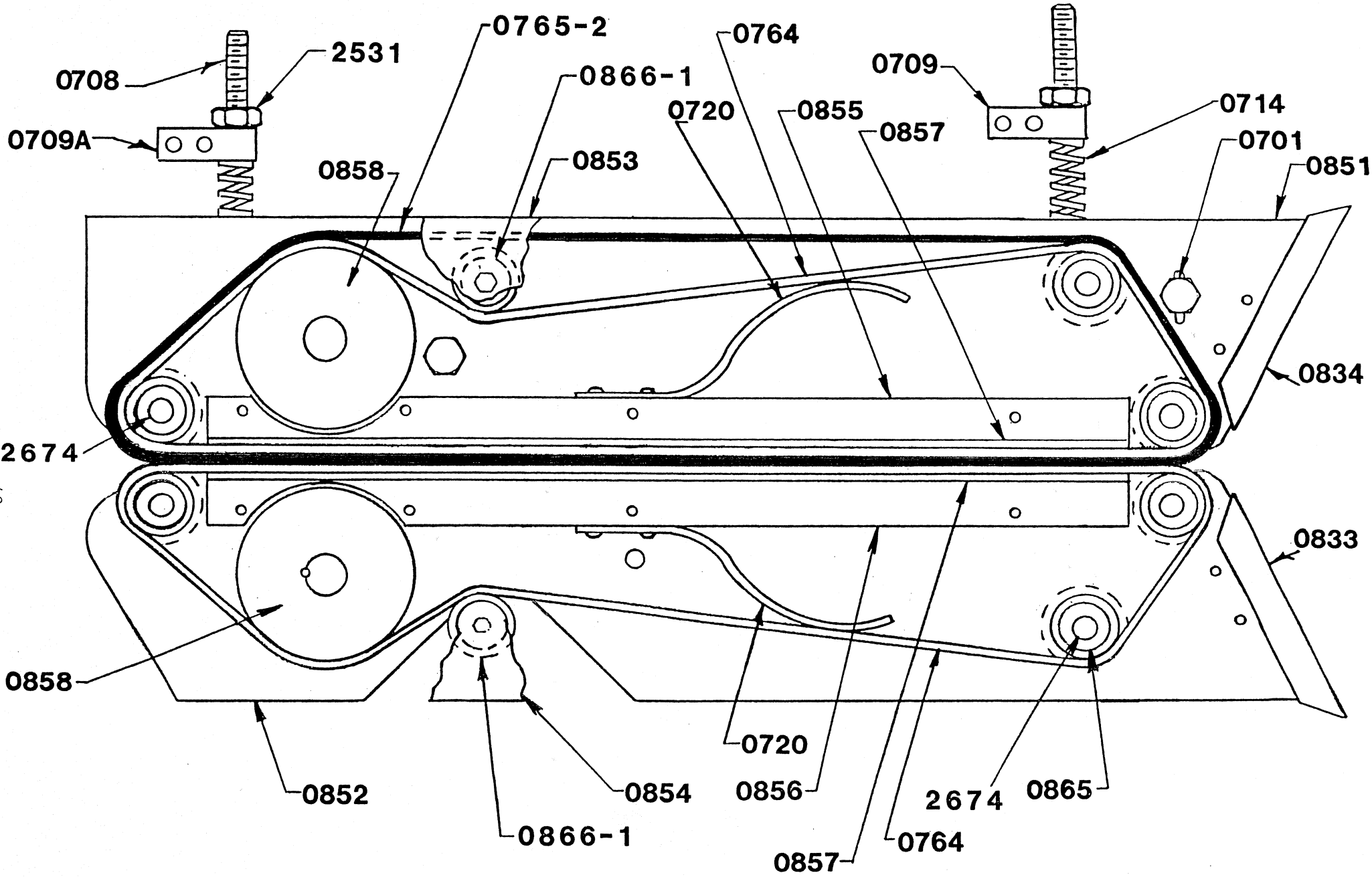
Part No.	Description
0153	Cross-Link Crank Pin
0155	Clutch Stop Bearing Bolt
0179S	Trip Lever Spring Assembly
0214	Clutch Disc (Includes #0216)
0215	Clutch Gear
0216	Clutch Pawl Bearing
0217	Clutch Pawl
0218	Clutch Pawl Spring
0219	Clutch Release Crank
0220	Clutch Trip Bearing
0221	Trip Stop Pin
0222	Clutch Trip Pin
0223	Clutch Release Link
0224	Second Clutch Release Link
0225	Trip Shaft Crank
0226	Second Release Bearing for #0227
0227	Second Clutch Release Pawl
0228	Clutch Brakestop
0229	Back Stop Spring
0230	Head Drive Gear
0231	Head Idler Gear
0232	Head Idler Bushing
0233N	Head Idler Gear Bearing Bolt
0234	Feed Drive Gear
0235	Clutch Washer
0236	Clutch Gear Bushing
0237	Drive Shaft Bushing
0238	Feed Shaft Bushing
0239	Cam Shaft Bushing
0240	Cross Link
0241	Cross Link Screw
0243	Gear Case Cover


HAMER
0243
0235
0236
0215
0217
0216
0218
0214
0239
0233N
0230
0220
0179S
0232
0231
0237
0219
0221
0223
0221
0224
0222
0225
0227
0234
0226
0155
0228
0153
0156
0238
0240
0120
0232
0229
0213
0241
0120
0232

GEAR CASE

850S-2 FEED SYSTEM

Part No.	Description
0701	Shoulder Bolt for #0851
0707-1	Bolt for #0862
0708	Pressure Adjusting Screw
0709	Front Block for #0708
0709A	Rear Block for #0708
0714	Plate Tension Spring
0719	Trip Finger and Shaft
0720	Belt Tension Spring
0764	Chain
0765-2	Urethane Belt
0833	Feed System Guard R.H.
0834	Feed System Guard L.H.
0851	Poly Feed Drive Plate L.H.
0852	Poly Feed Drive Plate R.H.
0853	Belt Guard L.H.
0854	Belt Guard R.H.
0855	Belt Pressure Shoe L.H.
0856	Belt Pressure Shoe R.H.
0857-1	Chain Guide
0858	Drive Sprocket Assembly
0865	Idler Sprocket, Bearing, Post, & Bolt
0866-1	Take-Up Sprocket, Bearing, and Post
2531	5/16-18 Hex Nut
2674	Bolt for #0865 (6)



850S-2 BELT FEED ASSEMBLY

TROUBLE-SHOOTING

With the following problems there are several causes and remedies for each one. In each problem the cause is remedied by the corresponding letter of each remedy.

1. Wire Not Feeding, or Partial Ring
   Cause:
   - A. Teeth worn on #0088 or teeth full of metal particles.
   - B. Improper pressure or tension on wire between #0101 and #0088.
   - C. Wire not coming off reel.
   - D. Improper adjustment of #0093.

   Remedy:
   - A. Replace #0088, clean teeth on #0088.
   - B. Set Adjustment as described in Wire Feed Wheel Adjustment, page 22.
   - C. Wire tangled on roll.
   - D. Properly adjust #0093 as described in Adjustment of Pivot Die, page 15.

2. Deformed Ring
   Cause:
   - A. Improper adjustment of #0093.
   - B. Wrong combination of dies.

   Remedy:
   - A. Adjust #0093 as described in Adjustment of the Pivot Die, page 15.
   - B. Check for proper dies installed.

3. Kinking of wire at #0084
   Cause:
   - A. Improper adjustment of #0093.
   - B. Too much bag for size of closure.
   - C. Restriction in wire forming dies.
   - D. Restrictions in #0083 and #0084, metal particles or improper #0083.

   Remedy:
   - A. Adjust #0093 as described in Adjustment of the Pivot Die, page 15.
   - B. Install larger dies.
   - C. Inspect wire travel surface for restrictions.
   - D. Clean out metal particles at #0083 and #0084. Check for proper part installed.

4. Wire Not Shearing
   Cause:
   - A. #0083 and #0096 worn.
   - B. Wire shear adjustment not properly set.
   - C. Toggle adjustment not set.
   - D. #0083 improperly installed.

Remedy:
A. Remove and replace #0083 and/or #0096.
B. Set adjustment as described in Adjustment of Cutter Lever, page 20.
C. Set toggle adjustment as described in Adjustment of Toggle, page 14.

5. Bag Not Tripping Machine
Cause:
A. Set Screws loose on #0225.
B. Brazing on #0719 and #0179 broken loose.
C. Trip finger improperly set.
Remedy:
A. Set trip finger adjustment as described in Trip Finger Adjustment, page 24.
B. Remove and replace #0719 and #0179.
C. Set trip finger adjustment as described in Trip Finger Adjustment, page 24.

6. #0142 Running into Bag
Cause:
A. Trip finger adjustment not properly set.
Remedy:
A. Set trip finger adjustment as described in Trip Finger Adjustment, page 24.

7. Machine Suddenly Stops in Mid-Cycle
Cause:
A. #0088 not timed properly.
B. Clutch system on motor slipping.
Remedy:
A. Time #0088 as described in Timing the Feed Wheel, page 7.
B. Adjust motor slip clutch as described in Motor Slip Clutch, page 26.

8. #0093 Does Not Close or Stay Closed
Cause:
A. #0241 not extended enough.
B. Toggle assembly too short.
Remedy:
A. Adjust #0240 and #0241 as described in Adjustment of the Die Closing Linkage, page 18.
B. Set toggle adjustment as described in Adjustment of the Toggle, page 14.

9. Ratcheting or Grinding Noise in Area of #0214 and #0215.
Cause:
A. Broken or loose #0229.
B. Set screw loose on #0129.
Remedy:
A. Remove and replace broken #0229, tighten mounting nut.
B. Tighten loose set screw, check key for wear.

10. Bent #0124 and #0095 Pins
  Cause:
    A. Toggle (#0125, #0126, #0127) over-extended and jamming.
  Remedy:
    A. Shorten toggle and replace pins, then adjust toggle as described in Adjustment of the Toggle, page 14.

11. Jamming of Bags or Rings
  Cause:
    A. Machine cycling before wire forming area is cleared.
  Remedy:
    A. Always have forming area clear of ring or previously tied bag before machine is cycled again.

12. Bags Not Being Properly Gripped by the Feed System
  Cause:
    A. Inadequate spring pressure on floating portion of feed system.
  Remedy:
    B. Tighten spring pressure on feed system.

These are many of the problems which do occur from time to time. With these problems, as with nearly any of the other problems you might have with your HAMER Bag Closer, it is essential that all the adjustments be checked and adjusted as necessary when problems do arise.

COLOR CODE

PART NUMBER		82	83	88	93	96	142		
MODEL	BAG MAT'L.	RIGID DIE	CUTTER TUBE	FEED WHEEL	PIVOT DIE	CUTTER DIE	PACKER DIE	WIRE GAUGE	RING DIA. (I.D.)
FP 7T RED	POLY	T YELLOW	T	T7 RED	T YELLOW	T7 RED	T7 RED	15	3/8
FP 6T ORANGE	POLY	T6 ORANGE	T	T6 ORANGE	T YELLOW	T6 ORANGE	T6 ORANGE	14	3/8
FP 5T YELLOW	POLY	T YELLOW	T	D YELLOW	T YELLOW	T YELLOW	T YELLOW	14	7/16
FP 5S BLUE	POLY	S BLUE	S	D YELLOW	S BLUE	S BLUE	S BLUE	14	1/2
FP 4D GREEN	POLY	D GREEN	D	N GREEN	D GREEN	D GREEN	D GREEN	14	19/32
O-14 WHITE	PAPER	O-14 WHITE	O-14	O WHITE	O WHITE	O-14 WHITE	O-14 WHITE	14	3/4

LIMITED WARRANTY

Hamer, LLC warrants that each machine manufactured by us shall be free from defects in material and workmanship for a period of one year from the date of shipment to the original purchaser. Hamer, LLC's sole obligation under this warranty shall be limited to the repair or exchange of any part(s), which under normal and proper use and maintenance, proves to our satisfaction, to be defective, provided notice of such defect and a written description of the alleged defect is promptly given by the purchaser.

This warranty does not apply to accident, negligence, abuse or misuse, damage in transit, failure to follow recommended installation procedures, or failure to follow all procedures prescribed in the operations manual.

WHAT IS NOT COVERED: This limited warranty does not cover routine maintenance items, shipping costs, tune ups, adjustments, or normal wear and tear. This warranty excludes items that are considered wear items. Examples of wear items are: belts, chains, pulleys, bearings, springs, Teflon, cylinders, rubber pads, gears and electric components.

Unapproved services, modifications and service parts:

All obligations of Hamer, LLC under this warranty are terminated if the machinery is modified or altered in any way not expressly approved by Hamer, LLC. Use of aftermarket replacement parts is not approved.

Purchasers' responsibilities:

- Read the safety portion of the operators manual before operating the machinery.
- Perform routine maintenance as defined in the operators manual.
- Use only Hamer, LLC authorized replacement and service parts.
- Retain and return **all** parts submitted for warranty replacement.
  Contact Hamer Service at 1-800-927-4674 for an RMA number prior to returning any parts.

THESE WARRANTIES EXCLUDE ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PUPOSE. WE NEITHER ASSUME, NOR AUTHORIZE ANY OTHER PERSON TO ASSUME FOR US, ANY OTHER LIABILITY IN CONNECTION WITH THE SALE OF HAMER, LLC PRODUCTS, PARTS OR COMPONENTS. HAMER, LLC WILL NOT, IN ANY EVENT, BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

HAMER, LLC AND PURCHASER AGREE THAT HAMER'S SOLE AND EXCLUSIVE LIABILITY HEREUNDER IS LIMITED TO REPAIR OR REPLACEMENT OF SUCH GOODS. IN ACCEPTING THIS WARRANTY, THE PURCHASER WAIVES ANY AND ALL OTHER CLAIMS TO WARRANTY.

WARNING

PERSONAL INJURY MAY RESULT

FROM DISREGARDING THE

FOLLOWING SAFETY PRECAUTIONS

-MACHINE IS TO BE PROPERLY CONNECTED TO YOUR BUILDING SAFETY GROUND.

-READ INSTRUCTION MANUAL THOROUGHLY BEFORE OPERATING THIS MACHINE.

-DISCONNECT ELECTRICAL AND AIR POWER BEFORE PERFORMING MAINTENANCE OR REPAIR WORK.

-DO NOT OPERATE MACHINE WITH SAFETY GUARDS REMOVED.

-MACHINE IS TO BE USED ONLY IN A MANNER OUTLINED IN THE INSTRUCTION MANUAL AND ONLY FOR THE PURPOSE FOR WHICH THE MACHINE WAS DESIGNED.