

## Instructions and Parts List

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# 3M-Matic™

## 77R-KS

Model 28900

## Random Case Sealer with

## AccuGlide™

## Taping Heads

Model 18600

**IMPORTANT**  
It is recommended you immediately order the spare parts listed on page 25. These parts are expected to wear through normal use, and should be kept on hand to minimize production delays.

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### 3M Packaging Systems Division

3M Center Bldg. 220-8W-01  
St. Paul, MN 55144-1000



# Replacement Parts and Service Information

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## To Our Customers:

This is the 3M-Matic™/AccuGlide™/Scotch™ brand equipment you ordered. It has been set up and tested in the factory with "Scotch" brand tapes. If technical assistance or replacement parts are needed, call or Fax the appropriate number listed below.

Included with each machine is an Instructions and Parts List manual.

### Technical Assistance:

3M-Matic™ Helpline – 1-800/328 1390. Please provide the customer support coordinator with the machine number, machine type/model and serial number. If you have a technical question that does not require an immediate response, you may Fax it to 715/381 0248.

### Replacement Parts and Additional Manuals

Order parts by part number, part description and quantity required. Also, when ordering parts and/or additional manuals, include machine name, number and type. A parts order form is provided at the back of this manual.

#### **3M/Tape Dispenser Parts**

**241 Venture Drive  
Amery, WI 54001-1325**

**1-800/344 9883  
FAX# 715/268 8153**

**Minimum billing on parts orders will be \$25.00. Replacement part prices available on request.**

**\$10.00 restocking charge per invoice on returned parts.**

**Note : Outside the U.S., contact the local 3M subsidiary for parts ordering information.**



**3M Packaging Systems Division  
3M Center, Building 220-8W-01  
St. Paul, MN 55144-1000**

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Instruction Manual  
77R-KS Random Case Sealer  
Model 28900

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**Equipment Warranty and Limited Remedy:** THE FOLLOWING WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OF IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, A CUSTOM OR USAGE OF TRADE:

3M sells its 3M-Matic™ 77R-KS Random Case Sealer, Model 28900 with the following warranties:

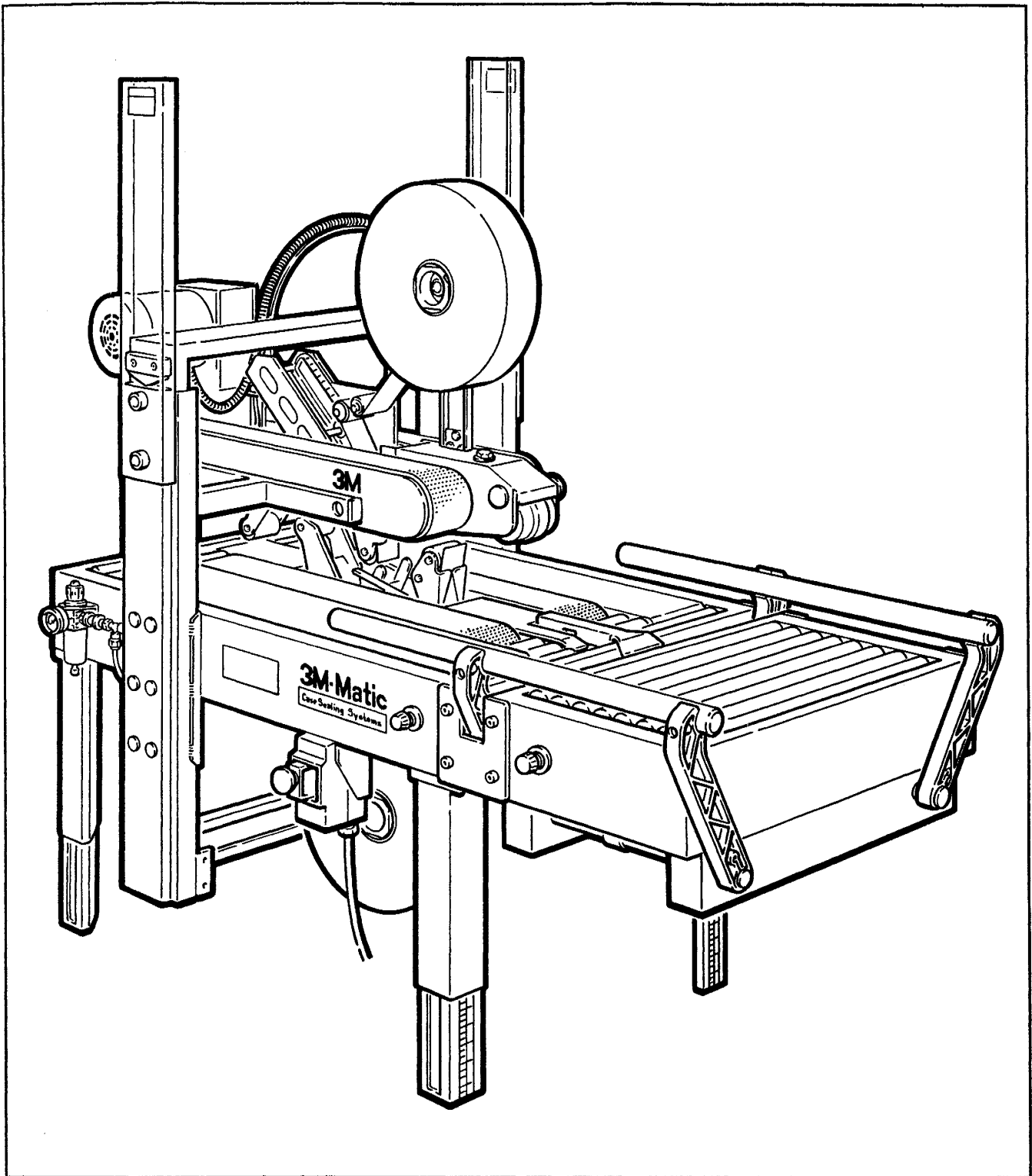
1. The Taping Head knife blades, springs, and rollers will be free from all defects for ninety (90) days after delivery.
2. All other Taping Head parts will be free from all defects for three (3) years after delivery.
3. a. (for 200a, 700a, and 700r) The gearmotor will be free from all defects for one (1) year after delivery.
3. b. (for all other case sealers listed) The motor and transmission will be free from all defects for one (1) year after delivery.
4. All other parts will be free from all defects for ninety (90) days after delivery.

If any part is proved to be defective within its warranty period, then the exclusive remedy and 3M's and seller's sole obligation shall be, at 3M's option, to repair or replace the part, provided the defective part is returned immediately to 3M's factory or an authorized service station designated by 3M. A part will be presumed to have become defective after its warranty period unless the part is received or 3M is notified of the problem no later than five (5) calendar days after the warranty period. If 3M is unable to repair or replace the part within a reasonable time, then 3M, at its option, will replace the equipment or refund the purchase price. 3M shall have no obligation to provide or pay for the labor required to install the repaired or replacement part. 3M shall have no obligation to repair or replace (1) those parts failing due to operator misuse, carelessness, or due to any accidental cause other than equipment failure, or (2) parts failing due to non-lubrication, inadequate cleaning, improper operating environment, improper utilities, or operator error.

**Limitation of Liability:** 3M and seller shall not be liable for direct, indirect, special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Equipment Warranty and Limited Remedy and Limitation of Liability may be changed only by a written agreement signed by authorized officers of 3M and seller.

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**"3M-Matic" 77R-KS Random Case Sealer - Model 28900**

#### **Description**

The "3M-Matic" 77R-KS Case Sealer with "AccuGlide" Taping Heads is designed to apply a "C" clip of "Scotch" Brand Pressure-sensitive Film Box Sealing Tape to the top and bottom center seams of regular slotted containers. The 77R-KS will automatically adjust itself to a wide range of random box sizes (see box size specifications).

## Receiving And Handling

After the machine has been uncrated, examine the Case Sealer for damage that might have occurred during transit. If damage is evident, file a damage claim immediately with the transportation company and also your 3M Representative.

Spare parts, tools, and oil can are provided in a small plastic case. Remove and keep with Case Sealer for use in set-up, operation, and maintenance.

Several machine components are tied down to prevent damage during transit. Remove these before proceeding with following set-up instructions.

## Specifications

### 1. Power Requirements:

115V, 60 Hz., 5.6 A.

70 PSIG [485 kPa gauge pressure], 2.5 SCFM [4,25 m<sup>3</sup>/h 21°C, 101 kPa] maximum at maximum random cycle rate.

A pressure regulator-filter is included.

### 2. Machine Dimensions:

#### Overall Dimensions

#### For Shipping Purposes

A. Length	-	60 inches [1,525 m]	63 inches [1,600 m]
B. Width	-	34 1/2 inches [0,875 m]	
C. Height	-	70 inches [1,780 m]	

(Specifications continued on next page.)

## Specifications (Continued)

- D. Conveyor Bed Height - Adjustable up and down from factory set height of 24 5/8 inches [625 mm].
- E. Weight - 450 pounds [205 kg] crated  
- 405 pounds [185 kg] uncrated

### 3. Operating Rate:

Up to 12 boxes per minute depending on box size, weight, and operator capability. Higher rates are possible through box size range of fixed size adjustments provided.

### 4. Operating Conditions:

Use in dry, relatively clean environments at 40° to 105°F [5° to 40°C] with clean dry boxes.

<b>IMPORTANT SAFEGUARD</b>
----------------------------

Machine should not be washed down or subjected to conditions causing moisture condensation on components.

### 5. Tape:

"Scotch" brand pressure-sensitive film box sealing tapes.

### 6. Tape Width:

2 inches [50 mm] minimum to 3 inches or 72 mm maximum.

### 7. Tape Roll Diameter:

Up to 15 1/2 inches [395 mm] maximum on a 3 inch [76,2 mm] diameter core. (Accommodates all system roll lengths of "Scotch" brand film tapes.)

### 8. Tape Application Leg Length:

2 3/4 inches  $\pm$  1/4 inch [70 mm  $\pm$  6 mm]

### 9. Box Board:

125 to 275 P.S.I. bursting test, single wall A, B, or C flute.

(Specifications continued on next page.)

## Specifications (Continued)

### 10. Box Weight and Size Capacities:

A. Box weight, filled - up to 5 lbs. [2,3 kg] minimum, 85 lbs. [37 kg] maximum

B. Box size:	Minimum	Maximum
Length -	6.0 inches or 150 mm	unlimited
Width -	* 7.0 inches or 175 mm	26 inches or 660 mm
Height -	4 3/4 inches or 120 mm	** 36 inches or 915 mm

\* Cartons smaller than 8 inches or 200 mm in width may require more frequent belt replacement because of limited contact area.

\*\* Some adjustment required. See page 14. Minimum height changes when maximum height adjustment is changed.

Special modifications may be available for carton sizes not listed above. Contact your 3M Representative for information.

**Note:** The Case Sealer can accommodate most boxes within the size range listed above. However, if the box length (in direction of seal) to box height ratio is .5 or less, then several boxes should be test run to assure proper machine performance.

**DETERMINE THE BOX LIMITATIONS BY COMPLETING THIS FORMULA:**

**BOX LENGTH IN DIRECTION OF SEAL**      **MUST BE GREATER THAN .5**  
**BOX HEIGHT**

Any box ratio approaching this limitation should be test run to assure performance.



## Set-Up Procedures

It is recommended that the 77R-KS Case Sealer be set-up and operated with product before placing it in the production line. This approach will allow your thorough review and familiarization with the 77R-KS before subjecting it and operating personnel to a production situation where time for set-up, adjustments, and operator training usually becomes limited.

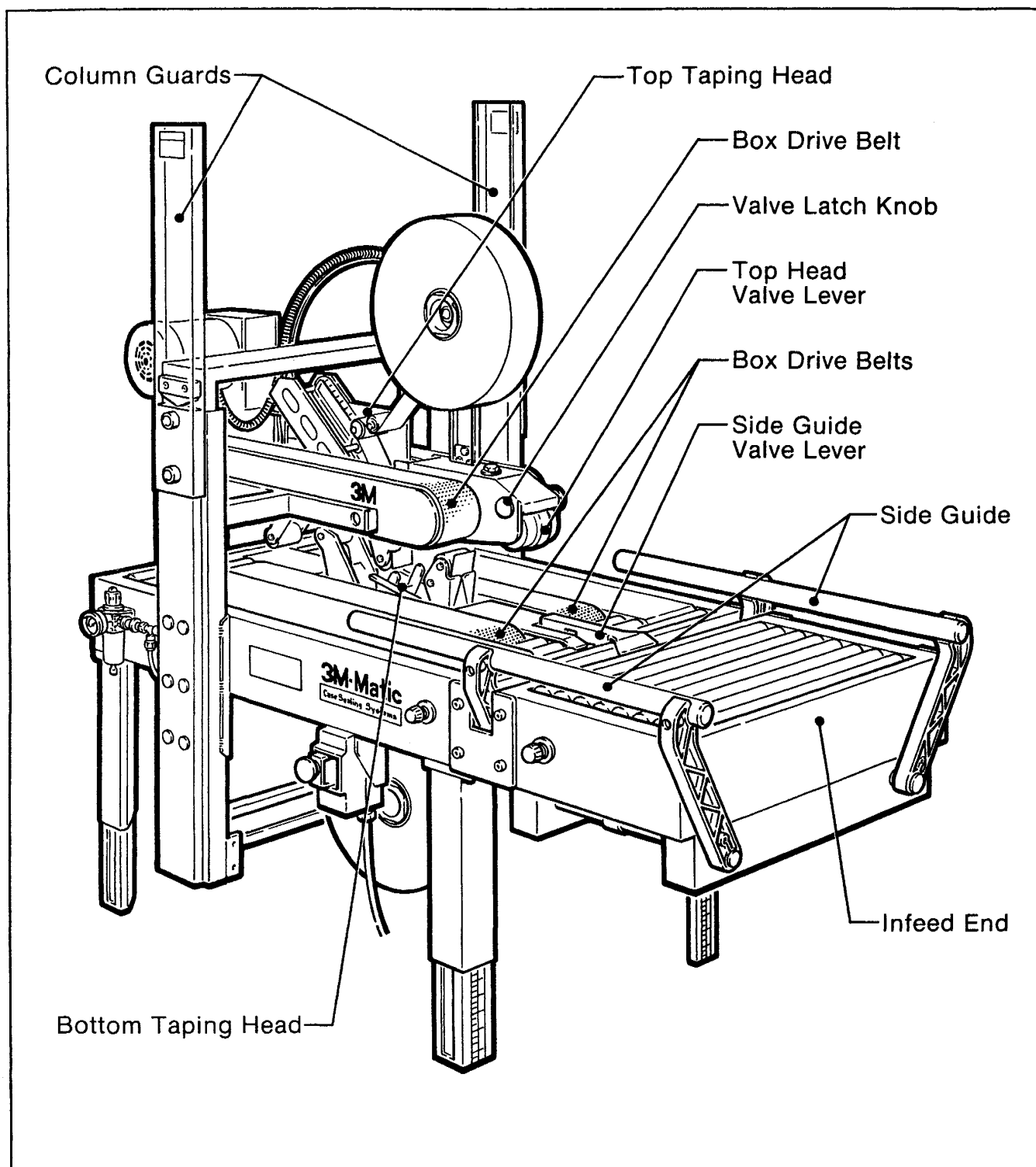


Figure 1 - Set-Up Instructions - Case Sealer Components - Left Front View

## Set-Up Procedure (Continued)

The following instructions are presented in the order recommended for setting up and installing the 77R-KS Case Sealer, as well as for learning the operating functions and adjustments. Following them step by step will result in your thorough understanding of the machine and an installation in your production line that best utilizes the many features built into the 77R-KS Case Sealer.

### Conveyor Bed Height:

The 77R-KS Case Sealer is equipped with four adjustable legs that are located at the corners of the frame. The legs can be adjusted to obtain different machine conveyor bed heights from 20 1/2 inches [520 mm] minimum to 31 1/2 inches [800 mm] maximum.

The recommended minimum machine conveyor bed height (measured from floor) is 24 inches [610 mm].

Refer to Figure 2A and set the conveyor bed height as follows:

1. Block up the machine frame to allow adequate leg adjustment.
2. Loosen, but do not remove, two M8 x 16 mm socket head screws in one leg. Adjust the leg length for the desired conveyor bed height. Retighten the two screws to secure the leg. Adjust all four legs as noted.

The tape drum bracket assembly, located on the bottom taping head, has two mounting positions to allow maximum tape roll capacity through the machine conveyor bed height range.

For conveyor bed heights 24 inches and above, use mounting position shown in Figure 2B.

For conveyor bed heights below 24 inches, use mounting position shown in Figure 2C.

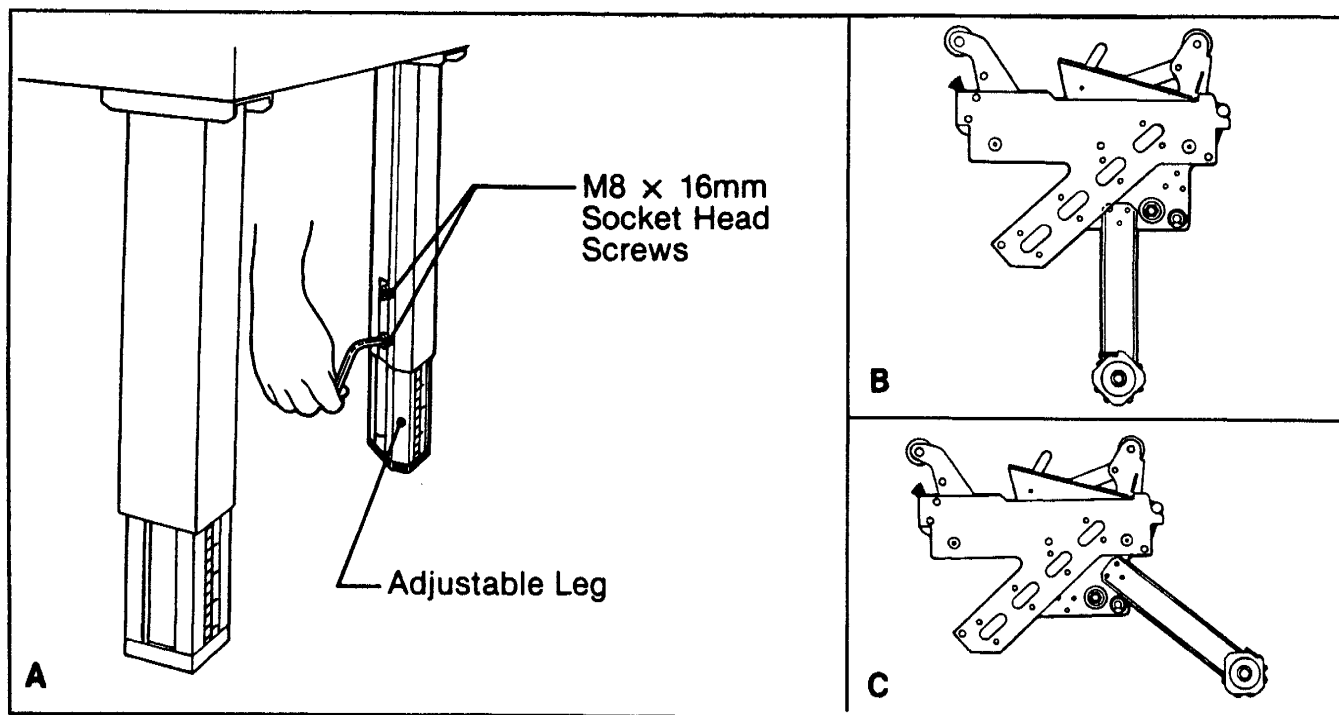
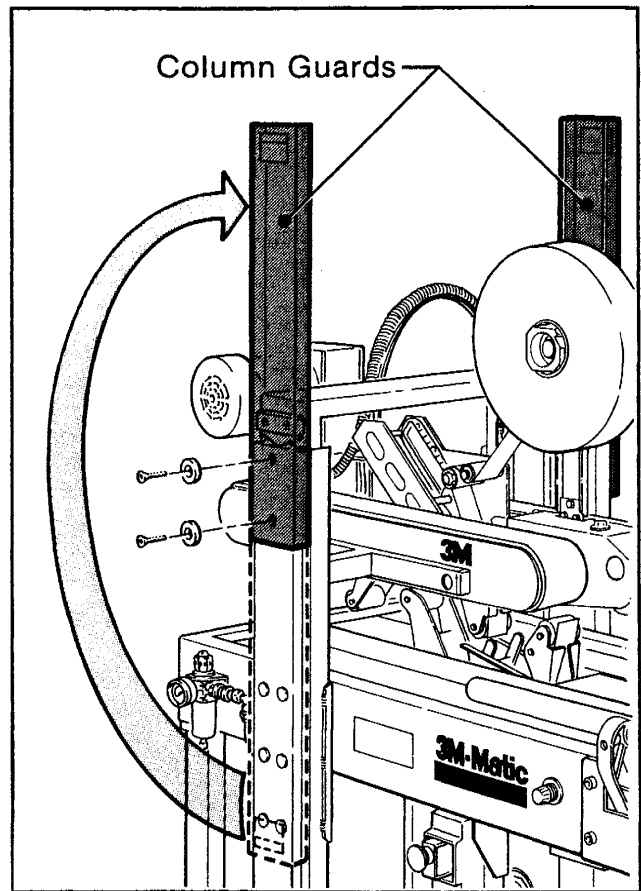


Figure 2 - Conveyor Bed Height Adjustment

## Set-Up Procedure (Continued)

**Column Guards** Refer to Figure 3.

**Remove and retain screws holding plastic column guards in shipping position on columns. Remove guards and rotate 180° and install back on column as shown. Replace existing screws to secure guards in place.**



**Figure 3 - Column Guard**

## Set-Up Procedure (Continued)

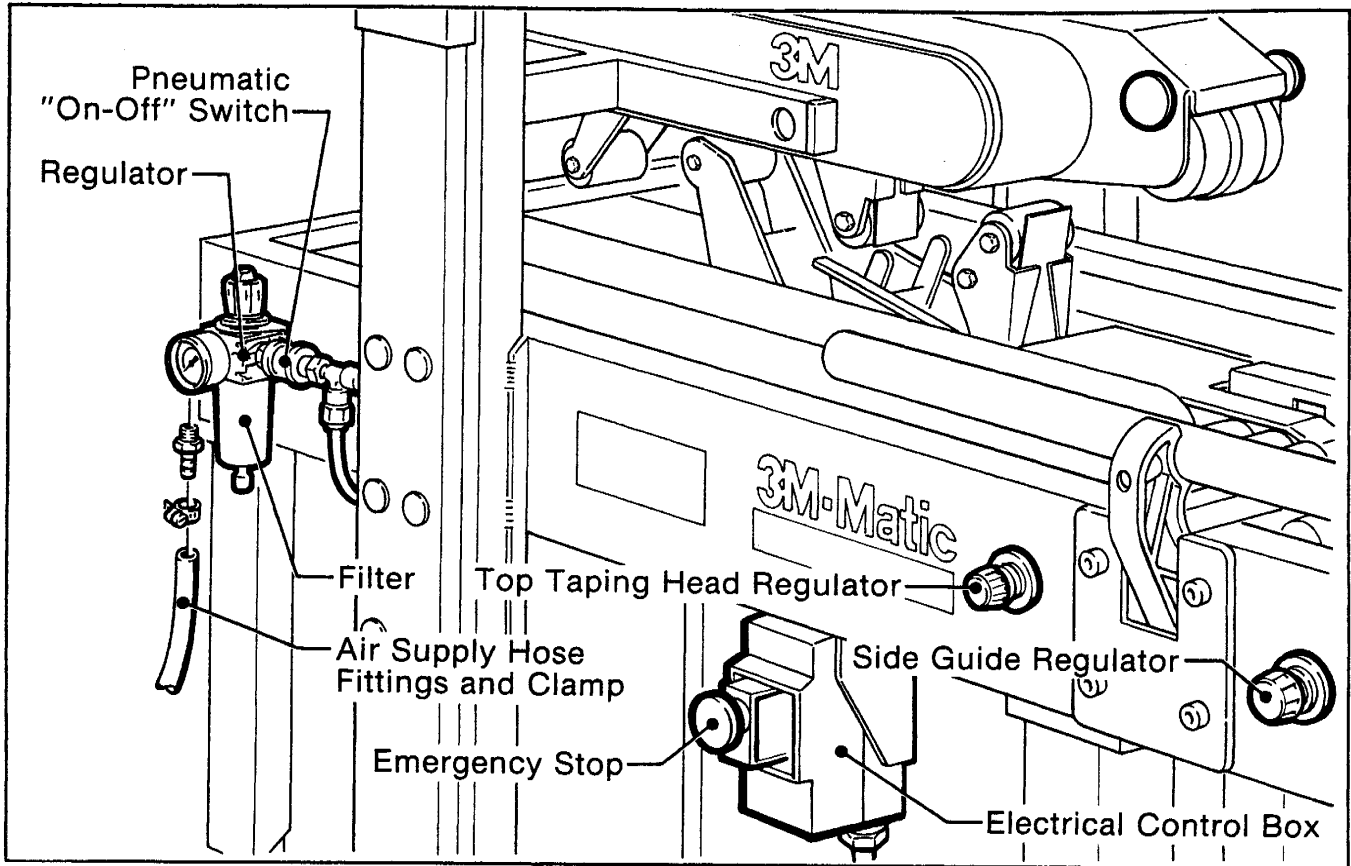


Figure 4 - Electrical - Pneumatic Connections

### Electrical Connection

The electrical control box, shown in Figure 4, contains the "On/Off" switch with pre-set circuit breaker and can be located on either side of the main conveyor for customer operating convenience. A standard three conductor power cord with plug is provided at the back of the electrical control box for 115 Volt, 60 Hz, 5.6 amp electrical service. The receptacle providing this service shall be properly grounded. The electrical power supply is turned "On" by pressing the Green button, "Off" by pressing the Red button. Before the power cord is plugged into a 115 Volt, 60 Hz outlet, make sure the Red button is depressed and that all packaging materials and tools are removed from the machine.

**Note:** Machines outside the U.S. may be equipped with 220/240 Volt, 50 Hz systems, or other electrical requirements compatible with local practice.

### Pneumatic Connection

The case sealer requires a 70 PSIG [485 kPa gauge pressure], 2.5 SCFM [4,25 m<sup>3</sup>/h 21° C, 101 kPa] compressed air supply. As illustrated in Figure 4, an on/off valve, pressure regulator, and filter are provided to service the air supply.

The air supply line should be connected to the on/off valve by means of the union fitting and hose clamp provided on the outer side of the on/off valve as illustrated. The customer supplied air hose should be slipped over the union ferrule and clamped tightly in place.

## Set-Up Procedure (Continued)

If another type of connector between the air supply line and on/off valve is desired, the union fitting and/or elbow can be removed and replaced with desired connector. The on/off valve inlet port has 1/8-28 British Standard pipe threads.

The sliding "On"/"Off" valve is utilized to turn the air supply to the pneumatic components on and off once the air supply line is connected and energized. **Always** slide the valve to "Off" when the air supply line is being connected or disconnected.

Remove all packaging materials and tools from the machine. Turn the valve to "Off" and connect the air line. Turn the valve to "On" to energize the pneumatic components.

## Pneumatic Component Controls

In addition to the on/off valve described in the preceeding "Pneumatic Connection" Section, the pneumatic components have several controls and settings which will be covered in this section.

To provide independent adjustment of the side guide and top taping head movements, the air supply is routed through the main pressure regulator and filter assembly and then split into two separate circuits. Both the side guide and top taping head circuits have controls and settings as follows: (refer to Figures 6 - 7).

**Note:** All air pressure regulators discussed below have a red lock ring behind the adjustment knob, as shown in Figure 7. The red lock ring should be pulled toward the knob to unlock the knob for air pressure adjustment, pushed back against the regulator body to lock the knob after adjustment if desired.

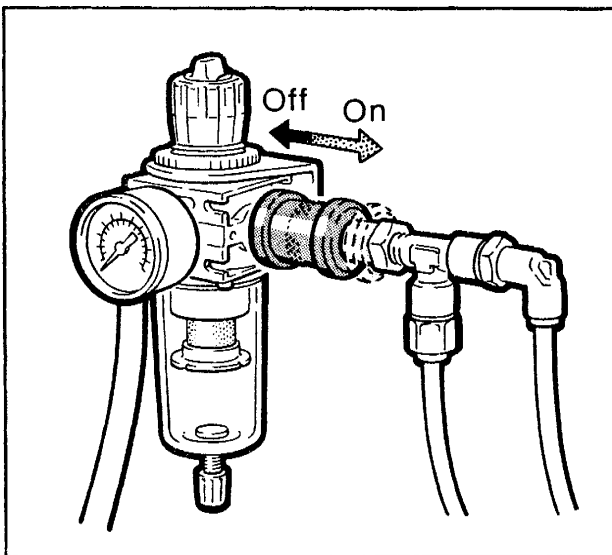


Figure 5 - Pressure Regulator And On/Off Valve

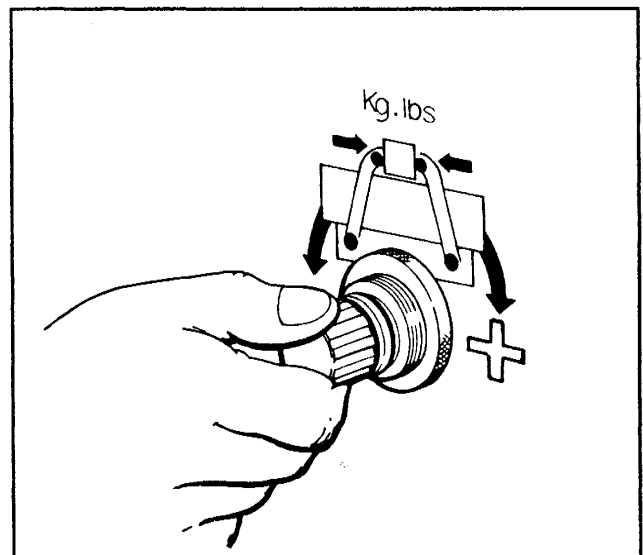


Figure 6 - Side Guide Pneumatic Regulator

## Side Guide Movement Circuit

The regulator, shown in Figure 6, is used to adjust side guides according to weight of boxes. Pressure should be adequate to center boxes, but low enough to allow easy pushing of boxes under taping head.

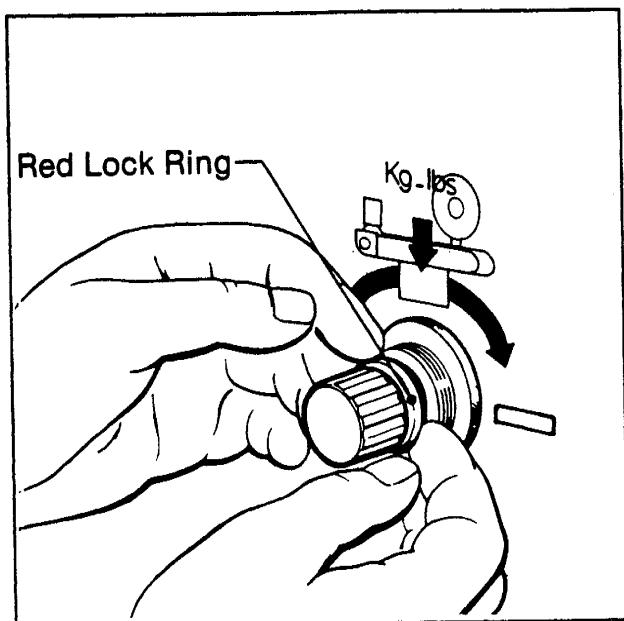


Figure 7 - Top Head Pneumatic Regulator Locking Ring

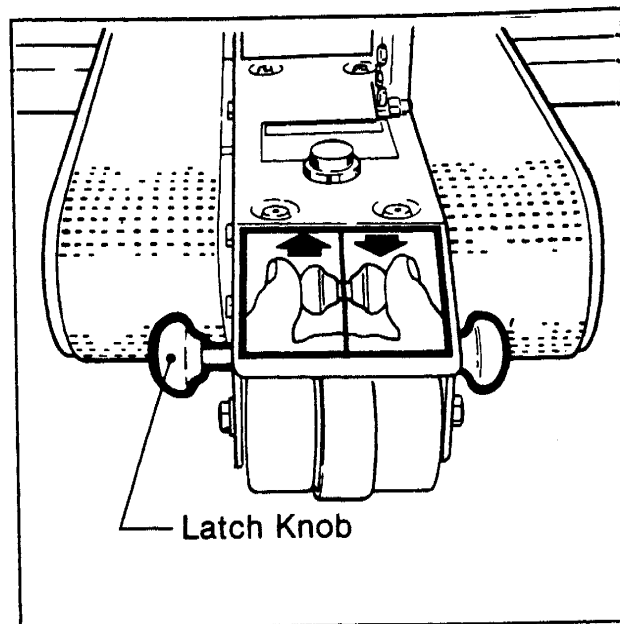


Figure 8 - Top Head Valve Latch Knob

#### Top Taping Head Movement Circuit

##### "Down" Movement Air Pressure Regulator (Refer to Figure 7)

Set nominally to control "down" movement of top taping head and the top taping head pressure exerted against the box. The regulator setting is changed as necessary for the boxes being sealed to provide adequate top taping head pressure against the box to positively convey the boxes through the machine. If the boxes stop or hesitate while being conveyed, decrease the regulator pressure which will increase the top taping head pressure on the box for more friction between the box and drive belts. Adjust setting as necessary to get continuous movement of boxes through machine.

For boxes which are fully packed with products that support the top flaps, the adjustment of this regulator is not critical since the boxes can support the pressure of the top taping head at a wide range of regulator settings. However, if underfilled or fragile boxes are sealed, this regulator can be used to set the top taping head pressure to a minimum that is still adequate to positively convey the box and to prevent damage of boxes.

##### Top Taping Head Valve Latch Knob (Refer to Figure 8)

To hold the top taping head at the fully raised position for tape threading and maintenance, a latch is provided to hold the valve closed. To engage the latch, manually push the knob from left to right. The top taping head will then be held at the fully raised position. Push the knob from right to left to lower the top taping head.

## Set-Up Procedure (Continued)

### IMPORTANT SAFEGUARDS

1. BOTH THE TOP AND BOTTOM TAPING HEADS UTILIZE EXTREMELY SHARP KNIFE BLADES ON THE ORANGE CUTTER LEVER ASSEMBLY AND WHICH ARE LOCATED UNDER THE BLADE GUARD WHICH HAS THE "WARNING - SHARP KNIFE" LABEL. BEFORE WORKING WITH THE TAPING HEADS OR ATTEMPTING TO LOAD THE TAPE, REFER TO FIGURES 9 AND 9A TO IDENTIFY THE BLADE LOCATION. KEEP HANDS OUT OF THESE AREAS EXCEPT AS NECESSARY TO SERVICE THE TAPING HEADS.
2. NEVER ATTEMPT TO WORK ON THE TAPING HEADS OR LOAD TAPE WHEN THE BOX DRIVE BELTS ARE RUNNING.
3. BOX DRIVE MOTORS ARE DESIGNED TO RUN AT A MODERATE TEMPERATURE OF 120° F [49° C]. IN SOME CASES THEY MAY FEEL WARM TO THE TOUCH.

### Tape Loading

The taping heads have been pre-set to accommodate 2 inch [50 mm] wide tape rolls. To apply 3 inch or 72 mm wide tapes, refer to "Adjustments" Section for set-up information.

Two temporary threading needles are shipped in threaded position for initial tape loading convenience. Retain these for continued use in the tape loading operation. For operator assistance, a threading diagram has been applied to the taping heads. However, it is recommended that the more detailed instructions and sketches in this manual be referred to the first few times the unit is loaded until the operator becomes thoroughly familiar with the tape loading operation. The bottom taping head can be removed from unit by lifting out for convenience in tape loading.

### Tape Loading - Top Taping Head



**WARNING - NEVER ATTEMPT TO WORK ON THE TAPING HEADS OR LOAD TAPE WHEN THE BOX DRIVE BELTS ARE RUNNING. PERSONNEL INJURY OR EQUIPMENT DAMAGE CAN POTENTIALLY RESULT.**

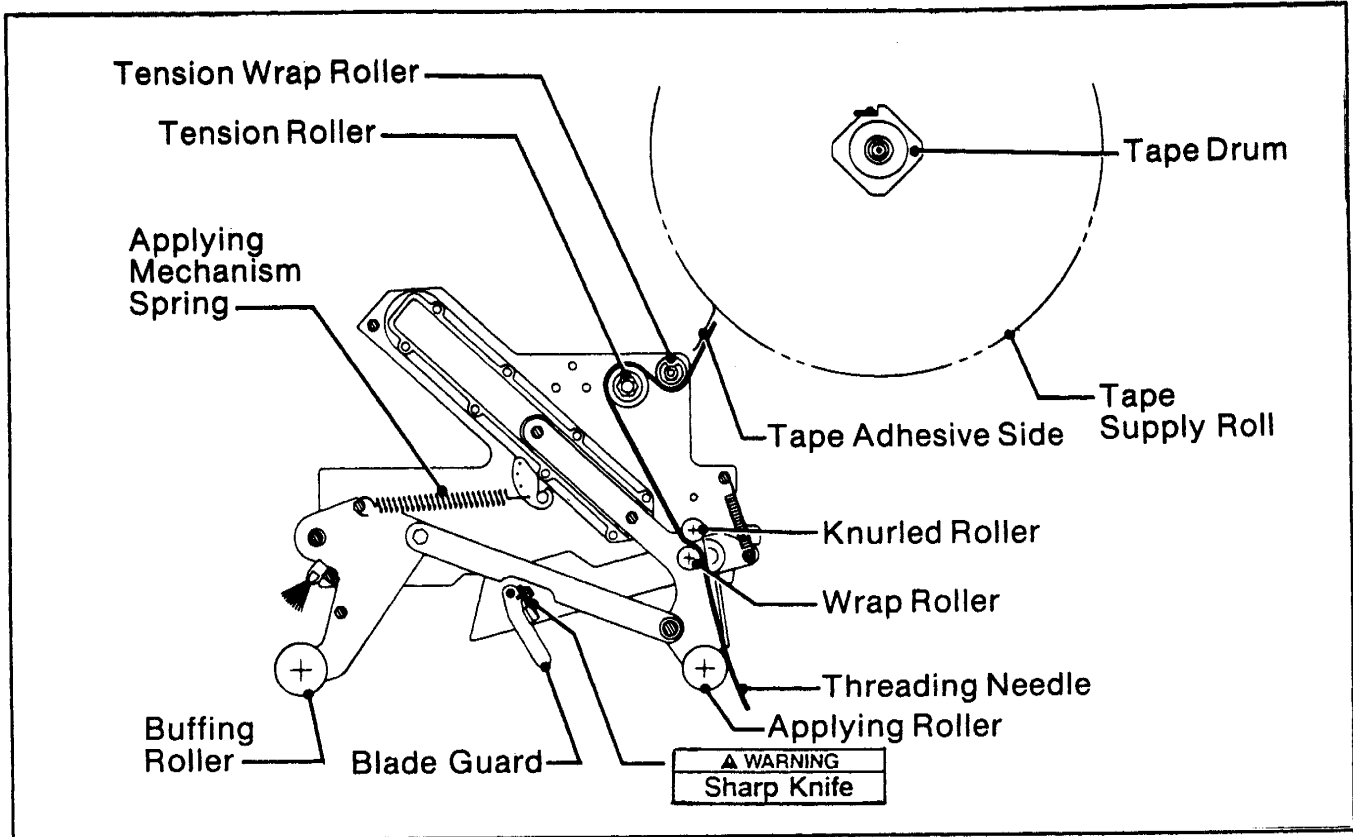
1. It is first necessary to raise the top taping head. Utilize the valve latch knob and move the top taping head to the fully raised position.
2. With the temporary threading needle already in position, as shown in Figure 9, follow the tape loading procedure from Figure 9C to complete the tape threading.
3. For subsequent tape loading operations, use the red plastic threading needle and follow the loading procedures from Figure 9B to complete the tape threading.

### Tape Loading - Bottom Taping Head - Refer to Figure 9A

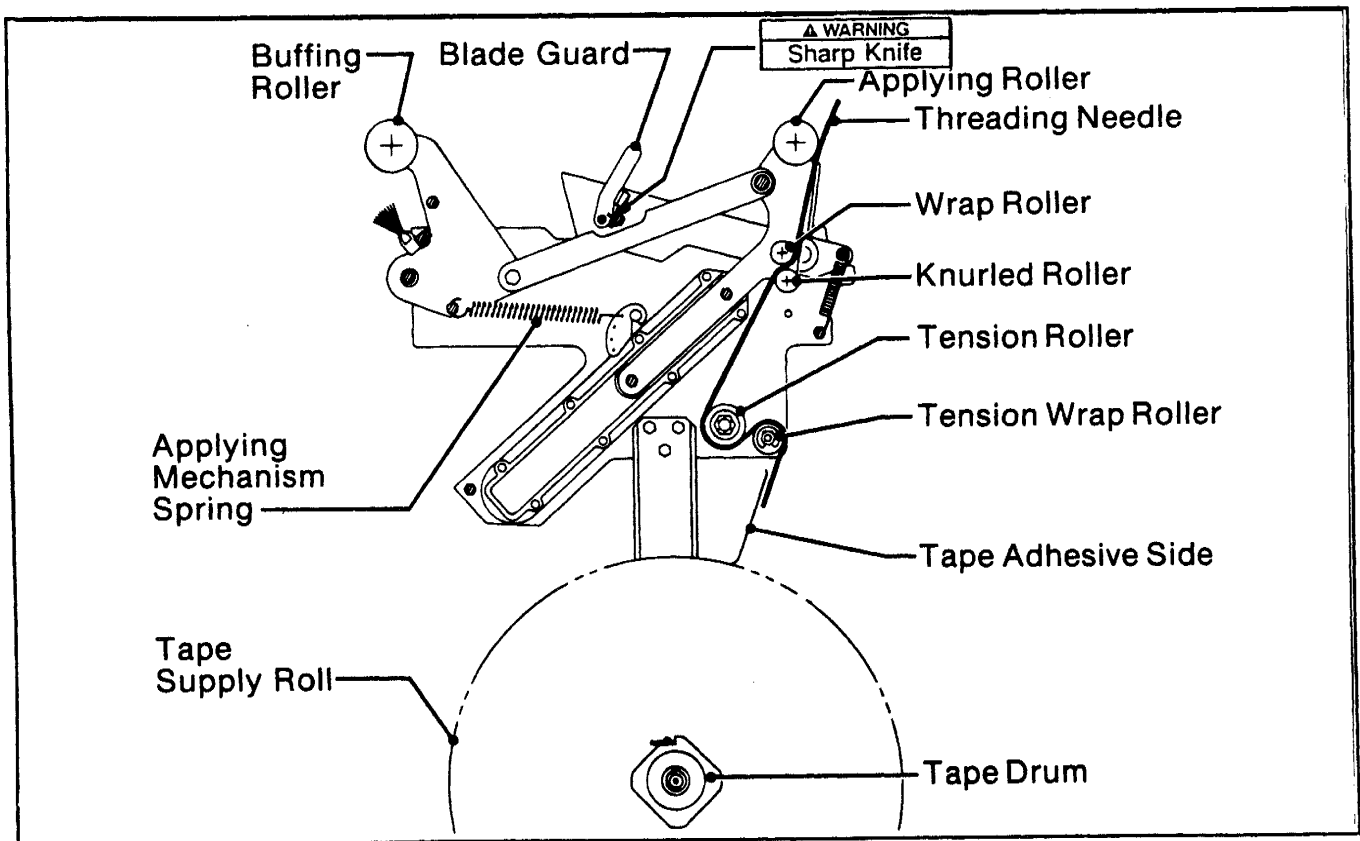
The bottom taping head is loaded and threaded in the same manner as the top taping head.

For ease in loading, first remove the bottom taping head from the conveyor bed and follow the top taping head tape loading procedure.

**Set-Up Procedure (Continued)**



**Figure 9 - Tape Threading Diagram - Top Taping Head - Left Side View**



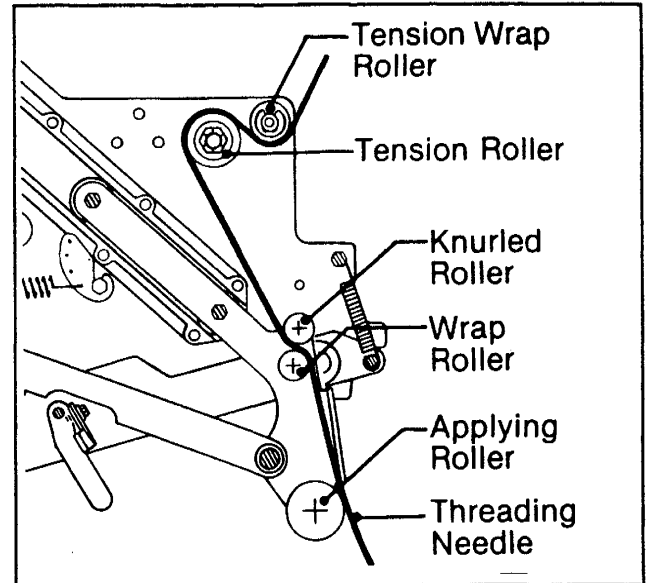
**Figure 9A - Tape Threading Diagram - Bottom Taping Head - Left Side View**



## Set-Up Procedure (Continued)

**Figure 9B**

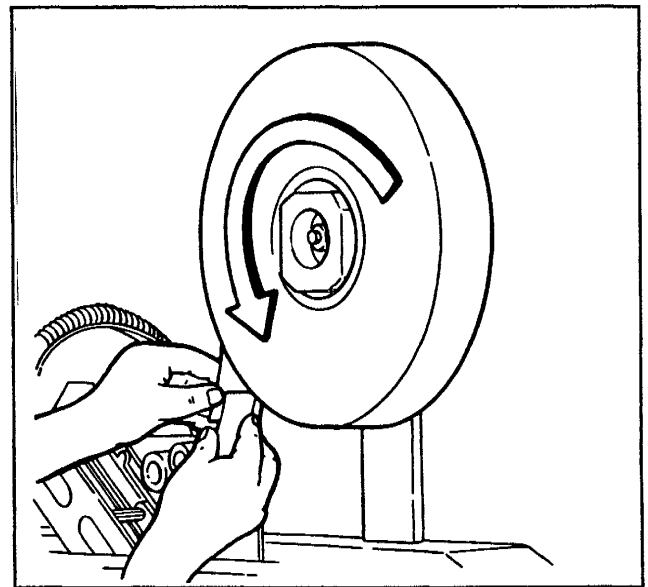
Insert the red plastic needle **downward** around rollers as illustrated.



**Figure 9B**

**Figures 9B and 9C**

Place tape roll on drum to **dispense** tape from **bottom** of roll toward tension wrap roller with tape **adhesive side in**. Seat tape roll fully against back flange of drum. Adhere tape lead end to upper end of threading needle as shown.



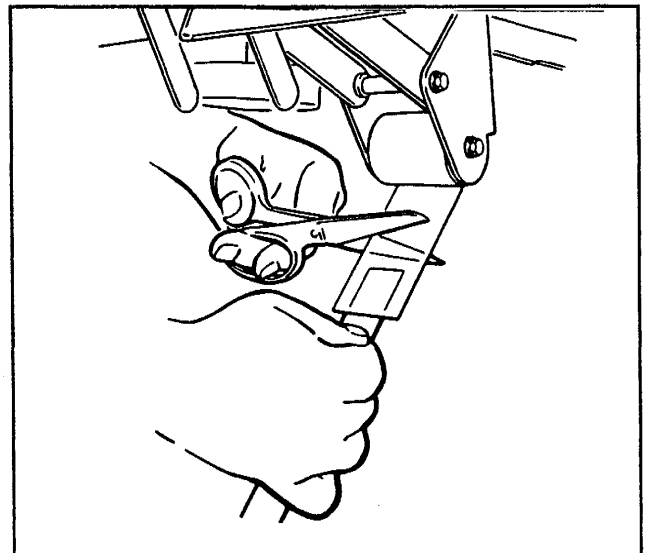
**Figure 9C**

**Figure 9D**

**⚠ WARNING - USE CARE WHEN WORKING NEAR BLADES AS BLADES ARE EXTREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSONNEL COULD RESULT.**

Manually turn tape roll to create slack tape while pulling threading needle through tape applying mechanism until needle is through and tape is in alignment with applying roller.

Excess tape can be cut with a scissors or knife at applying roller.



**Figure 9D**

## Set-Up Procedure (Continued)

### Box Size Set-Up

The 77R-KS Case Sealer has been pre-assembled, for shipping purposes, to accommodate a box height up to 25 1/2 inches or 650 mm (4 3/4 inches or 120 mm minimum). Box heights up to 32 inches or 815 mm (11 1/4 inches or 285 mm minimum) are obtained by raising the top taping head frame. In addition, the maximum box height of 36 inches or 915 mm (15 1/4 inches or 390 mm minimum) is obtained by also raising the top taping head frame columns. Determine the box height needed and follow the procedures as noted below.

**! WARNING - IT IS RECOMMENDED THAT NO LESS THAN TWO PEOPLE ASSIST ON THESE SET-UPS OR SEVERE INJURY OR EQUIPMENT DAMAGE COULD RESULT.**

**To Raise Top Taping Head Frame -**  
Refer to Figure 10.

Place a box or blocks under the top taping head to provide adequate support. Use the valve latch knob to lower taping head until its full weight is supported. Remove and retain the four screws on both side of the head frame.

Mount the frame support to the upper set of holes in the inner column, as shown, and secure with the four screws on each side of the frame.

**To Raise Top Taping Head Frame Columns-**  
Refer to Figure 11.

Use the valve latch knob to fully raise top taping head. Place boxes or blocks under the taping head to provide adequate support. Remove and retain the six plugs and four column screws on both sides of the bed frame. Raise the column to the upper position, as shown, and secure with the four screws on each side of the bed frame. Replace all plugs.

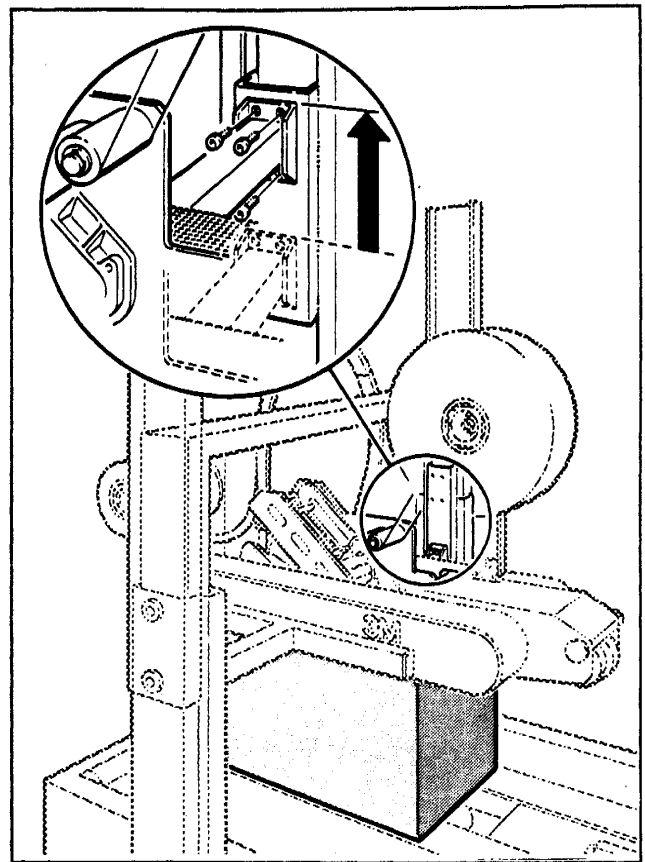


Figure 10

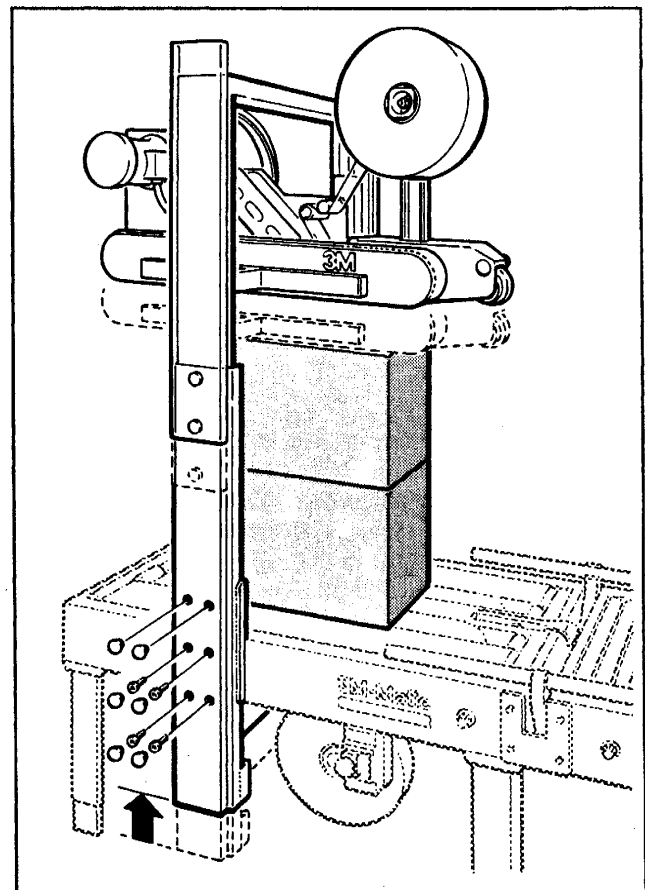


Figure 11

## Operation

### Pneumatic Components Function

The air supply powers movement of the side guides and top taping head to automatically adjust the Case Sealer to the box size being sealed as follows (refer to Figures 12-14):

1. A valve lever in the center of the infeed roller conveyor actuates movement of the side guides. When the operator pushes a box onto the infeed conveyor, as shown in Figure 12, the lever is depressed causing the air cylinder powered side guides to move inward, therefore centering the box.

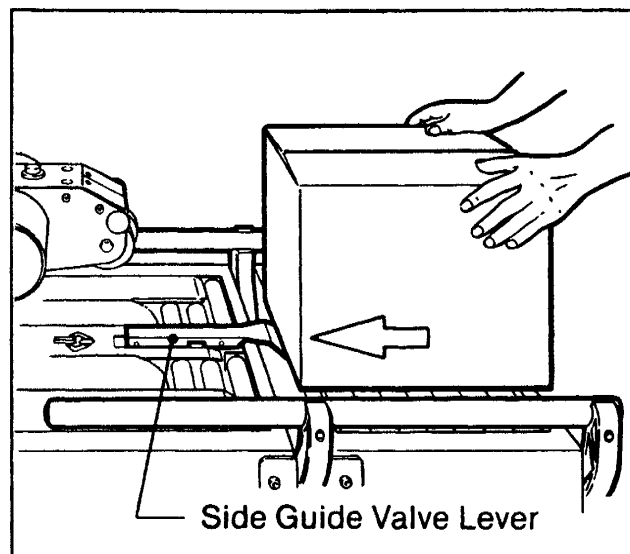


Figure 12 - Side Guide Valve Lever

2. Once the box is centered by the side guides, the operator pushes the box against the valve lever on the top taping head, as shown in Figure 13, causing the top taping head to be raised by two air cylinders. The top taping head will continue to rise above the box height so the operator can insert the box underneath the top taping head drive belts.

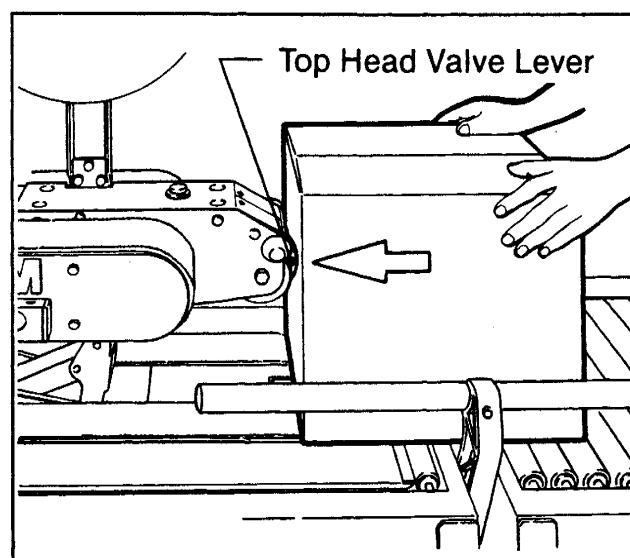


Figure 13 - Top Taping Head Valve Lever

3. Once the box is pushed under the top taping head, the top taping head valve lever is released causing the top taping head to descend onto the box top, as shown in Figure 14, allowing the drive belts to convey the box through the top and bottom taping heads for application of the tape seals.

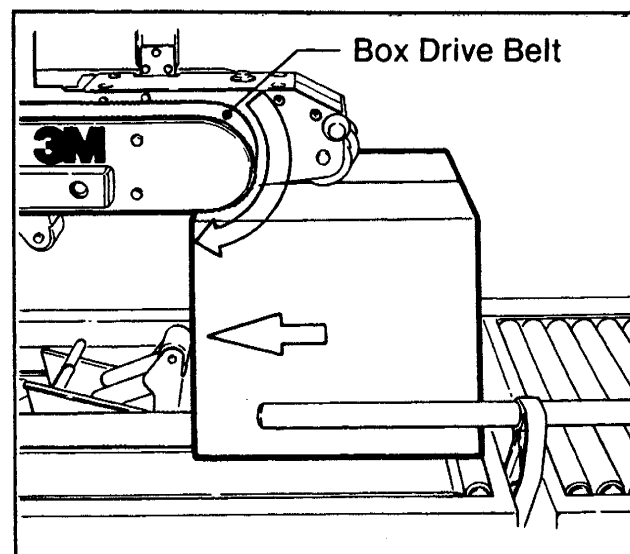


Figure 14 - Drive Belts

## Operation (Continued)

4. As the box is conveyed through the machine, the **side guide valve lever** is released causing the **side guides** to return to their **full open position**, ready for insertion of the next box.
5. Once the box is conveyed from under the top taping head, the **top taping head** descends to its **rest position**, ready for insertion of the next box.

At this point it is recommended that the side guide and top taping head valve levers be manually actuated to understand the functions described above. Depressing the side guide valve lever causes the side guides to close, releasing the valve lever causes the side guides to open. Depressing the top taping head valve lever causes the top taping head to rise, releasing the valve lever causes the top taping head to descend.

Once the pneumatic component functions are understood, it is recommended that the electrical supply also be turned on and pre-taped boxes fed through the case sealer following the **pneumatic component sequence 1 through 5**. This will insure that the operating sequence and powered component functions are understood.

## SPECIAL USE SET-UP - BOX HEIGHT RANGE - Refer to Figure 15

The operating range of the top taping head can be adjusted to minimize its movement to the range of box heights being sealed. Therefore, the operating speed can be increased. The range is established by limiting the lowest position of the top taping head through positioning the top stop bumpers at different levels on the top taping head frame. After establishing the minimum box height to be sealed, position the stop bumpers as follows:

1. Feed the minimum height box into the case sealer and shut off the electrical power so the box is stopped under the top taping head (figure 15A).
2. Remove and retain the screws, washers, plastic guards and bumper stop plate on both side columns of the main frame (figure 15B).
3. Remove and relocate the stop bumper assembly to the next available mounting position on both sides of the top frame (figure 15C). Be sure that the stop bumpers are resembled as shown and secure.
4. Install the two stop bumper plates and column guards as shown and secure with the washers and screws.
5. Turn on the electrical power to complete conveying of the box through the case sealer. The top taping head will then descend to the lowest position necessary to accommodate your range of box heights.

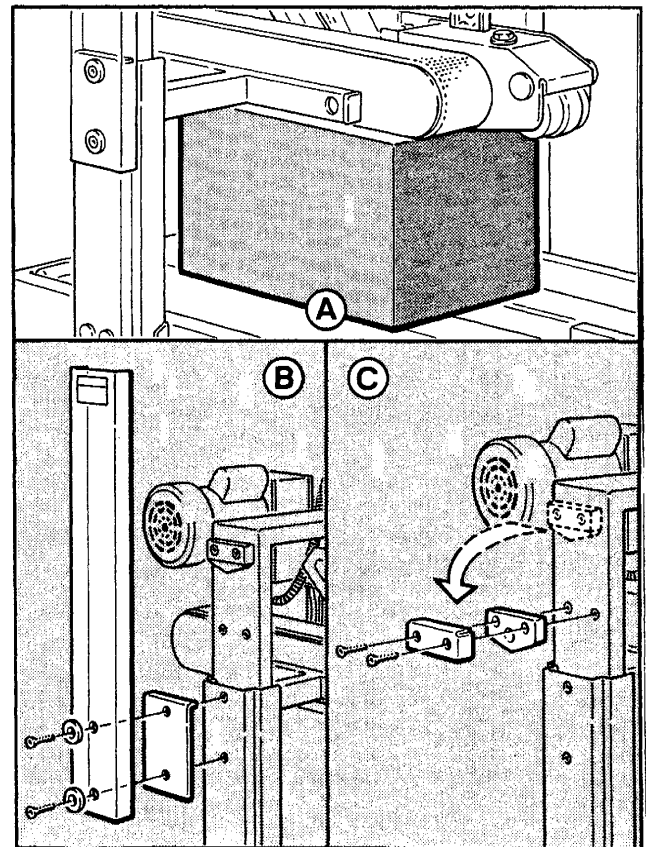


Figure 15

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## Adjustments

### Tape Drum Assembly - Friction Brake

The tape drum assembly provides adjustable friction brake to prevent tape roll over travel.

The friction brake is pre-set for normal operation. If it should be necessary to change the braking force, adjust the knurled nut shown in Figure 16A. Clockwise to increase braking force, counterclockwise to decrease braking force.

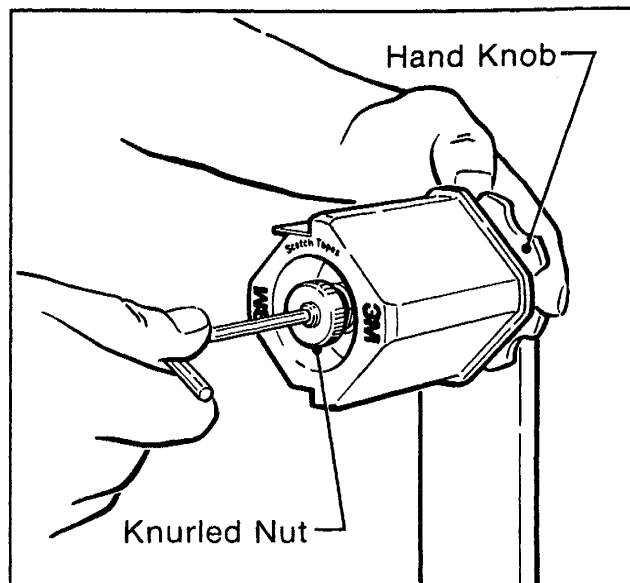


Figure 16A

### Tape Web Alignment - Refer to Figure 16A

The tape drum assembly on each taping head is pre-set to accommodate 2 inch [50 mm] wide tape. The tape drum assembly provides adjustment to align other tape widths on the centerline of the taping head, (and therefore box center seam). Make adjustment as follows:

1. Loosen hand knob behind tape drum.
2. Turn tape drum shaft in or out to center tape web.
3. Tighten hand knob to secure adjustment.

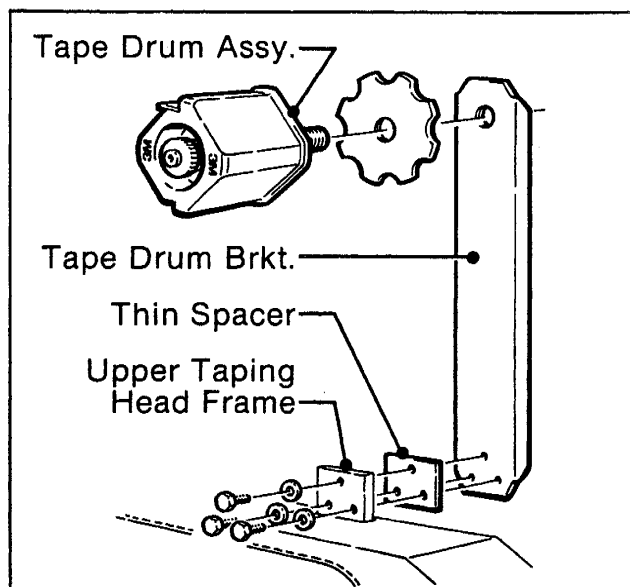


Figure 16B

### 3 Inch or 72 mm Wide Tape (Upper Taping Head) Refer to Figure 16B

### (Lower Taping Head) Refer to Figure 16C

1. Remove and retain three screws and washers that hold tape drum bracket to upper taping head frame.
2. Rotate bracket 180° as shown and mount to frame with existing fasteners.
3. Remove and reassemble tape drum assembly to bracket as shown.
4. Make alignment adjustment as noted above.

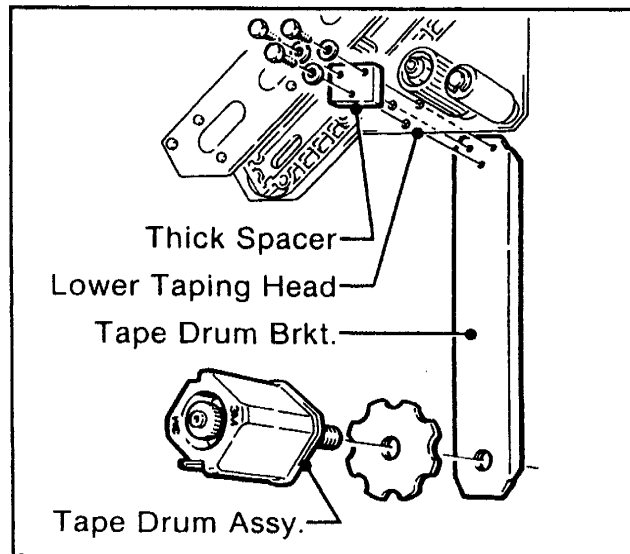


Figure 16C

## Adjustments (Continued)

### Applying Mechanism Spring

The applying mechanism spring, shown in Figure 9A, controls applying and buffing roller pressure on the box and returns the mechanism to the reset position. The spring pressure is pre-set, as shown in Figure 17A, for normal operation but is adjustable.

Removing the spring end loop from the spring holder and placing loop in other holes provided, as shown in Figure 17B, will decrease the spring pressure.

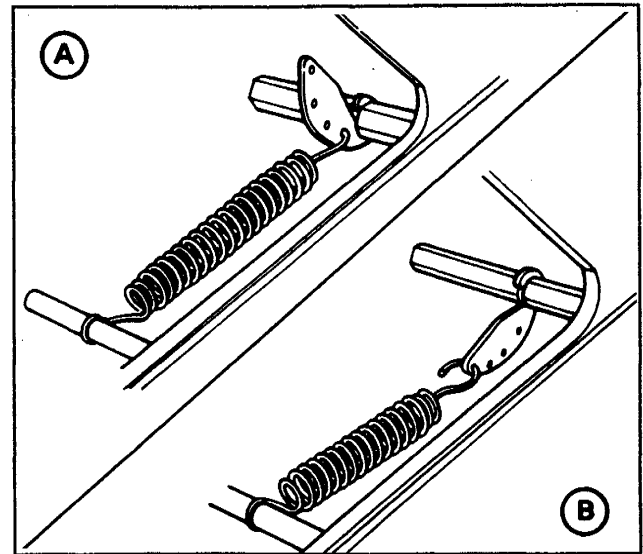


Figure 17

### One-Way Tension Roller Assembly

The one-way tension roller, is factory set. When replacing this assembly, the roller must have 1 lb. [0,5 kg] tangential force when turning. See Figure 18.

1. Wrap a cord or small strap (non-adhesive) 4-6 turns around the tension roller.
2. Attach a spring scale to the end of the cord or strap.
3. Turn the adjusting nut until a force of approximately 1 lb. [0,5 kg] is required to turn the roller by pulling on the spring scale.

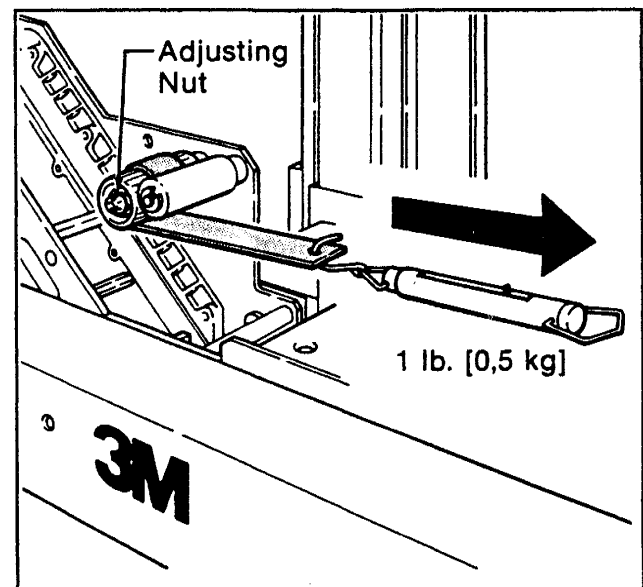


Figure 18

(Adjustments Continued on Next Page)

## **Adjustments (Continued)**

### **Box Drive Belts**

The four continuously moving box drive belts convey boxes through the tape applying mechanism. The box drive belts are powered by the electric motor through a transmission.

Tension adjustment of these belts may be required during normal operation. Belt tension must be adequate to positively move the box through the machine and they should run fully on the surface of the pulleys at each end of the frame. The idler pulleys on the infeed end are positioned by adjustment screws. Adjustment of these screws can be made by using the following steps to provide proper tension. Each belt is adjusted separately.



**WARNING - TURN OFF ELECTRICAL POWER SUPPLY AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING ADJUSTMENTS. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT.**

### **Box Drive Belts - Bottom Taping Head**

Refer to Figure 19

Step 1. Remove and retain center plates and 4 screws.

Step 2. Remove and retain eight M6 x 12 mm socket head screws to remove conveyor tops from housing.

Belt tension is obtained by uniform tightening of the adjustment screws so that a moderate pulling force of 7 lbs. [3,5 kg] applied at the midspan, as shown in Figure 20, will deflect the belt 1 inch [25 mm].

This will assure positive contact between the belt and the drive pulley on the discharge end of the taping head.

Refer to Figure 21

Step 3. Loosen, but do not remove, lock nut M20 x 16 with socket wrench provided.

Step 4. Reset the tension on the drive belt as needed. Adjust the M8 x 40 mm hex head screws, (out to increase - in to decrease). Tighten lock nut to secure tension setting.

Step 5. Reverse procedure in steps 1 and 2 above to reassemble the unit.



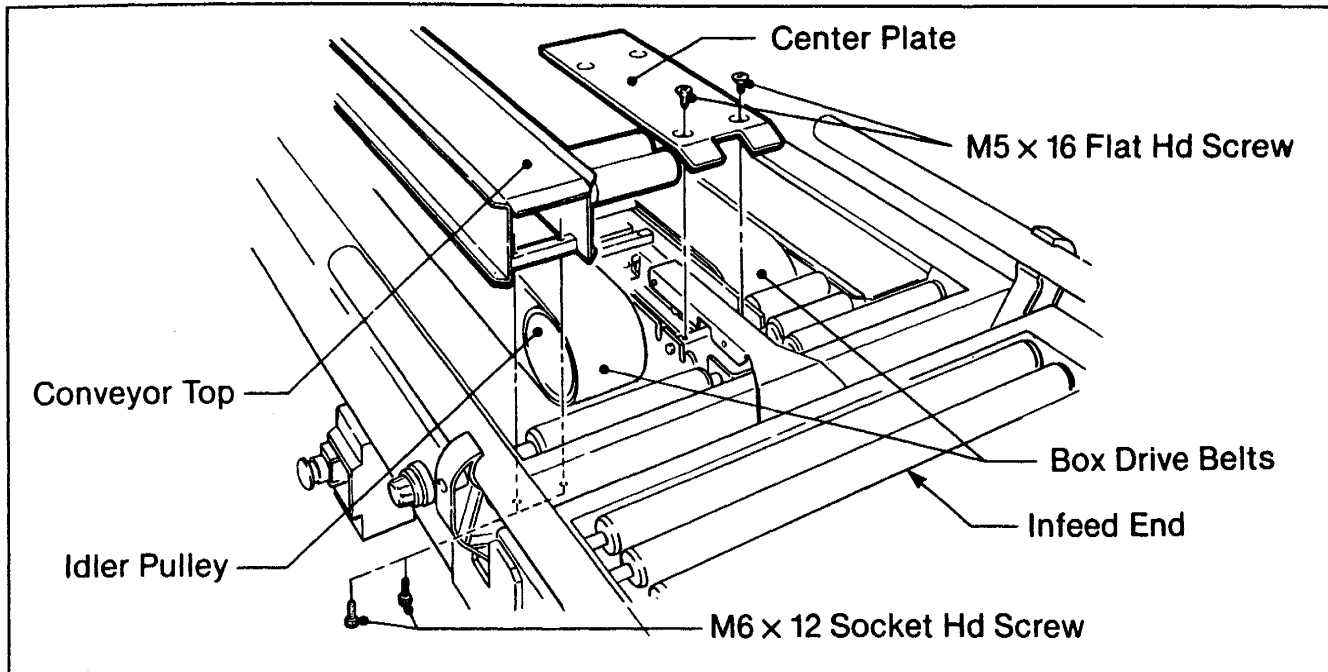


Figure 19 - Box Drive Belt Adjustment - Frame Bed Infeed End

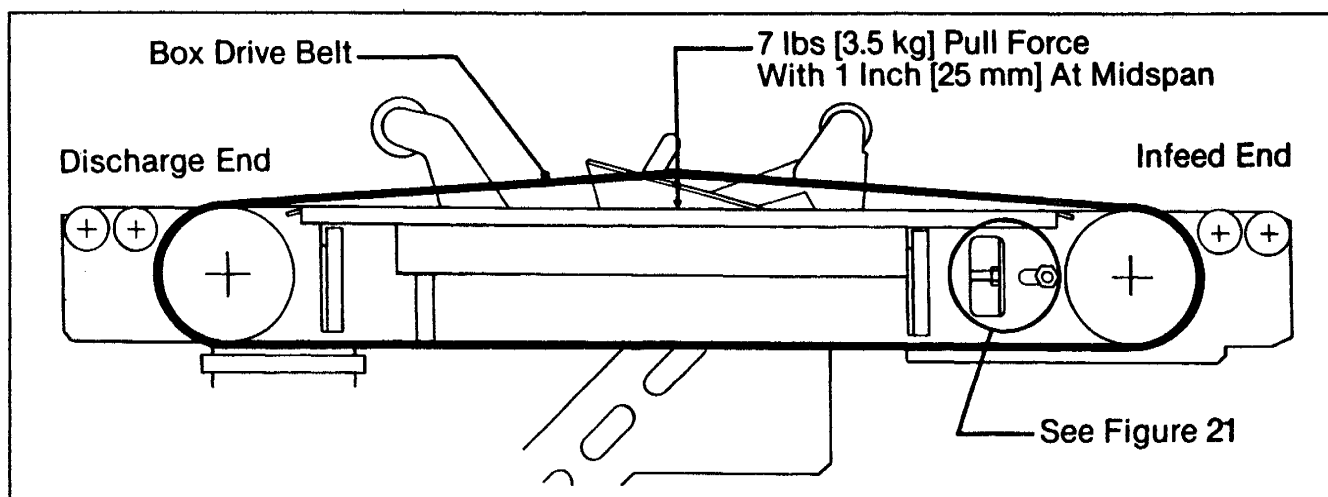


Figure 20 - Box Drive Belt Tension Adjustment - Left Side View

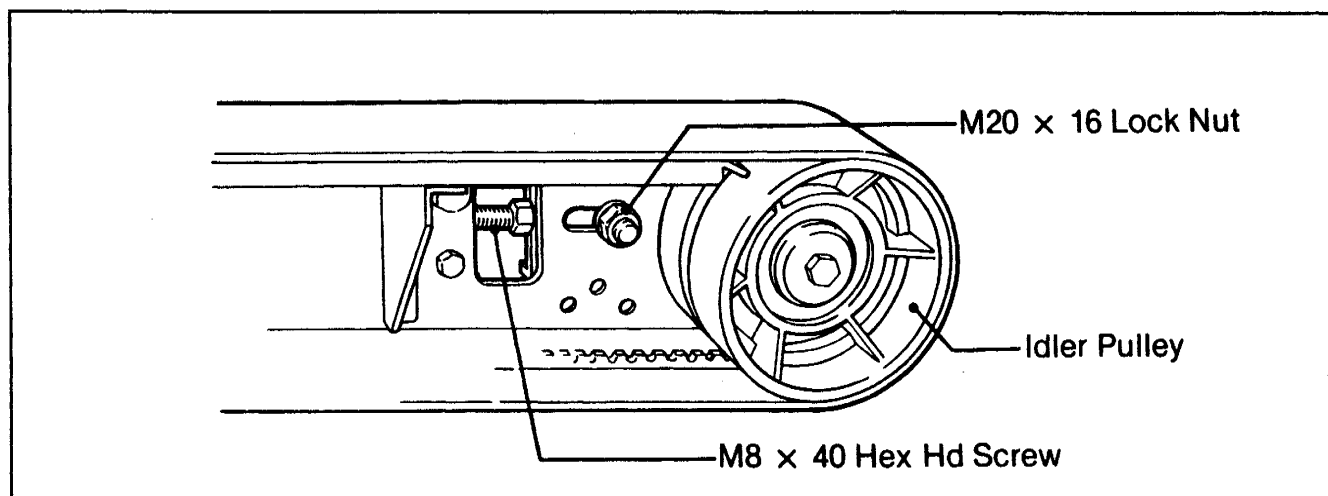


Figure 21 - Tension Adjustment - Left side View

## Maintenance

The 77R-KS Case Sealer has been designed for long, trouble free service. The machine will perform best when it receives routine maintenance and cleaning. Machine components that fail or wear excessively should be promptly repaired or replaced to prevent damage to other portions of the machine or to the product.



**WARNING - TURN OFF ELECTRICAL POWER SUPPLY AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, SEVERE INJURY TO PERSONNEL COULD RESULT. USE CARE WHEN REPLACING BLADES AS BLADES ARE EXTREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSONNEL COULD RESULT.**

### Replacing Box Drive Belts

**DO NOT REMOVE BOTTOM TAPING HEAD.**

Install new belts and adjust belt tension as noted in Step 4 under adjustments.

### Blade Replacement - Refer to Figure 22

1. Loosen, but do not remove, the blade screws (A). Remove and discard the old blade.
2. Mount the new blade (B) with the beveled side toward the blade holder.
3. Position the blade at a angle so all the teeth are as close as possible to the blade guard without contacting it. Tighten the blade screws to secure the blade.

NOTE - check the blade position to insure proper clearance by slowly pivoting the blade guard back.

The same steps are followed on the top and bottom taping heads. Connect the main power supply.

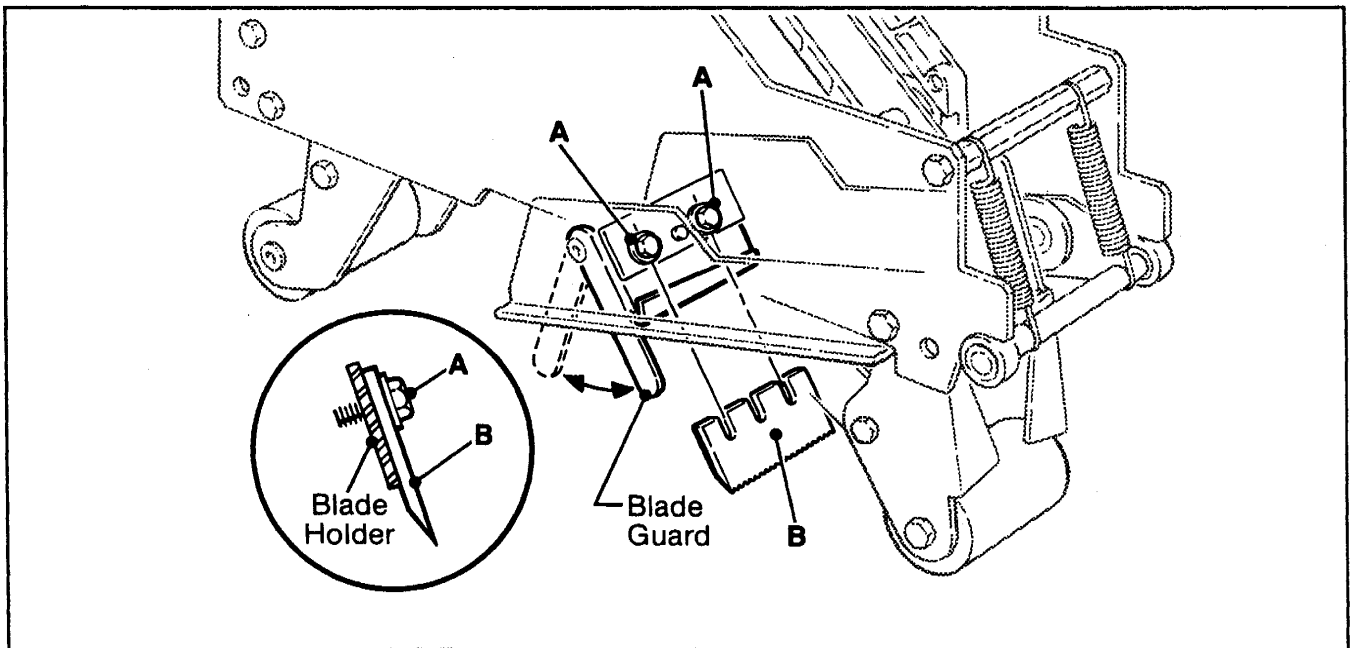


Figure 22 - Blade Replacement

## Maintenance (Continued)

### Cleaning Of The Machine

**CAUTION** - NEVER ATTEMPT TO REMOVE DIRT BY BLOWING IT OUT WITH COMPRESSED AIR. THIS CAN CAUSE THE DIRT TO BE BLOWN INSIDE THE MOTOR, AND SLIDING SURFACES. GRITTY DIRT IN THESE AREAS CAN CAUSE SERIOUS EQUIPMENT DAMAGE. NEVER WASH DOWN OR SUBJECT EQUIPMENT TO CONDITIONS CAUSING MOISTURE CONDENSATION ON COMPONENTS. SERIOUS EQUIPMENT DAMAGE COULD RESULT.

Regular slotted containers produce a great deal of **dust** and **paper chips** when processed or handled in equipment. If this dust is allowed to build up on machine components, it can cause **component wear** and **overheating** of drive motor. The dust build up can best be removed from the machine by a shop vacuum. Depending on the number and type of boxes sealed in the 77R-KS Case Sealer, this **cleaning** should be done approximately **once per month**. If the boxes sealed are dirty, or if the environment in which the machine operates is dusty, cleaning on a more frequent basis may be necessary. **Excessive dirt** build up that cannot be removed by vacuuming should be wiped off with a **damp cloth**.

#### Cut-Off Blade:

Should tape **adhesive build-up** occur, carefully wipe clean with **oily cloth**.

#### Electrical Schematic

**WARNING** - TURN OFF ELECTRICAL POWER SUPPLY AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, PERSONNEL COULD BE EXPOSED TO DANGEROUS VOLTAGES. SEVERE INJURY OR EQUIPMENT DAMAGE COULD RESULT.

Figure 23 illustrates the electrical system of the 77R-KS Case Sealer. No adjustments to the electrical systems are required.

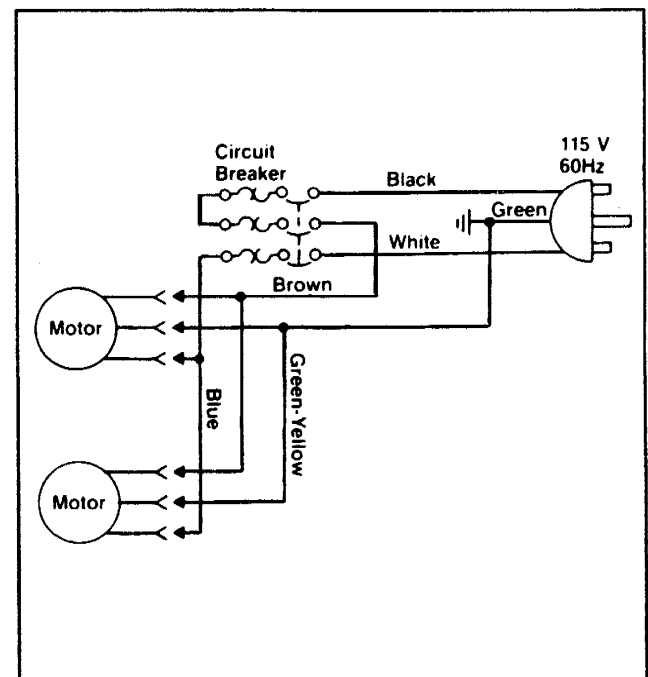


Figure 23

#### Circuit Breaker

The 77R-KS Case Sealer is equipped with a circuit breaker which trips the "On-Off" switch to tripped position. If circuit is **overloaded** and circuit breaker trips, wait **2 minutes**, move to "Off", then turn "On". Located inside the electrical control box on the side of the main frame just below the conveyor bed, the circuit breaker has been **pre-set** and requires no further maintenance.

## Maintenance (Continued)

### Lubrication - Mechanical

Like most other equipment, the case sealer must be properly lubricated to insure long, trouble/free service. Most of the machine bearings are permanently lubricated and sealed and do not need to be greased. The drive motor is also permanently lubricated and should not require additional lubrication.

Figures 24 and 25 illustrate the taping head and frame points which should be lubricated every 250 hours of operation. The oil can supplied with the case sealer can be utilized to lubricate the rotating and pivoting points noted by the arrows with SAE #30 non-detergent oil. At the same time, a small amount of multi-purpose grease should be applied to the end of each spring where the loop is secured at an eyelet, post, or hole.

**CAUTION - WIPE OFF EXCESS OIL AND GREASE; IT WILL ATTRACT DUST AND DIRT WHICH CAN CAUSE PREMATURE EQUIPMENT WEAR AND JAMMING. TAKE CARE THAT OIL AND GREASE ARE NOT LEFT ON THE SURFACE OF ROLLERS AROUND WHICH TAPE IS THREADED, AS IT CAN CONTAMINATE THE TAPE'S ADHESIVE.**

### Blade Oiler Pad

The taping heads are equipped with a blade oiler pad that has been pre-lubricated at the factory to provide a film of oil on the cut-off blade to reduce adhesive build-up. Apply SAE #30 non-detergent oil as needed. Saturate oiler pad.

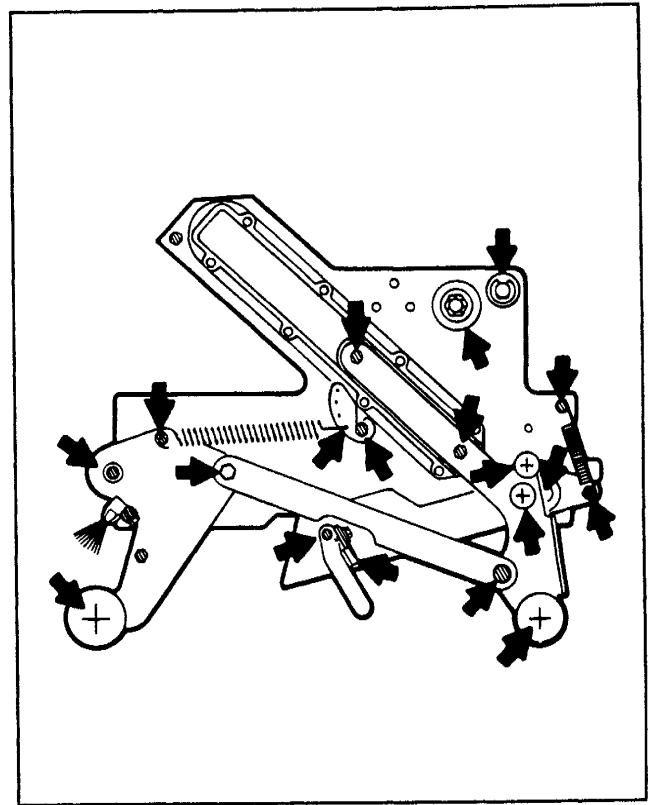


Figure 24 - Lubrication Points - Top And Bottom Taping Head

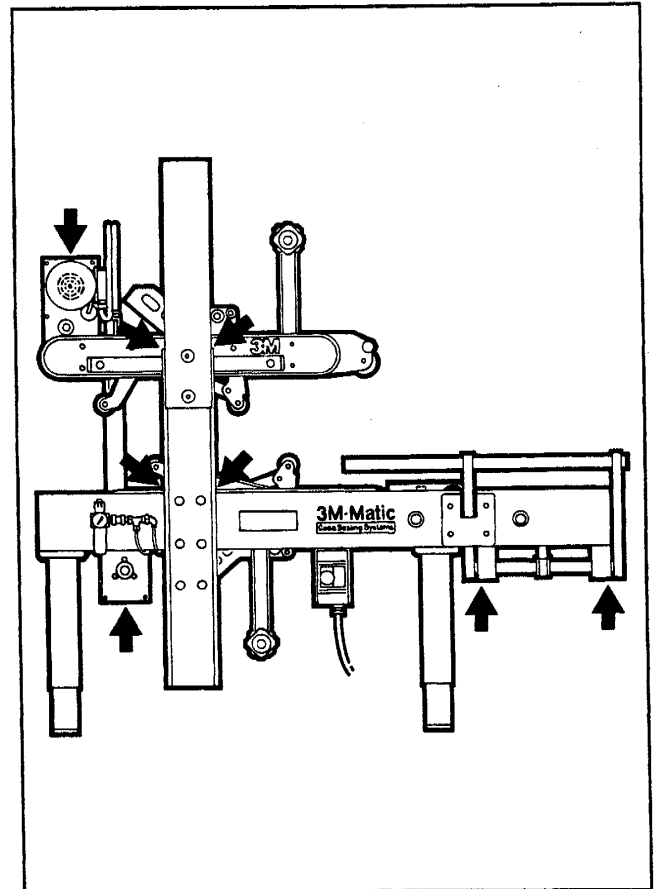


Figure 25 - Lubrication Points - Frame

**WARNING - TURN OFF ELECTRICAL POWER AND AIR SUPPLY AND DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE BEGINNING MAINTENANCE. IF POWER CORD IS NOT DISCONNECTED, SEVERE PERSONNEL INJURY OR EQUIPMENT DAMAGE COULD RESULT.**

### Pneumatic Schematic

Figure 26 illustrates the pneumatic system of the case sealer.

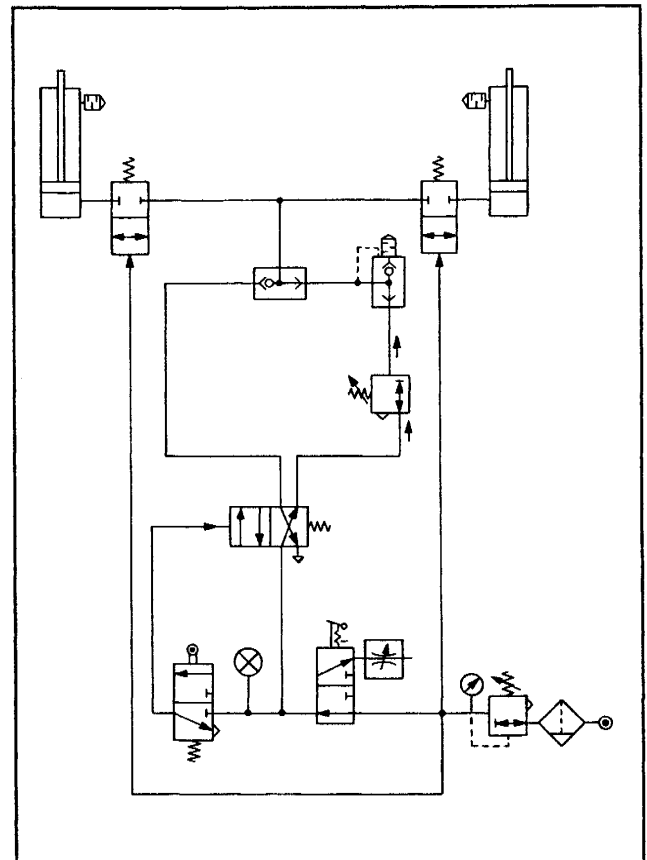


Figure 26 - Pneumatic Schematic  
77R-KS Case Sealer

Figure 27 illustrates the pneumatic system of the infeed section.

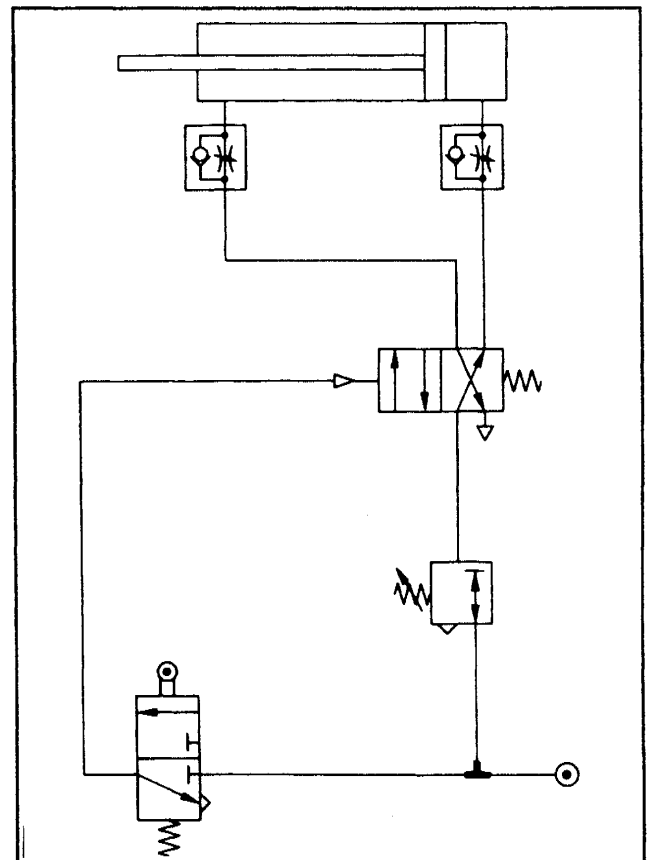


Figure 27 - Pneumatic Schematic  
Infeed Section

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## Replacement Parts And Service Information

### Spare Parts

It is suggested that the following spare parts be ordered and kept on hand:

Qty.	Ref. No.	3M Part Number	Description
2	1329-6	78-8057-6181-0	Roller - Applying
1	1330-10	78-8052-6589-5	Spring - Top
2	1332-10	78-8052-6602-6	Spring - Cutter
2	1332-2	78-8028-7899-7	Blade - 3.50 inch/89 mm
2	1335-5	78-8057-6180-2	Roller - Buffing
1	1335-11	78-8054-8550-1	Spring - Bottom
2	1466-35	78-8052-6722-2	Belt - Drive

### Tool Kit

A tool kit, P/N 78-8054-8732-5, is available as a stock item. The kit contains the necessary open end and hex socket wrenches for use with the metric fasteners on the case sealer. The threading tool, Part No. 78-8017-9433-6, contained in above kit is also available as a replacement stock item. Refer to "How To Order Replacement Parts" for ordering information.

### How To Order Replacement Parts

1. Order parts by part number, part name, machine catalog number, model number and part quantity required.

<p>Minimum billing on parts orders will be \$10.00. Replacement part prices available on request.</p>
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2. Replacement parts and part prices available direct from:

3M/Tape Dispenser Parts  
241 Venture Drive  
Amery, WI 54001-1325

Note - Outside the U.S. contact the local 3M subsidiary for parts order information.

3. Refer to the front of the instruction manual for 3M equipment service information.

## Attachments

For additional information on the attachments listed below, contact your 3M Representative.

Part Number	Attachment Name
78-8055-0951-6	Conveyor Extension Attachment
78-8052-6554-9	Caster Kit Attachment, Model 18500



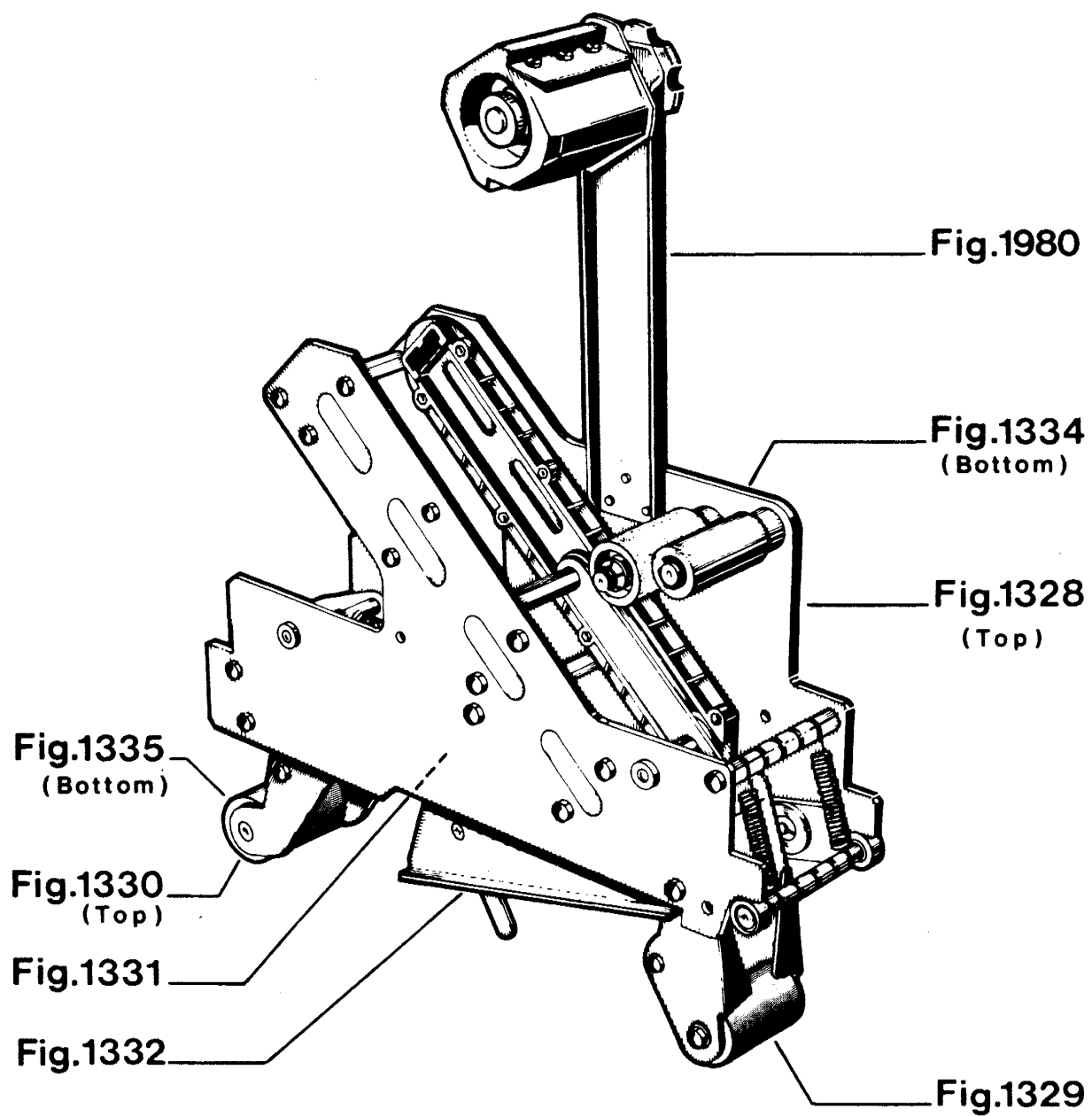
**77R-KS Case Sealer, Model 28900**  
**Replacement Parts Illustrations and Parts Lists**  
**Taping Head Assemblies**

1. Refer to Taping Head Assemblies figure to find all the parts illustrations identified by figure numbers.
2. Refer to the figure or figures to determine the individual parts required and the parts reference number.
3. The replacement parts list, that follows each illustration, includes the part number and part description for the parts in that illustration.

**Note** - The complete description has been included for standard fasteners and some commercially available components. This has been done to allow obtaining these standard parts locally, should the customer elect to do so.

4. Refer to page 25 - "Replacement Parts and Service Information" of this manual for replacement parts ordering information.





Taping Head Assemblies

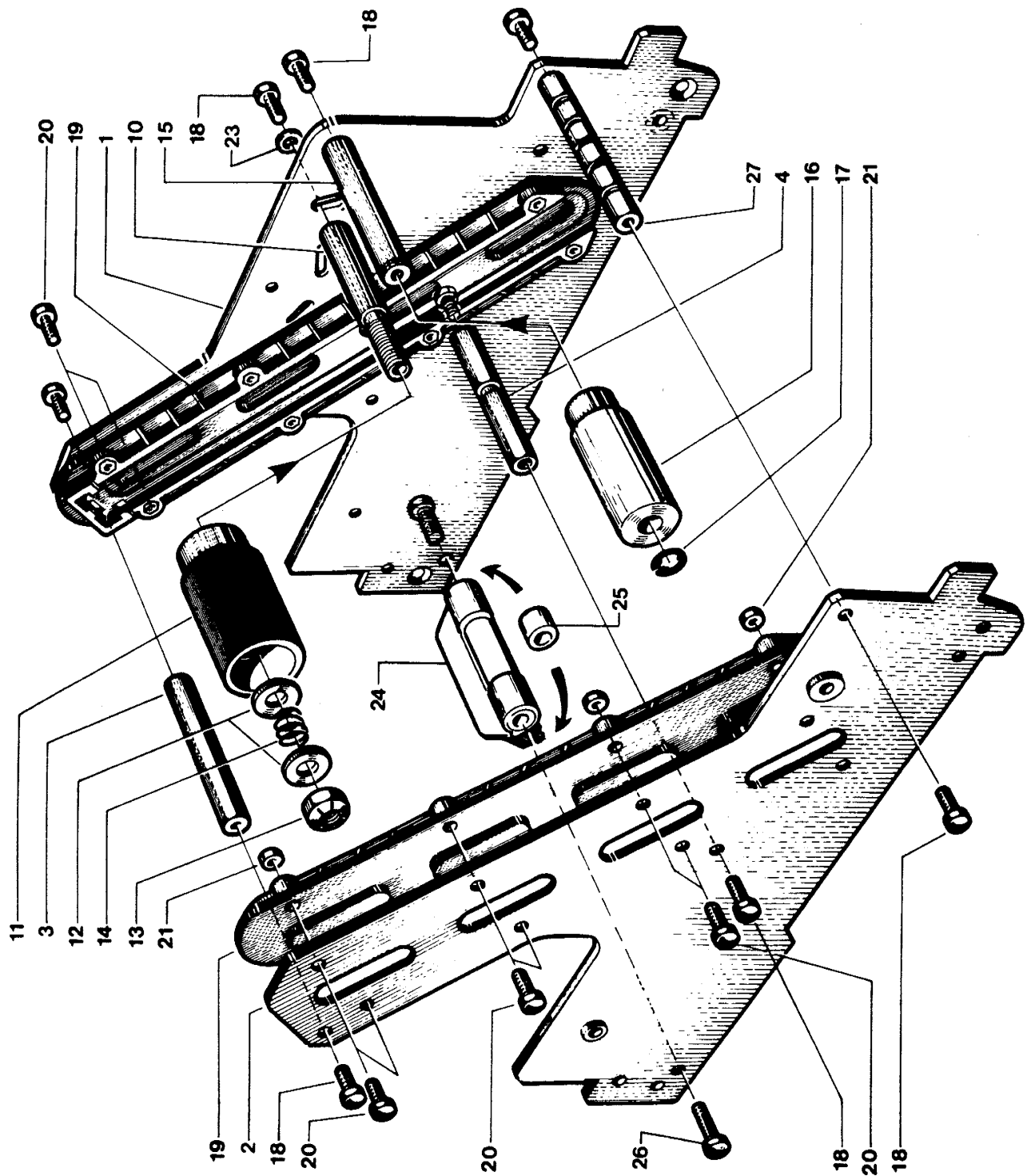


Figure 1328 (Top)

**Figure 1328**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1328-1	78-8052-6556-4	Frame - R/H Top
1328-2	78-8052-6557-2	Frame - L/H Top
1328-3	78-8054-8792-9	Spacer - Hexagonal
1328-4	78-8054-8793-7	Spacer - Upper
1328-10	78-8054-8796-0	Shaft - Tension Roller
1328-11	78-8054-8797-8	Roller - Top Tension
1328-12	78-8052-6566-3	Washer - Friction
1328-13	78-8017-9077-1	Nut - Self Locking, Hex M10 x 1
1328-14	78-8052-6567-1	Spring - Compression
1328-15	78-8054-8798-6	Shaft - Wrap Roller
1328-16	78-8054-8799-4	Roller - Wrap
1328-17	26-1000-1613-3	Ring - Retaining
1328-18	26-1003-5828-7	Screw - Hex Hd M6 x 10 Zinc Pl.
1328-19	78-8052-6570-5	Guide
1328-20	83-0002-7336-3	Screw - Hex Hd M4 x 14 Zinc Pl.
1328-21	78-8010-7416-8	Nut - Hex M4 Zinc Pl.
1328-23	26-1000-0010-3	Washer - Flat M6
1328-24	78-8060-7936-0	Brush Assy
1328-25	78-8060-7937-8	Spacer
1328-26	78-8060-7938-6	Screw - M6 x 25 Special
1328-27	78-8060-7939-4	Spacer - 10 x 115 W/Slots

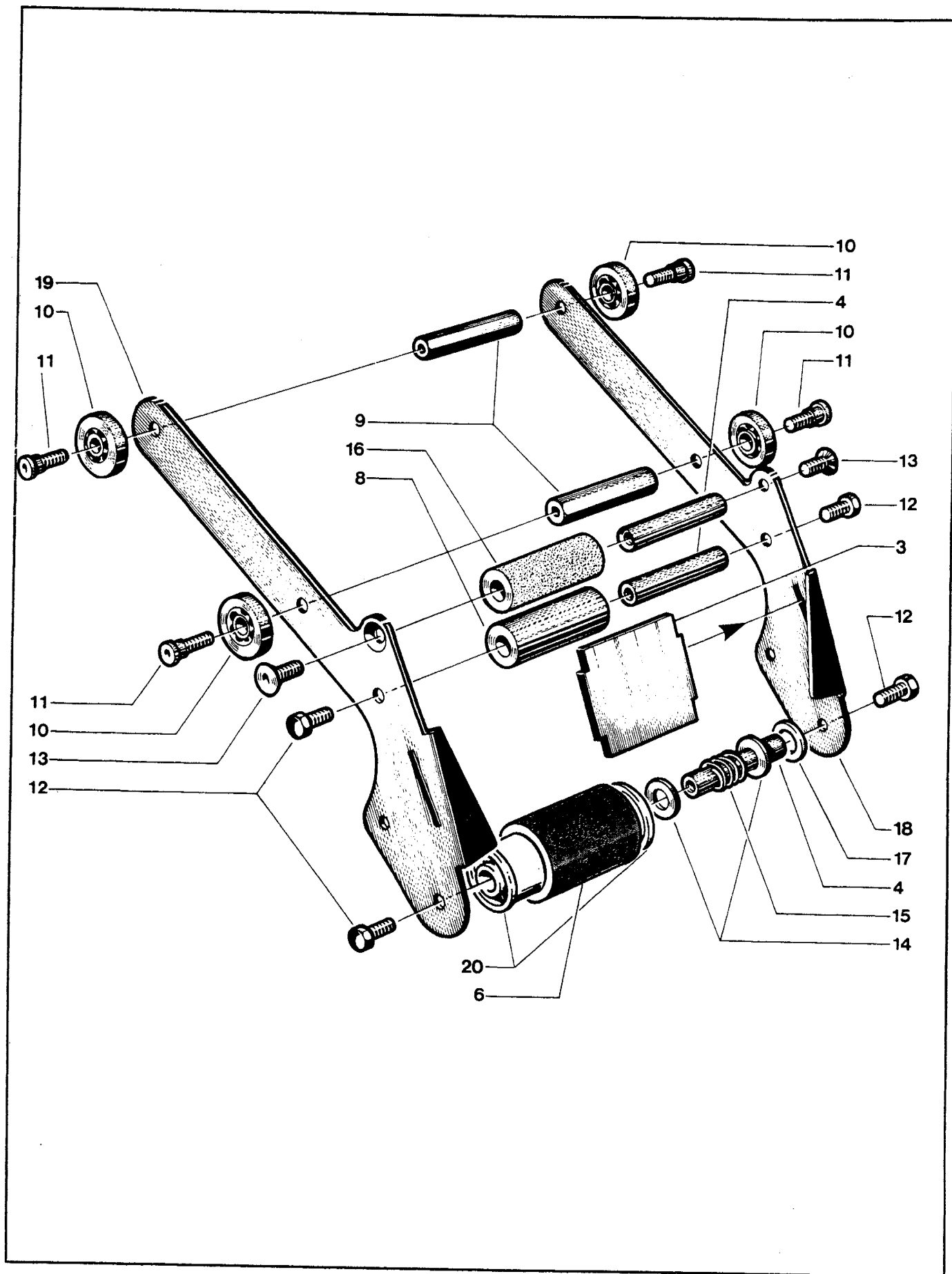


Figure 1329

**Figure 1329**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1329-3	78-8054-8800-0	Plate - Back Up
1329-4	78-8054-8801-8	Shaft - Roller
1329-5	78-8054-8802-6	Bushing - Roller
1329-6	78-8057-6181-0	Roller - Applying
1329-8	78-8054-8805-9	Roller - Wrap
1329-9	78-8054-8806-7	Spacer
1329-10	78-8017-9082-1	Bearing - 30 mm - Special
1329-11	78-8017-9106-8	Screw - Bearing Shoulder
1329-12	26-1003-5828-7	Screw - Hex Hd M6 x 10 Zinc Pl.
1329-13	26-1005-4759-0	Screw - Flat Hd M6 x 12 Zinc Pl.
1329-14	78-8052-6566-3	Washer - Friction
1329-15	78-8052-6567-1	Spring - Compression
1329-16	78-8060-7940-2	Roller - Knurled
1329-17	78-8017-9074-8	Washer - 15 mm - Nylon
1329-18	78-8060-8170-5	Frame - Applying, Right
1329-19	78-8060-8171-3	Frame - Applying, Left

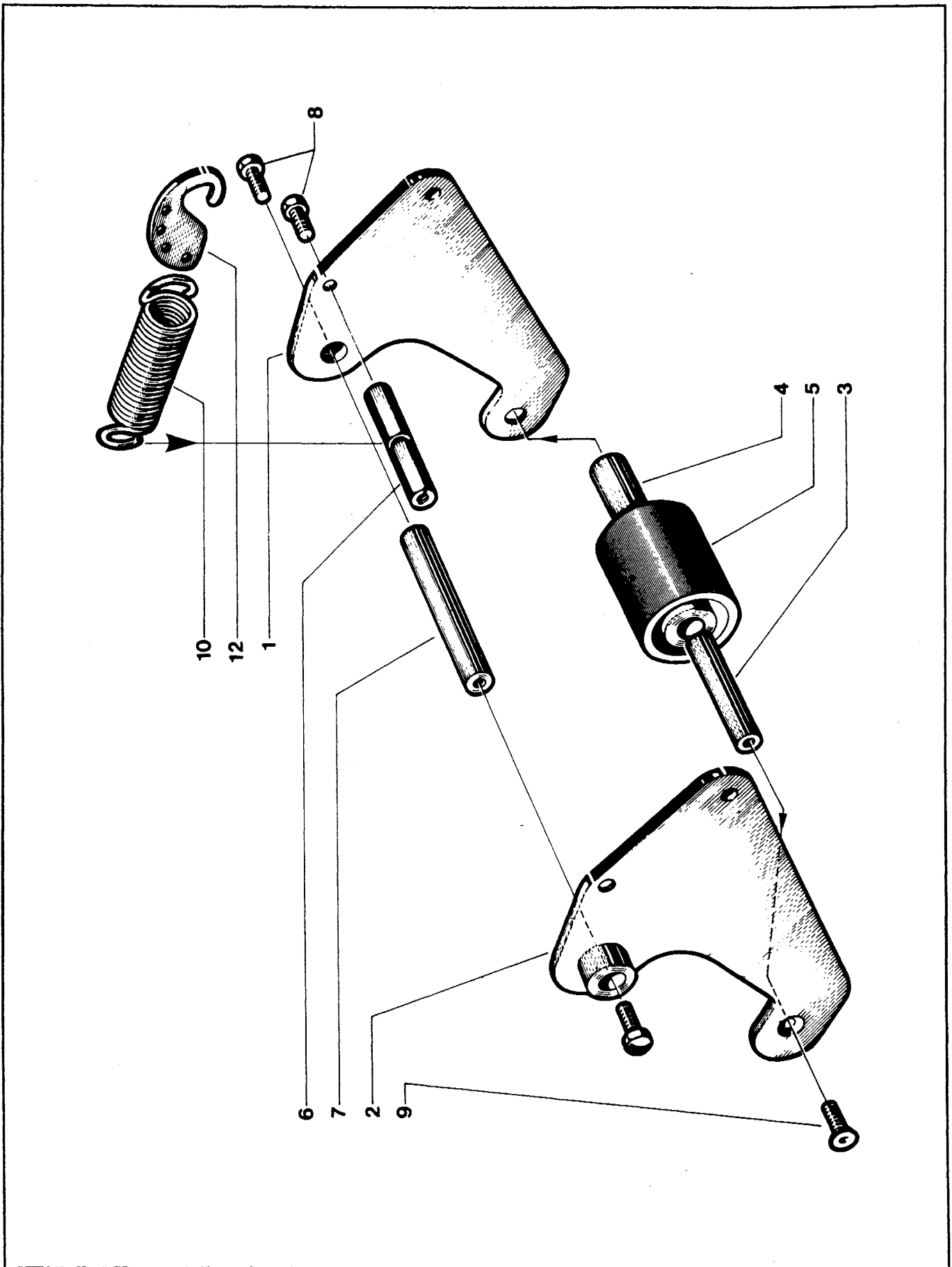


Figure 1330 (Top)



**Figure 1330**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1330-1	78-8052-6583-8	Frame - R/H
1330-2	78-8052-6584-6	Frame - L/H
1330-3	78-8054-8801-8	Shaft - Roller
1330-4	78-8054-8807-5	Bushing - Buffing Roller
1330-5	78-8057-6180-2	Roller - Buffing
1330-6	78-8054-8809-1	Spacer - Spring
1330-7	78-8028-7885-6	Shaft - 10 x 115 mm
1330-8	26-1003-5828-7	Screw - Hex Hd M6 x 10 Zinc Pl.
1330-9	26-1005-4759-0	Screw - Flat Hd M6 x 12
1330-10	78-8052-6589-5	Spring - Top Ext.
1330-12	78-8052-6590-3	Holder - Spring

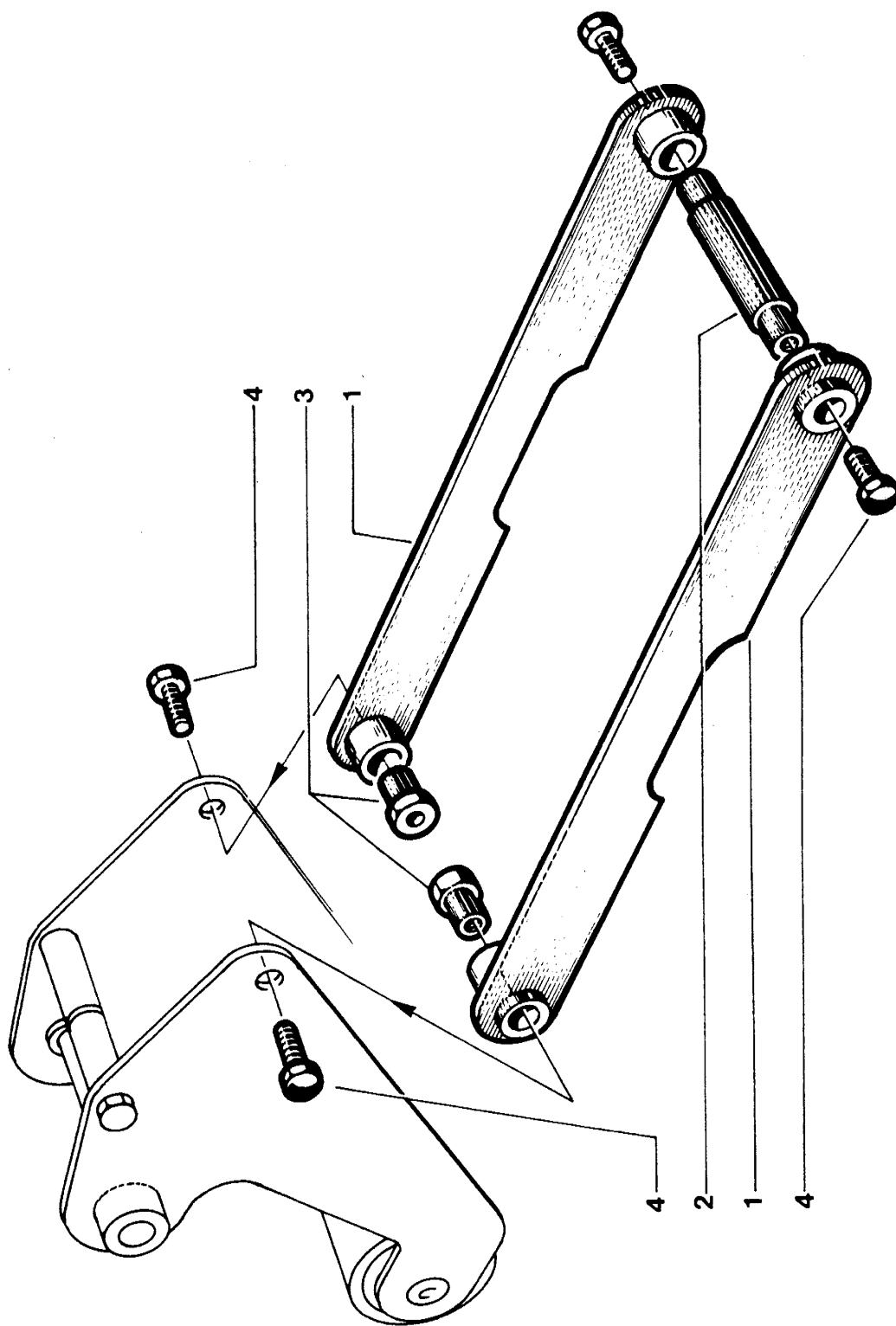


Figure 1331

**Figure 1331**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1331-1	78-8052-6592-9	Arm - Link
1331-2	78-8054-8810-9	Shaft - Pivot
1331-3	78-8052-6594-5	Bushing - Pivot
1331-4	78-8010-7163-6	Screw - Hex Hd M5 x 10 Metric

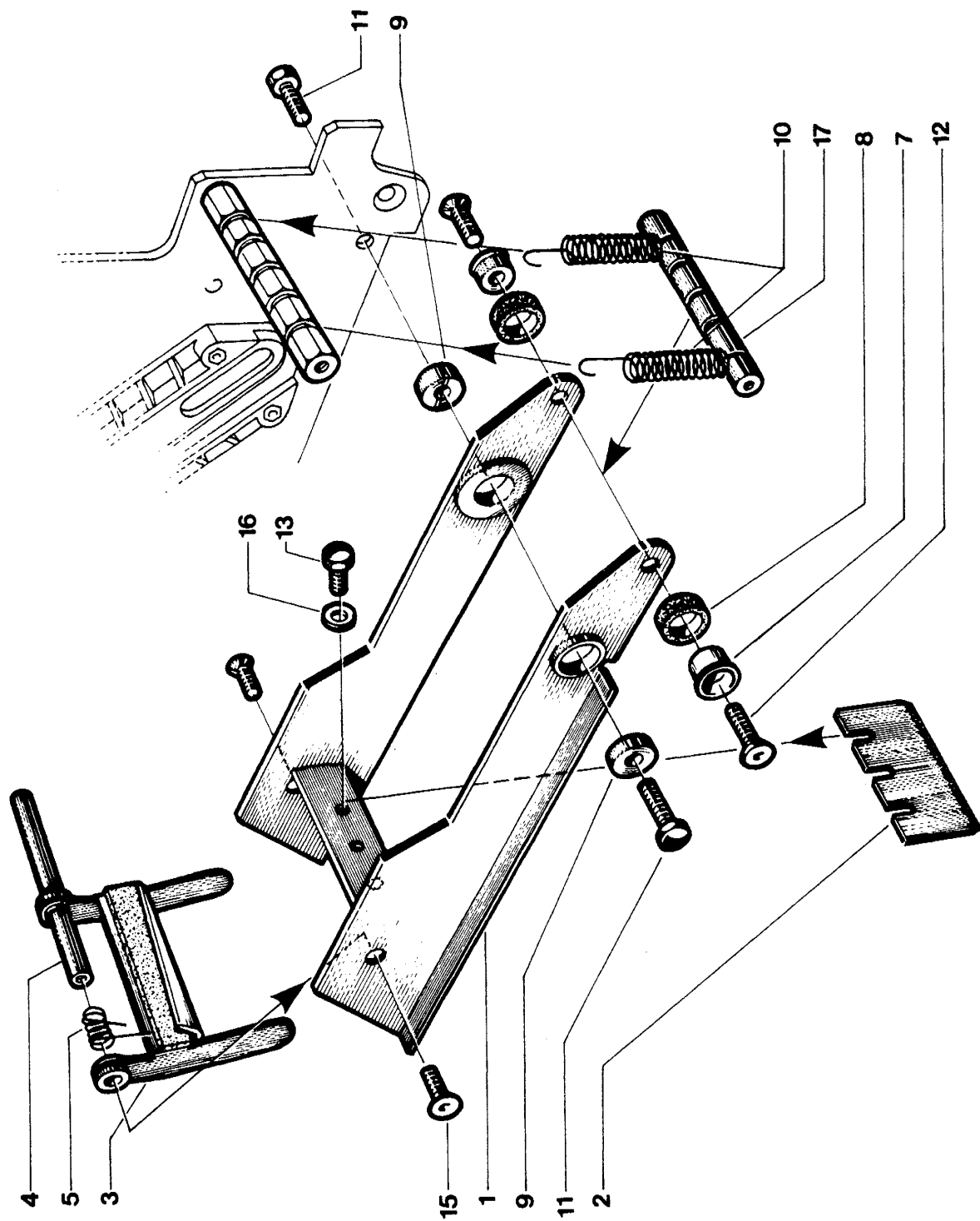


Figure 1332

**Figure 1332**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1332-1	78-8060-8173-9	Bracket - Cut-off
1332-2	78-8028-7899-7	Blade - 3.50 inch/89 mm
1332-3	78-8054-8812-5	Guard - Blade
1332-4	78-8054-8813-3	Shaft - Blade Guard
1332-5	78-8052-6598-6	Spring - Tension
1332-7	78-8052-6600-0	Sleeve - Bumper
1332-8	78-8017-9133-2	Bumper
1332-9	78-8017-9132-4	Pivot - Cutter Lever
1332-10	78-8052-6602-6	Spring - Cutter
1332-11	26-1003-5828-7	Screw - Hex Hd M6 x 10 Zinc Pl.
1332-12	26-1005-4758-2	Screw - Flat Hd M5 x 20 Zinc Pl.
1332-13	26-1002-5817-2	Screw - Hex Hd M5 x 8
1332-15	26-1005-4757-4	Screw - Flat Hd M4 x 10 Zinc Pl.
1332-16	78-8005-5741-1	Washer - Plain M5 Metric
1332-17	78-8060-7941-0	Pin - Spring Holder W/Slots

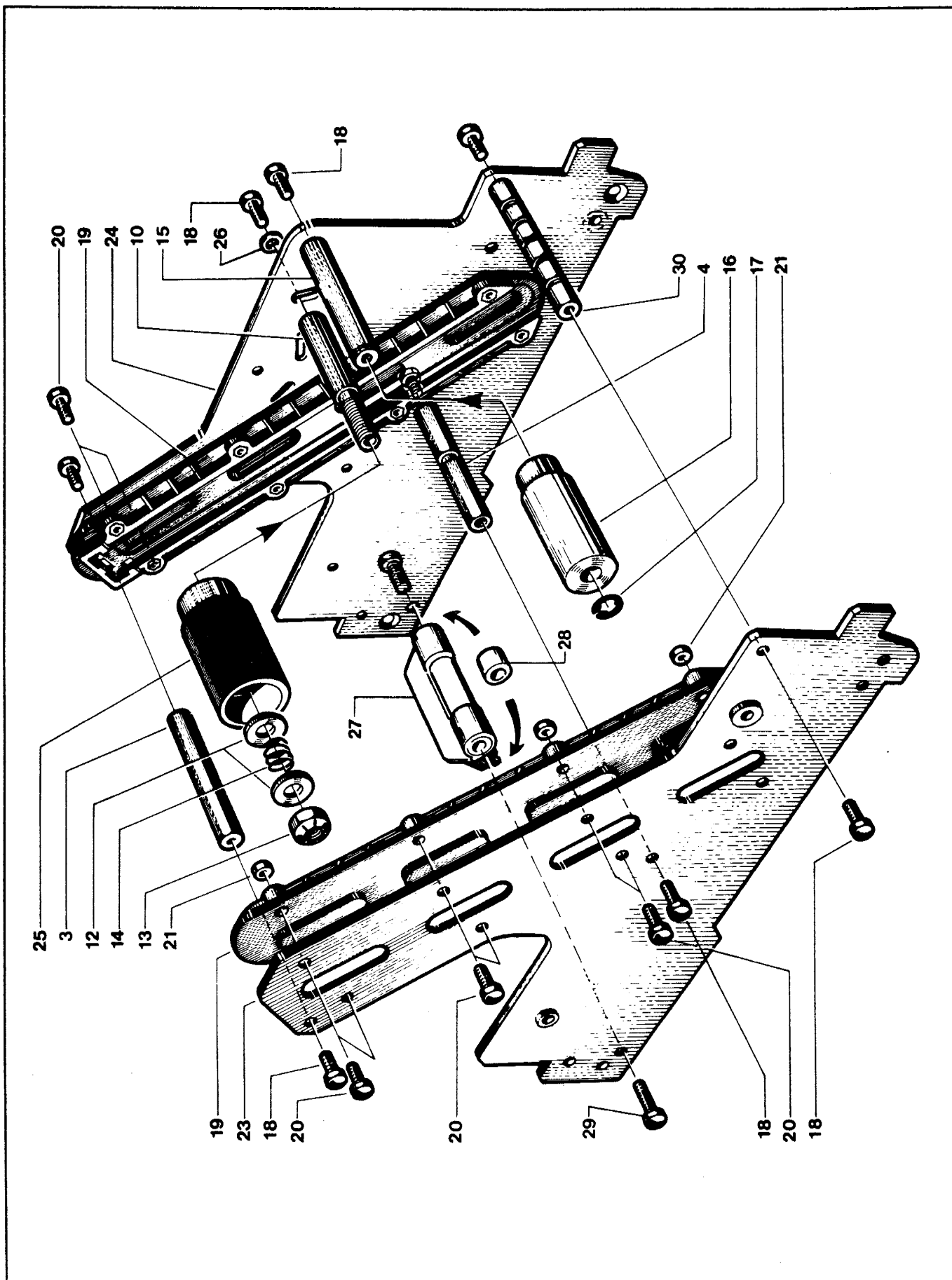


Figure 1334 (Bottom)

**Figure 1334**

Ref. No.	3M Part No.	Description
1334-3	78-8054-8793-7	Spacer
1334-4	78-8054-8792-9	Spacer - Spring Hook
1334-10	78-8054-8796-0	Shaft - Tension Roller
1334-12	78-8052-6566-3	Washer - Friction
1334-13	78-8017-9077-1	Nut - Self Locking M10 x 1
1334-14	78-8052-6567-1	Spring - Compression
1334-15	78-8054-8798-6	Shaft - Wrap Roller
1334-16	78-8054-8799-4	Roller Wrap
1334-17	26-1000-1613-3	Ring - Retaining
1334-18	26-1003-5828-7	Screw - Hex Hd M6 x 10 Zinc Pl.
1334-19	78-8052-6570-5	Guide
1334-20	83-0002-7336-3	Screw - Hex Hd M4 x 14 Zinc. Pl.
1334-21	78-8010-7416-8	Nut - Hex M4 Steel Metric
1334-23	78-8052-6604-2	Frame - L/H Bottom
1334-24	78-8052-6605-9	Frame - R/H Bottom
1334-25	78-8054-8817-4	Roller - Tension Bottom
1334-26	26-1000-0010-3	Washer - Flat M6
1334-27	78-8060-7936-0	Brush Assy
1334-28	78-8060-7937-8	Spacer
1334-29	78-8060-7938-6	Screw - M6 x 25 Special
1334-30	78-8060-7939-4	Spacer 10 x 115 W/Slots

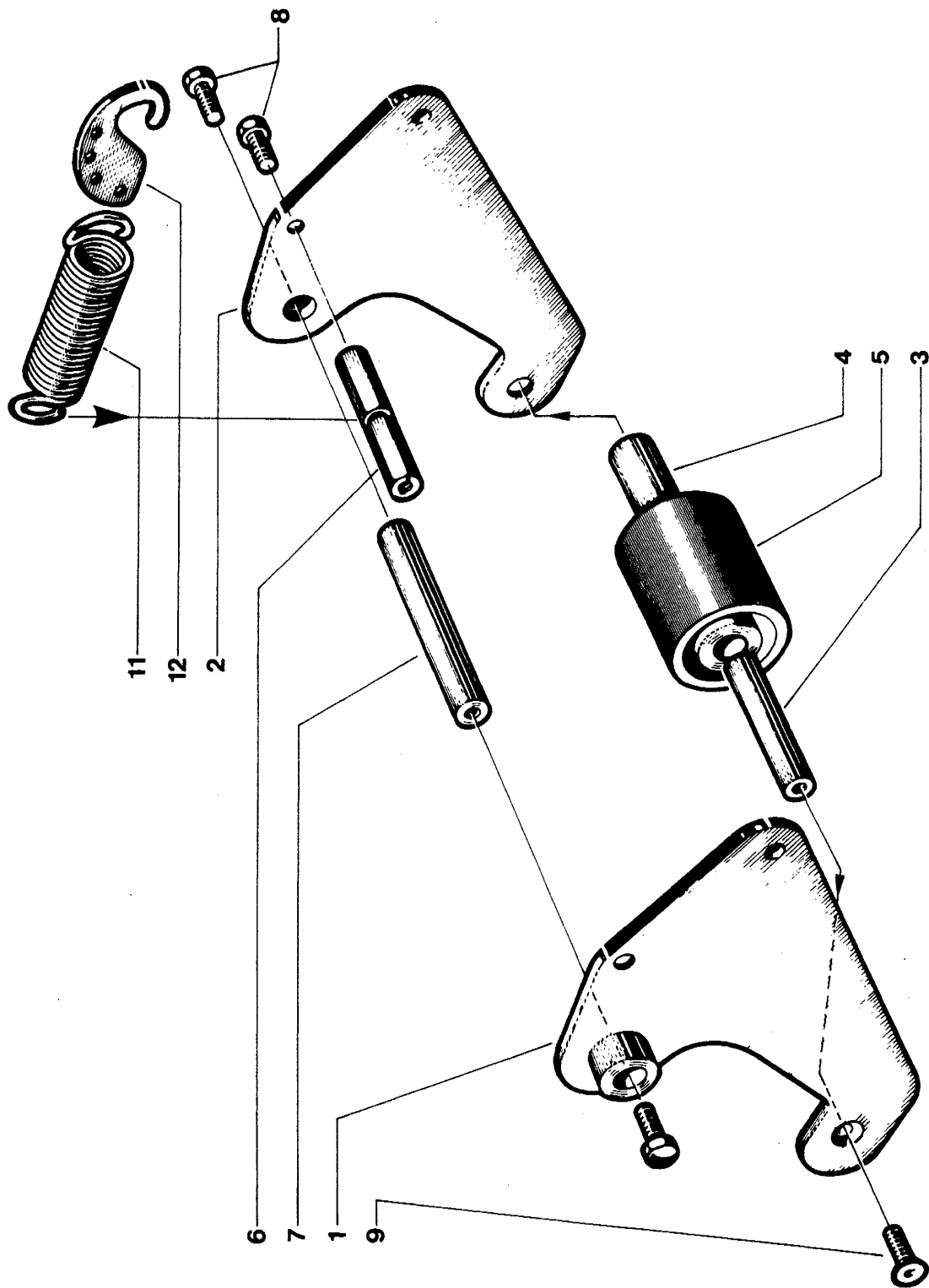


Figure 1335 (Bottom)



**Figure 1335**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1335-1	78-8052-6583-8	Frame - R/H
1335-2	78-8052-6584-6	Frame - L/H
1335-3	78-8054-8801-8	Shaft - Roller
1335-4	78-8054-8807-5	Bushing - Buffing Roller
1335-5	78-8057-6180-2	Roller - Buffing
1335-6	78-8054-8809-1	Spacer - Spring
1335-7	78-8028-7885-6	Shaft - 10 x 115 mm
1335-8	26-1003-5828-7	Screw - Hex Hd M6 x 10 Zinc Pl.
1335-9	26-1005-4759-0	Screw - Flat Hd M6 x 12
1335-11	78-8054-8550-1	Main Spring - Bottom Head
1335-12	78-8052-6590-3	Holder - Spring

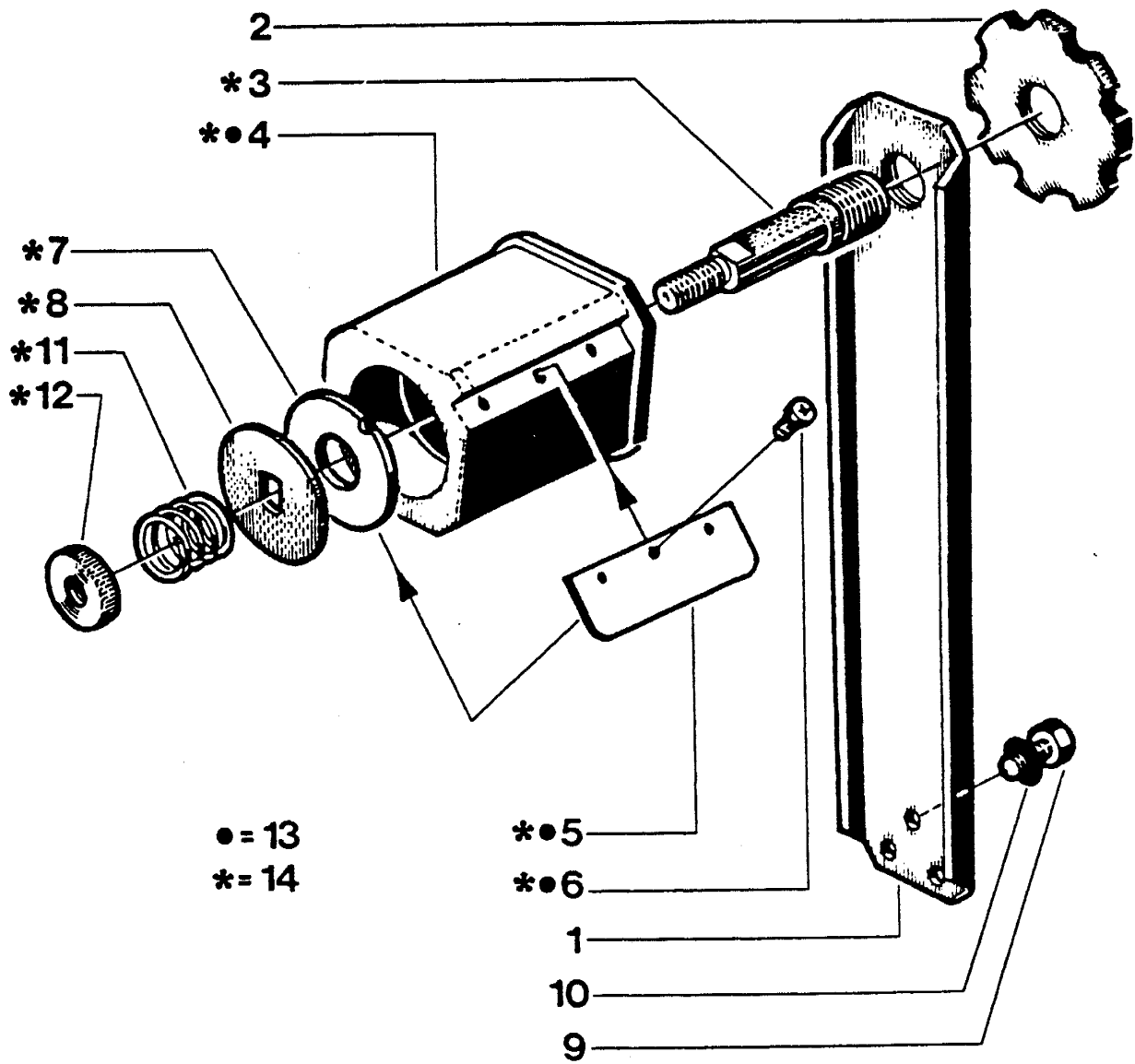


Figure 1980

Figure 1980

Ref. No.	3M Part No.	Description
1980-1	78-8052-6544-0	Bracket - Tape Drum
1980-2	78-8017-9091-2	Plate - Locking, Tape Drum Shaft
1980-3	78-8060-8462-6	Shaft - Tape Drum 3-Inch Head
1980-4	78-8054-8815-8	Tape Drum Assembly
1980-5	78-8054-8816-6	Leaf - Spring
1980-6	26-1002-5753-9	Screw - Self Tapping
1980-7	78-8060-8172-1	Washer - Friction
1980-8	78-8052-6271-0	Washer - Tape Drum
1980-9	26-1003-5829-5	Screw - Hex Hd M6 x 12
1980-10	26-1000-0010-3	Washer - Flat M6
1980-11	78-8054-8826-5	Spring
1980-12	78-8060-7851-1	Ring Nut - Adjusting
1980-13	78-8076-4731-4	Tape Drum Assembly 3-Inch Wide
1980-14	78-8076-4732-2	Tape Drum Assembly 3-Inch With Shaft



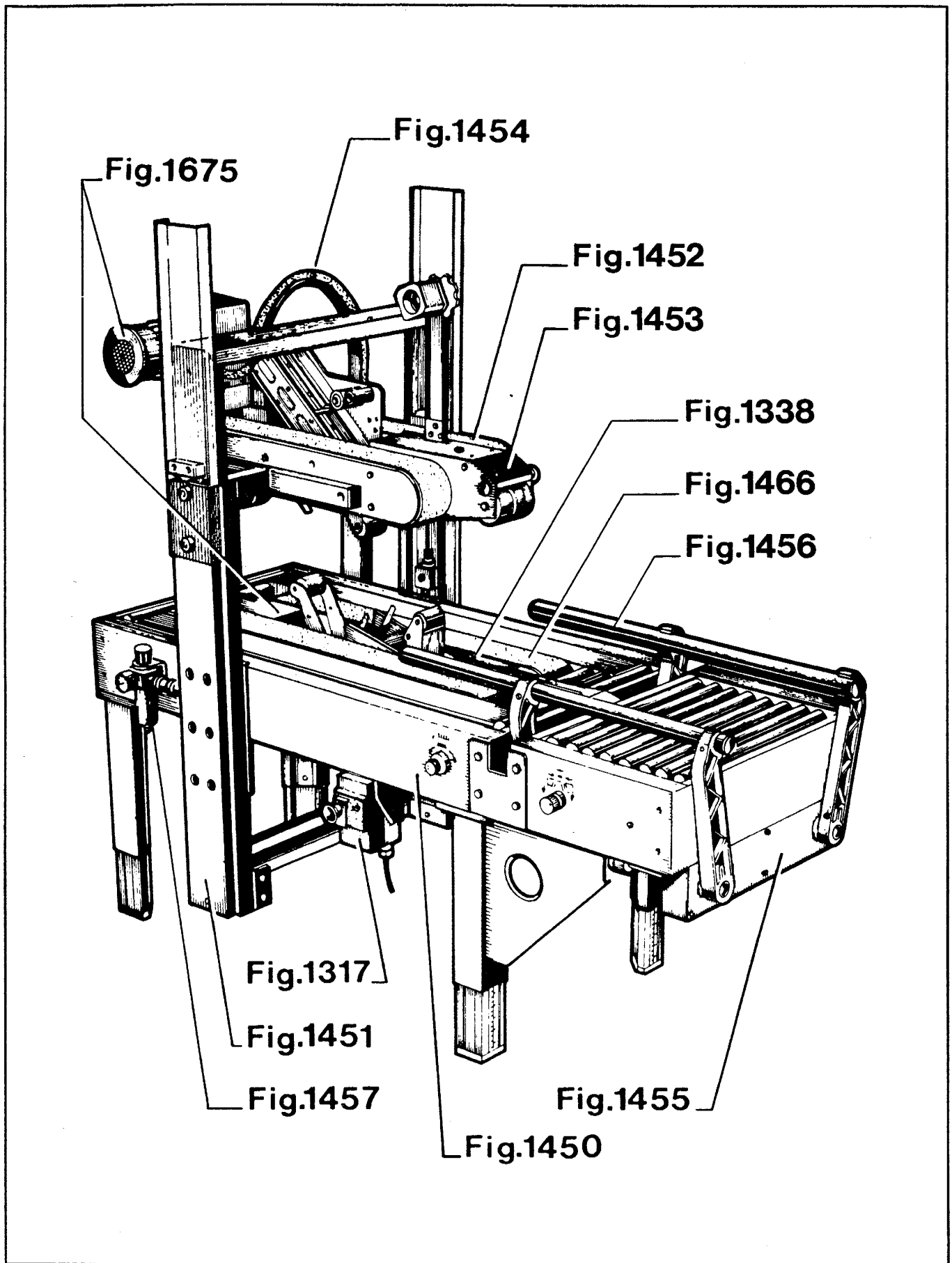
**77R-KS Case Sealer, Model 28900**  
**Replacement Parts Illustrations and Parts Lists**  
**Frame Assemblies**

1. Refer to **Frame Assemblies** figure to find all the parts illustrations identified by figure numbers.
2. Refer to the figure or figures to determine the **individual parts** required and the parts reference number.
3. The replacement parts list, that follows each illustration, includes the part number and part description for the parts in that illustration.

<p><b>Note</b> - The complete description has been included for standard <b>fasteners</b> and some <b>commercially available components</b>. This has been done to allow obtaining these standard parts locally, should the customer elect to do so.</p>
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4. Refer to page 25 - "**Replacement Parts and Service Information**" of this manual for replacement parts ordering information.





Frame Assemblies

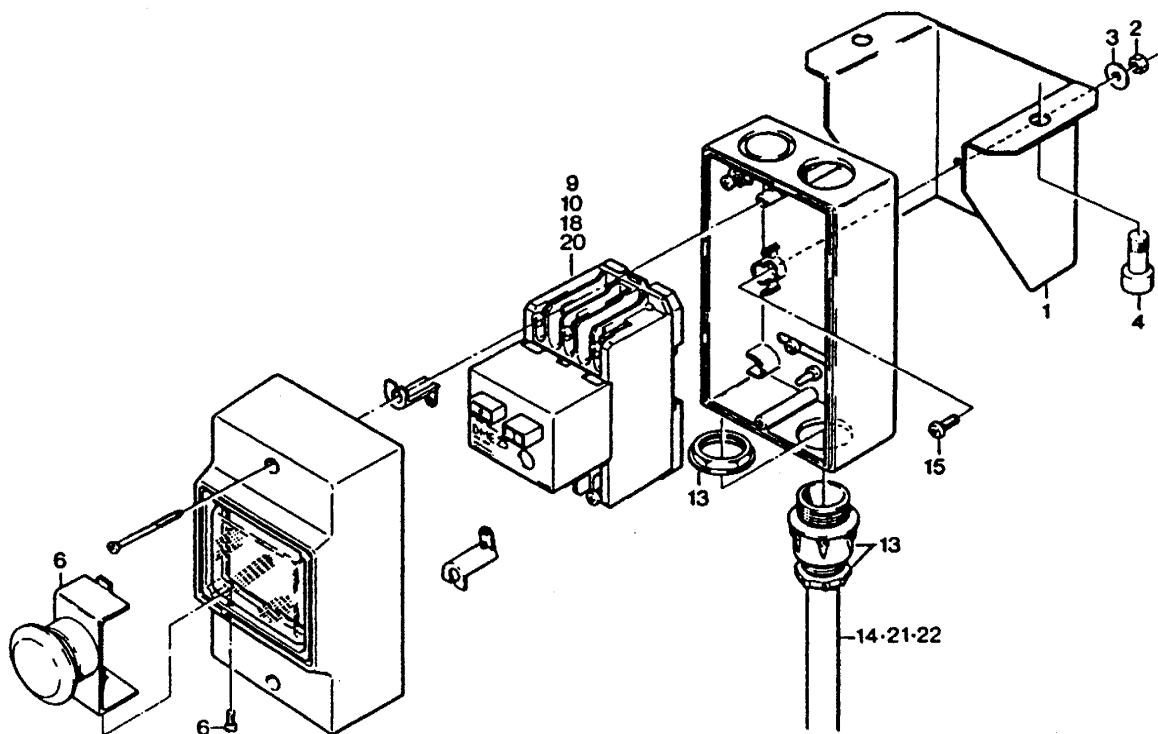


Figure 1317



**Figure 1317**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1317-1	78-8052-6724-8	Switch - Bracket
1317-2	78-8010-7416-8	Nut - Hex Stl. M4 Metric
1317-3	78-8017-9018-5	Washer - Plain M4 Spec. Metric
1317-4	26-1003-7963-0	Screw - Soc Hd M8 x 16
1317-6	78-8052-6725-5	Emergency Stop
1317-9	78-8052-6728-9	Switch - On/Off 1.6 - 2.5 AMP
1317-10	78-8052-6729-7	Switch - On/Off 2.5 - 4 AMP
1317-13	78-8057-5807-1	Cord Grip
1317-14	78-8028-7909-4	Power Cord/US
1317-15	78-8017-9257-9	Screw - Phil Hd M4 x 10
1317-18	78-8060-7637-4	Plug Terminal - Wire 1,5
1317-20	78-8060-7881-8	Eyelet Terminal
1317-21	78-8060-8052-5	Cable 4 x 1,5 5MT 3PH
1317-22	78-8060-8053-3	Cable 3 x 1,5 5MT 1PH

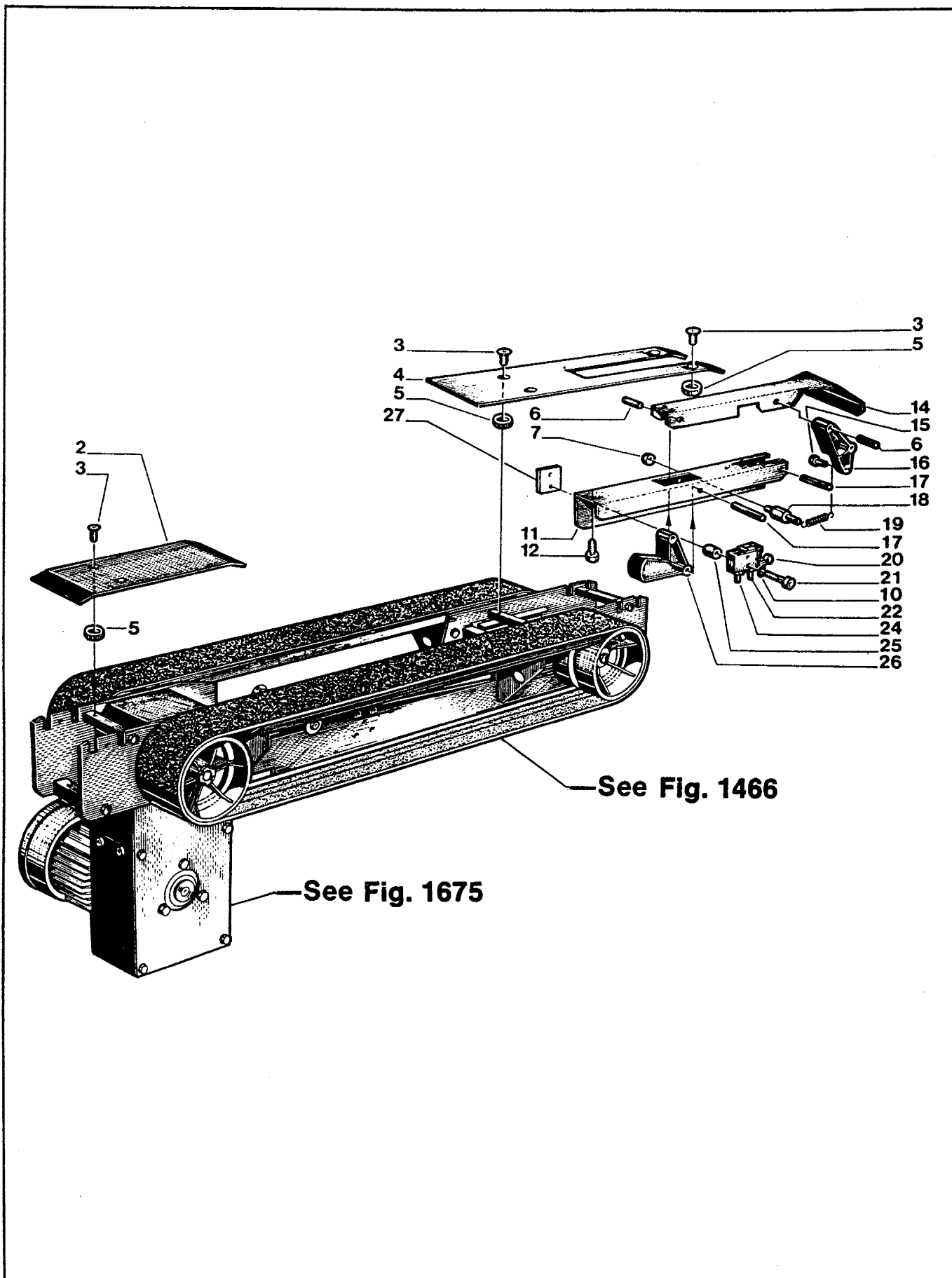


Figure 1338

**Figure 1338**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1338-2	78-8055-0674-4	Plate - Center, Rear
1338-3	26-1005-5316-8	Screw - Flat Hd Hex Dr M5 x 16
1338-4	78-8055-0706-4	Plate - Center, Front
1338-5	78-8054-8751-5	Spacer
1338-6	78-8054-8752-3	Shaft - 6 x 33 mm
1338-7	26-1005-6859-6	Nut - Self Locking M5
1338-10	78-8005-5740-3	Washer - Plain Metric 4mm
1338-11	78-8054-8753-1	Support - Valve
1338-12	26-1002-5817-2	Screw - Hex Hd Zinc Pl. M5 x 8
1338-14	78-8054-8754-9	Side Guide Actuator
1338-15	26-1002-4955-1	Screw - Self Tap Thd, 12 mm
1338-16	78-8054-8755-6	Front Actuator Link
1338-17	78-8054-8756-4	Shaft - 6 x 46 mm
1338-18	78-8054-8757-2	Pin - Spring Holder
1338-19	78-8017-9136-5	Spring - Cutter
1338-20	26-1005-6358-9	Valve - 3 Way - 2 Position
1338-21	26-1003-7947-3	Screw - Soc Hd Hex Soc M4 x 35
1338-22	26-1005-6359-7	Fitting Barb 2,5 mm
1338-24	26-1005-6880-2	Fitting Barb 2,5 mm
1338-25	78-8054-8758-0	Spacer - Valve Holder
1338-26	78-8054-8759-8	Rear Actuator Link
1338-27	78-8059-5607-1	Plate - Threaded

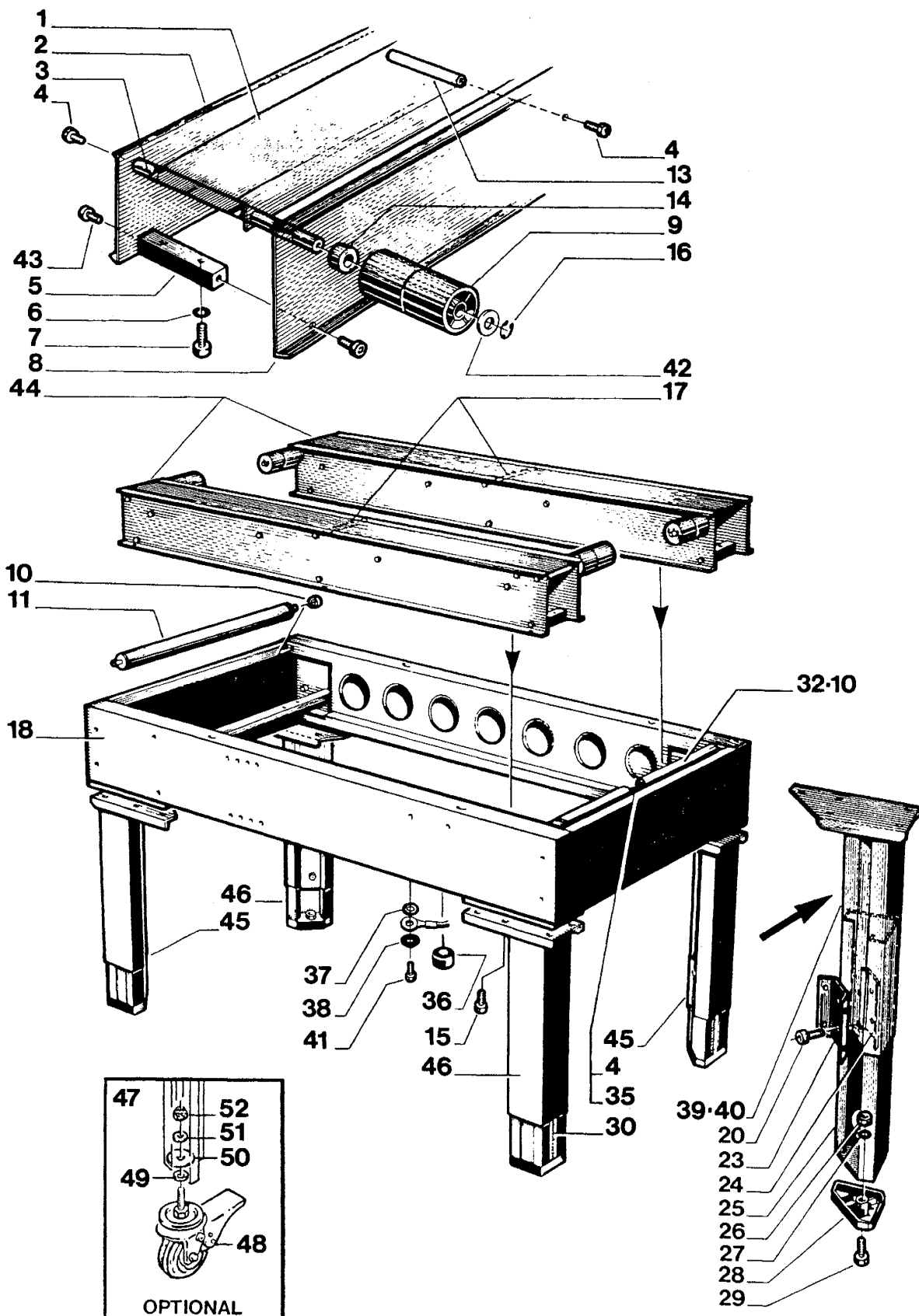


Figure 1450

Figure 1450

Ref. No.	3M Part No.	Description
1450-1	78-8055-0675-1	Conveyor Bed
1450-2	78-8052-6663-8	Side Plate
1450-3	78-8055-0676-9	Shaft KS
1450-4	78-8010-7163-6	Screw - Hex Hd M5 x 10 Metric
1450-5	78-8055-0677-7	Block - Mounting
1450-6	26-1000-0010-3	Washer - Flat M6
1450-7	78-8010-7209-7	Screw - Soc Hd M6 x 12
1450-8	78-8052-6666-1	Side Plate
1450-9	78-8052-6667-9	Roller
1450-10	78-8052-6668-7	Snap - Roller
1450-11	78-8055-0678-5	Roller - Conveyor 32 x 588 mm
1450-13	78-8055-0679-3	Shaft - 8 x 139 mm
1450-14	78-8052-6672-9	Spacer
1450-15	26-1003-7964-8	Screw - Soc Hd Hex Soc Dr M8 x 20
1450-16	78-8052-6732-1	Ring - M8 Special
1450-17	78-8055-0680-1	Shaft - 8 x 145 mm
1450-18	78-8055-0707-2	Frame - Conveyor
1450-20	26-1003-7963-0	Screw - Soc. Hd M8 x 16
1450-23	78-8052-6676-0	Clamp - Outer
1450-24	78-8052-6677-8	Clamp - Inner
1450-25	78-8052-6678-6	Leg - Inner
1450-26	78-8017-9313-0	Nut - Self Locking Nick Pl. M8
1450-27	26-1004-5507-5	Washer M8
1450-28	78-8052-6679-4	Pad - Foot
1450-29	26-1003-5842-8	Screw - Hex Hd M8 x 20
1450-30	78-8052-6680-2	Label - Height
1450-32	78-8055-0724-7	Roller - Conveyor 32 x 247 mm
1450-35	78-8054-8762-2	Support - Roller
1450-36	78-8060-7758-8	Grommet
1450-37	78-8046-8217-3	Washer - Special
1450-38	78-8005-5741-1	Washer - Metric Plain M5
1450-39	78-8060-7948-5	Leg - Left
1450-40	78-8060-7947-7	Leg - Right
1450-41	26-1003-5820-4	Screw - Hex Hd M5 x 12
1450-42	78-8017-9318-9	Washer - Plain 8 mm Metric
1450-43	26-1003-7948-1	Screw - Soc Hd M5 x 10
1450-44	78-8060-8235-6	Conveyor Bed Assy
1450-45	78-8060-8122-6	Leg Assy - Right
1450-46	78-8060-8123-4	Leg Assy - Left
1450-47	78-8060-8060-8	Caster Assy
1450-48	78-8060-8061-6	Caster
1450-49	78-8060-8124-2	Spacer - Caster
1450-50	78-8060-7699-4	Washer 12-45,5 x 4
1450-51	78-8017-9059-9	Washer - Flat
1450-52	78-8060-7532-7	Nut - Self Locking M12

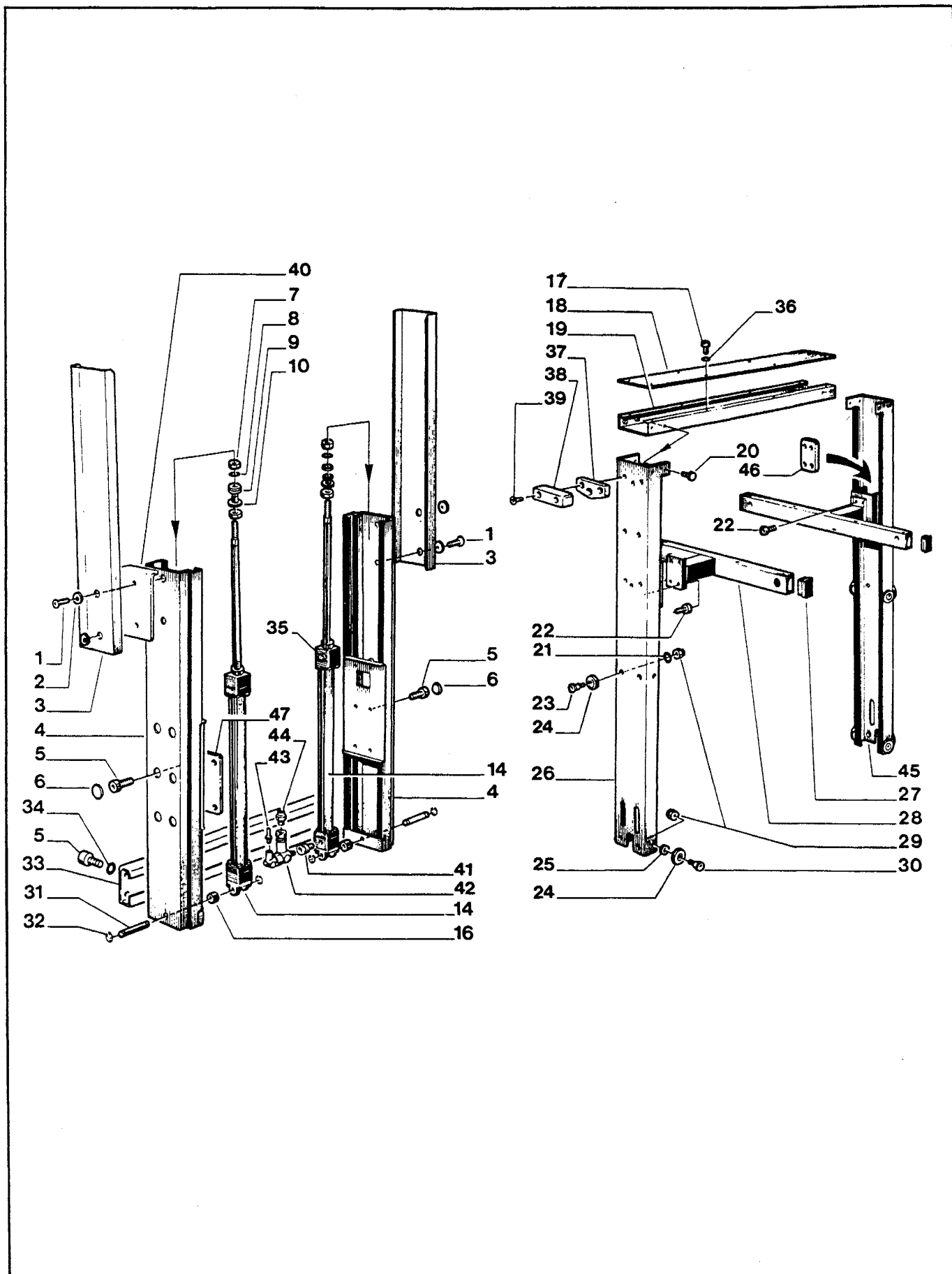


Figure 1451

Figure 1451

Ref. No.	3M Part No.	Description
1451-1	78-8060-8179-6	Screw - Flat Hex Hd M6 x 20
1451-2	78-8054-8577-4	Washer - Special
1451-3	78-8055-0709-8	Safety Guard
1451-4	78-8055-0710-6	Column
1451-5	26-1003-7964-8	Screw - Soc Hd Hex Soc Dr M8 x 20
1451-6	78-8054-8821-6	End - Cap
1451-7	78-8017-9169-6	Nut - M18 x 1
1451-8	78-8054-8822-4	Washer
1451-9	78-8054-8823-2	Bumper
1451-10	78-8054-8824-0	Rod End
1451-14	78-8055-0711-4	Cylinder - Air, 32 x 550L mm
1451-16	78-8054-8828-1	Spacer 10,5/16 x 14,5 mm
1451-17	26-1002-5753-9	Screw - Self Tapping
1451-18	78-8055-0712-2	Cover - Chain
1451-19	78-8055-0713-0	Crossmember
1451-20	78-8060-7886-7	Screw - Hex Hd M6 x 16
1451-21	26-1000-0010-3	Washer - Flat M6
1451-22	26-1003-7963-0	Screw - Soc Hd M8 x 16
1451-23	78-8054-8589-9	Screw Special
1451-24	78-8054-8617-8	Bearing - Special
1451-25	78-8054-8576-6	Spacer
1451-26	78-8060-7923-8	Column - Inner
1451-27	78-8054-8593-1	End Cap
1451-28	78-8076-5472-4	Support - Top Head
1451-29	26-1003-6916-9	Nut - Locking Plastic Insert M6
1451-30	78-8017-9106-8	Screw - Bearing Shoulder
1451-31	78-8054-8966-9	Pin - Air Cylinder Clevis
1451-32	78-8060-8035-0	E-Ring - 7DIN6799
1451-33	78-8055-0687-6	Crossmember
1451-34	78-8017-9318-9	Washer - Plain Metric 8 mm
1451-35	78-8057-6176-0	Muffler
1451-36	78-8005-5740-3	Washer - Plain 4 mm Metric
1451-37	78-8060-7916-2	Bumper
1451-38	78-8060-7917-0	Plate - Bumper Support
1451-39	78-8060-7918-8	Screw - Flat Soc Hd M6 x 25
1451-40	78-8060-7919-6	Plate - Column
1451-41	78-8060-7920-4	Extension
1451-42	78-8060-7641-6	Spoiler
1451-43	26-1005-6880-2	Fitting Barb 2,5 mm
1451-44	26-1005-6901-6	Union Straight
1451-45	78-8060-8420-4	Inner Column Assy
1451-46	78-8076-5473-2	Plate - Threaded, Serial No. 5574 and Above
1451-47	78-8076-5474-0	Plate Assy - Column Mount, Serial No. 5574 and Above
(no Ref No.)	78-8060-8175-4	Repair Kit For Cylinder - 32

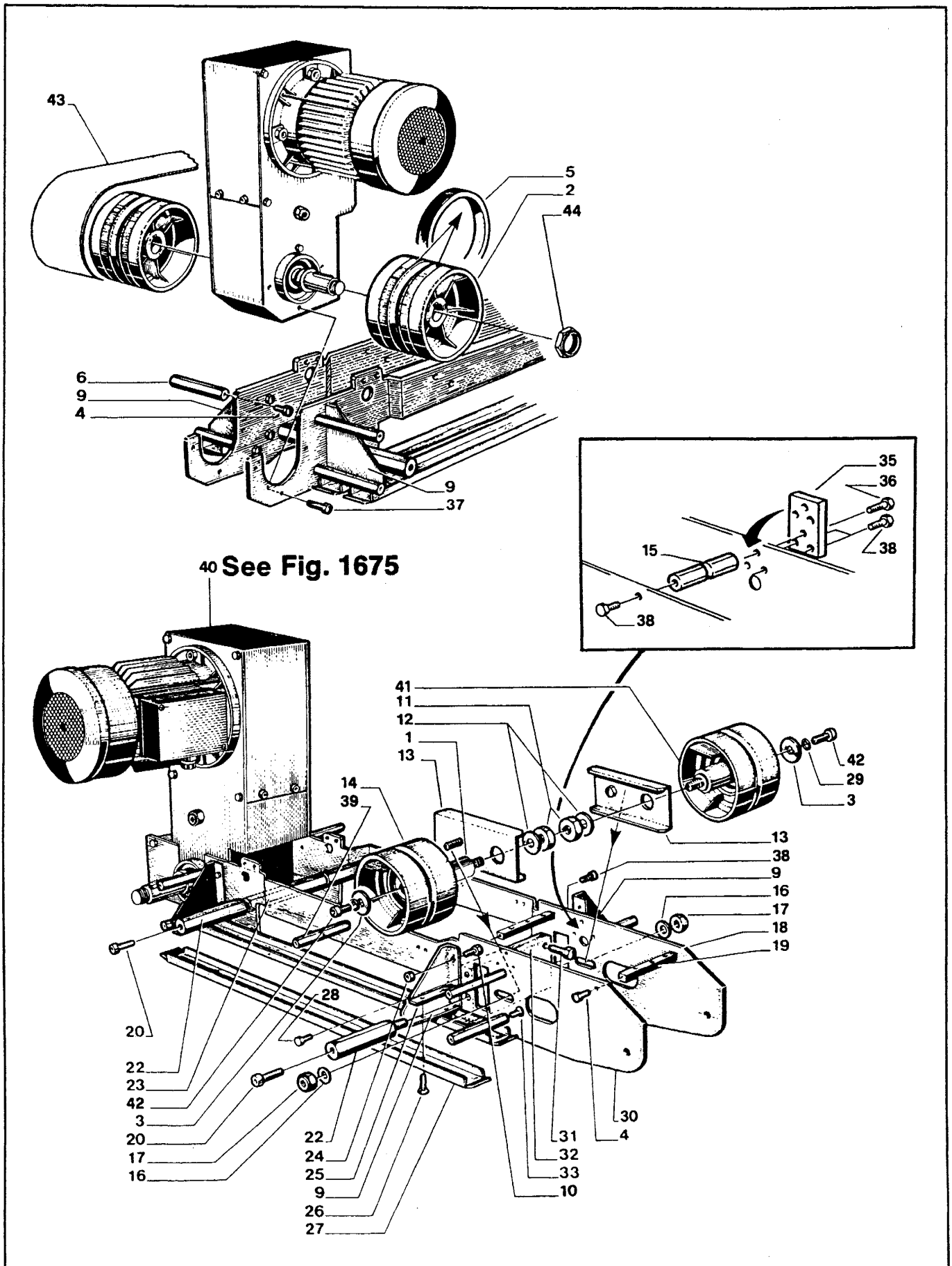


Figure 1452



Figure 1452

Ref. No.	3M Part No.	Description
1452-1	78-8052-6711-5	Shaft - Roller
1452-2	78-8060-8072-3	Roller - Drive
1452-3	78-8052-6709-9	Washer - Special
1452-4	78-8010-7169-3	Screw - Hex Hd M6 x 12 Metric
1452-5	78-8052-6713-1	Ring - Rubber
1452-6	78-8052-6559-8	Spacer - Upper
1452-9	78-8052-6706-5	Bracket
1452-10	26-1003-5820-4	Screw - Hex Hd M5 x 12
1452-11	26-1003-6906-0	Nut - M12 Metric
1452-12	26-1004-5511-7	Washer - Metric
1452-13	78-8052-6704-0	Roller - Bracket
1452-14	78-8052-6710-7	Roller - Idler
1452-15	78-8055-0693-4	Spacer - Tape Drum
1452-16	78-8052-6566-3	Washer - Friction
1452-17	26-1003-6918-5	Nut - Plastic Insert M10 Hex Flange
1452-18	78-8052-6638-0	Side Plate - Right
1452-19	78-8055-0694-2	Spacer - 10 x 10 x 115 mm
1452-20	26-1003-7973-9	Screw - Soc Hd M10 x 16
1452-22	78-8054-8843-0	Spacer
1452-23	78-8055-0695-9	Spacer - Hexagonal
1452-24	78-8010-7417-6	Nut - Hex Stl. M5 Metric
1452-25	78-8052-6715-6	Bracket
1452-26	26-1005-5316-8	Screw - Flat Hd Hex Dr M5 x 16
1452-27	78-8052-6714-9	Guide - Drive Belt
1452-28	78-8032-0375-7	Screw - Hex Hd M6 x 16 Metric
1452-29	78-8010-7435-8	Washer - Lock M6 Metric
1452-30	78-8052-6642-2	Side Plate - Left
1452-31	26-1003-5845-1	Screw - Hex Hd M8 x 40
1452-32	78-8055-0697-5	Block - Spacer
1452-33	26-1002-5830-5	Screw - Hex Hd M6 x 12
1452-35	78-8052-6644-8	Bracket
1452-36	78-8010-7193-3	Screw - Hex Hd M6 x 20 Metric
1452-37	26-1003-5824-6	Screw - Hex Hd M5 x 30
1452-38	26-1003-5828-7	Screw - Hex Hd M6 x 12
1452-39	78-8052-6643-0	Spacer
1452-40	78-8060-7893-3	Gear Box Assy W/O Motor
1452-41	78-8060-8151-5	Idler Roller Assy
1452-42	26-1003-7957-2	Screw - Soc Hd M6 x 16
1452-43	78-8052-6722-2	Belt - Drive
1452-44	78-8060-8416-2	Nut - M20 x 1 Special

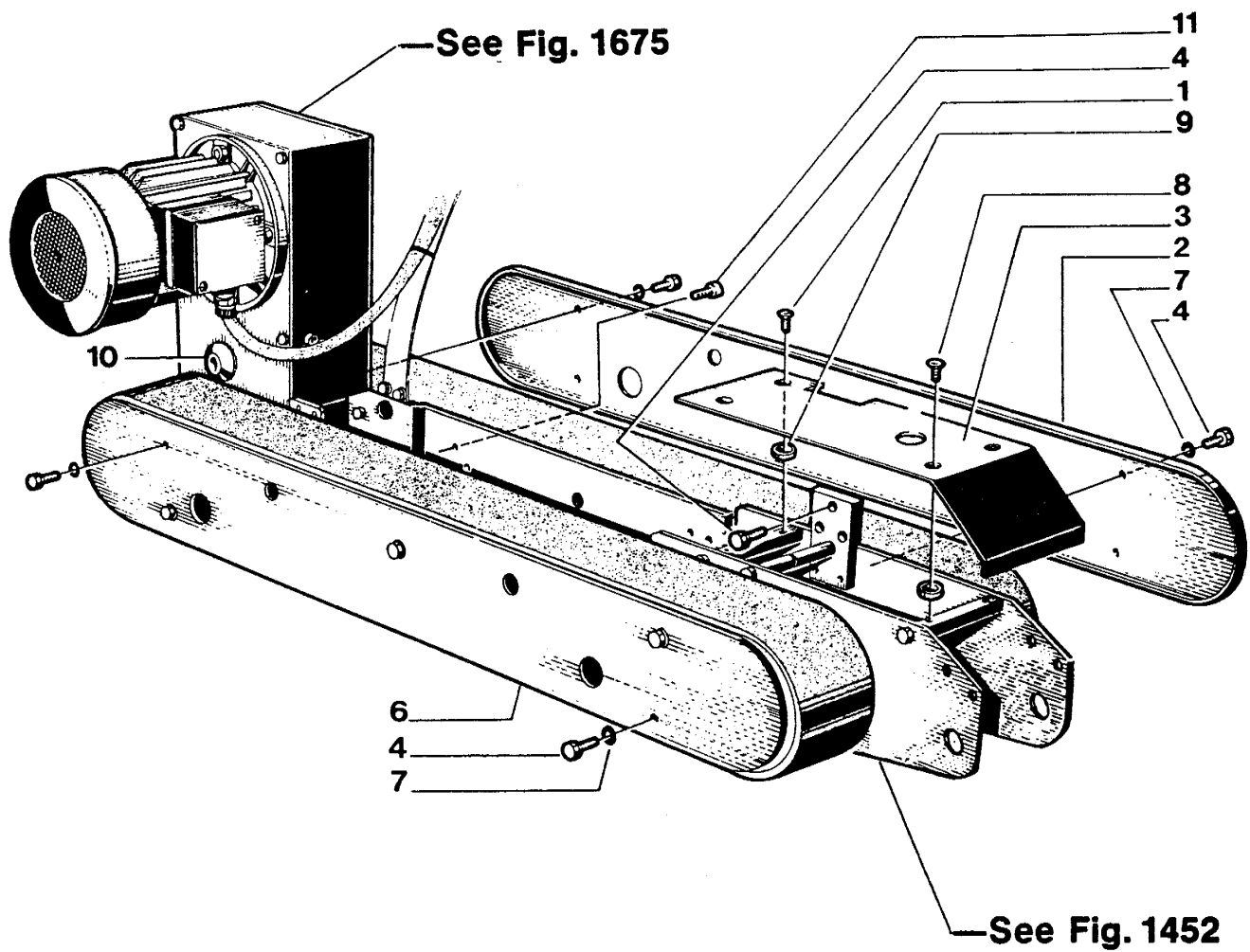


Figure 1453

**Figure 1453**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1453-1	26-1005-5316-8	Screw - Flat Hd Hex Dr M5 x 16
1453-2	78-8052-6645-5	Cover - Right
1453-3	78-8055-0699-1	Cover - Top
1453-4	78-8010-7169-3	Screw - Hex Hd M6 x 12 Metric
1453-6	78-8052-6647-1	Cover - Left
1453-7	26-1000-0010-3	Washer - Flat M6
1453-8	26-1002-3866-1	Screw - Flat Hd Hex Dr M5 x 10
1453-9	78-8054-8751-5	Spacer
1453-10	78-8054-8992-5	Guard - Nut
1453-11	78-8010-7209-7	Screw - Soc Hd M6 x 12

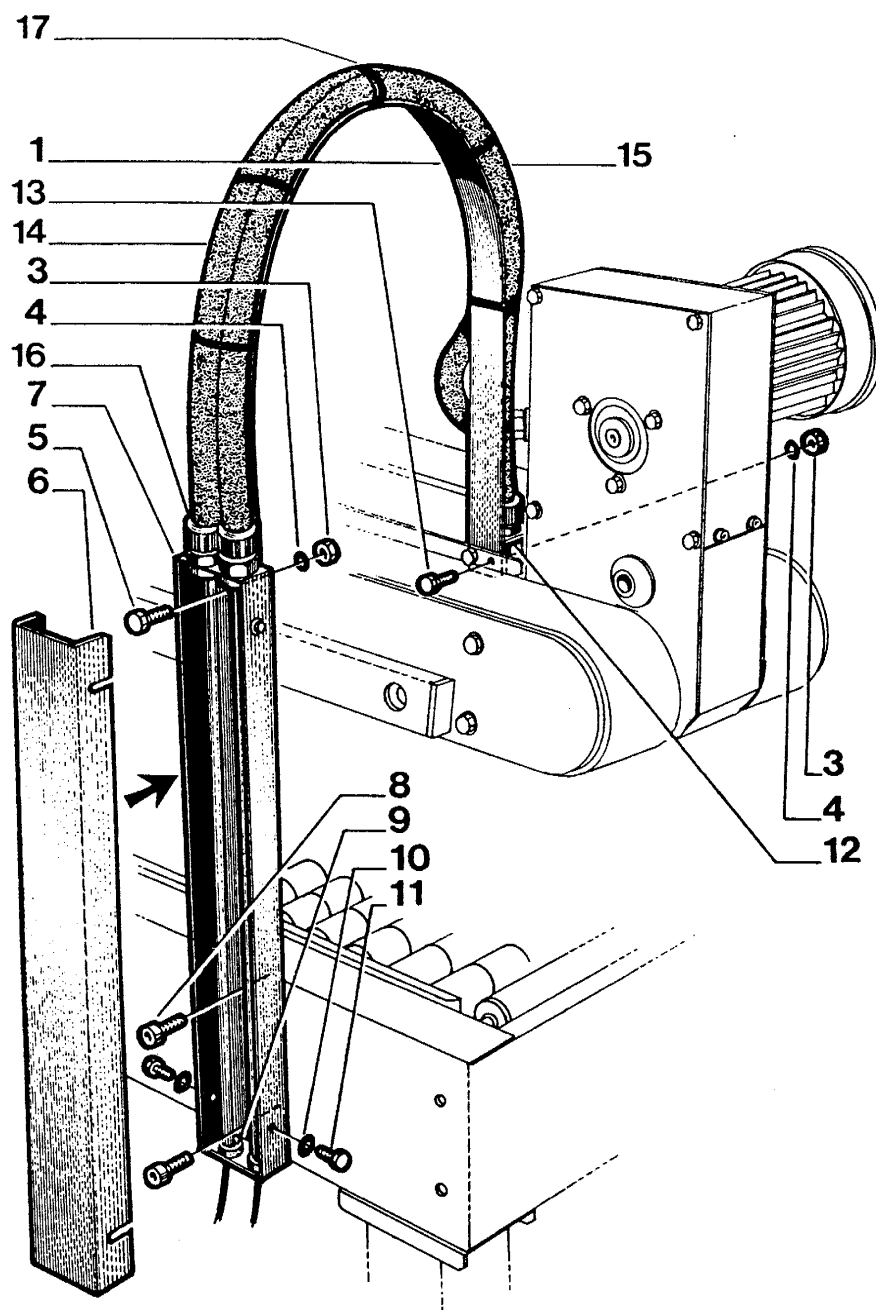


Figure 1454

**Figure 1454**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1454-1	78-8054-8958-6	Strap - Wire
1454-3	78-8010-7417-6	Nut - Hex Stl. M5 Metric
1454-4	78-8005-5741-1	Washer - Plain M5 Metric
1454-5	78-8010-7163-6	Screw - Hex Hd M5 x 10 Metric
1454-6	78-8052-6658-8	Cover
1454-7	78-8052-6657-0	Housing - Wire
1454-8	26-1003-7963-0	Screw - Soc Hd M8 x 16
1454-9	78-8052-6659-6	Grommet
1454-10	78-8017-9018-5	Washer - Plain M4 Spec.
1454-11	26-1003-5810-5	Screw Hex Hd M4 x 8
1454-12	78-8060-7887-5	Bracket
1454-13	26-1003-5820-4	Screw - Hex Hd M5 x 12
1454-14	78-8060-8421-2	Sleeving
1454-15	78-8060-8422-0	Sleeving
1454-16	78-8060-7631-7	Connector 3/8
1454-17	78-8060-8029-3	Clamp - 140 x 3,5

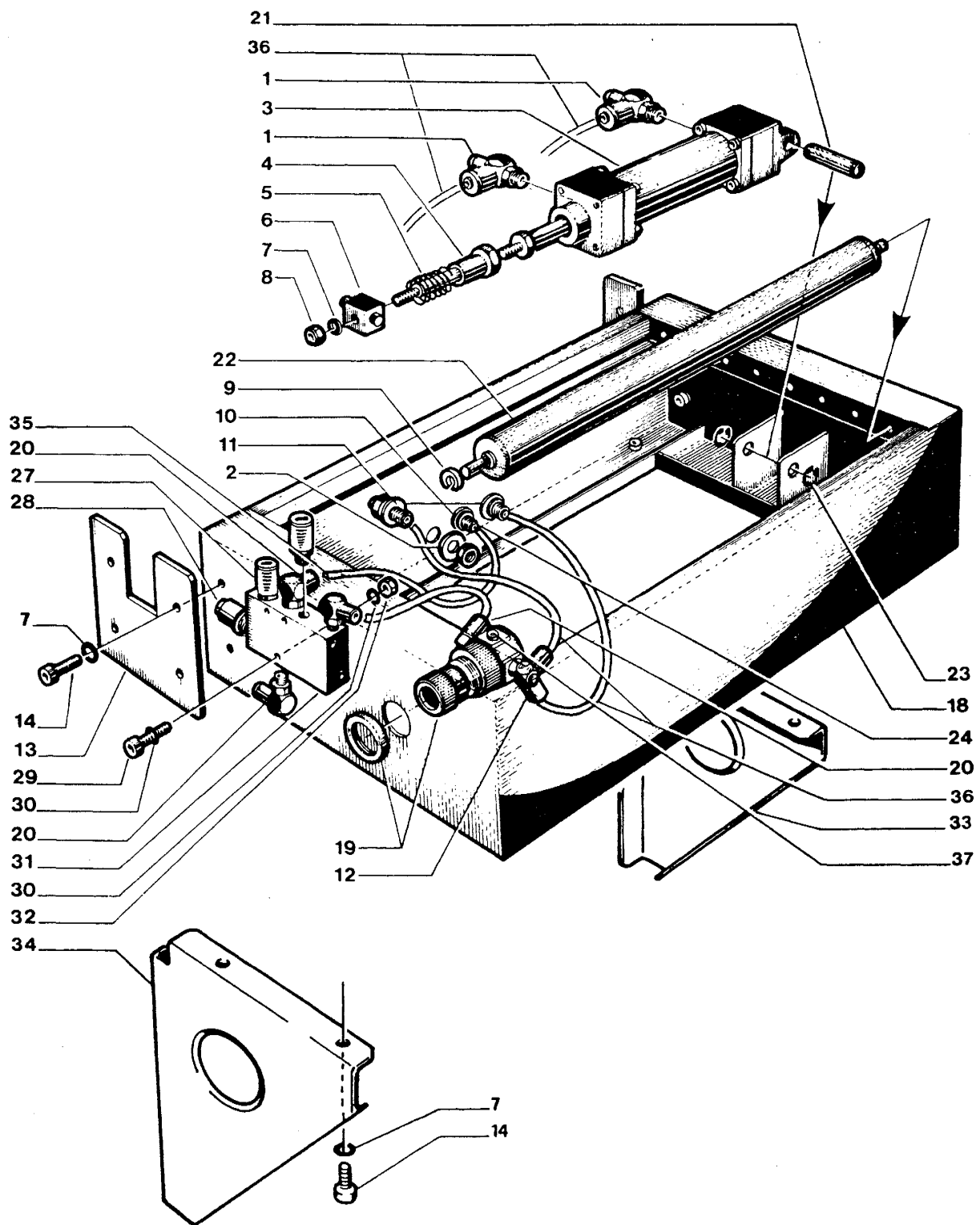


Figure 1455

**Figure 1455**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1455-1	26-1005-6881-0	Flow Control 6 mm
1455-2	12-7991-1752-3	Washer - Plain M14
1455-3	78-8055-0714-8	Cylinder - Air 40 x 120 mm
1455-4	78-8054-8766-3	Bushing
1455-5	78-8054-8767-1	Spring
1455-6	78-8054-8768-9	Block - Pivot
1455-7	78-8017-9318-9	Washer - Plain 8 mm Metric
1455-8	78-8017-9313-0	Nut - Self Locking M8 Nick. Pl.
1455-9	78-8052-6668-7	Snap - Roller
1455-10	78-8017-9059-9	Washer - Flat (for M12 Screw)
1455-11	26-1005-6883-6	Bulk Head Fitting
1455-12	26-1005-6884-4	Swivel - Tee - Lateral
1455-13	78-8054-8769-7	Bracket - Conveyor
1455-14	26-1003-7964-8	Screw - Soc Hd M8 x 20
1455-18	78-8055-0715-5	Infeed Main Frame
1455-19	26-1005-6885-1	Regulator
1455-20	26-1005-6893-5	90 Degree Elbow
1455-21	78-8054-8996-6	Pin-Air Cylinder Clevis
1455-22	78-8055-0678-5	Roller - Conveyor 32 x 588 mm
1455-23	78-8656-3965-8	E-Ring - M-8
1455-24	26-1005-6887-7	Bulk Head Fitting
1455-27	26-1005-6890-1	Muffler
1455-28	78-8060-7853-7	Union - Straight
1455-29	26-1003-7954-9	Screw - Soc Hd M5 x 35
1455-30	78-8005-5741-1	Washer - Plain M5 Metric
1455-31	26-1005-6911-5	Valve - Single Pilot
1455-32	26-1005-6859-6	Nut - Self Locking M5
1455-33	78-8060-7921-2	Reinforcement - Right
1455-34	78-8060-7922-0	Reinforcement - Left
1455-35	78-8060-8033-5	5M Skein Tubing
1455-36	78-8060-8034-3	5M Skein Tubing
1455-37	78-8060-7690-3	Cap B-1/8

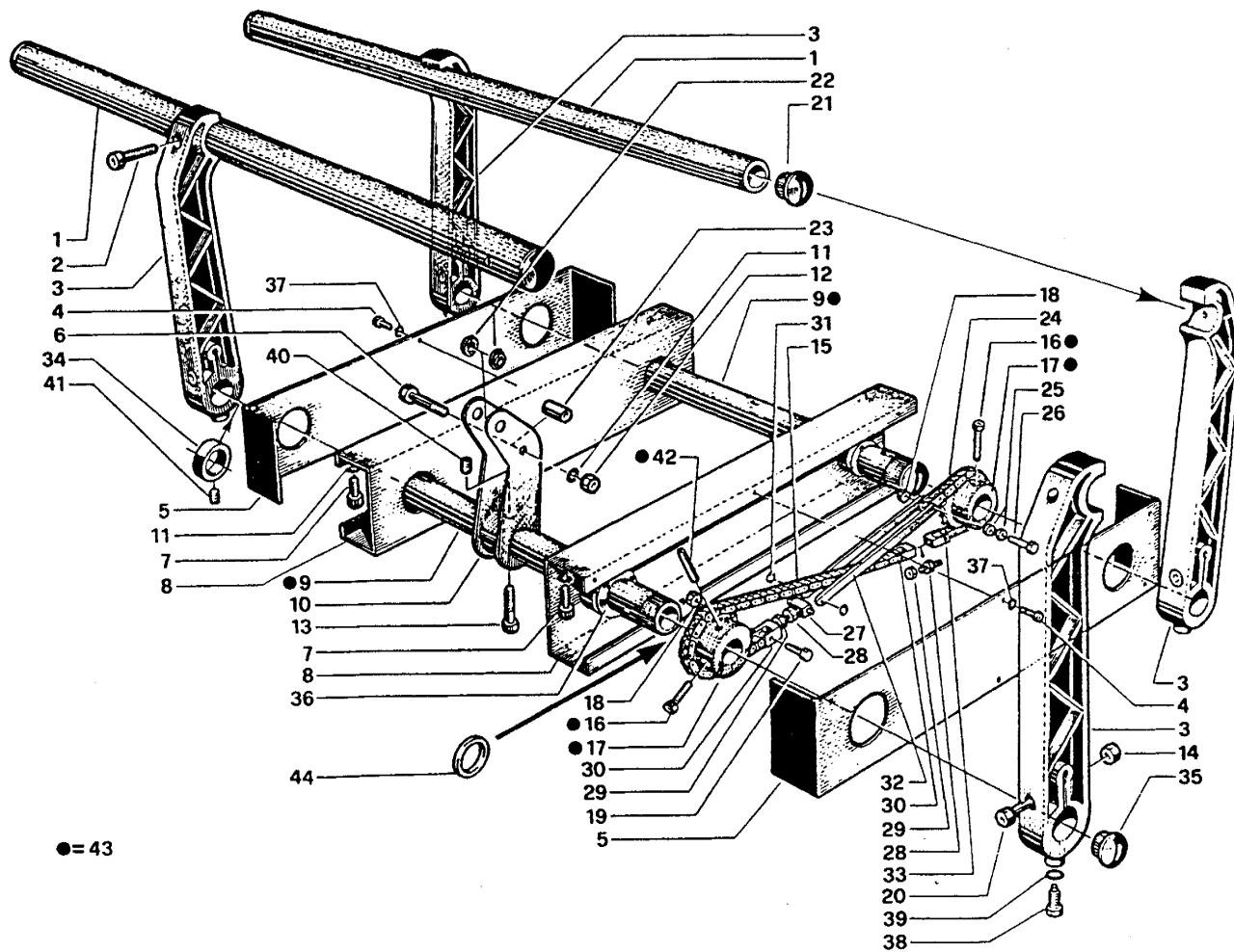


Figure 1456



Figure 1456

Ref. No.	3M Part No.	Description
1456-1	78-8054-8771-3	Rod - Square
1456-2	78-8010-7211-3	Screw - Soc Hd M6 x 25
1456-3	78-8060-7894-1	Clamp - Guide
1456-4	26-1002-5753-9	Screw - Self Tapping
1456-5	78-8055-0716-3	Guide - Housing Infeed
1456-6	26-1002-5836-2	Screw - Hex Hd M6 x 40
1456-7	26-1003-7957-2	Screw - Soc Hd Hex Hd M6 x 16
1456-8	78-8055-0717-1	Guide - Housing Center
1456-9	78-8054-8775-4	Guide - Centering Rod
1456-10	78-8054-8776-2	Lever - Flanged
1456-11	26-1000-0010-3	Washer - Flat M6
1456-12	26-1003-6916-9	Nut - Locking Plastic Insert M6
1456-13	26-1003-7963-0	Screw - Soc Hd M8 x 16
1456-14	78-8017-9313-0	Nut - Self Locking M8
1456-15	78-8055-0718-9	Chain - 3/8 Pitch, 55 Pitch Lg.
1456-16	26-1003-7949-9	Screw - Soc. Hd Hex Soc M5 x 12
1456-17	78-8054-8778-8	Sprocket - 20 Teeth 3/8
1456-18	78-8059-5517-2	Nut - Self Locking M3
1456-19	78-8060-7520-2	Screw - M3 x 20
1456-20	78-8060-7895-8	Screw - M8 x 35
1456-21	78-8054-8779-6	End - Cap
1456-22	78-8054-8780-4	Bushing - 10 x 14 mm
1456-23	78-8054-8781-2	Spacer
1456-24	78-8055-0719-7	Chain - 3/8 Pitch 27 Pitch Lg.
1456-25	78-8054-8783-8	Washer - Special
1456-26	78-8060-7519-4	Screw - M3 x 25
1456-27	78-8054-8784-6	Block - Chain
1456-28	78-8054-8785-3	Rod - Threaded Right/Left
1456-29	78-8010-7418-4	Nut - Hex Stl. M6 Metric
1456-30	78-8054-8786-1	Chain - Connector
1456-31	78-8656-3945-0	E-Ring M-4
1456-32	78-8054-8787-9	Chain - Link
1456-33	78-8054-8788-7	Chain - Connector
1456-34	78-8054-8789-5	Spacer - 30/43 x 28 mm
1456-35	78-8054-8790-3	End - Cap
1456-36	78-8054-8791-1	Rod Bushing
1456-37	78-8005-5740-3	Washer - Plain 4 mm Metric
1456-38	78-8060-7888-3	Screw M8 Special
1456-39	78-8017-9318-9	Washer - Plain 8 mm Metric
1456-40	78-8060-7889-1	Set Screw M8 x 10
1456-41	26-1003-8816-9	Screw - Set M5 x 6
1456-42	78-8060-7890-9	Spring Pin 6 x 45
1456-43	78-8060-8182-0	Guide Centering Rod Assy
1456-44	78-8060-8463-4	Washer - Guide Rod

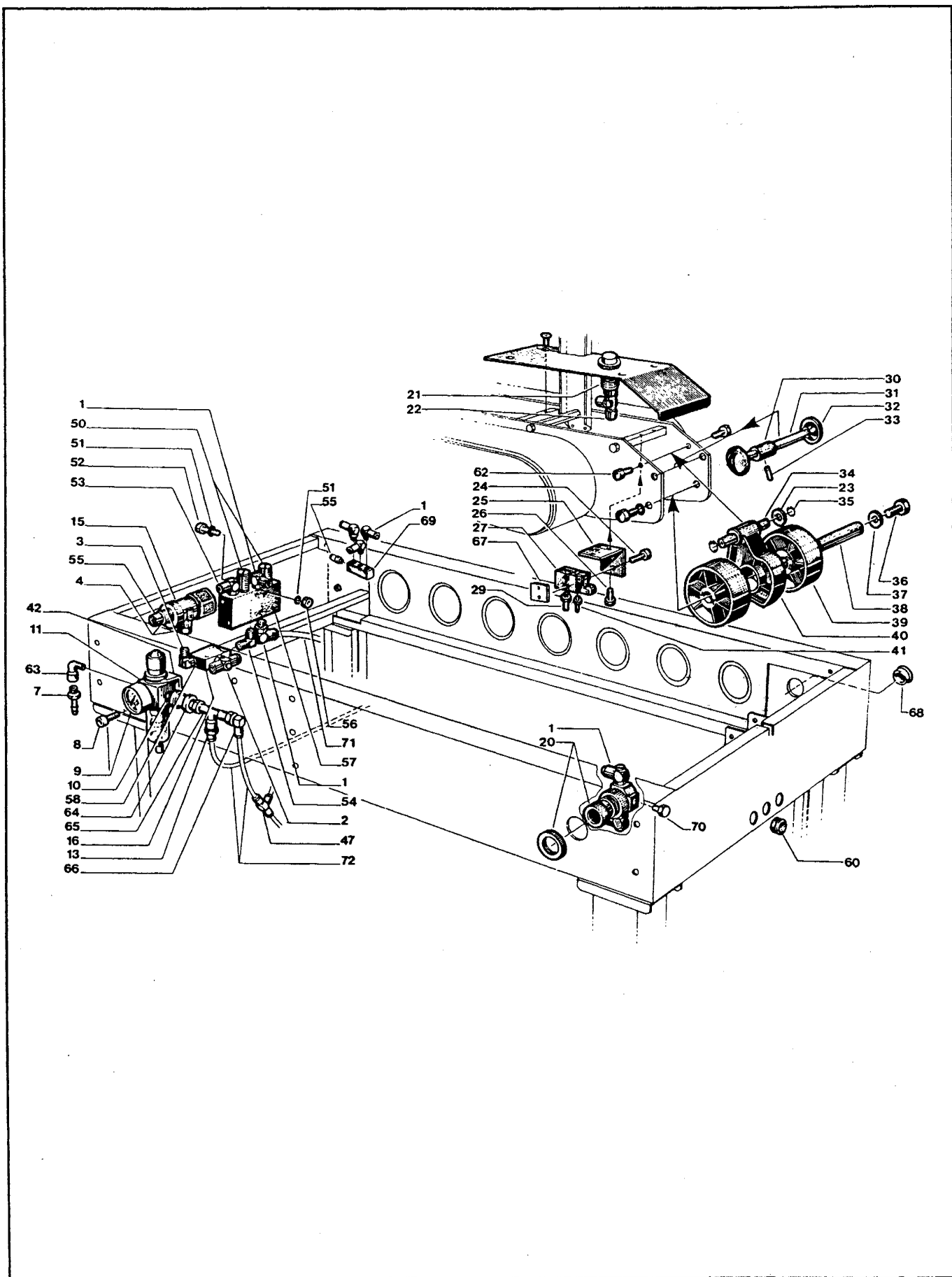


Figure 1457

Figure 1457

Ref. No.	3M Part No.	Description
1457-1	26-1005-6893-5	90 Degree Elbow
1457-2	78-8060-8183-8	Union Rotating MR20-06-18
1457-3	26-1005-6895-0	90 Degree Elbow
1457-4	10-0000-0036-3	Elbow
1457-7	26-1005-6897-6	Hose - Connector
1457-8	78-8010-7209-7	Screw - Soc Hd M6 x 12
1457-9	78-8054-8838-0	Gauge - Air
1457-10	78-8060-7899-0	Nipple - 1/4 x 1/4
1457-11	26-1005-5899-3	Filter-Pressure-Regulator
1457-13	26-1005-6901-6	Union - Straight
1457-15	26-1005-6903-2	Quick Exhaust
1457-16	26-1005-6904-0	Valve
1457-20	<del>26-1005-6906-5</del>	<del>Air Gauge 0-160 PSI</del>
1457-21	78-8060-7657-2	Yellow Magic Eye
1457-22	26-1005-6884-4	Swival - Tee - Lateral
1457-23	78-8052-6566-3	Washer - Friction
1457-24	26-1003-7946-5	Screw - Soc Hd M4 x 25
1457-25	78-8054-8832-3	Support - Valve
1457-26	26-1002-5817-2	Screw - Hex Hd M5 x 8 Zinc Pl.
1457-27	26-1005-6358-9	Valve - 3 Way - 2 Position
1457-29	26-1005-6880-2	Fitting Barb 2,5 mm
1457-30	78-8054-8833-1	Cam
1457-31	78-8055-0720-5	Shaft - 8 x 160 mm
1457-32	78-8054-8839-8	Knob
1457-33	78-8017-9259-5	Pin - Roll 3 x 14 mm
1457-34	78-8055-0721-3	Shaft - 10 x 115 mm
1457-35	78-8016-5855-6	E-Ring 10 mm
1457-36	26-1003-5841-0	Screw - M8 x 16 Zinc
1457-37	78-8017-9318-9	Washer - Plain 8 mm Metric
1457-38	78-8055-0722-1	Shaft - 15 x 115 mm
1457-39	78-8055-0723-9	Roller - 70 x 43,5 mm
1457-40	78-8054-8840-6	Cam Upper Head
1457-41	26-1005-6359-7	Fitting Barb 2,5 mm
1457-42	78-8054-8837-2	Bracket - Regulator
1457-47	78-8057-6170-3	TEE - 6mm Tubing
1457-50	26-1005-6890-1	Muffler
1457-51	78-8005-5741-1	Washer - Plain M5 Metric
1457-52	26-1003-7954-9	Screw - Soc Hd M5 x 35
1457-53	26-1005-5909-0	Elbow
1457-54	78-8017-9426-0	Elbow - 90° 1/8 Male x 1/8 Male
1457-55	26-1005-6910-7	Union - Straight
1457-56	26-1005-6859-6	Nut - Self Locking M-5
1457-57	26-1005-6911-5	Valve - Single Pilot
1457-58	78-8055-0818-7	Nipple Tapered 1/8 x 1/8
1457-60	78-8052-6659-6	Grommet
1457-62	78-8010-7169-3	Screw - Hex Hd M6 x 12 Metric
1457-63	78-8060-7900-6	Union 1/4 x 1/4
1457-64	78-8059-5516-4	Crab Pot Valve 1/4
1457-65	78-8060-7753-9	Elbow 1/4 x 1/4
1457-66	78-8055-0756-9	Union - Rotating
1457-67	78-8059-5607-1	Plate - Threaded
1457-68	78-8060-8184-6	Cap 35 x 1,5
1457-69	78-8059-5633-7	Air Distributor
1457-70	78-8060-7690-3	Cap B-1/8
1457-71	78-8060-8033-5	5M Skein Tubing
1457-72	78-8060-8034-3	5M Skein Tubing

26-1005-6885-1  
Regulator

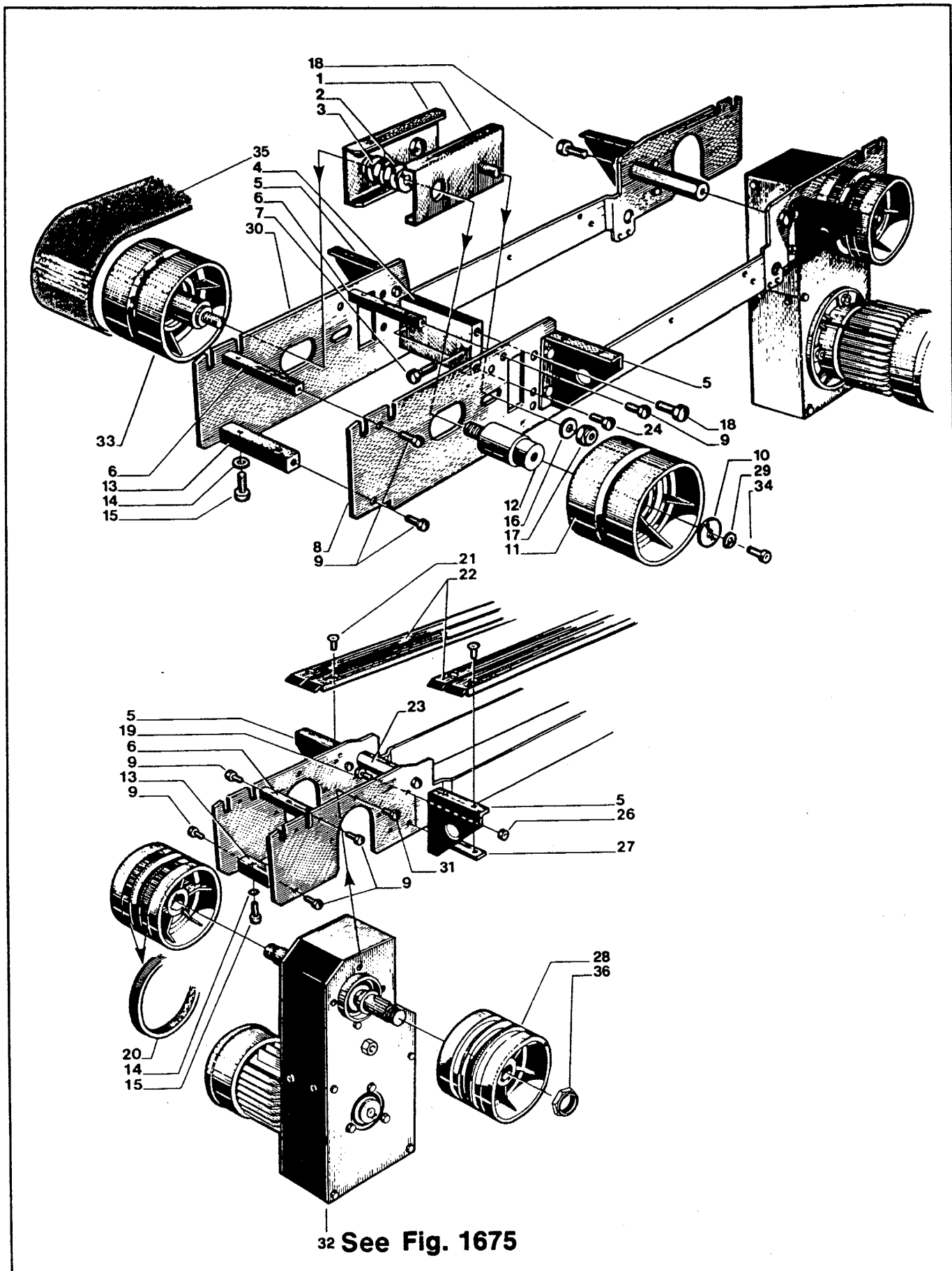
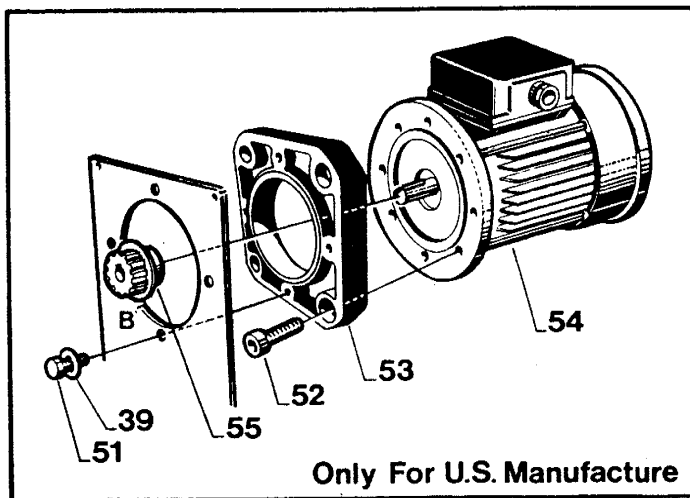


Figure 1466

**Figure 1466**

<b>Ref. No.</b>	<b>3M Part No.</b>	<b>Description</b>
1466-1	78-8052-6704-0	Roller - Bracket
1466-2	26-1003-6906-0	Nut - Metric M-12
1466-3	26-1004-5511-7	Washer - Metric
1466-4	78-8055-0697-5	Block - Spacer
1466-5	78-8052-6706-5	Bracket
1466-6	78-8055-0694-2	Spacer - 10 x 10 x 115 mm
1466-7	26-1003-5845-1	Screw - Hex Hd M8 x 40
1466-8	78-8052-6708-1	Side Plate
1466-9	78-8010-7169-3	Screw - Hex Hd M6 x 12 Metric
1466-10	78-8052-6709-9	Washer - Special
1466-11	78-8052-6710-7	Roller - Idler
1466-12	78-8052-6711-5	Shaft - Roller
1466-13	78-8055-0703-1	Spacer - 15 x 15 x 115 mm
1466-14	26-1000-0010-3	Washer - Flat M6
1466-15	78-8010-7209-7	Screw - Soc Hd M6 x 12
1466-16	78-8052-6566-3	Washer - Friction
1466-17	26-1003-6918-5	Nut - Plastic Insert M10 Hex Flange
1466-18	26-1003-5849-3	Screw - Hex Hd M10 x 16
1466-19	26-1003-5820-4	Screw - Hex Hd M5 x 12
1466-20	78-8052-6713-1	Ring - Rubber
1466-21	26-1005-5316-8	Screw - Flat Hd Hex Dr M5 x 16
1466-22	78-8052-6714-9	Guide - Drive Belt
1466-23	78-8055-0695-9	Spacer - Hexagonal
1466-24	78-8032-0375-7	Screw - Hex Hd M6 x 16 Metric
1466-26	78-8010-7417-6	Nut - Hex Stl. M5 Metric
1466-27	78-8052-6715-6	Bracket
1466-28	78-8060-8072-3	Roller - Drive
1466-29	78-8010-7435-8	Washer - Lock M6 Metric
1466-30	78-8054-8649-1	Lower Main Plate Left
1466-31	26-1003-5824-6	Screw - Hex Hd M5 x 30
1466-32	78-8060-7893-3	Gear Box Assy W/O Motor
1466-33	78-8060-8151-5	Idler Roller Assy
1466-34	26-1003-7957-2	Screw - Soc Hd M6 x 16
1466-35	78-8052-6722-2	Belt - Drive
1466-36	78-8060-8416-2	Nut - M20 x 1 Special



23-24-25-63-64-3F

26-27-28-65-66-67-MF

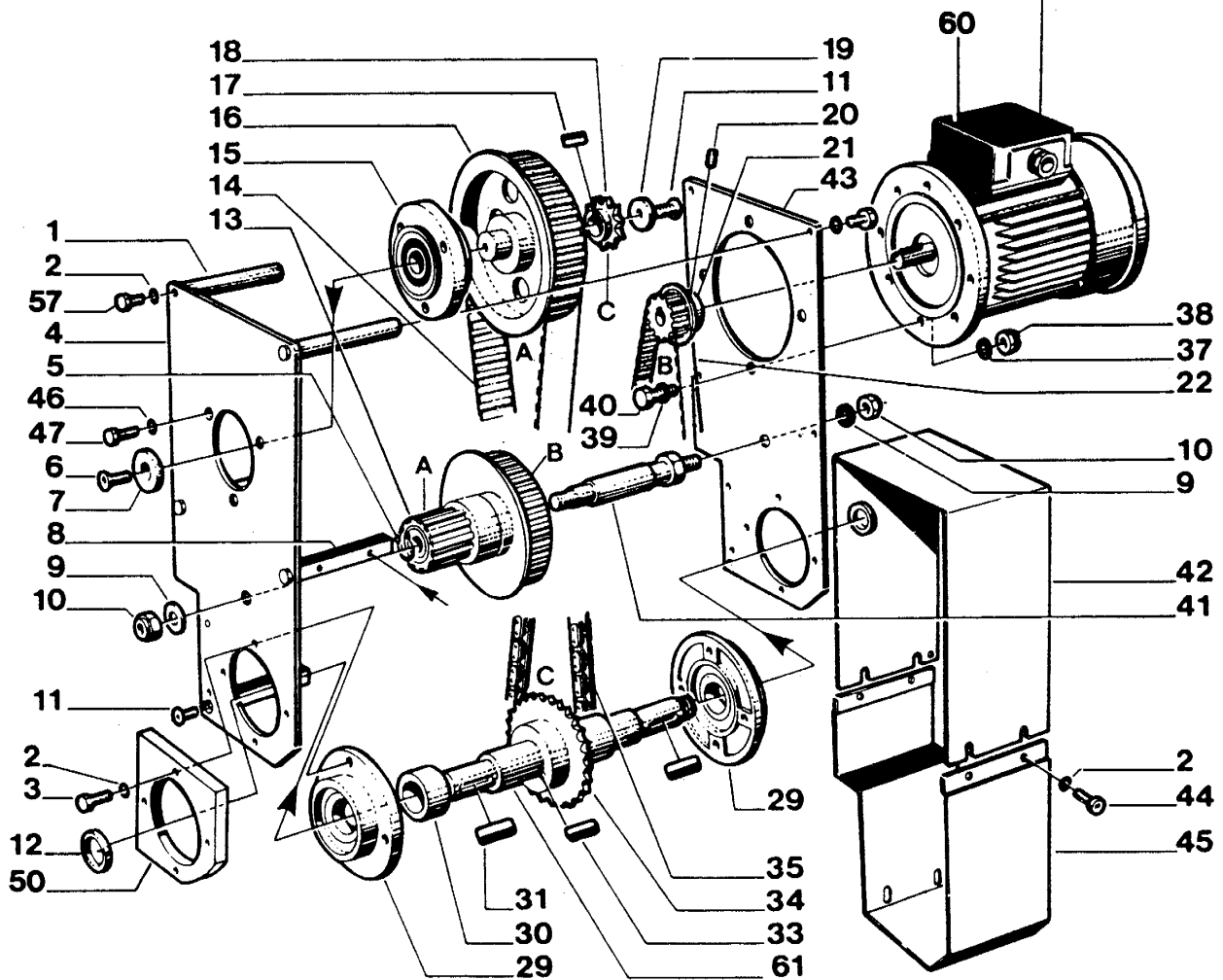


Figure 1675

Figure 1675

Ref. No.	3M Part No.	Description
1675-1	78-8054-8975-0	Spacer
1675-2	78-8005-5741-1	Washer - Metric, Plain, M5
1675-3	26-1003-5824-6	Screw - Hex Hd M5 x 30
1675-4	78-8054-8976-8	Frame - Left Side
1675-5	78-8016-5855-6	E-Ring 10 mm
1675-6	26-1001-9843-6	Screw - Flat Soc Hd M6 x 16
1675-7	78-8054-8577-4	Washer - Special
1675-8	78-8054-8977-6	Spacer
1675-9	78-8017-9318-9	Washer - Plain, Metric 8 mm
1675-10	78-8017-9313-0	Nut - Self Locking M8 Nick Pl.
1675-11	26-0001-5862-1	Screw - Flat Hd Soc M5 x 12
1675-12	78-8054-8879-4	Washer - 20,5 mm
1675-13	78-8054-8978-4	Reducer - Pulley
1675-14	78-8057-5808-9	Belt - Timing 187L100
1675-15	78-8054-8979-2	Housing - Bearing
1675-16	78-8054-8980-0	Pulley Timing Belt
1675-17	78-8028-8244-5	Key - 4 x 4 x 10 mm
1675-18	78-8054-8981-8	Sprocket - 3/8 Pitch, 13 Teeth
1675-19	78-8054-8877-8	Washer - 5,5 x 20 x 4 mm
1675-20	26-1003-8816-9	Screw - Set M5 x 6
1675-21	78-8054-8982-6	Pulley - Timing 11 Teeth
1675-22	78-8057-5724-8	Timing Belt 187L050
1675-23	78-8052-6718-0	Motor - 220/380V 50 HZ 3 Phase
1675-24	78-8052-6719-8	Motor - 260/440V 50 HZ 3 Phase
1675-25	78-8052-6720-6	Motor - 240/415V 50 HZ 3 Phase
1675-26	78-8046-8268-6	Motor - 220V, 50 HZ, Single Phase
1675-27	78-8046-8270-2	Motor - 240V, 50 HZ, Single Phase
1675-28	78-8046-8267-8	Motor - 110V, 60 HZ Single Phase 3A
1675-29	78-8054-8983-4	Housing Bearing
1675-30	78-8054-8984-2	Bushing
1675-31	78-8057-5739-6	Key - 5 x 5 x 30 mm
1675-33	78-8057-5811-3	Key - 6 x 6 x 20 mm
1675-34	78-8054-8986-7	Sprocket - 3/8 Pitch, 28 Teeth
1675-35	78-8054-8987-5	Chain - 3/8 Pitch, 56 Pitch Lg.
1675-37	78-8005-5736-1	Lockwasher - For M8 Screw
1675-38	26-1000-1347-8	Nut - Metric Hex Stl., M8
1675-39	26-1004-5507-5	Washer M8
1675-40	78-8017-9301-5	Screw - Hex Hd M8 x 25
1675-41	78-8054-8988-3	Shaft Timing Pulley
1675-42	78-8054-8989-1	Covert, Top
1675-43	78-8054-8990-9	Frame - Right Side
1675-44	26-1003-7949-9	Screw - Soc Hd Hex Soc M5 x 12
1675-45	78-8054-8991-7	Cover - Bottom
1675-46	78-8042-2919-9	Washer - M6 Nick. Pl.
1675-47	78-8010-7193-3	Screw - Hex Hd Metric, M6 x 20
1675-50	78-8055-0705-6	Spacer - Gear Box
1675-51	26-1003-5842-8	Screw - Hex Hd M8 x 20
1675-52	12-7991-1573-3	Screw - Soc Hd 3/8 - 16 x 1-1/4
1675-53	78-8054-8993-3	Adapter
1675-54	26-1005-8092-2	Motor - 115V, 60HZ
1675-55	78-8055-0672-8	Pulley
1675-57	26-1003-5820-4	Screw - Hex Hd M5 x 12
1675-58	78-8060-8146-5	Gear Box Pulley Assy
1675-59	78-8060-8147-3	Pulley Assy
1675-60	78-8060-7880-0	Eyelet Terminal - 4 Red
1675-61	78-8060-8423-8	Shaft - 30 x 267
1675-62	78-8060-8424-6	Drive Shaft Assy
1675-63	78-8059-5621-2	Motor - 200V, 60HZ, 3PH
1675-64	78-8060-8158-0	Motor - 220V, 60HZ, 3PH
1675-65	78-8059-5622-0	Motor - 100V, 50/60HZ, 1PH
1675-66	78-8060-8159-8	Motor - 115V, 60HZ, S-Phase
1675-67	78-8060-8160-6	Motor - 230V, 50HZ, S-Phase

# 3M Parts Order Form

Form 26989 - 3 - D

— Shaded Areas To Be Filled In By 3M —

**Mail To:** Dispenser Parts  
241 Venture Drive  
Amery, WI 54001

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