# **Instructions and Parts List**

Scotch

3M-Matic

7A-KS

Model 27900

and

**7A-KS3** 

Model 18000

**Adjustable Case Sealers** 

34-7004-7285-4A(114.0125)R1

"Scotch" is a Registered Trademark of 3M, St. Paul, MN 55144

Litho in U.S.A.



# **Service Instructions**

# To Our Customers:

This is the "Scotch" Brand Equipment you ordered. It has been set up and tested at the factory with "Scotch" Brand tapes. If any problems occur when operating this equipment, and you desire service, refer to the map on the reverse side of this sheet for the location number of your area. Call the 3M Equipment Service and Support Division telephone number(s) listed for your location. Ask for the Service Dispatcher and specify that service is being requested for a 3M-Matic Machine. Please provide dispatcher with machine name, model number and serial number.

# 3M-Matic Hot Line

For phone consultation when self servicing your 3M-Matic Machine, call 612/733 0895.

# **Replacement Parts**

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

Replacement parts and parts prices available from:

Dispenser Parts/3M PO Box 33900 St. Paul, MN 55133 612/733 6508

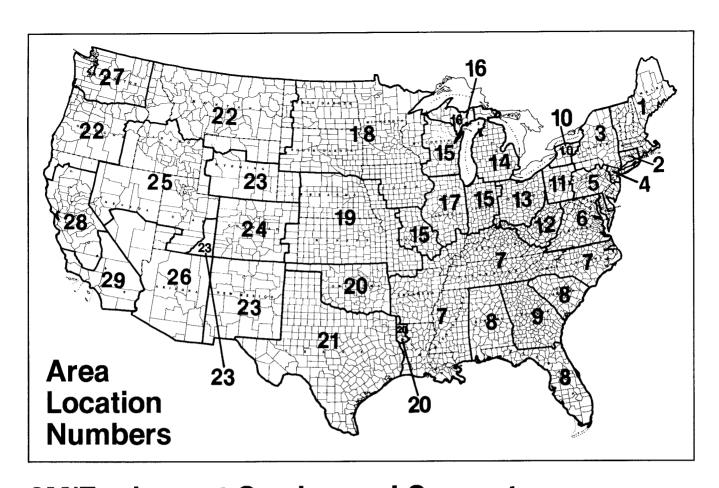
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34-7004-7021-3H(44.25)R2

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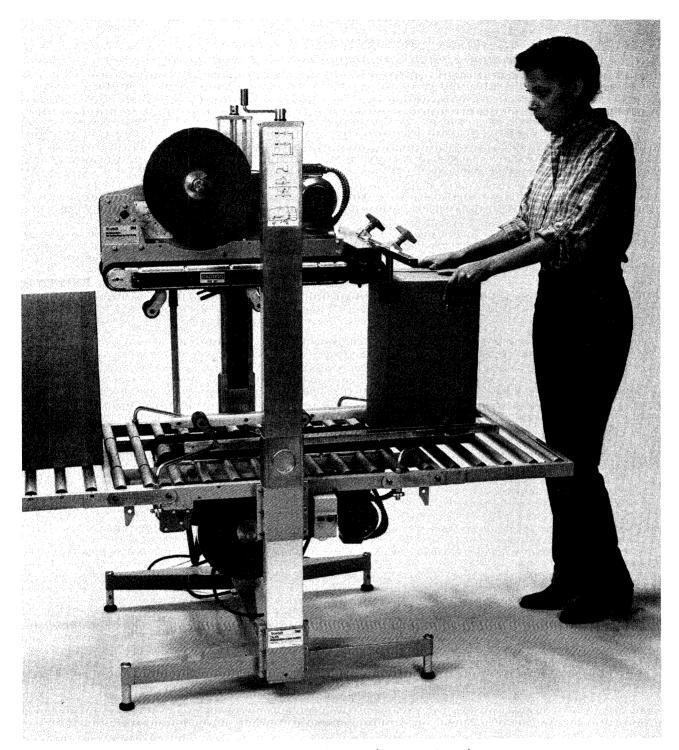
# **3M/Equipment Service and Support Division Phone Numbers**

Phone Number	Location	Phone Number	Location
800-282-4353	9	800-243-8056	1
Atlanta, GA		800-243-8057	
area 329-2022		800-243-8349	
800-245-8003	10	800-842-7350	2
800-245-8004		Hartford, CT	
800-472-2491	11	area <b>527-5003</b>	
800-472-2492	• •	800-526-2214	3
800-472-2493		800-526-2215	•
Pittsburgh, PA		800-526-2216	
area 922-4070		800-772-3622	4
800-521-1874	12	800-772-3623	4
800-521-2450	13	800-772-3630	
		800-772-3636	
800-482-6326	14	West Caldwell, NJ area <b>575-2000</b>	
Detroit, MI area <b>357-3830</b>		area 575-2000	
area 337 3030		800-257-5203	5
312-920-1000	15	Pennsauken, NJ	
800-323-3787	16	area <b>662-7077</b>	
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Chicago, IL	17	800-336-0341	
area <b>920-1000</b>		McLean, VA	
		area <b>734-0300</b>	
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800-328-2883	19	800-554-3367	8

Location	Phone Number
20	214-647-5852
21	800-442-9923
	Dallas, TX
	area 647-5852
	Houston, TX
	area 224-2001
22	800-426-7977
23	800-525-0225
24	800-332-1852
	Denver, CO
	area <b>321-2344</b>
25	800-227-0867
26	800-421-2600
27	800-562-8096
	Seattle, WA
	area <b>827-4611</b>
28	800-792-8052
	San Francisco, CA
	area <b>991-5000</b>
29	800-262-1436
	800-259-2503
	Los Angeles, CA
	area <b>637-2200</b>

# INSTRUCTION MANUAL 7A-KS MODEL 27900 7A-KS3 MODEL 18000 ADJUSTABLE CASE SEALERS

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7A-KS ADJUSTABLE CASE SEALER - MODEL 27900 (shown above) 7A-KS3 ADJUSTABLE CASE SEALER - MODEL 18000

## DESCRIPTION

The Adjustable Case Sealers are designed to apply a "C" clip of pressuresensitive tape to the top and bottom center seam of regular slotted containers. The machine is manually adjustable to a wide range of 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.

#### WARRANTY

IMPORTANT NOTICE TO PURCHASER: The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: The only obligation of the seller and manufacturer of "Scotch" Brand equipment shall be to repair or replace any mechanical part proved to be defective, provided the defect occurs within 90 days after date of purchase, and the sopurchased item is returned immediately to the 3M factory or to an authorized service station designated by the manufacturer. NEITHER SELLER NOR MANUFACTURER SHALL BE LIABLE EITHER IN TORT OR IN CONTRACT FOR ANY LOSS OR DAMAGE, DIRECT, INCIDENTAL, OR CONSEQUENTIAL, ARISING OUT OF THE USE OF OR THE INABILITY TO USE THE "Scotch" BRAND EQUIPMENT. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

"Scotch", "Scotchpar" and "Scotchpro" are registered trademarks for the pressuresensitive tapes and dispensers of 3M St. Paul, Minnestoa 55144.

#### SPECIFICATIONS

1) Tape:

"Scotch" Brand Pressure-sensitive Film Box Sealing tapes.

2) Tape Width:

7A-KS - 1-1/2 inches or 36 mm minimum to 2 inches [50 mm] maximum.

7A-KS3 - 1-1/2 inches or 36 mm minimum to 3 inches or 72 mm maximum.

3) Tape Roll Diameter:

Up to 14 inches [355 mm] maximum on a 3 inch [76.2 mm] diameter core. (Accommodates "Scotch" Brand Film tapes - 1,000 yard rolls.)

4) Box Board:

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

(Specifications continued on next page.)

В

# 5) Box Weight and Size Capacities:

A. Box weight, filled - up to 65 pounds [30 kg]

3.	Box Size	:		]	MUMINIMUM				MAXIMUM
	Length	_		6.0	inches	or	150	mm	Unlimited
*	Width	-	7A-KS	6.0	inches	or	150	mm	24.5 inches or 620 mm
			7A-KS3	7.0	inches	or	175	mm	24.5 inches or 620 mm
	Height	_		5.2	inches	or	130	$\mathbf{m}\mathbf{m}$	§31.5 inches or 800 mm

<sup>\*</sup> Maximum width for box heights less than 8 inches or 200 mm is 23.2 inches or 590 mm as discussed on page 16.

§ Maximum box height of 37.8 inches or 960 mm can be attained by using Auxiliary Tape Roll Mount Attachment, P/N 78-8017-9417-9, on bottom taping head and lowering roller conveyor bed as discussed on page 8.

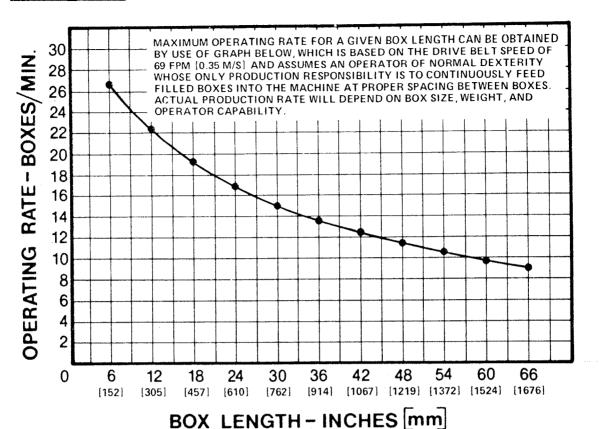
NOTE: The Case Sealer can accommodate most boxes within the size range listed above. However, boxes with tall proportions, for example a box length (in direction of seal) to box height ratio of .5 or less, should be test run to assure proper machine performance.

DETERMINE THE BOX LIMITATIONS BY COMPLETING THIS FORMULA:

BOX	LENGTH	IN	DIRECTION	OF	SEAL	MUST B	E .5
	I	3OX	HEIGHT			GREATER	THAN

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

# 6) Operating Rate:



#### 7) Power Requirements:

115 VAC, 60 Hz, 5 A electrical power. The machine is equipped with a standard neoprene covered power cord and a grounded plug.

## 8) Operating Conditions:

Use in dry, relatively clean environments at  $40^{\rm o}$  to  $105^{\rm o}~{\rm F}$  [5° to  $40^{\rm o}~{\rm C}]$  with clean, dry boxes.

IMPORTANT SAFEGUARD

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

## SPECIFICATIONS (CONTINUED)

#### 9) Machine Dimensions:

Overal1	Dimensions	For	Shipping	Purposes
	D = III O II O II O		O11 - P P - 110	- u-pobco

A. Length - 65.7 inches [1665 mm] 40.2 inches [1020 m]

B. Width - 32.7 inches [830 mm]
 C. Height - 61.3 inches [1555 mm]

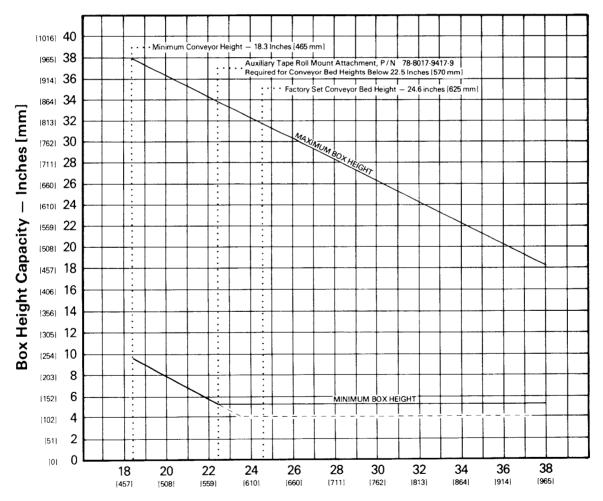
D. Conveyor Height - Adjustable up and down from factory

set height of 24.6 inches [625 mm]

E. Weight - 358 pounds [165 kg] uncrated

418 pounds [190 kg] crated

# 10) Box Height Capacity As Affected By Conveyor Bed Height



Conveyor Bed Height — Inches [mm)

 — — — Minimum Box Height with Knife Guards Removed and Top Taping Head Bumpers Reduced 1.2 Inches [30 mm] in Height. It is recommended that the Case Sealer be set-up and tried before placing it in the production line. This approach will allow your thorough review and familiarization with the unit before subjecting it and operating personnel to a production situation where time for set-up, adjustments, and operator training usually becomes limited.

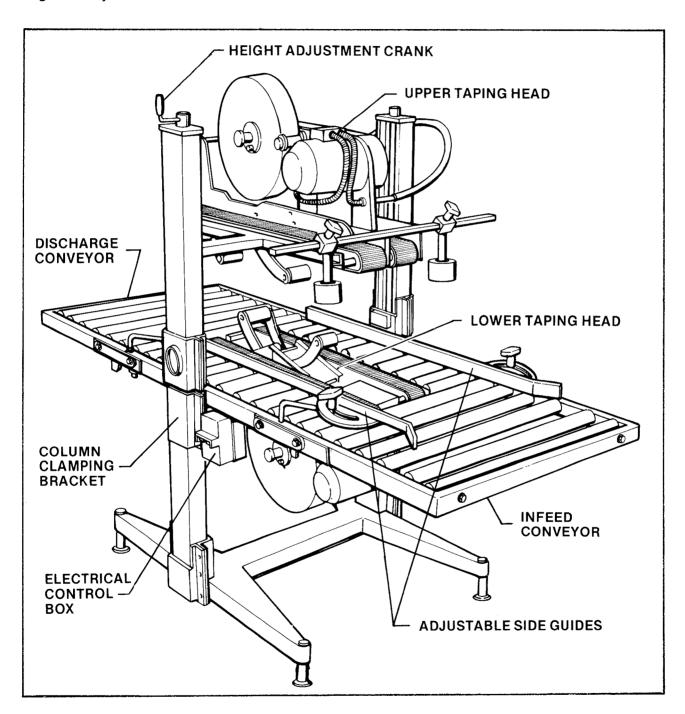


FIGURE 1 SET-UP INSTRUCTIONS - CASE SEALER COMPONENTS - LEFT FRONT VIEW

The following instructions are presented in the order recommended for setting up and installing the Case Sealer, as well as for learning the operating functions. 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 Case Sealer.

# HEIGHT ADJUSTMENT CRANK

The height adjustment crank handle, located as shown in figure 1, comes assembled in a down position for shipping purposes. The crank handle can be assembled to the top of either frame column for customer operating convenience. To put the handle into operating position, loosen but do not remove the locking screw and rotate the handle to the up position as shown in figure 1. Tighten the locking screw on the flat of the shaft to secure the handle.

#### INFEED AND DISCHARGE CONVEYORS

The infeed and discharge conveyors are folded down for shipping purposes and using figure 2 as a guide, should be erected as follows:

- 1) Infeed Conveyor Loosen but do not remove the two M8 X 20 socket head screws on each side of the conveyor frame. The infeed conveyor can then be pivoted upwards, the slotted brackets inserted under the heads of the inside screws, and held in place by tightening screws.
- 2) Discharge Conveyor erect the discharge conveyor the same as the infeed conveyor described above.

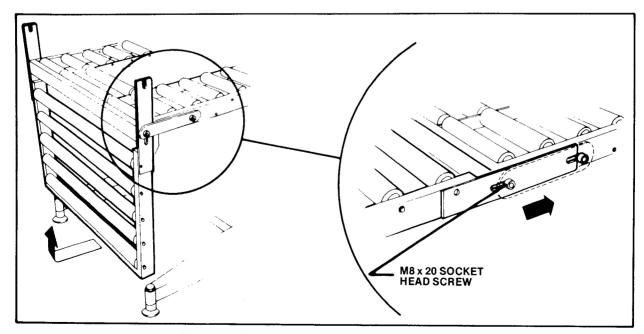


FIGURE 2 - INFEED CONVEYOR ASSEMBLY

#### SET-UP INSTRUCTIONS (CONTINUED)

# Conveyor Bed Height

The conveyor bed height can be adjusted up and down on the two vertical frame columns to match production line conveyor heights, to present the boxes at a comfortable level for the operator, or to provide additional box height capacity. The adjustment is made as follows, but before proceeding, review the affect on box height capacity comments immediately following the adjustment description (refer to Figure 1):

- 1) To work on conveyor bed height, raise top taping head to fully raised position by means of height adjustment crank.
- 2) Utilizing two additional personnel or blocking up main conveyor bed to prevent it from dropping, loosen the six M6 X 20 socket head screws of the column clamping bracket on each side of the conveyor bed with hex socket wrench provided in the tool kit. Loosen only enough to allow movement of the conveyor bed up and down on the frame columns.
- 3) Raise or lower conveyor bed to desired height and measure on each side to insure that both sides have been raised or lowered equally. Measurements should be made from the top of the machine base to the conveyor bed rather than from the floor.
- 4) Securely tighten the column clamping brackets against the frame columns by tightening the M6 x 20 socket head screws. Recheck measurements to be sure that each side of conveyor frame is equal distance from the machine base.
- 5) Top taping head can then be lowered for box height being sealed.

## BOX HEIGHT CAPACITY (as affected by Conveyor Bed Height)

The conveyor bed height discussed above also affects the box height capacity of the Case Sealer since the conveyor bed is being adjusted in relationship to the top taping head adjustment range as well as the base. Before making any adjustments of the conveyor bed height, review the box heights to be sealed and determine how the conveyor bed height will affect the capacity of the Case Sealer, by means of the specification chart on page 5, so the Case Sealer can be properly set-up for your Case sealing application:

- 1) As shown by the chart, if the conveyor bed is lowered more than 2 inches [50 mm], the maximum tape roll diameter capacity for the bottom taping head is reduced. Therefore, the Auxiliary Tape Roll Mount Attachment, P/N 78-8017-9417-9, described in attachments section of manual should be used to reposition the tape roll. With this attachment, the conveyor bed can be lowered to a height of 18.3 inches [465 mm] to provide a maximum box height capacity of 37.8 inches [960 mm].
- 2) Also, if the conveyor bed height adjustments, necessary to provide the box height capacity required, makes it impossible to utilize the adjustment to match production line conveyor heights, it is recommended that the operation conveyor bed height be established by placing the Case Sealer on a pedestal.

#### MACHINE LEVELING

The base is equipped with four leveling pad feet, as shown in figure 6, which can be used to level the machine or to adjust to an uneven floor once it is placed in the production line. Each foot is adjustable as follows:

- 1) Loosen by 1/4 turn the M6 X 10 socket head lock screw with hex socket wrench provided in tool kit.
- 2) Using same wrench inserted in hex socket in the top of the foot assembly, the foot pad can be extended by turning the wrench counter-clockwise, retracted by turning the wrench clockwise. The maximum extension of the foot pad is 1 inch [25 mm].
- 3) After adjusting pad extension to level machine, lock in place by tightening M6 X 10 socket head lock screw.

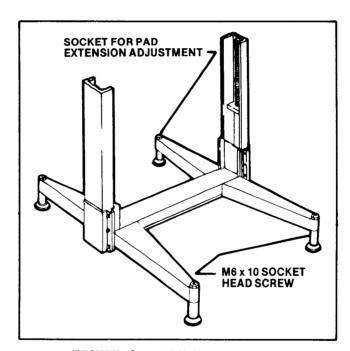


FIGURE 6 - MACHINE LEVELING

#### ELECTRICAL CONNECTION

The electrical control box, shown in figure 7, 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 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.

#### 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 GREY PLASTIC BLADE GUARD WHICH HAS THE "CAUTION SHARP KNIFE" LABEL. BEFORE WORKING WITH THE TAPING HEADS OR ATTEMPTING TO LOAD THE TAPE, REFER TO FIGURES 4A & 5A AND IDENTIFY THE BLADE LOCATION. KEEP HANDS OUT OF THESE AREAS EXCEPT AS NECESSARY TO SERVICE THE TAPING HEADS.
- 2) NEVER MANUALLY PUSH THE APPLYING ROLLER ARM DOWN AS THIS WILL RETRACT THE BLADE GUARD AND PUT YOUR HAND IN MOTION TOWARDS THE TEETH OF THE SHARP KNIFE BLADES. REFER TO FIGURES 4A & 5A AND IDENTIFY THE APPLYING AND BUFFING ROLLERS. WHEN NECESSARY TO MANUALLY ACTUATE THE TAPE APPLYING MECHANISM, ALWAYS PUSH THE BUFFING ROLLER ARM AS IT WILL NOT DIRECT YOUR HAND TOWARD THE KNIFE BLADE TEETH.
- 3) NEVER ATTEMPT TO WORK ON THE TAPING HEADS OR LOAD TAPE WHEN THE BOX DRIVE BELTS ARE RUNNING.

#### Blade Oiler Pad

The taping heads are equipped with a blade oiler pad that provides afilm of oil on the cut-off blade to reduce adhesive build-up. Locate the oiler pad attached to the blade guard assembly, shown in figures 4A & 5A, and apply SAE #30 non-detergent oil as needed. DO NOT SATURATE.

#### TAPE LOADING

 $\overline{\text{7A-KS}}$  - The taping heads have been preset to accommodate 2 inch [50 mm] wide tape rolls.

To apply 1-1/2 inch or 36 mm or 1-3/4 inch or 42 mm wide tapes, refer to "Adjustments" section for set-up information.

 $\overline{\text{7A-KS3}}$  - The taping heads have been preset to accommodate 3 inch or 72 mm wide tape rolls.

To apply 1-1/2 inch or 36 mm, 1-3/4 inch or 42 mm or 2 inch [50 mm], refer to "Adjustments" section for set-up information.

Two red plastic threading needles were provided with the spare parts and tools included with the Case Sealer. 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.

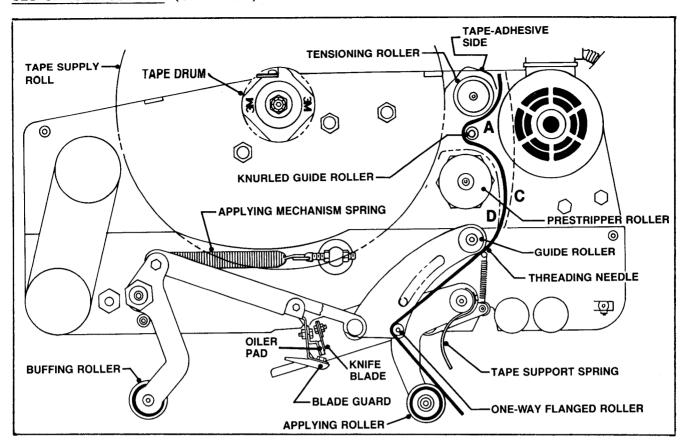
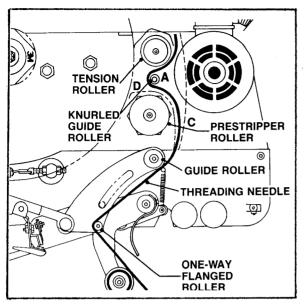


FIGURE 4A - TAPE THREADING DIAGRAM - TOP TAPING HEAD - LEFT SIDE VIEW

#### 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) To load tape, it is first necessary to raise the top taping head. Utilize the top taping head lever latch to raise the top taping head to the fully raised position.
- 2) With the temporary threading needle already in position, as shown in figure 4A, follow the tape loading procedure from figure 4C to complete the tape threading with this exception; thread tape around tensioning roller, knurled guide roller and prestripper roller in one of three paths depending on the application.
  - Path A Recommended for most applications.
  - Path B (Obsolete)
  - Path C Permits by-pass of pre-strip roller and tighter taping of heavy boxes with heavy duty tapes.
  - Path D Permits by-pass of all tension producing rollers and aids in taping light boxes with light duty tapes.
- 3) For subsequent tape loading operations, use the red plastic threading needle and follow the loading procedures given in figures 4B, C and D to complete the tape threading.



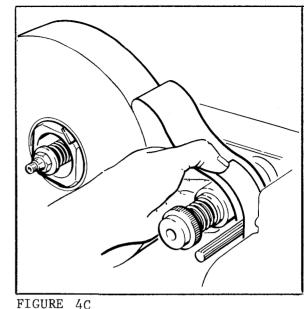


FIGURE 4B

Figure 4B - Insert red plastic needle downward around one-way flanged roller as illustrated in the figure above.

Thread upper end of needle around guide roller and through path A, C or D as shown in Figure 4A.

FIGURE 4C - Turn eccentric roller lever inward to rest against tape drum shaft and place tape roll on drum to dispenser tape from bottom of roll toward guide roller with tape adhesive side up. Seat tape roll fully against back flange of drum and turn roller lever outward to secure tape roll. Adhere tape lead end to upper end of threading needle as shown.

FIGURE 4D - Manually turn prestrip roller clockwise, drawing tape from roll while pulling threading needle through tape applying mechanism, until tape is in alignment with applying roller.

Excess tape can be cut with a scissors or knife at applying roller, or as shown, by manually depressing buffing roller arm to expose knife blade and then passing tape across knife blade. Allow buffing roller to slowly return to its rest position after cutting tape so that tape end will stay on applying roller.

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

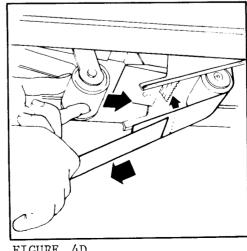


FIGURE 4D

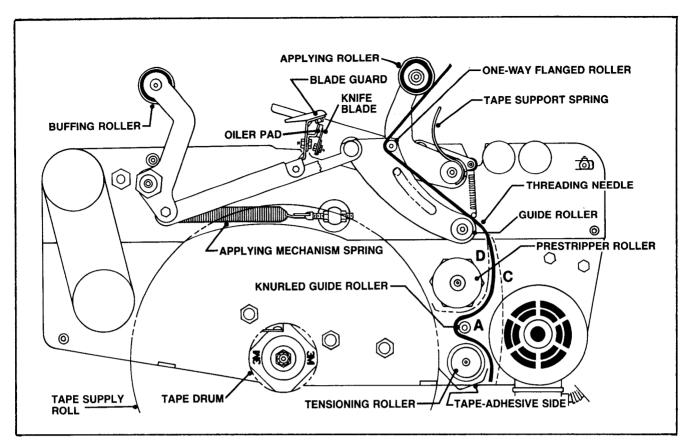
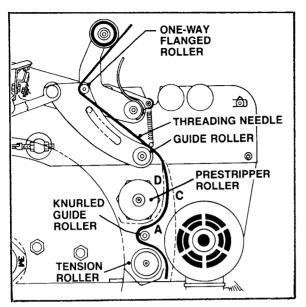


FIGURE 5A TAPE THREADING DIAGRAM - BOTTOM TAPING HEAD - LEFT SIDE VIEW

#### TAPE LOADING - BOTTOM TAPING HEAD

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

- 1) With the temporary threading needle already in position, as shown in figure 5A, follow the tape loading procedure from figure 5C to complete the tape threading with this exception; thread tape around tensioning roller, knurled guide roller and prestripper roller in one of three paths depending on the application.
  - Path A Recommended for most applications.
  - Path B (Obsolete)
  - Path C Permits by-pass of pre-strip roller and tighter taping of heavy boxes with heavy duty tapes.
  - Path D Permits by-pass of all tension producing rollers and aids in taping light boxes with light duty tapes.
- 2) For subsequent tape loading operations, use the red plastic threading needle and follow the loading procedures given in figures 5B, C and D to complete the tape loading.



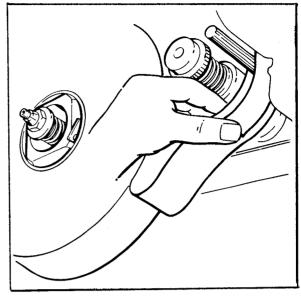


FIGURE 5B

FIGURE 5C

 $\overline{\text{FIGURE}}$  5B - Insert red plastic needle downward around one-way flanged roller as illustrated in the figure above.

Thread lower end of needle around guide roller as shown in Figure 15A and through path A, C, or D.

FIGURE 5C - Turn eccentric roller lever inward to rest against tape drum shaft and place tape roll on drum to dispense tape from bottom of roll toward guide roller with tape adhesive side up. Seat tape roll fully against back flange of drum and turn roller lever outward to secure tape roll. Adhere tape lead end to upper end of threading needle as shown.

FIGURE 5D - Manually turn prestrip roller counter-clockwise, drawing tape from roll while pulling threading needle through tape applying mechanism, until tape is in alignment with applying roller.

Excess tape can be cut with a scissors or knife at applying roller, or as shown, by manually depressing buffing roller arm to expose knife blade and then passing tape across knife blade. Allow buffing roller to slowly return to its rest position after cutting tape so that tape end will stay on applying roller.

WARNING - USE CARE WHEN WORKING NEAR BLADES AS BLADES ARE EX-TREMELY SHARP. IF CARE IS NOT TAKEN, SEVERE INJURY TO PERSON-NEL COULD RESULT.

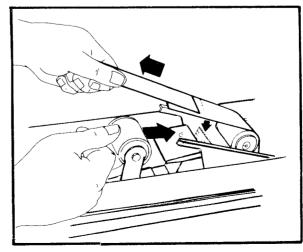
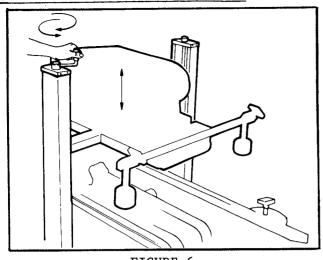


FIGURE 5D



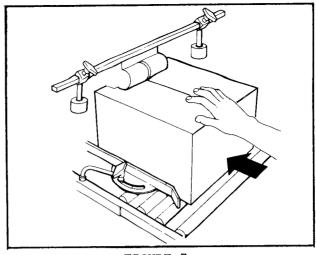


FIGURE 6

FIGURE 7

#### Box Size Set-up and Operation

<u>Figure 6</u> - Once both taping heads are loaded with tape, the top taping head can be positioned for the box height being sealed by means of the height adjustment crank. Turn clockwise to raise head, counter-clockwise to lower head.

Figure 7 - Place box on infeed conveyor with both top and bottom flaps folded and insert under top head skis approximately 2 inches [50 mm]. Lower top head until all flaps are fully closed. Align box top flap center seam with groove in top head front roller.

Figure 8 - Move side guides against each side of box to hold box in position, centered on groove in roller. Tighten hand knobs to secure side guides.

<u>Figure 9</u> - Adjust top flap compression rollers against top edge of box and tighten knobs to secure rollers in operating position.

Figures 10 & 11 - Press electrical switch to "ON" to start drive belts on lower head. Move box forward under top taping head until it is taken away by drive belts. If box is hard to move under head or is crushed, raise top head slightly. If box movement is jerky or stops under top head, lower top head slightly to add more pressure between box and drive belts.

CAUTION-IF DRIVE BELTS ARE ALLOWED TO SLIP ON BOX, EXCESSIVE BELT WEAR WILL OCCUR.

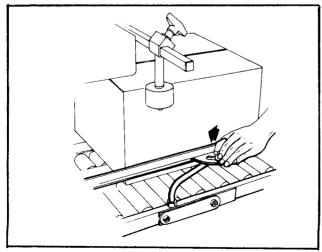


FIGURE 8

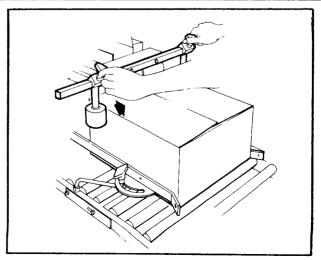
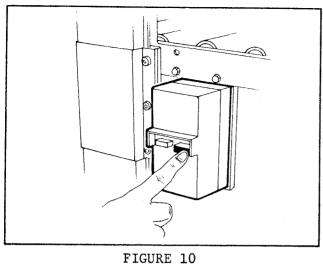


FIGURE 9

# SET-UP INSTRUCTIONS (CONTINUED)



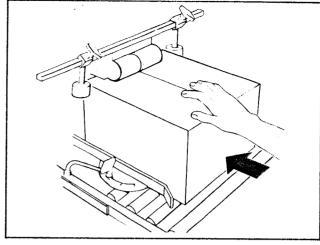


FIGURE 11

# SPECIAL USE SET-UP INSTRUCTIONS

BOX HEIGHT CAPACITY - Maximum - Maximum box height capacity can be adjusted by conveyor bed height adjustment described on page 8.

BOX WIDTH CAPACITY - Maximum - To set the side guides at maximum width, it is necessary to raise the bumper stop collars (figure 13) on both side columns above the side guides. This restricts the minimum box height to 8 inches or 200 mm.

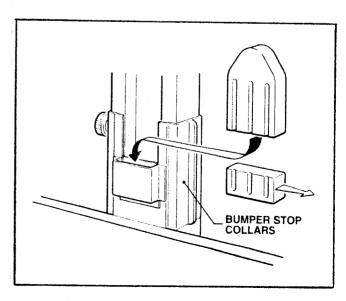


FIGURE 13 - RUBBER BUMPER

#### TAPE DRUM ASSEMBLY

In addition to holding the tape supply roll, the tape drum assembly provides adjustable friction brake to prevent tape roll over travel and provides adjustment for tape web alignment as follows:

- 1) FRICTION BRAKE Refer to Figure 14.

  Adjustable by turning the self-locking nut on the shaft to vary compression of the spring. Clockwise turning of nut increases braking force to prevent tape roll over travel, counter-clockwise turning decreases braking force. Adjust to minimum drag that prevents excessive tape roll over travel.
- 2) TAPE WEB ALIGNMENT Refer to Figure 15.

  The tape drum assembly on each taping head is preset to accommodate 2 inch [50 mm] wide tape on the 7A-KS and 3 inch or 72 mm wide tape on the 7A-KS3, but is adjustable to provide alignment of narrower tapes. If adjustment is necessary to center the tape width on the center line of the taping head (and therefore box center seam), make adjustment as follows:
  - a) Loosen jam nut or hand knob (figure 14) behind tape drum on tape drum shaft.
  - b) Turn tape drum shaft in or out by means of knurled knob on end of shaft to center the tape web.
  - c) Tighten jam nut or hand knob.
  - No other components require adjustment for tape web alignment.

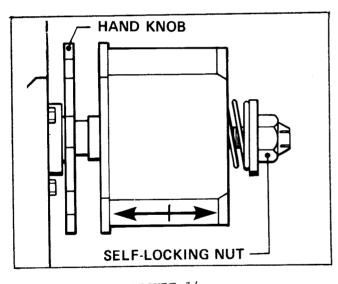


FIGURE 14

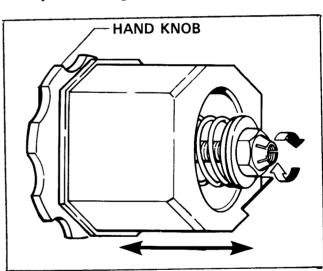


FIGURE 15

# Tensioning Roller Assembly

Tape web tension is controlled by adjustment of friction brake by means of knurled nut (Figure 16) which varies compression of spring. Clockwise turning of knurled nut increases tape web tension, counterclockwise turning decreases tape web tension. Adjust as necessary to obtain consistent alignment of tape through tape applying mechanism, consistent position of tape end at applying roller, and tight, uniform tape seals on boxes.

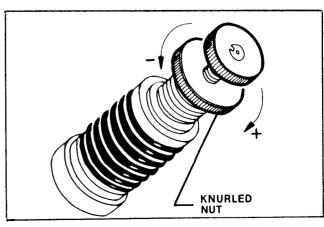


FIGURE 16

#### ADJUSTMENT INSTRUCTION (CONTINUED)

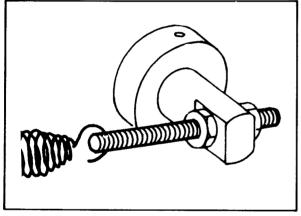
#### Tape Support Spring

The S-shaped tape support spring, shown in figures 4A & 5A holds the lead end of tape in a controlled position at the applying roller. Its position is adjustable by loosening the phillips head screw on the mounting shaft, moving the spring by pivoting it around the shaft, and tightening the phillips head screw. The spring position should be adjusted so its tip is approximately 1/8 to 1/4 inch [3 to 6 mm] away from the tape when it is stretched straight between the one-way roller and applying roller.

#### Applying Mechanism Spring

The applying mechanism spring, shown in figures 4A & 5A controls applying and buffing roller pressure on the box and returns the mechanism to the rest position. The spring pressure is preset for normal operation but is adjustable by means of the mounting screw.

Decrease spring pressure by adjusting mounting screw as shown in figure 17. Increase spring pressure by adjusting mounting screw as shown in figure 18.





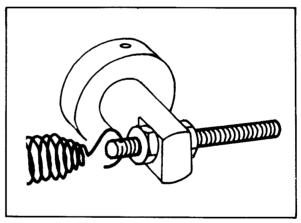


FIGURE 18

#### Box Drive Belts

The two continuously moving box drive belts provided on the taping head, convey boxes through the tape applying mechanism. The box drive belts are powered by the electric motor through a timing belt/roller chain transmission.

Tension and tracking adjustments 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 taping head. The idler pulleys on the infeed end of the taping head are positioned by adjustment screws shown in Figure 19A. Adjustment of these screws can be made by using the following steps to provide proper tension and tracking. Each belt is adjusted separately.

CAUTION - IF DRIVE BELTS ARE ALLOWED TO SLIP ON BOX, EXCESSIVE BELT WEAR WILL OCCUR.

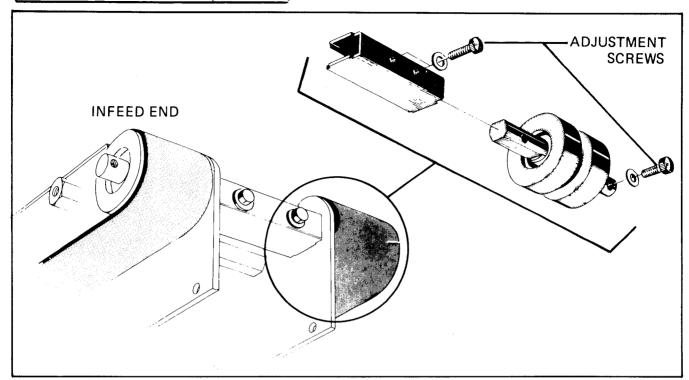


FIGURE 19A - BOX DRIVE BELTS - LOWER TAPING HEAD

# Box Drive Belts (Continued)

Step 1. Tension is obtained by uniform tightening of the adjustment screws so that a moderate pulling force of 7 to 8 lbs. [3.2 to 3.6 kg] applied at the midspan will deflect the belt 1/2 inch [13 mm]. Refer to Figure 19B

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

Step 2. Belt tracking is adjusted by using the same adjustment screws. Start the drive motor and observe belt tracking. Tighten the belt adjutment screw on the side away from which the belt should move using the offset box wrench provided in the tool kit. Tighten only 1/6 turn at a time and wait for the belt to walk to its new position before making a further adjustment. If the belt moves too far, loosen the adjustment screw slightly or tighten the other adjustment screw to bring it back. Avoid continued alternate tightening of screws or excessive belt tension can result.

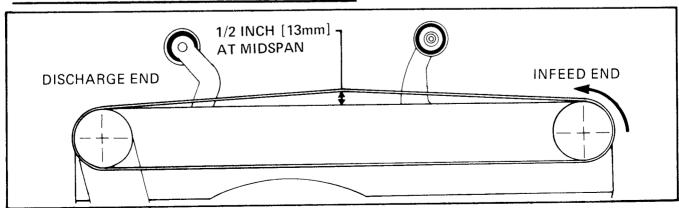


FIGURE 19B - BOX DRIVE BELT TENSION ADJUSTMENT

#### MAINTENANCE

#### TOOL KIT

Since the Case Sealer utilizes metric fasteners, a tool kit consisting of the necessary wrenches is provided with the machine. Retain these with the machine or in a secure location for set-up, adjustment, and maintenance work.

An oil can for lubrication is also provided as a convenience item for your preventive maintenance program.

# IMPORTANT SAFEGUARDS

- 1) TURN OFF AIR AND ELECTRICAL POWER SUPPLIES BEFORE STARTING MAINTENANCE.
- 2) DISCONNECT POWER CORD FROM ELECTRICAL SUPPLY BEFORE STARTING MAINTENANCE.
- 3) IF DESIRABLE TO KEEP TOP TAPING HEAD RAISED FOR MAINTENANCE WORK, UTILIZE STOP COLLARS ON EACH FRAME COLUMN AT TOP RED DOT POSITION. BEFORE TURNING OFF AIR SUPPLY, RAISE TOP TAPING HEAD TO FULLY RAISED POSITION AND HOLD THERE BY MEANS OF TOP TAPING HEAD VALVE LEVER LATCH. POSITION BOTH STOP COLLARS AT TOP RED DOT POSITION BY MEANS OF THUMB SCREW. RELEASE TOP TAPING HEAD VALVE LATCH SO HEAD DESCENDS TO STOP COLLARS WHERE IT WILL BE MECHANICALLY HELD IN RAISED POSITION. AIR SUPPLY CAN THEN BE TURNED OFF BEFORE STARTING MAINTENANCE.

#### REPLACING BOX DRIVE BELTS:

- 1) Remove the taping head from the frame assembly by disconnecting the electrical plug provided and loosen the four mounting screws. Make sure the taping head has adequate support before the screws are removed.
- 2) Loosen the belt adjustment screws with the offset box wrench provided in the tool kit and remove the old belt.
- 3) Install new belts with the arrow (stamped on underside) pointing in the direction of the belt movement.
- 4) Adjust the belt tension by following Step 1 under adjustments.
- 5) Reinstall the taping head into the frame assembly and complete the belt installation by adjusting the belt tracking following Step 2 under adjustments.

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.

BLADE REPLACEMENT: Refer to yellow pages, Parts Illustrations, figure 14.

- 1) Loosen, but do not remove, the blade screws (14-13) and washers (14-14) holding the blade. Remove the old blade.
- 2) Position the new blade with the beveled side AWAY FROM the blade holder as shown in figure 14. Tighten the blade screws (with one washer next to the screw head as shown).

NOTE: Seat blade, as shown in figure 20, against screws (one end of cutting edge 1/8 inch [3 mm] lower). Blade setting must not interfere with blade guard and blade oiler pad.

The same steps are followed on the Top and Bottom Taping Heads. Connect the main power supply.

## Cut-Off Blade

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

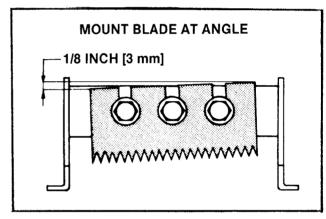


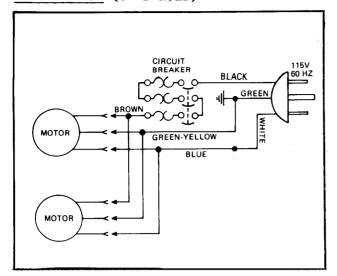
FIGURE 20 - BLADE REPLACEMENT

# 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. GRITTING 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 Case Sealer, this cleaning should be done approximately once a month. If the boxes sealed are dirty, or if the environment in which the machine operated 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.

#### MAINTENANCE (CONTINUED)



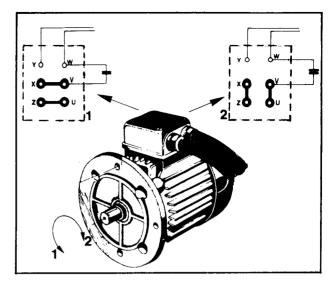


FIGURE 21

FIGURE 22

#### 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.

The electrical system of the Case Sealer is illustrated in figure 21. The motor may be reversed by removing the terminal cover and relocating the jumper strips as illustrated in figure 22. The motor capacitor, which is under the plastic cover on the backside of the powered taping head, is shown in figure 2 of the Parts Illustration section. No adjustments to the electrical system are required.

#### CIRCUIT BREAKER

The Case Sealer is equipped with a circuit breaker which trips the "On-Off" switch to "OFF" position. 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 for 5 amps and requires no further maintenance. Should the circuit breaker be replaced, check the amp setting before installation. Remove the front cover on the electrical box from the under side as shown in figure 23 and set the amp setting (A) at 5 amps.

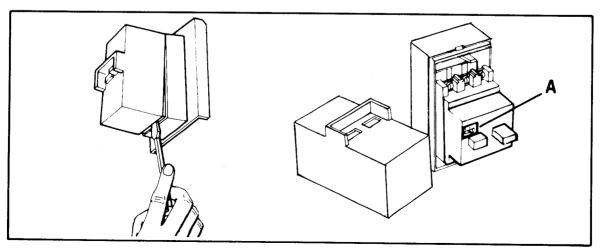


FIGURE 23

#### MECHANICAL LUBRICATION

Like most other equipment, the Case Sealer must be properly lubricated to insure long, trouble/free service. Most of the machines 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. The timing belt/pulley transmission does not require any lubrication.

Figure 24 and similar labels on the machine 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. Apply light coat of SAE #30 non-detergent oil to roller chain drive between timing belt/pulley transmission and box drive belt shaft. At the same time, a small amount of multipurpose grease should be applied to the end of each spring where the loop is secured at an eyelet, post, or hole.

Top flap compression rollers require lubrication periodically. Apply small amount of SAE #30 non-detergent oil to roller shafts.

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.

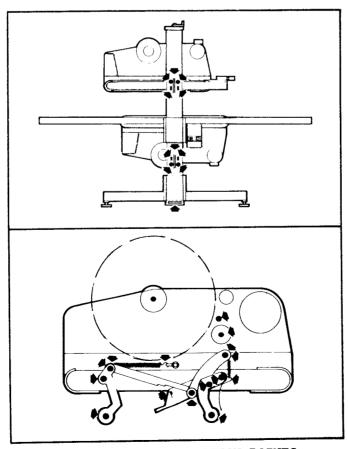


FIGURE 24 - LUBRICATION POINTS

# SPARE PARTS 7A-KS (ONLY)

A set of spare parts that will periodically require replacement due to normal wear or breakage is supplied with the Case Sealer. The set includes the following which should be reordered as consumed to keep the Case Sealer in production:

Quantity	Ref. No.	3M Part No.	Description
1	13-02	78-8017-9119-1	Spring-Main, Top Head, Zinc Pl.
1	13-20	78-8017-9424-5	Spring-Main, Bottom Head
4	14-10	78-8017-9136-5	Spring - Cutter
2	14-12	78-8017-9173-8	Blade - 2.56 inch/65 mm

In addition to the above minimum spare parts, it is suggested that the following spare parts be ordered and kept on hand:

Quantity	Ref. No.	3M Part No.	Description	
_				_
1	2-01	78-8001-7176-7	Belt-Timing 225L050	
5	5-06	78-8017-9062-3	Washer - O-Ring 150 mm	
2	8-12	78-8018-7713-1	Belt - Box Drive 75 mm	
7	9-21	78-8017-9175-3	Washer, O-Ring, 138 mm	
1	11-11	78-8017-9101-9	Roller - Applying	
1	11-19	78-8017-9272-8	Spring-Tape Support	
1	15-08	78-8017-9140-7	Roller - Buffing	
			·	

# SPARE PARTS 7A-KS3 (ONLY)

A set of spare parts that will periodically require replacement due to normal wear or breakage is supplied with the Case Sealer. The set includes the following which should be reordered as consumed to keep the Case Sealer in production:

Quantity	Ref. No.	3M Part No.	Description
1 1	13-02 13-20	78-8017-9119-1 78-8017-9424-5	Spring-Main, Top Head, Zinc Pl. Spring-Main, Bottom Head
2	14-10 14-17	78-8017-9136-5 78-8028-7899-7	Spring - Cutter Blade - 3.50 inch/89 mm

In addition to the above minimum spare parts, it is suggested that the follow-spare parts be ordered and kept on hand:

Quantity	Ref. No.	3M Part No.	Description
1	2-01	78-8001-7176-7	Belt-Timing 225L050
5	5-06	78-8017-9062-3	Washer - O-Ring 150 mm
2	8 <b>-</b> 10	78-8017-9049-0	Belt - Box Drive, 50 mm
7	9-21	78-8017-9175-3	Washer, O-Ring, 138 mm
1	11-22	78-8028-7882-3	Roller - Applying
1	11-19	78-8017-9272-8	Spring - Tape Support
1	15-16	78-8028-7882-3	Roller - Buffing

# REPLACEMENT PARTS & SERVICE INFORMATION (CONTINUED)

#### TOOL KIT

The tool kit, P/N 78-8023-2604-7, provided with the Case Sealer, is available as a replacement stock item. The kit contains the necessary wrenches, an oil can and the first set of spare parts listed above. (Threading tool contained in above kit - Part No. 78-8017-9433-6.) Refer to "How To Order Replacement Parts" for ordering information.

# HOW TO ORDER REPLACEMENT PARTS

# BE SURE YOU ORDER FROM THE CORRECT PARTS LIST.

1) Order parts by PART NUMBER, PART NAME, MACHINE CATALOG NUMBER, MODEL NUMBER and PART QUANTITY required.

Minimum billing on parts orders will be \$10.00.

Replacement part prices available on request.

2) Replacement parts and part prices available direct from:

Dispenser Parts/3M P O Box 33900 St. Paul, MN 55133

3) Refer to the front of the instruction manual for branch repair service information.

#### ATTACHMENTS

Additional information on the attachments listed below is included with the manual.

Part Number	Attachment Name
78-8017-9417-9	Auxiliary Tape Roll Mount Attachment
78-8017-9160-5	Caster Attachment



P/N 78-8017-9417-9 AUXILIARY TAPE ROLL MOUNT ATTACHMENT FOR USE ON ALL MODELS:

1A ADJUSTABLE CASE SEALER
7A ADJUSTABLE CASE SEALER
7A-KS ADJUSTABLE CASE SEALER
7R RANDOM CASE SEALER
7R-KS RANDOM CASE SEALER

# Purpose Of Attachment:

The auxiliary tape roll mount is used on the bottom taping head of the above case sealers to allow the roller conveyor bed to be lowered without interference with the tape roll. This allows maximum adustment of roller conveyor bed height to match in plant conveyor systems or to provide maximum box height capacity for the case sealer. The box width and length capacity of the case sealers remain unchanged.

#### Specifications:

Attachment consists of:

Ref. No.	Quantity	Part Number	Description
18-01	4	78-8010-7157-8	Screw - Hex Head, M4 x 10
18-02	1	78-8017-9018-5	Washer-Metric, Plain, Steel, M4 (Special)
18-03	2	78-8017-9414-6	Roller - Knurled
18-04	1	78-8017-9415-3	Shaft - Knurled Roller
18-05	1	78-8017-9090-4	Flange - Tape Drum Shaft - Support
18-06	1	78-8017-9416-1	Bracket - Tape Drum
18-07	1	78-8010-7418-4	Nut-Metric, Hex, Steel, M6
18-08	2	26-1000-0010-3	Washer-Metric, Plain, Steel, M6
18-09	1	78-8032-0375-7	Screw-Metric, M6 x 16, Hex Hd. Cap

Tape Width: 1 1/2 inch or 36 mm to 2 inches [50 mm] maximum.

Tape Roll Diameter: Up to 14 inches [355 mm] maximum on a 3 inch [76.2 mm] diameter core. (Accommodates "Scotch" Brand 1,000 yard rolls.)

Weight: 3 lbs. [1.4 kg] Packaged

#### Installation Instructions

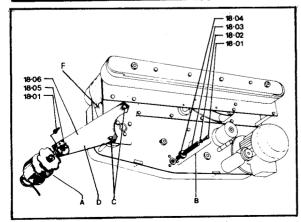


Figure 1 - Auxiliary Tape Roll Mount Installation - Left Side View.

(Instructions continued on back page)

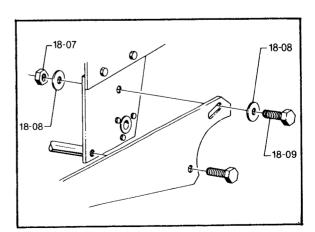


Figure 2 - Fasteners used for installation on all models of case sealers EXCEPT 7A Model 176 & 7R Model 176.

#### Installation Instructions - Refer to Figures 1 and 2.

- 1. Remove and retain the tape drum assembly (A) from the bottom taping head.
- 2. Install and secure the guide roller assembly (B) in the tape drum assembly location.
- 3. Remove and retain the two hex head screws (C) from bottom taping head.
- 4. For 7A Model 176 and 7R Model 176 Case Sealers, install the tape drum bracket (D) to the bottom taping head as shown in figure 1 and secure with the two screws (C).
- 5. For all models of case sealers, except 7A Model 176 & 7R Model 176, remove chain guards (F) by means of phillips head screwdriver. Mount tape drum bracket using one screw (C) and fasteners 18-07, 08, and 09 as illustrated in figure 2. Remount chain guards.
- 6. Install the tape drum assembly (A) on the bracket (D) as shown and secure at a dimension 0.60 inch [16 mm] between the bracket and tape drum flange to accommodate 2 inch [50 mm] wide tape rolls. To center the tape web on the applying roller or accommodate other tape roll widths, refer to the tape web alignment adjustment in the adjustment section of the instruction manual that came with the case sealer.

# Tape Loading and Threading - Refer to Figure 3

- 1. Tape loading and threading for the top taping head remains unchanged.
- 2. Place the tape roll on the bottom tape drum (A) so the adhesive side is out when threaded around the tensioning roller (E). Fully seat the tape roll against the back flange of the drum and turn the eccentric lever to secure the roll on the tape drum.
- 3. The tape should be threaded around the guide roller assembly (B), to the tensioning roller (E) as shown. Refer to the case sealer tape loading instruction to complete the tape threading procedure.

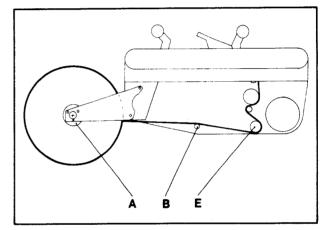


Figure 3 - Tape Loading and Threading Left Side View - Bottom Taping Head

#### How To Order Replacement Parts

- 1. Refer to front page "Attachment Consists of" for part(s) needed.
- 2. Order by PART NUMBER, PART NAME, ATTACH-MENT PART NUMBER and QUANTITY REQUIRED.

3. Replacement parts and prices available direct from: Dispenser Parts/3M P O Box 33900 St. Paul, MN 55133

Minimum billing on parts orders will be \$10.00. — Replacement part prices available on request.

Important Notice to Purchaser: The following is made in lieu of all warranties, expressed or implied, including the implied warranties of merchantability and fitness for purpose: The only obligation of the seller and manufacturer of "Scotch" Brand equipment shall be to repair or replace any mechanical part proved to be defective, provided the defect occurs within 90 days after date of purchase, and the so-purchased item is returned immediately to the 3M factory or to an authorized service station designated by the manufacturer. Neither seller nor manufacturer shall be liable either in tort or in contract for any loss or damage, direct, incidental, or consequential, arising out of the use of or the inability to use the "Scotch" Brand equipment. No statement or recommendation not contained herein shall have any force or effect unless in an agreement signed by officers of seller and manufacturer.

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P/N 78-8017-9160-5

CASTER ATTACHMENT

FOR USE ON ALL MODELS:

1A ADJUSTABLE CASE SEALER

7A ADJUSTABLE CASE SEALER

7A-KS Adjustable Case Sealer

7R RANDOM CASE SEALER

7R-KS RANDOM CASE SEALER

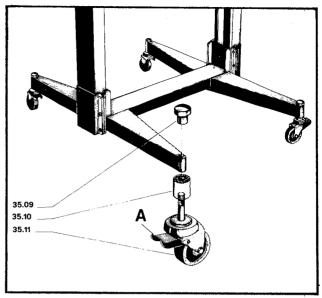


Figure 1 - Caster Installation

# Purpose of Attachment:

The caster attachment, when installed on the Case Sealer, provides an easy and convenient means for moving the machine from one product packaging location to another.

# Specifications:

Attachment consists of:

Ref. No.	Quantity	Part Number	Description
35-09	4	78-8017-9261-1	Nut - Special
35-10	4	78-8017-9214-0	Bushing - Rubber
35-11	4	78-8017-9262-9	Caster - w/Wheel Lock

Installed Height: 3 5/8 inches [90 mm] (7/8 inches [20 mm] higher than

standard leveling pad foot)

Weight: 5 lbs. [2.3 kg] Packaged

# Installations Instructions - Refer to Figure 1

1. Block up the case sealer so the base is a minimum of 3 inches or 80 mm above the floor and remove the four leveling pad feet assemblies.

(Instructions continued on back page)

Refer to Figure 1.

- 2. The caster attachment is packaged with each caster (35.11), bushing (35.10) and nut (35.09) assembled as a unit. Remove the nut from the caster stem. Insert the caster stem and bushing into the base socket from the bottom. Thread the nut onto the stem of the caster protruding through the top of the socket so that the cylindrical body of the nut fits into the socket. Tighten the nut to secure the caster.
- 3. Remove the support blocks and allow the case sealer to rest on the four casters to complete the installation.

# Operating Instructions:

- 1. After positioning the case sealer in the desired location, the casters can be locked by pushing down on the brake lever (A) shown in Figure 1.
- 2. The casters are unlocked by lifting the brake lever up to allow movement of the case sealer.

#### Maintenance:

The wheel bearing and swivel bearing require lubrication periodically. Lubricate twice a year with Texico Marfax All Purpose Grease or equivalent.

#### How To Order Replacement Parts

- 1, Refer to front page "Attachments Contents" for part(s) needed.
- 2. Order by part number, part name, attachment part number and quantity required.

Minimum billing on parts orders will be \$10.00. Replacement parts prices available on request.

3. Replacement parts and prices available direct from:

Dispenser Parts/3M P O Box 33900 St. Paul, MN 55133

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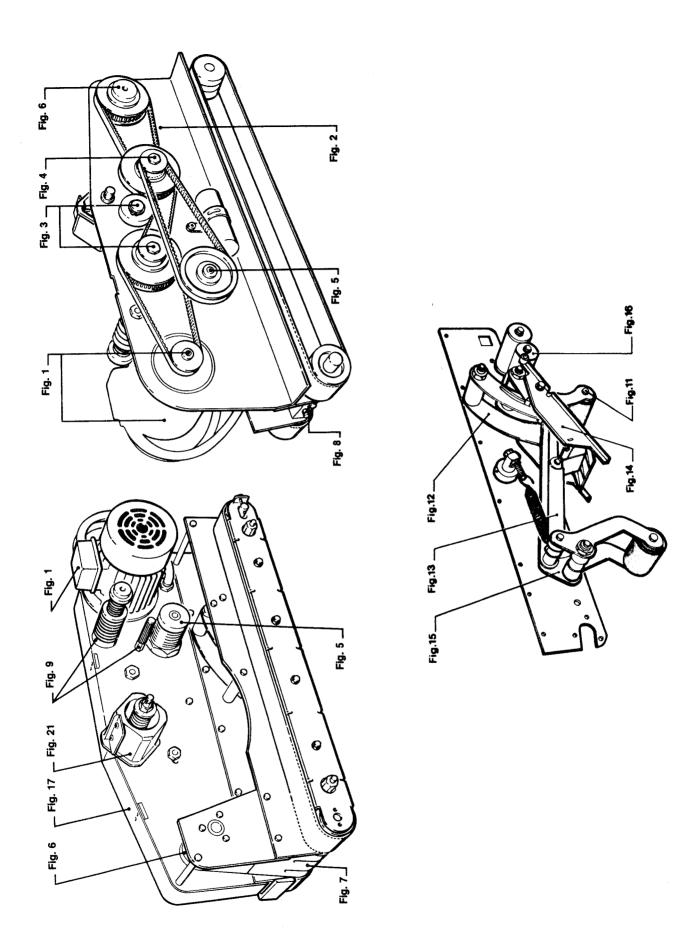


# 7A-KS - CASE SEALER, MODEL 27900

# TAPING HEAD ASSEMBLIES

1)	Refer to Taping Head Assemblies figures 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 of "Maintenance - Parts Orders and Service Information" section of this manual for replacement parts ordering information.



TAPING HEAD ASSEMBLIES

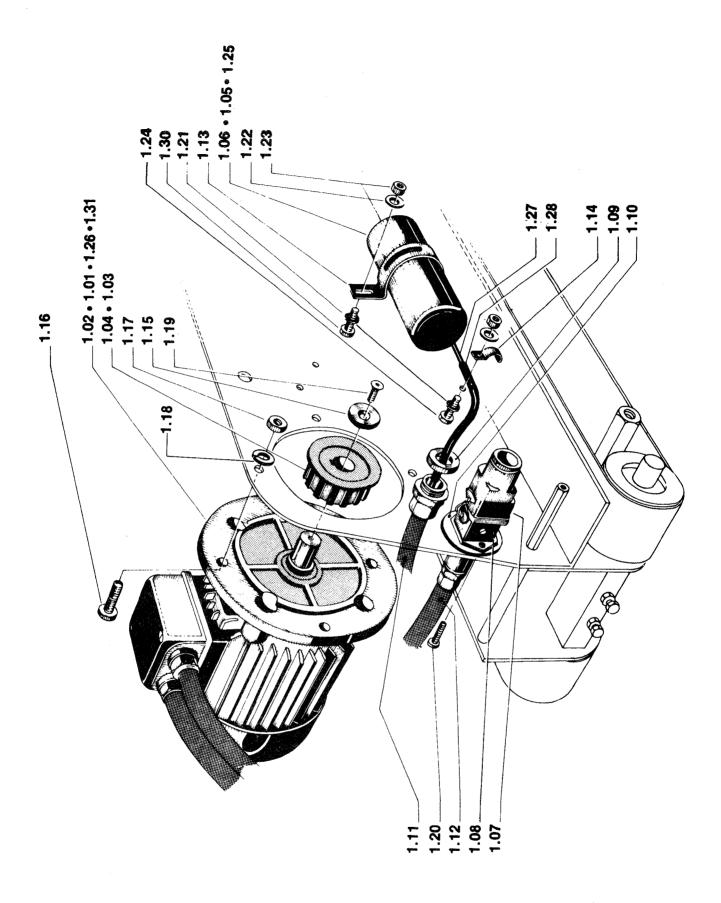


FIGURE 1

Ref. No.	3M Part No.	Description
1-01	78-8017-9057-3	Motor - Single Phase, 240V, 50 Hz., 0.18 HP, B5
1-02	78-8017-9009-4	Motor - Single Phase, 110V, 60 Hz, 0,18 HP, Type B5
1-03	78-8017-9010-2	Pulley - Timing Belt for 220/240V Motor, z-14
1-04	78-8017-9011-0	Pulley - Timing Belt for 110V Motor, z-12
1-05	78-8017-9163-9	Capacitor - 5 MFD, 240V, 50 Hz
1-06	78-8017-9012-8	Capacitor - 20 MFD, 110V, 60 Hz
1-07	78-8017-9013-6	Plug
1-08	78-8017-9014-4	Receptacle
1-09	78-8017-9015-1	Nut
1-10	78-8017-9016-9	Washer - Insulating
1-11	78-8017-9164-7	Sleeving - Length 30cm
1-12	78-8017-9165-4	Sleeving - Length 23.5cm
1-13	78-8017-9166-2	Clip - Capacitor
1-14	78-8017-9167-0	Clip - Cable
1-15	78-8017-9033-4	Washer - 20 mm
1-16	78-8017-9301-5	Screw - Hex Head M8 x 25
1-17	78-8017-1347-8	Nut - Hex Regular M8
1-18	78-8005-5736-1	Lockwasher - for M8 screw
1-19	78-8017-9161-3	Screw - Allen FH M4 x 10
1-20	78-8017-9425-2	Screw - Self-Tapping, 8 x 13 mm
1-21	78-8010-7435-8	Washer - Metric, Lock Spr. Stl. M6
1-22	78-8023-2478-6	Washer - Metric, $6,2$ ID x $18$ OD x $1,5$ mm thk.
1-23	26-1000-0010-3	Nut - Metric, Hex, Stl., M6
1-24	78-8010-7193-3	Screw - Metric, M6 x 20 Hex Hd. Cap, Stl, Black Zinc
1-25	78-8017-9056-5	Capacitor - 6.3 Mfd. 220V, 50 Hz
1-26	78-8017-9008-6	Motor - Single Phase, 220V, 50 Hz, 0,18 HP, Type B5
1-27	78-8017-9369-2	Cable Assembly - Motor to Capacitor
1-28	78-8017-9371-8	Sleeving - Plastic
1-30	78-8032-0375-7	Screw - Hex Hd. M6 x 16, Nick, Pl.
1-31	78-8018-7889-9	Motor - 220/380V, 50 HZ, 3-Phase, 0.25 HP

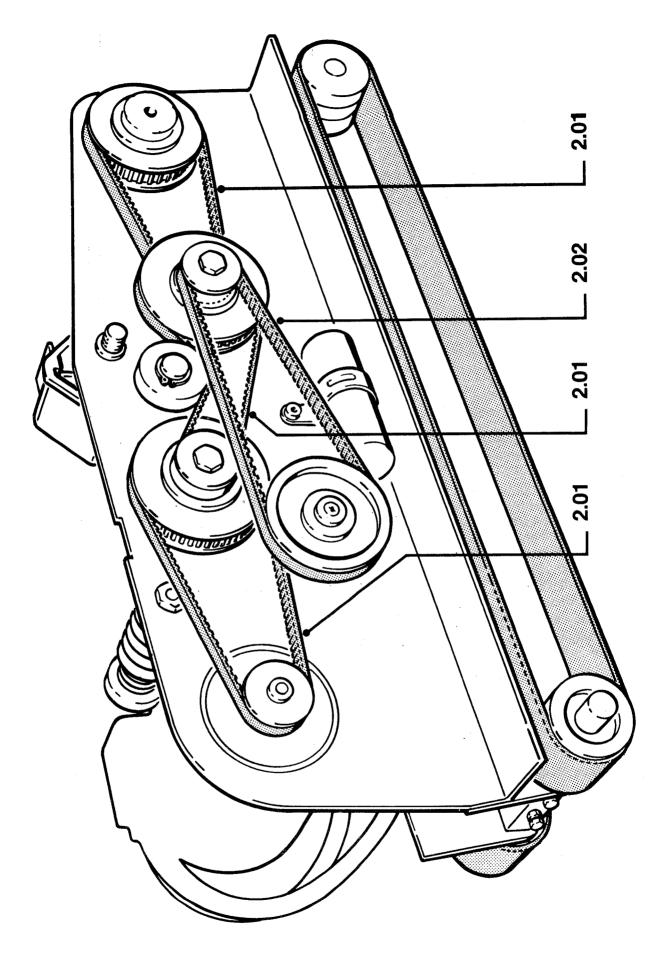
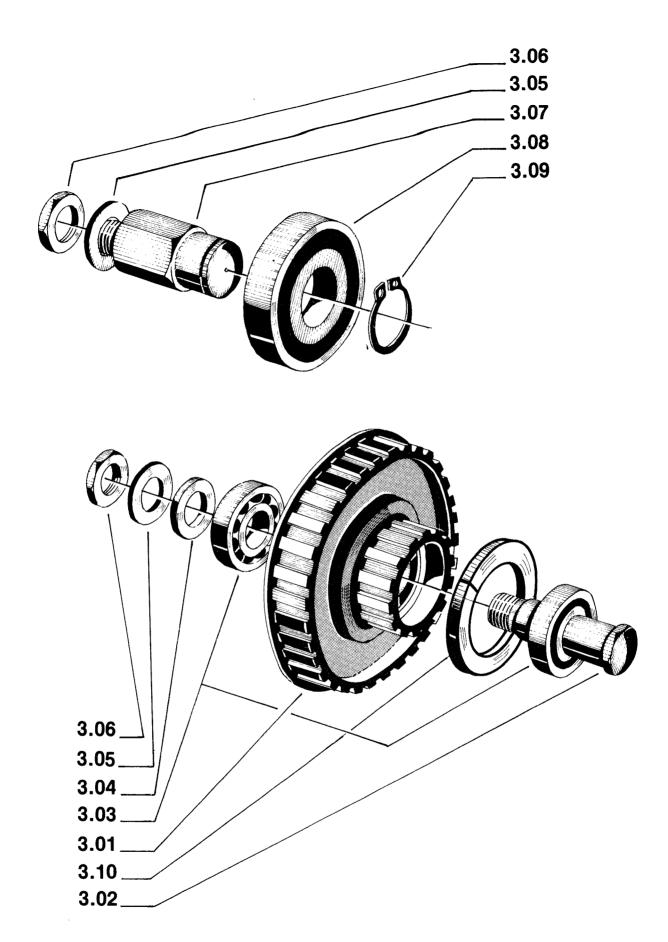


FIGURE 2

REF. No. 3M PART No. DESCRIPTION

2-01 78-8001-7176-7 Belt - Timing, 225L050 2-02 12-7997-4978-8 Belt - Timing, 255L050



REF. No.	3M PART No.	DESCRIPTION
3-01	78-8017-9019-3	Pulley - Timing Belt, Z-32/14
3-02	78-8017-9020-1	Shaft - Pulley
3-03	26-1000-4350-9	Bearing - 6002-2RS
3-04	78-8017-9021-9	Washer - Special, 25mm x 12mm
3-05	78-8017-9059-9	Washer - Flat for Ml2 Screw DIN 125A
3-06	78-8017-9022-7	Nut - Special, M12 x 1
3-07	78-8017-9023-5	Shaft - Tensioning
3-08	78-8017-9060-7	Bearing - 6304 - 2RS
3-09	78-8017-9061-5	Snap ring - for 20mm Shaft
3-10	78-8017-9025-0	Washer - Nylon

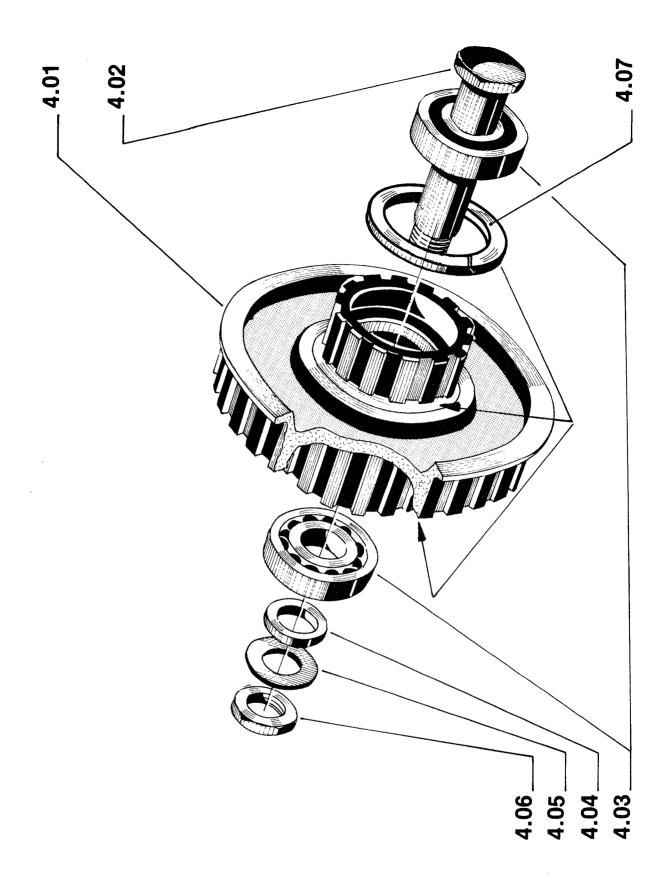


Figure 4

REF. No.	3M PART No.	DESCRIPTION
4-01	78-8017-9024-3	Pulley - Timing Belt, Z-14/32/14
4-02	78-8017-9026-8	Shaft - Pulley '
4-03	26-1000-4350-9	Bearing - 6002-2RS
4-04	78-8017-9021-9	Washer - Special, 25mm x 12mm
4-05	78-8017-9059-9	Washer - For M12 Screw DIN 125A
4-06	78-8017-9022-7	Nut - Special, Ml2 x 1
4-07	78-8017-9025-0	Washer - Nylon

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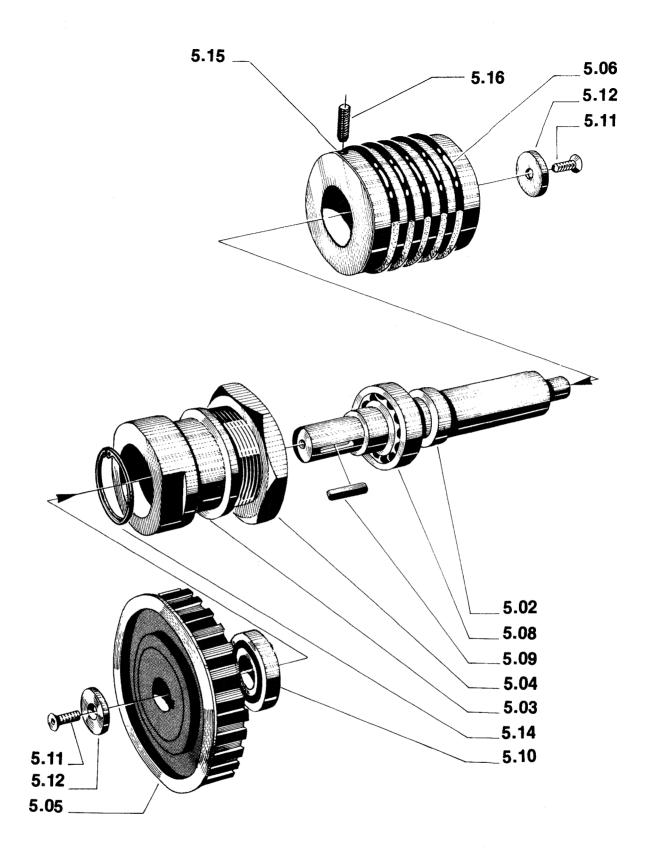


Figure 5

REF. No.	3M PART No.	DESCRIPTION
5-02	78-8017-9029-2	Shaft - Tape Prestripper
5-03	78-8017-9030-0	Hub - Eccentric Prestripper
5-04	78-8017-9031-8	Nut - Hub Attachment
5-05	78-8017-9032-6	Pulley - Prestripper Z-28
5-06	78-8017-9062-3	Washer - O-Ring 150mm
5-08	26-1000-6036-2	Bearing - 6003-2RS
5-09	78-8017-9064-9	<b>Key -</b> 5 $\times$ 5 $\times$ 15mm
5-10	26-1000-4350-9	Bearing - 6002-2RS
5-11	78-8017-9161-3	Screw - Allen FH M4 x 10
5-12	78-8017-9033-4	Washer - 20mm
5-14	78-8017-9419-5	Ring - Snap for 32mm Hole
5-15	78-8023-2565-0	Roller - Tape Prestripper
5-16	78-8023-2479-4	Screw - Set w/end Cup, M6x10

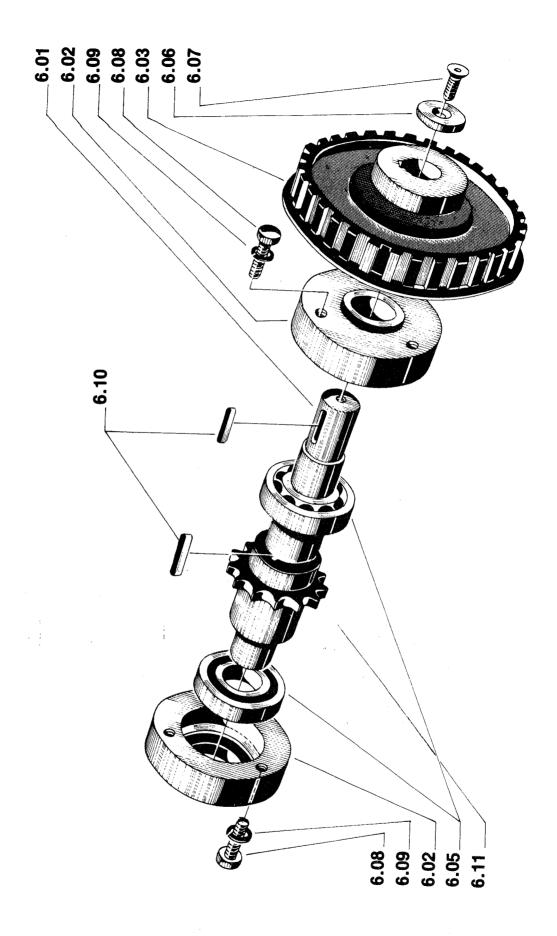


Figure 6

REF. No.	3M PART No.	DESCRIPTION
6-01	78-8017-9035-9	Shaft - Transmission
6-02	78-8017-9036-7	Hub - Shaft Support
6-03	78-8017-9037-5	Pulley - Timing Belt, Z-32
6-05	26-1000-6036-2	Bearing 6003-2RS
6-06	78-8017-9033-4	Washer - 20mm
6-07	78-8017-9161-3	Screw - Allen FH M4 x 10
6-08	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-5.6
6-09	78-8010-7435-8	Washer - Metric, Lock, Spr., M6
6-10	78-8017-9064-9	$Key - 5 \times 5 \times 15mm$
6-11	78-8018-7708-1	Sprocket - 3/8 Inch Pitch, 13 Teeth.

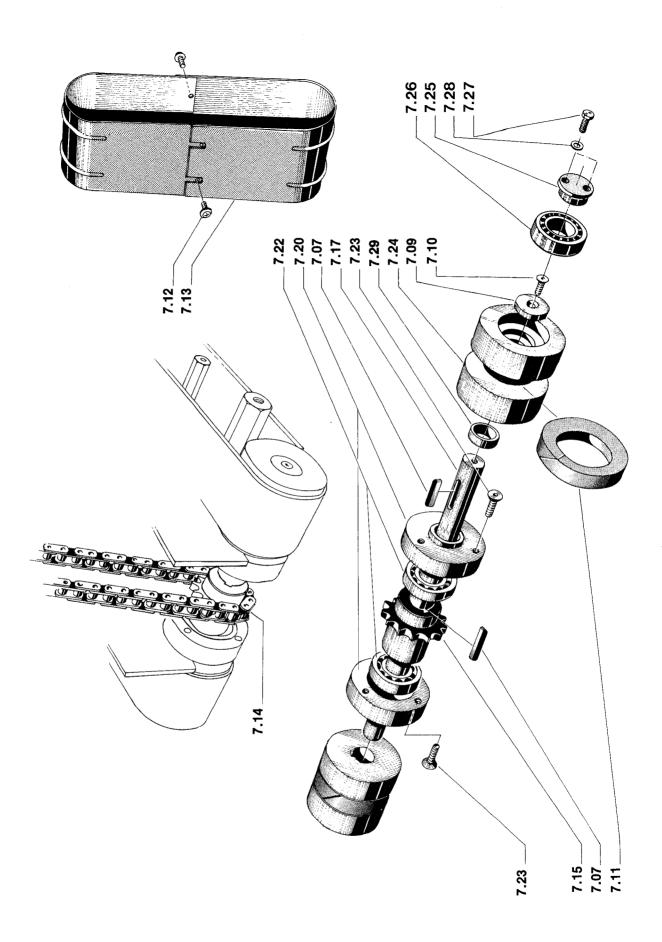
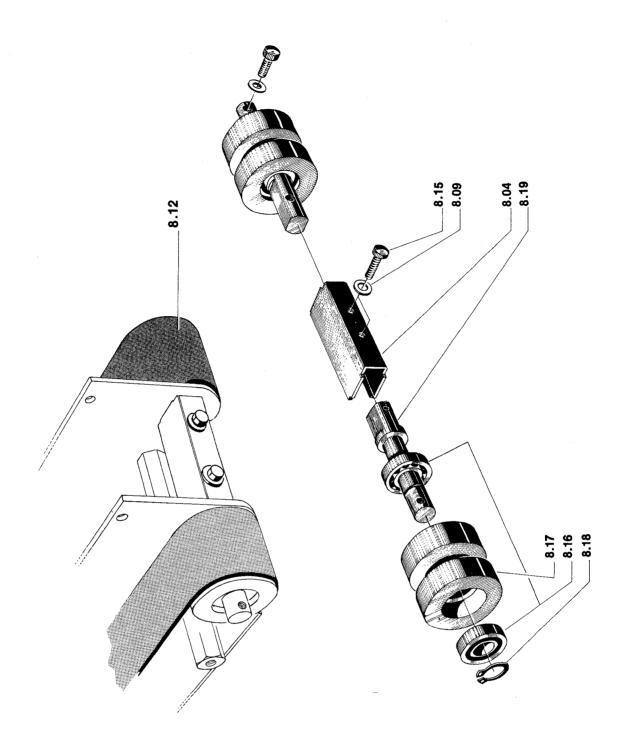


Figure 7

REF. No.	3M PART No.	DESCRIPTION
7-07	78-8017-9064-9	Key - 5 x 5 x 15mm
7-09	78-8017-9033-4	Washer - 20mm
7-10	78-8017-9161-3	Screw - Allen FH M4 x 10
7-11	78-8017-9043-3	Ring - Friction
7-12	78-8017-9066-4	Screw - Special M5 x 10
7-13	78-8017-9044-1	Guard - Belt
7-14	78-8018-7709-9	Chain - Roller, 3/8 Inch Pitch, 47 Links.
7-15	78-8018-7710-7	Sprocket - 3/8 Inch Pitch, 15 Teeth.
7-17	78-8018-7802-2	Shaft-Drive Pulley
7-20	78-8023-2542-9	Hub - Shaft Support
7-22	78-8023-2544-5	Bearing - 6203-2RS
7-23	78-8017-9333-8	Screw - Allen FH, M5x15
7-24	78-8023-2549-4	Pulley - Keyed
7-25	78-8023-2550-2	Shaft - Pulley Holder
7-26	78-8023-2551-0	Bearing - 6005-2RS
7-27	78-8010-7157-8	Screw - Hex Hd, M4x10, Nick, Pl.
7–28	78-8005-5740-3	Washer - Metric, Plain, Steel, M4.
<b>7-</b> 29	78-8023-2480-2	Spacer - Drive Shaft, $17\phi/20\phi x9$ mm thk.



REF. No.	3M PART No.	DESCRIPTION
8-04	78-8017-9048-2	Bracket - Pivot
8-09	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel, M6
8-12	78-8018-7713-1	Belt - Box Drive, 75 mm.
8-15	78-8018-7725-5	Screw - Hex. Hd., M6 x 35, Nick. P1.
8-16	78-8023-2544-5	Bearing - 6203-2RS
8-17	78-8023-2553-6	Pulley - Growed
8-18	78-8023-2554-4	Ring - Snap for 17mm Shaft
8-19	78-8023-2484-4	Shaft - Idler Pulley.

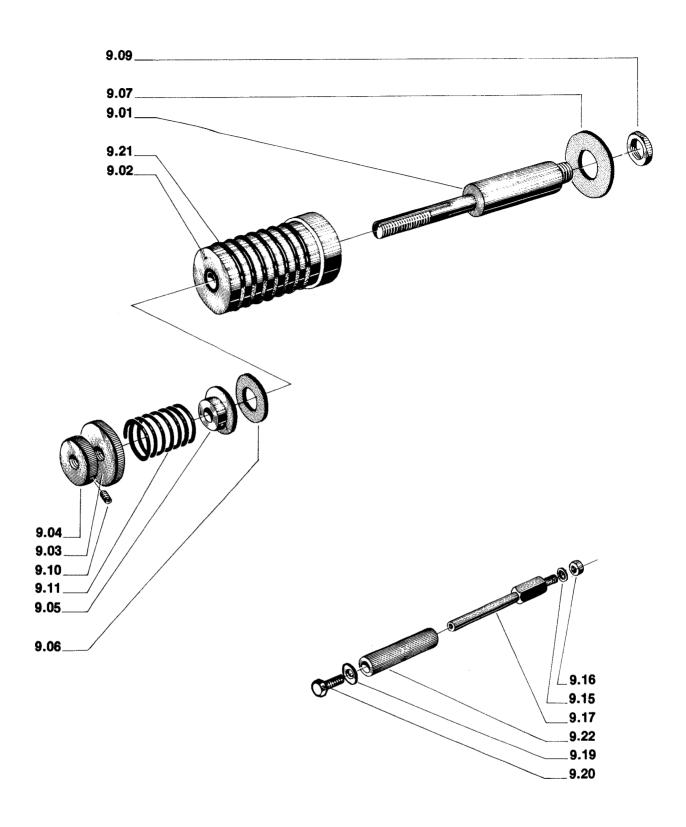


Figure 9

REF. No.	3M PART No.	DESCRIPTION
9-01	78-8017-9050-8	Shaft - Tensioning Roller
9-02	78-8017-9051-6	Roller Assembly - Tensioning
9-03	78-8017-9053-2	Nut - Round, Adjusting
9-04	78-8017-9054-0	Nut - Round, Locking
9-05	78-8017-9055-7	Holder Assembly - Friction Washer
9-06	78-8017-9067-2	Washer - Friction, 30mm
9-07	78-8017-9068-0	Washer - Friction, 44mm
9-09	78-8017-9022-7	Nut - Special, Ml2 x l
9-10	78-8017-9073-0	Screw - Set, Allen M4 x 8
9-11	78-8017-9071-4	Spring
9-15	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel M6
9-16	78-8010-7418-4	Nut - Metric, Hex, Steel, M6
9-17	78-8017-9085-4	Shaft - Knurled Roller
9-19	78-8017-9018-5	Washer - Metric, Plain, Steel, M4 (Special)
9-20	78-8010-7157-8	Screw - Hex Head M4 x 10
9-21	78-8017-9175-3	Washer - O-Ring 138mm
9-22	78-8023-2481-0	Roller Assembly - Knurled

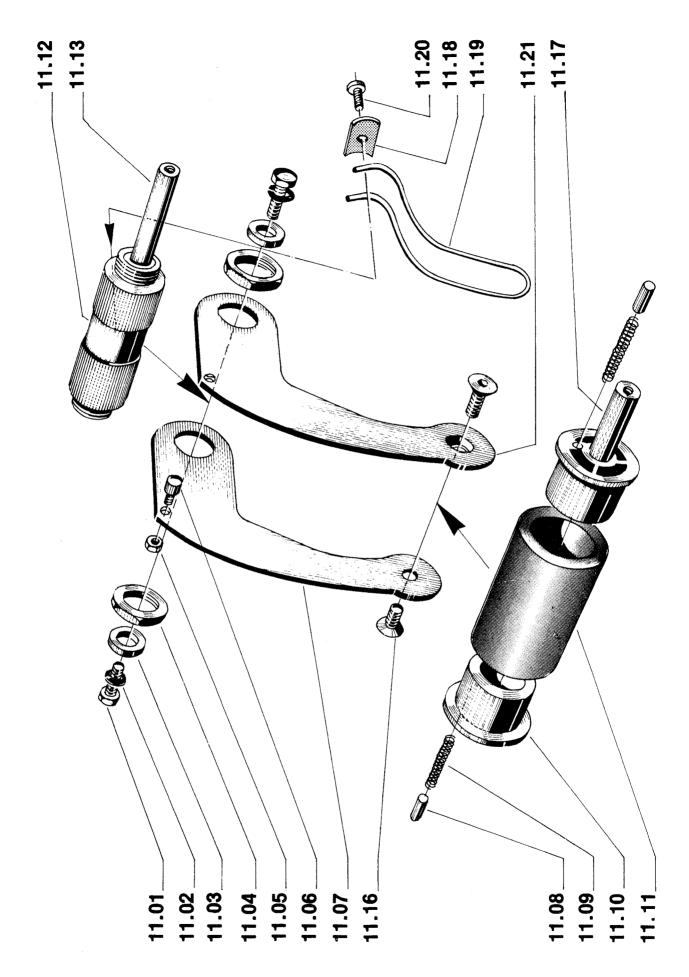


Figure 11

REF. No.	3M PART No.	DESCRIPTION
11-01	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-5.6
11-02	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel M6
11-03	78-8017-9095-3	Spacer
11-04	78-8017-9096-1	Nut - Special M18 x 1'
11-05	78-8010-7417-6	Nut - Metric, Hex, Steel, M5
11-06	78-8017-9097-9	Pin - Follower
1107	78-8017-9076-3	Arm - Applying Roller, Right Side
11-08	78-8017-9098-7	Pin - Friction, 5mm
11-09	78-8017-9100-1	Spring - Friction
11-10	78-8017-9099-5	Bushing - Applying Roller
11-11	78-8017-9101-9	Roller - Applying
11-12	78-8017-9102-7	Spacer Assembly - Applying Roller Arms
11-13	78-8017-9078-9	Shaft - 10 x 90mm
11-16	78-8017-9162-1	Screw - Allen FH, M6 x 12
11-17	78-8017-9105-0	Shaft - 10 x 66mm
11-18	78-8017-9364-3	Clamp - Tape Support Spring
11-19	78-8017-9272-8	Spring - Tape Support
11-20	78-8017-9257-9	Screw - Phillips Head, M4 x 10
11-21	78-8017-9430-2	Arm - Applying Roller, Left Side

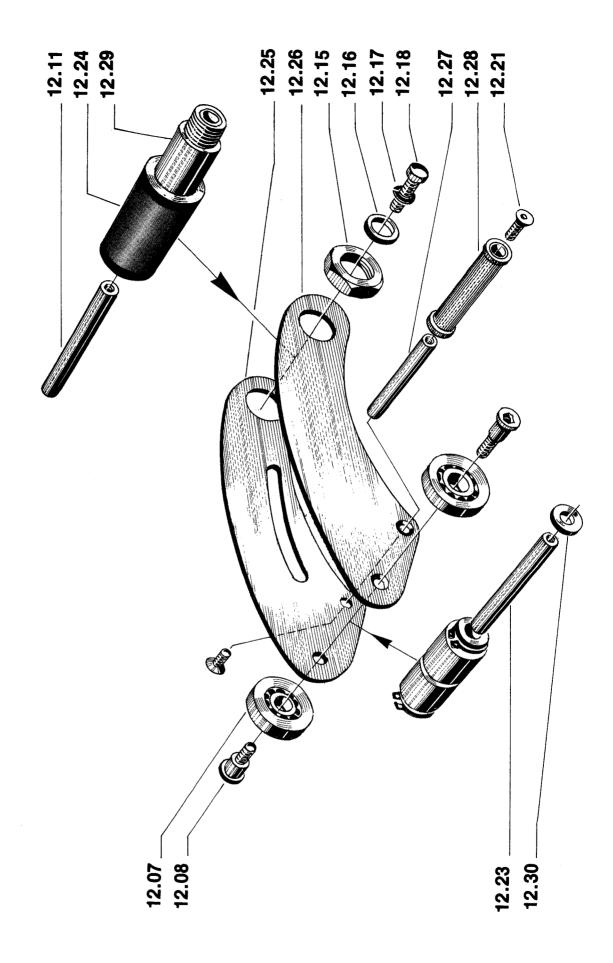
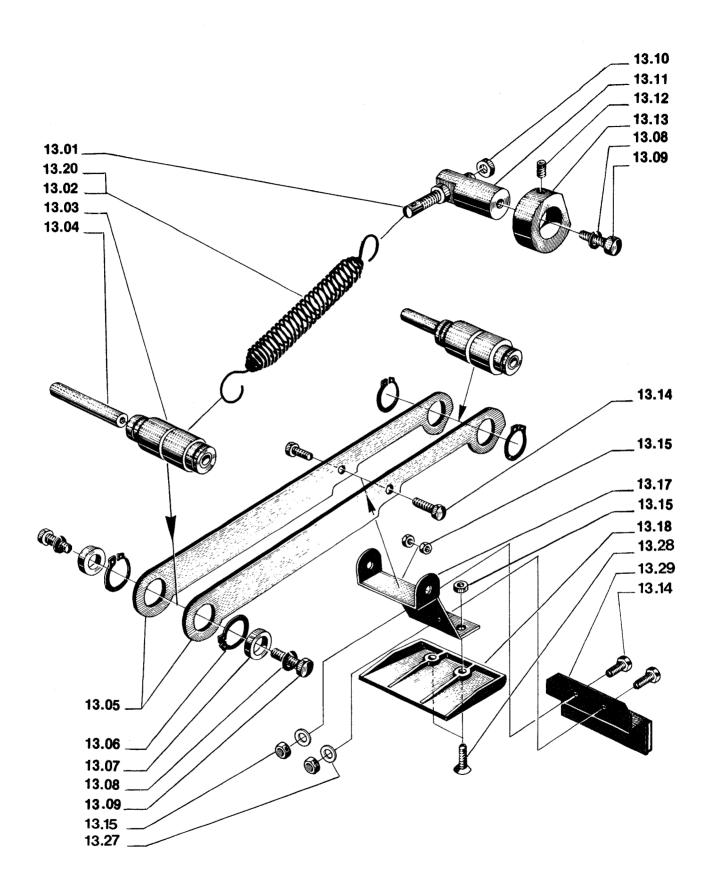


Figure 12

REF. No.	3M PART No.	DESCRIPTION
12-07	78-8017-9082-1	Bearing - Special 30mm
12-08	78-8017-9106-8	Screw - Bearing Shoulder
12-11	78-8017-9109-2	Shaft - 10 x 90mm
12-15	78-8017-9169-6	Nut - M18 x 1
12-16	78-8017-9095-3	Spacer
12-17	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel M6
12-18	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-5.6
12-21	78-8017-9170-4	Screw - Phillips FH, M4 x 8
12-23	78-8018-7847-7	Shaft - 10 x 57 mm.
12-24	78-8018-7848-5	Roller Assembly - Tape Guide
12-25	78-8018-7849-3	Side Plate - w/Slot - One Way Roller Right.
12-26	78-8018-7850-1	Side Plate - One Way Roller Left.
12-27	78-8018-7851-9	Shaft - 8 x 57 mm.
12-28	78-8018-7852-7	Roller Assembly - One Way - Knurled.
12-29	78-8018-7853-5	Shaft Assembly - Tape Guide Roller.
12-30	78-8018-7854-3	Spacer - $16\phi/10$ , $5\phi \times 1$ , 5 mm thk.



REF. No.	3M PART No.	DESCRIPTION
13-01	78-8017-9118-3	Screw - Spring Tensioner
13-02	78-8017-9119-1	Spring - Main, Top Head, Zinc Pl.
13-03	78-8017-9120-9	Roller Assembly - Grooved
13-04	78-8017-9105-0	Shaft - 10 x 66mm
13-05	78-8017-9122-5	Lever
13-06	78-8017-9171-2	Ring - Snap for 18mm
13-07	78-8017-9123-3	Spacer
13-08	78-8010-7435-8	Wasner - Metric, Lock, Spr., Steel M6
13-09	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick Pl., DIN 933-5.6
13-10	26-1000-1347-8	Nut - Metric Hex Stl., M8
13-11	78-8017-9124-1	Holder - Main Spring
13-12	78-8005-4230-6	Screw - Set, Allen M6 x 10
13-13	78-8017-9125-8	Collar - Retainer
13-14	78-8010-7163-6	Screw - Hex Head, M5 x 10, Nick. Pl. DIN 933-8.8
13-15	78-8010-7417-6	Nut - Metric, Hex, Steel, M5, Nick. Pl.
13-16	78-8005-5735-3	Washer - Metric, Lock, Spr., Steel M5
13-17	78-8017-9126-6	Bracket - Blade guaru
13-18	78-8017-9127-4	Guard - Blade
13-20	78-8017-9424-5	Spring, Main, Bottom Head
13-27	78-8005-5741-1	Washer, Plain-M5
13-28	26-0001-5862-1	Screw-Allen F1. Hd. M5 $\times$ 12
13-29	78-8052-6285-0	Blade - Oiler

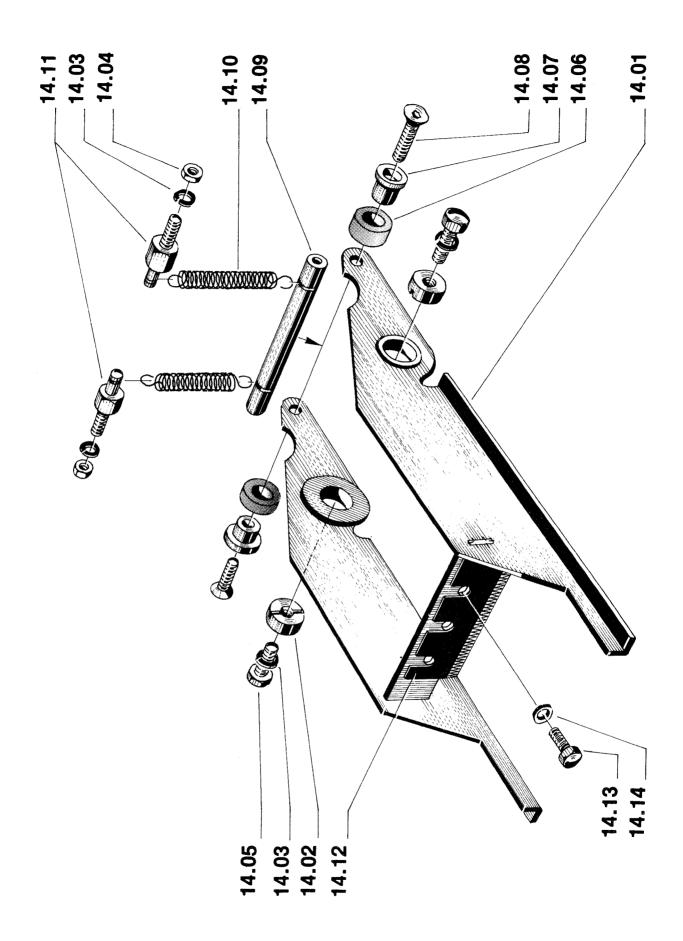


Figure 14

REF. No.	3M PART No.	DESCRIPTION
14-01	78-8017-9128-2	Lever Assembly - Cutter
14-02	78-8017-9132-4	Pivot - Cutter Lever
14-03	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel - M6
14-04	78-8010-7418-4	Nut - Metric, Hex, Steel, M6
14-05	78-8010-7169-3	Screw - Metric, M6 x 12, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8
14-06	78-8017-9133-2	Bumper
14-07	78-8017-9134-0	Bushing - Bumper
14-08	78-8017-9172-0	Screw - Allen FH, M5 x 20
14-09	78-8017-9135-7	Pin - Spring Holder
14-10	78-8017-9136-5	Spring - Cutter
14-11	78-8017-9137-3	Holder - Cutter Spring
14-12	78-8017-9173-8	Blade - 2,56 inch/65mm
14-13	78-8010-7163-6	Screw - Metric, M5 x 10, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8
14-14	78-8005-5741-1	Washer - Metric, Plain, Steel, M5

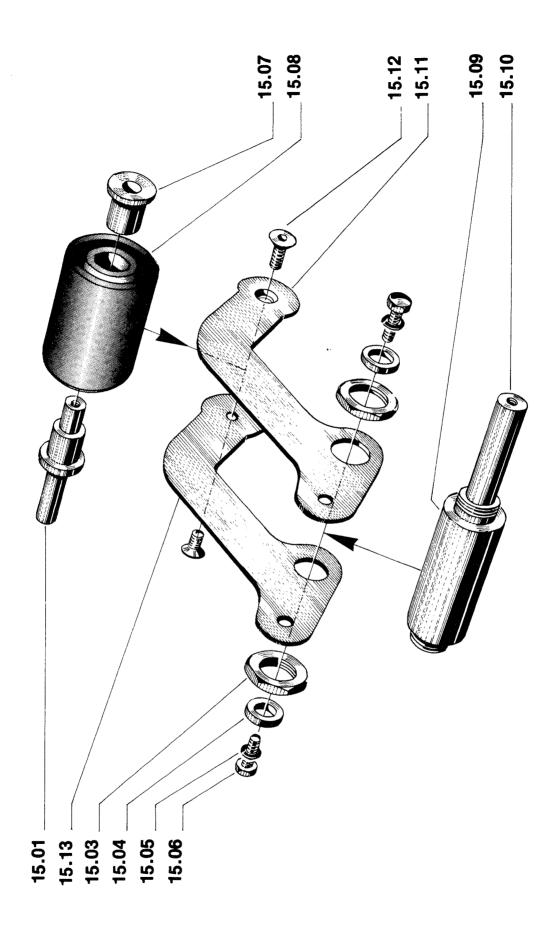


Figure 15

3M PART No.	DESCRIPTION
78-8017-9105-0	Shaft - 10 x 66mm
78-8017-9096-1	Nut - Special, M18 x 1
78-8017-9095-3	Spacer
78-8010-7435-8	Washer - Metric, Lock, Spr. Steel - M6
78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8
78-8017-9139-9	Bushing - Buffing Roller
78-8017-9140-7	Roller - Buffing
78-8017-9141-5	Spacer Assembly - Buffing Roller Arms
78-8017-9109-2	Shaft - 10 x 90mm
78-8018-7608-3	Arm - Buffing Roller, Left.
78-8017-9162-1	Screw - Allen FH, M6 x 12.
78-8018 <b>-</b> 7609-1	Arm - Buffing Roller, Right.
	78-8017-9105-0 78-8017-9096-1 78-8017-9095-3 78-8010-7435-8 78-8032-0375-7 78-8017-9139-9 78-8017-9140-7 78-8017-9141-5 78-8017-9109-2 78-8018-7608-3 78-8017-9162-1

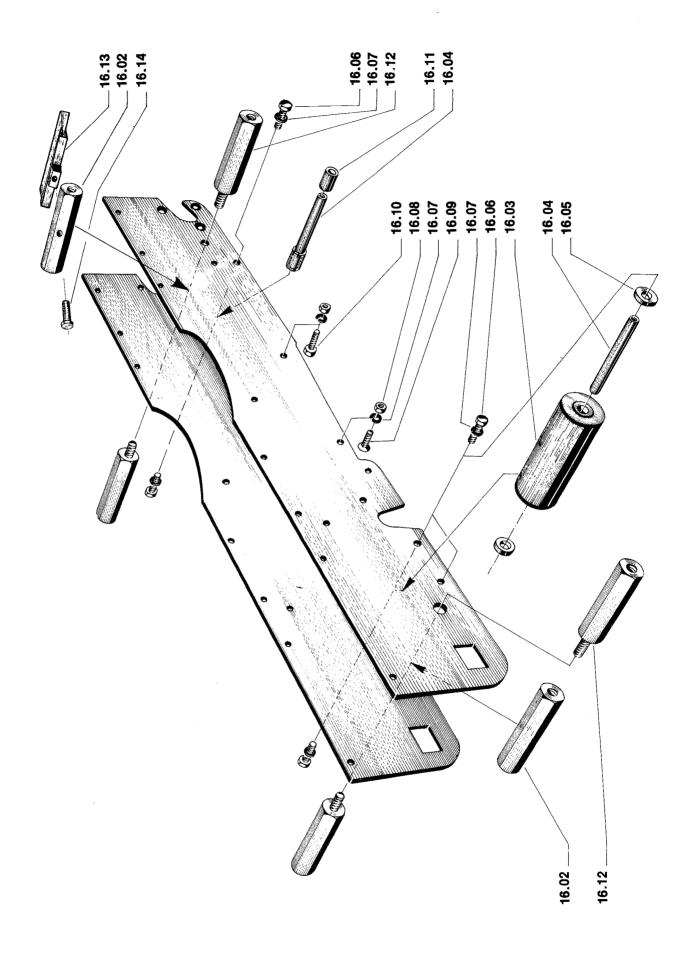


Figure 16

REF. No.	3M PART No.	DESCRIPTION			
16-02	78-8017-9144-9	Spacer - Hexagonal			
16-03	78-8017-9145-6	Roller Assembly - 38mm Diameter			
16-04	78-8017-9109-2	Pin - 10 x 90mm			
16-05	78-801 <b>7-9</b> 095-3	Spacer			
16-06	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8			
16-07	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel - M6			
16-08	78-8010-7418-4	Nut - Metric, Hex Steel, M6			
16-09	78-8017-9334-6	Screw - Allen FH, M6 x 20			
16-10	78-8010-7193-3	Screw - Metric, M6 x 20, Hex Hd. Cap, Steel, Black Zinc, DIN 933-8.8			
16-11	78-8017-9148-0	Bumper - Buffing Arm			
16-12	78-8018-7714-9	Pin - Attachment.			
16-13	78-8018-7617-4	Brush - Assembly - Buffing.			
16-14	78-8018-7616-6	Screw - Metric, M5 x 25, Hex Hd. Cap.			

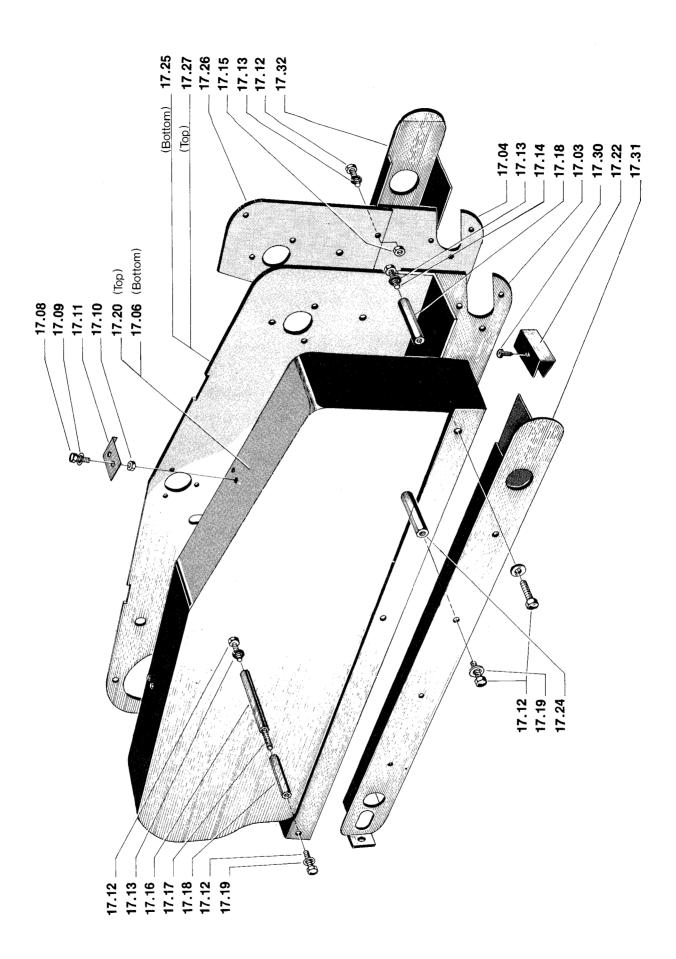


Figure 17

REF. No.	3M PART No.	DESCRIPTION
17-03	78-8017-9153-0	Sideplate - Right side
17-04	78-8017-9154-8	Sideplate - Left Side
17-06	78-8017-9176-1	Cover - Main Drive Belts, Bottom Head
17-08	78-8010-7157-8	Screw - Hex Head, M4 x 10
17-09	78-8005-5740-3	Washer - Metric Plain, Steel M4
17-10	78-8010-7416-8	Nut - Metric, Hex, Steel, M4
17-11	78-8017-9156-3	Retainer Clip - Main Belt Cover
17-12	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8
<b>17-1</b> 3	78-8010-7435-8	Washer - Metric, Lock, Spr., Stl., M-6
17-14	78-8010-7193-3	Screw - Metric, M6 x 20, Hex Hd., Cap, Steel, Black Zinc, DIN 933-8.8
17-15	78-8010-7418-4	Nut - Metric, Hex, Steel, M6
17-16	78-8017-9109-2	Shaft - 10 x 90mm
17-17	78-8017-9174-6	Set Screw - Allen, M6 x 30
17-18	78-8017-9157-1	Pin - Hexagonal,55 mm lg.
17-19	78-8023-2478-6	Washer - Metric, 6,2 ID $\times$ 18 OD $\times$ 1,5 mm thk.
17-20	78-8017-9158-9	Cover - Main Drive Belt, Top Head
17-22	78-8018-7614-1	Guard - Belt.
17-24	78-8018-7719-8	Pin - Hexagonal, 80 mm lg.
17-25	78-8018-7715-6	Sideplate Assembly - Main Bottom Head.
17-26	78-8018-7716-4	Sideplate - Short.
17-27	78-8018-7717-2	Sideplate Assembly - Main Top Head.
17-30	78-8017-9425-2	Screw - Self-Tapping, 8x13mm.
17-31	78-8023-2555-1	Belt - Support Right.

17-32 78-8023-2556-9 Belt - Support Left.

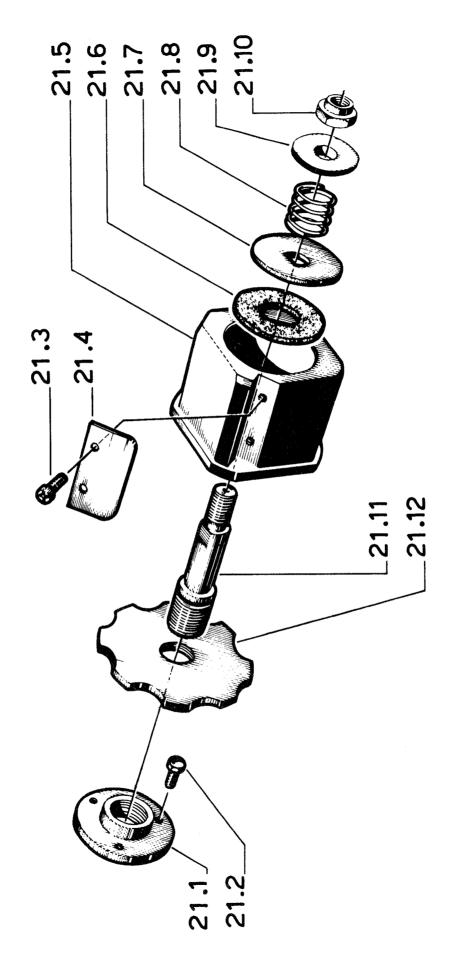


Figure 21

Ref. No.	3M Part No.	Description
21-01	78-8017-9090-4	Flange - Tape Drum Shaft Support
21-02	78-8010-7157-8	Screw - Hex Head M4 x 10
21-03	26-1002-5753-9	Screw - Self Tapping
21-04	78-8052-6268-6	Leaf Spring
21-05	78-8052-6269-4	Tape Drum
21-06	78-8052-6270-2	Washer - Friction
21-07	78-8052-6271-0	Washer - Tape Drum
21-08	78-8017-9017-4	Spring
21-09	78-8017-9094-6	Washer - Spring Holder
21-10	78-8017-9077-1	Nut - Self Locking M10
21-11	78-8052-6272-8	Shaft - Tape Drum
21-12	78-8017-9091-2	Plate - Locking, Tape Drum Shaft

1)	Refer	to	Frame	Assemblies	figure	to	find	al1	parts	illustrations	identified
	by fig								_		

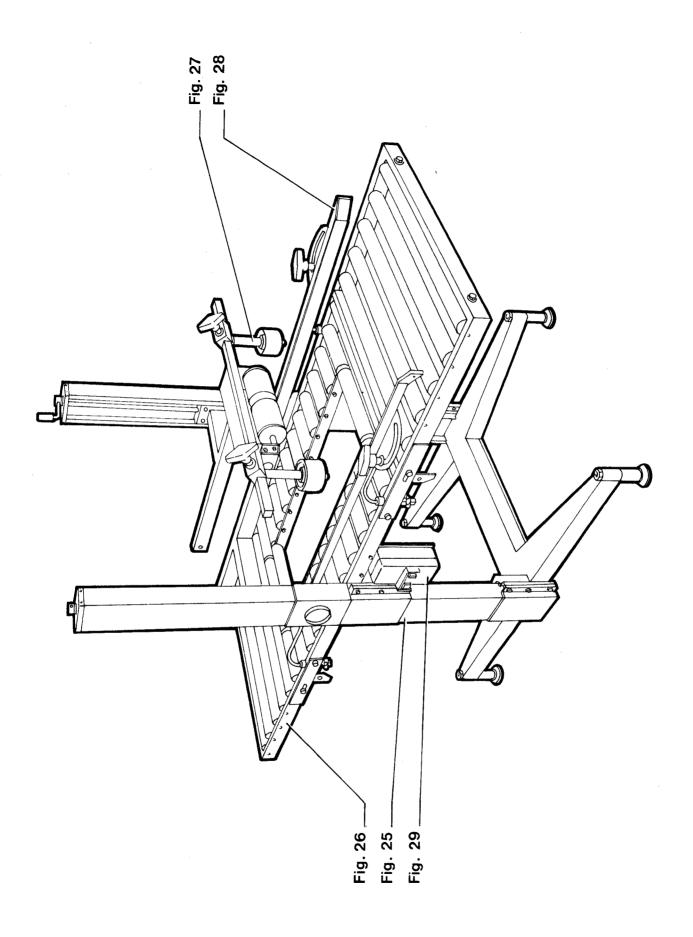
2) Refer to the figure or figures to determine the individual parts required and the parts reference number.

3) The replacement parts list, that follows each illustration, includes the part number and part description for the parts in the 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 of "Maintenance - Parts Orders and Service Information" section of this manual for replacement parts ordering information.

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Frame Assemblies

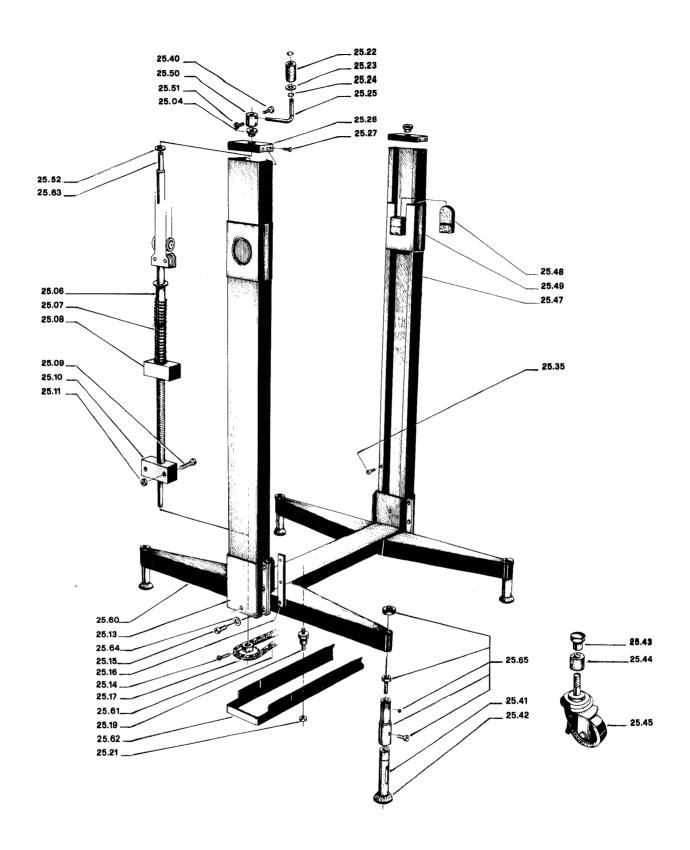


Figure 25

REF. No.	3M PART No.	DESCRIPTION

```
25-04
          78-8017-9354-4
                            Bushing - Flanged
25-06
          78-8017-9254-6
                            Bushing - Flanged
25-07
          78-8017-9255-3
                            Spring - Top Head Support
25-08
          78-8017-9256-1
                            Nut - Height Adjustment
25-09
          78-8017-9327-0
                            Screw - Soc. Hd., Hex Soc. Dr., M6 x 30, Nick. Pl.
25-10
          78-8017-9399-9
                            Block - Support
25-11
          78-8017-9307-2
                            Nut - Self-Locking, M6, Nick. Pl.
25-13
          78-8017-9420-3
                            Bracket - Column Clamping, Base
25-14
         78-8010-7201-4
                            Screw - Soc. Hd., Hex Soc. Dr., M4 x 25, Nick. Pl.
                            Screw - Soc. Hd., Hex Soc. Dr., M6 x 20, Nick. Pl.
25-15
         78-8010-7210-5
25-16
         78-8017-9181-1
                            Plate - Threaded
25-17
         78-8017-9355-1
                            Sprocket
25-19
         78-8017-9357-7
                            Spacer
25-21
         78-8017-9312-2
                            Nut - Self-locking, M8, Nick. Pl.
25-22
         78-8017-9359-3
                            Handle
25-23
         78-8017-9318-9
                            Washer - Plain Metric, 8mm, Nick. Pl.
25-24
         78-8017-9360-1
                            Ring - Snap for 8mm Shaft
25-25
         78-8017-9362-7
                            Crank
25-26
         78-8017-9363-5
                            Cover - Column Top
25-27
         78-8017-9265-2
                            Screw - Self-tapping, 3.5 x 10, Nick. Pl.
25-35
         78-8010-7203-0
                            Screw - Soc. Hd., Hex Soc. Dr., M5 x 10, Nick. Pl.
25-41
         78-8017-9189-4
                            Shaft - Foot
25-42
         78-8017-9212-4
                           Pad - Foot
25-43
         78-8017-9261-1
                           Nut - Special
25-44
         78-8017-9214-0
                           Bushing - Rubber
25-45
         78-8017-9262-9
                           Caster - W/Wheel Lock
25 - 47
         78-8017-9440-1
                           Column
25-48
         78-8018-7610-9
                           Bumper - Top Head
25-49
         78-8018-7611-7
                           Collar - Stop
                           Collar - Handle Attachment.
25-50
         78-8018-7724-8
                           Screw - Soc. Hd., Hex. Soc. Dr., M4x16, Nick. Pl.
         78-8032-0379-9
25-51
25-52
         78-8018-7726-3
                           Washer - Special
25-60
                           Base Weldment Assembly - Box Sealer
         78-8018-7751-1
         78-8018-7752-9
                           Chain
25-61
                           Cover - Chain Box
25-62
         78-8018-7753-7
                           Screw - Height Adjustment
25-63
         78-8018-7754-5
         78-8018-7799-0
                           Washer - Special, M6
25-64
```

Bushing - Foot - Assembly

25-65

78-8018-7665-3

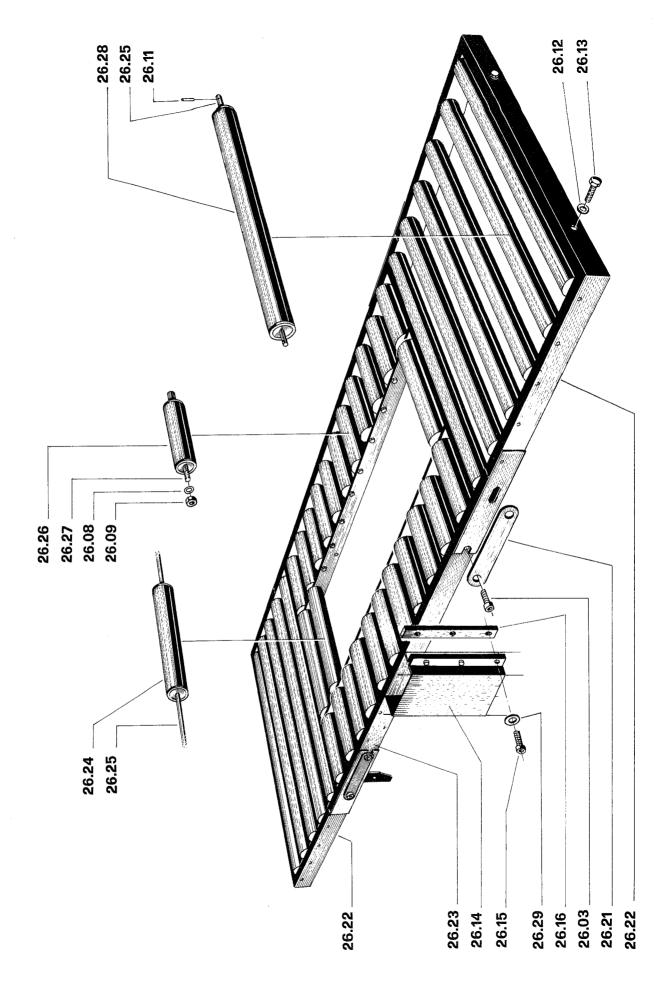


Figure 26

REF. No.	3M PART No.	DESCRIPTION
26-03	78-8017-9302-3	Screw - Soc. Hd., Hex Soc. Dr., M8 x 20, Nick. Pl.
26-08	78-8005-5741-1	Washer - Metric Plain Stl., Nick. Pl., 5mm
26-09	78-8010-7417-6	Nut - Metric, Hex Stl., M5, Nick. Pl.
26-11	78-8010-7458-0	Pin - Metric, Tension Stl., Black Zinc, 3 x 10mm
26-12	78-8017-9318-9	Washer - Metric Plain, Stl., Nick. Pl. 8mm
26-13	78-8017-9324-7	Screw - Hex Hd., M8 x 15, Nick. Pl.
26-14	78-8017-9182-9	Bracket - Column Clamping
26-15	78-8010-7210-5	Screw - Soc Hd., Hex Soc. Dr., M6 x 20, Nick. Pl.
26-16	78-8017-9181-1	Plate - Threaded
26-21	78-8018-7747-9	Plate - Conveyor Guide.
26-22	78-8018-7755-2	Frame Weldment Assembly - Convoyer Extension.
26-23	78-8018-7756-0	Frame Weldment Assembly - Central Conveyor.
26-24	78-8018-7757-8	Roller - Conveyor, 32 x 297 mm.
26-25	78-8018-7758-6	Shaft For 32 x 664 mm. Roller.
26-26	78-8018-7759-4	Roller - Conveyor, 32 x 177 mm.

Shaft - For 32 x 177 mm. Roller.

Roller - Conveyor, 32 x 664 mm.

Washer - Special, M6

26-27

26-28

26-29

78-8018-7760-2

78-8018-7761-0

78-8018-7799-0

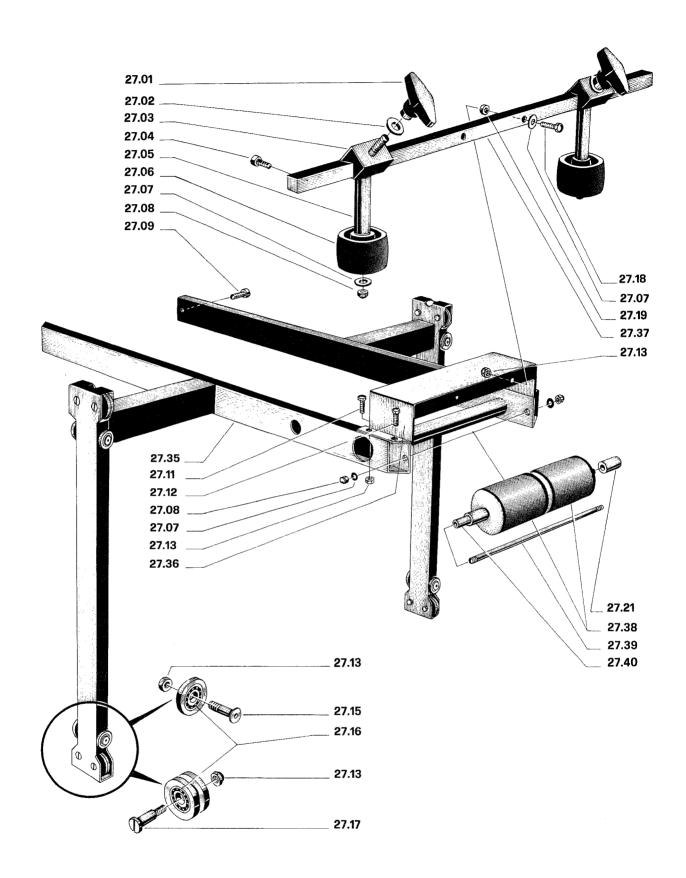


Figure 27

REF. No.	3M	PART	No.	
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## DESCRIPTION

REF. No.	3M PART No.	DESCRIPTION
27-01	78-8017-9392-4	Knob
27-02	78-8017-9319-7	Washer - Flat, 10mm, Nick. Pl.
27-03	78-8017-9376-7	Slide - Roller Support
27-04	78-8010-7199-0	Screw - Soc. Hd., Hex Soc. Dr., M4 x 10, Nick. Pl.
27-05	78-8017-9397-3	Shaft Weldment Assembly - Roller Support
27-06	78-8017-9398-1	Roller Assembly - Rubber
27-07	78-8017-9330-4	Washer - Special
27-08	78-8017-9310-6	Nut - Cap, M6, Nick. Pl.
27-09	78-8017-9303-1	Screw - Soc. Hd., Hex Soc. Dr., M10 x 20, Nick. Pl.
27-11	78-8017-9325-4	Screw - Hex Hd., M6 x 15, Nick. Pl.
27-12	78-8010-7169-3	Screw - Hex Hd., M6 x 12, Stl. Nick. Pl., DIN 933-8.8
27-13	78-8017-9307-2	Nut - Self-locking, M6, Nick. Pl.
2 <b>7-</b> 15	78-8017-9306-4	Screw - Allen, FH, M6 x 20mm
27-16	78-8017-9298-3	Bearing - 25 x 6mm
27-17	78-8017-9379-1	Screw - Shoulder for Bearing
27-18	78-8017-9327-0	Screw - Hex Hd., M6 x 30, Nick. Pl.
27-19	78-8017-9380-9	Spacer
27-21	78-8017-9382-5	Spacer
27-35	78-8018-7762-8	Support Weldment Assembly - Top Taping Head.
27-36	78-8018-7763-6	Support - Roller Bar.
27-37	78-8018-7764-4	Bar - Roller.
27-38	78-8018-7765-1	Roller - $60 \times 105 \text{ mm}$ .
27-39	78-8018-7766-9	Shaft - Roller Sleeve.
27-40	78-8018-7767-7	Bushing - Roller Sleeve.

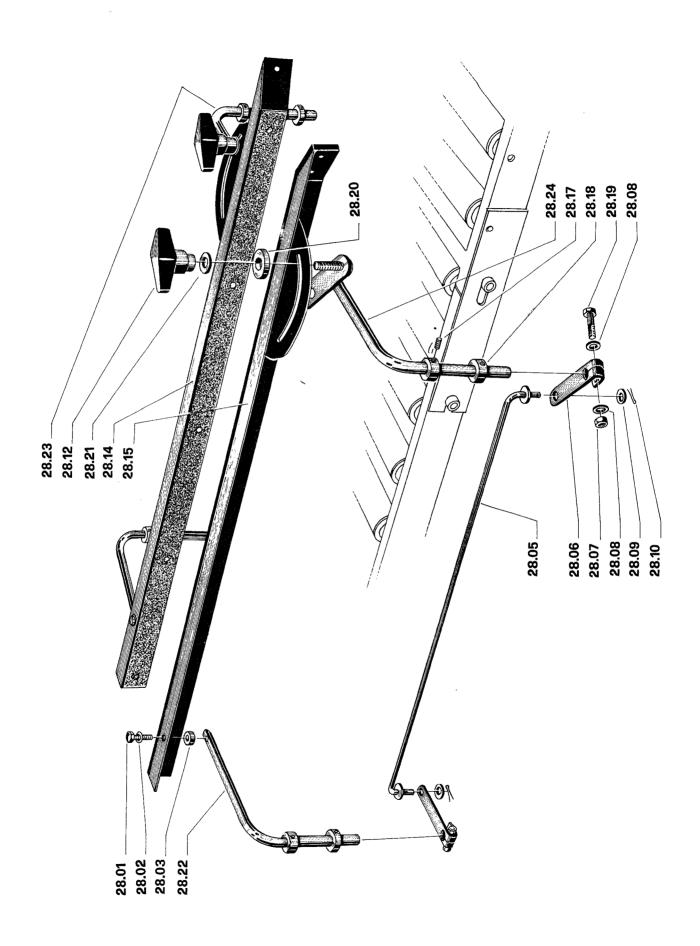
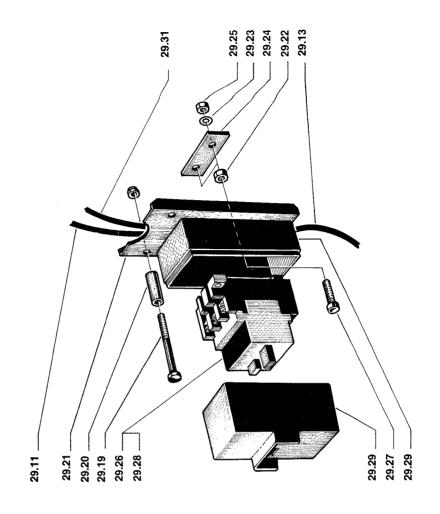


Figure 28

REF. No.	3M PART No.	DESCRIPTION
28-01	78-8017-9331-2	Screw - Hex Hd., M6 x 20, Nick. Pl.
28-02	78-8017-9332-0	Washer - Special
28-03	78-8017-9386-6	Spacer
28-05	78-8017-9388-2	Rod Weldment Assembly - Connecting
28-06	78-8017-9389-0	Lever
28-07	78-8017-9307-2	Nut - Self-locking, M6, Nick. Pl.
28-08	26-1000-0010-3	Washer - Flat, 6mm, Nick. Pl.
28-09	78-8017-9318-9	Washer - Plain Metric, 8mm, Nick.Pl.
28-10	78-8017-9390-8	Pin - Cotter
28-12	78-8017-9392-4	Knob
28-14	78-8017-9393-2	Guide Assembly - Right Side
28-15	78-8017-9394-0	Guide Assembly - Left Side
28-17	78-8017-9328-8	Set Screw - Allen Head, M8 x 8
28-18	78-8017-9396-5	Collar - Stop
28-19	78-8017-9327-0	Screw - Hex Hd., M6 x 30, Nick. Pl.
28-20	78-8018-7744-6	Washer - Special, 10 mm.
28-21	78-8018-7745-3	Washer - Spring, 10 mm.
28-22	78-8018-7768-5	Arm - Discharge End.
28-23	78-8018-7769-3	Arm Weldment Assembly - Infeed End, Right Side.
28-24	78-8018-7770-1	Arm Weldment Assembly - Infeef End, Left Side.



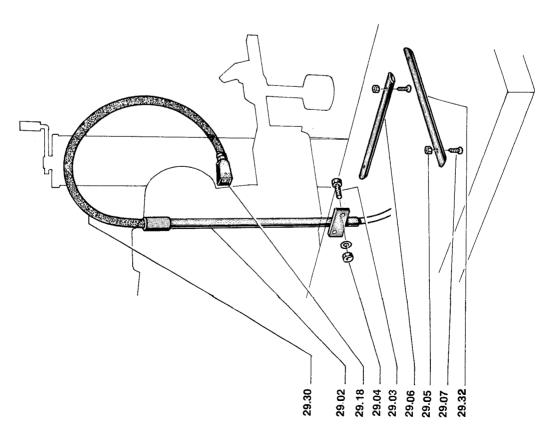


Figure 29

REF. No.	3M PART No.	DESCRIPTION
29-02	78-8017-9429-4	Holder Weldment Assembly
29-03	78-8017-9305-6	Screw - Soc. Hd., Hex Soc. Dr., M6 x 35, Nick. Pl.
29-04	78-8017-9307-2	Nut - Self-locking, M6, Nick. Pl.
29-05	78-8017-9309-8	Nut - Self-locking, M4, Nick. P1.
29-06	78-8017-9383-3	Tube - Cable
29-07	78-8017-9384-1	Screw - Allen FH, M4 x 12
29-11	78-8017-9374-2	Cable - 1.3 metres
29-12	78-8017-9375-9	Cable - 3.5 metres
29-13A	78-8005-7933-2	Power Cord - U.S.
29-13B	78-8017-9404-7	Power Cord - European
29-18	78-8017-9013-6	Plug
29-19	78-8017-9400-5	Screw - Hex Hd., Stl., M6 x 55, Nick. Pl.
29-20	78-8017-9401-3	Spacer
29-21	78-8017-9405-4	Plate - Siemens Switch Mounting
29-22	78-8017-9311-4	Nut - Self-locking, M5, Nick. Pl.
29-23	78-8005-5741-1	Washer - Plain, Metric, M5, Nick. Pl.
29-24	78-8017-9402-1	Plate - Clamp
29-25	78-8010-7417-6	Nut - Metric, Hex Stl., M5, Nick. Pl.
29-26	78-8017-9403-9	Switch - Electric On/Off, Siemens, 4,0 ÷ 6,3 Amp.
29-27	78-8010-7206-3	Screw - Soc. Hd., Hex Soc. Dr., M5 x 25, Nick. Pl.
29-28	78-8017-9421-1	Switch - Electric On/Off, Siemens, 1,6 ÷ 2,5 Amp.
29-29	78-8017-9422-9	Switch box, Plastic, Siemens
29-30	78-8017-9441-9	Sleeving - 19mm Diameter ,2350 mm Lg.

29-31 78-8017-9449-2 Cable - 3.8 metres

29-32 78-8018-7771-9 Tube - Cable.

## 7A-KS3 - CASE SEALER, MODEL 18000 TAPING HEAD ASSEMBLIES

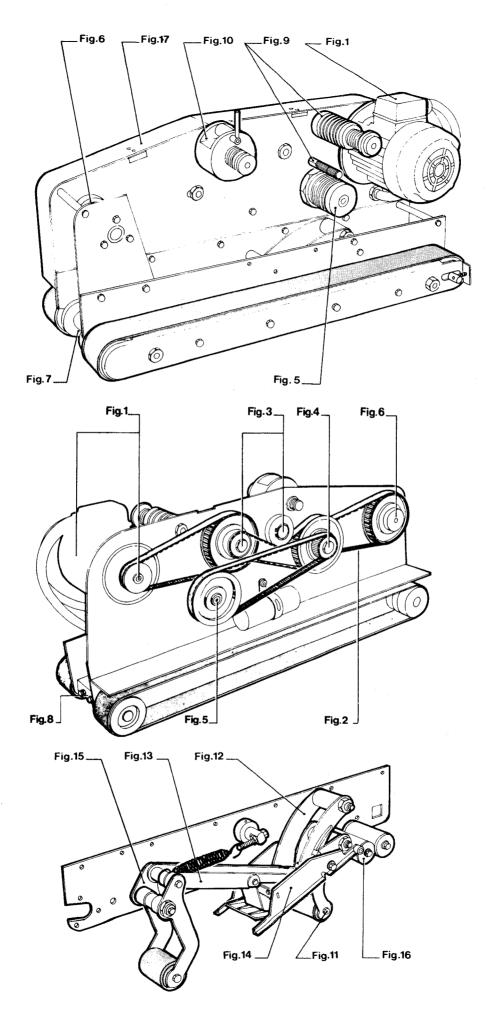
1)	Refer to Taping Head	Assemblies	figures	to	find	a11	the	parts	illustrations
	identified by figure							•	

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

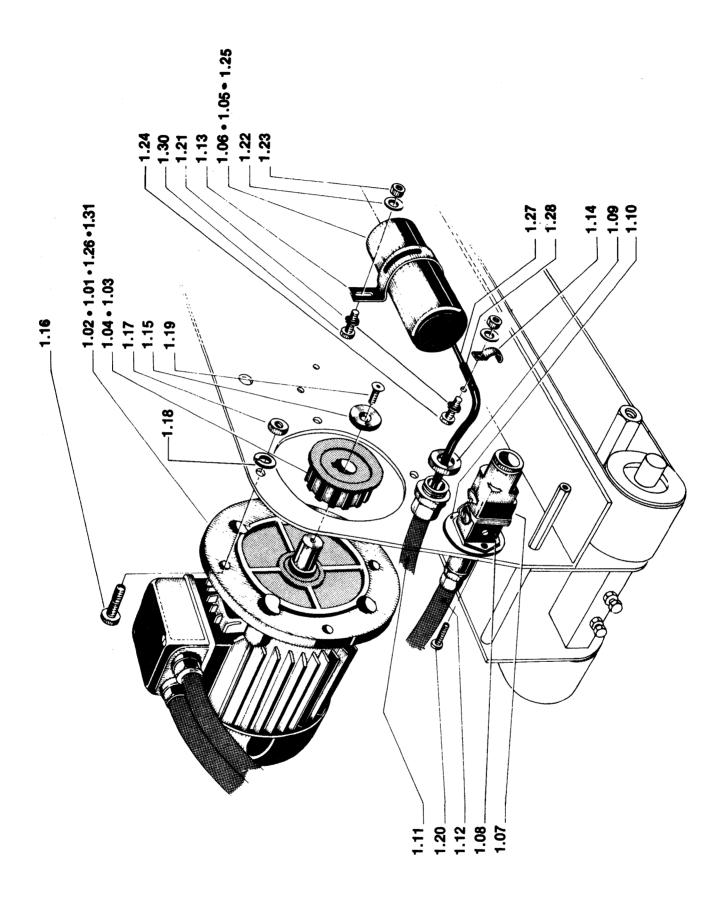


FIGURE 1

Ref. No.	3M Part No.	Description
1-01	78-8017-9057-3	Motor - Single Phase, 240V, 50 Hz., 0.18 HP, B5
1-02	78-8017-9009-4	Motor - Single Phase, 110V, 60 Hz, 0,18 HP, Type B5
1-03	78-8017-9010-2	Pulley - Timing Belt for 220/240V Motor, z-14
1-04	78-8017-9011-0	Pulley - Timing Belt for 110V Motor, z-12
1-05	78-8017-9163-9	Capacitor - 5 MFD, 240V, 50 Hz
1-06	78-8017-9012-8	Capacitor - 20 MFD, 110V, 60 Hz
1-07	78-8017-9013-6	Plug
1-08	78-8017-9014-4	Receptacle
1-09	78-8017-9015-1	Nut
1-10	78-8017-9016-9	Washer - Insulating
1-11	78-8017-9164-7	Sleeving - Length 30cm
1-12	78-8017-9165-4	Sleeving - Length 23.5cm
1-13	78-8017-9166-2	Clip - Capacitor
1-14	78-8017-9167-0	Clip - Cable
1-15	78-8017-9033-4	Washer - 20 mm
1-16	78-8017-9301-5	Screw - Hex Head M8 x 25
1-17	26-1000-1347-8	Nut - Hex Regular M8
1-18	78-8005-5736-1	Lockwasher - for M8 screw
1-19	78-8017-9161-3	Screw - Allen FH M4 x 10
1-20	78-8017-9425-2	Screw - Self-Tapping, 8 x 13 mm
1-21	78-8010-7435-8	Washer - Metric, Lock Spr. Stl. M6
1-22	78-8023-2478-6	Washer - Metric, 6,2 ID $\times$ 18 OD $\times$ 1,5 mm thk.
1-23	26-1000-0010-3	Nut - Metric, Hex, Stl., M6
1-24	78-8010-7193-3	Screw - Metric, M6 x 20 Hex Hd. Cap, Stl, Black Zinc
1-25	78-8017-9056-5	Capacitor - 6.3 Mfd. 220V, 50 Hz
1-26	78-8017-9008-6	Motor - Single Phase, 220V, 50 Hz, 0,18 HP, Type B5
1-27	78-8017-9369-2	Cable Assembly - Motor to Capacitor
1-28	78-8017-9371-8	Sleeving - Plastic
1-30	78-8032-0375-7	Screw - Hex Hd. M6 x 16, Nick, Pl.
1-31	78-8018-7889-9	Motor - 220/380V, 50 HZ, 3-Phase, 0.25 HP

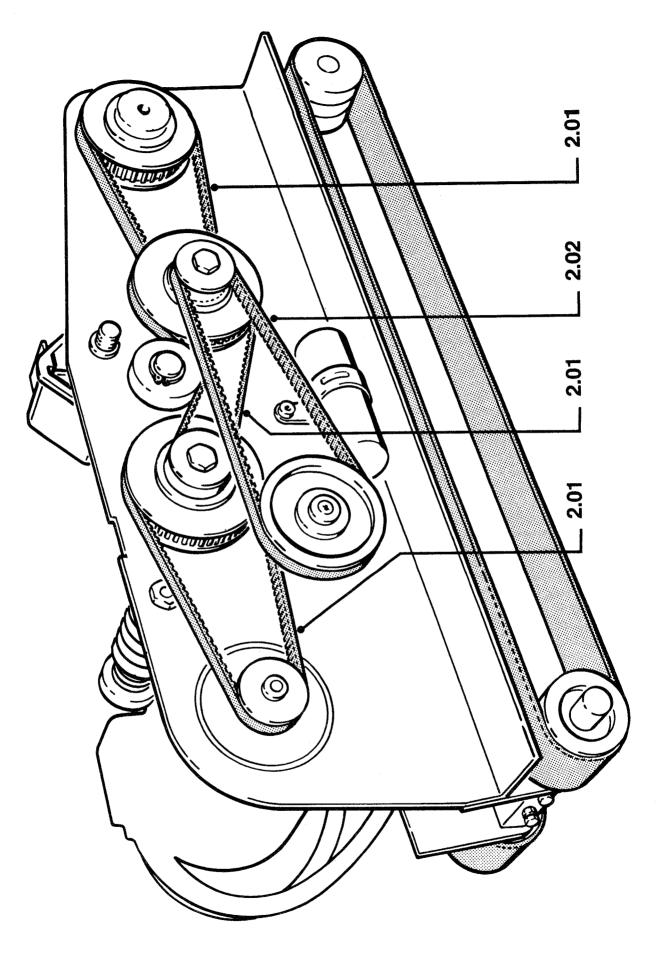


FIGURE 2

REF. No. 3M PART No. DESCRIPTION

2-01 78-8001-7176-7 Belt - Timing, 225L050

2-02 12-7997-4978-8 Belt - Timing, 255L050

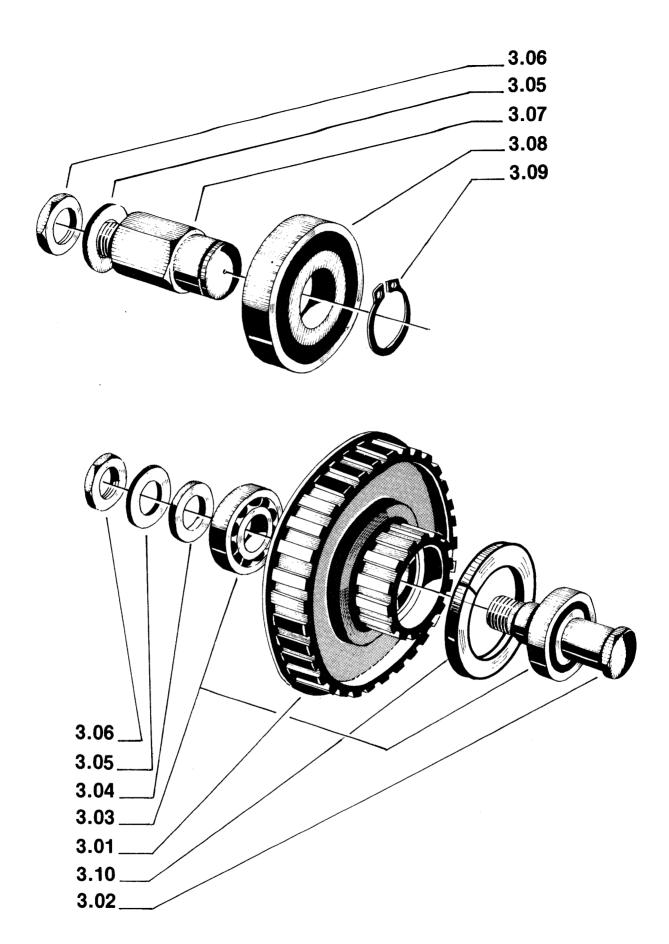


Figure 3

REF. No.	3M PART No.	DESCRIPTION
3-01	78-8017-9019-3	Pulley - Timing Belt, Z-32/14
3-02	78-8017-9020-1	Shaft - Pulley
3-03	26-1000-4350-9	Bearing - 6002-2RS
3-04	78-8017-9021-9	Washer - Special, 25mm x 12mm
3-05	78-8017-9059-9	Washer - Flat for M12 Screw DIN 125A
3-06	78-8017-9022-7	Nut - Special, M12 x 1
3-07	78-8017-9023-5	Shaft - Tensioning
3-08	78-8017-9060-7	Bearing - 6304 - 2RS
3-09	78-8017-9061-5	Snap ring - for 20mm Shaft
3-10	78-8017-9025-0	Washer - Nylon

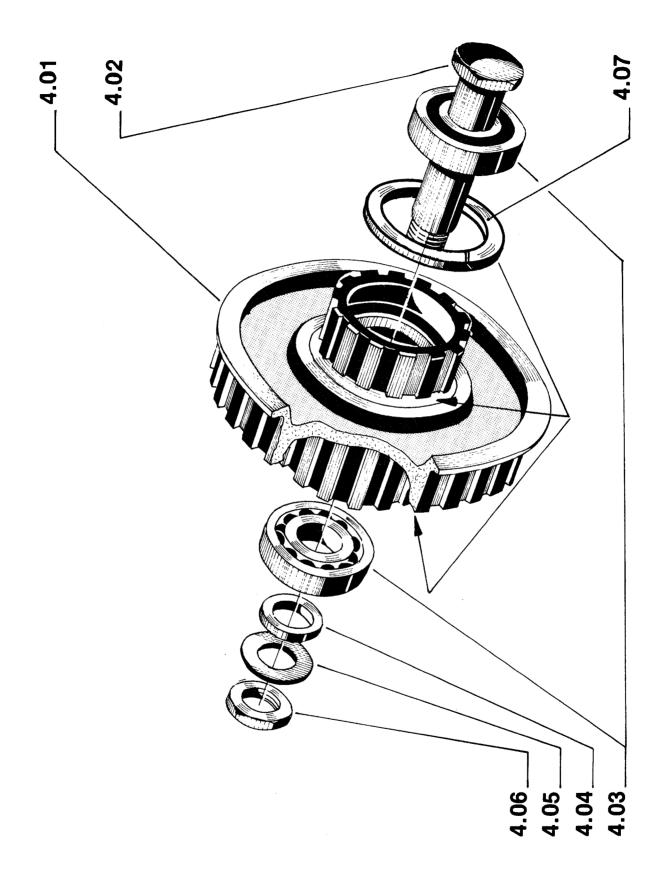
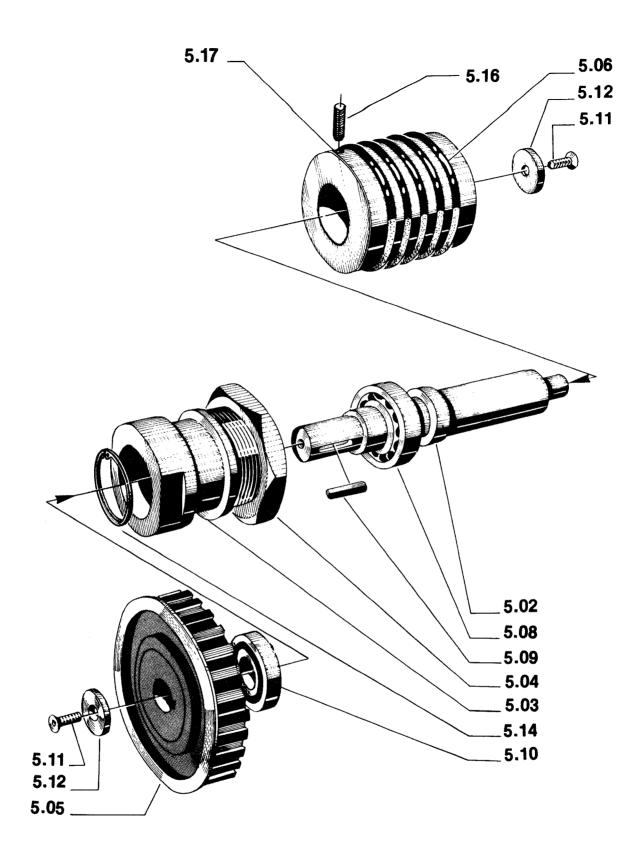


Figure 4

REF. No.	3M PART No.	DESCRIPTION
4-01	78-8017-9024-3	Pulley - Timing Belt, Z-14/32/14
4-02	78-8017-9026-8	Shaft - Pulley
4-03	26-1000-4350-9	Bearing - 6002-2RS
4-04	78-8017-9021-9	Washer - Special, 25mm x 12mm
4-05	78-8017-9059-9	Washer - For M12 Screw DIN 125A
4-06	78-8017-9022-7	Nut - Special, M12 x 1
4-07	78-8017-9025-0	Washer - Nylon



REF. No.	3M PART No.	DESCRIPTION
5-02	78-8017-9029-2	Shaft - Tape Prestripper
5-03	78-8017-9030-0	Hub - Eccentric Prestripper
5-04	78-8017-9031-8	Nut - Hub Attachment
5-05	78-8017-9032-6	Pulley - Prestripper Z-28
5-06	78-8017-9062-3	Washer - O-Ring 150mm
5-08	26-1000-6036-2	Bearing - 6003-2RS
5-09	78-8017-9064-9	Key - 5 x 5 x 15mm
5-10	26-1000-4350-9	Bearing - 6002-2RS
5-11	78-8017-9161-3	Screw - Allen FH M4 x 10
5-12	78-8017-9033-4	Washer - 20mm
5-14	78-8017-9419-5	Ring - Snap for 32mm Hole
5-16	78-8023-2479-4	Screw - Set w/end Cup, M6x10
5-17	78-8028-7868-2	Roller - Tape Prestripper

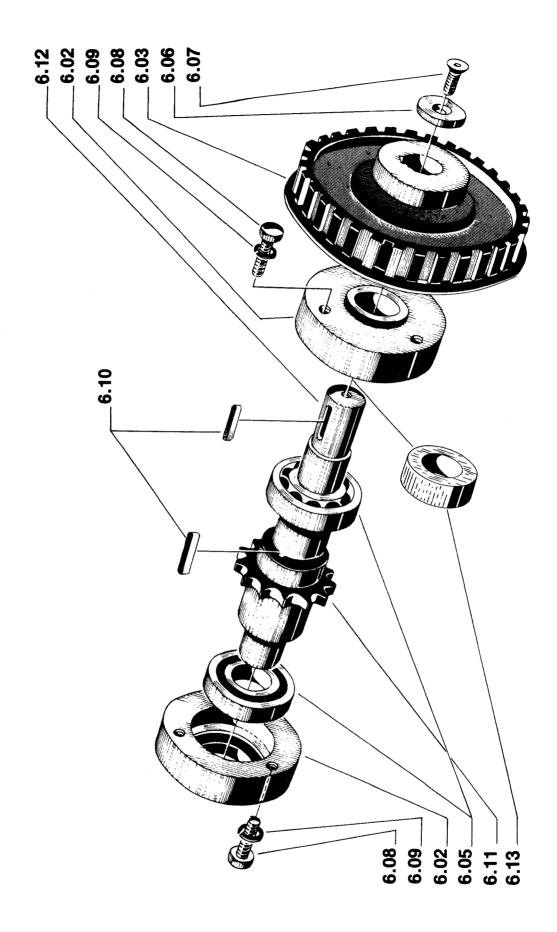


Figure 6

## DESCRIPTION

6-02	78-8017-9036-7	Hub - Shaft Support
6-03	78-8017-9037-5	Pulley - Timing Belt, Z-32
6-05	26-1000-6036-2	Bearing 6003-2RS
6-06	78-8017-9033-4	Washer - 20mm
6-07	78-8017-9161-3	Screw - Allen FH M4 x 10
6-08	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-5.6
6-09	78-8010-7435-8	Washer - Metric, Lock, Spr., M6
6-10	78-8017-9064-9	$Key - 5 \times 5 \times 15mm$
6-11	78-8018-7708-1	Sprocket - 3/8 Inch Pitch, 13 Teeth.
6-12	78-8028-7870-8	Shaft - Transmission
6-13	78-8028-7871-6	Spacer - 22\psi/17.1\psi/12.5mm THK

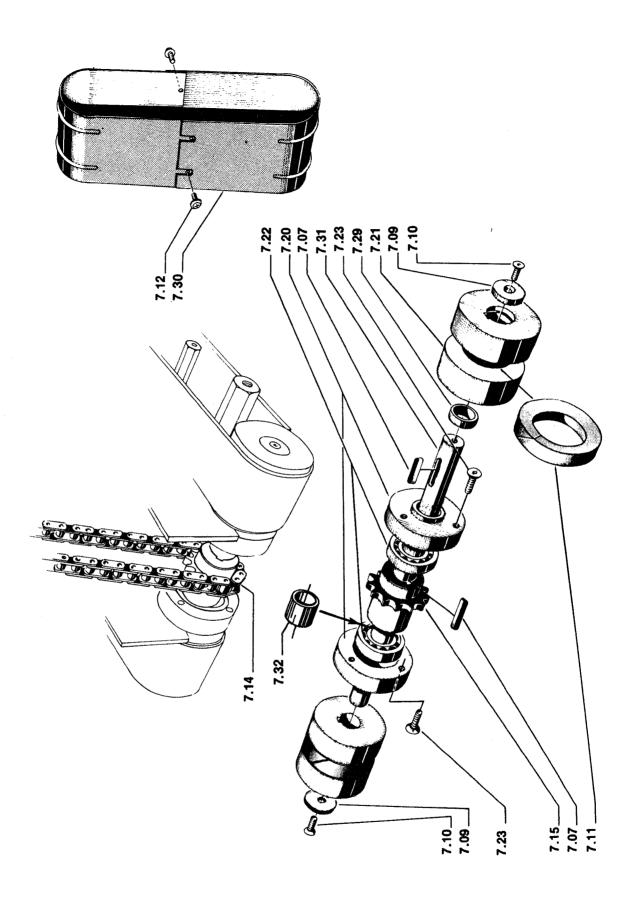
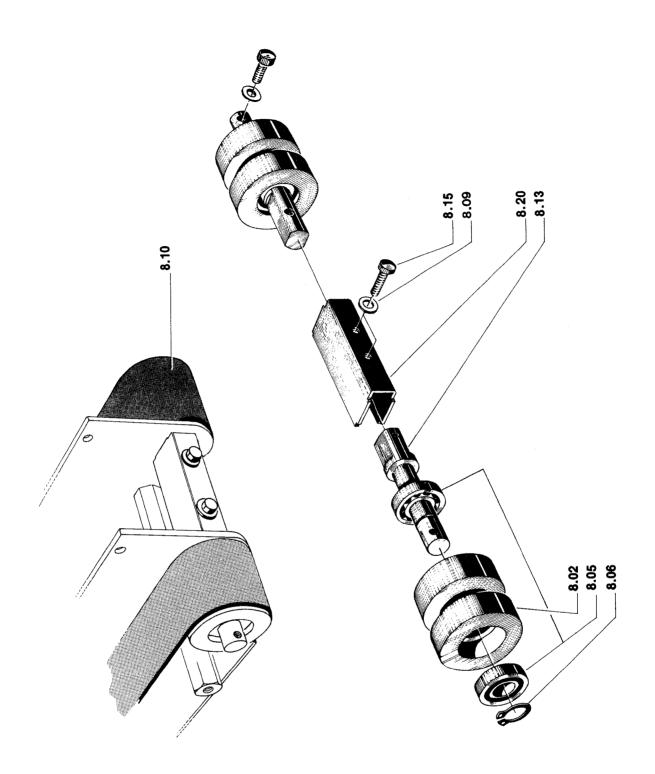


Figure 7

REF. No.	3M PART No.	DESCRIPTION
7-07	78-8017-9064-9	Key - 5 x 5 x 15mm
7-09	78-8017-9033-4	Washer - 20mm
7-10	78-8017-9161-3	Screw - Allen FH M4 x 10
7-11	78-8017-9043-3	Ring - Friction
7-12	78-8017-9066-4	Screw - Special M5 x 10
7-14	78-8018-7709-9	Chain - Roller, 3/8 Inch Pitch, 47 Links.
7-15	78-8018-7710-7	Sprocket - 3/8 Inch Pitch, 15 Teeth.
7-20	78-8023-2542-9	Hub - Shaft Support
7-21	78-8023-2543-7	Pulley - Keyed
7-22	78-8023-2544-5	Bearing - 6203-2RS
7-23	78-8017-9333-8	Screw - Allen FH, M5x15
7-29	78-8023-2480-2	Spacer - Drive Shaft - 17.2 ∅ / 20 ∅ x 9mm THK.
7-30	78-8028-7872-4	Guard - Belt
7-31	78-8028-7873-2	Shaft - Drive Pulley
7-32	78-8028-7904-5	Spacer - Drive Shaft-17.20/200/11mm THK



REF. No.	3M PART No.	DESCRIPTION
8-02	78-8017-9046-6	Pulley - Grooved
8-05	26-1000-4350-9	Bearing - 6002- 2RS
8-06	78-801 <b>7</b> -9079-7	Ring - Snap for 15mm Shaft
8-09	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel; M6
8-10	78-801 <b>7-</b> 9049-0	Belt - Box Drive
8-13	78-8023-2545-2	Shaft - Idler Pulley
8-15	78-8018-7725-5	Screw - Hex. Hd., M6 x 35, Nick. Pl.
8-20	78-8028-7874-0	Bracket - Pivot

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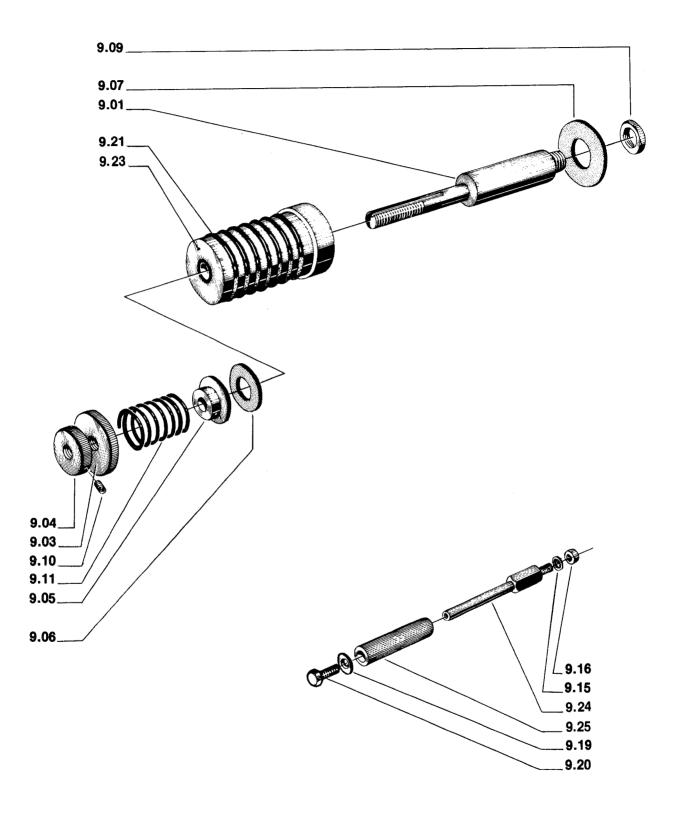
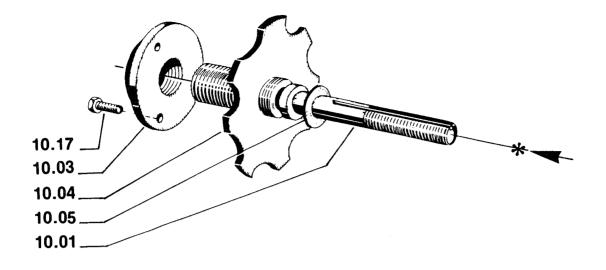


Figure 9

REF. No.	3M PART No.	DESCRIPTION
9-01	78-8017-9050-8	Shaft - Tensioning Roller
9-03	78-8017-9053-2	Nut - Round, Adjusting
9-04	78-8017-9054-0	Nut - Round, Locking
9-05	78-8017-9055-7	Holder Assembly - Friction Washer
9-06	78-8017-9067-2	Washer - Friction, 30mm
9-07	78-8017-9068-0	Washer - Friction, 44mm
9-09	78-8017-9022-7	Nut - Special, M12 x 1
9-10	78-8017-9073-0	Screw - Set, Allen M4 x 8
9-11	78-8017-9071-4	Spring
9-15	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel M6
9-16	78-8010-7418-4	Nut - Metric, Hex, Steel, M6
9 <b>-</b> 19	78-8017-9018-5	Washer - Metric, Plain, Steel, M4 (Special)
9-20	78-8010-7157-8	Screw - Hex Head M4 x 10
9-21	78-8017-9175-3	Washer - O-Ring 138mm
9-23	78-8028-7875-7	Roller Assembly - Tensioning
9-24	78-8028-7876-5	Shaft - Knurled Roller
9-25	78-8028-7877-3	Roller Assembly - Knurled



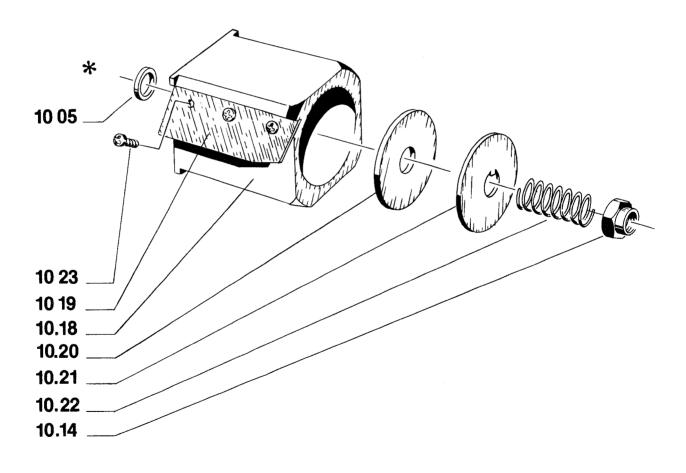


Figure 10

REF. No.	3M PART No.	DESCRIPTION
10-01	78-8017-9087-0	Shaft - Tape Drum
10-03	78-8017-9090-4	Flange - Tape Drum Shaft - Support
10-04	78-8017-9091-2	Plate - Locking, Tape Drum Shaft
10-05	78-8017-9074-8	Washer - Nylon $10.5\phi/18\phi x1$ mm thk.

10-14	78-8017-9077-1	Nut - Self-Locking, M-10, Nick. Pl.
10-17	78-8010-7157-8	Screw - Hex Head M4 x 10
10-18	78-8028-7878-1	Drum Assembly - Tape
10-19	78-8028-7879-9	Retainer - Tape Roll
10-20	78-8028-7880-7	Washer - Friction
10-21	78-8028-7881-5	Washer - Spring Holder
10-22	78-8028-7905-2	Spring
10-23	78-8028-7906-0	Screw - M4 x 8 mm

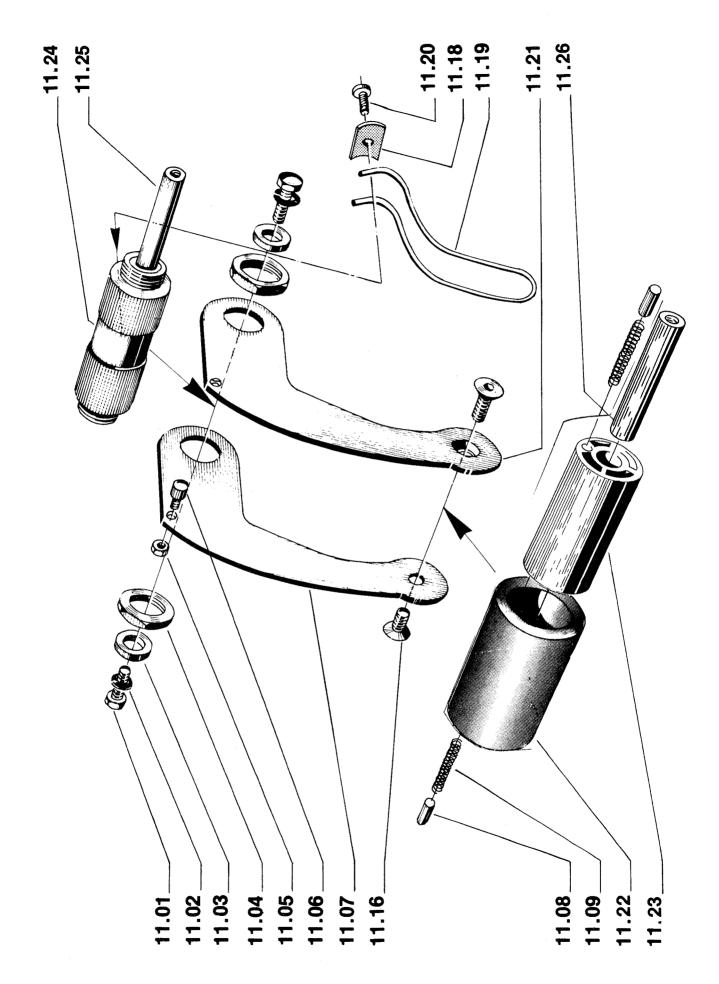


Figure 11

REF. No.	3M PART No.	DESCRIPTION		
11-01	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-5.6		
11-02	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel M6		
11-03	78-8017-9095-3	Spacer		
11-04	78-8017-9096-1	Nut - Special M18 x l'		
11-05	78-8010-7417-6	Nut - Metric, Hex, Steel, M5		
11-06	78-8017-9097-9	Pin - Follower		
11-07	78-8017-9076-3	Arm - Applying Roller, Right Side		
11-08	78-8017-9098-7	Pin - Friction, 5mm		
11-09	78-8017-9100-1	Spring - Friction		

11-16	78-801 <b>7-</b> 9162-1	Screw - Allen FH, M6 x 12
11-18	78-8017-9364-3	Clamp - Tape Support Spring
11-19	78-8017-9272-8	Spring - Tape Support
11-20	78-8017-9257-9	Screw - Phillips Head, M4 x 10
11-21	78-8017-9430-2	Arm - Applying Roller, Left Side
11-22	78-8028-7882-3	Roller - Applying
11-23	78-8028-7883-1	Bushing - Applying Roller
11-24	78-8028-7884-9	Spacer Assembly - Applying Roller Arms
11-25	78-8028-7885-6	Shaft - $10 \times 115 \text{ mm}$
11-26	78-8028-7886-4	Shaft - 10 $\times$ 96 mm

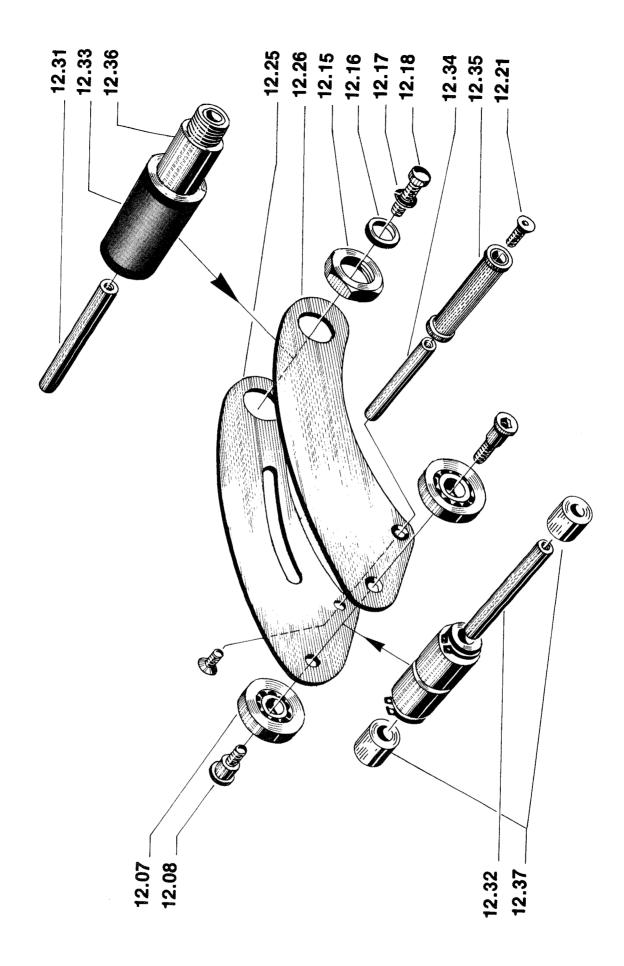
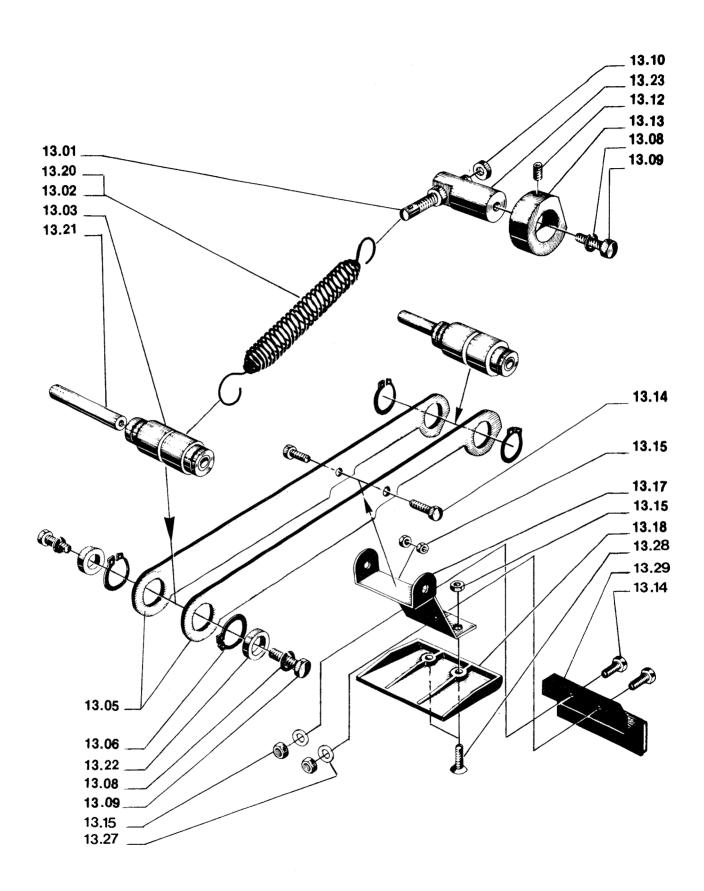


Figure 12

REF. No.	3M PART No.	DESCRIPTION
12-07	78-8017-9082-1	Bearing - Special 30mm
12-08	78-8017-9106-8	Screw - Bearing Shoulder
12-15	78-8017-9169-6	Nut - M18 x 1
12-16	78-8017-9095-3	Spacer
12-17	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel M6
12-18	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-5.6
12-21	78-8017-9170-4	Screw - Phillips FH, M4 x 8
12-25	78-8018-7849-3	Side Plate - w/Slot - One Way Roller Right.
12-26	78-8018-7850-1	Side Plate - One Way Roller Left.
12-31	78-8028-7885-6	Shaft - 10 x 115 mm
12-32	78-8028-7888-0	Shaft - $10 \times 82 \text{ mm}$
12-33	78-8028-7889-8	Roller Assembly - Tape Guide
12-34	78-8028-7890-6	Shaft - $8 \times 82$ mm
<b>12-35</b>	78-8028-7891-4	Roller Assembly - One Way - Knurled
12-36	78-8028-7892-2	Shaft Assembly - Tape Guide Roller
12-37	78-8028-7893-0	Spacer - $10\phi/16\phi/14$ mm THK
A 12-35	78-8054-8797-	8 Upper head tension roller 4 Lower head tension roller
12-35	78-8054-8817-	4 Lower head tensin rollen



REF. No.	3M PART No.	DESCRIPTION
13-01	78-8017-9118-3	Screw - Spring Tensioner
13-02	78-8017-9119-1	Spring - Main, Top Head, Zinc Pl.
13-03	78-8017-9120-9	Roller Assembly - Grooved
13-05	78-8017-9122-5	Lever
13-06	78-8017-9171-2	Ring - Snap for 18mm
13-08	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel M6
13-09	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl.
13-10	26-1000-1347-8	Nut - Metric Hex Stl., M8
13-12	78-8023-2479-4	Screw - Set w/end Cup, M6x10
13-13	78-8017-9125-8	Collar - Retainer
13-14	78-8010-7163-6	Screw - Hex Head, M5 x 10, Nick. Pl.
13-15	78-8010-7417-6	Nut - Metric, Hex, Steel, M5, Nick. Pl.
13-16	78-8005-5735-3	Washer - Metric, Lock, Spr., Steel M5
13-17	78-8017-9126-6	Bracket - Blade guard
13-18	78-8017-9127-4	Guard - Blade
13-19	78-8017-9333-8	Screw - Allen FH, M5 x 15
13-20	78-8017-9424-5	Spring, Main, Bottom Head
13-21	78-8028-7886-4	Shaft - 10 x 96 mm
13-22	78-8028-7895-5	Spacer - $10.1\phi/16\phi/18.5$ mm THK
13-23	78-8028-7896-3	Holder - Main Spring
13-27	78-8005-5741-1	Washer - Plain M5
13-28	26-0001-5862-1	Screw - Allen F.H. M5 x 12
13-29	78-8052-6285-0	Blade - Oiler

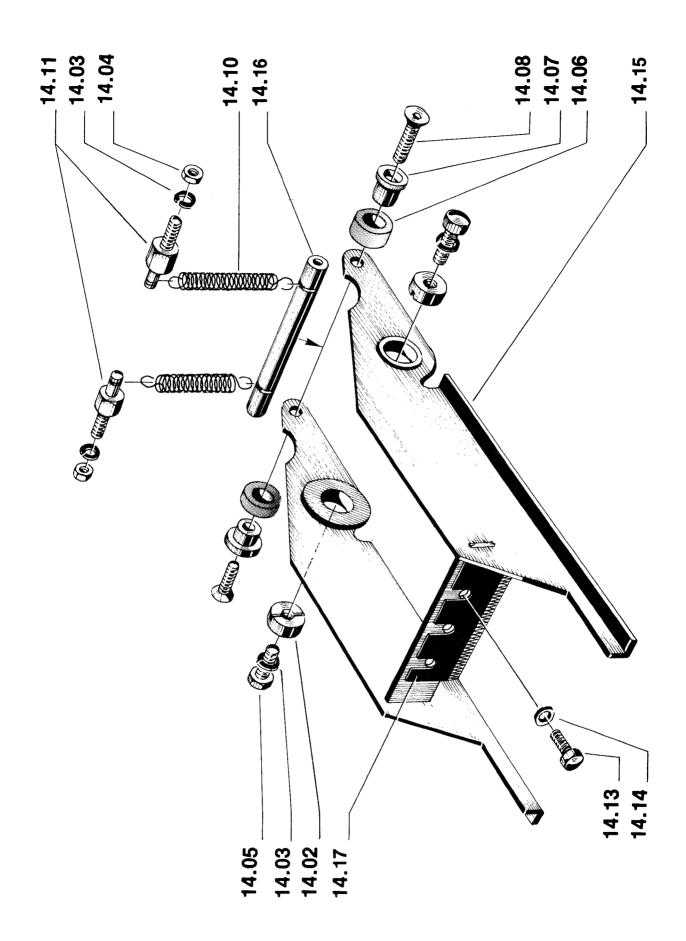


Figure 14

## DESCRIPTION

14-02	78-8017-9132-4	Pivot - Cutter Lever				
14-03	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel - M6				
14-04	78-8010-7418-4	Nut - Metric, Hex, Steel, M6				
14-05	78-8010-7169-3	Screw - Metric, M6 x 12, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8				
14-06	78-8017-9133-2	Bumper				
14-07	78-8017-9134-0	Bushing - Bumper				
14-08	78-8017-9172-0	Screw - Allen FH, M5 x 20				
14-10	78-8017-9136-5	Spring - Cutter				
14-11	78-8017-9137-3	Holder - Cutter Spring				
14-13	78-8010-7163-6	Screw - Metric, M5 x 10, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8				
14-14	78-8005-5741-1	Washer - Metric, Plain, Steel, M5				
14-15	78-8028-7897-1	Lever Assembly - Cutter				
14-16	78-8028-7898-9	Pin - Spring Holder				
14-17	78-8028-7899-7	Blade - 3.50 Inch/89 mm				

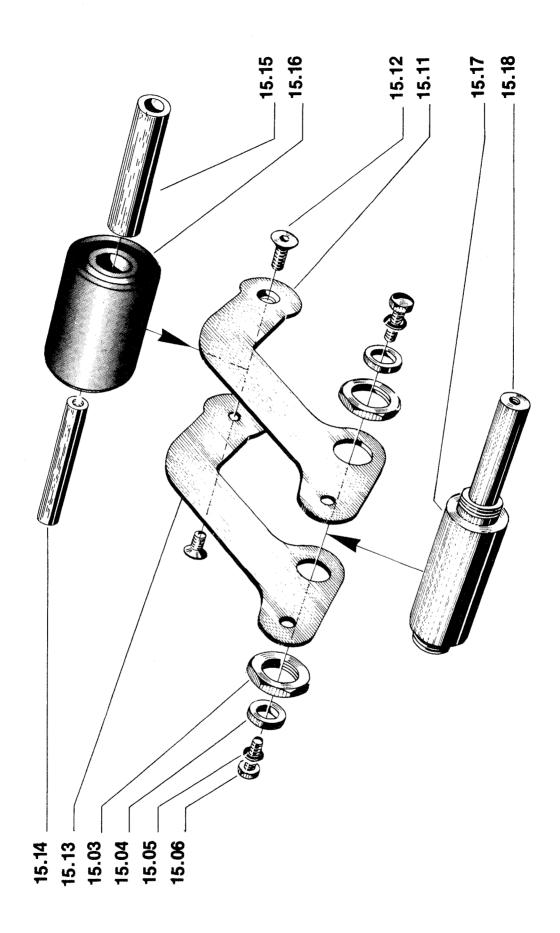


Figure 15

15-03	78-8017-9096-1	Nut - Special, M18 x 1
15-04	78-8017-9095-3	Spacer
15-05	78-8010-7435-8	Washer - Metric, Lock, Spr. Steel - M6
15-06	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8

15-11	78 <b>-</b> 8018 <b>-</b> 7608-3	Arm - Buffing Roller, Left.
15-12	78-8017-9162-1	Screw - Allen FH, M6 x 12.
15-13	78-8018-7609-1	Arm - Buffing Roller, Right.
15-14	78-8028-7886-4	Shaft - 10 x 96 mm
15-15	78-8028-7887-2	Bushing - Buffing Roller
15-16	78-8028-7882-3	Roller - Buffing
15-17	78-8028-7894-8	Spacer Assembly - Buffing Roller Arms
15-18	78-8028-7885-6	Shaft - 10 x 115 mm

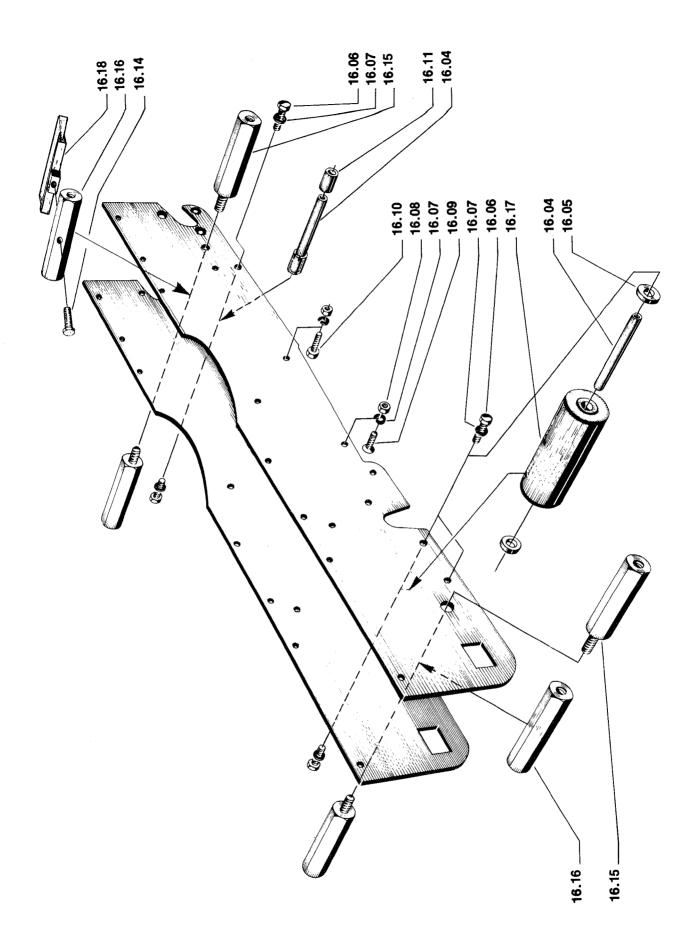


Figure 16

## DESCRIPTION

16-04	78-8017-9109-2	Pin - 10 x 90mm
16-05	78-8017-9095-3	Spacer
16-06	<b>78-</b> 8032-037 <b>5-</b> 7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8
16-07	78-8010-7435-8	Washer - Metric, Lock, Spr., Steel - M6
16-08	78-8010-7418-4	Nut - Metric, Hex Steel, M6
1 <b>6-</b> 09	78-8017-9334-6	Screw - Allen FH, M6 x 20
16-10	78-8010-7193-3	Screw - Metric, M6 x 20, Hex Hd. Cap, Steel, Black Zinc, DIN 933-8.8
16-11	78-8017-9148-0	Bumper - Buffing Arm
16-11	78-8017-9148-0 78-8018-7616-6	Bumper - Buffing Arm  Screw - Metric, M5 x 25, Hex Hd. Cap.
16-14	78-8018-7616-6	Screw - Metric, M5 x 25, Hex Hd. Cap.
16-14 16-15	<b>78-8018-7616-6</b> <b>78-8028-7900-3</b>	Screw - Metric, M5 x 25, Hex Hd. Cap.  Pin - Attachment

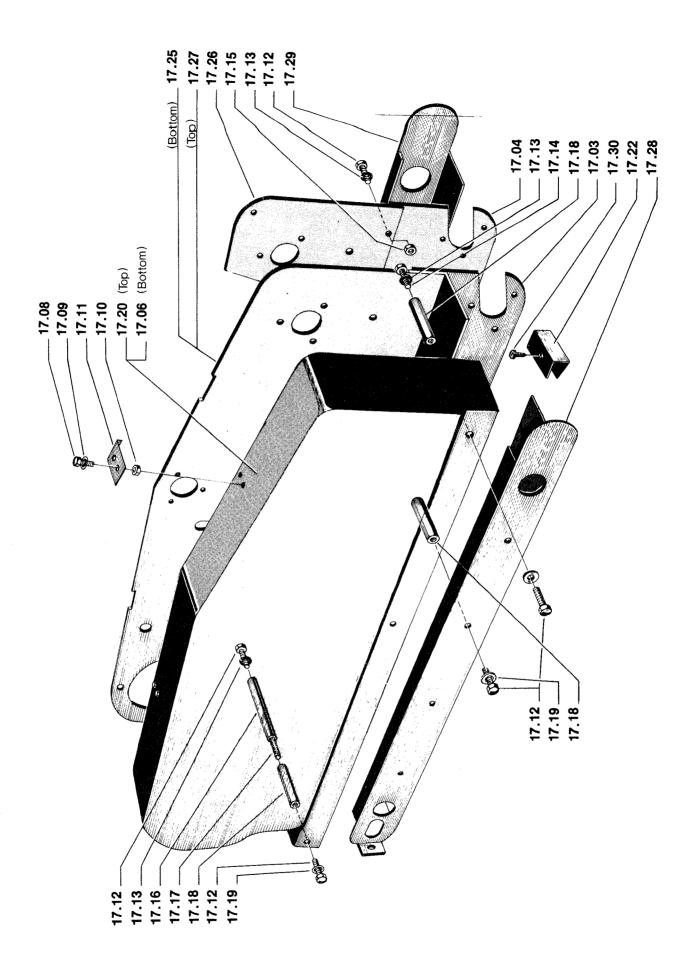


Figure 17

REF. No.	3M PART No.	DESCRIPTION
17-03	78-8017-9153-0	Sideplate - Right side
17-04	78-8017-9154-8	Sideplate - Left Side
17-06	78-8017-9176-1	Cover - Main Drive Belts, Bottom Head
17-08	78-8010-7157-8	Screw - Hex Head, M4 x 10
17-09	78-8005-5740-3	Washer - Metric Plain, Steel M4
17-10	78-8010-7416-8	Nut - Metric, Hex, Steel, M4
17-11	78-8017-9156-3	Retainer Clip - Main Belt Cover
17-12	78-8032-0375-7	Screw - Metric, M6 x 16, Hex Hd. Cap, Steel, Nick. Pl., DIN 933-8.8
17-13	78-8010-7435-8	Washer - Metric, Lock, Spr., Stl., M-6
17-14	78-8010-7193-3	Screw - Metric, M6 x 20, Hex Hd., Cap, Steel, Black Zinc, DIN 933-8.8
17-15	78-8010-7418-4	Nut - Metric, Hex, Steel, M6
17-16	78-8017-9109-2	Shaft - 10 x 90mm
17-17	78-8017-9174-6	Set Screw - Allen, M6 x 30
17-18	78-8017-9157-1	Pin - Hexagonal,55 mm lg.
17-19	78-8023-2478-6	Washer - Metric, 6,2 ID $\times$ 18 OD $\times$ 1,5 mm thk.
17-20	78-8017-9158-9	Cover - Main Drive Belt, Top Head
17-22	78-8018-7614-1	Guard - Belt.
17-25	78-8018-7715-6	Sideplate Assembly - Main Bottom Head.
17-26	78-8018-7716-4	Sideplate - Short.
17-27	78-8018-7717-2	Sideplate Assembly - Main Top Head.
17-28	78-8023-2546-0	Belt - Support Right.
17-29	78-8023-2547-8	Belt - Support Left.
17-30	78-8017-9425-2	Screw - Self-Tapping, 8x13mm.