customer manual

SAFETY PRECAUTIONS AVOID INJURY

Safeguards are designed into this application equipment to protect operators and maintenance personnel from most hazards during equipment operation. However, certain safety precautions must be taken by the operator and repair personnel to avoid personal injury, as well as damage to the equipment. For best results, application equipment must be operated in a dry, dust–free environment. Do not operate equipment in a gaseous or hazardous environment.

Carefully observe the following safety precautions before and during operation of the equipment:

- ALWAYS wear appropriate ear protection.
- ALWAYS wear approved eye protection when operating powered equipment.
- ALWAYS keep guard(s) in place during normal operation.
- ALWAYS insert power plug into a properly grounded receptacle to avoid electrical shock.
- ALWAYS turn off the main power switch and disconnect electrical cord from the power source when performing maintenance on the equipment.
- NEVER wear loose clothing or jewelry that may catch in moving parts of the application equipment.
- NEVER insert hands into installed application equipment.
- NEVER alter, modify, or misuse the application equipment.

TOOLING ASSISTANCE CENTER

CALL TOLL FREE 1–800–722–1111 (CONTINENTAL UNITED STATES AND PUERTO RICO ONLY)

The **Tooling Assistance Center** offers a means of providing technical assistance when required.

In addition, Field Service Specialists are available to provide assistance in the adjustment or repair of the application equipment when problems arise which your maintenance personnel are unable to correct.

INFORMATION REQUIRED WHEN CONTACTING THE TOOLING ASSISTANCE CENTER

When calling the Tooling Assistance Center regarding service to equipment, it is suggested that a person familiar with the device be present with a copy of the manual (and drawings) to receive instructions. Many difficulties can be avoided in this manner.

When calling the Tooling Assistance Center, be ready with the following information:

1. Customer name
2. Customer address
3. Person to contact (name, title, telephone number, and extension)
4. Person calling
5. Equipment number (and serial number if applicable)
6. Product part number (and serial number if applicable)
7. Urgency of request
8. Nature of problem
9. Description of inoperative component(s)
10. Additional information/comments that may be helpful

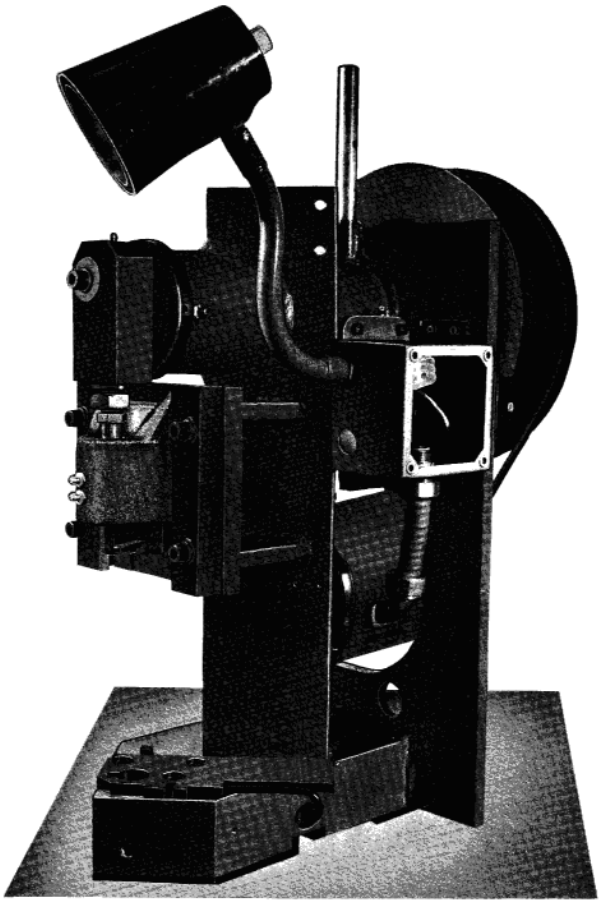

Figure 1

1. INTRODUCTION

This manual covers only the basic Model “T” Terminating Unit 458000–4 (see Figure NO TAG) and does not include the electrical controls, modifications, and additional components required to adapt the unit to the machine on which it is used, such as the AMPOMATOR machine or the AMP–O–MATIC machine. These adaptions are covered in the appropriate machine manuals. The various applicators that can be used in the unit are covered in applicator instruction sheets packaged with the applicator. This manual contains information on the care, adjustment, and parts replacement of the basic “T” unit.

This manual contains NOTE, CAUTION, and DANGER statements.

DANGER

Denotes an imminent hazard which may result in moderate or severe injury.

CAUTION

Denotes a condition which may result in product or equipment damage.

NOTE

2. DESCRIPTION

2.1. Mechanical

Designed for automatic and semi–automatic application equipment, the “T” unit accepts a wide variety of quick–change miniature applicators, thus providing for an almost limitless variety of styles and sizes of terminals. The unit will accept both mechanical–feed and air–feed applicators. The applicator is quick–change both in its easy installation and removal and in the simple adjustment of crimp heights for wire and insulation by merely turning dials.

The “T” unit provides the force to crimp the terminals in the applicator. It consists of five functional areas (see Figure 2.

A. The motor–flywheel group includes a 1/4 or 1/3–hp motor driving a flywheel by a ribbed V–belt. The motor and flywheel run continuously whenever electrical power is supplied from the machine to the unit.

B. The crankshaft–ram group converts the flywheel’s rotational force to the up–and–down action of the ram for driving the applicator during the crimping cycle.

C. The clutch, when actuated by the trip mechanism, connects the rotating flywheel to the crankshaft for one cycle of operation.

D. The clutch trip mechanism trips the clutch when the solenoid is energized by the control circuit of the machine.

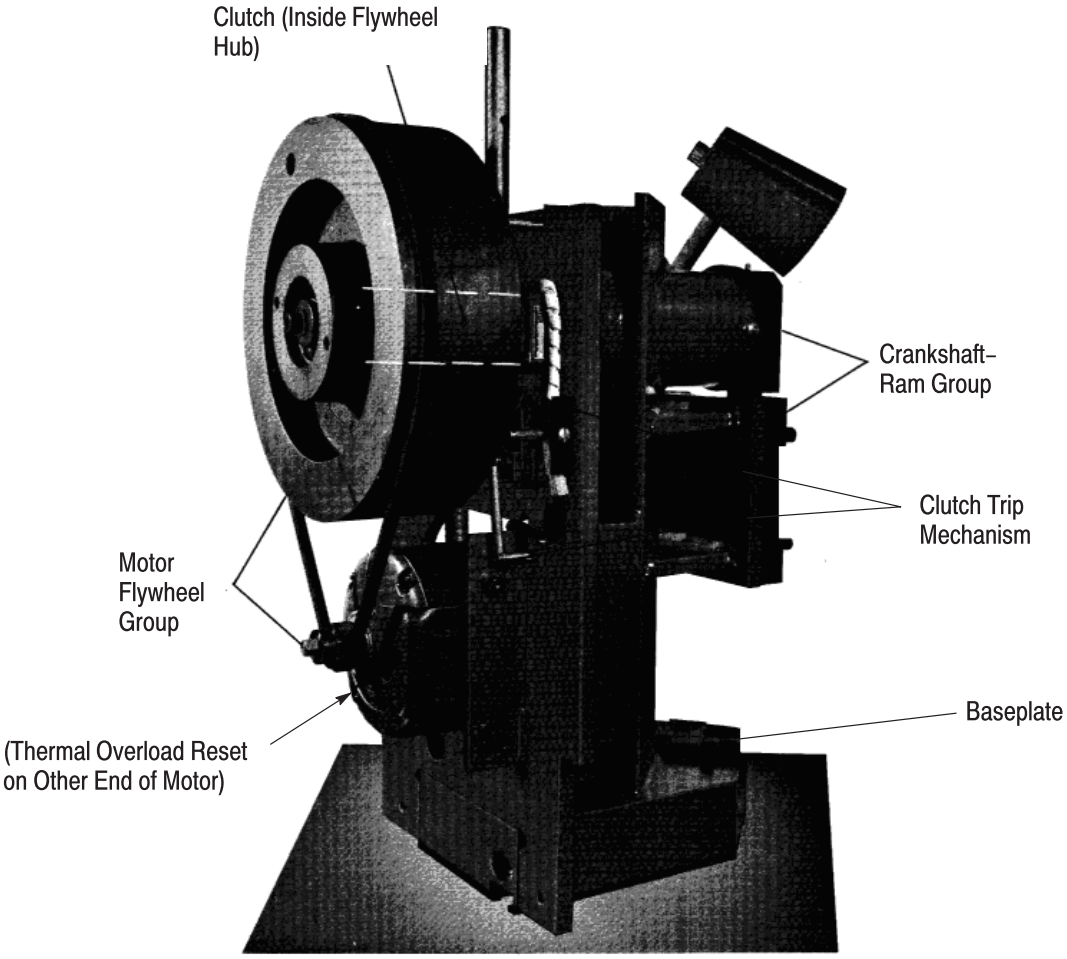

Figure 2

E. The baseplate provides the mounting surface on which the applicator is installed. The quick–release latching feature permits fast, easy installation and removal of the applicator.

Standard equipment within each unit includes a mechanical feature that prevents double–tripping of the unit to ensure against damage to the applicator.

2.2. Electrical

The motor, clutch solenoid, and work light will be specified on the wiring diagram for the machine. Refer to the machine manual for the electrical system description.

The motor is equipped with a manually reset thermal overload at the end opposite the shaft.

2.3. Operating Cycle

The operating cycle of the unit begins the moment the electrical circuit within the machine is closed. This energizes the clutch solenoid, which pulls upward on the solenoid lever, releasing the lever latch (Figure 3). The solenoid should be energized only momentarily; if, however, the solenoid remains energized after the unit has completed one cycle, the unit cannot cycle again until the solenoid is de–energized and re–energized. This is because the lever latch and trip pawl are spring–loaded, so that when the engager ratchet rotates approximately 45 degrees the trip pawl returns to the standby condition. This acts as a stop for the engager ratchet after the cycle is completed.

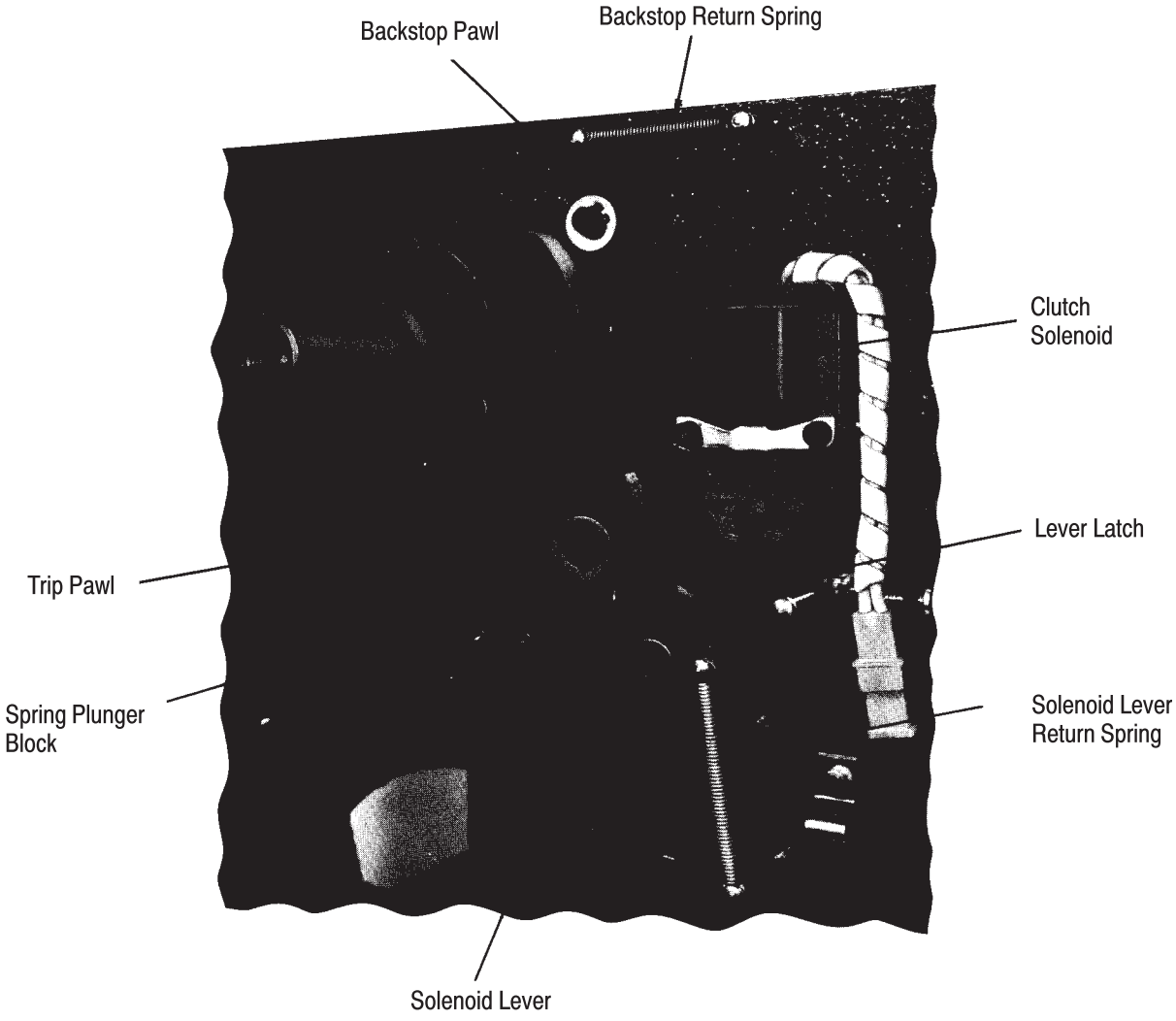

Figure 3

The release of the trip pawl unlocks the engager ratchet, and the engager is rotated slightly by three springs (Figure 4). This rotation locks the seven rollers between the seven–faced cam ring (which is keyed to the crankshaft) and the outer ring (race) that is pressed into the flywheel.

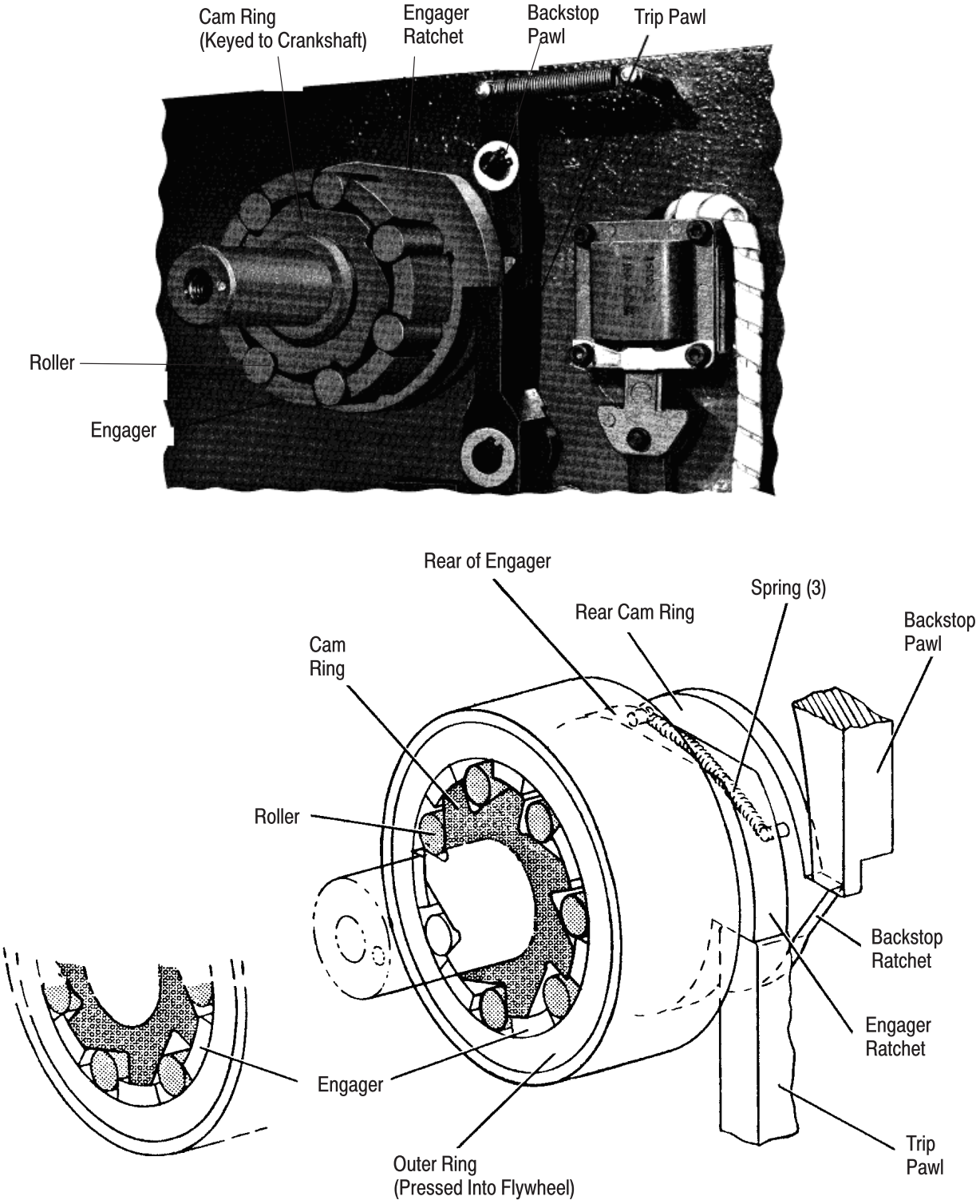

Figure 4

Since the flywheel runs continuously, this lockup rotates the crankshaft one revolution until the engager ratchet is again stopped by the trip pawl, which releases the rollers to stop the crankshaft. Backward rotation of the crankshaft is prevented by the the spring–loaded backstop pawl as it drops off the backstop ratchet on the rear cam ring.

With the “T” unit in standby condition, the crankblock, which drives the ram, is up. During the rotation of the crankshaft, the crankblock drives the ram downward to crimp the terminal in the applicator during the first half of the cycle. During the second half, the ram is raised for removal from the applicator.

2.4. Hand–Cycling

Do not attempt hand–cycling of the “T” unit at any time when the main power switch for the machine is “on.”

To hand–cycle the unit during setup, adjustment, or repairs, lift the retaining pin protruding through the frame in back of the clutch solenoid. This releases the trip pawl. With the trip pawl released, the unit may be hand–cycled in two ways: (1) remove the flywheel guard and manually turn the the flywheel clockwise (as viewed from the rear of the unit), or (2) install a spanner wrench (244908–1) on the ring behind the crankblock. The spanner wrench is included with the spare parts supplied with the unit.

MAKE CERTAIN that the crankblock is at TOP DEAD CENTER and the trip pawl is latched behind the engager ratchet BEFORE operating the machine under power. If the trip pawl is not latched when power is applied to the machine, the “T” unit will cycle and possibly damage the applicator.

3. PREVENTIVE MAINTENANCE

Preventive maintenance consists primarily of keeping the unit clean and in good working condition to ensure maximum reliability and service from its component parts. It includes regular inspection, cleaning of components, and lubrication.

3.1. Inspection

A. Hardware

Once each month, make sure all the screws and nuts are tight. Pay particular attention to the motor mounting screws, the ram retainer screws, and the retaining screws for the flywheel and crankshaft.

B. Clutch Trip Mechanism

Once each month, make sure the retaining rings in the mechanism are secure. Check the O–rings that hold the solenoid retaining pin in place. Also check that the extension springs are not stretched or bent out of place.

C. Drive Belt

Inspect the drive belt for proper tension. Check for particles of rubber below the unit. These indicate that the flywheel and motor are misaligned. Adjust according to Paragraph 4.2.

3.2. Cleaning

The parts of the clutch should be cleaned periodically. Usually this is only necessary when the clutch is disassembled for another reason. If, however, the unit is in a particularly dusty location, more frequent cleaning may be necessary. Simply wash the parts in a solvent and dry them thoroughly. Re–assemble and install the clutch, and then lubricate it according to Paragraph 3.3, B.

3.3. Lubrication

The moving parts of the unit require regular lubrication to achieve long life and reliable service. Use only the following lubricants:

- Grease: NLGI* No. 2 grease (for example, Texaco’s MARFAK Multi–Purpose No. 2 grease)
- Oil: SAE No. 10 nondetergent motor oil
- SANTO–TRAC 50 High–Traction Lubricant (available as part no. 26364–1)

A. Crankshaft–Ram Group (Figure 5)

The ram and crankshaft should be greased once each week at the following points:

- Fittings 1 and 2 for the ram
- Fitting 3 for the crank block
- Fittings 4 and 5 for the crankshaft (sparingly in Fitting 5)

NOTE

If too much grease is used in the rear crankshaft fitting, it may work its way into the clutch and cause the clutch to malfunction. The clutch must then be removed, cleaned, and lubricated with SANTO–TRAC lubricant.

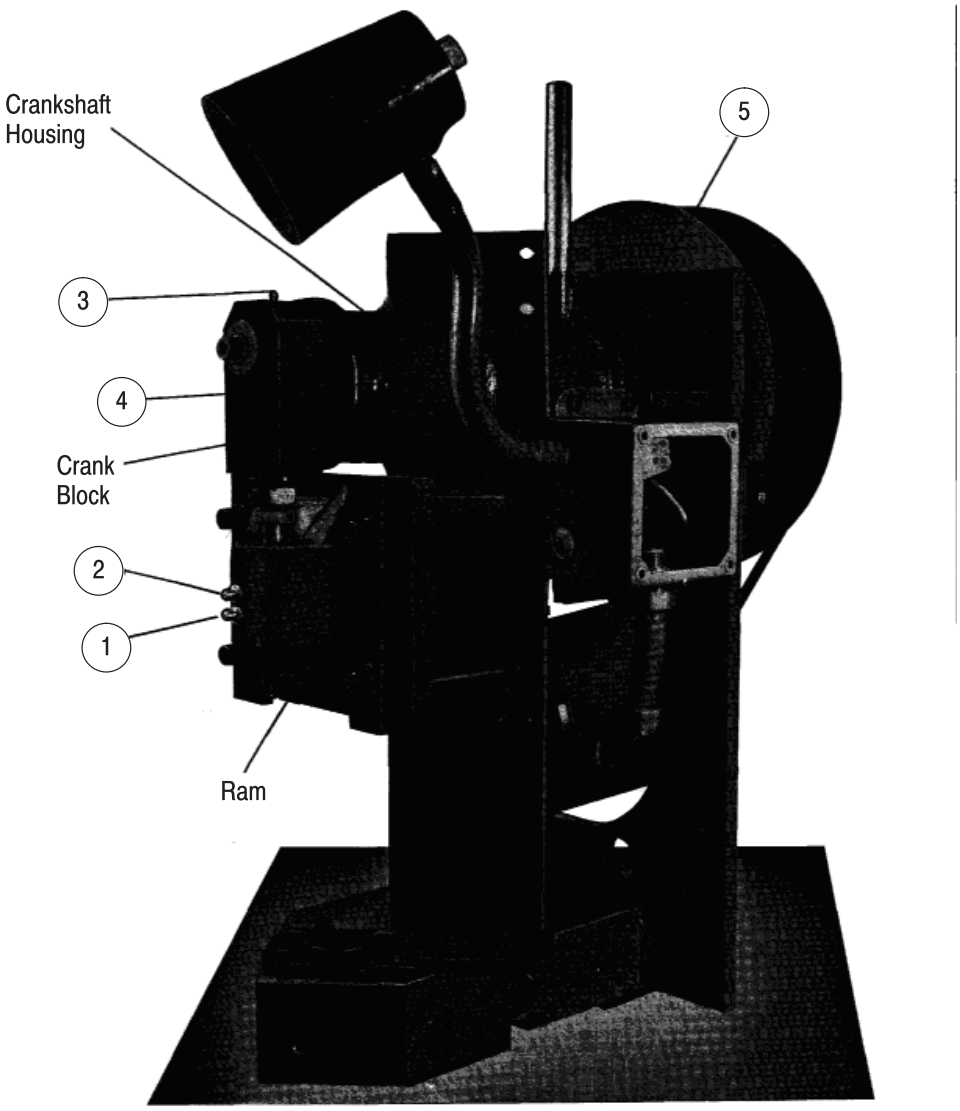

Figure 5

B. Clutch

Once each week, fill both oil cups on the back of the flywheel with SANTO–TRAC 50 lubricant for the clutch rollers. If the clutch seems to be slipping, loosen the flywheel retaining bolt and slip the flywheel toward the rear until the rollers are partially exposed. If the clutch appears gummy, disassemble and clean it as described in Paragraph 3.2. Before re–assembly, apply a few drops of SANTO–TRAC lubricant to the rollers.

C. Clutch Linkage

Once each week, apply a few drops of SAE No. 10 nondetergent motor oil to the following points:

1. Backstop pawl pivot stud
2. Top surface of pivot pawl
3. Trip pawl pivot stud
4. Mating surfaces of trip pawl and lever latch
5. Lever latch pivot pin
6. Solenoid lever pivot stud
7. Solenoid link retaining pin
8. Spring plunger

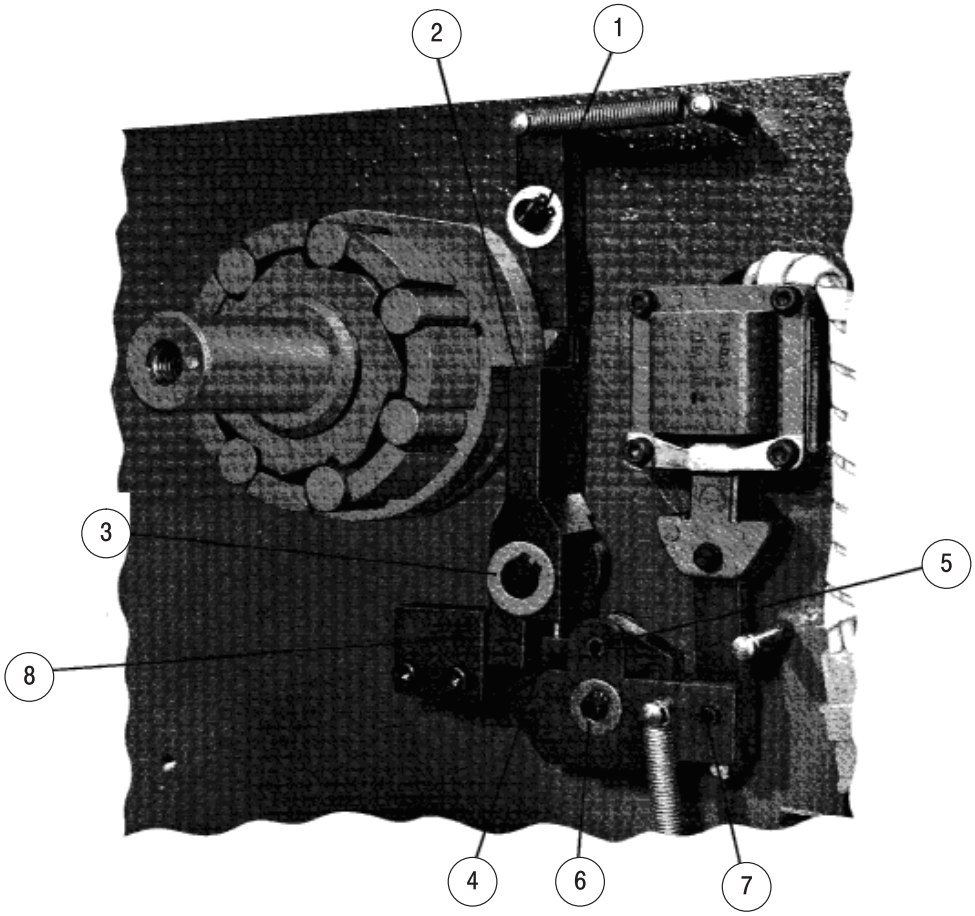

Figure 6

D. Motor

Once a year, lubricate the two oil cups with SAE No. 10 nondetergent motor oil.

4. ADJUSTMENTS

4.1. Shut Height

The shut height is determined by the position of the ram at the bottom of the crimping stroke. Factory–set under a 2,000–lb load to ensure that applicators can be changed from one unit to another, the shut height should not require adjustment. Before any adjustments are made to the shut height, contact your local field engineer. You should NOTattempt this procedure except in an emergency. If the adjustment must be made, use the procedure given here. Be sure to have the height checked by a Tyco Electronics Field Engineer at the earliest possible time.

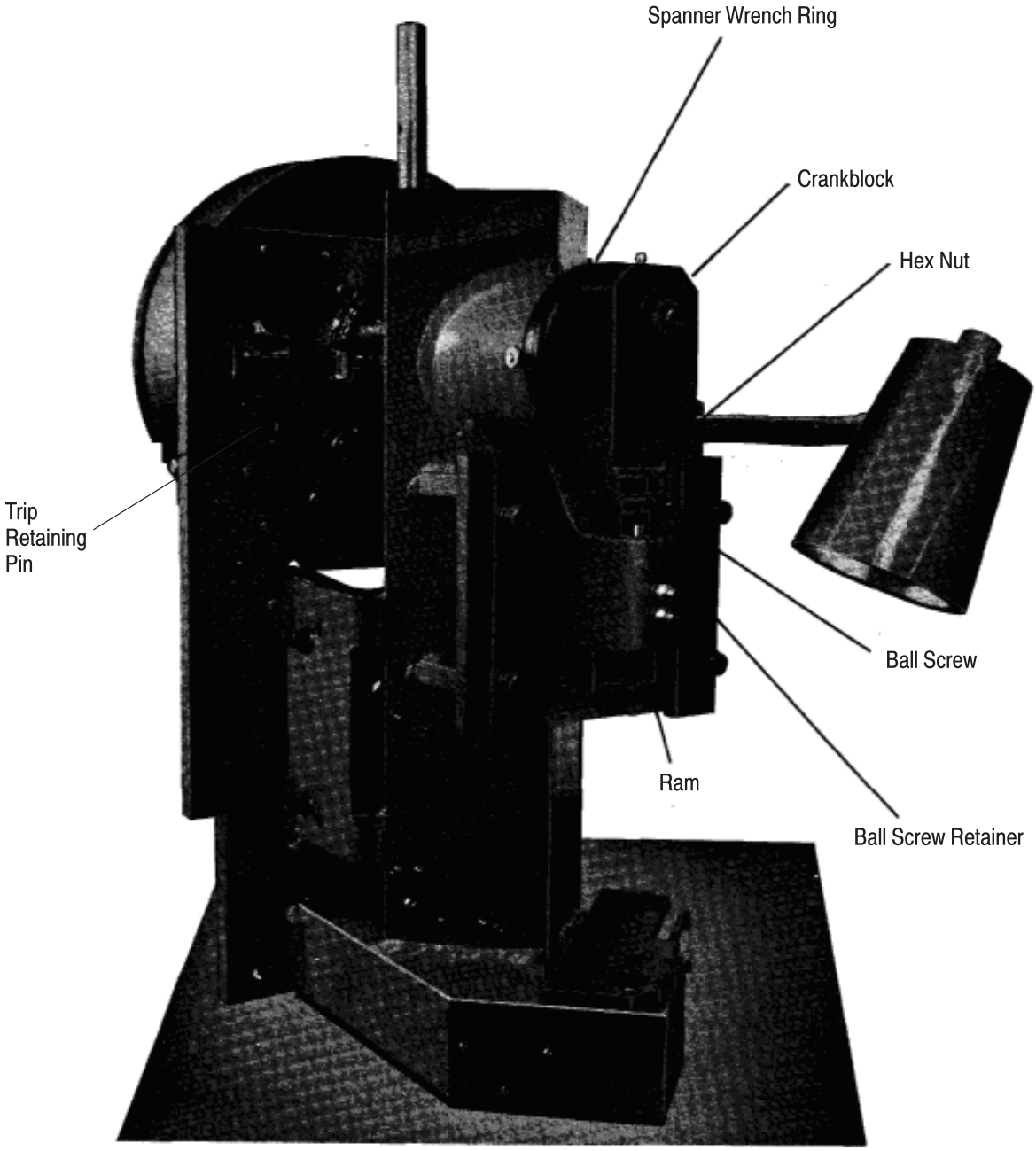

Figure 7

For personal safety, be sure power is turned off and disconnected.

1. Make sure power to the “T” unit is “off.”
2. Install a properly working applicator and load it with the correct terminals.
3. Set the crimp height adjustment disc at the correct position. (See the instructions for the applicator.)
4. Insert a wire of the proper size into the terminal in the applicator.
5. Hand–cycle the terminating unit using the spanner wrench. (See Paragraph 2.5.)
6. Check this crimp height.
7. Loosen the hex nut and adjust the ball screw as necessary to correct the crimp height. Tighten the hex nut.

Turn the ball screw in small increments. One quarter turn will change the shut height about .076 in. If the height is set TOO LOW, the tooling in the applicator may be damaged.

8. Repeat Steps 4 through 7 until the correct crimp height is reached.
9. Crimp one or two terminals under power. Check the crimp height. Slight re–adjustment may be necessary.

4.2. Drive Belt Tension and Alignment (Figure 8)

Turn the main power to the mach/ne “off” before making adjustments.

The drive belt tension is adjusted by positioning the motor closer to, or farther from the flywheel. Too little tension allows the belt to slip; too much tension strains the motor’s shaft bearings. The tension is correct when you can deflect the belt about 1/4 in. with moderate pressure. Make sure that the motor’s shaft and the crankshaft are parallel, and that the drive belt travels from the motor pulley to the flywheel in a straight line.

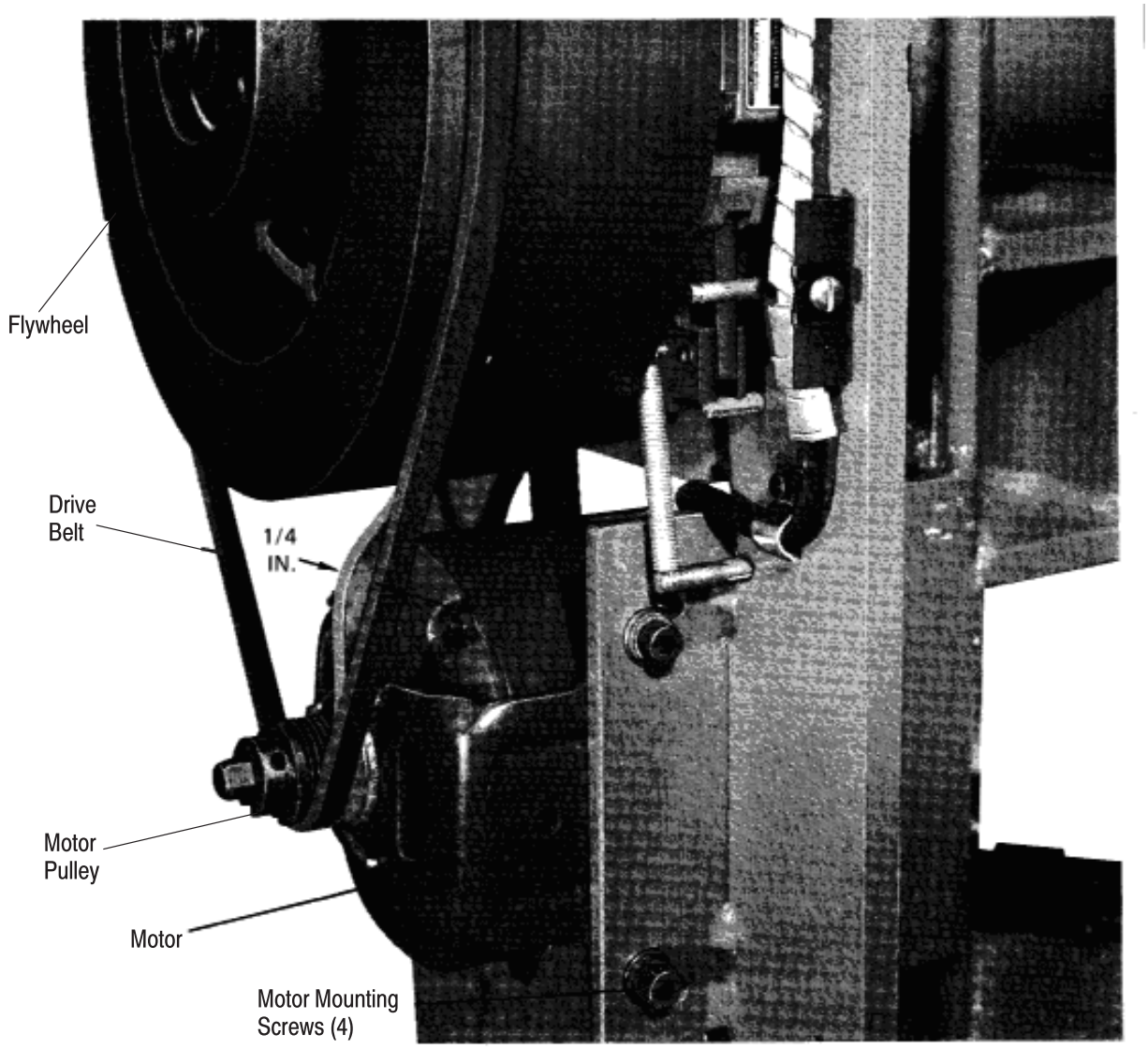

Figure 8

5. PARTS REPLACEMENT

This section covers the replacement of worn or damaged parts. Reference is made to the exploded views and parts lists in Section 6.

5.1. Drive Belt Replacement (Figure 9)

1. Remove the flywheel guard.
2. Loosen four screws (1) enough to slide the motor (5) upward and release the tension on the drive belt (8).
3. Remove the drive belt from the pulley (7) and flywheel (13).
4. Install the new drive belt using the reverse procedure. Before tightening the screws to secure the motor, adjust the tension of the belt as described in Paragraph 4.2.

5.2. Motor Replacement

1. Remove the drive belt as described in Paragraph 5.1.
2. Disconnect the electrical conduit at the motor (5).
3. Remove the cover from the junction box.
4. Remove the motor leads from the pin housing inside the junction box, and pull the leads through the conduit.
5. Remove the motor by removing four screws (1), lock washers (2), and flat washers (3). Also remove the tie bars (4).
6. Loosen the setscrew (6), and slide the pulley (7) from the motor shaft.
7. Install the new motor using the reversed procedure. Insert pins of motor leads 1, 2, and 3 in housing positions 1, 2, and 3.

NOTE

If the motor rotates in the wrong direction after completing the installation, switch any two motor leads in the pin housing to correct the direction of rotation. The correct direction is CL OCK WISE, as viewed from the pulley end of the motor.

8. Adjust the tension of the drive belt as described in Paragraph 4.2.

5.3. Flywheel Removal and Installation

Although the flywheel is not considered a replaceable part, it must be removed to maintain the clutch assembly or to replace bearings.

1. Remove the drive belt as described in Paragraph 5.1.
2. Remove the screw (9), lock washer (10), and retaining washer (11) securing the flywheel assembly (13) on the crankshaft.
3. Pull the flywheel toward the rear of the unit about 1/2 in., and then STOP.

NOTE

It may be necessary to use a puller to remove the flywheel from the crankshaft.

4. In back of the flywheel, tie a piece of string around the clutch rollers to hold them in the clutch engager, since the clutch outer ring will be removed with the flywheel.

DANGER

STOP

Be EXTREMELY CAREFUL when removing the flywheel because it weighs about 77 lb. ALWAYS lay it flat to prevent rolling and possible damage to the grooves for the drive belt.

5. Continue to pull the flywheel from the crankshaft.
6. To install the flywheel, reverse this procedure. Be sure to remove the string around the clutch rollers before pushing the flywheel all the way onto the crankshaft.

5.4. Clutch Assembly Replacement (See Figure 10)

To replace the clutch assembly, or any parts of it, proceed as follows:

NOTE

As noted in the parts list, a repair kit to extend the life of the clutch assembly is available.

1. Remove the flywheel as described in Paragraph 5.3. The flywheel contains the outer ring of the clutch.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	1- 21001-9	SCREW, Skt Hd Cap, 5/16-18 x .875'' L	4
2	21024-7	WASHER, Spring Lock, 5/16''	4
3	21899-4	WASHER, Flat, 5/16''	4
4	239036-1	BAR, Tie	2
5	— —	MOTOR	REF
6	21007-2	SETSCREW, Skt, 1/4-20 x .250'' L	1
7	239009-1	PULLEY, Motor	1
8	*22902-5	V-BELT, 4-Rib	1
9	3- 21001-6	SCREW, Skt Hd Cap, 3/8-16 x 1.250'' L	1
10	21024-8	WASHER, Spring Lock, 3/8''	1
11	239017-1	WASHER, Retaining	1
12	26791-1	COVER, Oil Hole	2
13	See Fig. 6-2	FLYWHEEL ASSY	1
14	239015-2	SPACER, Flywheel	1
15	239136-1	KEY, Clutch	1
16	239014-1	SPACER, Clutch	1

*CUSTOMER RESPONSIBLE PART. REPLACEMENT PART

Figure 9 (continued)

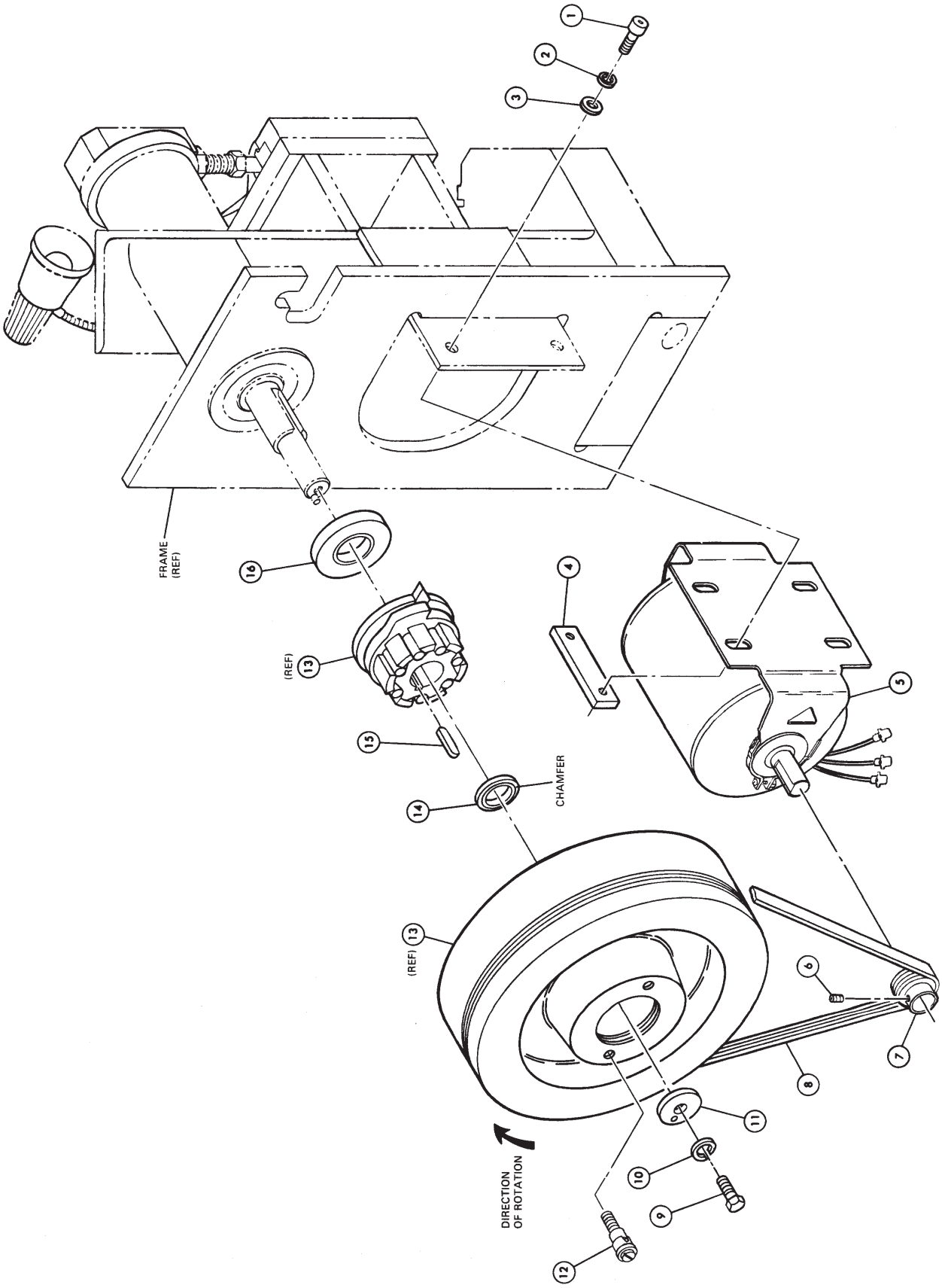
1
2
3
FRAME
(REF)
16
(REF)
13
15
14
CHAMFER
4
5
(REF)
13
6
7
8
11
10
9
12
DIRECTION
OF ROTATION

Figure 9 (end)

2. Remove the rollers (3), and disengage the three springs (7) from the pins on the rear ring (5) and clutch engager (8). Slide the engager off the rear ring and cam ring (4).

3. Slide the flywheel spacer and cam ring off the crankshaft. Penetrating oil may be used. Remove the key, and then slide the clutch spacer off the crankshaft.

4. If the outer ring (9) must be removed from the flywheel, use a drift punch through the two holes in the flywheel. The pin (10) will come out with the ring.

5. Inspect all parts, and remove burrs as necessary. Thoroughly clean all parts, including the ends of the rollers. If installing new parts, remove any rust preventive. Shiny spots on the rollers and cam faces may be roughened. Lubricate parts LIGHTLY with SANTO–TRAC lubricant before installing.

6. During re–assembly, refer to Figure 10. Make sure the outer ring is FULLY seated in the flywheel with the LARGE chamfer inserted first. Insert the pin to lock the ring in the flywheel.

7. Install the clutch spacer on the crankshaft, and then insert the key. Slide the assembled clutch assembly onto the crankshaft (with string around the engager to hold the rollers). Install the flywheel spacer with the OUTER chamfer toward the bearing in the flywheel.

8. Install the flywheel as described in Paragraph 5.3. Be sure to remove the string from around the engager.

5.5. Flywheel Bearings Replacement (Figure 10)

1. Remove the flywheel as described in Paragraph 5.3.

2. Remove the two internal retaining rings (11). Use TRUARC† Internal Pliers No. 2500, or an equivalent.

3. Use an arbor frame to press the two bearings (12) and spacer (13) from the flywheel.

NOTE

ALWAYS replace bearings in pairs. It is NOT necessary to remove the outer ring (9) to replace the bearings.

4. Install new bearings using the reverse procedure.

5.6. Clutch Trip Mechanism Replacement

1. Loosen screw (9, Figure 9), but do not completely remove it. Pull the flywheel back to gain access to the clutch trip mechanism.

2. To remove the solenoid (14, Figure 6–11), first remove the 0–ring (2), slide the retaining pin (4), and then remove the four screws (12) and lock washers (13). Disconnect the wire leads at the connector.

3. If any of the springs (1, 15, 26) need replaced, it is recommended that all three be replaced at the same time.

4. Removing the remaining parts does not require detailed instructions. Use Figure 13 to determine the order of disassembly. Retaining rings may be removed with TRUARC Pliers No. 2209 (right angle), or an equivalent, without removing the flywheel.

5. Closely inspect all parts for excessive wear or damage that may cause a malfunction. Replace them as necessary.

6. Re–install parts in the reverse order of disassembly.

NOTE

When installing the trip pawl (21) and backstop pawl (18), be sure they correctly engage with the clutch engager and rear ring. If the trip pawl does not engage, hand–cycle the unit one revolution.

† TRADEMARK OF WALDES KOHINOOR, INC

PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	See Note 1	FLYWHEEL	1
2	*686468-1	CLUTCH ASSY (See Note 2)	1
3	238604-1	. ROLLER, Clutch (See Note 3)	7
4	694463-2	. RING, Cam (See Note 3)	1
5	See Note 4	. RING, Rear	1
6	453588-1	. . PLATE, Backstop	1
7	22286-9	. SPRING, Extension (See Note 3)	3
8	See Note 4	. ENGAGER, Clutch	1
9	See Note 4	. RING, Outer (Race)	1
10	1- 21921-4	PIN, Sltd Spr, .438" Dia x 1.000" L	1
11	4- 21983-5	RING, Internal Retaining, 2.438" OD x .078" Thk	2
12	23524-1	BEARING, Ball	2
13	239016-1	SPACER, Bearing	1

*CUSTOMER RESPONSIBLE PART. REPLACEMENT PART MUST BE PURCHASED FROM AMP INCORPORATED.

NOTE 1: PART FOR REFERENCE ONLY. NOT AVAILABLE FOR FIELD REPLACEMENT.

NOTE 2: COMPLETE ASSEMBLY NOT NORMALLY REQUIRED; ORDER REPAIR KIT, PART NO. 686468-3, CONSISTING OF PARTS AS INDICATED BY NOTE 3.

NOTE 3: PART(S) INCLUDED IN REPAIR KIT, PART NO. 686468-3. IT IS RECOMMENDED THAT THE KIT BE INSTALLED RATHER THAN INDIVIDUAL PARTS. KIT INCLUDES A NEW KEY, PART NO. 239136-1, FOR CAM RING.

NOTE 4: PART FOR REFERENCE ONLY. NOT AVAILABLE SEPARATELY FOR FIELD REPLACEMENT. ORDER NEXT HIGHER ASSEMBLY.

Figure 10 (continued)

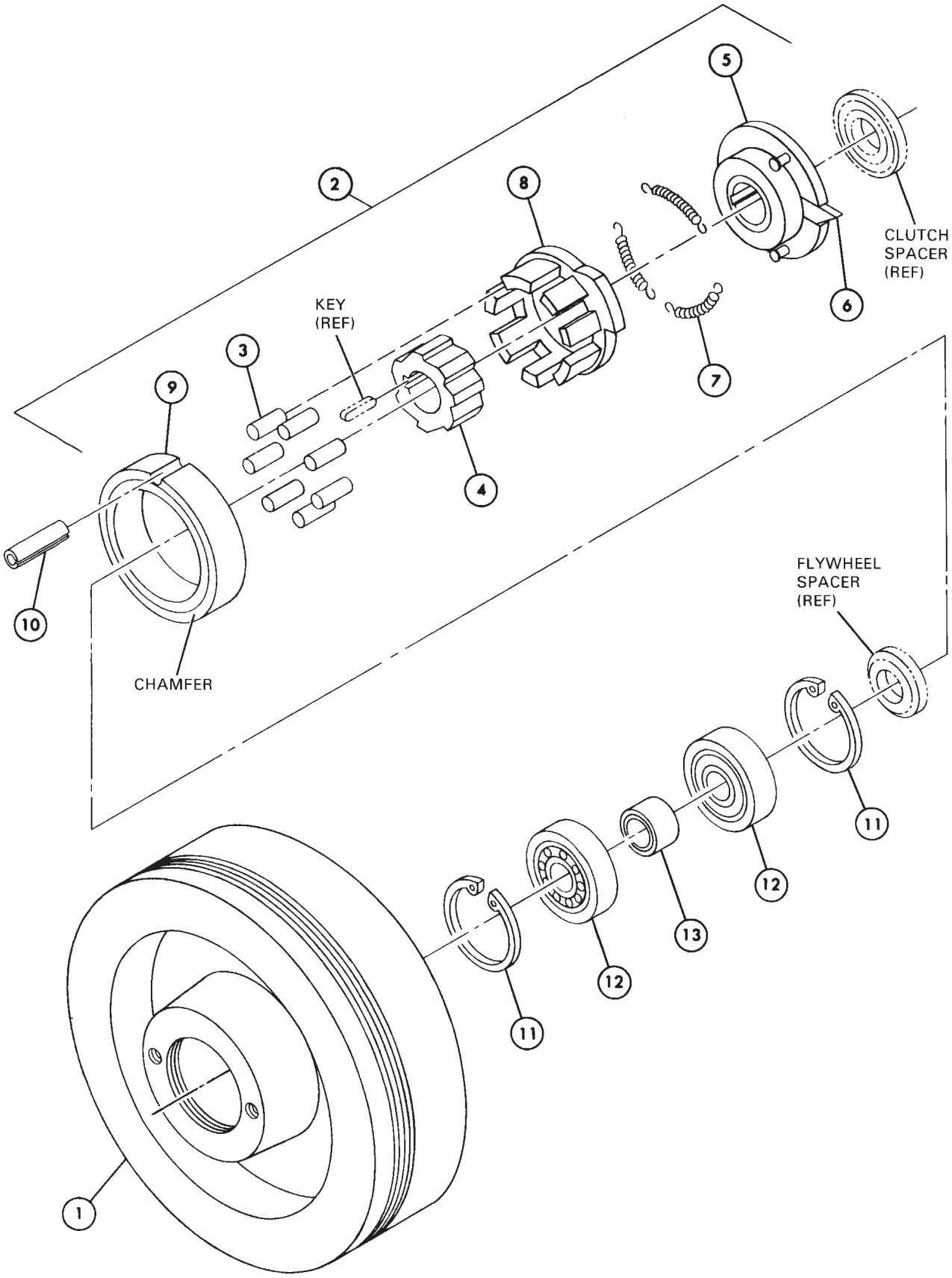

Figure 10 (end)

PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	23438-9	SPRING, Extension, 2.500" L	1
2	4- 21086-0	O-RING	3
3	456910-1	PIN, Lever	1
4	454667-1	PIN, Retaining (Used for manual trip)	1
5	239024-1	LINK, Solenoid	1
6	4- 21029-1	PIN, Sltd Spr, 1/4" Dia x .625" L	1
7	245558-1	LATCH, Solenoid Lever	1
8	686546-1	SPRING, Compression	1
9	21048-7	RING, Retaining, External	1
10	21099-3	WASHER, Thin Flat, 1/4"	1
11	245553-1	LEVER, Solenoid	1
12	3- 21000-2	SCREW, Skt Hd Cap, No. 8-32 x 1.250" L	4
13	21024-4	WASHER, Spring Lock, No. 8	4
14	— —	SOLENOID, Terminated, 60 Hz	REF
15	23438-7	SPRING, Extension, 2.000" L	1
16	1- 21048-0	RING, Retaining, External	1
17	21099-4	WASHER, Thin Flat, 5/16"	1
18	686403-1	PAWL, Backstop	1
19	1- 21048-3	RING, Retaining, External (Used with Trip Pawl Pivot Stud, No. 245395-1, through 1974)	1
	1- 21048-6	RING, Retaining, External (Used with Trip Pawl Pivot Stud, No. 245395-2)	1
20	21899-5	WASHER, Flat, 3/8" (Used with Trip Pawl Pivot Stud, No. 245395-1, through 1974)	1
	21899-6	WASHER, Flat, 7/16" (Used with Trip Pawl Pivot Stud, No. 245395-2)	1
21	245394-2	PAWL, Trip	1
22	686512-1	BUSHING, Trip Pawl (Used with Trip Pawl Pivot Stud, No. 245395-1, through 1974)	1
	686512-2	BUSHING, Trip Pawl (Used with Trip Pawl Pivot Stud, No. 245395-2)	1
23	4- 21000-1	SCREW, Skt Hd Cap, No. 10-32 x 1.500" L	2
24	21024-5	WASHER, Spring Lock, No. 10	2
25	3- 21028-6	PIN, Sltd Spr, .094" Dia x .500" L	1
26	1- 22280-8	SPRING, Compression	1
27	457991-1	PLUNGER	1
28	457990-1	BLOCK	1
29	21019-2	NUT, Hex, 5/16-18	1
30	21024-7	WASHER, Spring Lock, 5/16"	1
31	686401-1	STUD, Backstop Pivot	1
32	1- 21019-0	NUT, Hex, 1/2-20	1
33	21024-9	WASHER, Spring Lock, 1/2"	1
34	245395-1	STUD, Trip Pawl Pivot*	1
	245395-2	STUD, Trip Pawl Pivot*	1
35	21019-1	NUT, Hex, 1/4-20	1
36	21024-6	WASHER, Spring Lock, 1/4"	1
37	686402-1	STUD, Solenoid Lever Pivot	1
38	22184-8	PIN, Grooved, 1/4" Dia x 1.75" L	3
39	26978-6	PIN, Grooved, Type A, .25" Dia x 1.25" L	3

*TRIP PAWL PIVOT STUD 245395-1 IS NO LONGER USED. IT IS SUPERSEDED BY 245395-2 AND ASSOCIATED PARTS 1-21048-6, 21899-6, AND 686512-2, ALL OF WHICH WILL BE SENT IF A -1 IS ORDERED. WHEN ORDERING A -2 STUD, BE SURE TO USE THE PROPER RETAINING RING (Item 19), WASHER (Item 20), AND BUSHING (Item 22).

Figure 11 (continued)

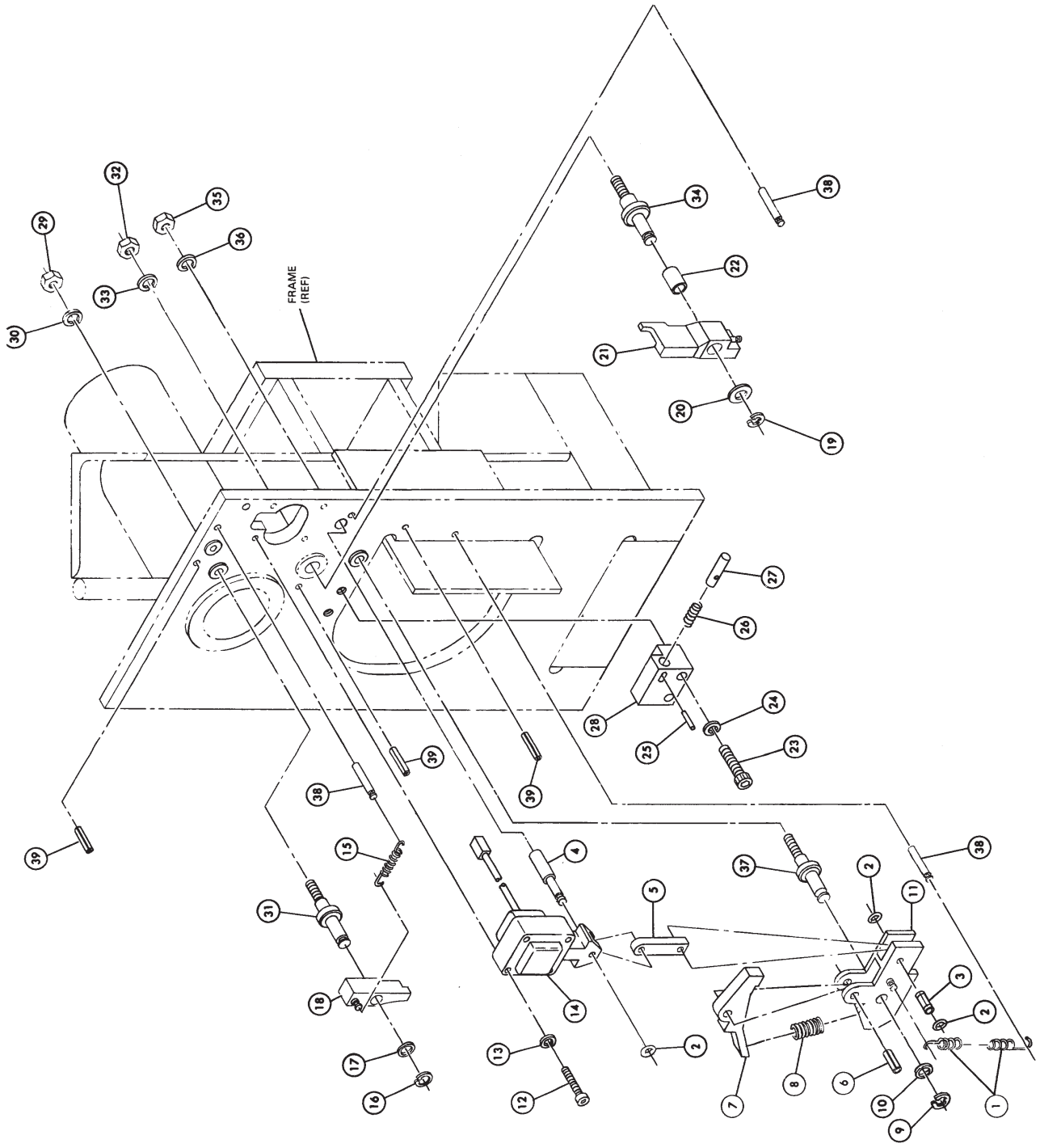

Figure 11 (end)

5.7. Crankshaft and Ram Group Replacement (Figure 12)

BEFORE attempting to disassemble or remove the crankshaft (23) or ram (14), FIRST measure the shut height so that the ball screw (11) can be properly adjusted at re–assembly.

To replace parts related to the crankshaft and ram, disassemble them in the sequence of item numbers in Figure 12. Re–assembly is in the reverse order. After re–assembly, adjust the shut height to the EXACT dimension measured before disassembly by turning the ball screw (11). After the correct height is reached, secure the ball screw by tightening the jam nut (9).

5.8. Baseplate Assembly Replacement (Figure 13)

To remove and replace parts in the baseplate assembly (2), first remove three screws (1) and then disassemble in the sequence of the item numbers (3 through 11). Re–assemble in the reverse order. Replace any defective or excessively worn parts. When re–assembling, install an applicator and check the alignment to be sure that the ram adapter does not bind the ram post of the applicator.

5.9. Electrical Components Replacement

See the machine manual for the electrical parts. When replacing the bulb in the work light, use a 40–watt appliance type ONLY.

6. PARTS LIST

his section contains a complete breakdown of Model “T” Terminating Unit Assembly No. 458000–4. When ordering parts, be sure to specify the correct part number, description, and quantity. The item numbers are for reference only and should NOT be used when ordering parts.

Portions of the parts list indented one or more spaces are detail parts of the next higher assembly or subassembly. Pay special attention to ALL notes on the parts lists.

Parts marked with an asterisk (*) are the customer’s responsibility to stock and replace.

7. REVISION SUMMARY

Since the previous release, the logo was changed.

PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	3- 21001-7	SCREW, Skt Hd Cap, 3/8-16 x 1.750" L	4
2	21024-8	WASHER, Spring Lock, 3/8"	4
3	21899-5	WASHER, Flat, 3/8"	4
4	238290-2	GIB, Left Hand	1
5	238290-1	GIB, Right Hand	1
6	2- 23531-5	SETSCREW, Skt, Knrl Cup Pt, No. 10-32 x .250" L	1
7	690191-2	PAD, Setscrew	1
8	1- 21024-1	WASHER, Spring Lock, 3/4"	1
9	1- 21020-3	NUT, Hex Jam, 3/4-16	1
10	388384	RETAINER, Ball Screw	1
11	388383-1	SCREW, Ball	1
12	23657-4	SCREW, Skt Hd Cap, Slflkg, 1/4-20 x .750" L	2
13	685855-1	ADAPTER, Post	1
14	238289-2	RAM, "T" Unit	1
15	3- 21001-5	SCREW, Skt Hd Cap, 3/8-16 x 1.000" L	1
16	21024-8	WASHER, Spring Lock, 3/8"	1
17	239017-1	WASHER, Retaining	1
18	22792-1	FITTING, Grease, 1/8" NPT	3
19	238853-1	BLOCK, Crank	1
20	2- 25596-0	SCREW, Flat Hd Skt Cap, Slflkg, No. 8-32 x .500" L	5
21	239012-1	ENDPLATE, Shaft	1
22	5- 21028-1	PIN, Sltd Spr, 1/8" Dia x .500" L	2
23	239007-1	CRANKSHAFT	1

Figure 12 (continued)

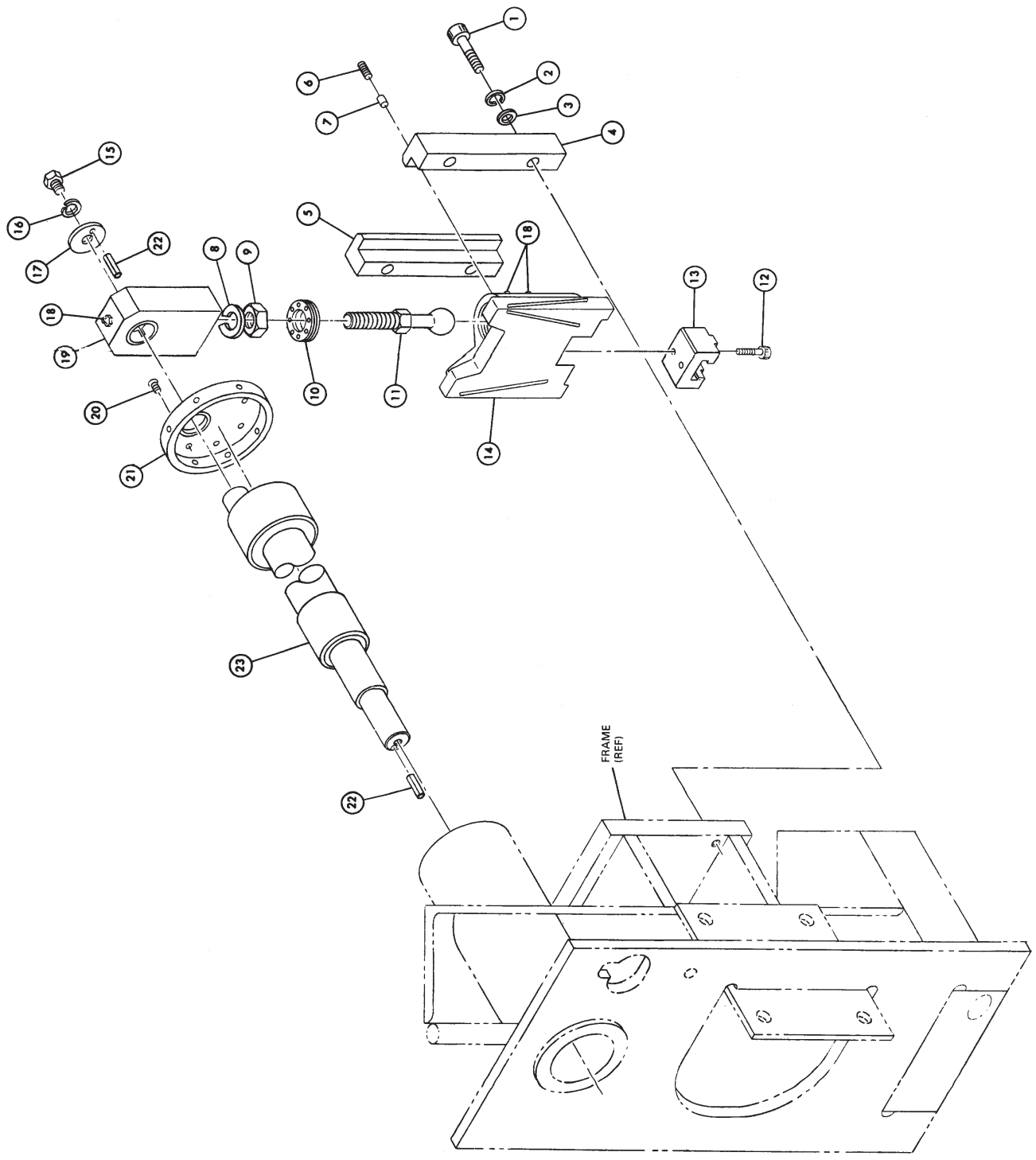

Figure 12 (end)

PARTS LIST

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	4- 21002-4	SCREW, Btn Hd Cap 3/8-16 x .500" L	3
2	238970-1	BASEPLATE ASSY	1
3	24073-9	. SCREW, Btn Hd Cap, No. 10-32 x .500" L	2
4	690317-2	. STOP, Applicator	2
5	1- 21003-8	. SCREW, Flat Hd Skt Cap, No. 6-32 x .250" L	1
6	690320-1	. WEDGE, Latch	1
7	5- 21028-5	. PIN, Sltd Spr, .125" Dia x .750" L	1
8	690319-2	. LATCH, Applicator	1
9	3- 22280-4	. SPRING, Compression	1
10	690680-2	. PIN, Latch	1
11	690679-2	. BASEPLATE (See Note 1)	1
12	3- 21000-4	SCREW, Skt Hd Cap, No. 10-32 x .375" L	1
13	23545-1	CLAMP, Cable	1
14	21001-1	SCREW, Skt Hd Cap, 1/4-20 x .375" L	4
15	— —	BOX, Junction	REF
16	3- 21000-5	SCREW, Skt Hd Cap, No. 10-32 x .500" L	4
17	457985-1	BRACKET, Box	2
18	24577-1	SCREW, Pan Hd Mach, No. 10-24 x .500" L	2
19	1- 25633-0	SPEEDNUT, Type "U", No. 10-32	2
20	3- 21000-4	SCREW, Skt Hd Cap, No. 10-32 x .375" L	4
21	457786-1	BRACKET, Cover	2
22	22792-1	FITTING, Grease, 1/8" NPT	1
23	22904-1	FITTING, Grease, 1/8" NPT x 45 degrees	1
24	22306-3	ELBOW, Street, 1/8" NPT	1
25	23753-1	FITTING, Relief Lube	1
26	453592-6	SIGN, Caution	1
27	See Note 2	FRAME, Press	— —

NOTE 1: IF PLATE IS DEFECTIVE, NORMALLY REPLACE COMPLETE ASSEMBLY.

NOTE 2: NOT FIELD REPLACEABLE; IF DEFECTIVE, RETURN ENTIRE PRESS.

Figure 13 (continued)

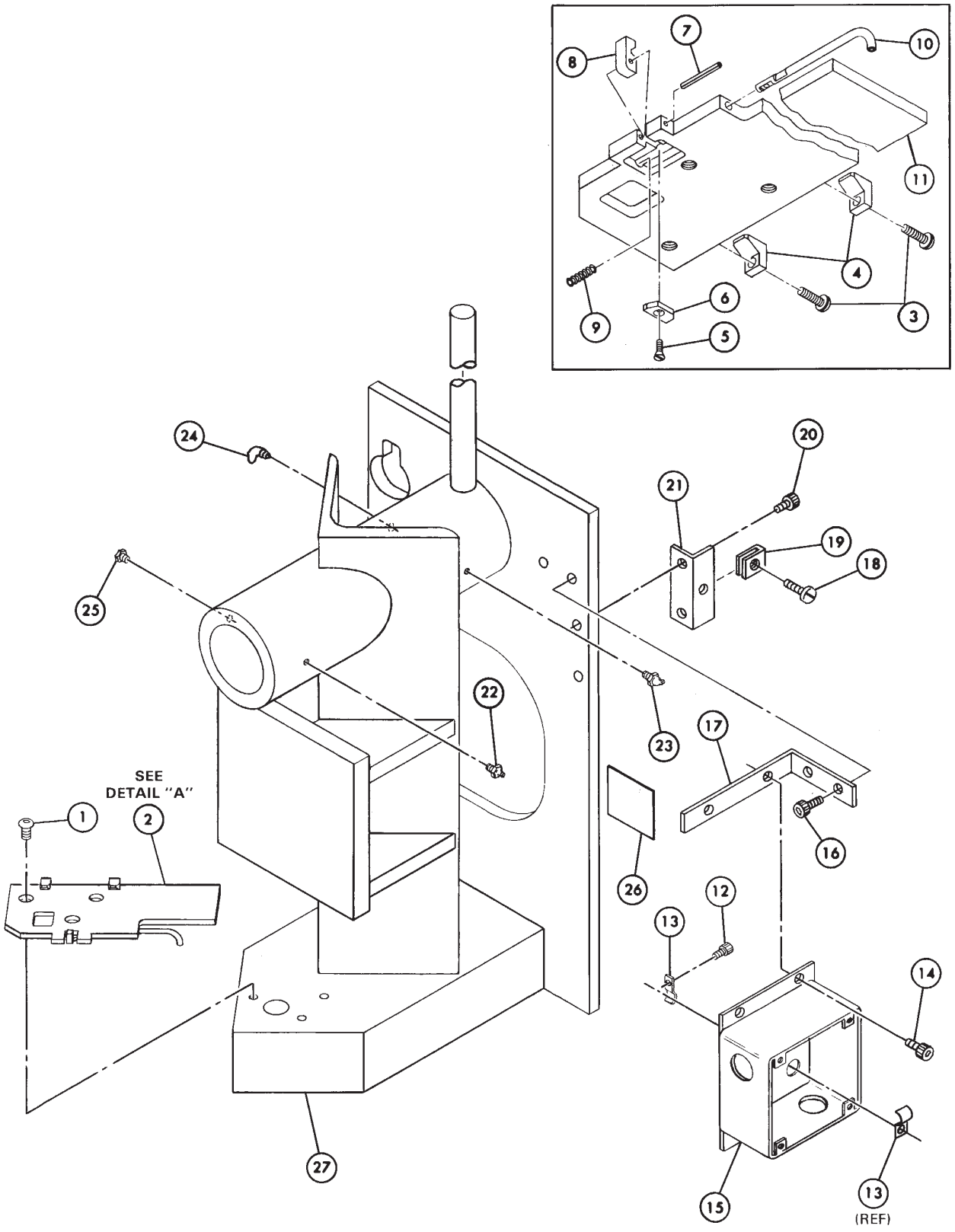

Figure 13 (end)