ACROMARK INDUSTRIES, INC.

INSTRUCTION MANUAL

PARTS LIST

MODEL NUMBER : 830SP

60 Locust Ave., Berkeley Heights, NJ 07922
Tel: (908)46476474 Fax: (908)464-0673

SAFETY
(THIS SECTION IS EXTREMELY IMPORTANT)
SAFE USE AND OPERATION OF THE EQUIPMENT
IS THE RESPONSIBILITY OF THE USER

It is the responsibility of the user to establish safe operating conditions for each and every piece of equipment. A regular schedule of safety maintenance should be established at the time each piece of equipment is placed in operation. Each operator should be instructed in the proper and safe operation of the equipment. **Single station machines are designed for operation by a single (one) operator and at no time should an operator attempt to run the press with a set up requiring the assistance of a second person to hold or locate the part being decorated.** All plant personnel in any way connected with the set-up, use, or maintenance of the equipment should be familiar with the controls and operating conditions of the equipment. Maintenance should be performed only by authorized personnel thoroughly familiar with the function of all controls and safety interlocks.

Under no circumstances should safety guarding, electrical or mechanical safety interlocks be removed or so modified as to make them inoperative. Removal of any guards or electrical or mechanical safety interlocks or the overriding of any of these items will automatically make null and void any product warranty on any ACROMARK machinery.

This ACROMARK press is equipped with safety features to cover all normal operations for which the press is intended. Addition of special tooling, feeders, ejectors, etc. may require the installation of additional electrical systems or devices. Instructions with respect to the use, setting, and adjustments of safety features are detailed in the following pages. The should be carefully and thoroughly reviewed before placing the equipment in operation. These sections include, but are not restricted to the following:

Mounting the press
Electrical installation
Air connection
Safety shutoff valve
Ram speed control
Timer - Dwell
Temperature Control
Safety hand switches
Pinch point control
Set-up procedures
Adjustable depth stop
Tape guides
Single or double acting cylinders

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1313 E. Borchard Ave.
Santa Ana, CA 92705

Phone: 714.547.0194
Fax: 714.542.2728
Email info@afmeng.com
Web Site afmeng.com

ACROMARK

60 LOCUST AVENUE • P.O. BOX 236 BERKELEY HEIGHTS, N.J. 07922
(908) 464-6474 FAX (908) 464-0673

****ACROMARK LIMITED WARRANTEE****

ACROMARK Industries warrants all parts, either purchased or manufactured, for a period of 90 days following date of shipment from the ACROMARK plant. This warranty is limited to replacement or repair of any defective part, at the sole discretion of ACROMARK Industries, Inc.
Any defective part must be returned to the plant, freight prepaid. The repairs and /or replacement will be completed and the part returned freight prepaid via the least expensive method of transportation best suited for the part. Any express transportation, over and above the most economical method; will be the sole responsibility of the customer. These latter types of shipments will be made on a freight collect basis.

Replacement parts that are supplied prior to the receipt of defective parts will be invoiced to the customer, including freight and handling. Upon receipt and inspection of the defective part, the applicable credit will be issued.

Under no circumstances does this warranty imply that ACROMARK Industries is obligated to make on-site part replacements or repairs of defective materials or parts. Labor, travel, and other costs for such on-site repairs will be at the expense of the customer, less applicable credit for replacement parts. Any machine components which wear or are damaged by misuse are not covered by any warranty.

This warranty will become null and void if any guard or electrical or mechanical safety interlocks are removed or altered by the customer, regardless of the date of machine manufacture or shipment.

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1313 E. Borchard Ave.
Santa Ana, CA 92705

Phone: 714.547.0194
Fax: 714.542.2728
Email info@afmeng.com
Web Site afmeng.com

ACROMARK MODEL 800 SERIES PRESSES

INTRODUCTION

Your ACROMARK Hot Stamping Machine is a rugged unit requiring minimum maintenance. It is designed to give long trouble-free service with reasonable care. Operating Instructions should be followed carefully and personnel should •be fully trained in the operation of the machine per these instructions. The press is equipped with controls to provide the necessary flexibility to insure optimum marking results on the substrates of your choosing. These controls and their adjustments are described in detail in the following sections of this bulletin.

INSTALLATION OF THE PRESS

Location of the machine: The equipment should be set up and arranged so that an easy, straight forward flow of parts maybe maintained from the feed side of the press. Try to avoid placing the press where irregular drafts-of air might effect the constancy of the temperature on your dies, negatively effecting the quality of your marking. Guarding for you machine should be considered so as to prevent workers other than the machine operator from having access to the stamping area of the press.

Electrical Installation: Refer to the cover section of this manual for electrical service requirements. A three wire input lead with U ground plug is supplied for models requiring 110 or 220 Volt service.

Air Connection: All models have a Maximum air input capacity (dictated by cylinder design and safety considerations) of 72 pounds per square inch (psi) as read on the two air regulators on the control panel. incoming line pressure of up to 150 psi c.an be acCepted. (As noted,in the Set-Up Section of this instruction book, there are two pressure systems with separate regulators, each with a different function to be explained in that section.) The air connection for the press, is made at the inlet of the air filter. It i5 recommended that you use a flexible hose of a minimum I.D. size of 1/2" to allow sufficient airflow and prevent starving of the press during peak demand periods.

Air Filters: An air filter has been provided with the press to reduce the possibility of impurities entering the air/oil power system.. **IT IS CRITICAL THAT PARTICULATE CONTAMINANTS, EMULSIONS, OR OTHER FOREIGN MATTER BE PREVENTED FROM ENTERING THE AIR CONTROL SYSTEM OF THE PRESS.** If there is evidence of contamination being present in the plant compressed air source, the addition of a coalescing filter is highly recommended. This filter should be placed in line after the filter provided by Acromark. In order to maintain maximum filtering efficiency, all filter bowls and filter elements must be kept clean. (Please refer to the filter manufacturer's maintenance instructions included in this manual.)

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Santa Ana, CA 92705

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MODEL 800 SERIES, CONTROLS AND THEIR FUNCTION

Safety Shut-off Valve:

An air shut-off safety valve is located in the air supply line above the solenoid valve on the "Low Pressure" regulator system. In the open position, the handle points in the direction of the orifice opening. NOTE: This valve should be used to shut off the air whenever any work is being done under the marking head. It is also a good practice to shut the valve whenever the press is not in operation.

Pressure Regulators:

The inflowing air line pressure to the Cylinders is controlled by the pressure regulating valves. The gauge indicates the pressure admitted-to the cylinders. Clockwise rotation of the handle will increase pressure and counter-clockwise rotation will lower rt. NOTE: To change to a lower pressure setting, allow the indicator to fall below the desired new setting and increase to the desired pressure. - The functionality of the two pressure systems is discussed in the Set-Up section which follows. .

Ram Speed Control:

These presses are equipped with a needle valve which controls the flow of the "Low Pressure" air, thereby controlling the speed at which the cylinder and heated head cycle doWn and up. Closing this valve (clockwise rotation) allows the operator to prevent the die from descending too rapidly, potentially damaging the part or the die.

Hand Switches:

All ACROMARK presses manufactured for single station tooling are equipped with anti-tie down, dual actuating safety style hand switches. These machines are intended to be operated by only one operator at a time and are wired such that both hand switches must be depressed simultaneously to operate the press and both must be released to allow the safety circuits of the equipment to reset. The switches in each housing should always be replaced in pairs and purchased from ACROMARK. To remove the switches, disconnect the power source to your press, remove the pivot bolt holding the paddle to the housing and lift out the paddle. Remove the two screws on the side of the housing which will allow you to lift out both switches. Refer to the wiring diagram provided in this manual for reference to switch and wire positions. It is important to replace wires and switches, as illustrated on the wiring diagram to ensure that the safety circuit functions properly. When replacing -the paddle, be sure to have the pivot bolt. free, by leaving approximately 1/6" between the elastic stop nut and the housing. If the paddle does not lift freely after being depressed, check to see that the pivot bolt is loose and that the paddle spring at the front of the housing is in place.

NOTE: Newer presses may be equipped with Opto-Touch hand switches which are replaced as a unit and are described in literature included with your manual.

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MODEL 800 SERIES, CONTROLS (CONTINUED)

Pinch Point Control:

All standard presses with dual actuating hand switches described above are equipped with our additional safety circuit, referred to as pinch point control. This circuit requires that the. operator maintain both hand switches in the depressed position until the marking die reaches the part and the press automatically activates the "High Pressure" circuit. At that time, the hand switches may be released. If either switch is released prematurely, the marking head will return to the up position. This circuit is automatic with the Series 800 Presses and needs no adjustments or setting during normal set-up operations.

Depth Stop: NOTE: **A pinch point exists where the locking ring contacts the spacer collar during the normal operation of this press. A Depth Stop Guard is supplied with your press to protect this pinch point. Warning labels are supplied on the press to alert the operator to the presence of this hazard.**
The double-ended power cylinders used on these presses provide for a threaded top end which is provided with a spacer collar, a locking ring, and a removable cylindrical guard. This adjustable stop is used as follows:

Metal dies:

> The stop is normally not used to control the depth of the impression when using metal dies unless absolutely necessary (as in the case where the die must be run very kit.) Use of a stop in this manner negates the utility of the press to automatically compensate for variations in product thickness. For the majority of jobs the depth of impression should be controlled by adjustments to the PRESSURE, DWELL TIME, AND (lastly) TEMPERATURE.. The stop should ALWAYS be set to prevent the die from striking the nest or fixture in the event that the press is cycled with no work piece in position.

Rubber dies:

> When using silicone rubber dies, the stop should generally be set to prevent the rubber from compressing more than 25 to 35 percent of its original thickness when in pressure contact with the part. This can normally be approximated by loosening the depth stop collar 1/4 to 1/2 turn during the set up operation.

MODEL 800 SERIES, FOIL ADVANCE AND HEATED HEAD AS§EMBLIES

Heated Head: NOTE: These heads can be set 'to run at temperatures approaching 600 degrees F and can easily burn unprotected skin. Warning labels are attached to the press at the factory to warn the operator of these hot surfaces..
The actual head of your press is the heating platen for the dies. This head is provided. with brass dovetail rails for holding the steel dovetail die mounting plate. This is secured by means of a 314" diameter nut on one side of the head (two nuts on one side for larger length heads.) NOTE: Do not use the tightening of this nut to raise or "snug". the die mounting plate up to the heated head. The die and the mounting plate should be held up against the heated head while this nut is tightened. The brass rails are Screw mounted and replacement rails are available from ACROMARK. An insulating plate is provided above the heated platen to force the heat down to the die and to prevent excessive heat build up on the tape frame.

Heating Elements:

Heat is provided to the heated head by replaceable cartridge heaters (or flat strip heaters on heads over 24" in length.) Each cartridge heater is held in its mounting hole by a set screw located on the underneath side of the head, toward one end of the head (behind the die mounting plate, which must be removed to access these screws.) When removing a cartridge heater for replacement, loosen the setscrew and pull the heater out the end of the head that has the setscrew.

Foil Advance, Motorized:

The motor foil advance is actuated by a head-up, momentarily actuated micro switch that is automatically tripped during the press cycle. The motor advance is electrically interlocked with the press cycle, enabling recycle of the machine only after the foil has completely advance.

The length of the foil advance is controlled by a timed pulse produced by the foil advance timer. (On machines .equipped with ACROTRONs, this is accessed through the T-5 timer function.) On systems supplied with a heat transfer feed system, this timer is overridden by the electric eye controls when they are in the "ON" mode. When turned "OFF" the advance timers then become the dominant timer and the system can be used as a standard motorized foil advance.

The foil advance motor is protected from overload by a replaceable 2 amp, slow bum fuse. This should be checked first if a malfunction occurs on the advance system.

MODEL 800 SERIES, FOIL ADVANCE ASSEMBLIES (Continued)

Tape Guides-Fixed:

Adjustable tape guides are provided on all tape frames. These should be set to allow the foil to remain slightly away from-the heated die (approximately 114" is desirable.) Caution should be taken to check that the guides clear the part and fixture when the head is in the down position, a point to be checked during the set-up procedure detailed later in this section. Do not activate the press under stamping pressure until this checking procedure has been completed or there will be risk of damaging the guides or even the foil rails of the advance system.

Tape Guides-Retractable:

When Supplied as an option, the retractable tape guides can be set to retract as the heated head and tape frame descend toward the part; allowing a marking on large parts that would otherwise prevent the guides from clearing to the side of the part during a normal marking cycle of the press. To properly set these tape guides, start by loosening the two middle lock collars (of the three lock collars found on each vertical portion of the guides) for one of the two guides and proceed to position the lower stripper bar at a height such that the foil is held approximately 1/4" below the surface of the mounted die. 'Retighten these center collars, being sure that the horizontal stripper bar is level and square to the direction of the foil flow. NOTE: If this bar is not horizontal, the foil will tend to "walk uphill", that is move'toward the front or back of the heated head during normal operating of the press. Should this tendency be noted, the first thing to check is the levelness of both of these stripper bars.

After setting both sets of bars to position the foil at the proper height with the head in the retracted or "up" position, proceed to setting the four lowest collars on the two guides. These collars are used to control-the spring tension that holds the foil down on the part during the initial upward travel portion of the head, following the marking of the part. Only a slight amount of pressure is required with approximately a 20% spring compression being set.

The top set of lock collars are used to halt the descent of the foil guides during the marking cycle, controlling their travel to stop them just prior to the time the die contacts the fixtured part. To adjust these collars, loosen all four collars and proceed to bring the head down as detailed in the set-up mode (by reducing your low pressure regulator to zero pressure, allowing the head assembly to descend from its own weight.) With the die and stripper bars" now in contact with the part, raise each vertical bar approximately 1/8" and tighten the collars with them resting on the horizontal guide bar provided, a bar that is usually positioned as extending from the top bearer block of the power cylinder. With all four-tightened, reset low pressure to approximately 60 psi and the head will return up. With proper adjustments as described above, the foil will be held away from the heated die during the ascent and descent of the power cylinder, with the retracting action occurring as the collars come in contact with the guide bar, just prior to the die contacting the fixtured part.

MODEL 800 SERIES, SET UP PROCEDURES

Set up:

The ACROMARK Series 800 Presses function using a combination air/oil power system. Two separate air regulators are located on the right hand side of the press frame. The regulator labeled "Low Pressure" controls air pressure for the up and down cycling of the heated head assembly. This regulator should be set at approximately 60 psi and should not need further adjustment. NOTE: heavier head assemblies (larger heated heads or extended die mounted blocks) may require more pressure to raise the assembly following marking. This should be noted during this set-up procedure and this setting changed accordingly.

The head down speed can be controlled separately from the Low Pressure setting through the use of the needle valve labeled "Ram Speed, Down". BY closing this valve (clockwise rotation) the head speed down can be reduced, preventing impact damage to silicone rubber dies or excessive speeds as caused by larger and heavier heated head assemblies.

The "High Pressure" regulator cohtrols the tonnage applied during the actual marking Cycle. When the die comes in contact with the part being, marked, the press automatically switches to the high-pressure system. At this point the power cylinder on the ten ton ACROMARK Model 830's will develop one ton of pressing force for each seven (7) pounds of pressure dialed into the high pressure regulator.

WARNING: The high-pressure regulator should never be set at more than 72 psi.

NOTES: 1. Model 840 and 850 presses will develop one ton of force for each 5 and 3.5 pounds of pressure on the high-pressure regulator respectively.

2. Some specific presses have been modified such that the initiation of the high pressure marking cycle is accomplished through the actuation of a switch located on the depth stop of the power cylinder, rather than the contacting of the die to the part. In order to assure that high pressure is initiated, it is important that the depth stop be properly adjusted during set up so as to contact this switch prior to the die contacting the part and halting the travel of the head.

To mOunt and align a die on the heated head, the power and heat switches should_ be OFF. These controls are located on the ACROTRON Process Controller or main control panel for presses using alternate controllers. The head can be lowered by reducing the low-pressure regulator, causing the weight of the heated head assembly to bring the head down. To properly position a new die for mounting, place it exactly in place on the fixtured part, back off the depth stop (the adjustable collar on the top of the power cylinder) and reduce the low pressure-to zero. The head will descend and make contact with the die. Mark the proper location on the die mounting plate with a china marker or equivalent item. With the head in the down position, set the depth stop by turning the locking collar clockwise until it Makes contact with the stop collar.

MODEL 800 SERIES, SET UP PROCEDURES (Continued)

Now increase low pressure setting slowly until the head returns to its up position.

NOTE: A pinch point exists between the moving (orange) ram plate of the press and the stationary lower bearing plate of the power cylinder. A warning label is affixed to the press to alert the operator to this potential pinch point hazard.

With the head in the "UP" position, close the safety shut off valve to the air line, remove the die mounting plate and screw mount the die to the dovetail. Ample room in the mounting holes should be permitted to allow for correction of slight die misalignment on the setting up of new dies.
With the die mounted to the dovetail plate, reinstall the dovetail in the head of the press, holding the dovetail up in contact with the aluminum heated head while tightening the bolt that secures the plate to the head. Now open the safety valve and lower the low pressure again so that the head descends to contact the part. If the location has been maintained, the die should be in place and the depth stop -correctly set. NOTE: The tightening of the dovetail clamps can be done at this point to assure that the steel dovetail plate is seated firmly against the heated head, eliminating any air gap between the plate and the head. With the plate securely tightened up to the head, increase low pressure again, returning the head to its "UP" position. With the low pressure gauge now appropriately set to lift the head up, use the "Ram Speed Down" valve for additional head speed adjustments as necessary.

With the die securely in place, turn the HEAT switch "ON" and wait for the die to reach its proper marking temperature. If silicone rubber dies are used, the depth stop should now be set to provide for the desired degree of compression. Approximately a half turn should be sufficient to provide a 30% compression on a 1/8" thick rubber. For metal die work the collar can be backed off a full turn (to allow for product thickness variations which will be automatically compensated for by the press while preventing the die from striking the fixture in the event that the press is cycled without a part in place.) On the locking depth stops the collar should now be locked and the protective sleeve placed over the threaded rod assembly to avoid this pinch point.

Foil can now be strung while waiting for the head to reach marking temperature. String the foil below the head and up/over the knurled roller and then down between it and the rubber roller; loosening the cam locks on the rubber roller by lifting them up. Finally wrap the foil around the scrap foil rewind cylinder and be sure the urethane rewind belt is in position. Close the cam locks and cycle the foil advance using the foil advance jog button provided to be sure that the foil is tracking properly.

When the die has reached its proper marking temperature, turn "ON" the main POWER, either by-depressing the POWER button on the ACROTRON or the appropriate switch on other control panels. Review the pages enclosed with this manual that specifically detail the function of your controller.

MODEL 800 SERIES, SET UP PROCEDURES (Continued)

For initial set up use a dwell time (T-1 timer) of 1.00 seconds, delay strip timers each at 0.00 (T-2, and T-3), assuming your press has this 'option activated or installed, and the motor foil advance timer (T-5) at an appropriate time for the length Of your mark. By depressing the two palm buttons and holding them down until the high pressure is activated, a test mark can be made. NOTE: release of the buttons prior to high-pressure initiation will cause the head to automatically retract. This is the anti-pinch point safety circuitry for this press.

By evaluating the mark made by this test cycling, adjustments can now be made to either the dwell timer, high pressure regulator, or, lastly, temperature controller. NOTE: , The high-pressure setting will provide the high tonnage squeeze for the marking as indicated on the gauge on the main power cylinder of the press. There should be no reason to make changes to the low pressure setting, unless the combined weight of the die and the heated head is such that more air pressure is needed to raise the head fully after the marking cycle. If delayed foil strip is found to be required, appropriate times should be entered in the two timers (T-2 and T-3.) See the instructions on the appropriate controller as detailed elsewhere in this manual.

Raising Table:

On standard "C" frame presses a raising table is installed which allows for adjusting the height between the die plate on the heated head and the fixtured part to be marked. It is only necessary with this press to bring the part to within the stroke of the power cylinder (4" to 8" depending on the style press) when the heated head is in its uppermost rest position. Any other variations in part location or part thickness are automatically compensated for by the air/oil power system. Adjustments need to be made to the central threaded support shaft and the four outboard supports. The center shaft is captivated with a bored tube. On the front of this tube is a locking screw which should always be loosened before attempting to raise or lower the table. Likewise, this screw should be retightened after the height is set to assure a stable fixture base and prevent the table from moving after completion of the set up.

Leveling of the heated head:.

The head is mounted to an orange ram plate on offset bolts which allow for the adjustment of alignment of a mounted to the fixtured part during the set up operation. On machines supplied without specific tooling packages installed at the factory, these bolts are set at the factory such that the bottom of the die mounting plate is parallel to the work platen. If all of the procedures outlined above are followed and the die is mounted properly over a securely fixtured part, there may still exist the need to level the surface of the die to match the alignment of the part. With this leveling system it is possible to make simple adjustments using the offset bolts that will preclude the need to shim the support fixture or use excessive amounts of make-ready under the part to bring it to a proper alignment with the die.

MODEL 800 SERIES, SET UP PROCEDURES (Continued)

For purposes of adjusting the head, start by loosening and tightening the pairs of nuts located on the top and bottom of the orange ram plate. Raising a portion of the die is accomplished by loosening at least two adjacent lower nuts and tightening the paired upper nuts to pull the heated head up toward the ram plate. Always make adjustments with at least two adjacent bolts. Lowering the die is accomplished by loosening the upper nuts and tightening the lower paired nuts. Once the die is properly aligned, be sure to check for secure tightening of all of the adjusting nuts.

With further questions you may call the factory for assistance at (908) 464-6474.

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Santa Ana, CA 92705

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ACROMARK HOT STAMP PRESS

FACE PANEL CONTROLS AND THEIR FUNCTION
(Single station/Manual Presses)

1. MAIN POWER SWITCH - Key pad will illuminate and machine become functional when switched "ON."

2. HEAT SWITCH - Can be turned "ON" without "Power" switch being turned on in order to preheat press. When activated, the temperature controller illuminates.

3. KEYPAD DISPLAY - The control will be programmed at the factory for the appropriate number of timers, a count function, and other special features as needed for each specific press. The blinking cursor is moved using the four arrow keys to run through specific timers or curse over to change specific functions as per the display. (See "Timer Settings" below.)

4. EMERGENCY STOP - A red mushroom button labeled "Emergency Stop" will halt the cycle of the press immediately upon actuation, causing the head to return to its up/home position. To reset the press, this button must be pulled out.

5. TEMPERATURE CONTROL - The controller will display either the set or actual temperature. In its ,static mode, the actual, temperature will be displayed. The set temperature can be changed by depressing and holding the button on the bottom left. The display will flash "° F." By depressing the up and down arrow buttons, the number will increase or decrease. When the desired reading is reached, simply release all buttons.

TIMER SETTINGS - This controller is equipped with a number of addressable, internal timers. Depending on the options selected for your particular press anywhere from one to five of these timers have been programmed at the factory. These timers are identified as follows:

Head Down - Determines the time the die is in contact with the part under set temperature and pressure.

Delay Start - Determines the distance the head comes up before stopping for the start of your strip delay.

Head Delay - Determines the time that the head stays at the delayed height to allow the foil and the part to cool prior to carrier stripping.

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[The next two timers are included in systems equipped with optional heat transfer feeders. **(To turn the eyes "on" to function as a transfer feeder, scroll down past "foil advance" and "count mode" to "photoeyes" and toggle ON/OFF using the +I- buttons.):]**

Fast Pull - Foil advance time at high speed, programmed to minimize the time required to complete the advance of preprinted heat transfers. The foil advance motor automatically switches to a slower speed when this timer times out, completing the carrier pull when the witness mark is seen by the electric eye.

Xfer Time Out - This timer is set to prevent a continuous pull of transfer carrier in the event that a misalignment ocburs and the electric eye does not see the witness mark. If a normal advance is 1.5 seconds, for example, this timer should be set for 3.0 seconds.

Foil Advance — WHen the transfer mode is turned "OFF" or for presses with the standard motorized foil advance system, this timer determines the length of the foil pull, more time equaling a longer pull.

Load Delay - (For machines with an optional automatic slide table) This timer determines the additional time added to the press cycle that may be required to allow an operator to complete the unloading and reloading functions of a part onto its hot stamp fixture.

The procedure for setting these timers is as follows:

Scroll the cursor using the arrow keys until the cursor rests on the timer that you wish to change. Now use the "+" or "-" keys to change the value up or down. Changes are automatic as soon as they are made on the display.

Definition of various timers:

Head Dwell Time - This timer controls the interval from the physical tripping of the head down Switch (on 400 and 500 Series Presses) and the interval of actual die contact for the Series 800 by means of a pressure sensor built into the air/oil power. system. The setting of the head down switch is covered in the "Set-up" portion of your machine manual. For the air/oil systems no adjustments are necessary. When the head down switch is properly adjusted to trip at a position 1/8" above the part, the resulting dwell time is very close to a "pure dwell" or the time the die is actually contacting the part. This feature allows for a much finer degree of control as it is not effected by fluctuations in either air line pressure or ram speed as in other conventional presses. With the 800 Series presses this timer measures the actual time of "high pressure" activation; again giving you a "pure dwell" time measurement.

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Delay Start - The foil strip delay circuit on the ACROMARK presses allows the heated die to be lifted up from the marked part to allow the mark to cool prior to stripping the carrier and foil from the part. This reduces flaking that occurs on some metallic foils and allows for successful marking on polyolefins. This timer actuates a solenoid valve that blocks the return flow from the main power cylinder, stopping the upward movement of the heated head. The longer the time entered, the higher the head will lift before being stopped. The time should be set to raise the head approximately one inch and the actual timer required will be a function of several combined factors: the size (and thereby the weight) of the heated head and the actual pressure on the air regulator setting on the press. The bigger and heavier the head, the more time will be required. The higher your pressure setting, the less time will be required. A suggested starting point for this timer is a setting of 0.30 seconds. Test cycle the machine and adjust this timer for greater or lesser height by increasing or decreasing-the setting.

Head Delay - Once you have established a correct height above the part (the die approximately one inch up but the foil/carrier still attached to the mark) set this• timer according to test marks you will make with the die at marking temperature. Variables here will include the temperature of your die, temperature of the marked part, dwell time on the part, and release and adhesion properties of the specific foil being used. Start with a setting of 1.00 and adjust accordingly.

Load Delay - This timer is available on presses with rotary index table or slide table automation. It is provided as a means of adding time to the cycle before the indexing of the dial plate or movement of the slide table 'following the timing out of the dwell timer. This time is added to allow sufficient time in the .cycle for the operator to complete the required steps of part removal, inspection, and reloading prior to cycle initiation. The use of this timer will increase total cycle time and thereby decrease overall hourly production .rate. This timer can be adjusted to lower settings as an operator learns the process so as to maximize productivity. In the event that the combined time of dwell and table cycle are sufficient for loading and unloading of parts, this timer can be set at 0.00 and no further time will be added to the cycle.

Foil Advance - The foil advance motor is started by actuation of a head-up • switch, a momentary actuated micro switch set to automatically trip at completion of the marking cycle. The length of the foil advance is controlled by a timed pulse produced by this foil advance timer. The longer the time setting, the -longer the advance of the foil. Factors such as foil roll diameter and feed spring tension will effect actual distances for each set- up.

NOTE: The foil advance motor is protected from overload by a replaceable 1 amp "slow blow' fuse. This should be checked first if a malfunction occurs on the advance system.

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COUNTER - There is a cumulative counter which is the second line of your keypad display. This counter can be reset by scrolling up to the top line of the display which reads "RUN CNT RESET" and then toggling the "+" "-" buttons. Press "+" and the display will read "RESET CNT RESET" and thp count display line will read.zero (0). Next press "2 to return the display to reading "RUN CNT RESET."If the display does not read "RUN" the count will be reset, but the counter will not function.

If the batch count or "count down" option is included with your press, the second line of the display will read either "UP CNT" (if you are in the cumulative or up count mode) or "TO GO" if you are in the batch or down count mode. To set your count mode, scroll down past "FOIL ADVANCE" to "COUNT MODE" and toggle using +I-.

In the Up Count mode each cycle of the press will add One number to the count. Reset the count to zero as described above. In the Down Count mode this line's display reads "TO GO." Each cycle of the press will decrease the number shown until .thei"-'COOntreaChereMdt which time the press will stop and not function until either the count is reset. Reset the "TO GO" counter by going to the top line and toggling +/-. To set a new batch number for the Down Count mode, first enter the number in the PRESET DOWN line and then go to the top line and toggle to reset the count in TO Go..,

SET UP MODE - The last item on the menu is for a 'Head Setup" function. Pressing "+" turns the mode on, pressing "2 turns it off. When turned on, depressing the dual-handswitches and holding them until the head down switch is contacted will keep the head in a pressurized "down" position. The head will stay down until either the "2 button is pressed or the Emergency Stop is pressed. This function is useful either in the initial setting of heights or for heat bonding dies to the die block.

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Santa Ana, CA 92705

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Fax: 714.542.2728
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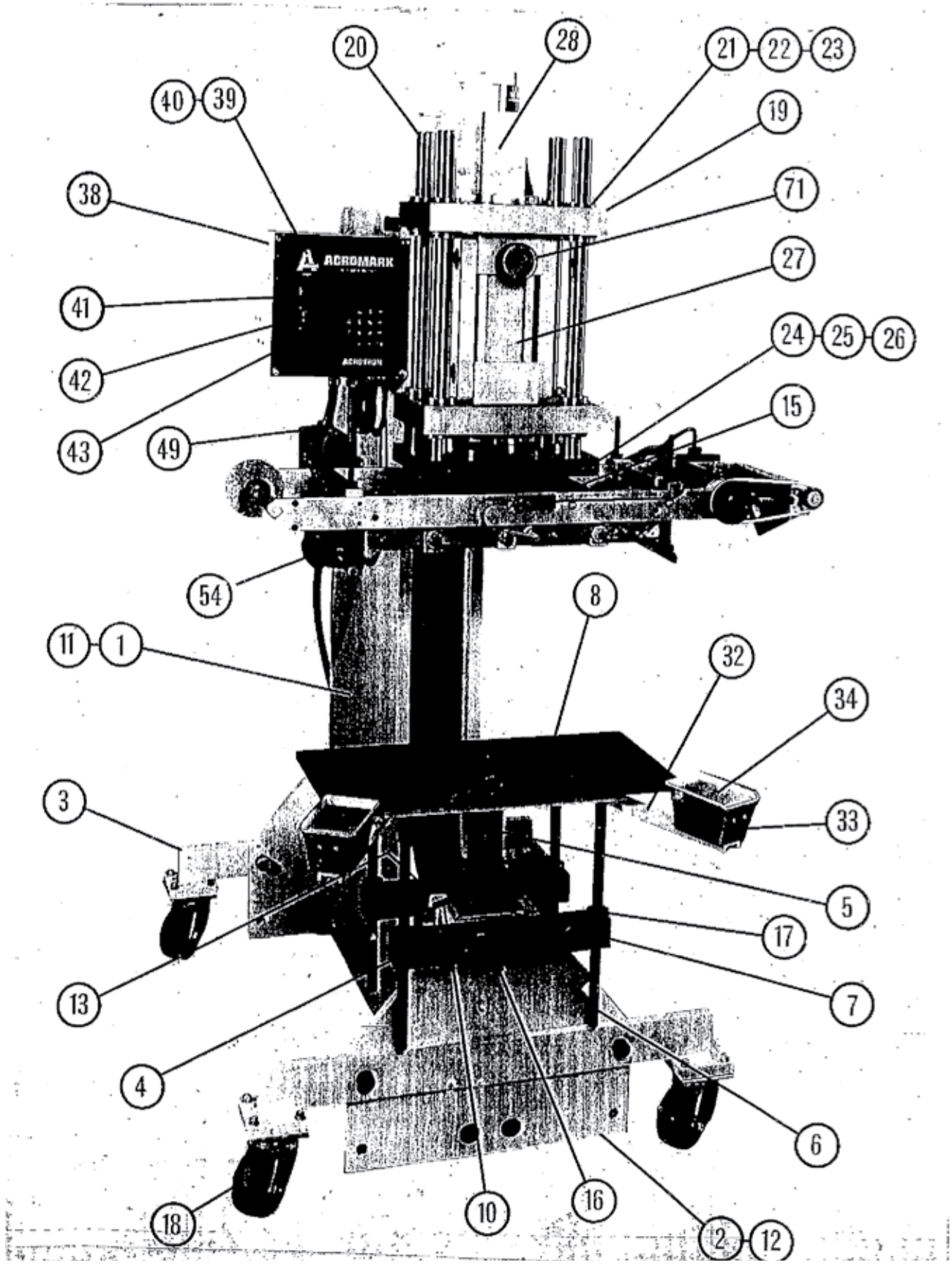
MODEL 830 PRESS



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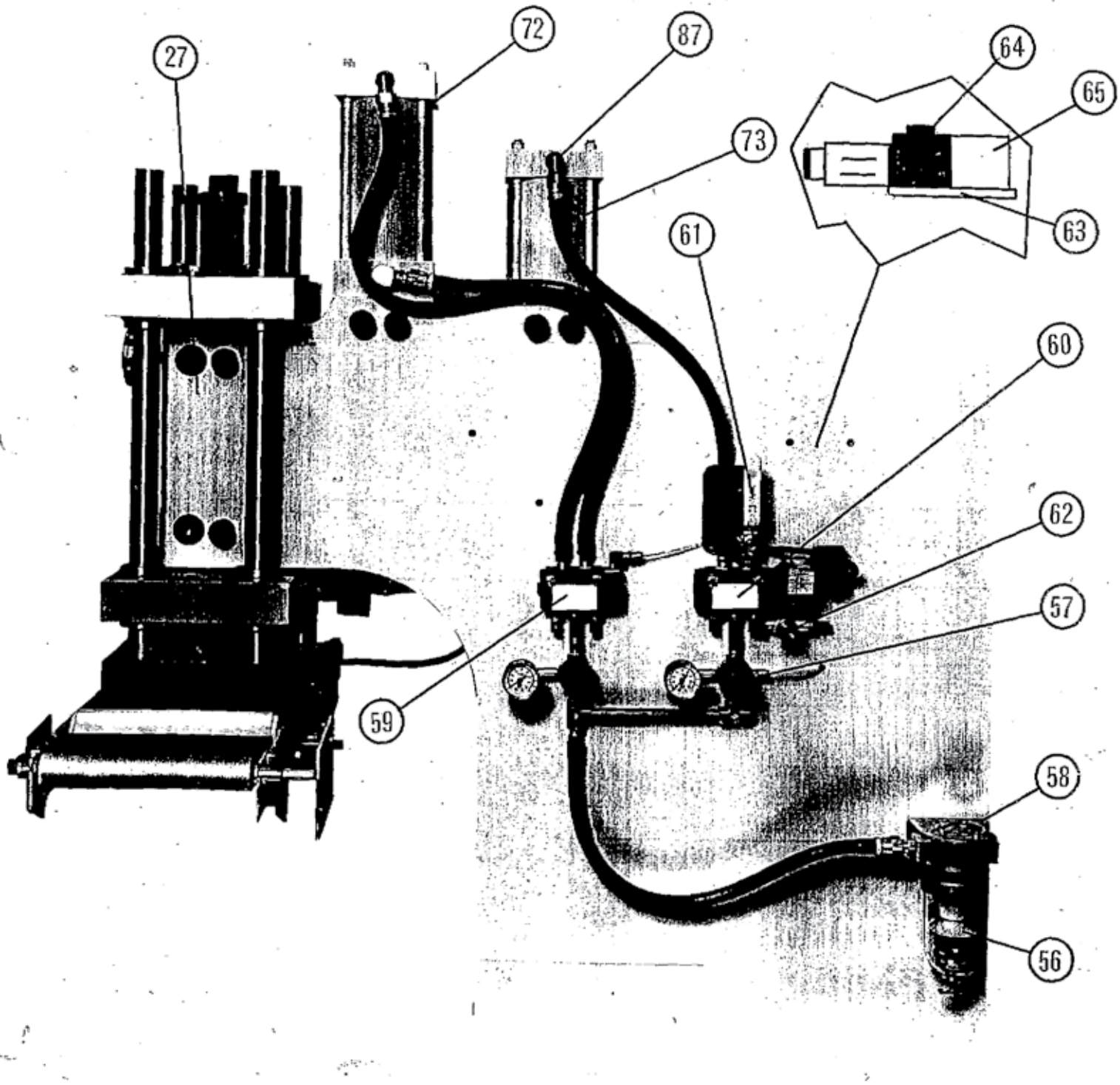

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PARTS LIST
ACROMARK MODEL 830 PRESS

PART NUMBER	DESCRIPTION
830-1	Frame
830-2	Leg, Frame
830-3	Leg, Frame Support
830-4	Table Support
830-5	Elevating Table Weldment
830-6	Table Support Rod
830-7	Center Support Bar
830-8	Base Plate
830-9	*Spacer
830-10	Elevating Nut
830-11	Frame (Extended Shown)
830-12	Leg Frame (Extended Shown)
830-13	Table Support Spacer
830-14	*Anti-Turn Bar
830-15	Jacking Plate
830-16	Table Locking Screw
830-17	Collar - Clamp
830-18	Caster (optional).

POWER HEAD ASSEMBLY .

PART NUMBER	DESCRIPTION
830-19	Bearing Block
830-20	Power Head Guide Rod
830-21	Linear Bearing
830-22	Retaining Ring
830-23	Wavey Spring Washer
830-24	Adapter Plate/Tie Bar
830-25	Tie Bar Spherical Washer
830-26	Tie Bar Attaching Collar
830-27	Hydraulic Cylinder
830-28	Cylinder Depth Stop Guard
830-29	*Cylinder Stop & Guard Spacer
830-30	*Stop Spacer
830-31	*Cylinder Stop Collar

*NOT ILLUSTRATED
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HAND SWITCH ASSEMBLY

PART NUMBER	DESCRIPTION
830-32	Switch Extension Arm
830-33	Switch Housing
830-34	Switch Paddle
830-35	*Switch
830-36	*Spring
820-27	*Strap

ELECTRICAL ASSEMBLY

PART NUMBER	DESCRIPTION
830-38	Electrical Enclosure
830-39	ACROTRON Face Panel
830-40	Electrical Enclosure (Back Panel)
830-41	"Power" Switch
830-42	"Heat" Switch
830-43	"Up To Temp- Switch
830-44	*Terminal Block
820-45	*Terminal Block
830-46	*Fuse Holder
830-47	*Power Cord
830-48	*Connector Clamp
830-49	**Disconnect Switch
830-50	*Head Up Switch Tripper
830-51	*ACROTRON Temperature Control
830-52	*Spacer - ACROTRON
830-53	*Relay - Mercury
830-54	**Transformer 240V to 120V
830-55	** *Transformer 120V to 12V

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PNEUMATIC

PART NUMBER	DESCRITION
830-56	Filter
830-57	Regulator w/Gauge
830-58	Filter Bracket
830-59	High Pressure Valve
830-60	Low Pressure Valve
830-61	Safety Shut-Off Valve
830-62	Speed Control/Muffler
830-63	Base - Pneumatic Switch
830-64	*Head Down Switch
830-65	Pneumatic Switch
830-66	*Fitting - Pneumatic Plug in Y
830-67	*Tube Fitting
830-68	*Pneumatic Face Panel
830-69	** *Valve - Head Delay
830-70	*Connector - (2) Screw
830-71	Gauge
830-72	Hydraulic Booster
830-73	Air - Oil Tank

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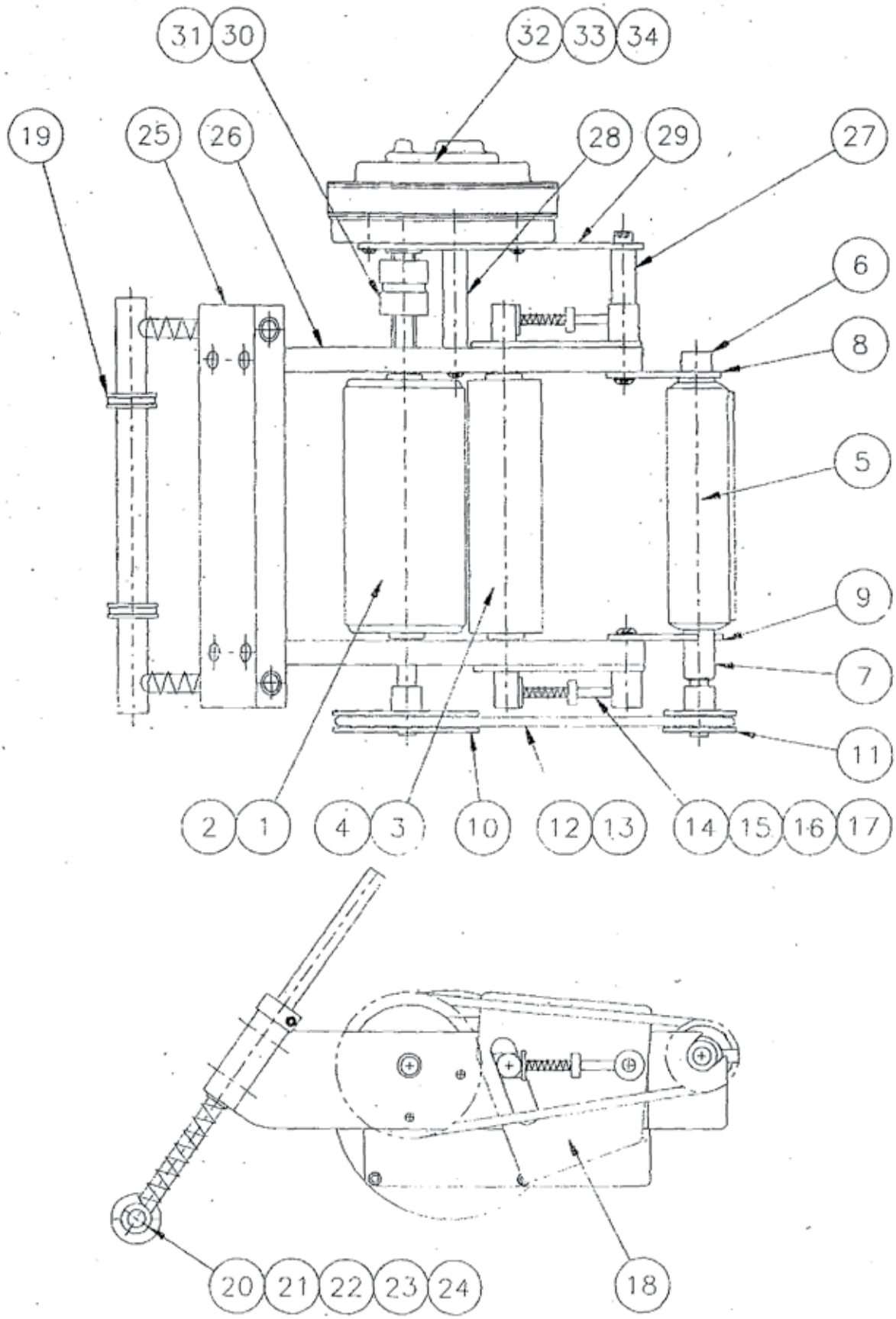

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PARTS LIST - REWIND ASSEMBLY 8.5"

ITEM#	PART #	DESCRIPTION	QTY.
1	R05001040	KNURLED ROLLER	1
2	SHSO01310	KNURLED ROLLER SHAFT	1
3	R05001060	RUBBER ROLLER	1
4	SHS002820	RUBBER ROLLER SHAFT	1
5	SHSO01100	REWIND SHAFT	1
6	BUSH20009	BRONZE BUSHING, FLANGE	1
7	BUSH20004	BRONZE BUSHING, SLEEVE	1
8	SU5001080	REWIND SHAFT SUPPORT	1
9	SU5001090	REWIND SHAFT SUPPORT	1
10	PULL20001	REWIND PULLEY, 3" DIA.	1
11	PULL20002	REWIND PULLEY, 1.5" DIA.	1
12	BELT20001	REWIND BELT	2 FT.
13	INSE20001	REWIND BELT INSERT	1
14	AS6803800	TENSION POST ASSEMBLY	2
15	SPRI20008	TENSION POST SPRING	2
16	COLL20014	TENSION ADJUSTMENT COLLAR	2
17	WASH60010	WASHER, SPRING GUIDE	2
18	CA6803210	CAN RETRACTOR	2
19	COLL20037	FOIL GUIDE COLLAR	2
20	BA5004080	HORIZONTAL FOIL GUIDE BAR	1
21	BA6801250	VERTICAL GUIDE BAR	2
22	RP00910	ROLL PIN	2
23	SPRI20005	FOIL GUIDE SPRING	2
24	COLL20003	FOIL GUIDE ADJUSTMENT COLLAR	2
25	BA5004020	VERTICAL GUIDE MOUNT BAR	1
26	RA5004040	FOIL REWIND RAIL	2
27	SP5002760	SPACER, TENSION POST	1
28	SP5002750	SPACER, MOTOR MOUNT PLATE	2
29	PL5001330	MOTOR MOUNTING PLATE	1
30	COUP20004	COUPLING HALF, MOTOR & ROLLER	2
31	INSE20003	COUPLING INSERT	1
32	MOT030003	FOIL REWIND MOTOR	1
33	PLUG30003	MOTOR PLUG, (MALE)	1
34	PLUG30002	MOTOR PLUG, (FEMALE)	1

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