

PLAS-TIES

TIE-MATIC[®]
OPERATING MANUAL
FOR
HD38, HD58 & HD78 MACHINES
220V



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SECTION I: General Information

SUPPLIES AND SERVICE

The HD38, 58 and 78 machines are designed to wrap and twist tie material to close bags, bundle products and secure wire and cables. PLAS-TIES twist tie material and service should be ordered from your dealer, distributor, or:

PLAS-TIES
14272 Chambers Road
Tustin, CA 92780 USA

Telephone: (714) 542-4487 (800) 854-0137
Fax: (714) 972-2978

Email: info@plasties.com

When contacting Plas-Ties, please have the following information handy:

1. Model Number and Serial Number (see Name Plate)
2. Date of purchase
3. Number of cycles on Counter
4. Type of tie material in use
5. Part Name or description (for replacement parts - see Appendix as reference guide)

CAUTION!

**DO NOT ATTEMPT TO OPERATE YOUR TIE-MATIC HD BEFORE
READING THE OPERATING INSTRUCTIONS.**

The efficiency and convenience of the Tie-Matic HD equipment reduces costly labor hours, while increasing output of securely tied products. Semi-automatic operation can deliver up to 60 tied bags or bundles per minute with minimal effort. Insert the bundle at the throat to trigger the tying mechanism and get a twist-tie. All bundles and bags are secured with 2-1/2 full twists of tie material.

SECTION I: General Information

SAFETY INSTRUCTIONS

The operating procedures outlined in this manual are prepared to facilitate the Tie-Matic HD twist tying machine.

- 1 **KEEP ALL SAFETY DEVICES IN PLACE** and in working order.
- 2 **KEEP WORK AREA CLEAN.** Cluttered areas invite accidents.
- 3 **DO NOT USE IN DANGEROUS ENVIRONMENT.** Do not use machines in a damp or wet location, or where any flammable or noxious fumes may exist. Keep work area well lighted.
- 4 **KEEP UNAUTHORIZED PEOPLE AWAY.** All unauthorized people should be kept out of work area and away from machine.
- 5 **DO NOT FORCE MACHINE.** It will do the job better and safer at the rate for which it was designed.
- 6 **USE THE RIGHT MACHINE.** Do not force machine to do a job it is not designed to do.
- 7 **DO NOT USE UNDER THE INFLUENCE OF DRUGS OR ALCOHOL**
- 8 **DIRECT ELECTRICAL CONNECTION TO WALL SOCKET IS HIGHLY RECOMMENDED.** If use of extension cord is necessary, make sure your extension cord is UL and CE approved and in good condition. Your extension cord must also contain a ground wire and plug pin. Always repair or replace extension cords if they become damaged.
- 9 **WEAR PROPER APPAREL.** Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry which may get caught in moving parts. Wear protective hair covering to contain long hair.
- 10 **MAINTAIN MACHINE WITH CARE.** Keep machine clean for best and safest performance. Follow instructions for lubricating and keeping machine free of lint.
- 11 **DISCONNECT MACHINE BEFORE SERVICING AND WHEN CHANGING SPOOL.**
- 12 **REDUCE THE RISK OF UNINTENTIONAL STARTING.** Make sure switch is in off position before plugging in.
- 13 **USE THE RECOMMENDED MATERIALS AND REPLACEMENT PARTS.** Listing of recommended material and replacement parts are found in operating manual. The use of improper material and replacement parts may result in malfunction and possible risk of injury.
- 14 **CHECK DAMAGED PARTS.** Before further use of the machine, part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. A part that is damaged should be properly repaired or replaced.
- 15 **NEVER LEAVE MACHINE RUNNING UNATTENDED.** Turn the power off, and do not leave machine until it comes to a complete stop.
- 16 **NEVER ALLOW UNTRAINED USERS TO RUN THIS MACHINE.**
- 17 **IF YOU ARE UNSURE OF THE INTENDED OPERATION, STOP USING THE MACHINE.** Seek technical assistance or instruction from trained personnel or manufacturer service department.

SECTION I: General Information

INTRODUCTION

The operating procedures outlined in this manual are prepared to facilitate the Tie-Matic HD twist tying machine.

WARRANTY

Purchaser acknowledges that there are no warranties, expressed or implied, made by **PLAS-TIES**, its distributors or sales representatives related to the Tie-Matic HD except the manufacturer's warranty against defective materials and workmanship as follows:

PLAS-TIES warrants the Tie-Matic HD to be free from defects in materials and workmanship at time of delivery. Liability under this warranty is limited to the repair or exchange of any defective part or parts of the unit providing the same is returned to **PLAS-TIES**, transportation prepaid, within 1 year or 300,000 ties. **THE WARRANTY BEGINS FROM THE DATE OF INSTALLATION AT CUSTOMER SITE AND NOT DATE OF PURCHASE. IN ORDER TO ACTIVATE THE WARRANTY, THE COMPANY NAME, CONTACT, CITY/STATE, AND SERIAL NUMBER MUST BE REGISTERED WITH PLAS-TIES or PROOF OF PURCHASE MUST BE PROVIDED. FAILURE TO DO SO WILL RESULT IN LIMITATION OF THE FULL WARRANTY. THIS IS TO INSURE TOTAL QUALITY ASSURANCE AND TECHNICAL SUPPORT.**

The warranty is void on any Tie-Matic HD that has been subject to negligence, accident, misuse, failure to use the equipment as instructed in the manual, or that has been tampered with.

This warranty is void if the Tie-Matic HD is used with anything other than genuine **PLAS-TIES** twist-tie material.

IMPORTANT: If your Tie-Matic® HD does not operate properly, please bring it to the attention of **PLAS-TIES**, or the dealer or distributor from whom it was purchased. If repairs are needed, the dealer, distributor or other representative of **PLAS-TIES** will arrange to repair or replace parts within the terms of the warranty.

Warranty coverage is limited to the Continental US, Alaska, Hawaii, Puerto Rico, and Canada.

SECTION II: Specifications

MODEL DESIGNATION

This manual covers all models of the Tie-Matic HD Series. The models are identical in their operation.

Models HD38, HD58 and HD78 are equipped with a 2 amp circuit breaker for overload protection U.L. approved for the United States.

SPECIFICATIONS

HD38-Maximum Tying Diameter Capacity - 3/8"

HD58-Maximum Tying Diameter Capacity - 5/8"

HD78-Maximum Tying Diameter Capacity - 7/8"

PERFORMANCE

Up to 60 ties per minute

2-1/2 full twists on product tied

110 VAC POWER REQUIREMENTS

Nominal Voltage: 115VAC, 50 Hz Current 2.0 A

220 VAC POWER REQUIREMENTS

Nominal Voltage: 220-240VAC, 50 Hz Current 1.5-2.3 A

(220 VAC OPERATING ENVIRONMENT)

Suitable operating environment for machine is between -

Temperatures: -9 Degrees C. to 48 Degrees C.

Relative Humidity: 25% to 60% .

DIMENSIONS/WEIGHT

Length: 22-1/2"

Height: 10-3/4"

Width at top: 5-1/2"

Width at front feet: 9-1/2"

Weight: 14.8 pounds / 19 pounds with shipping container (no spools)

SECTION III: Operation

FOR YOUR SAFETY READ INSTRUCTION MANUAL BEFORE OPERATING THIS EQUIPMENT.

INTENDED USE

The HD38, 58 and 78 machines are designed to wrap and twist tie material to close bags and secure wire and cable products.

CAUTION!

Any use and procedures other than those specified in this manual may result in machine failure and/or user injury

EQUIPMENT LOCATION AND CONNECTION SUPPLY

To ensure safe operation, the supplied three-pin plug, 2 Pin Plug for 220-240 VAC Models, must be inserted only into a standard three-pin, 2 Pin Plug for 220-240 VAC Models, power outlet that is properly grounded through the normal building wiring.

You must connect this machine near a power outlet that is easily accessible and into a power source within the range indicated on the machine label.

If an extension cord is used with this machine, it must be three pin plug type, 2 Pin Plug for 220-240 VAC Models; in good condition; rated with sufficient amperage to support amperage level required on machine label and be correctly wired to provide proper grounding. Incorrectly wired extension cords may cause personal injury and equipment damage.

The fact that the equipment operates satisfactorily does not imply that the power is grounded and that the installation is completely safe. For your safety, if in any doubt about the effective grounding of the power, call a qualified electrician.

DO NOT handle the plug with wet hands. This might cause an electrical shock.

SECTION III: Operation

IDENTIFICATION OF OPERATING CONTROLS

On/Off Switch: (A) - Lever used to power machine on (represented by symbol “I”) and off (represented by symbol “O”).

Reset Button: (B) - Black button next to On/Off Switch. Press reset button when machine circuit breaker trips and/or motor locks due to jamming.



POWER CORD PLUG OPTIONS

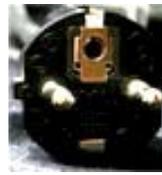
While only one plug per machine is provided, the HD 220V machines offer a choice of either:

1. Standard 3-prong plug (Part# P001046) **(C)**
2. European 2-prong plug (Part# P002030) **(D)**

If a specific type is not requested upon ordering the machine, the power cord plug is determined by destination country of each machine.



C



D

EXPLANATION OF SYMBOLS



Circle with line through hands facing gears on COVER: CAUTION! indicates a potentially hazardous situation that COULD if not avoided, result in serious injury.



Circle with line through hands: CAUTION! indicates a potentially hazardous situation, which if not avoided COULD result in electrical shock injury.

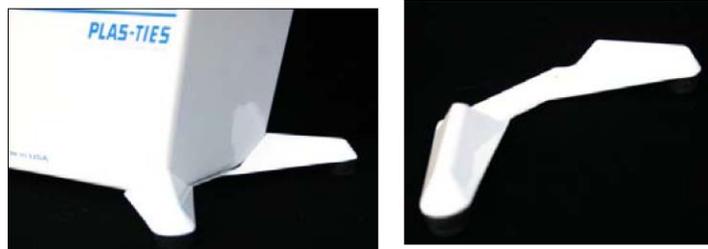
SECTION III: Operation

MOUNTING AND START-UP

The Tie-Matic HD should be secured to your work table by:

- 1 Installing the front stabilizer on the unit. (Figure III-1)
- 2 Rubber suction cup feet are available for complete stability on a stainless steel table or flat surface area (Figure III-2).
- 3 Also for a permanent position, you can bolt the Tie-Matic to a work table with 10-32 screws to the bottom of the unit.
- 4 To start the machine, plug the machine into a power source and flip the "ON/OFF" switch to "ON" position.
- 5 Cover must be closed to activate machine.

Front Stabilizer



(Figure III-1)

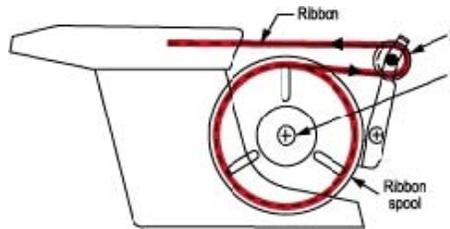
Suction Cup Feet



(Figure III-2)

SECTION III: Operation

LOADING MATERIAL (HD38/HD58/HD78)



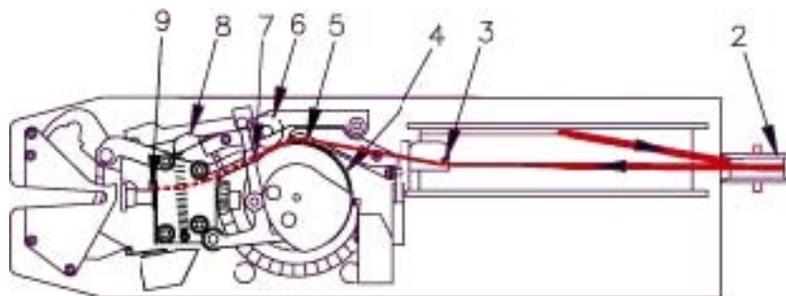
- 1 Turn OFF machine before loading material. Place spool with label facing out onto Spindle (1). Then tighten Knurled Nut snugly onto the spindle to secure spool.
- 2 Feed tie material under, then over small roller (2) on Brake Arm and pull toward machine. **(Make sure the ribbon is not twisted)**

VERY IMPORTANT (SEE IMAGE—>)

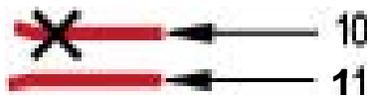
Check tie material and look for the flat side and the wire side
MAKE SURE THE FLAT SIDE OF THE MATERIAL IS POSITIONED TOWARD THE INSIDE OF THE MACHINE THROUGHOUT THE LOADING PROCESS.



3. Feed material through the Pin on Brake Arm (3), and pull approx 4 inches. Then pull the Idler Wheel (6) out using lever (8) and guide material into the Pinion Support Channel (7). (The entry is marked in bright orange with a black stripe over the opening.) Continue slowly inserting the ribbon into Pinion Support Channel (7) (for approx 2 inches) until the ribbon appears just beyond the cutter (9). **Make sure that the ribbon is under the lip of the white plastic ribbon guide at (5).** Close cover and machine is now set and ready to operate.



Note: Make sure material is straight or curved slightly towards machine (11) when inserted into Pinion Support Channel (7), not kinked or curved as per (10).

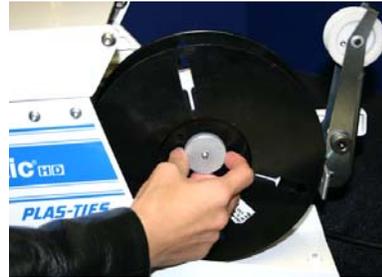


SECTION III: Operation

LOADING MATERIAL (MODELS HD38/HD58/HD78)



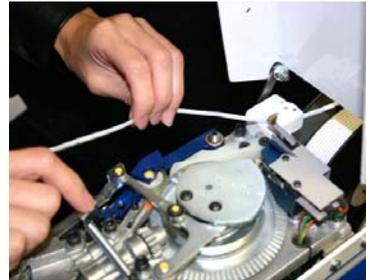
- 1) Unscrew Knurled Nut, then place spool of tie material in right hand with label facing palm.



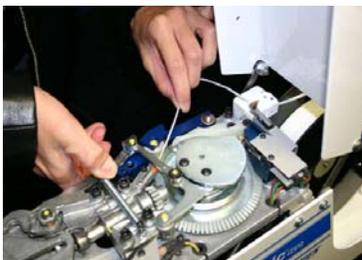
- 2) Place spool on spindle and tighten Knurled Nut snugly onto the spindle to secure spool



- 3) Feed tie material under small roller on brake arm, then over top of roller and pull towards machine.



- 4) Feed material through the Pin on Brake Arm and pull approx 4 inches.



- 5) Pull the Idler Wheel out, using lever and guide material into the Pinion Support Channel.



- 6) Continue slowly inserting the ribbon into Pinion Support Channel until the ribbon appears just beyond the cutter. Make sure that the ribbon is under the lip of the white plastic ribbon guide.

SECTION III: Operation

FUNCTIONAL INFORMATION FOR THE TIE-MATIC MACHINE

HOW IT WORKS

When a product is inserted into the throat of the machine, it depresses a trigger which activates solid state timer, starting the drive gear motor. The gear motor causes the gear segment to operate through one revolution. This one revolution feeds tie material, wraps it around the product, cuts material to required length and twists ends together.

The product has now been tied and is removed by pulling toward the operator. The Tie-Matic HD will repeat tying cycle ONLY after tied product is removed and another product inserted into the throat.

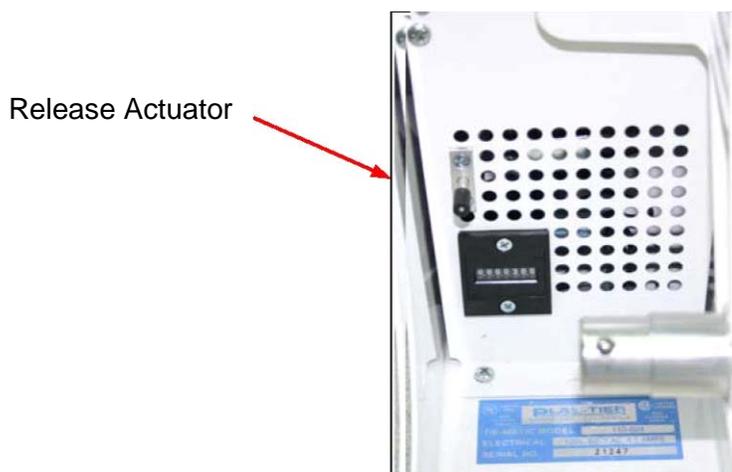
MANUAL RESET TO START POSITION

As a safety precaution, the power switch should ALWAYS be turned to the OFF position when inspecting the mechanism for any reason, such as: unloading or re-loading twist tie material, cleaning the machine, removing material or performing adjustments.

To manually turn mechanism, you will need to push the Release Actuator in and hold as you manually turn mechanism.

REMOVING JAMS

Pull Idler Wheel lever (blue arm) out and then remove material.



(Figure III-10)

SECTION IV: Maintenance

GENERAL

The Tie-Matic HD machine is designed for simple operation and, with reasonable care and maintenance, will provide long service.

CLEANING INSTRUCTIONS

Before cleaning the inside of the machine, make sure the power is turned off and the machine is unplugged from the power source. Open lid and use compressed air (with at least 50-60 PSI) to remove any dust or particles from regular use. Make sure to wear appropriate safety glasses when using compressed air.

Do not use water or other liquids to clean the inside of the machine. Moisture exposed to the internal parts of machine may cause electrical problems.

A damp cloth can be used to clean the outside frame and cover of the machine. Avoid excessive moisture, especially around the ventilation holes. Also avoid the use of solvents while cleaning the outside of the machine. Solvents may damage the paint on frame.

SECTION IV: Maintenance

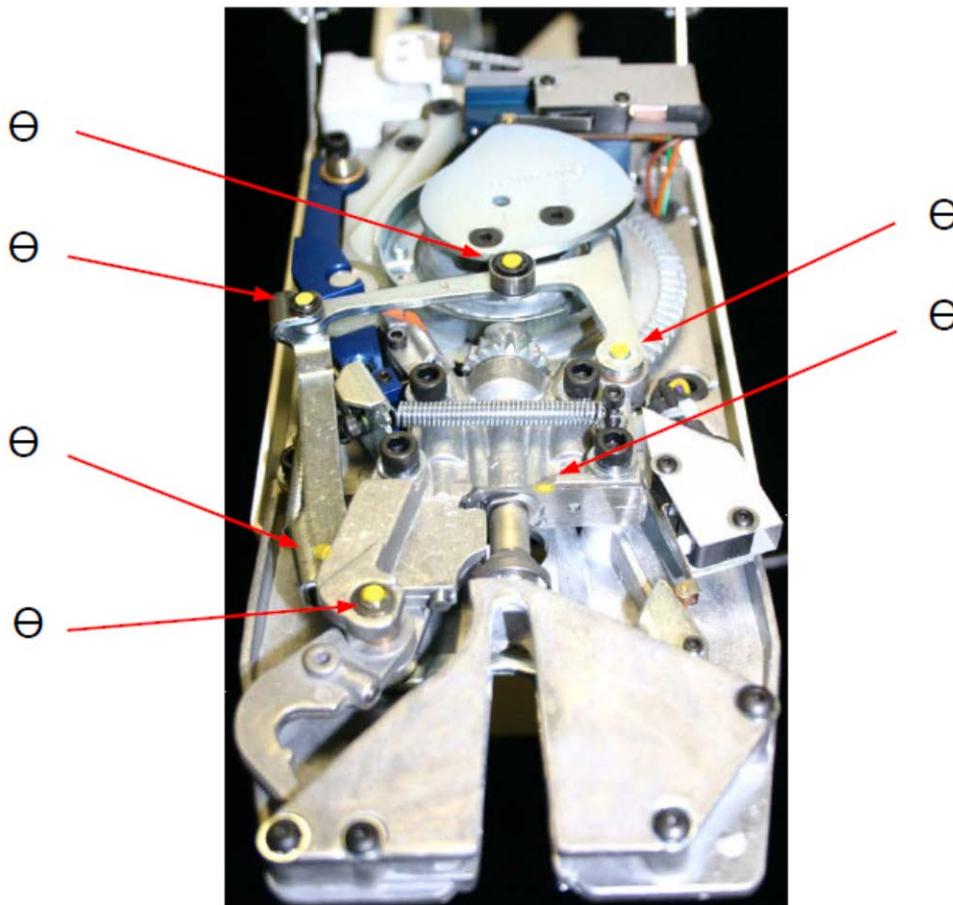
CAUTION

DO NOT OVER-OIL OR OVER-LUBRICATE MACHINE

It is important that the material feed drum and idler pressure wheel be kept free of lubricants. Excess lubrication to the drum will result in an improper tie due to material slippage, requiring a thorough cleaning of the material feed drum and idler wheel before reuse. Excess oil lubrication could damage the motor.

LUBRICATION

1. Turn OFF the machine
2. Air hose the dust from the machine
3. Lubricate the machine with 1 to 2 drops of 3-in-one multi-purpose oil every 50,000 ties. Apply to areas marked with yellow dots or Θ as shown in Figure IV-1 (6 locations).
4. Lubricate gear segment with food machinery lubricant (Bel Ray).



(Figure IV-1)

SECTION V: Troubleshooting

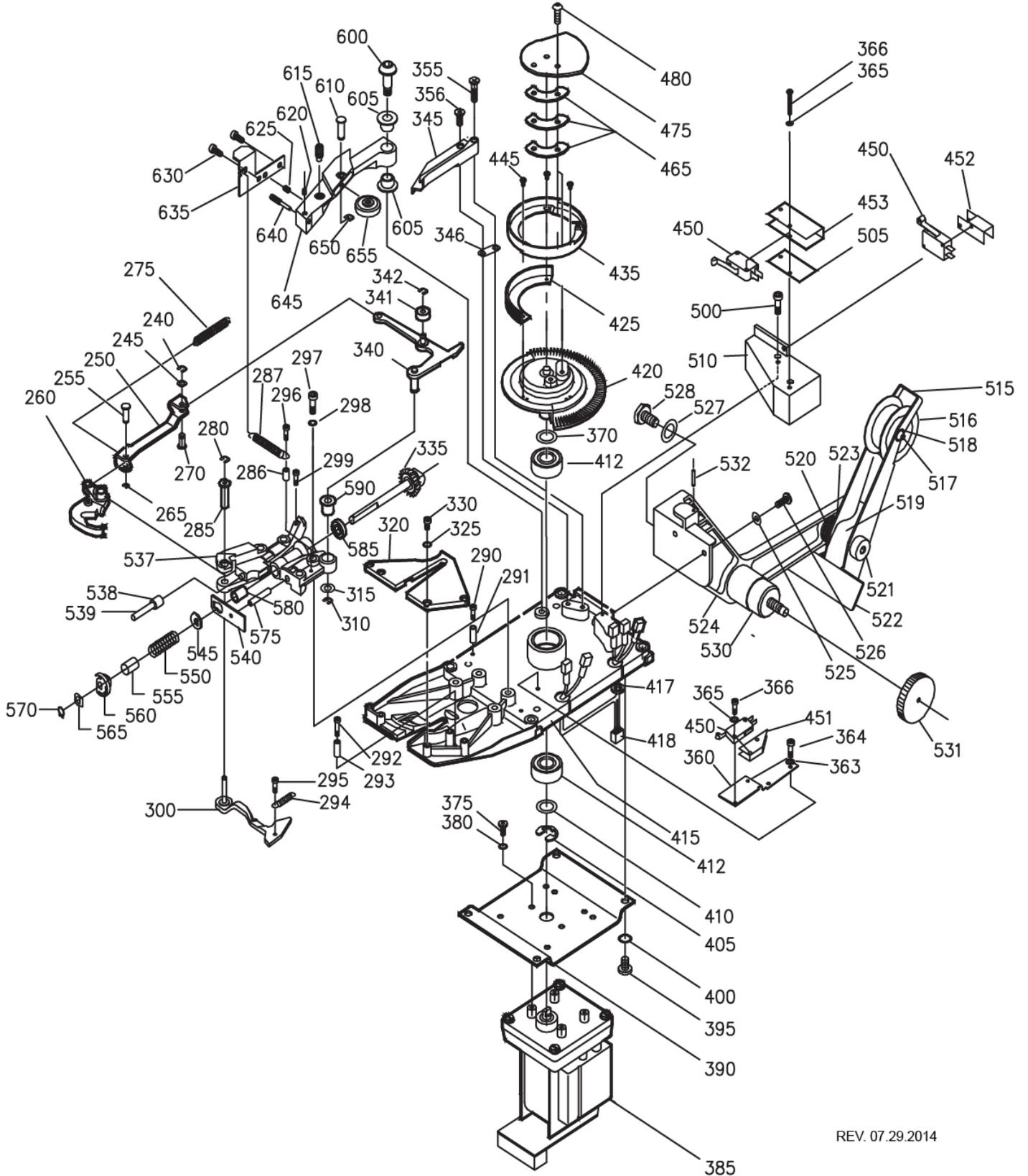
<u>Condition</u>	<u>Cause</u>	<u>Correction</u>
A. Machine jammed	<ul style="list-style-type: none"> a. Using non-Plas-Ties material b. Improper threading of material c. Oversized bundle to be tied d. Material jammed at throat of machine 	<ul style="list-style-type: none"> a. Use Plas-Ties material only b. Check spool & ribbon threading c. Do not exceed capacity diameter of the machine d. Press Release Actuator (See figure III-10 on page 13) to allow the motor to rotate, then remove the jammed material.
B. Machine circuit breaker trips	<ul style="list-style-type: none"> a. Motor locked due to jamming 	<ul style="list-style-type: none"> a. Press circuit breaker (#90 on Machine Drawing – case & cover) and remove material causing the jam
C. Material end crushed	<ul style="list-style-type: none"> a. Cutters dull or worn out b. Improperly installed movable cutter 	<ul style="list-style-type: none"> a. Replace worn cutter b. Install properly
D. Machine won't start	<ul style="list-style-type: none"> a. Power cord not connected b. Circuit breaker tripped c. Motor malfunction d. Machine switched off e. Cover micro switch not activated. 	<ul style="list-style-type: none"> a. Connect to outlet b. Reset circuit breaker c. Replace motor d. Check ON/OFF switch e. Check switch connection
E. Missing Ties	<ul style="list-style-type: none"> a. Loosely wound ribbon on spool b. Oil or grease on material or feed drum c. Defective spool brake spring d. Pinion channel obstructed e. Package too big 	<ul style="list-style-type: none"> a. Rethread material taut b. Clean material feed drum c. Replace spring d. Clean channel e. Use larger model of machine

SECTION V: Troubleshooting

<u>Condition</u>	<u>Cause</u>	<u>Correction</u>
F. Tie length short	a. Oil or grease on material feed drum b. Brake arm binding c. Material snag in spool	a. Clean with appropriate solvent b. Check material alignment on spool c. Take out snag and rethread
G. Machine won't stop at end of cycle	a. Defective limit switch b. Defective motor	a. Replace switch b. Replace motor

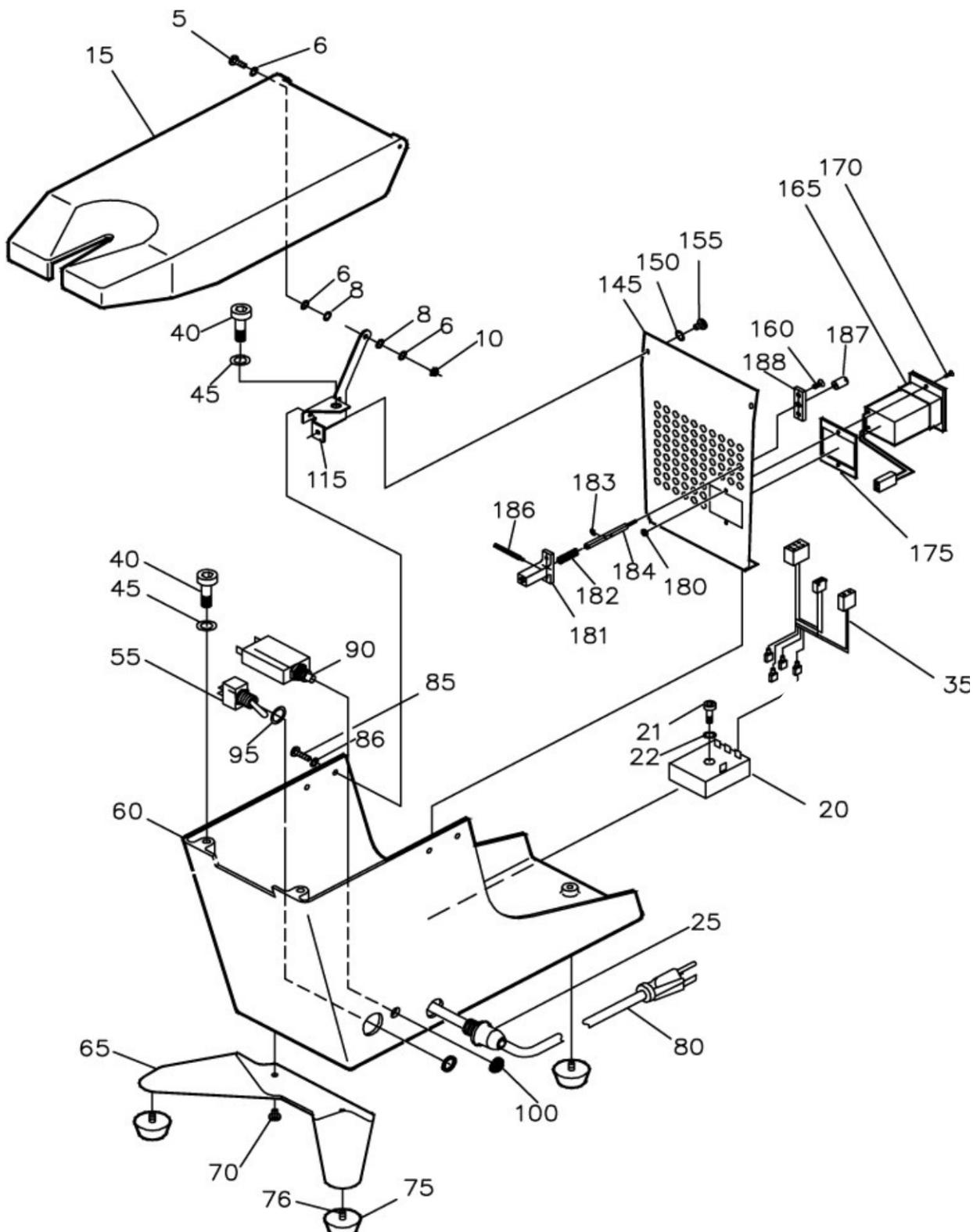
SECTION VI: Machine Drawing

Explosion Chart



SECTION VI: Machine Drawing

Case & Cover



SECTION VII: Parts List

Item #	Part #	Description	Qty
5	P004868	1/4-20x3/4 Button Head Cap Screw Stainless Steel	2
6	P001450	Lockwasher - Internal Tooth .250	6
8	P005200	Wave Disc Washer	4
10	P004869	1/4-20 Nylon Insert Locknut #14NS	2
15	A002045	Cover / Label - Assembly (HD 38)	1
15	A002050	Cover / Label - Assembly (HD 58)	1
15	A002055	Cover / Label - Assembly (HD 78)	1
20	P005600	220V Solid State Timer	1
21	P004716	10-32 x 1 1/4 Socket Head Cap Screw	1
22	P005354	# 10 Flat Washer	1
25	M001497	Strain Relief	1
35	A401660	220V Bottom Wiring Harness Complete	1
40	P004856	1/4-20x1 Socket Head Cap Screw	4
45	P001450	Lockwasher - Internal Tooth .250	4
55	P002000	Switch - On / Off	1
60	M002060	Tie-Matic HD Case	1
65	A101040	Foot Stabilizer - Assembly	1
70	P001290	10-32 x 1/2 PHP Screw	2
75	P001540	Foot - Rubber	3
76	P001210	10-32 x 1/2 PHP Type F Screw	3
80	P002030	Power Cord - Assembly	1
	P001045	AC Power Inlet	
	P005268	Powerline Filter	
85	P005295	10-32 X 5/16 Button Head Socket Cap Screws	4
86	P001480	Lockwasher - Internal Tooth No. 10	4
90	P002065	Circuit Breaker - 115v 2 amp	1
95	P005355	Lockwasher - 7/16 ID 1222-01-00-0511	1
100	P001080	1/4-20 Hex Nut	2
115	S001180 A	Hinge - Support Bracket L.H.	1
115	S001180 B	Hinge - Support Bracket R.H.	1
145	S001220	Divider - Case	1
150	P001480	Lockwasher - Internal Tooth No. 10	4
155	P001320	10-32 x 1/4 Pan Head Screw	4
160	P001940	6-32 x 3/16 Flat Head Phillips Screw #0603 MPU	2
165	A401665	220V Counter – Assembly with Motor Wiring Harness	1
170	P001630	4-40 x 3/8 Flat Head Screw	2
175	M001040	Seal - Counter	1
180	P001640	4-40 Hex Nut	2
181	M001660	Housing	1

SECTION VII: Parts List

Item #	Part #	Description	Qty
182	P001970	Spring	1
183	P001160	External Snap Ring	1
184	M001670	Shaft	1
186	M001680	Shaft	1
187	M001160	Cushion	1
188	M001650	Plate	1
240	P001190	Snap Ring	1
245	P001500	Curved Spring Washer No. 10	1
250	S001230	Link - Needle Operating	1
255	M001260	Pin - Idler Wheel	1
260	A401590	Needle - Assembly (HD 38)	1
	A401595	Needle - Assembly (HD 58)	1
	A401600	Needle - Assembly (HD 78)	1
265	P001170	Crescent External Ring	1
270	M001080	Pin - Clevis	1
275	M001488	Spring, Needle Return	1
280	P001140	E- Ring	1
285	M001220	Sleeve, Needle Pivot	1
286	P005352	6-32 x 3/8 Hex Nut	1
287	M001489	Idler Arm Tension Spring (HD38 & HD58)	1
287	M001475	Idler Arm Tension Spring (HD78)	1
290	P005328	4-40 x 5/8 Socket Head Cap Screw	1
291	M001496	Spacer, Needle Return Spring	1
292	M005328	4-40 x 5/8 Socket Head Cap Screw	1
293	M001498	Spring Spacer for Trigger Spring	1
294	M001490	Spring - Trigger Return	1
295	P004368	4-40 x 1/4 Socket Head Cap Stainless 0404 CSSS	1
296	P005357	6-32 x 1/2 Socket Head Cap Screw	1
297	P004856	1/4-20 X 1 Socket Head Cap Screw	4
298	P001450	Lockwasher - Internal Tooth .250	4
299	P005326	6-32 x 1/4 Socket Head Cap Screw	1
300	S001025	Trigger	1
310	P001160	External Snap Ring	1
315	P001730	Shim - Pinion Support	1
320	M001340	Cover - Trigger (HD 38)	1
	M001600	Cover - Trigger (HD 58)	1
	M001610	Cover - Trigger (HD 78)	1
325	P001470	Lockwasher - Internal Tooth No. 8	4

SECTION VII: Parts List

Item #	Part #	Description	Qty
330	P005235	8-32 x 3/8 Button Head Cap Screw	4
335	A301075	HD Pinion / Shaft - Assembly	1
340	A401610	Needle, Actuating Assembly	1
341	P001510	Roller Bearing	1
342	P001190	Snap Ring	1
345	M001021	Guide - Tape Feed Modified	1
346	S001050	Shim - Material Guide	A/R
355	P005220	10-32 x 3/4 Flat Head Socket Screw	1
356	P005210	10-32 x 5/8 Flat Head Socket Screw	1
360	M029285	Bracket, Trigger Limit Switch	1
363	P001460	Lock Washer - Internal Tooth #4	2
364	P005326	6-32 x 1/4 Socket Head Cap Screw	2
365	P005353	# 4 Flat Washer	2
366	P004867	4-40 x 5/8 Button Head Cap Screw	2
370	P001720	Shim - Gear Segment	A/R
375	P005320	8-32 x 5/16 Soc Cap Stainless 0805CSSS	4
380	P001470	Lockwasher - Internal Tooth No. 8	4
385	P002750	Motor - Gear	1
390	S001170	Plate - Motor Mount	1
395	P005310	1/4-20 x 3/8 Socket Head Cap Stl Blk #1406CSP	4
400	P001450	Lockwasher - Internal Tooth .250	4
405	P001150	E- Ring Bowed	1
410	P001720	Shim - Frame	A/R
412	P001030	Bearing - Radial Ball	2
415	M002030	Frame - Gear Support (HD 38)	1
	M002035	Frame - Gear Support (HD 58)	1
	M002040	Frame - Gear Support (HD 78)	1
417	P001550	Grommet	2
418	A701065	220V Top Wiring Harness	1
420	A501035	HD Gear Segment - Assembly	1
425	S001145	Drum - Material Feed (HD 38)	1
	S001245	Drum - Material Feed (HD 58)	1
	S001255	Drum - Material Feed (HD 78)	1
435	S001155	Guard - Cam Return	1
445	P004368	4-40 x 1/4 Socket Head Cap Screw Stainless 0404 CSSS	3
450	P001570	Micro Switch	3
451	M001501	Insulator, Trigger Limit Switch	1
452	M001499	Insulator, Cover Limit Switch	1
453	M001500	Insulator, Cam Limit Switch	1

SECTION VII: Parts List

Item #	Part #	Description	Qty
465	S001210	Cam - Laminate	3
475	S001200B	Cam - Needle	1
480	P005210	10-32 x 5/8 Flat Head Socket Screw	2
500	P005328	4-40 x 5/8 Socket Head Cap Screw	2
505	M001200	Insulator, Spacer - Switch	1
510	M021012	Switch Mount	1
515	S001090	Spool, Brake Arm	1
516	M001315	Roller, Brake	1
517	M001120	Shaft, Brake Arm	1
518	P001090	Nut-Push .188 Shaft Diameter	2
519	S001280	Shield, Brake Arm	1
520	M001550	Spring - Brake Arm	1
521	P001350	3/8 - 16 x 1/2 x 1-1/2 Shoulder Screw #5024SS	1
522	M001030	Plate, Brake Arm	1
523	P001040	Bushing, Plastic	2
524	M001101	Beam, Brake Arm	1
525	P001480	Lockwasher - Internal Tooth No. 10	2
526	P001290	10-32 x 1/2 PHP Screw	2
527	P001490	Washer - Nylon .296 ID x .750 OD x .032	1
528	P001360	1/4-20 x 1/2 Hex Head Cap Screw	1
530	M001470	Spindle Assembly	1
531	M001471	Knob, Knurled Nut	1
532	P001130	Spring Pin .125 x .563	2
537	M001135	Pinion Support	1
538	M001160	Cushion	1
539	M001170	Pin, Needle Stop	1
540	M001380	Stationary Cutter Plate	1
545	M001620	Cutter, Movable	1
550	M001150	Spring, Cutter	1
555	M001190	Cover, Spring	1
560	M001330	Twister, Ribbon	1
565	S001060	Deflector	1
570	P001180	Snap Ring	1
575	M001180	Locator Pin	1
580	P001620	Bushing	1
585	P001020	Bearing	1
590	P001010	Bushing	1
600	M001491	Shoulder Bolt, Modified 5/16 x 5/8	1
605	M001495	Flange Sleeve Bearing	2

SECTION VII: Parts List

Item #	Part #	Description	Qty
610	M001260	Pin, Clevis	1
615	M001485	Modified Set Screw	1
620	P005351	8/32 x 1/4 Socket Set Screw	1
625	P005350	8/32 x 3/16 Hex Socket Set Screw	1
630	P005320	8/32 x 5/16 Socket Head Cap Screw	2
635	M001486	Spring Bracket, Pivot Drive	1
640	M001494	Modified, 8/32 x 1 Socket Set Screw	1
645	M001480	Pivot Drive Arm	1
650	P001160	External Snap Ring	1
655	A401075	Drive Wheel Assembly	1

SECTION VIII: Sub Assembly Parts List

Item #	Part #	Sub-Assemblies	Qty
	A401535	Master Pinion Support Assembly (HD38)	
	A401536	Master Pinion Support Assembly (HD58)	
	A401537	Master Pinion Support Assembly (HD78)	
240	P001190	Snap Ring	1
245	P001500	Curved Spring Washer No. 10	1
250	S001230	Link - Needle Operating	1
255	M001260	Pin - Idler Wheel	1
260	A401590	Needle - Assembly (HD 38)	1
	A401595	Needle - Assembly (HD 58)	1
	A401600	Needle - Assembly (HD 78)	1
265	P001170	Crescent External Ring	1
270	M001080	Pin - Clevis	1
275	M001488	Spring, Needle Return	1
280	P001140	E- Ring	1
285	M001220	Sleeve, Needle Pivot	1
286	P005352	6-32 x 3/8 Hex Nut	1
287	M001489	Idler Arm Tension Spring (HD38 & HD58)	1
287	M001475	Idler Arm Tension Spring (HD78)	1
290	P005328	4-40 x 5/8 Socket Head Cap Screw	1
291	M001496	Spacer, Needle Return Spring	1
292	M005328	4-40 x 5/8 Socket Head Cap Screw	1
293	M001498	Spring Spacer for Trigger Spring	1
294	M001490	Spring - Trigger Return	1
295	P004368	4-40 x 1/4 Socket Cap Stainless 0404 CSSS	1
296	P005357	6-32 x 1/2 Socket Head Cap Screw	1
297	P004856	1/4-20 X 1 Socket Head Cap Screw	4
298	P001450	Lockwasher - Internal Tooth .250	4
299	P005326	6-32 x 1/4 Socket Head Cap Screw	1
300	S001025	Trigger	1
310	P001160	External Snap Ring	1
315	P001730	Shim - Pinion Support	1
335	A301075	HD Pinion / Shaft - Assembly	1
340	A401610	Needle, Actuating Assembly	1
341	P001510	Roller Bearing	1
342	P001190	Snap Ring	1
537	M001135	Pinion Support	1
538	M001160	Cushion	1
539	M001170	Pin, Needle Stop	1
540	M001380	Stationary Cutter Plate	1
545	M001620	Cutter, Movable	1

SECTION VIII: Sub Assembly Parts List

Item #	Part #	Sub-Assemblies	Qty
	A401535	Master Pinion Support Assembly (CONTINUED)	
550	M001150	Spring, Cutter	1
555	M001190	Cover, Spring	1
560	M001330	Twister, Ribbon	1
565	S001060	Deflector	1
570	P001180	Snap Ring	1
575	M001180	Locator Pin	1
580	P001620	Bushing	1
585	P001020	Bearing	1
590	P001010	Bushing	1
	A401540	Pinion Support - Assembly	
299	P005326	6-32 x 1/4 Socket Head Cap Screw	1
335	A301075	HD Pinion / Shaft - Assembly	1
537	M001135	Pinion Support	1
538	M001160	Cushion	1
539	M001170	Pin, Needle Stop	1
540	M001380	Stationary Cutter Plate	1
545	M001620	Cutter, Movable	1
550	M001150	Spring, Cutter	1
555	M001190	Cover, Spring	1
560	M001330	Twister, Ribbon	1
565	S001060	Deflector	1
570	P001180	Snap Ring	1
575	M001180	Locator Pin	1
580	P001620	Bushing	1
585	P001020	Bearing	1
590	P001010	Bushing	1
	A401545	Pinion Support	
299	P005326	6-32 x 1/4 Socket Head Cap Screw	1
537	M001135	Pinion Support	1
538	M001160	Cushion	1
539	M001170	Pin, Needle Stop	1
580	P001620	Bushing	1
585	P001020	Bearing	1
590	P001010	Bushing	1

SECTION VIII: Sub Assembly Parts List

Item #	Part #	Sub-Assemblies	Qty
	A401520	Gear Support Frame - Assembly (HD 38)	
415	M002030	Frame - Gear Support (HD 38)	1
412	P001030	Bearing - Radial Ball	2
417	P001550	Grommet	2
	A401525	Gear Support Frame - Assembly (HD 58)	
415	M002035	Frame - Gear Support (HD 58)	1
412	P001030	Bearing - Radial Ball	2
417	P001550	Grommet	2
	A401530	Gear Support Frame - Assembly (HD 78)	
415	M002040	Frame - Gear Support (HD 78)	1
412	P001030	Bearing - Radial Ball	2
417	P001550	Grommet	2
	A401510	Master Gear Segment Assembly (HD38)	
	A401511	Master Gear Segment Assembly (HD58)	
	A401512	Master Gear Segment Assembly (HD78)	
420	A501035	Gear Segment - Assembly	1
425	S001145	Drum - Material Feed (HD 38)	1
	S001245	Drum - Material Feed (HD 58)	1
	S001255	Drum - Material Feed (HD 78)	1
435	S001155	Guard - Cam Return	1
445	P004368	440 x1/4 Socket Head Cap Screw Stainless 0404 CSSS	3
465	S001210	Cam - Laminate	3
475	S001200B	Cam - Needle	1
480	P005210	10-32 x 5/8 Flat Head Socket Screw	2
	A401550	Idler Wheel Assembly	
287	M001489	Idler Arm Tension Spring (HD38 & HD58)	1
287	M001475	Idler Arm Tension Spring (HD78)	1
600	M001491	Shoulder Bolt, Modified 5/16 x 5/8	1
605	M001495	Flange Sleeve Bearing	2
610	M001260	Pin, Clevis	1
615	M001485	Modified Set Screw	1
620	P005351	8-32 x 1/4 Socket Set Screw	1
625	P005350	8-32 x 3/16 Hex Socket Set Screw	1
630	P005320	8/32 x 5/16 Socket Head Cap Screw	2
635	M001486	Spring Bracket, Pivot Drive	1
640	M001494	Modified, 8/32 x 1 Socket Set Screw	1
645	M001480	Pivot Drive Arm	1
650	P001160	External Snap Ring	1
655	A401075	Drive Wheel Assembly	1

SECTION VIII: Sub Assembly Parts List

Item #	Part #	Sub-Assemblies	Qty
A401555		Brake - Complete Assembly	
515	S001090	Spool, Brake Arm	1
516	M001315	Roller, Brake	1
517	M001120	Shaft, Brake Arm	1
518	P001090	Nut-Push .188 Shaft Diameter	2
519	S001280	Shield, Brake Arm	1
520	M001550	Spring - Brake Arm	1
521	P001350	Shoulder - Screw #5024ss 3/8-16 x 1/2 x 1-1/2	1
522	M001030	Plate, Brake Arm	1
523	P001040	Split Bearing, Nyliner 8L1-FF	2
524	M001101	Beam, Brake Arm	1
525	P001480	Lockwasher - Internal Tooth No. 10	2
526	P001290	10-32 x 1/2 PHP Screw	2
527	P001490	Washer, Nylon .296 ID x .750 OD x .032	1
528	P001360	1/4-20 x 1/2 Hex Head Cap Screw	1
530	M001470	Spindle Assembly	1
531	M001471	Knob, Knurled Nut	1
532	P001130	.125 x .563 Roll Spring Pin	2
A301150		Brake Arm, Complete Spool Assembly	
515	S001090	Spool, Brake Arm	1
516	M001315	Roller, Brake	1
517	M001120	Shaft, Brake Arm	1
518	P001090	Push Nuts	2
519	S001280	Shield, Brake Arm	1
522	M001030	Plate, Brake Arm	1
523	P001040	Split Bearing, Nyliner 8L1-FF	2
A301152		Brake Arm – Spool Sub Assembly	
515	S001090	Spool, Brake Arm	1
519	S001280	Shield, Brake Arm	1
522	M001030	Plate, Brake Arm	1

SECTION VIII: Sub Assembly Parts List

Item #	Part #	Sub-Assemblies	Qty
A401765		Case Assembly	
20	P005600	220V Solid State Timer	1
21	P004716	10-32 x 1 1/4 Socket Head Cap Screw	1
22	P005354	# 10 Flat Washer	1
30	A301160	5" Wire Assembly	1
35	A401660	220V Bottom Wiring Harness Complete	1
55	P002000	Switch - On / Off	1
60	M002070	Tie-Matic HD Case	1
70	P001290	10-32 x 1/2 PHP Screw	2
75	P001540	Foot - Rubber	3
76	P001210	10-32 x 1/2 PHP Type F Screw	3
80	AP002030	Power Cord – 220V	1
	P001045	AC Power Inlet	
	P005268	Powerline Filter	
85	P005295	10-32 X 5/16 Button Head Socket Cap Screws	4
86	P001480	Lockwasher - Internal Tooth No. 10	4
90	P002065	Circuit Breaker – 220V 1.5 amp	1
95	P005355	Lock Washer - 7/16 ID 1222-01-00-0511	1
100	P001080	1/4-20 Hex Nut	2
115	S001180 A	Hinge - Support Bracket L.H.	1
115	S001180 B	Hinge - Support Bracket R.H.	1
A401515		Case Divider Assembly	
145	S001220	Divider - Case	1
150	P001480	Lockwasher - Internal Tooth No. 10	4
155	P001320	10-32 x 1/4 Pan Head Screw	4
160	P001940	6-32 x 3/16 Flat Head Phillips Screw #0603MPU	2
165	A401665	220V Counter – Assembly with Motor Wiring Harness	1
170	P001630	4-40 x 3/8 Flat Head Screw	2
175	M001040	Seal - Counter	1
180	P001640	4-40 Hex Nut	2
181	M001660	Housing	1
182	P001970	Spring	1
183	P001160	External Snap Ring	1
184	M001670	Shaft	1
186	M001680	Shaft	1
187	M001160	Cushion	1
188	M001650	Plate	1

SECTION VIII: Sub Assembly Parts List

Item #	Part #	Sub-Assemblies	Qty
	A401570	Motor Release Actuator Assembly	
160	P001940	6-32 x 3/16 Flat Head Phillips Screw #0603 MPU	2
181	M001660	Housing	1
182	P001970	Spring	1
183	P001160	External Snap Ring	1
184	M001670	Shaft	1
186	M001680	Shaft	1
187	M001160	Cushion	1
188	M001650	Plate	1
	A702050	Wiring Harness Complete 220V	
	A701065	220V Top Wiring Harness	
	A401660	Bottom Wiring Harness	
	A401665	220V Counter – Assembly with Motor Wiring Harness	

SECTION VIII: Sub Assembly Parts List

Part #	Additional 220V HD38/HD58/HD78 Parts	Qty
P002010	Micro Switch 220V Euro	1
P002065	Circuit Breaker	1
P002000	Switch On/Off 220V Euro	1
P005600	Solid State Timer (THDS610255A)	1
P002050	7 Digit Panel Mount Counter	1
P002750	Motor	1
A401660	Bottom Wiring Harness Complete	1
A301160	5" Wire Assembly	1
P001800	1809 18/7 Blue Wire	1
P001410	Connector Quick Disconnect	4
P001420	Terminal Ring Tongue	2
P001590	Strain Relief Bushing	1
P001046	*Power Cord Black Standard 2-Prong Option	1
P002030	*Power Cord Black EU 220V Option	1
P001670	Terminal Male	8
P001690	Connector Receptacle	1
P001910	Terminal Female	8
P005268	Powerline EMI Filter	1
P005269	Terminal Connectors	13
<p>*Only one power cord per machine. Country destination determines power cord option. P001046 = North American Standard P002030 = European Option</p>		

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220V

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