



Operations Manual

Eagle 715RS Strapping Machine



**READ ALL INSTRUCTIONS CONTAINED IN THIS
MANUAL PRIOR TO MACHINE INSTALLATION!**

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1. Safety and Warnings

1.1 Basic Operation

- Read the operation and safety manual prior to using the strapping machine.
- The operation and safety manual should remain attached to the machine at all times.
- The machine may only be operated in accordance with its designated use.
- The strapping machine was built in accordance with state-of-the-art standards and recognized safety rules. Nevertheless, improper use can still result in injury to personnel or damage to the machine and other material property.
- Machine shall only be operated by trained personnel.
- Perform inspections and maintenance at regular intervals. Refer to the Maintenance section of the manual.
- The machine may not be put in operation before checking the respective devices.
- Safety devices must never be bridged or eliminated by any means.
- To transport the equipment only use lifting apparatus and loading devices with sufficient capacity.
- Always disconnect from external power supply when changing the location of the machine, even if the location should only be slightly changed. Connect power supply properly before returning to service.
- Do not alter or bypass protective interlocks.
- Do not alter circuits and machine unless authorized to do so by the manufacturer.

1.2 Basic Safety Precautions

- In addition to the instructions for operation, the user is to be instructed in all generally applicable legal or mandatory regulations relevant to safety or the environment.
- Long hair, loose-fitting garments, or jewelry can be a safety hazard. These items must be secured prior to equipment operation.
- Use protective equipment whenever appropriate or when required by law.
- Carefully observe all safety instructions and warnings attached to the machine. Keep safety labels clean and legible.
- People that are being trained to operate or service the equipment must be supervised by experienced personnel.
- Any electrical work performed on the equipment must be conducted by a skilled electrician or under the supervision of a skilled electrician. All work must be observed good electrical engineering practice and follow safety rules and local wiring standards.

1. Safety & Warnings

1.3 Safety Instructions Governing Specific Operational Phases

- Avoid unsafe operation of the equipment.
- The machine is only to be operated when it is in good running order. Only operate the equipment in a safe manner; all protective and safety devices must be in place and fully functional. This includes removable safety devices, emergency shut-off equipment, noise-protection devices and exhaust fans.
- The machine is to be checked for damage and defects at least once each work shift. Any changes, including the working behavior of the machine, are to be reported immediately.
- If necessary, the machine is to be stopped and locked-out immediately.
- In case of a malfunction, the strapping machine is to be immediately stopped and locked-out until the fault has been eliminated.
- Before starting the strapping machine, make sure that the area is clear and safe.
- Do not place any tools or parts onto the machine.
- Operating personnel needs to be well trained before executing special operations and maintenance work; this work needs to be done with the proper supervision.
- Always check and tighten connections after maintenance or repair.
- After completing maintenance or repair, all safety devices must be replaced and checked for functionality before operating the equipment.
- To minimize the environmental impact, all consumables and replaced parts must be disposed of safely.
- Before starting the machine, check that the accessories have been stowed away safely.
- Avoid operating the machine in a fashion that could upset its stability.

1.4 Electrical Dangers

- Immediately remove power to the machine in case of trouble in the electrical system.
- Replace a fuse with one with the same style and ratings; pay particular attention to matching the specified current.
- Any electrical work performed on the equipment must be conducted by a skilled electrician or under the supervision of a skilled electrician. All work must be observed good electrical engineering practice and follow safety rules and local wiring standards.
- Inspect the electrical equipment of the machine at regular intervals. Tighten any loose connections. Check wiring for scorch marks; replace scorched wiring and determine and correct the reason for the overheating.
- When working on live equipment, ensure that a second person is available to cut power in case of an emergency. When appropriate, secure the working area with safety tape and a warning sign. Use insulated tools for electrical work.
- Before working on high-voltage assemblies, turn off the power supply. Carefully discharge the supply cable and short-circuit any energy-storage components such as capacitors.
- If the equipment was moved, carefully refit and refasten all parts removed for transport before reapplying power.
- Before moving the machine, remember to disconnect the power cable.

1. Safety & Warnings

1.5 Grounding

- This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock. This product is equipped with a cord that has a grounding wire and an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances.
- If repair or replacement of the cord or plug is necessary, connect the ground wire to the ground terminal of the plug. The wire with green insulation (with or without yellow stripes) is the grounding wire.
- Check with a qualified electrician or service person if the grounding instructions are not clear or if in doubt about the proper grounding of the machine. Do not modify the plug provided; if it will not fit the power outlet, have the proper outlet installed by a qualified electrician.



IMPROPER INSTALLATION OF THE GROUNDING CAN RESULT IN ELECTROCUTION!

1.6 Before Operating

- Read the instruction manual before operating the machine for your safety.
- Wear eye protection and safety gloves before operating this machine.



Eye protection must be worn



Safety gloves must be worn

- Verify that the power line voltage is correct.
- The machine must be properly grounded to avoid a shock hazard. All wiring must be in accordance with local wiring standards.
- The strapping machine can only be operated with polypropylene (PP) strapping; do not use polyester (PET) strapping or polyethylene (PE) cord strap.

1. Safety & Warnings

1.7 During Operation

- The weight of the package cannot exceed 70kg. For package weight over 25kg, it may be necessary to use lifting aids for handling; while package weight over 40kg, it's necessary to handle it with conveyor system.
- The size of the package should not be less than 70 mm × 20 mm (2.75 inches × 0.75 inches).
- While running, check the unit for any unusual sounds or smoke emissions.
- Keep away from the inside of the arch while the machine is operating; do not put your hands or body into the arch when the machine is running.

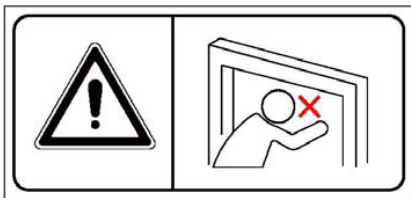
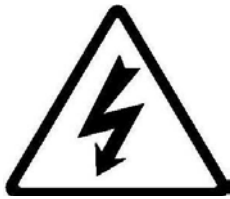


IT IS NORMAL FOR THE HEATER TONGUE TO SMOKE DURING THE SEALING OPERATION

1.8 After Operation

- Remove dust and dirt from the unit; pay particular attention to the interior of the arch.
- Turn off the power when the machine is not in use.

1.9 Signs & Symbols



Warning! Dangerous Voltages!

Contact with live electrical parts will result in serious injury or death.

Warning! Hot Surface!

Welding area is approximately 270°C (520°F)!
Allow sufficient time for the heater to cool down before performing any work in the welding area.

Warning!

Do not put your hands or any part of your body into the arch working area while the machine is in operation.

2. Machine Information

2.1 Specifications

Power Requirement	110VAC, 60Hz (Single Phase)
Minimum Carton Size (Width x Height)	2.75in x 0.75in
Standard Arch Size (Width x Height)	26in x 20in
Tabletop Height	32.75in
Core Size	8in x 8in
Tension	2.5 to 70.5lbs
Machine Dimensions (Length x Width x Height)	37in x 26.5in x 56in
Strapping Speed	65 straps per minute

2.2 Areas of Application

The strapping machine is to be used for strapping packages, cartons, paper boxes, newspapers, magazines and those materials using a polypropylene (PP) strapping for stabilizing purposes when in transportation. Be careful for rigidity of working materials, and don't try to pack agri-foodstuffs or other such material.

This machine was designed for certain applications only. We strongly recommend that this machine **NOT** be modified and/or used for any application other than for which it was designed. If you have any questions relative to its application **DO NOT** use the machine until you have had detail instruction from your dealer.

2.3 Operating Environment

The strapping machine should be installed and operated in the following environment;

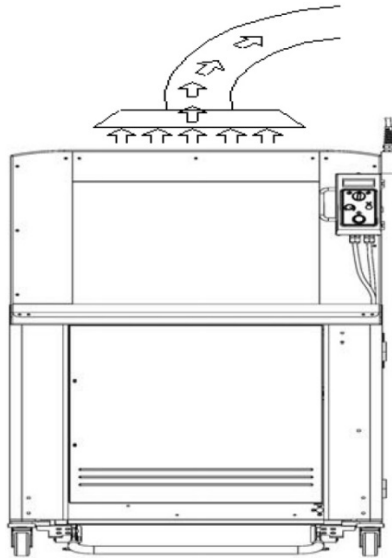
- Supply voltage: 0.9 - 1.1 nominal supply voltage
- Source frequency: 0.99 - 1.01 nominal frequency
- Ambient temperature: 5°C - 40°C (41°F-104°F).
- Altitude: shall be at altitudes up to 1000m above mean sea level.
- Relative humidity: not exceed 50% at 40°C.
- Atmosphere: Free from excessive dust, acid fume, corrosive gases and salt.
- Avoid exposing to abnormal vibration.
- Don't use machine in dangerous environment.
- Don't use machines in damp or wet locations, or expose them to rain.
- Please provide a suitable illumination around the machine for safety operation.
- Work place of user should have a fire extinguisher or other devices that meet their local safety regulations, and always be careful.
- Internal parts requiring frequent inspection and adjustment, and maintenance areas must be provided with a suitable illumination around the machine.

2. Machine Information

2.4 Machine Exhaust

If there may be harmful gases, fumes or dust generated during heating, user or system integrator must install exhaust system for the extraction of harmful substances. The exhaust system shall be positioned according to the vent location.

The user should refer to a professional expert or relevant authority to prevent the dangerous substance/ gas emitted by suitable means according to local /national environmental/health codes/regulations.



2.5 Storage

- The store room must be dry.
- Do not expose the machine to extreme cold or heat environment.
- Place the machine on an even floor in order to avoid any distortion.

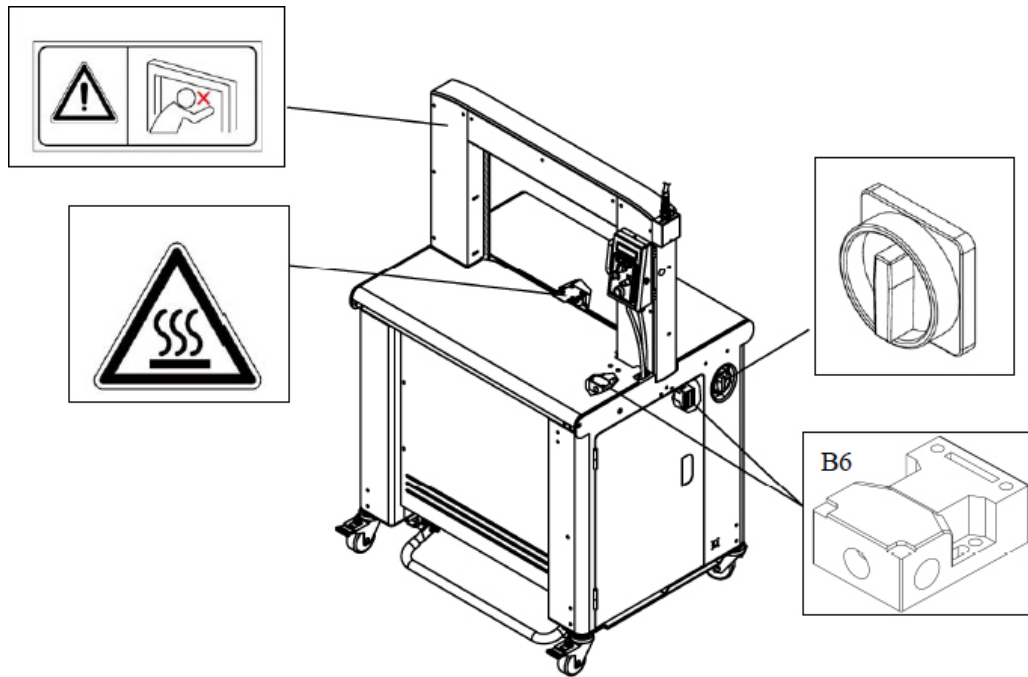
2.6 Safety Devices

The machine has been constructed in accordance with the applicable legal regulations. The machine is reliable in operation. Nevertheless the machine may constitute a danger if it is operated in improper or undue condition.

Danger points that cannot be avoided due to equipment design are equipped with safety devices. If necessary, these points are marked on the machine with warning signs, and in the manual under working safety instructions.

2. Machine Information

2.6 Safety Devices (Continued)



If it is necessary to make adjustments inside the machine during operation, after a strap jam for example, the rear table top can be unscrewed. Observe caution as the machine is still fully functional with the covers removed. When the front table top is opened, safety switch B6 is activated. This will remove power but the heating element will keep heating.



THE HEATING UNIT OPERATES AT A VERY HIGH TEMPERATURE IN ORDER TO MELT THE PP STRAPPING. TO PREVENT BURNS, AVOID CONTACT WITH THIS AREA.

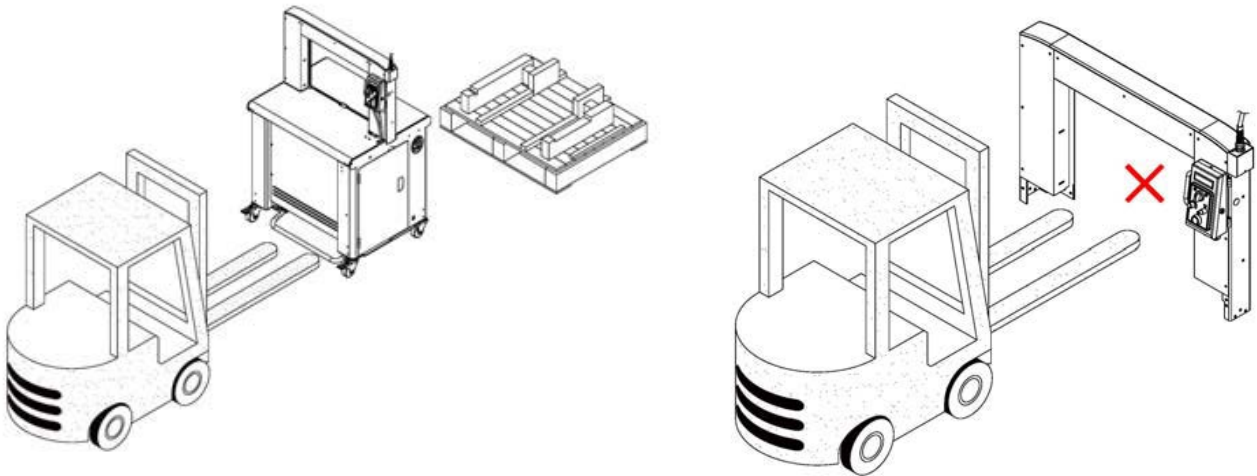
3. Machine Setup and Installation

3.1 Transportation

The equipment is delivered in transport units. Each transport is loaded onto a wooden pallet and secured by polyester strapping.

The machine must be secured on a pallet for transportation. A forklift (or other lifting device) is necessary for lifting the machine to the pallet. The casters must be fit nicely in the recess on the pallet for proper packaging. Secure the machine to the pallet with plastic strapping across the top plates with a layer of cardboard on it to avoid damage. Cover the machine with sturdy box for protection and hold the whole box to the pallet with plastic strapping.

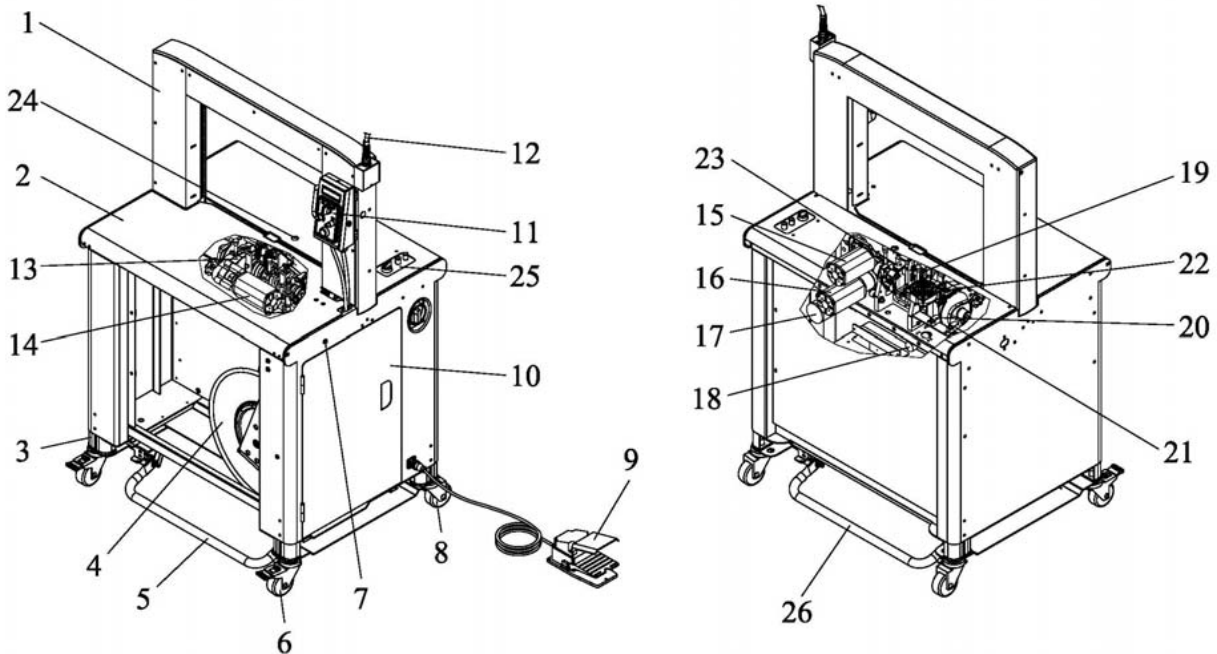
The machine can be removed from the pallet using forklift truck or other lifting device.



DO NOT CARRY MACHINE BY HAVING THE FORKLIFT FORKS UNDER THE ARCH! ONLY PLACE FORKS UNDER THE MACHINE FRAME.

3. Machine Setup & Installation

3.2 Machine Parts

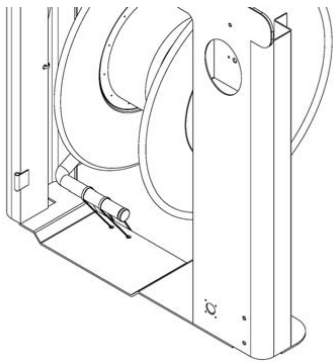


1	Arch	9	Foot Pedal (option)	17	Strap Accumulator Motor M4	24	Photo Eye (option)
2	Upper Table Front	10	Side Door			25	Timer Box (option)
3	Adjustment Leg	11	Control Panel	18	Auto Feed Mtr M5	26	Foot Bar (Rear) (option)
4	Reel	12	Power Cord	19	Prox Sensor SP1		
5	Foot Bar (Front)	13	Strap Head Unit	20	Prox Sensor SP2		
6	Caster (Brake)	14	Main Motor M1	21	Prox Sensor SP3		
7	Reel Brake Release	15	Feed Motor M2	22	Fan (M11)		
8	Caster (Free)	16	Tension Motor M3	23	Heater		

3. Machine Setup & Installation

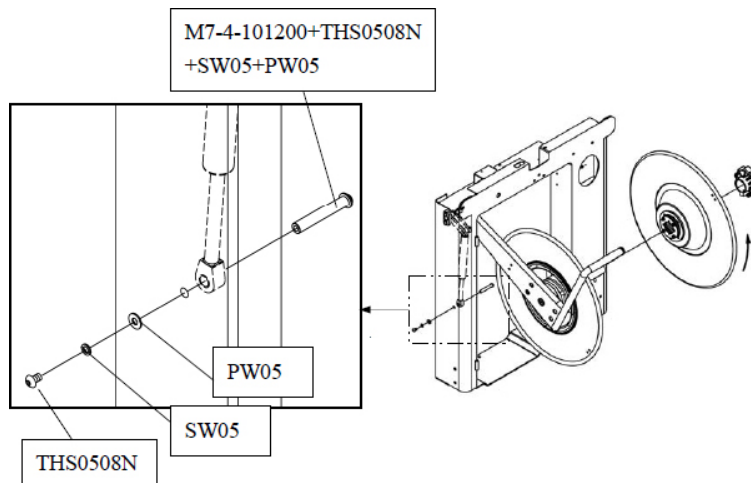
3.3 Installation

1. Remove the packing material and the check that the machine is complete and free of damage.
2. Install the gas spring
 - a. To protect the Gas Spring, the PIN on one side of the Gas Spring would be detached before shipment and the Reel Group would be also fixed by Cable tie (shown as following drawing). Before operating the machine, the Gas Spring must be installed well.
 - b. Open the Right door of the machine and take out the plastic bag A. Inside this bag, there are an operation manual and parts as listed in following chart.
 - c. Cut the cable tie that secures the reel group.



Part Number	Description	Qty
M7-4-101-200	Shaft	1
THS0508N	THS, M5x8 (N)	2
SW05	SW, M5	2
PW05	PW, M5	

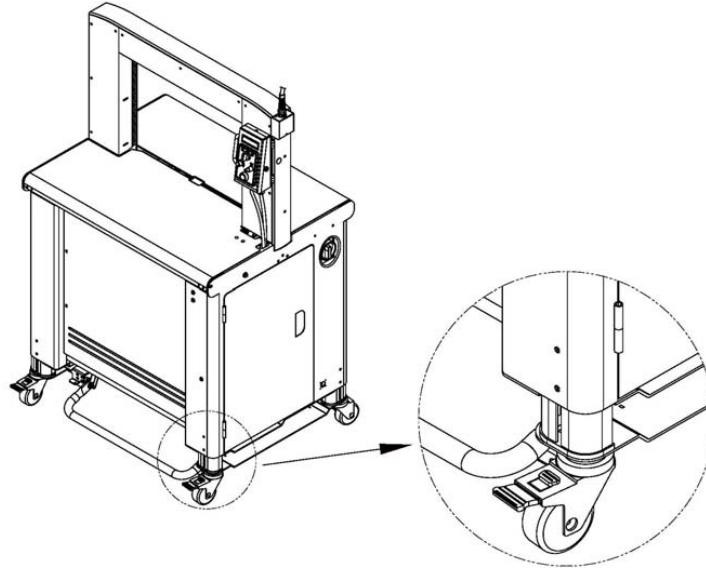
- d. Have M7-4-101200 Shaft threading from inside of the machine and then lift the Reel Group and move the Gas Spring to make the PIN also goes through the hole and use 2 Allan Key with 3mm to fix THS0508N+PW05+SW05 all together.



3. Machine Setup & Installation

3.3 Installation (Continued)

3. Adjust the table height by repositioning the screws underneath the machine frame (refer to below drawing). After adjustments, be sure to tighten all the fixing screws.



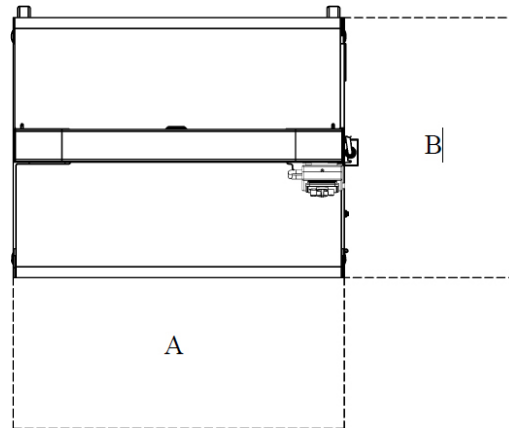
BE SURE TO REMOVE THE WIRE FOR THE PROXIMITY SWITCH UNDER THE LEFT SIDE OF THE MACHINE TO AVOID DAMAGE WHILE ADJUSTING TABLE HEIGHT

4. After positioning the machine, be sure to lock the two front casters.
5. When moving the machine, be sure to un-lock the casters. Re-lock the casters after repositioning the machine.
6. Do not move the machine unless it is necessary. Before movement, be sure to turn off and disconnect power from the machine.
7. Minimum requirements for electrical supply
 - a. The electrical supply cord for the machine must have a minimum cross-section of at least 1.0 mm² (16 AWG).
 - b. The maximum power line fuse must not exceed 16 Amp.

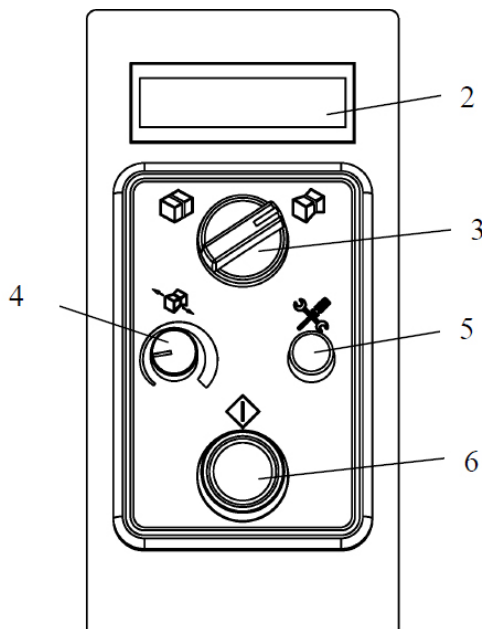
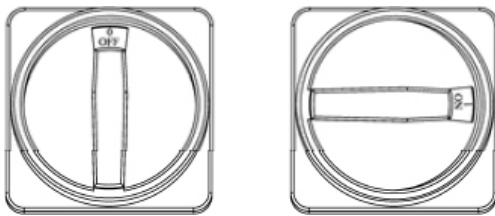
3. Machine Setup & Installation

3.5 Operational Space

- Keep the area (A) and (B) free for the operator.
- The area (A) is necessary for operating strapping machine.
- The area (B) is necessary for changing the strap or adjusting strap amount in the accumulator.



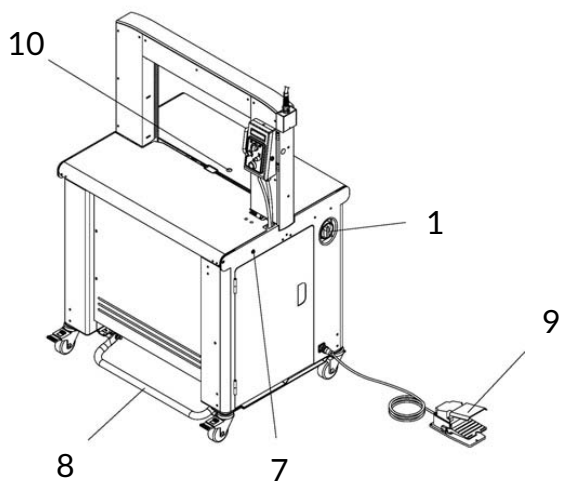
3.6 Operating Elements



1. Main Power Switch – Provides the machine with power. Switch to position “1” to turn on the power and to position “0” to turn off the power.
2. LCD Display – Indicates the strapping condition of the machine and displays any error messages.
3. Soft/High Tension Switch – Used to change strap tension setting.
4. Strap Tension Adjustment – By turning the knob clockwise, strap tension is increased and by turning the knob counter-clockwise, strap tension is decreased.
5. Function Encoder – Rotate knob to change strapping settings.
6. Start Switch – Used to start machine operation after turning main power on. Also used to initiate a strapping cycle or to clear a machine fault (reset).

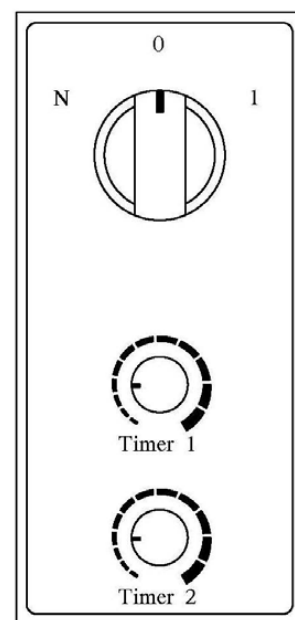
3. Machine Setup & Installation

3.6 Operating Elements (Continued)

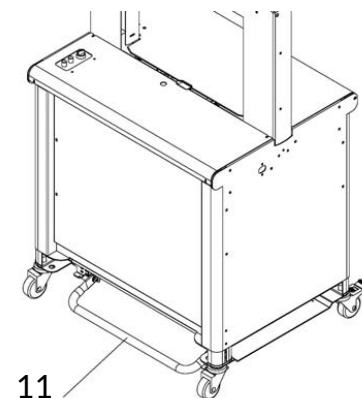


7. Reel Release Switch – Used to release the dispenser for removal.
8. Foot Bar (Front) – Used to initiate a strapping cycle or to clear a machine fault (reset).
9. Foot Pedal Switch (option) – Used to initiate a strapping cycle or clear a machine fault (reset).
10. Photo Eye Switch (option) – Used to automatically initiate strapping cycle when a package is detected.

Function	Description
0	The photo-eye is disabled. The strapping cycle must be initiated with Start switch on the control panel, Foot bar switch or optional foot pedal.
1	A single strapping cycle: initiates a cycle when a package is detected by the photo-eye. Delay time for initiating the cycle is controlled by TIMER 1.
N	Multiple strapping cycles: initiates a cycle when a package is detected by the photo-eye. Cycling continuously until the photo-eye is no longer “detects” a package. The cycle timing is determined by TIMER 1 and TIMER 2.
Timer 1	Sets the delay time from the moment that a package is detected until the first strapping cycle initiates. This allows an operator to properly position a package for the first strap. It is adjustable from zero to five seconds.
Timer 2	It's the delay time (interval) between strap cycles. When multiple strapping cycles are needed, this timer is for an operator to determine the interval between each straps. It is adjustable from zero to five seconds.

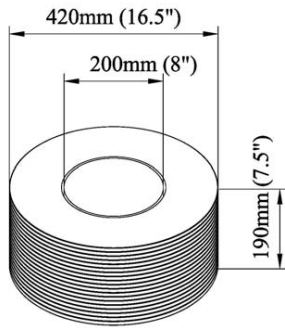


11. Foot Bar (Rear) (option)- Used to initiate a strapping cycle or to clear a machine fault (reset).



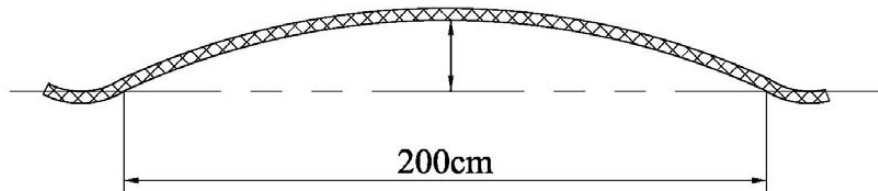
3. Machine Setup & Installation

3.7 Loading Polypropylene Strap



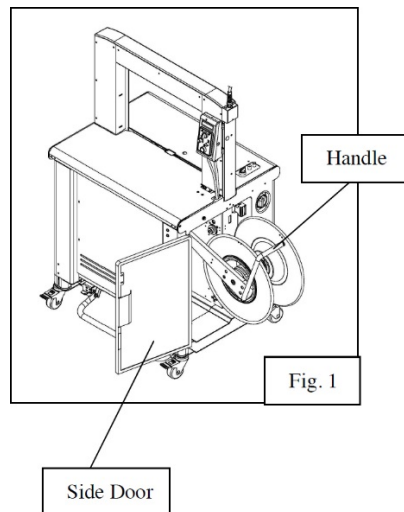
Polypropylene Strap
Width: 5, 6 or 9mm
Thickness: 0.35-0.65 mm (0.014" -0.026")

Note: Strap coil heavier than 12kg (27lbs) may damage the reel support system.



Note: Strap with excessive camber (see above) cannot be used.

3.8 Strap Reel Installation



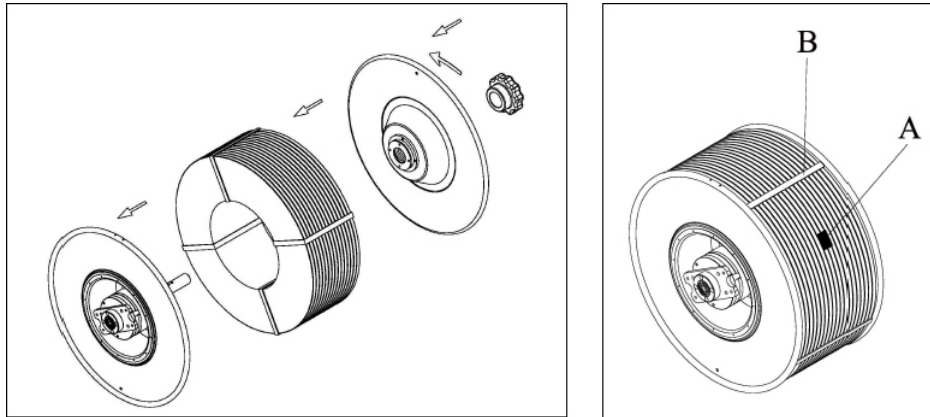
1. Open the side door on the right side of the machine.
2. Lift the reel handle up all the way to the end.
3. Release the reel nut handle by pressing and turning it to the left.
4. Take out the outer flange.
5. Install a new strap coil onto the drum according to the instruction on the reel.
6. Put outer flange and the reel nut handle back. Turning the reel nut handle to the right to lock it.

7. Remove the protective straps and stickers.
8. Press down the reel handle to put the reel back into the machine.

3. Machine Setup & Installation

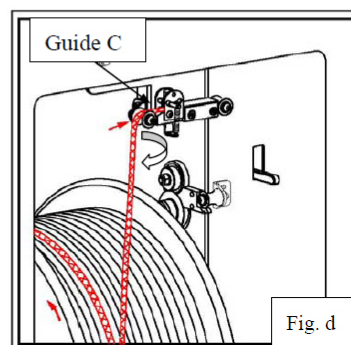
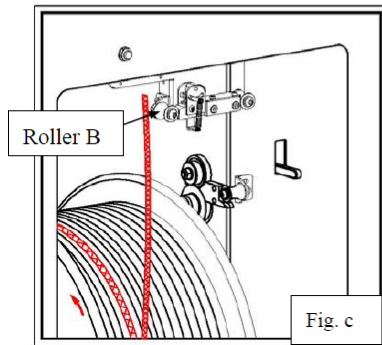
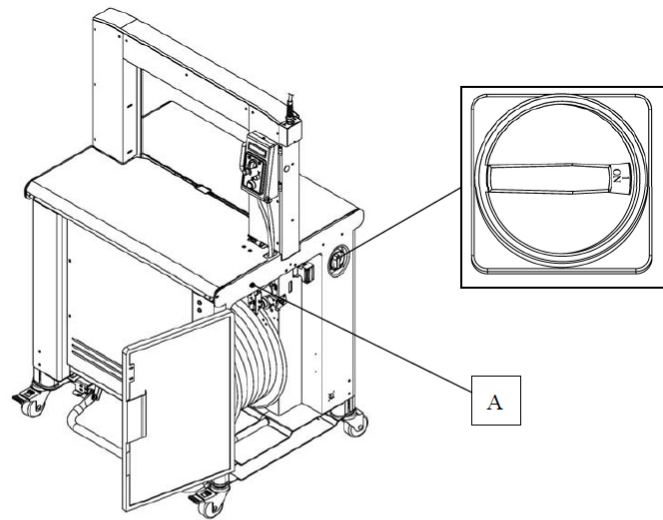
3.8 Strap Reel Installation (Continued)

The reel nut handle is released by turning to the left. Tighten it by pressing and turning it to the right.



3.9 Auto Strap Feeding Process

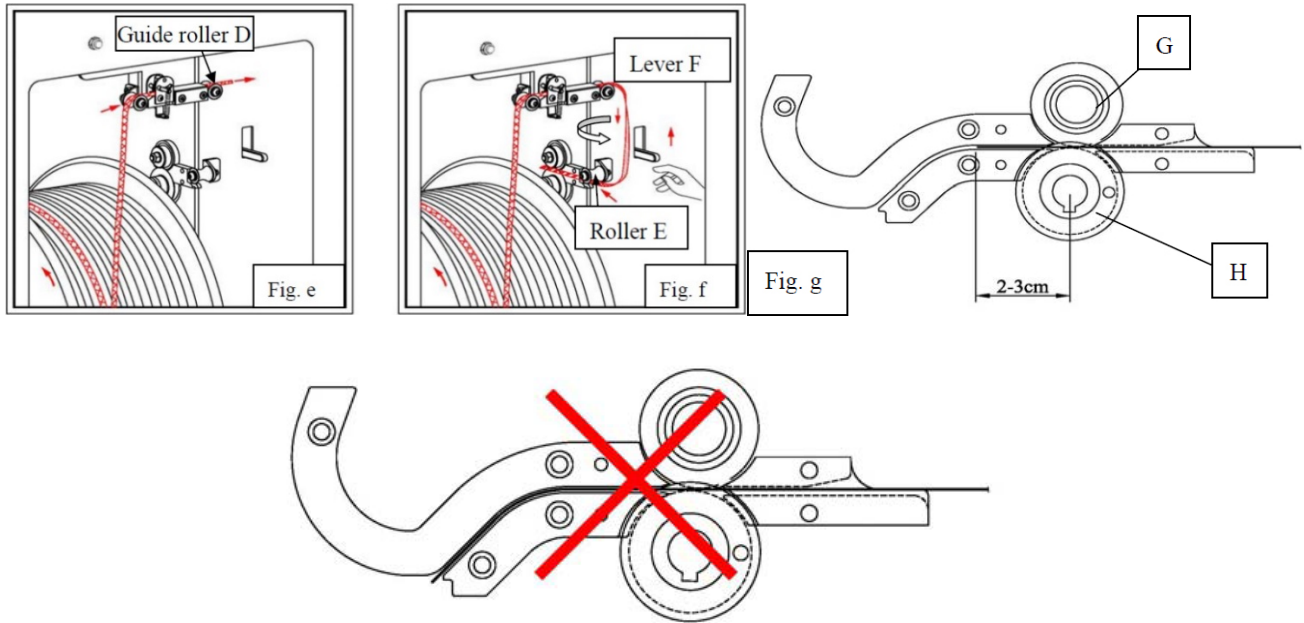
1. Turn main power switch on the right side of the machine to the right (position "1") and press the Start Switch.
2. Open the side door on the right.
3. Press Reel Release Switch A and pull out approximately 90cm of strap.
4. Insert the strap into Guide Roller B and then into Guide C as shown.



3. Machine Setup & Installation

3.9 Auto Strap Feeding Process (Continued)

5. Keep threading the strap til the Guide Roller D (Fig. e)
6. Turning the strap downward and thread it to Roller E then to Roller G & Roller H (Fig. F & Fig g)
7. Lift Lever F and then thread the strap around 2-3mm ahead the rollers (Fig. g) then release Lever F.



Note: If strap is red fed more than 6cm ahead of the rollers, it could cause Auto Strap Feed to fail.

8. Close the side door and press the Start Switch. Machine will complete the feed in approximately 5 seconds and will have strap fed to the sealing point.

While setting up the auto strap feed, the start switch will be the only functional control. The foot switch and foot pedal switches will not function.

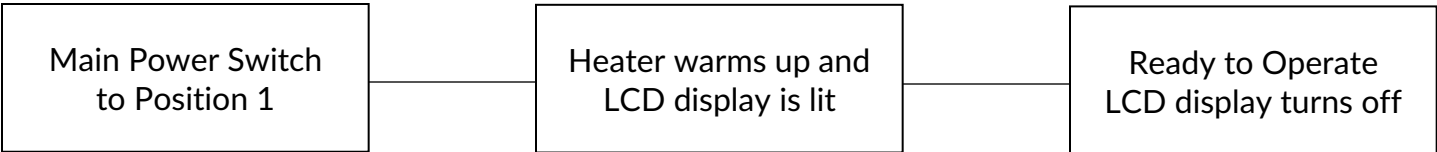
The edge of the strap must be free of burrs to avoid failure while setting up the auto strap feed.

4. Machine Operation

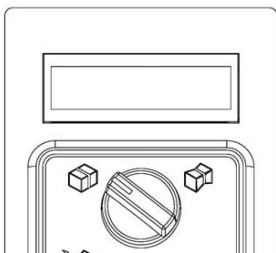
4.1 Heater Warm Up

After switching on the strapping machine, the heater will begin to heat. The LCD display will remain on until the heater reaches operating temperature (approximately 2 minutes).

Machine will not operate until heater reaches operating temperature. The heater fans will run during initial heating cycle.



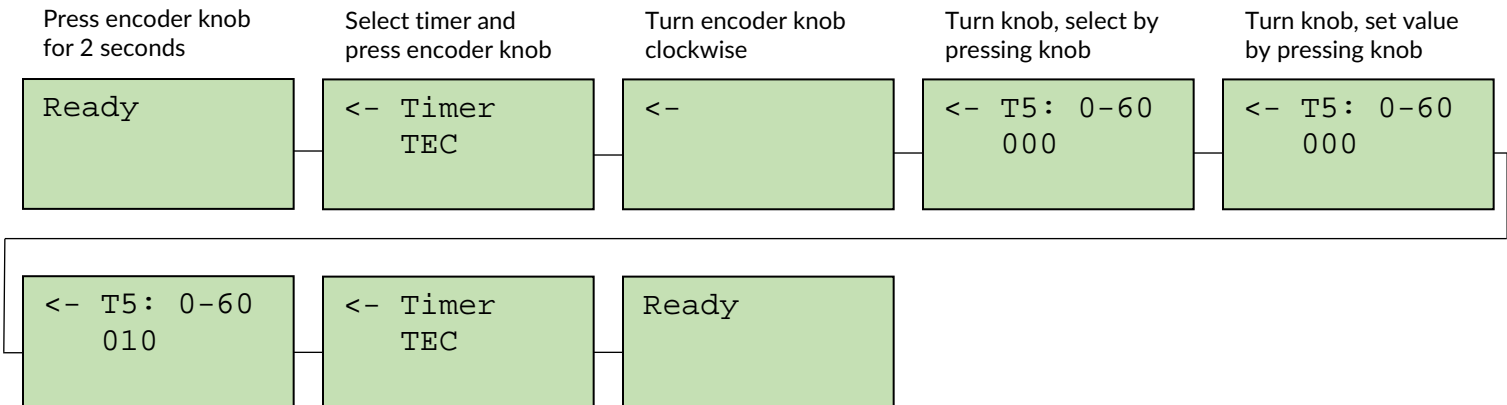
4.2 Strap Tension Setting



The strap tension setting change be changed by adjusting the tension setting knob. Turning the knob to the right will increase tension and turning the knob to the left will decrease tension.

4.3 Function Encoder

The LCD display can be used to show various timers such as cooling time, timer 1, timer 2, etc... After pressing the function encoder knob for 2 seconds, turn the knob to select the timer to be changed. Select a timer by pressing the knob while the timer name is displayed on the LCD screen. After selecting a specific timer, the value can be changed by turning the knob and then set by pressing the knob.



5. Maintenance & Adjustments

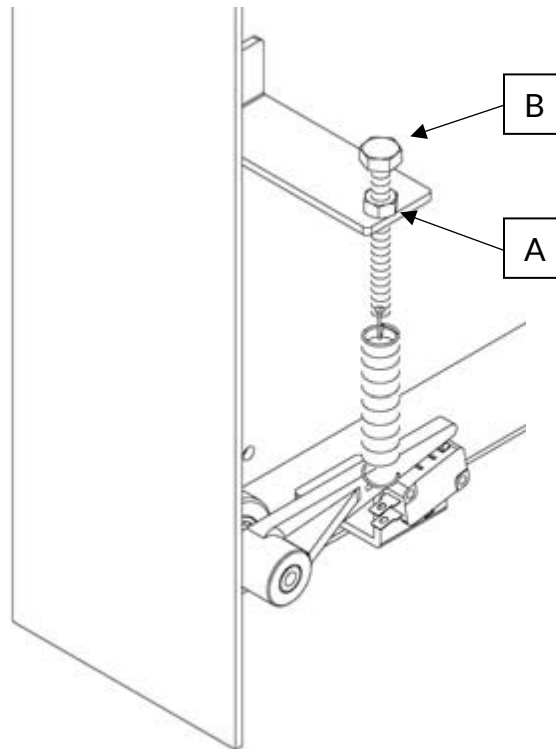
5.1 Strap Accumulator Box

The machine has been adjusted at the factory for proper strap storage within the accumulator box. However, sometimes there are adjustments that may be required. The strap supply in the accumulator box should be adjusted to allow for sufficient material for 2-5 strapping cycles.



**EXCESSIVE STRAP MATERIAL IN THE ACCUMULATOR BOX CAN
RESULT IN JAMS AND FEED MALFUNCTION**

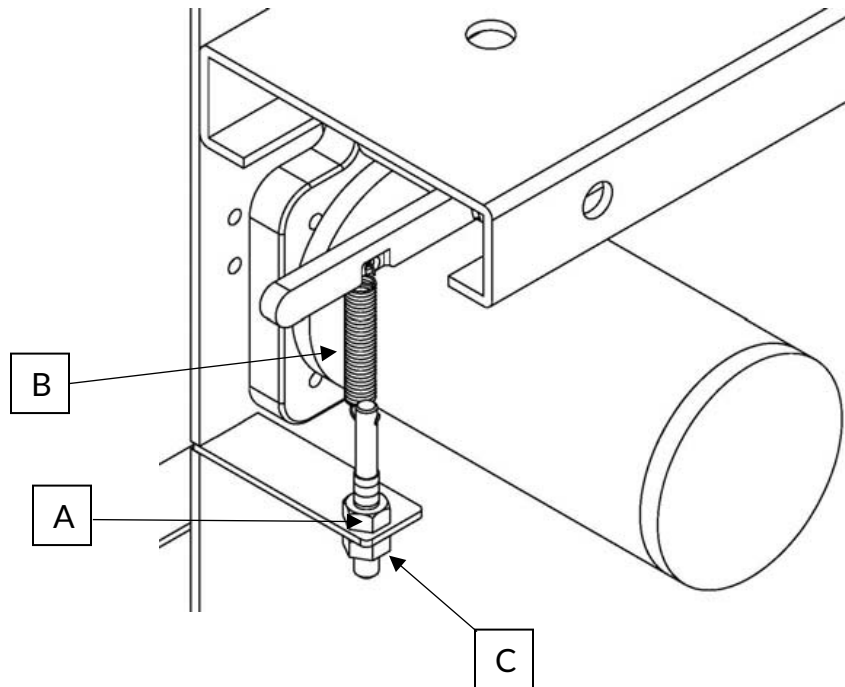
The adjustment mechanism for the strap accumulator is on the inside to the rear of the machine. To increase the amount of strap stored in the accumulator box, loosen nut A and turn screw bolt B counterclockwise. To decrease the amount of strap stored in the accumulator box, turn screw bolt B clockwise. Be sure to re-tighten nut A after making any adjustments.



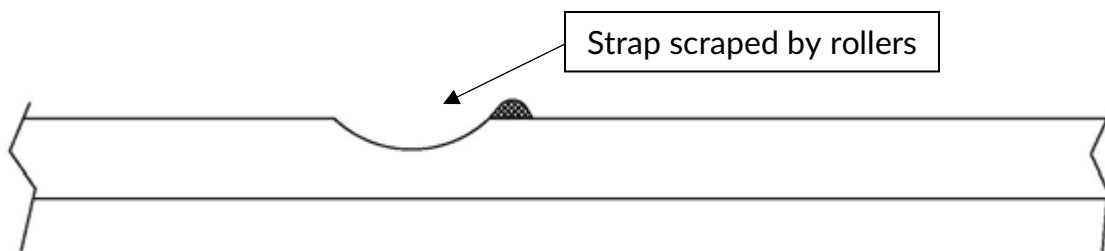
5. Maintenance & Adjustments

5.2 Accumulator Box Feed Adjustment

The machine has already been preset at the factory for proper feed, but if necessary, it can be changed by the user. To adjust, loosen nut A and turn nut C upwards to increase the tension of spring B. After making adjustments, be sure to re-tighten nut A.



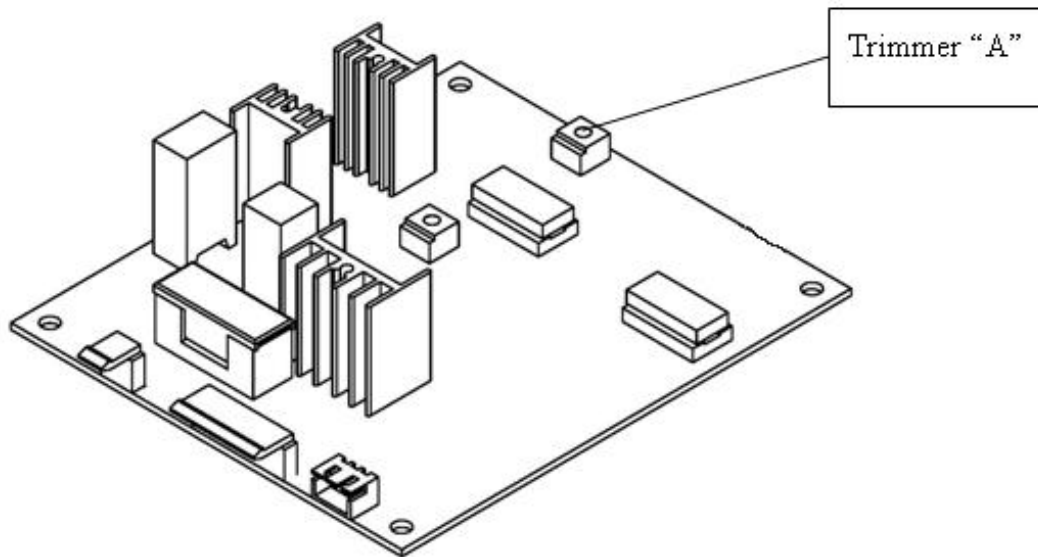
EXCESSIVE PRESSURE COULD LEAD TO FEEDING PROBLEMS AS THE STRAP CAN BE SCRAPED BY THE ROLLERS AND CAUSE DEFORMITIES IN THE STRAPPING MATERIAL



5. Maintenance & Adjustments

5.2 Heater Temperature Adjustment

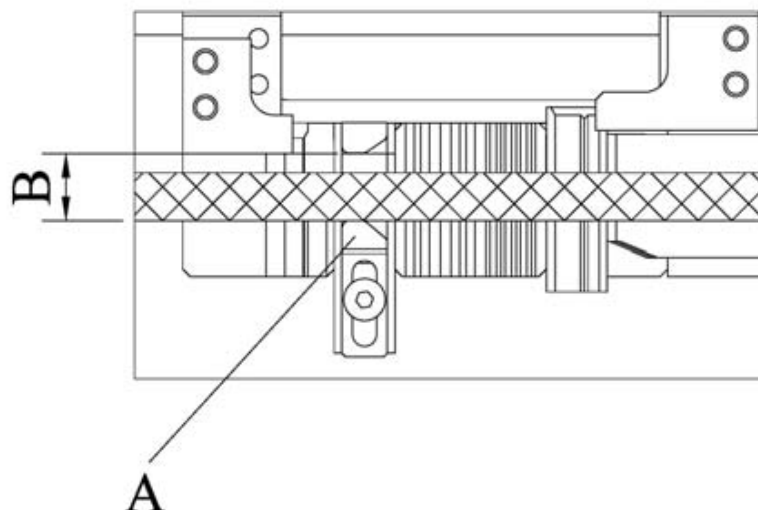
To adjust the heater temperature, turn A clockwise to increase temperature and counterclockwise to lower temperature.



5.4 Adjustment for Strap Width Change

Strap Guide Adjustment

Periodically the strap guide will need to be adjusted to ensure proper strap feeding. Adjust the guide by moving A (Strap Guide) according to the strap and make sure the width B is approximately 0.5mm (0.02in) wider than the strap.

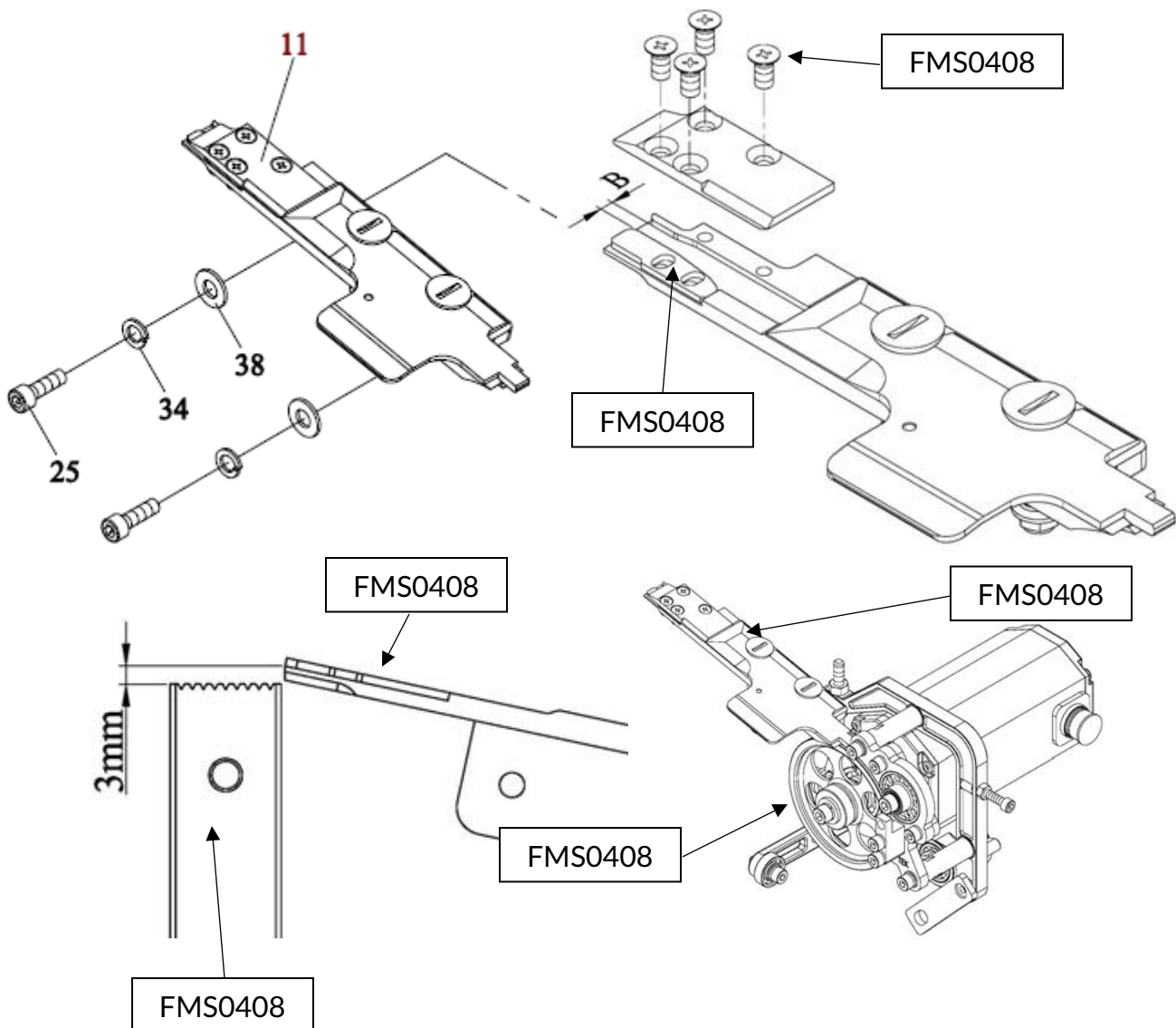


5. Maintenance & Adjustments

5.4 Strap Guide Adjustment (continued)

M7-1-311500 Adjusting Plate Adjustment

Loosen #25 HBS0412N×2 to remove #11 M7-1-310001 Upper Guide Assembly (For 5-6mm) from the machine. Then loosen FMS0408×4 on it and take a piece of p.p. strap which would be running by this machine for properly adjusting M7-1-311500 Adjusting Plate (Only 5-6mm). Make sure the width B is around 0.5mm (0.02") wider than the strap. After proper adjustment, tighten FMS0408×4 and have M7-1-310001 Upper Guide Assembly (For 5-6mm) fixed back to the machine. While having M7-1-310001 Upper Guide Assembly (For 5-6mm) fixed back to the machine, be sure its left side must be around 3mm higher from Press Bar Assembly M7-1-220000. Also the right bottom side of M7-1-310001 Upper Guide Assembly (For 5-6mm) should have some clearance between M7-1-301400 Guide Wheel (For 5-6mm). This clearance should not be wider than the strap's thickness or strap would probably slip out while doing Auto Strap Feeding.

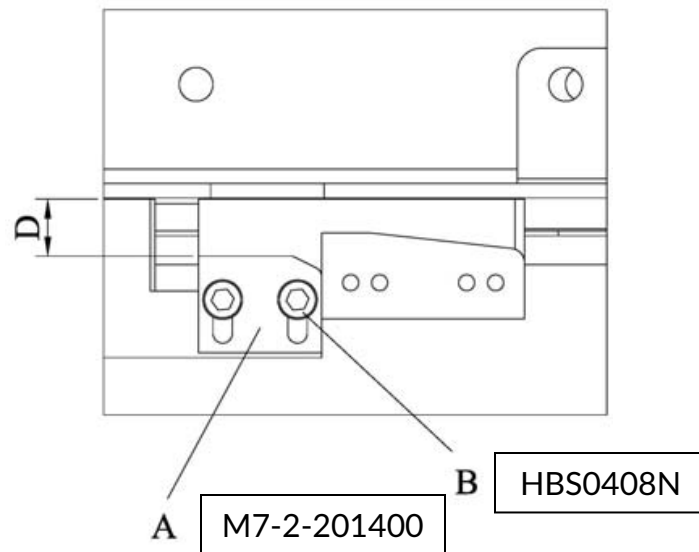


5. Maintenance & Adjustments

5.4 Strap Guide Adjustment (continued)

Right Strap Guide Adjustment

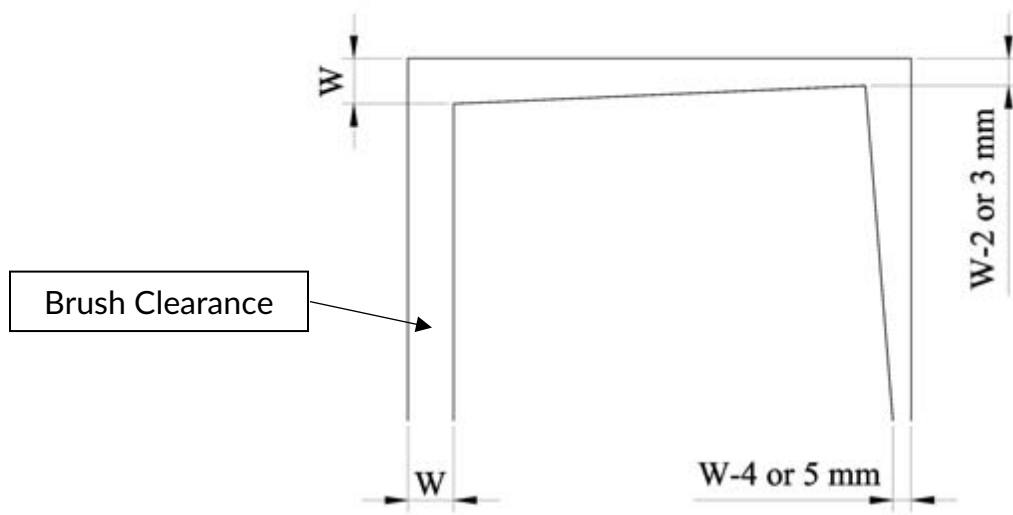
Loosen the screws on the “Right Strap Guide” and take it out. Then loosen the 2 screws B (HBS0408N) and adjust A according to the strap. Be sure D is about 0.1mm wider than the strap. After adjustment, tighten screws B and put the “Right Strap Guide” back.



Brush Clearance Adjustment

The brush clearance in the left side and upper left should be about the strap width. The brush clearance in the upper right should be about 2-3mm narrower to the strap.

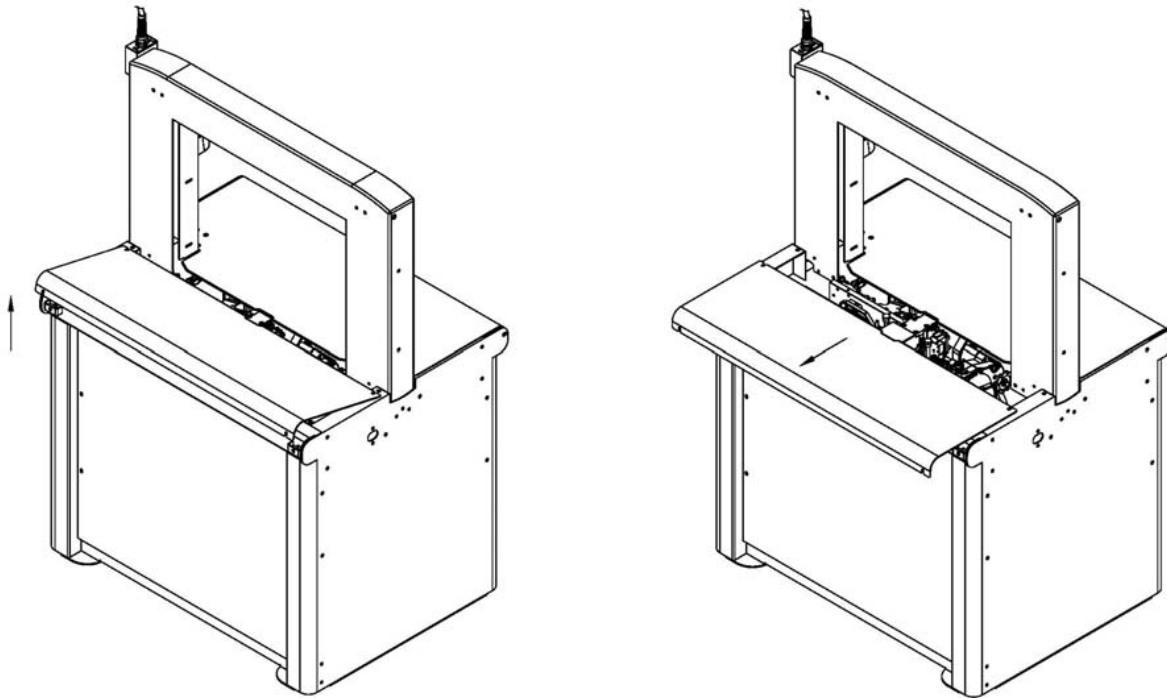
The brush clearance in upper side of right chute should be the same to the clearance in right side of upper arch. The brush clearance in the lower right should be 4-5mm narrower to the strap.



5. Maintenance & Adjustments

5.5 Feed/Reverse Pressure Adjustment

The upper table rear was screwed by captive screws. To remove, please loosening the captive screws about 5mm first and then lift the end side of rear side up and slide it out.

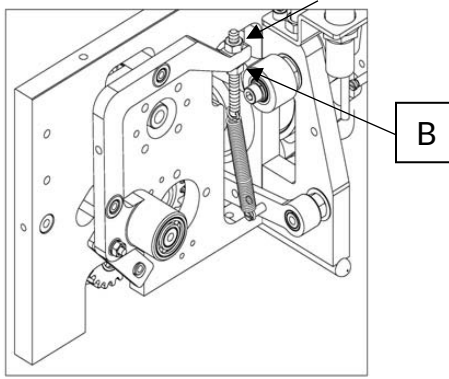


Feed Pressure Adjustment

The machine is already well set for proper feeding pressure. However, according to different strap characteristics (such as smoother surface or different thickness), some adjustments for feeding pressure are still necessary. If short feed problem happens a lot, and it is a result of improper feeding pressure, please do the following adjustments:

Loosen Nut B and turn Nut A clockwise to increase the feeding pressure. Or loosen Nut A and turn Nut B counterclockwise to decrease the feeding pressure. After adjustments, be sure to tighten these 2 Nuts well.

A



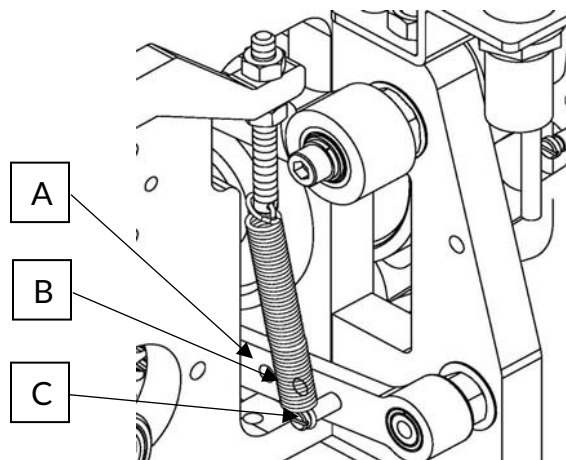
5. Maintenance & Adjustments

5.5 Feed/Reverse Pressure Adjustment (continued)

Reverse Pressure Adjustment

The machine is already well set for proper reversing pressure. However, according to different strap characteristics (such as smoother surface or different thickness), some adjustments for reversing pressure are still necessary. If machine often has incomplete reversing problem, and it is a result of improper reversing pressure, please do the following adjustments:

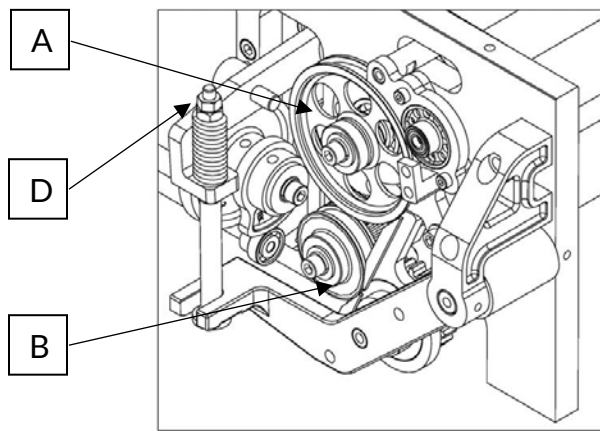
Take out the part (TA-073 Spring Hook) from C position to B or A position in order to increase the reversing pressure.



5.6 Tensioning Rollers Adjustment

The machine is already well set for proper pressure for high tension. However, according to different strap characteristics (such as smoother surface or different thickness), some adjustments on pressure for high tension might be necessary.

When insufficient strapping tension occurs even the Soft-High tension switch is at “high” position and it is a result of pressure for high tension, please turn Nut D clockwise. This can solve the problem of insufficient strapping tension at high tension and strap slipping between A & B due to this.



6 Troubleshooting

6.1 LCD Display Messages

1. Reminder Messages

a. Push Start:	Please press the Start Switch to make machine function. This is especially necessary after the Safety Switch is released or after you just turn on the machine.
b. Load Strap:	Load a new roll of strap or re-do the Auto Strap feeding again.
c. B6 open; K1 open:	When it shows this message after you press the Start Switch, it means the Safety Switch might not be closed or the K1 in the control box is abnormal.

2. Switch Malfunction

a. S1 Error:	This means the Start Switch or the Foot Pedal is continuously triggered before activating them. Please check if any of these 2 Switches is defective.
b. S5 Error:	This means the Reel Release Switch is continuously triggered before activating it. Try to press it by hand to see if it's defective.
c. SQ1 on Error	The SQ1 is triggered when doing Auto Strap Feeding. Check if the SQ1 or the Switch lever is defective.
d. SQ9 failure	Foot bar is not able to function properly and cause it not able to go back to home position.

3. Procedural Malfunction

a. ASF failed:	Auto Strap Feeding failed. It might be caused by wrong insertion direction or inserting too much strap. Please re-do the Auto Strap Feeding.
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b. Feed jam:	Resulting from not being able to feed strap to the sealing position.
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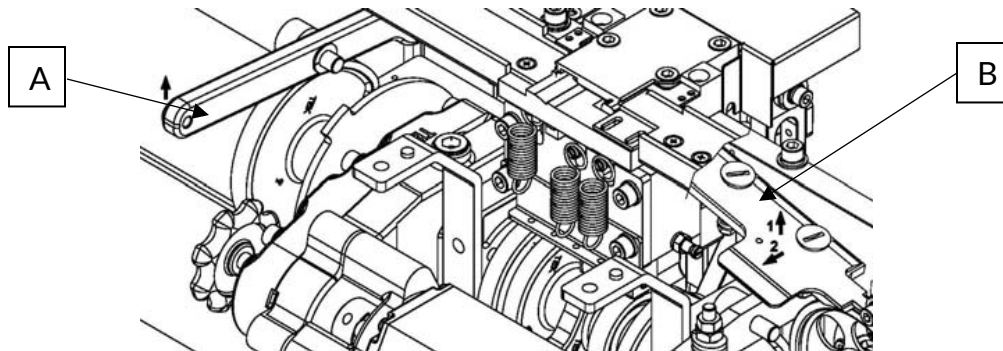
When Feed jam occurs, press the Start Switch or Foot bar first to let the arch open and strap comes out of the arch. Hold the strap by left hand and then press the Start Switch or Foot bar again. Machine would reverse the strap a little bit and cut it, and then machine would go back to home position and feed again.

If this does not solve the problem, please take out the jammed strap by following the steps on the next page.

6 Troubleshooting

6.1 LCD Display Messages (continued)

Jammed Strap Removal



1. Open Upper Table Front Assembly M7-5-210020
2. Lift up the Lever A (M7-2-101400/M7-2-101410) with left hand and take out the Cover B (M7-1-311220) for the Upper Guide with right hand at the same time.
3. Take out the jammed strap and cut it.
4. Put the cover (M7-1-311220) for the Upper Guide back to its position and put the Upper Table Front Assembly back as well. Push START switch in the control panel to RESTART machine.

If the Feed jam problem still cannot be solved, the following causes have to be checked as well:

Fault	Cause	Remedy
Feed Jam	Strap too curved	Change strap
	Insufficient feeding pressure	Adjust feeding pressure
	Too much strap in the accumulator box and has caused strap to curve	Adjust strap accumulator strap amount

4. Other Malfunctions

Fault	Cause	Remedy
Sealing Failure	Too much debris on sides of the heater plate	Clean both sides of the heater plate with fine sandpaper
	Insufficient heater temperature	Increase heater temperature
	Insufficient cooling time	
Insufficient Strap Tension	Soft-High tension switch is at "soft" position	Change tension switch to "high" position
	Lubricant drops into tension roller	Clean the lubricant
	Too much debris in the gear of the tension roller	Clean the debris

7. Maintenance



ALWAYS TURN OFF AND DISCONNECT POWER SOURCE BEFORE PERFORMING MAINTENANCE TO THE MACHINE. ALLOW SUFFICIENT HEATER COOLING TIME (APPROX. 5 MINUTES) TO AVOID BURNS.

1.1 Cleaning and Lubrication

The high reliability and long service life of the strapping machine will depend on regular cleaning and maintenance.

Note: All the critical strap transportation components, such as drive rollers and the strap guides, must be kept free of oil and grease (lubricant).

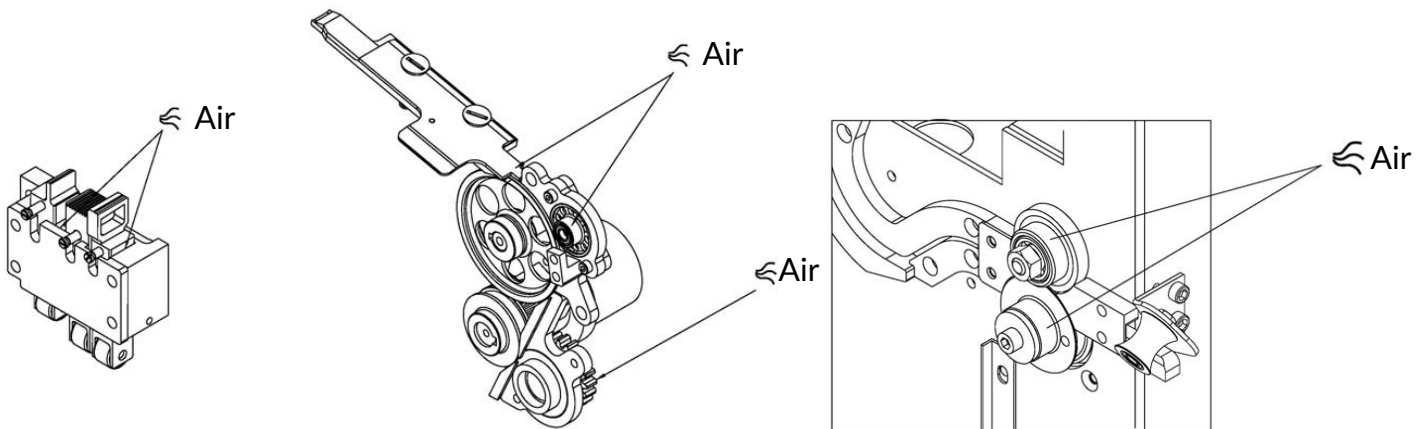
Lubricant must be non-resinous and conform to SAE 30 standards.

1.2 Maintenance

Note: Only use original spare parts supplied by the manufacturer.

Daily Maintenance

Use an air gun to clean the following parts daily; cutters, strap guide and accumulating feed rollers



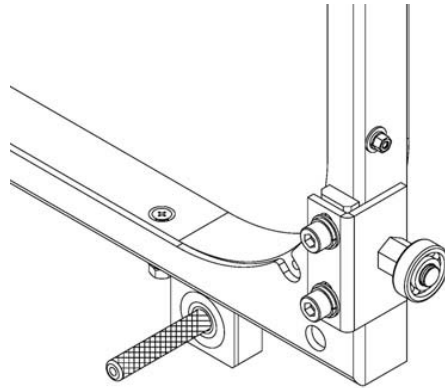
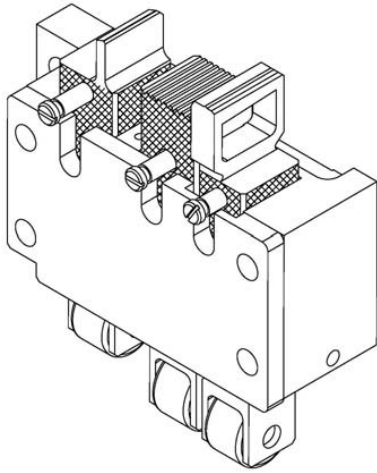
Weekly Maintenance

Lubricate front bar, press bar, rear bar and shafts within the arch on a weekly basis. Please refer to the following mesh areas for instruction.

Before lubricating, be sure to clean the parts first to avoid mixing oil and debris which may have a negative effect on the machine function.

7. Maintenance

Weekly Maintenance (continued)



Check the machine by strapping several bundles for any failures.

Monthly Maintenance (or after 100,000 strapping cycles)

Clean both sides of the heater plate and polish with fine sandpaper if necessary.

Note: Make sure the welding plate has cooled before performing maintenance.

Check Front Bar, Press Bar, and Rear Bar for moving upward and downward neatly. The Slide Table and Strap Track Frame should be able to go back to its home position by the force of spring as well.

Be sure to clean any debris in the tension roller.

6-Month Maintenance (or after 500,000 strapping cycles)

- Check heating element, replace and re-adjust it if necessary.
- Check strap cutter in sealing head, replace it if necessary.
- Check if the connector at the wiring housing to the printed circuit board is firmly fixed.
- Check if the safety switch on front table or right door functions well.
- Make machine ready for operation. Strap one bundle manually several times, checking for any mal-functions. Make sure the strap accumulating function is working properly. If necessary, replace the assistant rollers. Perform adjustments to accumulating feeding pressure or to the clearance in the reel brake.
- Slightly lubricate the sealing head (bearing points) with light lubricant if necessary.

Annual Maintenance (or after 1,000,000 strapping cycles)

- Replace deflection roller if it shows visible changes.
- If bearing are producing significant noise, locate and replace.

- Prepare machine for operation, perform several strapping cycles and check for any malfunctions.

7. Maintenance

1.3 Heater Replacement / Cleaning

Cleaning

1. Turn off the power and open the Upper Table Front Assembly and Upper Table Rear Assembly (M7-5-210001, M7-5-22001, M7-5-201401 & M7-5-230001).
2. Make sure that the heater cools down already and the temperature is not too hot to let you get hurt.
3. Loosen the fixed screws of the heater cover (M7-1-101700) and remove it from the machine.
4. Remove the screw (HBS0540HN) of Heater Crank (M7-1-141100).
5. Remove the Return Spring (T7-1-64130) of the Heater Crank (M7-1-141100).
6. Remove the Heater Crank (M7-1-141100) by pushing it backward.
7. Clean both upper side and down side of the Heater carefully with fine sander paper.
8. Re-installation the heater back to the machine in reverse sequence.

Replacing

1. Same sequence as step 1-6 mentioned above.
2. Turn over the Heater Bracket (M7-1-141300) so that you can loosen the nuts of the heater.
3. After you loosen the nuts, turn the Heater Bracket back to its original position.
4. Take out the Heater Assembly and make sure the insulations stay intact. If any of insulation fall and get broken, please replace with new one to avoid welding problem.
5. Install the new Heater Assembly in reverse sequence.
6. Rotate the M1 Handle (T7-1-11240) forward till the Heater Assembly goes to welding position.
7. Make sure the clearance between Heater Assembly and Slide Table (M7-1-131600) is about 1.8 - 2.2mm.
8. If the clearance is too big, adjust it by turning HBS0530N clockwise. If the clearance is too small, adjust it by turning HBS0530N counterclockwise.

8. Parts List & Illustrations