

YAO HAN

MODEL

F300A (ONE THREAD)
單線

F302A (TWO THREAD)
雙線

手提式縫口袋機

PORTABLE BAG CLOSER

INSTRUCTION 操作說明書



YAO HAN

耀 瀚 股 份 有 限 公 司
YAO HAN INDUSTRIES CO., LTD.

TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 PRODUCT DESCRIPTION	1
1.2 IDENTIFICATION	1
1.3 WARNINGS	2
1.4 ILLUSTRATIONS AND COMPONENTS	3
2. UNPACKING PROCEDURE	5
3. PREPARATION	5
3.1 ELECTRICAL REQUIREMENTS	5
3.2 WORK AREA	5
3.3 LUBRICATION	5
3.4 CONSUMABLES	5
3.5 THREADING THE MODEL F300A	6
3.6 THREAD TENSION	6
4. OPERATING THE MODEL F300A PORTABLE	7
5. MAINTENANCE, REPLACEMENT AND ADJUSTMENTS	9
5.1 ROUTINE MAINTENANCE	9
5.2 LUBRICATION	9
5.3 DRIVE BELT	10
5.4 FEED DOG	11
5.5 KNIFE; THREAD	12
5.6 LOOPER	13
5.7 MOTOR BRUSHES	15
5.8 NEEDLE	15
5.9 PRESSER FOOT PRESSURE	18
5.10 THROAT PLATE	19
6. QUALITY CONTROL	20
7. TROUBLESHOOTING	21
8. SAFELY DISPOSING OF A MODEL F300A PORTABLE	22

1. INTRODUCTION

1.1 PRODUCT DESCRIPTION

The F300A series portable sewing machines are hand-held commercial grade sewing machines.

They sew bags made of different materials, such as plastic, woven polypropylene, multi wall paper bags, composite bags jute bags and so forth.

For proper operation, become familiar with the performance characteristics and safety guidelines.

A variety of special attachments (such as the suspension unit) are available to enhance the capabilities and support the operation of the F300A portable.

F300A

Standard hand-held, single-thread sewing.

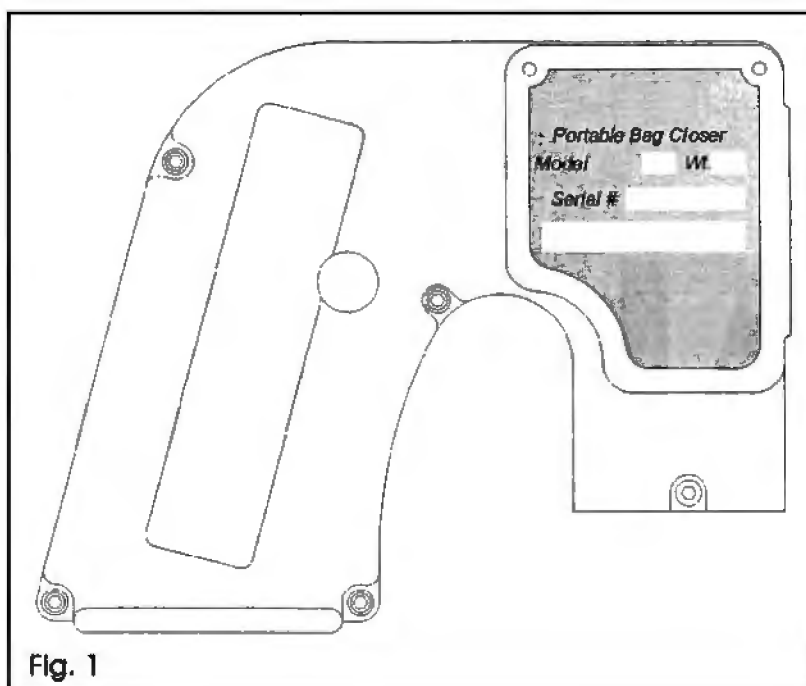
Can be ordered for 110V/220V.

1.2 IDENTIFICATION

There are two identification plates that are attached to the machine. The plate attached to the electrical motor outlines the electrical requirements needed to protect the motor and make the machine run effectively. The second name plate is found on the side of the housing. (Fig.1)

It contains the (1) model identification, (2) weight and (3) serial number.

The information on the housing label provides the necessary information to complete the card. In the event that you need to contact your YAO HAN representative for parts or accessories, the information from this housing will enable the representative to quickly and accurately order the appropriate items.

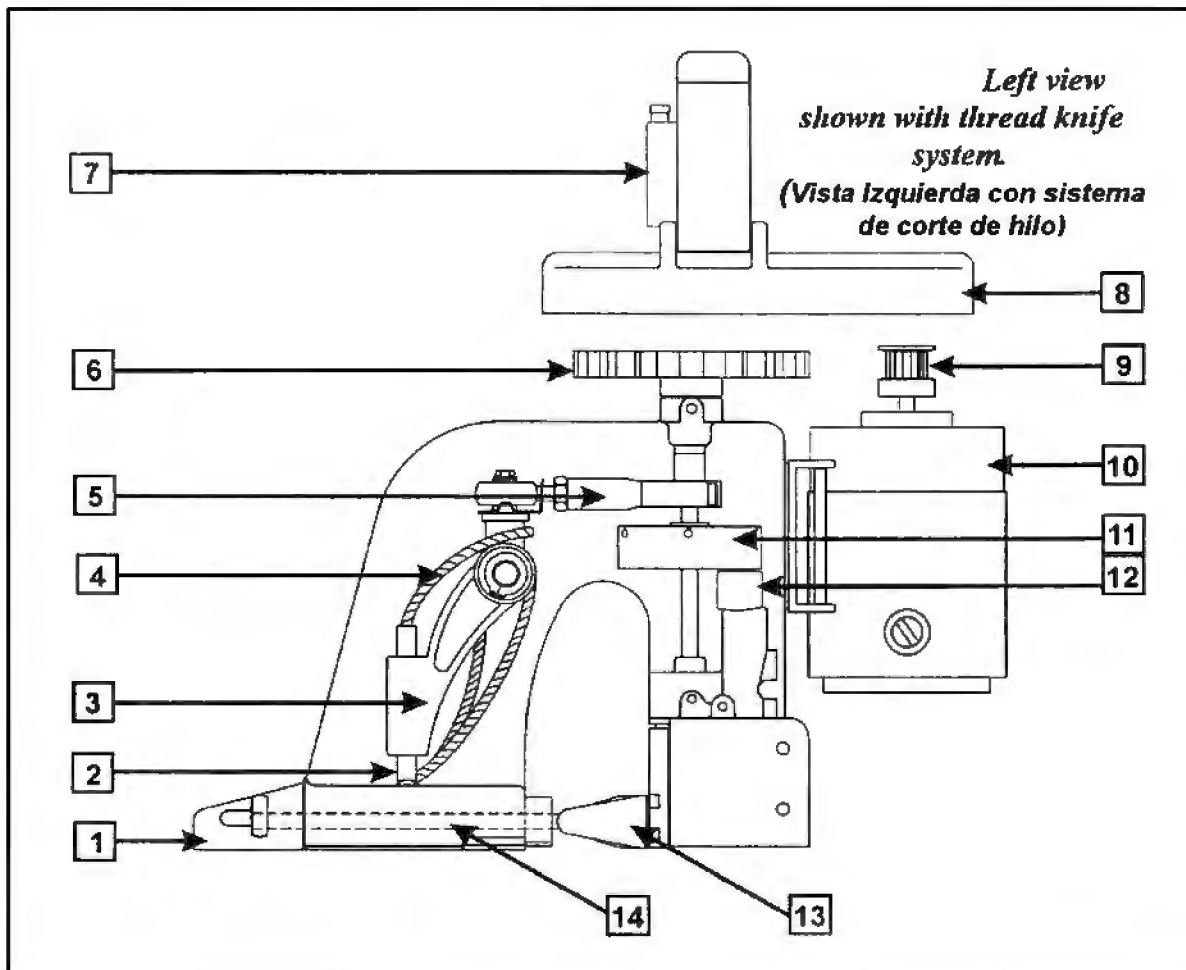


1.3 WARNINGS

- The model F300A series portable sewing machines are driven by strong motors, contain moving parts and have pinch points and sharp edges. Therefore, a certain amount of technical knowledge and familiarity with this type of equipment are required to operate and maintain the system. Proper eye, hand and foot protection must be worn while working with the F300A sewing machines.
- The model F300A sewing machines are hand held machines; therefore, care must be taken to provide proper handling and operation of the machines and protection from the drive components.
- Read the manual carefully before making any changes to the model F300A.
- Always use genuine YAO HAN spare parts (including YAO HAN lubricating oil). Our parts are specifically designed for YAO HAN equipment to provide optimum performance and safety.
Use of non-YAO HAN parts can also void product warranty.
- Let the machine do the work. Do not pull the bag or the materials through it.
- Consult YAO HAN concerning your specific application and sewing needs.
- The model F300A machines are not suitable to operate in area where explosive materials are present (explosive gas, vapors, powders, dust or liquids).
- Frequently clean the machine to prevent accumulation of dust. Do this to prevent accumulation of material that may cause a fire or malfunction.
- Any sources of leaks of the machine's lubricating oil reservoir or pump must be repaired immediately to prevent possible contamination of the product being packed and safety hazards around the system.
- Do not use aggressive cleaning products as they may damage the seals.
- When in doubt about operation, troubleshooting and maintenance of the model F300A, consult your local YAO HAN representative.

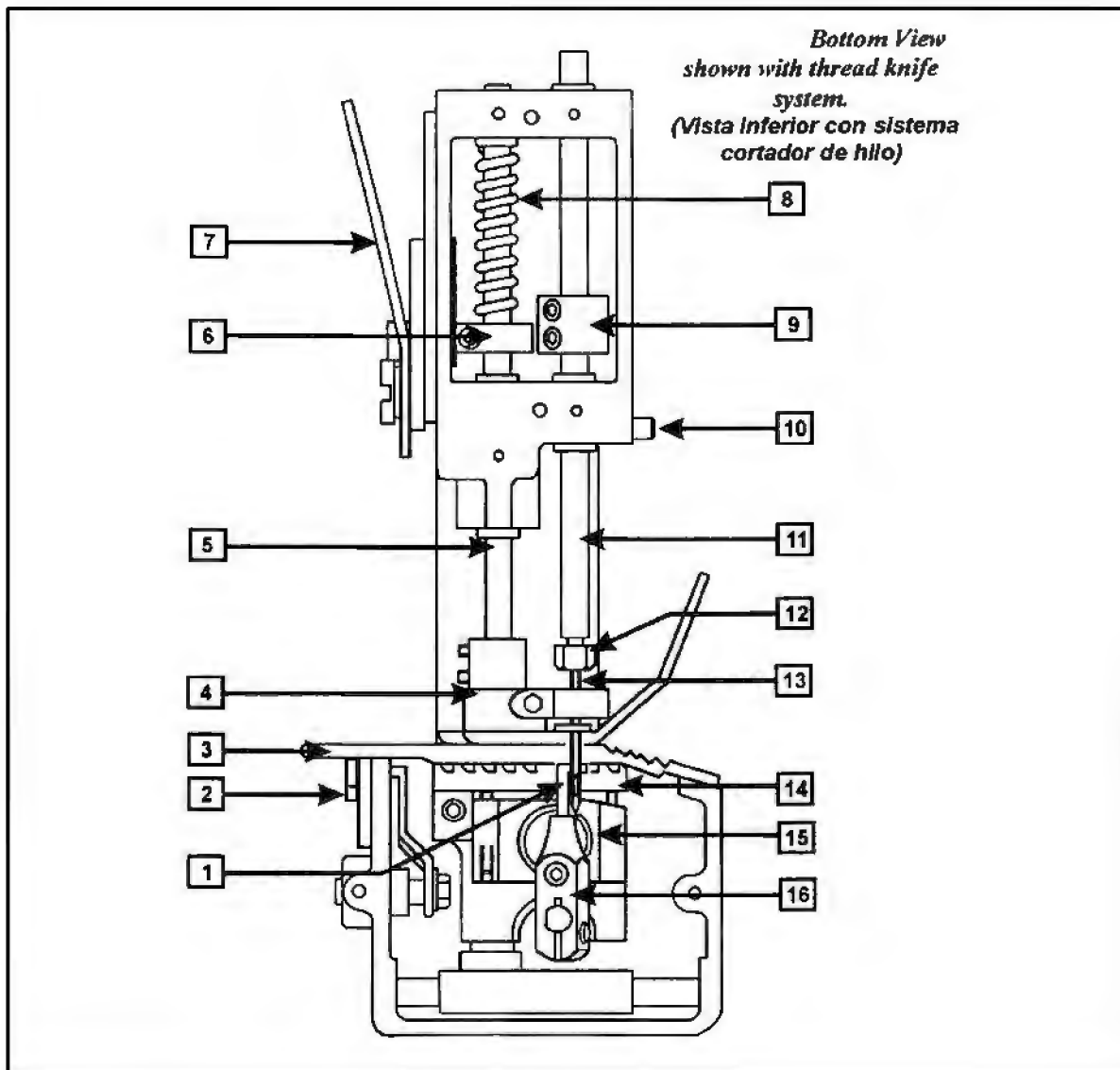
Other specific warnings appear throughout this manual.

1.4 ILLUSTRATIONS AND COMPONENTS



1. Needle bar guard
2. Needle bar clamp assembly
3. Needle bar lever
4. Wicking
5. Connecting rod and eccentric
6. Machine pulley
7. Oil reservoir
8. Belt guard and handle
9. Motor pulley
10. Drive motor
11. Looper cam
12. Cam arm follower
13. Presser foot
14. Needle bar

1.4 ILLUSTRATIONS AND COMPONENTS



1. Looper
2. Thread knife
3. Throat plate
4. Presser foot
5. Presser bar
6. Presser foot lifter
7. Presser foot lifter lever
8. Presser foot spring
9. Needle bar clamp assembly
10. Thread eyelet
11. Needle bar
12. Needle bar nut
13. Needle
14. Feed dog
15. Carrier block, feed dog
16. Looper assembly

2. UNPACKING PROCEDURE

Each machine is packed in a corrugated box with padding surrounding it, which is designed to protect the unit during normal shipping, storage and handling. It is then taped shut. Before the unit is unpacked, inspect the box for any signs of damage incurred during shipping. After the unit is unpacked, inspect the machine for damage. If possible, record any suspected shipping damage with a digital or Polaroid camera. Report anything missing or any damages in writing to the shipper and your model F300A serial number and model number and record these numbers for future reference and on your warranty card.

3. PREPARATION

3.1 ELECTRICAL REQUIREMENTS

The portable is wired at the factory for the voltage specified when ordered. Customers are required to supply incoming electrical connections. SO 12/4 (12 AWG/4 wire) (3G1.0mm,220~400V) is recommended.

CAUTION: Be sure machine is connected to building electrical ground.

Follow National Electrical Code (NEC) and any local electrical codes during use.

3.2 WORK AREA

The model F300A machine should be operated in an area that allows freedom of motion for the operator and the unit. The machine's input end at the feed dog works quickly and the output end near the thread knife (or thread and tape knife) is very, sharp.

Other operators should keep out of arm's reach from the area in which the machine works.

Operators should always wear proper eye protection when operating this machine and not wear loose clothing or jewelry. Long hair should be pulled back and tied to avoid getting caught in the machine.

3.3 LUBRICATION

Note: Always use genuine YAO HAN #22 TELLUS OIL.

The model F300A is shipped with a small amount of YAO HAN lubricating oil (#22) already in the oil reservoir and a separate container of oil. (see Machine Illustration, page 3). The machine is equipped with a manual oiling system. The reservoir and pump must have a clean supply of oil at all times. The oil level can be viewed through the clear end of the reservoir. Prior to operating the machine, fill the reservoir with the provided oil and press the button on the pump four (4) times to lubricate the moving parts. This will dispense the correct amount of oil for an average four hours of operation. Apply oil from the pump every four (4) hours of operation.

3.4 CONSUMABLES

YAO HAN lubricant oil (#22 TELLUS OIL)

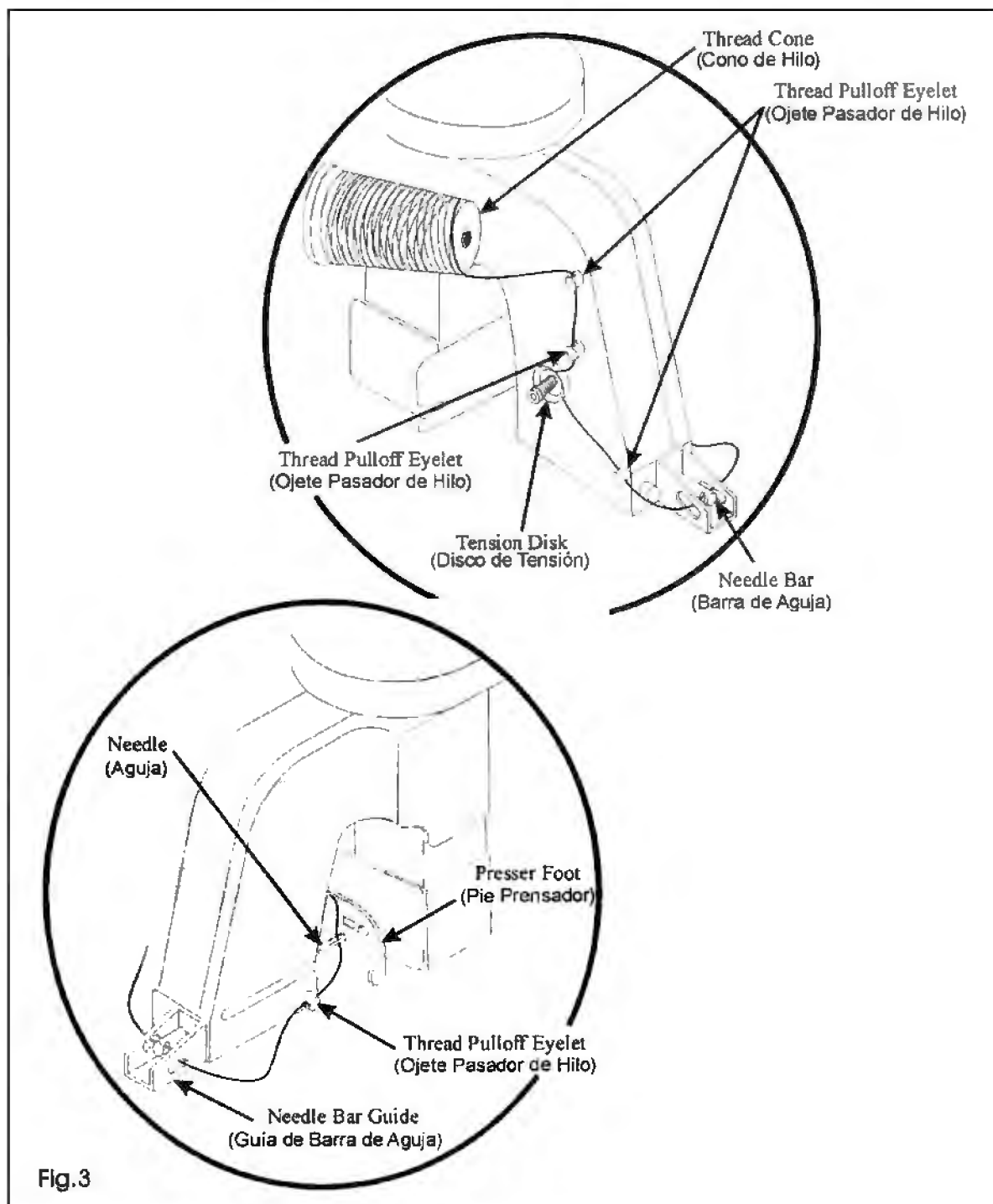
YAO HAN sewing thread:

- Cotton (200~220 grams)

4. OPERATING: MODEL F300A

Before operating the model F300A check through the following pre-start checklist:

1. Check for loose fasteners.
2. make sure the oil reservoir is full.
3. Push the oil pump four times to lubricate the moving parts.
4. Make sure the machine is connected to the appropriate electrical supply.
5. Make sure there is an ample supply of consumables near by. (Thread and oil)
6. Make sure the thread is properly threaded through the machine and is chained off.
7. Remove dirt and debris from the machine.
8. Operator should not be wearing loose clothing and long hair should be tied up away from the machine.
9. Run a couple of test bags to check if the machine is running properly.



3.5 THREADING THE MODEL F300A

1. Disconnect the model F300A from the electrical supply.
2. To install a new cone of thread, push the thread clamping bolt through the hole at the top of the cone and securely lock it in position with the wing nut. (Fig.2)
The cone must not be able to rotate or wobble on the thread stand.
3. Follow Fig.3 and 4 to properly lead the thread through the machine.
4. Check that the thread passes around the tension disk properly. (Fig.4)
Do NOT wind the thread around the disk more than what is shown.
5. Let the thread stick out 2" (51mm) on the output side of the machine.
6. In order to produce a thread chain, a piece of bag material should be placed between the presser foot and the throat plate before running the machine.
Turn the pulley by hand in a clockwise direction so the sewn bag proceeds forward through at least three complete cycles.
This will start the chaining process. Run the system to clear out the test bag material, before attempting to run a bag through the system.
If this procedure is not followed, the chain will not start and the machine may break the needle.

3.6 THREAD TENSION

Tension is the degree of resistance the thread meets in passing between the tension discs.

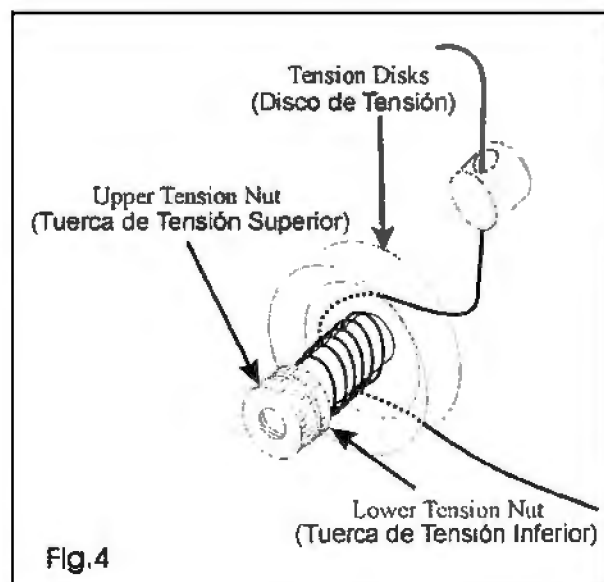
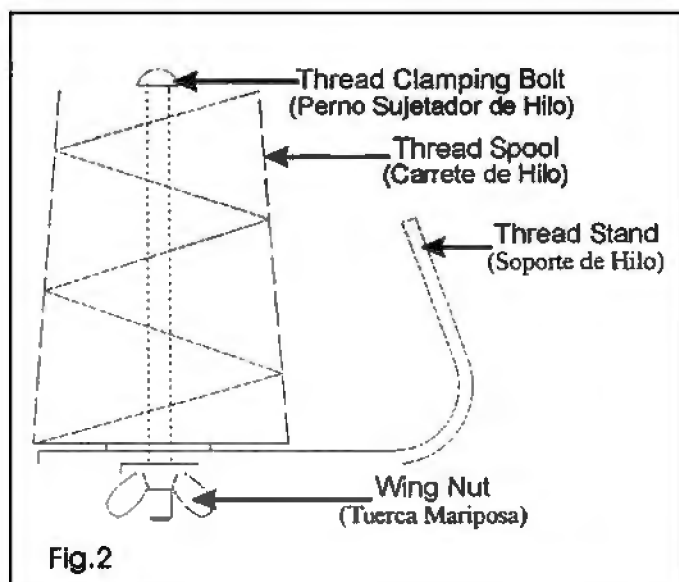
Too loose a tension will cause the thread to tear or will leave loose loops of thread on the bag instead of nice firm stitches.

Too tight a tension will also cause the thread to tear or will cause polypropylene bag material to pucker. In either case, the machine may not chain off.

To alter the amount of tension, loosen upper tension nut. (Fig.4) Turn the lower tension nut, about 1/8 turn at a time to loosen the tension, or down to tighten the tension.

Test the material until the desired stitch appearance is obtained.

Be sure to re-lock upper tension nut.



TURNING THE MACHINE ON AND OFF

Hold the machine in your right hand with your forefinger on the switch button (Fig.6) found on the underside of handle. A slight finger pressure against switch button will start machine. The machine automatically stops when the pressure is released.

SEWING THE BAG TOP (PLAIN SEWN)

Hold the bag top in your left hand below where the stitch line is going to be and at the starting side of the machine. Position the bag material between the machine's presser foot and throat plate. The machine will automatically feed the bag through the machine, when the start button is pressed.

After sewing a couple of inches of the bag top, stop the machine by releasing the starting button. Move your left hand to the leading edge of the bag near the stitch line and finish sewing the bag closed. Allow the model F300A to sew 2 to 3 inches (51-76mm) off the trailing edge of the bag.

Remember not to pull the bag through the machine. Let the machine do the work. The model F300A is equipped with a thread knife at the trailing edge of the throat plate. (Fig.7)

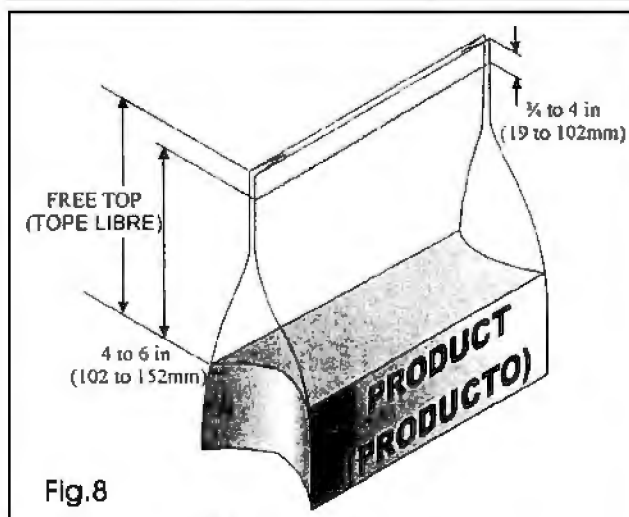
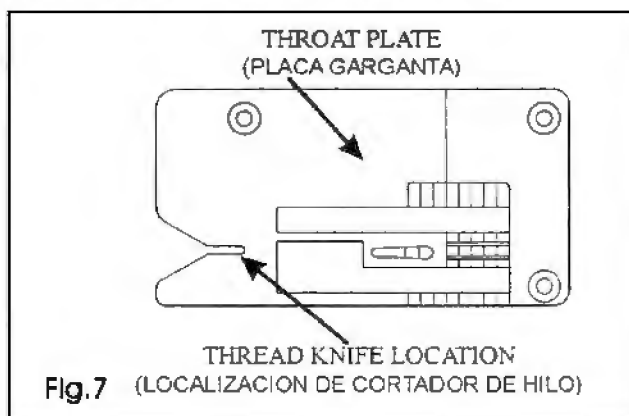
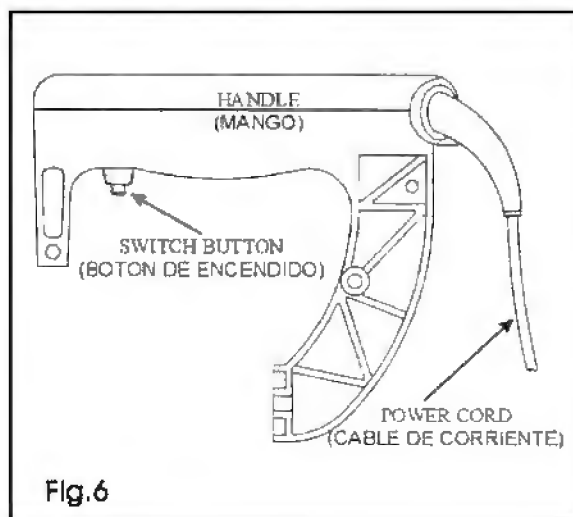
With the machine running, pull the thread chain into the V-shaped slot at rear of throat plate, by slightly rotating the machine counter clockwise. This action brings the knife to the thread chain to be cut. With a little practice, the thread cutting operation can be accomplished swiftly.

Important! Always sew 4 to 6 inches (102 to 152mm) above the product in the bag. Do not sew farther than four inches down from the top of the bag. (Fig.8)

Never interfere with the feeding of the machine as it sews across the bag.

By pulling the bag through, holding back the bag or machine, or pulling up on the machine, the quality of the stitch will be poor.

In some cases this may cause damage to the machine.



5. MAINTENANCE, REPLACEMENT AND ADJUSTMENTS

5.1 ROUTINE MAINTENANCE

DAILY

1. Keep the machine free of dust and dirt.
2. Fill the oil reservoir with YAO HAN #22 TELLUS OIL. Wipe all excess oil from parts.
3. Check for loose fasteners and tighten. If the loose fastener holds a specific component in place that has a critical setting, refer to the appropriate section of this manual to establish the correct setting.

MOTOR

Occasionally check the brushes (2) on the motor. (Fig.9) If they are smaller than 1/4 inch or 6mm, replace them immediately.

Place the brushes back into the motor with the correct orientation.

5.2 LUBRICATION

Always use genuine YAO HAN lubricating oil (Part #22), which is available from any authorized representative.

Always make sure that the oil reservoir is full before operating. The oil level can be viewed through the clear end of the reservoir.

Never operate the model F300A with the oil reservoir cap removed. (Fig.10)

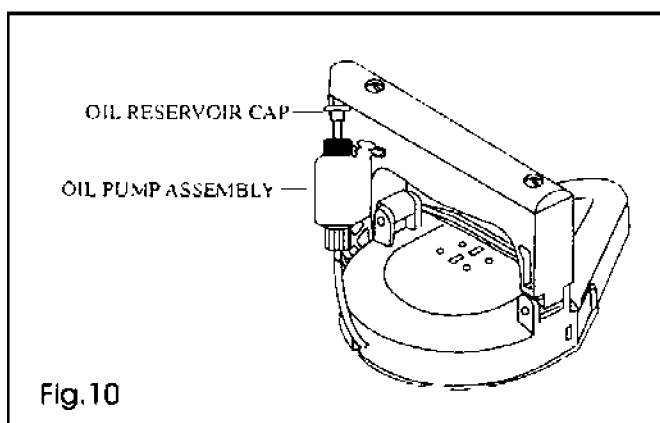
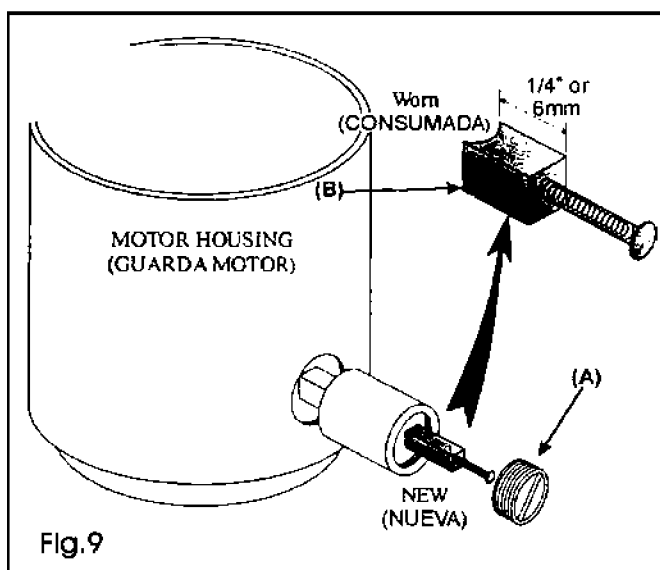
The oil pump has been specially designed to dispense the correct amount of oil for approximately four (4) hours of operation.

Therefore, the oil pump must be pumped four times every four (4) hours during use, while in an upright position.

The wicking inside the housing carries the dispensed oil to other moving parts near the looper and needle bar.

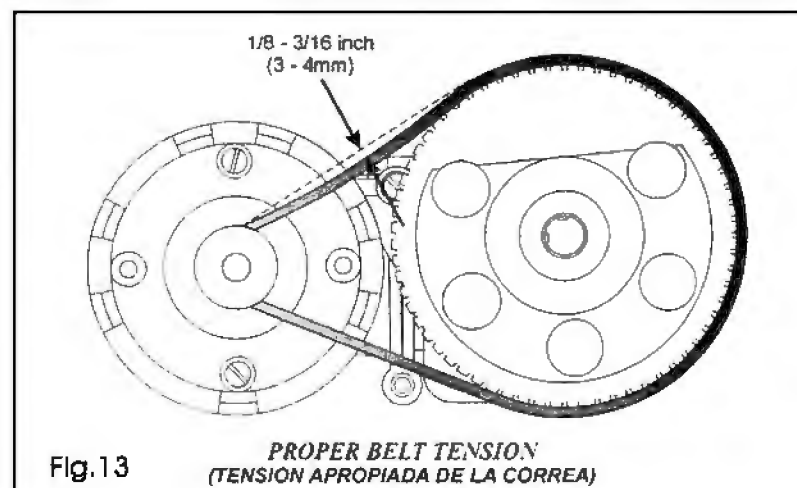
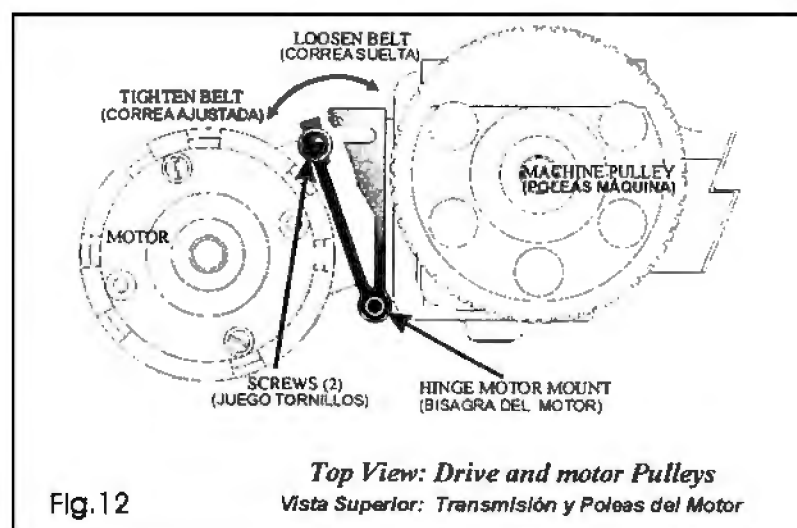
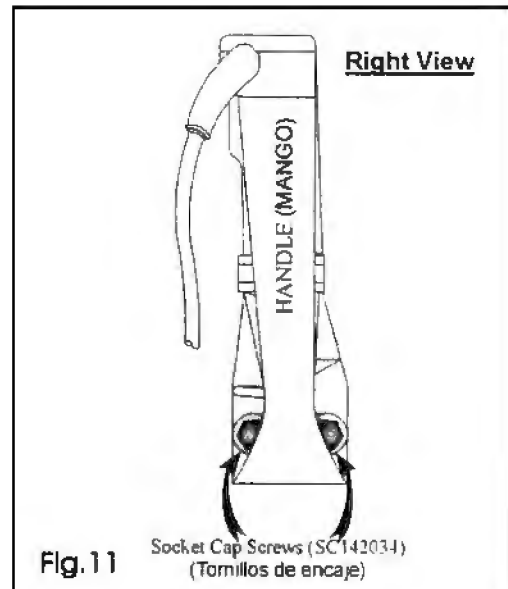
Do not remove the wicking from the model F300A.

If wicking (#3001230) becomes worn and thin, replace it immediately.



5.3 DRIVE BELT

1. Unplug the machine.
2. Remove the thread cone from the thread stand.
3. Remove the handle assembly by unscrewing the two screws (Fig.11) leave the oil tube connected.
4. Loosen the two screws (Fig.12) on the hinged motor mount.
5. Press the motor mount completely closed to allow slack for removal of the used belt.
6. Install a new belt (#3001619) around both pulleys.
7. Apply tension to the belt by opening the motor mount hinge and tightening the two screws. (Fig.12)
The belt must remain slightly flexible. (Fig.13)
8. Reattach the handle assembly, and the thread cone holder. Place the thread cone back on the machine and secure with the wing nut.
9. Your machine is now ready to be thread. (section 3.5)



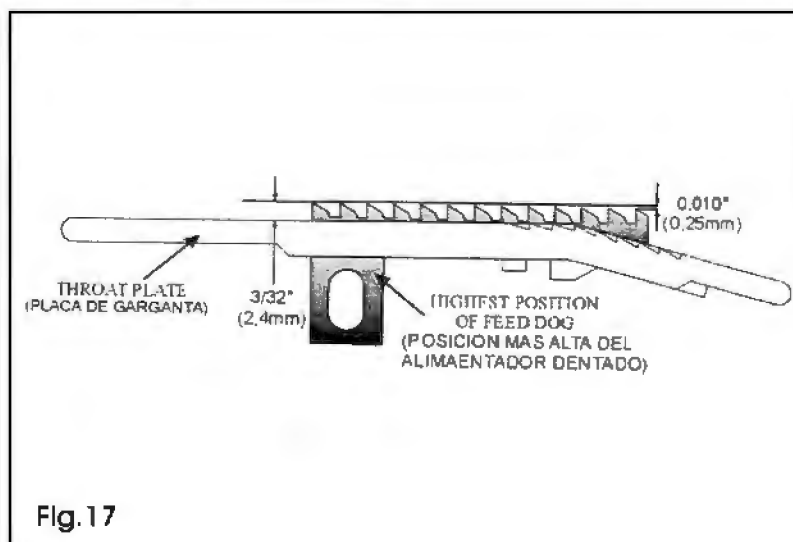
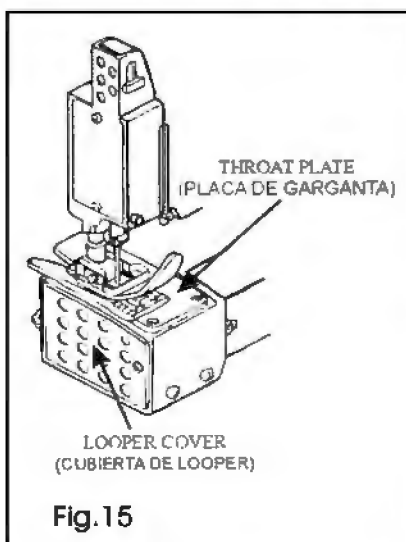
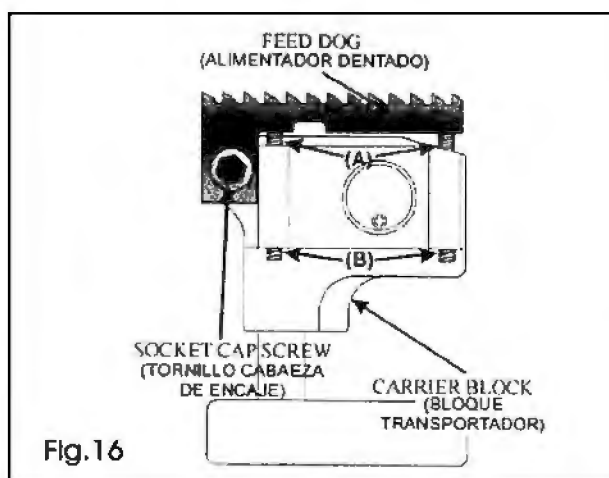
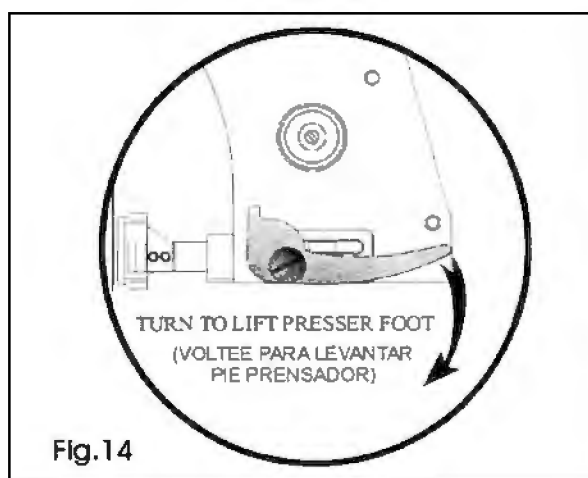
5.4 FEED DOG

FEED DOG MAINTENANCE

The feed dog determines the stitch length and pulls the bag material through the machine. If the teeth of the feed dog become dull, the stitches will become shorter. At the factory the machine is set at 3.75 stitches per inch (6.8mm per stitch). Replace the feed dog when it becomes dull to the touch. (Fig.17)

REPLACING THE FEED DOG

1. Unplug the machine.
2. Place the machine in position as seen in the system illustration on page 3.
3. Lift the presser foot up by turning the lever lifter down. (Fig.14)
4. Remove the throat plate. (Fig.15)
5. Remove the looper cover.
6. Unscrew the screw from the carrier block to remove the feed dog. (Fig.16)
7. Place a new feed dog on the carrier block and place the socket cap back, but do not tighten.
8. Screw the throat plate securely to the machine.
9. Follow the instructions in the adjustment section to properly position the feed dog before tightening the socket cap screw.
10. Reassemble the looper cover to the machine.



ADJUSTING THE FEED DOG

1. The feed dog height is controlled by two adjustable set screws (A). (Fig.16) These screws should be adjusted so that the top of the feed dog is 3/32 inch (2.4mm) above the throat plate, when it is at its highest point of its cycle. (Fig.17)
2. The leading edge of the feed dog should be 0.01 inches (0.25mm) lower than the leading edge.
3. Once the orientation of the feed dog has been set, lock the upper set screws (A) into position using the lower set screws (B). (Fig.16)
4. Tighten the socket cap screw. (Fig.16)
5. Assemble the looper cover to the machine.

5.5 THREAD KNIFE

The thread knife is designed to cut the thread chain as the needle and feed dog rise up towards the throat plate. The trailing edge of the throat plate is equipped with a slot where the thread chain is cut. (Fig.7)

MAINTENANCE OF THE KNIFE

Keep the stationary and moving blades clean and coated with a thin layer of oil. Check for loose fasteners. The force between the blades is set at the factory by using a spring, which does not need adjustment.

REPLACING THE BLADES

When the blades become dull and need to be replaced, the fibers of the thread will be cut to different lengths, appearing that the thread was torn rather than cleanly cut. To replace the blades follow these steps:

1. Disconnect the machine from the power source and place it on a work area.
2. Remove the two screws (A) holding the moving blade to the knife bracket (Fig.18) and remove the blade.
3. Remove the two screws (A) holding the stationary blade to the machines housing and remove the blade.
4. Apply a thin layer of lubricant to the blades.
5. Assemble the stationary and then moving blades to the housing and knife bracket, respectively.
6. Make certain that the screws (A) are tight.

THREAD KNIFE ADJUSTMENTS

The thread knife is designed so that no adjustments have to be made. Keep the blades clean of debris and coated with lubricant for them to work efficiently.

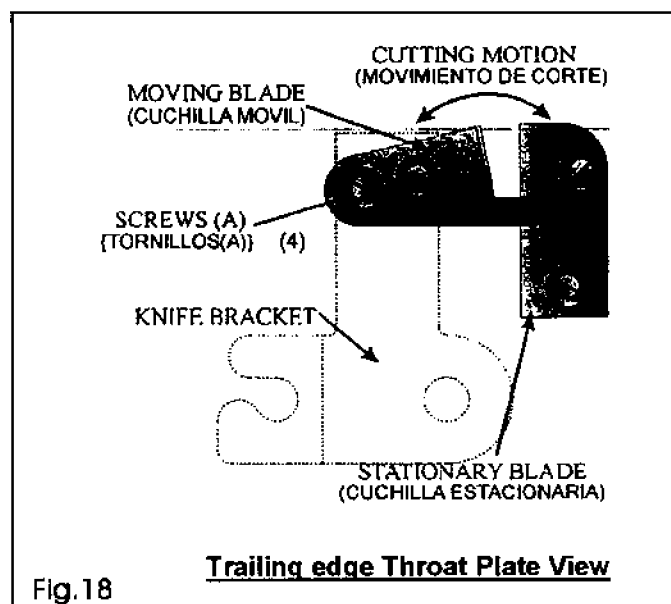


Fig.18

Trailing edge Throat Plate View

5.6 LOOPER

MAINTENANCE

Periodically check the fasteners for the looper assembly. To tighten fasteners that involve critical settings, refer to the section in this manual that describes the adjustments.

REPLACING A LOOPER

1. Unplug the machine and place it on a workbench in the position shown by the system illustration, page 3.
2. Raise the presser foot using the lift lever. (Fig.14)
3. Rotate the machine pulley manually until the feed dog is at its lowest position. You may wish to remove the pulley cover. (Fig.11)
4. Remove the needle for safety. (Section 5.8)
5. Remove the looper cover. (Fig.15)
6. Remove the throat plate/
7. Remove the feed dog by removing the socket cap screw. (Fig.16)
8. Remove the looper from the looper holder by loosening the set screw (A). (Fig.19)
9. Install the new looper into the looper holder. Make sure that the flat side of the looper faces the set screw.

The looper is inserted completely to the bottom of the looper holder.

THIS IS VERY IMPORTANT FOR THE ADJUSTMENT OF THE MACHINE.

10. Tighten the looper set screw (A) (Fig.19)
 11. Replace the needle as described in Section 5.8.
 12. Turn the machine pulley manually and check the settings between the looper and needle.
- Refer to **Looper stroke adjustments and looper clearance adjustment.**

13. Replace the throat plate.
14. Replace the feed dog making sure that it is set correctly on the height adjustment screws. (section 5.4)
15. Replace the looper cover and check to see that all screws are tight.

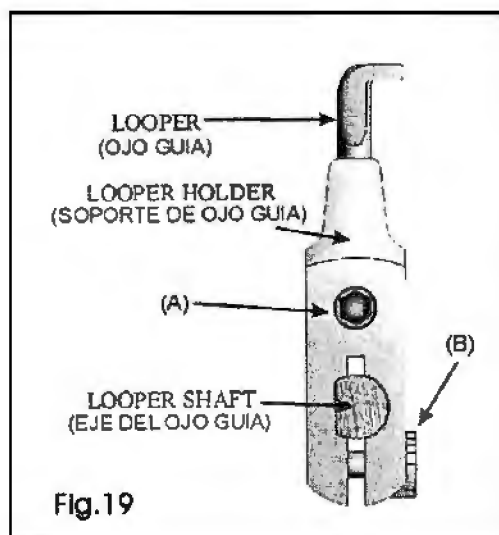


Fig.19

LOOPER ADJUSTMENTS

● Looper Stroke Adjustments

1. Put the machine on a flat surface, with the looper cover facing you. (page 4)
 2. Raise the presser foot with the lifting lever. (Fig.14)
 3. Remove the looper cover. (Fig.15)
 4. Remove the throat plate.
 5. Remove the feed dog by unscrewing the socket cap screw (A). (Fig.16)
 6. Turn the machine pulley until the looper is at maximum back stroke position to the left of the needle.
- You may want to remove the pulley cover for easier access (Fig.11)

7. At this moment, the distance between the point of the looper and the left side of the needle must be of 0.03 inches (0.8mm).

A gage, (#3001464) is available through your YAO HAN representative.

8. If that distance is not correct, take off the housing cover. (Fig.1)

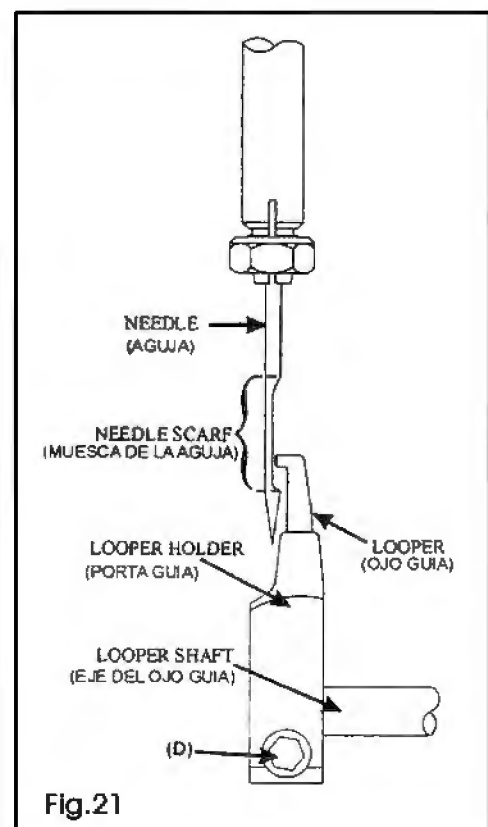
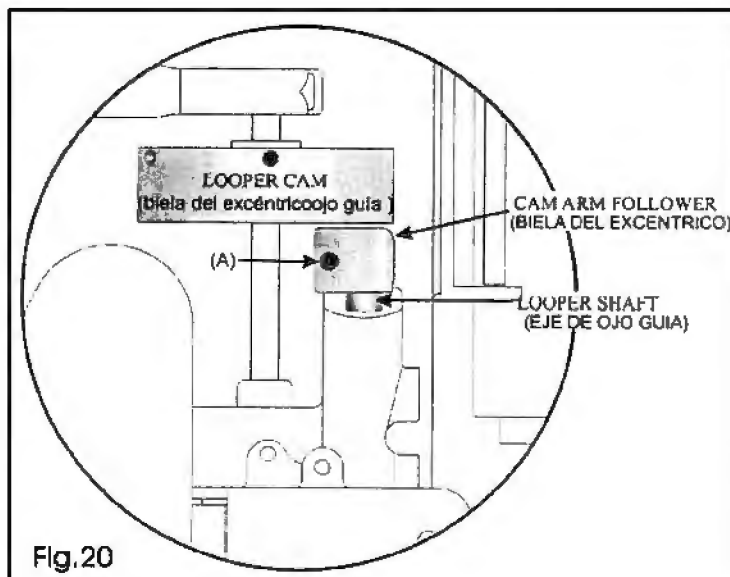
9. Loosen screw (A) of the cam arm follower (Fig.20) and turn the looper shaft until reaching the distance of 0.03 inches (0.8mm). Tighten the screw (A).

● **Looper Clearance Adjustment**

This setting is best seen from the left side of the machine (Input side), with the presser foot lifted and the throat plate and feed dog removed. The goal of this adjustment is that the point of the looper passes behind the needle, as close to the "needle scarf" as possible, without touching it. (Fig.21)

If the clearance between the needle scarf and looper needs to be adjusted, follow these steps:

1. Rotate the machine pulley until the looper is directly behind the needle.
Do not forget to always rotate the pulley of the machine clockwise, looking from the top.
2. Loosen the socket cap screw (D) on the looper holder. (Fig.21)
3. Move the looper holder on the looper shaft until the looper is positioned as closely as possible to the needle scarf without actually touching it. You should be able to pass a sheet of paper between the back of the needle and the looper edge.
4. When this step is complete, tighten the socket cap screw (D) on the looper holder.
5. Rotate the machine pulley through a couple of complete cycles to be sure that the looper clear the needle both on the up stroke and the back stroke of the cycle.
6. When you have made and verified all of the adjustments, replace the feed dog, throat plate and looper cover.



5.7 MOTOR BRUSHES

MOTOR MAINTENANCE

The motor should be kept clean and free of debris and liquids. On a regular schedule the brushes should be checked.

The motors used on the model F300A portables are not designed to run for long continuous periods without stops.

They are produced specifically for numerous starts and stops as is the case for bag closing operations.

The brushes should be at least 1/4 inch [6mm] in length in order for the motor to run properly. (Fig.22 and 9)

We recommend that the brushes be checked after every 100 hours of use.

REPLACING THE BRUSHES

To check and replace the brushes follow this procedure.

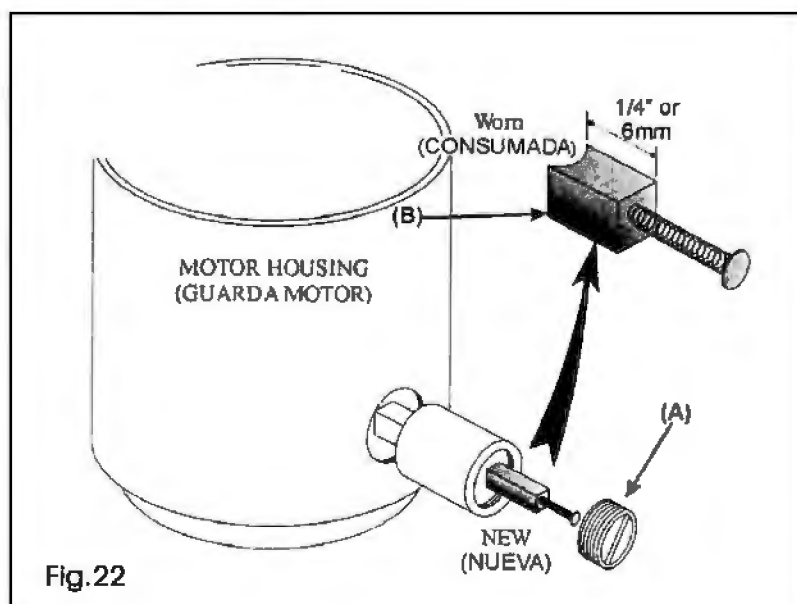
1. Unplug the machine.
2. Unscrew the two brush holder caps (A) from the motor and take out the used brushes (B). (Fig.22)
3. Check the length. If they are still useable, replace them and continue to use the machine.
Be sure to have new brushes on hand.
4. If the brushes need to be replaced, go ahead and insert the new brushes.
5. Replace the brush holder caps (A).

5.8 NEEDLE

NEEDLE MAINTENANCE

The needle is held in the needle bar by using the needle bar nut. The nut should be adjusted with the 3/8 inch wrench provided. Periodically check the needle bar nut to make certain that it is tight and that the needle is not loose or dull. Be careful not to strip the threads or the nut surface.

Do not use pliers.



REPLACING THE NEEDLE

1. Unplug the machine and place on a workbench in the orientation shown in the system illustration, page 3.
2. Raise the presser foot with the lifting lever (Fig.14) and rotate the machine pulley manually until the needle bar is at its highest position.
3. Loosen the needle bar nut (A) with the 3/8 inch wrench. (Fig.23)
4. Remove the needle.
5. Fully insert the new needle in the needle bar. Always use genuine YAO HAN D5 needles.

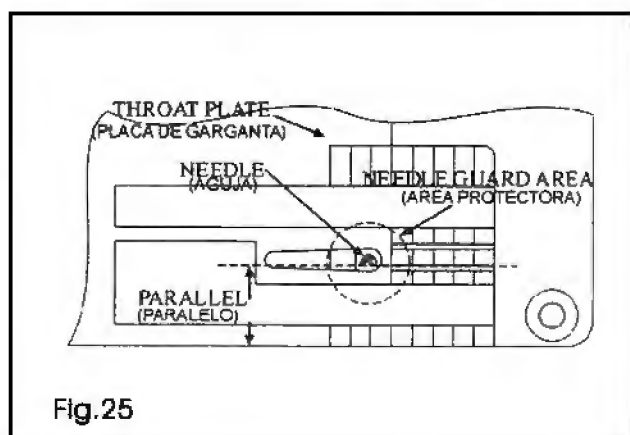
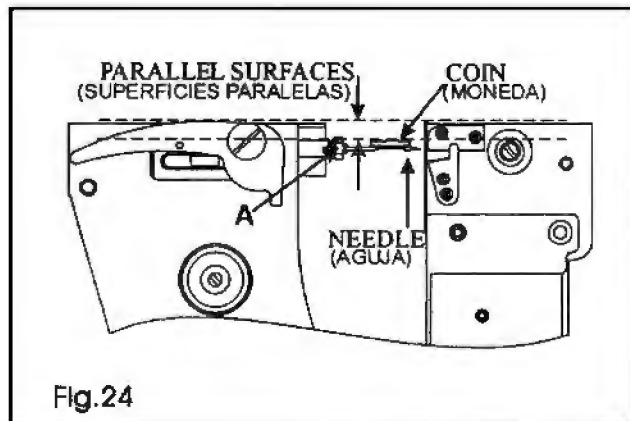
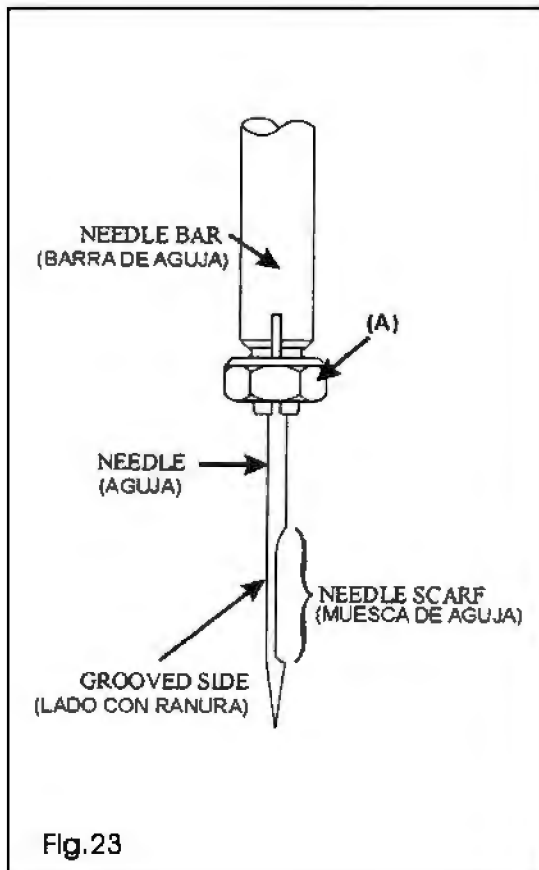
Looking from the bottom side of the machine, the needle's long groove should face you and the needle scarf should be on the back.

6. The groove edges should be parallel to the face of the machine bottom.

To check this, place the machine so that the bottom of the machine is pointing up towards the ceiling. [You may wish to remove the pulley cover and handle. (Fig.11)]. Place a coin or small flat object on the groove.

The face of the coin should be parallel with the bottom face of the machine. (Fig.24)

7. Tighten the nut (A) to clamp the needle in place. The nut is designed so that it does not require excessive force to tighten.
8. Lower the presser foot.
9. Check to see if the needle is passing through the middle of the needle guard on the throat plate and presser foot.
10. Thread the machine.



NEEDLE ADJUSTMENTS

Needle Height Versus Looper

1. Always adjust the needle height after the looper stroke adjustments has been made. See the **Looper Stroke Adjustment** and **Looper Clearance Adjustment**.
2. Remove the looper cover. (Fig.26)
3. Turn the machine pulley in a clockwise direction until the looper begins to come forward, toward the needle (which is beginning to move upward).
4. As the looper passes behind the needle, the point of the looper (moving to the right) must line up, flush with the right edge of the needle, as the bottom edge of the looper hook is seen 0.15 inches down from the top of the needle eye. (Fig.27)

If an adjustment is necessary, perform the following steps:

1. Slightly loosen the screw (D) on the needle bar clamp assembly. (Fig.28)
2. Move the needle bar up or down until you reach the adjustment shown in Fig.27.
3. Be sure that you **DO NOT ROTATE THE NEEDLE BAR OR THE MACHINE PULLEY** as you are performing this step.
4. When the proper setting is reached, tighten the screw (D).



Fig.26

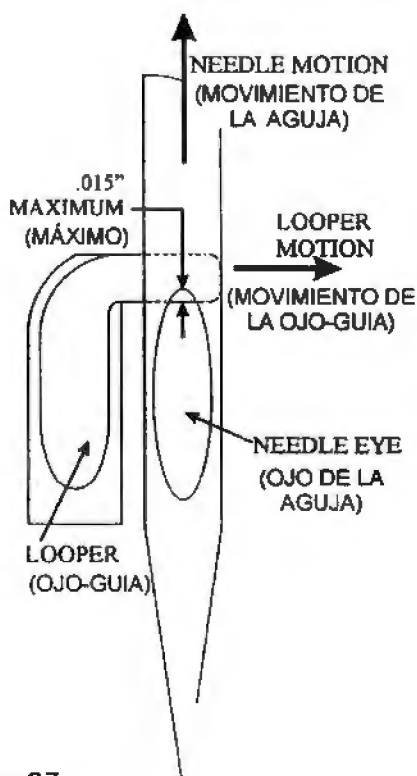


Fig.27

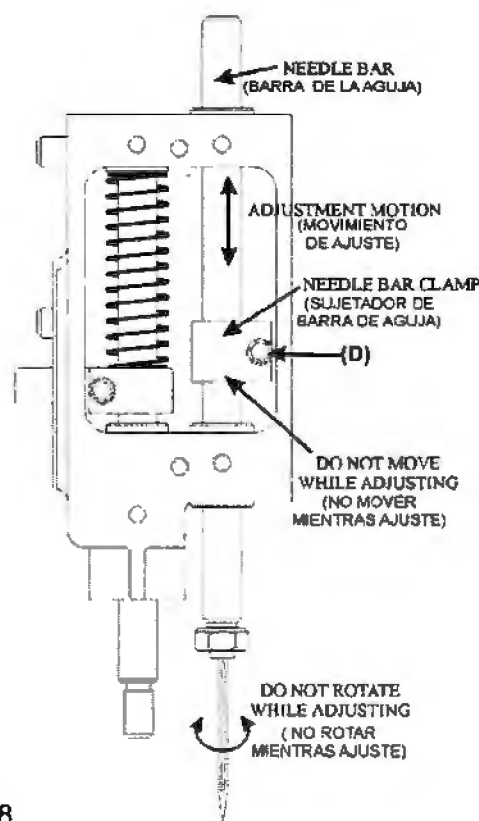


Fig.28

5.9 PRESSER FOOT

The presser foot firmly holds the bag material against the throat plate while the needle passes through the bag. It is also responsible for holding the bag against the feed dog as it pulls the bag through the machine.

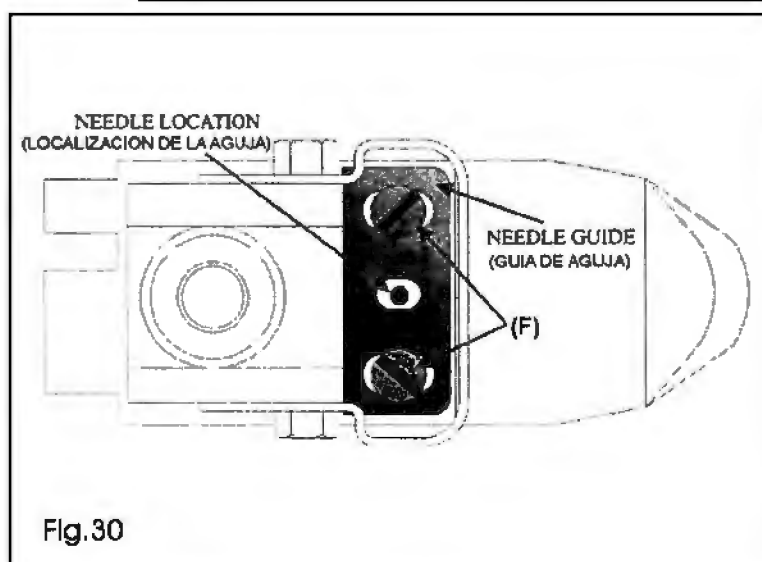
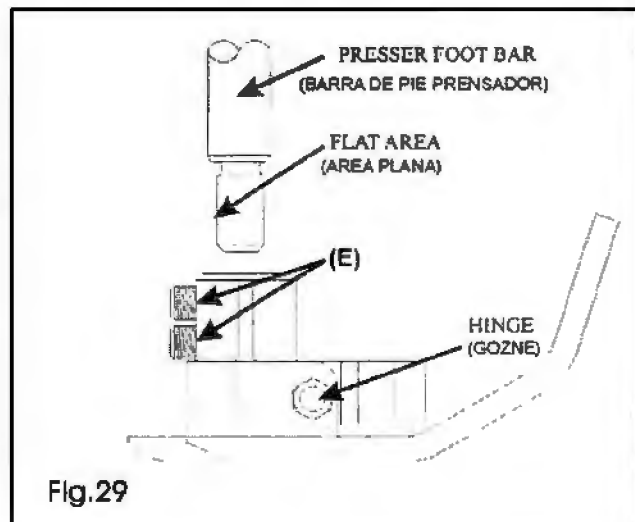
MAINTENANCE

Periodically check the fasteners to make sure they are tight and lubricate the presser foot hinges.

Wipe off the excess lubricant.

PRESSER FOOT REPLACEMENT

1. Disconnect the machine from the power source and place on a workbench.
2. Raise the presser foot using the lift lever. (Fig.14)
3. Turn the machine pulley so that the needle is in the highest position.
4. Loosen the two set screw (E) on the back of the presser foot and remove the foot. (Fig.29)
5. Attach the new foot to the presser foot bar. Note the flat area on the bar. The set screw (E) are to tighten down on these flat areas, if the presser foot is facing the correct direction.
6. Once the presser foot is pushed up completely onto the bar and aligned, tighten the set screws (E).
7. Near the hole where the needle passes through the foot, you will find the needle guide. (Fig.30)
If the needle doesn't travel through the middle of the guide's hole, loosen the two screws (F) and move the guide.
8. Tighten the screws (F) and lower the presser foot using the lifter lever.
9. Turn the machine pulley by hand so that the unit goes through a couple of cycles and make any necessary adjustments.



ADJUSTMENTS

The presser foot is set at the factory to accommodate most typical bag types. It should not have to be adjusted for bag types.

If the force on the presser foot needs to be changed, proceed through the following steps:

1. Disconnect the machine from the power supply and place on a workbench.
2. Remove the looper cover, (Fig.15)
3. The spring around the presser foot bar provides the force exerted by the presser foot.

The presser foot lifter assembly is used to set the spring at a specified compression with the holder.

4. At the factory the holder is set at 1/4 inch (6.4mm) to the frame as seen in Fig.31.
5. Loosen the screw (G) and move the holder. Compressing the spring will increase the force.
6. Tighten the screw and check the force of the presser foot.
7. Attach the looper cover to the machine.
8. Plug in the machine and test it on a bag sample.

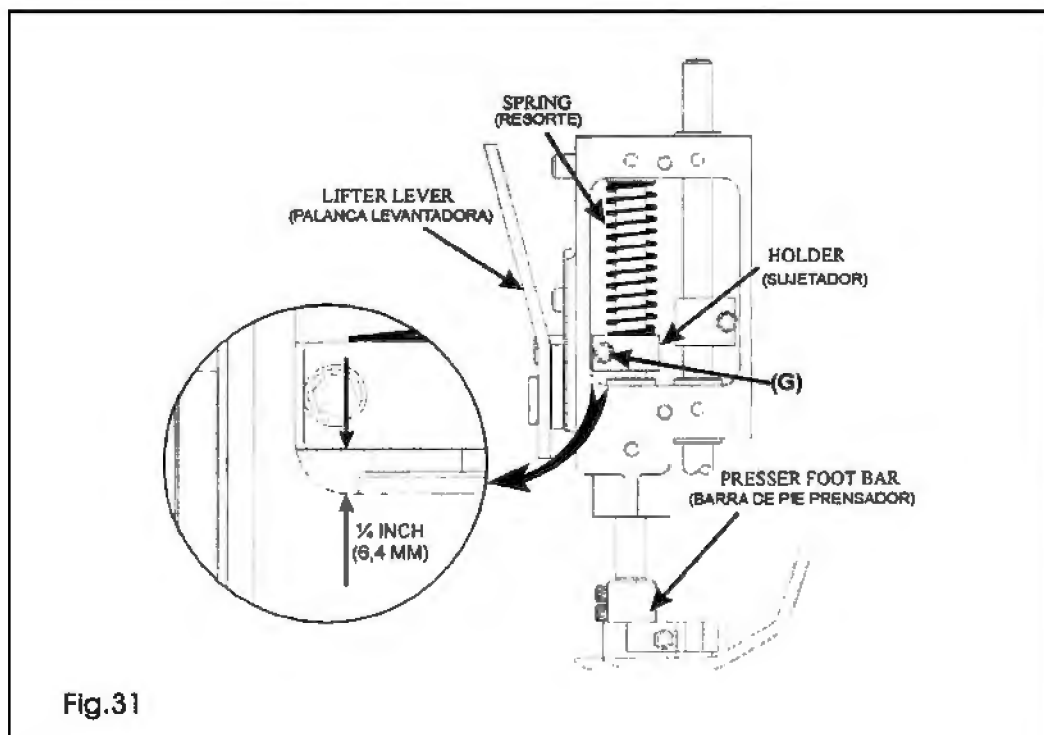
5.10 THROAT PLATE

MAINTENANCE

Keep the throat plate clean for smooth bag flow through the machine.

Routinely check the three fasteners to be sure they are tight.

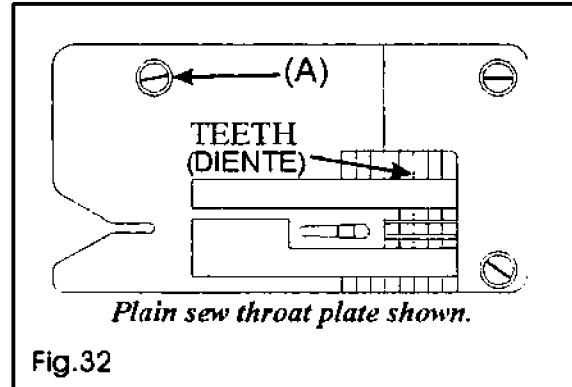
Check the teeth on the top face of the plate. Generally, the throat plate should be replaced if the teeth feel worn to the touch.



THROAT PLATE REPLACEMENT

To replace the throat plate, follow these steps:

1. Unplug the machine from the power supply and place on a workbench.
2. Lift the presser foot using the lifter lever. (Fig.14)
3. Turn the machine pulley manually to the point in the cycle, where the needle is rising and above the throat plate and the top of the feed dog teeth are even with the top surface of the throat plate.
4. Remove the three screws (A) that hold the plate to the housing. (Fig.32)
5. Install the new throat plate with the same three screws (A).
6. Move the machine pulley manually through a couple of cycles.
Check to see if the needle and the feed dog easily pass through the plate without touching.



If there is contact, make the appropriate adjustments.

ADJUSTMENTS

The throat plate is designed so that it does not have to be adjusted. Components misaligned with the throat plate must be adjusted based on the instructions contained in this manual.

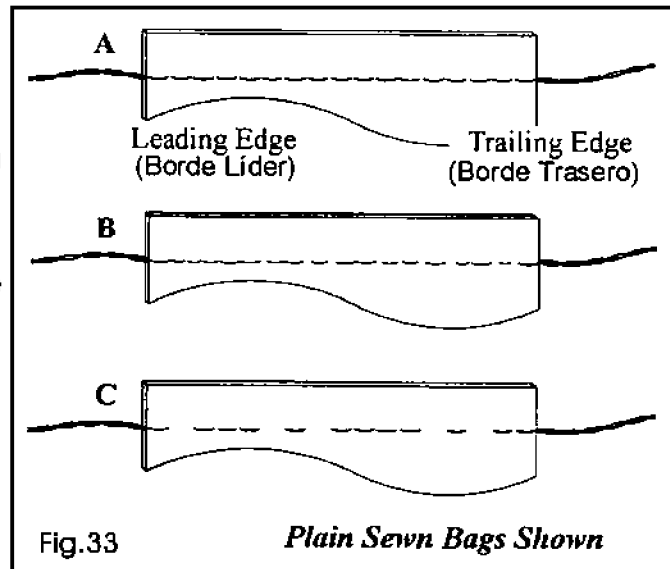
6. QUALITY CONTROL

The purpose of this section is to provide guidance for quality control departments in determining their own specifications for bag closures.

STITCH PATTERN TYPES

- A. As seen in Fig.33, this pattern represents a proper bag closure. The stitching pattern is both even and straight. The operator fed the bag top through the machine at a good rate and held the bag straight horizontally.
- B. This pattern (Fig.33) represents a sporadic stitch line. This pattern is the result of the bag not going through the machine at an even pace.
The bag is occasionally slowing down, because the feed dog or throat plate teeth have either worn down or they are not grabbing the bag with enough force between them.
Check the teeth on the feed dog and the throat plate surface. Replace them if they are worn.
This pattern may also represent the thread cutting through the bag at various points.
The tension disk pressure should be reduced.
Check the pressure on the presser foot.
Make sure it presses firmly down on the throat plate. Refer to Section 5.9, to validate the setting of the presser foot holder.

C. This stitch line (Fig.33) has skipped stitches. Skipped stitches are caused by the looper and needle when they are not functioning together properly. The needle and looper must be precisely set in order to maintain proper chaining. Refer to the adjustments for the looper and needle. (Sections 5.6 and 5.8)



STITCH CHAIN QUALITY

While the sewing machine is creating the stitch, it pulls the thread through the tension disks. (Fig.4)

If the tension in the thread is too tight, then the thread may actually begin to cut through the bag.

If the thread tension is too loose, then the back stitching can be easily pulled apart using your fingernail. To make adjustments to the thread tension see Section 3.6.

THREAD

Bargain priced threads are not made to meet the tensile strength, yield standards and shelf life necessary for Industrial bag sewing equipment. The most common quality problems that occur when using these bargain threads is frequent thread breaks, erratic sewing performance such as skipped stitches and, worst of all, bags breaking open along the stitch line.

Blended polyester is a 100% synthetic sewing thread that has maximum seam strength, uniform diameter and a special lubricated high speed finish.

A 100% synthetic thread out performs cotton and cotton blend threads, is stronger, has no limiting shelf life, is impervious to most chemicals and has a good UV resistance to sunlight and, most important, offers minimal thread breaks.

BAGS

No matter what type of bag is being closed by the model F300A portable, properly setting the machine for the bag type and thickness should not be overlooked.

The machine is set at the factory to sew most bag types. In the event that a thicker than normal bag is used, the pressure on the presser foot may have to be reduced.

Further questions may be directed towards the Technical Service Department at YAO HAN or your local YAO HAN Distributor.

7. TROUBLESHOOTING

1. Stitch is too loose.

A. Check the thread tension. (Section 3.6)

B. Check the sharpness of the feed dog and throat plate teeth. (Sections 5.4 and 5.10)

2. *Stitch is too short.*

Check the sharpness of the feed dog and throat plate teeth. (Sections 5.4 and 5.10)

3. *The bag is tearing at the sewing line.*

- A. Be sure your not holding back the machine from traveling across bag top. The machine must be moved across the bag at the same rate that the feed dog feeds the bag through the machine. (Section 1.4)
- B. If the bag is moving on a conveyor, be sure the machine is being moved across the bag at the same rate that the feed moves the bag through the machine.
- C. Check the pressure on the presser foot. (Section 5.9)
- D. Has the bag quality changed and has the machine been adjusted to accommodate the new bag?

4. *The machine is no longer running.*

- A. Is the machine securely connected to the power supply?
- B. Check the power cord to see if there are any breaks.
- C. If the switch on the handle does not click when pressed, replace the switch. (#3001626-1)
- D. Check the motor brushes and replace them if they are too short. (Section 5.7)

5. *The thread keeps breaking.*

- A. Is the thread unrolling easily from the cone?
- B. Check the thread tension. (Section 3.5)
- C. Check the thread guides and make sure they are clean.
- D. The needle is getting too hot.
- E. Use lubricated thread. (YAO HAN synthetic lubricated thread)
- F. If unable to troubleshoot, call your YAO HAN representative or the Technical Service Department at YAO HAN. (Section 1)

6. *The machine is skipping stitches or does not make a thread chain at the end of the bag.*

- A. Check the thread tension.
- B. Make sure the thread guides are clean and that thread can easily pass through them.
- C. Is the thread unrolling from the cone easily?
- D. Check the teeth on the feed dog and the throat plate. Replace them if they are dull. (Sections 5.4 and 5.10)
- E. Check if the needle is loose or misaligned. (Section 5.8)
- F. Check if the looper is loose, worn or needle to be reset.
- G. Make sure the machine is properly threaded.

7. *The needles keep breaking.*

- A. Check the looper and needle alignment. (Sections 5.6 and 5.8)
- B. Check the needle alignment to the throat plate and presser foot needle guide. (Sections 5.10 and 5.9)

8. SAFELY DISPOSING OF AN MODEL F300A

If a model F300A sewing machine becomes damaged beyond repair or simply worn to a nonfunctional state after years of service, it should be put out of service only after it is safe to dispose of it. First, drain all the oil out of the machine. Dispose of the oil according to your appropriate local environmental regulations. After the oil has been drained and disposed of, bring the sewing head to a recycling center or metal scrap facility.