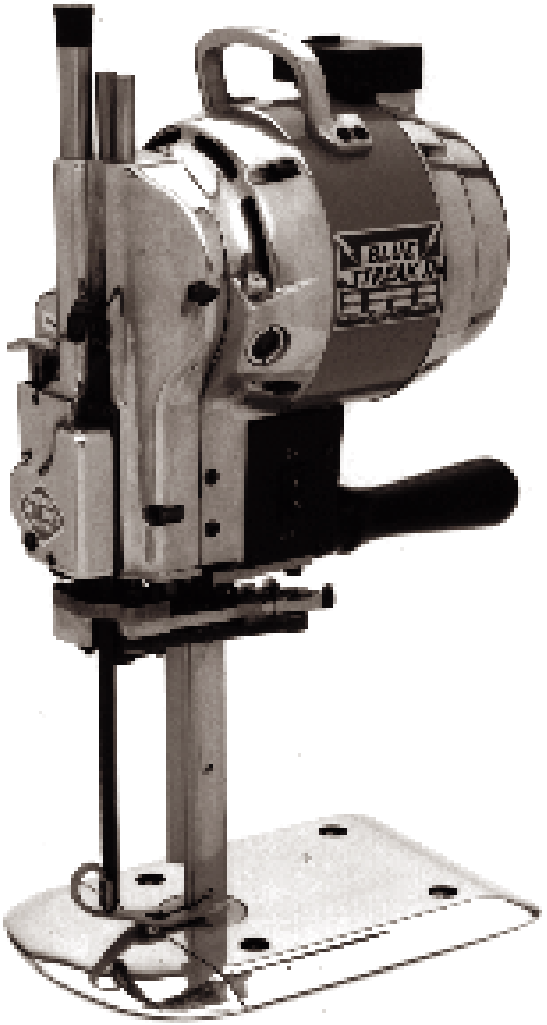
EASTMAN®
BLUE STREAK® II Model 629X
BRUTE Model 627X



Instruction Manual and Parts List

☐ Blue Streak II Model 629X

☐ Brute Model 627X

Serial # _____

⚠ **WARNING**

This machine is equipped with a very sharp knife. Keep hands, arms, and hair away from the knife area at all times.

Misuse of this machine or failure to follow all safety instructions on this machine and in the instruction manual may result in serious personal injuries.

Eastman machine COMPANY

779 Washington St., Buffalo, N.Y. 14203-1396 U.S.A. • (716) 856-2200 • Fax (716) 856-1140 or (716) 856-2068

Manufactures of Eastman Cloth Cutting and Cloth Spreading Machines

Website: www.EastmanCuts.com

Form C-1555

Printed in U.S.A. 9/98

Limited Warranty. Eastman warrants to the buyer that the Blue Streak II and Brute shall be free from defects in materials or workmanship for a period of 180 days commencing on the date of invoice. Any goods or parts claimed by the buyer to be defective must be returned to Eastman, freight charges prepaid, within the 180–day warranty period. If Eastman determines that the goods or parts are defective in materials or workmanship, Eastman's sole obligation under this warranty shall be, at Eastman's sole option, to repair or replace the defective goods or parts or to provide to the buyer a credit equal to the portion of the purchase price allocable to the defective goods or parts. This warranty shall not apply if defects are caused by product misuse or neglect, if the machine has been altered or modified by the buyer, or if other than genuine Eastman belts, emery wheels, knives or parts are used in the machine. THIS WARRANTY IS THE ONLY WARRANTY APPLICABLE TO THIS PURCHASE. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Limitation of Liability. Eastman's liability to the buyer, and the buyer's remedies from Eastman, whether in contract, negligence, tort, under any warranty or otherwise, shall be limited to the remedies provided in the foregoing Limited Warranty. In no event shall Eastman have any responsibility or liability to the buyer for (a) any special, indirect, incidental, or consequential damages, including, but not limited to, loss of use, revenue, or profit, even if Eastman has been advised of the possibility of such damages, or (b) any claim against the buyer by any third party. The price stated for the product sold is a consideration for limiting Eastman's liability.

Table of Contents

IMPORTANT

This manual contains instructions and part numbers for two different machines: Brute Model 627 and Blue Streak II Model 629. If you contact Eastman Machine Company for information or to order parts, always specify the machine name and model number.

If you are ordering electrical components, specify the voltage, frequency (Hz), and speed (RPM) of your machine. You can find this information on a label attached to your machine.

Patents Statement
Some parts of this manual and the equipment it describes are protected by the following U.S. patents: 5,178,232, 4,609,244, 5,111,582, 4,761,878, and D281,416. Other patents pending.

Trademarks Statement
The names Eastman, Uni-Safe, Blue Streak, and Bevel Bloc are registered trademarks of the Eastman Machine Company.

Eastman machine COMPANY

List of Figures

Safety Information

Throughout this manual, safety information is presented by use of the terms *Warning, Caution,* and *Note.* These terms have the following meanings:

WARNING

A warning contains critical information regarding potential safety hazards that can occur during proper use or misuse of the machine. Failure to follow these procedures may result in serious personal injury to the user.

CAUTION

A caution contains instructions for the use or maintenance of the machine. Failure to follow these procedures may result in damage to the machine.

Safety and Indemnification

During the life of the machine, the purchaser agrees to provide to all machine users (including its own employees and independent contractors) all relevant safety information, including warning labels and instruction manuals. The purchaser also agrees to maintain the safety features and working condition of the machine, and to adequately train all users in the safe use and maintenance of the machine. The purchaser agrees to defend, protect, indemnify, and hold Eastman Machine Company harmless from and against all claims, losses, expenses, damages, and liabilities to the extent that they have been caused by the purchaser's failure to comply with the terms and instructions of this manual.

General Safety Precautions

WARNING

- This machine is equipped with a very sharp and dangerous knife. Keep hands, arms, and hair away from the knife area at all times. When the machine is not in use, keep the pressure foot knife guard lowered and locked at all times. Safety gloves and glasses and appropriate clothing may prevent serious personal injuries.
- Disconnect the power supply from the machine when it is not in use or during routine maintenance, including lubrication.
- The purchaser must instruct all operators in the proper use of the machine according to the instructions on the machine and in this manual. This training must include instruction on the potential safety hazards arising from the use or misuse of the machine. In addition to such training, the purchaser should provide written work instructions as necessary to ensure correct use of the machine for specific cutting applications.
- The purchaser must provide appropriate safety measures and equipment as recommended in this manual. Observe all statutory requirements concerning the use of hazardous machinery that apply to your location.
- Do not modify this machine or disable safety features. Unauthorized modification may result in serious personal injuries to the user. Electrical connections to this machine must be made by a qualified electrician familiar with applicable codes and regulations. To prevent electrocution, a ground lead must be connected to terminal "E" on the attachment plug.
- This machine is intended ONLY for hand-held operation. Misuse of this machine or use of this machine as part of another machine may result in serious personal injuries to the user.
- Safety labels must be kept clean and legible at all times. Call the Eastman Machine factory to order replacement labels.

Operation

Before operating the machine, read these instructions carefully. Familiarize yourself with all the functions and adjustments of the machine.

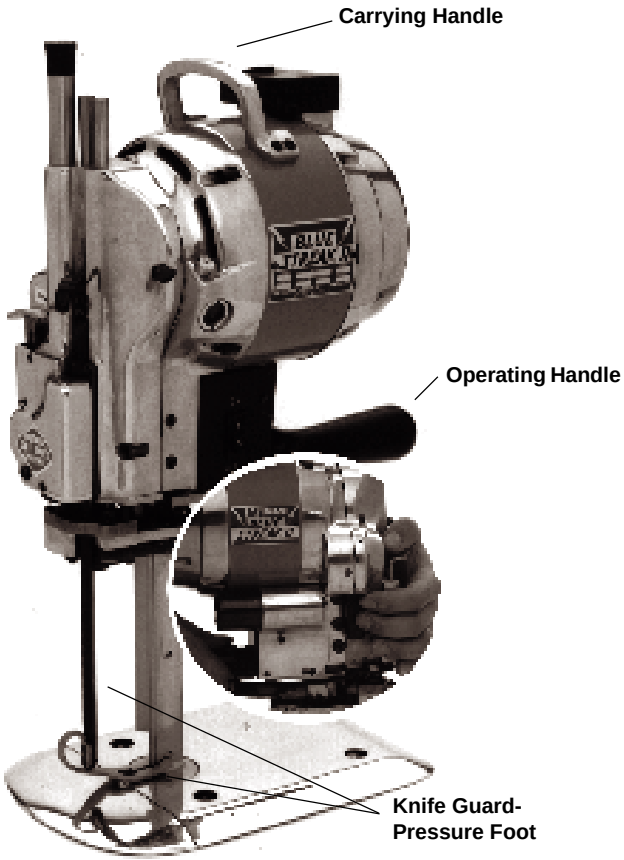


Figure 1. Operating Features

Initial Set Up

After the machine has been installed and before you use it for the first time:

1. Check that the electrical supply current and voltage that the machine is connected to are the same as stamped on its name plate. For three-phase machines, also check that the direction of rotation is correctly set by the turning knob (Figure 2, F). Refer to the tag attached to all three-phase machines for detailed instructions.

CAUTION

Operating this machine from an incorrect electrical supply may damage it.

2. Check that the machine has been lubricated according to the schedule listed in *Routine Maintenance–Lubrication* on page 5.

   Note: At this time, carry out the full monthly lubrication schedule on page 5.

3. Make sure that the sharpener is in the locked position. To do this, push in the turning knob (Figure 2, F). While depressing the turning knob, turn the machine over a few revolutions by hand to see if the knife reciprocates easily. If the knife does not move easily, the sharpener may be in the unlocked position.

4. To lock the sharpener in place, lift the release lever (Figure 2, D) and press the sharpener lever (Figure 2, E) to release the sharpener. Raise the sharpener bracket (Figure 2, S) by hand to lock it in place. Once the sharpener is locked in place, you may disengage the release lever and sharpener lever. Repeat step 3 to ensure that the sharpener is now locked. If not, repeat this step.

5. Visually inspect the blade to ensure that the top of the knife is flush with the knife lockbolt (Figure 7, 1 on page 9) and that the knife is perpendicular to the baseplate. If you need to adjust the alignment of the blade, see section *Changing the Knife* on page 9.

6. Check that the motor switch is in the OFF position. Then connect the attachment plug to the terminal block on the machine.

7. Hold the operating handle and turn on the machine. Allow the blade to reach full speed. If the blade is struggling, the sharpener is still not in the locked position. If this is the case, turn off the machine and do the following:

   7.1 With your left hand, straddle the front of the sharpener with fingers and thumb.

   7.2 Press the bell crank release lever (Figure 2, H) to

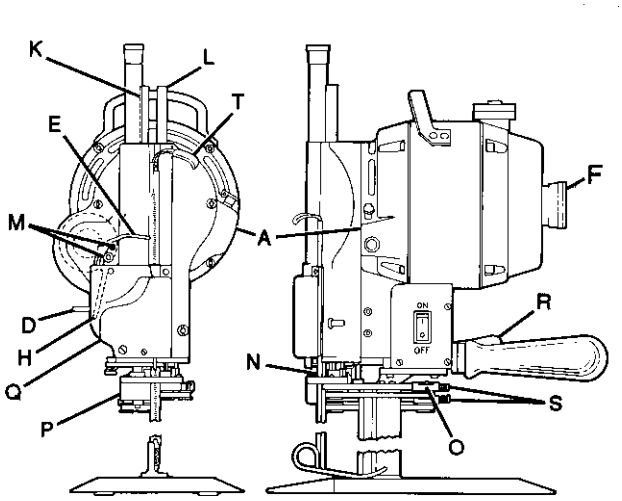
disengage the sharpener mechanism from the motor.

7.3 With your right hand, hold the operating handle and turn on the motor switch. Allow the motor to gather full speed and then release the release lever. This automatically returns the sharpener to the locked position.

CAUTION

Turn the motor on and off a few times before running the machine continuously. This permits the oil to warm up and flow easily into the close-fitting moving parts. Failure to do this may result in damage to your machine.

The machine is now ready for use.



A	oil reservoir	N	pulley shaft
D	release lever	O	belt pulley
E	sharpener lever	P	plug
F	turning knob	Q	cover
H	bell crank release lever	R	pressure foot lever
K	tube	S	sharpener bracket
L	tube	T	knife guard/pressure foot lifting handle
M	oil		

Figure 2. Controls and Adjustments

Operating Procedure

Safety Considerations

WARNING

To prevent serious injury, read and follow these safety precautions.

Before starting or using your machine:

1. Check that you know and understand the following:

   - That proper voltage is supplied to machine.
   - How to turn off the machine in an emergency.
   - The meaning of all warning labels on the machine.
   - What happens to the machine when you operate the controls.
   - Proper start-up procedures described in Initial Set Up section.
   - What to do in the event of a jam or other unforeseen situation.
   - How to disconnect power from the machine.

If you are not familiar with any of these points, ask your supervisor or contact an Eastman representative.

2. Check the condition of your machine and working area. Make sure that:

   - There is no visible damage to the machine. Pay particular attention to the blade.
   - No maintenance work is currently being performed in your working area.
   - No unnecessary people are in your working area.
   - Your working area is clear of debris, spilled liquids, food, drink, or other obstructions.
   - Your clothing, hair, and jewelry cannot snag or become tangled in the machine. Wear appropriate protective equipment as necessary. Remove all rings, watches, neckties, and other loose objects. Tie up hair or wear a hair net.

If you are uncertain about any of these points, do NOT use the machine.

WARNING

Failure to use all recommended safety measures and equipment may result in serious personal injury.

Starting the Machine
If you have had the machine less than one month or if it has stood idle for any length of time, turn the motor on and off a few times before running it continuously. This permits the oil to warm up and flow easily into the close-fitting moving parts.

CAUTION

Failure to warm up your machine adequately may damage the motor.

Making a Cut

WARNING

Failure to keep hands, arms, and hair away from the knife area at all times may result in serious personal injury.

1. Bring the machine up to the material spread.
2. Raise the knife guard/pressure foot by depressing the pressure foot lever (Figure 2, R) and lifting the knife guard/pressure foot lifting handle (Figure 2, T). Raise the pressure foot only enough to clear the material being cut.
3. Turn on the machine, allow the blade to reach full speed, and enter the fabric.
4. Using the pressure foot lever (Figure 2, R) and the knife guard/pressure foot lifting handle (Figure 2, T), lower the pressure foot so that it is slightly above the material being cut. This will prevent the material from reciprocating.
5. Begin cutting.
6. When you are not making a cut, or when the machine is not in use, keep the knife guard/pressure foot lowered to the baseplate by depressing the pressure foot lever (Figure 2, R).
7. Turn off the machine when not cutting fabric.

Turning Off the Machine
When you have finished using your machine:

1. Position the power switch to off.
2. Make sure the knife guard/pressure foot is lowered to the baseplate by depressing the pressure foot lever (Figure 2, R).
3. Disconnect the attachment plug from the power source.
4. In cold weather, ensure that the machine is kept in a warm place when not in use.

Routine Maintenance

WARNING

Always unplug the machine before performing maintenance, adjustments, or repairs.

WARNING

After servicing the machine, always make sure the plate bolt nut is securely fastened (Figure 3, X on page 6) before resuming cutting operation.

Care of the Machine

To ensure proper operation of your machine, carry out the following procedures at the intervals indicated. If you use your machine intensively, consider performing these procedures more often.

Daily
Remove the knife and clean the knife slides with the slot cleaner (Figure 7, 2 on page 9) included with machine. To prevent undue accumulation of lint, do NOT oil the plate rollers. If the rollers stick, remove them from the plate and wash them in cleaning solvent.

Twice Weekly

Use an approved air hose or bellows to blow any lint from around the motor and sharpener.

⚠ WARNING

Failure to wear eye protection when using air hose or bellows may result in serious eye or facial injuries.

Weekly

Remove the cover (Figure 2, Q) and clean any lint from around the screw mechanism in the sharpener.

Lubrication

Lubricate your machine according to the following schedule:

⚠ CAUTION

Use only specially compounded Eastman 30-weight, non-detergent oil. Use of sewing machine oil or detergent oil may result in damage to your machine. Do not oil the baseplate rollers. Use of an excessive amount of oil may damage the machine.

Daily

1. Place two drops of oil at each of the two locations shown in Figure 2, M. Use an oil can with a small spout. (A suitable oil can is furnished with the machine.)

2. Fill the oil reservoir (Figure 2, A) for continuous use. If you only use the machine intermittently, you can use less oil.

Weekly

1. Carry out the *Daily* lubrication schedule above.

2. Apply one drop of oil only to each of the following:
   - Tubes at locations shown as Figure 2, K and L.
   - Pulley shaft shown as Figure 2, N.
   - Belt pulley shown as Figure 2, O.

Monthly

1. Carry out the *Daily* and *Weekly* lubrication schedules above.

2. Remove the plug (Figure 2, P) and insert a grease tube. Squeeze an amount of grease approximately the size of a pea into the opening.

⚠ WARNING

Routinely check the tightness of the operating handle to ensure a secure connection.

Sharpening the Knife

Sharpen the knife at frequent intervals or whenever you feel it is not cutting adequately:

1. Take the machine out of the lay.

2. Drop the knife guard/pressure foot using the pressure foot lever (Figure 2, R on page 3), located next to the machine operating handle.

3. Press the sharpener lever (Figure 2, E) downward with a slow, firm pressure to engage the sharpening mechanism. Too fast a lever action may cause the lever to lock. If this occurs, lift the release lever (Figure 2, D) and start over again.

Removing the Sharpener

1. Disconnect the machine from the power source.

2. Using the turning knob (Figure 2, F) raise the blade to top position.

3. Press the sharpener lever (Figure 3, E on page 6) approximately halfway down and to the neutral position, and lower the sharpener by hand.

⚠ WARNING

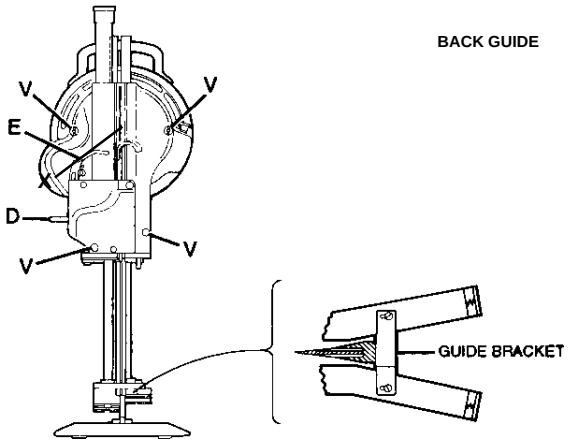
This machine is equipped with a very sharp knife. Remove the knife when working in this area. Failure to keep hands, arms, and hair away from the knife area may result in serious personal injury.

4. Remove the back guide (Figure 3).

5. Press the lever (Figure 3, E) to a neutral position and raise the sharpener to the top (original) position.

6. Remove the four hold-down nuts (Figure 3, V) and remove the sharpener.

   Note: If you press the sharpener lever (Figure 3, E) down too far (beyond the neutral position), it will lock the sharpener bracket. If this occurs, lift the release lever (Figure 3, D) and start over again.



D release lever
E sharpener lever
V hold-down nut
X plate bolt nut

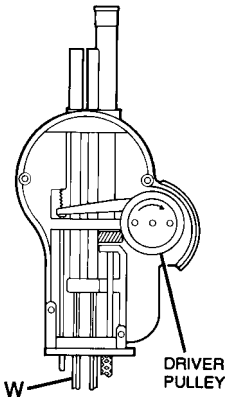
Figure 3. Removing the Sharpener

Replacing the Rubber Driver Pulley

The sharpener is driven by a rubber driver pulley, as shown in Figure 4. Replace this driver pulley whenever it appears to be worn or damaged, as follows:

1. Remove the sharpener from the machine (see *Removing the Sharpener* on page 5).

2. Press the sharpener lever (Figure 3, E) to a neutral position and lower the sharpener until an inch of the square shaft (Figure 4, W) is exposed.



W square shaft

Figure 4. Replacing the Rubber Driver Pulley

3. Hold the square shaft with a wrench. Position the wrench as close as possible on the shaft to the sharpener housing.

4. Use a spanner wrench to remove the driver pulley by turning it clockwise as indicated by the arrow in Figure 4.

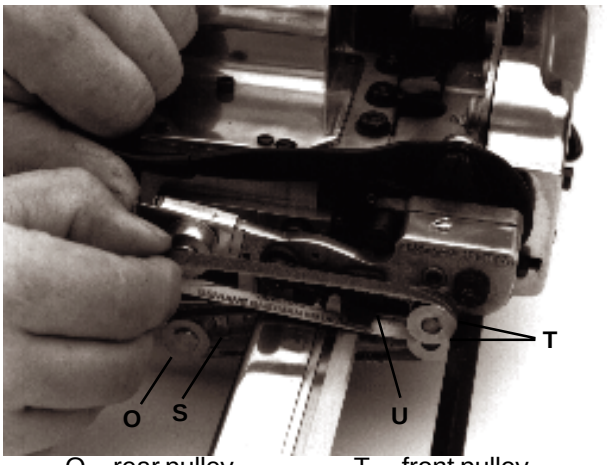
   Note: The pulley has a left-hand thread.

5. Reassemble the new pulley on the sharpener.

6. Reassemble the sharpener on the machine.

Adjusting the Belt Sharpener

Note: You can obtain all the special tools you will require for adjusting the sharpener by ordering tool kit #820C2.



O rear pulley T front pulley
S slide with pulley U sharpener shoe

Figure 5. Changing the Sharpener Belts

⚠ WARNING
Failure to unplug the attachment plug from the power source before performing maintenance may result in serious personal injury.

Changing Sharpener Belts

1. Push the slide with pulley (Figure 5, S) inward to relieve tension, then remove the worn belt.

2. Place the new belt over the front pulley (Figure 5, T), then between the sharpener shoe (Figure 5, U), and then over the rear pulley (Figure 5, O).

3. Release the slide with pulley.

   Note: Sharpener belts are available in four grits: Rough, Coarse, Medium, and Fine. See *Abrasive Belt Grits* on pages 17-18 for ordering information.

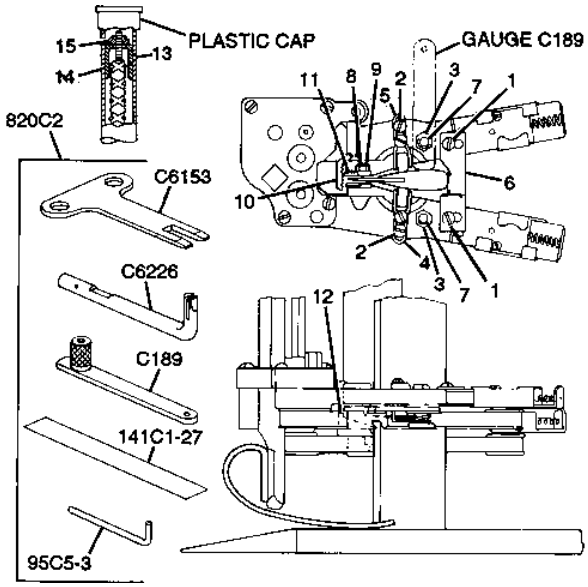
Adjusting Stabilizers for Central Alignment

1. Disengage the attachment plug, if you have not already done this.

2. Depress the sharpener lever (Figure 2, E on page 3) halfway and lower the belt carrier to the extreme bottom position.

3. Loosen the screws (Figure 6, 1) and disengage the back guide (Figure 6, 6) from contact with the standard.

4. Loosen the screws (Figure 6, 2) and disengage the stabilizers (Figure 6, 4 and 5).



1	screw	9	locknut
2	screw	10	clamping arm
3	locknut	11	sharpener shoe
4	stabilizer	12	shoe
5	stabilizer	13	tube
6	back guide	14	spacer
7	pivot screw	15	locknut
8	stop screw		

Figure 6. Adjusting the Stabilizers

5. Remove the locknut (Figure 6, 3).

6. Install gauge C189 on the exposed threaded end of the pivot screw (Figure 6, 7) and press the end of the gauge against the side of the standard.

7. Holding this position, engage the opposite stabilizer (Figure 6, 4) firmly against the side of the standard and tighten the screws (Figure 6, 2).

8. Remove tool C189 and press the positioned stabilizer (Figure 6, 4) against the side of the standard. Then fasten the opposite stabilizer (Figure 6, 5) firmly against the standard.

9. Re-engage the back guide (Figure 6, 6) in loose contact with the back of the standard.

Checking the Sharpener Shoes

The shoes should swing in and out freely without excessive up and down play. If adjustment is necessary, proceed as follows:

1. Loosen the locknuts (Figure 6, 3) and tighten the screws (Figure 6, 7) as required.

2. Check the clamping arm (Figure 6, 10) with the belt carrier in the most downward position and the knife in the most upward position. The clamping arm should keep the sharpener shoe from moving in. If it fails to do so, the serrations on the clamping arm are worn or the sharpener shoe (Figure 6, 11) is worn.

3. Replace worn part(s) as necessary.

Checking the Extreme Down Position of the Sharpener

The correct down position is with the tip of the knife at the center of the belt on the shoe (Figure 6, 12). The belt should be in the most downward position, and the knife should be in the most upward position. If the belts are too high, the bottom point of the knife will not sharpen. If the belts are too low, the bottom point of the knife will round off excessively. If adjustment is necessary:

1. Raise the belt carrier to the up position.

2. Remove the plastic cap from the tube for the screw shaft.

3. Insert a pin through the hole in the tube (Figure 6, 13) to prevent the spacer (Figure 6, 14) from turning. Then remove the locknut (Figure 6, 15).

   The following step describes the correct procedure for setting spacer adjustment on different stroke machines:

   Note: Prior to beginning adjustment, be sure that the spacer is threaded fully onto screw shaft.

Stroke	Turns
1-1/8"	11
1-1/4"	9
1-1/2"	13
1-3/4"	8
Note: Each turn = 1/32"	

4. Turn the spacer clockwise with wrench C6153 to raise the bottom position, or turn counter-clockwise to lower the position.

   Note: One turn in either direction adjusts the position by 1/32".

5. When the spacer is adjusted, use the pin to hold the spacer in position, reassemble, and tighten the locknut (Figure 6, 15).

6. Replace the plastic cap.

Checking the Stop Screw on the Sharpener Shoe

1. With new belts on the carrier, insert .010 feeler gauge #141C1-27 between the stop screw (Figure 6, 8) and the knife. Ensure that the clamping arm (Figure 6, 10) has been released from the sharpener shoe (Figure 6, 11). The gauge should just fill the space between the screw and the knife.

2. If an adjustment is necessary, loosen the locknut (Figure 6, 9). Adjust the set screw to the proper spacing, and re-tighten the locknut.

Check the Width of the Bevel on the Knife

The bevel should be approximately 1/16" on both sides. If it is not:

1. Install a new knife and new belts.

2. Color the bevel with a wax pencil.

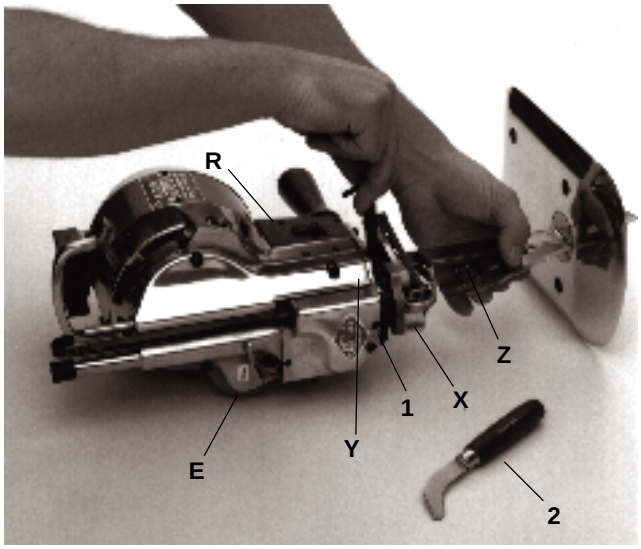
3. Run the sharpener up and down the knife several times.

4. If an adjustment is required for Flex-Pad shoes, insert tool C6226 over the belt guide pad. Move the free end of the tool to the rear to increase the bevel, or to the front to decrease bevel.

Changing the Knife

⚠ WARNING

Always handle knives with care. Safely dispose of used knives.



1	knife lockbolt	R	pressure foot lever
2	slot cleaner	X	pressure foot
E	lever	Y	T-handle knife bolt wrench
		Z	standard

Figure 7. Changing the Knife

Changing the Knife (continued)

⚠ WARNING

Unplug the attachment plug from power source.

1. Make sure the sharpener is in the locked position.
2. Raise the pressure foot (Figure 7, X on page 9) to the top position using the pressure foot lever (Figure 7, R), which is located next to the machine operating handle.
3. Lay the machine on a table, as shown in Figure 7.
4. Press in the turning knob (Figure 2, F on page 3) and turn the knife to the bottom position.
5. Insert the T-handle knife bolt wrench (Figure 7, Y) and loosen the knife lockbolt (Figure 7, 1).
6. Remove the knife through the bottom of the standard (Figure 7, Z).
7. After removing the knife, clean the knife slot in the standard with the slot cleaner (Figure 7, 2).
8. Insert a new knife in the knife slot. Be sure to set the knife tightly against the knife lockbolt. Hold the bottom of the knife against the back of the slot in the standard and tighten the knife lockbolt.
9. After tightening the knife lockbolt, check to see if the knife runs freely in the standard by rotating the turning knob.
10. Install new sharpener belts and operate the sharpener three or four times before starting to cut.

Note: For best results, use only Eastman knives. The limited warranty covering your machine is not valid if you use knives other than those manufactured by Eastman. The available knives and accessories are shown in Figure 8 and in the selection charts on the next page.

STRAIGHT KNIFE **WAVE KNIFE**

Figure 8. Available Eastman Knife Types

WAVE KNIVES REQUIRE SPECIAL SHOES AND RELATED PARTS LISTED BELOW

743C1-27	L.H. Shoe	743C1-26	R.H. Shoe
34C10-47 20C12-57	L.H. Spring Screw (for shoe)	34C10-57 20C12-57	R.H. Spring Screw (for shoe)

WHEN USING THESE SPECIAL SHOES, THE FOLLOWING PARTS MUST BE REMOVED FROM THE LOWER GEAR BRACKET

STRAIGHT KNIFE SELECTION CHART

CARBON STEEL				HIGH-SPEED STEEL					SPECIAL PROCESS
KNIFE SIZE	STRAIGHT FRONT	SAW TOOTH	WAVE EDGE	STRAIGHT FRONT	ROUND TIP	ANGLE TIP	SAW TOOTH	WAVE EDGE	STRAIGHT FRONT
4	80C4	80C4-14	80C4-19	80C4HS			80C4-14HS	80C4-19HS	
5	80C5	80C5-14	80C5-19	80C5HS	80C5HS-R	80C5-36HS	80C5-14HS	80C5-19HS	80C5SP
6	80C6	80C6-14	80C6-19	80C6HS	80C6HS-R	80C6-36HS	80C6-14HS	80C6-19HS	80C6SP
7	80C7	80C7-14	80C7-19	80C7HS	80C7HS-R	80C7-36HS		80C7-19HS	80C7SP
8	80C8	80C8-14	80C8-19	80C8HS	80C8HS-R	80C8-36HS		80C8-19HS	80C8SP
9	80C9		80C9-19	80C9HS	80C9HS-R	80C9-36HS		80C9-19HS	80C9SP
10	80C10		80C10-19	80C10HS	80C10HS-R	80C10-36HS		80C10-19HS	80C10SP
11-1/2	80C11-1/2			80C11-1/2HS	80C11-1/2HS-R	80C11-1/2-36HS		80C11-1/2-19HS	80C11-1/2SP
13	80C13			80C13HS	80C13HS-R				80C13SP

80C6-47HS **6" High-Speed Wave Special Grooved Knives for Micro Fog Machine**
80C7-47HS **7" High-Speed Wave Special Grooved Knives for Micro Fog Machine**

Teflon-coated knives available. Order by adding "T" to end of knife order.

35C7-28 34C10-123 20C12-143	Clamping Arm Spring Screw	See page 33

See page 31 for slow speed drive note.

Adjusting Bevel Bloc® Shoes

Eastman's exclusive, patented adjustable Bevel Bloc sharpener shoes make it possible to grind any desired bevel on the knife edge. The knife-edge bevel on your new machine is factory set to handle all normal fabrics and normally should not be changed. The preset measurement is 1/16" wide.

(*Continued on next page.)*

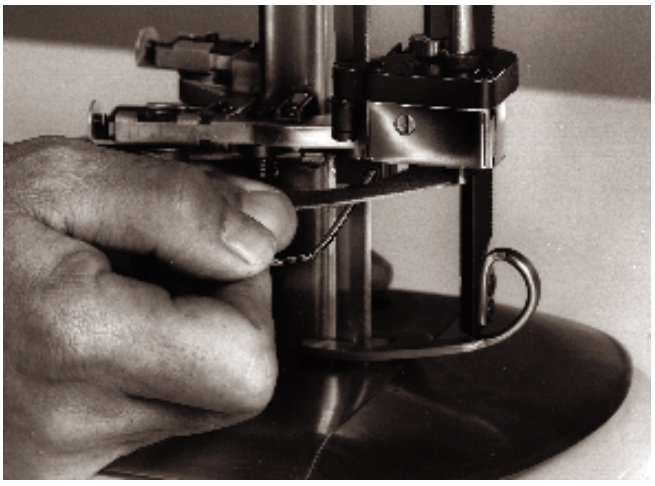


Figure 9. Adjusting Bevel Bloc Shoes

Adjusting Bevel Bloc® Shoes (continued)

If you need to adjust the bevel on the knife edge to a different length, proceed as follows:

1. Disconnect the machine from the power source.
2. Lower the knife to the bottom of the stroke with the machine turning knob (Figure 2, F on page 3).
3. Lower the sharpener manually, by holding the sharpener lever (Figure 2, E) halfway down to its neutral position.
4. Pull the sharpener belt down to expose the set screw (Figure 9 on page 11) on the Bevel Bloc.
5. Insert Allen wrench 95C5-5 into the set screw and loosen it slightly.
6. For a longer bevel on the knife edge, move the key and bloc to the rear. For a shorter bevel, move them to the front.
7. Re-tighten the set screw.
8. Adjust the Bevel Blocs on both shoes.
9. Return the sharpener to the top (locked) position.
10. Check the stop screws on the sharpener shoes for correct setting, as described in *Checking the Stop Screw on the Sharpener Shoe* on page 9.
11. Color-mark the front sides of the knife edge with marking ink or a wax pencil. Reconnect and turn on power. Then move the sharpener down and up several times.
12. Check the bevel on both sides of the knife. Readjust if necessary.

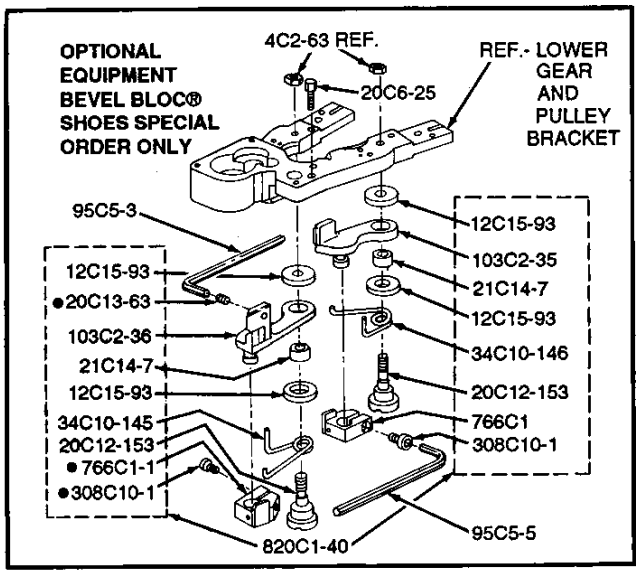


Figure 10. Bevel Bloc Shoe Assembly

SUBASSEMBLY 743C3-1 INCLUDES:	
20C13-63	Screw, Set
103C2-36	Shoe, Sharpener L.H.
766C1-1	Bevel Bloc Assembly L.H.
308C10-1	Screw, Socket 6/32" x 5/16" (2 required)

PART NO.	DESCRIPTION
4C2-63	L.H. Nut (2 required)
715C1-16	Lower Gear Bracket Complete 5"-10" Knife
715C1-18	Lwr. Gear Bracket Com. 11 1/2"-13" Knife
820C1-40	Conversion Kit R.H. & L.H. Shoes
	INCLUDES THE FOLLOWING:
12C15-93	Washer Shoe (4 required)
20C6-25*	Screw Adjust
20C12-153	Screw, Sharpener Shoe (2 required)
20C13-63	Screw, Set
21C14-7	Bushing, Shoe (2 required)
34C10-145	Spring Shoe L.H.
34C10-146	Spring Shoe R.H.
95C5-3	Wrench, Allen
95C5-5*	Wrench, Allen
103C2-35	Shoe, Sharpener R.H.
103C2-36	Shoe, Sharpener L.H.
308C10-1*	Screw, Socket 6/32" x 5/16" (2 required)
766C1*	Bevel Block Assembly R.H.
766C1-1*	Bevel Block Assembly L.H.
820C1-39	Conversion Kit includes * parts above.

Note: 766C1 and 766C1-1 are sold in pairs with kits only.

SUBASSEMBLY 743C3 INCLUDES:	
103C2-35	Shoe, Sharpener R.H.
766C1	Bevel Block Assembly R.H.
308C10-1	Screw, Socket 6/32" x 5/16" (2 required)

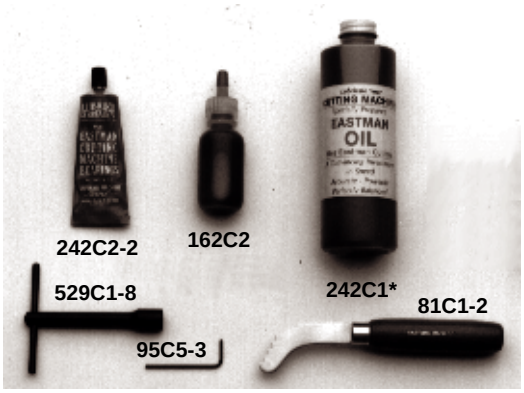


Figure 11. Maintenance Supplies for Bevel Bloc Shoes

MAINTENANCE SUPPLIES

PART NO.	DESCRIPTION
529C1-8	Knife Bolt Wrench
95C5-3	Allen Wrench for Shoe Set Screws
242C2-2	Eastman Bearing Grease
162C2	Oil Can
242C1*	1/2 Pint Eastman Oil
81C1-2	Slot Cleaner

*Optional

Troubleshooting

PROBLEM	SOLUTION
Motor overheats	a. Cut out switch not engaging properly b. Lint and dust inside motor cover c. Three-phase: one phase not working
Machine does not start	a. Connector not firmly attached to terminal pins b. Start switch defective c. Starting switch or cut-out switch and/or capacitor defective
Bottom corner of blade breaks	a. Knife slides badly worn b. Knife strikes throat plate.
Motor slow to attain top speed	a. Sharpener is engaged b. Cut out switch not adjusted properly c. Low or wrong voltage d. For three-phase machines: 1. Fuse out on one phase 2. Ground wire incorrectly connected to machine
Motor slows in a certain position	a. Crosshead and guides tight b. Standard not in alignment with crosshead c. Standard bent
Motor rotates in wrong direction	a. Three-phase: incorrect wiring
Terminal block and/or electrical connector overheats	a. Inserts in connector worn. Change connector. b. Terminal pins worn

PROBLEM	SOLUTION
Machine does not move easily on table	a. Surface of cutting table not smooth b. Rubber mounted rollers compressed causing baseplate to drag on table
No bevel on one side of blade	a. Broken torsion spring b. Band plates do not pivot freely
Sharpener belt cut off by blade	a. Refer to page 8, *Checking the Extreme Down Position of the Sharpener*
Pressure foot rod does not move freely	a. Dirt in pressure foot lock bracket
Pressure foot rod does not hold	a. Lock loose on shaft b. Pressure foot handle spring broken c. Teeth worn on lock d. Screw loose
Sharpener runs slowly	a. Oil on crank b. Stabilizer assembly too tight against standard c. Worn pulley d. Worn screw shaft e. Add grease to lower gear bracket
Bevel very wide on both sides of blade	a. Worn sharpener shoes

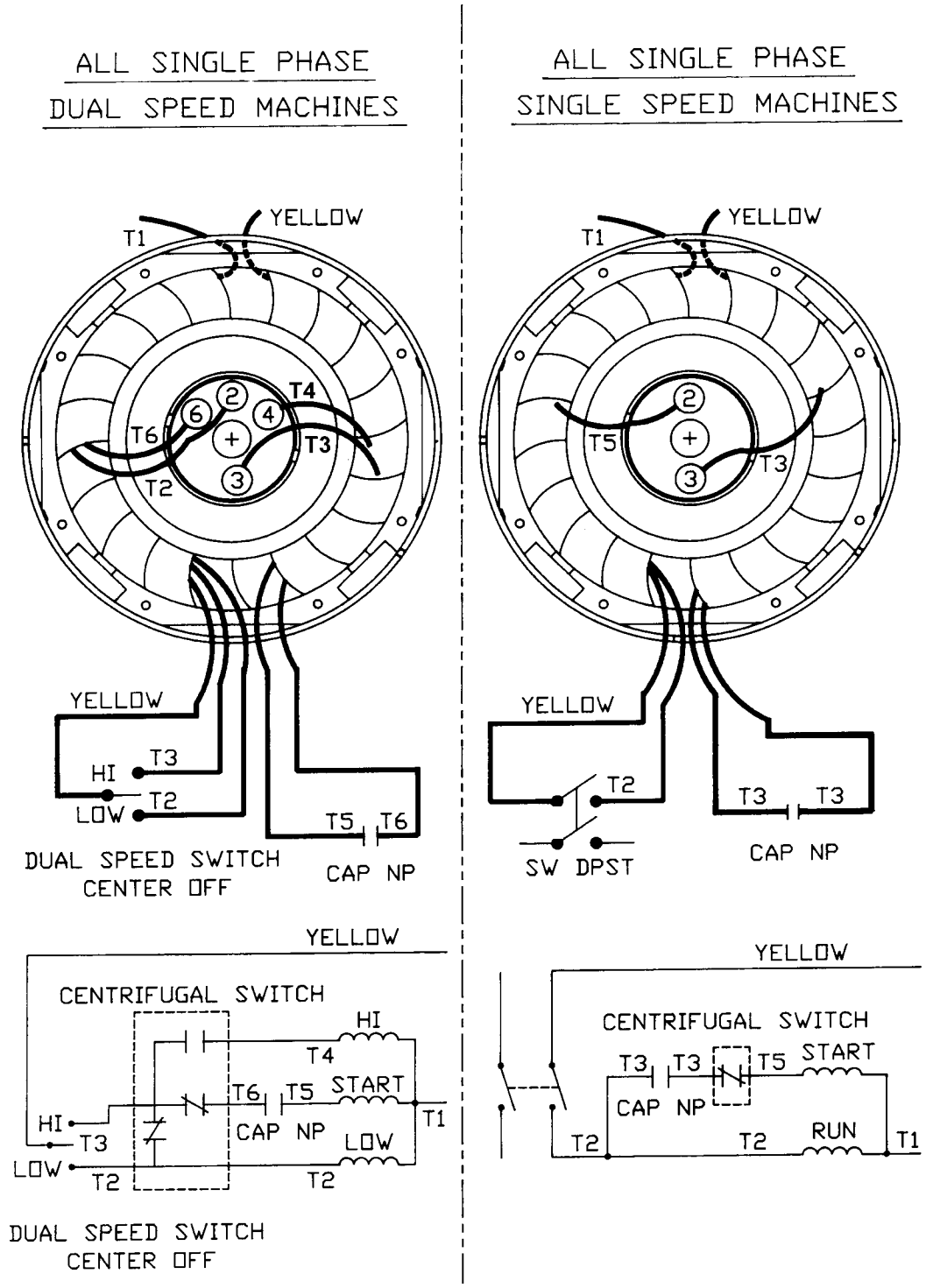
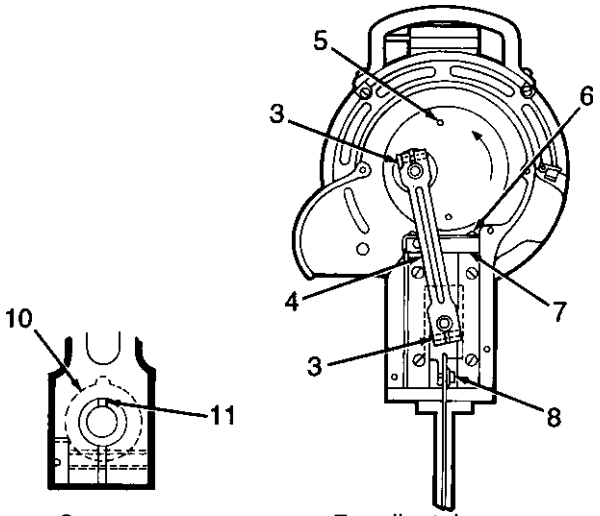


Figure 12. Single-Phase Electrical Configuration

Freeing Frozen Guides



3	screw	7	oiler tube
4	connecting rod	8	crosshead
5	hole	10	washer
6	set screw	11	notch

Figure 13. Freeing Frozen Guides

To free frozen guides, proceed as follows:

1. Remove the machine from the power source.
2. Remove the sharpener from the machine, see *Removing the Sharpener* on page 5.
3. Loosen the screws (Figure 13, 3) and remove the connecting rod (Figure 13, 4).
4. Insert the drift pin in the hole (Figure 13, 5) in the crank and tap with a light hammer in the direction of the arrow. This will loosen the crank.
5. Remove the crank.
6. Loosen the set screw (Figure 13, 6) using a No. 564 Allen key (.078 hex) and remove the oiler tube (Figure 13, 7).
7. Remove the crosshead (Figure 13, 8) from the guides.
8. Place a fiber or brass rod against the bottom of the crosshead and drive the crosshead out through the top of the guides.

   Note: If the wrist pin is frozen in the crosshead, drive the wrist pin out of the crosshead with a soft punch. Polish the wrist pin and the hole in the crosshead with fine emery cloth.
9. Hone any rough spots on the bearing surface of the crosshead against a flat oilstone until smooth.
10. Examine the guides. If there is any evidence of a high spot, remove it with a scraper and then clean.
11. Oil the bearing surface of the guides, insert the crosshead, and reassemble the machine. Ensure the washer (Figure 13, 10) is in place between the connecting rod and crosshead.

⚠ CAUTION

The wrist pin must be installed with the notch (Figure 13, 11) at top center. If the wrist pin is not installed correctly, the flow of oil to the wrist pin bearing will be cut off.

12. Return power to machine and run the machine for approximately one-half hour, oiling the guides frequently, before putting the machine back into production.

Accessories

Stainless Steel Mesh Gloves

Mesh provides complete freedom of movement and air circulation so hand doesn't sweat. Designed for universal fit, the mesh glove features a uniquely designed snap wrist strap fastener that allows a left hand glove to be easily and quickly reversed to make a right hand glove (gloves are normally configured as left hand).

Features a fully tapered design to fit better without excess material and weight. Seams joining glove parts are interThe

⚠ WARNING

Metal mesh gloves provide protection from minor cuts, but will NOT prevent accidental injury. Even if you wear safety gloves, failure to keep hands, arms, and hair away from the knife area and follow the safety precautions on the machine and in this manual may result in serious personal injuries.

⚠ WARNING

Do not use metal mesh gloves with a round knife blade cutting machine. The circular motion of the knife could pull the glove towards the blade.

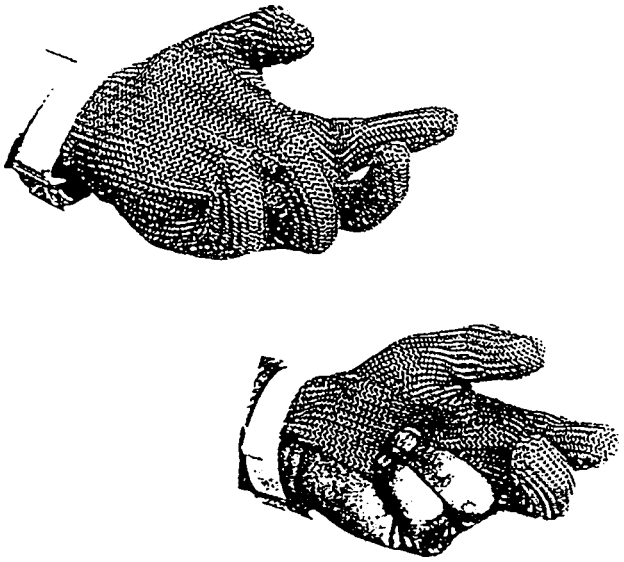


Figure 14. Available Metal Mesh Glove Styles

Ordering Details
All gloves are available with three or five fingers.

Note: All gloves are shipped with left hand configuration. For a right hand configuration reverse the wrist snap fastener.

Ordering Reference Left-Hand	Description (see note for Right-Handed)
GU300 XS	3 Finger, extra small, Snap-Buckle
GU300 S	3 Finger, small, Snap-Buckle
GU300 M	3 Finger, medium, Snap-Buckle
GU300 L	3 Finger, large, Snap-Buckle
GU300 XL	3 Finger, extra large, Snap-Buckle
GU500 XS	5 Finger, extra small, Snap-Buckle
GU500 S	5 Finger, small, Snap-Buckle
GU500 M	5 Finger, medium, Snap-Buckle
GU500 L	5 Finger, large, Snap-Buckle
GU500 XL	5 Finger, extra large, Snap-Buckle

Genuine Eastman Abrasive Belts

Eastman's four abrasive belt grits offer an edge for every fabric. For increased cutting efficiency, Eastman offers four different edges as produced by four different abrasive belts. These belt grits are available in convenient, color-coded boxes for easy identification.

Figure 15. Eastman Abrasive Belts

250X microphotographs (Figure 16) show four different edges, as produced by Eastman's four abrasive belt grits.

FINE BELT
FINE EDGE
Slices thru synthetics and blends, for knitted or loosely woven cloths, and for silks, high-pile fabrics, quilting, etc.
BLUE
181C2-5

MEDIUM BELT
MEDIUM EDGE
Shears thru the general run of rayons, cottons, light woolens, tropicals, suitings, and similar materials
GREEN
181C2-2

COARSE BELT
COARSE EDGE
For heavier weight variations of the "medium" materials at left, and for lightly woven cloths, pocketing, light denims, over-coatings, light leatherette, and rubberized fabrics
RED
181C2-1

ROUGH BELT
ROUGH EDGE
The edge that practically SAWS thru heavy denim, coated fabrics, treated canvas, simulated heavier leathers, etc. where the going gets tough!
BLACK
181C2-6

SPECIAL PERFORMANCE BELTS: Electrostatically Coated

FINE BELT	MEDIUM BELT	COARSE BELT
BLUE	GREEN	RED
181C2-5SP	181C2-2SP	181C2-1SP

Figure 16. Edges Produced by Different Belt Grits

Ergo-Handle

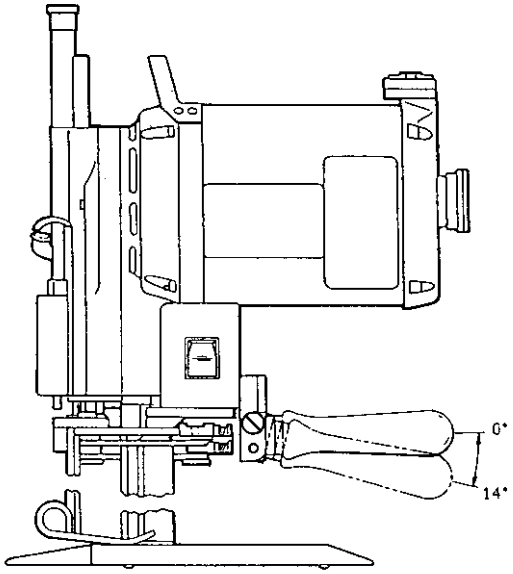


Figure 17. Ergo-Handle

Available as an option on new machines or for retrofitting to any existing Eastman straight knife, the Ergo-Handle allows the operator to adjust the handle downward from the standard horizontal through a 14-degree range. Adjusting the handle's angle to suit the operator's preference allows for more effective use of the arm muscles, while placing less strain on the wrist and thumb.

PART NO.	DESCRIPTION
531C1-87	Regular Ergo-Handle
531C1-88	Cushion Ergo-Handle

Specialty Machines

Plastic Master Model 627PM/629PM
Eastman's Plastic Master has been specifically designed by Eastman's engineering group to eliminate the fusing of synthetic materials such as plastics, PVC, vinyl, and reinforced vinyl. Exclusively formulated Plastic Master Fluid is applied to a special wave blade by articulated arms. Gravity carries the Plastic Master Fluid down the blade and cools as it cuts. The Plastic Master option is available for dual-speed machines.

For more information on the Eastman Plastic Master 627PM/629PM, call your Eastman authorized dealer or Eastman

factory direct.

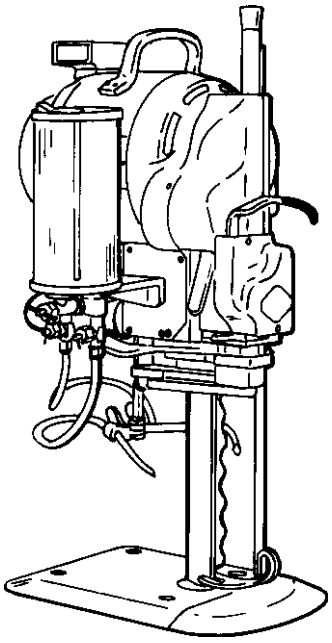


Figure 18. Plastic Master

Micro Fog Model 627MF/629MF

Eastman's Micro Fog is designed for the same purpose as the Plastic Master, but is more comprehensive. The exclusive Micro Fog and a 90-120 psi compressed air hose sends a mist of coolant/lubricant behind the knife and out through special slotted wave blades to penetrate every layer of cloth and eliminate the conditions that cause fusing. Micro Fogs are only available with dual-speed motors, 6" standards, and in 1-1/8 or 1-1/4 stroke only. Special waterproof belts are available for use on this machine. The amount of spray may be regulated through a valve on the device.

For more information on the Eastman Micro Fog 627MF/629MF, call your Eastman authorized dealer or Eastman factory direct.

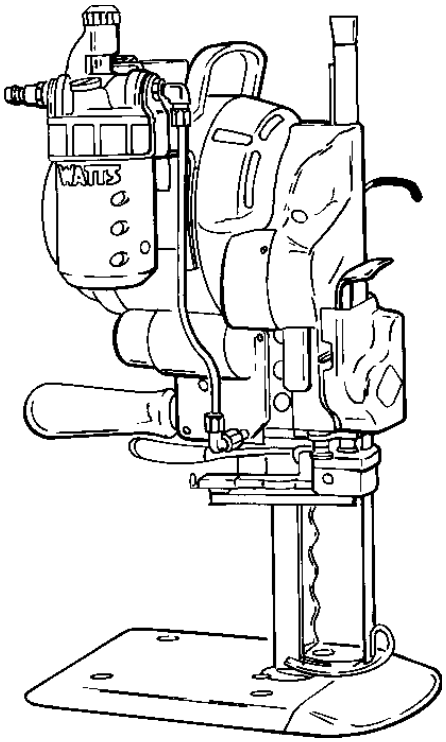


Figure 19. Micro Fog

Illustrated Parts List

Your Eastman Straight Knife has been carefully designed to provide many hours of trouble-free operation. The comprehensive exploded parts illustrations have been carefully prepared to enable you to easily order replacement parts. Replacement parts for this machine may be ordered through your nearest Eastman Machine Company representative or directly from the Eastman factory.

Note: Please specify the model and serial number of your machine when ordering parts. Always specify class number and serial number when ordering parts for faster, more efficient service.

Exploded Parts Illustrations

The exploded parts illustrations and parts lists in this section have been divided into major assemblies as follows:

Motor Assemblies

Front Bearing Housing Assembly
See pages 26 and 27.

Sharpener Housing Assembly
Front view, see pages 28 and 29.
Rear view, see pages 30 and 31.

Lower Gear Bracket Assembly
See pages 32 and 33.

Note: Four different abrasive belt grits (designed to provide you with a selection of edges) may be ordered for this machine. See pages 17 and 18 of this manual for more information.

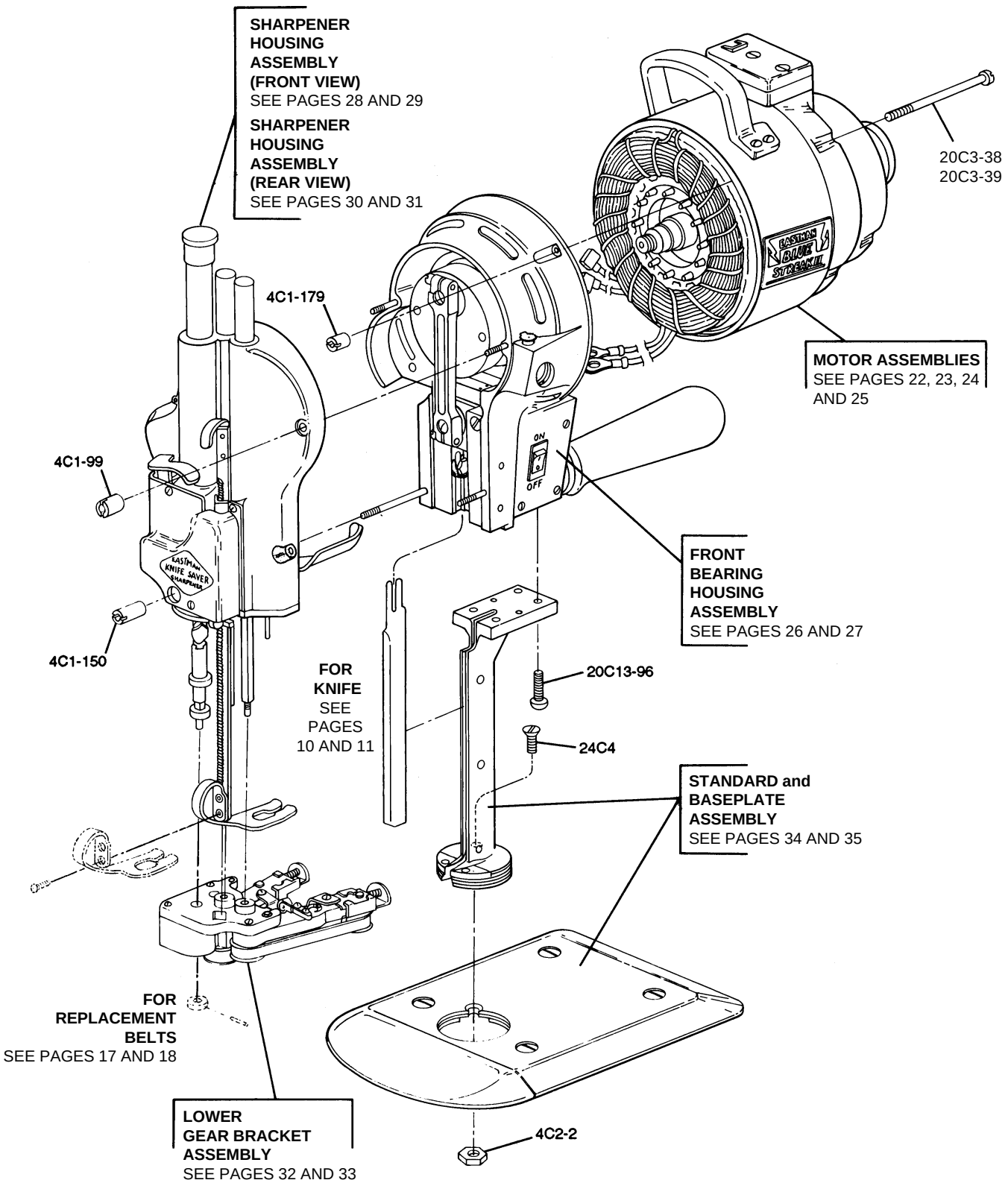
Standard and Baseplate Assembly
See pages 34 and 35.

Note: Knife slides and standard heights indicated on pages 34 and 35 are based on the length of the knife and do not refer to physical dimensions. Thus, a 6" knife slide accommodates a 6" knife. Ordering information and part numbers for knives may be found on pages 10 and 11.

FASTENERS REQUIRED TO ASSEMBLE MAJOR COMPONENTS

PART NO.	NO. REQ'D Class 627	NO. REQ'D Class 629	DESCRIPTION
4C1-99	3	3	Sharpener Hold-Down Nut
4C1-150	1	1	Sharpener Hold-Down Nut
4C1-179	4	4	Front-to-Rear Bearing Nut
4C2-2	1	1	Plate Bolt Nut
20C3-38	0	4	Front-to-Rear Bearing Screw
20C3-39	4	0	Front-to-Rear Bearing Screw
20C13-96	4	0	Standard-to-Bearing Screw
24C4	1	1	Plate Bolt

Figure 20. Standard and Baseplate Assembly (Exploded View)



Eastman machine COMPANY

Single-Phase
Motor Assemblies
(Single- and Dual-Speed)

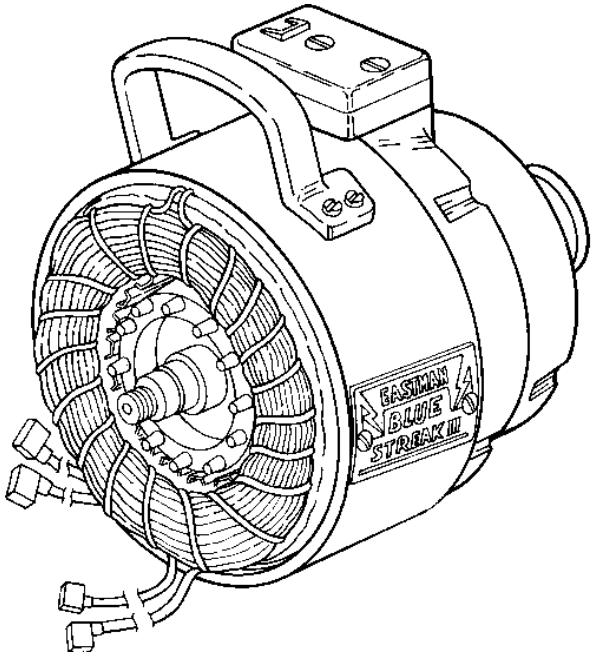


Figure 21. Single-Phase Motor Assembly (Assembled View)

Note: Please specify model and serial number of machine when ordering parts.

Part No.	No. Req'd CLASS 627	No. Req'd CLASS 629	Description
4C1-145	1	1	Shaft Lock Nut
4C2-87	1	1	Nut, Clutch
8C5-10	1	1	Automatic Switch Insulation
8C12-4	2	2	Lead Wire Insulation
10C1-41	1	1	Rotor Fan
12C1-12	1	1	Loading Spring Washer
12C1-32	1	1	Lock Washer
13C1-9	1	1	Turning Knob
18C6-16	1	1	Retaining Ring
22C1-24	1	1	Carrying Handle
30C1-8	1	1	Dust Cap
34C1-51	1	1	Clutch Spring
47C4-79	1	1	Terminal
47C4-80	1	1	Terminal

Part No.	No. Req'd CLASS 627	No. Req'd CLASS 629	Description
53C7-35	1	1	Fan Cover
73C7-121	1	1	Terminal Wire Tubing
90C1-146	1	1	Rear Bearing Housing
90C6-46	1	1	Rear Ball Bearing
254C1	1	1	Cable Tie, 4"
300C12-6	4	4	Screw, Round Head
301C8-1	3	3	Screw, 4-40 x 1/2 Fillister Head
301C12-3	2	2	Screw, 8-32 x 3/8 Fillister Head
305C8-1	10	10	Screw, Binding Head
305C10-1	1	1	Screw, Binding Head
513C3-241	0	1	Rotor and Shaft
513C3-240	1	0	Rotor and Shaft
514C7-109	1	0	Stator with Band 110V 60 Hz. 3600 R.P.M.
514C7-110	1	0	Stator with Band 220V 60 Hz. 3600 R.P.M.
514C7-113	1	0	Stator with Band 220V 50 Hz. 3000 R.P.M.
514C7-114	1	0	Stator with Band 110V 60 Hz. 1800/3600 R.P.M.
514C7-115	1	0	Stator with Band 220V 60 Hz. 1800/3000 R.P.M.
514C7-117	1	0	Stator with Band 110V 50 Hz. 3000 R.P.M.
514C7-118	1	0	Stator with Band 220V 50 Hz. 1500/3000 R.P.M.
514C7-119	1	0	Stator with Band 110V 50 Hz. 1500 R.P.M.
514C7-120	0	1	Stator with Band 42V 50 Hz. 3000 R.P.M.
514C7-121	0	1	Stator with Band 42V 50 Hz. 1500/3000 R.P.M.
514C7-122	0	1	Stator with Band 100V 60 Hz. 3600 R.P.M.
514C7-123	0	1	Stator with Band 100V 60 Hz.1800/ 3600 R.P.M.
514C7-124	0	1	Stator with Band 100V 50 Hz. 3000 R.P.M.
514C7-126	0	1	Stator with Band 110V 50 Hz. 1500/3000 R.P.M.
514C7-127	0	1	Stator with Band 110V 60 Hz. 3600 R.P.M.
514C7-128	0	1	Stator with Band 110V 60 Hz. 1800 R.P.M.
514C7-129	0	1	Stator with Band 110V 60 Hz. 1500/3000 R.P.M.
514C7-137	0	1	Stator with Band 220V 50 Hz. 3000 R.P.M.
514C7-138	0	1	Stator with Band 220V 50 Hz. 1500 R.P.M.
514C7-139	0	1	Stator with Band 220V 50 Hz. 1500/3000 R.P.M.
514C7-140	0	1	Stator with Band 220V 60 Hz. 3600 R.P.M.
514C7-141	0	1	Stator with Band 220V 60 Hz. 1800 R.P.M.
514C7-142	0	1	Stator with Band 220V 60 Hz. 1800/3600 R.P.M..
514C7-156	1	0	Stator with Band 100V 60 Hz.1800/ 3600 R.P.M..
514C7-165	1	0	Stator with Band 42V 50 Hz. 3000 R.P.M.
514C7-174	1	0	Stator with Band 220V 60 Hz. 1800 R.P.M.
514C7-193	0	1	Stator with Band 100V 55 Hz. 3300 R.P.M.
514C7-194	0	1	Stator with Band 100V 55 Hz. 1725/3300 R.P.M.
514C7-195	1	0	Stator with Band 100V 55 Hz. 3300 R.P.M.
514C7-196	1	0	Stator with Band 100V 55 Hz. 1725/3300 R.P.M.
597C2-14	1	1	Cutout Assy 60 Cycle 3600 R.P.M.
597C2-15	1	1	Cutout Assy 50 Cycle 3000 R.P.M.
597C2-16	1	1	Cutout Assy 60 Cycle 1800 R.P.M.
597C2-17	1	1	Cutout Assy 50 Cycle 1500 R.P.M.
597C2-18	1	1	Cutout Assy 50 Cycle 1800/3600 R.P.M.
597C2-25	1	1	Cutout Assy 60 Cycle 1500/3000 R.P.M.
783C1-3	1	1	Grounding Wire Assy.

STATOR WITH BAND
SINGLE-PHASE SINGLE-SPEED
(See Page 22 for Ratings)

514C7-109	514C7-128
514C7-110	514C7-137
514C7-113	514C7-138
514C7-117	514C7-140
514C7-119	514C7-141
514C7-120	514C7-164
514C7-121	514C7-174
514C7-122	514C7-193
514C7-124	514C7-195
514C7-127	

STATOR WITH BAND
SINGLE-PHASE DUAL-SPEED
(See Page 22 for Ratings)

514C7-114	514C7-139
514C7-115	514C7-142
514C7-118	514C7-156
514C7-123	514C7-194
514C7-126	514C7-196
514C7-129	

⚠ WARNING
Attach ground wire to ground terminal "E" on Terminal block. Failure to ground Terminal block may result in electrocution or other serious personal injuries.

Note: L.H. indicates left-hand thread. All others are right-hand.

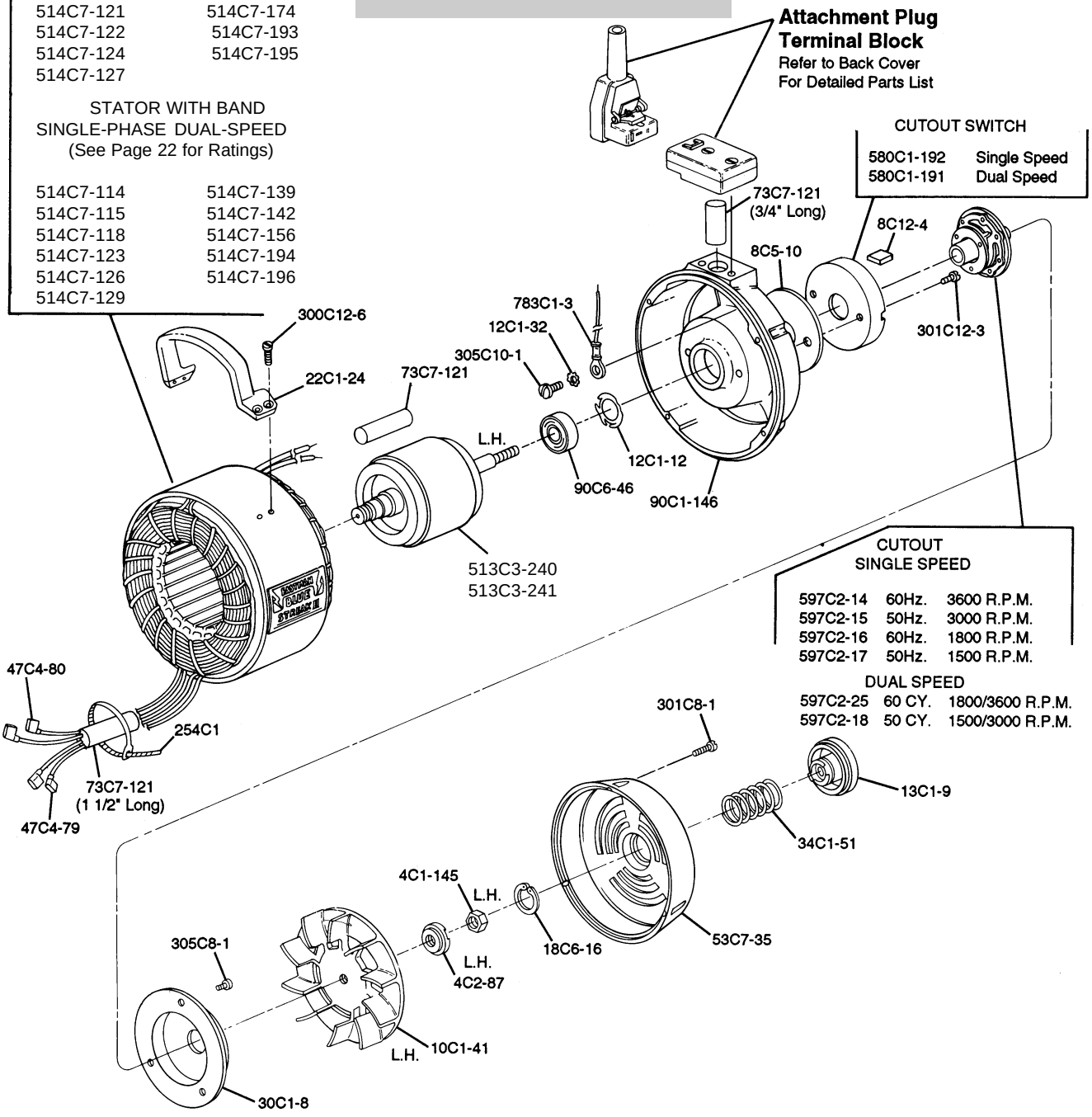


Figure 22. Single/Dual-Phase Motor Assembly (Exploded View)

Three-Phase

Motor Assemblies

(Single- and Dual-Speed)

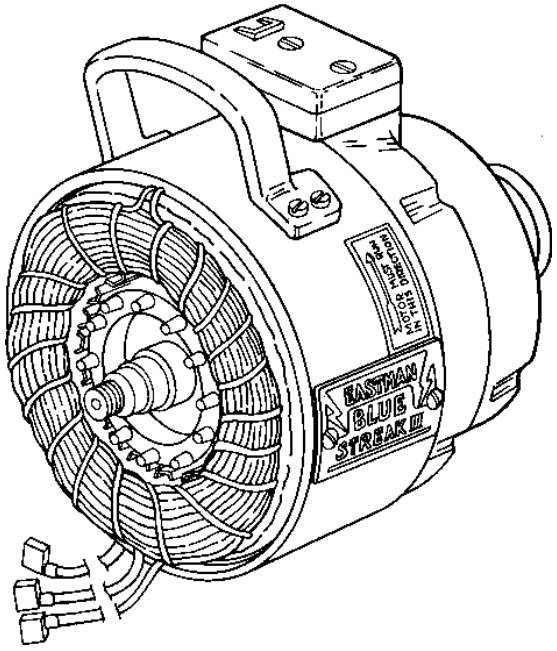


Figure 23. Three-Phase Motor Assembly (Assembled View)

Part No.	No. Req'd CLASS 627	CLASS 629	Description
1C4-8	1	1	Sleeve, Cutout
4C1-145	1	1	Shaft Lock Nut
4C2-87	1	1	Nut, Clutch
10C1-41	1	1	Rotor Fan
12C1-12	1	1	Loading Spring Washer
12C1-32	1	1	Lock Washer
13C1-9	1	1	Turning Knob
18C6-16	1	1	Retaining Ring
22C1-24	0	1	Handle, Carrying
30C1-8	1	1	Dust Cap
34C1-51	1	1	Clutch Spring
53C7-35	1	1	Fan Cover
67C1-10	1	1	Cutout Mount
73C7-121	1	1	Tubing, Terminal Wire
79C2-26	1	1	Plate, Direction Arrow
90C1-146	1	1	Rear Bearing Housing
90C6-46	1	1	Rear Ball Bearing
199C1-23	3	3	Wire Lug
254C1	1	1	Cable Tie
300C12-3	2	2	Screw, 8-32 x 3/8 Round Hd.
300C12-6	4	4	Screw, Round Hd.
301C8-1	3	3	Screw, 4-40 x 1/2 Fillister Hd.
305C8-1	10	10	Screw, Binding Hd.
305C10-1	1	1	Screw, Binding Hd.
513C3-241	0	1	Rotor and Shaft
513C3-240	1	0	Rotor and Shaft
514C7-116	1	0	Stator with Band 100V 60 Hz. 3600 R.P.M.
514C7-130	0	1	Stator with Band 125V 50 Hz. 3000 R.P.M.
514C7-135	0	1	Stator with Band 208V 60 Hz. 3600 R.P.M.
514C7-143	0	1	Stator with Band 220V 50 Hz. 3000 R.P.M.
514C7-144	0	1	Stator with Band 220V 50 Hz. 1500 R.P.M.
514C7-145	0	1	Stator with Band 220V 50 Hz. 1500/3000 R.P.M.
514C7-146	0	1	Stator with Band 220V 60 Hz. 3600 R.P.M.
514C7-147	0	1	Stator with Band 220V 60 Hz. 1800 R.P.M.
514C7-148	0	1	Stator with Band 220V 60 Hz. 1800/3600 R.P.M.
514C7-151	0	1	Stator with Band 380V 50 Hz. 3000 R.P.M.
514C7-152	0	1	Stator with Band 380V 50 Hz. 1500 R.P.M.
514C7-155	1	0	Stator with Band 220V 60 Hz. 3600 R.P.M.
514C7-157	1	0	Stator with Band 220V 50Hz. 3000 R.P.M.
514C7-158	1	0	Stator with Band 220V 60Hz. 1800/3600 R.P.M.
514C7-159	0	1	Stator with Band 110V 50 Hz. 3000 R.P.M.
514C7-161	1	0	Stator with Band 380V 50 Hz. 3000 R.P.M.
514C7-164	0	1	Stator with Band 220/380V 50 Hz. 3000 R.P.M.
514C7-166	1	0	Stator with Band 220/380V 50 Hz. 3000 R.P.M.
514C7-168	1	0	Stator with Band 220V 60 Hz. 1800 R.P.M.
514C7-171	1	0	Stator with Band 380V 50Hz.1500/ 3000 R.P.M.
514C7-172	1	0	Stator with Band 380V 50 Hz. 1500 R.P.M.
514C7-173	1	0	Stator with Band 220V 50Hz.1500/ 3000 R.P.M.
783C1-3	1	1	Ground Wire Assy.

Note: Please specify model and serial number of machine when ordering parts.

STATOR WITH BAND
THREE-PHASE SINGLE-SPEED
(See Page 24 for Ratings)

514C7-116
514C7-130
514C7-135
514C7-143
514C7-144
514C7-146
514C7-147
514C7-151
514C7-152
514C7-155
514C7-157
514C7-159
514C7-164
514C7-166
514C7-168
514C7-172
514C7-161

STATOR WITH BAND
THREE-PHASE DUAL-SPEED
(See Page 24 for Ratings)

514C7-145
514C7-148
514C7-158
514C7-171
514C7-173

⚠WARNING

Attach ground wire to ground terminal "E" on Terminal block. Failure to ground Terminal block may result in electrocution or other serious personal injuries.

Note: L.H. indicates left-hand thread. All others are right-hand.

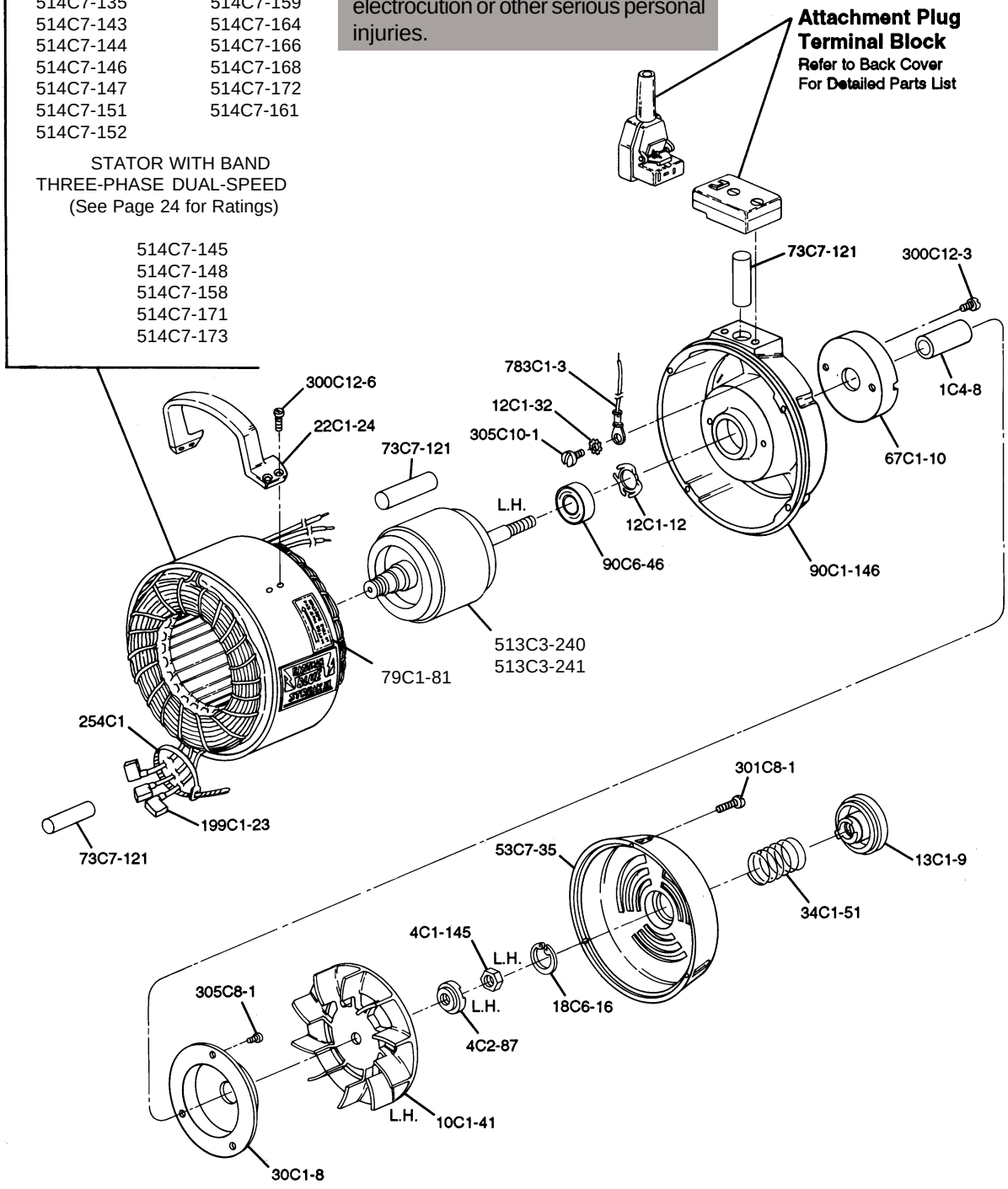


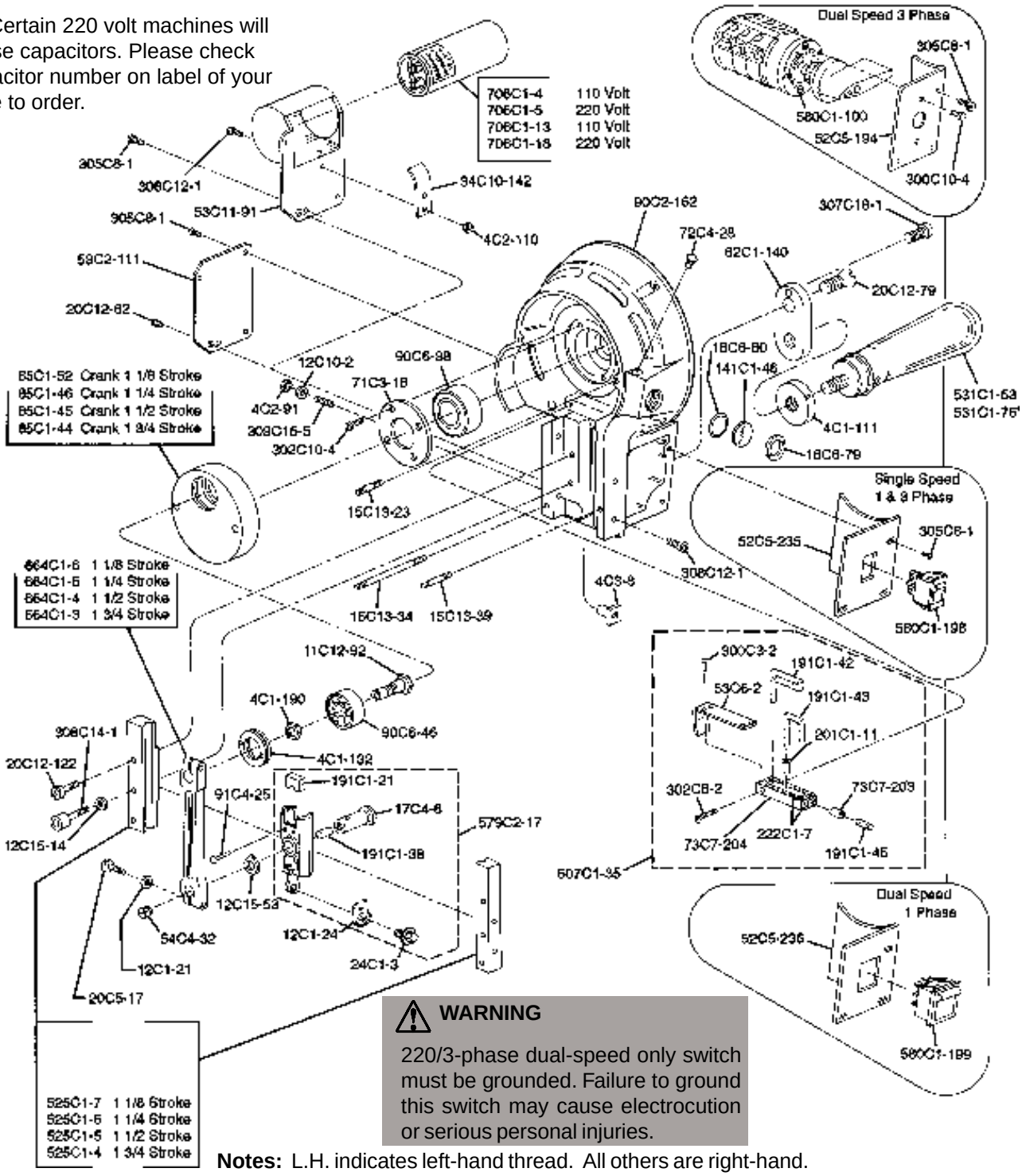
Figure 24. Three-Phase Motor Assembly (Exploded View)

Front Bearing Housing (90C2-162) with Oiler Assembly

Note: Please specify model and serial number of machine when ordering parts.

Part No.	No. Req'd CLASS 627	No. Req'd CLASS 629	Description
4C1-111	1	1	Operating Handle Lock Nut
4C1-132	1	1	Crank Ball Bearing Lock Nut
4C1-190	1	1	Lock Nut for Shaft
4C2-91	3	3	Nut for Guide Screw
4C2-110	1	1	Stop Nut
4C3-8	3	3	Guide Adjustment Nut
11C12-92	1	1	Shaft for Ball Bearing
12C1-21	2	2	Shakeproof Washer
12C1-24	1	1	Knife Lock Washer
12C10-2	3	3	Washer
12C15-14	6	6	Guide Washer
12C15-53	1	1	Connecting Rod Washer
15C13-23	2	2	Stud, Upper
15C13-34	1	1	Stud, Lower L.H. Mounting
15C13-39	1	1	Stud, Lower R.H. Mounting
17C4-6	1	1	Wrist Pin
18C6-79	1	1	Lock Ring
18C6-80	1	1	O-Ring
20C5-17	2	2	Connecting Rod Clamp Screw
20C12-62	1	1	Front Housing Plug Screw
20C12-79	1	1	Screw for Handle Bracket
24C1-3	1	1	Knife Lock Bolt
34C10-142	1	1	Spring for Capacitor
52C5-194	1	1	Switch Plate (Dual-Speed Three-Phase)
52C5-235	1	1	Switch Plate (Single-Speed)
52C5-236	1	1	Switch Plate (Dual-Speed Single-Phase)
53C2-111	1	1	Switch Cover
53C6-2	1	1	Oiler Tube Cover
53C11-91	1	1	Capacitor Cover
54C4-32	1	1	Wrist Pin Plug
62C1-140	1	1	Handle Bracket
71C3-18	1	1	Front Ball Bearing Retainer
72C4-28	1	1	Oil Hole Cover
73C7-203	1	1	Oil Tube, Clear
73C7-204	1	1	Oiler Tube
85C1-52	1	1	Crank-1-1/8 Stroke
85C1-46	1	1	Crank 1-1/4 Stroke
85C1-45	1	1	Crank 1-1/2 Stroke
85C1-44	1	1	Crank 1-3/4 Stroke
90C2-162	1	1	Front Bearing Housing
90C6-38	1	1	Front Ball Bearing
90C6-46	1	1	Seated Crank Ball Bearing
91C4-25	2	2	Rivet Crosshead
141C1-46	1	1	Gauge, Clear
191C1-21	1	1	Cross Head Felt pad
191C1-38	1	1	Wrist Pin Felt Pad
191C1-42	1	1	Oil Felt Wicking, Long
191C1-43	1	1	Oil Felt Wicking, Short
191C1-45	1	1	Oil Felt Wicking, .187 x .44
201C1-11	1	1	Eyelet
222C1-7	1	1	RTV Sealer
300C3-2	4	4	Screw
302C8-2	1	1	Screw, Flat Head 4-40 x 3/4
300C10-4	2	2	Screw, 6-32 x 3/8 Long Round Head
302C10-4	4	4	Screw, 6-32 x 5/16 Flat Head
305C8-1	7	7	Screw. 4-40x 1/4 Binding Head
307C18-1	1	1	Screw
308C12-1	3	3	Screw, 8-32 x 3/8 Socket Head
308C14-1	6	6	Guide Hold Down Screw
309C15-5	3	3	Guide Adjustment Screw
525C1-4	1	1	L.H. & R.H. Guides 1-3/4 Stroke
525C1-5	1	1	L.H. & R.H. Guides 1-1/2 Stroke
525C1-6	1	1	L.H. & R.H. Guides 1-1/4 Stroke
525C1-7	1	1	L.H. & R.H. Guides 1-1/8 Stroke
531C1-53	1	1	Operating Handle
531C1-76*	1 (ea. machine class)		Cushion Grip Handle
579C2-17	1	1	Cross Head (With Wrist Pin, Lock Washer & Bolt)
580C1-100	1	1	Switch - Dual-Speed 3-Phase
580C1-198	1	1	Switch - Single-Speed 1- & 3-Phase
580C1-199	1	1	Switch - Dual-Speed 1-Phase
607C1-35	1	1	Oiling Device
664C1-6	1	1	Connecting Rod 1-1/8 Stroke
664C1-5	1	1	Connecting Rod 1-1/4 Stroke
664C1-4	1	1	Connecting Rod 1-1/2 Stroke
664C1-3	1	1	Connecting Rod 1-3/4 Stroke
706C1-4	0	1	Capacitor 110 Volt
706C1-5	0	1	Capacitor 220 Volt
706C1-13	1	0	Capacitor 110 Volt
706C1-18	1	0	Capacitor 220 Volt

Note: Certain 220 volt machines will use these capacitors. Please check the capacitor number on label of your machine to order.



WARNING

220/3-phase dual-speed only switch must be grounded. Failure to ground this switch may cause electrocution or serious personal injuries.

Notes: L.H. indicates left-hand thread. All others are right-hand.

Slip large lug over switch before replacing switch base. Secure switch to base tightly to ensure positive ground.

Figure 25. Front Bearing Housing with Oiler Assembly (Exploded View)

Sharpener Housing Assembly

(Front View)

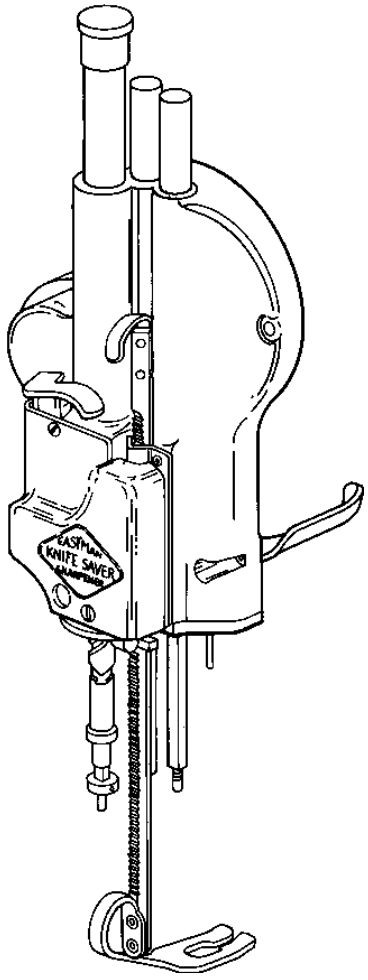


Figure 26. Sharpener Housing Assembly (Assembled, Front View)

Note: Please specify model and serial number of machine when ordering parts.

Part No.	No. Req'd For both 627 & 629	Description
4C1-149	1	Nut, Elastic
4C1-161	1	Nut, Self Lock
4C2-112	1	R.H. Nut for Screw Shaft
4C2-113	1	L.H. Nut for Screw Shaft
5C5-16	1	Collar, Lower
11C12-54	1	Shaft for Cam
12C15-57	1	Spring Washer for Release Lever
12C15-69	1	Washer for Lock Bracket
12C15-74	4	Washer, Flat
12C15-91	2	Thrust Washer, Upper Nut
17C15-106	1	Roll Pin for Collar
20C4-17	1	Pressure Foot Lever Screw
20C12-13	1	Cam Shaft Spring Screw
20C12-113	1	Screw for Latch
20C12-117	2	Screw for Pressure Foot Shoe
20C12-156	1	Screw for Release Lever
20C12-137	1	Screw for Knife Guard Lock
22C3-2	1	Lift Handle for Knife Guard Lock
34C1-20	1	Tension Spring
34C8-12	1	Spring for Pressure Foot Lock
34C10-179	1	Spring for Pressure Foot Lever
34C10-107	1	Spring for Latch
53C11-72	1	Cover for Cam
53C11-103	1	Vinyl Cover for Handle
55C4-49	1	Spacer for Knife Guard Lock Bracket
68C1-192	1	Pressure Foot Shoe, All Strokes
71C3-15	3	Thrust Ball Bearing
86C7-34	1	Cap for Tube
90C4-47	1	Bearing for Cam Shaft
97C3-35	1	Latch for Cam
147C1--26	1	Extension for Screw Shaft
171C1-16	1	Lock (Only) for Pressure Foot
300C10-1	2	Screw, #6-32 x 3/16 Round Head
300C10-4	4	Screw, #6-32 x 3/8 Round Head
302C10-4	1	Screw, #6-32 x 5/16 Flat Head
302C10-8	1	Screw, #6-32 x 3/4 Flat Head
309C15-7	1	Set Screw for Cam
553C1-7	1	Pressure Foot Lock Bracket Complete
553C1-8	1	Pressure Foot Lock Bracket Only
605C1-36	1	Pressure Foot Rod 7"-8" Knife
605C1-37	1	Pressure Foot Rod 9"-10" Knife
605C1-33	1	Pressure Foot Rod 11-1/2" Knife
605C1-34	1	Pressure Foot Rod 13" Knife
621C1-7	1	Release Lever With Cam
683C1-17	1	Pressure FootLever
713C4-4	1	Screw Shaft With Extension, R. & L. Hand Nuts 5"-8"
713C4-5	1	Screw Shaft With Extension, R. & L. Hand Nuts 9"-10"
713C4-6	1	Screw Shaft With Extension, R. & L. Hand Nuts 11-1/2"
713C4-7	1	Screw Shaft With Extension, R. & L. Hand Nuts 13"
732C1-11	1	Sharpener Housing (With Bushings and Tubes) Only 5"-8" Knife
732C1-12	1	Sharpener Housing (With Bushings and Tubes) Only 9"-10" Knife
732C1-20	1	Sharpener Housing (With Bushings and Tubes) Only 11-1/2" Knife
732C1-17	1	Sharpener Housing (With Bushings and Tubes) Only 13" Knife

*THESE PARTS SOLD ONLY IN ASSEMBLIES AS FOLLOWS.

713C4-4	Screw Shaft with Extension, R. & L. Hand Nuts 5"-8"
713C4-5	Screw Shaft with Extension, R. & L. Hand Nuts 9"-10"
713C4-6	Screw Shaft with Extension, R. & L. Hand Nuts 11 1/2"
713C4-7	Screw Shaft with Extension, R. & L. Hand Nuts 13"

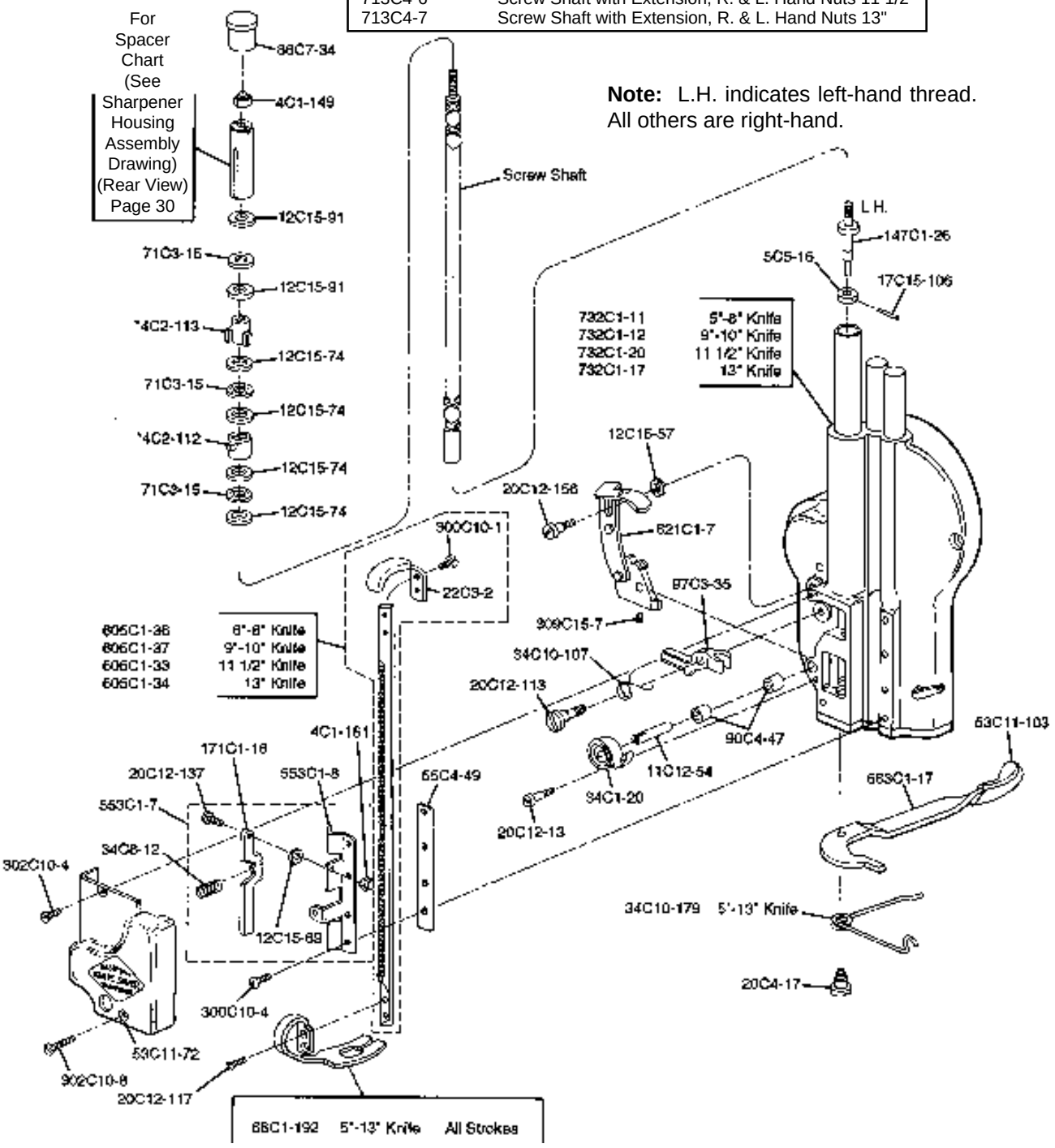


Figure 27. Sharpener Housing Assembly (Exploded, Front View)

Sharpener Housing Assembly

(Rear View)

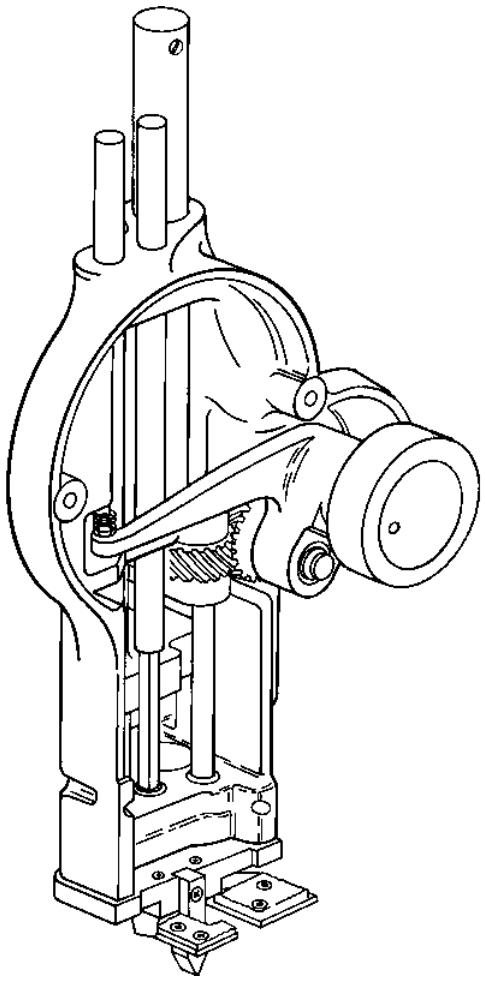
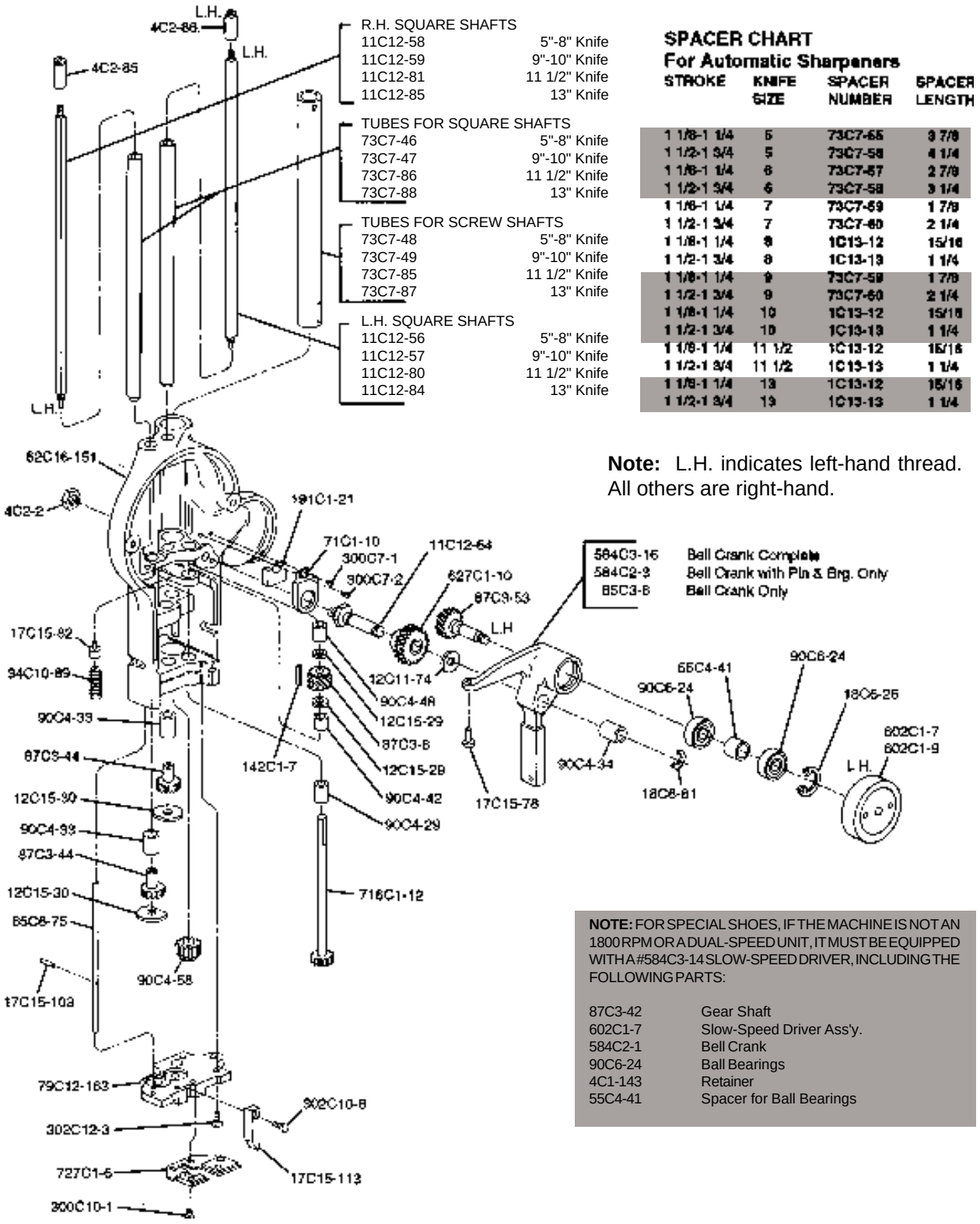


Figure 28. Sharpener Housing Assembly (Assembled, Rear View)

Note: Please specify model and serial number of machine when ordering parts.

Part No.	No. Req'd For both 627 & 629	Description
4C2-2	1	Lock Nut for Shaft
4C2-85	1	R.H. Follower Nut
4C2-86	1	L.H. Follower Nut
11C12-58	1	R.H. Square Shaft 5"-8" Knife
11C12-59	1	R.H. Square Shaft 9"-10" Knife
11C12-81	1	R.H. Square Shaft 11-1/2" Knife
11C12-85	1	R.H. Square Shaft 13" Knife
11C12-56	1	L.H. Square Shaft 5"-8" Knife
11C12-57	1	L.H. Square Shaft 9"-10" Knife
11C12-80	1	L.H. Square Shaft 11-1/2" Knife
11C12-84	1	L.H. Square Shaft 13" Knife
11C12-64	1	Shaft for Crank
12C11-74	1	Thrust Washer
12C15-29	2	Thrust Washer
12C15-30	2	Thrust Washer for Bottom Plate
17C15-78	1	Pin for Bell Crank
17C15-103	1	Roll Pin for Push Rod
17C15-113	1	Spreader Pin
18C6-81	1	Retaining Ring for Shaft
18C6-26	1	Retaining Ring for Bell Crank
34C10-89	1	Spring for Bell Crank
55C4-41	1	Spacer for Ball Bearings
62C16-151	1	Sharpener Housing (Only)
65C6-75	1	Push Rod
71C1-10	1	Oil Retainer-Idler Gear
73C7-46	1	Tube for Square Shaft 5"-8" Knife
73C7-47	1	Tube for Square Shaft 9"-10" Knife
73C7-86	1	Tube for Square Shaft 11-1/2" Knife
73C7-88	1	Tube for Square Shaft 13" Knife
73C7-48	1	Tube for Screw Shaft 5"-8" Knife
73C7-49	1	Tube for Screw Shaft 9"-10" Knife
73C7-85	1	Tube for Screw Shaft 11-1/2" Knife
73C7-87	1	Tube for Screw Shaft 13" Knife
79C12-163	1	Bottom Plate, Sharpener Housing
85C3-6E	1	Bell Crank (Only)
87C3-8	1	Spiral Gear
87C3-44	2	Spur Gear
87C3-53	1	Gear and Shaft
90C4-29	1	Bearing for Drive Shaft (Lower)
90C4-33	2	Bearing for Gears
90C4-34	1	Bearing for Bell Crank
90C4-42	1	Bearing for Drive Shaft
90C4-48	1	Bearing for Drive Shaft (Upper)
90C4-58	1	Bearing for Screw Shaft
90C6-24	2	Ball Bearing for Crank
142C1-7	1	Key for Gear
191C1-21	1	Felt Pad for Cross Head
300C7-1	1	Screw, #4-36 x 1/8 Round Head
300C10-1	2	Screw, #6-32 x 3/16 Round Head
302C10-6	1	Screw, #6-32 x 1/2 Flat Head
302C12-3	3	Screw, #8-32 x 3/8 Flat Head
584C2-3	1	Bell Crank with Pin & Bearing (Only)
584C3-16	1	Bell Crank Complete with Lever
602C1-7	1	Slow Speed Driver Assembly
602C1-9	1	Driver Pulley with Driver
627C1-10	1	Idler Gear & Bushing
716C1-12	1	Driver Shaft with Gear
727C1-6	1	Oil Pad & Holder



SPACER CHART
For Automatic Sharpeners

STROKE	KNIFE SIZE	SPACER NUMBER	SPACER LENGTH
1 1/8-1 1/4	5	73C7-55	3 7/8
1 1/2-1 3/4	5	73C7-56	4 1/4
1 1/8-1 1/4	6	73C7-57	2 7/8
1 1/2-1 3/4	6	73C7-58	3 1/4
1 1/8-1 1/4	7	73C7-59	1 7/8
1 1/2-1 3/4	7	73C7-60	2 1/4
1 1/8-1 1/4	8	1C13-12	15/16
1 1/2-1 3/4	8	1C13-13	1 1/4
1 1/8-1 1/4	9	73C7-59	1 7/8
1 1/2-1 3/4	9	73C7-60	2 1/4
1 1/8-1 1/4	10	1C13-12	15/16
1 1/2-1 3/4	10	1C13-13	1 1/4
1 1/8-1 1/4	11 1/2	1C13-12	15/16
1 1/2-1 3/4	11 1/2	1C13-13	1 1/4
1 1/8-1 1/4	13	1C13-12	15/16
1 1/2-1 3/4	13	1C13-13	1 1/4

Note: L.H. indicates left-hand thread. All others are right-hand.

NOTE: FOR SPECIAL SHOES, IF THE MACHINE IS NOT AN 1800 RPM OR A DUAL-SPEED UNIT, IT MUST BE EQUIPPED WITH A #584C3-14 SLOW-SPEED DRIVER, INCLUDING THE FOLLOWING PARTS:

87C3-42	Gear Shaft
602C1-7	Slow-Speed Driver Ass'y.
584C2-1	Bell Crank
90C6-24	Ball Bearings
4C1-143	Retainer
55C4-41	Spacer for Ball Bearings

Figure 29. Sharpener Housing Assembly (Exploded, Rear View)

Lower Gear Bracket Assembly

Illustrated Parts List

Complete Sharpener Assembly Numbers: 637C10-*					
		Machine Stroke			
Height of Machine		1-1/8"	1-1/4"	1-1/2"	1-3/4"
	5"	-20,	-21,	-22,	-23,
	6"	-24,	-25,	-26,	-27,
	7"	-28,	-29,	-30,	-31,
	8"	-32,	-33,	-34,	-35,
	9"	-36,	-37,	-38,	-39,
	10"	-40,	-41,	-42,	-43,
	11-1/2"		-45,	-46,	-47,
	13"	-48,	-49,	-50,	-51

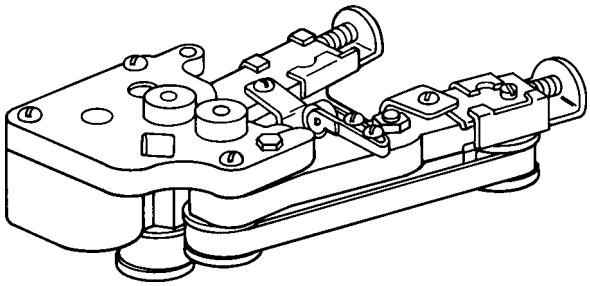
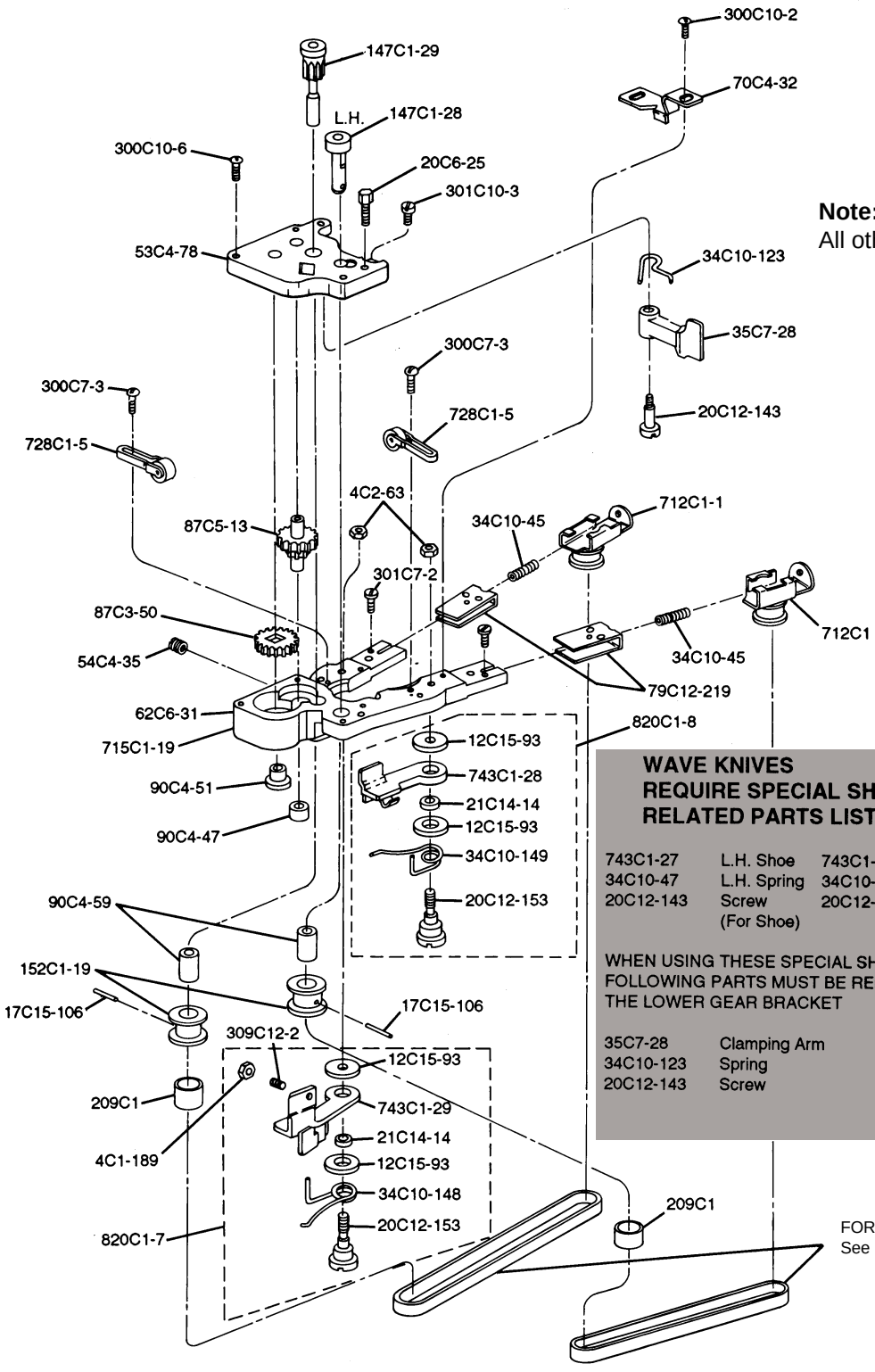


Figure 30. Lower Gear Bracket Assembly (Assembled View)

Part No.	No. Req'd	Description
4C1-189	1	Jam Nut, #8-32
4C2-63	2	Nut for Sharpener Shoe Screw
12C15-93	4	Washer, Shoe
17C15-106	2	Roll Pin (For Pulley 152C1-19)
20C6-25	1	Adjusting Screw
20C12-57	2	Screw for Sharpener Shoe (Wave Knife Only)
20C12-143	1	Screw for Clamping Arm
20C12-153	2	Screw for Sharpener Shoe
21C14-14	2	Bushing for Sharpener Shoe
34C10-45	2	Spring for Pulley Slide
34C10-47	1	L.H. Sharpener Shoe Spring (Wave Knife Only)
34C10-57	1	R.H. Sharpener Shoe Spring (Wave Knife Only)
34C10-123	1	Spring for Arm
34C10-148	1	L.H. Sharpener Shoe Spring
34C10-149	1	R.H. Sharpener Shoe Spring
35C7-28	1	Clamping Arm for Shoe
53C4-78	1	Gear Cover
54C4-35	1	Oil Hole Plug
62C6-31	1	Bracket, Lower Gear
70C4-32	1	Guide Back of Standard
79C12-219	2	Wear Plate
87C3-50	1	Gear on Screw Shaft
87C5-13	1	Intermediate Gear
90C4-47	1	Bearing for Intermediate Gear
90C4-51	1	Bearing for Screw Shaft
90C4-59	2	Bearing for Shaft Extension
147C1-28	1	R.H. Shaft Extension
147C1-29	1	L.H. Shaft Extension
152C1-19	2	Front Pulley for Belt
209C1	2	Neoprene Band for Pulley
300C7-3	4	Screw, #4-36 x 1/4 Round Head
300C10-2	2	Screw, #6-32 x 1/4 Round Head
300C10-6	3	Screw, #6-32 x 1/2 Round Head
301C7-2	2	Screw, #4-36 x 3/16 Fillister Head
301C10-3	1	Screw, #6-32 x 3/8 Fillister Head
309C12-2	1	Stop Screw, L.H. Shoe
712C1	1	R.H. Slide with Pulley
712C1-1	1	L.H. Slide with Pulley
715C1-19	1	Lower Gear Bracket with Cover Brgs., Screws & Wear Plate 5"-13" Knife
715C1-23	1	Lower Gear Bracket (Complete)
728C1-5	2	Stabilizer Assembly
743C1-26	1	R.H. Shoe (Wave Knife Only)
743C1-27	1	L.H. Shoe(Wave Knife Only)
743C1-28	1	R.H. Pre-set Sharpener Shoe (Only)
743C1-29	1	L.H. Pre-set Sharpener Shoe (Only)
820C1-7	1	L.H. Complete Shoe Assembly
820C1-8	1	R.H. Complete Shoe Assembly

Note: Please specify model and serial number of machine when ordering parts.



715C1-23 Lower Gear Bracket Assembly Complete

Note: L.H. indicates left-hand thread. All others are right-hand.

WAVE KNIVES REQUIRE SPECIAL SHOES AND RELATED PARTS LISTED BELOW

743C1-27	L.H. Shoe	743C1-26	R.H. Shoe
34C10-47	L.H. Spring	34C10-57	R.H. Spring
20C12-143	Screw (For Shoe)	20C12-57	Screw (For Shoe)

WHEN USING THESE SPECIAL SHOES THE FOLLOWING PARTS MUST BE REMOVED FROM THE LOWER GEAR BRACKET

35C7-28	Clamping Arm
34C10-123	Spring
20C12-143	Screw

FOR BELT LISTING
See Page 18

Figure 31. Lower Gear Bracket Assembly (Exploded View)

Standard and Baseplate Assembly

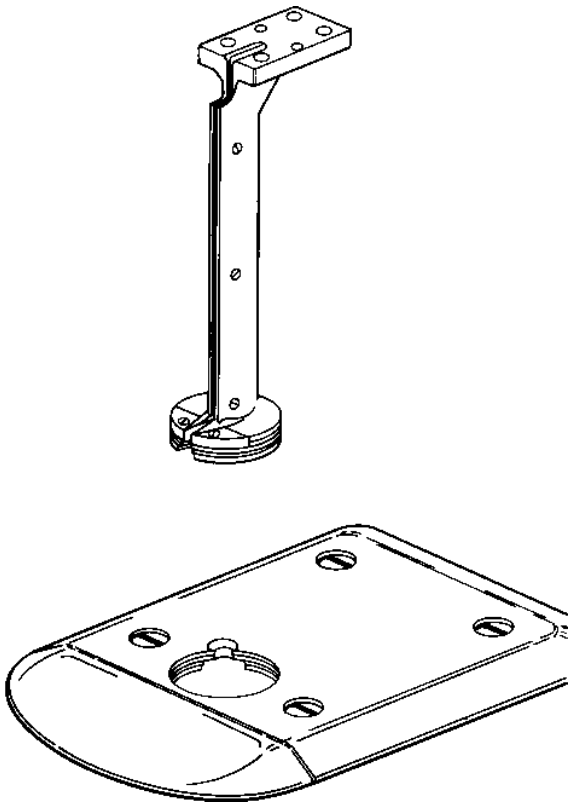


Figure 32. Standard and Baseplate Assembly (Assembled View)

Note: Please specify model and serial number of machine when ordering parts.

Part No.	No. Req'd For both 627 & 629	Description
12C1-35	4	Lock Washer, #8
12C15-77	1	Washer for Micro Fog Standard
17C1-4	2	Taper Pin #0 x 3/4
17C6-9	2	Hinge Pin
20C5-12	8	Clamp Screw for Rollers
20C12-19	1	Knife Slide Screw
20C13-51	4	Hinge Pin Clamp Screw
34C1-57	2	Plate Wing Tension Spring
60C1-55	1	Plate Wing (For Small Plates)
60C1-56	1	Plate Wing (For Large Plates)
79C4-12	1	Throat Plates with Screws and Pins
79C4-24	1	Tapered & Relieved Throat Plates Assembly
213C1-1	6	Fibre Shim
302C12-3	3	Screw, #8-32 x 3/8 Flat Head
505C3-223	1	Small Plate Base Complete (5"-8" Knife)
505C3-224	1	Large Plate Base Complete (9"-13" Knife)
505C3-226	1	Small Plate Base Complete (5"-8" Knife) For 50 Cycle 1500 R.P.M. & Dual-Speed Only
505C3-227	1	Large Plate Base Complete (9"-13" Knife) For 50 Cycle 1500 R.P.M. & Dual-Speed Only
505C3-243	1	Small Plate Base Complete (5"-8" Knife) Used with Swivel Roller Assembly Only
505C3-244	1	Large Plate Base Complete (9"-13" Knife) Used with Swivel Roller Assembly Only
528C1-112	1	Micro Fog Standard (Complete with Slides and Throat Plates) 6" Knife
528C1-123	1	Standard (Complete with Slides and Throat Plates) 5" Knife
528C1-120	1	Standard (Complete with Slides and Throat Plates) 6" Knife
528C1-122	1	Standard (Complete with Slides and Throat Plates) 7" Knife
528C1-121	1	Standard (Complete with Slides and Throat Plates) 8" Knife
528C1-115	1	Standard (Complete with Slides and Throat Plates) 9" Knife
528C1-116	1	Standard (Complete with Slides and Throat Plates) 10" Knife
528C1-124	1	Standard (Complete with Slides and Throat Plates) 11-1/2" Knife
528C1-125	1	Standard (Complete with Slides and Throat Plates) 13" Knife
532C2-3	4	Rubber Mounted Roller (Complete)
532C2-5	4	Rubber Mounted Roller (Complete)
532C2-7	4	Rubber Mounted Roller (Complete)
619C1-31	4	Roller Shell (Complete)
643C1-44	1	Knife Slides (Complete with Screws) 5" Knife
643C1-41	1	Knife Slides (Complete with Screws) 6" Knife
643C1-42	1	Knife Slides (Complete with Screws) 7" Knife
643C1-43	1	Knife Slides (Complete with Screws) 8" Knife
643C1-46	1	Knife Slides (Complete with Screws) 9" Knife
643C1-47	1	Knife Slides (Complete with Screws) 10" Knife
643C1-53	1	Knife Slides (Complete with Screws) 11-1/2" Knife
643C1-45	1	Knife Slides (Complete with Screws) 13" Knife
643C1-51	1	Knife Slides (Complete with Screws) 6" Micro Fog
619C1-32	2	Swivel Roller Assembly

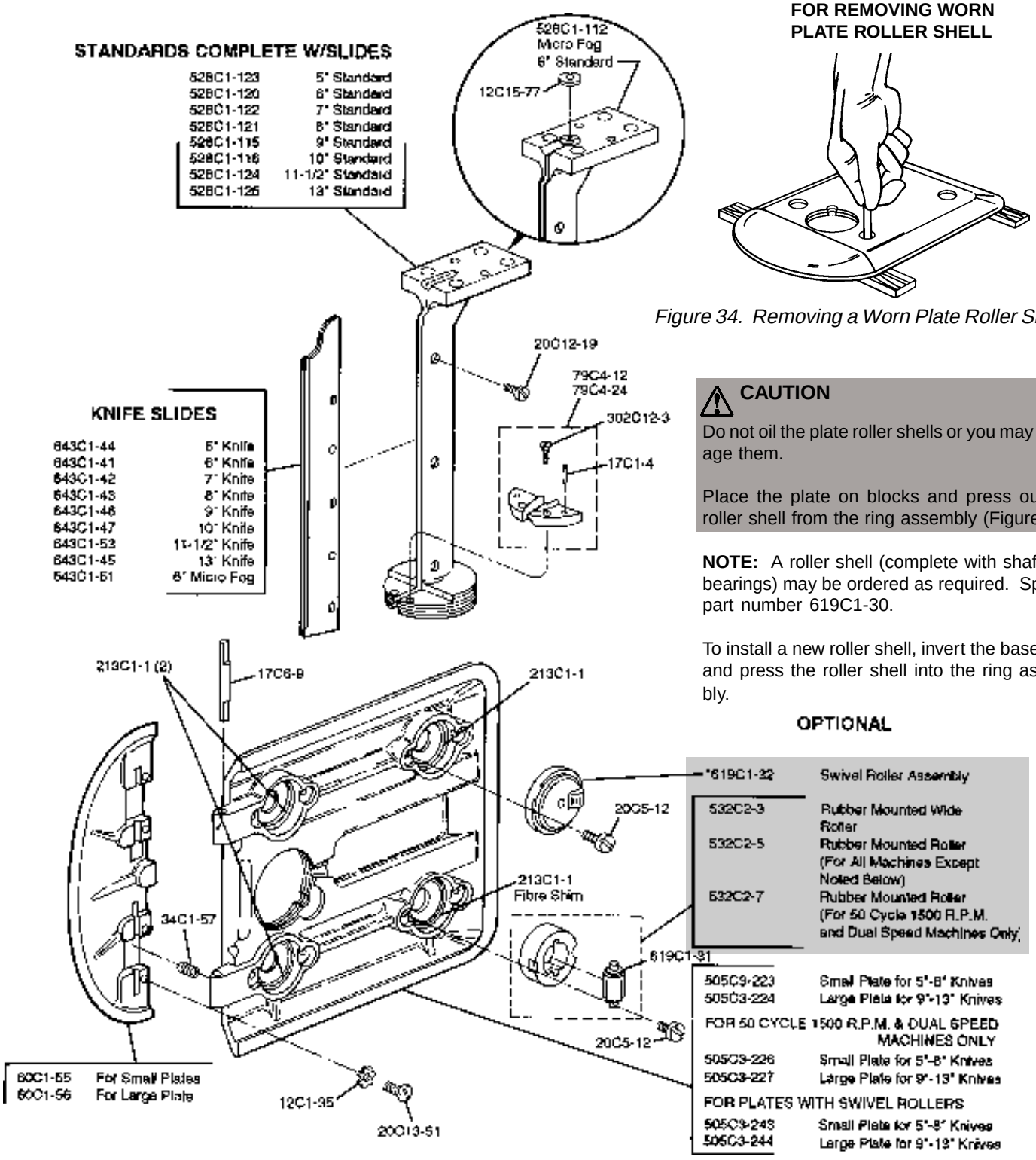


Figure 33. Standard and Baseplate Assembly (Exploded View)

INSTRUCTIONS FOR REMOVING WORN PLATE ROLLER SHELL

Figure 34. Removing a Worn Plate Roller Shell

⚠ CAUTION

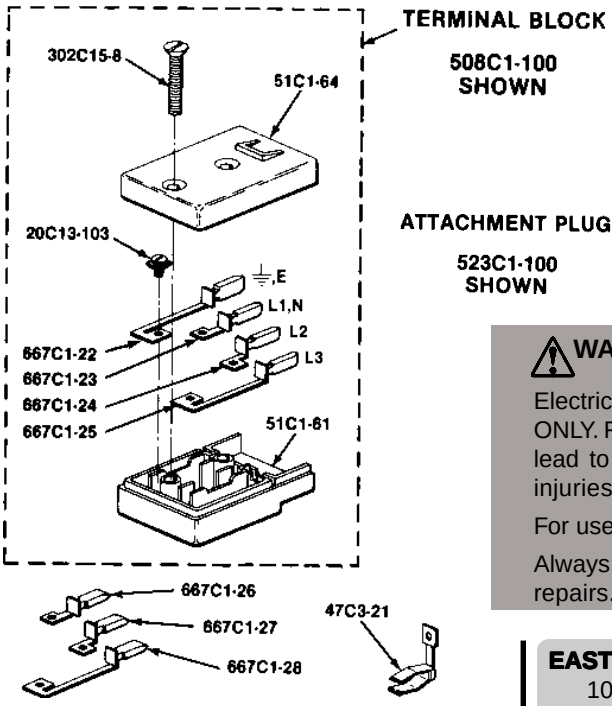
Do not oil the plate roller shells or you may damage them.

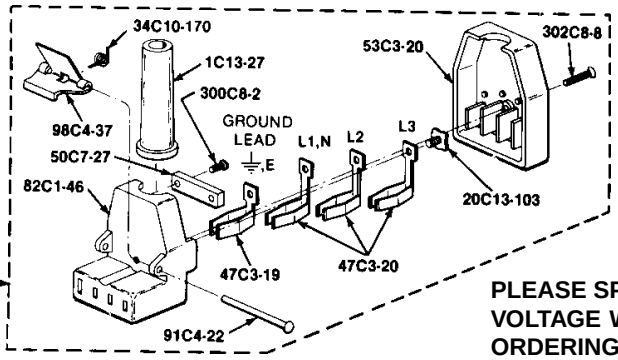
Place the plate on blocks and press out the roller shell from the ring assembly (Figure 34).

NOTE: A roller shell (complete with shaft and bearings) may be ordered as required. Specify part number 619C1-30.

To install a new roller shell, invert the baseplate and press the roller shell into the ring assembly.

Electrical Connections





PLEASE SPECIFY VOLTAGE WHEN ORDERING PARTS

⚠ WARNING

Electrical connections to this machine must be made by a qualified electrician ONLY. Failure to follow applicable codes and regulations and conduct a ground lead to terminal "E" on the attachment plug may result in serious personal injuries.

For user safety, connect a ground lead to terminal “E” on the attachment plug.

Always unplug the machine before performing maintenance, adjustment or repairs.

Description	Part No.	EASTMAN 10A 380V 3~	EASTMAN 10A 220V 3~	EASTMAN 10A 220V ~	EASTMAN 15A 120V ~	EASTMAN 25A 42V ~
		⏚,E L1,N L2 L3	⏚,E L1,N L2 L3	⏚,E L1,N L2	⏚,E L1,N L2	⏚,E L1,N L3
Attachment Plug		523C1-99	523C1-100	523C1-101	523C1-102	523C1-103
Cord Sleeve	1C13-27	1	1	1	1	1
U-Lock Sleeve	20C13-103	4	4	3	3	3
Spring	34C10-170	1	1	1	1	1
Terminal Sleeve	47C3-19	1	1	1	1	1
Terminal Sleeve (current)	47C3-20	2	3	1	1	1
Terminal Sleeve (current)	47C3-21	1	—	1	1	1
Cord Clamp	50C7-27	1	1	1	1	1
Attachment Plug Cover		53C3-19	53C3-20	53C3-21	53C3-22	53C3-23
Attachment Plug Body	82C1-45	1	—	—	—	—
Attachment Plug Body	82C1-46	—	1	—	—	—
Attachment Plug Body	82C1-47	—	—	1	—	—
Attachment Plug Body	82C1-48	—	—	—	1	—
Attachment Plug Body	82C1-49	—	—	—	—	1
Rivet	91C4-22	1	1	1	1	1
Thumb Clip	98C4-37	1	1	1	1	1
Screw #4-40 x 3/8 Round Head	300C8-1	—	—	2	2	—
Screw #4-40 x 1/2 Round Head	300C8-2	2	2	—	—	2
Screw #4-40 x 7/8 Round Head	302C8-8	1	1	1	1	1
Terminal Block		508C1-99	508C1-100	508C1-101	508C1-102	508C1-103
U-Lock Screw	20C13-103	4	4	3	3	3
Terminal Block Bottom	51C1-61	1	1	1	1	1
Terminal Block Top		51C1-63	51C1-64	51C1-65	51C-66	51C1-67
Screw #10-32 x 1-1/8 Flat Head	302C15-8	2	2	2	2	2
Terminal Contact w/Pin E	667C1-22	1	1	1	1	1
Terminal Contact w/Pin L1,N	667C1-23	1	1	1	—	—
Terminal Contact w/Pin L2	667C1-24	1	1	—	1	—
Terminal Contact w/Pin L3	667C1-25	—	1	—	—	1
Terminal Contact w/Pin L1,N	667C1-26	—	—	—	1	1
Terminal Contact w/Pin L2	667C1-27	—	—	1	—	—
Terminal Contact w/Pin L3	667C1-28	1	—	—	—	—

Eastman machine COMPANY

779 Washington St., Buffalo, N.Y. 14203-1396 U.S.A. • (716) 856-2200 • Fax (716) 856-1140 or (716) 856-2068

Printed in U.S.A. 9/98