

EASTMAN

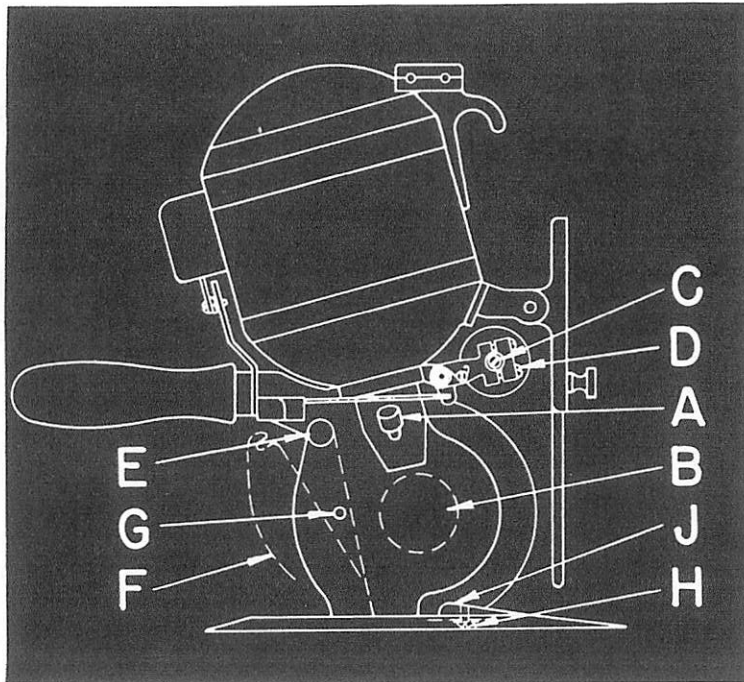
ROUND KNIFE CUTTING MACHINE



**LIGHTNING MODELS
334, 354, 355 and 356**

779 WASHINGTON STREET, BUFFALO 3, N. Y.

LUBRICATION AND CARE



EASTMAN LIGHTNING ROUND KNIFE MACHINE MODELS 334, 354, 355 and 356

LUBRICATION

To lubricate Gears, screw Grease Cup "A" down one-half turn once a day. Refill Cup with Eastman Gear Lubricant.

To grease Knife Gear Bearing at "B", remove Bearing Locknut with Spanner Wrench and add a small amount of Lubriko Grease from tube once a month.

Oil Emery Wheel Spindles at "C" twice daily.

Upper and Lower Motor Bearings are grease sealed and require no lubrication.

We recommend our Eastman Gear Lubricant for Gears and Eastman Lubriko Grease for Knife Gear Ball Bearing. Do not use Eastman Gear Lubricant for Ball Bearings or Eastman Lubriko Grease for Gears.

TO ADJUST EMERY WHEELS

When Emery Stones wear away so that they are too far apart (more than 1/32"), adjust together as follows:

Loosen Screws "D" and adjust Screws "C" until Emery Stones are as close together as possible without touching and central with Knife. Both Wheels should grind at the same time when pressed lightly against the Knife.

After adjustment has been made, tighten Screws "D".

TO ADJUST THROAT PLATE

It is important that edge of Knife be adjusted as close as possible to the end of slot in Throat Plate "J" without actually touching.

As Knife wears away, loosen Screws "H" and move Throat Plate towards Knife. Then tighten Screws "H".

TO REMOVE KNIFE

Loosen Thumb Screw "E" and swing Guard "F" to outward position as shown on dotted lines and remove. Turn Knife so that small hole lines up with hole "G" in Standard. Insert small Pin in hole "G" and remove Knife Locknut with Spanner Wrench.

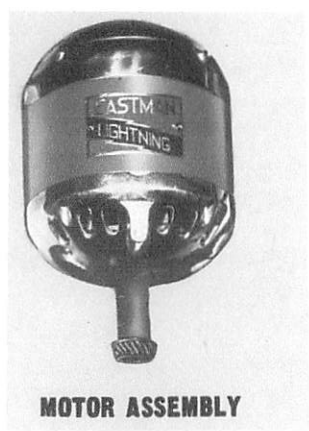
When installing a new Knife, remember to adjust Throat Plate.

THE SWITCH HAS TWO POSITIONS — ON AND OFF

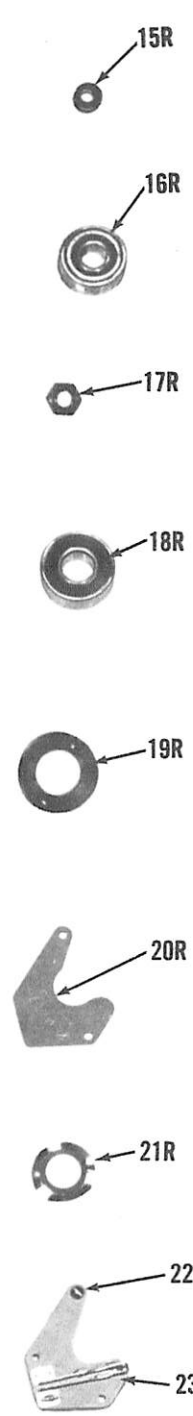
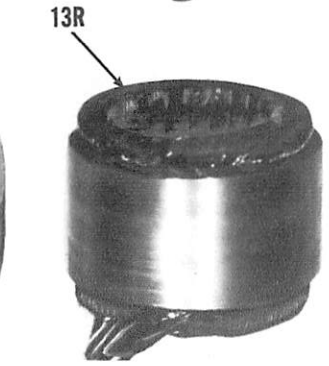
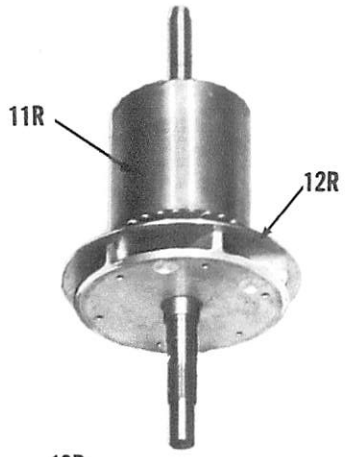
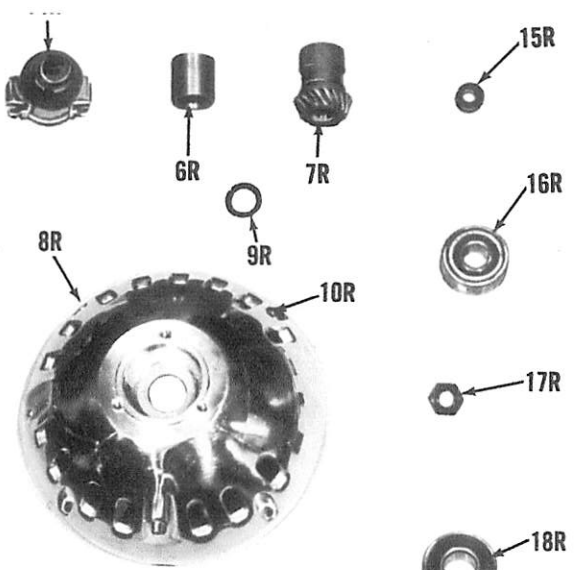
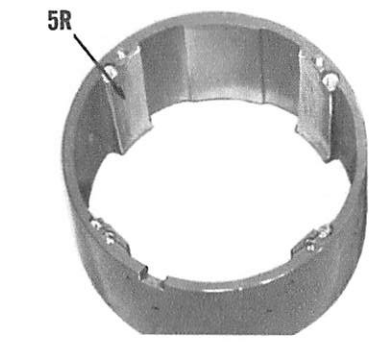
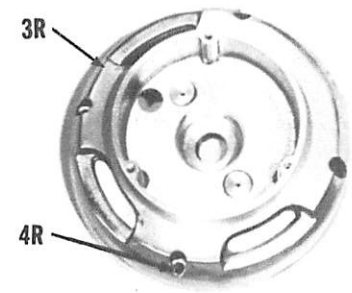
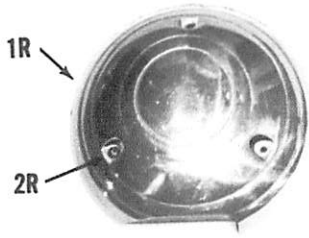
To start, throw Switch Lever to "On" position and let machine gather full speed before starting to cut.

Do not attempt to start machine while in cut.

Do not leave the current on if the cutter does not start or is stopped by any cause.



MOTOR ASSEMBLY



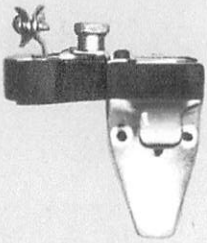
MOTOR ASSEMBLY

| REFERENCE | PART NAME | PART NO. |
|-----------|------------------------------------|-----------------|
| 1R | Cover, Rear Bearing | 53C7X |
| 2R | Screws, Round Head (3) | 6-32 x 5/16R.H. |
| 3R | Housing, Rear Bearing | 90C1-13X |
| 4R | Screws, Fillister Head (4) | 10-32 x 3/4Fil. |
| 5R | Stator Ring | 18C2-5X |
| 6R | Sleeve, Drive Gear Spacing | 1C5-3X |
| 7R | Gear, Drive | 87C1X |
| 8R | Housing, Front Bearing | 90C2-1X |
| 9R | Drive Gear Spacing Washer | 12C11X |
| 10R | Screws, Fillister Head (4) | 10-32 x 3/4Fil. |
| 11R | Rotor with Shaft (Specify Voltage) | 513C3-1X |
| 12R | Fan | 614C1X |
| 13R | Stator (Specify Voltage) | 575C1X |
| 14R | Switch, Cutout | 597C2X |
| 15R | Rubber Grommet | 207C1 |
| 16R | Ball Bearing, Rear | 90C6-28 |
| 17R | Locknut, Shaft | 4C1-118 |
| 18R | Ball Bearing, Front | 90C6-29 |
| 19R | Locknut, Front Ball Bearing | 4C1-87 |
| 20R | Insulation, Cutout Block | 8C13-37 |
| 21R | Washer, Spring | 12C1-12 |
| 22R | Cutout Block | 733C1 |
| 23R | Screws, Round Head (2) | 6-32 x 1/4R.H. |

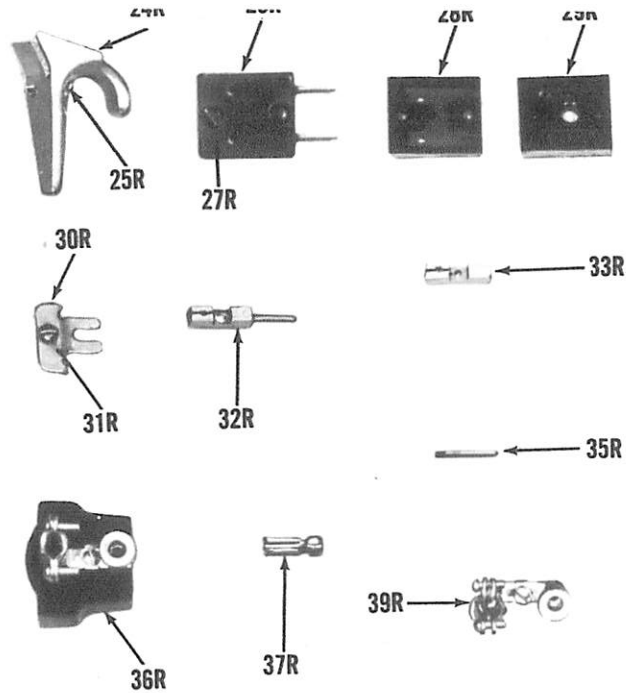
IMPORTANT ORDERING INSTRUCTIONS

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SINGLE PHASE



**TERMINAL BLOCK
BRACKET
AND
ATTACHMENT
PLUG ASSEMBLY**

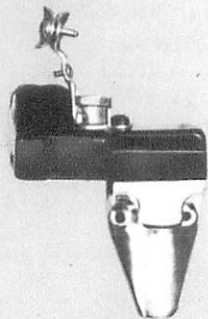


TERMINAL BLOCK BRACKET & ATTACHMENT PLUG

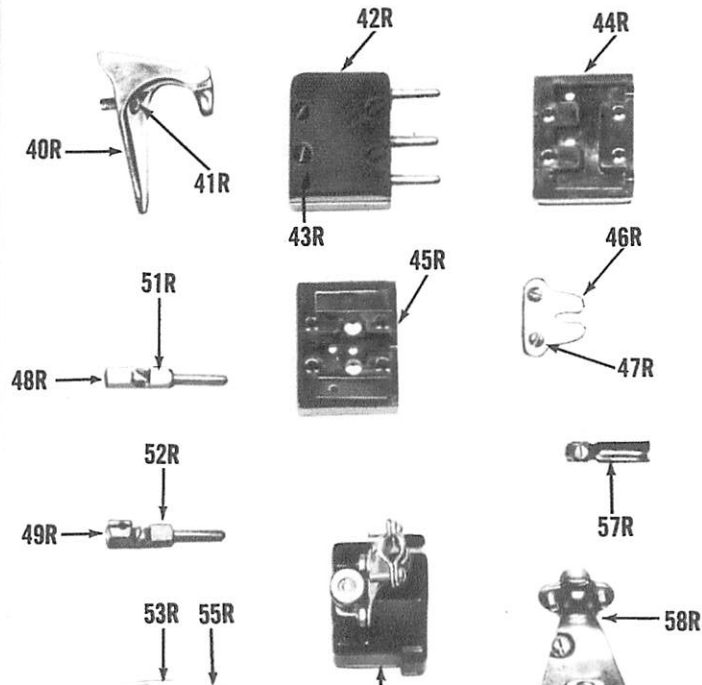
SINGLE PHASE

| REFERENCE | PART NAME | PART NO. |
|-----------|-----------------------------|------------------|
| 24R | Bracket, Terminal Block | 62C10-6X |
| 25R | Screws, Round Head (2) | 10-24 x 7/16R.H. |
| 26R | Terminal Block Complete | 508C1-19 |
| 27R | Screw, Flat Head (1) | 10-32 x 3/4 F.H. |
| 28R | Top Half, Terminal Block | 51C1-16 |
| 29R | Bottom Half, Terminal Block | 51C1-17 |
| 30R | Ground Clip | 79C12-107 |
| 31R | Screw, Fillister Head (1) | 10-32 x 1Fil. |
| 32R | Contact with Pin (2) | 667C1 |
| 33R | Contacts (2) | 93C2-1 |
| 35R | Pins, Terminal (2) | 47C2-4 |
| 36R | Plug, Attachment Complete | 523C1-51 |
| 37R | Sleeves, Terminal (2) | 47C3-16 |
| 39R | Clamp, Attachment Plug - | 615C1-7 |

THREE PHASE



**TERMINAL BLOCK
BRACKET
AND
ATTACHMENT
PLUG ASSEMBLY**



THREE PHASE

| | | |
|-----|---------------------------------------|--------------------|
| 40R | Bracket, Terminal Block | 62C10-6X |
| 41R | Screws, Round Head (2) | 10-24 x 7/16R.H. |
| 42R | Terminal Block Complete | 508C1-22 |
| 43R | Screws, Flathead (2) | 10-32 x 1-1/8 F.H. |
| 44R | Top Half, Terminal Block | 51C1-18 |
| 45R | Bottom Half, Terminal Block | 51C1-19 |
| 46R | Ground Clip | 79C12-106 |
| 47R | Screw, Fillister Head (2) | 10-32 x 1-1/8 Fil. |
| 48R | Contact Complete with Pin, Right Hand | 667C1-1 |
| 49R | Contact Complete with Pin, Center | 667C1-2 |
| 50R | Contact Complete with Pin, Left Hand | 667C1-3 |
| 51R | Contact, Right Hand | 93C2-2 |
| 52R | Contact, Center | 93C2-3 |
| 53R | Contact, Left Hand | 93C2-4 |
| 54R | Screws, Terminal (3) | 20C12-2 |
| 55R | Pins, Terminal (3) | 47C2-9 |
| 56R | Plug, Attachment Complete | 523C1-38 |
| 57R | Sleeves, Terminal (3) | 47C3-17 |
| 58R | Clamp, Attachment Plug | 615C1-5 |

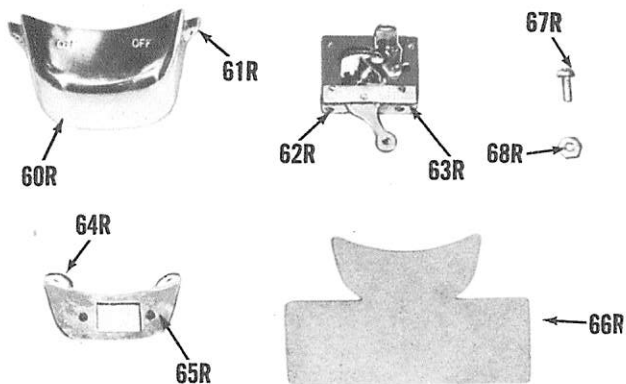
IMPORTANT ORDERING INSTRUCTIONS

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SINGLE PHASE



MOTOR SWITCH ASSEMBLY



MOTOR SWITCH ASSEMBLY

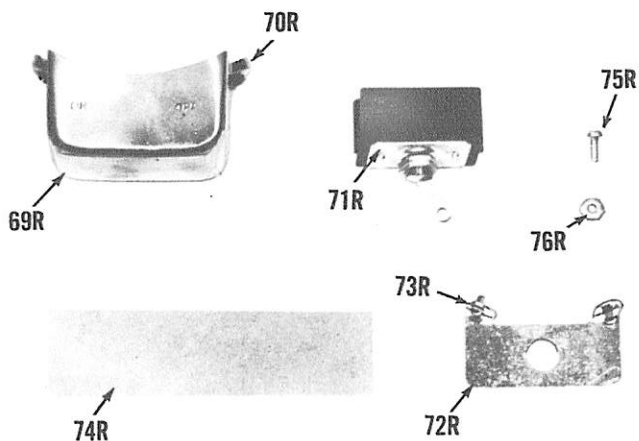
SINGLE PHASE

| REFERENCE | PART NAME | PART NO. |
|-----------|------------------------|-----------------|
| 60R | Cover, Switch | 53C2X |
| 61R | Screws, Round Head (2) | 6-32 x 5/16R.H. |
| 62R | Switch, Motor | 580C1X |
| 63R | Screws, Round Head (2) | 4-36 x 1/4R.H. |
| 64R | Base, Switch | 52C5X |
| 65R | Screws, Round Head (2) | 6-32 x 1/4R.H. |
| 66R | Insulation, Switch | 8C4-1X |
| 67R | Screw, Lever | 20C12-64 |
| 68R | Nut, Lever | 4C2-91 |

THREE PHASE



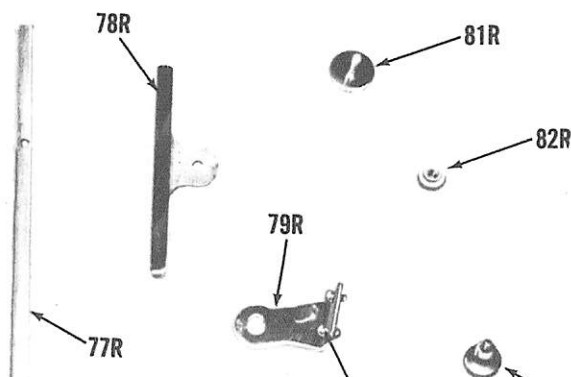
MOTOR SWITCH ASSEMBLY



THREE PHASE

| | | |
|-----|------------------------|-----------------|
| 69R | Cover, Switch | 53C2X |
| 70R | Screws, Round Head | 6-32 x 5/16R.H. |
| 71R | Switch, Motor | 580C1X |
| 72R | Base, Switch | 52C5X |
| 73R | Screws, Round Head (2) | 6-32 x 1/4R.H. |
| 74R | Insulation, Switch | 8C4-41 X |
| 75R | Screw, Lever | 20C12-64 |
| 76R | Nut, Lever | 4C2-91 |

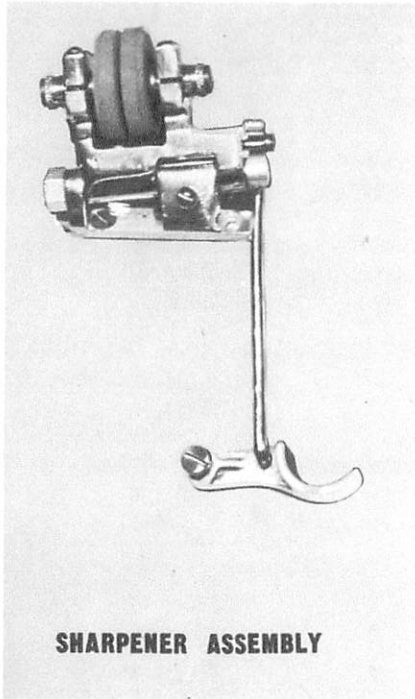
GUARD ASSEMBLY



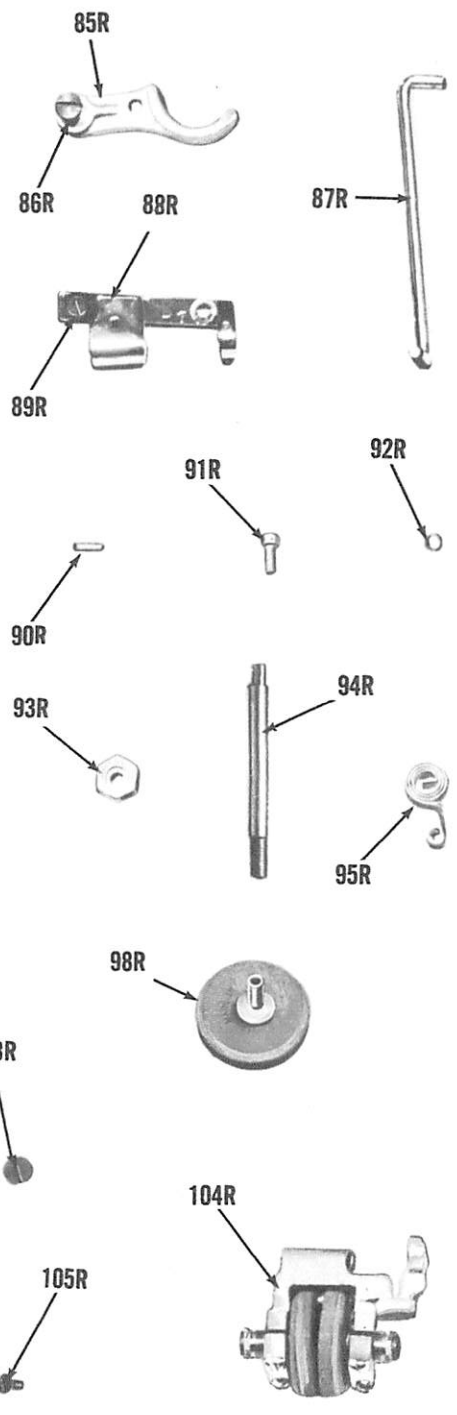
| | | |
|-----|---------------------------|-----------------|
| 77R | Guard Rod | 65C2X |
| 78R | Holder, Guard Rod | 33C4X |
| 79R | Bracket, Guard Rod Holder | 62C9X |
| 80R | Screws, Round Head (2) | 10-24 x 3/8R.H. |
| 81R | Screw, Lock | 20C4-33 |
| 82R | Nut | 4C2-93 |
| 83R | Screw, Guard Rod | 20C5-2 |

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SHARPENER ASSEMBLY



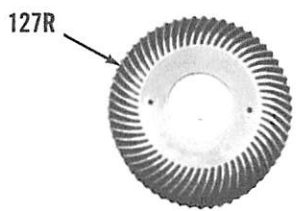
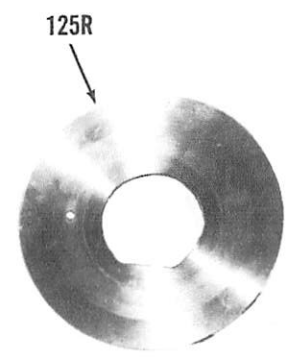
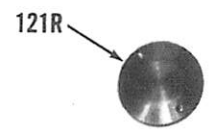
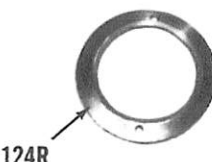
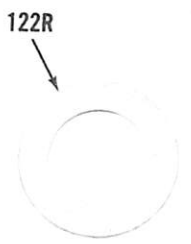
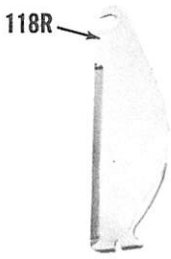
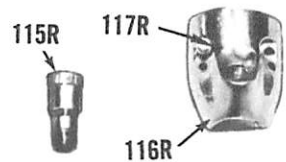
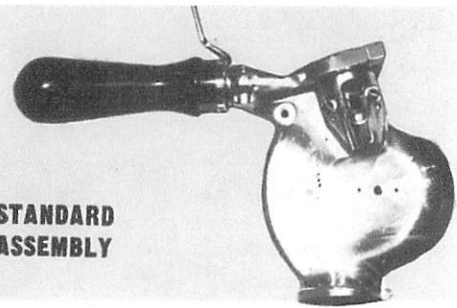
SHARPENER ASSEMBLY

| REFERENCE | PART NAME | PART NO. |
|-----------|---------------------------------------|--------------|
| 85R | Lever, Sharpener | 57C2-17 |
| 86R | Screw, Sharpener Lever | 20C8-2 |
| 87R | Link, Sharpener | 77C1-67 |
| 88R | Bracket, Sharpener Arm | 62C8X |
| 89R | Screw, Flat Head | 8-32x3/4F.H. |
| 90R | Pin, Bracket | 17C1-13 |
| 91R | Stop Screw, Fillister Head | 8-32x3/8Fil. |
| 92R | Stop, Sharpener | 55C4-35 |
| 93R | Nut, Sharpener Shaft | 4C1-139 |
| 94R | Shaft, Sharpener | 11C10-10 |
| 95R | Spring, Sharpener | 34C1-20 |
| 96R | Screw, Sharpener Spring | 20C12-13 |
| 97R | Emery Wheel Arm | 620C1-17 |
| 98R | Emery Wheel Mounted | |
| | 120 grit, for 3-1/2" and 4" dia knife | 541C1-10 |
| | 150 grit, for 3-1/2" and 4" dia knife | 541C1-14 |
| | 120 grit, for 5" thru 7" dia knife | 541C1-9 |
| | 150 grit, for 5" thru 7" dia knife | 541C1-13 |
| 99R | Emery Wheel Unmounted | |
| | 120 grit, for 3-1/2" and 4" dia knife | 133C1-11 |
| | 150 grit, for 3-1/2" and 4" dia knife | 133C1-13 |
| | 120 grit, for 5" thru 7" dia knife | 133C1-12 |
| | 150 grit, for 5" thru 7" dia knife | 133C1-14 |
| 100R | Bearing Caps, Sharpener Arm (2) | 86C7-19 |
| 101R | Screws, Round Head (4) | 6-32x3/4R.H. |
| 102R | Screws, Adjusting (2) | 20C6-11 |
| 103R | Screws, Spindle Lock (2) | 20C5-12 |
| 104R | Sharpener Arm, Complete | 540C1X |
| 105R | Screw, Emery Wheel | 20C13-20 |
| 106R | Washer, Emery Wheel Spring | 12C1-26 |

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STANDARD
ASSEMBLY



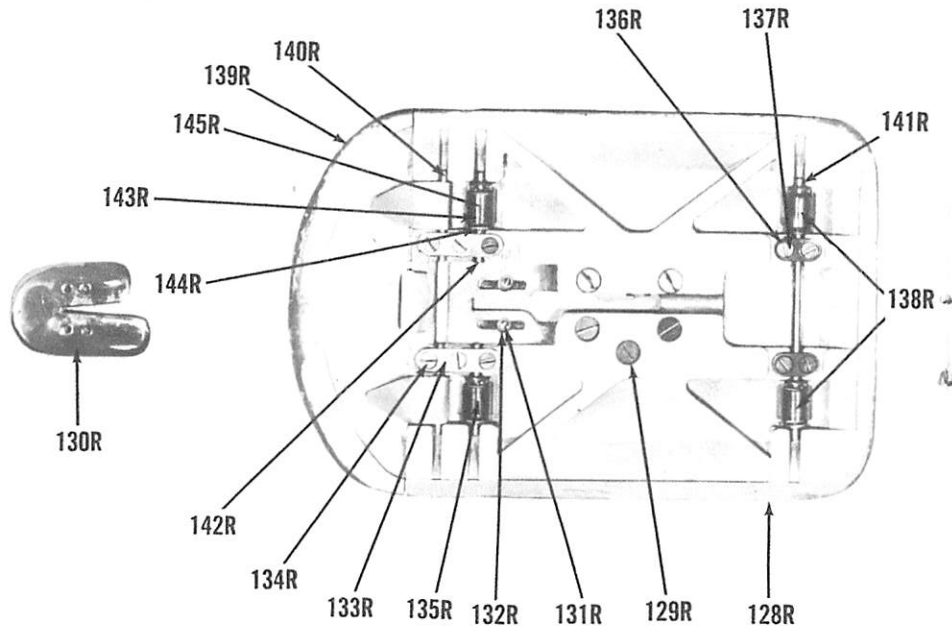
STANDARD ASSEMBLY

355
1161

| REFERENCE | PART NAME | PART NO. |
|-----------|---|---------------|
| 107R | Handle, Operating | 531C1X |
| 108R | Lever, Switch | 57C1X |
| 109R | Knob, Switch Lever | 13C2-5 |
| 110R | Screw, Flat Head | 8-32x5/8F.H. |
| 111R | Standard, Complete | 511C1X |
| 112R | Screws, Fillister Head (3) | 10-24x3/4Fil. |
| 113R | Pins, Standard (2) | 17C1-4 |
| 114R | Shims, Knife Gear (3) | 12C9X |
| 115R | Cup, Grease | 72C4-20 |
| 116R | Cover, Gear | 53C4X |
| 117R | Screws, Round Head (2) | 8-32x3/4R.H. |
| 118R | Guard, Side | 25C4-1X |
| 119R | Screw, Side Guard | 24C6 |
| 120R | Nut, Side Guard | 4C4 |
| 121R | Locknut, Knife Gear Bearing | 4C1-11X |
| 122R | Seal, Bearing | 216C1X |
| 123R | Lock Screw, Knife Gear Bearing | 20C4-2X |
| 124R | Locknut, Knife | 4C1-8X |
| 125R | Knife, Carbon Steel | 80C1X |
| | High Speed Steel | 80C1X-HS |
| 126R | Bearing, Knife Gear | 90C6-9 |
| | For 4" and 5" dia knife | 90C6-33 |
| | For 5-1/4", 6", and 7" dia knife | 87C2X |
| 127R | Gear, Knife | |
| | (For Drive Gear See Motor Assembly, Page 4, 7R. For Knife Gear Complete with 121R, 123R, 124R, 126R, and 127R, Order Part No. 521C1X) | |

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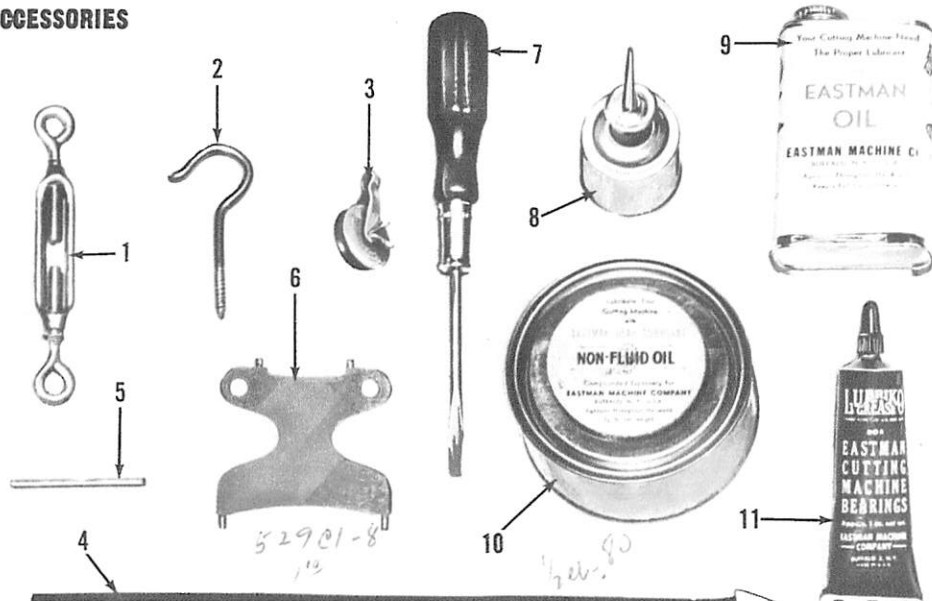


| REFERENCE | PART NAME | PART NO. |
|-----------|--------------------------------------|-----------------|
| 128R | Base Plate, Complete | 505C3-19X |
| 129R | Screws, Flat Head (3) | 10-24 x 3/8F.H. |
| 130R | Plate, Throat | 79C5-155 |
| 131R | Screws, Throat Plate, Round Head (2) | 6-32 x 5/16R.H. |
| 132R | Washers, Throat Plate (2) | 12C15-3 |
| 133R | Clip, Long (2) | 98C4-12 |
| 134R | Screws, Flat Head (6) | 6-32 x 3/16F.H. |
| 135R | Front Rollers, Complete (2) | 622C1-2 |
| 136R | Clips, Short (2) | 98C4-11 |
| 137R | Screws, Flat Head (4) | 6-32 x 3/16F.H. |
| 138R | Rear Rollers, Complete with Shaft | 619C1-3 |
| 139R | Plate, Wing | 60C1X |
| 140R | Pins, Hinge (2) | 17C6X |
| 141R | Shaft, Rear Roller | 11C2-3 |
| 142R | Shafts, Front Roller (2) | 11C2-4 |
| 143R | Shells, Roller (4) | 61C1-1 |
| 144R | Washers, Roller Shaft (8) | 12C8-1 |
| 145R | Bearings, Roller (10 per roller) | 41C2 |

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ACCESSORIES



ACCESSORIES

| NO. | PART NAME |
|-----|------------------------|
| 1 | Turnbuckle |
| 2 | Trolley Hook |
| 3 | Trolley Pulley |
| 4 | Trolley Spring |
| 5 | Knife Removal Pin |
| 6 | Spanner Wrench |
| 7 | Screw Driver |
| 8 | Oil Can |
| 9 | Eastman Oil, 1/2 Pint |
| 10 | Eastman Gear Lubricant |
| 11 | Eastman Bearing Grease |

GUARANTEE

We guarantee our machines for six months from date of invoice against defective parts and workmanship and will repair or replace any machine going wrong from these causes when returned to us carrying charges prepaid.

This guarantee does not contemplate making good damage caused by misuse or neglect.

EASTMAN MACHINE COMPANY