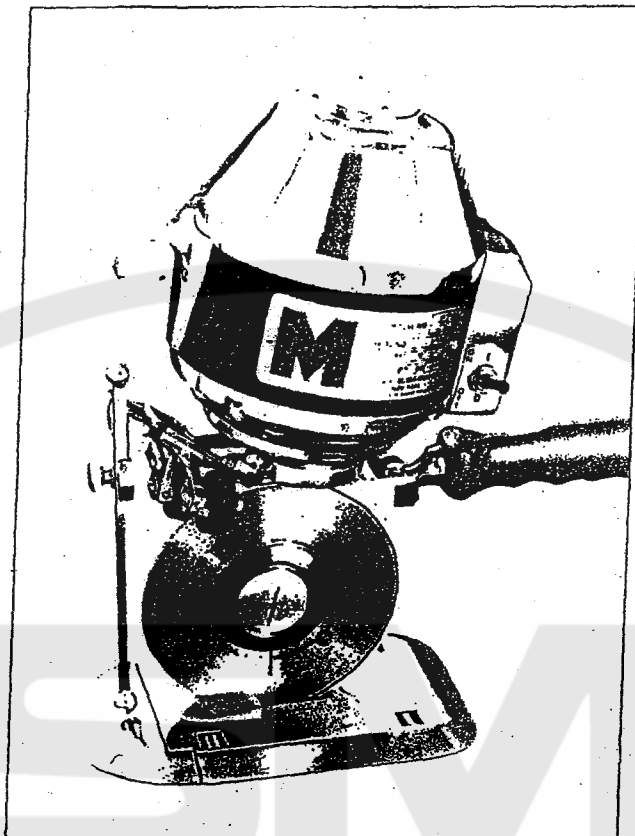


MAIMIN®

EDITION 4



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ROUND KNIFE INSTRUCTIONS AND PARTS LIST CATALOG

I. DESCRIPTION

1-1. General

Your new Maimin round knife machine is delivered ready for operation. It is merely necessary to insert the handle (Key No. B210) and lock it into place with the two screws as described in paragraph 2-2. Then connect the machine to an electrical outlet of the same voltage as on the nameplate of the machine and begin cutting (see paragraph 2-3). The knife guard (Key No. B247) acts as a protective guard for the operator so that it should be down at all times. The ball on the bottom of the knife guard should only be slightly above the top of the lay in order to prevent the operator's hand from accidentally touching the knife.

1-2. Sharpeners Available

There are two types of sharpening devices available for the round knife machines. The sharpener most generally used is the *gliding grinder* in which the stones are set perpendicular to the knife. It sharpens a faster cutting edge. The *#15 grinder* utilizes slightly larger stones which are almost parallel to the knife. This type of sharpener gives a smoother cutting edge for cutting sheer fabrics, synthetics, or plastics.

1-3. Knives Available

The cutting knives come in two grades which are carbon steel and high speed steel. Carbon steel knives are used for cutting most materials. However, hard materials such as fiberglass and heavy canvas will quickly dull the carbon steel knife requiring use of the high speed steel knife which keeps its cutting edge longer.

1-4. Part Numbers of Knives

| | Carbon Steel | High Speed Steel |
|----------------------------|--------------|------------------|
| Knife - 4" (Model 54) | 30303 | 30322 |
| Knife - 5-1/4" (Model 59) | 30307 | 30324 |
| Knife - 6" (Model 86) | 30310 | 30325 |
| Knife - 7" (Model 87 & 37) | 30311 | 30326 |

II. OPERATION

2-1. Safety Instructions

- A. Be sure machine is properly grounded
- B. Use correct electrical wiring:

U.S.A. only 1 phase: Use AWG 16/3 SJ, SJT
 3 phase: Use AWG 16/4 SJ, SJT

International

1P + N + $\frac{1}{2}$: Use 3 x 1, 0 mm² CEE(2)61
 3P + $\frac{1}{2}$: Use 4 x 1, 0 mm² CEE(2)61

- C. Keep cutting area clean and well lit.
- D. Keep visitors away from cutting area.
- E. Do not use machine in damp or wet location.
- F. Store machine in dry location.
- G. Keep machine clean and blade sharp for best and safest performance.
- H. Always disconnect machine when not in use, before servicing, and when changing blade.
- I. Remove knife key from knife lock before starting motor.
- J. Be sure switch is off before connecting electrical cord.
- K. Disconnect electrical cord before carrying machine.
- L. Keep knife guard in place and hands away from blade.

2-2. To Attach Handle

Insert the metal stud of the handle (Key No. B210) into its hole in the upper rear of the standard (B216). Put the handle screw (B211) through the flange of the handle into the standard, and tighten it. Then lock the handle into position with the handle lock screw (B214) and nut (B213) on the side of the standard.

2-3. To Start

Attach current connector (B40) to the terminal pins (B41). Flip switch (B47) to "on" position.

2-4. To Cut

Loosen the guard carrier screw (B248) slightly and raise knife guard (B247) to height of lay. The knife guard should only be slightly above the top of the lay for operator safety. When the machine is not being used, lower the knife guard to the roller plate.

2-5. To Sharpen Knife

With motor running, firmly depress the grinder trigger (B204) until both emery stones turn against the knife. When sharpening the knife with the #15 grinder, it is important that a light but constant finger pressure be used on the trigger to maintain the same width of sharpened bevel on the knife.

III. CARE & MAINTENANCE

3-1. Maintenance Schedule

Monthly:

- Grease gear (paragraph 3-2)
- Clean sharpening stones (paragraph 3-3)
- Clean motor (paragraph 3-8)

Every Six Months:

- Clean rollers (paragraph 3-9)

3-2. To Lubricate

Grease the gear (B239) and pinion (B202) monthly by turning the grease cup (B215) on the side of the standard one complete turn. When the grease cup is empty, unscrew it, fill it with grease and replace. The grease to be used is Lubriko M32. The motor bearings are sealed and thus require no lubrication.

3-3. To Clean Stones

After repeated use, the sharpening stones (B259) become coated with grease and dirt and do not sharpen the knife effectively. To remove this coating, spray Maimin Stone Cleaner directly onto the stones or put a little cleaning fluid on a toothbrush to scrub the stones. Sharpen. The dirt will be flung off; therefore, the sharpener should not be run near material to avoid staining. Do not use inflammable cleaning fluid.

3-4. To Change Stones

a) Gliding Grinder (Plate 3)

First remove knife. Loosen stone lock screw (B254). Unscrew the stone adjusting screw (B257) until the stone with bushing (B259) slides out to the end of the slot in the grinder frame (B258). Then remove the stone lock screw, and pull the stone with bushing out of the grinder frame. Be careful not to lose the coil spring (B256) and the washer (B255). When installing the new stone with bushing, slide the neck of the stone bushing into the slot, first making sure that the coil spring is in its position between the neck of the stone bushing and the stud on the inside of the slot. Then the stone lock screw should be fitted through the washer and screwed into the stone bushing. The adjustment is explained in paragraph 4-1a.

b) #15 Grinder (Plate 4)

Loosen the four frame arch screws (B346) and remove the top two. The frame arch can then be pulled out slightly and swung down. It is possible to remove the two frame arches completely but care should be taken not to interchange these two arches. The #15 grinder stones with bushings (B345) can then be lifted out together with the adjusting bushings (B339) and the stone shaft (B344). The bushings are removed from the end of the shaft, and then the two #15 grinder stones with bushings are slid off the shaft. When putting on new stones with bushings, make sure that the stone shaft spring (B343) is on the shaft between the two stones with bushings. The adjusting bushings are then put into place behind the sharpening stones, and the entire assembly is put back on the #15 grinder frame (B347). The frame arches are fitted properly over the adjusting bushings but are not locked into place with the screws until the sharpener stones are adjusted as described in paragraph 4-1b.

3-5. To Change Knife

Detach current connector (B40) from machine and lower knife guard (B247). Lay the machine on its side. Loosen the two throat plate screws (B232), and slide throat plate (B223) forward. Lift check spring (B260) on top of grinder frame (B258), and pull the frame to the end of grinder track (B220) for sufficient clearance to remove or install knife. Remove knife lock (B245) by turning it counter-clockwise with the knife key. Do not use a screwdriver or a punch to remove the knife lock as they will damage the knife lock and the gear bearing.

If the knife lock does not readily unscrew, point the knife key handle towards the handle of the machine and move the knife key handle downward sharply, striking it against the roller plate (B224). Repeat this action if necessary to loosen the knife lock. To tighten the knife lock, point the knife key handle towards the knife guard and move the knife key handle downward sharply against the roller plate lip (B237).

A knife must be installed with its trademark and the bevel facing outward. The knife, with its specially shaped hole, must be fitted over the similarly shaped shoulder on the gear; and the knife must lie flat against the gear. Always wipe the knife clean before fitting it onto the machine.

3-6. To Remove Gear (B239)

First remove the knife as described in paragraph 3-5. Unscrew gear cap (B246) by turning counterclockwise. Then remove gear screw (B244) by turning clockwise (it has a left-hand thread). Lift thread seal (B242) off the gear. Take off the grease circulator (B221) by removing its two screws (B222). Lift out the gear with bearing.

IMPORTANT: When the spiral gear was mounted on the trunnion shaft, a few trunnion washers (B238) were placed behind the gear on the trunnion shaft to create the proper mesh of the gear and the pinion. The grease on the gear may cause these trunnion washers to stick to the bearing. Do not lose these trunnion washers. Be certain to replace them on the trunnion shaft. If the gear is to be removed for any length of time, put the gear screw back in place so that the trunnion washers will not slip off.

3-7. To Clean Sharpener

Blow the lint and dust off the grinder assembly (B258) with compressed air. Check that the stones rotate freely. With a clean cloth wipe off the grinder track (B220) so that the grinder frame will slide easily on it.

3-8. To Clean Motor

Over a period of time, dust and lint will build up inside the motor and prevent proper cooling. With the motor

running, point a stream of compressed air into the top of the motor and then in the side of the bottom housing by the fan to eject the dust and lint.

3-9. To Clean Rollers

If the rollers (B230) in the roller plate (B224) do not roll freely, blow out the dust or dirt in the rollers. Do not oil as it will collect dirt causing the rollers to bind. Use a powdered graphite for lubrication if necessary.

IV. ADJUSTMENTS & REPAIRS

4-1. To Adjust Sharpener

a) Gliding Grinder (Plate 3)

Unscrew the stone lock screw (B254) one turn and then move the stones to or away from the knife by turning the stone adjusting screw (B257). Then tighten the stone lock screw. Both stones should begin revolving against the knife at approximately the same moment when the trigger (B204) is pulled slowly. The ground bevel on the knife should be about the same width on both sides of the knife — approximately 1/16" (1.6mm). The stones are moved closer together to obtain a narrower bevel and further away from the knife to obtain a wider bevel. After the stones are adjusted properly, tighten the stone lock screws.

b) #15 Grinder (Plate 4)

Loosen frame arch screws (B346). Turn adjusting bushing (B339) to move the stones towards or away from the knife. The stones should rotate against the knife at approximately the same time when the grinder trigger is pulled slowly. The ground bevel on the knife should be equal on both sides and should be about 3/32" (2.4mm) in width. When the stones are adjusted correctly, tighten the frame arch screws to lock the stones in position.

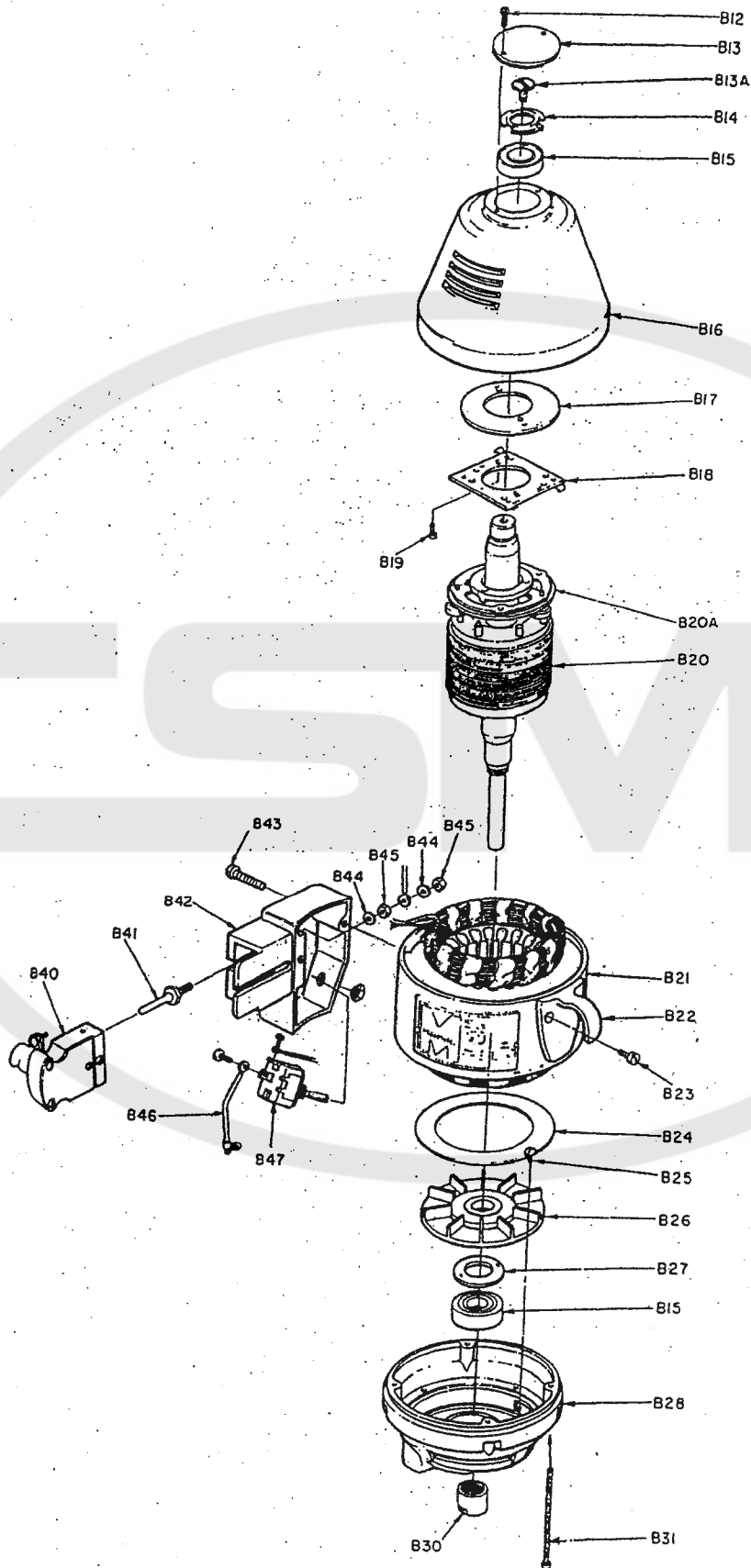
4-2. To Adjust Throat Plate

As the knife wears, move the throat plate (B223) towards the knife so that the space between the edge of the knife and the front of the slot of the throat plate is about 1/16" (1.6mm). The knife should be in the middle of the throat plate slot. Adjust the throat plate by loosening the two throat plate screws (B232) which are underneath the roller plate (B224).

Press in the throat plate lock (B235) to slide it along the lip spring (B236). When the throat plate is in the desired position, release the throat plate lock to catch between the teeth on the lip spring. Tighten the throat plate screws.

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SINGLE PHASE MOTOR

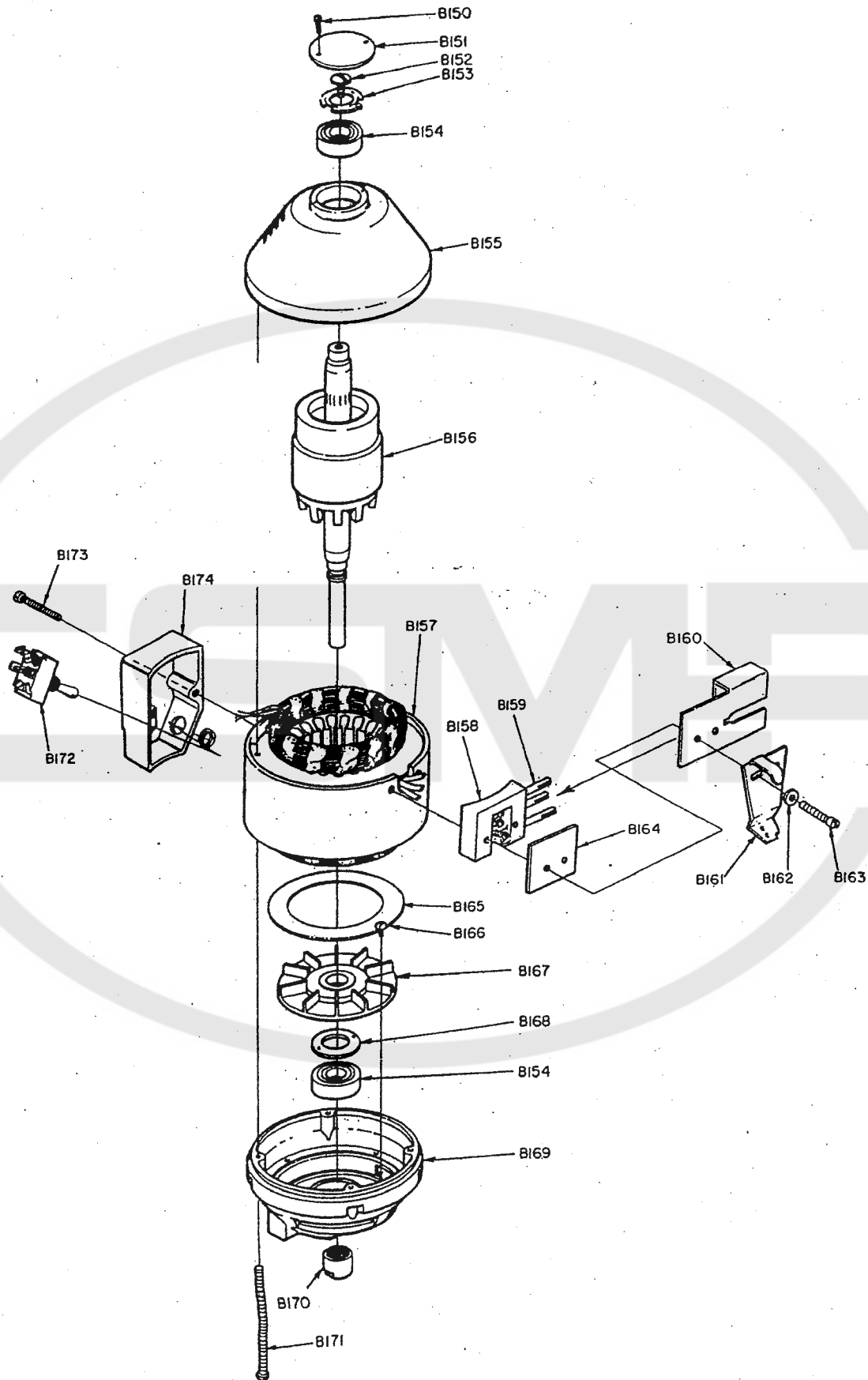


PARTS LIST 1

| KEY NO. | PART NO. | | DESCRIPTION |
|---------|---------------|----------------------|---|
| | Regular Motor | Heavy Duty Motor (H) | |
| B12 | 434 | 434 | Screw, 6 x 3/16 Round Head |
| B13 | 305E | 305E | Cap |
| B13A | 300S | 300S | Armature Screw |
| B14 | 404D | 404D | Loading Spring |
| B15 | 403 | 403 | Bearing #203 |
| B16 | 302K | 302L | Top Housing |
| | - | 365 | Relay |
| B17 | 364B | - | Laminated Plate |
| B18 | 364A | - | Stationary Switch |
| B19 | 331S | - | Screw, 8 x 3/8 Round Head |
| B20 | 15065 | - | Armature, RK* |
| | 15104 | 15174 | Armature, RK* (serial no. ending in A) |
| B20A | 364D | - | Rotating Switch |
| B21 | 15066 | - | Field, RK* 60 cycles |
| | 15105 | 15097 | Field, RK* 60 cycles (serial no. ending in A) |
| | 15207 | 15212 | Field, RK* 50 cycles (serial no. ending in A) |
| | 15209 | - | Field, Model 37* 60 cycles |
| | 15210 | - | Field, Model 37* 50 cycles |
| | - | 15079 | Capacitor 161 mfd (60 cycles) |
| | - | 15078 | Capacitor 216 mfd (50 cycles) |
| | - | 15084 | Cover, Capacitor |
| B22 | 310C | 310C | Gooseneck |
| B23 | 516 | 516 | Screw, 8 x 5/16 Fillister Head |
| B24 | 300X | 300X | Fan Washer |
| B25 | 400T | 400T | Screw, 6 x 1/8 Binding Head |
| B26 | 300F | 300F | Fan |
| B27 | 404C | 404C | Bearing Lock |
| B28 | 311E | 311E | Bottom Housing |
| | 311EX | 311EX | Bottom Housing with 300X, 300F, 404C |
| B30 | 300N | 300N | Armature Nut |
| B31 | 419X | 419Y | Motor Bolt |
| B40 | 458B | 458B | Connector, Grounded |
| B41 | 309C | 309C | Terminal Pin |
| B42 | 315M | 315M | Switch Box only |
| | 315MX | 315MX | Switch Box with 309C, 442, 316W |
| B43 | 418S | 418S | Screw, 8 x 1-1/8 Fillister Head |
| B44 | 309G | 309G | Washer |
| B45 | 309E | 309E | Nut |
| B46 | 316W | 316W | Switch Wire |
| B47 | 442 | 442 | Switch |

*Give Serial Number

3 PHASE MOTOR



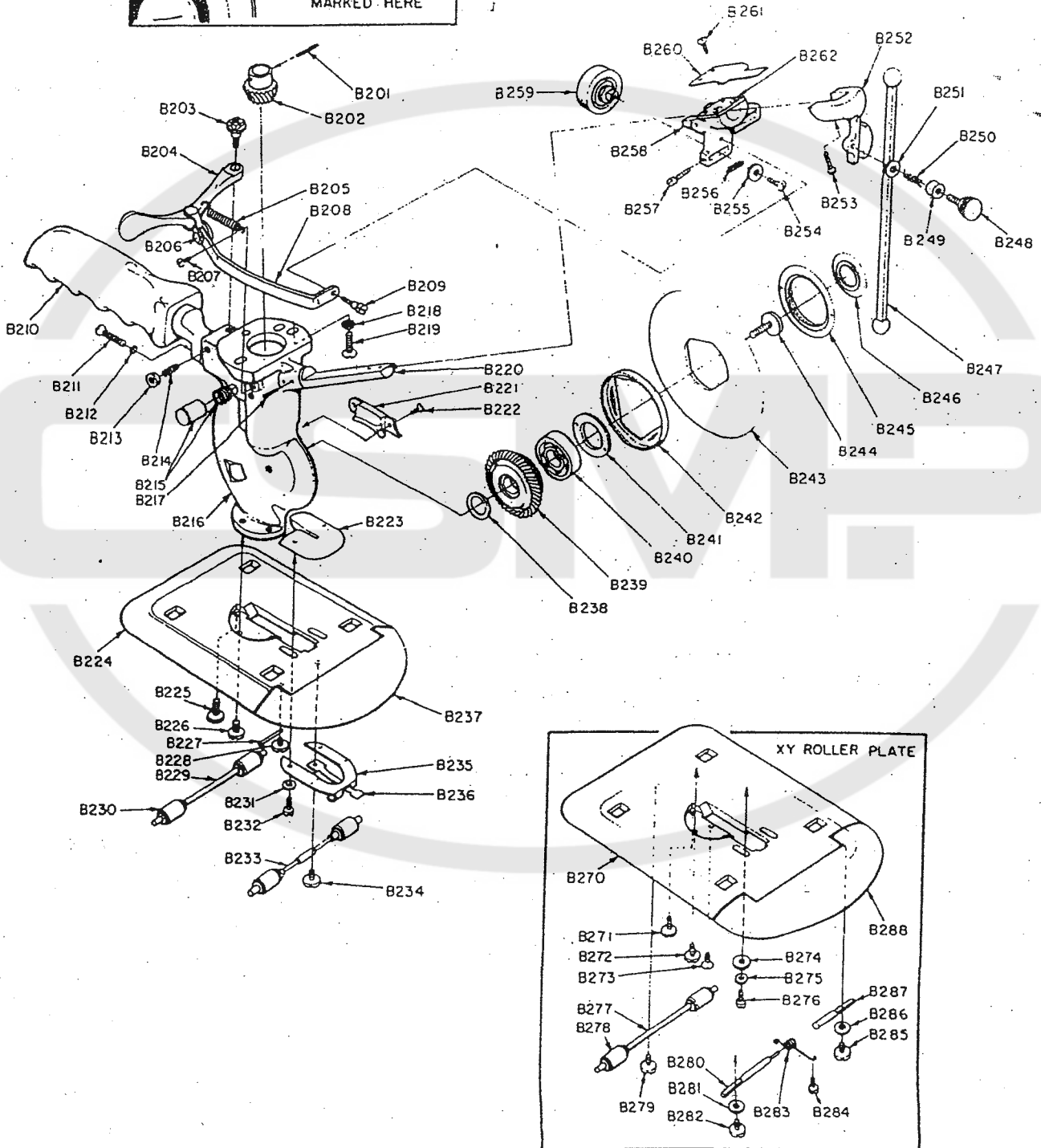
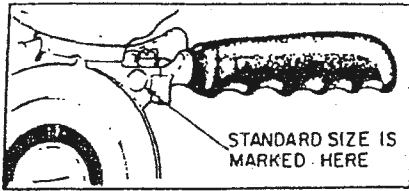
ALWAYS GIVE MACHINE SERIAL NUMBER WHEN ORDERING PARTS. ORDER BY PART NUMBER - NOT KEY NUMBER.

PARTS LIST 2

| KEY NO. | PART NO. | | DESCRIPTION |
|---------|---------------|----------------------|--|
| | Regular Motor | Heavy Duty Motor (H) | |
| B150 | 434 | 434 | Screw, 6 x 3/16 Round Head |
| B151 | 305E | 305E | Cap |
| B152 | 300S | 300S | Armature Screw |
| B153 | 404D | 404D | Loading Spring |
| B154 | 403 | 403 | Bearing #203 |
| B155 | 302M | 302M | Top Housing |
| B156 | 15031 | — | Armature, RK* |
| | 15104 | 15214 | Armature, RK* (serial no. ending in A) |
| | 497P | 497P | Support Washer |
| B157 | 15030 | — | Field, RK* |
| | 15201 | 15213 | Field, RK* (serial no. ending in A) |
| B158 | 405A | 405A | Terminal Block with 406A |
| B159 | 406A | 406A | Terminal Pin, 3 ph. |
| B160 | 458M | 458M | Ground Shield, 3 ph. |
| B161 | 310K | 310K | Gooseneck, 3 ph. |
| B162 | 329LW | 329LW | Washer |
| B163 | 310B | 310B | Screw, 8 x 1-3/8 Fillister Head |
| B164 | 405B | 405B | Cover, 3 ph. |
| B165 | 300X | 300X | Fan Washer |
| B166 | 400T | 400T | Screw, 6 x 1/8 Binding Head |
| B167 | 300F | 300F | Fan |
| B168 | 404C | 404C | Bearing Lock |
| B169 | 311E | 311E | Bottom Housing only |
| | 311EX | 311EX | Bottom Housing w/300X, 300F, 404C |
| B170 | 300N | 300N | Nut |
| B171 | 419X | 419Y | Motor Bolt |
| B172 | 442B | 442B | Switch, 3 ph. |
| B173 | 418S | 418S | Screw, 8 x 1-1/8 Fillister Head |
| B174 | 315P | 315P | Switch Box only |
| | 315PX | 315PX | Switch Box with 442B |

*Give Serial Number

STANDARD WITH GLIDING GRINDER & ROLLER PLATE

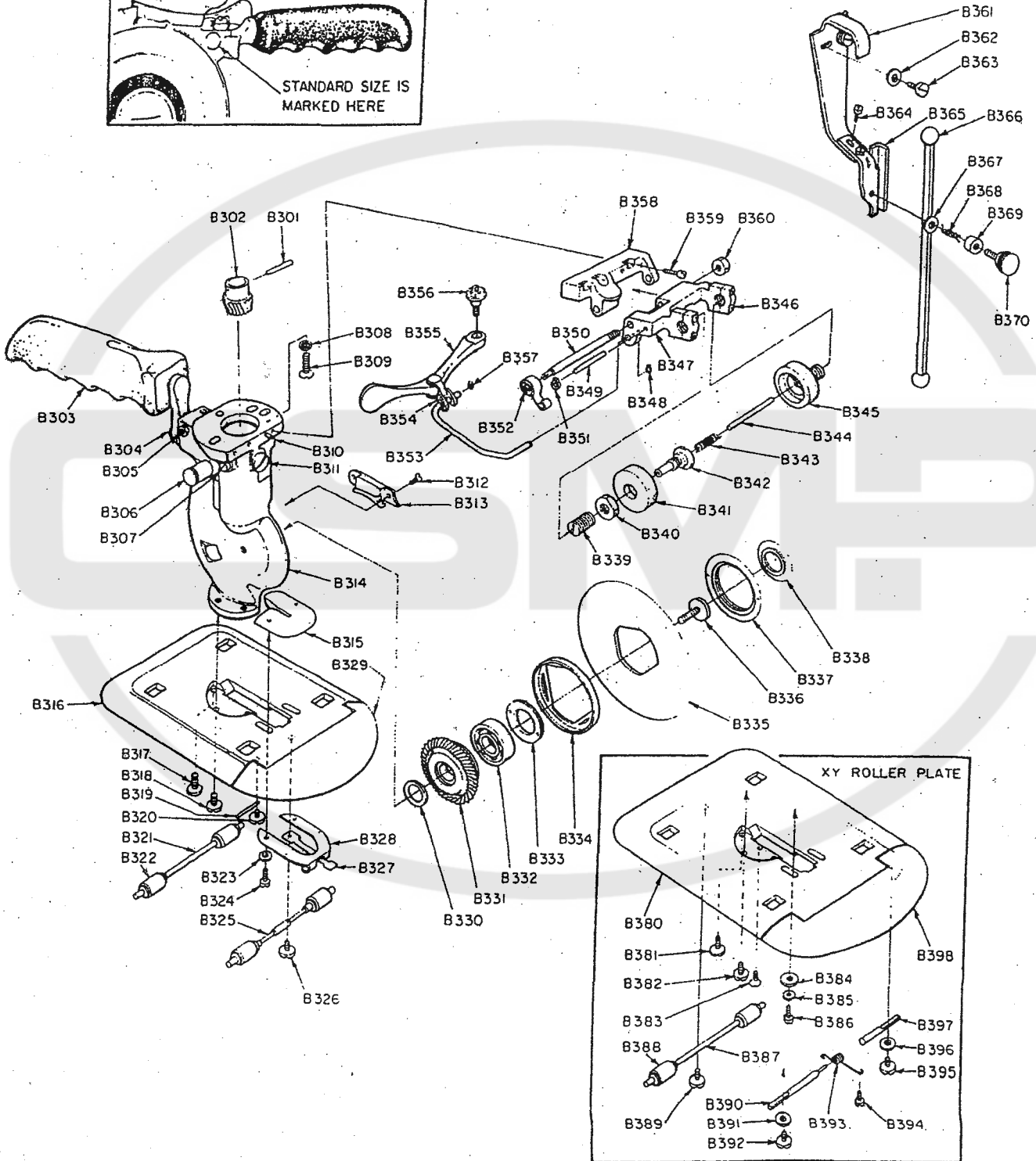
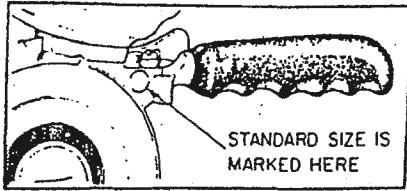


ALWAYS GIVE MACHINE SERIAL NUMBER WHEN ORDERING PARTS. ORDER BY PART NUMBER - NOT KEY NUMBER.

PARTS LIST 3

| KEY NO. | PART NO. | DESCRIPTION | KEY NO. | PART NO. | DESCRIPTION |
|---------|----------|---|---------|----------|--|
| B201 | 323PJ | Pinion Pin - #6 Pinion | B240 | 320J | Gear Bearing (200K) - #6 |
| | 323PA | Pinion Pin - all other pinions | | 320A | Gear Bearing (103) - #9 or #248 |
| B202 | 323J | Pinion - #6 (for standard marked R4 or 6) | | 320C | Gear Bearing (104) - #5 |
| | 323H | Pinion - #9 (for standard marked 59) | B241 | 321J | Bearing Lock - #6 |
| | 323M | Pinion - #248 (for standard marked 248) | | 321A | Bearing Lock - #9 or #248 |
| | 323C | Pinion - #5 (for standard marked 86 or 87) | | 321C | Bearing Lock - #5 |
| B203 | 333 | Trigger Screw | | 321CW | Washer, Bearing Lock - #5 |
| B204 | 332 | Trigger | B242 | 347J | Thread Seal - #6 |
| B205 | 334 | Trigger Spring | | 347A | Thread Seal - #9 or #248 |
| B206 | 335K | Link Knuckle | | 347C | Thread Seal - #5 |
| B207 | 802S | Screw, 6 x 3/16 Bind. Hd. | B243 | 30303 | Knife - 4" (for 54) |
| B208 | 335A | Link - 4" | | 30307 | Knife - 5-1/4" (for 59) |
| | 335B | Link - 59 | | 30310 | Knife - 6" (for 86) |
| | 335C | Link - 86 & 87 | | 30311 | Knife - 7" (for 87) |
| | 335D | Link - 37 | | 30322 | Knife, High Speed Steel - 4" |
| | 335XA | Link with 332, 334 - 4" | | 30324 | Knife, High Speed Steel - 5-1/4" |
| | 335XB | Link with 332, 334 - 59 | | 30325 | Knife, High Speed Steel - 6" |
| | 335XC | Link with 332, 334 - 86 & 87 | | 30326 | Knife, High Speed Steel - 7" |
| | 335XD | Link with 332, 334 - 37 | B244 | 322J | Gear Screw - 4" |
| B209 | 336 | Link Screw | | 322A | Gear Screw - 59 |
| B210 | 341C | Handle Assembly | | 322C | Gear Screw - 86 & 87 |
| | 341D | Offset Handle Assembly | B245 | 326J | Knife Lock - 4" |
| B211 | 342 | Screw, 8 x 3/4 Oval Hd. | | 326A | Knife Lock - 59 |
| B212 | 518W | Lock Washer | | 326C | Knife Lock - 86 & 87 |
| B213 | 510B | Nut | B246 | 349A | Gear Cap - 59 |
| B214 | 510C | Screw, 10 x 3/8 Set | B247 | 329A | Knife Guard - 4" |
| B215 | 311G | Grease Cup | | 329B | Knife Guard - 5-1/4" |
| B216 | 318A | Standard - 6 (4") | | 329C | Knife Guard - 6" |
| | 317H | Standard - 59 (5 1/2") | | 329D | Knife Guard - 7" |
| | 317M | Standard - 248 (5 1/2") | B248 | 329S | Screw, Guard Carrier |
| | 317D | Standard - 86 (6") | B249 | 329LC | Spring Cup |
| | 317E | Standard - 87 (7") | B250 | 329LS | Spring |
| B217 | 1256 | Rollpin | B251 | 329LW | Washer |
| B218 | 311W | Lock Washer | B252 | 329L | Guard Carrier |
| B219 | 311S | Screw, 12 x 5/8 Rnd. Hd. | B253 | 328Z | Screw, 6 x 7/16 Fil. Hd. |
| B220 | 328T | Track (except 4") | B254 | 331S | Screw, 8 x 3/8 Rnd. Hd. |
| | 328V | Track (4") | B255 | 329LW | Washer |
| B221 | 348J | Grease Circulator - #6 (for standard marked 6) | B256 | 328J | Coil Spring |
| | 348A | Grease Circulator - #9 (for standard marked 59) | B257 | 328Z | Screw, 6 x 7/16 Fil. Hd. |
| | 348M | Grease Circulator - #248 (for standard marked 248) | B258 | 328F | Grinder Frame Only |
| | 348C | Grease Circulator - #5 (for standard marked 86 or 87) | | 328 | Grinder Frame with Stones |
| B222 | 348S | Screw, 4 x 3/16 Flat Hd. | B259 | 330 | Stones with Bushing, Pair |
| B223 | 313K | Throat Plate for 59, 86, 37 | | 330N | Stones Only, Pair |
| | 313R | Throat Plate for 4" 97 | B260 | 328E | Check Spring |
| | 313H | Throat Plate, Sliker | B261 | 822S | Screw, 6 x 1/4 Bind. Hd. |
| | 313N | Throat Plate, Neckwear, | B262 | 818S | Screw, 6 x 1/4 Flat. Hd. |
| B224 | 337 | Roller Plate with Lip & Rollers - 8-1/4" x 5-1/2" (20.9 cm x 13.9 cm) | | | XY ROLLER PLATE |
| B225 | 340T | Standard Screw, Rear | B270 | 337C | XY Roller Plate with Lip & Rollers 9-3/4" x 6-3/4" (24.7cm x 17.1 cm.) |
| B226 | 340S | Standard Screw | B271 | 340T | Standard Screw, Rear |
| B227 | 337P | Lip Pin | B272 | 340S | Standard Screw |
| B228 | 340 | Lip Screw | B273 | 427 | Screw, 10 x 7/16 Flat Hd. |
| B229 | 339P | Roller Shaft with Rollers, Back | B274 | 329LW | Washer |
| B230 | 437 | Roller Shell only | B275 | 438W | Washer |
| B231 | 438W | Washer | B276 | 313S | Screw, Throat Plate |
| B232 | 313S | Screw, Throat Plate | B277 | 339T | XY Roller Shafts with Rollers, Front & Back |
| B233 | 339M | Roller Shaft with Rollers, Front | B278 | 437 | Roller Shell |
| B234 | 340 | Lip Screw | B279 | 340 | Screw |
| B235 | 313L | Throat Plate Lock | B280 | 431A | Shaft for Lip, Long |
| B236 | 337J | Lip Spring | B281 | 329LW | Washer |
| B237 | 337L | Roller Plate Lip | B282 | 340 | Screw |
| B238 | 391B | Trunnion Washer #6-.005" | B283 | 433B | XY Lip Spring |
| | 391E | Trunnion Washer #9-.005" | B284 | 802S | Screw, 6 x 3/16 Bind. Hd. |
| | 391G | Trunnion Washer #5-.002" | B285 | 340 | Screw |
| | 391H | Trunnion Washer #5-.005" | B286 | 329LW | Washer |
| | 391K | Trunnion Washer #9-.002" | B287 | 431B | Shaft for Lip, Short |
| | 391M | Trunnion Washer #6-.002" | B288 | 430A | XY Roller Plate Lip |
| B239 | 319J | Gear with Bearing - #6 (for standard marked R4 or 6) | | | PARTS NOT ILLUSTRATED |
| | 319H | Gear with Bearing - #9 (for standard marked 59) | | 327K | Adjustable Knife Key |
| | 319M | Gear with Bearing - #248 (for standard marked 248) | | 390A | Backguard - 54 |
| | 319C | Gear with Bearing - #5 (for standard marked 86 or 87) | | 390B | Backguard - 59 |
| | | | | 390C | Backguard - 86" |
| | | | | 390D | Backguard - 87 |
| | | | | 390S | Backguard Screw |
| | | | | 22028 | Tube of Grease |

STANDARD WITH #15 GRINDER & ROLLER PLATE



ALWAYS GIVE MACHINE SERIAL NUMBER WHEN ORDERING PARTS. ORDER BY PART NUMBER - NOT KEY NUMBER.

PARTS LIST 4

| KEY NO. | PART NO. | DESCRIPTION | KEY NO. | PART NO. | DESCRIPTION |
|---------|----------|--|---------|----------|--|
| B301 | 323PJ | Pinion Pin - #6 Pinion | | 30324 | Knife, High Speed Steel - 5-1/4" |
| | 323PA | Pinion Pin - all other pinions | | 30325 | Knife, High Speed Steel - 6" |
| B302 | 323J | Pinion - #6 (for standard marked 6) | | 30326 | Knife, High Speed Steel - 7" |
| | 323H | Pinion - #9 (for standard marked 59) | B336 | 322J | Gear Screw - 4" |
| | 323M | Pinion - #248 (for standard marked 248) | | 322A | Gear Screw - 59 |
| | 323C | Pinion - #5 (for standard marked 86 or 87) | B337 | 322C | Gear Screw - 86 & 87 |
| B303 | 341C | Handle Assembly | | 326J | Knife Lock - 4" |
| | 341D | Offset Handle Assembly | | 326A | Knife Lock - 59 |
| B304 | 342 | Screw, 8 x 3/4 Oval Hd. | B338 | 326C | Knife Lock - 86 & 87 |
| | 618W | Lock Washer | B339 | 349A | Gear Cap - 59 |
| B305 | 510C | Screw, 10 x 3/8 Set | B340 | 383A | Adjusting Bushing |
| | 510B | Nut | B341 | 415N | Nut |
| B306 | 311G | Grease Cup | B341 | 381A | #15 Grinder Stones only, pair |
| B307 | 802S | Screw, 6 x 3/16 Bind. Hd. | B342 | 382 | Tail Bushing |
| B308 | 311W | Lock Washer | B343 | 381T | Spring, Stone Shaft |
| B309 | 311S | Screw, 12 x 5/8 Rnd. Hd. | B344 | 381S | Stone Shaft |
| B310 | 805P | Rollpin | B345 | 381 | #15 Grinder Stones with Bushings, pair |
| B311 | 421 | Cap Screw | B346 | 385S | Screw, 6 x 1/2 Fil. Hd. |
| B312 | 348S | Screw, 4 x 3/16 Flat Hd. | B347 | 384 | #15 Grinder Frame only |
| B313 | 348J | Grease Circulator - #6 | | 380 | #15 Grinder Complete with Frame, Bracket & Stones |
| | 348A | Grease Circulator - #9 | B348 | 380A | #15 Grinder Complete for 37 |
| | 348M | Grease Circulator - #248 | B349 | 1341 | Retaining Ring |
| | 348C | Grease Circulator - #5 | B350 | 423P | Pin |
| B314 | 388T | Standard for #15 Grinder - 6 (4") | B351 | 386B | #15 Grinder Shaft |
| | 388H | Standard for #15 Grinder - 59 (5-1/4") | B352 | 840D | Retaining Ring |
| | 388W | Standard for #15 Grinder - 248 (5-1/4") | B353 | 386 | Coil Spring |
| | 388D | Standard for #15 Grinder - 86 (6") | B354 | 387 | #15 Grinder Link |
| | 388E | Standard for #15 Grinder - 87 (7") | B355 | 335K | Link Knuckle |
| B315 | 313K | Throat Plate for 59, 86, 37 | B356 | 332 | Trigger |
| | 313R | Throat Plate for 4", 87 | B357 | 333 | Trigger Screw |
| | 313H | Throat Plate, Hospital | B358 | 1341 | Retaining Ring |
| | 313N | Throat Plate, Neckwear | | 385 | #15 Grinder Bracket |
| B316 | 337 | Roller Plate with Lip & Rollers - 8-1/4" x 5-1/2" (20.9 cm x 13.9 cm.) | B359 | 385T | #15 Grinder Bracket for 37 |
| B317 | 340T | Standard Screw, Rear | B360 | 385S | Screw, 6 x 1/2 Fil. Hd. |
| B318 | 340S | Standard Screw | B361 | 838N | Nut |
| B319 | 337P | Lip Pin | B362 | 310F | #15 Grinder Gooseneck |
| B320 | 340 | Lip Screw | B363 | 310K | Gooseneck for 3 phase motor |
| B321 | 339P | Roller Shaft with Rollers, Back | | 329LW | Washer |
| B322 | 437 | Roller Shell Only | | 310H | Screw, 8 x 5/16 Bind. Hd. |
| B323 | 438W | Washer | B364 | 310B | Screw, (3 phase), 8 x 1-3/8 Fil. Hd. |
| B324 | 313S | Screw, Throat Plate | B365 | 802S | Screw, 6 x 3/16 Bind. Hd. |
| B325 | 339M | Roller Shaft with Rollers, Front | B366 | 389 | #15 Grinder Guard Carrier |
| B326 | 340 | Lip Screw | | 329A | Knife Guard - 4" |
| B327 | 337J | Lip Spring | | 329B | Knife Guard - 5-1/4" |
| B328 | 313L | Throat Plate Lock | | 329C | Knife Guard - 6" |
| B329 | 337L | Roller Plate Lip | | 329D | Knife Guard - 7" |
| B330 | 391B | Trunnion Washer #6-.005" | B367 | 329LW | Washer |
| | 391E | Trunnion Washer #9-.005" | B368 | 329LS | Spring |
| | 391G | Trunnion Washer #5-.002" | B369 | 329LC | Spring Cup |
| | 391H | Trunnion Washer #5-.005" | B370 | 329S | Screw, Guard Carrier |
| | 391K | Trunnion Washer #9-.002" | | | |
| | 391M | Trunnion Washer #6-.002" | | | |
| B331 | 319J | Gear with Bearing - #6 | B380 | 337C | XY ROLLER PLATE |
| | 319H | Gear with Bearing - #9 | | | XY Roller Plate with Lip & Rollers - 9-3/4" x 6-3/4" (24.7 cm x 17.1 cm) |
| | 319M | Gear with Bearing - #248 | B381 | 340T | Standard Screw, Rear |
| | 319C | Gear with Bearing - #5 | B382 | 340S | Standard Screw |
| B332 | 320J | Gear Bearing (200K) - #6 | B383 | 427 | Screw, 10 x 7/16 Flat Hd. |
| | 320A | Gear Bearing (103) - #9 or #248 | B384 | 329LW | Washer |
| | 320C | Gear Bearing (104) - #5 | B385 | 438N | Washer |
| B333 | 321J | Bearing Lock - #6 | B386 | 313S | Screw, Throat Plate |
| | 321A | Bearing Lock - #9 or #248 | B387 | 339T | XY Roller Shaft with Rollers, Front & Back |
| | 321C | Bearing Lock - #5 | B388 | 437 | Roller Shell Only |
| | 321CW | Washer, Bearing Lock - #5 | B389 | 340 | Screw |
| B334 | 347J | Thread Seal - #6 | B390 | 431A | Shaft for Lip, Long |
| | 347A | Thread Seal - #9 or #248 | B391 | 329LW | Washer |
| | 347C | Thread Seal - #5 | B392 | 340 | Screw |
| B335 | 30303 | Knife - 4" (for 54) | B393 | 433B | XY Lip Spring |
| | 30307 | Knife - 5-1/4" (for 59) | B394 | 802S | Screw, 6 x 3/16 Bind. Hd. |
| | 30310 | Knife - 6" (for 86) | B395 | 340 | Screw |
| | 30311 | Knife - 7" (for 87) | B396 | 329LW | Washer |
| | 30322 | Knife, High Speed Steel - 4" | B397 | 431B | Shaft for Lip, Short |
| | | | B398 | 430A | XY Roller Plate Lip |
| | | | | | PARTS NOT ILLUSTRATED |
| | | | | 327K | Adjustable Knife Key |
| | | | | 390A | Backguard - 54 |
| | | | | 390B | Backguard - 59 |
| | | | | 390C | Backguard - 86 |
| | | | | 390D | Backguard - 87 |
| | | | | 390S | Backguard Screw |
| | | | | 22028 | Tube of Grease |

4-3. To Adjust Play In Gear

The gear (B239) and pinion (B202) are lapped together initially to obtain a close fit. Over a period of time the gear and pinion wear so that there is an increase in play (or backlash) between the teeth on the gear and the pinion. Provided the gear bearing is in good condition (no side movement of knife) the backlash between the teeth on the gear and the pinion can be reduced by removing one or two trunnion washers (B238). Remove the gear (see paragraph 3-6), and take out the thinnest trunnion washer. These trunnion washers are available in two thicknesses. It is advisable to remove the thinnest trunnion washer first in order to check to see if the backlash has been eliminated. There must always be a slight amount of backlash or the gear and pinion will screech when run together. After removing the trunnion washer, it is necessary to replace the gear and gear screw to check the backlash.

4-4. To Replace the Gear Bearing

The gear must be removed from the machine, and then the bearing lock (B241) should be unscrewed with the knife key. The bearing (B240) is removed from the gear by tapping it lightly from the opposite side with a small mallet. Care must be taken not to injure the teeth of the gear. When the bearing is removed, clean the inside seat of the gear and lightly oil it. The new gear bearing may be pressed into the gear by lightly tapping its outside rim so as not to damage the balls of the bearing. To make sure that the bear-

ing is seated firmly in the gear, place the old bearing on top of the new one and tap the outside rim of the old bearing to force the new one all the way into the gear. Lock the bearing into position by replacing the gear bearing lock.

4-5. To Replace Motor Bearing

a) Top Housing Ball Bearing (B15 or B154)

Remove the two screws (B12), Cap (B13), and Loading Spring (B14). Unscrew Armature Screw (B13A) by turning clockwise. Loosen the two screws (B43) holding Switch Box (B42). Remove the four Motor Bolts (B31). Lift off Top Housing (B16) from Field (B21) by inserting large screwdriver slightly into the ventilation slots and tapping upwards lightly. Tap bearing out from inside the housing (through hole in Stationary Switch B18). Replace Top Housing onto Field and tighten Motor Bolts. Then put in new bearing by placing old bearing on top of it while tapping it into housing. Rotate old bearing when tapping to prevent harming inner or outer race of new bearing.

b) Bottom Housing Ball Bearing (B15 or B154)

Remove motor from standard by unscrewing the three screws (B219). Pull Pinion (B202) off armature shaft. Unscrew Armature Nut (B30). Take out the four Motor Bolts (B31) and then Bottom Housing (B28). Remove Bearing Lock (B27) with Knife Key, and tap old bearing out. Clean the seat for bearing in Bottom Housing and lightly oil. Replace bearing as described in para. 4-5a and reassemble motor. Tighten Armature Nut securely.

NUMBERS IN PARENTHESIS FOLLOWING PART NAMES ARE KEY NUMBERS FROM PARTS PLATES - NOT PART NUMBERS

H. Maimin Co., Inc.
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 Kent, CT 06757 USA

2/04/00
 Page 1 of 1

**SUPPLEMENT PARTS SHEET FOR MAIMIN
 MODEL 59, SINGLE PHASE ROUND KNIFE MACHINE
 ONLY FOR SERIAL NUMBERS BEGINNING WITH R59-13, R59-23,
 R59-33, OR R59-43 AND ENDING WITH 12532 OR HIGHER**

| Key No. | Part Number | Description |
|---------|-------------|--|
| B13 | 446Q | HOLE PLUG ¾" |
| B14 | 15195 | WAVE WASHER |
| B16 | 365K | STARTING SWITCH |
| | 365L | GASKET – STARTING SWITCH |
| B156 | 15286B | R59 SINGLE PHASE MOTOR ASSEMBLY (DESIGNATE VOLTAGE) |
| B157 | 15286B | R59 SINGLE PHASE MOTOR ASSEMBLY (DESIGNATE VOLTAGE) |
| B202 | 323HA | PINION #9 (FOR 59) |
| | 323HS | PINION SPACER |
| B302 | 323HA | PINION #9 (FOR 59) |
| | 323HS | PINION SPACER |

PARTS NOT ILLUSTRATED

| | |
|------|----------------------------|
| 302P | TOP HANDLE |
| 857N | 8-32 KEPNUT (TOP HANDLE) 2 |

Always give SERIAL NUMBER when ordering parts.
 Order by PART NUMBER not Key Number.

SUPPLEMENT PARTS LIST FOR ALL ROUND KNIFE MACHINES

| <u>Key No.</u> | <u>Part No.</u> | <u>Description</u> |
|----------------|-----------------|-----------------------------------|
| B12 | 802S | Screw, 6 X 3/16 Pan Head |
| B23 | 331S | Screw, 8-32 X 3/8 Round Head |
| B43 | 310B | Screw, 8-32 X 1½ Fillister Head |
| B150 | 802S | Screw, 6 X 3/16 Pan Head |
| B173 | 310B | Screw, 8-32 X 1½ Fillister Head |
| B209 | 336S | Linkage Screw |
| B210 | 464S | Soft Grip Handle Assembly |
| B228 | 436S | Lip Screw |
| | 23007 | Washer |
| B259 | 330L | Stone Assembly, Pair |
| | 330M | Stone with Bushing, Pair |
| B283 | 433A | Spring - Lip |
| B320 | 436S | Lip Screw |
| | 23007 | Washer |
| B324 | 441S | Screw, 6-32 X 5/16 Fillister Head |
| B393 | 433A | Spring - Lip |

PARTS NOT ILLUSTRATED

| | |
|-------|---|
| 464E | Handle Stud, 3/8-24 X 1½ Soc. Set Screw |
| 464NB | Handle Nut, 3/8-24 Hex X 3/4 Lg. |

Always give machine SERIAL NUMBER when ordering parts.
Order by PART NUMBER - not Key Number.

Parts List Supplement
for
Round Knife Machines
with SERIAL NUMBERS containing
11, 21, 31, 41 in second group

Example: RXX-11-XXXXX

| <u>Key No.</u> | <u>Part No.</u> | <u>Description</u> |
|----------------|-----------------|----------------------------------|
| B13 | 446Q | Hole Plug 3/4" |
| B14 | 15195 | Wave Washer |
| B16 | 15292 | Top Housing |
| | 15293 | Cover - Starting Switch |
| | 365K | Starting Switch |
| | 365L | Gasket - Starting Switch |
| B17 | 497P | Support Washer |
| B20 | 15301 | R248 Armature |
| | 15305 | R37 Armature |
| | 15302 | R54 Armature |
| | 15289 | R59 Armature |
| | 15309 | R87 Armature |
| B21 | 15290 | Shell & Field Assembly 120V. |
| | 15303 | Shell & Field Assembly 220V. |
| | 15306 | R37 Shell & Field Assembly 120V. |
| | 15307 | R37 Shell & Field Assembly 220V. |
| B31 | 15295 | Bolt 8-32 X 4 5/8 Lg. Round Hd. |

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**SUPPLEMENT PARTS SHEET FOR MAIMIN
MODEL 59
ONLY FOR SERIAL NUMBERS CONTAINING
12, 22, 32, 42, 82 IN THE SECOND GROUP
Example: R59-XX-12345**

| Key Number | Part Number | Description |
|-----------------------|------------------------|---------------------------------|
| B13 | 446Q | Hole Plug 3/4" |
| B14 | 15195 | Wave Washer |
| B16 | 15292 | Top Housing |
| | 15293 | Cover - Starting Switch |
| | 365K | Starting Switch |
| | 365L | Gasket - Starting Switch |
| B20 | 15361 | R59 Armature |
| B21 | 15290 | Shell & Field Assembly 120V |
| | 15303 | Shell & Field Assembly 220V |
| B31 | 15295 | Bolt 8-32 X 4-5/8 Lg. Round Hd. |
| B202 | 323HA | Pinion #9 (For 59) |
| | 323HS | Pinion Spacer |
| B302 | 323HA | Pinion #9 (For 59) |
| | 323HS | Pinion Spacer |

PARTS NOT ILLUSTRATED

302P
857N

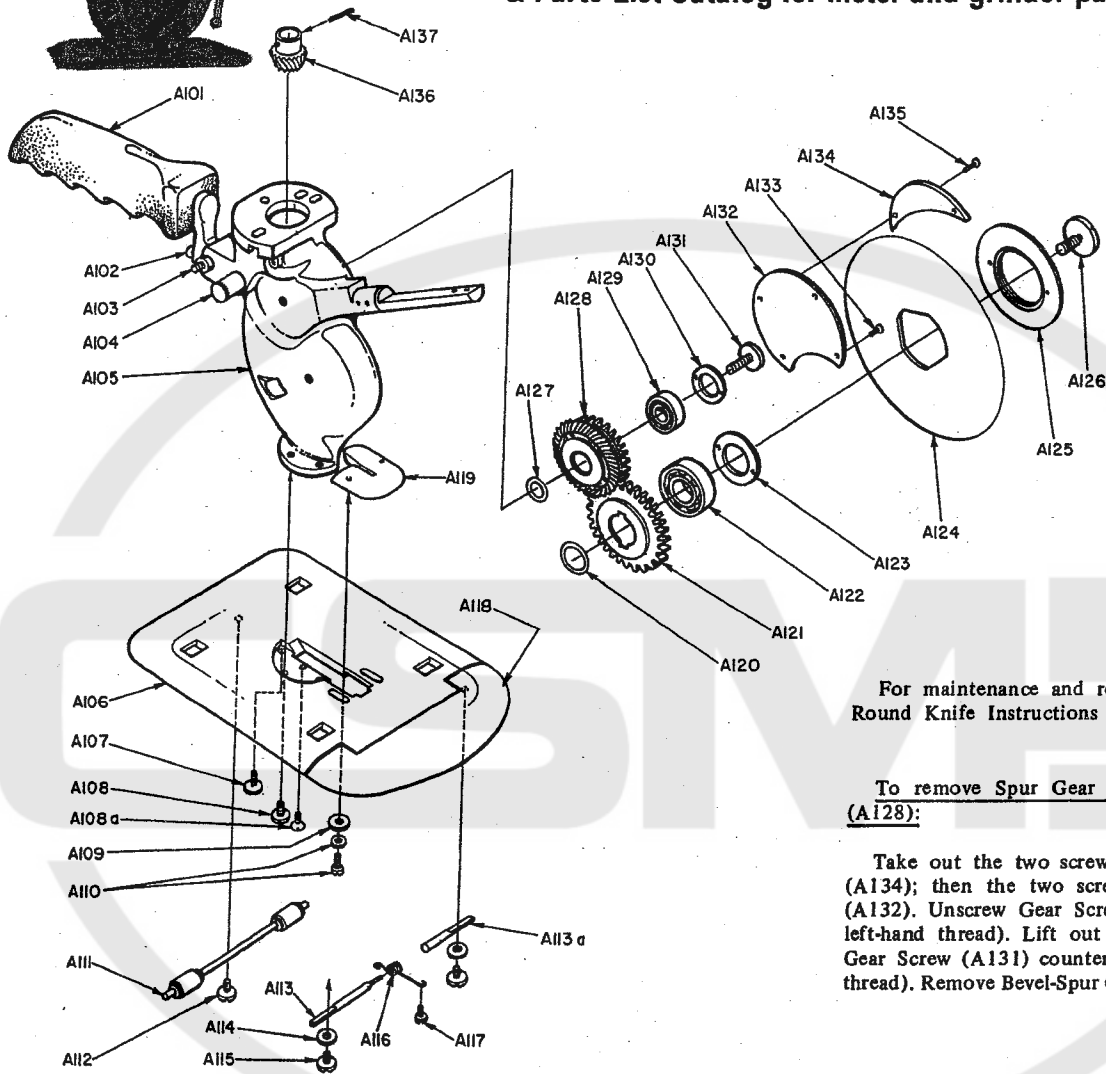
Top Handle
8-32 Kepnut (Top Handle) 2



MAIMIN®

MODEL 37 STANDARD & ROLLER PLATE

(see Maimin Round Knife Instructions
& Parts List Catalog for motor and grinder parts)



For maintenance and repair instructions see Maimin Round Knife Instructions & Parts List Catalog.

To remove Spur Gear (A121) and Bevel-Spur Gear (A128):

Take out the two screws (A135) and Crescent Plate (A134); then the two screws (A133) and Cover Plate (A132). Unscrew Gear Screw (A126) clockwise (it has left-hand thread). Lift out Spur Gear (A121). Unscrew Gear Screw (A131) counter-clockwise (it has right-hand thread). Remove Bevel-Spur Gear (A128).

| KEY NO. | PART NO. | DESCRIPTION | KEY NO. | PART NO. | DESCRIPTION |
|---------|----------|--|---------|----------|--------------------------------|
| A101 | 341D | Offset Handle Assembly | A121 | 354 | Spur Gear with Bearing |
| A102 | 342 | Screw, 8 x 3/4 Oval Hd. | A122 | 320C | Gear Bearing (104) |
| | 518W | Lock Washer | A123 | 321C | Bearing Lock |
| A103 | 510C | Screw, 10 x 3/8 Set | | 321CW | Washer, Bearing Lock |
| | 510B | Nut | A124 | 30311 | Knife - 7" |
| A104 | 311G | Grease Cup | | 30326 | Knife, High Speed Steel - 7" |
| A105 | 356A | Standard for Gliding Grinder - 37 | A125 | 326C | Knife Lock |
| | 388R | Standard for #15 Grinder - 37 | A126 | 322C | Gear Screw (Left Hand Thread) |
| A106 | 337C | XY Roller Plate with Lip and Rollers | A127 | 391A | Trunnion Washer #6 |
| A107 | 340T | Standard Screw, Rear | A128 | 350 | Bevel - Spur Gear with Bearing |
| A108 | 340S | Standard Screw | A129 | 320J | Gear Bearing (200K) |
| A108a | 427 | Screw, 10 x 7/16 Flat Hd. | A130 | 321J | Bearing Lock |
| A109 | 329LW | Washer | A131 | 351 | Gear Screw (Right Hand Thread) |
| A110 | 313S | Screw, Throat Plate | A132 | 352 | Cover Plate |
| | 438W | Washer | A133 | 348S | Screw, 4 x 3/16 Flat Hd. |
| A111 | 339T | XY Roller Shafts with Rollers - Front and Back | A134 | 353 | Crescent Plate |
| A112 | 340 | Screw | A135 | 316S | Screw, 4 x 1/4 Rnd. Hd. |
| A113 | 431A | Shaft for Lip, Long | A136 | 323B | Pinion (#8) |
| A113a | 431B | Shaft for Lip, Short | A137 | 323PA | Pinion Pin |
| A114 | 329LW | Washer | | | |
| A115 | 340 | Screw | | | |
| A116 | 433B | XY Lip Spring | | | |
| A117 | 802S | Screw, 6 x 3/16 Bind. Hd. | | | |
| A118 | 430A | XY Roller Plate Lip | | | |
| A119 | 313K | Throat Plate for 37 | | | |
| A120 | 391G | Trunnion Washer #5 | | | |

PARTS NOT ILLUSTRATED

- 300NA Armature Nut - 37
- 300SA Armature Screw - 37
- 390F Backguard - 37

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**SUPPLEMENT PARTS SHEET FOR MAIMIN
MODEL 87
ONLY FOR SERIAL NUMBERS CONTAINING
13, 23, 33, 43, 83 IN THE SECOND GROUP
Example: R87-XX-12345**

| Key Number | Part Number | Description |
|-----------------------|------------------------|--------------------------|
| B13 | 446Q | Hole Plug 3/4" |
| B14 | 15195 | Wave Washer |
| B16 | 365J | Starting Switch |
| | 365L | Gasket - Starting Switch |
| B21 | 15308B | Motor assembly 120v/220v |
| | 15076 | Capacitor 270mFD |
| | 15084A | Capacitor Cover |
| B202 | 323CA | Pinion #5 (For 87) |
| | 323CS | Pinion Spacer |
| B302 | 323CA | Pinion #5 (For 87) |
| | 323CS | Pinion Spacer |

PARTS NOT ILLUSTRATED

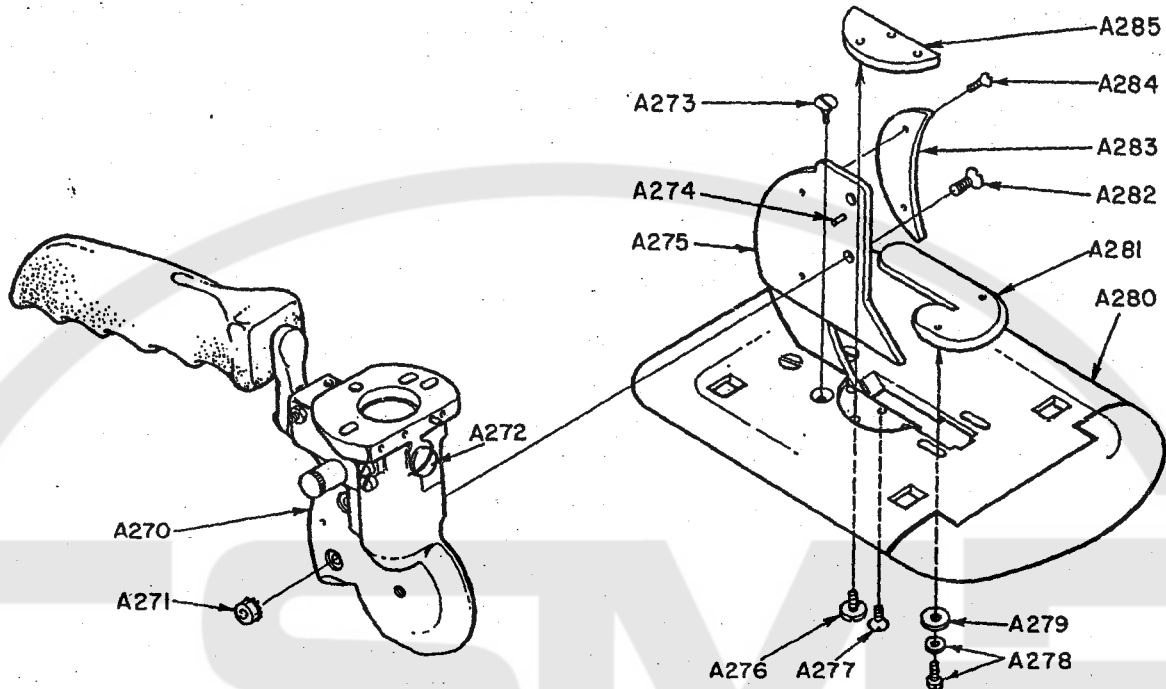
302P
857N

Top Handle
8-32 Kepnut (Top Handle) 2

MALMIN®

SLITTER STANDARD

(see Malmin Round Knife Instructions & Parts List Catalog for all other parts)



| KEY NO. | PART NO. | DESCRIPTION |
|---------|----------|--|
| A270 | 395H | Slitter Standard - 54 (Give Serial No.) |
| | 395HX | Slitter Standard with Support - 54 |
| | 395A | Slitter Standard - 59 (Give Serial No.) |
| | 395AX | Slitter Standard with Support - 59 |
| | 395C | Slitter Standard - 86 (Give Serial No.) |
| | 395CX | Slitter Standard with Support - 86 |
| | 395E | Slitter Standard - 87 (Give Serial No.) |
| | 395EX | Slitter Standard with Support - 87 |
| A271 | 836N | Nut with Lock Washer |
| A272 | 421 | Cap Screw |
| A273 | 427 | Screw, 10 x 7/16 Flat Hd. |
| A274 | 395P | Pin - Support to Standard |
| A275 | 396H | Support for Slitter Standard - 54 |
| | 396A | Support for Slitter Standard - 59 |
| | 396C | Support for Slitter Standard - 86 |
| | 396E | Support for Slitter Standard - 87 |
| A276 | 340S | Standard Screw |
| A277 | 427 | Screw, 10 x 7/16 Flat Hd. |
| A278 | 313S | Screw for Throat Plate |
| | 438W | Washer for Throat Plate |
| A279 | 329LW | Washer |
| A280 | 337D | Rollerplate with Rollers for Slitter (See XY Roller Plate - Plate 3 - for component parts) |
| A281 | 313T | Slitter Throat Plate |
| A282 | 427 | Screw, 10 x 7/16 Flat Hd. |
| A283 | 392H | Backguard, Slitter - 54 |
| | 392A | Backguard, Slitter - 59 |
| | 392C | Backguard, Slitter - 86 |
| | 392E | Backguard, Slitter - 87 |
| A284 | 436T | Screw, 6 x 3/16 Flat Hd. |
| A285 | 397 | Filler Plate |

For maintenance and repair instructions see Malmin Round Knife Instructions & Parts List Catalog.

