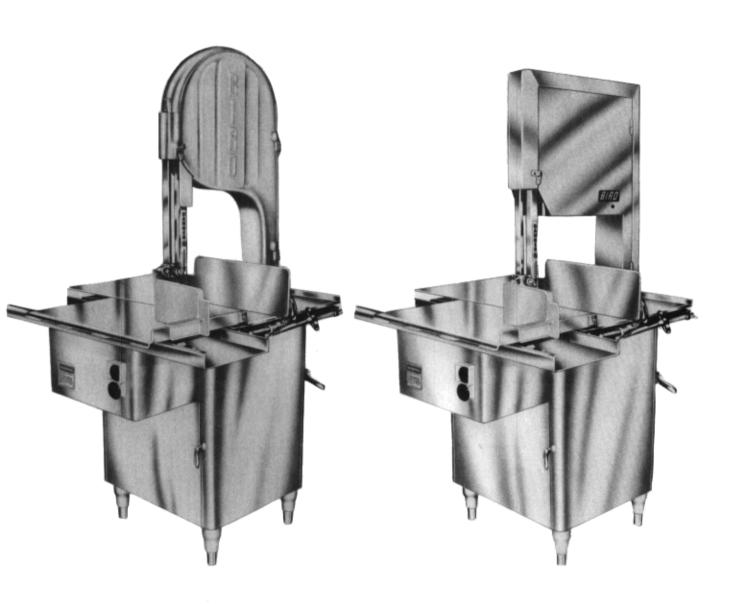


MODEL 3334 POWER MEAT CUTTER OPERATING AND SERVICE MANUAL REVISED — SERIAL No. 1,000 ON



☆ IMPORTANT NOTICE

This Manual contains important safety instructions which must be strictly followed when using this equipment.

公

INSTALLATION



TO AVOID SERIOUS PERSONAL INJURY, PROPERLY INSTALL EQUIPMENT IN ADEQUATE WORK AREA

ALWAYS Use Qualified Technician and Electrician for Installation.

ALWAYS Install Equipment in Work Area with Adequate Light and Space.

ONLY Operate on a Solid, Level, Non-Skid Surface.

NEVER Operate With the Saw Guide Bar with Saw Guard in the Raised Position or the Saw Guard Removed from the Saw Guide Bar.

ALWAYS Adjust Saw Guide Bar with Saw Guard to Within 1/2" of Product to be Cut.

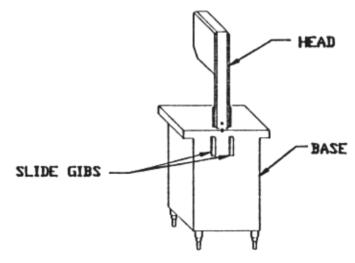
NEVER Operate Without all Warning Labels Attached and Wall Chart Posted.

- Read this Manual thoroughly before installation and operation. Do not proceed with installation and operation if you have any questions or do not understand anything in this Manual. Contact your local Distributor, or BIRO first.
- 2. Install machine on a level, solid, non-skid surface in a well-lighted work area away from children and visitors.



ALWAYS LEVEL MACHINE BEFORE USING

- After installing machine in operational area, it is imperative that the four adjusting legs be adjusted to level the machine and also to eliminate rocking.
- 4. To assemble meat gauge plate (Part No. AS16275) to the machine; Loosen the lock knob (Part No. 272-7) on the right side of meat gauge bracket. Raise the meat gauge gear rack (Part No. 16272AL) and slip the meat gauge plate over the gear rack. Lower the gear rack back to its original position, tighten lock knob. Keep gear rack well oiled with food grade oil to ensure free movement.
- The head structure (Part No. 16005) comes detached from the base. Slip the head into the slide gibs (Part No. 260) located on the back of the base structure. Make sure the slide gibs are oiled or greased to ensure free vertical movement of the head structure.



6. Place removable finger lift with saw guard assembly (Part No. A211) on the saw guide bar (Part No. 116-22) and fasten in place with finger lift fastener knob (Part No. 211A-291Q).



SHARP SAW BLADE. HANDLE WITH EXTREME CAUTION.

- 7. Placing blade on cutter: Hang upper wheel assembly (Part No. A16003U335-6) on the hinge bracket (Part No. 71-1). Lift the nylon filler (Part No. 177). Hang blade on the upper wheel and hold with right hand. With left hand force the back of the blade between the front blade cleaners (Part No. 131), located below the nylon filler. Lower the nylon filler and insert the back of the blade in the upper saw guide (Part No. 602B). The blade has already dropped over the lower wheel. With right hand force the back of the blade between the rear blade cleaners (Part No. 131). The blade is now ready to be tightened. Press down on the ratchet arm (Part No. 10-1) located at the rear of the base structure. Turn the upper wheel slowly by hand to ensure proper tracking of the saw blade on the wheels. Tighten to proper tension. When the tension gauge (Part No. 16197), located at the bottom rear of the head becomes tight laterally the blade is at proper tension.
- The side platter bracket (Part No. S12214B) is packed loose in the machine and must be installed on the left side
 of the base structure with the supplied hardware and checked for proper adjustment. Stationary platter must be
 flat
- The stationary platter (Part No. A16163) is placed on top of the base structure and held in place by two push-pull hold down catches (Part No. 16212), located on the base structure.
- The sliding meat carriage assembly (Part No. A16155) is installed by turning the movable stop assembly (Part No. A16200) clockwise. After the carriage assembly is in the channel for operation, turn the movable stop counter-clockwise to lock.
- 11. Post SAFETY TIPS wall chart within easy view of operator. Keep Manual available to operator.
- Machine MUST be properly grounded. Use qualified electrician to install according to building codes.

WIRING MOTOR

- Interchange of current is made in motor outlet box. Leads are properly marked. Changing instructions are on motor plate or motor outlet box.
- (2) All cutters are wired 220 volts unless otherwise specified. Be sure motor specifications (voltage, cycle, phase) match power supply line. Be sure line voltage is up to specification.
- (3) Connect leads to machine in a manner that will be approved by local electrical inspectors.
- (4) We recommend not less than No. 12 wire. If leads are too light, machine may not have sufficient cutting power and/or speed.
- (5) The V-belt is packed loose in machine to prevent deformation, and must be installed on pulleys at time of wiring motor.
- (6) The BIRO Manufacturing Company is not responsible for permanent wiring, connection or installation.



NOTE TO OWNER AND ELECTRICIAN: IF THIS MACHINE IS NOT CORD AND PLUG CONNECTED TO THE ELECTRICAL SUPPLY SOURCE, THEN IT SHOULD BE EQUIPPED WITH, OR CONNECTED TO, A LOCKABLE, MANUALLY-OPERATED DISCONNECT SWITCH (OSHA 1010.147).



KEEP HANDS CLEAR OF SHARP MOVING BAND TYPE SAW BLADE

- 13. Make sure saw guide bar with saw guard is in its lowest position. Close head and base doors.
- 14. Push start button and check for proper phasing of motor. Blade should be traveling down through saw guide.
- Watch for proper tracking of blade. Back of blade should be centered in hole in saw guide in stationary bar (Part No. 119A). Push stop button to stop machine.
- Check Placement of all warning labels, wall chart and Manual. Machine is ready for trained operators to process product.
- Contact your local Distributor or BIRO directly if you have any questions or problems with the installation or operation of this machine.

WARNING LABELS AND WALL CHART FOR BIRO POWER CUTTERS





DO NOT Use Unless Trained and Authorized By Supervisor And Over 18 Years Old.

Read Operation Manual Thoroughly Before Operating.

ALWAYS Keep Hands Clear of Saw Blade and Other Moving Parts. Turn Off Saw when Finished Cutting.

ALWAYS Keep Blade Guard Adjusted to 1/2" Above the Product being Cut. ALWAYS Use End Cut Pusher Plate When Cutting Smaller Piece of Product.

DO NOT Use Saw if it is Altered,
Damaged, Improperly Maintained, or
If Warnings Are Illegible or Missing.
ALWAYS Disconnect and Unplug from
Main Power Source and Perform
LOCKOUT/TAGOUT Before Cleaning
or Servicing.

#653PC-E





MUCHO CUIDADO



NO Opere Esta Sierra Sin Haber Sido Entrenado Para Ello Ni Tampoco Sin Autorizacion de un Supervisor. Uno Tiene que Haber Cumplido 18 Anos Para Operarla.

LEA Cuidadosamente el Manual de Operacion Antes de Usar Este Equipo.

SIEMPRE Guarde las Manos a Salvo de la Hoja de Serrar y de Otras Partes Moviles. Cirre el Interruptor Despues de Terminar de Cortar.

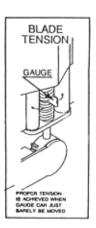
SIEMPRE Tenga Adjustado el Guardasierra Para que Quede a 1/2" Por Encima del Producto que se Corta

SIEMPRE Haga Uso de la Place de Empuje Para Cortes de Extremos al Cortar Trocitos Pequenos. NO Utilice la Sierra si se Halla Alterada, Danadao si No ha Sido Debidamente Mantanido o si la Advertencia es Alegible o si Falta Esta.

SIEMPRE Desconnecte el Equippo Decenchifandolo de la Fuente de Fuerza. Dejelo Bajo Llave o con Etiqueta que Prohiba su Uso Antes de Limpiarlo o Hacer Trabajos de Mantenimento.

#653PC-SP

Item No. 653PC-SP



Item No. 710

ALWAYS
LOWER
GUARD
TO
HEIGHT
OF
PRODUCT

D X P O S E D B L A D

Item No. 708

Item No. 16716

MAINTENANCE



SHARP MOVING BAND TYPE SAW BLADE

TO AVOID SERIOUS PERSONAL INJURY

- ALWAYS Turn Off, Unplug From Power Source and Perform Lockout/Tagout Procedure to This Machine BEFORE Servicing.
- NEVER Touch This Machine Without Training and Authorization by Your Supervisor.
- ALWAYS Keep Hands Clear of Band Type Saw Blade and Other Moving Parts.
- NEVER Bypass, Alter, or Modify This Equipment in Any Way From Its Original Condition.
- PROMPTLY REPLACE Any Worn or Illegible Labels.
- USE ONLY GENUINE BIRO Parts and Accessories Properly Installed.

A. GENERAL

- Machine should be generally inspected every time it is cleaned (at least daily) to ensure that it is in good condition and has not been damaged or tampered with.
 - a. SAW WHEELS: Clean outer diameter grooves daily. Check for cracks, gouges, or wear on flange and grooves.



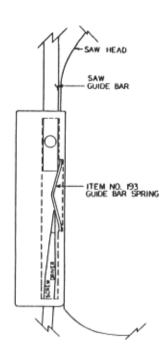
DO NOT IMMERSE UPPER WHEEL ASSEMBLY IN WATER

- WHEEL CLEANER ASSEMBLIES: Check condition of fiber cleaner, change every four (4) weeks. Check condition of tension spring, replace as needed.
- c. REMOVABLE FINGER LIFT ASSEMBLY: Check condition of saw guard, make sure mounting bolts are tight and DANGER EXPOSED BLADE decal is attached and legible. Check condition of upper saw guide (Part No. 602B), replace ever six (six) months. Check adjustment of upper saw guide. Should be 1/32 between back of blade and saw guide carbide.



NEVER USE THIS MACHINE WITHOUT PROPERLY INSTALLED AND FUNCTIONING SAW GUIDE BAR AND SAW GUARD

d. SAW GUIDE BAR: Check condition of bar for coating peeling and wear, replace as necessary. Check saw guide bar spring for proper tension. The spring should hold the bar in any desired position in its travel. Replace saw guide bar spring (Part No. 193) as necessary using instructions on following page.



- 1. Remove the finger lift fastener knob and the fingerlift assembly.
- Remove the finger lift fastener stud.
- 3. Push the saw guide bar up and out of the top of the head structure.
- Remove the saw guide bar spring.
- Clean and lubricate the babbitt pocket area (the square indented area that seats the saw guide bar spring).
- Lower the new saw guide bar spring through the top of the babbitt pocket area and guide the spring into position with a standard screwdrive. (NOTE: Drawing)
- While holding the saw guide bar spring in position, re-enter the saw guide bar from the top compressing the saw guide bar spring slightly until the saw guide bar slides past the spring.
- Replace the finger lift fastener stud, the fingerlift assembly and the finger lift fastener knob.
- 9. Test by making several adjustments.
- e. STATIONARY BAR ASSEMBLY: Check condition of nylon filler (Part No. 177), change every four (4) weeks. Check condition of saw guide (Part No. 119A), check tracking of blade through guide, back of blade should be centered in hole, replace every six (6) months. Check condition of lower blade back-up guide (Part No. 605). Check adjustment of back-up guide, should have 1/32 gap between back of blade and saw guide carbide. Replace every six (6) months.
- f. SAW CLEANERS: Check condition of blade cleaners, replace every four (4) weeks.
- g. RATCHET ASSEMBLY: Check for smooth operation through full range of travel. Check condition of trigger spring, replace as necessary.
- h. SLIDE GIBS: Check that head structure moves freely up and down. Check for side to side and fore to aft slop, adjust as required. Grease every four (4) weeks.
- MEAT GAUGE ASSEMBLY: Check free movement of meat gauge plate on gear rack. Gear rack to be kept lubricated at all times with light food grade oil. Check operation of release handle. Check that worm gear engages properly with gear rack.
- j. MEAT CARRIAGE ASSEMBLY: Check for free movement through full range of travel. Check for side to side slop, adjust as necessary. Check condition of bearings, replace as necessary. Check condition of thumb guard, replace as necessary.
- k. SAFETY ITEMS: Safety end cut pusher plate with machine and accessible. All warning labels present, properly affixed and legible. Model and Serial Number plate properly affixed and legible. Wall poster within operators view from machine. Manual accessible to operator.

B. LUBRICATION

- UPPER WHEEL BEARINGS: Grease every four (4) months. Change grease every twelve (12) months.
- 2. LOWER BEARING HOUSING: Grease every four (4) months. Change grease every twelve (12) months.
- SLIDE GIBS: Grease every four (4) weeks.
- 4. MEAT CARRIAGE BEARINGS: Grease every four (4) weeks.
- SAW GUIDE BAR: Oil daily with food machine oil.
- MEAT GAUGE GEAR RACKS: Oil daily with food machine oil.

C. MOTOR ADJUSTMENT

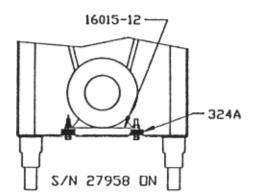
Starting with Serial Number 27958 three (3) phase Model 3334's will no longer be equipped with an adjustable motor base plate, Pat No. 16015-10 and 16015-11. The motor will be bolted to the bottom of the base structure and V-belt tension adjusted utilizing shims.

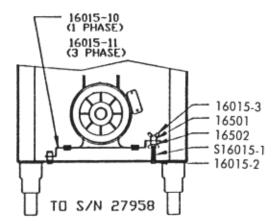
This change has evolved as a result of the market demand for higher blade speeds. The revised mounting procedure will insure a more rigid motor installation creating positive belt alignment and minimizing machine vibration.

The base bottom has been redesigned to accept the frame sizes of the current 3 phase motors. Units prior to Serial Number 27958 can be retrofitted by ordering Part No. 16015-12 motor base plate and template (flat), and 36 pieces Part No. 324A motor shims.

ADJUSTMENTS

- For tightening motor V-belt on rigid base plate, remove appropriate quantity of shims (Part No. 324A) under the motor until the desired total flex of the V-belt is approximately ½".
- 2. For tightening motor V-belt on old style floating adjustable motor mounting plates (Part No. 16015-10 and 16015-11), loosen the upper wing nuts (Part No. 16015-3). Then loosen the bottom wing nuts (Part No. 16015-3) which are located under the mounting plate. This enables the motor mounting plate to drop to the desired belt tension. Retighten the upper wing nuts evenly so that the motor stays horizontal. Do not tighten belt to extremes. This will cause undue pressure on and premature failure of the motor bearings.





D. SAW GUIDE BAR AND SAW GUARD

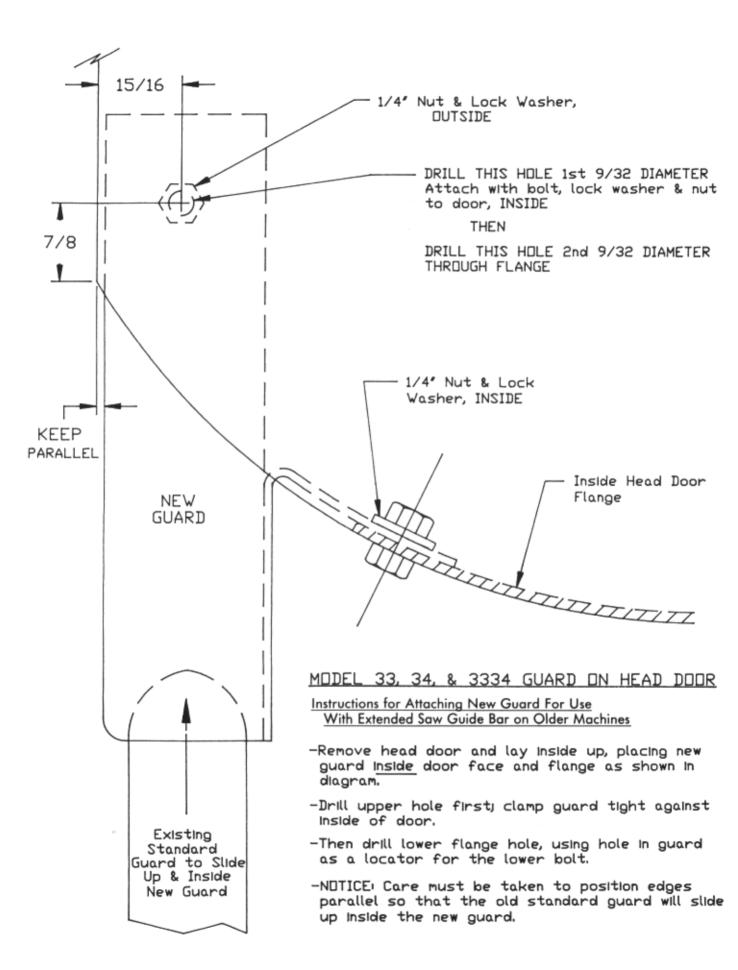
The factory recommends that when service is performed on any BIRO SAW the servicing agency be sure that the BIRO SAW is equipped with the most current safety features available.

In September 1969 production of the Model 3334 began and is current. The Model 3334 was first equipped with 19" saw guide bar until March 1973 when the length was extended to 23". In June 1977, the bar was shortened to 22" and is used in current production.

The same saw guard (Part No. 255) on saw guide bar used on the Models 33 and 34 was carried over to the Model 3334 and used in production until June 1975.

Part No. 663 Saw Guard on saw guide bar replaced Part No. 255 in June 1976 starting with Serial No. 12242. At the same time, the Part No. 661 Guard on head Door introduced in 1974 was replaced by Part No. 661-1 Guard on Head Door. Both Part No. 663 and 661-1 are current production today.

The factory recommends that all Model 3334's prior to Serial No. 12242 be updated by installing the current SAW GUIDE BAR ASSEMBLY (Part No. A116-22) and SAW GUARD ON HEAD DOOR (Part No. 661-1).



CLEANING



SHARP MOVING BAND TYPE SAW BLADE

TO AVOID SERIOUS PERSONAL INJURY

ALWAYS Turn Off, Unplug From Power Source and Perform Lockout/Tagout Procedure to This Machine **BEFORE** Cleaning or Servicing.

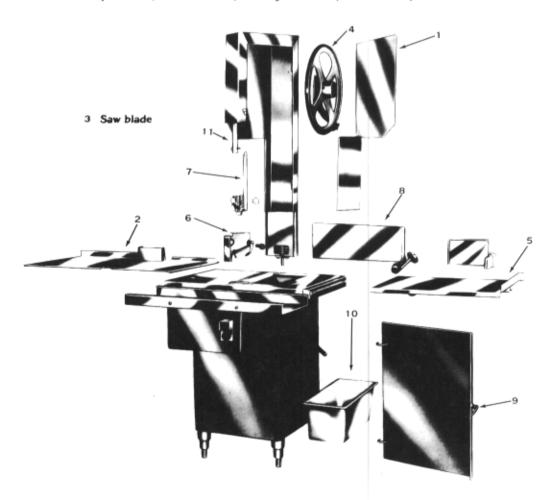
ONLY Use Recommended Cleaning Equipment, Materials and Procedures.

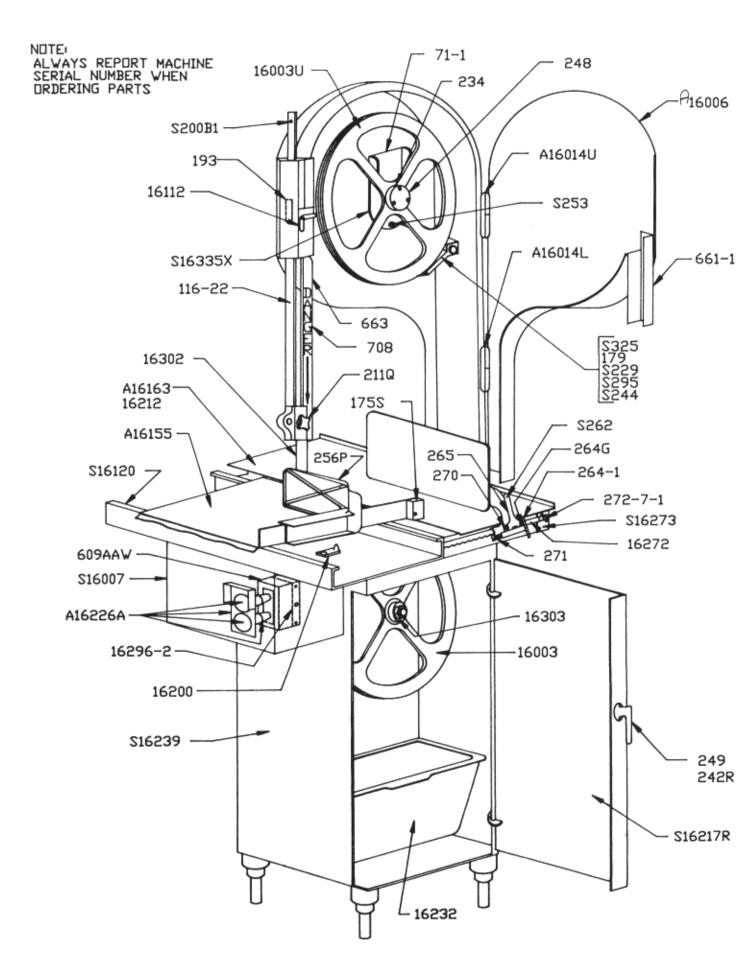
NEVER Spray Water or Other Liquid Substances Directly at Motor, Power Switch or any Other Electrical Components.

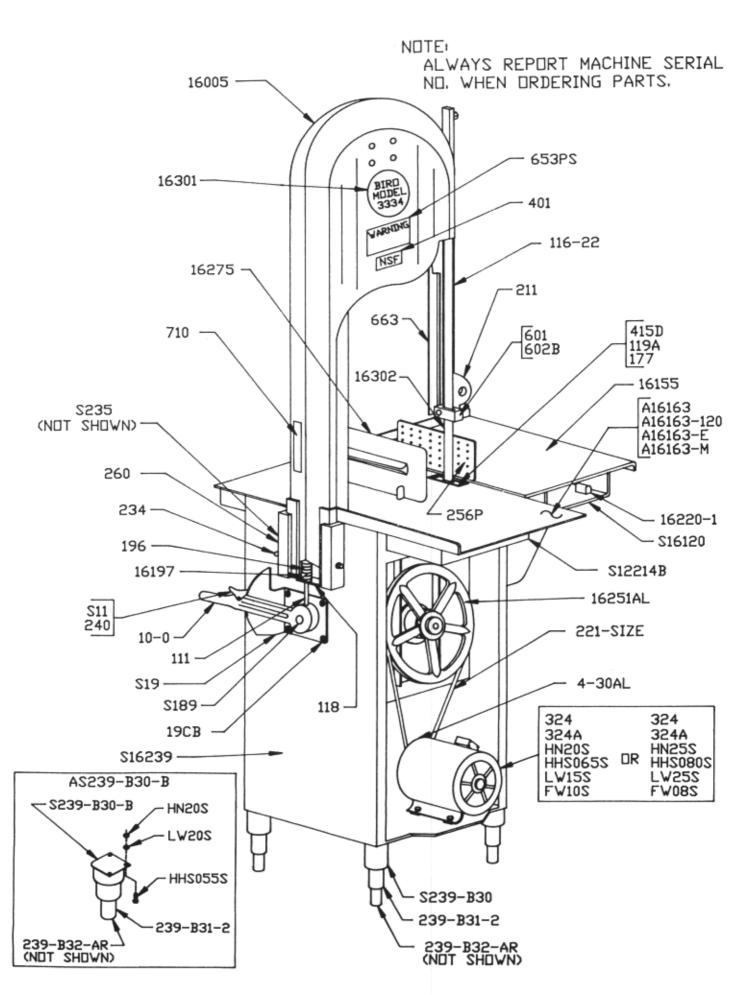
ALWAYS Thoroughly Clean Equipment at Least Daily.

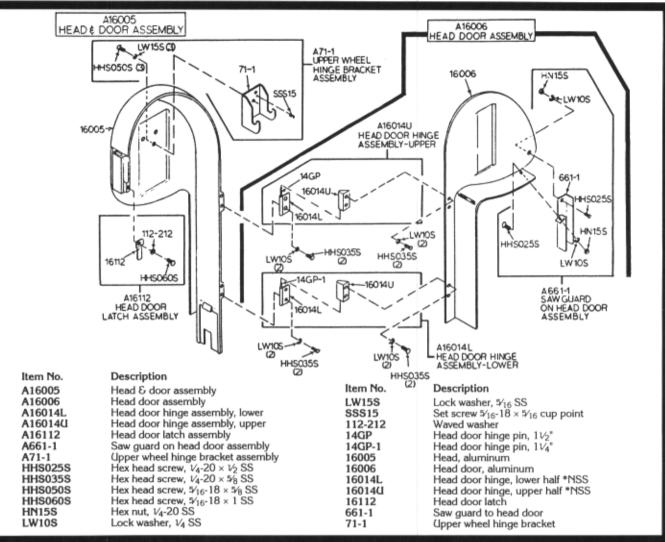
CLEANING THE BIRO POWER CUTTER:

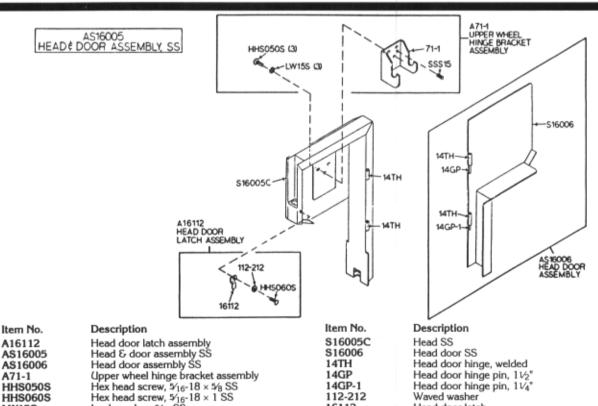
Disconnect electrical power to the machine before cleaning. Parts to be removed have been made accessible and can be removed without tools. Notice in the drawing below that all parts are numbered. Each part should be removed for cleaning in the numbered sequence shown. To ensure cleaner cuts, keep the cleaning system in good condition. Parts on the cleaning system which should be checked weekly, and changed as required are as follows: Wheel Cleaners (Part No. 179), Saw Cleaners (Part No. 131), Saw Guide in Stationary Bar (Part No. 119A), Upper Saw Guide (Part No. 602B), Lower Blade Back-Up Guide (Part No. S608) and Nylon Filler (Part No. 177).











112-212

16112

71-1

Waved washer

Head door latch

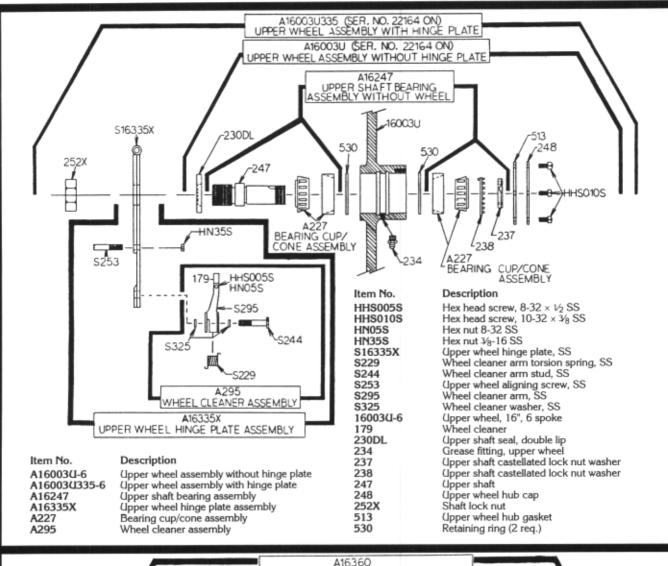
Upper wheel hinge bracket

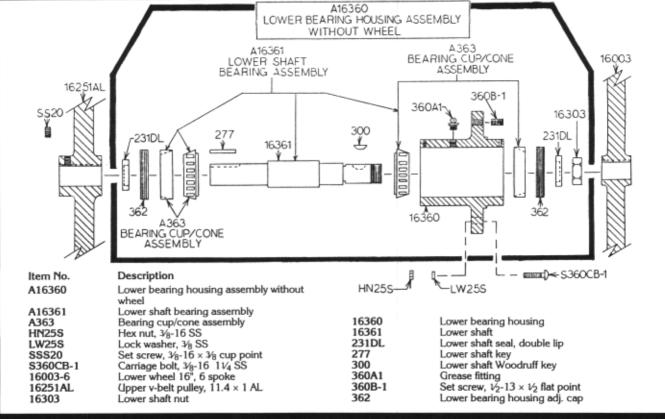
HHS060S

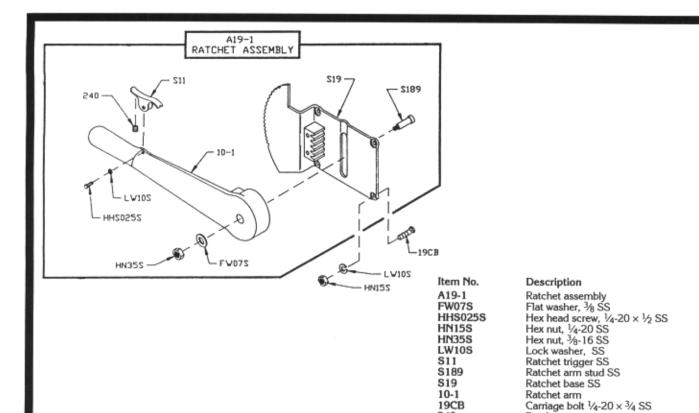
LW158 SSS15

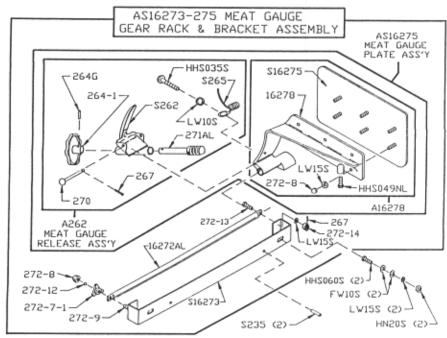
Lock washer, 5/16 SS

Set screw \$\frac{1}{16}-18 \times \frac{1}{16} \text{ cup point}





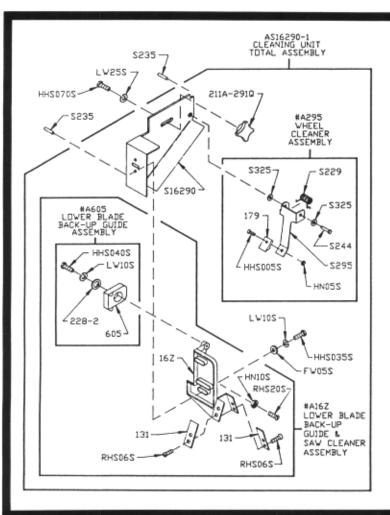




19CB 240

Ratchet trigger spring

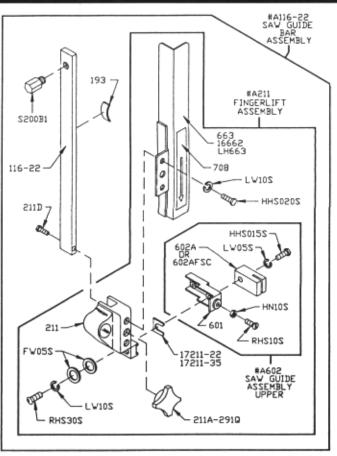
Item No.	Description	Item No.	Description
A16278	Meat gauge plate assembly less release	S235	Taper pin, 4 × 3/4, SS
	assembly	S262	Meat gauge release handle, SS
A262	Meat gauge release assembly	16272AL	Meat gauge gear rack, aluminum
AS16273-275	Meat gauge assembly	16278	Meat gauge arm
AS16275	Meat gauge plate assembly with release	264G	Meat gauge hand wheel groove pin
	assembly	264-1	Meat gauge hand wheel
FW10S	Flat washer, 5/16, SS	265	Meat gauge release spring
HHS049NL	Hex head screw, 5/16-18 × 1/2, nylon	267	Meat gauge release cotter key
HHS060S	Hex head screw, 5/16-18 × 1, SS	270	Meat gauge release pin
HN20S	Hex nut, 5/16-18, SS	271	Meat gauge worm gear, aluminum
LW10S	Lock washer, 1/4, SS	272-7-1	Lock knob, 5/16-18, 3 point
LW15S	Lock washer, 5/16, SS	272-8	Cap nut, 5/16-18 SS
RHS25S	Round head screw, 1/4-20 × 3/4 SS	272-9	Hex bolt, 5/16-18 × 2 SS
S16273	Meat gauge bracket, SS	272-13	Hex head screw, 5/16-18 × 11/4, SS
S16275	Meat gauge plate, SS	272-14	Castellated nut, 5/16-18, SS



Item No. Description A16Z Guide bracket saw cleaner assembly A295 Wheel cleaner assembly A605 Lower blade back-up guide assembly AS16290 Cleaning unit stamping assembly Cleaning unit total assembly Flat washer, V_4 SS AS16290-1 FW058 HHS003S Trimmed hex head screw 8-32 \times V_4 , SS HHS005S Hex head screw, $8-32 \times 1/2$ SS HHS035S Hex head screw, V₄-20 × 5/8 SS **HHS040S** Hex head screw, V₄-20 × 3/4 SS **HHS070S** Hex head screw, $3/8-16 \times 1$ SS **HN058** Hex nut, 8-32 SS Hex nut, 10-32 SS HN10S LW10S Lock washer, V4 SS LW25S Lock washer, 3/8 SS RHS20S Round head screw, 10-32 × 11/8 SS S16290 Cleaning unit stamping, SS S229 Wheel cleaner arm torsion spring SS S235 Taper pin $4 \times 3/4$, SS S244 Wheel cleaner arm stud SS S295 Wheel cleaner arm SS S325 Wheel cleaner washer SS 131 Saw cleaner SS Lower guide bracket saw cleaner holder 16Z 179 Wheel cleaner 211A-291Q Fastener knob, 4 point 228-2 Lower guide washer

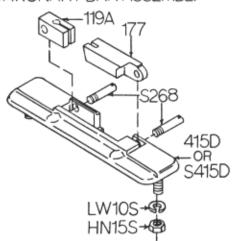
Saw guide lower blade back-up

Item No. Description A116-22 Saw guide bar assembly 22" Finger lift assembly, removable A211 A602 Saw guide assembly, upper FW05S Flat washer, 1/4 SS HHS015S Hex head screw, 10-32 × 1/8 SS HHS020S Hex head screw, V₄-20 × 3/8 SS HN10S Hex nut, 10-32 SS Saw guard for true left head LH663 LW05S Lock washer, #10 SS LS10S Lock washer, 1/4 SS RHS10S Round head screw, 10-32 × 3/4 SS Round head screw, V₄-20 × V₈ SS RHS30S S200B1 Stop stud on guide bar Saw guide bar, 22" 116-22 16662 Saw guard for SS head 17211-22 Finger lift, shim, .022 17211-35 Finger lift, shim .035 Saw guide bar spring 193 211 Finger lift bracket 211A-291Q Fastener knob, 4 point 211D Finger lift fastener bolt 601 Upper saw guide bracket Upper saw guide with carbide 602B Upper saw guide, narrow, fish Saw guard for aluminum head Decal "DANGER EXPOSED BLADE" 602AFSC 663 708



605

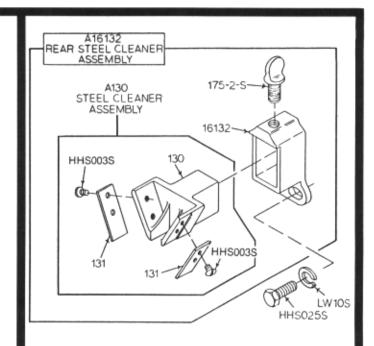
A415D OR AS415D STATIONARY BAR ASSEMBLY



Item No. A415D AS415D HN158 LW10S S268 S415D 119A 177 415D

Description

Stationary bar assembly Stationary bar assembly SS Hex nut V₄-20 SS Lock washer, V₄ SS Stationary bar headless screw Stationary bar SS Saw guide in stationary bar Nylon filler Stationary bar

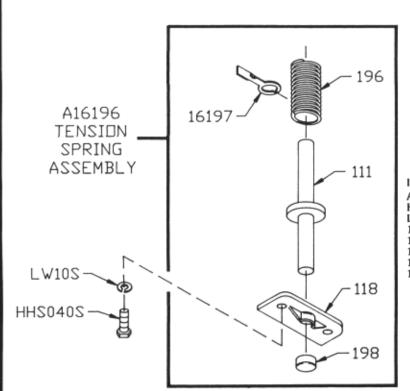


Item No. A130 A16132 **HHS003S** HHS025S LW10S 130

131 16132 175-2-S

Description

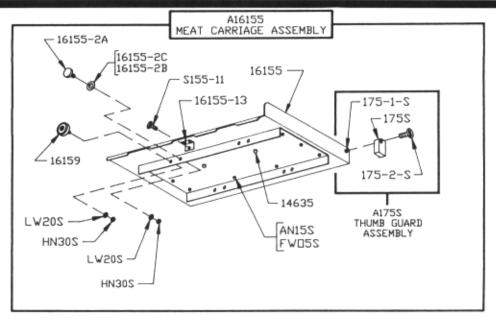
Saw cleaner assembly Steel cleaner assembly, rear Trimmed hex head screw 8-32 × V₄, SS Hex head screw, V₄-20 × V₂ SS Lock washer, V₄ SS Saw cleaner bracket rear Saw cleaner SS Saw cleaner bracket holder, rear Thumb screw, V_4 -20 × V_2



Item No. A16196 **HHS040S** LW10S 118 16197 196 198

Description

Tension spring assembly Hex head screw, V₄-20 × 3/₄ SS Lock washer, V₄ SS Tension spring pin Tension spring plate Tension spring gauge Saw tension spring Cap, for tension pin

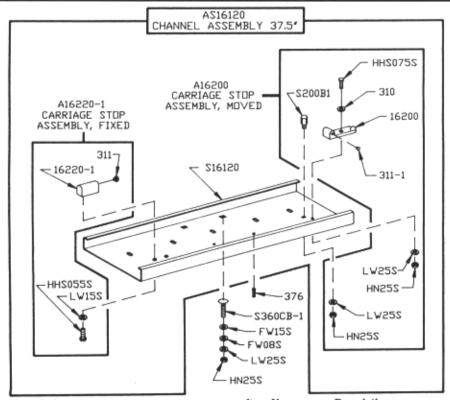


Item No. A16155 A1758 FW05S AN15S HN30S LW20S S155-11 16155

Description
Meat carriage assembly complete
Thumb guard assembly
Flat washer, V₄ SS
Acorn nut, V₄-20 SS
Hex nut, 3/₈-16 light jam SS
Lock washer 3/₈ regular SS
Meat carriage stop thumb screw
Meat carriage top & angle only

Item No. 16155-2A 16155-2B 16155-2C 16155-13 16159 175-8 175-1-S 175-2-S Description

Meat carriage guide Meat carriage guide spacer, $V_{64}TK$ Meat carriage guide spacer, $V_{32}TK$ Carriage stop angle SS, welded Meat carriage bearing SS Thumb guard,nylon Thumb guard nut SS Thumb screw V_{4} -20 × V_{2}



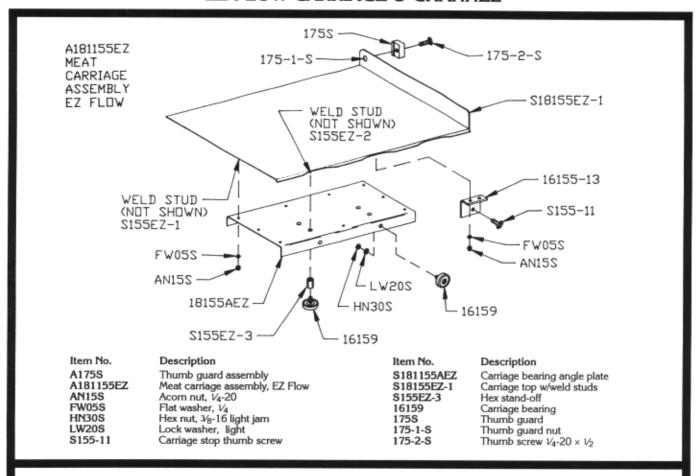
Item No. A16200 A16220-1 AS16120 FW08S FW15S HHS075S HN20S HN25S LW15S LW15S LW25S Description
Carriage stop assembly, movable
Carriage stop assembly, fixed
Channel assembly, 37° Flat washer, $\frac{1}{2}$ SS
Flat washer, $\frac{1}{2}$ SS
Hex head screw, $\frac{1}{2}$ 8-16 × $1\frac{1}{4}$ SS
Hex nut, $\frac{1}{2}$ 1-6 SS
Lock washer, $\frac{1}{2}$ 6 SS
Lock washer, $\frac{1}{2}$ 6 SS
Lock washer, $\frac{1}{2}$ 6 SS

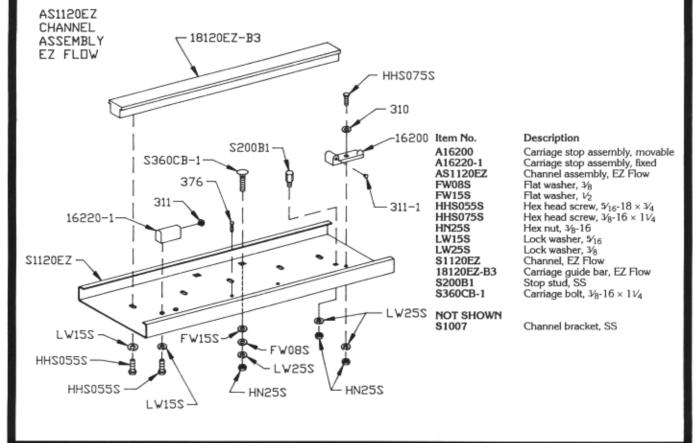
Item No. S16120 S200B1 S360CB-1 16200 16220-1 310 311 311-1

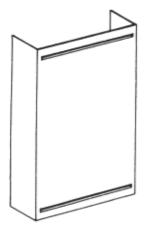
376

Description
Channel, 37" SS
Carriage stop stud SS
Carriage bolt, 3/8-16 × 11/4 SS
Carriage stop, movable
Carriage stop, fixed
Waved washer
Rubber bumper, fixed stop
Rubber bumper, movable stop
Drive screw 10 × 1/2 SS

MODEL 3334, SERIES 4003 EZ FLOW CARRIAGE & CHANNEL



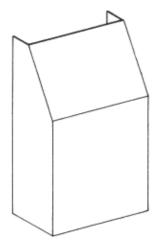




S16217L Base Door Left, SS

USE WITH

Motor	Model	
Mfg.	No.	Specifications
Doerr	XR72927	11/2HP, 220/440-50/60-3 open
Doerr	R72929	2HP, 220/440-50/60-3 open
U.S. Motor	G54313	2HP, 220/440-50/60-3 open
Doerr	73020	2HP, 550-60-3 open
U.S. Motor	G57016	2HP, 550-60-3 open



S16217LTP Base Door, Left Tapered Panel, SS

Wheel Lower bearing cup/cone assembly Hex nut 3/8-16, carbon-plated Lock washer, 3/8 heavy Carriage bolt, 3/8-16 × 11/4 Set screw, 10-24 × 3/8 Grease seal

Retaining ring, internal

Item No.

A16547

A363

HN25

LW25S

S360CB-1

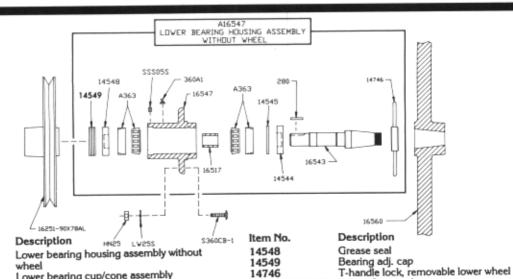
SSS05S

14544

14545

USE WITH

Motor	Model	
Mfg.	No.	Specifications
Doerr	73032	11/2HP, 115/230-50-1 open
U.S. Motor	G57347	11/2HP, 115/230-50-1 open
Doerr	72933	11/2HP, 115/230-60-1 open
Baldor	L3605	2HP, 115/230-60-1 TE
Baldor	L3605-50	2HP, 115/230-50-1 TE
Baldor	L1322T	2HP, 115/230-60-1 open
Doerr	67385	2HP, 208/220/440-50/60-3 TE
Baldor	M3558T-5	2HP, 550-60-3 TE
Baldor	M3558T-50	2HP, 220/380/415-50-3 TE
Baldor	M3558T-8	2HP, 200-60-3 TE
Doerr	72540	3HP, 220/440-50/60-3 TE
Doerr	75425	3HP, 220/440-50/60-3 TE
U.S. Motor	G57011	3HP, 220/440-50/60-3 TE
Baldor	M3611	3HP, 220/440-50/60-3 TE
Baldor	M3611T-50	3HP, 220/380/440-50-3 TE
Baldor	M3611T-8	3HP, 200-60-3 TE
Doerr	73031	5HP, 220/440-50/60-3 TE
Doerr	A907	5HP, 220/440-50/60-3 TE
2001		



14746

16517

16543 16547

280

16560-6

16251-90X78AL

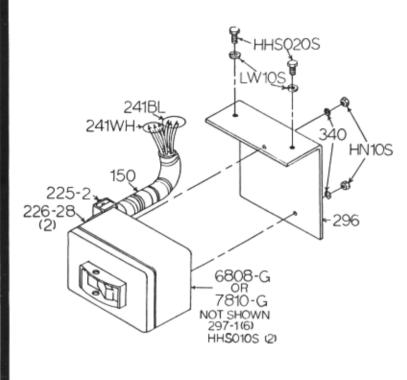
Pulley, 9 × 7/8, al.

Inner race spacer

Lower shaft, remov. wheel

Lower bearing housing lower wheel, 16*, 6 spoke removable Lower shaft key

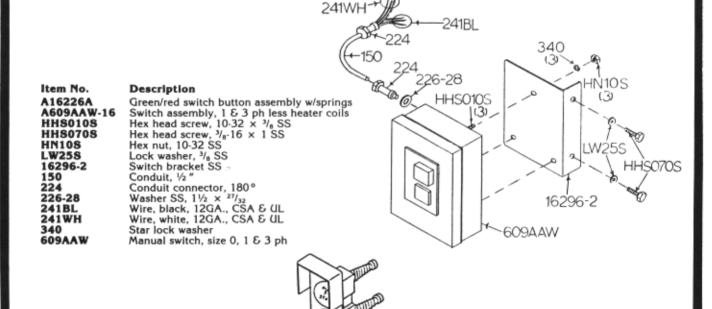
A6808-G-16 TOGGLE SWITCH ASSEMBLY 1 PHASE OR A7810-G-16 TOGGLE SWITCH ASSEMBLY 3PHASE



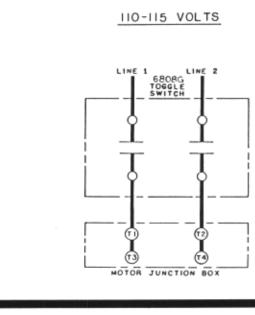
Item No.
A6808-G-16
A7810-G-16
HHS020S
HN10S
LW10S
150
225-2
226-28
241BL
241WH
296
297-1
340
6808-G
7810-G

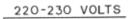
Description
Toggle switch assembly, 1PH
Toggle switch assembly, 3PH
Hex head screw, ¼-20 × ³/₈ SS
Hex nut, 10-32 SS
Lock washer, ¼ SS
Condiut, ½"
Conduit connector, 45°
Washer SS, 1½ × ²²/₃₂
Wire, black, 12GA., CSA & UL
Wire, white, 12GA., CSA & UL
Switch bracket SS
Wire terminal eyelet
Star lock washer
Toggle switch, 1 phase
Toggle switch, 3 phase

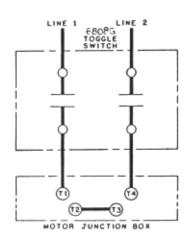
A609AAW-16 SWITCH ASSEMBLY

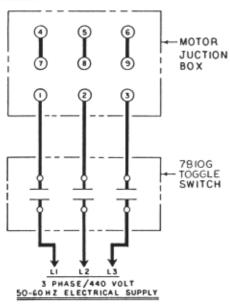


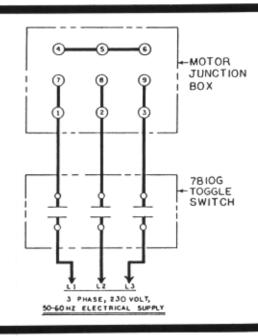
A16226A



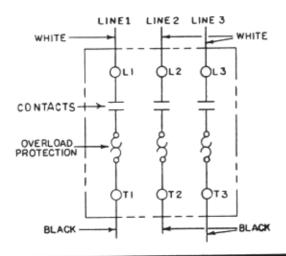






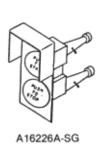


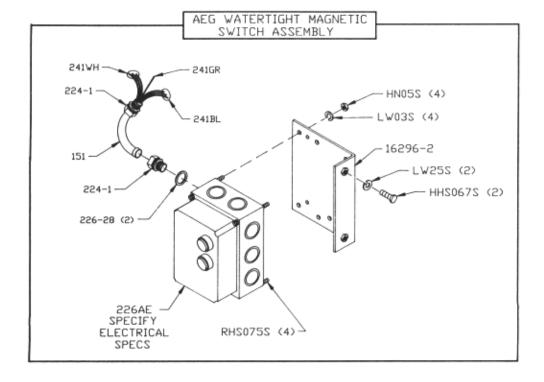
609AAW



WATERTIGHT MAGNETIC SWITCH ASSEMBLIES (AEG) INCLUDES MOUNTING BRACKET AND WIRES

Item No.	Description	Item No.	Description
A22616AE-506	BAEG/PC-PB/C6, 11/2HP,	A22616AE-526	BAEG/PC-PB/C17, 2HP, 230-60-1
	208/220/230-50/60-3	A22616AE-530	BAEG/PC-PB/F2.8, 2HP, 550-60-3
A22616AE-514	BAEG/PC-PB/C8, 2HP,	A22616AE-534	BAEG/PC-PB/E6, 3HP, 440/460-60-3
	208/220/230-50/60-3	A22616AE-536	BAEG/PC-PB/D8, 3HP, 380/415-50-3
A22616AE-516	BAEG/PC-PB/E4, 11/2HP, 440/460-3	A22616AE-538	BAEG/PC-PB/F4, 3HP, 550-60-3
A22616AE-518	BAEG/PC-PB/D6, 11/2HP, 380/415-50-3;	A22616AE-540	BAEG/PC-PB/C23, 5HP,
	2HP, 380/415-50-3		208/220/230-50/60-3
A22616AE-520	BAEG/PC-PB/A23, 11/5HP, 104/115-50/60-1	A22616AE-543	BAEG/PC-PB/E8, 5HP, 440-60-3
A22616AE-522	BAEG/PC-PB/C12, 11/2HP & 3HP,	A22616AE-546	BAEG/PC-PB/D12, 5HP, 380/415-50-3
	208/220/230-50/60-1	A22616AE-548	BAEG/PC-PB/F8, 5HP, 550-60-3
A22616AE-524	BAEG/PC-PB/A32, 2HP, 115-60-1		,,,,,





Model 3334 Schematic Using 3PH AEG W.T. Magnetic Switch for 115 Volts, Single Phase, 60 Cycle Baldor Motor

To Eliminate Breaking Effect of Motor After Stop is Engaged

TD Interchange Leads 5 & 8

LINE

TO HOTOR (13)

LINE

Model 3334 Schematic Using 3PH AEG W.T. Magnetic Switch for 230 Volts, Single Phase, 60 Cycle Baldor Motor

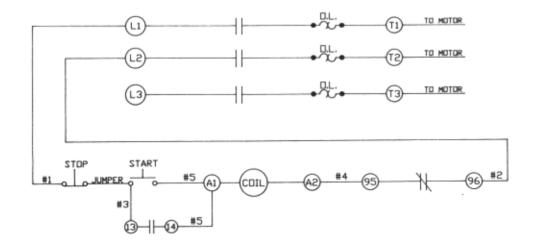
To Eliminate Breaking Effect of Motor After Stop is Engaged

*To Reverse Rotation Interchange Leads 5 & 8

LINE

LI

Model 3334 Schematic Using 3PH AEG W.T. Magnetic Switch for 220/440 Volts, Three Phase, 60 Cycle Baldor Motor To Eliminate Breaking Effect of Motor After Stop is Engaged



WARNING LABEL LOCATIONS ON MACHINE



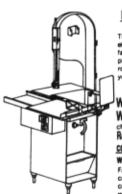
ATTACHED TO SAW GUARD ON SAW GUIDE BAR

P/N 708 "DANGER EXPOSED" BLADE" DECAL



"This saw has been equipped with a "REMOVABLE" lower wheel **

ATTENTION: ELECTRICIAN / SERVICE TECHNICIAN ** READ FIRST BEFORE STARTING POWER CUTTER **



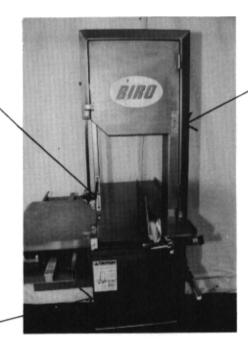
IMPORTANT

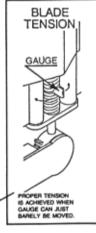
This saw has been electrically tested at the factory, but electrical phasing for proper rotation may not match your electrical supply.

WITH LOWER SAW WHEEL REMOVED, Rotation must be counterclockwise when facing shaft. Failure to confirm correct rotation could result in the wheel dislodging.

RIGHT BASE DOOR

P/N 16716 CAUTION LABEL USE ON MACHINES WITH REMOVABLE LOWER WHEEL





P/N 710 "BLADE TENSION" DECAL ATTACH TO HEAD DOOR AS SHOWN

ATTACH TO HINGED

WARNING LABEL LOCATIONS ON MACHINE



WARNING



DO NOT Use Unless Trained and Authorized By Supervisor And Over 18 Years Old.

Read Operation Manual Thoroughly Before Operating.

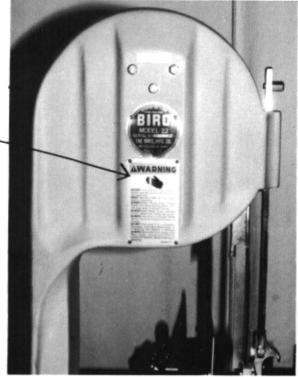
ALWAYS Keep Hands Clear of Saw Blade and Other Moving Parts. Turn Off Saw when Finished Cutting.

ALWAYS Keep Blade Guard Adjusted to 1/2" Above the Product being Cut. ALWAYS Use End Cut Pusher Plate When Cutting Smaller Piece of Product.

DO NOT Use Saw if it is Altered,
Damaged, Improperly Maintained, or
If Warnings Are Illegible or Missing.
ALWAYS Disconnect and Unplug from
Main Power Source and Perform
LOCKOUT/TAGOUT Before Cleaning
or Servicing.

#653PC-E

Item No. 653PC-E



ATTACH ON HEAD STRUCTURE BELOW MODEL/SERIAL NUMBER TAG



MUCHO CUIDADO



NO Opere Esta Sierra Sin Haber Sido Entrenado Para Ello Ni Tampoco Sin Autorizacion de un Supervisor. Uno Tiene que Haber Cumplido 18 Anos Para Operarla.

LEA Cuidadosamente el Manual de Operacion Antes de Usar Este Equipo.

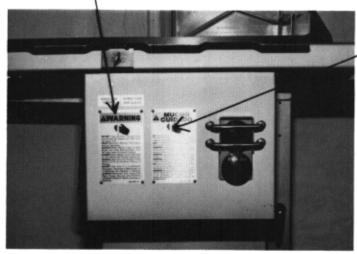
SIEMPRE Guarde las Manos a Salvo de la Hoja de Serrar y de Otras Partes Moviles. Cirre el Interruptor Despues de Terminar de Cortar.

SIEMPRE Tenga Adjustado el Guardasierra Para que Quede a 1/2" Por Encima del Producto que se Corta.

SIEMPRE Haga Uso de la Place de Empuje Para Cortes de Extremos al Cortar Trocitos Pequenos.

NO Utilice la Sierra si se Halla Alterada, Danadao si No ha Sido Debidamente Mantanido o si la Advertencia es Alegible o si Falta Esta.

SIEMPRE Desconnecte el Equippo Decenchifandolo de la Fuente de Fuerza. Dejelo Bajo Llave o con Etiqueta que Prohiba su Uso Antes de Limpiarlo o Hacer Trabajos de Mantenimento.



ATTACHED TO CHANNEL BRACKET NEXT TO SWITCH CONTROL BUTTONS

#653PC-SP

MODEL 3334 PARTS NUMBERS AND DESCRIPTIONS SEND IN MODEL NO. AND SERIAL NO. WHEN ORDERING PARTS

Item No.	Description	Item No.	Description
AN15S	Acorn nut, V ₄ -20, SS	S360CB-1	Carriage bit 3/8-16 × 1√4 SS
FW058	Flat washer, V ₄ , SS	S415D	Stainless stationary bar
FW07S FW08S	Flat washer, 3/8, SS Falt washer,3/8 ID × 1OD, SS	S416 SSS05S	Platter locator weld pin, SS Set screw 10.24 x 36 cup point SS
FW10S	Flat washer, \$\frac{5}{16}, SS	SSS15	Set screw, 10-24 × 3/8, cup point, SS Set screw, cup point, 5/16-18 × 5/16
FW158	Flat washer, 1/2, SS	SSS20	Set screw, cup point, 3/8-16 × 3/8
HHS003S	Trimmed hex head screw, 8/32 × 1/4, SS	10-1	Ratchet arm
HHS005S	Hex head screw, 10-32 × 3/8, SS	111	Tension spring pin
HHS010S	Hex head screw, 8/32 × 1/2, SS	112-212 116-22	Waved washer, 21/64 ID, 5/8 OD
HHS015S HHS020S	Hex head screw, $10-32 \times \frac{7}{8}$, SS Hex head screw, $\frac{1}{4}-20 \times \frac{3}{8}$, SS	118	Saw guide bar 22 inch Tension spring plate
HHS025S	Hex head screw, 1/4-20 × 1/2, SS	119A	Saw guide stationary bar
HHS035S	Hex head screw, 1/4-20 × 5/8, SS	119AFSC	Saw guide stationary bar fish
HHS040S	Hex head screw, 1/4-20 × 3/4, SS	130	Saw cleaner bracket, rear
HHS049NL	Hex head screw, 5/16-18 × 1/2, nylon	131 14362	Saw cleaner SS Bearing adj. cap
HHS050S HHS055S	Hex head screw, 5_{16} - $18 \times 5_{8}$, SS Hex head screw, 5_{16} - $18 \times 3_{4}$, SS	14544	Grease seal
HHS060S	Hex head screw, 5/16-18 × 1, SS	14545	Ret. ring, internal
HHS070S	Hex head screw, 3/8-16 × 1, SS	14548	Grease seal
HHS075S	Hex head screw, 3/8-16 × 11/4, SS	14746	T-handle lock, removable lower wheel
HN05S HN10S	Hex nut, 8-32, SS Hex nut, 10-32, SS	14GP 14GP-1	Head door hinge pin long 11/2 Head door hinge pin short 11/4
HN158	Hex nut, 1/4-20, SS	14TH	Head door hinge
HN20S	Hex nut, 5/16-18, SS	16Z	Lower gde brkt saw clnr holder
HN25	Hex nut, 3/8 × 16	16001	Upper main bearing spacer
HN25S	Hex nut, 3/8-16, SS	16003-6	Lower saw wheel 16 inch, 6 spoke
HN30S HN35S	Hex nut, ⅓-16, light jam, SS Hex nut, ⅙-16, SS	16003U-6 16005	Upper saw wheel 16 inch, 6 spoke Head, aluminum
LH663	Left hand saw guard	16005-1	Ratchet shield on head
LW05S	Lock washer, #10, SS	16006	Head door (use A16006)
LW108	Lock washer, √4, SS	16015-10	Motor base plate, 1 ph
LW15S	Lock washer, \$\sqrt{16}, SS	16015-11	Mtr bseplt, spec. TE FRM145T, SS
LW20S LW25S	Lock washer, 3/6, regular, SS Lock washer, 3/6, SS	16015-12 16015-2	Motor base plate, spec. Norway Motor base plate stud nut
M55-G54313-U	Motor, 2HP 208/220/440-50/60-3, open	16015-3	Motor base plate wing nut
M61-73020-D	Motor, 2HP, 550-60-3, open	16015-4	Motor base plate lock washer
M65-L3605-B	Motor, 2HP, 115/230-60-1, TE	16112	Head door latch
M66-L1322T-B	Motor, 2HP, 115/230-60-1, open	16132	Saw cleaner brkt holder rear
M68-67385-D M701-G57011-U	Motor, 2HP, 208/220/440-50/60-3, TE Motor, 3HP, 208/220/230/440-50/60-3, TE	16154 16155	Table extension, SS Meat carriage top & angle
M73-A907-D	Motor, 5HP, 208/220/440-50/60-3, TE	16155-13	Carriage stop angle SS
RHS20S	Round head screw, 10-32 × 11/8, SS	16155-2A	Meat carriage guide
RHS10S	Round head screw, 10-32 × 3/4, SS	16155-2B	Meat carriage guide spacer V ₆₄
RHS25S RHS30S	Round head screw, V ₄ -20 × 3/ ₄ , SS	16155-2C 16159	Meat carriage guide spacer 1/32 Meat carriage bearing
S1007	Round head screw, ¼-20 × ⅙, SS Channel bracket, SS (3334-4003 only)	16163A	Platter hold down clip
S11	Ratchet trigger	16163B	Platter neck guard, SS
S1120EZ	Channel, SS (3334-4003 only)	16163B-1	Platter neck guard, England
S12214	Platter bracket starting with S/N 24464*	16197	Tension spring gauge
S155-11 S155B	Meat carr stop thumb screw Meat carriage stop welded	16200 16212	Carriage stop movable Platter latch
S155EZ-3	Hex standoff, EZ flow carriage	16220-1	Carriage stop fixed
S16005C	Head, SS	16226A-5	Switch button plate rivet
S16006	Head door, SS	16226A-6	Switch button speed nut
S16007 S16015-1	Channel bracket SS	16226A-8 16232	Switch buttonhole filler plate Scrap bucket
S16120	Motor baseplate adjusting stud, SS Channel stainless steel	16239-16	Base interlock plte, SS, England
S16217L	Base door left panel SS, see page 21	16251AL	Upper v-belt pulley 11.4 × 1, aluminum
S16217LTP	Base door left tapered panel, SS, see page 27	16251-90X78AL	Upper pulley 9 × 1/8
S16217R	Base door right hinged SS Base, stainless steel	16272 16275	Meat gauge gear rack Replaced by A16278
\$16239 \$16273	Meat gauge bracket SS	16278	Meat gauge arm
S16275	Meat gauge plate, SS	16296-2	Switch bracket, SS
S16290	Cleaning unit stamping SS	16301	Name & model plate (Ser. No. required)
S16296-8	Switch brkt Kroger 800S2SA4	16302	Saw blade 124 inch
S16335X S181155AEZ	Upper wheel hinge plate, SS Meat carriage angle, EZ flow (3334-4003 only)	16303 16313-100	Lower shaft nut Operating manual
S18155EZ-1	Carriage top w/weld studs (3334-4003 only)	16360	Lower bearing housing
S189	Ratchet arm stud, stainless	16361	Lower shaft
S19	Ratchet base, stainless	16501	Motor mount, rubber, 1 ph
S200B1	Stopstud gde bar & crg stp SS	16502 16503	Motor mount washer, 1 ph Motor mount bolt 3 inch, 1 ph
S217C S217E	Base door hinge pin long SS Base door hinge pin short SS	16508	Motor mount star washer 1 ph
S229	Wheel cleaner arm torsion spring, SS	16517	Inner race spacer
S235	Taper pin, stainless, 4 × 3/4	16543	Lower shaft, removable wheel
S239-B30	Base foot welded, SS	16547	Lower brg. hsg. removable wheel
S244 S253	Wheel cleaner arm stud SS Upper wheel aligning screw, SS	16560 16700	Lower wheel, 16", 6 spoke, removable Parts repair kit
S262	Meat gauge release handle	17-3	Figrifit wshr, $9/16 \times .276 \times .104$, use FW05S
S268	Stationary bar hdless screw, SS	17211-22	Finger lift shim .022
S295	Wheel cleaner arm, stainless	17211-35	Finger lift shim .035
S325	Wheel cleaner washer, SS	175-1-S	Thumb guard nut, SS

Item No.	Description	Item No.	December 1
175-2-S	Thumb screw 1/4-20 × 11/5		Description
175S	Thumb guard, nylon	272-13	Hex bolt, meat gauge bracket
18120EZ-B3	Guide bar, EZ flow	272-14	Castle nut, ³ ∕16-18, SS
211D	Finger lift fastener bolt 3/8-16 × 13/4	277	Lower shaft key
221-(size)	V-belt	280	Motor shaft key
226-28	Cndt conctrwshr 1½ × 27/32SS	296	Toggle switch bracket, 1½HP mtr
228-2	Lwr sawguide wshr, $\frac{1}{4} \times \frac{7}{8} \times \frac{1}{16}$	296-3	Sw brkt ACW, BCW, AAA1, TAA1, 2HP mtr & up
230DL	Upper shaft seal, double lip	300	Lower shart woodruff key
231DL	Lower shaft seal, double lip	310	Washr move carr stp headdr lck
234	Grease fitting upper wheel	311	Rubber bumper
237	Up shaft castellated lock nut	311-1	Rubber bumper
238	Up shaft castid lock nut washr	324	Motor shim 1/16" thick
239-B31-2	Pipe leg, aluminum, 6"	324A	Motor shim 1/8" thick
239-B32-AR	Pipe leg cap	340	Star lock washer
239-B34	Replaced by AS239-B30-B*	360A1	Lower brg hsng angl grease fitting
240	Ratchet trigger spring	360B	Lower brg hsng tilt set screw
242R	Base door lock, right	362	Lower bearing housing cap
247	Upper shaft	374	M-6 Lubriko grease, 14 oz.
248	Upper wheel hub cap	375	Drive screw, name & model plate
249	Base door handle	376	Drive screw #10 x 1/5, SS
252X	Shaft lock nut	4-30AL	Motor pulley $5 \times \frac{3}{4}$, aluminum
256P	Safety pusher plate, compostn	415D	Stationary bar
256PM	Safety pusher plate, aluminum	416	Platter locator weld pins (use S416)
259	Anti-short bushing, 1/2	513	Upper wheel hub gasket
260	Aluminum slide gib	530	Retaining ring (replaces 16001) 22164 on
260ALS	Shim for aluminum slide gib	601 602P	Upper saw guide bracket
264-1	Meat gauge hand wheel	602B	Saw guide, upper
264G	Meat gauge hand whi groove pin	602AFSC	Saw guide upper bracket, fish
265	Meat gauge release spring	605	Saw guide, lower blade back-up
267	Meat gauge release cotter key	609AAW	General purpose switch, 1 & 3 ph
270	Meat gauge release cotter key	653PC-E	Warning label, English
271	Meat gauge werm goos	653PC-SP	Warning label, Spanish
272-6-S	Meat gauge worm gear	661-1	Saw guard to head door
272-7	Meat gauge bracket wing nut	663	Saw guard on saw guide bar (if before S/N 12242,
272-8	Knob, 4-point, $\frac{3}{16}$ -18 Cap nut, $\frac{3}{16}$ -18, SS	6000 6	also supply #116-22 & #661-1)
272-9		6808-G	Toggle switch, 1 ph
212-3	Hex bolt, $\frac{5}{16}$ -18 × 2, SS	71-1	Upper wheel hinge bracket SS
*NOTE	Stainless steel (\$12214) aldo pletter lite and the	708	Saw guard safety decal
HOIL	Stainless steel (S12214) side platter kits available before Ser. No. 24464 — check with Biro Service	710	Decal, "Blade Tension"
		7810-G	Toggle switch, 3 ph
	Dept.		

COMPLETE ASSEMBLIES FOR MODEL 3334

LIMITED WARRANTY

WARRANTY: The Biro Manufacturing Company warrants that Model 3334 Power Cutter will be free from defects in material and workmanship under normal use and with recommended service. BIRO will replace defective parts, which are covered by this limited warranty, provided that the defective parts are authorized for return, shipping charges prepaid, to a designated factory for inspection and/or testing.

DURATION OF WARRANTY: The warranty period for all parts covered by this limited warranty is one (1) year from in-

spection/demonstration advised on the returned Warranty registration card, or eighteen (18) months from original factory ship date, whichever occurs first, except as noted below.

PARTS NOT COVERED BY WARRANTY: The following are not covered by this limited warranty: steel saw cleaners,

item number 131; wheel cleaners, item number 179; steel guide, item number 119A; upper saw guide, item number 602B; lower back guide, item number 605; nylon filler, item number 177. This limited warranty does not apply to machines sold as used, rebuilt, modified, or altered from the original construction in which the machine was shipped from the factory. (Water contaminated electrical systems are not covered under this limited warranty.) BIRO is not responsible.

sible for electrical connection of equipment, adjustments to switch gear or any other electrical requirements, which must be performed only by a certified electrician. BIRO is not responsible for service charges or labor required to replace any part covered by this limited warranty or for any damages resulting from misuse, abuse, lack of proper or recommended service.

EXCLUSION OF WARRANTIES AND LIMITATION OF REMEDIES: BIRO gives no warranties other than those expressly stated in this limited warranty. THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR PROCESSING OF FOOD PRODUCTS, AND ALL OTHER IMPLIED WARRANTIES ARE SPECIFICALLY EXCLUDED. BIRO IS NOT LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, EXPENSES, OR LOSSES. THE REMEDIES PROVIDED IN THIS BIRO LIMITED WARRANTY ARE PURCHASER'S SOLE AND EXCLU-

REGISTRATION CARDS: You must sign, date and complete the warranty card supplied with each machine. The warranty card must be returned to The BIRO Manufacturing Company for proper registration. If no warranty card is returned to BIRO, the warranty period will begin from the date the machine was originally shipped from the factory.

HOW TO GET SERVICE:

SIVE REMEDIES AGAINST BIRO.

- 1. Contact the agency from whom you purchased the machine.
- 2. Consult the yellow pages of the phone directory for the nearest authorized dealer.
- 3. Or call BIRO Service Department (419) 798-4451 which will put you in contact with the nearest service agency.