

MODEL 1433FH FIXED HEAD POWER MEAT SAW OPERATING AND SERVICE MANUAL



☆IMPORTANT NOTICE ☆

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

ITEM No. 14313FH-304 MD 1433FH 5-18-13 B

TABLE OF CONTENTS

	Page
NOTICE TO OWNERS AND OPERATORS.	1
SAFETY TIPS	2
INSTALLATION	3-7
WARNING LABELS FOR POWER MEAT SAWS	8
WARNING LABEL LOCATIONS ON MACHINE	9
WALL CHART (PART #671)	
OPERATION	11
TO PROCESS PRODUCT	12
MAINTENANCE	
GENERAL	
LUBRICATION	
OPERATOR'S NOTES	15
PARTS DIAGRAM	16-25
BASE DOOR HINGE SYSTEM	21
SWITCH ASSEMBLIES AND SERVICE PARTS	25
OPERATOR'S NOTES	
WIRING DIAGRAMS	27-32
CLEANING PROCEDURE	33
WEARABLE SAW PARTS	34
PARTS LIST/ORDERING	35
PARTS ASSEMBLIES LIST /ORDERING	36
OPERATOR'S SIGNATURE PAGE	37
I IMITED WARRANTY	38

NOTICE TO OWNERS AND OPERATORS

BIRO's products are designed to process food products safely and efficiently. Unless the operator is properly trained and supervised, there is the possibility of a serious injury. It is the responsibility of the owner to assure that this machine is used properly and safely, strictly following the instructions contained in this Manual and any requirements of local law.

No one should use or service this machine without proper training and supervision. All operators should be thoroughly familiar with the procedures contained in this Manual. Even so BIRO cannot anticipate every circumstance or environment in which its products will be used. You, the owner and operator, must remain alert to the hazards posed by the function of this equipment, particularly the SHARP MOVING BAND TYPE SAW BLADE. No one under eighteen (18) years of age should operate this equipment. If you are uncertain about a particular task, ask your supervisor.

This Manual contains a number of safe practices in the SAFETY TIP section. Additional warnings are placed throughout the Manual. Warnings related to your personal safety are indicated by:



OR



Warnings related to possible damage are indicated by:



BIRO also has provided a wall chart to be posted near the equipment. If any warning label, wall chart, or Manual becomes misplaced, damaged, or illegible, please contact your nearest Distributor or Biro directly for a replacement.

Remember, however, this Manual or the warning labels do not replace the need to be alert and to use your common sense when using this equipment.

This Manual applies to 1433FH Power Meat Saws with Fixed Heads.

- NOTE -

A copy of this manual is included with each Model 1433FH saw.

The descriptions and illustrations contained in this manual are not binding. The manufacturer reserves the right to introduce any modification without updating the manual.

SAFETY TIPS







SHARP MOVING BAND TYPE SAW BLADE

TO AVOID SERIOUS PERSONAL INJURY

NEVER Touch This Machine Without Training and Authorization By Your Supervisor.

ALWAYS Read Operation and Parts Manual BEFORE Operating, Cleaning or Servicing.

ALWAYS Keep Hands Clear of Sharp Band Type Saw Blade and Other Moving Parts.

ONLY Use a Qualified Electrician to Install According to Local Building Codes: Machine **MUST** Be Properly Grounded.

ONLY Install on Level, Non-Skid Surface in a Clean, Well-Lighted Area Away From Children and Visitors.

DO NOT Attempt to Operate This Machine Until it has Been Inspected and Demonstrated by the Seller - Recognized **BIRO** Representative.

DO NOT Alter or Modify This Machine in any Way From its Original Form. This Machine in its Original Form Meets the Intent of O.S.H.A. Applicable Standards.

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

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

ALWAYS Use Supplied Safety End Cut Pusher Plate for Smaller Products or The Last Cuts of Product.

DO NOT Use This Machine for Non-Food Products.

DO NOT Use This Machine to Cut Pigs Feet.

DO NOT Wear Gloves While Operating.

ALWAYS Turn Off, Unplug From Power Source and Perform Lockout/Tagout Procedure to This Machine **BEFORE** Removing Shrouds, Removable Guards, Covers, Doors, Fences or Panels for Cleaning, Servicing or Any Other Reason.

NEVER Leave Machine Unattended While the Saw is Running.

PROMPTLY REPLACE Any Worn or Illegible Warning Labels.

USE ONLY BIRO Parts and Accessories Properly Installed.

INSTALLATION



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

- ALWAYS Read Operating and Parts Manual BEFORE Installation.
- 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.
- **DO NOT** Attempt to Operate This Machine Until it has Been Inspected and Demonstrated by the Seller Recognized **BIRO** Representative.
- **DO NOT** Alter or Modify This Machine in any Way From its Original Form. This Machine in its Original Form Meets the Intent of O.S.H.A. Applicable Standards.
- **NEVER** Operate with Saw Guard Bar on Saw Guide Bar in the Raised Position or the Saw Guard Removed from the Saw Guide Bar.
- ALWAYS Adjust Saw Guide Bar with Saw Guide to Within 1/2" of Product to be Cut.
- NEVER Operate Without all Warning Labels Attached and Wall Chart Posted.
- USE ONLY BIRO Parts and Accessories Properly Installed.
 - 1. 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

- 3. After installing machine in operational area, it is imperative that the four adjusting leg hex bolts be adjusted to level the machine and also to eliminate rocking.
- 4. To assemble meat gauge plate (Part No. A14275) to the machine; Loosen the lock knob (Part No. 272-10) on the right side meat gauge bracket. Remove the meat gauge gear rack (Part No. S14272) and insert into the meat gauge plate. Be sure to hold meat gauge arm so that the release handle is depressed. Re-install the gear rack by first inserting the rectangle end into the left hand meat gauge bracket, then swing the right hollow round end of the gear into the original lock position. Upon aligning the gear rack with the capscrew (Part No. 272-11), tighten the lock knob clockwise, fastening the locking cap screw into the hollow end to the gear rack, **CHECKING** for a secure assembly. Keep gear rack well oiled with food grade oil to ensure free movement.





- 5. Place removable finger lift with saw guard assembly (Part No. A14211) on the saw guide bar (Part No. S116-22) and fasten in place with finger lift fastener knob (Part No. 211A-291Q).
- 6. See Lower Removable Wheel Installation and Removal Instructions for Model 1433 below.

REMOVAL and INSTALLATION for Self-Centering Lower Removable Wheels (Part No. 14560-1 and 14560DF-1)

ALWAYS Turn off, unplug Machine From Power Source and Perform Lockout/Tagout Procedure to the Machine **BEFORE** Cleaning or Servicing.

Follow disassembly procedures in the Cleaning Section of the Operating and Service Manual. Removal of the T-Handle and Lower Wheel will be the last 2 parts removed in the number sequence.

REMOVAL

Loosen Item No. 14746-1, T-Handle and Remove from Lower Shaft.



Using both hands @ 3 and 9 o-clock Positions, Pull wheel towards you with a even smooth motion.

INSTALLATION

There is an anti-rotation pin located on the lower shaft, there is an anti-rotation groove located on the back side of the lower wheel.

Align and engage the groove of the lower wheel and the anti-rotation pin as the wheel is being installed.



FINGERLIFT ASSEMBLY





Install T-Handle Lock onto Lower Shaft, Hand Tighten <u>SECURELY</u>







REMOVAL and INSTALLATION INSTRUCTIONS for TAPERED BORE LOWER WHEELS 14560 and 14560DF

ALWAYS Turn off, unplug Machine From Power Source and Perform Lockout/Tagout Procedure to the Machine **BEFORE** Cleaning or Servicing.

Follow Disassembly Procedures in the Cleaning Section of the Operating and Service Manual. Removal of the Lower Wheel will be the last procedure.

REMOVAL

Loosen the Item No. 14746 T-Handle lock, DO NOT REMOVE COMPLETELY FROM SHAFT.



14746 T-Handle Lock



T-Handle Loosened

Using thumbs for leverage, pull wheel toward you with an even-smooth motion. Wheel is mounted in slip fit fashion on a tapered shaft. When the wheel is loose, complete removing T-handle lock and wheel.



14746 T-Handle Lock





There is an alignment pin on the lower shaft. And a mating alignment groove in the hub of the lower wheel. Align the two as the wheel is being installed on the tapered shaft.



NOTE:

TO ENSURE PROPER SAW
WHEEL ALIGNMENT, WHEEL
MUST BE REINSTALLED
ON SAME MACHINE FROM
WHICH IT WAS REMOVED.

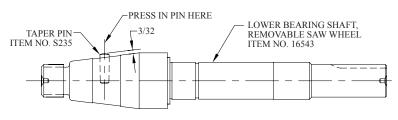
Replace the T-Handle Lock **HAND TIGHTEN ONLY** Reassemble the machine.



Item No. 16543 - Lower Shaft for Removable Wheel

7. The Model 1433 Lower Removable Wheel has been revised to include a keyway in the bore. Also an anti rotation pin is now pressed into the lower shaft to prevent any inadvertent "spinning" of the wheel on the shaft.

NOTE- If the saw in which a new shaft is to be installed has a groove (keyway) in the bore of the lower wheel, press the taper pin (provided "loose") into the hole in the side of the shaft (see sketch). If there is no groove (keyway) in the bore of the lower wheel, discard the taper pin and use the shaft without the pin.



8. The side platter bracket (Part No. S14214) is packed loose in the machine and must be installed on the left side of the base structure with the supplied hardware and check for proper adjustment. Stationary platter must be flat.

WIRING MOTOR

Machine MUST be properly grounded. Use qualified electrician to install according to building codes.

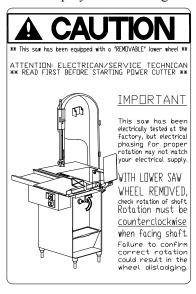
- a. Interchange of motor current is made in motor outlet box. Leads are properly marked. Changing instructions are on motor plate or motor box outlet box.
- b. All cutters are wired 220 volts unless otherwise specified. Be sure motor specifications (voltage, cycle, phase) match power supply line. Be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



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 (1010.147 OSHA).

9. All machines are tested at the factory, but electrical phasing for proper rotation may not match your electrical supply. All machines with removable lower wheel must be first test run for proper phasing with the lower wheel removed. Failure to remove the lower wheel could cause the wheel to become dislodged during testing.

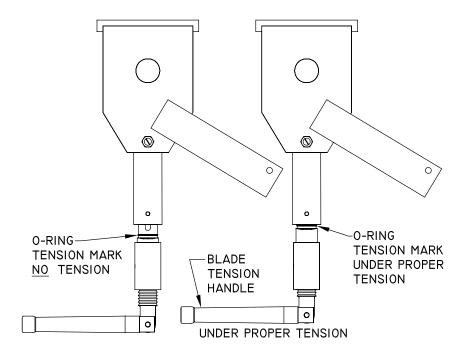
All machines with removable lower wheel will display the following decal on the right hinged base door.





SHARP SAW BLADE. HANDLE WITH EXTREME CAUTION.

- 10. Placing blade on cutter: Unpack upper wheel assembly and hang on the hinge bracket in the head structure. Lift the nylon filler in the stationary bar. Hang blade on the upper wheel and hold with right hand. With the left hand force the back of the blade between the front blade scrapers, located below the stationary bar. Lower the nylon filler. Be sure the blade is in the upper saw guide. The blade has dropped over the lower wheel. Switch hands holding the blade on the upper wheel. With the right hand, force the back of the blade between the rear blade scrapers. The blade is now ready to be tightened.
- 11. Turn the blade tensioning handle clockwise until the tension mark is even with the bottom of the upper wheel hinge plate as shown. Carefully turn saw wheels by hand and watch for proper tracking of blade on the wheels.



- 12. The stationary platter is placed on top of the base structure and held in place by two push-pull hold down rods, located at the rear of the base.
- 13. The sliding meat carriage assembly is installed by turning the movable stop assembly clockwise. After the carriage assembly is in the channel for operation, turn the movable stop counterclockwise to lock.
- 14. Make sure saw guide bar with saw guard is in its lowest position. Close head and base doors.



KEEP HANDS CLEAR OF SHARP MOVING BAND TYPE SAW BLADE.

- 15. Push the start button. Check for proper phasing of motor and proper tracking of the saw blade in the saw guides. Back of the blade should be centered in the lower saw guide in the stationary bar. Blade should be moving down through the guide. Push the stop button to stop the machine.
- 16. Check placement of all warning labels, wall chart and Manual. Machine is ready for trained operators to process product. Post SAFETY TIPS wall chart within easy view of operator. Keep Manual available to operator.
- 17. Contact your local Distributor or BIRO directly if you have any questions or problems with the installation or operation of this machine.

WARNING LABELS FOR BIRO POWER MEAT SAWS



DO NOTUse 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.

Failure to comply with warning could result in serious bodily injury

#653PC-E

Item No. 653PC-E





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. Cierre 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 Placa de Empuje Para Cortes de Extremos al Cortar Trocitos Pequenos. NO Utilice la Sierra si se Halla Alterada, Danada o si No ha Sido Debidamente Mantenida o si la Advertencia es llegible o si Falta Esta. SIEMPRE Desconecte el Equipo Decenchufandolo 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



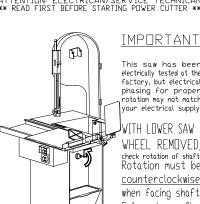
NOT TO SCALE





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

ATTENTION: ELECTRICAN/SERVICE TECHNICAN
*** READ FIRST BEFORE STARTING POWER CUTTER **



IMPORTANT

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

WHEEL REMOVED check rotation of shaft. Rotation must be

counterclockwise when facing shaft. Failure to confirm correct rotation could result in the wheel dislodging. ITEM No. 708: ALL SAWS Attached to saw Guard on Saw Guide Bar

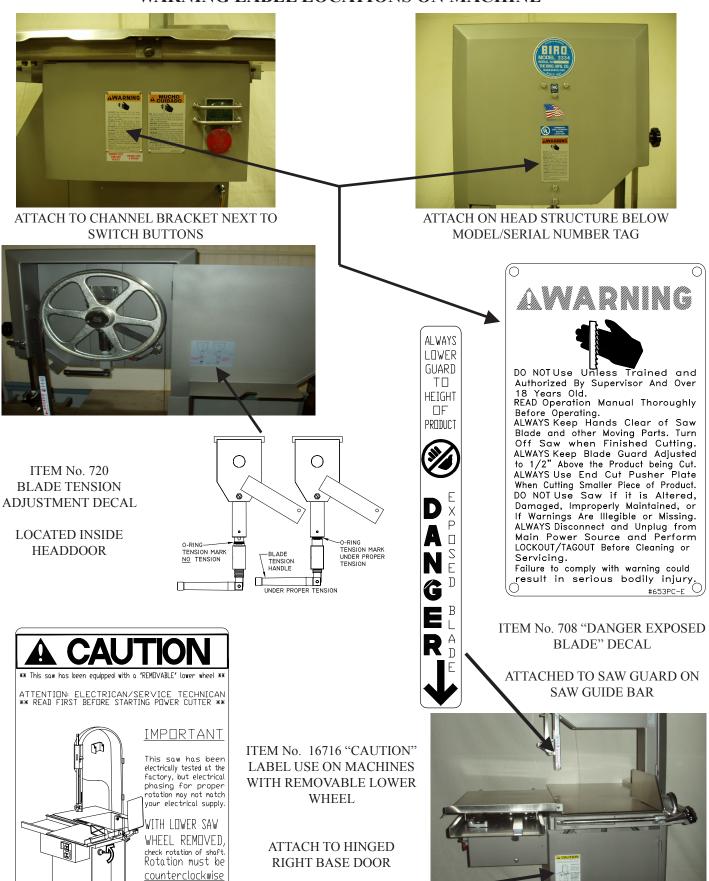
ITEM No. 16716: Applied to Right Hinged Base Door on All Model 1433FH with Lower Removable Wheel. Item No. 708



ALWAYS

Item No. 16716

WARNING LABEL LOCATIONS ON MACHINE



when facing shaft. Failure to confirm correct rotation could result in the wheel dislodging.

PART NUMBER 671

WALL CHART "BAND SAW SAFETY GUIDELINES"

ATTACH TO WALL IN VICINITY OF MACHINE IN EASY VIEW OF OPERATOR



ONLY TRAINED OPERATORS SHOULD USE THIS EQUIPMENT

This Saw Contains A Sharp Blade. To Avoid Serious Injury:

- 1. Inspect Before Operating:
- Gauge Plate (A) and Blade Guard Are Secure.
- All Warning Labels And Guards Are In Place.
- The Guide Bar

 Is Adjusted to 1/2 Inch

 Above The Product To Be Cut
- 2. While Cutting:
- **■** Keep Hands And Fingers Away From Blade.
- Keep Product Securely Against Gauge Plate . S
- Use End Cut Pusher Plate When Making Final Cuts. Item No. 256P.
- 3. Before Cleaning:
- Turn Off Power And Follow Lockout / Tagout Procedure.
- Remove Saw Blade.
- Use Extra Care When Handling The Saw Blade.



(B)

£671

SEE PARTS AND SERVICE MANUAL SUPPLIED WITH MACHINE FOR ADDITIONAL SAFETY INFORMATION.

OPERATION







SHARP MOVING BAND TYPE SAW BLADE TO AVOID SERIOUS PERSONAL INJURY

ONLY Properly Trained Personnel Should Use This Equipment.

ALWAYS Read Operating and Parts Manual BEFORE Operating.

ALWAYS Keep Hands Clear of Band Saw Type Blade and Other Moving Parts.

DO NOT Tamper With, Bypass, Alter, or Modify this Equipment in Any Way or Form.

DO NOT Alter or Modify This Machine in any Way From its Original Form. This Machine in its Original Form Meets the Intent of O.S.H.A Applicable Standards.

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

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

ALWAYS Use Safety End Cut Pusher Plate for Smaller Products or The Last Cuts of Product.

DO NOT Use This Machine for Non-Food Products.

DO NOT Use this Machine to Cut Pigs Feet.

DO NOT Wear Gloves While The Saw is Running.

ALWAYS Turn Off, Unplug from Power Source and Perform Lockout/Tag Out Procedures Before Cleaning, Servicing or When Not in Use.

NEVER Leave Machine Unattended While the Saw is Running.

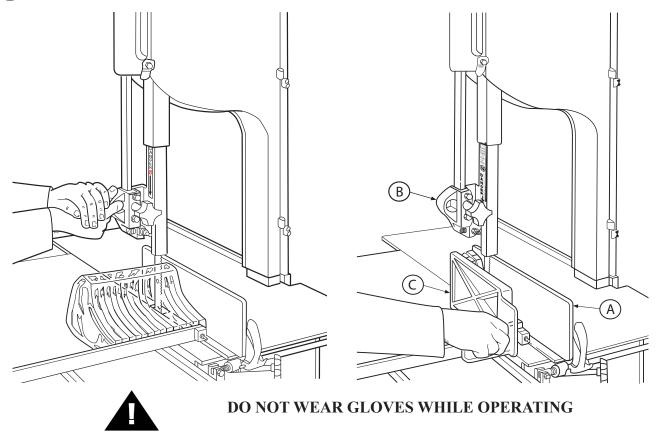
NEVER Operate Without All Warning Labels Properly Affixed to Machine.

A. FOOD HANDLING TO PREVENT CONTAMINATION

- 1. **ALWAYS** wash hands thoroughly with warm soap and water before and after handling raw fish, poultry or meats.
- 2. ALWAYS clean and sanitize all utensils and surfaces that have been in contact with raw products.
- 3. **ALWAYS** store cold foods at or below 45 deg. F (7.2 deg. C).

B. TO PROCESS PRODUCT

1. Before starting power saw, adjust saw guide bar with saw guard to within 1/2" of product to be cut. "B"



- 2. Make sure all doors are closed and locked.
- 3. Adjust meat gauge plate forward to desired thickness of cut. "A"
- 4. Push start button and watch blade for proper tracking.
- 5. Stand in front of the power saw, place product on the meat carriage. Pay attention to position of your hands. Keep hands clear of moving band type saw blade. Leaning lightly against the scalloped front edge of meat carriage, hold the product firmly in right hand with product face flush against the meat gauge plate. Move the meat carriage from right to left at a steady rate until fully past the saw blade. Use left hand to remove and stack cut product, **NEVER REACH IN FRONT OF BAND TYPE SAW BLADE.** On the return stroke, pull the product slightly toward you to clear the blade.



NEVER REACH OR GRAB FOR PRODUCT IN FRONT OF MOVING BAND TYPE SAW BLADE

- 6. ALWAYS use the Safety End Cut Pusher Plate for smaller products or the last cuts of product. "C" The pusher plate is supplied as standard on all BIRO power saws.
- 7. When finished cutting, push stop button. Perform lockout/tagout procedure.

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 Cleaning or 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 Warning Labels.
- USE ONLY GENUINE BIRO Parts and Accessories Properly Installed.

A. GENERAL

- 1. 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 the flange and grooves.



DO NOT IMMERSE UPPER WHEEL ASSEMBLY IN WATER

- b. **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 the "DANGER EXPOSED BLADE" decal is affixed and legible. Check condition of upper saw guide (Part No. 602B), replace every six (6) months. Check adjustment of upper saw guide. Should be ¹/₃₂" between back of blade and saw guide carbide.
- d. **SAW GUIDE BAR**: Check condition of bar for wear, replace as necessary.



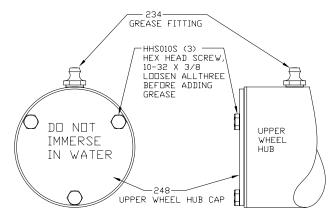
NEVER USE THIS MACHINE WITHOUT PROPERLY INSTALLED AND FUNCTIONING SAW GUIDE BAR AND SAW GUARD

- e. **STATIONARY BAR ASSEMBLY:** Check condition of nylon filler (Part No. 177), change every four (4) weeks. Check condition of saw guide (Part No. S119A), 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. S608). 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. **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. Check tension of release handle spring, replace as necessary.
- h. **MEAT CARRIAGE ASSEMBLY:** Check for free movement through full range of travel. Check for side to side tolerance, adjust as necessary. Check condition and grease bearings, replace as necessary. Check condition of thumb guard, replace as necessary.
- i. **SAFETY ITEMS:** Safety end cut pusher plate is with machine and accessible. All warning labels are present, properly affixed and legible. Model and Serial Number plate properly affixed and legible. Wall poster within operator's view from machine. Manual accessible to operator.

B. LUBRICATION:

- 1. **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.
- 3. **MEAT CARRIAGE BEARINGS:** Grease every four (4) weeks.
- 4. **SAW GUIDE BAR:** Oil daily with food machine oil.
- 5. **MEAT GAUGE GEAR RACK:** Oil daily with food machine oil.
- 6. **BLADE TENSION SPRING SCREW ASSEMBLY:** Grease every four (4) weeks. NOTE: Remove upper wheel and turn #14782 Blade Tension screw clockwise until it bottoms out against #14781 Blade Tension Handle then fill the cavity under the O-ring on #14782 Blade Tension Screw with #374 Shell Cassida Grease EPS-2 and re-assemble.

USE BIRO No. 374 GREASE FOR RE-GREASING SEE INSTRUCTIONS BELOW



When lubricating the upper wheel bearing it is important that the three hex head screws securing the upper wheel hub cap be loosened slightly before attempting to pump grease into the grease fitting. Loosening the screws allows for an escape of old broken down grease and air from the bearing cavity. Failure to loosen the screw before greasing the upper bearings can cause the upper shaft seal to be dislodged from the upper wheel allowing grease to escape and moisture to get into the cavity. When finished greasing the bearings, retighten the three screws. Take care to also clean off any grease that was forced out of the cavity during greasing.

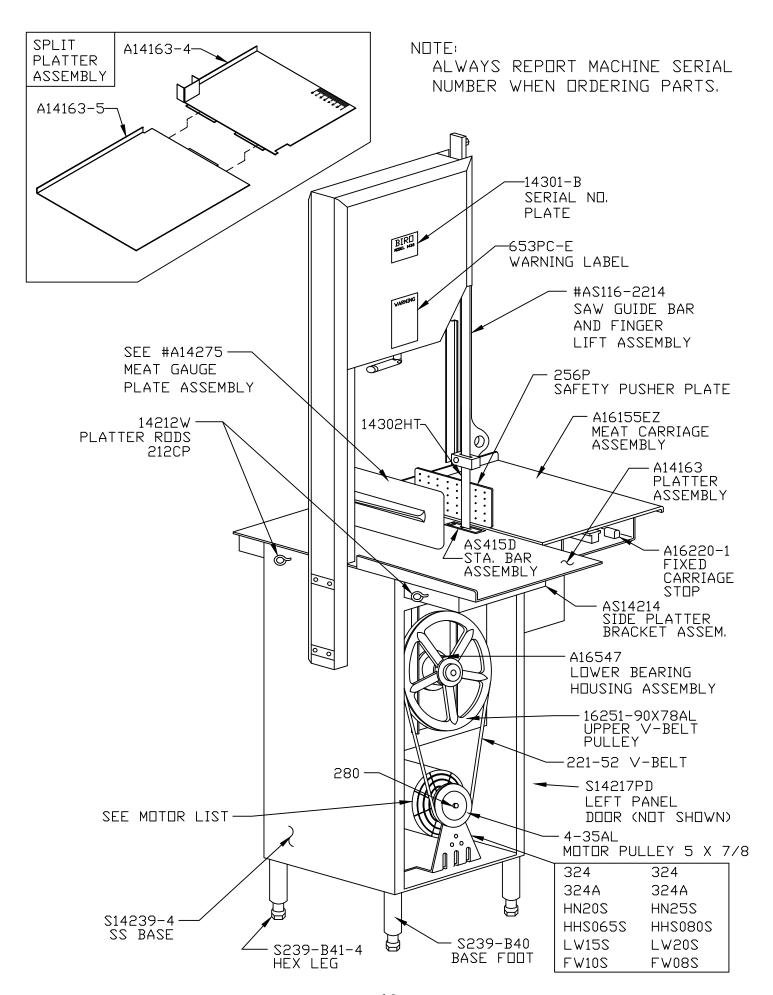
7. **MOTOR BEARINGS**: Bearing grease will lose its lubricating ability over time, not suddenly. The lubricating ability of a grease (over time) depends primarily on the type of grease, the size of the bearing, the speed at which the bearing operates and the severity of the operating conditions. Good results can be obtained if the following recommendations are used in your maintenance program.

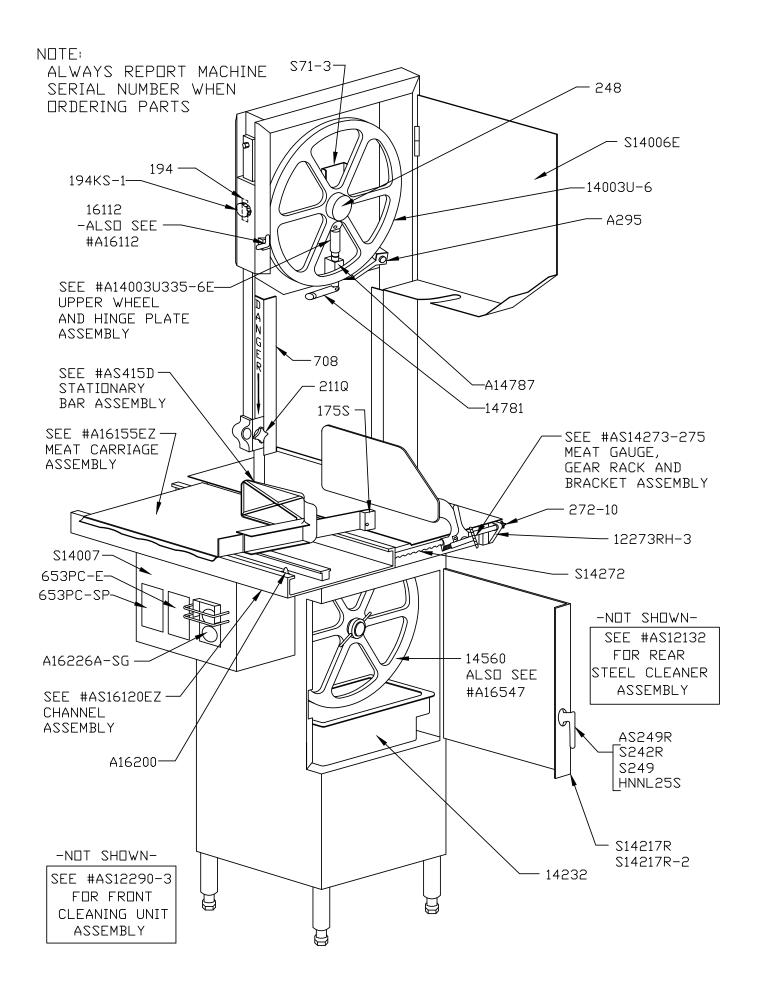
A high grade ball or roller bearing grease should be used. Recommended grease for standard service conditions is Polyrex EM (Exxon Mobil).

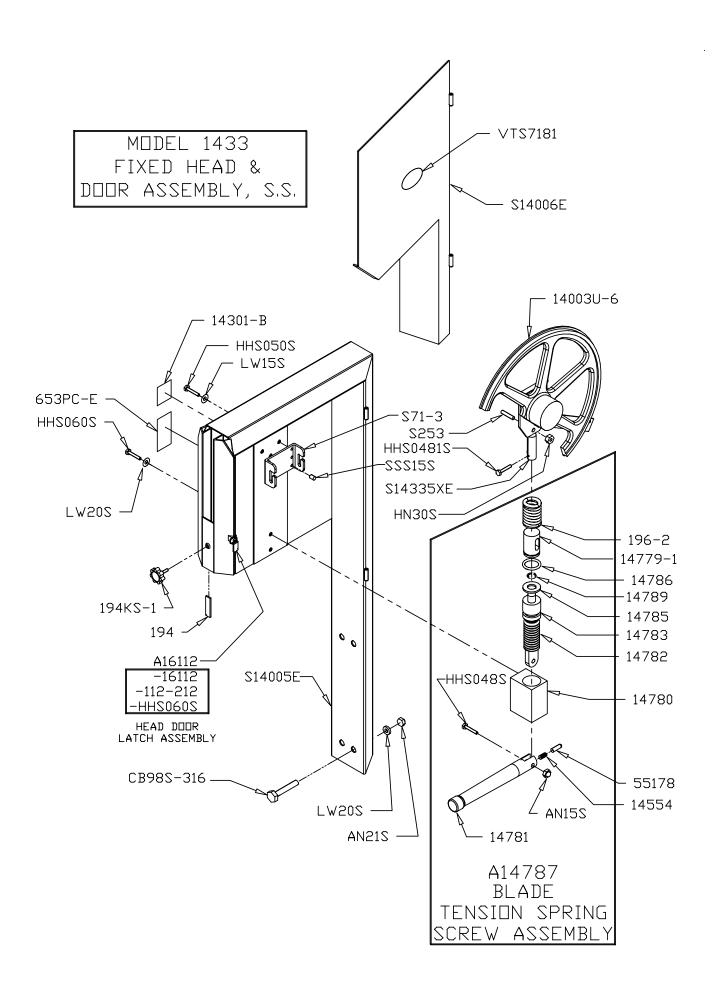
Equivalent and compatible greases include: Texaco Polystar, Rykon Premium #2, Pennzoil Pen 2 Lube, and Chevron SRI.

Recommended lubrications intervals is every 12 months with the equivalent of two (2) teaspoons of grease. If motor does not have zerk fittings, the motor bearings are sealed for life.

OPERATOR'S NOTES







ITEM No. 14782K Blade Tension Screw Conversion Kit

INSTALLATION INSTRUCTIONS

Disconnect the machine from main power supply.

Loosen tension on the saw blade and remove the upper wheel assembly.

Unbolt the (A) tensioning handle from the (B) blade tension screw.

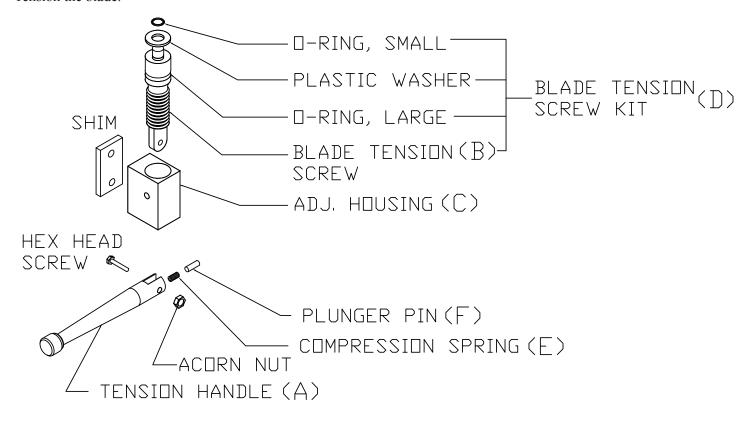
At the bottom handle mount turn the (B) blade tension screw clockwise until it can be lifted out of the (C) housing.

Apply a good food grade grease to the replacement (D) tension screw and install into the (C) housing turning counterclockwise until it bottoms out.

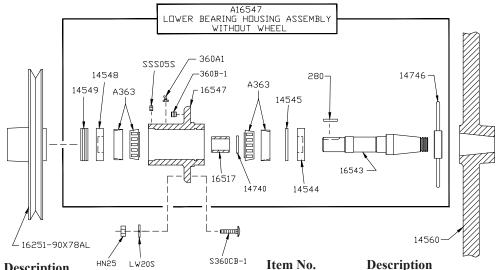
Replace the (A) tensioning handle. Be sure the (E) spring and (F) plunger pin are still present in the end of the (A) handle.

Replace the upper wheel assembly and the blade.

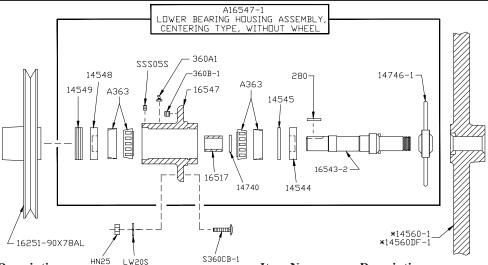
Tension the blade.



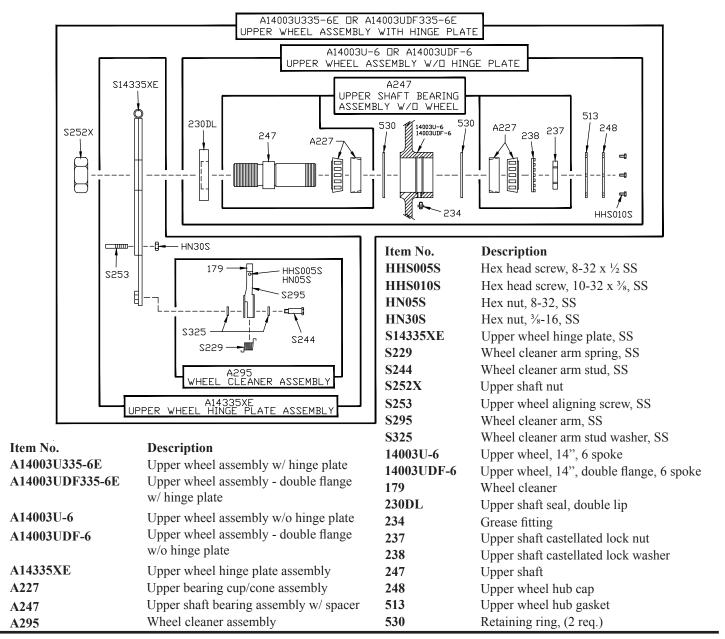
(A) 14781	Tension Handle	14783	O-Ring, Large
(B) 14782	Blade Tension Screw	14785	Plastic Washer
(C) 14780	Adjustment Housing	14788	Shim, 1/8" (use as needed)
(D) 14782K	Blade Tension Screw Kit	14788-1	Shim, ¹ /16" (use as needed)
(E) 14554	Compression Spring	14789	O-Ring, Small
(F) 55178	Plunger Pin	AN15S	Acorn Nut, 1/4 - 20
		HHS048S	Hex Head Screw, 1/4 - 20 x 11/4



Item No.	Description HN25 LW20S S360CB-1	Item No.	Description
A16547	Lower bearing housing assembly w/o wheel	14560	Lower saw wheel, 14"
A363	Lower bearing cup/cone assembly	14560DF	Lower saw wheel, 14", double flange
HN25	Hex nut, 3/8 -16, SS	14740	Retaining ring- external
LW20S	Lock washer, 3/8, SS	14746	T- handle lock, removable lower wheel
SSS05S	Set screw cup, SS, 10-24 x 3/8	16251-90X78AL	Pulley, upper V-belt 9 x 1/8 AL
14544	Grease seal, 1½ ID	16517	Inner race spacer, removable wheel
14545	Retaining ring, internal, 2-7/16 ID	16543	Shaft, lower saw wheel
14548	Grease seal, 7/8 ID	16547	Lower bearing housing, removable wheel
14549	Lower bearing housing cap	280	Key
14550	Adjustment screw, lower bearing housing	360A1	Grease fitting angular
14551	Hex jam nut, % -11, SS	360B-1	Set screw ½-13



Item No.	Description HN25 LW20S S360CB-1	Item No.	Description
A16547-1	Lower bearing housing assembly w/o wheel	*14560-1	Lower saw wheel, 14", NA, Must Order
A363	Lower bearing cup/cone assembly		14560-2, 16543-3, 14746-2
HN25	Hex nut, 3/8 -16, SS	*14560DF-1	Lower saw wheel, 14", DF NA, Must
LW20S	Lock washer, 3/8, SS		Order 14560-2, 16543-3, 14746-2
SSS05S	Set screw cup, SS, 10-24 x 3/8	14740	Retaining ring- external
S360CB-1	Carriage bolt, 3/8 -16 x 11/4, SS	14746-1	T- handle, removable lower wheel
14544	Grease seal, 1½ ID	16251-90X78AL	Pulley, upper V-belt 9 x 1/8 AL
14545	Retaining ring, internal, 2-7/16 ID	16517	Inner race spacer, removable wheel
14548	Grease seal, 7/8 ID	16543-2	Shaft, lower saw wheel
14549	Lower bearing housing cap	16547	Lower bearing housing, removable wheel
14550	Adjustment screw, lower bearing housing	280	Key
14551	Hex jam nut, % -11, SS	360A1	Grease fitting angular
	20	360B-1	Set screw ½-13

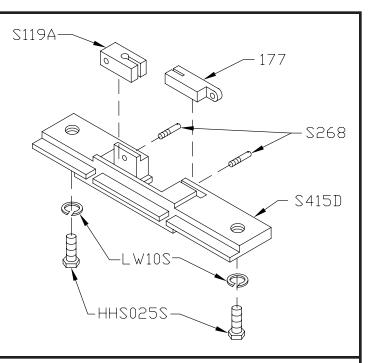


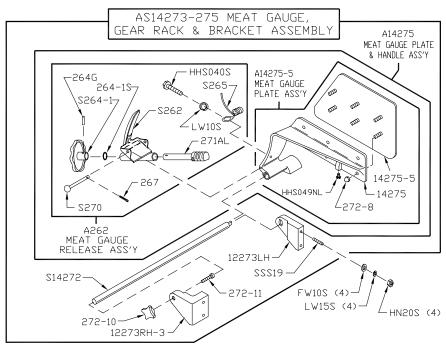
Base Door Hinge System on the Model 1433 and 1433FH Series has been changed from an internal "plate & pin" system to an external "barrel & pin" system (see sketch below).

Old Style Hinged Base Door - #S14217R Before Serial No. 2218 New Style Hinged Base Door - #S14217R-2 Starting with Serial No. 2218

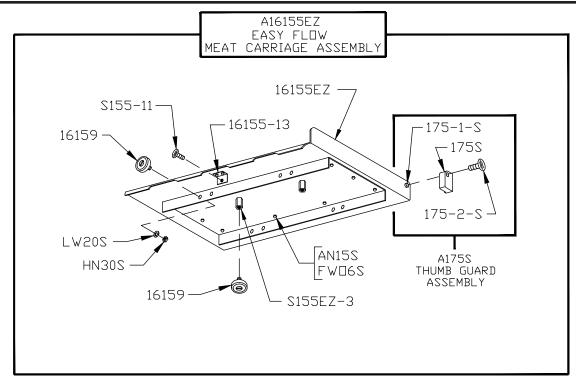
AS415D STATIONARY BAR ASSEMBLY

Description Item No. **AS415D** Stationary bar assembly, SS **HHS025S** Hex head screw, $\frac{1}{4}$ -20 x $\frac{1}{2}$, SS **LW10S** Lock washer, 1/4, SS S119A Saw guide in stationary bar, SS **S268** Stationary bar headless screw S415D Stationary bar, SS 177 Nylon filler

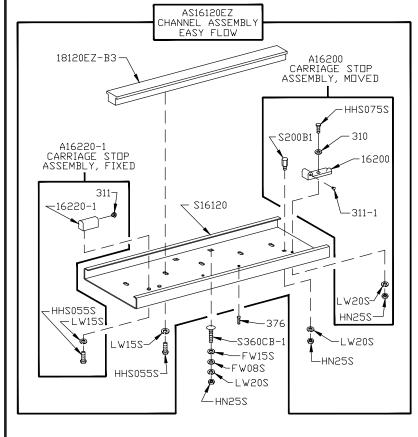




Item No.	Description	Item No.	Description
AS14273-275	Meat gauge assembly	S265	Meat gauge release spring, SS
A14275	Meat gauge plate assembly	S270	Meat gauge release pin, SS
A262	Meat gauge release assembly	12273LH	Meat gauge bracket- LH
FW10S	Flat washer, 5/16 SS	12273RH-3	Meat gauge bracket- RH
HHS040S	Hex head screw, 1/4-20 x 3/4 SS	14275	Meat gauge arm
HHS049NL	Hex screw- nylon, 5/16-18 x 1/2	14275-5	Meat gauge plate, SS
HN20S	Hex nut, ⁵ /16-18 SS	264G	Meat gauge hand wheel groove pin
LW10S	Lock washer, 1/4 SS	264-1S	Hand wheel shim, SS
LW15S	Lock washer, 5/16 SS	267	Meat gauge release cotter pin
SSS19	Set screw, cup point, 5/16-18 x 1½ SS	271AL	Meat gauge worm gear, Aluminum
S14272	Meat gauge gear rack, SS	272-8	Cap nut, 5/16-18, SS
S235	Taper pin, 4 x 3/4 SS	272-10	Lock knob 3/8-16, 4 point
S262	Meat gauge release handle, SS	272-11	Allen head cap screw 3/8-16 x 11/2
S264-1	Meat gauge hand wheel, SS		



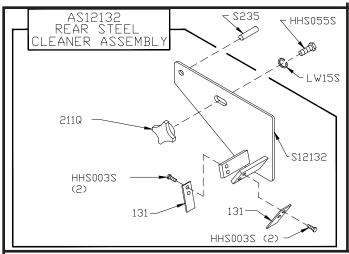
Item No.	Description	Item No.	Description
A16155EZ A175S	Meat carriage assembly complete, EZ flow Thumb guard assembly	16155EZ 16155-13	Meat carriage top & angle only Carriage stop angle SS
FW06S	Flat washer, ¼ SS	16155AEZ-1 16159	Meat carriage angle plate
AN15S HN30S	Acorn nut, ½-20 SS Hex nut, ½-16 light jam SS	175S	Meat carriage bearing SS Thumb guard, nylon
LW20S S155-11	Lock washer, ½ regular SS Meat carriage stop thumb screw	175-1-S 175-2-S	Thumb guard nut, SS Thumb screw, ½-20 x ½, SS
S155EZ-3	Hex standoff, EZ flow carriage		

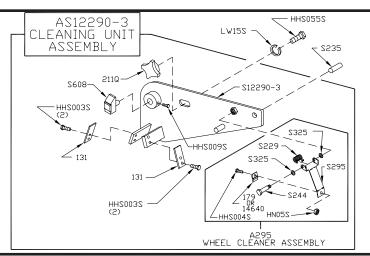


Item No. A16200 A16220-1 AS16120EZ FW08S FW15S **HHS055S HHS075S** HN20S LW15S LW25S S16120 S200B1 S360CB-1 16200 16220-1 18120EZ-B3 310 311 311-1 376

Channel stop assembly, movable Channel stop assembly, fixed Channel assembly with center guide Flat washer, ³/₈, SS Flat washer, ¹/₂, SS Hex head screw, ⁵/₁₆-18 x ³/₄ SS Hex head screw, ⁵/₁₆-18 x 1¹/₄ SS Hex nut, ³/₈-16 SS Lock washer, ⁵/₁₆ SS Lock washer, ⁵/₁₆ SS Lock washer, ³/₈ SS Channel, SS Stop stud, carriage stop, SS Carriage bolt, ³/₈-16 x 1¹/₄, SS Carriage stop, movable w/#311-1 Carriage stop, fixed w/#311 Guide bar, EZ flow, T-shaped Waved washer, movable carriage stop Rubber bumper for #16220-1 stop Rubber bumper for #16200 stop

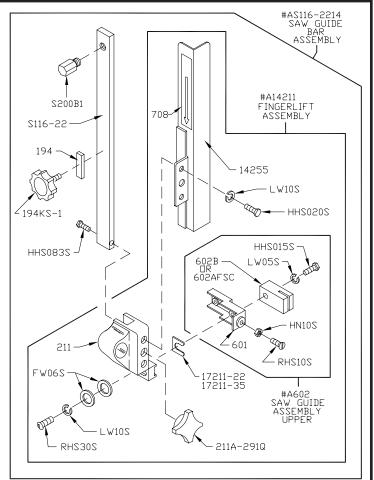
Drive screw, 10 x ½, SS





Item No.	Description	Item No.	Description
AS12132	Steel cleaner assembly, rear	S235	Taper pin, #4 x ¾ SS
AS12290-3	Cleaning unit assembly	S244	Wheel cleaner arm stud, SS
A295	Wheel cleaner assembly	S295	Wheel cleaner arm, SS
HHS003S	Hex head screw, 8-32 x 1/4 trimmed, SS	S325	Wheel cleaner arm stud washer, SS
HHS004S	Hex head screw, 8-32 x 3/8, SS	S608	Saw back-up guide w/607 carbide
HHS009S	Hex head screw, 10-24 x ¹ / ₄ , SS	131	Blade cleaner, SS
HHS055S	Hex head screw, 5/16-18 x 3/4, SS	131N	Blade cleaner, nyleen
HN05S	Hex nut, 8-32 SS	131SHORT	Blade cleaner, Short SS, 19/16 LG
LW15S	Lock washer, 5/16 SS	131SS-NYL	Blade cleaner combo, Short SS & Nyleen
S12132	Cleaning unit, rear	179	Wheel cleaner
S12290-3	Cleaning unit	211Q	Lock knob, 5/16-18, 4 point
S229	Wheel cleaner arm spring, SS	14640	Wheel cleaner, Rulon

Item No. AS116-2214	Description Saw guide bar assembly 22"
A14211	Finger lift assembly, removable
A602	Saw guide assembly, upper
FW06S	Flat washer, ¼ SS
HHS015S	Hex head screw, 10-32 x 7/8, SS
HHS020S	Hex head screw, 1/4-20 x 3/8, SS
HHS083S	Hex head screw, ³ / ₈ -16 x 1 ³ / ₄ , SS
HN10S	Hex nut, 10-32 SS
LW05S	Lock washer, #10 SS
LW10S	Lock washer, 1/4 SS
RHS10S	Round head screw, 10-32 x 3/4 SS
RHS30S	Round head screw, 1/4-20 x 7/8 SS
S200B1	Stop stud on guide bar
S116-22	Saw guide bar, 22" SS
14255	Saw guard
17211-22	Finger lift shim, .022
17211-35	Finger lift shim, .035
194	Saw guide bar lock pad, brass
194KS-1	Saw guide bar lock knob assembly
211	Finger lift bracket
211A-291Q	Fastener knob, 4 point
601	Upper saw guide bracket
602B	Upper saw guide with carbide
602AFSC	Upper saw guide, narrow, fish
708	Decal "DANGER EXPOSED BLADE"

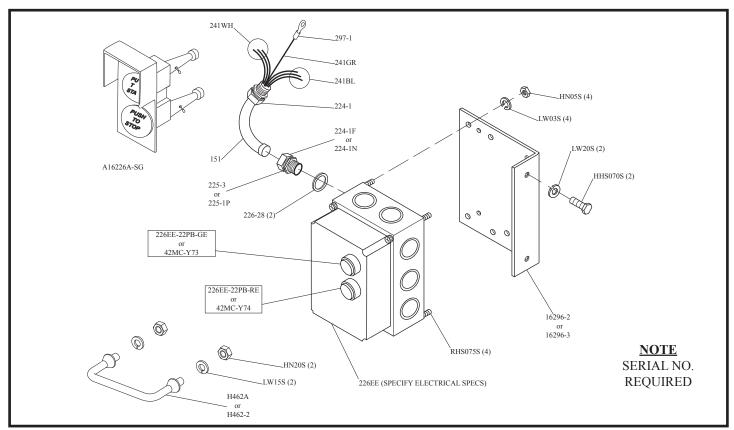


WATERTIGHT MAGNETIC SWITCH ASSEMBLIES

(AEG)

INCLUDES MOUNTING BRACKET AND WIRES

Item No.	Description		Item No.	Description	
A22616EE-514	BAEG/MS-PB/05-C8	2HP 208-220-50/60-3	A22616EE-5241	BAEG/MS-PB/A26	1.5-2HP 104/115-60-1
A22616EE-516	BAEG/MS-PB/05-E4.7	2HP 440/460-3	A22616EE-5261	BAEG/MS-PB/CS16	2HP 230-60-1
A22616EE-518	BAEG/MS-PB/05-D4.7	1.5-2HP 380/415-50-3	A22616EE-530	BAEG/MS-PB/05-F3.2	2HP 550/575-3
A22616EE-522	BAEG/MS-PB/05-C14	3HP 220-230-50/60-3	A22616EE-534	BAEG/MS-PB/05-E6.3	3HP 440/460-60-3
A22616EE-5221	BAEG/MS-PB/05-CS14	1.5HP 220/230-50/60-1	A22616EE-536	BAEG/MS-PB/05-D8	3HP 380-60-3

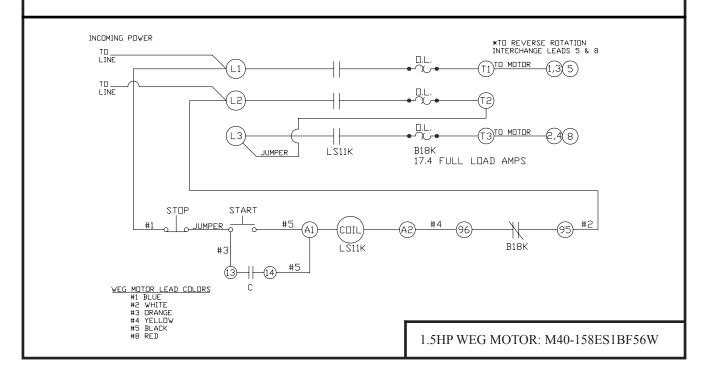


Item No.	Description	Item No.	Description
A16226A-SG	Green/red switch button assembly	226EE-AO11K	Contactor, LS11K.11S-AO, 120V
H462A	Guard assembly for switch buttons	226EE-CO11K	Contactor, LS11K.11S-CO, 208-230V
HHS070S	Hex head screw, ³ / ₈ -16 x 1, SS	226EE-EO11K	Contactor, LS11K.11S-EO, 380-415V-50hz
HN05S	Hex nut, 8-32 SS	226EE-FO11K	Contactor, LS11K.11S-FO, 575V
HN20S	Hex nut, 5/16-18 SS		E Start P/B, 22mm Ext w/ NO contact block
LW03S	Lock washer, #8 SS		F Start P/B, 22mm Flush w/ NO contact block
LW15S	Lock washer, 5/16 SS	226EE-22PB-RF	E Stop P/B, 22mm Flush w/ NC contact block
LW20S	Lock washer, 3/8 heavy SS	226EE-514	BAEG/MS-PB/05-C8 2HP 220-50/60-3
RHS075S	Round head screw, 8-32 x ³ / ₄ SS	226EE-516F	BAEG/MS-PBF/05-E4.7 1-1/2-2HP 440-60-3
14256	Junction box, plastic w/ cover	226EE-518	BAEG/MS-PB/05-D4.7 2HP 380-50-3
14257	Junction box, metal	226EE-5221	BAEG/MS-PSF/05-CS14 1.5HP 230-50/60-1
14258	Junction box cover, metal	226EE-5241	BAEG/MS-PB/A26 2HP 120-60-1
16296-2	Switch bracket, SS	226EE-5261	BAEG/MS-PB/CS16 2HP 230-60-1
151	Watertight conduit	226EE-530	BAEG/MS-PB/05-F3.2 2HP 550-60-3
225-3	Conduit connector, WT, 45°	226EE-534	BAEG/MS-PB/05-E6.3 3HP 440-60-3
226EE-ENCL-PB22	Enclosure w/ pushbutton, 22mm holes	226EE-536	BAEG/MS-PB/05-D8 3HP 380-50-3
226EE-OL02.4H	Overload, B05-H, 1.7-2.4A	226-28	Washer, 1½ x ²⁷ /32 SS
226EE-OL4I	Overload, B18K-I, 2.5-4A	241BL	Wire, Black, 12 GA., CSA & UL
H281EE-51	Overload, B18K-K, 4-6.3A	241GR	Wire, Green, 12 GA., CSA & UL
226EE-OL08.5L	Overload, B18K-L, 5.5-8.5A	241RD	Wire, Red, 12 GA., CSA & UL
226EE-OL12M	Overload, B18K-M, 8-12A	241WH	Wire, White, 12 GA., CSA & UL
H281EE-31	Overload, B18K-N, 10-16A	297-1	Wire terminal eyelet, 12 GA.
226EE-OL26ON	Overload, B18K-ON, 21-26A	42MC-Y73	Green start button, 30mm
		42MC-Y74	Red stop button, 30mm

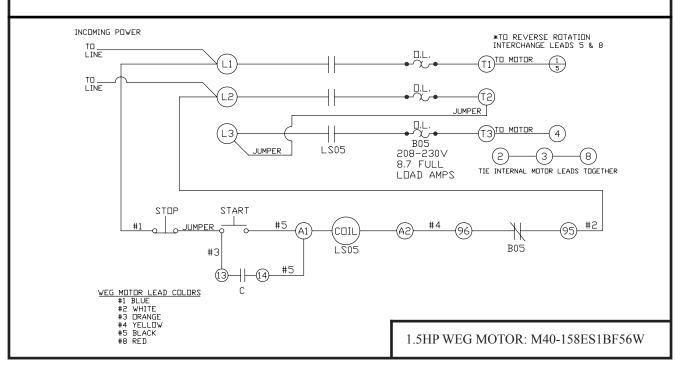
OPERATOR'S NOTES

115 VOLT WITH 6 LEADS

SCHEMATIC USING 1 PH AEG LS11K CONTACTOR WITH B18K OVERLOAD W.T. SWITCH FOR 115 VOLT, SINGLE PHASE, 60 CYCLE WEG MOTOR 1-1/2HP WITH 6 MOTOR LEADS

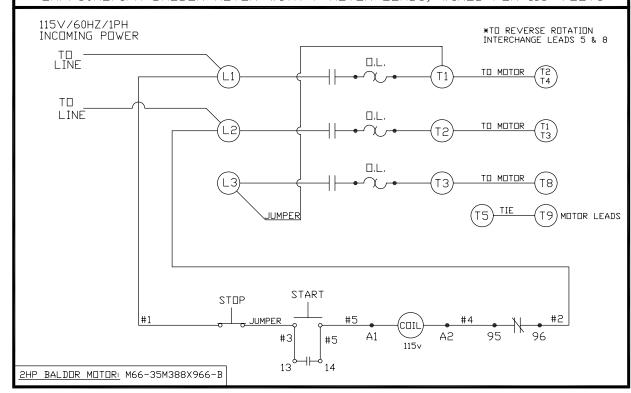


208-230 VOLT WITH 6 LEADS SCHEMATIC USING 1 PH AEG LS05 CONTACTOR WITH B05 OVERLOAD W.T. SWITCH FOR 208-230 VOLT, SINGLE PHASE, 60 CYCLE WEG MOTOR 1-1/2 HP WITH 6 MOTOR LEADS



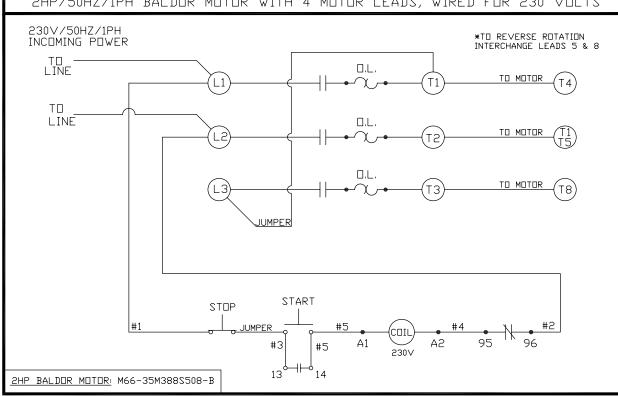
-115 VOLT WITH 7 LEADS-

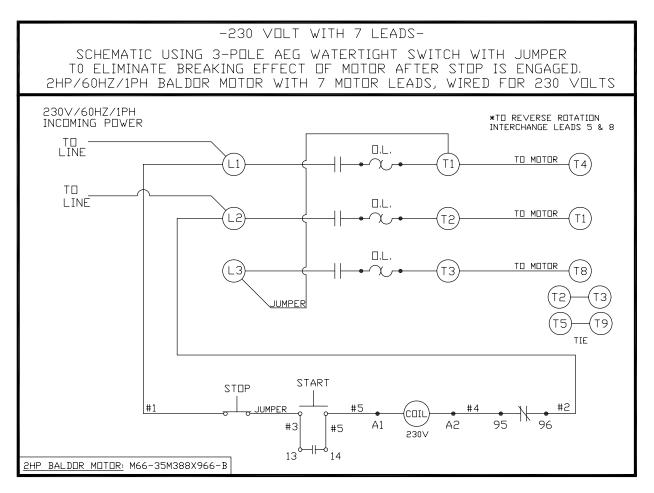
SCHEMATIC USING 3-POLE AEG WATERTIGHT SWITCH WITH JUMPER TO ELIMINATE BREAKING EFFECT OF MOTOR AFTER STOP IS ENGAGED. 2HP/60HZ/1PH BALDOR MOTOR WITH 7 MOTOR LEADS, WIRED FOR 115 VOLTS

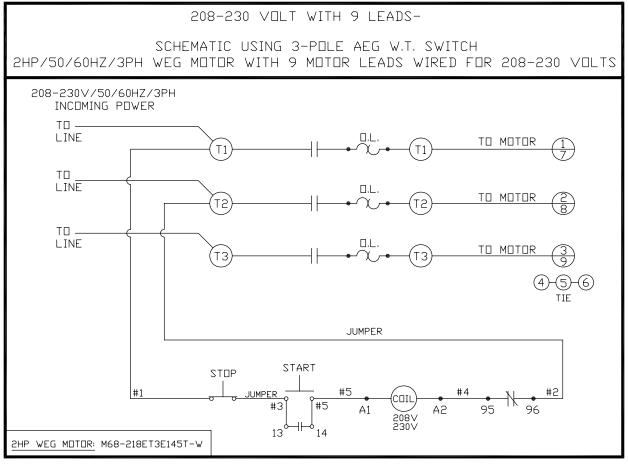


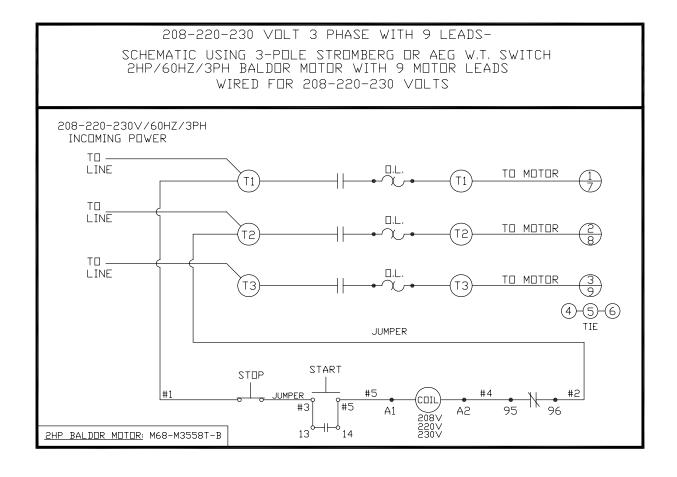
-230 VOLT WITH 4 LEADS-

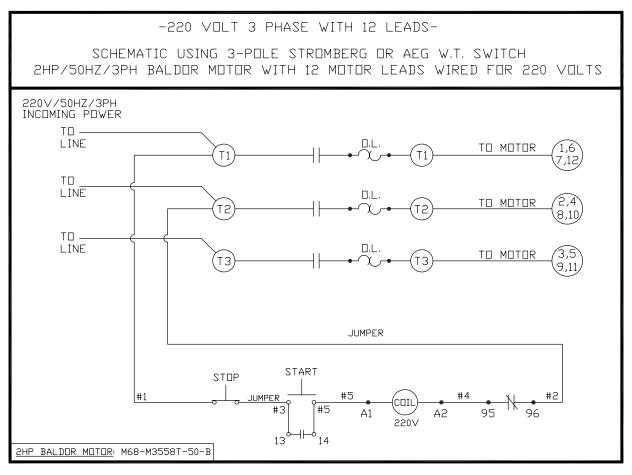
SCHEMATIC USING 3-POLE AEG WATERTIGHT SWITCH WITH JUMPER TO ELIMINATE BREAKING EFFECT OF MOTOR AFTER STOP IS ENGAGED. 2HP/50HZ/1PH BALDOR MOTOR WITH 4 MOTOR LEADS, WIRED FOR 230 VOLTS

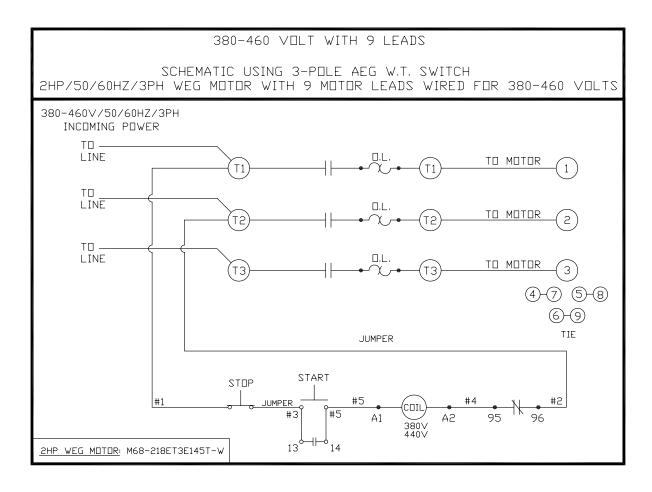


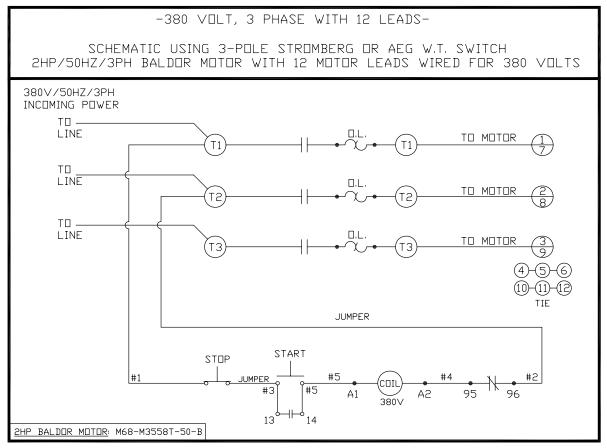


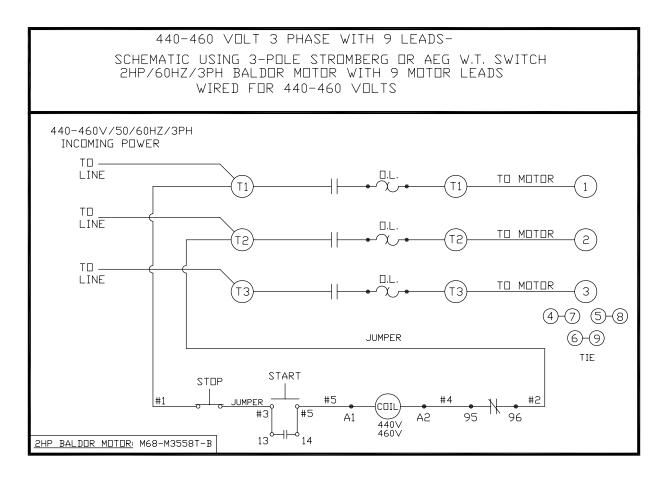


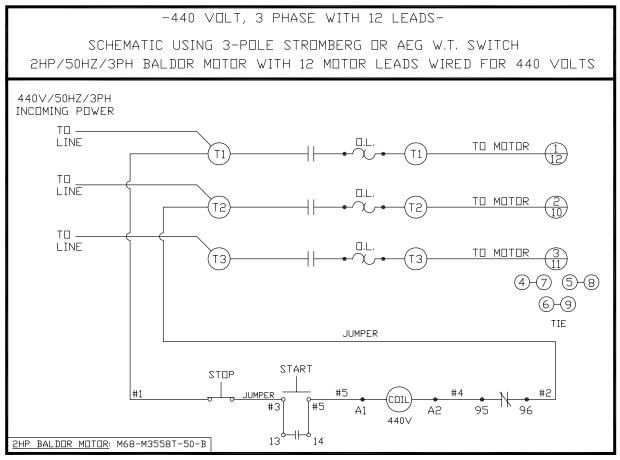












CLEANING



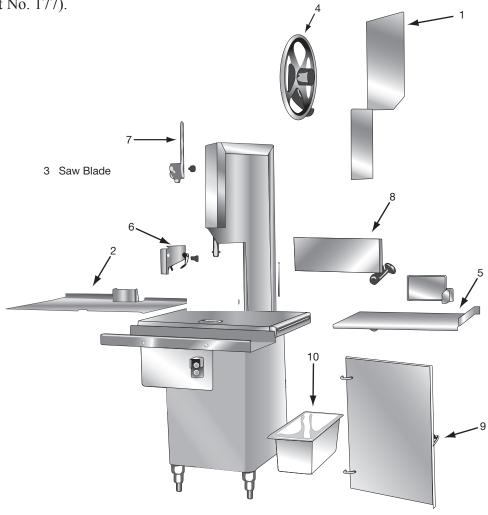
SHARP MOVING BAND TYPE SAW BLADE

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 SAW:

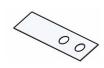
Disconnect electrical power to the machine before cleaning. Parts to be removed have been made accessible and can be removed without tools. Notice in the drawing below that all parts are numbered. Each part should be removed for cleaning in the numbered sequence shown. To ensure cleaner cuts, keep the parts on 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. S119A), Upper Saw Guide (Part No. 602B), Lower Blade Back-Up Guide (Part No. S608), and Nylon Filler (Part No. 177).



WEARABLE SAW PARTS THAT WILL FIT **BIRO MODEL 1433FH**



Item No. S119A LOWER SAW GUIDE



Item No. 131 STEEL BLADE CLEANER



Item No. 177 NYLON FILLER



Item No. 179 WHEEL CLEANER



Item No. S229 WHEEL CLEANER ARM SPRING



Item No. S244 WHEEL CLEANER ARM STUD



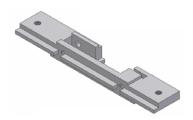
Item No. S265 MEAT GAUGE SPRING



Item No. S268 FILLER & GUIDE STUD



Item No. S295 WHEEL CLEANER ARM



Item No. S415D STAINLESS STATIONARY BAR



Item No. 601 UPPER SAW GUIDE BRACKET



Item No. S608 LOWER BLADE BACKUP w/ CARBIDE



Item No. S602B UPPER SAW GUIDE W/ BEVELED CARBIDE



Item No. 16159 CARRIAGE BEARING





USE PARTS REPAIR KIT PART NO. 12700-2

MODEL 1433FH

PART NUMBERS AND DESCRIPTIONS

MODEL NO. AND SERIAL NO. REQUIRED WHEN ORDERING PARTS

T4	Description	T4	D
Item no. AN15S	Description Acorn nut ¹ / ₄ -20, SS	Item no. 12273RH-3	Description Most gauge breeket, PH
	Acom nut, 3/8-16, SS		Meat gauge bracket, RH Wearable parts replacement kit
AN20S	Carriage bolt, %-16 x 23/4, 316 SS	12700-2 131	
CB98S-316	Hex head screw, ½-20 x 1½, SS	14003U-6	Saw cleaner, SS
HHS048S	Hex head screw, 1/4-20 x 11/4, SS Hex head screw, 1/4-20 x 11/2, SS		Upper wheel, 14"
HHS0481S	Hex screw- nylon 5/16-18 x 1/2, SS	14003UDF-6	Upper wheel, 14", double flange
HHS049NL	Hex head screw, 5/16-18 x 5/8, SS	14212W	Platter rod
HHS050S		14232	Scrap bucket
HHS060S	Hex head screw, 5/16-18 x 1, SS	14255	Saw guard on saw guide bar w/ 708 decal
HHS067S	Hex head screw, ³ / ₈ -16 x ³ / ₄ , SS Hex nut, ³ / ₈ -16, SS	14256 14275	Junction box
HN30S	Lock washer, ⁵ /16,SS		Meat gauge arm
LW15S	Lock washer, 38, SS	14275-5	Meat gauge plate, SS
LW20S		14301-B	Name & model plate (Serial number req'd)
	Motor, 2HP 230-50-1 open	14302HT	Saw blade, 108"
	Motor, 2HP 115/230-60-1 open	14313FH-304	Operating and service manual
M68-M3558T-B	Motor, 2HP 208-230/440-460-60-3 TEFC	14544	Grease seal, 1.50 ID Retaining ring, internal, 2 ⁷ /16 ID
SSS11SB	Set screw, ½-20 x ¼, w/ brass tip Set screw, 5/16-18 x 5/16, cup point	14545	Grease seal, % ID
SSS15S		14548	
S116-22	Saw guide bar 22", SS	14549	Lower bearing housing cap
S119A	Saw guide in stationary bar	14550	Adjustment screw, lower bearing housing Hex jam nut, 5/8-11, SS
S12132	Cleaning unit, rear	14551	
\$12290-3	Front blade, wheel cleaning unit	14560	Lower saw wheel, removable
S14005E	Fixed head, SS	14560DF	Lower saw wheel, removable, double flange
S14006E	Head door for fixed head, SS	14746	T-handle lock, removable lower wheel
S14007	Channel bracket, SS	14779-1	Blade tension cap gauge
S14214	Side platter bracket, SS	14780	Blade tension adjustment housing
S14217PD	Base door left, SS, bolt on	14781	Blade tension adjustment handle
S14217R	Base door right, SS, hinged	14782	Blade tension screw, SS
S14335XE	Upper hinge bracket, fixed head, SS	14783	O-ring
\$155-11	Meat carriage stop thumb screw, SS	14785	Plastic washer
S155B-1	Meat carriage stop, welded	14786	O-ring for gauge
S155EZ-3	Hex stand off Channel	151	Conduit, watertight, per inch Head door latch
\$16120 \$163E		16112	
S163F S200B1	Platter spacer weld button, SS	16155EZ 16159	Meat carriage, EZ flow
S217C	Stop stud on saw guide bar Base door hinge pin, long, SS	16163B	Meat carriage bearing Platter neck guard
S217E	Base door hinge pin, short, SS	16200	Carriage stop, movable
S217E S229	Wheel cleaner arm torsion spring, SS	16220-1	Carriage stop, fixed
S235	Taper pin, SS 4 x ³ / ₄	16251-90X78AL	Upper V-belt pulley, 9 x 7/8, aluminum
S239-B40	Base foot welded, short, SS	163A	Platter rod clip
S239-B40 S239-B41-4	Adjustable leg bolt, SS	16517	Inner race spacer, removable wheel
S242R	Base door lock, right, SS	16543	Lower shaft
S244 S244	Wheel cleaner arm stud, SS	16547	Lower bearing housing, removable wheel
S249	Base door handle	17211-22	Finger lift shim, .022
S252X	Upper shaft lock nut, SS	17211-22	Finger lift shim, .035
S252A S253	Upper wheel aligning screw, SS	175-1-S	Thumb guard nut
S262	Meat gauge release handle, SS	175-1-S 175-2-S	Thumb guard screw ½-20
S264-1	Meat gauge release hand wheel	175 S	Thumb guard, nylon
S265	Meat gauge release spring, SS	177	Stationary bar nylon filler
S268	Stationary bar headless screw, SS	179	Wheel cleaner
S270	Meat gauge release pin w/ holes, SS	18120EZ-B3	Guide bar, EZ flow, T-shaped
S276 S295	Wheel cleaner arm, SS	194	Saw guide bar lock pad, brass
S325	Wheel cleaner arm washer, SS	194KS-1	Saw guide bar lock knob assembly
S360CB-1	Carriage bolt, 3/8-16 x 11/4, SS	196-2	Saw tension spring, fixed head
S415D	Stationary bar, SS	211	Finger lift bracket
S416	Platter locator weld pin, SS	211A-291Q	Finger lift fastener knob, 4-point
S608	Lower blade back-up guide w/ carbide	211Q 211Q	Fastener knob, 4 point. ⁵ /16-18
S71-3	Upper wheel hinge bracket, fixed head	211Q 212CP	Platter rod cotter pin
112-212	Waved washer	221-52	V-belt, 52"
119FSC	Saw guide in stationary bar, fish	221-52	V-belt, 53"
12273LH	Meat gauge bracket, LH	224	Conduit connector, straight
1 4 4 / J L I	Weat gauge blacket, Ell		Conduit connector, straight

MODEL 1433FH PART NUMBERS AND DESCRIPTIONS (Cont.) MODEL NO. AND SERIAL NO. REQUIRED WHEN ORDERING PARTS

Item no.	Description	Item no.	Description
224-1P	Conduit connector, WT, straight	311	Rubber bumper for #16220-1 stop
225	Conduit connector, 90°	311-1	Rubber bumper for #16200 stop
225-1P	Conduit connector, WT, 90°	324	Motor shim, 1/16"
225-2	Conduit connector, 45°	324A	Motor shim, $\frac{1}{8}$ "
226-28	Conduit connector washer	331	Platter bracket rubber bumper
230DL	Upper shaft seal, double lip	340	Star lock washer
231DL	Lower shaft seal, double lip	360A1	Bearing housing angled grease fitting
234	Grease fitting, upper wheel	374	Shell Cassida grease EPS-2
237	Upper shaft castellated lock nut	375	Drive screw for name plate
238	Upper shaft castellated lock nut washer	376	Drive screw, SS #10 x ½
247	Upper shaft	4-30AL	Motor pulley, Al, 60cy, 5 x ³ / ₄
248	Upper wheel hub cap	4-35AL	Motor pulley, Al, 60cy, 5 x 7/8
256P	Safety pusher plate, composite	4-45AL	Motor pulley, Al, 50cy, 6 x ³ / ₄
256PM	Safety pusher plate, aluminum	4-49AL	Motor pulley, Al, 50cy, 6 x 7/8
259	Conduit anti-short bushing	513	Upper wheel hub bracket
260	Aluminum slide gib	530	Retaining snap ring
264G	Hand wheel groove pin	55178	Plunger pin
267	Meat gauge release cotter pin	601	Upper saw guide bracket
271AL	Meat gauge worm gear, Aluminum	602B	Saw guide, upper
272-8	Cap nut, ⁵ /16-18	602BFSC	Saw guide, upper, fish
272-10	Meat gauge lock knob, 4 point	653PC-E	Warning label, English
272-11	Lock knob socket screw	653PC-F	Warning label, French
280	Key	653PC-SP	Warning label, Spanish
310	Waved washer	708	Decal "DANGER EXPOSED BLADE"

COMPLETE ASSEMBLIES FOR MODEL 1433FH

Item no.	Description	Item no.	Description
AS116-2214	Saw guide bar assembly, 22"	A14275	Meat gauge plate assembly
AS12132	Rear cleaning unit assembly	A14787	Blade tension spring-screw assembly
AS12290-3	Front cleaning unit assembly	A16112	Head door latch assembly
AS14005E	Head and door assembly	A16155EZ	Meat carriage assembly, EZ flow
AS14006E	Head door assembly	A16200	Carriage stop assembly, movable
AS14217R	Base door assembly, hinged right	A16220-1	Carriage stop assembly, fixed
AS14273-275	Meat gauge assembly	A16547	Lower bearing housing assembly without
AS16120EZ	Channel assembly, EZ flow		wheel
AS249R	Base door lock handle assembly, right	A227	Upper bearing cup/cone assembly
AS415D	Stationary bar assembly	A247	Upper shaft bearing assembly with spacer
A14003U-6	Upper wheel assembly w/out hinge plate		without wheel
A14003U335-6E	Upper wheel assembly w/ hinge plate	A262	Meat gauge release assembly
A14163	Stationary platter assembly	A295	Wheel cleaner assembly
A14211	Fingerlift assembly with guard	A363	Lower bearing cup/cone assembly
	<i>y</i>	AS71-3	Upper wheel hinge bracket assembly, FH

OPERATOR'S SIGNATURE PAGE

WARNING

READ AND UNDERSTAND THIS ENTIRE MANUAL BEFORE SIGNING BELOW

MY SIGNATURE ATTESTS THAT I HAVE COMPLETELY READ AND UNDERSTAND THIS MANUAL. I REALIZE THAT THIS MACHINE, IF OPERATED CARELESSLY, CAN CAUSE SERIOUS INJURY TO MYSELF AND OTHERS.

NAME (PRINT)	SIGNATURE	SUPERVISOR'S INITIALS	DATE

LIMITED WARRANTY:

WARRANTY: The BIRO Manufacturing Company warrants that Model 1433FH 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 date of Inspection/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: wearable parts on the cleaning system such as wheel cleaners (Item No. 179), saw blade cleaners (Item No. 131) blade backup guides (Item No's. 602B, 605, S608 and S119A), and the nylon filler (Item No. 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 for electrical connection of equipment, adjustments to switch controls 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 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 EXCLUSIVE REMEDIES AGAINST BIRO.

REGISTRATION CARDS: You must sign, date and complete the warranty registration 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:

- 1. Contact the agency from whom you purchased the machine; or
- 2. Consult the yellow pages of the phone directory for the nearest authorized dealer; or
- 3. Contact Biro Manufacturing Company for the nearest authorized service entity in your area.

BIRO MANUFACTURING COMPANY
1114 W. Main St
Marblehead, OH 43440
Ph. 419-798-4451
Fax 419-798-9106
Service@birosaw.com
www.birosaw.com

Item No.: 14313FH-304

PTCT: MD 1433FH-5-18-13 B