



**GENERAL MACHINERY CORPORATION**

**MODEL 3100**  
**S/M Flaker**  
**Frozen Meat Flaker/Slicer**

**Manual #3100-1.**

**Operations Manual and Parts List**

**General Machinery Corporation**  
**1831 N. 18<sup>th</sup> Street – P. O. Box 717**  
**Sheboygan, Wisconsin – USA 53082-0717**  
**TELEPHONE: 920-458-2189 or 888-2-GENMAC**  
**FAX: 920-458-8316**  
**Internet Address: <http://www.genmac.com>**  
**E-Mail Address: [sales@genmac.com](mailto:sales@genmac.com)**

## **NEW MACHINE GUARANTEE**

**GENERAL MACHINERY CORPORATION (GMC)**  
guarantees parts of its manufacture against defect in material and workmanship for a period of one year (12 months) from date of invoice. Guarantee is limited to replacement and/or repair of such defective parts.

To implement the guarantee, customer must inform GMC of parts defect. If it is determined that replacement is required, GMC will ship and invoice identical or similar parts to the customer. After replacement parts are installed, and operate satisfactorily, customer must return the faulty part (s) to GMC at Sheboygan, Wisconsin – USA for evaluation. Upon verification of defect GMC will issue a full credit covering the replacement part (s). Labor, handling and shipping costs are not included in the guarantee. Guarantee does not cover cost or liability due to misuse, abuse, or improper operation of machinery or parts thereof. Guarantee does not include any parts that are not supplied by GENERAL MACHINERY CORPORATION

## **IMPORTANT SAFETY FIRST**

**READ THESE INSTRUCTIONS BEFORE  
INSTALLING, OPERATING, MAINTAINING OR  
CLEANING EQUIPMENT**

- 1. MARK A MINIMUM "SAFE AREA" AROUND THE MACHINE.**
- 2. ONLY A LICENSED ELECTRICIAN SHOULD CONNECT MACHINE TO POWER SOURCE.**
- 3. TEST SAFETY GUARDS BEFORE OPERATING MACHINE.**
- 4. ONLY AUTHORIZED TRAINED PERSONNEL SHOULD WORK WITH OR NEAR MACHINE.**
- 5. MACHINE SHOULD BE UNDER POWER ONLY WHEN THE PRODUCT IS BEING PROCESSED.**
- 6. IMPORTANT !!! IF FOR ANY REASON, INCLUDING, BUT NOT LIMITED TO, IMPROPER PRODUCT FEED, BLOCKAGE, UNFORESEEN MALFUNCTION, ETC., OCCUR, FIRST PRIORITIES ARE TO:  
    A. TURN POWER OFF!  
    B. SEEK SUPERVISOR'S ASSISTANCE, AND  
    C. ASSURE SAFETY BEFORE RESTARTING.**
- 7. WARNING DECALS ARE PLACED ON ALL GUARDS, REPLACE THEM WHEN WORN. DO NOT OPERATE THE MACHINE WITHOUT SAFETY DECALS IN PLACE.**

### **\*\* CLEANUP AND MAINTENANCE CREWS \*\***

- 1. DISCONNECT ALL POWER TO MACHINE BEFORE MAINTENANCE OR CLEANING.**
- 2. BLOCK CUTTING BLADES AND/OR MOVEABLE PARTS TO PREVENT MOVEMENT DURING MAINTENANCE OR CLEANING.**
- 3. WEAR PROTECTIVE GLOVES. USE LONG HANDLED BRUSHES FOR CLEANING BLADES OR OTHER HAZARDOUS AREA.**

**IF ASSISTANCE IS REQUIRED CONTACT  
MANUFACTURER BEFORE OPERATING THE EQUIPMENT  
REMEMBER**

**THE SAFEST MACHINE IS ONLY AS SAFE  
AS YOU WANT IT TO BE!!!**

**PHONE 1-888-2-GENMAC (1-888-243-6622) FAX 920-458-8316**

**E-Mail: [sales@genmac.com](mailto:sales@genmac.com)**



**GENERAL MACHINERY CORPORATION**

## **IMPORTANT NOTICE**

**Employ machine only for the purpose advertised by manufacture.**

**Due to federal laws dealing with safety, GMC requires that operating and safety instructions related to this machine, be brought to the attention of any and all personnel who operate, maintain, clean, or supervise or manage its use.**

**If this machine is disposed of or used by any other concern, these instructions must accompany the machine, and be brought to the attention of such concern.**

**GMC is to be promptly notified if the machine is sold or disposed of in any manner:**

**PHONE: 920-458-2189**

**FAX: 920-458-8316**

**Only parts or equipment manufactured by GMC, or authorized by GMC in writing, are to be employed on or with this machine.**

**READ THIS IMPORTANT NOTICE WITH REGARD TO SAFETY**

**Product may contain foreign materials that can damage equipment and/or cause food contamination. As a precaution, operators must be alerted and metal detectors employed to check product before and subsequent to entering equipment.**

**Our engineering department is continually evaluating both new safety equipment and that employed in the field. Consequently, we require immediate notification in regard to any perceived hazards, and prior to any modifications, or if the machine is sold, loaned, transferred, or otherwise disposed of. That information will allow us to maintain accurate files and assure continued safe operation.**

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USA  
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Fax: 920-458-8316  
E-mail: [sales@genmac.com](mailto:sales@genmac.com)**

**YOUR ATTENTION PLEASE:**

**This notice or copy thereof, must be brought to the attention of all personnel connected with the operation, maintenance, sales and/or disposition of GMC Equipment. Attach to your permanent records for regular reference.**

**WARNING**

**DO NOT CONNECT POWER OR OPERATE MACHINE WITHOUT VISUALLY CHECKING TO SEE THAT ALL MOVING PARTS ARE SECURED, AND ANY OBSTACLES ARE REMOVED FROM THE CUTTING AREAS. FOR MACHINES WITH CRANKS, TURN MACHINE OVER MANUALLY TO MAKE SURE ALL MECHANISMS ARE WORKING CORRECTLY.**

**REMOVE CRANK BEFORE STARTING MACHINE**

**DO NOT REMOVE AND/OR MODIFY ANY MACHINE COMPONENTS. ALL COMPONENTS SUCH AS GUARDS, PANELS, GAUGES, ETC. MUST BE IN PLACE AND FUNCTION PROPERLY BEFORE MACHINE IS PUT INTO OPERATION. ANY MALFUNCTION, OR MISSING COMPONENTS MUST BE BROUGHT TO THE ATTENTION OF THE MANUFACTURER IMMEDIATELY.**

**This safety notice should be prominently displayed in the work area, given to the supervisor and operating personnel in an effort for all employees to be concerned about safety precautions.**

**GMC**



**SAFE T DECALS** give instant warning that sharp blades are in operation alerting the operator as well as employees working near your slicer that a hazard exists. The **SAFE T DECALS** are made of a tough durable plastic designed to take the rigorous environment of food processing facilities. Adhesive mounted, **SAFE T DECALS** can be placed on any slicing machine in your processing line. Order **SAFE T DECALS** now to alert your employees of slicing machine hazards.

## **INSTALLATION**

### **MODEL 3100 S/M FLAKER**

The S/M FLAKER has been fully inspected, and test operated at the factory, prior to shipment.

It is necessary when receiving the S/M FLAKER, the crate and machine be checked for external damage in transit. If damage has occurred, make special notation on the Bill of Lading, so corrective action can be taken with the freight carrier.

1. Remove all crating material and skids from machine, and recheck for shipping damage.
2. Move machine to proper location, with machine placed in a perfect level position. All four legs are to firmly contact the floor or support area.
3. Remove protective coating from blades, etc.
4. Connect to power supply line, voltage, phase, and cycle of is indicated in electrical control box. The S/M FLAKER must be properly fused through a disconnect box, and the machine properly grounded for safety. The motor operating the S/M FLAKER, is connected through overload switches, which will give the motor ample protection. Upon connecting the machine to proper power supply, it is absolutely essential that the direction of rotation of the motor is correct. When facing the pulley side of the machine, the drum rotates in a clockwise direction.
5. When the S/M FLAKER is properly leveled and supported, the cutting drum will revolve smoothly, without any vibration.

## **OPERATING INSTRUCTIONS**

For optimum performance the product should be between 5-25 deg. F (-15 to -3 deg. C)

The S/M FLAKER is completely lubricated, prior to leaving the factory. It is necessary that all bearings are greased a minimum of once a week.

After each day's operation, it is advisable to thoroughly clean the machine. After each day's operation, the knives should be checked sharpness. Hone if necessary. Check tightness of blades (12-15 ft. lbs. recommended) The drive belts from the motor to the knife drum will require tightening, after several days of operation. The taughtness of these belts should be checked periodically to maintain full cutting power.

The S/M Flaker has one push button station (P-621-029) located adjacent to the loading table. A limit switch (P-620-014) will automatically stop power to the cutting drum, when the safety lock (31A-016) is turned out, prior to lifting the discharge hood (31D-013-2). To facilitate easier turning of the safety screw, lift the hood slightly at its leading edge.

The S/M FLAKER is shipped with a standard blade adjustment to cut 1/8" thick flakes. For slice thickness change, it is necessary to remove the (HF-120-5) knives, replace the (HF-113) slice thickness shims, with the size desired, and refasten the knives firmly in position. Adjust the blade spacing at cut off station, by moving the drum (HF-114-A-1), back with adjusting screws located at drum bearings (P-030-031). Turn drum to check blade clearance. When changing or resetting knives, for different slice thickness, it is important that the machine be made electrically inoperative, by disconnecting the disconnect.

### **CAUTION**

The cutting drum (HF-114-A-1) freewheels after power is turned off. Do not reach into product discharge area, at any time, unless power is off and moving parts are blocked.

### **OPERATING SEQUENCE**

1. Press start button on push button station (P-621-029).
2. Grasp door latch handles (31B-021) pivoting door latches, and pull open the safety-loading module (31D-014), the slide door (31C-012-1) will drop down. The drum will automatically stop if module is pulled out too far or removed.
3. Place block to be flaked onto loading table (maximum block capacity 9" x 20" x 24").
4. Lift sliding door (31C-012-1), and in one continuous motion insert the block into the cutting hopper. Lock the door by pivoting door latches into receptacles.
5. Wait until you hear that the block has completed flaking, then repeat procedure for subsequent blocks.

## CLEAN UP PROCEDURE

1. Turn power off at disconnect box. **CAUTION** – Be sure all moving parts are stopped and blocked.
2. Unlock and lift discharge hood (31D-013), holding in position with (31A-024) latch.
3. Pull loading module (31D-014), to open position.
4. Drop sliding door (31C-012-1)
5. Machine can be hosed down or pressure washed. Typical food processing cleaners can be used.

## **CAUTION**

Make sure all moving parts are blocked. All cleaning must be done with long handled brushes and protective gloves, for the hands. Meat probe (31B-040) is provided to help clear left over product in the discharge area.

## MAINTENANCE

The cutting blades (HF-120-5), are made of special 420C hardened stainless steel, and should be honed (by hand) regularly. Should blades require regrinding, we suggest they be returned for factory regrinding, on our special machinery. During factory regrinding, a minimum material is removed, and all cutting angles are maintained, for maximum cutting efficiency. **IMPORTANT – SEE PRINT F-6-IN).**

The V-Drive Belts are to be kept tensioned, for full power cutting requirements.

All component parts are of the best materials available, with top quality workmanship. Should there be any detail information required, pertaining to any of these parts, please contact GENERAL MACHINERY CORPORATION. We strongly recommend factory replacement parts for traceability.

## TROUBLE SHOOTING

1. Motors do not operate or stop during operation.
  - a. Check fuses in disconnect box.
  - b. Check for low voltage.
  - c. Thermal overload elements have disconnected starter (RESET).
  - d. Check contacts on magnetic starter.

- e. Check to see if safety switches (P-620-001 & P-620-015) are operating properly.
2. Cutting drum slows down.
    - a. Tighten V-Belts.
    - b. Check blades; if dull, hone or re-sharpen (see Print F-6-IN).
    - c. Meat too soft.
  3. Cuts too thick, or too thin.
    - a. Replace blade shims with shims of proper size.
    - b. Knives dull – hone or re-sharpen.
  4. In the event of blockage, turn power off, and determine where blockage might exist.
    - a. Check all operating mechanisms, to determine where blockage exists. Use meat probe (31B-040) to clear blockage. **Do Not** turn power on until all blockages have been cleared.

If assistance from manufacturer is required, call Toll Free 1-888-243-622.

**S/M FLAKER SLICE THICKNESS CONTROL**  
(see following page for blade diagram)

The S/M FLAKER is equipped with (8) high alloy special tempered blades, which are adjustable to cut frozen meat into slice thickness up to ¼"

The S/M FLAKER is normally equipped at the factory, to cut 1/8" thick slices.

Slice thickness can be changed as desired, by placing appropriate shims, or combination of shims, under each cutting blade (SM-18), up to a total thickness of ¼".

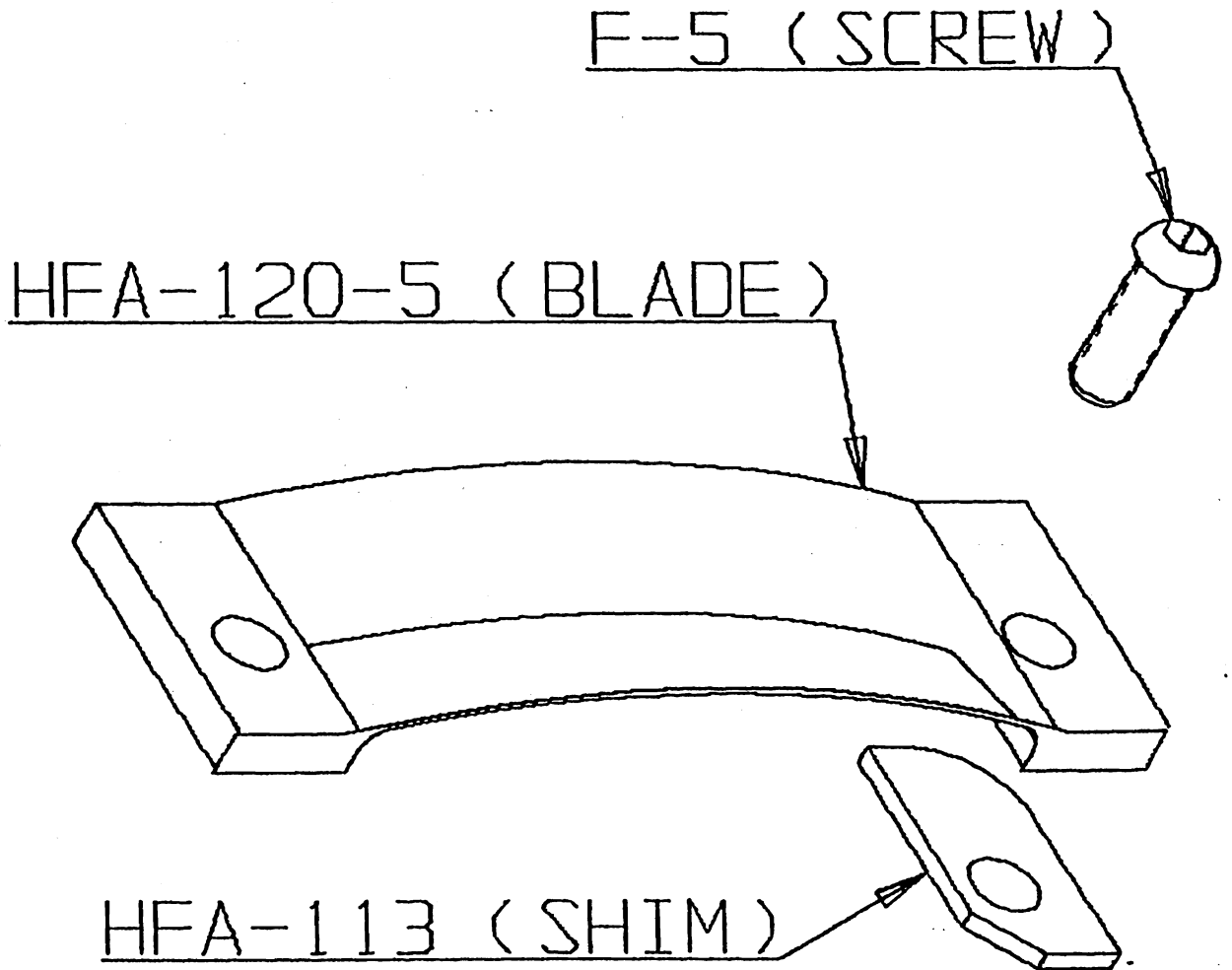
The following slice thickness shims are furnished with the S/M FLAKER:

16 - .032" Thick

16 - .125" Thick

**FACTORY RESHARPENING SERVICE IS RECOMMENDED, TO ASSURE PROPER CUTTING ANGLES, AND MAXIMUM BLADE LIFE.**

MODEL 2500  
HYDRAUFLAKER

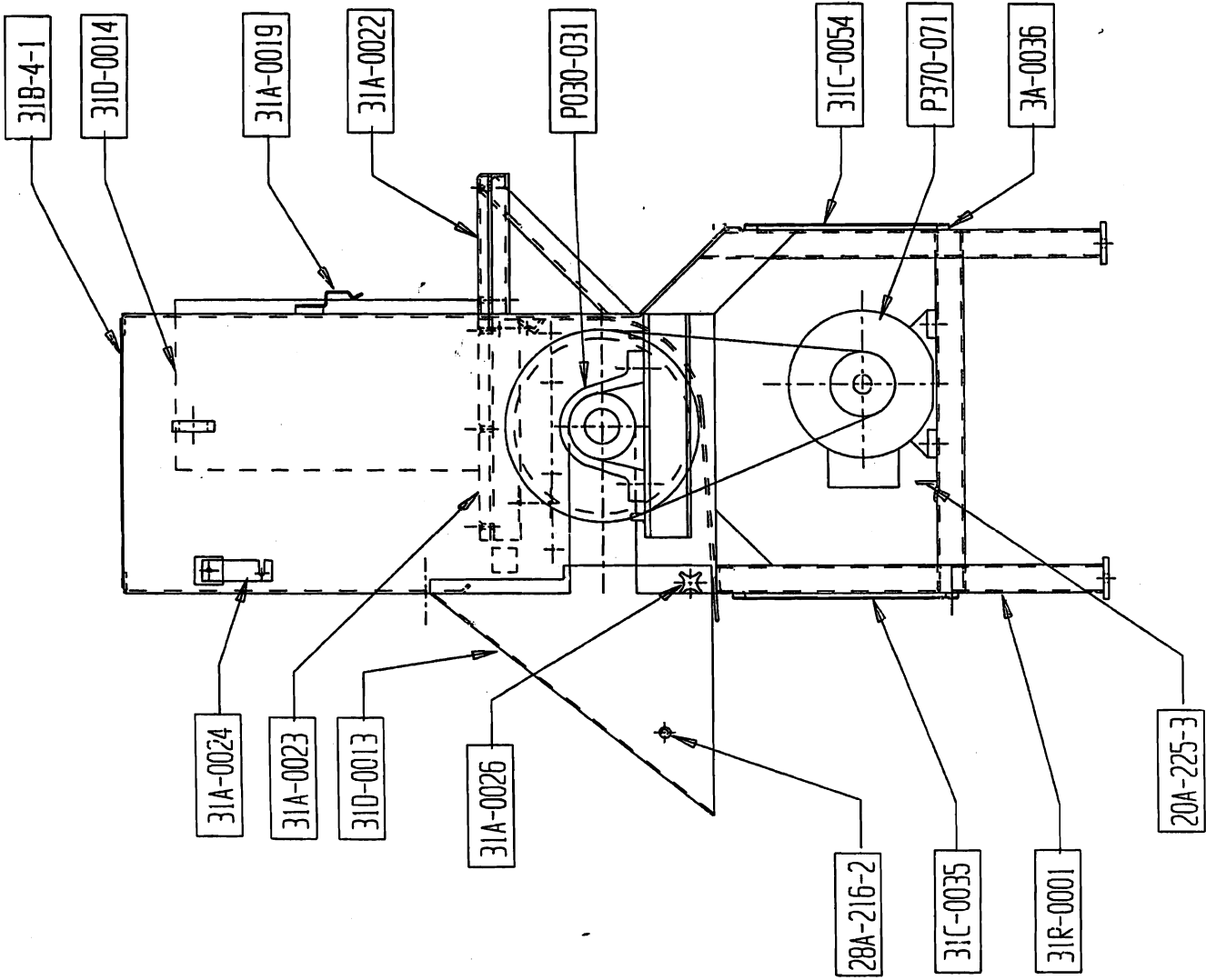


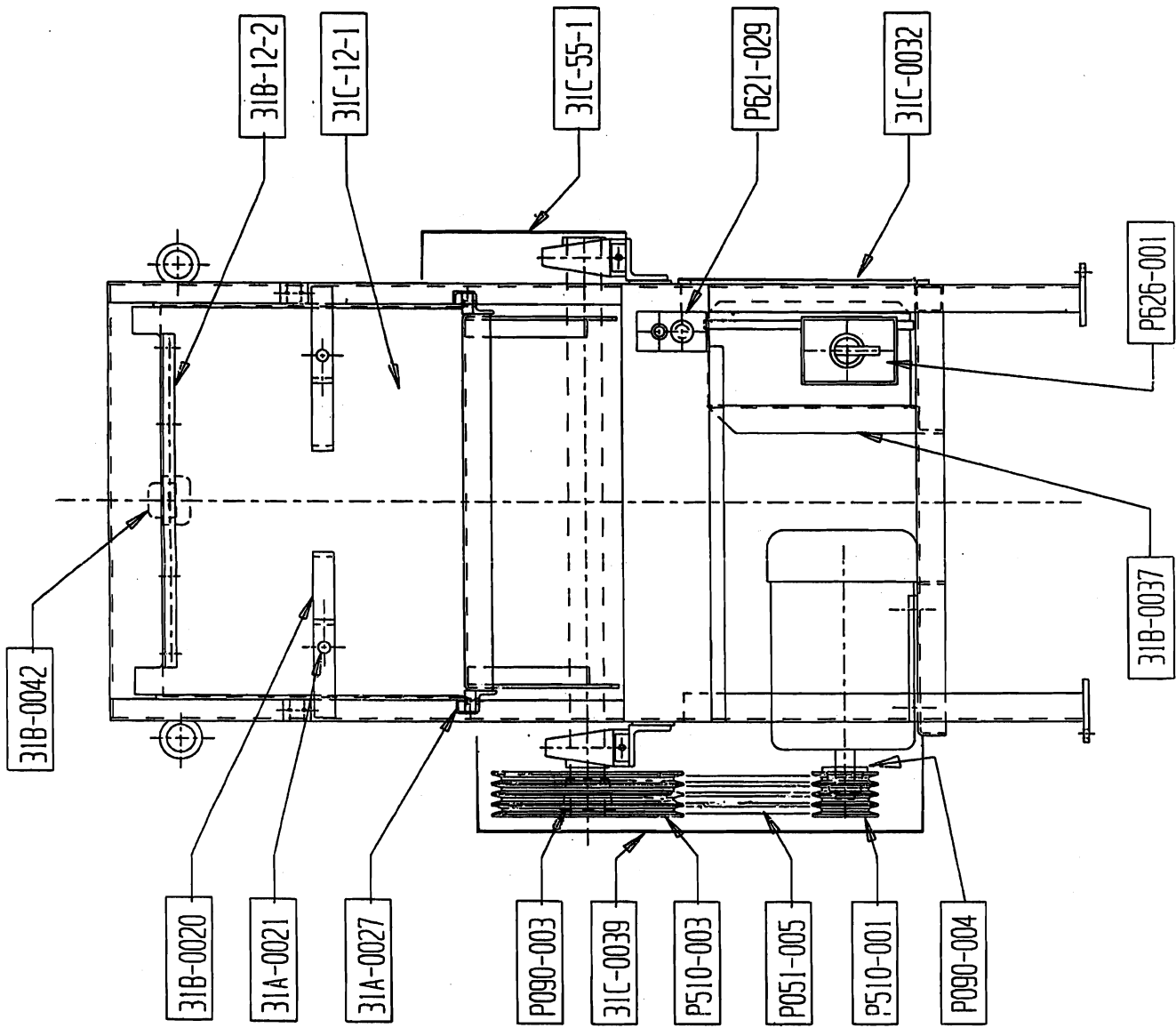
MODEL 3100 S/M FLAKER

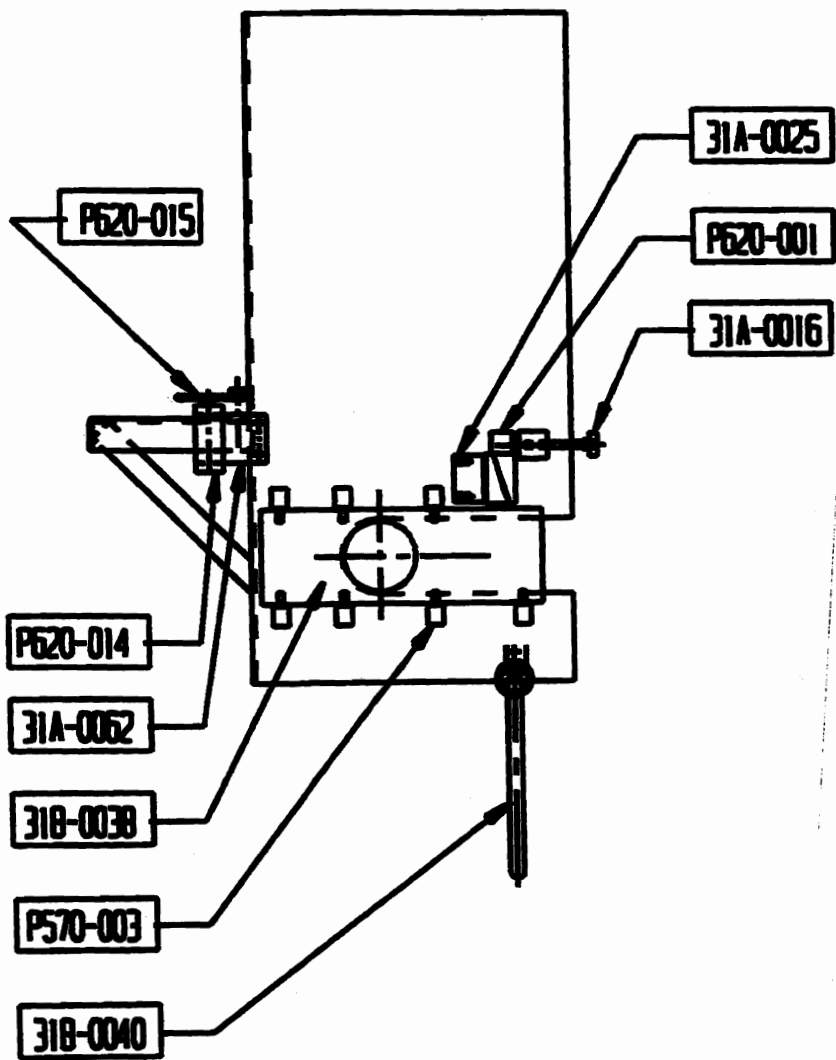
	PRINT	ASSBLY	DESCRIPTION	REQ'D
1			PURCHASED PARTS	
2				
3			MANUAL #3100-1	
4				
5		P-510-001	SHEAVE	1
6		P-090-004	BUSHING	1
7		P-051-005	V-BELT, MATCHED SET	4
8		P-510-003	SHEAVE	1
9		P-090-003	BUSHING	1
10		P-330-001	INSERT FOR DRUM	16
11		P-030-031	DRUM BEARING	2
12		F-5	BUTTON HD BLADE SCREW	16
13		P-570-003	SNAP FASTENER	8
14	NOT SHOWN	P-180-003	ELEC. ENCLOSURE	1
15	NOT SHOWN	P-181-003	PANEL BOARD	1
16		P-621-029	START/STOP STATION	1
17	NOT SHOWN	P-221-005	FUSE BLOCK	1
18	NOT SHOWN	P-220-011	3/4 AMP FUSE	1
19	NOT SHOWN	P-640-005	TERMINAL COVER	1
20	NOT SHOWN	P-640-003	TERMINAL BLOCK	8
21	NOT SHOWN		TERMINAL HAND TOOL	1
22		P-590-015	CONTACTOR 24 VAC	1
23		P-470-016	OVERLOAD RELAY 230 V	1
24		P-620-001	LIMIT SWITCH FOR DISCHARGE	1
25		P-620-014	CHUTE LIMIT SWITCH	1
26		P-620-015	CHUTE SWITCH ARM	1
27		P-370-071	10 HP HI EFF MOTOR	1
28	NOT SHOWN	P-670-009	TRANSFORMER 208/230/460-24V	1
29		P-626-001	ENCLOSED DISCONNECT	1
30				
31			MANUFACTURED PARTS	
32				
33	20A-225-3		TAKE UP ANGLE	1
34	28A-216-2		PIN FOR HOOD	1
35	31A-009	NOT SHOWN	OUT GUIDE RAIL SUPPORT	2
36	31A-016		SAFETY SCREW	1
37	31A-019		DOOR LATCH SPRING	2
38	31A-021		DOOR LATCH SPACER	2
39	31A-022		OUTER SLIDE RAIL	2
40	31A-023		INNER SLIDE RAIL	2
41	31A-024		HOOD LATCH	1
42	31A-026		DISCHARGE HOOD KNOB	2
43	31A-027		GUIDE RAIL	2
44	31A-042-1		SAFETY STOP	1
45	31A-048		WIRING DIAGRAM	1

MODEL 3100 S/M FLAKER

	PRINT	ASSBLY	DESCRIPTION	REQ'D
46	31A-048-B		WIRING DIAGRAM	
47	31A-057	NOT SHOWN	NUT BLOCK	2
48	31A-062		MODULE SWITCH MOUNTING	1
49	31A-063-1	NOT SHOWN	DISCONNECT SWITCH BRACKET	1
50	31B-004-1		TOP PLATE	1
51	31B-012-2		DOOR STOP	1
52	31B-020		DOOR LATCH	2
53	HFB-119-2		DRUM SHAFT	1
54	31B-037		ELEC BOX BRACKET	1
55	31B-038		SLOT COVER	2
56	31B-040		MEAT PROBE	1
57	31B-105	NOT SHOWN	BOLT BLOCK	2
58	31C-012-1		SLIDING DOOR	1
59	31C-032		R.H. SIDE PANEL	1
60	31C-035		REAR PANEL	1
61	31C-039		DRIVE GUARD	1
62	31C-054		FRONT PANEL	1
63	31C-055-1		BEARING COVER	1
64	31C-065	NOT SHOWN	FRONT FLAP	1
65	31D-013-2		DISCHARGE HOOD	1
66	31D-014		LOADING MODULE	1
67	31R-001		MAIN FRAME	1
68	25A-0151	NOT SHOWN	GREASE BLOCKS	2
69	HF-120-5		CUTTING BLADES	8
70	HF-113		BLADE SPACING SHIM .125"	16
71	HF-113-2		BLADE SPACING SHIM .125"	16







31B-28-1

HF-115-3

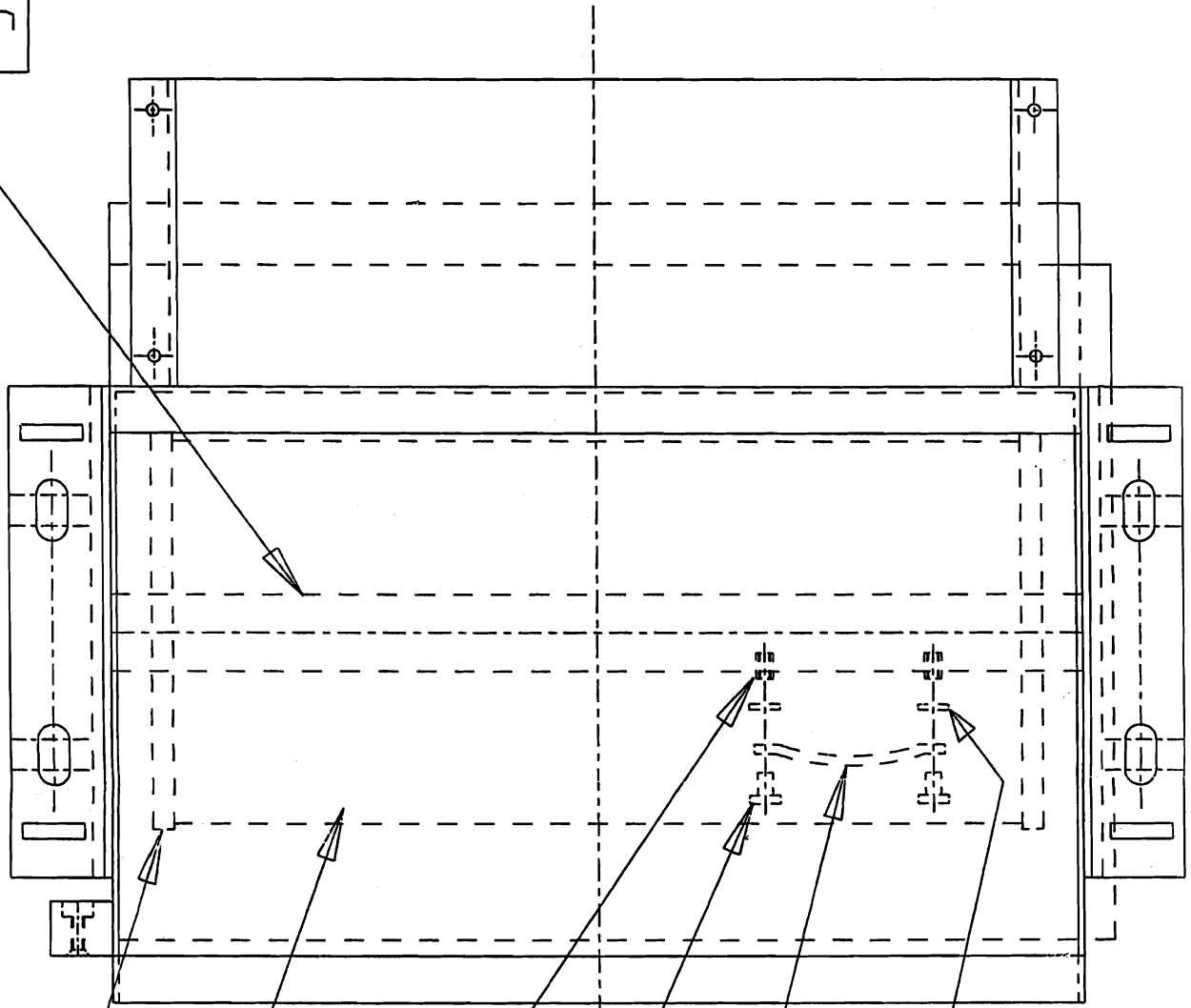
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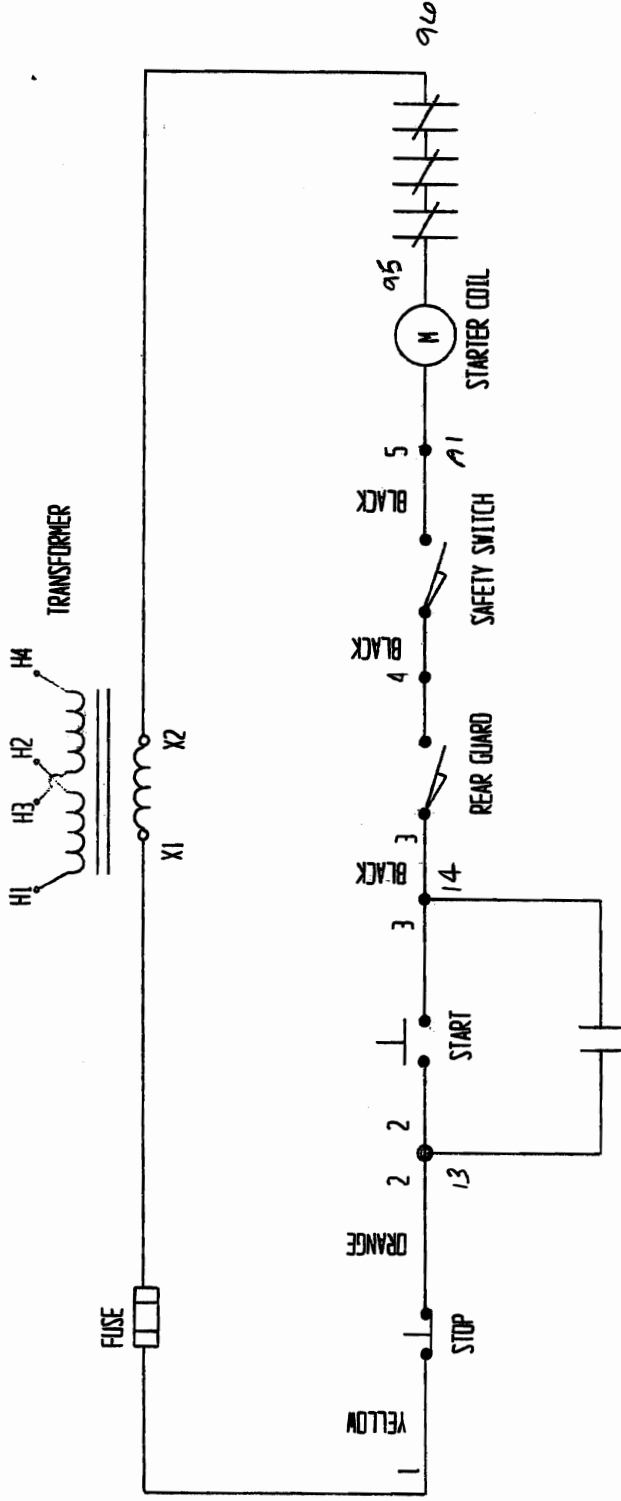
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F-5

HF-120-5

HF-113

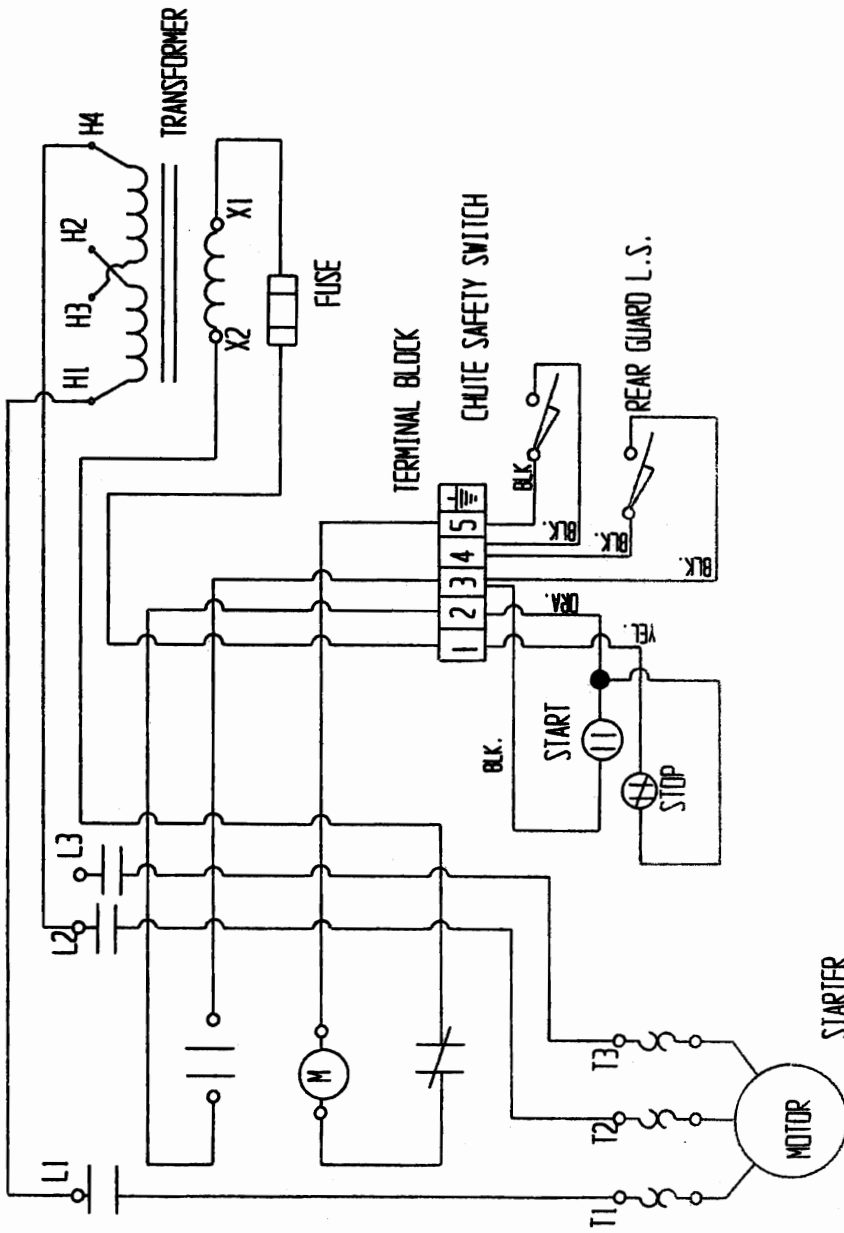




Sheet 1 of 2

REVISIONS		DATE	REVISIONS	DATE	MATERIAL	SCALE	GENERAL MACHINERY CORP. SHEBOYGAN WIS.	
					NO. REQ'D	DATE	TITLE	
					DR. BY	1-13-95	WIRING DIAGRAM	
					MODEL	CHECKED BY	PART NO.	
						APPROVED BY	31A-48	

TOLERANCES — FRACTIONAL DIMENSIONS PLUS OR MINUS .015 — DECIMAL DIMENSIONS PLUS OR MINUS .005 SPECIAL DIMENSIONS AS SHOWN  
 REMOVE ALL BURRS AND SHARP CORNERS TO THE EXTENT THAT THEIR PRESENCE WILL NOT PREVENT HANDLING, ASSEMBLY, OR PROPER OPERATION, OR WILL PRESENT A BAD APPEARANCE.



SHEET 2 OF 2

**GENERAL MACHINERY CORP.**  
**SHEBOYGAN WIS.**

TITLE  
*WIRING DIAGRAM*

SCALE ~  
DATE *1-13-95*  
CHECKED BY  
APPROVED BY

MATERIAL ~  
NO. REQ'D ~  
DR. BY *WIGG*  
MODEL

REVISIONS

DATE

REVISIONS

DATE

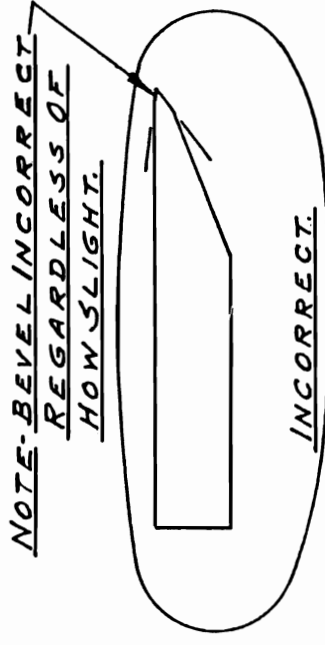
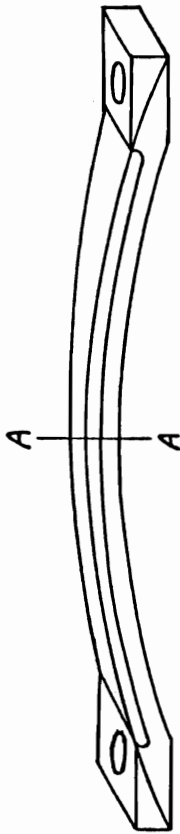
REVISIONS

PART NO.

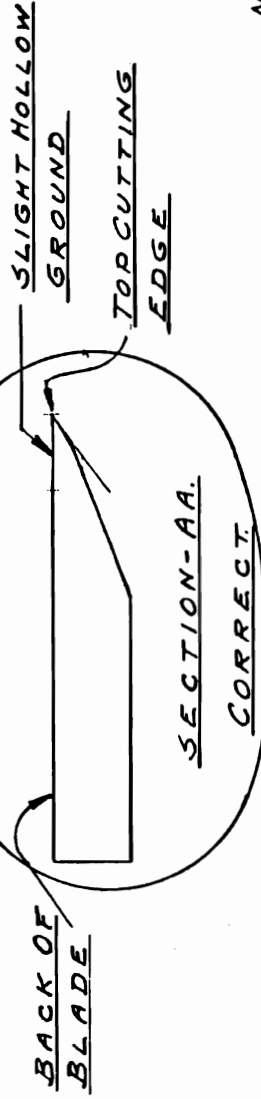
TOLERANCES - FRACTIONAL DIMENSIONS PLUS OR MINUS .015 - DECIMAL DIMENSIONS PLUS OR MINUS .005 SPECIAL DIMENSIONS AS SHOWN  
REMOVE ALL BURRS AND SHARP CORNERS TO THE EXTENT THAT THEIR PRESENCE WILL NOT PREVENT HANDLING, ASSEMBLY, PROPER OPERATION, OR WILL PRESENT A BAD APPEARANCE.

*31A-48B*

IMPORTANT.  
INSTRUCTIONS FOR GRINDING SHARPENING AND  
MAINTAINING PROPER CUTTING EFFICIENCY OF  
CUTTING BLADES FOR HYDRAULFLAKER.



NOTE - IF CUTTING EDGE OF BLADES ARE  
INCORRECTLY MAINTAINED TENDENCY  
WILL BE TO SLOW DOWN CUTTING  
EFFICIENCY AND EVEN FAIL TO CUT  
AT ALL.



TOP CUTTING EDGE MUST BE  
PERFECTLY LEVEL WITH BACK  
OF BLADE. NO BEVEL ON  
TOP CUTTING EDGE. AFTER  
SHARPENING USE FINE HONE.  
AND SINGLE STROKE TO RE-  
MOVE ANY BURRS CAUSED BY  
GRINDING.

REVISIONS	DATE	REVISIONS	DATE	MATERIAL	SCALE
				NO. REG'D	DATE 10-29-62
				BY E. Johnson	CHECKED BY
				MODEL	APPROVED BY
<b>GENERAL MACHINERY CORP.</b> <b>SHEBOYGAN WIS.</b> TITLE <b>BLADE MAINTENANCE.</b>					
TOLERANCES - FRACTIONAL DIMENSIONS PLUS OR MINUS .015 - DECIMAL DIMENSIONS PLUS OR MINUS .005 SPECIAL DIMENSIONS AS SHOWN					PART NO.
REMOVE ALL BURRS AND SHARP CORNERS TO THE EXTENT THAT THEIR PRESENCE WILL NOT PREVENT HANDLING, ASSEMBLY, PROPER OPERATION, OR WILL PRESENT A BAD APPEARANCE.					<b>F-6-IN</b>