

THE ATWOOD

DIVIDER / FORMER

MODEL: RK3300

OPERATIONS AND SAFETY MANUAL

INCLUDING PARTS CATALOG
AND MAINTENANCE INSTRUCTIONS

SERIAL No. _____



CAUTION:

DO NOT OPERATE, CLEAN OR SERVICE THIS MACHINE BEFORE YOU READ THIS MANUAL, AND ARE FAMILIAR WITH THE SAFETY INSTRUCTIONS IN THIS MANUAL AND THOSE ON THE LABELS ON THE MACHINE. KEEP THIS MANUAL AND OTHER MATERIALS DELIVERED WITH THE MACHINE, ACCESSIBLE TO THE OPERATORS FOR EASY REFERENCE DURING USE.

IF YOU SHOULD HAVE ANY
QUESTIONS ABOUT GUARDS OR
PLACEMENT, CALL (708) 841-0959.



MANUFACTURING COMPANY

DIVISION OF THE ATWOOD CORPORATION
9200 CALUMET AVE. SUITE NW 07 MUNSTER, IN 46321
(219) 474-7272 (800) 342-6744 FAX: (219) 472-7271 www.ammfg.com

OWNERS RESPONSIBILITY

NOTE: THE PARTS AND EQUIPMENT DESCRIBED IN THIS MANUAL MAY BE COVERED BY ONE OR MORE U.S. AND FOREIGN PENDING PATENTS.



TO MAINTAIN MACHINE AND USER SAFETY, THE RESPONSIBILITY OF THE OWNER IS TO READ AND FOLLOW THESE INSTRUCTIONS AND TO ENSURE THAT ALL OPERATORS UNDERSTAND AND FOLLOW THESE AND OTHER SAFETY INSTRUCTIONS IN THIS MANUAL.

- FOLLOW ALL INSTALLATION INSTRUCTIONS.
- MAKE SURE INSTALLATION CONFORMS TO ALL APPLICABLE LOCAL, STATE, AND FEDERAL CODES, RULES AND REGULATIONS SUCH AS STATE AND FEDERAL OSHA REGULATIONS AND ELECTRICAL CODES.
- CAREFULLY CHECK THE UNIT FOR CORRECT INITIAL FUNCTION.
- READ AND FOLLOW THE SAFETY INSTRUCTIONS. KEEP THEM READILY AVAILABLE FOR MACHINE OPERATORS.
- MAKE CERTAIN ALL OPERATORS ARE PROPERLY TRAINED, KNOW HOW TO SAFELY AND CORRECTLY OPERATE THE UNIT AND ARE PROPERLY SUPERVISED.
- ALLOW UNIT OPERATION ONLY WITH ALL PARTS INCLUDING SAFETY EQUIPMENT, IN PLACE AND OPERATING SAFELY.
- CAREFULLY INSPECT THE UNIT ON A REGULAR BASIS AND PERFORM ALL MAINTENANCE AS REQUIRED.
- SERVICE AND MAINTAIN THE UNIT ONLY WITH AUTHORIZED OR APPROVED REPLACEMENT PARTS.
- KEEP ALL INSTRUCTIONS PERMANENTLY WITH THE UNIT ALONG WITH ALL DECALS AND WARNING LABELS ON THE UNIT CLEAN AND VISIBLE.

TABLE OF CONTENTS

	<u>PAGE</u>
OWNERS RESPONSIBILITIES.....	i
INTRODUCTION & SPECIFICATIONS & INSTALLATION.....	2
SAFETY SIGNAL WORDS.....	3
LOCATION OF WARNING LABELS.....	4
REPRODUCTION OF WARNING LABELS.....	5
GENERAL SAFETY INFORMATION / SAFETY RULES.....	6
ASSEMBLY INSTRUCTIONS.....	7
OPERATING INSTRUCTIONS.....	8-13
GUIDE TO CLEANING.....	14
GUIDE TO MAINTENANCE.....	15-19

PARTS CATALOGUE

INFEED CONVEYOR ASSEMBLY.....	21
ROLLER ASSEMBLY.....	22-23
LEFT SIDE ASSEMBLY.....	24-25
RIGHT SIDE ASSEMBLY.....	26-27
FORMING ASSEMBLY – MANDREL.....	28-29
IDLER / DRIVE ROLLER ASSEMBLY.....	30-31
ROTARY & STATIONARY TABLE ASSEMBLY.....	32
CABINET ASSEMBLY.....	34-35
PRESSURE PLATE AND MOUNTING FRAME.....	36
ELECTRICAL SYSTEM.....	38-39
ELECTRICAL SCHEMATICS.....	40-45
ELECTRICAL RECTIFIER BLOCK.....	46
ORDERING REPLACEMENT PARTS.....	47
NOTES.....	48-49

IMPORTANT:

A.M. MANUFACTURING Co. RESERVES THE RIGHT TO MAKE CHANGES IN DESIGN, SPECIFICATIONS OR MANUFACTURING. TO IMPROVE THEIR PRODUCTS WITHOUT NOTICE AND WITHOUT OBLIGATION TO CHANGE OR IMPROVE PREVIOUSLY BUILT PRODUCTS INCLUDING MANUALS AND CATALOGS.

ONLY USE FACTORY SUPPLIED REPLACEMENT PARTS TO MAINTAIN MACHINE SAFETY, PERFORMANCE AND SANITARY CONDITIONS. USE OF NON-APPROVED PARTS MAY VOID MANUFACTURERS WARRANTY.

KNOW YOUR UNIT. COMPARE DIAGRAMS IN THIS MANUAL WITH THE UNIT BEFORE STARTING SERVICE, TO OBTAIN MAXIMUM SAFETY AND PERFORMANCE.

**TO ORDER REPLACEMENT PARTS:
TURN TO PAGE 47 OF THIS MANUAL.**



WARNING:

THIS MANUAL CONTAINS CRITICAL SAFETY INSTRUCTIONS. READ AND FOLLOW THEM CAREFULLY. FAILURE TO FOLLOW WARNING AND INSTRUCTIONS MAY LEAD TO SERIOUS PERSONAL INJURY. THE OWNER IS RESPONSIBLE FOR MAINTAINING THE UNIT, ITS INSTRUCTIONS, AND DECALS FOR OPERATION REFERENCE. FOR ADDITIONAL COPIES CONTACT A.M. MANUFACTURING: (708) 841 0959

OPERATIONS AND SAFETY MANUAL

INCLUDING PARTS CATALOG

**READ AND FAMILIARIZE YOURSELF WITH THIS MANUAL BEFORE OPERATING THIS MACHINE
FOLLOW INSTRUCTIONS DURING USE**

INTRODUCTION

THE MODEL RK-3300 FROM A.M. MANUFACTURING IS A SINGLE BANK, ROTATING KNIFE DIVIDER AND FORMER. IT CAN ACHIEVE OUTPUT SPEEDS OF UP TO 3264 PIECES PER HOUR (DEPENDING ON SIZE), ALLOWING GREATER BAGEL PRODUCTION. IT'S VERSATILE YET SIMPLE DESIGN MAKE IT BOTH LABOR SAVING AND COST EFFECTIVE. ALL OPERATORS NEED TO STUDY THIS OPERATION AND SAFETY MANUAL FOR FULL BENEFITS.



CAUTION:

ALL OPERATORS MUST BE FULLY TRAINED AND INSTRUCTED IN SAFETY PROCEDURES BEFORE BEGINNING PRODUCTION.

SPECIFICATIONS

PRODUCTION RATE	125 TO 250 DOZEN PER HOUR (DEPENDING ON SIZE)
HEIGHT	63"
LENGTH	112"
WIDTH	24-3/4"
SHIPPING WEIGHT	500 lbs.
CONVEYOR BELT	COTTON, STANDARD 180" x 9" WIDE ADJUSTABLE TIGHTENER FULLY ADJUSTABLE FOR CENTERING 1-1/2" TO 2" DIAMETER OTHER SIZES AVAILABLE PER REQUEST 17" x 23"
BAGEL MANDRELS	REVOLVING 24" DIAMETER 1.5 H.P. 180 VOLT D.C. 1.0 H.P. 3 PHASE
STATIONARY WORK TABLE	208/220 VOLT - 3 PHASE, 60 HZ, 20 AMPS
ROTARY WORK TABLE (OPTIONAL)	
DRUM MOTOR	
FORMER MOTOR	
ELECTRICAL REQUIREMENTS	

ALL MOVING PARTS, WITH EXCEPTION OF NECESSARY CONVEYING SURFACES ARE COVERED AND GUARDED.

INSTALLATION INSTRUCTIONS

LOCATION:

SELECT LOCATION CAREFULLY. THE AREA SHOULD PROVIDE THE OPERATOR WITH ENOUGH SPACE TO USE THE EQUIPMENT IN A SAFE MANNER. THE FLOOR AREA SELECTED SHOULD BE EASY TO CLEAN AND SHOULD BE FREE OF OIL, GREASE, ETC. AVOID AREAS WHERE BYSTANDERS AND CUSTOMERS MAY BE PRESENT.



CAUTION:

PROPER UNIT INSTALLATION IS NECESSARY FOR SAFE AND EFFICIENT OPERATION. PROPER INSTALLATION ALSO HELPS PROTECT THE UNIT FROM DAMAGE AND MAKES SERVICE EASIER.

SAFETY

BEFORE ATTEMPTING TO RUN YOUR RK3300 BAGEL FORMER, IT IS IMPERATIVE THAT YOU GO THROUGH THE ENTIRE CONTENTS OF THIS MANUAL TO ENSURE CORRECT OPERATION AND OPERATOR SAFETY. WHILE YOU DO, BECOME FAMILIAR WITH THE **SAFETY ALERT SYMBOL** AND THE SAFETY SIGNAL WORDS EMPLOYED.



THIS IS A **SAFETY ALERT SYMBOL**. YOU WILL FIND IT ON VARIOUS SAFETY LABELS ON THE MACHINE, AS WELL AS SEVERAL TIMES THROUGHOUT THE PAGES OF THIS MANUAL. ITS APPEARANCE INDICATES THAT SPECIFIC CARE MUST BE TAKEN TO ENSURE OPERATOR WELL BEING.

GET FAMILIAR WITH SIGNAL WORDS:

CAUTION, WARNING & DANGER

CAUTION:

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO BE USED TO ALERT AGAINST UNSAFE PRACTICES.

WARNING:

THIS INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN DEATH OR SERIOUS INJURY.

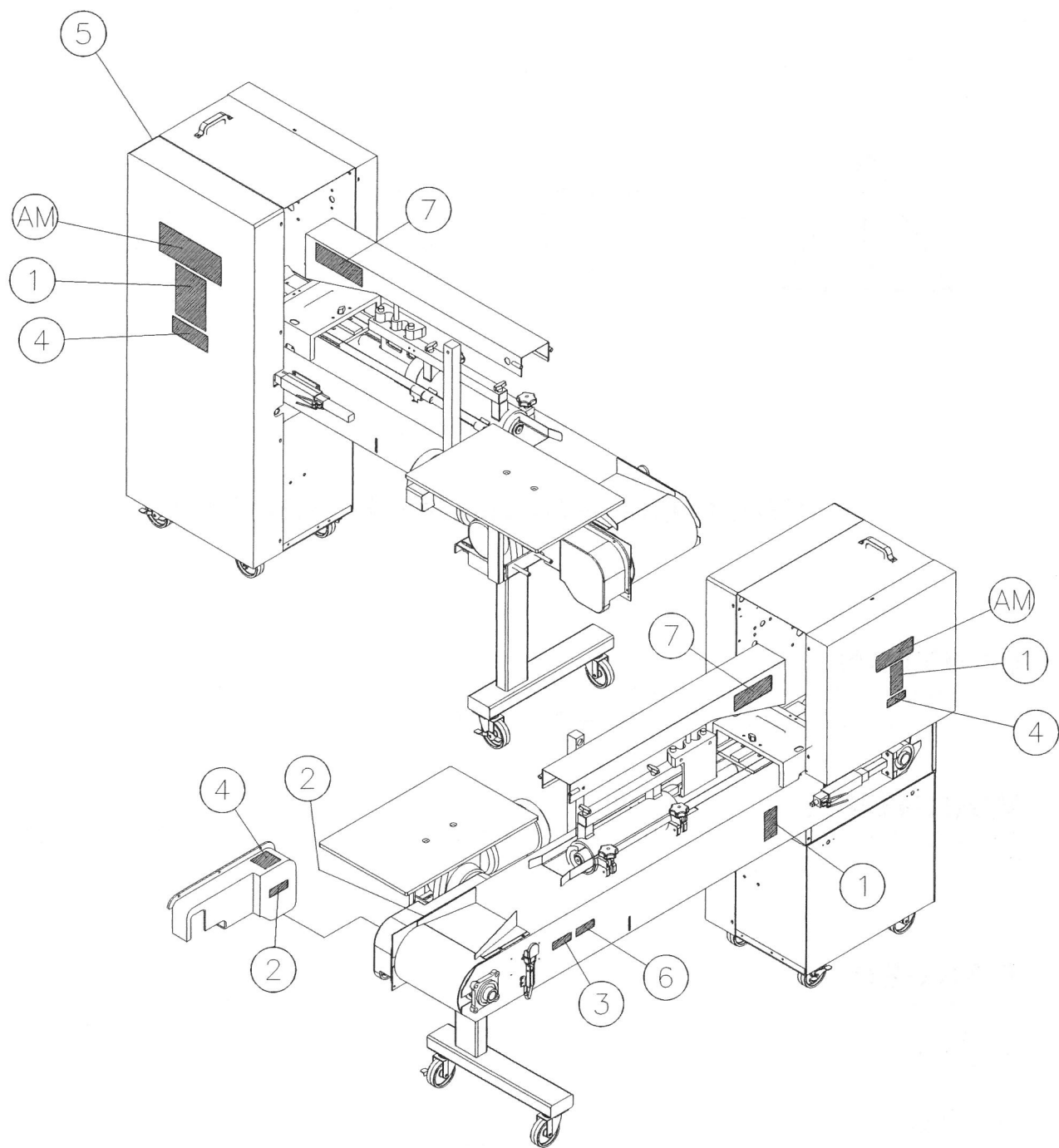
DANGER:

THIS INDICATES AN IMMINENTLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, WILL RESULT IN DEATH OR SERIOUS INJURY. THIS SIGNAL WORD IS TO BE LIMITED TO THE MOST EXTREME SITUATIONS.

NOTE:

A NOTE PROVIDES KEY INFORMATION TO MAKE PROCEDURES EASIER AND CLEARER.

TYPICAL WARNING LOCATIONS



WARNING LABELS

PART NO. AM MFG. # 21 (1)

IMPORTANT SAFETY INFORMATION ©1992 A.M. MFG. #21

- DO NOT OPERATE THIS MACHINE BEFORE YOU HAVE READ AND UNDERSTAND THE OPERATIONS AND SAFETY MANUAL
- NEVER LEAVE THIS MACHINE RUNNING UNATTENDED
- NEVER OPERATE THIS MACHINE IF SAFETY GUARDS ARE NOT IN PLACE
- NEVER REMOVE ANY SAFETY GUARDS AND NEVER MAKE ANY OTHER SAFETY EQUIPMENT INOPERATIVE
- NEVER OPERATE THIS MACHINE IF YOU HAVE NOT BEEN TRAINED
- NEVER OPERATE THIS MACHINE IF YOU ARE TIRED, ILL, OR IF YOU ARE ON MEDICATION THAT MAKES YOU TIRED, OR IF YOU ARE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS
- WEAR TIGHT FITTING CLOTHES AND MAKE SURE THAT LONG HAIR AND JEWELRY OR OTHER LOOSE PERSONAL ITEMS DO NOT GET CAUGHT IN THE MACHINE
- MAKE SURE YOU CAN EASILY REACH THE CONTROLS
- ALWAYS DISCONNECT THE MAIN ELECTRICAL POWER SOURCE BEFORE YOU CLEAN, MAINTAIN, OR SERVICE THIS MACHINE
- IF YOU HAVE ANY QUESTIONS ABOUT SAFETY, TALK TO YOUR SUPERVISOR OR CALL

A.M. MANUFACTURING
TOLL FREE (800) 342-6744

PART NO. AM MFG. # 11S (4)

WARNING

ALL GUARDS AND SAFETY SHIELDS MUST BE IN PLACE BEFORE STARTING MACHINE. NEVER OPERATE THIS MACHINE WITHOUT SAFETY SHIELDS IN PLACE. DO NOT CHANGE THIS MACHINE IN ANY WAY TO INTERFERE WITH OR ELIMINATE THESE ESSENTIAL SAFETY FEATURES.

©1992 A.M. MFG. #11

PART NO. AM MFG. # 17A (5)

DANGER

ROTATING BLADE HAZARD CAN CUT OFF FINGERS OR CAUSE SERIOUS INJURIES. STAY CLEAR OF BLADE AREA WHEN OPERATING. DISCONNECT POWER WHEN SERVICING UNIT.

©2003 A.M. MFG. #1A

PART NO. AM MFG. # 24 (2)

WARNING

EXPOSED CHAIN AND GEARS. CAN CAUSE SERIOUS INJURIES. STAY AWAY WHEN CHAIN IS MOVING.

©1992 A.M. MFG. #24

PART NO. AM MFG. # 50S (6)

DANGER

HAZARDOUS VOLTAGE, WILL SHOCK, BURN, OR CAUSE DEATH

DISCONNECT ALL ELECTRICAL POWER BEFORE REMOVING PROTECTIVE SHIELDS OR TOUCHING ELECTRICAL EQUIPMENT WHILE SERVICING OR CLEANING THIS MACHINE.

©1992 A.M. MFG. #50

PART NO. AM MFG. # 25 (3)

CAUTION

LOOSEN BELT BEFORE UNFASTENING OR REMOVING KNURLED KNOB. ROLLER GUARD IS HEAVY. CAUTION MUST BE USED OR WILL RESULT IN INJURY.

REMOVE KNURLED KNOB SLOWLY WHILE SUPPORTING ROLLER GUARD. CAREFULLY LOWER ROLLER GUARD INTO OPEN POSITION.

©1992 A.M. MFG. #25

PART NO. AM MFG. # 30S (7)

DOUGH LOADING INSTRUCTIONS FOR IN-FEED CONVEYOR OF THE 2001 (2100) 4001 (4200)

1 DOUGH LENGTH IS NOT TO EXCEED 4 FEET.

2 DOUGH HEIGHT IS NOT TO EXCEED 1 INCH ABOVE THE IN-FEED CONVEYOR FRAME SIDE PANELS.

3 DOUGH WIDTH IS TO BE SO THAT A CLEARANCE OF 1/16 INCH IS ACHIEVED BETWEEN THE IN-FEED CONVEYOR FRAME SIDE PANELS (PART NO.'S K421CA & DK420CA) & DOUGH.

4 IF MULTIPLE PIECES OF DOUGH ARE USED, OVERLAP DOUGH AT ENDS TO ENSURE CONSISTENCY.

©1994 A.M. MFG. CO. #30
DIVISION OF ATWOOD CORP.

SAFETY RULES



IMPORTANT:

READ AND FOLLOW THESE SAFETY RULES. THEY ARE FOR YOUR PROTECTION AND THE PROTECTION OF THOSE WORKING WITH YOU.

- DO NOT OPERATE THIS MACHINE BEFORE YOU READ AND UNDERSTAND THE OPERATIONS AND SAFETY MANUAL.
- FOLLOW ALL INSTRUCTIONS DURING USE OF THIS MACHINE.
- LEAVE ALL GUARDS IN PLACE. INSTALL ALL GUARDS IF THEY WERE REMOVED FOR CLEANING, MAINTENANCE, REPAIR OR OTHER REASONS.
- NEVER OPERATE THE MACHINE IF YOU HAVE NOT BEEN TRAINED TO OPERATE THE MACHINE PROPERLY.
- NEVER OPERATE THE MACHINE IF YOU ARE TIRED, ILL, ON MEDICATION, OR UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.
- WEAR TIGHT FITTING CLOTHES. MAKE SURE THAT LONG HAIR, JEWELRY, OR LOOSE PERSONAL ITEMS ARE SECURED SO THEY CANNOT GET CAUGHT IN THE MACHINE. THIS CAN LEAD TO SERIOUS INJURIES.
- MAKE SURE YOU CAN EASILY REACH ALL CONTROLS. IF NOT, A STABLE AND SAFE ELEVATED PLATFORM OR OTHER WORK-AID MUST BE PROVIDED.
- ALWAYS DISCONNECT THE MAIN ELECTRICAL POWER SOURCE BEFORE CLEANING, IF MAINTENANCE OR SERVICE IS PERFORMED, OR IF THE MACHINE IS OUT OF SERVICE.
- NEVER CLEAN BELTS ON MACHINE, ALWAYS REMOVE BELT FROM MACHINE TO CLEAN OR SERVICE (WHEN APPLICABLE).
- NEVER LEAVE THIS MACHINE RUNNING UNATTENDED.
- GUARDS ARE INTERLOCKED; MACHINE WILL NOT OPERATE WITHOUT GUARDS IN PLACE.

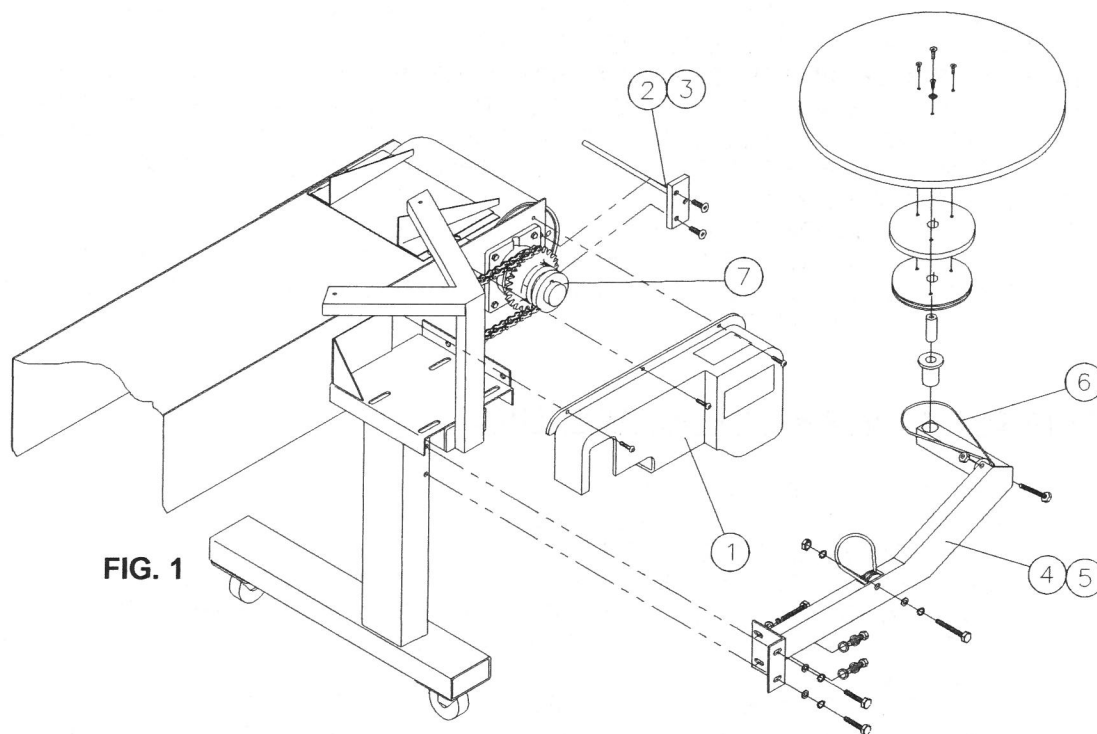
IMPORTANT:

IF YOU HAVE ANY QUESTIONS ABOUT THESE SAFETY RULES, SEE YOUR SUPERVISOR OR CALL A.M. MANUFACTURING Co. TOLL FREE: (800)342-6744.

ASSEMBLY INSTRUCTIONS

THE RK3300 BAGEL DIVIDER / FORMER REQUIRES SOME ASSEMBLY BEFORE OPERATING. THE LEGS AND TABLES HAVE BEEN REMOVED FOR SHIPPING PURPOSES. FAILURE TO ASSEMBLE PROPERLY COULD CAUSE PERSONAL INJURY OR PROPERTY DAMAGE.

CAUTION: FOR SAFE ASSEMBLY, AT LEAST TWO PEOPLE ARE REQUIRED. SOME PARTS ARE HEAVY AND MAY CAUSE STRAIN AND INJURY IF ASSEMBLY IS ATTEMPTED BY JUST ONE PERSON.



INSTRUCTIONS FOR TABLE ASSEMBLIES:

1. REMOVE CHAIN GUARD (ITEM 1) AND TRIP BAR ASSEMBLY (ITEM 2 & 3).
2. LOCATE TABLE ARM AND HARDWARE (ITEMS 4 & 5).
 - HARDWARE KIT INCLUDES (4 ea.) F0604HH 5/16-18 x 1" Lg. HEAX HEAD BOLTS, F0400FW 5/16" FLAT WASHERS, F0600LW 5/16" LOCK WASHERS.
3. ENSURE ORANGE DRIVE BELT (ITEM 6) IS PROPERLY INSTALLED THROUGH TABLEARM. (ITEM 4) AS SHOWN IN (FIG. 1).
4. PLACE ORANGE DRIVE BELT (ITEM 6) AROUND "V" GROOVE IN THE DRIVE SPROCKET (ITEM 7).
5. LOCATE THE PLASTIC BUSHING ON THE ROTARY TABLE ARM (ITEM 4) AND INSERT THE SHAFT OF THE ROTARY TABLE ASSEMBLY THROUGH THE BUSHING, MAKING SURE THAT THE ORANGE DRIVE BELT (ITEM 6) IS LOOPED AROUND THE TABLE ASSEMBLY (AS SHOWN).
6. TAKE THE ORANGE DRIVE BELT (ITEM 6) AND PLACE IT INTO THE GROOVE ON THE ROTARY TABLE ASSEMBLY.
7. CHECK THE ORANGE BELT (ITEM 6) FOR TENSION AND TO MAKE SURE IT IS NOT RUBBING ON ANY SURFACE AND IS WRAPPED PROPERLY AROUND ALL PULLEYS (AS SHOWN) IN (FIG. 1).
8. REINSTALL CHAIN GUARD (ITEM 1) AND TRIP BAR ASSEMBLY (ITEMS 2 & 3).

NOTE: IF TABLE DOES NOT ROTATE CHECK TO MAKE SURE BELT IS STRAIGHT. SEE ROTARY & STATIONARY TABLE ASSEMBLY FOR DETAILS AND PART NUMBERS.

OPERATING INSTRUCTIONS



UNIT MUST BE PROPERLY OPERATED AND MAINTAINED TO PREVENT MACHINE DAMAGE OR PERSONAL INJURY. REVIEW INSTRUCTIONS WITH ALL EMPLOYEES BEFORE USE.



WARNING:

BEFORE BEGINNING START-UP, READ ALL INSTRUCTIONS AND FAMILIARIZE YOURSELF WITH THE LOCATIONS OF ALL CONTROLS. KNOW HOW TO SHUT DOWN THE UNIT IMMEDIATELY IN CASE OF TROUBLE. MAKE CERTAIN ALL PERSONNEL NOT INVOLVED IN THE START-UP ARE SAFELY AWAY FROM THE MACHINE BEFORE ANY SYSTEMS ARE STARTED.

NOTE: FAIL/SAFE INTERLOCK SWITCHES (PART # SS240): THESE SWITCHES ARE LOCATED ON (4) AREAS OF THE MACHINE: ONE AT EACH OF THE TOP OF THE RIGHT AND LEFT SIDES OF THE DIVIDER CABINET FRAME, ONE AT THE DIVIDER'S REAR DOOR, AND ONE AT THE DIVIDER'S TOP ROLLER GUARD ASSEMBLY. THESE SWITCHES ARE LOCATED AT POINTS OF EASY ACCESS (AS COMPARED TO THE FORMER'S DRIVE GUARD, WHICH IS HELD FRMLY IN PLACE BY FOUR BOLTS). IF THE CONTACT OF THESE SENSORS IS BROKEN OR DISRUPTED IN ANY WAY, THIS POWER WILL AUTOMATICALLY DISCONNECT AND THE MACHINE WILL NOT RUN. FOR YOUR SAFETY, IT IS ESSENTIAL THAT THESE SENSORS – AS WELL AS ALL PANELS, DOORS, AND GUARDS – REMAIN ON THE MACHINE AT ALL TIMES DURING PRODUCTION.

I. PRELIMINARY START-UP PROCEDURE

- A. INSPECT MACHINE FOR ANY DAMAGE.
- B. PLUG POWER CORD INTO PROPER RECEPTACLE.
- C. PUSH THE GREEN *START* BUTTON.
- D. CHECK ROTATION OF DRIVE ROLLERS (100DR – ITEM 2 ON PAGES 30 & 31). IF STANDING IN FRONT OF CONTROL PANEL THE DRIVE ROLLER SHOULD TURN COUNTER CLOCK-WISE (C.C.W.). IF ROTATION IS INCORRECT, CONSULT A PROPERLY TRAINED ELECTRICIAN.
- E. IF ROTATION IS CORRECT, YOU ARE READY TO START PRODUCTION.
- F. DEPRESS ANY OF THE RED E-STOP BUTTONS TO STOP THE MACHINE AT ANY TIME.

NOTE: WHEN AN E-STOP IS PRESSED, THE BUTTON MUST BE RELEASED BEFORE THE MACHINE CAN BE STARTED UP AGAIN. TO RELEASE THE BUTTON, ROTATE IT GENTLY COUNTER-CLOCKWISE. AFTER ABOUT AN EIGHTH OF A TURN, THE BUTTON WILL RELEASE.

II. OPERATING THE FORMER SECTION

THE BAGEL FORMER RECEIVES DOUGH PIECES FROM THE DIVIDER, AND TRANSFORMS THEM INTO THEIR FINAL, FAMILIAR SHAPE. USE THE GREEN *START* & RED *E-STOP* BUTTONS TO RUN DOUGH THROUGH THE MACHINE.

- A. ALL FORMERS ARE PRE-ADJUSTED AND TESTED WITH DOUGH AT THE FACTORY.
- B. IF FURTHER ADJUSTMENTS ARE NEEDED THEY CAN BE MADE AS FOLLOWS:

1.  **STOP & UNPLUG THE MACHINE.**

1. IF BAGELS ARE SMALLER ON THE BOTTOM THAN THE TOP, YOU NEED TO RAISE THE MANDREL BAR (BFM2 – ITEM 2 ON PAGES 28 & 29), OR LOWER IT IF THE BAGELS ARE SMALLER ON THE TOP.
2. RESTART THE MACHINE.
3. IF BAGELS ARE SMALLER ON EITHER THE RIGHT SIDE OR THE LEFT, YOU NEED TO ADJUST THE MANDREL BAR AS REQUIRED. (SEE PAGE 13 AND 14 FOR A FULL DESCRIPTION OF MANDREL BAR ADJUSTMENT)
4. RESTART THE MACHINE.

III. OPERATING THE DIVIDER SECTION

THE DIVIDER TAKES LARGE CHUNKS OF DOUGH AND TRIMS THEM INTO EVENLY WEIGHTED & SHAPED PIECES THAT FLOW SMOOTHLY INTO THE FORMER. TO OPERATE THE DIVIDER:

- A. HAVE YOUR DOUGH READY NEXT TO MACHINE. COVER THE DOUGH TO AVOID SURFACE SKIN. THIS CAN CAUSE DOUGH TO SLIDE THROUGH FORMER.
- B. HAVE DOUGH ALREADY CUT INTO STRIPS OF APPROXIMATELY 3-1/2" DIAMETER, BY A MAXIMUM OF 3ft. LONG.
- C. SET THE WEIGHT (SPEED) SPEED POT (CONTROL KNOB) TO 5.
- D. PLACE ONE OF THE DOUGH STRIPS ONTO THE DIVIDER IN FEED CONVEYOR.
- E. DEPRESS THE GREEN START BUTTON.
- F. AFTER THE DOUGH HAS BEEN DIVIDED AND FORMED INTO A BAGEL, STOP THE MACHINE AND WEIGH SEVERAL PIECES.
- G. TO INCREASE THE WEIGHT, INCREASE THE SPEED OF THE BELT BY ADJUSTING THE SPEED POT TO THE RIGHT (FASTER). TO DECREASE THE WEIGHT, DECREASE THE SPEED.
- H. WHEN THE SUPPLY OF DOUGH ON THE INFEED CONVEYOR RUNS LOW, TAKE ANOTHER DOUGH STRIP, AND PLACE IT SO THAT THE END OF THE FRONT STRIP HAS OVERLAPPED THE BACK OF THE TRAILING STRIP, AND SQUEEZE STRIPS TOGETHER AT POINT OF OVERLAP. THIS WILL ENSURE MORE CONSISTENT PRODUCT WEIGHT.

IV. TENSIONING & REMOVING THE BAGEL FORMING BELT

A. TO LOOSEN & TIGHTEN BAGEL BELT.

THE COTTON BELT ON THE FORMER IS KEPT TIGHT BY TWO RED-HANDLED TENSIONING DEVICES (ITEM 10 ON PAGES 34 & 35) THAT HOLD THE TAKE-UP ROLLER FIRMLY IN PLACE. THESE DEVICES WERE ADJUSTED AT THE FACTORY TO PROVIDE THE CORRECT AMOUNT OF TENSION. AS THE BELT IS REMOVED AND RE-INSTALLED OVER TIME, HOWEVER, IT WILL TEND TO STRETCH, AND THE TENSIONERS MIGHT NEED BE ADJUSTED. WHEN RE-ADJUSTING THE BELT, MAKE CERTAIN YOU TENSION BOTH SIDES EVENLY. IF THEY AREN'T, THE BELT WILL TRACK TO ONE SIDE, RATHER THAN STAY IN THE MIDDLE OF THE MACHINE.

1.  **STOP AND UNPLUG MACHINE**
2. LOCATE THE TENSIONING DEVICES ON EITHER SIDE OF FORMER.
3. LOOSEN THE HEX NUT LOCATED AT THE FRONT OF THE TAKE-UP ASSEMBLY.
4. TURN THE ADJUSTMENT SCREWS (C.W) OR (C.C.W.) TO LOOSEN OR TIGHTEN BELT.
5. RETIGHTEN HEX NUTS AFTER ADJUSTMENTS HAVE BEEN MADE.
6. START THE MACHINE AND OBSERVE THE MOVEMENT OF THE BELT. IF IT RUNS TRUE FOR OVER FIVE MINUTES, YOU CAN REUME GENERAL PRODUCTION. IF NOT RE-ADJUST THE BELT AS REQUIRED – OR CONTACT AN AM MANUFACTURING SERVICE TECHNICIAN FOR ASSISTANCE.

B. TO REMOVE THE BAGEL BELT

THE FORMER BELT SHOULD BE REMOVED AND CLEANED DAILY. NEVER ATTEMPT TO CLEAN THE BELT WHILE IT IS ON THE MACHINE, AS DOING SO WILL CAUSE STRETCHING AND EXCESSIVE WEAR.

1.  **STOP AND UNPLUG MACHINE**
2. IF YOU ARE USING THE BAGEL-FORMER SET-UP, REMOVE THE BELT BY PERFORMING THE FOLLOWING STEPS:
 - a. REMOVE THE PRESSURE PLATE ASSEMBLY (SEE ITEMS 37-46 ON PAGES 30 & 31). TO DO THIS, LOOSEN AND REMOVE THE TWO KNOBS THAT HOLD THE ASSEMBLY IN PLACE (ITEM 28 ON PAGES 30 & 31). THEN, LIFT THE ASSEMBLY UP AND OUT OF THE WAY.
 - b. LOOSEN THE BELT BY DISENGAGING THE TWO RED-HANDLED TAKE- UP DEVICES THAT HOLD IT IN PLACE (ITEM 10 ON PAGES 34 & 35). PULL THE HANDLES OUTWARD TO DISENGAGE THEM. THEN, PUSH THE TAKE-UP ROLLER (ITEM 2 ON PAGES 30 & 31) TOWARD THE FORMING ASSEMBLY. THE BELT WILL LIE SLACK.
 - c. OPEN THE FORMER TUBE HOLDER (ITEM 18 ON PAGES 28 & 29). TO DO THIS, LOOSEN THE TWO KNOBS THAT HOLD IT CLOSED (ITEM 14 ON PAGES 28 & 29) AND ROTATE THE UPPER HALF UP AND OUT OF THE WAY.
 - d. OPEN THE LOWER ROLLER SWING PLATE (ITEM 61 ON PAGES 30 & 31) BY DISENGAGING THE LATCH THAT HOLDS IT IN PLACE (ITEM 8 ON PAGES 34 & 35). TO OPEN THE LATCH, PRESS ON THE SMALL RED TAB WHILE SIMULTANEOUSLY PULLING THE LARGER RED LEVER DOWNWARD. THE LATCH'S HOOK WILL PREVENT THE SWING PLATE FROM FALLING FREELY. ONCE YOU HAVE LOWERED THE PLATE, GENTLY LIFT IT OFF THE LATCH HOOK AND LOWER IT SLOWLY UNTIL IT HANGS IN POSITION.
 - e. YOU CAN NOW REMOVE THE BELT FROM THE MACHINE. REVERSE THESE PROCEDURES TO REPLACE THE BELT.
3. IF YOU ARE USING THE BREAD STICK PRESSURE PLATE SET-UP, REMOVE THE BELT AS FOLLOWS:
 - a. LOOSEN THE TWO BLACK KNOBS THAT HOLD THE PRESSURE PLATE IN PLACE (ITEM 13 ON PAGE 36).
 - b. GENTLY SLIDE THE ENTIRE ASSEMBLY BACK – THEN CAREFULLY LIFT IT OFF THE MACHINE.
 - c. LOOSEN THE BELT BY DISENGAGING THE TWO RED-HANDLED TAKE- UP DEVICES THAT HOLD IT IN PLACE (ITEM 10 ON PAGES 34 & 35). PULL THE HANDLES OUTWARD TO DISENGAGE THEM. THEN, PUSH THE TAKE-UP ROLLER (ITEM 2 ON PAGES 30 & 31) TOWARD THE FORMING ASSEMBLY. THE BELT WILL LIE SLACK.
 - d. OPEN THE LOWER ROLLER SWING PLATE (ITEM 61 ON PAGES 30 & 31) BY DISENGAGING THE LATCH THAT HOLDS IT IN PLACE (ITEM 8 ON PAGES 34 & 35). TO OPEN THE LATCH, PRESS ON THE SMALL RED TAB WHILE SIMULTANEOUSLY PULLING THE LARGER RED LEVER DOWNWARD. THE LATCH'S HOOK WILL PREVENT THE SWING PLATE FROM FALLING FREELY. ONCE YOU HAVE LOWERED THE PLATE, GENTLY LIFT IT OFF THE LATCH HOOK AND LOWER IT SLOWLY UNTIL IT HANGS IN POSITION.
 - e. YOU CAN NOW REMOVE THE BELT FROM THE MACHINE. REVERSE THESE PROCEDURES TO REPLACE THE BELT.

V. CHANGING FROM THE BAGEL SET-UP TO THE BREAD STICK SET-UP

YOUR RK3300 HAS BEEN DESIGNED TO PRODUCE EITHER BAGELS OR BREAD STICKS, DEPENDING ON WHICH ATTACHMENTS ARE USED.

A. SETTING THE MACHINE UP TO PRODUCE BAGELS

1.  **STOP AND UNPLUG MACHINE**
2. LOOSEN THE BELT BY DISENGAGING THE TWO RED-HANDLED TAKE-UP DEVICES THAT HOLD IT IN PLACE (ITEM 10 ON PAGES 34 & 35). PULL THE HANDLES OUTWARD TO DISENGAGE THEM. THEN, PUSH THE TAKE-UP ROLLER (ITEM 2 ON PAGES 30 & 31) TOWARD THE FORMING ASSEMBLY. THE BELT WILL LIE SLACK.
3. MAKE CERTAIN THE SWING PLATE ON THE UPPER SURFACE OF THE FORMER BODY IS IN THE DOWN POSITION. THAT IS, THERE SHOULD BE A RECTANGULAR HOLE BENEATH THE BELT ON TOP OF THE FORMING SURFACE. IF THIS IS NOT THE CASE, THE PLATE MUST BE MOVED OUT OF THE WAY. THREE KNOBS HOLD THE SWING PLATE IN PLACE UNDER THE MACHINE. LOOSEN THE KNOBS, AND ALLOW THE PLATE TO SWING DOWNWARD.
4. BOLT THE FORMER PRESSURE PLATE ASSEMBLY (ITEMS 37 – 47 ON PAGES 30 & 31) IN POSITION USING THE MOUNTING BRIDGE (ITEM 27). SEE PAGE 30 FOR ILLUSTRATION.
5. THE FORMING ASSEMBLY (SEE PAGES 28 & 29) IS BOLTED TO THE MACHINE THROUGH 2 SLOTS IN THE UPPER SURFACE OF THE FORMER BODY. PLACE THE ASSEMBLY ATOP THE BODY. THEN, OPEN THE FORMER HOLDING TUBE (ITEM 18). SLIDE THE BELT INTO THE OPEN TUBE SO THAT IT FITS SMOOTHLY INSIDE THE PLASTIC FORMING TUBE HALVES.
6. THE LOWER HALF OF THE FORMING TUBE HOLDER WILL REST IN THE RECTANGULAR HOLE DESCRIBED IN STEP 3 OF THIS LIST. NEXT TO THIS OPENING ARE TWO SLOTS. STUDS ON THE BOTTOM OF THE TUBE HOLDER FIT INTO THESE SLOTS. AFTER FITTING THE STUDS INTO THE CABINET, SECURE THE ASSEMBLY IN PLACE WITH WINGNUTS.
7. TIGHTEN THE BELT BACK UP BY RE-ENGAGING THE TAKE-UP DEVICES DESCRIBED IN STEP 2.

B. SETTING THE MACHINE UP TO PRODUCE BREAD STICKS

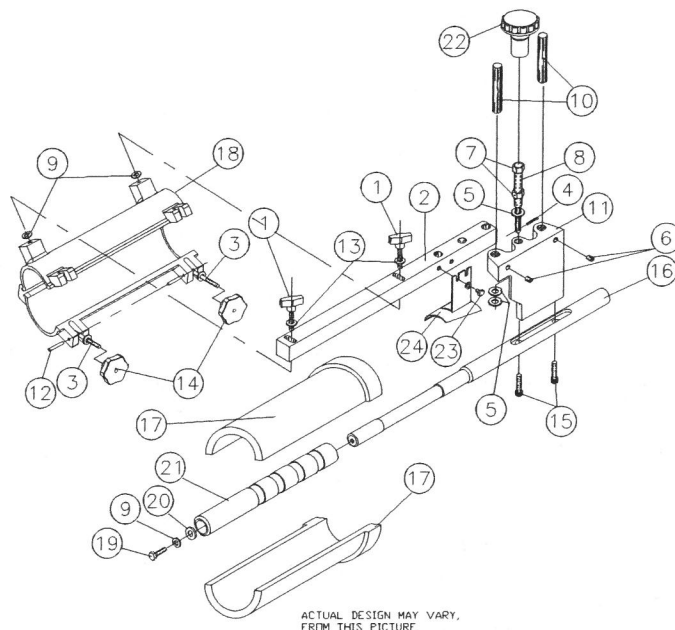
1.  **STOP AND UNPLUG MACHINE**
2. LOOSEN THE BELT BY DISENGAGING THE TWO RED-HANDLED TAKE-UP DEVICES THAT HOLD IT IN PLACE (ITEM 10 ON PAGES 34 & 35). PULL THE HANDLES OUTWARD TO DISENGAGE THEM. THEN, PUSH THE TAKE-UP ROLLER (ITEM 2 ON PAGES 30 & 31) TOWARD THE FORMING ASSEMBLY. THE BELT WILL LIE SLACK.
3. MAKE CERTAIN THE SWING PLATE ON THE UPPER SURFACE OF THE FORMER BODY IS IN THE UP POSITION. THAT IS, THERE SHOULD BE NO RECTANGULAR OPENING BENEATH THE BELT ON TOP OF THE FORMING SURFACE. IF THERE IS A HOLE, REACH UNDERNEATH THE MACHINE AND ROTATE THE SWING PLATE TO COVER IT. ONCE THE PLATE IS IN POSITION, SECURE IT BY TIGHTENING THE THREE WING NUTS THAT HOLD IT IN PLACE. ATTACH THE BREAD STICK PRESSURE PLATE ASSEMBLY TO THE MACHINE (ASSEMBLY IS SHOWN ON PAGE 36). TO DO THIS, GENTLY LOWER THE ASSEMBLY OVER THE MACHINE, THEN SLIDE IT INTO PLACE SO THE

RECEIVING NOTCHES ON THE SIDE PLATES (ITEMS 1 & 2 ON PAGE 36) FIT ONTO THEIR RESPECTIVE PINS. ONCE THE ASSEMBLY IS IN PLACE, SECURE IT BY TIGHTENING THE BLACK KNOBS (ITEM 13) IN PLACE.

2. TIGHTEN THE BELT BACK UP BY RE-ENGAGING THE TAKE-UP DEVICES DESCRIBED IN STEP 2.

VI. FIXING BAGEL IRREGULARITIES

PLEASE REFER TO THE DIAGRAM BELOW FOR THE FOLLOWING DIRECTIONS AND DESCRIPTIONS.



DURING THE BEGINNING USE OF THIS MACHINE, THE OPERATOR WILL COME ACROSS SEVERAL BAGEL IRREGULARITIES. LISTED BELOW, ARE THE PROBLEMS THE OPERATOR WILL ENCOUNTER ALONG WITH THE SOLUTION.

PROBLEM 1: THE BAGEL WILL LOOK LARGER AT THE BOTTOM AND SMALLER AT THE TOP AFTER LEAVING THE FORM TUBE. THIS BAGEL IS CALLED A "PURSE SHAPED BAGEL".

THE PARTS INVOLVED WILL BE LISTED SO THE OPERATOR CAN REFER TO THE DIAGRAM ABOVE. THE MANDREL ASSEMBLY IS MADE UP OF THE FOLLOWING ITEMS: ITEM 1, MANDREL BAR ASSEMBLY MOUNTING KNOBS; ITEM 2, MANDREL MOUNT BAR; ITEM 10 VERTICAL SLIDE PINS; ITEM 11, MANDREL SUPPORT; ITEM 16, THE MANDREL ADAPTER SUPPORT; AND ITEM 21, THE MANDREL SLEEVE.

FUNCTION: ITEM 11, THE MANDREL SUPPORT, HOLDS ITEM 16 THE MANDREL ADAPTER, STRAIGHT WHILE ALLOWING ADJUSTMENT OF THE ASSEMBLY UP OR DOWN. ITEM 11 SLIDES UP AND DOWN ON ITEM 10, THE VERTICAL SLIDE PINS. THE ASSEMBLY IS MOVED UP OR DOWN BY TURNING ITEM 8, THE VERTICAL ADJUSTING SCREW, CLOCKWISE OR COUNTERCLOCKWISE. CLOCKWISE MOVES THE SLEEVE UP IN THE FORM TUBE.

SOLUTION: LOWER THE MANDREL SLEEVE AND THE ASSEMBLY THAT HOLDS IT. BY LOWERING THE MANDREL SLEEVE, DOUGH WILL BE FORCED FROM THE BOTTOM OF THE BAGEL TO THE TOP OF THE BAGEL DURING FORMATION. THIS WILL PRODUCE A MORE PERFECTLY ROUND BAGEL.

ADJUSTMENT: THE FINAL ADJUSTMENTS MUST BE COMPLETED TO REACH THE SOLUTION. THE MANDREL SUPPORT ASSEMBLY IS ADJUSTED UP OR DOWN AS FOLLOWS:

- A. UNPLUG THE MACHINE BEFORE MAKING ANY ADJUSTMENTS.
- B. USING A 3/16 ALLEN WRENCH, LOOSEN ITEM 6 THE 3/8 SET SCREWS.
- C. LOOSEN THE 5/8 JAM NUT WHERE ITEM 8 THREADS INTO ITEM 11.
- D. TURN ITEM 8 COUNTERCLOCKWISE TO LOWERE MANDREL SLEEVE POSTION.
- E. RETIGHEN SET SCREW, PLUG MACHINE IN AND RUN A TRIAL DOUGH TEST.
- F. REPEAT PROCESS UNTIL THE BAGEL IS THE CORRECT SHAPE.
- G. RETIGHTEN 5/8 JAM NUT ONCE ADJUSTMENTS ARE COMPLETE.

PROBLEM 2: THE BAGEL IS LARGER ON THE RIGHT SIDE THAN ON THE LEFT SIDE AFTER LEAVING THE FORM TUBE.

THE PARTS INVOLVED IN THIS ISSUE ARE AS FOLLOWS: ITEM 1, MANDREL BAR ASSEMBLY MOUNTING KNOBS; ITEM 2, MANDREL MOUNT BAR; ITEM 10, VERTICAL SLIDE PINS; ITEM 11, MANDREL SUPPORT; ITEM 16, THE MANDREL ADAPTER SUPPORT; AND ITEM 21, THE MANDREL SLEEVE.

FUNCTION: USING THE DESCRIPTIONS IN THE FORMER PARAGRAPH, ITEM 1 HOLDS ITEM 2 TO ITEM 18. ITEM 2 IS SLOTTED TO ALLOW FOR SIDE TO SIDE HORIZONTAL ADJUSTMENT OF THE MANDREL ASSEMBLY.

SOLUTION: THE MANDREL SLEEVE AND THE ASSEMBLY THAT HOLDS IT MUST BE MOVED TO THE RIGHT. BY MOVING THE MANDREL SLEEVE TO THE RIGHT, DOUGH WILL BE FORCED FORM THE RIGHT SIDE OF THE BAGEL TO THE LEFT SIDE OF THE BAGEL DURING FORMATION. THIS WILL PRODUCE A MORE PERFECTLY ROUND BAGEL.

ADJUSTMENT: THE MANDREL SUPPORT ASSEMBLY IS ADJUSTED SIDE TO SIDE AS FOLLOWS:

- A. UNPLUG THE MACHINE BEFORE MAKING ANY ADJUSTMENTS.
- B. LOOK INTO THE FORM TUBE AT THE DISCHARGE END. NOTICE THE MANDREL SLEEVE POSITION IN RELATION TO THE FORM TUBE CENTER.
- C. LOOSEN ITEM 1 THAT HOLDS ITEM 2 AT THE DISCHARGE END OF THE FORM TUBE ASSEMBLY.
- D. SLIDE THE MANDREL ASSEMBLY SLIGHTLY TO THE RIGHT.
- E. RETIGHTEN ITEM 1 THAT WAS LOOSENED.
- F. PLUG THE MACHINE BACK IN.
- G. TEST THE MACHINE WITH DOUGH TO INSURE PROPER MANDREL POSTION.
- H. REPEAT PROCESS UNTIL BAGEL FORMS PROPERLY.

CLEANING PROCEDURES

THESE PROCEDURES ARE VERY IMPORTANT TO MAINTAIN PRODUCT QUALITY AND MACHINE PERFORMANCE.

A MESSAGE FROM THE MANUFACTURER:

ALL A.M. MANUFACTURING MACHINE ARE TESTED WITH DOUGH DURING THE IN-HOUSE RUN-IN AND QUALITY AUDIT PROCEDURE. ALTHOUGH THE MACHINE HAS BEEN CLEANED, SOME EVIDENCE OF DOUGH ON AND IN THE MACHINE MAY BE DETECTED. THIS IS NORMAL.

I. DIVIDER



1. **CAUTION: ALWAYS DEPRESS AN E-STOP BUTTON AND DISCONNECT ELECTRICAL POWER SOURCE BEFORE CLEANING, MAINTAINING, OR REPAIRING THIS MACHINE.**
2. USING A SOAP SOLUTION, WIPE DOWN OUTSIDE OF CABINET. MAKE SURE THAT ALL WARNING LABELS ARE CLEARLY VISIBLE – AND FIRMLY AFFIXED TO THE MACHINE.



WARNING: CONVEYOR MAINTENANCE SHALL BE PERFORMED ONLY WHEN CONVEYOR IS STOPPED, AND ALL POWER IS OFF AND LOCKED OUT.

3. CONTINUE TO WIPE DOWN CONVEYOR ENTIRELY. THIS IS TO REMOVE ANY DOUGH BUILD-UP THAT OCCURS UNDER THE BELT AND ON THE INTERIOR WALLS OF THE CONVEYOR. THIS ALSO HELPS PREVENT BELT SLIPPAGE THAT MAY OCCUR.
4. OPEN REAR INSPECTION DOOR.
5. USING A SOAP SOLUTION, WIPE DOWN THE DRUM SCRAPER AND KNIFE FROM THE EXCESS DOUGH BUILD-UP THAT OCCURS.

NOTE: YOU MAY HAVE TO ACTUALLY SCRAPE SOME DOUGH FROM THE DRUM SCRAPER AND KNIFE BY HAND TO THOROUGHLY CLEAN THESE COMPONENTS.



WARNING: BE VERY CAREFUL WHEN CLEANING THE KNIFE – OR THE AREA IN THE VICINITY OF THE KNIFE.

II. FORMER.

1. **CAUTION: ALWAYS DEPRESS AN E-STOP BUTTON AND DISCONNECT ELECTRICAL POWER SOURCE BEFORE CLEANING, MAINTAINING, OR REPAIRING THIS MACHINE.**
2. LOOSEN FORMING BELT. REMOVE PRESSURE PLATE ASSEMBLY, CLEAN AND REPLACE
3. REMOVE FORMING TUBES, CLEAN AND REPLACE
4. CAREFULLY LOWER BELT TENSIONING ROLLER ASSEMBLY, CLEAN AND REPLACE
5. REMOVE BAGEL BELT TO CLEAN AND SCRAPE BOTH DRIVE AND IDLER ROLLERS, (USING PLASTIC BENCH KNIFE)

NOTE: A. THE BAGEL FORMING BELTS SHOULD REMAIN LOOSE WHEN MACHINE IS NOT IN USE TO AVOID STRETCHING.
B. ALWAYS REMOVE BELTS FROM MACHINE FOR CLEANING.



PRACTICE SAFETY FIRST:

ALWAYS DISCONNECT ELECTRICAL SERVICE WHEN CLEANING OR MAINTAINING THIS MACHINE, THUS AVOIDING CHANCE OF SERIOUS INJURIES. MACHINES ARE NOT DANGEROUS IF COMMON SENSE IS APPLIED AND THE INSTRUCTIONS ARE CAREFULLY FOLLOWED. THINK AND PRACTICE SAFETY FIRST.

MAINTENANCE PROCEDURES

THESE PROCEDURES ARE VERY IMPORTANT TO MAINTAIN PRODUCT QUALITY AND MACHINE PERFORMANCE:



PRACTICE SAFETY FIRST

ALWAYS DEPRESS A RED E-STOP AND DISCONNECT ELECTRICAL SOURCE BEFORE CLEANING OR MAINTAINING THIS MACHINE, THUS AVOIDING CHANCE OF SERIOUS INJURIES. THINK AND PRACTICE SAFETY FIRST.

READ AND FOLLOW MAINTENANCE INSTRUCTIONS BELOW TO HELP KEEP THE UNIT IN GOOD OPERATING CONDITION. REFER TO OTHER MATERIALS RECEIVED WITH THE UNIT AND TO SERVICE AND SAFETY BULLETINS FROM THE MANUFACTURER FOR ADDITIONAL INSTRUCTIONS FOR PROPER MAINTENANCE AND SERVICE. REGULAR INSPECTIONS AND PROPER MAINTENANCE ARE ESSENTIAL TO HELP PREVENT ACCIDENTS AND INJURIES.

DIVIDER & FORMER



DANGER: ALWAYS DEPRESS AN E-STOP BUTTON AND DISCONNECT ELECTRICAL POWER SOURCE BEFORE CLEANING, MAINTAINING OR REPAIRING THIS MACHINE.



WARNING: BEFORE MAKING ANY INSPECTION, ADJUSTMENT OR REPAIR, BE CERTAIN POWER SOURCE IS DISCONNECTED AND ALL MOVING PARTS ARE BLOCKED OUT TO PREVENT INJURY. WEAR PROTECTIVE CLOTHING.

- A. MAKE CERTAIN THAT ALL GUARDS AND COVERS ARE IN PLACE.
- B. CHECK FOR WORN, DAMAGED OR MISSING PARTS INCLUDING: BELTS, SAFETY GUARDS AND PROTECTIVE COVERS.
- C. MAKE SURE THAT ALL FASTENERS ARE TIGHTENED SECURELY.
- D. ON A DAILY BASIS, INSPECT THE UNIT AND CHECK TO BE CERTAIN THAT ALL SYSTEMS ARE OPERATING NORMALLY. SET UP A CHART AND ASSIGN RESPONSIBILITY FOR THESE ITEMS – AND OTHERS SPECIFIED LATER IN THIS MANUAL.



CAUTION: REPLACE ANY DAMAGED OR MISSING SAFETY LABELS. THEY ARE AVAILABLE FROM THE MANUFACTURER.

NOTE:

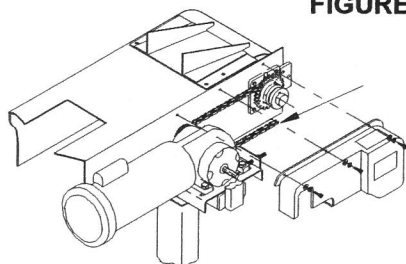
ALL RECOMMENDATIONS FOR MAINTENANCE ARE BASED ON A 7 DAY, 8 HOUR PER DAY WORK SCHEDULE. HEAVIER WORK SCHEDULES WILL REQUIRE MORE FREQUENT MAINTENANCE.

MAINTENANCE FOR THE FORMER SECTION ALWAYS BEGINS WITH KEEPING THE MACHINE CLEAN. PROPER CLEANING PROCEDURES CAN BE FOUND ON PAGE (13) OF THIS MANUAL. STANDARD LONG-TERM MAINTENANCE CONSISTS OF LUBRICATING MAIN WEAR POINTS OF THE MACHINE WITH AN ALL-PURPOSE LITHIUM BASE GREASE. A GREASE GUN WITH A FLEXIBLE HOSE IS NEEDED.

LUBRICATION OF THE FORMER

THE FIRST STEP OF NORMAL MAINTENANCE IS TO LOCATE THE GREASE FITTING ON THE FIRST OUTER FLANGE BEARING (ITEM 26 ON PAGES 30 & 31). WITH A GREASE GUN APPLY A SMALL AMOUNT OF GREASE TO THIS FITTING. THE SECOND BEARING IS SHROUDED BY THE CHAIN GUARD (PART # BFM148-002 – ITEM 16 ON PAGES 30 & 31). THESE PARTS SHOULD BE GREASED ONCE A WEEK.

FIGURE 2



THE FORMER SECTION HAS A SINGLE DRIVE CHAIN (PART # 107DR). THIS PART MUST BE OILED REGULARLY WITH A LIGHT-WEIGHT MACHINE OIL TO PROLONG LIFE OF THE SPROCKETS (PART #'S 117DR / 106DR) AS WELL AS THE CHAIN. LOCATE THE OIL HOLE AT THE TOP OF THE CHAIN GUARD (PART #BFM148-002). THOROUGHLY LUBRICATE THE CHAIN AT THIS POINT. NORMAL OPERATION OF THE FORMER AFTER THIS PROCEDURE, WILL

DISTRIBUTE THE OIL OVER THE ENTIRE CHAIN AND SPROCKETS. THIS PROCEDURE MUST BE REPEATED ONCE A WEEK. NOTE: CHAIN CONDITION AND TENSION SHOULD BE CHECKED EVERY 60 DAYS. REMOVE CHAIN GUARD. INSPECT CHAIN AND MAKE NECESSARY ADJUSTMENTS. REPLACE CHAIN GUARD.

NORMAL CLEANING AND MAINTENANCE PROCEDURES OUTLINED IN THIS MANUAL NEED TO BE FOLLOWED CLOSELY. THESE INSTRUCTIONS WILL HELP YOU SERVICE THE UNIT. INSTRUCTIONS ARE FOR A PERSON WITH SOME MECHANICAL ABILITY AND TRAINING. NO ATTEMPT HAS BEEN MADE TO DESCRIBE ALL BASIC STEPS – FOR EXAMPLE, HOW TO LOOSEN OR TIGHTEN FASTENERS. ALSO, BASIC PROCEDURES LIKE HOW TO CYCLE SYSTEMS AND CHECK OPERATION OF EQUIPMENT ARE NOT DESCRIBED SINCE THEY ARE EXPECTED TO BE KNOWN TO ANYONE WHO PERFORMS MECHANICAL AND SERVICE WORK. DO NOT ATTEMPT TO PERFORM WORK BEYOND YOUR ABILITY OR AT WHICH YOU HAVE NO EXPERIENCE. IF YOU NEED ASSISTANCE CALL AN AUTHORIZED SERVICE CENTER OR CONTACT A.M. MANUFACTURING AT 800-342-6744.

LUBRICATION OF THE DIVIDER

DANGER: ALWAYS DEPRESS AN E-STOP BUTTON AND DISCONNECT ELECTRICAL POWER SOURCE BEFORE CLEANING, MAINTAINING OR REPAIRING THIS MACHINE.

THE FIRST STEP IS TO REMOVE THE TWO CABINET COVERS (ITEMS 17 & 29 ON PAGES 34 & 35). ONCE YOU HAVE COMPLETED THIS STEP YOU SHOULD BE ABLE TO VIEW ALL THREE CHAIN DRIVES OF THE MACHINE. ONE CHAIN ON THE LEFT SIDE OF THE MACHINE, TWO ON THE RIGHT SIDE AND ONE FROM THE MAIN DRIVE MOTOR (PARTNO.SS240).

LOCATE THE LEFT SIDE OF THE MACHINE (FIGURE 1). THIS SIDE WILL HAVE THE SINGLE DRIVE CHAIN. YOU WILL NOTICE THE SEVEN (7) BEARING FLANGES, SIX (6) TWO (2) HOLE FLANGES AND ONE (1) FOUR (4) HOLE FLANGE. WITH A GREASE GUN, APPLY A SMALL AMOUNT OF GREASE TO THE FITTINGS. YOU WILL ALSO NOTICE A GREASE FITTING COMING OFF (PART NO. K104LSIA) NEAR THE MIDDLE OF THIS PANEL. THIS MAKES A TOTAL OF EIGHT (8) GREASE FITTINGS FOR THE LEFT SIDE.

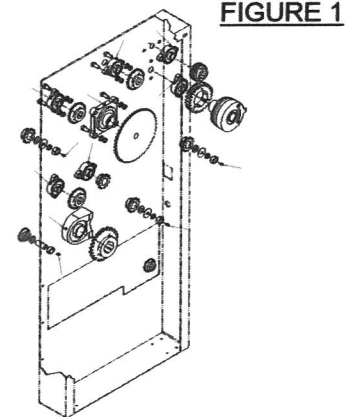


FIGURE 1

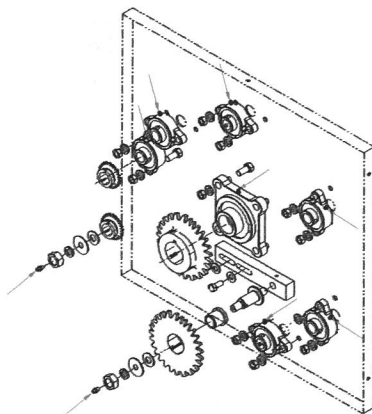
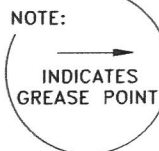


FIGURE 2

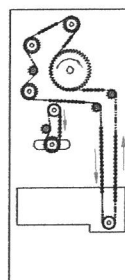


LOCATE THE RIGHT SIDE OF THE MACHINE (FIGURE 2). THIS SIDE WILL HAVE TWO DRIVE CHAINS. REPEAT THE ABOVE STEP FOR ALL FLANGE BEARINGS SINCE THEY ARE IDENTICAL TO THE RIGHT SIDE OF THE MACHINE. ONLY ON THIS SIDE THERE WILL BE TWO MORE GREASE FITTINGS. ONE LOCATED ON (PART NO. K203RS2A) AND THE OTHER GREASE FITTING LOCATED ON (PART NO. K104LS2A), THESE ARE BOTH TENSION SHAFTS (SEE PAGES 26 & 27 FOR ILLUSTRATIONS). ALL GREASE FITTINGS SHOULD BE GREASED ONCE A WEEK.

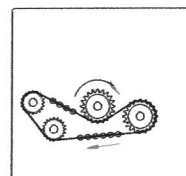
THE BENCH TOP KNIFE DIVIDER / FORMER – RK3300, HAS THREE DRIVE CHAINS (PART NO. 11768, SPECIFY AMOUNT NEEDED). THESE PARTS MUST BE OILED REGULARLY WITH A LIGHT WEIGHT MACHINE OIL TO PROLONG LIFE OF THE SPROCKETS AS WELL AS THE DRIVE CHAINS. THOROUGHLY LUBRICATE EACH DRIVE CHAIN. THE NORMAL OPERATION OF THE MACHINE WILL EVENLY DISTRIBUTE THE OIL OVER THE ENTIRE CHAIN AND SPROCKETS. THIS PROCEDURE MUST BE REPLACED ONCE A WEEK.

NOTE:

CHAIN CONDITION AND TENSION SHOULD BE CHECKED WHEN OILING PROCEDURE IS ACCOMPLISHED.

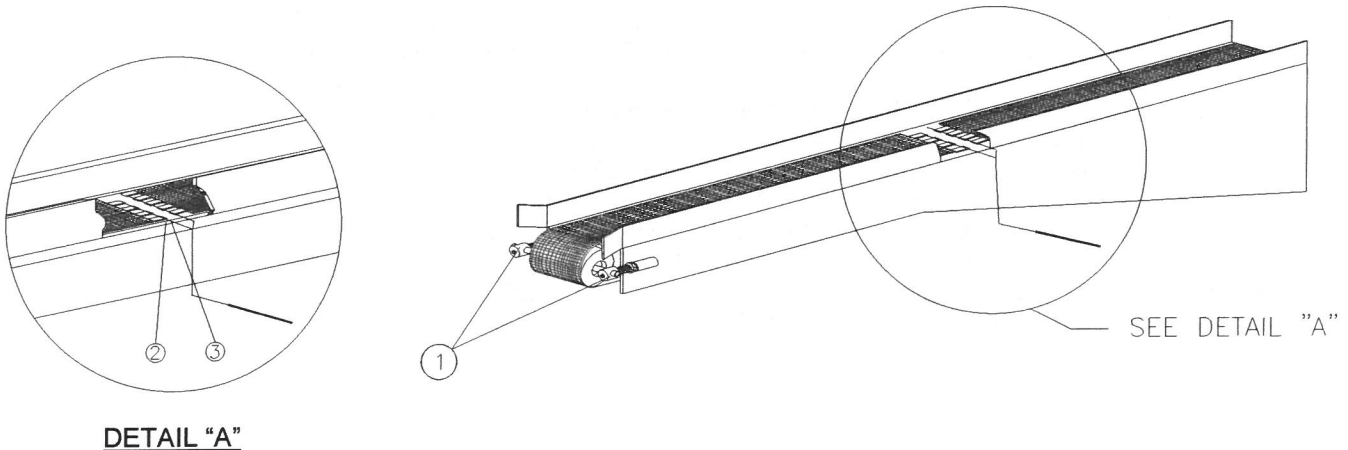


LEFT SIDE



RIGHT SIDE

REMOVING THE DIVIDER BELT



- I. TO LOOSEN THE BELT FOR REMOVAL FIND THE INFEED ROLLER SUPPORT BOLTS (ITEM 16 ON PAGE 21). TURN ADJUSTING HEX NUT COUNTER CLOCK-WISE. THIS IN-TURN WILL BRING IN THE ROLLER AND LOOSEN THE BELT. THIS PROCEDURE MUST BE DONE TO BOTH SIDES OF THE BELT.
- II. TO REMOVE THE BELT FROM THE CONVEYOR, FIRST LOCATE THE ALLIGATOR LACING OR HINGE. YOU WILL SEE A PIN GOING THRU THE LACING. WITH PLIERS, PULL THE PIN OUT. THE BELT WILL THEN COME APART AND CAN THEN BE REMOVED FROM THE MACHINE.
- III. TO REPLACE CONVEYOR BELT, FEED THE NEW BELT DOWN THE CONVEYOR AND AROUND BOTH ROLLERS. FIND THE ALLIGATOR LACING OR HINGE, INTER-TWINE THE LACING AND SLIDE PIN THROUGH. TO TIGHTEN THE BELT, TURN THE ADJUSTING HEX NUTS OF THE ROLLER SUPPORT BOLTS CLOCK-WISE TO RE-TIGHTEN THE BELT.

BELT TRACKING

ALTHOUGH INFREQUENT, A PERIODIC ADJUSTMENT MAY BE NECESSARY TO MAINTAIN PROPER TENSION AND TRACKING. THIS IS ACCOMPLISHED AS FOLLOWS: THERE ARE TWO RED-HANDLED TAKE-UP DEVICES, ONE ON EITHER SIDE OF THE TAKE-UP ROLLER. THESE ARE FOR BOTH THE TENSIONING AND TRACKING OF THE BELT.

AS A GENERAL RULE, IF YOUR BELT IS NOT TRACKING PROPERLY, THE TAKE-UP THAT NEEDS TO BE ADJUSTED IS THE ONE ON THE SIDE TOWARD WHICH THE BELT TENDS TO DRIFT (THE SIDE WHERE THE BELT RIDES CLOSE TO THE EDGE OF THE ROLLER). ON THAT SIDE, THE ROLLER NEEDS TO BE EXTENDED. TO DO THIS, LOOSEN THE LOCK NUT ON THE THREADED ROD THAT EXTENDS OUT OF THE SQUARE END OF THE TAKE-UP. ONCE THIS NUT IS LOOSENED, THE ROD CAN BE TURNED TO EXTEND OR RETRACT THE TAKE-UP ROLLER. ROTATING THE THREADED ROD IN A COUNTER-CLOCKWISE EXTENDS THE ROLLER; ROTATING THE ROD IN A CLOCKWISE DIRECTION RETRACTS IT. ROTATE THE ROD IN A COUNTER-CLOCKWISE DIRECTION NO MORE THEN 1 TURN AT A TIME. RUN THE BELT FOR A FEW MINUTES AND OBSERVE ITS POSITION. WHEN THE BELT POSITION IS CLOSE TO CENTER, MAKE VERY SMALL ADJUSTMENTS.



NOTE:

IF EXTENDING ONE END OF THE ROLLER WILL OVER-TIGHTEN THE BELT, THE CENTERING ADJUSTMENT MUST BE MADE BY RETRACTING THE ROLLER ON THE SIDE OPPOSITE OF THAT TOWARD WHICH THE BELT TENDS TO DRIFT.

ALTHOUGH THIS IS NOT EXACT SCIENCE AS OF YET, THESE INSTRUCTIONS ARE FOR A PERSON WITH SOME MECHANICAL ABILITY AND TRAINING. NO ATTEMPT HAS BEEN MADE TO DESCRIBE ALL BASIC STEPS. BASIC PROCEDURES ARE NOT DESCRIBED SINCE THEY ARE EXPECTED TO BE KNOWN TO ANYONE WHO PERFORMS MECHANICAL AND SERVICE WORK. DO NOT ATTEMPT TO PERFORM WORK BEYOND YOUR ABILITY OR AT WHICH YOU HAVE NO EXPERIENCE. IF YOU NEED ASSISTANCE CALL AN AUTHORIZED SERVICE CENTER OR CONTACT AM MANUFACTURING SERVICE DEPARTMENT AT (800) 342- 6744.

DOUGH DEFLECTOR (SHIELD) ADJUSTMENT

IF LOOKING FROM THE REAR OF THE MACHINE, THE DOUGH DEFLECTOR IS LOCATED BEFORE THE FORMING TUBE. A DESCRIPTION AND DEPICTION IS LOCATED ON PAGE 29-30. THE DOUGH DEFLECTOR HOLDS THE BELT EVEN BEFORE IT ENTERS THE FORMING TUBE. THIS KEEPS DOUGH FROM HANGING UP IN THE PINCH POINT (THE AREA WHERE THE BELT CURLS AND MEETS TOGETHER BEFORE THE FORMING TUBE). IF DOUGH IS NOT BEING PUSHED INTO THE FORMING TUBE, THIS PIECE NEEDS TO BE ADJUSTED. THERE ARE TWO HEX HEAD SCREWS SIDE BY SIDE HOLDING THE DOUGH DEFLECTOR. THESE SCREWS CAN BE LOOSENED, ALLOWING THE OPERATOR TO RAISE OR LOWER THE DOUGH DEFLECTOR AS NEEDED. AFTER THE CORRECT ADJUSTMENT IS MADE, TIGHTEN THE HEX HEAD SCREWS AND TEST WITH DOUGH.

WARNING:

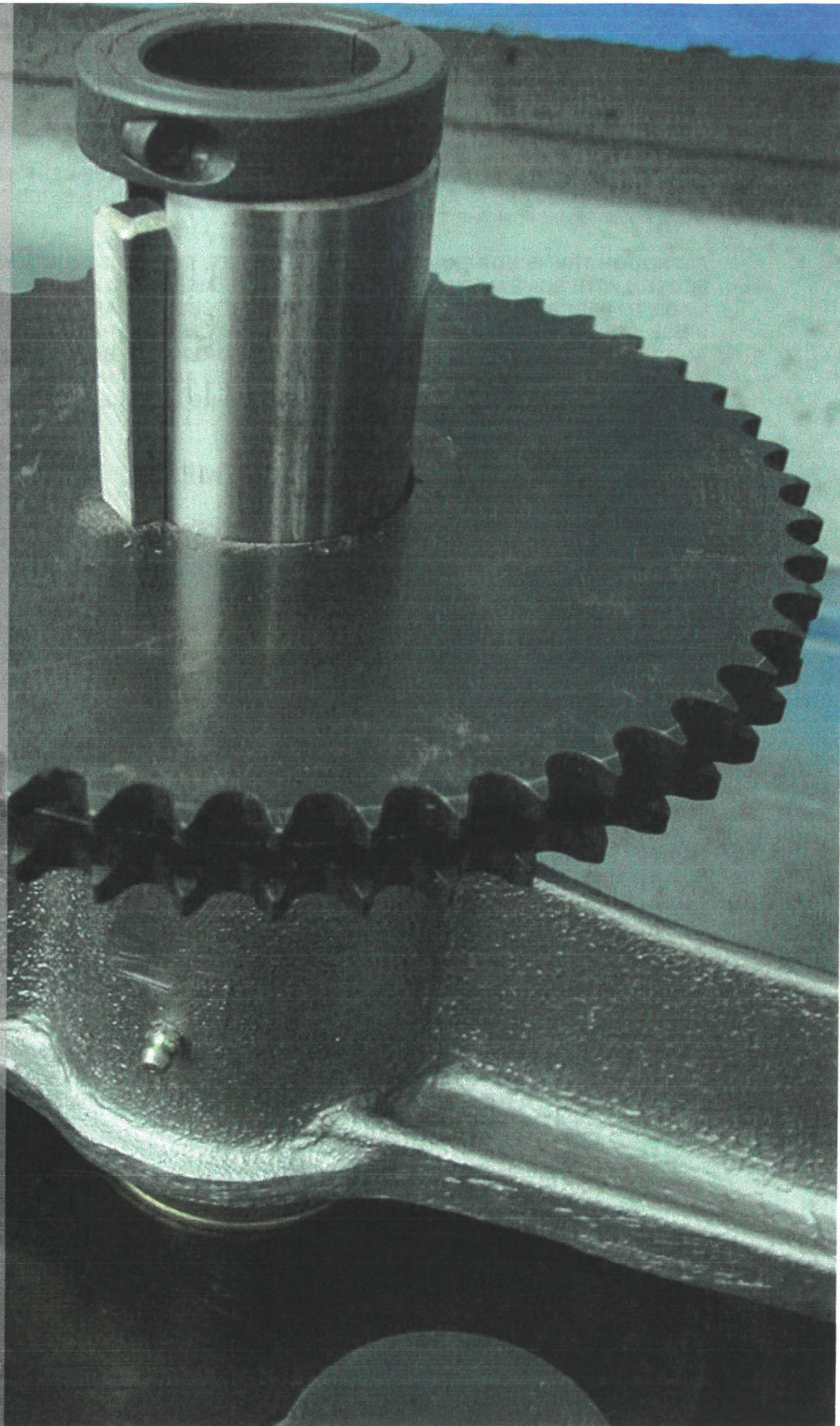
UNPLUG THE MACHINE BEFORE ATTEMPTING ANY REPAIR OR ADJUSTMENT.

PRESSURE PLATE ADJUSTMENT

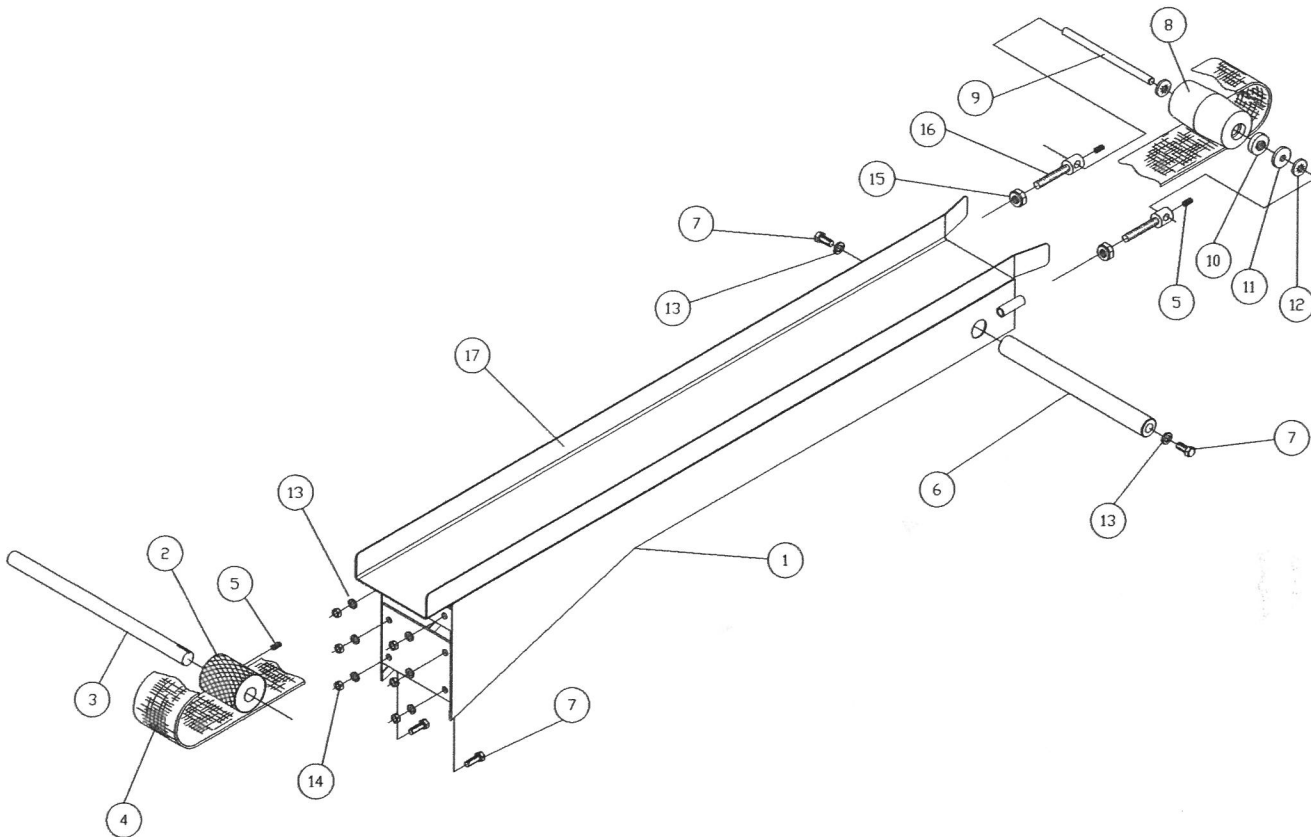
THE PRESSURE PLATE IS ATTACHED TO THE BREADSTICK PART OF THE MACHINE. THIS PIECE CAN BE ADJUSTED TO ALLOW MORE OR LESS DOUGH THROUGH. PLEASE REFER TO PAGE 36 OF THIS MANUAL FOR A PICTORIAL EXAMPLE. ITEM 12, THE PRESSURE PLATE, CAN BE LIFTED UP TO ALLOW MORE DOUGH THROUGH OR LOWERED FOR LESS. TO MANIPULATE THE PRESSURE PLATE, LOOSEN (COUNTER-CLOCKWISE) ITEM 14, THE WING BOLTS. THERE ARE FOUR OF THESE BOLTS ON TOP OF THE BRIDGE. LOOSEN (TURN THE WING BOLT COUNTER-CLOCKWISE) THE WING BOLT ON ITEM 15, THE PIVOT LOCKING PLATE. THIS WILL ALLOW THE PRESSURE PLATE TO MOVE UP AND DOWN. WHEN DESIRED AMOUNT OF DOUGH FLOW IS REACHED, TIGHTEN (TURN THE WING BOLT CLOCKWISE) THE WING NUTS ON TOP AND ON THE PIVOT LOCKING PLATE. THIS WILL DETERMINE THE SIZE OF THE BREADSTICKS BEING MADE.

**P
A
R
T
S

C
A
T
A
L
O
G
U
E**

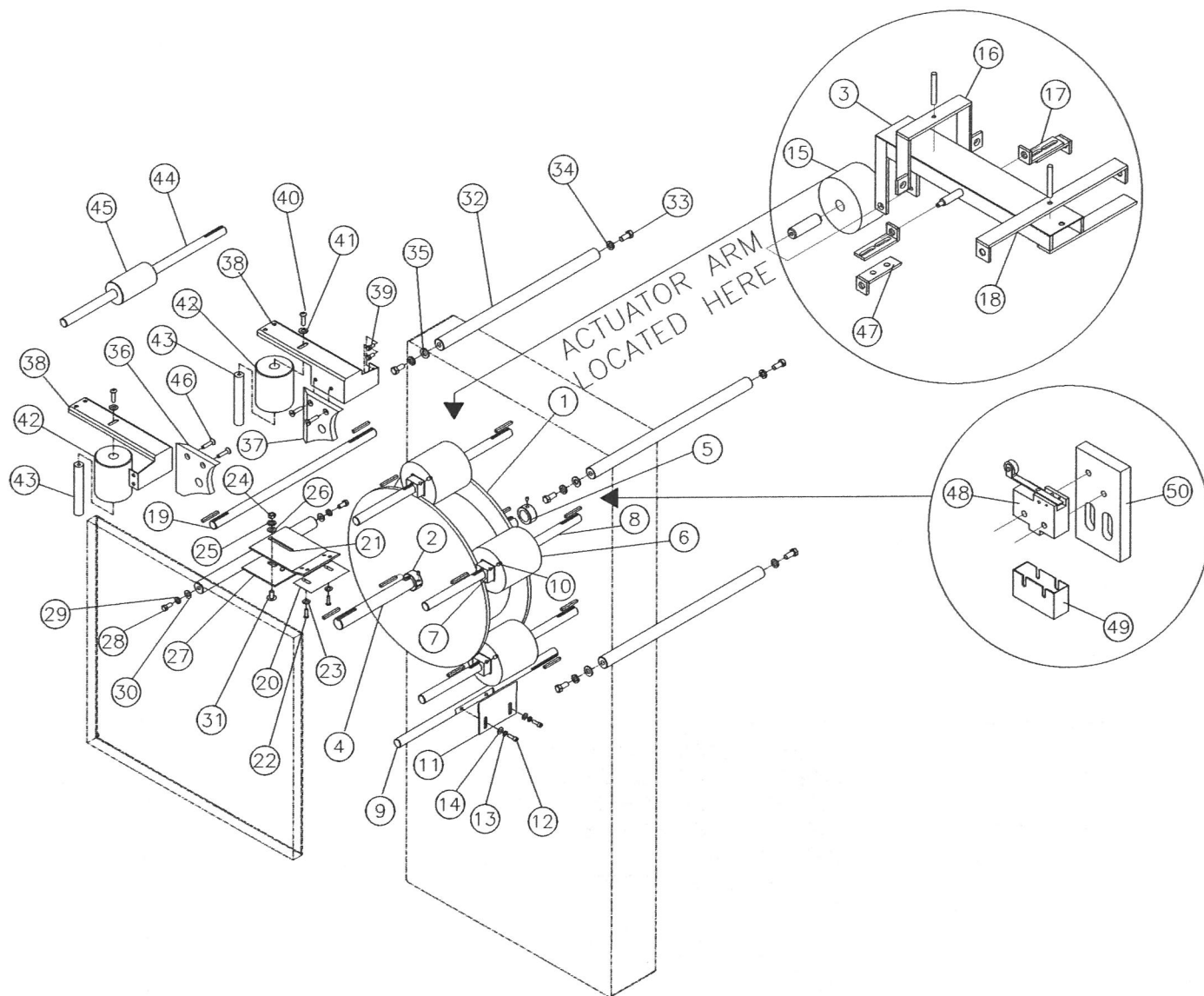


INFEEED CONVEYOR ASSEMBLY



ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	12175	INFEEED CONVEYOR BODY	1
2	14000	INFEEED CONVEYOR DRIVE ROLLER	1
3	14001	INFEEED CONVEYOR DRIVE ROLLER SHAFT	1
4	12748	INFEEED CONVEYOR BELT	1
5	F0502SS	SET SCREW	3
6	14002	CONVEYOR SUPPORT ROD	1
7	F0503HH	BOLT	8
8	14003	INFEEED CONVEYOR IDLER ROLLER	1
9	14021	IDLER ROLLER SHAFT	1
10	603SCA	BEARING	2
11	F0600NW	NYLON WASHER	2
12	F0600RW	RETAINING WASHER	2
13	F0500LW	LOCK WASHER	8
14	F0500NC	HEX NUT	8
15	F0600LN	LOCK NUT	2
16	A600SC	ROLLER SUPPORT	2
17	12171	INFEEED CONVEYOR TUB	1

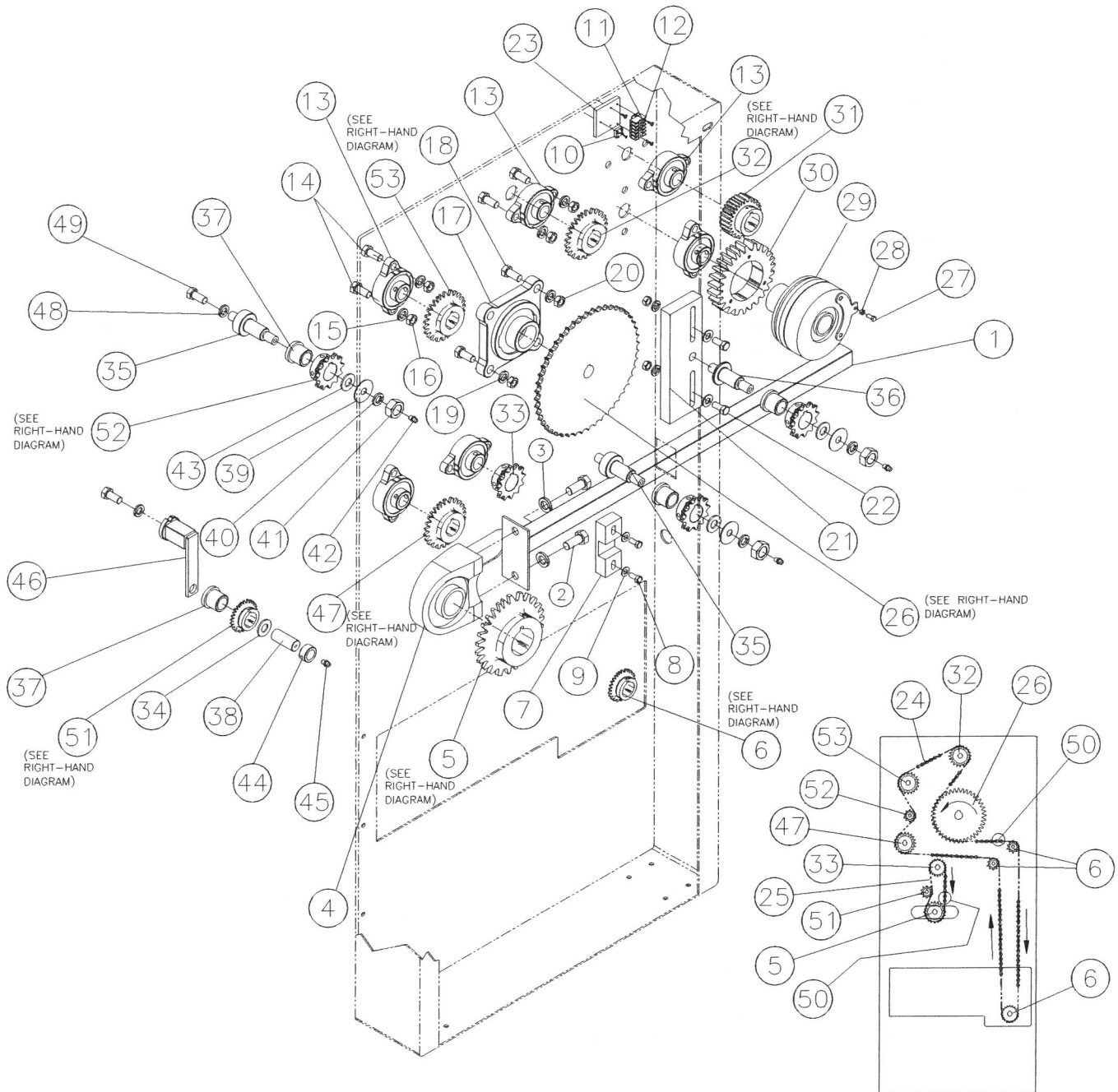
ROLLER ASSEMBLY



ROLLER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	13994	DRUM ROLLER	1
2	11147	COLLAR SHAFT	2
3	14061	ACTUATOR ARM ASSEMBLY	1
4	13995	DRUM SHAFT	1
5	150	SHAFT COLLAR	1
6	14024	SIZING ROLLER	4
7	K315RA	DRIVER PLUG	3
8	13996	SIZING ROLLER SHAFT	4
9	13997	KNIFE SHAFT	1
10	F0302SS	SET SCREW	3
11	14040	KNIFE	1
12	F0402SH	SOCKET HEAD BOLT	2
13	F0400LW	LOCK WASHER	2
14	F0400FW	FLAT WASHER	2
15	14060	ACTUATOR ARM ROLLER	1
16	14069	ACTUATOR ARM STOP BRIDGE	1
17	14062	ACTUATOR ARM PIVOT BRACKET	2
18	14073	ACTUATOR ARM HEIGHT ADJUSTMENT BRIDGE	1
19	13998	CLUTCH SLAVE SHAFT	1
20	13999	DRUM SCRAPER	1
21	14004	DRUM SCRAPER EXTENSION	1
22	F0504CB	CARRIAGE BOLT	2
23	F0500LW	LOCK WASHER	2
24	F0500LN	LOCK NUT	1
25	F0500LW	LOCK WASHER	1
26	F0500FW	FLAT WASHER	1
27	14005	DRUM SCRAPER BASE	1
28	F0504HH	BOLT	2
29	F0500LW	LOCK WASHER	2
30	F0500FW	FLAT WASHER	2
31	F0503CB	CARRIAGE BOLT	1
32	14006	SPREADER BAR	3
33	F0604HH	BOLT	6
34	F0600LW	LOCK WASHER	6
35	F0600FW	FLAT WASHER	6
36	14007	DOUGH GUIDE	1
37	14007	DOUGH GUIDE	1
38	12172	GUIDE ROLLER EXTENSION (SET R & L)	1
39	F0402BHS	BUTTON HEAD SOCKET CAP SCREW	4
40	F0404BH	BUTTON HEAD SOCKET CAP SCREW	2
41	F0400LW	LOCK WASHER	2
42	14023	GUIDE ROLLER	2
43	14008	GUIDE ROLLER SHAFT	2
44	14001	INFEEED CONVEYOR DRIVE ROLLER SHAFT	1
45	14000	INFEEED CONVEYOR DRIVE ROLLER	1
46	F0404SH	SOCKET HEAD BOLT	4
47	14101	ACTUATOR ARM PIVOT BRACKET SUPPORT TAB	2
48	SS281	LIMIT SWITCH	1
49	SS283	LIMIT SWITCH COVER	1
50	K107LS	LIMIT SWITCH MOUNT BRACKET	1
51	14063	WEIGHT ACTUATOR ARM CENTRAL AXIAL	1

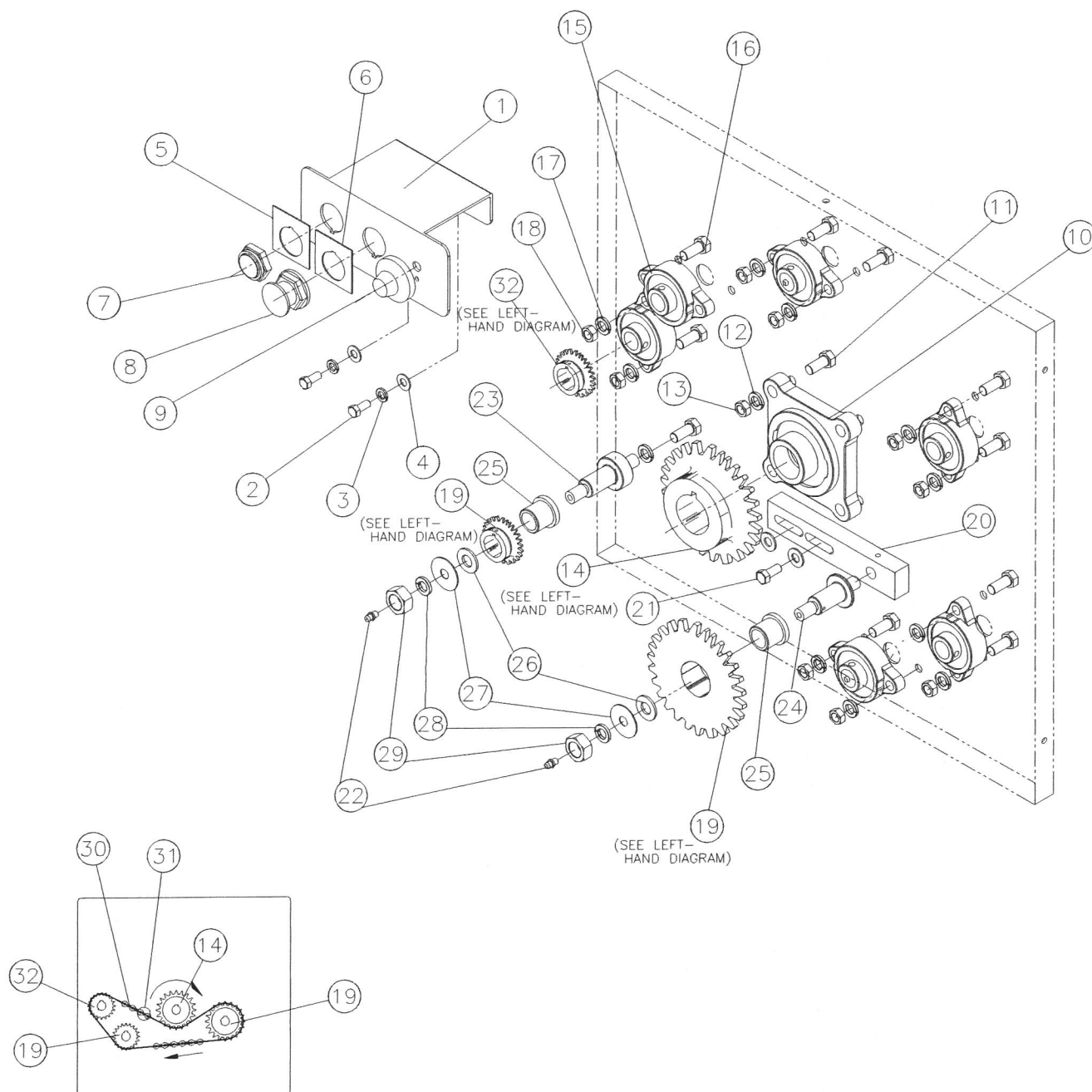
LEFT SIDE ASSEMBLY



LEFT SIDE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	14025	TAKE-UP EXTENSION	1
2	F0504HH	BOLT	2
3	F0500LW	LOCK WASHER	2
4	14009	PILLOW BLOCK BEARING	1
5	40B24 x 1"	SPROCKET	1
6	40B12 x 1"	SPROCKET	2
7	14010	EXTENSION ARM BLOCK	1
8	F0404HH	BOLT	2
9	F0400FW	FLAT WASHER	2
10	SS229	RECTIFIER BLOCK	1
11	SS145	TERMINAL BLOCK END	2
12	SS144	TERMINAL BLOCK	4
13	VF2S-212	BEARING FLANGE (2) HOLE	6
14	F0504HH	BOLT	12
15	F0500LW	LOCK WASHER	12
16	F0500NC	HEX NUT	12
17	VF4S-216	BEARING FLANGE (4) HOLE	1
18	F0605HH	BOLT	4
19	F0600LW	LOCK WASHER	4
20	F0600NC	HEX NUT	4
21	14011	TENSION BLOCK	1
22	F0504HH	BOLT	2
23	K532ES	BRIDGE RECTIFIER BLOCK	1
24	11768	No. 40 CHAIN (INFEED & DRUM)	1
25	11768	No. 40 CHAIN (KNIFE & FORMER)	1
26	40B60 x 1"	DRUM SPROCKET	1
27	F9702TH	TRUSS HEAD	1
28	F9700NC	HEX NUT	1
29	SS238	CLUTCH	1
30	K108LS	GEAR (DRIVER CLUTCH)	1
31	K109LS	INFEED CONVEYOR DRIVE GEAR	1
32	40B16 x 3/4"	SPROCKET	1
33	40B15 x 3/4"	SPROCKET	1
34	F0500FW	FLAT WASHER	1
35	K104LS1A	SPROCKET TENSION MOUNT SHAFT	2
36	K203RS2A	SPROCKET TENSION MOUNT SHAFT	1
37	BBT15	BRONZE BUSHING	4
38	14012	SPACER	1
39	F0800FL	FLAT WASHER	3
40	F0800LW	LOCK WASHER	3
41	F0800NC	HEX NUT	2
42	3038-B	GREASE FITTING	3
43	F0800NW	NYLON WASHER	3
44	RK147RA	SHAFT COLLAR	1
45	3038	GREASE FITTING	1
46	11583	TENSION ARM	1
47	40B18 x 3/4"	SPROCKET	1
48	F0504HH	BOLT	1
49	F0500LW	LOCK WASHER	1
50	13180	No. 40 CHAIN MASTER LINK	2
51	40B17 x 5/8"	SPROCKET	1
52	40B20 x 1"	SPROCKET	1
53	40B17 x 3/4"	SPROCKET	1

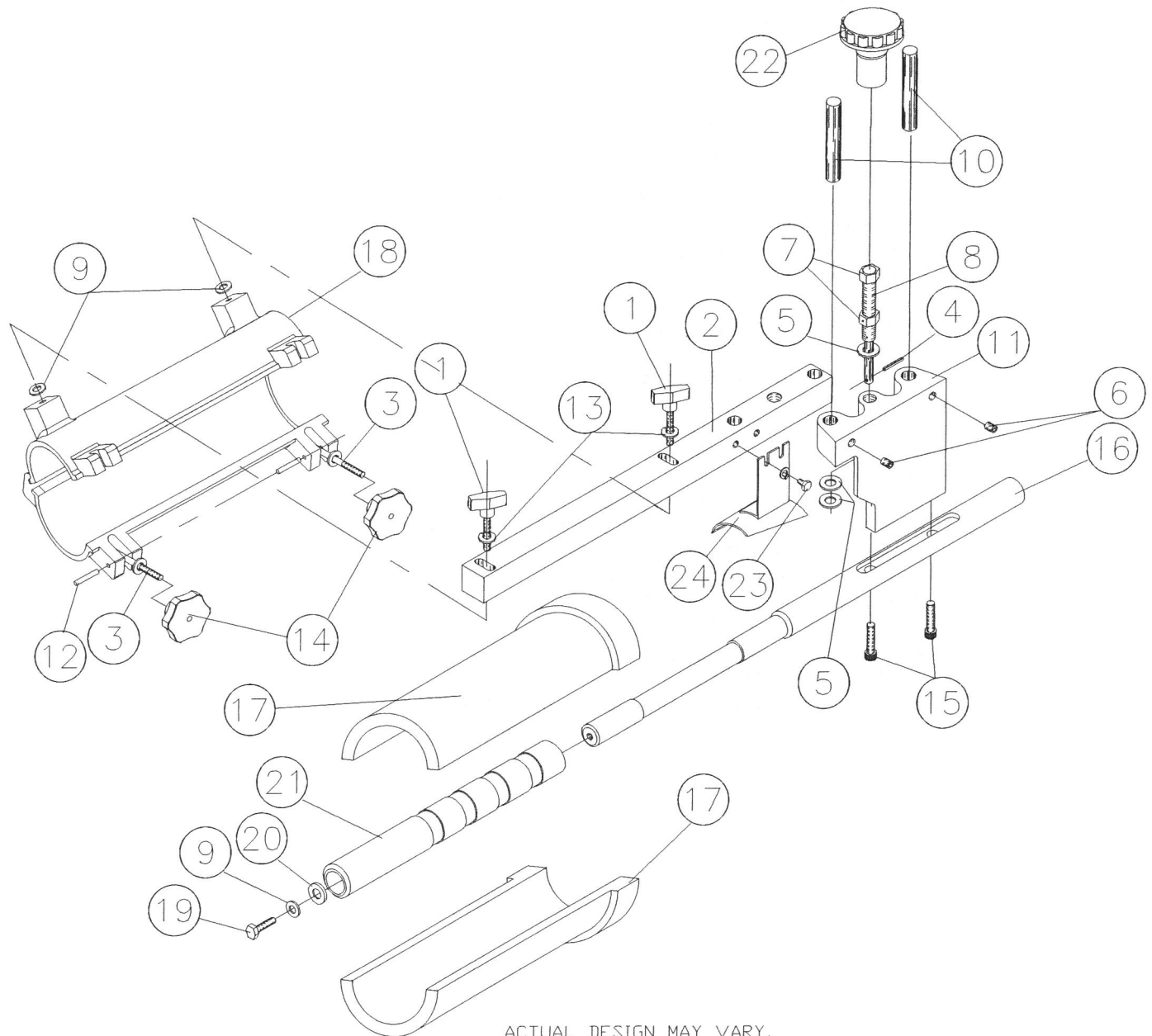
RIGHT SIDE ASSEMBLY



RIGHT SIDE ASSEMBLY

ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	12183	CONTROL BRACKET	1
2	F0404HH	BOLT	2
3	F0400LW	LOCK WASHER	2
4	F0400FW	FLAT WASHER	2
5	SS121	START NAME PLATE	1
6	SS122	STOP NAME PLATE	1
7	SS184	START BUTTON	1
8	SS185	STOP BUTTON	1
9	400091	10 TURN SWITCH	1
10	VF4S-216	BEARING FLANGE (4) HOLE	1
11	F0605HH	BOLT	4
12	F0600LW	LOCK WASHER	4
13	F0600NC	HEX NUT	4
14	40B28x1"	SPROCKET	1
15	VF2S-212	BEARING FLANGE (2) HOLE	6
16	F0504HH	BOLT	12
17	F0500LW	LOCK WASHER	12
18	F0500NC	HEX NUT	12
19	40B12 x 1"	SPROCKET	2
20	K104LS-1	TENSION ASSEMBLY PLATE	1
21	F0506HH	BOLT	2
22	3038-B	GREASE FITTING	2
23	K203RS2A	SPROCKET TENSION MOUNT SHAFT	1
24	K104LS-1A	SPROCKET TENSION MOUNT SHAFT	1
25	BBT15	BRONZE BUSHING	2
26	F0800FW	FLAT WASHER	2
27	F0800NW	NYLON WASHER	2
28	F0800LW	LOCK WASHER	2
29	F0800NC	HEX NUT	2
30	11768	No. 40 CHAIN (RIGHT SIDE KNIFE)	1
31	13180	No. 40 CHAIN MASTER LINK	1
32	40B15 x 3/4"	SPROCKET	1

FORMING ASSEMBLY – MANDREL



ACTUAL DESIGN MAY VARY,
FROM THIS PICTURE

FORMING ASSEMBLY - MANDREL

ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	BFM148-022	MANDREL BAR ASSEMBLY MOUNT SCREW & KNOB	2
2	BFM2	MANDREL MOUNT BAR	1
3	BFM148-018	STUD-LOCKING HINGE	2
4	F0304RP	ROLL PIN	1
5	F0600FW	WASHER	3
6	F0602SS	SET SCREW	2
7	F1000NC	NUT	1
8	BFM12	VERTICAL ADJUSTING SCREW W/2-BFM13 HEXNUT	1
9	F0400LW	LOCK WASHER	3
10	BFM14	VERTICAL SLIDE PIN	2
11	BFM15	MANDREL SUPPORT	1
12	F0305RP	ROLL PIN	2
13	F0500FW	WASHER	2
14	BFM19	KNOB	2
15	F0603SH	S.H. SCREW	2
16	BFM23	MANDREL-ADAPTER SUPPORT (STANDARD)	1
17	BFM21	9.0" FORMING TUBE, SET (STANDARD)	1
18	BFM99	FORMING TUBE HOLDER	1
19	F0606HH	BOLT	1
20	BFM33	WASHER 1-3/8 OD X 3/8 ID X 1/8	1
21	BFM35	1-7/8" DIA. MANDREL SLEEVE (STANDARD)	1
22	103IR-A4	BELT ADJUSTING KNOB	1
23	F0402HH	HEX NUT	2
24	BFM52R	DOUGH DEFLECTOR	1

BFM1AS STANDARD COMPLETE BFM ASSEMBLY
FROM MINI TO STANDARD SET-UP INCLUDES:

1-BFM MANDREL MOUNT BAR	1-BFM55 MANDREL ADAPTER SUPPORT
2-BFM14 VERTICAL SLIDE PIN	1-BFM12 VERTICAL ADJUSTING SCREW
1-BFM15 MANDREL SUPPORT	1-BFM21 FORM TUBE RIGHT- OUTER
ADJUSTING ASS. W/ 1- BFM16 VERTICAL PLATE	1-BFM24 FORM TUBE LEFT-INNER
2-BFM7 ROLL PIN	1-BDP21 STANDARD BAGEL CONV. W/BDP21 BELT 9" WIDE
2-BFM8 WASHER	1-BFM39 MANDREL BRIDGE
1-BFM35 MANDREL SLEEVE 1-7/8"	1-BFM11 HEX NUT
1-BFM32 BOLT	1-F0402HH BOLT
1-BFM33 WASHER	1-BFM52L DOUGH SHIELD
2-BFM20 SOCKET HEAD SCREW	2-F0402HH BOLT
1-BFM13 HEX NUT	2-F0400FW FLAT WASHER
1-F0204RP ROLL PIN	2-F0400LW LOCK WASHER
2-F0606SH BOLT	
1-F0602SS SET SCREW	

BFM4A BULL SET-UP ASSEMBLY INCLUDES:

BFM41 FORMING TUBES	BFM37 MANDREL SLEEVE 2" DIA.
BDP22 BULL BAGEL CONV. BELT 10" WIDE	

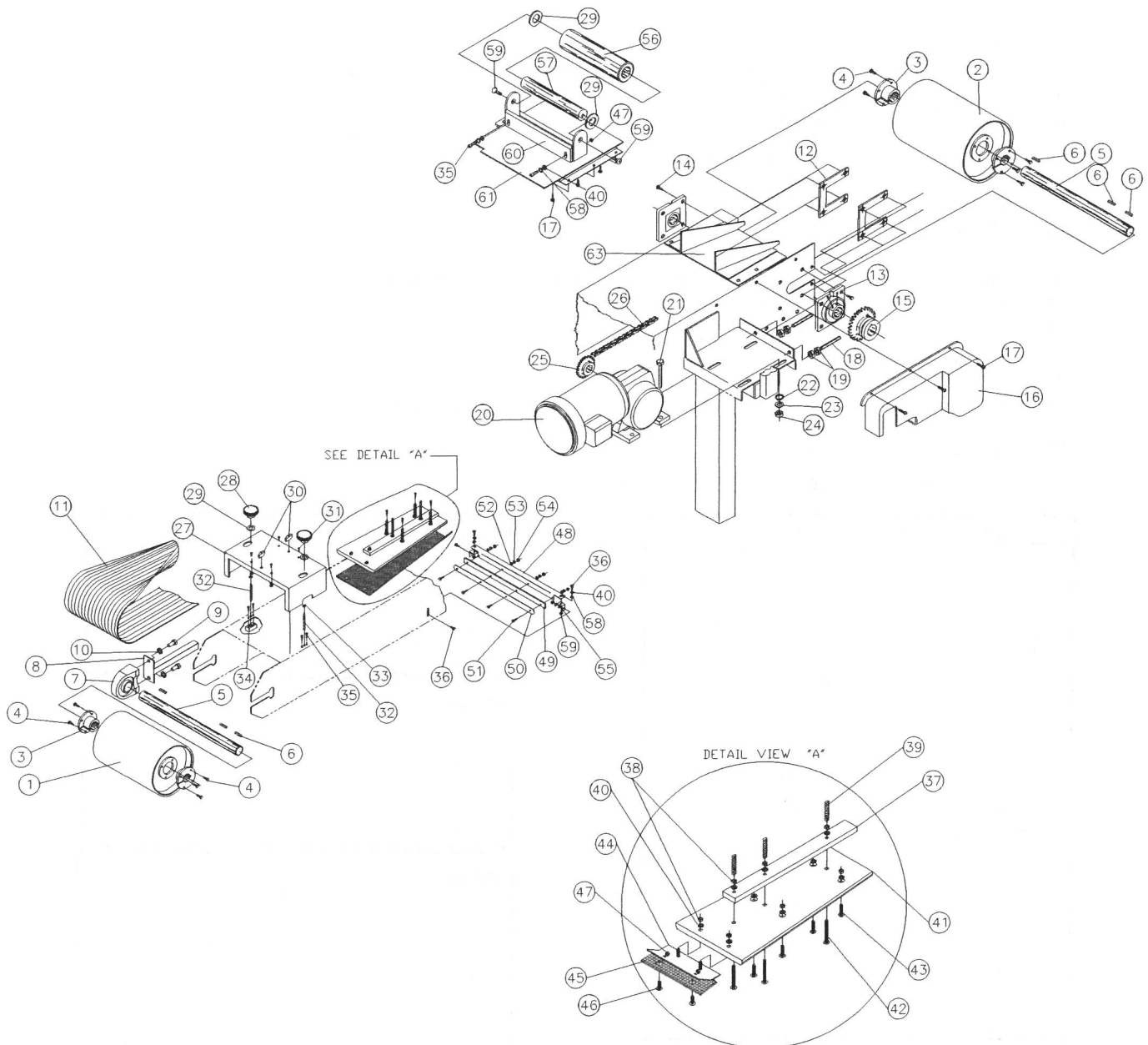
BFM2A STANDARD COMPLETE BFM ASSEMBLY
FROM BULL TO STANDARD SET-UP INCLUDES:

1-BFM35 MANDREL SLEEVE 1-7/8"
1-BDP21 STANDARD BAGEL CONV. W/ 9" BELT

BFM3A MINI SET-UP FROM STANDARD TO MINI
SET-UP & FROM BULL TO MINI SET-UP INCLUDES:

1-BDP23 MINI BAGEL W/6" WIDE CON. BELT	1-BFM2 BAR MANDREL MOUNT
1-BFM40 MINI FORMING TUBE	1-BFM11 HEX NUT
1-BFM42 MANDREL & SUPPORT BAR 1-1/8"	1-BFM12 VERT. ADJUSTING SCREW W/BFM13 HEX NUT
1-BFM15 VERT. PLATE MANDREL SUPPORT ADJUSTING ASSEMBLY	2-BFM14 VERT. SLIDE PIN

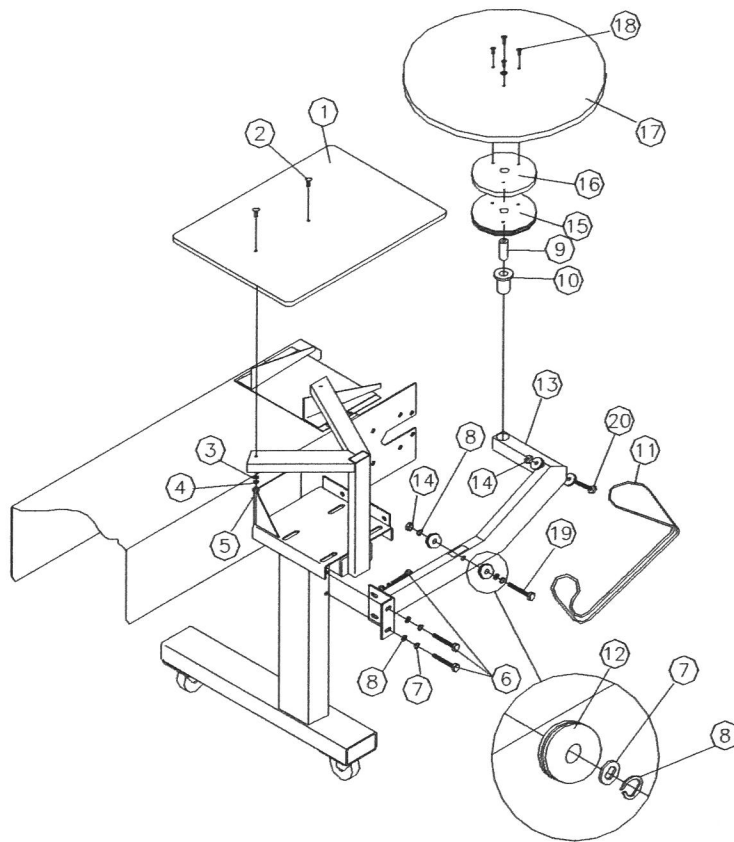
IDLER / DRIVE ROLLER ASSEMBLY



IDLER / DRIVE ROLLER ASSEMBLY

ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	14102	TAKE-UP ROLLER (THINNER URETHANE COATING)	1
2	100DR	DRIVE ROLLER (WITH THICK URETHANE COATING)	1
3	103DR	PULLEY HUB	4
4	F0805HH	BOLT	16
5	14013	IDLER ROLLER SHAFT	2
6	109DR	5/16 KEY	6
7	PAGE 16-17	PILLOW BLOCK BEARING	2
8	PAGE 16-17	BEARING EXTENSION	2
9	F0504HH	BOLT	2
10	F0500LW	LOCK WASHER	2
11	BDP21	FORMER BELT	1
12	655CA-1A	BEARING MOUNT HORSHESHOE	2
13	BDP10	BEARING	2
14	F0805HH	BOLT	8
15	117DR	DRIVE SPROCKET	1
16	BFM148002	CHAIN GUARD	1
17	F0403SH	BOLT	10
18	F0816SD	THREADED ROD	2
19	F0800NC	NUT	4
20	SS251	MOTOR / REDUCER	1
21	F0606HH	BOLT	4
22	F0600FW	FLAT WASHER	4
23	F0600LW	LOCK WASHER	4
24	F0600NC	NUT	4
25	106DR	SPROCKET	1
26	107DR	DRIVE CHAIN # 50	1
27	104IRA	MOUNTING BRIDGE	1
28	800PHK	KNOB	2
29	F1400NW	NYLON WASHER	2
30	F00PVNO	THREADED HANDLE	2
31	F0404HH	BOLT	4
32	107IR	THREADED ROD	2
33	F0800NC	NUT	2
34	655CA-14	ADJUSTMENT BLOCK	2
35	F0404SH	BOLT	4
36	F0404HH	BOLT	6
37	14014	PRESSURE PLATE SUPPORT BAR	1
38	F0400NC	NUT	6
39	SFPP19	SPRING	6
40	F0400FW	FLAT WASHER	6
41	14014	PRESSURE PLATE	1
42	F0406SH	BOLT	6
43	F0404SH	BOLT	2
44	12170	DOUGH GUIDE	1
45	SFPP12-1	DOUGH GUIDE BELT	1
46	F0402RH	BOLT	2
47	F0400NC	NUT	2
48	133RC	SUPPORT BRACKET	1
49	152RC	PLASTIC STRIP	1
50	132RC	BLADE	1
51	F9703PH	BOLT	4
52	F9700FW	FLAT WASHER	4
53	F9700LW	LOCK WASHER	4
54	F9700NC	NUT	4
55	106IR	ANGLE SUPPORT BRACKET	2
56	110DR	BELT ROLLER	1
57	116DR	BELT ROLLER SHAFT	1
58	F0400LW	LOCK WASHER	10
59	F0402FS	BOLT	2
60	111DR	SCRAPER BLADE	1
61	12181	SWING PLATE	1
62	14016	CATCH PAN	1
63	659CA	BELT GUIDE	1

ROTARY & STATIONARY TABLE ASSEMBLY



ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	BRT11A	STATIONARY TABLE	1
2	F0408CB	CARRIAGE BOLT	2
3	F0400FW	FLAT WASHER	2
4	F0400LW	LOCK WASHER	2
5	F0400NC	HEX NUT	2
6	F0604HH	HEX BOLT	4
7	F0600LW	LOCK WASHER	5
8	F0600FW	FLAT WASHER	5
9	BFM148007	TABLE SHAFT	1
10	BFM148016	TABLE BUSHING	1
11	BFM148021	ORANGE BELT (DRIVE)	1
12	BFM148072	ROLLERS FOR TABLE	4
13	BFM148010	TABLE EXTENTION ARM	1
14	F0600NC	HEX. NUT	2
15	BFM148015	TABLE FLANGE PULLEY	4
16	BFM148014	TABLE SPACER	1
17	BFM148019	24" ROTARY TABLE	1
18	F0405FSH	FLAT SOCKET HEAD	4
19	F0610HH	HEX HEAD	1
20	F0614HH	HEX HEAD	1

Exploded view diagram of a mobile office workstation, showing various components and their assembly points. The components are numbered 1 through 43. The diagram includes a main frame (1), wheels (2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43), drawers (4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43), and various adjustment components (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43). A note indicates "CONFIRMED IN REVERSE BUTTON" near callout 40.

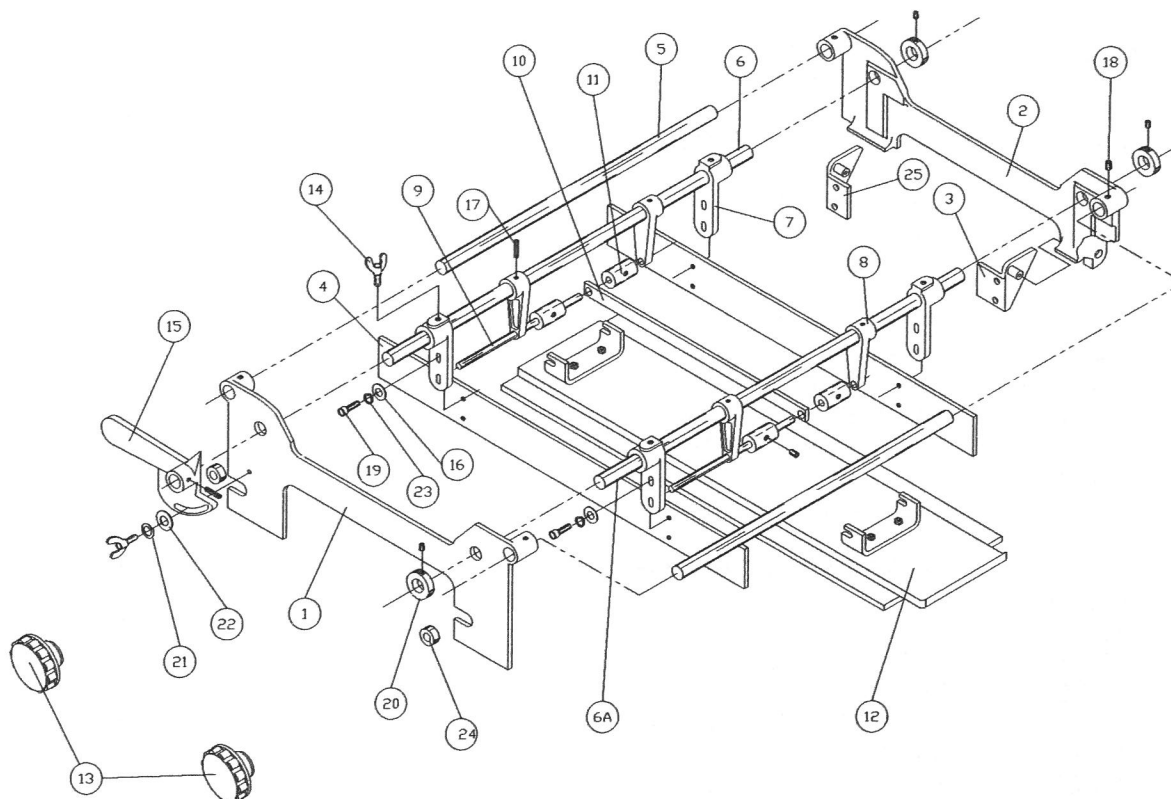
CABINET ASSEMBLY

ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	12185	CABINET FRAME	1
2	621CA2	CASTER ROLLER	2
3	621CA1	LOCKING CASTER ROLLER	2
4	F0402HH	BOLT	24
5	F0400FW	FLAT WASHER	24
6	F0400LW	LOCK WASHER	24
7	F0400NC	LOCK NUT	24
8	12822	SWING PLATE CLAMP	1
9	F0403SH	SOCKET HEAD BOLT	4
10	10423	TAKE-UP	2
11	F0402SH	SOCKET HEAD	8
12	12184	CONVEYOR SUPPORT	1
13	PAGE 13	CONVEYOR SUPPORT TUBE	1
14	F0404HH	BOLT	2
15	F0400LW	LOCK WASHER	2
16	12182	CABINET BASE	2
17	14017	LARGE CABINET COVER	1
18	F0603HH	BOLT	2
19	F0600LW	LOCK WASHER	2
20	12178	CABINET SIDE PANEL	1
21	12173	CABINET UPPER FRONT PANEL	1
22	12174	CABINET UPPER SIDE PANEL	1
23	12179	CABINET REAR DOOR	1
24	11627	HANDLE	2
25	F9702TH	TRUSS HEAD	4
26	F9700FW	FLAT WASHER	4
27	F9700LW	LOCK WASHER	4
28	F9700NC	HEX NUT	4
29	12180	SIDE COVER	1
30	F0402TH	TRUSS HEAD	1
31	F0400LW	LOCK WASHER	12
32	14018	CABINET TOP DOOR	12
33	12176	MAIN PANEL	1
34	12186	ELECTRICAL PANEL	1
35	14019	MOTOR MOUNT	1
36	F0604HH	BOLT	4
37	F0600LW	LOCK WASHER	4
38	SS454	MOTOR	1
39	14020	REDUCER	1
40	400038	NC CONTACT	1
41	12177	BASE COVER PANEL	1
42	SS289	JUNCTION BOX	1
43	SS185	E-STOP BUTTON	1

NOTE:

GUARDS ARE INTERLOCKED; MACHINE
WILL NOT OPERATE WITHOUT GUARDS IN
PLACE.

PRESSURE PLATE & MOUNTING FRAME

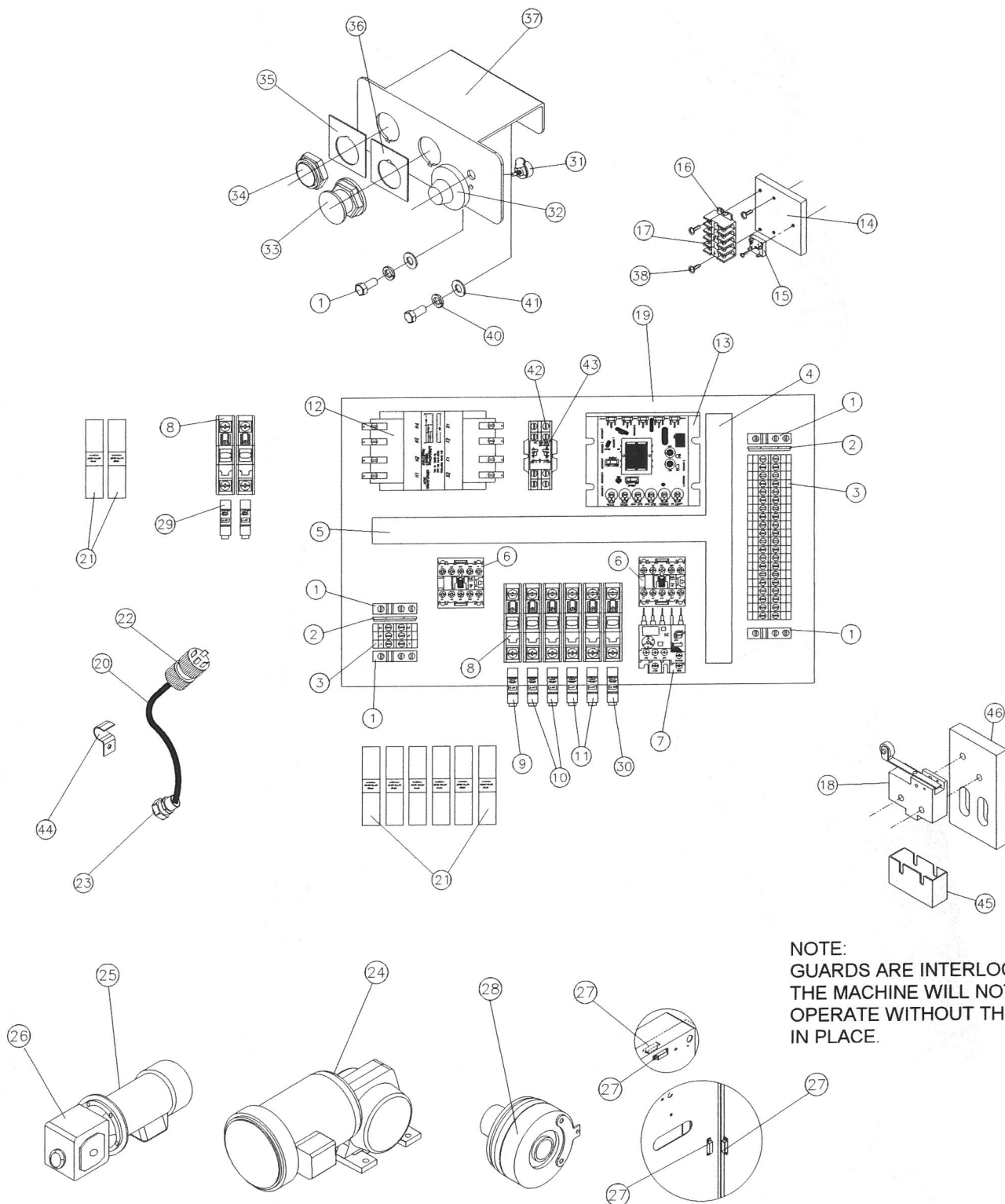


ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	MPP1	SIDE PLATE LOCKING	1
2	MPP2	SIDE PLATE PIVOTING	1
3	14112	HINGE BRACKET LEFT	1
4	14109	PRESSURE PLATE GUIDE BAR	2
5	14115	SPREADER BAR	2
6	14114	PIVOT BAR (REAR)	1
6A	14114	PIVOT BAR (FRONT)	1
7	MPP7	PRESSURE PLATE GUIDE BAR MOUNT	4
8	MPP8	PRESSURE PLATE PIVOT MOUNT	4
9	MPP9	PRESSURE PLATE MOUNTING ROD	2
10	MPP10	PIVOT SPACER BAR	1
11	MPP11	MOUNTING ROD SPACER	4
12	14110	PRESSURE PLATE - 6 INCH	1
13	800PHK3	KNOB	1
14	F0604WB	WING BOLT	5
15	MPP15	PIVOT LOCKING PLATE	1
16	F0400FW	FLAT WASHER	4
17	MPP17	ROLL PIN	8
18	F0502SS	SET SCREW	4
19	F0403SC	BOLT	8
20	MPP20	COLLAR LOCKING	3
21	F0600LW	LOCK WASHER	1
22	F0600FW	FLAT WASHER	1
23	F0400LW	LOCK WASHER	4
24	MPP25	SPACER	2
25	14111	HINGE BRACKET RIGHT	1

**E
L
E
C
T
R
I
C
A
L

S
C
H
E
M
A
T
I
C
S**

ELECTRICAL SYSTEM

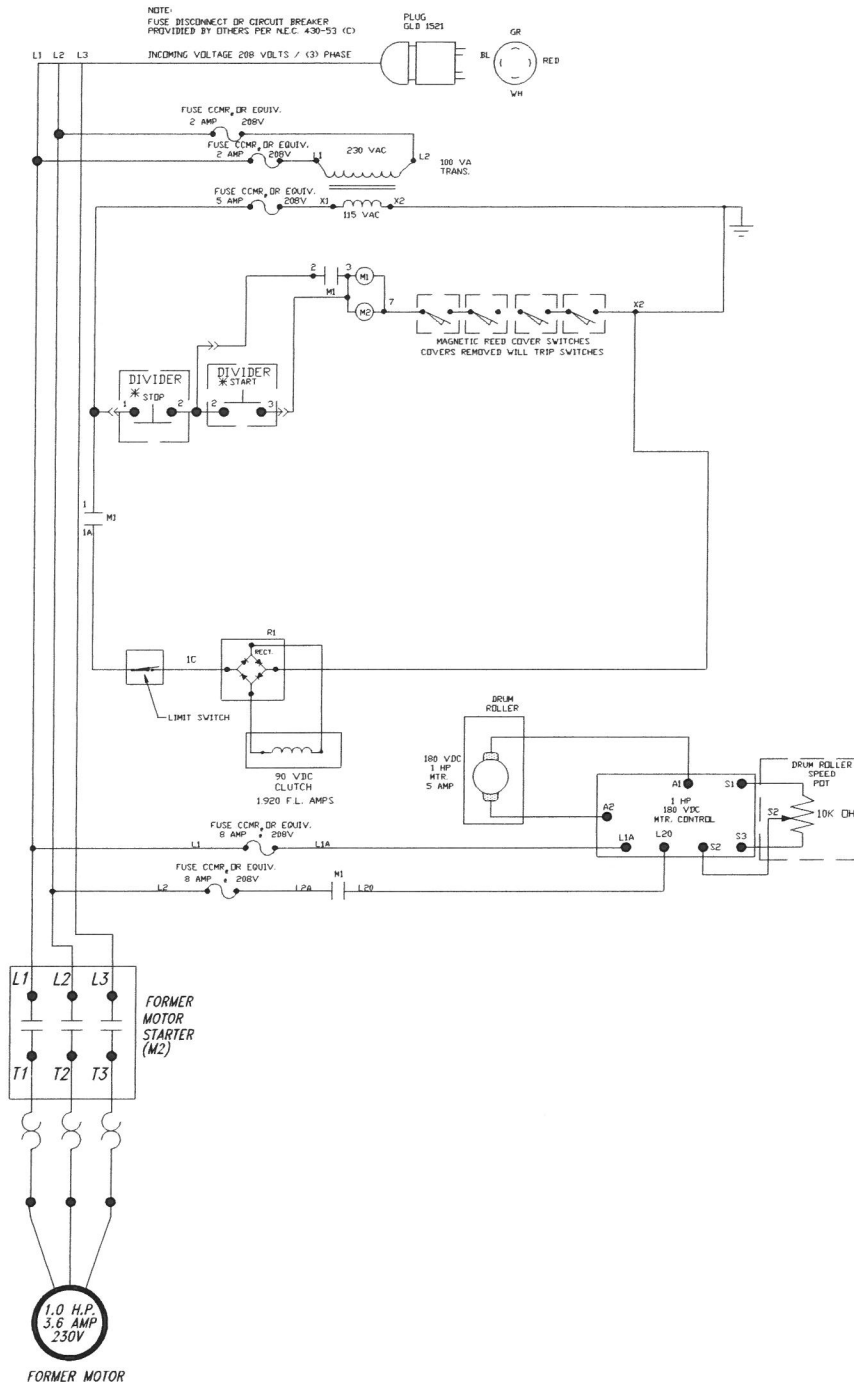


NOTE:
GUARDS ARE INTERLOCKED.
THE MACHINE WILL NOT
OPERATE WITHOUT THE GUARDS
IN PLACE.

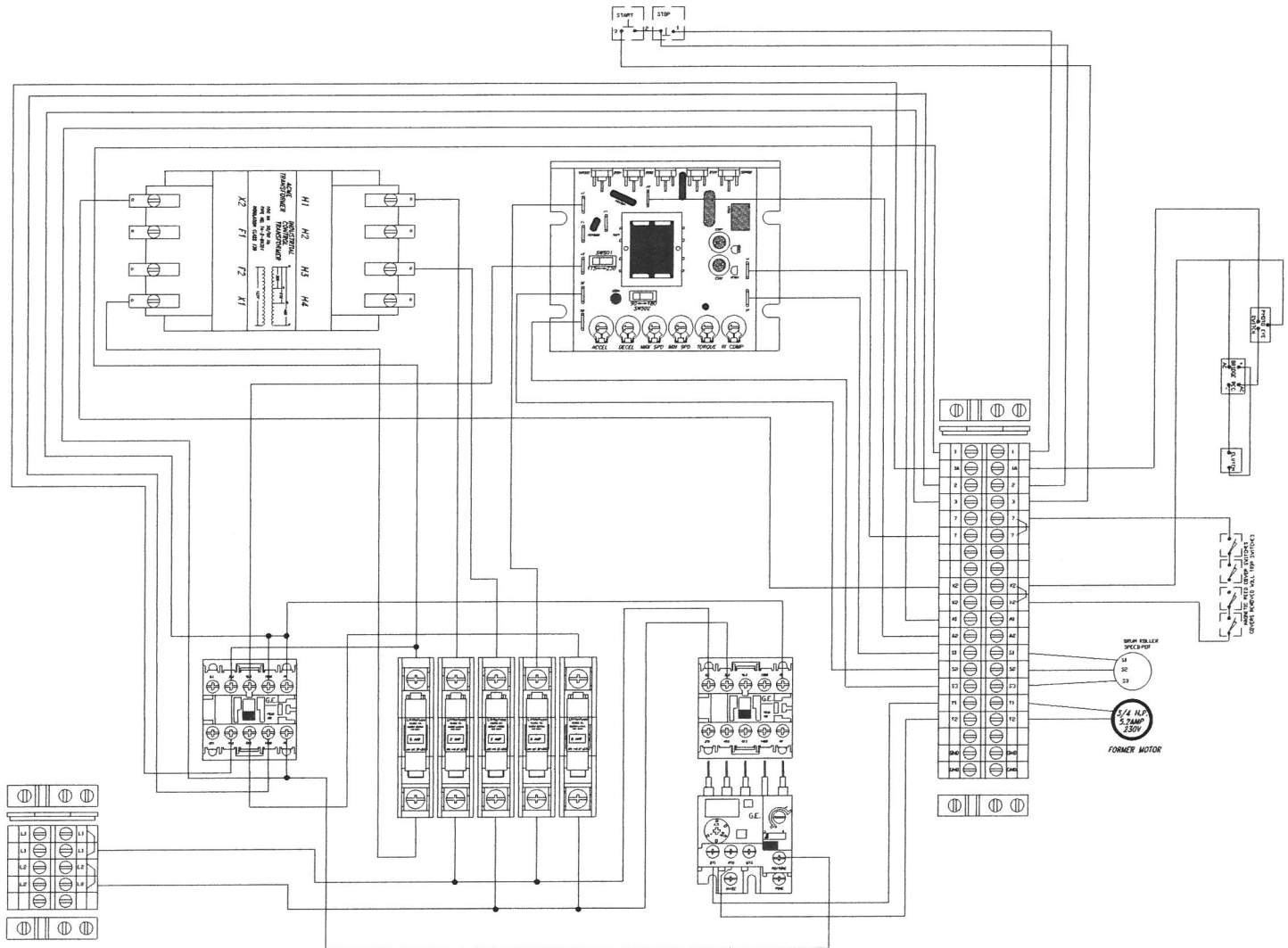
ELECTRICAL SYSTEM

ITEM	PART NO.	DESCRIPTION	NO. REQ'D
1	SS438	TERMINAL BLOCK END BRACKET	4
2	SS437	TERMINAL BLOCK END COVER	2
3	SS451	TERMINAL BLOCKS	23
4	SS181	WIRE DUCT	2
5	SS182	WIRE DUCT COVER	2
6	SS236	MOTOR CONTACT	2
7	SS237	MOTOR CONTACT OVERLOAD	1
8	SS142	FUSE BLOCKS	8
9	SS135	5 AMP FUSES	1
10	SS134	2 AMP FUSES	2
11	SS355	4 AMP FUSES	2
12	SS176	100Va TRANSFORMER	1
13	SS193	DC MOTOR CONTROLLER	1
14	K532ES	BRIDGE RECTIFIER BLOCK	1
15	SS229	BRIDGE RECTIFIER	1
16	SS145	TERMINAL BLOCK END	1
17	SS144	TERMINAL BLOCK	5
18	PAGE 15-16	LIMIT SWITCH	1
19	SS268	ELECTRICAL SUB-PANEL	1
20	SS219	14/4 CAROLPRENE CORD	15FT.
21	SS456	FUSE PULLER / COVER	7
22	SS155	220V / 20AMP SINGLE PHASE POWER PLUG	1
	SS159	220V / 20AMP THREE PHASE POWER PLUG	1
	SS161	480V / 20AMP THREE PHASE POWER PLUG	1
23	SS275	CORD GRIP	1
24	SS480	1.5 H.P. FORMER MOTOR (SINGLE PHASE MACHINES)	1
	SS251	1 H.P. FORMER GEAR MOTOR	1
25	SS454	¾ H.P. 180VDC MOTOR	1
26	SS455	ELECTRA-GEAR REDUCER	1
27	SS240	MAGNETIC INTERLOCK SWITCHES (EDWARDS)	4
28	ASS238	CLUTCH	1
29	SS355	4 AMP FUSES	2
30	SS459	½ AMP FAST ACTING FUSES	1
31	400091	10 TURN SPEED POT DIAL	1
32	400092	10 TURN SPEED POT	1
33	SS185	STOP BUTTON	1
34	SS184	START BUTTON	1
35	SS121	START LABEL	1
36	SS122	STOP LABEL	1
37	12183	CONTROL BRACKET	1
38	F9702TH	SCREW	3
39	F0402HH	BOLT	2
40	F0400LW	LOCK WASHER	2
41	F0400FW	FLAT WASHER	2
42	SS180	SOCKET	1
43	400036	RELAY	1
44	SS109	CLIP	1
45	PAGE 15-16	LIMIT SWITCH COVER	1
46	PAGE 15-16	LIMIT SWITCH MOUNT BRACKET	1

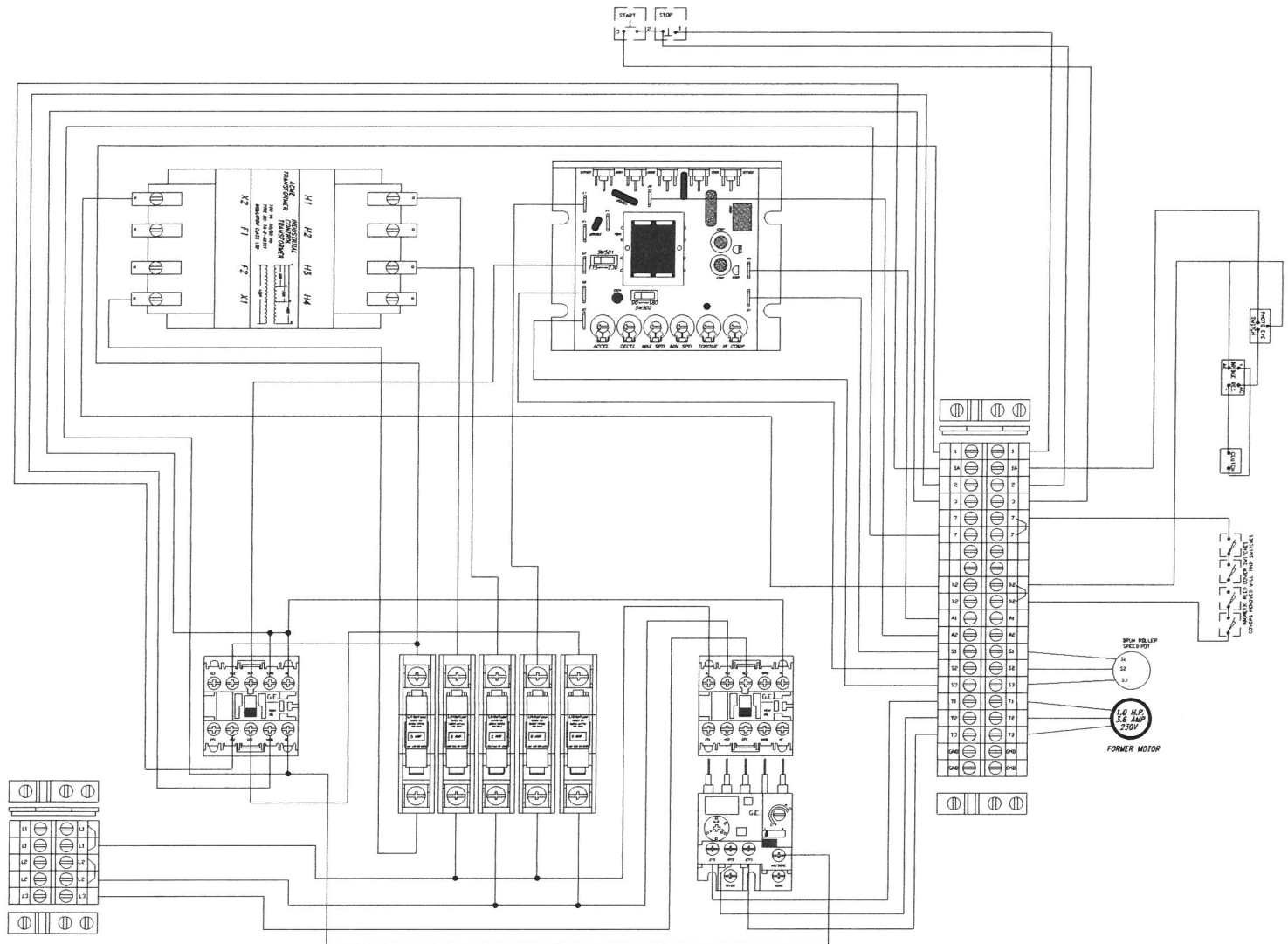
ELECTRICAL (SCHEMATIC) RK3300 THREE PHASE 208/230 VOLTS



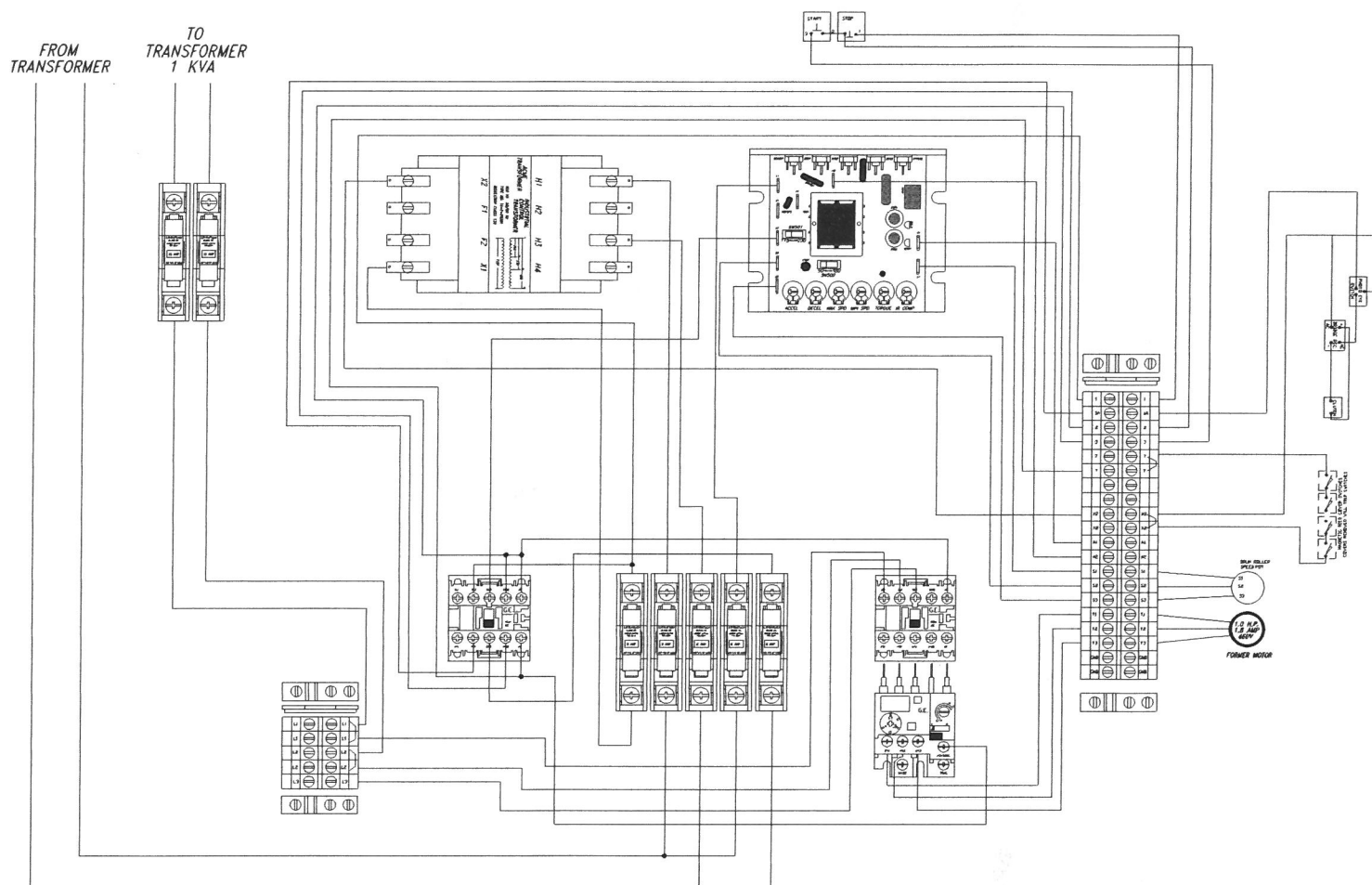
ELECTRICAL (HARDWIRE) RK3300 SINGLE PHASE 208/230 VOLTS



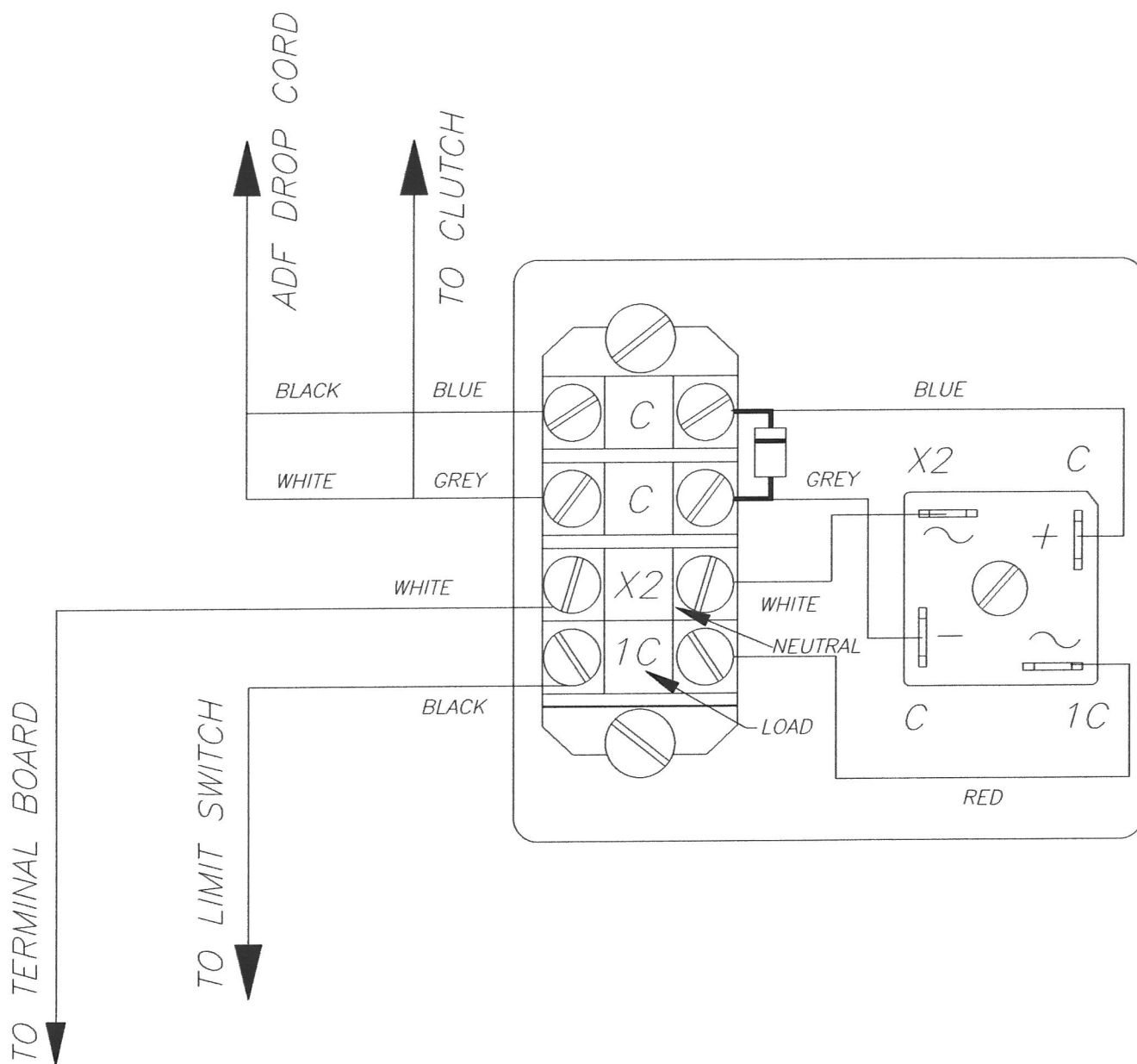
ELECTRICAL (HARDWIRE) RK3300 THREE PHASE 208/230 VOLTS



ELECTRICAL (HARDWIRE) RK3300 THREE PHASE 380/480 VOLTS



ELECTRICAL (HARDWIRE) RK3300 BRIDGE RECTIFIER BLOCK



ORDERING REPLACEMENT PARTS

IMPORTANT:

ONLY USE FACTORY SUPPLIED REPLACEMENT PARTS TO MAINTAIN MACHINE SAFETY, PERFORMANCE AND SANITARY CONDITIONS.

USE OF NON-APPROVED PARTS MAY VOID MANUFACTURES WARRANTY.

TO ORDER REPLACEMENT PARTS ALWAYS:

- 1) CHECK THE MACHINE TOP IDENTIFY MISSING, DAMAGED OR NON-FUNCTIONAL PARTS INCLUDING GUARDS, WARNING LABELS AND INSTRUCTIONS.
- 2) COMPARE THE LIST WITH THE PARTS DIAGRAMS SUPPLIED.
- 3) RECORD THE COMPLETE MODEL AND SERIAL NUMBER OF THE UNIT.
- 4) CALL A.M. MANUFACTURING (800) 342-6744 AND PROVIDE ALL INFORMATION NOTED ABOVE TO EXPEDITE ORDER PROCESSING AND HELP REDUCE SHIPPING COST.
- 5) PROVIDE COMPLETE DETAILS FOR (SHIP TO) AND (BILL TO) INFORMATION. TO ASSIST PROMPT DELIVERY, SPECIFY TYPE OF CARRIER PREFERRED IN SHIPMENT.
- 6) MOST MAJOR CREDIT CARDS ACCEPTED.

[illegible]

[illegible]

