



SINGLE WHEEL SLITTER

METAL PROCESSING EQUIPMENT



MODEL 3354 INSTRUCTION MANUAL

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WARNING

OPERATOR SAFETY GUIDELINES

1. All operators and maintenance people must familiarize themselves with the location of the power shut-off.
2. Be sure you know the machine – capacity, controls, operating mode and safeguarding.
3. Never place any part of your body at the point of operation when the machine is running.
4. Never operate, service repair or adjust the machine without proper instruction from your supervisor and without reading and understanding the operators manual.
5. Never operate the machine without guards or barriers.
6. If the machine requires cleaning, service, adjustment, or should become jammed, do not insert hand in point of operation to remove assist, release, service or adjust unless the following is done.
 - ? **Shut off machine**
 - ? **Pull plug – remove power source**
 - ? **Make sure supervisor is present**
7. Make certain all personnel are away from the equipment before operating.
8. Keep alert – keep your mind on your job.
9. When leaving your machine, turn the power OFF – controls inoperative.
10. Keep your work area clean.
11. Wear snug fitting clothes.

FAILURE TO FOLLOW SAFE OPERATING PROCEDURES MAY RESULT IN SERIOUS INJURY – TO YOU OR ANOTHER EMPLOYEE

1. Removal of guards punishable by law.
2. Become familiar with power shut-offs before operating this machine.
3. If machine requires service, adjustment or should become jammed, do not insert hand in point of operation to remove, assist, release, service, or adjust, unless the following is done:
 - o Shut off machine;
 - o Pull plug - remove power source;
 - o Make sure supervisor is present;
4. Any malfunctions of this machine should be brought to the attention of foreman or supervisor.
5. Instructions should be available for operation and he should be reviewed on this information before being permitted to operate this machine.
6. It is suggested that after the equipment has been installed barrier guards be erected where needed to prevent personnel entry into potential hazard areas.

Gary Machinery LLC "Single Wheel Slitter" Operating & Instruction Manual

Introduction:

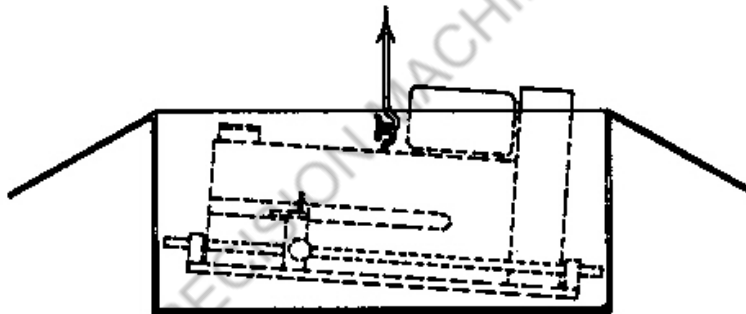
The Gary Machinery Single Wheel Slitter is thoroughly inspected before leaving our plant. This includes running material through the unit to be sure that all components are operating properly and that a satisfactory cut can be made.

To simplify the machine set up and to maintain proper operating, the following recommended set-up steps have been outlined. Please read these carefully, and if any questions arise, call us at any time.

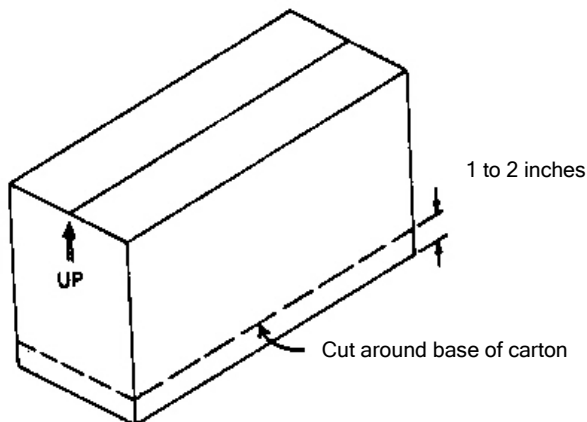
Opening the Carton:

The Single Wheel Slitters are shipped in a heavy carton. The machine weight is just under 300 lbs. so whatever handling means are employed, *care must be exercised* to avoid personal strain or equipment overload. Once the slitter is removed, the unit should be checked for damages that may have occurred during transit.

If a means of overhead lifting is available, machine may be removed from the shipping container using the eyebolt provided. A slight rearward tilt is normal.



If overhead lifting is not available, carton may be cut away and machine handled using extended rods at each end as carrying handles.



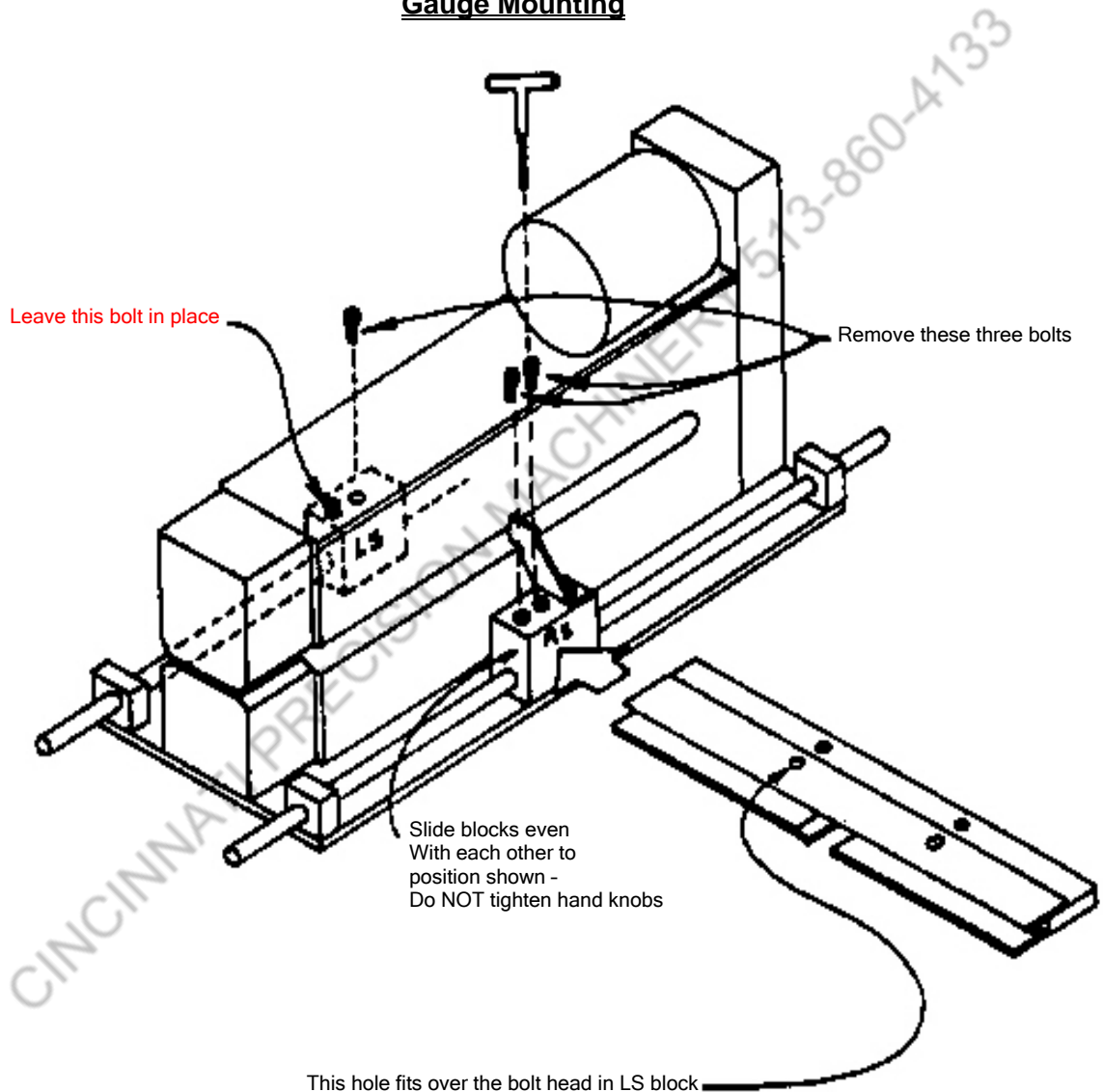
NOTE: The plywood base to which the machine is attached for shipping may be removed as desired. However, if optional support stand has been ordered, the board will serve as a top for the stand and should be retained.

Setting Up the Machine:

The squaring arm (gauge) is shipped loose and must be bolted in place before use. Procedure is as follows:

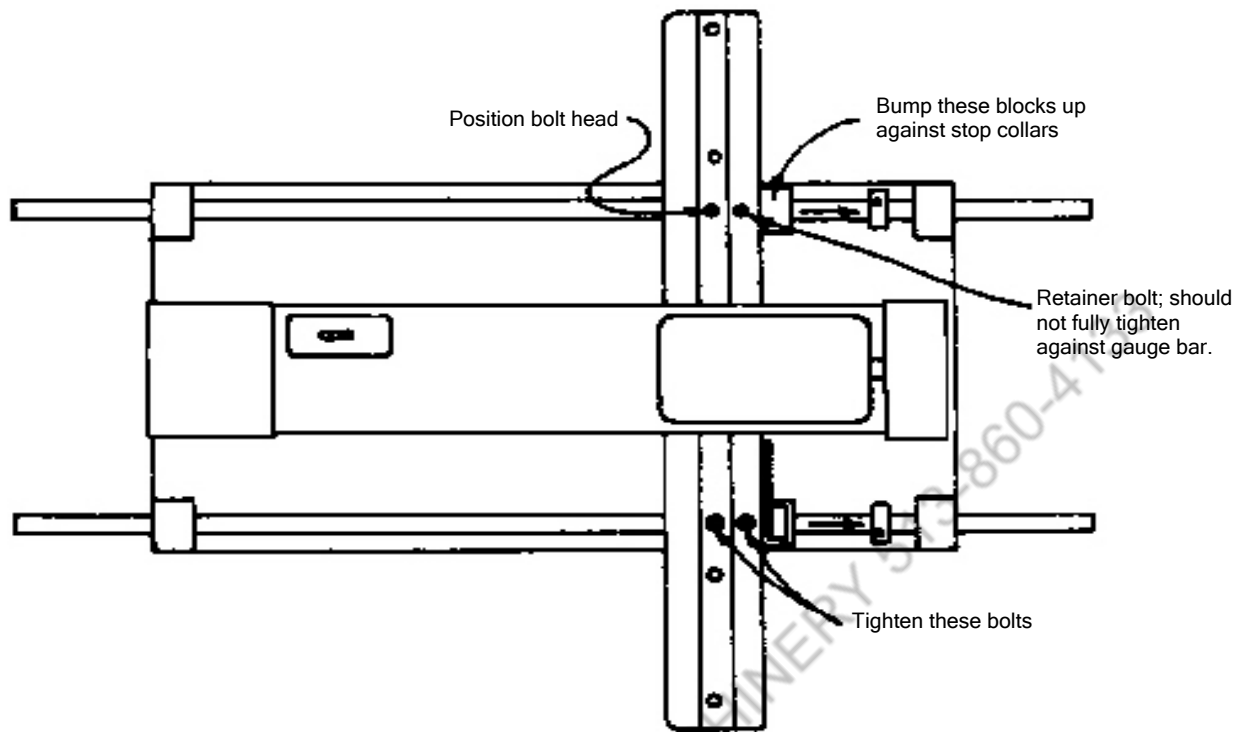
- Loosen hand knobs and move sliding mount blocks to the center of machine.
- Remove both bolts from RS sliding block and the back bolt from L.S. sliding block using the Allen wrench provided in accessory package.
- Position gauge as shown in illustration and slide through opening in main housing.
- Position gauge over remaining bolt on L.S. block.

Gauge Mounting

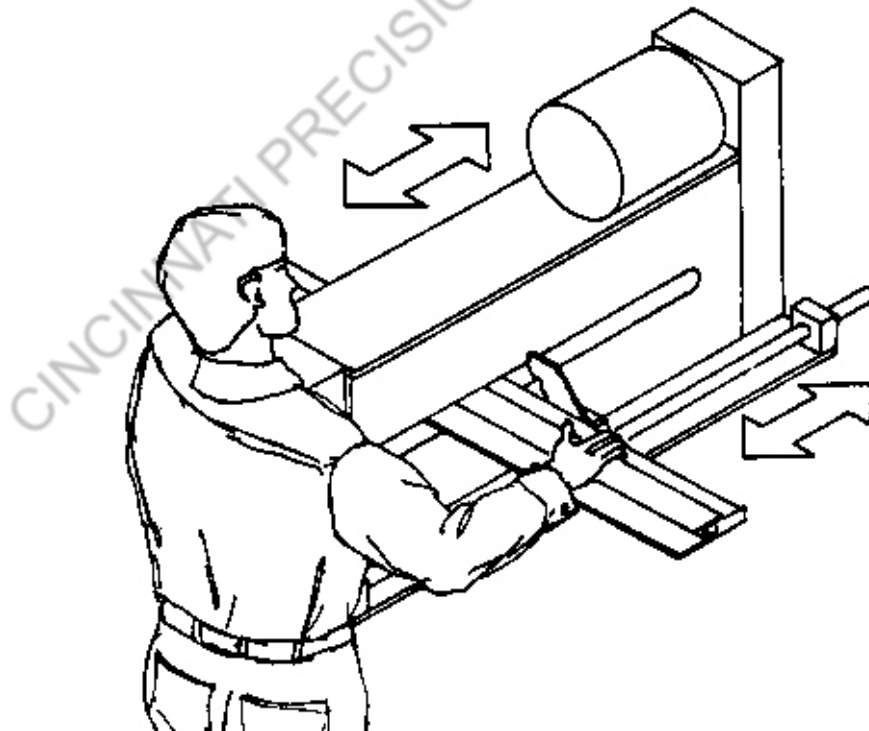


- Install bolts removed in step D finger tight.
- Slide entire assembly up against stop collars at rear of machine and tighten all bolts being careful not to move blocks away from stops. **NOTE:** Bolt on LS block will not tighten against gauge bar; it is used only as a retainer to prevent bar from lifting off block.

Gauge Squaring

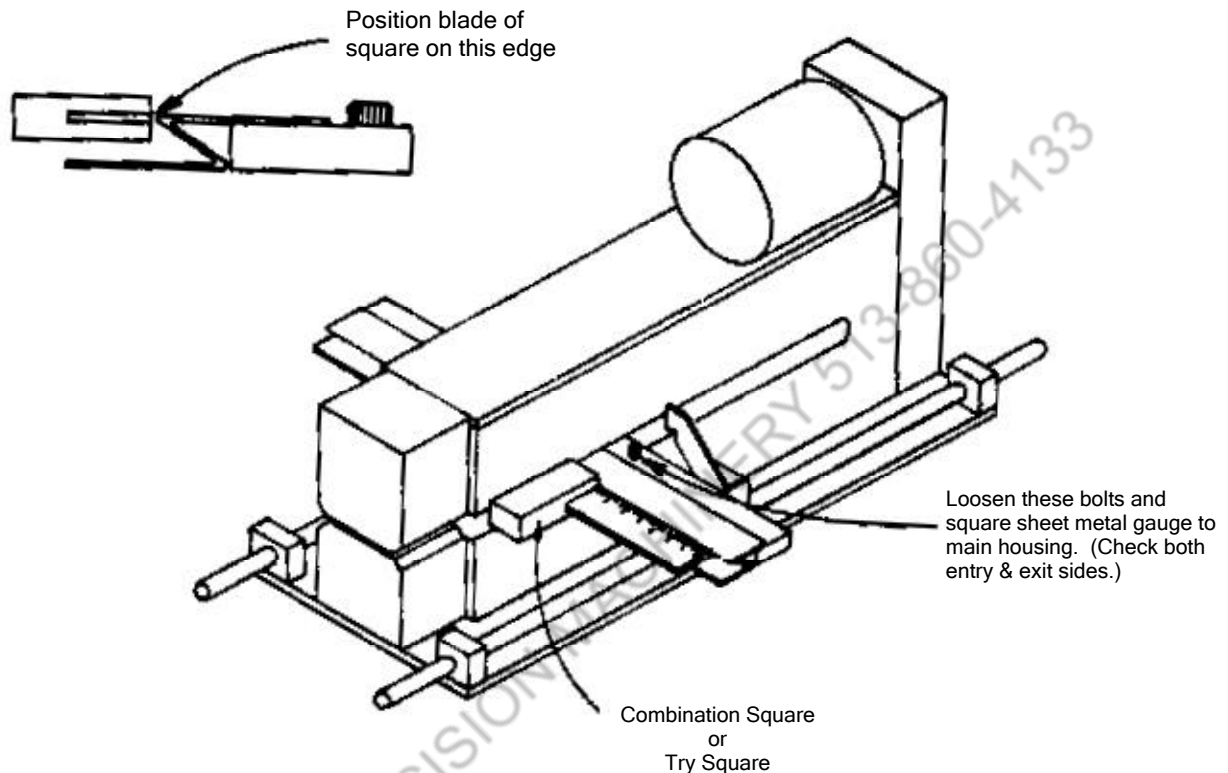


- g) Gripping top of gauge bar with hands positioned to each side of the mount blocks and applying even force the gauge should now slide easily throughout its width range.



NOTE: Gauge Squareness

The stop collars used to position the slide blocks are factory set so that each time the gauge is removed and re-installed the square between the gauge and cutter will be correct. If gauge is not square, tapered strips will result. If stop collars should ever come loose or sheet metal portion of gauge be replaced, it will be necessary to re—set squareness by the method used at the factory. See Illustration below.



Once squareness is correct & bolts tightened, slide assembly to maximum width cut & re-set stop collars.

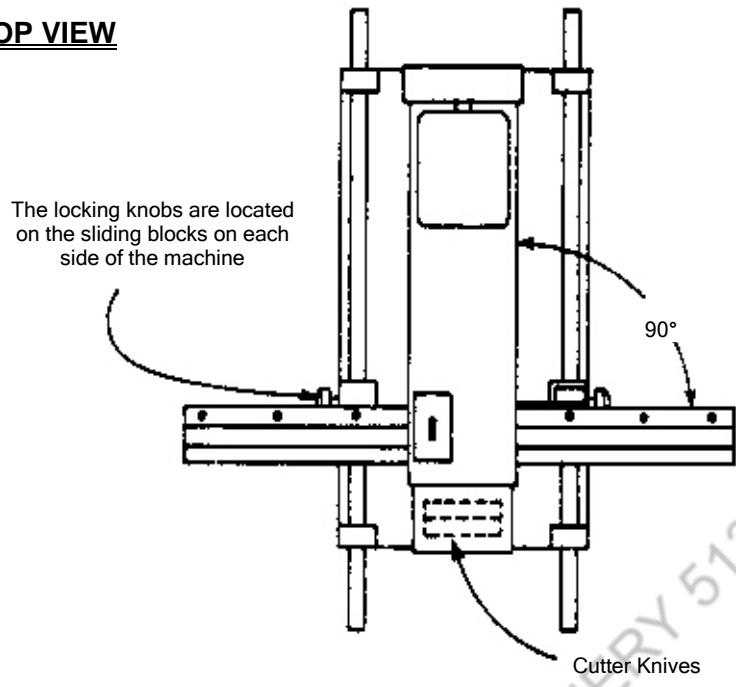
Operation:

When ready to operate, remove the rust protective spray that was applied at the factory. You are now ready to plug the machine in. Make sure that operating toggle switch is in the “off” position. These machines are 110 Volts as a standard and will have a standard plug to be plugged into a standard 110v outlet with grounded outlet.

Loosen locking knobs on gauge assembly and slide to position for cut size desired. The size of cut may be directly read from the scale on the side of the machine. The scale pointer is *factory* calibrated to the position of the cutters and should require no adjustment.

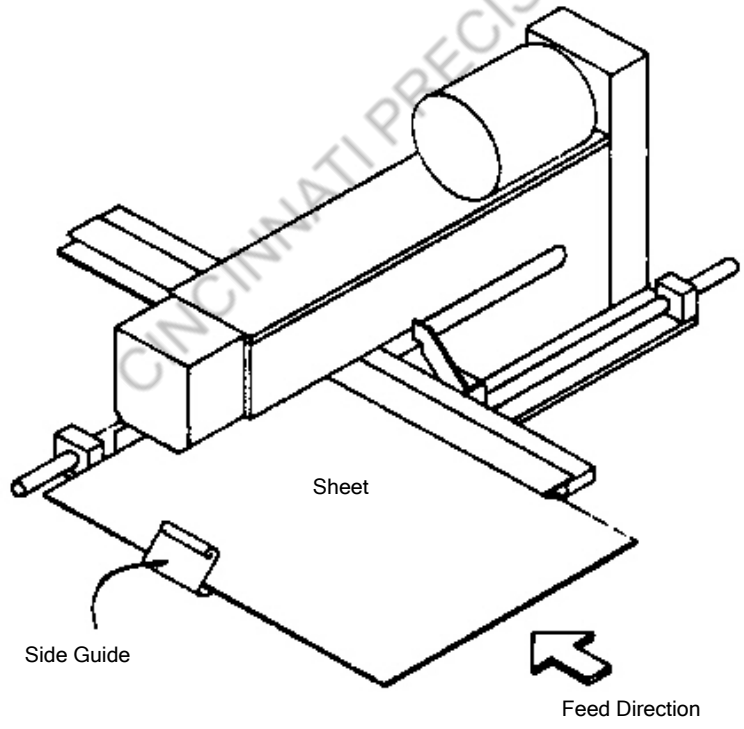
Tighten locking knobs, after positioning gauge.

TOP VIEW



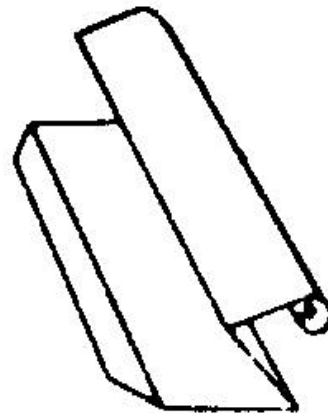
Turn machine "on" and note rotation of cutters. The upper cutter should be rotating in a clockwise direction. The machine is designed to be fed from the right-hand side with slit material exiting on the left as the operator stands facing the cutters.

Position edge of sheet to be cut into slot in the gauge assembly. Hold the opposite edge of the sheet with the sheet guide provided (Part# 100011).



Use of the Sheet Guide:

The sheet guide supplied is used to hold material to the gauge. As material is fed into the unit, locate the sheet guide on the operator side of the sheet. Only exert sufficient pressure to keep the material to the gauge. This will insure dimensional control and safe operation.



Keep hands and clothing clear of opening in the side of the machine and rotating shaft on the exit side.

NOTE: It is advisable upon initial operation of machine to check width and squareness accuracy by running some test strips (2" – 3" wide). If width is not as set using gauge pointer, pointer may be bent or repositioned to correct. If parts are tapered, gauge squareness may not be correct (refer to set-up procedure for gauge squareness).

Operating Hints and Cautions

Introduction:

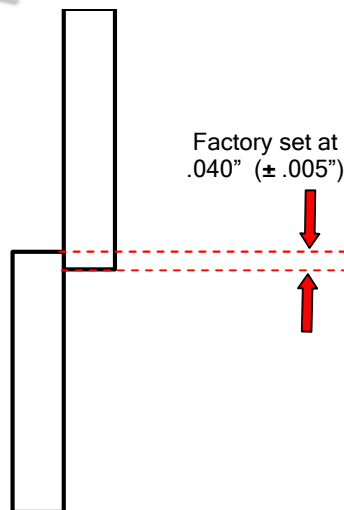
To utilize the sheet slitter to its maximum capacity requires familiarization with the machine. The operator of the slitter will gain most of this during actual machine running. The following list contains some of the techniques we have found to maintain a maximum output with a minimum set up time. It also includes an outline of the way to set the unit up for the best slitting results and a trouble-shooting guide has been provided covering the most common problems and their solutions.

Trouble Shooting Guide:

MATERIAL IS NOT CUT THROUGH

- *Material thickness or tensile strength exceeded capacity of machine. 16 Ga. (.060") is the maximum thickness & 50,000 psi is the maximum shear strength.*
- *Knives penetration gap is not deep enough*

(View is exaggerated to show clarity)



- *Knives side clearance is too great*

Factory set at .001" ($\pm .0005$)
This allows for slitting a wide range of product, but many not be optimum for exclusive use on heavy gauge materials.

HORIZONTAL SIDE CLEARANCE

To obtain satisfactory results with any slitting machine it is vital that the horizontal clearances be properly set. Final clearance adjustments are best determined by making test runs with the actual material to be slit. However these setting have proven to be fairly accurate.

Allowance should be made for deflection of the arbors, which occurs due to the thickness and type of material being cut.

Note: Softer materials may need less side clearance and harder materials may need more side clearance.

STOCK THICKNES	CLEARANCE
.006 AND UNDER	NO CLEARANCE
.006" - .010"	.0005" to .00075"
.010" - .018"	.00075" to .001"
.020" - .060"	10% of stock thickness

- *Knives are extremely dull*
- *Clamp collars are loose*
- *An arbor may be loose at bearing or the bearing pins removed from the housing.*

BURRED EDGE

- *Knife side clearance is too great*
- *Chipped knife* (burr will be random along edge and occur at approx. 12½" intervals)
- *Dull knife*
- *Soft material*
- *Buildup on knife edge*

ROLLED EDGE

- *Dull knives*
- *Excessive penetration of cutters* (Note, penetration & side clearance of cutters is factory set to attain satisfactory results. Cutting material ranging from 30 ga. to 16 ga. a certain amount of rolled edge must be expected when slitting light gauge material)

TAPERED STRIPPED

- *Gauge positioning out of square* (refer to setup instructions)
- *Material not being held into gauge with side guide.* (refer to operating instructions under sheet guide)
- *Build up on gauge*

MATERIAL "HANG-UP" IN MACHINE

- *Ragged edge on material getting trapped in gauge*
- *Gauge excessively worn. Replace gauge.*

MACHINE STALLING

- *Capacity exceeded.*
- *Motor defective*

EXCESSIVE DRIVE TRAIN NOISE

- *Chain loose. Adjust tension with take-up assembly; remove link from chain if take-up does not provide enough adjustment*
- *Gears worn in motor gearhead (refer to manufacturer's instructions).*
- *Defective idler bearing on chain wrap.*
- *Defective shaft bearing.*
- **NOTE:** *Gearhead motors are normally somewhat noisy. If motor is quiet when slitting material, the motor is probably ok.*

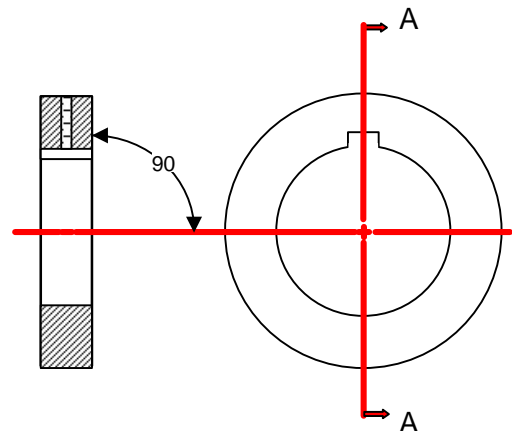
Lubricating & Maintenance Instructions

To maintain the Gary Machinery Slitter in its best operating condition and to avoid downtime, the following items should be checked on a regular schedule.

1. The gear reducer should be checked when received to be sure the oil is at the proper level. It should then be checked at regular intervals, with visual inspection of oil seals for possible leaks. If oil is required, Browning GL32HT (or equivalent) is recommended. The oil can be added through the plug at the top of the reducer. Caution must be taken not to overfill the unit.
2. The arbors, knives, gauge bar, guide rods and skid table should be wiped down and lubricated with a light oil such as WD-40. This will help prevent rust and remove debris from the slitter. They should be re-lubricated on a regular basis. This re-lube period should be more often if the slitter is operated in extremely dusty atmospheres.
3. The guard on the drive side of the slitter incorporates the main arbor bearings and provides access to the chain and gears. Use a heavy-duty chain lube to lubricate chain and gears before replacing the guard. Aerosol form is most convenient and effective. Keep drive chain clean and well lubricated and check chain tension regularly.
4. Keep all fasteners tight and check that all guards are in place.
5. Lightly lubricate gauge rods periodically to maintain smooth movement as well as keep clean.
6. Keep all unpainted surfaces lightly oiled to prevent rust.

Slitter Knife Sharpening Procedure:

1. The knife sharpening must be done by grinding the side faces. **DO NOT GRIND OUTSIDE DIAMETER.**
2. Squareness of bore to side face must be maintained (90°)



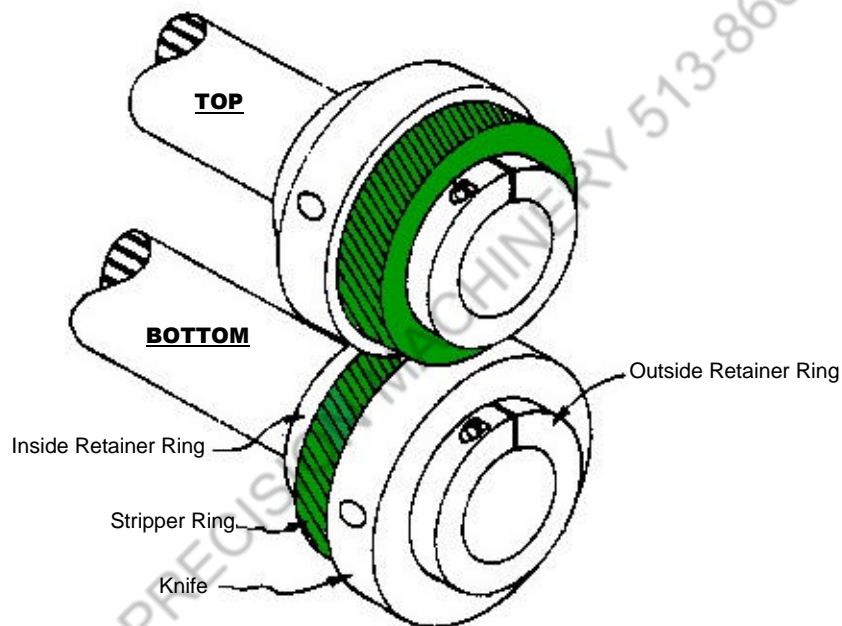
**Instructions for the Removing or Replacing of Knives
to Model No. 3354
Gary Single Wheel Slitter**

STEP #1 - Remove top and bottom cutter guards.

STEP #2 - Jog machine around so that screws in retainer rings and knives are accessible with an Allen-wrench as shown on sketch. Unplug machine. Loosen locking screws in retainer rings and setscrews in knives.

STEP #3 - Remove outside retainer rings and upper stripper ring. Slide inside retainers and lower stripper ring back against housing.

STEP #4 - Rotate knives to position shown below and remove.



STEP #5 - Resharpen knives per enclosed instructions being careful to maintain the cutting face at 90° to the bore. (ref to knife sharpening instructions or send back to factory for re-sharpening)

STEP #6 - Re-assemble unit by reversing above procedures.

STEP #7 - Without bringing knife faces into contact with each other, tighten and loosen the knife setscrews two or three times to "seat" on the keys.

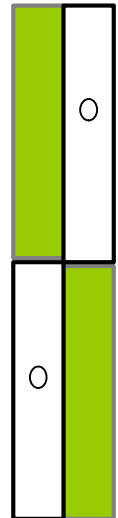
STEP #8 - Set gauge pointer to some arbitrary length (3" or so) and tighten locking knobs to hold in place. Using a small scale to measure from the inside of the gauge slot to the cutting face of the knife, set the lower knife to the distance indicated by the gauge pointer. Tighten setscrew tight (use rotational force only, do not pull Allen wrench to side while tightening or knife may cock).

STEP #9 -Insert 0.003' feeler gauge between upper and lower knife faces and gently slide upper knife into place (do not force or knife may cock) . Using slow gradual torque, partially tighten the setscrew in the upper knife being careful not to exert any side to side force on the wrench——do not fully tighten screw. remove wrench and feeler gauge.

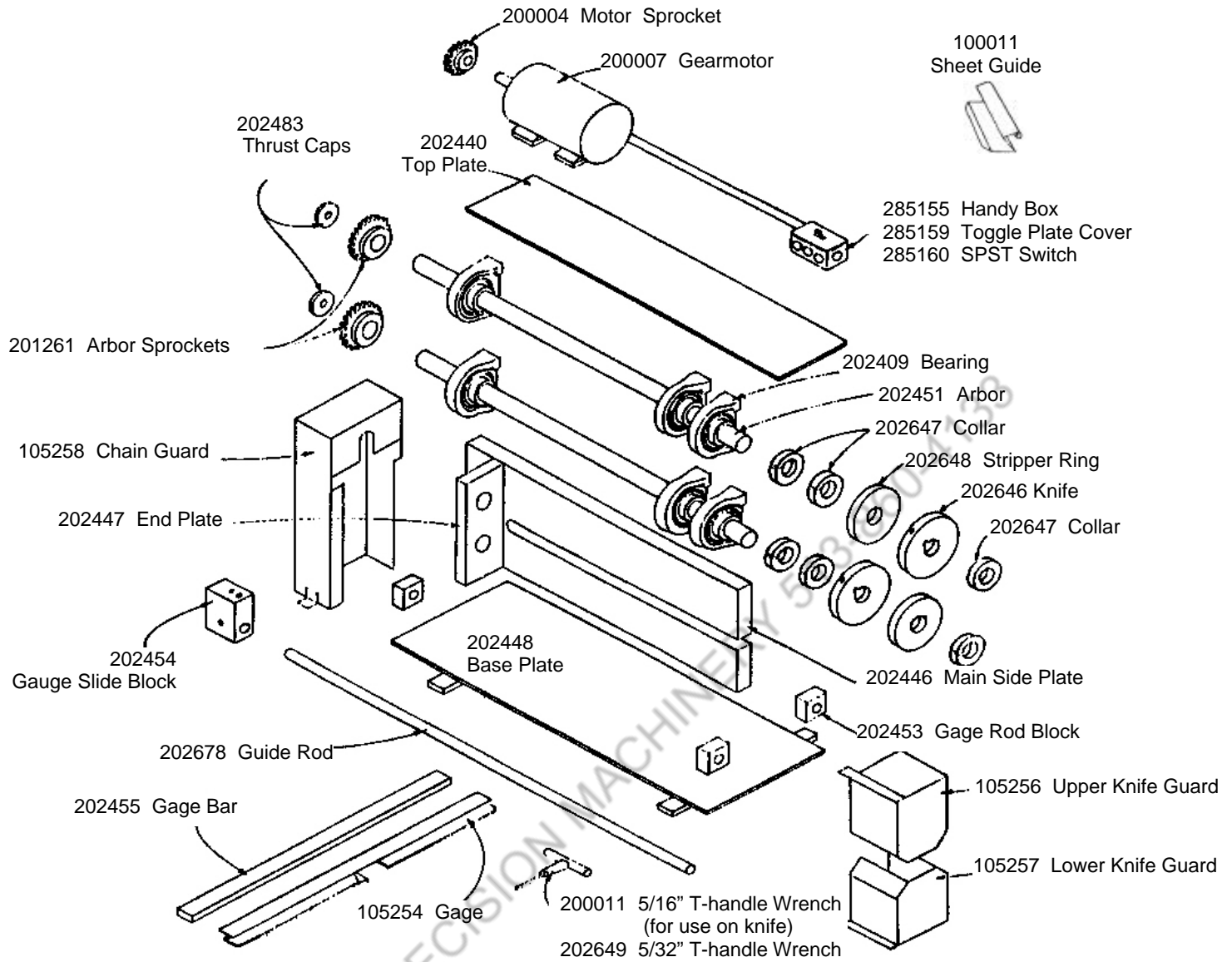
STEP #10-Plug machine in and turn on. Watch clearance between knives as they rotate. If knives are running true, the gap will remain the same. If gap opens and closes (knife appears to wobble) then one or both of the knives are cocked and will have to be reset — if gap is okay then fully tighten upper knife setscrew and double check to make sure knives are still running true. If okay, jog machine around so that setscrews are accessible and unplug machine.

STEP #11-push upper and lower stripper rings and retainers up against the sides of the knives and rotate so that locking screws are accessible. hold retainers against knives and stripper rings. (Tooling setup should now appear as shown in figure 11.)

STEP #12 -Reinstall upper and lower guards.



CINCINNATI PRECISION MACHINERY 513-860-123



Part No.	Description	Part No.	Description	
100011	Sheet Guide	202450	Foot Mount	
103533	Gage Pointer	202451	Arbor	
105254	SM Gage	*N.S.	202453	Gage Rod Block
105256	Upper Knife Guard	202454	Gage Slide	
105257	Lower Knife Guard	202455	Gage Bar	
105258	Chain Guard	202462	Brewer SS Chain Tensioner	*N.S.
105345	Sheet Skid	*N.S.	202483	Thrust Cap
200003	1/2" Chain Idler Bearing	202646	Knives	
200004	40BS10 Motor Sprocket	202647	1" Collar	
200007	Gearmotor 2Z848	202648	Stripper Ring	
200008	Electric Cord w/plug	*N.S.	202649	5/32" T Handle
200011	5/16" T Handle (optional for collars)	202678	Guide Rod	
201261	40B14 Sprocket	202682	Reid DK-28 Knob	
202409	Browning Bearing	285048	#40 Chain	
202431	Measuring Stix	*N.S.	285155	2x4 Handy Box
202440	Top Plate	285159	Toggle Plate Cover	
202446	Side Plate	285160	SPST Switch	
202447	End Plate	285908	3/8"-16 x 2 1/4 Eye Bolt	*N.S.
202448	Base Plate			*N.S. - Not Shown

Specifications

MODEL 3354 SINGLE WHEEL SLITTER	
Overall Depth (Carring handles)	41"
Maximum cut width	24"
Gauge Lenght	36"
Arbor diameter	1"
Knife dimensions	4" O.D. x ¾"
Motor HP	? HP
Feed speed (FPM)	40 FPM
Voltage	110V – 1 Ph.
Weight	300 Lbs.

*Proudly
Made In
America*

By

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