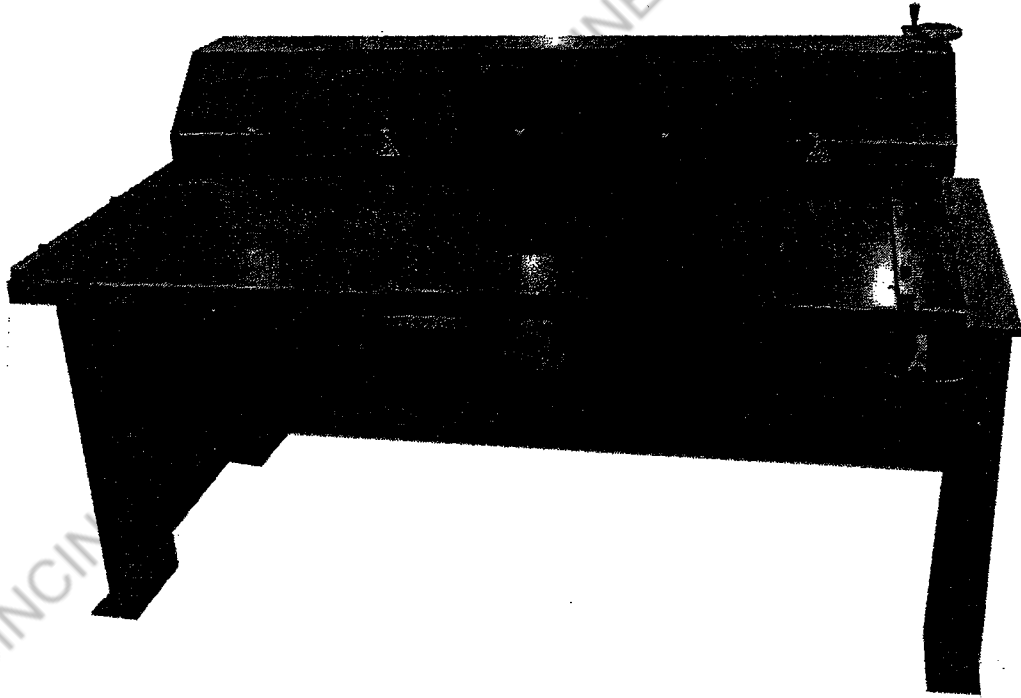


# Operator's Manual

# Model 6016 Beader

16 Gauge Capacity



CINCINNATI LOCKFORMER MACHINERY 513-860-4133

**LOCKFORMER**

## 6016 Bearer Parts List

PART NO.	DESCRIPTION	QUANTITY
14633	Btm Roll Collar	5
14634	Top Roll Clr.	5
19354	Top Feed Roll	3
19355	Btm Feed Roll	2
19356	Adjusting Screw	1
19357	Adjusting Screw	1
19358	Guide Post	4
21035	Entrance Gauge Bar	2
24268	Side Plate LH	1
24269	Side Plate RH	1
24270	Pillow Blk	2
24271	Top Spreader	2
24272	Mtg Plate	2
24274	Top Plate	2
25058	Adjustment Lug	2
31916	Wshr Aux Roll	4
33040	Mtg Bracket	2
33041	Chain Trough	1
38999	Instruction Sheet Pocket	1
39000	Pointer	5
40711	Pillow Block, 88710	2
43442	Sprkt, 60B19, 71067, 1-1/8" Bore	1
43457	Sprkt, 41B13, 71144, 3/4" Bore	2
43615	Sprkt, 60B15, 71069, 1-1/8" Bore	1
50164	Stand Weldment 5' Bearer	1
50995	Cover Weldment Bearer	1
52966	Entrance Table Weldment	1
57601	Slide Weldment 5' Bearer	2
60091	HHCS, 3/8-16, 1	6
60094	HHCS, 3/8-16, 1-1/4, Partial Thread	4
60100	HHCS, 3/8-16, 3-1/4	4
60155	HHCS, 1/2-13, 1-3/4	6
60156	HHCS, 1/2-13, 2	6
60166	HHCS, 1/2-13, 3-1/2, Full Thread	2
60167	HHCS, 1/2-13, 3	4
60551	RHMS, 1/4-20 x 1/2	4
60575	RHMS, 10-24 X 3/8	7
60684	SSS, 3/8-16, 1/2 x 1/2 Dg Point	10
60686	SSS, 3/8-16 x 3/8, Dg Point	10
60877	Bolt,Coardg 3/8-16 x 1-3/4	6
60982	SCR, LRG, 1/2 x 3-1/2	4
61120	Nut,Hex, 3/8-16 Heavy S.F.	2
61160	Nut, 1/2-13, Heavy S.F.	2

PART NO.	DESCRIPTION	QUANTITY
61260	Nut,Hex 3/4-10,Heavy S.F.	4
62029	Washer, Flat, 3/8, 7/8, 1/16	6
62071	Washer, Flat, 17/32, 1, 1/16	4
62363	Washer, Lock, 3/8, Med	10
62364	WSHR,Lock, 1/2 Med	12
62366	WSHR, Lock, 3/4, Med, Hardened & Grd	4
62400	Key, WDRF, # 3	1
62403	Key, Woodruff, # 18	2
62424	Key, Strt, 3/16, 3/16, 1/2	2
62431	Key, Strt, 1/4 1/4, 1-3/8	1
62503	Retaining Ring, 5100-112,Tru-Ar	10
62633	Pin, Dwl, 3/8 x 1	4
62740	Pin, Exp. 3/8 x 2 # 98396-A	4
65201	Plg, Pipe, 1/8-27 x 1/4, Skt Hd	6
66121	Brg, Ndl, HJ223020, 1-3/8 x 1-7/8	10
66420	Brg,Thrst, 3/4 x 1-1/4 x 1/16, TT-1205	4
66428	Brg, Thrst, 1-1/8 x 2-1/4 x 1/16	10
66434	BRG,AA-1049,3/4 x 1-1/4	2
66488	BRG,IR-1820, 1-1/8 x 1-3/8 x 1-1/14 ST-	10
66640	Conn,Greaser,1610,# 1638	8
66644	Conn, # 161 3B, 1/8, 90°	2
70772	Chain, # 60, Offset Link	1
70773	Chain, # 60, Conn Link	1
70777	Chain, # 41, Link Con	1
70918	Hndl, # CL-5-HWSF w/ # CL-1-RH	1
71015	Sprg, Comp, 9562	4
71068	Sprkt, 60B11, 1" bore w/KW & SS	1
71195	Reducer, Spd, # 4MCT, 25:1, -R	1
73014	Chain, # 41, 1/2, 24 Pitches per ft.	240
73019	Chain, # 60, 3/4, 16 Pitches per ft.	48
80201	Switch, 600 TAX5	1
80396	Htr, P37	1
80525	Card, SJO, 14-3, 10%, Strip 4-1	1
80602	Blk, Ring Tongue, B14-10	15
80709	Wire, Black, 14GA, MTW, 500' Roll	72
82124	Connector, 0.125" - 0.375" Dia.	1
84009	Motor, 1HP 115/230/1/60, 1800RPM	1
84862	Conflex, # 15005 1/2" Conduit	18
84864	Fittng, 1pc. 1/2" 90° LN20DA	2
85156	Nameplate, Lockformer Capacity	1
85178	Nameplate, Lockformer Logo	2
AB35045	Guard Extension	1

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UM: EA I/T: 0 DESCRIPTION: COMPLETE ASS'Y

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CINCINNATI PRECISION MACHINE CO. 513-860-4133

QTY

STOCK NUMBER	I/T	UM	COMPONENT DESCRIPTION	QTY	USED
14633	2	EA	BTM ROLL COLLAR	5	5.00
14634	2	EA	TOP ROLL CLR	5	5.00
19354	2	EA	TOP FEED ROLL	3	3.00
19355	2	EA	BTM FEED ROLL	2	2.00
19356	2	EA	ADJUSTING SCREW	1	1.00
19357	2	EA	ADJUSTING SCREW	1	1.00
19358	2	EA	GUIDE POST	4	4.00
21035	2	EA	ENT GA BAR	2	2.00
24268	2	EA	SIDE PLT LH	1	1.00
24269	2	EA	SIDE PLT RH	1	1.00
24270	2	EA	PILLOW BLK	2	2.00
24271	2	EA	TOP SPREADER	2	2.00
24272	2	EA	MTG PLATE	2	2.00
24274	2	EA	TOP PLATE	2	2.00
25058	2	EA	ADJUSTMENT LUG	2	2.00
31916	4	EA	WSHR AUX ROLL	4	4.00
33040	2	EA	MTG BRACKET	2	2.00
33041	2	EA	CHAIN TROUGH	1	1.00
38999	2	EA	INSTRUCT SHT PCKT	1	1.00
39000	2	EA	POINTER	5	5.00
40711	2	EA	PILLOW BLOCK, 88710	2	2.00
43442	2	EA	SPRKT, 60B19, 71067, 1-1/8" BORE	1	1.00
43457	2	EA	SPRKT, 41B13, 71144, 3/4" BORE	2	2.00
43615	2	EA	SPRKT, 60B15, 71069, 1-1/8" BORE	1	1.00
50164	2	EA	STND WLDT 5' BEADR	1	1.00
50995	2	EA	CVR WLDT BEADER	1	1.00
52966	2	EA	ENT TBL WLD 5' BEAD	1	1.00
57601	2	EA	SLIDE WLD-5' BEADR	2	2.00
59069	0	EA	GEN ASSY BEADER	0	0.00
59294	0	EA	STRT ROLL ASSEMBLY	0	0.00
60091	4	EA	HHCS, 3/8-16X1	6	6.00
60094	4	EA	HHCS, 3/8-16X1-1/4, PARTIAL THRD	4	4.00
60100	4	EA	HHCS, 3/8-16X3-1/4	4	4.00
60155	4	EA	HHCS, 1/2-13X1-3/4	6	6.00
60156	4	EA	HHCS, 1/2-13X2	6	6.00
60166	4	EA	HHCS, 1/2-13X3-1/2, FULL THREAD	2	2.00
60167	4	EA	HHCS, 1/2-13X3	4	4.00
60551	4	EA	RHMS, 1/4-20X1/2	4	4.00
60575	4	EA	RHMS, #10-24X3/8	7	7.00
60684	4	EA	SSS, 3/8-16, 1/2X1/2 DG POINT	10	10.00
60686	4	EA	SSS, 3/8-16X3/8, DOG POINT	10	10.00
60877	4	EA	BOLT, CARRDG, 3/8-16X1-3/4	6	6.00
60982	4	EA	SCR, LRG, 1/2X3-1/2	4	4.00
61120	4	EA	NUT, HEX, 3/8-16, HEAVY S.F.	2	2.00

(wisser) 01/09/2007

BOM OR WHERE USED FOR 750101

UM: EA I/T: 0 DESCRIPTION: COMPLETE ASS'Y

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STOCK NUMBER	I/T	UM	COMPONENT DESCRIPTION	QTY	USED
66121	4	EA	BRG,NDL,1-3/8X1-7/8X1-1/4	10.00	
66420	4	EA	BRG,TT-1205,3/4X1-1/4X1/16	4.00	
66428	4	EA	BRG,THRS,1-1/8X2-1/4X1/16	10.00	
66434	4	EA	BRG,AA-1049,3/4X1X1-1/4	(MORE)	2.00
66488	4	EA	BRG,1-1/8X1-3/8X1-1/4	10.00	
66640	4	EA	CONN,LUBE,1/8"NPT,1610-BL	8.00	
66644	4	EA	CONN,LUBE,1/8"NPT,1613-B,90DEG	2.00	
70772	4	EA	CHAIN,#60,OFFSET LINK	1.00	
70773	4	EA	CHAIN,#60,CONN.LINK	1.00	
70777	4	EA	CHAIN,#41,CONN.LINK	1.00	
70918	4	EA	HNDL,#CL-5-HWSF W/#CL-1-RH	(MORE)	1.00
71015	4	EA	SPRG,COMP,9562	4.00	
71068	4	EA	SPRKT,60B11,1"BORE W/KW&SS	1.00	
71195	4	EA	REDUCR,SPD,#4MCT,25:1,-R	1.00	
73014	4	PI	CHAIN,#41,1/2"PI,100'=2400PI	252.00	
73019	4	PI	CHAIN,#60,3/4"PI,100'=1600PI	48.00	
80201	4	EA	TOGGLE SWITCH	1.00	
80396	4	EA	HEATER	1.00	
80525	4	EA	SJO CORDSET,14-3 WIRE,10'L,	(MORE)	1.00
80602	4	EA	RING TONGUE TERMINAL,BLACK	15.00	
80709	4	IN	MTW,14GA.BLACK,600V,500'	72.00	
82124	4	EA	CONNECTOR,0.125"-0.375"DIA.	1.00	
84009	4	EA	MOTOR,1HP 115/230/1/60,1800	1.00	
84862	4	IN	1/2" CONDUIT,500' ROLL	18.00	
84864	4	EA	FITTING,1/2",90 DEG	(MORE)	2.00
85156	4	EA	NAMEPLT,LOCKFORMER CAPACITY GA	(MORE)	1.00
85178	4	EA	NAMEPLT,LOCKFORMER LOGO 20 GA.	2.00	
AB35045	2	EA	GUARD EXTENSION	1.00	
61160	4	EA	NUT,HEX,1/2-13,HEAVY S.F.	2.00	
61260	4	EA	NUT,HEX,3/4-10,HEAVY SF	4.00	
62029	4	EA	WSHR,FLAT,3/8,7/8,1/16	6.00	
62071	4	EA	WSHR,FLAT,17/32,1,1/16	4.00	
62363	4	EA	WSHR,LOCK,3/8,MED.HEL.SPRG.	10.00	
62364	4	EA	WSHR,LOCK,1/2,MED.HEL.SPRG.	12.00	
62366	4	EA	WSHR,LOCK,3/4,MED.HEL.SPRG.	(MORE)	4.00
62400	4	EA	KEY,WOODRUFF,#3	1.00	
62403	4	EA	KEY,WOODRUFF,#18	2.00	
62424	4	EA	KEY,STRT,3/16,3/16,1/2	2.00	
62431	4	EA	KEY,STRT,1/4,1/4,1-3/8	1.00	
62503	4	EA	RETAINING RING,5100-112 TRUARC	10.00	
62633	4	EA	PIN,DWL,3/8X1	4.00	
62740	4	EA	PIN,EXP.3/8X2 #98396-A	4.00	

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CINCINNATI PRECISION

## WARRANTY

Our guarantee on the products we manufacture is limited to repair or replacement without charge, of any part found to be defective in materials or workmanship. This guarantee is for a period of one year (unless otherwise specified) from the date of shipment from our factory, for all mechanical features of the machine, except purchased components that carry the warranty of the original manufacturer.

Warranty parts and components will be shipped freight collect from Lisle, Illinois. If the defective part has not been received by Lockformer within 15 working days after receiving the replacement part, your company will be responsible for the cost of replacement.

The warranty provided in this clause is in lieu of all other warranties, express or implied, arising by law or otherwise, including the implied warranties of merchantability and fitness for a particular purpose which are hereby disclaimed by Lockformer and excluded from this agreement. This warranty shall not be modified for any reason. In no event shall Lockformer be liable for consequential or incidental damages.

The information in this document has been reviewed and is believed to be completely accurate. However, no responsibility is assumed for inaccuracies. Furthermore, the LOCKFORMER COMPANY reserves the right to make changes to any products herein, at any time, to improve reliability, function, or design. The LOCKFORMER COMPANY does not assume any liabilities arising out of any use of any product described herein, neither does not convey any license under its patent rights nor the rights of others.

## SAFETY GUIDELINES



You are not ready to operate this equipment if you have not read and understood the safety information in this manual.



### WARNING:

Do not wear loose clothing, neckties, improper gloves, or jewelry while operating this machine. If long sleeves must be worn, avoid loose cuffs or buttons. Tie back or contain long hair.

Wear proper gloves to prevent lacerations caused by sharp edges of stock as it travels through the forming operation.

Be alert for loose, worn, or broken parts. Never operate this equipment unless it is in good working condition.

As the stock feeds into the rolls, a pinch point is created as the stock advances. Keep hands clear of this and all pinch points. **KEEP ALL COVERS IN PLACE WHEN OPERATING THIS MACHINE.**

Remember that the information contained in this manual is only a portion of an adequate training program. It must be coupled with specific instructions for your application along with full information of national and local safety regulations that may apply.



## **INSTALLATION**

Provide a clean, flat, well lighted installation site. Level the machine and anchor it to the floor, inspect the drive assembly, and remove any debris that may have accumulated during shipping and or installation.

Standard electrical installation requires a 110 volt grounded power supply. Provide a 110 volt receptacle at the point of operation. If a 230 volt motor is ordered, install the power supply in compliance with local and national electrical codes. For further information, contact a certified electrician or the Lockformer Service Department at (630) 964-8000.

## **OPERATION**

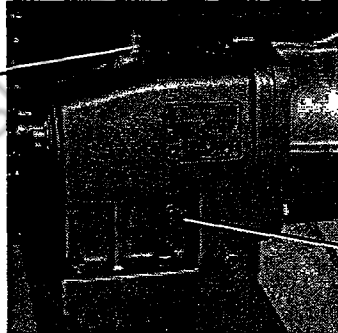
Turn machine on and feed material against the right or left hand gauge bar into rolls. Standard 6" from edge and on 12" beaded centers apply from either gauge bar.

## **LUBRICATION**

### **Gearmotor**

Keep the gearbox filled properly to assure trouble free operation. To check the oil level remove the inspection plug on the side of the gearbox. If oil level is not up to the hole, remove the filler hole plug in the top of the gearbox and add clean Texaco 220 Meropa oil or equivalent to achieve the proper level. Check lubricant level in speed reducer approximately every 3 months, more often under heavy use.

FILLER PLUG  
AND VENT



INSPECTION  
PLUG

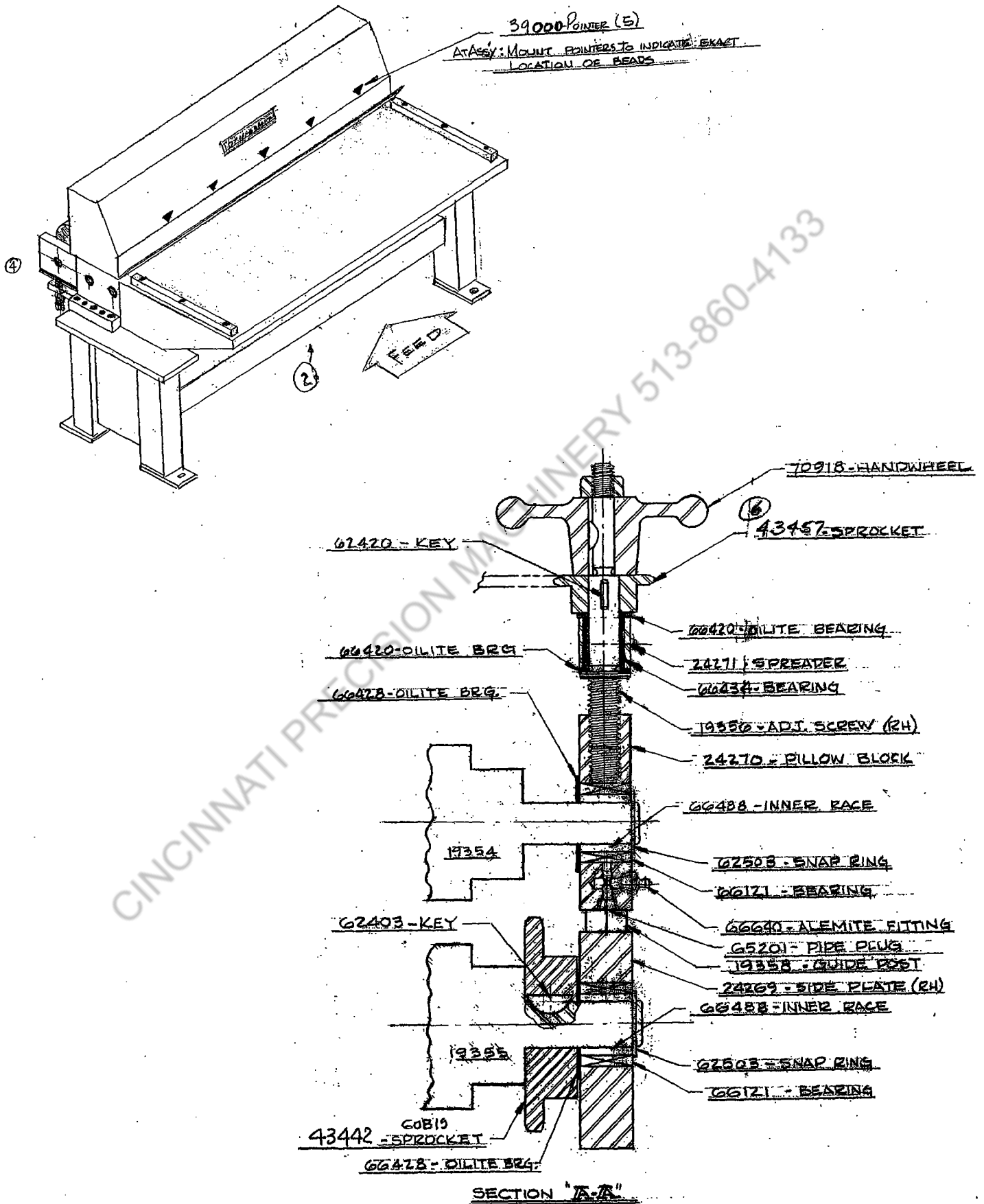
### **Bearings**

After every 40 hours of operation lubricate both grease fittings on each side of the machine with Castrol Molub-Alloy 777-1 ES grease or equivalent.

### **Chain Drive**

Proper maintenance is essential to minimize wear to the drive train components. Always keep chains clean and well lubricated to reduce friction and prolong the life of all load carrying components. Lubricate with light machine oil. Check the alignment of the sprocket and inspect all parts for abnormal wear frequently. Replace worn parts to prevent untimely component failure. Excessive vibration or noise usually indicates that a potentially serious problem exists.

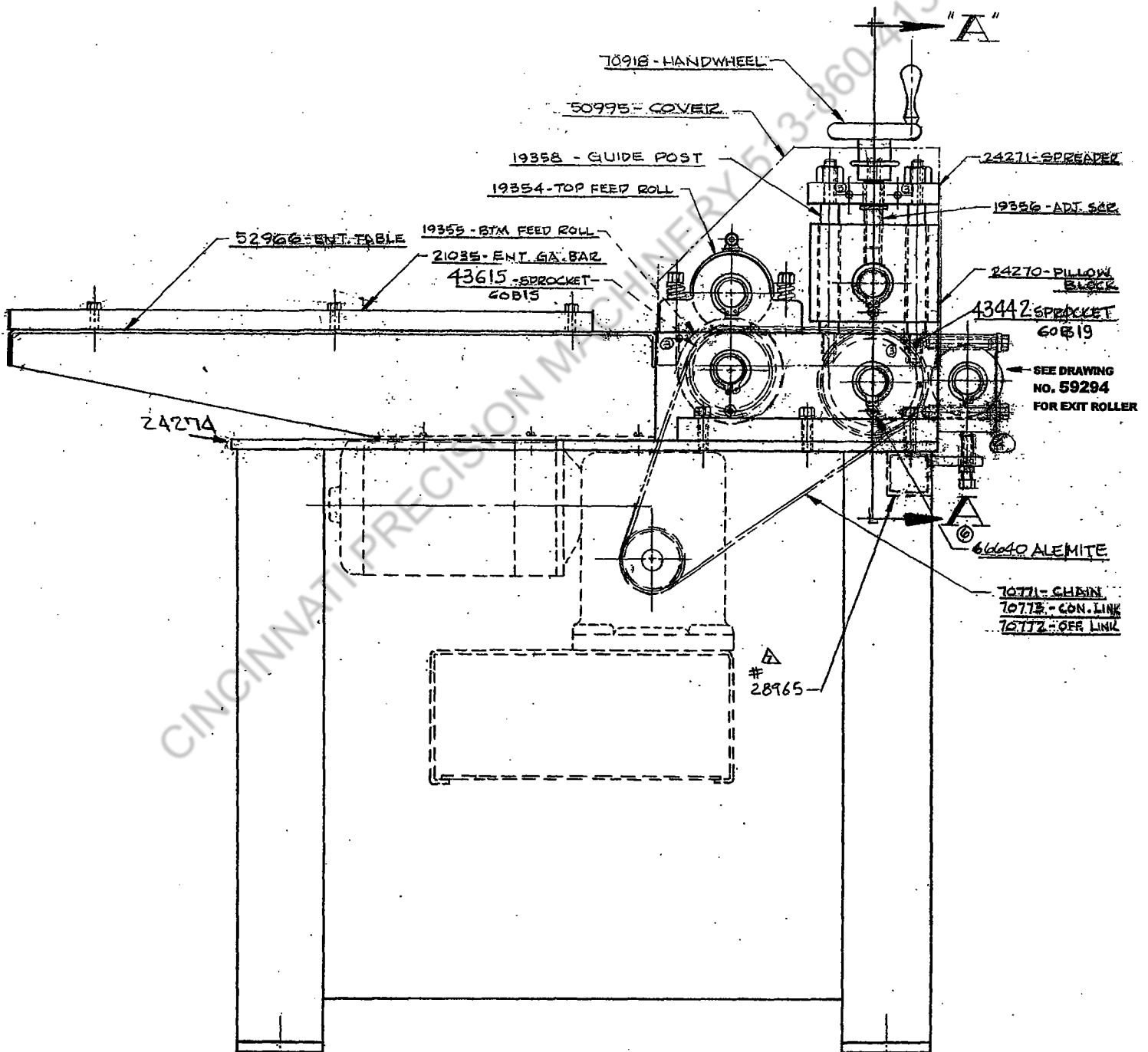
# Enlargement - Original General Assembly Drawing - 59069

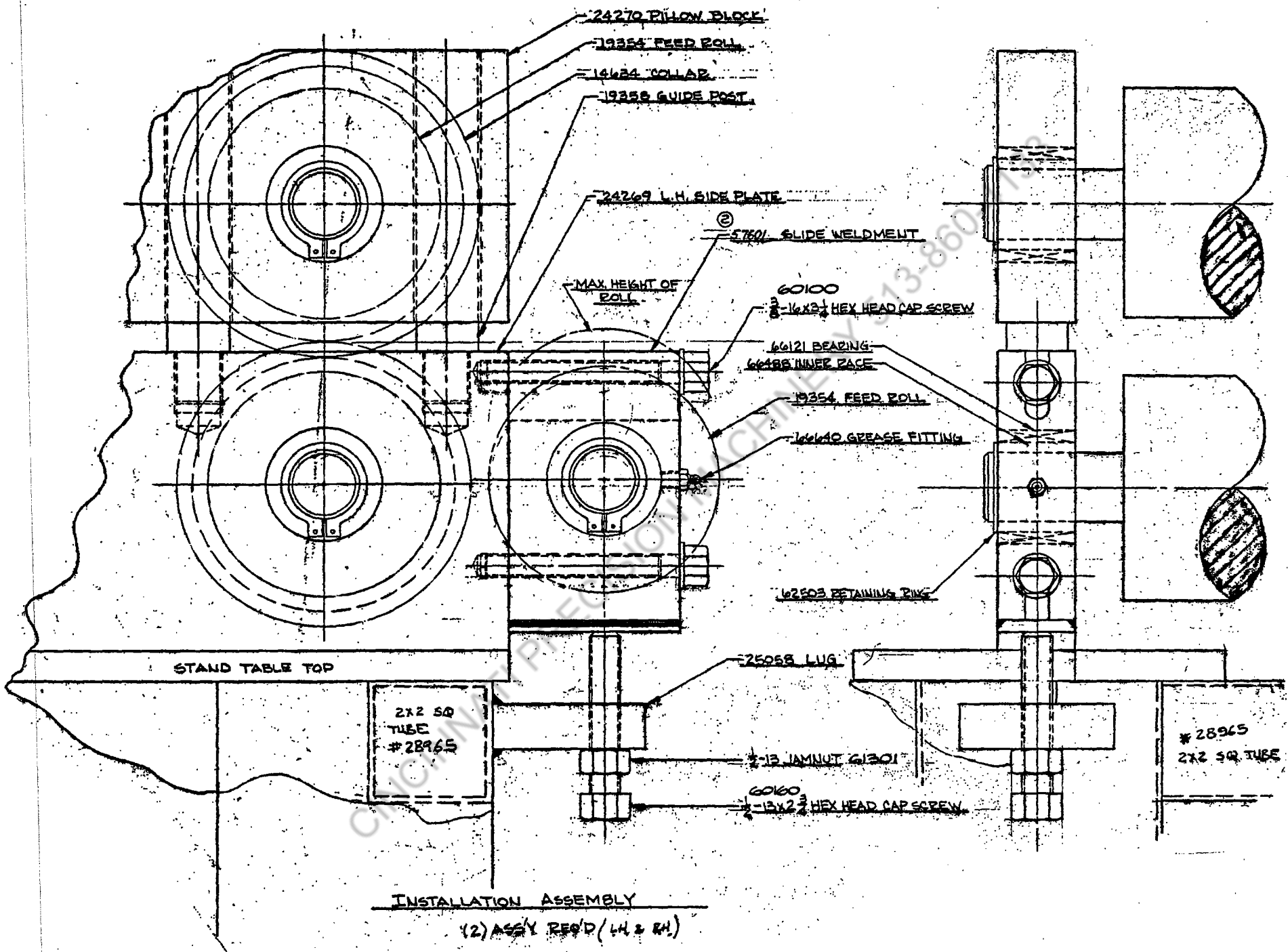






# Enlargement - Original General Assembly Drawing - 59069



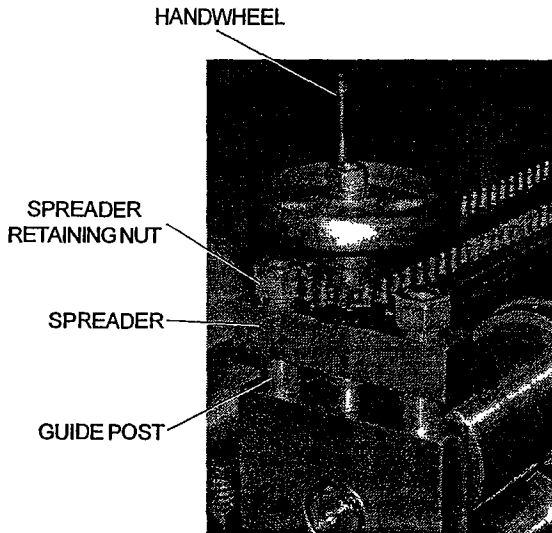


INSTALLATION ASSEMBLY  
 (2) ASSY REQ'D (LH & RH)

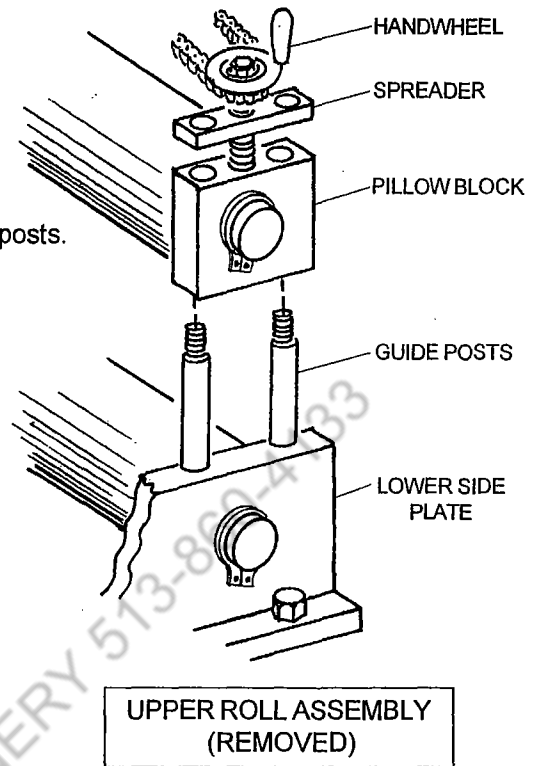
## COLLAR INVERSION

### Step 1: Top Roller Assembly Removal

Disconnect Power and install lockouts/tagouts.  
Remove the cover (50995).  
Remove (4) nuts retaining the spreader to guide posts.  
Lift pillow blocks and upper roll assembly off of the guide posts.

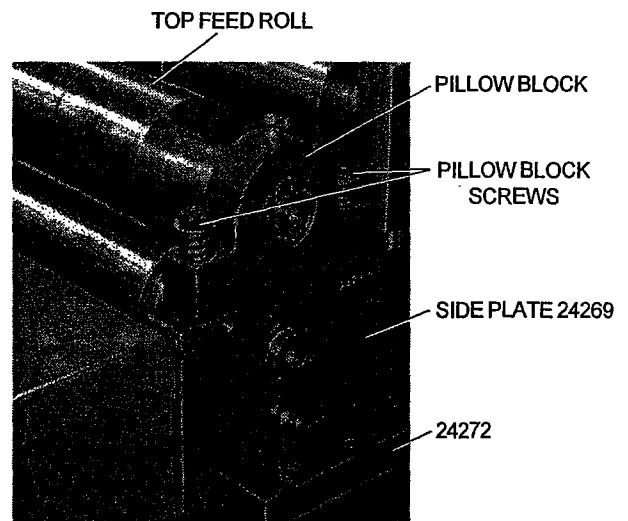
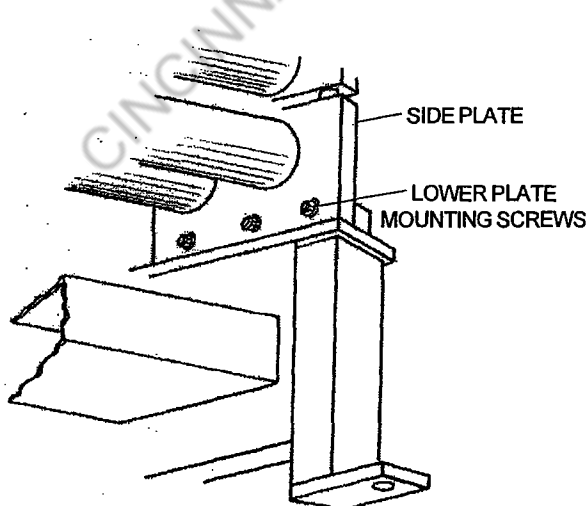


SPREADER ASSEMBLY



### Step 2: Bottom Roller Removal

Disconnect the drive chain.  
Remove the 6 lower plate mounting screws located on the inside of the side plates (24268, 24269), 3 on each side of the machine.  
Using an appropriate lifting device, remove the lower roll assembly from stand. *See illustration below.*  
To ease bottom roller disassembly, remove the top feed roll by loosening the (4) pillow block screws and lift the feed roll assembly out of way. *See photo below.*



TOP FEED ROLL REMOVAL

### Step 3: Top and Bottom Roller Disassembly

Remove retaining rings on the lower roll shafts extending outside of the side plates.  
Separate the shafts from the side plates.

**CAUTION**

The rolls have a tendency to roll together when a side plate is removed.  
Place a wooden block between them to prevent a crushing hazard.

Remove the collars (bead forming rolls) as outlined in Step 4.

### Step 4: Collar Removal and Inversion

Loosen the set screws.

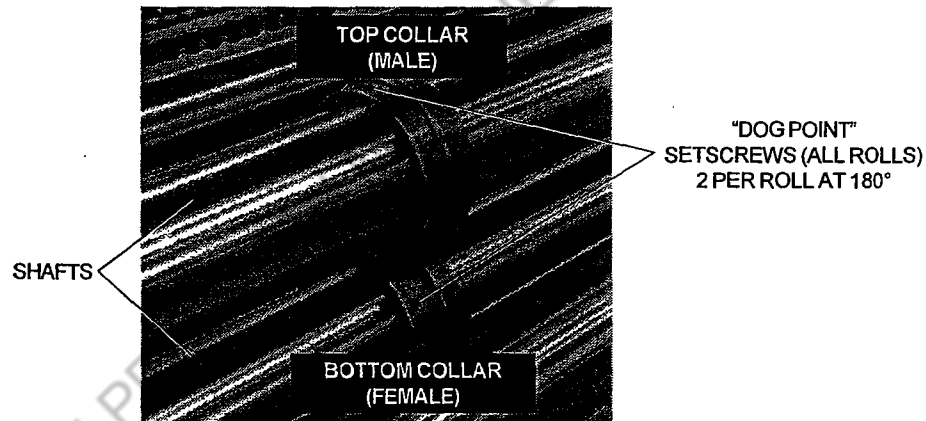
Slide all top collars off top shafts and replace with bottom collars.

Put top collars onto the bottom shaft.

Re-assemble the machine in the reverse order of disassembly. Be sure to "mate" the top and bottom collars.

Re-connect the chain.

REPLACE THE COVER. Remove the lockouts/tagouts.



**Note:**

Due to differences in dimensions between upper and lower collars, mating set screw holes in rollers will not align properly. After determining proper collar position, it will be necessary to re-drill new holes to accept "dog point" of the setscrews.

## ADJUSTMENTS

### Bead Depth

Adjust bead depth as desired. NOTE: When the bead depth is too deep, down bow will result.

- A. Front feed rolls are preset and spring loaded to accommodate all gauge materials, 16 gauge and lighter. Reference hold down stud setting: tighten all four studs then loosen 1-1/2 to 2 turns. If, when running light gauge material, a stretch occurs in the sheet, loosen the studs to remove stretch.
- B. Bead rolls are heat treated and firmly affixed to support rolls with recessed dog point set screws

### Entrance Gauge Bar Squaring

Be sure that the entrance gauge bar is square to the collars. To square the gauge bar, place a carpenter's framing square against the collars. Position the gauge bar against the 90 degree leg of the square and firmly fasten it in place.

Due to continuous improvements, Lockformer reserves the right to modify the product design and specifications contained herein without notice. Please contact your Lockformer sales representative for the most current specification information.

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**LOCKFORMER**

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