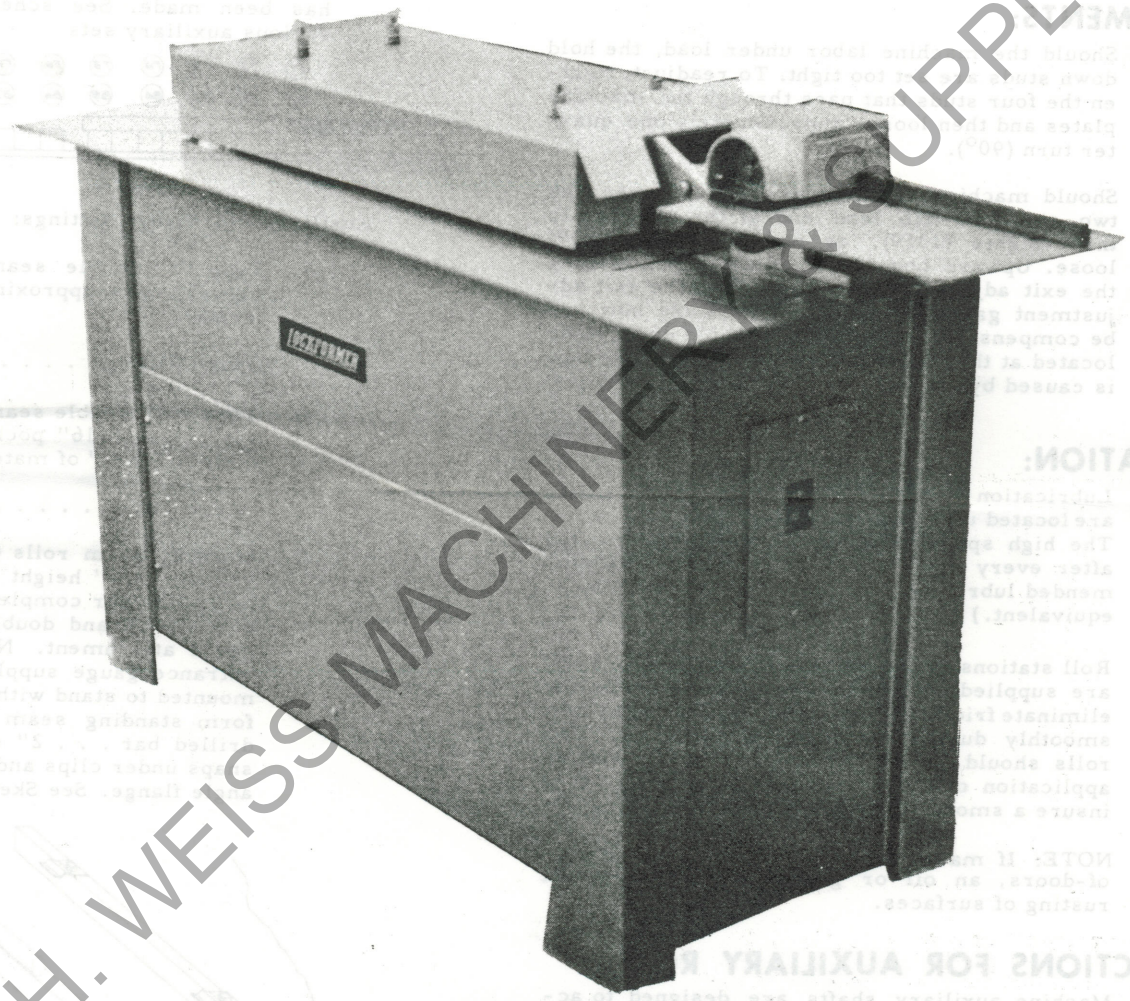
SUPER SPEED
CLEATFORMER®

MODEL No. 8900

OPERATING INSTRUCTIONS



LOCKFORMER

Where the Machines of Tomorrow are Made Today℠

ELECTRICALS:

5 HP 220/440 volt three phase motor and controls, standard machine wired for 220 volt unless otherwise indicated.

MACHINE SPECIFICATIONS:

"S" CLEAT:

Capacity: 22 gauge galvanize or lighter
Stock Width: 3-5/8" + 000-1/32

OPERATION:

Start machine and place properly sheared material between gauge bars and feed material into the rolls.

Check end results and make changes accordingly.

ADJUSTMENTS:

Should the machine labor under load, the hold down studs are set too tight. To readjust, tighten the four studs that pass through the machine plates and then loosen approximately one quarter turn (90°).

Should machine continue to labor, loosen the two studs on the lead end of the machine to three-eights (135°), or one-half turn (180°) loose. Upward bow can be adjusted by lowering the exit adjusting screw located on the exit adjustment gauge assembly. Downward bow can be compensated by adjusting the hold down studs located at the exit end of the machine. Side bow is caused by an unbalanced stud adjustment.

LUBRICATION:

Lubrication fittings for the high speed shafts are located under the stand auxiliary side panel. The high speed bearings should be lubricated after every eight hours of operation (recommended lubricant - Standard Oil Viscous #3, or equivalent.)

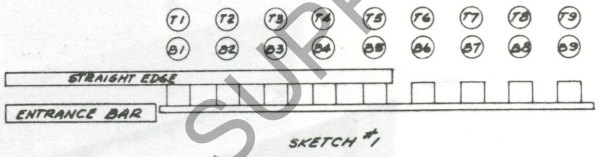
Roll stations #4 and #5 (part #G8904 and C-8905) are supplied with one polished angle surface to eliminate friction and allow the material to flow smoothly during the forming sequence. The rolls should be lubricated periodically with an application of #20 or #30 SAE lubricating oil to insure a smooth sliding surface.

NOTE: If machine is to be used or stored out-of-doors, an oil or grease film will prevent rusting of surfaces.

INSTRUCTIONS FOR AUXILIARY ROLLS:

Machine auxiliary shafts are designed to accommodate various auxiliary roll sets listed below. To install these rolls, proceed as follows:

1. Remove machine cover.
2. Remove rear section of table top side plate on side of machines rolls are to be mounted.
3. If auxiliary rolls are now on machine, remove retaining bolts and washers. Remove all parts not pertaining to the set to be used.
4. Place Woodruff keys on shafts.
5. Select the first pair of rolls which are marked "T-1" and "B-1" and place them on the shafts at the entrance of the machine (Feed Side). Place the "T-1" roll on the upper shaft and "B-1" on the lower. Repeat procedure with roll stations #2, #3 and #4, etc. until all rolls have been mounted. All rolls marked "T" should be mounted on the top shafts and "B" rolls on the bottom shafts in numerical order. NUMBER SIDE OF ROLLS MUST FACE OUTWARDS.
6. After rolls are installed, fasten rolls with retaining cap screws and washers.
7. Mount entrance and exit gauge bars to stand, using slotted holes provided in stand table top and set entrance gauge by placing a straight edge along the outer edge of the auxiliary rolls; measure the required amounts in from this straight edge to the extreme ends of the entrance gauge bar. See Sketches #1, #6 & #6A using drive cleat rolls, mount second bar after gauge setting has been made. See schedule below for various auxiliary sets.



SKETCH #1

Auxiliary Roll Gauge Settings:

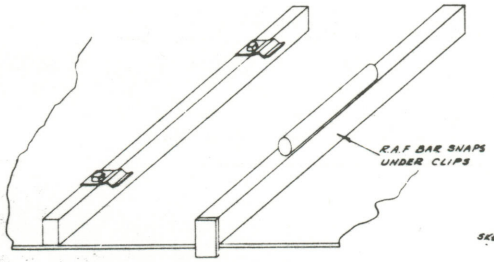
A. Type "S" double seam (22 gauge and lighter) uses approximately 1" material.

Gauge Setting . . . . . 1-1/8"

B. Type "L" double seam (18 to 22 gauge galvanize) 7/16" pocket uses approximately 1-1/8" of material.

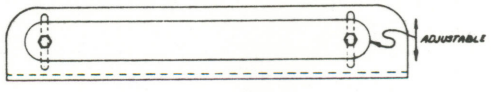
Gauge Setting . . . . . 1-5/16"

C. Standing seam rolls (18-22 gauge galvanize) 3/4" height uses approximately 2-1/8" per completed seam. Forms both single and double edge by simple gauge attachment. NOTE: Two piece entrance gauge supplied. Drilled bar mounted to stand with clips attached to form standing seam gauge setting to drilled bar . . . 2" second gauge bar snaps under clips and is used for right angle flange. See Sketch #2 below:



SKETCH #2

The top #8 and #9 rolls are not fastened by bolt and are allowed to float. The exit angle iron has an adjustable bar that can be lowered to exert pressure on the material, as it emerges from the rolls; thereby, straightening the finished section. See Sketch #3 below: Set exit gauge to the standing seam shape.



SKETCH #3

D. Right angle flange rolls (16-24 gauge galvanize) on straight pieces only. Adjustable to 7/16" high.

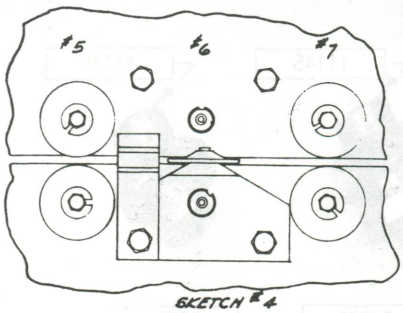
Gauge Setting . . . . . 1-5/16"

E. 5/16" Auxiliary Pittsburgh (20 gauge and lighter) uses approximately 1" material.

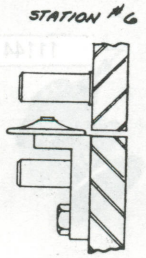
Gauge Setting . . . . .1-11/16"/1-3/4"

A slight taper in gauge setting may be required.

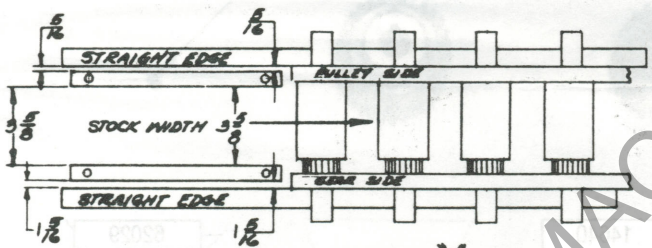
NOTE: To install auxiliary opening roll holder, remove rolls from the #6 roll station and bolts that straddle the bottom 6 roll shaft (See Sketches #4 and #5). Place opening roll holder and slide on machine and fasten with the two 1/2-13 NC x 2" HHCS provided.



SKETCH #4



SKETCH #5

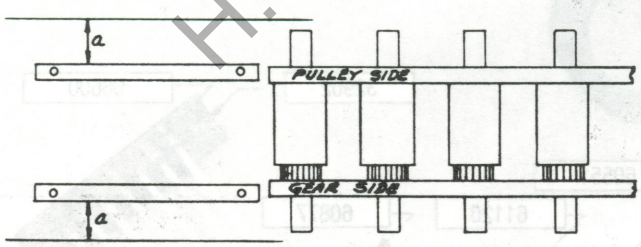


SKETCH #6

F. Drive Cleat: (20 gauge and lighter) used 2-1/8" material.

Gauge Setting . . . . . 2-1/8"

NOTE: Use gauge bar stamped DC (15/16" wide) as center bar for "S" cleat and drive cleat. Set outside gauge bar to width of material being used. (See Sketch #6).



(a-a) SEE ROLL SET TO BE USED

SKETCH #6A

G. Combination 3-in-1 rolls (capacity 22 gauge and lighter), also 2-in-1, uses approximately 1-3/4" on "T" section, 1-1/8" on standing seam and 1/2" on right angle flange. Standard installation places rolls on pulley side of machine. Gear side mounting may be available on request.

Gauge Settings - 3-in-1 Gauge Bar:

Top Step "T" section . . . . . 2-1/16"
Middle Step standing seam . . 1-1/2"
Bottom Step right angle flange 15/16"

Gauge Settings - Combination 2-in-1"

Top Step "T" section . . . . . 2-1/16"
Bottom Step standing seam . . 1-1/2"

NOTE: The combination gauge acts as a center guide for the "S" cleat and combination 3-in-1 rolls.

When the first setting is made, the other two will automatically be correct. The other two shapes can be made by placing material to the proper gauge step. The exit angle iron gauge has an adjustable bar that can be lowered to exert pressure on the material as it emerges from the rolls - thereby, straightening the finished section. See Sketch #3.

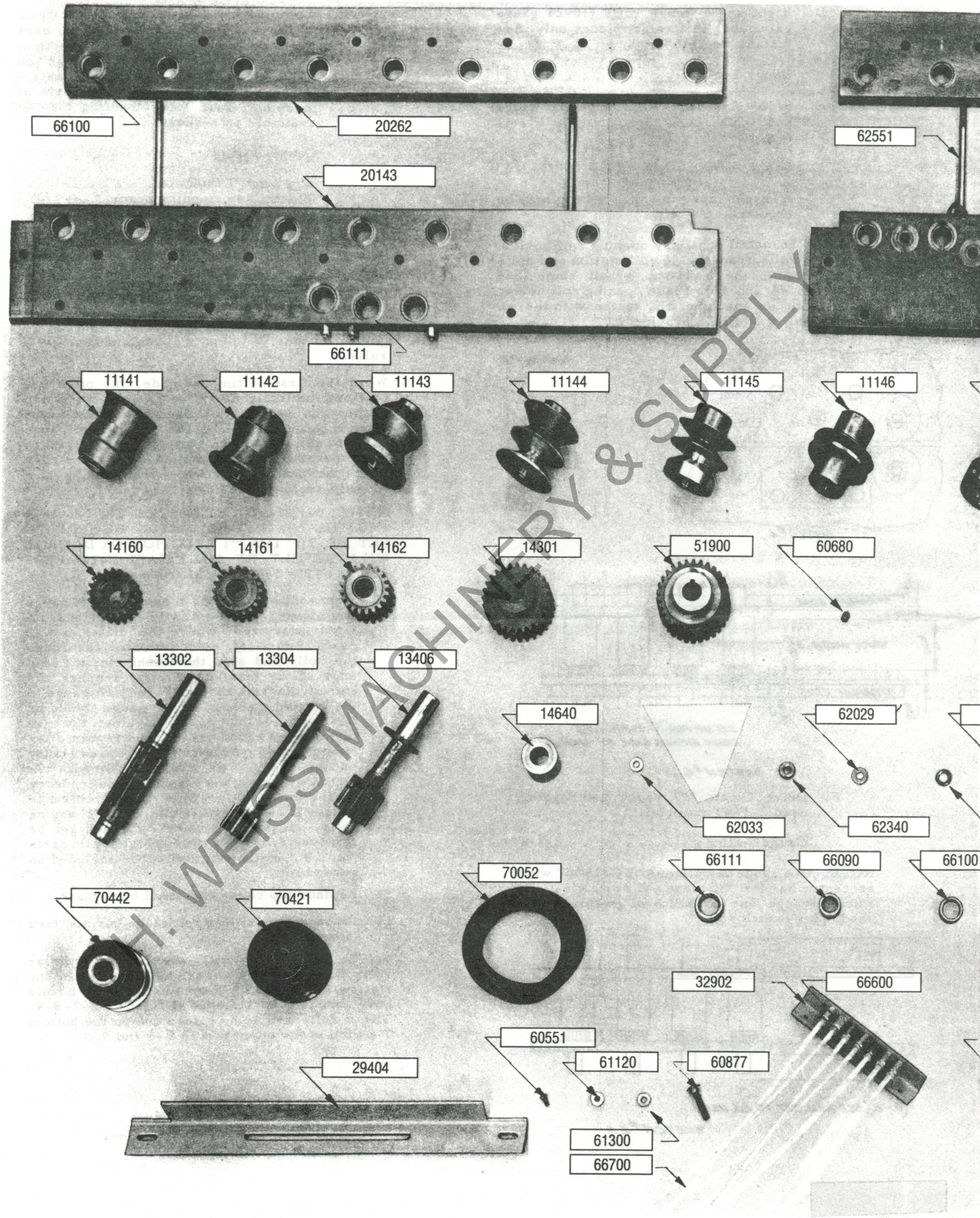
NOTE: WHEN ADJUSTING THE EXIT GAUGE FOR THE 3-in-1 COMBINATION, BE SURE TO SET IT TO THE "T" SECTION OR DAMAGE WILL RESULT BY MATERIAL INTERFERENCE WITH THE GAUGE BAR.

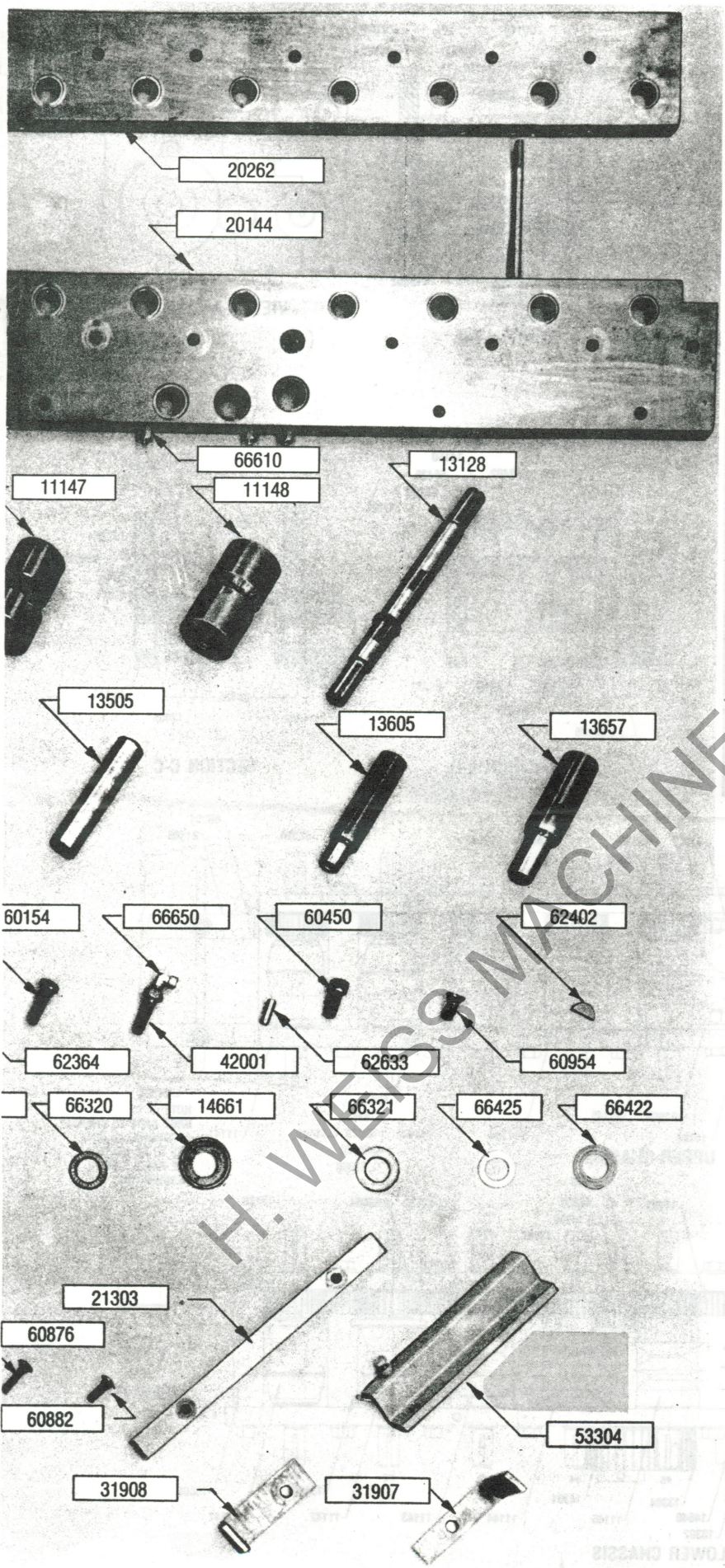
9. When changing rolls, loosen the exit gauge and move it to the extreme ends of the table slots away from where the material will pass. Run a test piece of material through the rolls and stop the machine as the lead edge of the formed material reaches the end of the exit table. Set the exit gauge to the formed material -- the gauge should be flush with, but not bearing against, the material unless side pressure is required for straightening. Adjustment of the pressure on the 3/8" studs that pass through the plates will effect the shape and the tendency of the material to hold to the entrance gauge. It is important that, when changing rolls, all parts pertaining to each set be removed from the machine and all parts for the set to be mounted be included on assembly.

10. Replace top cover and stand back plate.

11. Place material against gauge bar and feed into machine.

NOTE: Roll coding is such that on similar rolls, the numbers will designate more than one station. EXAMPLE: Combination 3-in-1 rolls have three rolls stamped LTC-2-3-B-7-8-9. These rolls are to be placed one on the bottom 7 shaft and the other two on B-8 and 9.





8900 CLEATFORMER PARTS LIST

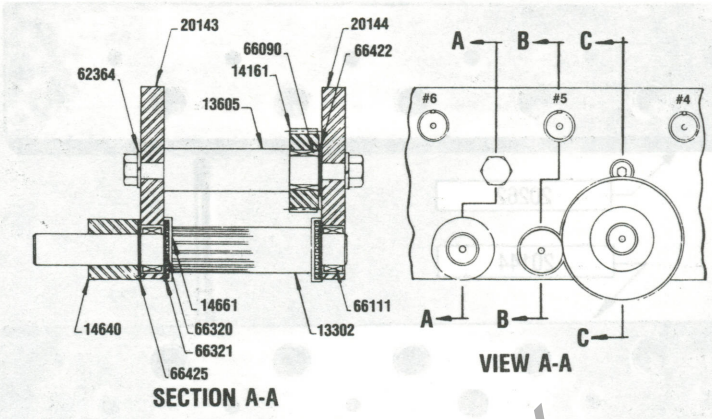
PART NO.	DESCRIPTION	PCS. PER UNIT
11141	89 T-B1	2
11142	89 T-B2	2
11143	89 T-B3	2
11144	89 T-B4	2
11145	89 T-B5	2
11146	89 T-B6	2
11147	89 T-B7	2
11148	89 T-B8, T-B9	4
13128	Roll Shaft	18
13302	1st Drive Shaft	1
13304	2nd Drive Shaft	1
13406	3rd Drive Shaft	1
13505	Plain Spacer	13
13605	Idler Spacer	7
13657	Main Idler Spacer	1
14160	Drive Gear	18
14161	Idler Gear (takes 1-66090)	7
14162	Main Idler Gear (takes 2-66100)	1
14301	Drive Gear	1
14640	Collar	1
14661	Thrust Collar	2
20143	Btm. Frt. Plt.	1
20144	Btm. Plt.	1
20262	Upr. Bk. Plt.	2
21303	Ent. Ga. Bar	2
25676	Jack Base	2
29469	Motor Base	2
31907	Sheet Slide Gear	1
31908	Sheet Slide Roll	1
32902	Lube Conn Holder	1
37000	Grease Fitting Shim	2
42001	Lube Bolt	1
51084	Cover	1
51900	Fibr Gear Assy	1
53304	Exit Ga. Assy.	1
58509	Stand Complete	1
60052	5/16-18 x 1 Hex C.S.	1
60097	3/8-16 x 1-3/4 Hex C.S.	4
60166	1/2-13 x 3-1/2 Hex C.S.	2
60228	1/2-13 x 1-3/4 Hex C.S.	42
60402	3/8-16 1 SHCS	2
60450	1/2-13 1 SHCS	1
60575	10-24-3/8 RHMS	4
60593	10-32 x 7/16 F.H. Screw	2
60680	3/8-16 3/8 SSS	2
60875	3/8-16 x 1 CB	6
60877	3/8-16 1-3/4 CB	4
60954	1/2-13 1 FHSCS	4
61040	10 24 HN	4
61101	5/16-18 HN Hvy. SF	1
61120	3/8-16 HN Hvy. SF	6
61122	3/8-16 HN Fin.	4
61160	1/2-13 HN Hvy. SF	6
61300	3/8-16 Jam Nut SF	4
62026	3/8 x .052 Washers	4
62340	3/8 Blvl Washer	48
62029	3/8-1/16 Washer	18
62360	3/16 Lockwashers	3
62363	3/8 Lockwashers	12
62364	1/2 Lockwasher	43

Continued on page 6

8900 CLEATFORMER PARTS LIST

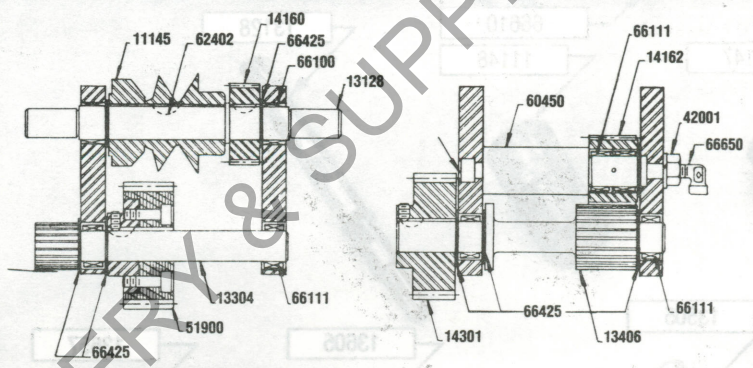
Continued from page 5

PART NO.	DESCRIPTION	PCS. PER UNIT
62402	15 wdrd Key	39
62551	3/8-16 6-1/2 Stud	4
62633	3/8-1 Dwl	4
66090	B1416 Torr Brg.	7
66100	B1612 Torr Brg.	38
66111	HJ 162412 Torr Brg.	6
66320	NTA 1625 Torr Brg.	2
66321	1-3/32 washer HT	2
66422	TT1503 2 Thrust Brg.	7
66425	TT1709 1 Thrust Brg.	42
66600	886L Fem Couplg.	7
66610	888L Half Union	7
66640	1610 Grs. Fitting	7
66650	Angle Body	1
66700	Tubing	121
70052	5L 480 Belt	2
70421	2 BK 32 1 Shv.	1
70442	2 BK 45 1-1/8 Shv.	1
80080	5 HP 3 60 1800 184	1
80103	Mtr. Control	1
80423	BX Cable 12 3 58	1
80483	BX Conn. 3/8	1
80601	Rg. Fng. Terminal	3
80928	Back Enclosure	1
82254	Heater Element	2
85178	Lockformer Logo	1
85339	Cleatformer Name Plate	1



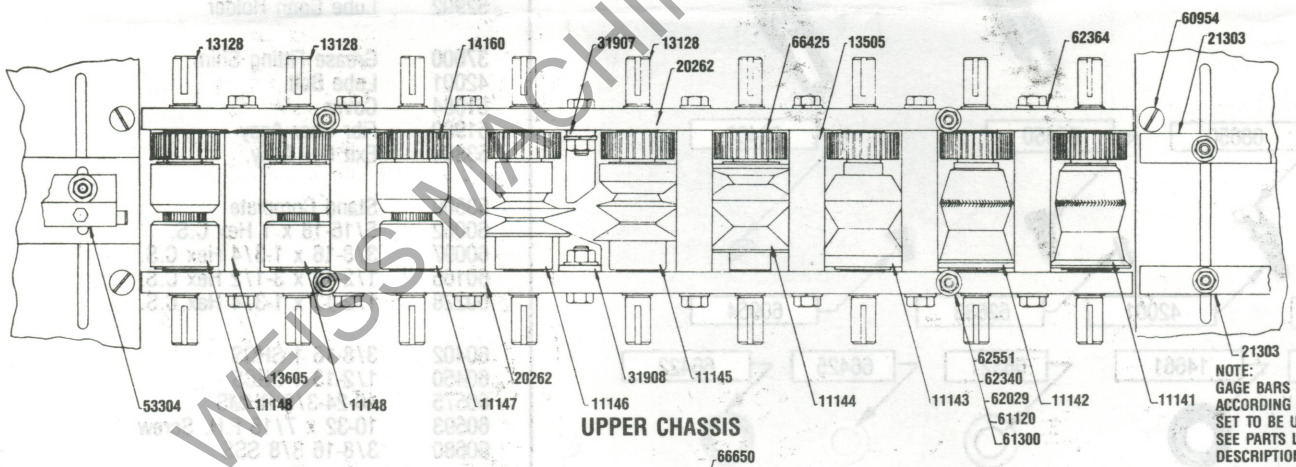
SECTION A-A

VIEW A-A



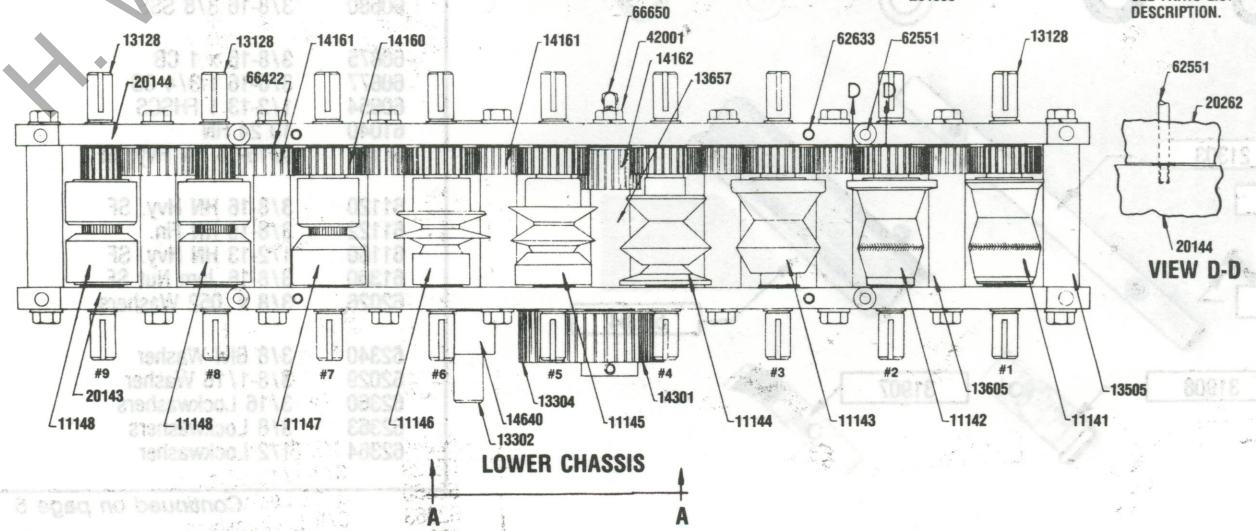
SECTION B-B

SECTION C-C



UPPER CHASSIS

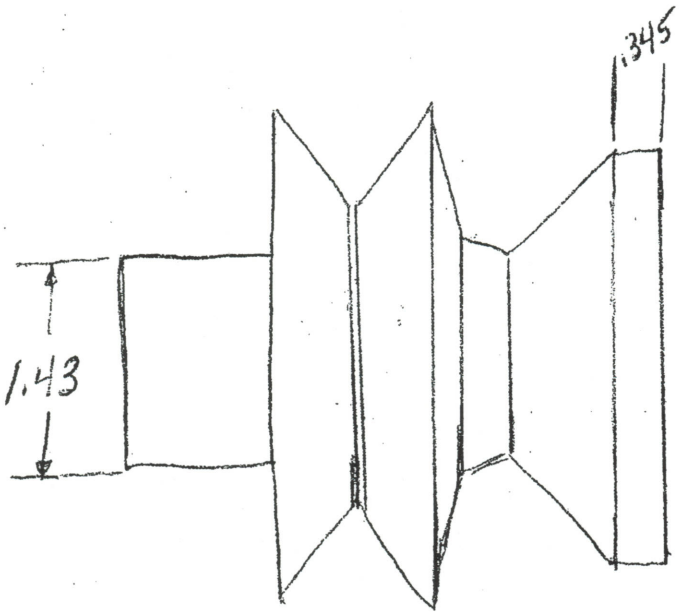
NOTE:
GAGE BARS TO CHANGE ACCORDING TO ROLL SET TO BE USED. SEE PARTS LIST DESCRIPTION.



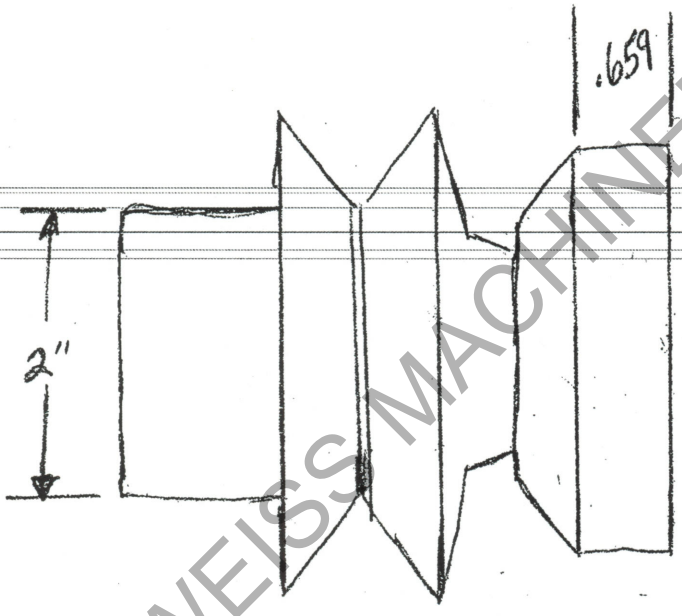
VIEW D-D

LOWER CHASSIS

A A



11145 (OLD)



11312 (NEW)

Here is the roll arrangement now:
STA. 1 - 11141
STA. 2 - 11142
STA. 3 - 11143
STA. 4 - 11144
STA. 5 - 11312
STA. 6 - 11260
STA. 7 - 11146 (formerly at sta. 6)
STA. 8 - 11313
STA. 9 - 11314