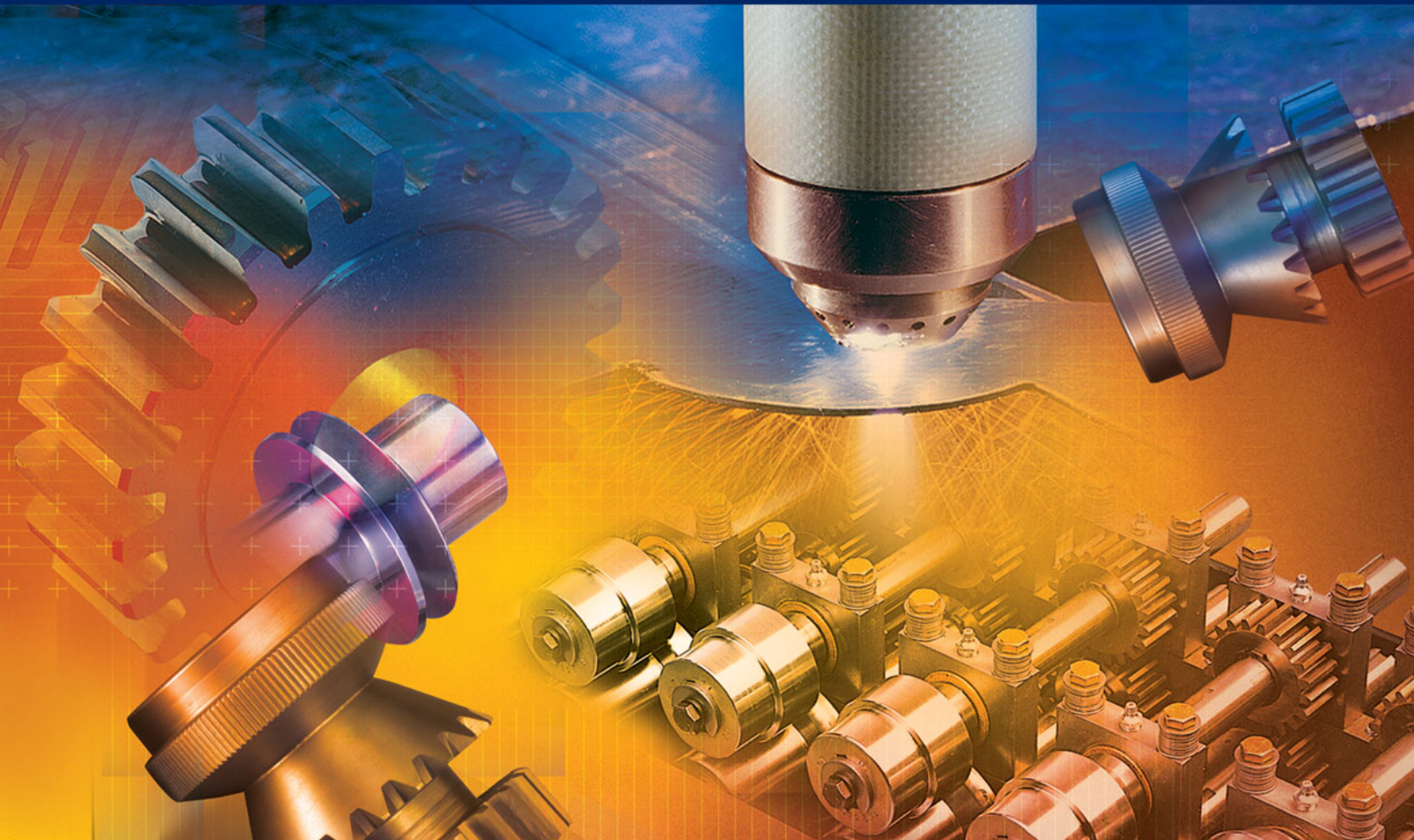


LOCKFORMER



INSTRUCTIONS &
PARTS DIAGRAM
Pittsburgh 14 Gauge
7 Station Rolls

LOCKFORMER

Pittsburgh 14 Gauge Instructions and Parts Diagram





WARNING

THIS EQUIPMENT IS DESIGNED TO BE OPERATED WITH ALL COVERS SECURED IN PLACE. OPERATION WITHOUT THESE SAFEGUARDS MAY RESULT IN CONDITIONS WHICH ARE HAZARDOUS TO THE OPERATOR AND OBSERVERS.

SAFETY GUIDELINES

Before operating the machine, study and follow the safety precautions in this section. These precautions are intended to prevent injury to you and your fellow workers. They cannot, however, cover all possible situations. Therefore, **EXERCISE EXTREME CAUTION** and use **COMMON SENSE** before performing any procedure or operation.

Safety Precautions **BEFORE** starting the machine(s)

- Only one person should control the machine(s). Never allow anyone to operate the controls while you are operating or working on this equipment. In addition to disconnecting power **always use lock outs and tagouts** to prevent accidental start-up when performing maintenance procedures.
- Keep your hands away from internal workings of the machinery when starting, running or stopping.
- Keep your work area clean. Remove all scrap, oil spills, rags, tools and other loose items that could cause you to slip, trip and fall.
- When cleaning the machine or any of its components, do not use toxic or flammable substances. Do not perform any cleaning while the equipment is running.
- Never override or disable any safety switch or safety interlock.
- If so equipped, make sure that hydraulic and pneumatic pressures are at specified levels before operating this equipment.
- **Do not operate the rollformer unless all covers and guards are in place.**
- Be sure that this Instruction Manual is kept near the machine so the operator can refer to it when necessary.
- Keep this equipment properly maintained.
- Always turn off power to the machine(s) at the main disconnect before performing any maintenance or adjustments so accidental start-up or electrocution cannot occur.



Safety precautions WHILE operating the machine(s)

- Never leave the work area while the equipment is in operation.
- Never leave the machine unattended while it is under power or in operation.
- Always be alert while operating machinery.
- Be alert for loose, worn or broken parts. Do not attempt to operate any machinery with such parts present or if the machinery is making unusual noises or actions.
- Avoid skin contact, prolonged breathing, or eye exposure to any stock lubrication fluid being used.
- Be aware of the locations of the **Power Off** or **Emergency Stop** button in case of an emergency.
- **Be sure all guards and covers are in place.**
- Continually observe the rollforming process and related equipment. If any unusual condition develops, immediately stop and inspect the machine.
- Protect yourself! Wear safety glasses. Do not wear loose clothing, neckties, or jewelry. If long sleeves must be worn, avoid loose cuffs and buttons. Tie back and contain long hair.
- Never adjust any roll feature or perform work near the rolls, gears or power take off while they are running.

General

If any pneumatic or hydraulic feature is used, disconnect the main supply and exhaust pressure and bleed the lines to prevent cycling on retained pressure.

Always shut off the power at the main disconnect switch before entering the electrical control box.

Do not use compressed air to clean the machines. Air pressure may drive dirt and small chip into the machine(s) bearing surfaces or cause bodily injury.

IMPORTANT

The information contained herein is to be use as a general guide only. For further safety information obtain and read the ANSI bulletin entitled:

ANSI B11.12-1996 Rollforming and Roll-Bending Machines safety. Requirements for Construction, Care and Use.

CONTACT: American National Standards Institute
11 West 42nd Street. New York, New York 10036



CAUTION

To provide clarity to points in question the illustrations and photos appearing in this manual are shown with covers and guards removed.
NEVER OPERATE THIS EQUIPMENT UNLESS ALL COVERS AND GUARDS ARE IN PLACE.



SAFETY GUIDELINES

You are **NOT** ready to operate this equipment if you have not read and understood all of 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.
- Never operate this equipment unless all covers and guards are properly installed.
- Be alert for loose, worn, or broken parts. Never operate this equipment unless it is in good working condition.
- As the stock enters the guides and feeds into the rolls, a pinch point is created as the stock advances. Keep hands clear of area and all pinch points.
- Always disconnect the main power supply power and install lock outs using a lockout / tagout procedure when making adjustments or repairs.
- When transporting, take into consideration that the machine is top heavy and may suddenly tip over.
- The machine is designed for fixed installations and is not intended for portability.

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.



Machine Capacity

14 Gauge galvanized material or lighter. Hot rolled material will have to be lubricated before sending it through the machine.

Electrical Specifications

Check your order or consult factory to see how machine was wired before shipment before applying power.

Stud Adjustments

To adjust the machine, proceed as follows:

- Tighten the hold down studs stamped #1, #2, and #3 tight.
- Loosen the #1 and #2 studs 45 degrees (1/8 turn).
- The #3 stud can be loosened 90 degrees (1/4 turn) to 180 degrees (1/2 turn).
- The entrance gauge can be set to allow more or less material to pass into the rolls.
- To set the entrance gauge, place a straight edge along the outer edge of the machine plate and measure into the entrance gauge (at its extreme ends) the require amount.
- The present gauge setting is 2 15/16".
- The exit angle iron gauge should not touch the material as it emerges from the machine but should be placed 1/32" to 1/16" away from it so that the gauge will stop the kick out at the end of the sheet

Adjusting Dial Setting

To set the calibrated dial for 14 gauge material, turn the dial (right hand thread) down to the bottom until tight. (16 gauge position) and then loosen the dial one and one half turns until the 14 gauge setting is aligned with the arrow on the cover. (See 16 gauges instruction sheet for resetting the dial).

Lubrication

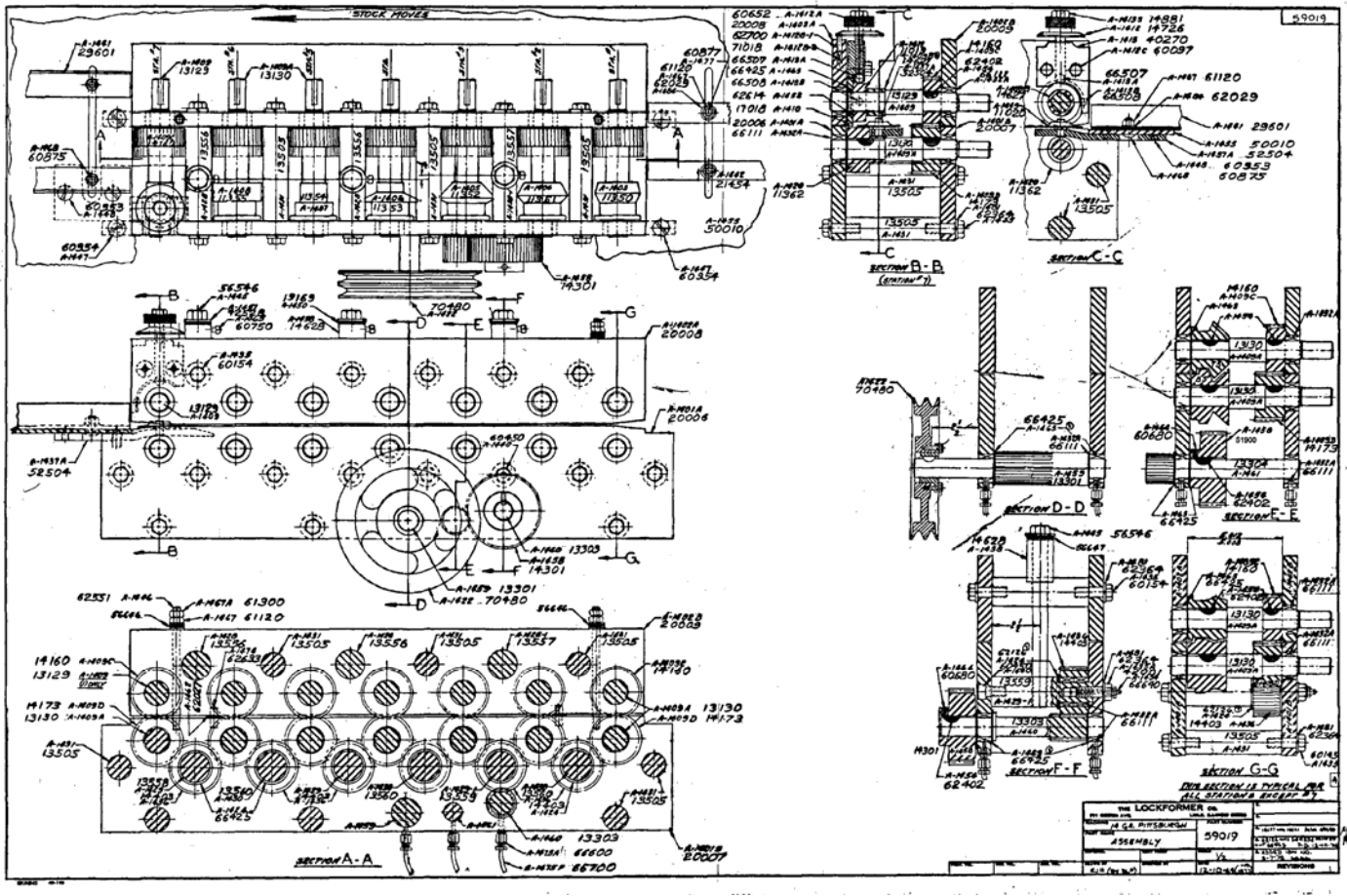
Twelve alemite fittings can be found on the machine. Six fittings are on the auxiliary roll side of the lower plate and they lubricate the bearings in the six idler gears. The second six fittings can be found under the stand roller case and these fittings lubricate the high speed reduction bearings. Lubricate these fittings after every four hours of operation Lubricate the gears as needed

Recommended Lubricant Standard Viscous #3, a product of the Standard Oil Company

Suggestions

For easier starting, it is recommended that the lead end of the material be notched or clipped (45 degrees) at the lead end of the machine. .

To acquire replacement parts for this machine, mark the purchase order (14 Gauge Lockformer) serial # _____ and list parts from the parts list and assembly drawings.



Lockformer Pittsburgh 14 Gauge

Parent Item: 480101 - ROLLS

Component Item Number	Qty per Um Component Description	Type /Rolls
11018	1.0000 EA KNRL RING 77	A
11019	1.0000 EA PL RING T7	A
11020	1.0000 EA OPNG ROLL	A
11350	1.0000 EA TI ROLL 14 PITTS	A
11351	1.0000 EA 12 ROLL 14 PITTS	A
11352	1.0000 EA 13 ROLL 14 PITTS	A
11353	1.0000 EA T4 ROLL 14 PITTS	A 07
11354	1.0000 EA 15 ROLL 14 PITTS	A
11355	1.0000 EA T6 ROLL 14 PITTS	A
11356	1.0000 EA B1 ROLL 14 PITTS	A
11357	1.0000 EA 82 ROLL 14 PITTS	A
11358	1.0000 EA 83 ROLL 14 PITTS	A
11359	1.0000 EA 64 ROLL 14 PITTS	A
11360	1.0000 EA 85 ROLL 14 PITTS	A
11361	1.0000 EA B6 ROLL 14 PITTS	A
11362	1.0000 EA 87 ROLL 14 PITTS	A
13129	1.0000 EA 17 ROLL SHFT	A
14160	7.0000 PC GR DRVN	A
14173	7.0000 PC DRV GEAR BTM	A
14627	1.0000 EA CLR T7	A
14726	1.0000 EA ADJ DIAL	A
14881	1.0000 GA ADJ DIAL SCR	A
21451	1.0000 EA EXIT BAR	A
25112	1.0000 EA ENT HOLD DWN	A
29601	1.0000 EA EXIT GA	A
29602	1.0000 EA EXIT ANGL IRON	A
40270	1.0000 EA ADJ BLK 8827/	A 03
52504	1.0000 EA OPNG ROLL HLD ASSY	A 02
60097	2.0000 EA HHCS, 3/8-16, 1-3/4	A
60652	1.0000 EA SSS, 5/16-18, 1/2	A
60875	2.0000 PC BOLT, CARRDG, 3/8-16, 1	A
60953	2.0000 EA FSHCS, 3/8-16, 1	A
61120	2.0000 EA NUT, 3/8-16, HEAVY S.F.	A
62029	2.0000 EA WSHR,FLAT, 3/8, 7/8, 1/16	A
62614	1.0000 EA PIN DWL, 1/4, 1-1/4	A
62700	1.0000 EA PIN,TAPPER, #4, 1	A
66507	1.0000 EA BRG, BALL, STL, CHOME PL, 1/2	A
66508	1.0000 EA BRG, BALL, CHROME PL, 3/8	A
71018	1.0000 EA SPRG, COMP, 16/1812B-2, CAT#C—180—032—1000, (ASSC SPRG)	A

Lockformer Pittsburgh 14 Gauge

Parent Item: 480101 - TRANSMISSION

Component Item Number	Qty per Um Component Description	Type /Rolls
70053	2.0000 EA BELT, 5L51,V (BROWNING)	A
70442	1.0000 EA SHV, 2BK45, 1-1/8 (BROWNING)	A
70480	1.0000 EA SHV, 2BK80H, 1W/TAPER BSGH (BROWNING)	A

Parent Item: 480101 - ELECTRICAL

Component Item Number	Qty per Um Component Description	Type /Rolls
55602	0.0000 EA ASSY, ENCLOSURE & SW MTG	A
60551	3.0000 PC RHMS, 1/4.-20, 1/2	A
60575	4.0000 FA RHMS,10-24, 3/8	A
60593	2.0000 EA FILLISTER HMS, 10-32X7/16	A
60876	4.0000 EA BOLT, CARRDG, 3/8-16,1-1/4	A
61040	4.0000 EA NUT, 61040	A
62029	4.0000 EA WSHR, FLAT, 3/8, 7/8, 1/16	A
80080	1.0000 EA MOTOR, 5HP 3 60 18 184T	A
80103	1.0000 EA CTR,MOTOR, #609BOW	A
80422	1.0000 EA CABLE, BX, 12-3, 66", 3-8-1	A
80483	1.0000 EA CONN, SCR, 3/8", #7285V [1/2 K.0] (APPLETON OR REGAL)	A
80484	2.0000 EA CONN, SCR, #15233, 3/4" (APPLETON)	A
80601	3.0000 EA TERMINAL, RING TONGUE, C-26, OR P1010RD PANDUIT	A
80928	1.0000 EA ENCL, BACK	A
82255	3.0000 EA HTR, W55 (ALLEN BRADLEY)	A

Lockformer Pittsburgh 14 Gauge

Parent Item: 480101 - CHASSIS

Component Item Number	Qty per Um	Component Description	Type /Rolls
13130	13.0000 EA	ROLL SHFT1	A
13301	1.0000 EA	1ST DRV SHFT	A 09
13303	1.0000 EA	3RD DRV SHFT	A
13304	1.0000 PC	2ND DRV SHFT	A
13505	8.0000 EA	SPCR PL MAKE IN HOUSE - (MURALI G.)	A
13556	2.0000 EA	SPCR DR OF CTR	A
13557	1.0000 EA	SPCR DR ON CTR	A
13558	2.0000 EA	STEP SPCR DR OF CT	A
13559	1.0000 EA	STEP SPCR DR ON CT	A
13560	3.0000 EA	PL STEP SPCR	A
14301	1.0000 PC	GE DRV	A 08
14403	6.0000 PC	GR MN IDLR	A
14628	3.0000 EA	SDL WSHR	A
19169	3.0000 EA	LOCKING SLUG	A
19170	2.0000 EA	LOCKING SLUG	A
20006	1.0000 EA	LWR FRT PLT	A
20007	1.0000 EA	LWR BK PLT	A
20008	1.0000 EA	UPR FRT PLT	A
20009	1.0000EA	UPR BK PLT	A
21454	1.0000 EA	ENT GA	A
37000	1.0000 EA	GREASE FTG SHIN	A
42001	6.0000 PC	LUBE BOLT 60153	A
42312	3.0000 EA	5 / 8X3 / 16 WSHR 62081	A
51900	1.0000 PC	FIBR GR ASSY	A 11
56546	3.0000 EA	HLD DWN STUD ASSY	A
59019	.0000 EA	CHASSIS ASSY	A
60000	2.0000 EA	HHCS, 1/4-20, 1/2	A
60228	27.0000 EA	HHCS, 1/2-13, 1-3/4, HT TREATED GRADE-5	A
60450	1.0000 EA	SHCS, 1/2-13, 1	A
60680	2.0000 PC	SSS, 3/8-16, 3/8	A
60750	3.0000 EA	SQHSS, 1/4-20, 1/2	A
60877	2.0000 PC	BOLT, CARRDG, 3/8-16, 1-3/4	A
60954	4.0000 EA	FHSCHS, 1/2-13, 1	A
61061	2.0000 EA	NUT, 1/4-20, HEAVY S.F.	A
61300	2.0000 EA	NUT, 3/8-16, STEEL JAM NUT SF	A
62027	2.0000 EA	SHIM, 3/8, 3/4, .082	A
62029	6.0000 EA	WSHR, FLAT, 3/8, T/8, 1/16	A
62126	6.0000 EA	WSHR, FLAT, 1, 1-3/4, .093 *LKF TO H.T. UPON ARRIVAL*	A
62364	33.0000 EA	WSHR, LOCK, 1/2, MED	A
62402	31.0000 EA	KEY, WDRF, #15	A
62551	2.0000 EA	STUD, 3/8-16, 7, THRD BOTH ENDS	A
62633	2.0000 PC	PIN, DWL, 3/8, 1	A
66111	46.0000 EA	BGR, ROLL, HJ162412, 1, 1-1/2, 3/4	A
66425	21.0000 EA	BGR,THRS, TT-1709-1, 1, 1-3/4, 1/16, (CHRYSLER OILITE)	A
66600	7.0000 EA	CONN, FEM, 886L, 1/4, 1/8 (IMPERIAL EASTMAN)	A
66610	7.0000 EA	CONN, 888L, HALF UNION (IMPERIAL EASTMAN)	A
66640	7.0000 EA	CONN, GREASER, 1610, #163B 1/8" PIPE, 90 DEG, (ALEMITE)	A
66700	117.0000 EA	TUBE, NYALFLOW, #NS8T, TYPE T, 1/4 POLYPENCO	A
85156	1.0000 EA	NAMEPLT, LOCKFORMER CAPACITY GA (16-18-20-22 GA)	A

LOCKFORMER

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