PLC Mixer Bull Gear Auto-Lube System

Erie Strayer Company
1851 Rudolph Ave. **(814) 456-7001 phone**
Erie, PA 16502 **(814) 452-3422 fax**

TECHNICAL SERVICE BULLETIN ESC02012021

Supplied Components

Qty	*Description*
1	Lube Station with PLC/Electric Controls
100ft	Air Line
100ft	Lube Line
1	Lube/Air Manifold
1	Lube Nozzle Assembly
1	Lube Pump
5 gal	Mobil SHC22M Lube

Tools Required for Installation

- Welder
- Basic hand tools

Warning

Prior to doing any work, remember to lockout any equipment.

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Install Instructions

1. Mount (weld or bolt) lube station w/ PLC controls near mixer drive assembly within reach of the length of the given hose.

2. Install lube pump in 5 gallon bucket of Mobil SHC22M.

3. Mount lube pump w/ bucket on mixer deck near drive assembly.

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4. Mount lube and air manifold on mixer mainframe.

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5. Mount lube nozzle assembly on main frame.

6. Run air lines from lube station air valve to air side of manifold assembly. Then, run the air lines from the lube station air valve to lube pump.

7. Run a lube line from pump to lube manifold.

8. Connect 3 air lines from lube manifold to the spray nozzles.

9. Connect 3 lube lines from the lube manifold to the spray nozzles.

10. Connect a ¾” air supply to the main air line on the lube station.

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11. Run flex conduit from lube station control box to the existing mixer junction box.

12. Connect wires M11, X41, M7, P60, P57, X75, X74, L1, L2, and GND from conduit to mixer j-box.

Setup Instructions

1. Set air valve pressure to 60PSI.

2. Set Lube Pressure to 45PSI.

3. Three time delay settings are configured in the Siemens PLC. To adjust them, press “ESC”, then “→” on program, then “OK” on set parameter.

    a. Lube on Time – Duration of lube pump.
    b. Lube Air on Time – Duration of air spray.
    c. Bull Cycle Time – Controls the lube interval.

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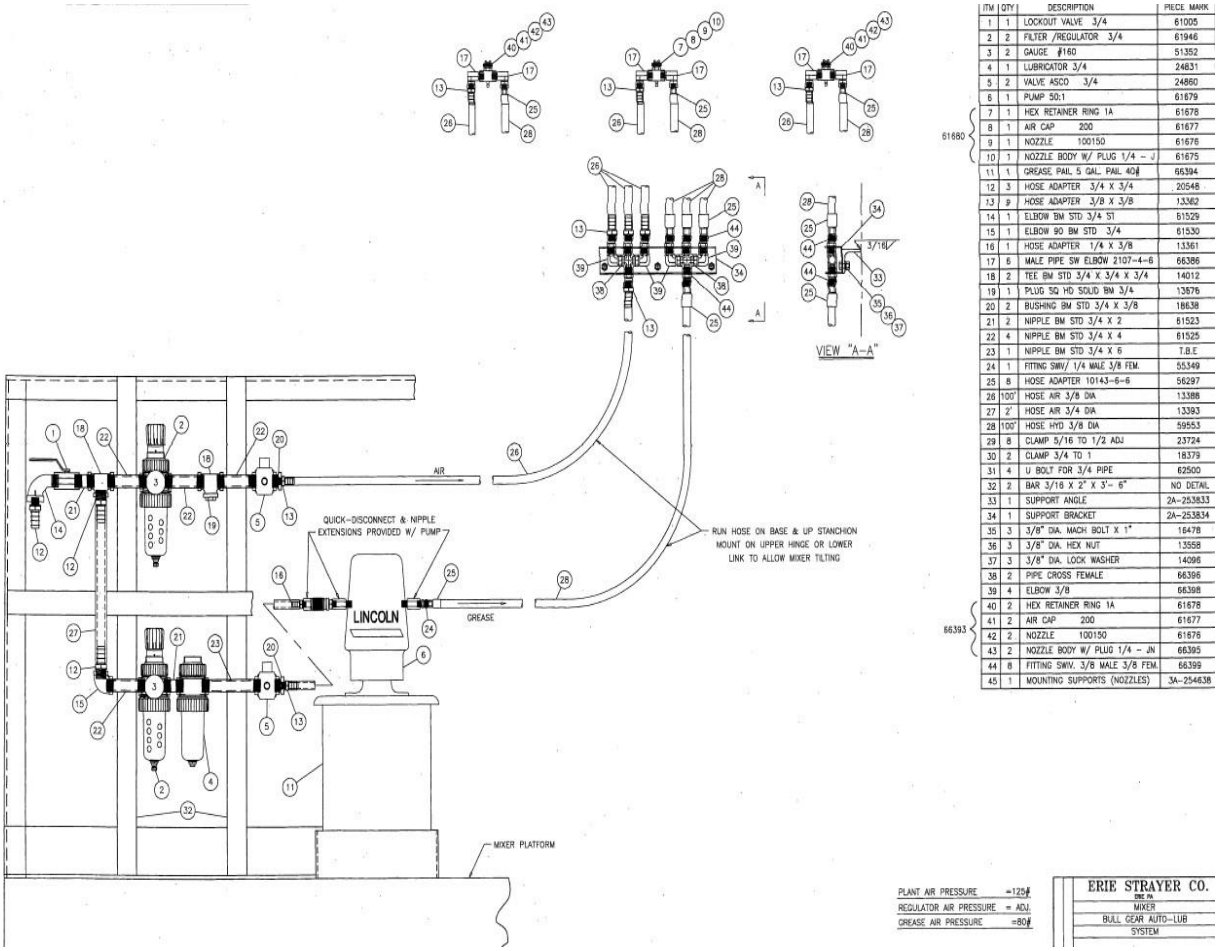
4. The lube interval is factory set at 60 minutes. Set at an interval that maintains an adequate amount of lube, without over lubing.

5. Air valve is factory set at 12 seconds.

6. Lube valve is factory set at 8 seconds.

7. The two side nozzles are adjustable and should be turned clockwise to reduce flow, since the two sides of the bull gear do not need as much lube as the center "gear section".

8. Fine tune as needed.



ITM	QTY	DESCRIPTION	PIECE MARK
1	1	LOCKOUT VALVE 3/4	61005
2	2	FILTER /REGULATOR 3/4	61946
3	2	GAUGE #160	51352
4	1	LUBRICATOR 3/4	24831
5	2	VALVE ASCO 3/4	24860
6	1	PUMP 50:1	61679
7	1	HEX RETAINER RING 1A	61678
8	1	AIR CAP 200	61677
9	1	NOZZLE 100150	61676
10	1	NOZZLE BODY W/ PLUG 1/4 - J	61675
11	1	GREASE, PAIL 5 GAL. PAIL 40#	66394
12	3	HOSE ADAPTER 3/4 X 3/4	20548
13	9	HOSE ADAPTER 3/8 X 3/8	13382
14	1	ELBOW BM STD 3/4 ST	61529
15	1	ELBOW 90 BM STD 3/4	61530
16	1	HOSE ADAPTER 1/4 X 3/8	13361
17	8	MALE PIPE SW ELBOW 2107-4-6	66386
18	2	TEE BM STD 3/4 X 3/4 X 3/4	14012
19	1	PLUG SQ HD SOLID BM 3/4	13676
20	2	BUSHING BM STD 3/4 X 3/8	18638
21	2	NIPPLE BM STD 3/4 X 2	61523
22	4	NIPPLE BM STD 3/4 X 4	61525
23	1	NIPPLE BM STD 3/4 X 6	T.B.E
24	1	FITTING SWIV/ 1/4 MALE 3/8 FEM.	55349
25	8	HOSE ADAPTER 10143-6-6	56297
26	100'	HOSE AIR 3/8 DIA	13386
27	2'	HOSE AIR 3/4 DIA	13393
28	100'	HOSE HYD 3/8 DIA	59553
29	8	CLAMP 5/16 TO 1/2 ADJ	23724
30	2	CLAMP 3/4 TO 1	18379
31	4	U BOLT FOR 3/4 PIPE	62500
32	2	BAR 3/16 X 2" X 3'- 6"	NO DETAIL
33	1	SUPPORT ANGLE	2A-253833
34	1	SUPPORT BRACKET	2A-253834
35	3	3/8" DIA. MACH BOLT X 1"	16478
36	3	3/8" DIA. HEX NUT	13558
37	3	3/8" DIA. LOCK WASHER	14096
38	2	PIPE CROSS FEMALE	66396
39	4	ELBOW 3/8	66398
40	2	HEX RETAINER RING 1A	61678
41	2	AIR CAP 200	61677
42	2	NOZZLE 100150	61676
43	2	NOZZLE BODY W/ PLUG 1/4 - JN	66395
44	6	FITTING SWIV. 3/8 MALE 3/8 FEM.	66399
45	1	MOUNTING SUPPORTS (NOZZLES)	3A-254638

61680 — items 7–10
66393 — items 40–43