SELAS CORPORATION OF AMERICA

AUTOMATIC LUBRICATOR INSTALLATION AND OPERATION

A new model automatic lubricator features a cyclic piston pump which delivers a consistent and uniform lubrication to the compressor of a Selas Combustion Controller. Tamper resistant settings provide a measured amount of clean oil every two hours of operation. This lubricator is intended to replace a manual oiling system or the previous automatic oiling arrangement which depended on a timer operated solenoid valve and an external adjustable sight feed oil valve. The existing oil well in the compressor is retained as a storage sump for excess oil and it may require periodic draining.

A. Field Installation

If the Automatic Lubricator has been factory installed, proceed to Step B, Electrical Power Supply and Operation.

1. Shut down the Combustion Controller.

2. Drill and tap two holes in the compressor/motor base for the oiler mounting bracket. See page 4 of instructions for the mounting hole locations. Connect the bracket to the base using two 3/8-16 x 3/4" cap screws and lockwashers.

3. Disconnect the existing oil supply tubing and drain the oil from the compressor reservoir. Remove and discard the oil feed tubing and oil pipe fittings. Remove and discard the sight feed oil valve with the thumbwheel adjuster to prevent tampering with the oil feed rate.

4. A 3" long pipe nipple and pipe cap is being supplied as a convenience to extend the drain outlet beyond the compressor base. Install the extension drain nipple with cap at the drain plug for each oil sump. Consult the appropriate instruction bulletins for specific locations.

   a. Instruction Bulletin CA-40, Rev. 1, page 12

      Remove drain plug, index 51, and install at Index 35 where the oil tube and fitting were connected. Add the extension nipple and cap at drain location Index 51. If the oil shut-off valve, index 18, is installed, see the Note following paragraph B.3. on page 3.

b. Instruction Bulletin 60-CA, Rev. 1, page 13

Install the extension nipple and cap at the drain plug, index 18, or at the adjacent tap on the same level where the oil tube and fitting were removed. If the unit is equipped with an oil shut-off valve, index 15, see the Note following paragraph B.3. on page 3.

c. Instruction Bulletin 100-CA, Form 30020, page 11

Install the extension nipple and cap at the drain plug, index 25. If the unit is equipped with an oil shut-off valve, index 14, see the Note following paragraph B.3. on page 2.

5. See General Arrangement on page 5 of these instructions for the oil feed tube installation. The new sight flow gauge without the thumbwheel valve adjuster, Mk 2, is to be installed directly into the top of the compressor for the 40-CA and 60-CA models. No sight flow gauge is provided for the 100-CA model.

Please note that a pipe trap of 2" is specified on Figure 1. This trap is built into the bottom feed arrangement of Figure 2. The break in the oil supply line of Figure 2 indicates that the automatic oiler will be above the compressor when installed on its mounting bracket.

Form the tubing with a tube bender and avoid kinks. Protect the oil tubing from exposure to external bumps. Examine all disturbed connections and assure that all plugs are in place. Tighten all connections.

B. Electrical Power Supply and Operation

1. The standard lubricator is rated at 110V, 60 Hz, but 220 V models are available. Power the automatic lubricator through the auxiliary contacts on the compressor motor starter to avoid lubrication when the compressor is not running. Comply with all local electric codes, safety regulations and procedures.

2. The transparent oil reservoir holds one liter (1.06 quarts) of oil. Use a detergent grade SAE 20 with a minimum API rating of SA. Prime the system by lifting

and releasing the manual feed disk (see page 5) until the flow is seen in the sight flow gauge per Figure 2 of the arrangement drawing. For priming of Figure 1, loosen the tubing nuts nearest the compressor to allow oil leakage. Operate the manual feed disk until oil leaks at both couplings. Reconnect the tubing to the elbow fittings.

Operate the manual feed button two more times to assure adequate oil to the compressor for Figure 2, but about four times for Figure 1 arrangement. Additional oil may be dispensed between normal cycles by lifting and releasing the manual feed disk. Inadequate oiling is usually accompanied by a high pitch squeal. The oil feed rate is regulated by a spacer shim (Mk 10 on page 5 of instructions), which can be changed if a different oiling rate is required. Consult Selas engineering if a change in the oiling rate seems necessary.

Lift and release the manual feed disk two times at start-up if the Combustion Controller has been idle for more than one day.

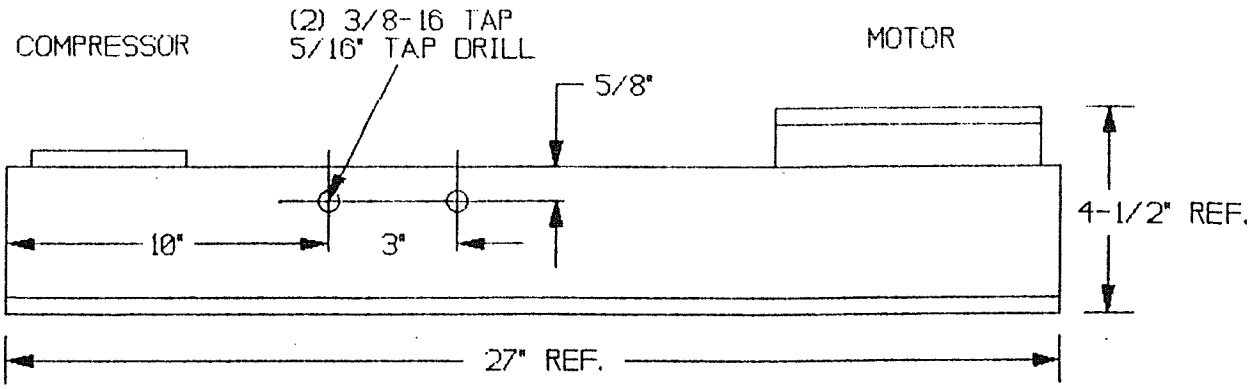
3. Examine the sump level periodically and drain the used oil before the sump is full to prevent excess carryover of oil into the mixture outlet piping. Excess oil carryover will increase the maintenance of the firechecks as an oil screen will hold airborne dust and plug the small holes of the screen.

   Deliver all the used oil for reclamation or discard in a safe way.

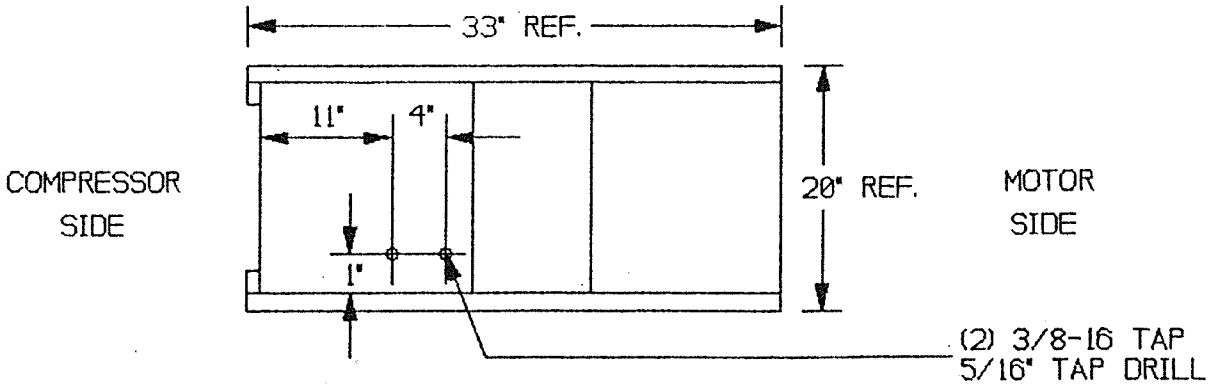
NOTE: ***The oil shut-off valve, if installed, must be kept open during normal operation. It's original purpose was to avoid pressure blowout when adding oil during normal operation without shutting down. It can be used to isolate the sump from pressure when draining oil while the Combustion Controller is running. If no valve is installed, drain the oil sump ONLY when the machine is not in operation.***

(03/11/93)

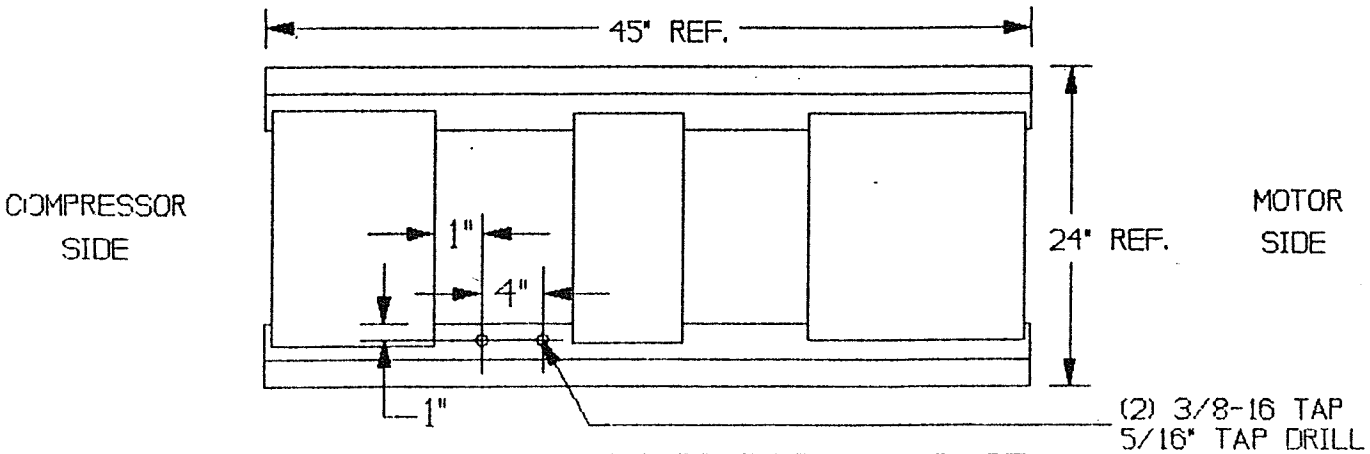
selas
The Heat Technology Company



40CA COMBUSTION CONTROLLER BASE



60 CA COMBUSTION CONTROLLER BASE



100CA COMBUSTION CONTROLLER BASE

MOUNTING HOLE LOCATIONS FOR AUTOMATIC LUBRICATOR

(SEE DWG. A-138449)

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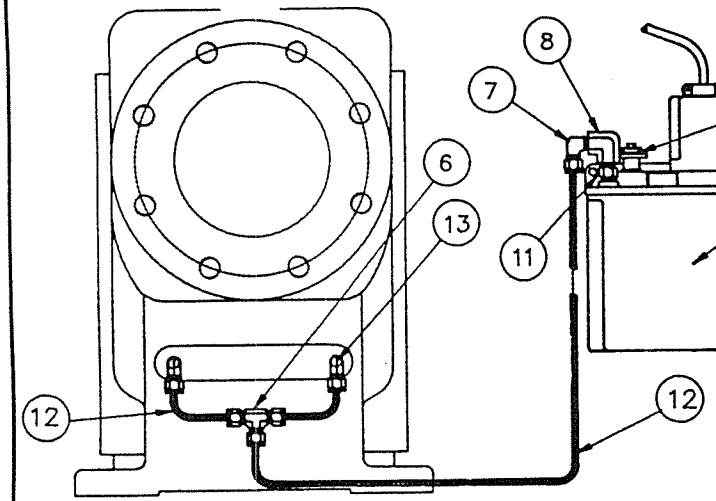
ASSY PART NO. 139061–				PARTS LIST	
FIG. 1		FIG. 2			
04	03	02	01	MARK	DESCRIPTION
	1		1	1	OILER 110V
1		1		1	OILER 220V
		1	1	2	SIGHT FLOW GAUGE
		1	1	3	ELBOW
		2	2	4	COMPRESSION SLEEVE
		2	2	5	BUSHING
1	1			6	TEE
1	1			7	ELBOW
1	1			8	ELBOW
		1.3ft	1.3ft	9	TUBING
		1	1	10	SPACER SHIM
1	1			10	SPACER SHIM
1	1			11	CONNECTOR
4ft	4ft			12	TUBING
2	2			13	ELBOW



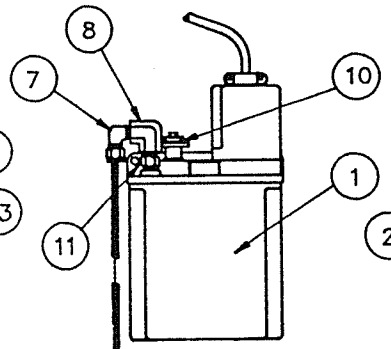


FIG. 1 – ARRG'T FOR 100CA COMPRESSOR

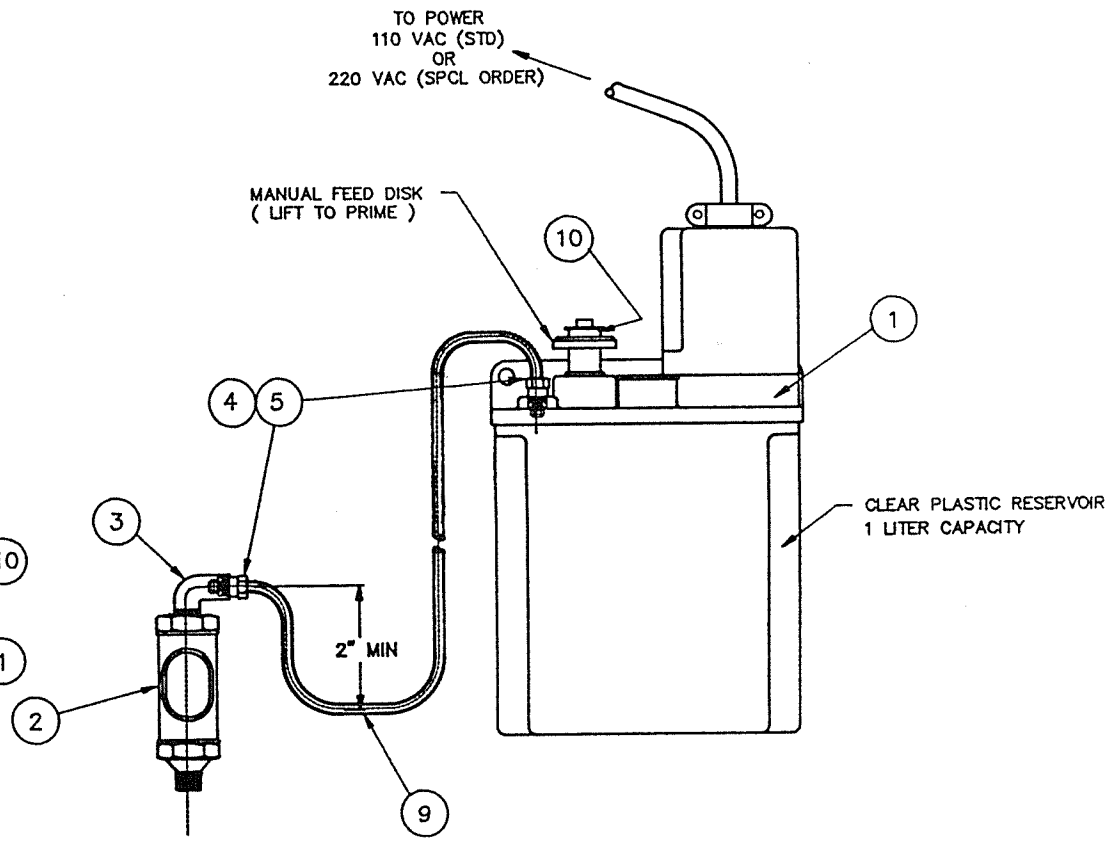


FIG. 2 – ARRG'T FOR 40CA & 60CA COMPRESSOR

DRAWING NOT TO SCALE

SELAS CORPORATION OF AMERICA
DRESHER, PA 19025–1918

TITLE: GENERAL ARRANGEMENT– AUTOMATIC LUBRICATOR

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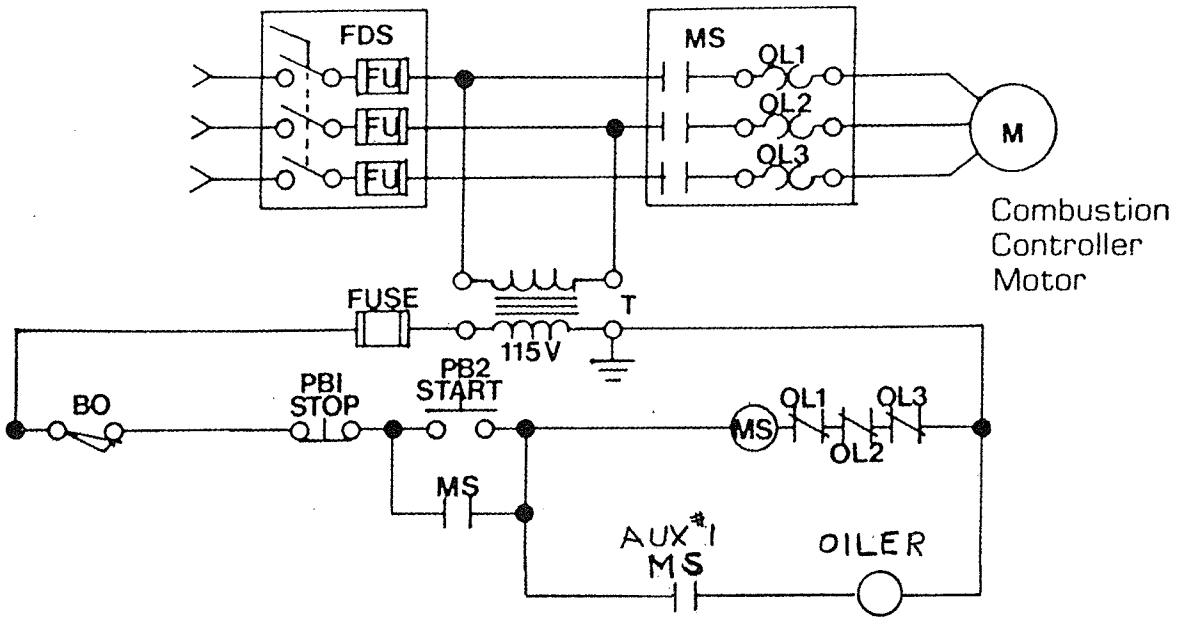

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