



# Lubemaster<sup>®</sup> Pump

## DESCRIPTION

The Trabon Lubemaster is a rugged, reliable pump for use with Trabon Series Flo<sup>®</sup> divider valves to lubricate all types of machinery. It can be driven by an electric motor or a rotating or oscillating machine motion. The output is readily adjustable.

The Lubemaster is designed to pump grease or oil efficiently at a wide range of pump cycle rates and pressures. Anti-friction drive bearings and simplified design improve pump operation and reliability. Its broad output range and interchangeability of drive and mounting selections makes it suitable for a wide range of applications. Optional high-pressure and low-level switches are available to provide protection against excessive system pressure and low reservoir lubricant levels.

## FEATURES

- Adjustable output
- Broad output range
- Simplified construction
- Hardened steel piston in steel sleeve
- Soft-seat outlet check valve
- Modular components
- Driven by an electric motor (gear drive) or by a rotating or oscillating movement (clutch drive)

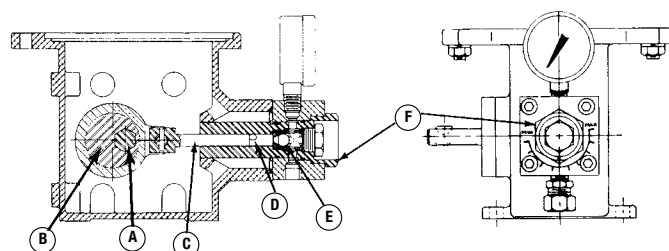
## OPERATION

The Lubemaster piston is operated by an eccentric connected to a drive shaft. This drive shaft can be driven by the gear reducer/electric motor drive, the clutch drive option, or directly coupled to a rotating shaft.

As drive shaft (A) is rotated, eccentric (B), also rotating, moves piston (C) forward in the power stroke, closing off inlet (D). Piston (C) continues to move the lubricant forward, unseating check valve (E) and delivering lubricant to the system. The eccentric (B), as it continues to rotate, moves piston (C) back, reopening the inlet and returning piston (C) to full prime position, ready for the next delivery or power stroke.

Pump output can be varied, from 0.01 to 0.05 in<sup>3</sup> (0.164 to 0.82 cm<sup>3</sup>) per cycle, by changing the position of the pump adjustment nut (F) located below the gauge.

**NOTE:** The adjustment settings as marked should only be used as a reference. After the pump has been adjusted, the actual output should be measured to determine if it satisfies the system requirements.



Lubemaster pump can be driven in clockwise or counterclockwise direction.

Lubemaster Adjustment Chart		
% of Rated Output	Outlet Per Stroke	Adjustment Mark
100	0.050 in <sup>3</sup> (0.820 cm <sup>3</sup> )	Max
90	0.045 in <sup>3</sup> (0.736 cm <sup>3</sup> )	*1st
80	0.040 in <sup>3</sup> (0.656 cm <sup>3</sup> )	*2nd
70	0.035 in <sup>3</sup> (0.574 cm <sup>3</sup> )	*3rd
60	0.030 in <sup>3</sup> (0.492 cm <sup>3</sup> )	*4th
50	0.025 in <sup>3</sup> (0.410 cm <sup>3</sup> )	*5th
40	0.020 in <sup>3</sup> (0.328 cm <sup>3</sup> )	*6th
30	0.015 in <sup>3</sup> (0.246 cm <sup>3</sup> )	*7th
20	0.010 in <sup>3</sup> (0.164 cm <sup>3</sup> )	Min

\*All marks are counting clockwise from max setting.

SPECIFICATIONS	
<b>Pump Data</b>	
<b>Output per Stroke</b>	0.010–0.050 in <sup>3</sup> (0.16399–0.8195 cm <sup>3</sup> )
<b>Cycle Rate</b>	1–175 strokes per/min
<b>Output Range</b>	0.010–0.862 in <sup>3</sup> (0.1619–143.41 cm <sup>3</sup> ) per/min
<b>Max Operating Pressure</b>	5,000 psi (340 bar)
<b>Max Torque @ Rated Max Pressure</b>	27 ft lbs
<b>Motorized Pump</b>	
<b>Gear Ratios</b>	10:1 or 60:1, floor or wall mount
<b>Output Range</b>	0.19–8.62 in <sup>3</sup> (3.114–141.28 cm <sup>3</sup> ) per/min
<b>Clutch Drive Pump</b>	
<b>Cycle Rate</b>	5–150 impulses per/min
<b>Degrees of Throw</b>	12° to 60°
<b>Output Range</b>	0.100–75 in <sup>3</sup> (1.639–1,229.25 cm <sup>3</sup> ) per/hr
<b>Lubricants</b>	Oil or Grease
<b>Reservoirs</b>	
<b>Material</b>	Plastic or Metal
<b>Reservoir Capacities</b>	
<b>Oil</b>	12 pint (5.68 liter) & 20 pint (9.46 liter)
<b>Grease</b>	12 lb (5.44 kg) & 20 lb (9.07 kg)
<b>Operating Temperature</b>	
<b>Reservoirs</b>	
<b>Plastic*</b>	35°F to 135°F (1.66°C to 57.2°C)
<b>Metal*</b>	20°F to 150°F (-6.66°C to 65.55°C)
<b>Oil</b>	20°F to 150°F (-6.66°C to 65.55°C)
<b>Grease</b>	
<b>NLGI #1**</b>	20°F to 150°F (-6.66°C to 65.55°C)
<b>NLGI #2**</b>	40°F to 150°F (4.44°C to 65.55°C)

\*These recommended operating temperatures are based on materials used in construction of the pump and reservoir only

\*\*The grease must be pumpable at the lowest anticipated operating temperature

### MOTORIZED Lubemaster

The rugged, compact electric motorized Lubemaster can be used with Series Flo, or reversing systems, where a continuous or time-controlled lubrication cycle is desired. This totally enclosed pumping unit is suitable for a wide range of applications – mills, mill tables, crushers, presses of all sizes, conveyors, shears, etc. The Lubemaster motor-driven pump can be wall or floor mounted. It is also the replacement for Trabon Model AKA, PME and MP Pumps.

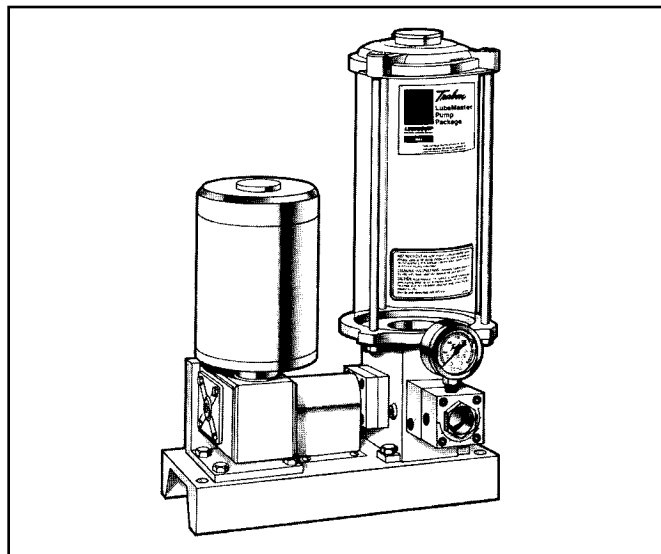
#### Theoretical Calculated Discharges of Lubemaster

Motor Speed	60:1 Gear Ratio		10:1 Gear Ratio	
	Min.	Max.	Min.	Max.
1,140	0.19 (3.114)	0.95 (15.571)	1.14 (18.685)	5.7 (93.423)
1,725	0.28 (4.589)	1.48 (23.438)	1.72 (28.191)	8.62 (141.282)

Discharge in in<sup>3</sup> per/min - cm<sup>3</sup> in parenthesis.

<b>Options</b>	
<b>Low Level (Ordering Code)</b>	
<b>LOA, LOB, LOC, LOH<sup>†</sup></b>	SPDT, 15 amp @ 125, 250, 480 VAC; 1/2 amp @ 125 VDC; 1/4 amp @ 250 VDC
<b>LOE, LOF</b>	SPST, 10 watts @ 120 VAC
<b>High Pressure Blowout Switch</b>	
<b>Oil</b>	Factory set @ 1,450 psi (102 kg/cm <sup>2</sup> ), SPDT, 15 amps @ 115, 250, 480 VAC; 125 VDC, 1/4 amp @ 250 VDC
<b>Grease</b>	Factory set @ 2,350 psi (165 kg/cm <sup>2</sup> ), SPDT, 15 amps @ 115, 250, 480 VAC; 125 VDC, 1/4 amp @ 250 VDC
<b>Standard Blowout Indicator @ the Pump</b>	
<b>Oil</b>	Factory set @ 1,450 psi (10.2 kg/cm <sup>2</sup> ), Yellow Disc
<b>Grease</b>	Factory set @ 2,350 psi (165 kg/cm <sup>2</sup> ), Aluminum Disc
<b>Motors (56 C-Face)</b>	115/230V 1/2 hp single phase 60 Hz 1,725 RPM, T.E. Full load running current 9.0 AMPS Inrush at 115 Volts 49 AMPS; 230 Volts 24.5 AMPS  230/460V 1/2 hp three phase 60 Hz 1,725 RPM, T.E. Full load running current 1.03 AMPS Inrush at 230 Volts 12.2 AMPS; 460 Volts 6.1 AMPS  115/230V 1/2 hp single phase 60 Hz 1,140 RPM, T.E. Full load running current 9.0 AMPS Inrush at 115 Volts 49 AMPS; 230 Volts 24.5 AMPS  230/460V 1/2 hp three phase 60 Hz 1,140 RPM, T.E. Full load running current 1.03 AMPS Inrush at 230 Volts 12.2 AMPS; 460 Volts 6.1 AMPS

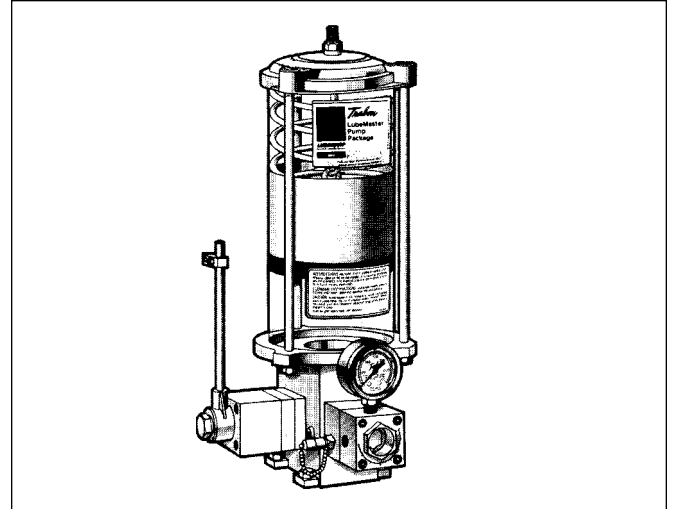
<sup>†</sup>LOH Low Level Option only Exp Proof: Class I, Group C and D; Class II, Group E, F and G



**CLUTCH DRIVE Lubemaster**

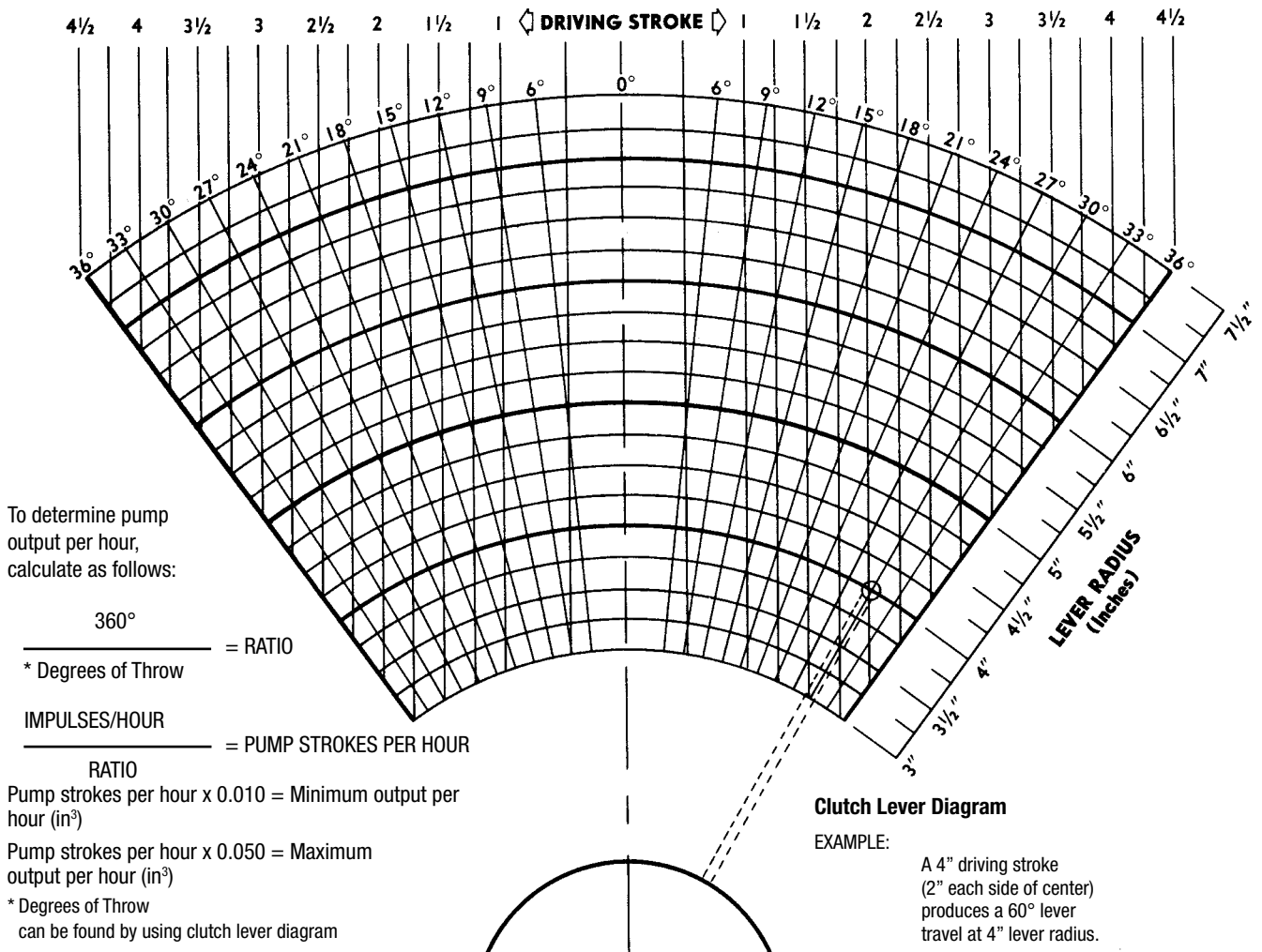
The TRABON Clutch Drive Lubemaster is a rugged, reliable pump designed to be driven mechanically by the machine being lubricated. The Lubemaster can be used with Series Progressive, Reversible or Bi-Flo systems.

This pump is ideal for use on presses, Banbury mixers, rubber mills, upsetters, heading machines, crane trolleys, etc., where ROTATING or OSCILLATING MOTION is available and continuous lubrication is desired. It is the replacement for TRABON MODEL 3400 style pumps.



(Ref.) Min./Max. Pump Output Chart

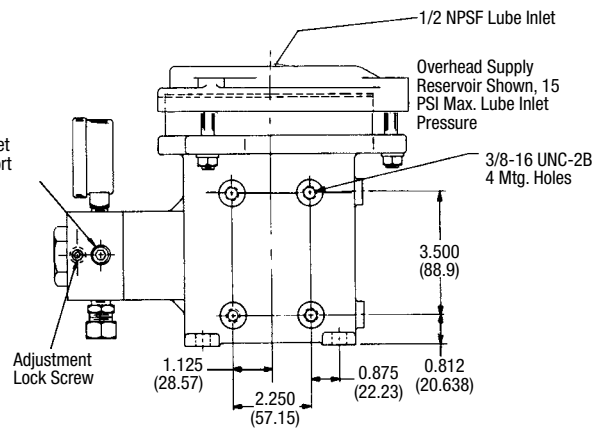
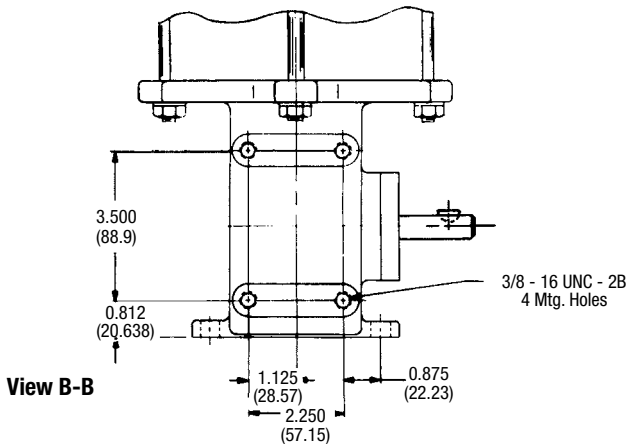
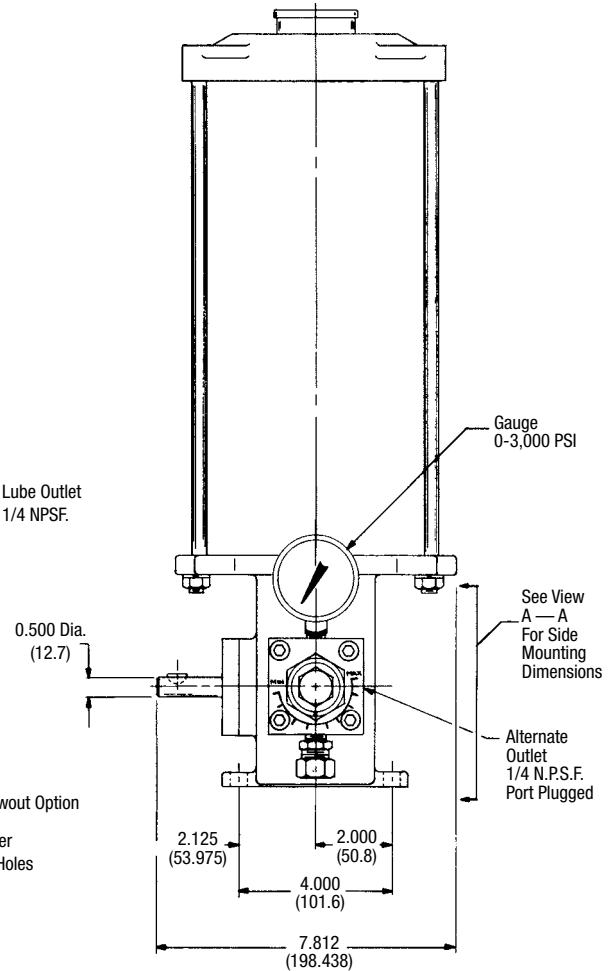
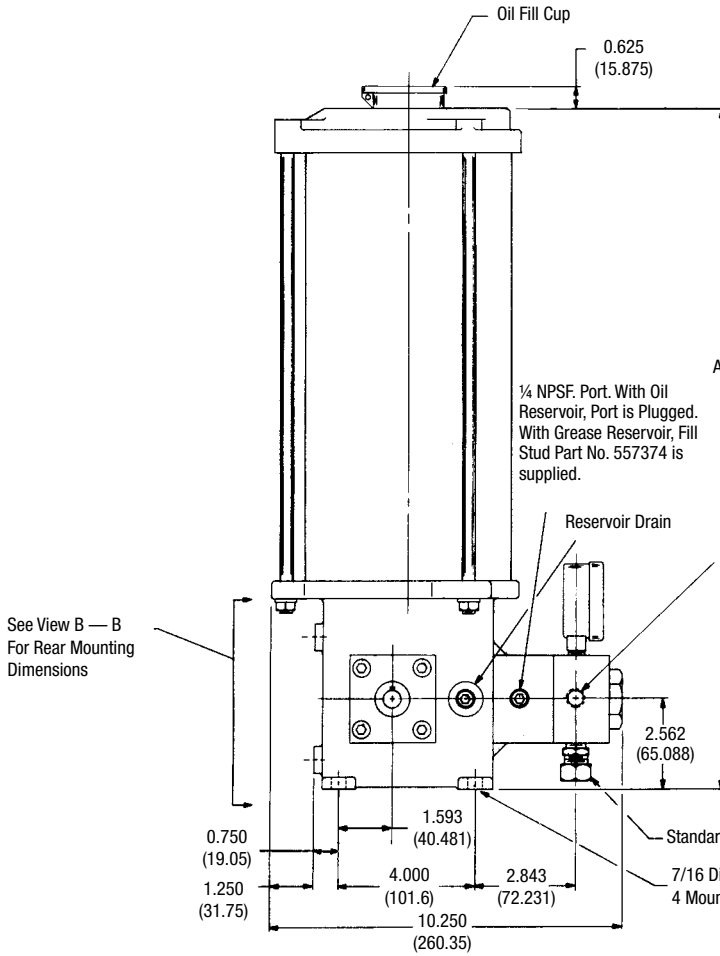
Degrees of Throw	Effective Ratio	Impulses Per Minute	Pump Strokes Per Hour	Output Per Hour	
				Min.	Max.
12°	30:1	5 Min.	10	0.100 in <sup>3</sup> (1.639 cm <sup>3</sup> )	0.500 in <sup>3</sup> (8.195 cm <sup>3</sup> )
60°	6:1	150 Max.	1,500	15.00 in <sup>3</sup> (245.85 cm <sup>3</sup> )	75.00 in <sup>3</sup> (1,229.25 cm <sup>3</sup> )



OUTLINE AND MOUNTING DIMENSIONS

Lubemaster and Reservoir

Pump can be driven in a counterclockwise or clockwise direction.



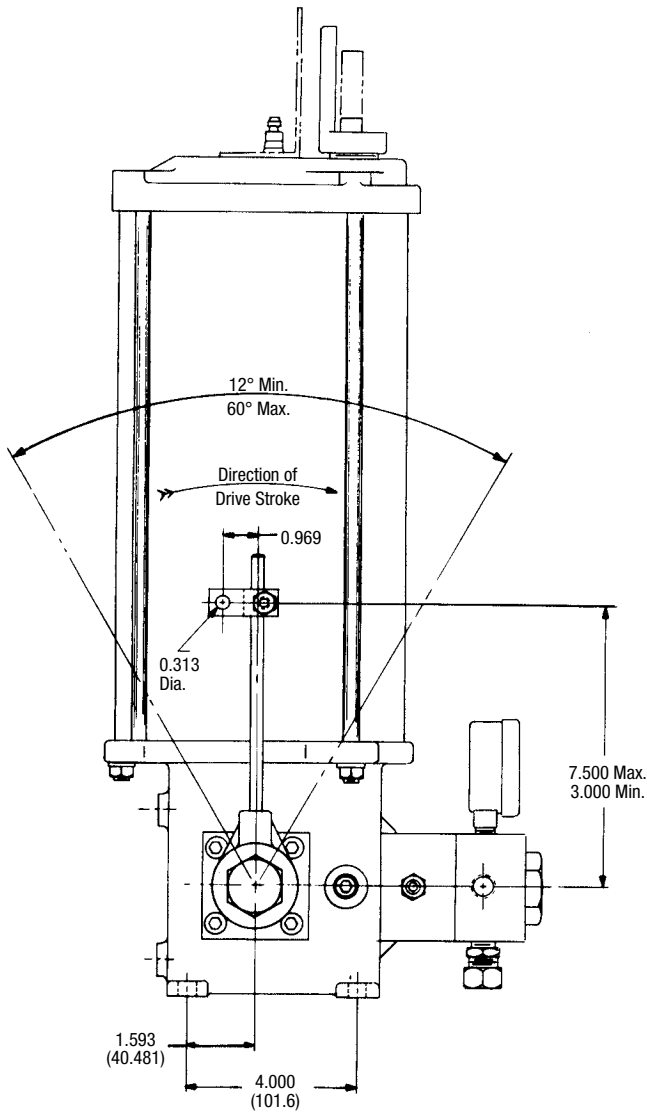
RESERVOIR SIZE	A-DIMENSION
12 PINT OIL	19.56 (496.9)
12 LB. GREASE	19.56 (496.9)
20 PINT OIL	26.56 (674.7)
20 LB. GREASE	26.56 (674.7)
OVER HEAD SUPPLY	7.66 (194.5)

View A-A

NOTE: Millimeter Dimensions Appear in Parentheses

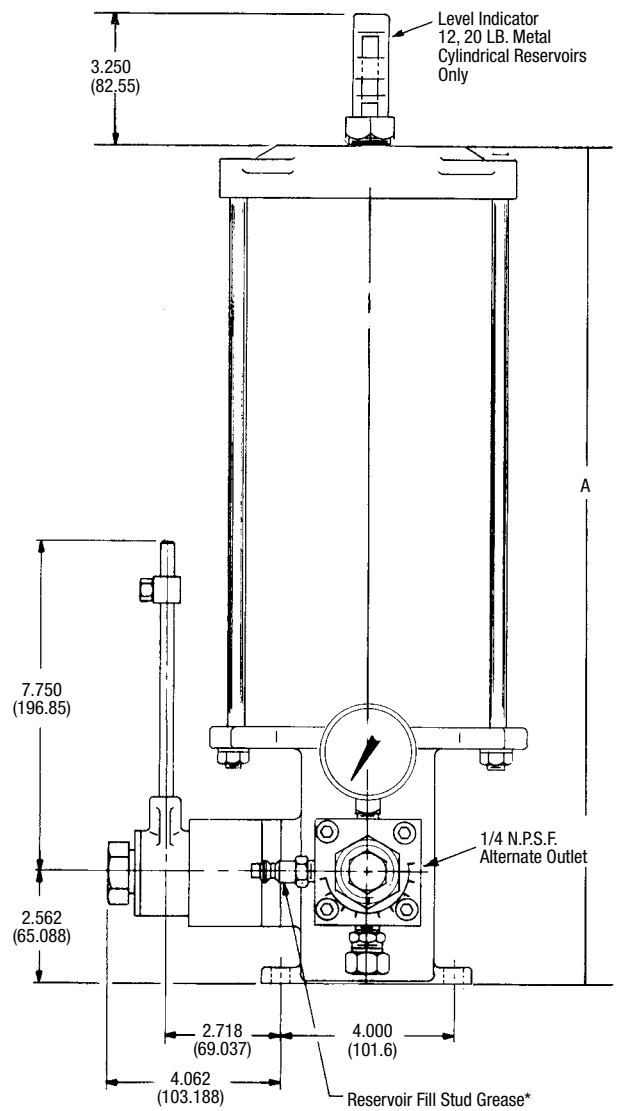
OUTLINE AND MOUNTING DIMENSIONS / continued

Pre-Packaged Clutch Drive Lubemaster



NOTE:  
Millimeter Dimensions Appear in Parentheses

RESERVOIR SIZE	A-DIMENSION
12 PINT OIL	19.562 (496.875)
12 LB. GREASE	19.562 (496.875)
20 PINT OIL	26.562 (674.675)
20 LB. GREASE	26.562 (674.675)

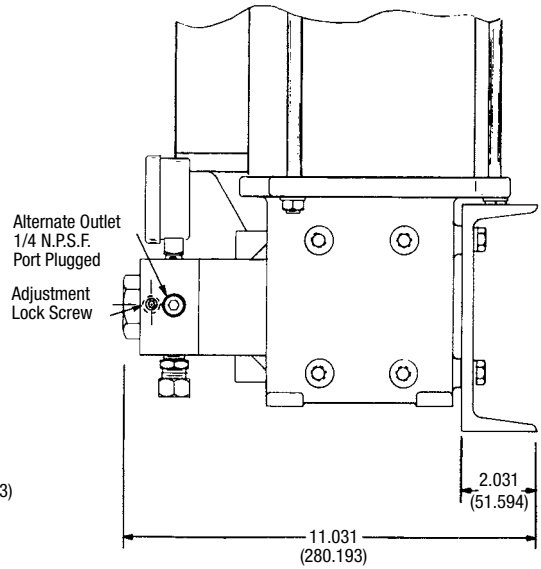
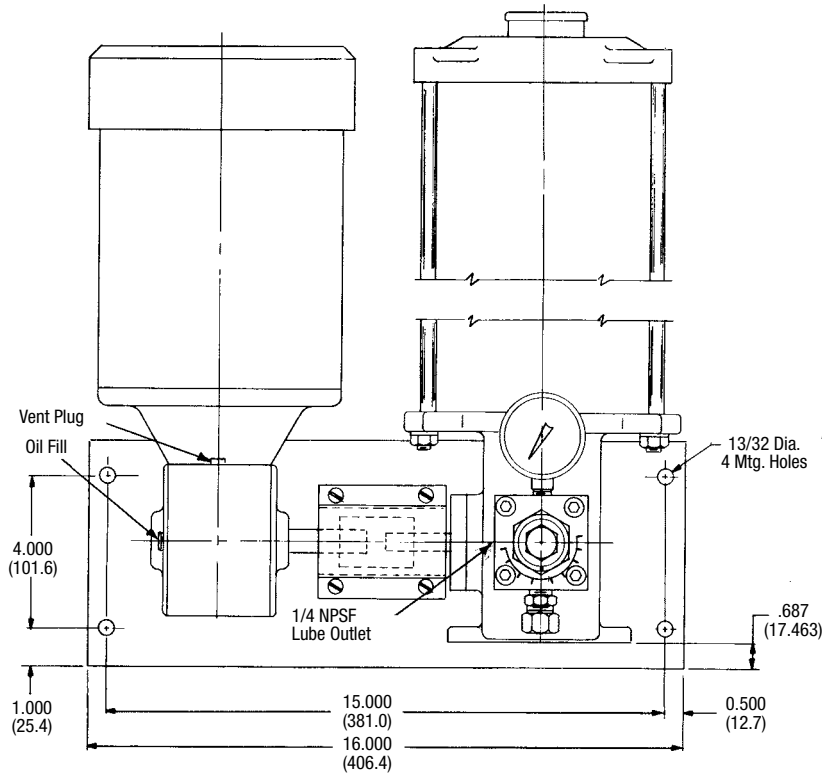


\*Mating coupler 558906 order separate.

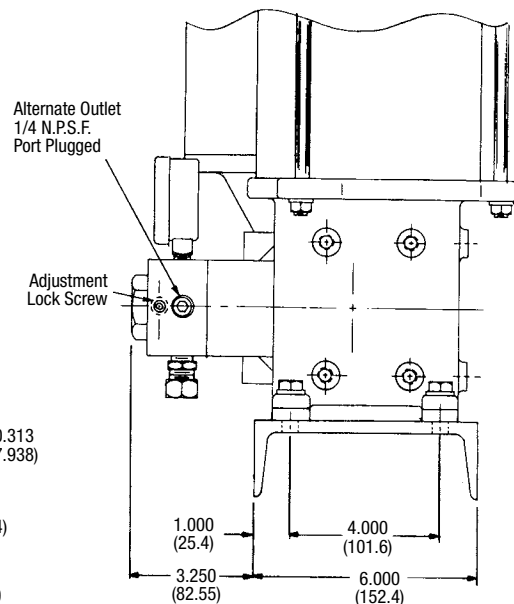
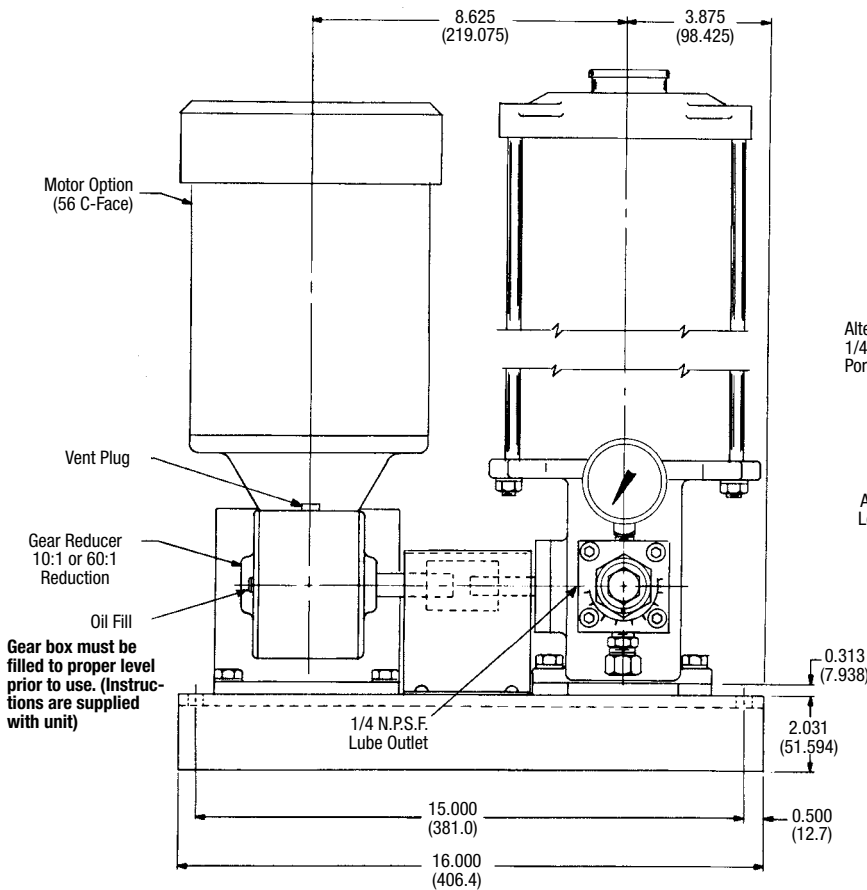
(See Lubemaster and Reservoir Outline and Mounting Dimensions on previous page for alternate Mounting Locations.)

OUTLINE AND MOUNTING DIMENSIONS / continued

Motorized Lubemaster



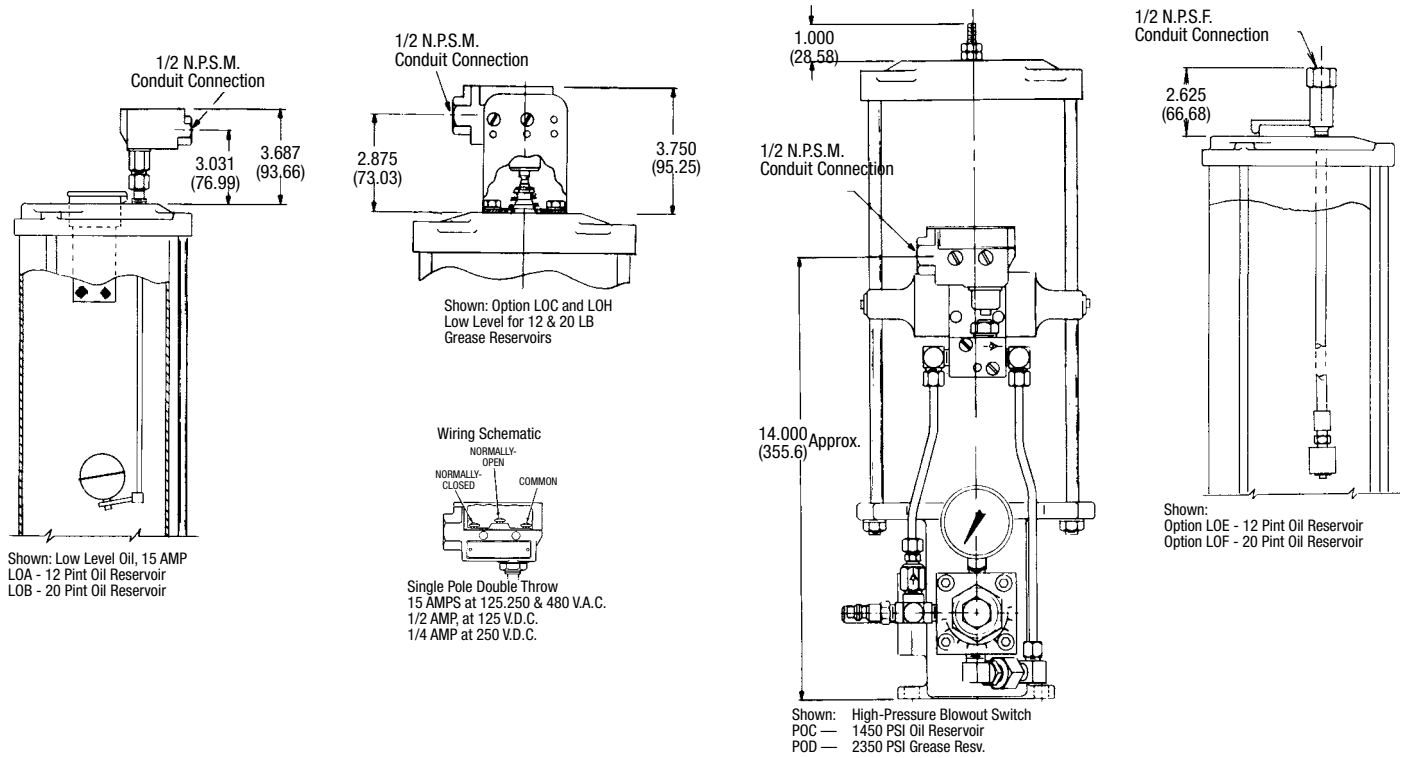
**NOTE:**  
Millimeter Dimensions Appear in Parentheses  
Below the Dimensional Figures.



OUTLINE AND MOUNTING DIMENSIONS / continued

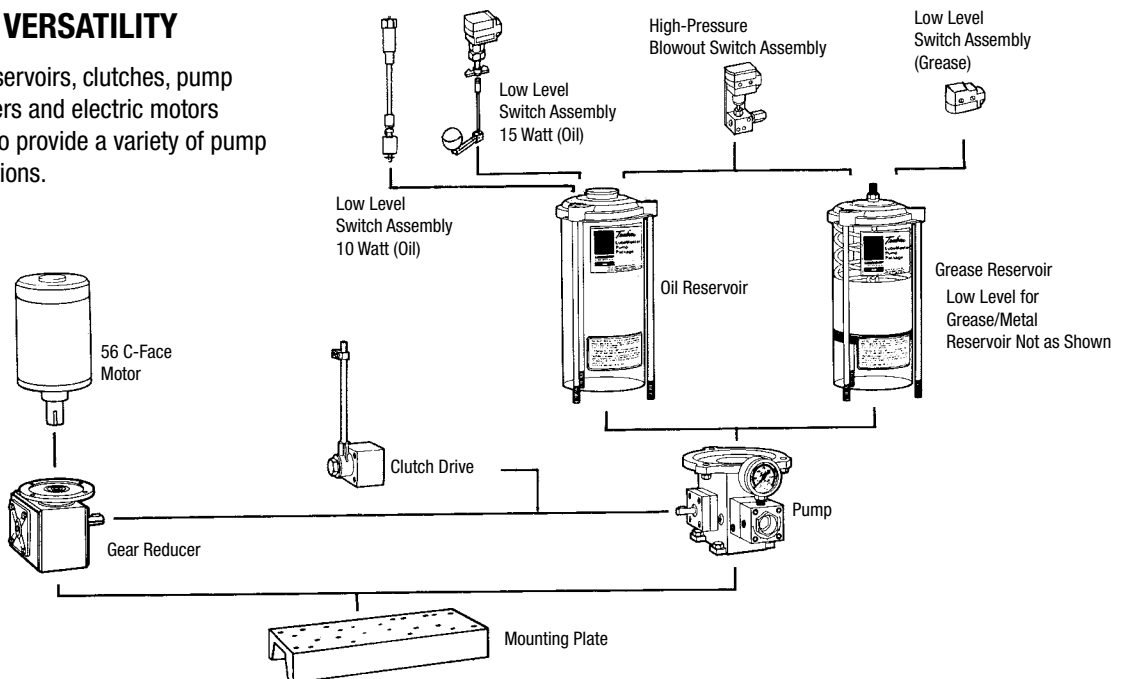
Lubemaster Options

NOTE: Millimeter dimensions appear in parentheses.



LUBEMASTER VERSATILITY

Interchangeable reservoirs, clutches, pump bodies, gear reducers and electric motors may be combined to provide a variety of pump assemblies and options.



### ORDERING INFORMATION

#### LubeMaster Ordering Menu Code

Use the Smart Numbering System to order a complete assembly!

The six-digit Smart Numbering System can help you order quickly and accurately. Simply follow the diagram for the configuration you want and build your order.

Alternatively, use the part numbers at right to order individual components and assemble them in the field.

Code	Former Code	Description	Part Number	Old Part Number	LM	Reservoir	Drive	Motor	Low Level
<b>Product Identifier</b>						X	X	X	X
LM	LUB	LM = LubeMaster	563380	521-700-000					
Note: When ordering Lubemaster bare pump 563380 for use with a grease reservoir, a fill stud is required (p/n 557374 [506-189-001]). Fill stud 557374 is compatible with mating coupler 558906 (506-322-000). Order separately.									
<b>Reservoir Options</b>									
1	OPA	12 pt plastic oil reservoir	562892	185-100-380					
2	OPB	20 pt plastic oil reservoir	562893	185-100-390					
3	OMA	12 pt metal oil reservoir	562894	185-100-400					
4	OMB	20 pt metal oil reservoir	562895	185-100-410					
5	GPA	12 lb plastic grease reservoir	562896	185-100-540					
6	GPB	20 lb plastic grease reservoir	562897	185-100-550					
7	GMA	12 lb metal grease reservoir	562898	185-100-560					
8	GMB	20 lb metal grease reservoir	562899	185-100-570					
9	OHS	Power prime/Overhead Supply	562908	185-100-930					
<b>Drive Options</b>									
1	DOO	No drive	N/A						
2	DOA	Clutch drive with ratchet arm	563383	521-700-300					
3	DOB	10:1 reduction, floor-mounting base	563388	521-700-550					
4	DOC	10:1 reduction, wall-mounting base	563386	521-700-520					
5	DOD	60:1 reduction, floor-mounting base	563389	521-700-560					
6	DOE	60:1 reduction, wall-mounting base	563387	521-700-530					
Note: Drive Options 3, 4, 5 and 6 each contain all required mounting hardware (mounting plate, coupler, coupler guard, nuts, bolts and washers).									
<b>Motor Options</b>									
1	MOO	No motor	N/A						
2	MOA	1/2 HP, 115/230 VAC, single phase, 60 Hz, 1,725 rpm	557271	492-380-040					
3	MOB	1/2 HP, 230/460 VAC, 3-phase, 60 Hz, 1,725 rpm	557270	492-380-030					
4	MOC	1/2 HP, 115/230 VAC, single phase, 60 Hz, 1,140 rpm	557272	492-380-240					
5	MOD	1/2 HP, 230/460 VAC, 3-phase, 60 Hz, 1,140 rpm	557273	492-380-250					
<b>Low Level Options</b>									
1	LOO	No level switch	N/A						
2	LOA	12 pt oil, SPDT, 15 amps	563316	521-001-030					
3	LOB	20 pt oil, SPDT, 15 amps	563317	521-001-040					
4	LOC	12 and 20 lb grease, SPDT	563322	521-001-110					
5	LOE	12 pt oil, SPST, 10 watts	563015	456-010-172					
6	LOF	20 pt oil, SPST, 10 watts	563016	456-010-173					
N/A*	N/A	High/low level switch kit (for METAL grease reservoirs only)	564318	456-010-168					
N/A*	LOH	Explosion-proof LL switch for grease reservoirs. (Class I, Group C and D; Class II, Group E, F and G)	564377	521-701-400					
*564318 and 564377 are sold separately and field-installed. Choose option "1" and then order either part separately.									
<b>Pressure Gauge (included)</b>									
N/A	G1	No gauge	N/A	N/A					
N/A	G3	Liquid-filled 0-3,000 psi gauge	557713	526-200-300					
Note: 557713 is included with every LMxxxx assembly, but not with the bare pump.									
<b>Pressure Indicators (sold separately, but required for safety)</b>									
N/A	POA	Standard Blowout, 1,450 psi (100 bar), Oil	563179	509-206-100					
N/A	POB	Standard Blowout, 2,350 psi (162 bar) Grease	563184	509-206-160					
N/A	POC	High-Pressure Blowout Switch, 1,450 psi (100 bar), Oil	563384	521-700-390					
N/A	POD	High-Pressure Blowout Switch, 2,350 psi (162 bar), Grease	563385	521-700-400					

Note: Options POC and POD require approximately 3 feet of 1/4 in OD copper tubing, which must be obtained from a 3rd party source.



**ORDERING INFORMATION**

**Replacement Parts Kits**

**Pump repair kits**

At the heart of all current Lubemaster pump packages is pump p/n 563380 (521-700-000). There are three repair kits for the pump, and some of the parts overlap because each kit includes some of the same seals. To completely rebuild the pump, all three kits are required, but then some extra parts will be left over because of this overlap.

Description	Kit Part Number	Old Part Number
<b>Driveshaft Kit:</b> Includes the driveshaft, cam, bearings, and related seals & hardware.	563915	560-001-690
<b>Seal Kit:</b> Includes seals and small hardware.	563921	560-001-770
<b>Standard Output Manifold Kit:</b> Includes pump piston & cylinder, output manifold block, and related seals & hardware.	563916	560-001-700

**Reservoir Repair Kits**

Plastic tube with u-cup seal for p/n 562892 & 562896	562902	185-100-730
Plastic tube with u-cup seal for p/n 562893 & 562897	562903	185-100-740
Metal tube with u-cup seal for p/n 562894 & 562898	564270	185-101-188
Metal tube with u-cup seal for p/n 562895 & 562899	564271	185-101-189

**Blowout Disc Kits**

Package of 6 Blowout Discs, Yellow, 1450 psi, Oil	563962	560-900-270
Package of 6 Blowout Discs, Aluminum, 2350 psi, Grease	563965	560-900-300

Refer to Bulletin L42715 for operating and service instructions.

**Contact us today!**

To receive product information or talk with a Graco representative, call 800-533-9655 or visit us online at [www.graco.com](http://www.graco.com).

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