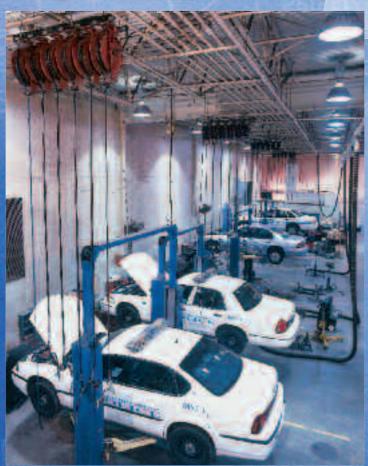
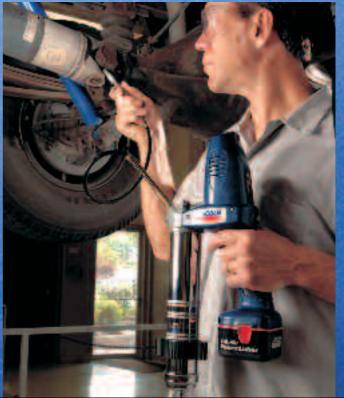


# GENERAL LUBRICATION EQUIPMENT & ACCESSORIES









# People, Capabilities and Systems to Save Money and Increase Productivity



#### **Industry Leader**

Continually satisfying our customers with the world's best lubrication equipment and pumping systems has made Lincoln the largest and most successful company in our field. For more than 90 years, companies have relied on our technical and quality leadership; our world-class manufacturing and customer service, and our vast network of distributors and support facilities.

#### Research and Development

In order to provide the best worldwide and regional application solutions, Lincoln develops new products and systems at research and development facilities in the United States, Germany and India.

#### **Providing Solutions**

Industrial customers in large processing plants, automotive manufacturing, pulp and paper mills, food and beverage and other manufacturing facilities can depend on solutions from Lincoln. For the toughest mobile applications, on the road or in the field, Lincoln protects heavy equipment used in mining, construction, agriculture and over-the-road trucking. In addition, Lincoln offers the best lubrication equipment to meet the needs of au-

#### **Complete Product Line**

tomotive service professionals.

Lincoln supplies automated lubrication systems, pumps and pump stations and top quality lubrication equipment and accessories. Our quality systems in the United States and Germany are ISO 9001 registered and our fittings business is QS 9000 registered.

#### **Worldwide Support**

With five technical support centers on three continents, and a network of distributors supported by regional sales and service offices, our customers can always draw on our worldwide resources.













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### **Designed for Exceptional Performance, Long Service Life, Low Maintenance Cost**

Lincoln's new PMV family of grease and oil pumps represents 100 years of high-quality engineering, technology and manufacturing. The unique, modular design of these pumps includes precision-machined parts made with durable materials which allows for a longer pump life.

Based on Lincoln's proven PowerMaster III air logic pump technology, PMV is a simple design with few moving parts. This translates to exceptional performance, long service life and low maintenance cost.

#### PMV Features and Benefits

#### Air Valve Assembly

- Proven design based on the PowerMaster III air logic pump technology
  - More than 25 years of precision pump engineering ensures dependable, quiet performance
- Modular, fastened by four bolts
  - Quick and easy to maintain throughout the service life of the pump
- Precision machined and made from aircraft aluminum
  - Precise, durable and less susceptible to temperature than plastic spools
- Runs without external lubrication
- Reduces cost of ownership
- No springs, rods, levers or slides - Fewer parts to wear out, increasing durability, decreasing repair cost
- Designed to work in a contaminated air supply
  - Airline filters that have not been drained will not affect the air motor's performance

#### **Air Cylinder**

- One-piece cylinder casting contains all ports and passages
  - Simplifies repairs
- One-piece piston
  - No connection to any rods, spools, springs or poppets reduces premature mechanical failures, simplifies repairs
- One o-ring on the piston
  - Reduces leak paths, improves durability



#### Pump Tube

- One-piece, machined gland nut - Easy to maintain over the life of the pump
- Divorced pump tube and air motor seal
  - Air motor seal is a separate o-ring which reduces the chance of contamination in the motor

#### **Pump Seals**

- Made from durable polyurethane
  - Compatible with a wide range of natural and synthetic lubricants

#### Pump Rod

- Hard-chrome plated
- Allows for superior sealing which extends the life of the rod



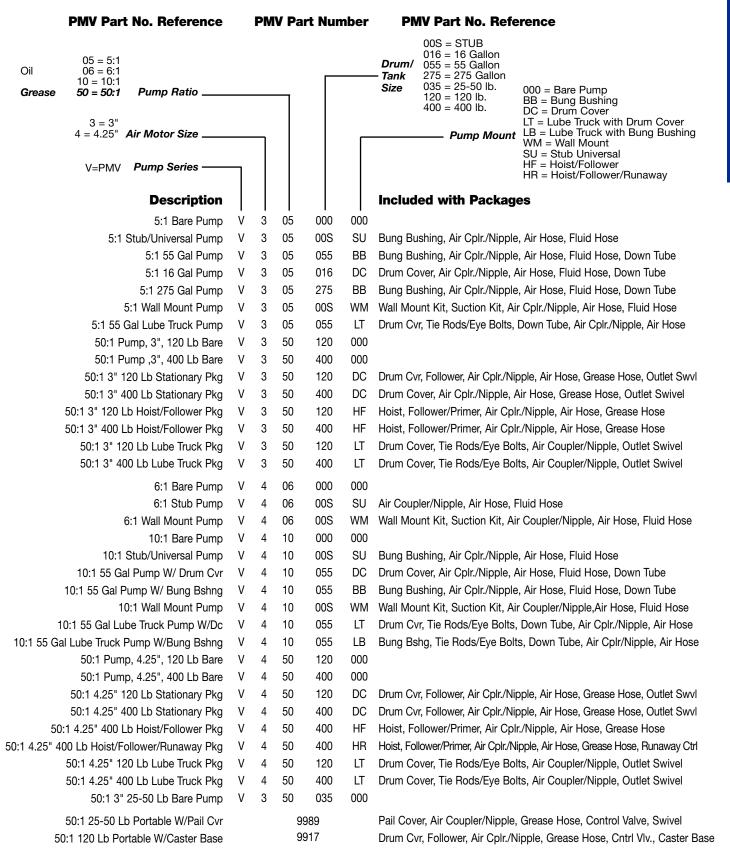






# **Pumps PMV Pump Naming Table**





# **Pumps**

### PMV System Examples - Maximum Pumping Distances





V305000000 5:1 Bare Pump

All systems based on 100 PSI air input and 70°F (21°C)

# Oil Pumps With 10w 30 Motor Oil

**PMV 3" 5:1 Pumps** 

<b>-</b>	
Reels with 50' x 1/2" ID hose	5/8" OD x 0.049" wall tubing -
(Model No. 94354)	up to 50'
Electronic Meters	3/4" OD x 0.049" wall tubing -
(Model Nos. 905, 953, 954)	up to 150'
Tive since the property of the	

Two simultaneous dispenses at 1 gpm each

PMV 4.25" 10:1 Pumps

Reels with 50' x 1/2" ID hose (Model No. 94354)	5/8" OD x 0.049" wall tubing – up to 300'
Electronic Meters	3/4" OD x 0.049" wall tubing -
(Model Nos. 905, 953, 954)	up to 1000'

Two simultaneous dispenses at 1 gpm each

PMV 4.25" 6:1 Pumps

Reels with 50' x 1/2" ID hose (Model No. 94354)	1.25" Sch. 40 Seamless Pipe – up to 150'
Electronic Meters	1.5" Sch. 40 Seamless Pipe -
(Model Nos. 905, 953, 954)	up to 250'

Four simultaneous dispenses at 1 gpm each

6:1 pumps are for stub or wall mount only. Not for use with bung bushings.



V410000000 10:1 Bare Pump

### Grease Pumps With NLGI #1 Grease **PMV 3" 50:1 Pumps**

Reels with 50' x 3/8" hose (Model No. 94553)	5/8" OD x 0.083" wall tubing -
Control Valve & Swivel (Model Nos. 3050, 81729)	up to 500'
Two simultaneous dispense at 0.125 lbs/min each	

# PMV 4.25" 50:1 Pumps

Reels with 50' x 3/8" hose	3/4" OD x 0.109" wall tubing -	
(Model No. 94553)	up to 500'	
Control Valve & Swivel (Model Nos. 3050, 81729)	1" Sch 160 pipe - up to 2000'	

Four simultaneous dispense at 0.125 lbs/min each

- 1. Values are for typical systems
- 2. Some of the factors that affect actual system's performance
  - a. Temperature
  - b. Viscosity
  - c. Number and type of fitting (elbows, tees, reducers) and connecting hoses
  - d. Air supply pressure, scfm, line size
- 3. Lincoln can provide system design/performance parameters for any specific application. Contact your representative.



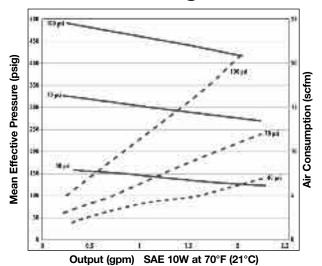
V406000000 6:1 Bare Pump

For specific installations, please refer to **Lincoln's Vehicle Service Planning Manual** 



# 5:1 Oil Pump Specifications and Performance Testing

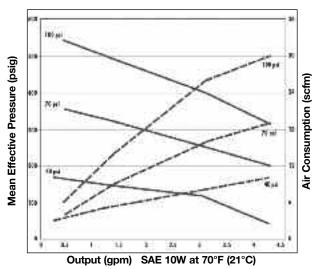
Pumping Ratio	5:1
Air Pressure	40 - 150 psi (2.7 - 10.3 bar)
Max. Output Pressure	750 psi (51 bar)
Air Inlet	% NPTF
Material Outlet	½ NPTF
Material Inlet	1½NPTF
Airmotor Bore Dia.	3 in. (76.2 mm)
Stroke	3¼ in. (82.5 mm)
Output Per Cycle	6.7 cu. in. (110 cc)
Cycles/Gal (Liter)	34.5 (9.1)
Wetted Parts	Carbon Steel, Brass, Zinc,
	Polyurethane, Nitrile
Free Flow	7 gpm (26.5 lpm)
Overall Length (Stub)	17%" (442 mm)



Decibels less than 85 at all normal operating conditions

# 6:1 Oil Pump Specifications and Performance Testing

Pumping Ratio	6:1
Air Pressure	40 - 150 psi (2.7 - 10.3 bar)
Max. Output Pressure	900 psi (62 bar)
Air Inlet	% NPTF
Material Outlet	½ NPTF
Material Inlet	1½ NPTF
Airmotor Bore Dia.	4¼ in. (108 mm)
Stroke	3¼ in. (82.5 mm)
Output Per Cycle	11.9 cu. in. (195 cc)
Cycles/Gal (Liter)	19.4 (5.1)
Wetted Parts	Carbon Steel, Brass, Zinc,
	Polyurethane, Nitrile
Free Flow	7 gpm (26.5 lpm)
Overall Length	18%" (480 mm)
·	<u> </u>

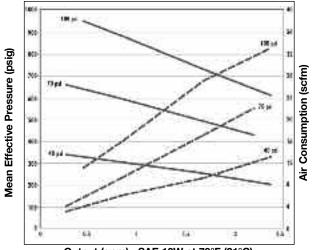


Decibels less than 85 at all normal operating conditions

# 10:1 Oil Pump Specifications and Performance Testing

Pumping Ratio	10:1
Air Pressure	40 - 150 psi (2.7 - 10.3 bar)
Max. Output Pressure	1500 psi (103 bar)
Air Inlet	% NPTF
Material Outlet	½ NPTF
Material Inlet	1½ NPTF
Airmotor Bore Dia.	4¼ in. (108 mm)
Stroke	3¼ in. (82.5 mm)
Output Per Cycle	7.2 cu. in. (118 cc)
Cycles/Gal (Liter)	32.1 (8.5)
Wetted Parts	Carbon Steel, Brass, Zinc,
	Polyurethane, Nitrile
Free Flow	5 gpm (18.4 lpm)
Overall Length (Stub)	17%s" (443 mm)

Decibels less than 85 at all normal operating conditions



Output (gpm) SAE 10W at 70°F (21°C)







Package Includes:

- Bare Pump Model No. V305000000
- Stub/Universal Kit Model No. K00000SSU
  - Bung Bushing Model No. 85824
  - Air Coupler/Nipple Model No. 5874/5875
  - 3/4" x 2' Air Hose Model No. 72024A
  - 1/8" x 21 Fluid Hose Model No. 73024
  - 90° Swivel Model No. 241584

#### V305055BB 5:1 55-gallon Pump

Package Includes:

- Bare Pump Model No. V305000000
- 55-gal. Bung Mount Kit Model No. K000055BB
  - Bung Bushing Model No. 85824
  - Air Coupler/Nipple Model No. 5874/5875
  - 3/8" x 5' Air Hose Model No. 273299
  - ½" x 5' Fluid Hose Model No. 73060
  - Down Tube Model No. 85807
  - 90° Swivel Model No. 241584



Package Includes:

- Bare Pump Model No. V305000000
- 16-Gal. Drum Cover Kit Model No. K000016DC
  - Drum Cover Model No. 85826
  - Suction Tube Model No. 85806
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 5' Air Hose Model No. 273299
  - ½" x 5' Fluid Hose Model No. 73060



V305016DC

### V305275BB 5:1 275-gallon Pump

- Bare Pump Model No. V305000000
- 275-Gal. Pump Mount Kit Model No. K000275BB
  - Bung Bushing Model No. 85824
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 5' Air Hose Model No. 273299
  - ½" x 5' Fluid Hose Model No. 73060
  - Universal Suction Tube Model No. 85949





# **Pumps**

# PMV — 3" Oil Pumps





### V30500SWM 5:1 Wall Mount Pump

Package Includes:

- Bare Pump Model No. V305000000
- Remote Suction Kit Model No. 84945
- Wall Mount Kit Model No. 275398
  - Air Coupler/Nipple Model No. 5874/5875
  - 3/8" x 5' Air Hose Model No. 273299
  - ½" x 5' Fluid Hose Model No. 73060
  - 90° Swivel Model No. 241584
  - Wall Mount Assembly Model No. 275413



### V305055LT 5:1 55-Gallon Lube Truck Pump

- Bare Pump Model No. V305000000
- Drum Cover and Hose Kit Model No. K000055LT
  - 400 lb. Drum Cover with Tie Rods Model No. 83115
  - Down Tube Model No. 85807
  - Lifting Eye Model No. 275415
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 5' Air Hose Model No. 273299





#### Model V40600SSU 6:1 Stub Pump

Package Includes:

- Bare Pump Model No.V406000000
- 6:1 Stub Kit Model No. K40600SSU
  - Air Coupler/Nipple Model No. 5874/5875
  - 3/8" x 2' Air Hose Model No. 72024A
  - ½" x 2' Fluid Hose Model No. 73024
  - 90° Swivel Model No. 241584

6:1 PUMPS FOR STUB OR WALL MOUNT ONLY. **NOT FOR USE** WITH BUNG **BUSHINGS.** 



- Bare Pump Model No. V406000000
- Remote Suction Kit Model No. 84945
- Wall Mount Kit Model No. 275398
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 5' Air Hose Model No. 273299
  - 1/2" x 5' Fluid Hose Model No. 73060
  - 90° Swivel Model No. 241584
  - Wall Mount Assy Model No. 275413



#### V41000SSU 10:1 Stub/Universal Pump

Package Includes:

- Bare Pump Model No. V410000000
- Stub/Universal Kit Model No. K00000SSU
  - Bung Bushing Model No. 85824
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 2' Air Hose Model No. 72024A
  - 1/2" x 2' Fluid Hose Model No. 73024
  - 90° Swivel Model No. 241584



### V410055DC 10:1 55-gallon Pump with Drum Cover

- Bare Pump Model No. V410000000
- 55-gal. Drum Cover Kit Model No. K000055DC
  - Drum Cover Model No. 85827
  - Suction Tube Model No. 85807
  - 90° Swivel Model No. 241584
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 5' Air Hose Model No. 273299
  - ½" x 5' Fluid Hose Model No. 73060



# LINCOLN



### V410055BB 10:1 55-gallon Pump with Bung Bushing

Package Includes:

- Bare Pump Model No. V410000000
- 55-gal. Bung Mount Kit Model No. K000055BB
  - Air Coupler/Nipple Model No. 5874/5875
  - 3/8" x 5' Air Hose Model No. 273299
- ½" x 5' Fluid Hose Model No. 73060
- Down Tube Model No. 85807
- 90° Swivel Model No. 241584

#### V41000SWM 10:1 Wall Mount Pump

Package Includes:

- Bare Pump Model No. V410000000
- Remote Suction Kit Model No. 84945
- Wall Mount Kit Model No. 275398
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 5' Air Hose Model No. 273299
  - ½" x 5' Fluid Hose Model No. 73060
  - 90° Swivel Model No. 241584
  - Wall Mount Assy Model No. 275413



# V410055LB 10:1 55-gallon Lube Truck Pump with Bung Bushing

Package Includes:

- Bare Pump Model No. V410000000
- 55-gal. Lube Truck Kit with Bung Bushing Model No. K000055LB
- Bung Bushing Model No. 85824
- Tie Rod Kit Model No. 83131
- Suction Tube Model No. 85807
- Air Coupler/Nipple Model No. 5874/5875
- 3/4" x 5' Air Hose Model No. 273299



V410055LB

# V410055LT 10:1 55-gallon Lube Truck Pump with Drum Cover

- Bare Pump Model No. V410000000
- Drum Cover and Hose Kit Model No. K000055LT
  - 400 lb. Drum Cover with Tie Rods Model No. 83115
  - Down Tube Model No. 85807
  - Lifting Eye Model No. 275416
  - Air Coupler/Nipple Model No. 5874/5875
  - %" x 5' Air Hose Model No. 273299



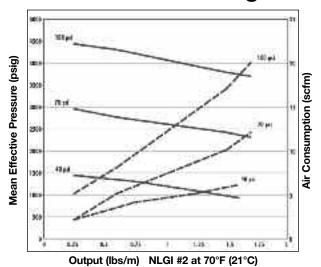
V410055LT





# 50:1 3" Grease Pump Specifications / Performance Testing

Pumping Ratio	50:1
Air Pressure	40 - 150 psi (2.7 - 10.3 bar)
Max. Output Pressure	7500 psi (517 bar)
Air Inlet	% NPTF
Material Outlet	1/4 NPTF
Airmotor Bore Dia.	3 in. (76.2 mm)
Stroke	3¼ in. (82.5 mm)
Output Per Cycle	0.78 cu. in. (12.8 cc)
Wetted Parts	Carbon Steel, Brass, Zinc,
	Polyurethane, Nitrile
Free Flow	168 in <sup>3</sup> /min. (2753 cc/min)
Overall Length	
35 lb.	27%" (708 mm)
120 lb. 36%" (924 mm)	
400 lb.	42 <sup>7</sup> / <sub>8</sub> " (1089 mm)

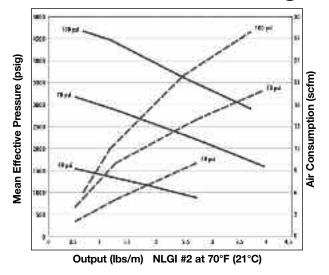


Decibels less than 85 at all normal operating conditions

# 50:1 4.25" Grease Pump Specifications / Performance Testing

Pumping Ratio	50:1
Air Pressure	40 - 150 psi (2.7 - 10.3 bar)
Max. Output Pressure	7500 psi (517 bar)
Air Inlet	% NPTF
Material Outlet	1/4 NPTF
Airmotor Bore Dia.	4¼ in. (108 mm)
Stroke	3¼ in. (82.5 mm)
Output Per Cycle	1.47 cu. in. (24.1 cc)
Wetted Parts	Carbon Steel, Brass, Zinc,
	Polyurethane, Nitrile
Free Flow	220 in <sup>3</sup> /min. (3605 cc/min)
Overall Length	
120 lb.	361/16" (926 mm)
400 lb.	42 <sup>15</sup> // <sub>6</sub> " (1091 mm)

Decibels less than 85 at all normal operating conditions









V350120000 50:1 - 3" 120-lb. Bare Pump

V350400000 50:1 - 3" 400-lb. Bare Pump

#### V350400DC 50:1 - 3" 400-lb. Stationary Package

Package Includes:

- Bare Pump Model No. V350400000
- 400-lb Drum Cover Kit Model No. K050400DC
  - 400-lb. Drum Cover Model No. 85827
  - Air Coupler/Nipple Model No. 5874/5875
  - $-\frac{1}{4}$ " x 5' Grease Hose Model No. 75060
  - (2) Hose Connectors Model No. 10198
  - %" x 5' Air Hose Model No. 273299
  - Elbow Union Model No. 80202

### V350120DC 50:1 - 3" 120-lb. Stationary Package

- Bare Pump Model No. V350120000
- 120-lb. Stationary Kit Model No. K050120DC
  - Drum Cover Model No. 85826
  - (2) Hose Connectors Model No. 10198
  - Elbow Union Model No. 80202
  - 1/4" x 5' Grease Hose Model No. 75060
  - 3/8" x 5' Air Hose Model No. 273299
  - Follower Model No. 84780
  - Air Coupler/Nipple Model No. 5874/5875







#### V350120HF 50:1 - 3" 120-lb. Inductor Package

Package Includes:

- Bare Pump Model No. V350120000
- Hoist/Follower Kit Model No. 274932

#### V350400HF 50:1 - 3" 400-lb. Inductor Package

Package Includes:

- Bare Pump Model No. V350400000
- Hoist/Follower Kit Model No. 275260



#### V350120LT 50:1 - 3" 120-lb. Lube Truck Package

Package Includes:

- Bare Pump Model No. V350120000
- 120-lb. Lube Truck Kit Model No. K050120LT
  - 120-lb. Drum Cover with Tie Downs Model No. 85829
  - Elbow Union Model No. 80202
  - Air Coupler/Nipple Model No. 5874/5875
  - Lifting Eye Model No. 275415



#### **V350400LT 50:1 – 3" 400-lb. Lube Truck Package**

- Bare Pump Model No. V350400000
- 400-lb. Lube Truck Kit Model No. K050400LT
  - 400-lb. Drum Cover with Tie Rods Model No. 83115
  - Elbow Union Model No. 80202
  - Air Coupler/Nipple Model No. 5874/5875
  - Lifting Eye Model No. 275415

# Pumps PMV — 4.25" Grease Pumps





V4501200000 50:1 - 4.25" 120-lb. Bare Pump

V450400000 50:1 - 4.25" 400-lb. Bare Pump

#### V450120DC 50:1 - 4.25" 120-lb. Stationary Package

Package Includes:

- Bare Pump Model No. V450120000
- 120-lb. Stationary Kit Model No. K050120DC
  - Drum Cover Model No. 85826
  - (2) Hose Connectors Model No. 10198
  - Elbow Union Model No. 80202
  - ½" x 5' Grease Hose Model No. 75060
  - %" x 5' Air Hose Model No. 273299
  - Follower Model No. 84780
  - Air Coupler/Nipple Model No. 5874/5875
  - Elbow Union Model No. 80202

### V450400DC 50:1 - 4.25" 400-lb. Stationary Package

- Bare Pump Model No. V450400000
- 400-lb Drum Cover Kit Model No. K050400DC
  - 400-lb, Drum Cover Model No. 85827
  - Air Coupler/Nipple Model No. 5874/5875
  - ¼" x 5' Grease Hose Model No. 75060
  - (2) Hose Connectors Model No. 10198
  - ¾" x 5' Air Hose Model No. 273299
  - Elbow Union Model No. 80202





For heavy greases and/or low temperatures, order follower number 85825 on pg. 17





#### V450400HF 50:1 - 4.25" 400-lb. Inductor Package

Package Includes:

- Bare Pump Model No. V450400000
- Hoist/Follower Kit Model No. 275260

# V450400HR 50:1 - 4.25" 400-lb. Inductor/Runaway Package

Package Includes:

- Bare Pump Model No. V450400000
- Hoist/Follower Kit Model No. 275260
- Runaway Control Model No. 85840

#### V450120LT 50:1 - 4.25" 120-lb. Lube Truck Package

Package Includes:

- Bare Pump Model No. V450120000
- 120-lb. Lube Truck Kit Model No. K050120LT
  - 120-lb. Drum Cover with Tie Downs Model No. 85829
  - Elbow Union Model No. 80202
  - Air Coupler/Nipple Model No. 5874/5875
  - Lifting Eye Model No. 275416

#### **V450400LT 50:1 – 4.25" 400-lb. Lube Truck Package**

- Bare Pump Model No. V450400000
- 400-lb. Lube Truck Kit Model No. K050400LT
  - 400-lb, Drum Cover with Tie Rods Model No. 83115
  - Elbow Union Model No. 80202
  - Air Coupler/Nipple Model No. 5874/5875
  - Lifting Eye Model No. 275416





#### 85791 50:1 - 3" 25-, 50-lb. Bare Pump

#### 9989 50:1 - 25-, 50-lb. Portable with Pail Cover

Package Includes:

- Bare Pump Model No. 85791
  - Drum Cover Model No. 275370
  - Flexible Follower Model No. 84775
  - Air Coupler/Nipple Model No. 5874/5875
  - 7' Grease Hose Model No. 75084
  - Straight Swivel Model No. 82399
  - Universal Swivel Model No. 81387
  - Control Valve Model No. 740



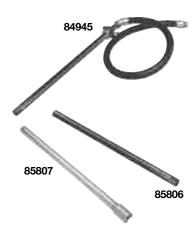
#### 9917 50:1 - 120-lb. Portable with Caster Base

- Bare Pump Model No. 85792
  - Drum Cover Model No. 46007
  - Flexible Follower Model No. 84780
  - Air Coupler/Nipple Model No. 5874/5875
  - 7' Grease Hose Model No. 75084
  - Straight Swivel Model No. 82399
  - Universal Swivel Model No. 81387
  - Control Valve Model No. 740
  - Caster Base No. 80895

9917-57 50:1 - 120-lb. Portable without Caster Base No. 80895

### **PMV** — **Pump Accessories**





#### **Model 84945 Suction Kit**

For transfer of product from drums, bulk tanks or reservoirs. Includes bung bushing suction tube, hose and coupling assembly.

#### Model 85806

16-gallon suction tube.

#### Model 85807

55-gallon suction tube.

#### **Low-Level Cutoffs**

Automatically shuts off flow of oil; keeps air out of the pump when tank or drum level is low. Recommended when dispensing oil through metering devices to conform with standards of the National Conference of Weights and Measures.

- Model 82439 for 1½" NPT suction tubes
- Model 84946 for 1" NPT suction tubes

#### **Model 275413 Wall Mount Bracket**

Wall mount bracket for PMV pumps.

# Thermal Pressure Relief Valve Model 282876

Protect lube system components from high-pressure spikes caused by temperature change in a closed fluid network.

Model No.	Application	Pre-Set Relief Pressure	Port Size
282876	Piston Pumps	1000 psi / 68 bar	½" NPT



82439



# Modular Air Line Equipment Accessories—Lockout Valve

Install in-line or modular with other AirCare products to help conform to OSHA Lockout Regulations. In the closed position, valves block inlet air flow and exhaust downstream air.

Model	For Modular	For In-Line	Max. Air Supply	Operating
No.	Use with	Use with	psi / bar	Temp. Range
247771	%" Modular	3/8"	250 / 17	0°F to 150°F -20°C to 65°C



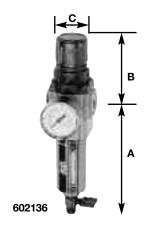
247771

# Integrated/Modular Filter/Regulator with Gauge

Can be used with other AirCare Modular Components.

Model	Maximum Air	Operating	Element	Outlet Press.
No.	Supply	Temp. Range	Particle Size	Adj. Range
602136	250 psi / 17 bar	0°F to 150°F -18°C to 65°C	40 m	

Model	Drain	Port Size	D	imension	s – in. / m	ım	Weight
No.	Type	PTF	Α	В	С	D	lbs. / kg
602136	Manual	3/8	5.27 / 134	2.89 / 73	1.98 / 50	3.29 / 83	1.2 / 0.5



# Pumps PMV — Pump Accessories















#### **Follower Plates**

Recommended when pumping viscous lubricants that will not seek their own level.

#### Model 84780

For use with 120 lb. containers for 1",  $1\frac{1}{4}$ ",  $1\frac{1}{4}$ ",  $1\frac{1}{2}$ ",  $2\frac{1}{4}$ " diameter pump tubes. Used with Series 20 and 40 air-operated grease pumps.

#### Model 85825

Deluxe pressed steel follower plate for 400 lb. drums includes a seal in the hub to prevent channeling of grease past the pump tube.

#### **Model 85824 Bung Bushing**

Screws in bung opening of 55 gal. drums and custom-built tanks to secure PMV pumps. Plated to resist rust. Threaded 2" NPT(m).

#### Model 85826 Drum Cover for 120 lb. Drum

For mounting PMV pumps on open 120 lb./16 gal. drums.

#### Model 85827 Drum Cover for 400 lb. Drum

For mounting PMV pumps on open 400 lb./55 gal. drums.

# Model 83115 Lube Truck Drum Cover Tie Rod Assembly for 400 lb. Drum

Secures PMV pump and 400 lb./55 gal. drum to lube truck deck.

# Model 82989 Lube Truck Drum Cover Tie Rod Assembly for 120 lb. Drum

Secures PMV pump and 120 lb./16 gal. drum to lube truck deck.

#### **Model 273299 Air Inlet Hose**

%" ID x 5" air hose

# Shut-Off Valves

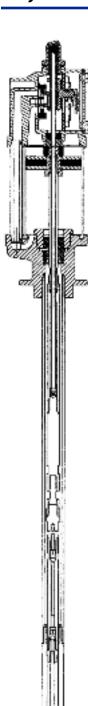
### **Needle-Type Valves for Chassis Grease**

Model No.	Thread	Description
778	1/4" NPT(f)	High Pressure

# **Quarter-Turn Valves Medium Pressure**

Model No.	Inlet/Outlet	Maximum Working Pressure
66084	½" NPT(f)	600 psi / 52 bar





#### The Heavy-Duty 50:1 Grease Pump Family from Lincoln

Lincoln air-operated lube equipment models featuring our high-pressure Series 20 and Series 40 grease pumps have been performance proven in automotive, agricultural, heavy-duty, marine, construction and industrial facilities throughout the world.

- Series 20 grease pumps include the time proven 20 cubic inch displacement Lincoln air motor with 21/2" stroke—ideal for most applications.
- Series 40 grease pumps include the time proven 40 cubic inch displacement Lincoln air motor with 41/2" stroke—ideal for high volume applications.

These pumps are built for power, durability and dependability and these exclusive engineering features ensure top performance and longer service life.

#### Series 20 & 40 Grease Pump Features

- Lightweight, corrosion-resistant zinc head casting design incorporates uniform wall thickness and an integral patented muffler which keeps noise level below OSHA standards without compromising performance. Keeps pumping, while other pumps slow down or stop due to icing.
- 150 psi pre-lubricated air motor requires no external oiler.
- Pneumatically-assisted mechanical air valve assures positive tripping.
- Springless air motor construction prevents premature pump failure due to spring fatigue.
- Precision-machined, hardened steel slide valve for longer life no packings to wear out.
- Powerful—20 cu. in. or 40 cu in. air motor.
- Designed for greater cycle rates.
   Exceeds maximum limits
   recommended for competitive pumps.
- One piece pump outlet body withstands constant high lubricant pressures.
- Easier serviceability. Majority of parts are common with other series 20, 25 and 40 pumps.
- Faster output. Double-acting design provides high-pressure and uniform delivery on both up and down strokes.
- Hardened steel plunger and bushing resist abrasion and prolong pump life.
   Micro-lapped to high precision tolerance to eliminate bypassing lubricant.

- All pumps are 100% electronically tested to assure quality performance.
- Backed by the most extensive, qualified service network in the industry.
- Shovel-type foot valve adds mechanical priming to normal suction. Handles all grades of lubricants.
- Backed by a five-year limited warranty.
   See your Lincoln representative for details.







# Series 20 • 50:1 • Double Acting

#### Shop/Plant Applications

#### **Model 918 120 lb. Drum**

Equipped with 82050 bare pump assembly, 46007 drum cover, 815 air coupler, 11659 air nipple, 72036 3' air connecting hose, 75060 5' high-pressure grease connecting hose, 84780 deluxe follower plate, 80202 volume elbow union. Height with drum is  $39^3/8$ ". Drum not included.

#### **Model 83447 Pump Elevator Assembly**

Pump elevator assembly lifts pump assembly clear of drum for easy, one person drum changes. Also helps prevent introduction of foreign material into grease during drum changes. Height with drum is 39<sup>3</sup>/8", 67<sup>1</sup>/4" with elevator raised. Drum not included.

#### Model 926 400 lb. Drum

Equipped with 82054 bare pump assembly, 81523 drum cover, 815 air coupler, 11659 air nipple, 72036 3' air connecting hose, 75060 5' high-pressure grease connecting hose and 80202 volume elbow union. Height with drum is 46". Drum not included.

NOTE: A deluxe follower plate 83366 is recommended for use with this pump. See page 21.

#### Model 926-1 400 lb. Drum

Same as 926 except without 81523 drum cover.

# Lube Truck/Mobile Applications Model 82991 120 lb. Drum

Equipped with 82050 bare pump assembly, 82989 drum cover and tie rod assembly, 84941 eye bolt kit, 815 air coupler, 11659 air nipple and 80202 volume elbow union. Height with drum is 403/4". Drum not included.

NOTE: Connecting hoses are not included with this package. Order connecting hoses separately to suit application.

#### Model 83112 400 lb. Drum

Equipped with 83112–1 pump, 83115 drum cover and tie rod assembly 815 air coupler, 11659 air nipple and 80202 volume elbow union. Height with drum is 50". Drum not included.

NOTE: Connecting hoses are not included with this package. Order connecting hoses separately to suit application.

NOTE: For lube truck/mobile applications (models 82991 and 83112), optional deluxe follower plate is available. See page 21.

These high-pressure pumps incorporate a 20 cu. in. air motor design.

### **Series 20 Grease Pumps**

Model	Description	Bare Pump	Free Delivery (per min.)	Ratio	Drum Size	Air Inlet NPT	Material Outlet NPT
918	Shop/garage	82050	80 cu. in.	50:1	120 lb.	1/4" (f)	1/4" (f)
923	Shop/garage w/elevator	82050	80 cu. in.	50:1	120 lb.	1/4" (f)	1/4" (f)
926	Shop/garage	82054	80 cu. in.	50:1	400 lb.	1/4" (f)	1/4" (f)
82991	Lube truck model	82050	80 cu. in.	50:1	120 lb.	1/4" (f)	1/4" (f)
83112	Lube truck model	82054	80 cu. in.	50:1	400 lb.	1/4" (f)	1/4" (f)

NOTE: Grease strainer 82103





83447



82991





# Series 40 • 50:1 • High Output • Double Acting Shop/Garage Applications

#### Model 1418 120 lb. Drum

Equipped with 84667 bare pump assembly, 46007 drum cover, 815 air coupler, 11659 air nipple, 72036 3' air connecting hose, 75060 5' high-pressure grease connecting hose, 84780 deluxe follower plate and 80202 volume elbow union. Height with 120 lb. drum is 41<sup>3</sup>/8". Drum not included.

#### Model 1426 400 lb. Drum

Equipped with 84668 bare pump assembly, 81523 drum cover, 815 air coupler, 11659 air nipple, 72036 3' air connecting hose, 75060 5' high-pressure grease connecting hose and 80202 volume elbow union. Height with 400 lb. drum is 48". Drum not included.

NOTE: Deluxe follower plate 83366 is recommended for use when pumping extra-heavy lubricants and must be ordered separately for this model. See page 21.



Same as 1426 except without 81523 drum cover.

#### Model 2740 400 lb. Inductor

Equipped with 84668 bare pump assembly, 274681 primer assembly with follower, air powered hoist, 815 air coupler, 11659 nipple, 274728 7'air hose, 75084 7' grease hose, 602003 air regulator for hoist, and 274843 air gauge. Raised height is 97".

# Lube Truck/Mobile Applications Model 84684 120 lb. Drum

Equipped with 84667 bare pump assembly, 82989 drum cover and tie rod assembly, 84941 eye bolt kit, 815 air coupler, 11659 air nipple and 80202 volume elbow union. Height with drum is  $42^3/4$ ". Drum not included. Follower not included.

NOTE: Connecting hoses are not included with this package. Order connecting hoses separately to suit application.



Equipped with 84668 bare pump assembly, 83115 drum cover and tie rod assembly, 84941 eye bolt kit, 815 air coupler, 11659 air nipple and 80202 volume elbow union. Height with drum is 52". Drum not included.

NOTE: Connecting hoses are not included with this package. Order connecting hoses separately to suit application.

NOTE: For lube truck/mobile applications, optional deluxe follower plate is available. See page 21.

These high-output pumps incorporate a 40 cu. in. air motor design with a  $4^{1/2}$ " stroke for higher volume output and fewer cycles per pound of grease.

### **Series 40 Grease Pumps**

Model	Description	Bare Pump	Free Delivery (per min.)	Ratio	Drum Size	Air Inlet NPT	Material Outlet NPT
1418	High-volume shop	84667	90 cu. in.	50:1	120 lb.	1/4" (f)	1/4" (f)
1426	High-volume shop	84668	90 cu. in.	50:1	400 lb.	1/4" (f)	1/4" (f)
84683	High-volume lube truck	84668	90 cu. in.	50:1	400 lb.	1/4" (f)	1/4" (f)
84684	High-volume lube truck	84667	90 cu. in.	50:1	120 lb.	1/4" (f)	1/4" (f)
2740	Pump with inductor	84668	90 cu. in.	50:1	400 lb.	1/4" (f)	1/4" (f)





84683





#### **Follower Plates**

Recommended when pumping lubricants that will not seek their own level.

#### **Model 84775**

Deluxe universal follower for use with 25-50 lb. containers for 1", 11/4", 11/2" diameter pump tubes. All rubber unit ensures complete grease dispensing to the bottom of dented or plastic lined drums; wipes pail or drum clean. Metal cap holds insert firmly in place, ensuring seal and maintaining vacuum.



#### **Model 84780**

Same as 84775 except for use with 120 lb. containers for 1", 11/4", 21/8" diameter pump tubes. Used with Series 20 and 40 air-operated grease pumps.

#### **Model 83366**

Deluxe pressed steel follower plate for 400 lb. drums includes a seal in the hub to prevent channeling of grease past the pump tube.



#### **Drum Covers**

#### Model 46007

Drum cover for 120 lb. or 16-gallon open top refinery containers for all series 20, 25 and 40 pumps.



#### Model 81523

Drum cover for 400 lb. or 55-gallon open top refinery containers for all series 20, 25 and 40 pumps.







# 3:1-5:1 • Motor Oil, ATF, Gear Lube and Other Fluid Lubricants

### The 3:1 and 5:1 Stub Pump Family from Lincoln

For more than 75 years, Lincoln's exclusive pump designs have proven their superiority in application after application. And our lineup of strong, silent oil-dispensing pumps is no exception.

Both our stub pumps are built with the same rugged reliability and powerful performance you've come to expect from Lincoln. They are super quiet—the quietest pumps on the market. They deliver increased output for faster product delivery. And they let you handle a wider range of applications with total mounting flexibility.

Lincoln has taken the time proven pump design of the Lincoln 84933 5:1 pressure ratio balanced double-acting oil stub pump and created a more compact air motor to produce a 3:1 pressure ratio balanced double-acting oil stub pump, model 282396. This pump creates a versatile, economical, reliable and smooth delivering lower pressure version of the Lincoln 5:1 ratio pump.

Since the 282396 balanced double-acting 3:1 pressure ratio oil stub pump and the 84933 balanced double-acting 5:1 pressure ratio oil stub pump share all dimensions other than air motor cylinder diameter, these pumps are now directly interchangeable without piping changes.

The Lincoln oil pump design enables all pump users to choose 3:1 ratio or 5:1 ratio pump models to suit their specific application.

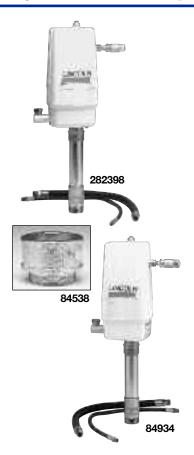


- More powerful. 25 cu. in. or 40 cu. in. air motor with universal mounting capability.
- Balanced double-acting pump design provides uniform output and stroke for less pulsation (7.5 cu in./cycle).
- Longer Life. Full 41/2" stroke for fewer cycles per gallon dispensed.
- Lightweight, corrosion-resistant zinc head casting design incorporates uniform wall thickness. Keeps pumping while other pumps slow down or stop due to "icing."
- 150 psi air motor with integral patented muffler. Keeps noise below OSHA standards without compromising performance.
- Ball check valve helps keep pump primed.
- Pneumatically assisted mechanical air valve assures positive tripping.

- Springless air motor construction prevents premature pump failure due to spring fatigue.
- Precision-machined, hardened steel slide valve for longer life.
- Designed for greater cycle rates.
   Exceeds maximum limits recommended for competitive pumps.
- Large Pump Outlet. 1/2" NPT(f).
- Easier serviceability. Majority of parts are common with other series 20, 25 and series 40 pumps.
- Each pump is 100% electronically tested to assure quality performance.
- Backed by most extensive, qualified service network in the industry.
- Large Pump Inlet. 1" NPT(f) inlet with 1¹/2" NPT(m) pump inlet for versatile pump mounting and full oil flow.
- Backed by our five year limited warranty. See your Lincoln representative for details.







# 3:1-5:1 • Motor Oil, ATF, Gear Lube and Other Fluid Lubricants

Now you can build your 3:1 ratio or 5:1 ratio oil pump with a stub pump plus suction kit or you can order complete models. You make the choice.

#### Series 25 Pumps

This 2" diameter, 25 cubic inch displacement stub pump family is based on our 3:1 ratio 282396 bare stub pump.

#### Model 282398

3:1 pressure ratio stub pump assembly comes complete with 282396 bare stub pump, 84935 pump cover kit, 73024 oil connecting hose, 72024 air connecting hose, 241584 90° volume union elbow, 815 air coupler, 11659 air nipple and 84538 bung bushing. Delivers a uniform six gallons of product per minute free delivery. Ideal for dispensing fluids from drums, tanks or remote standpipe mount.

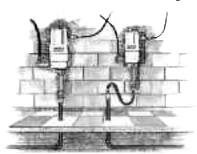
#### Series 40 Pumps

This industry proven 21/2" diameter, 40 cubic inch displacement stub pump family is based on the Lincoln 5:1 ratio 84933 bare stub pump.

#### **Model 84934**

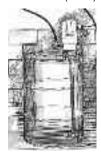
5:1 pressure ratio stub pump assembly comes complete with 84933 bare stub pump, 85935 pump cover kit, 73024 oil connecting hose, 72024 air connecting hose, 241584 90° volume union elbow, 815 air coupler, 11659 air nipple and 84538 bung bushing. Delivers a uniform six gallons of product per minute free delivery.

### **Versatile Stub Pump Mounting Options**



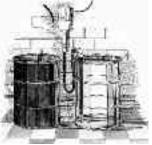
Standpipe and wall mount assembly to remote bulk tanks

3:1 (282398) or 5:1 (84934) pump, wall mount kit (84940), low level cut-off (84946) or foot valve (85765).



55-gallon drum mount using bung bushing

3:1 (282398) or 5:1 (84934) pump and 55-gallon drum suction (85755).



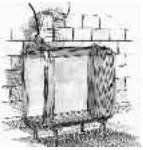
Wall mount to any size drum

3:1 (282398) or 5:1 (84934) pump, wall mount kit (84940), suction kit (84945) and low level cut-off (84946) or foot valve (85765).



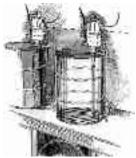
16-gallon drum mount using drum cover

3:1 (282398) or 5:1 (84934) pump, drum cover (46007) and 16-gallon drum suction kit (85716).



Above ground tank

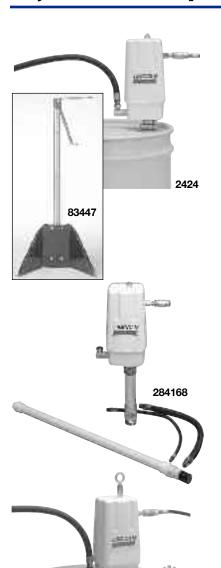
(275-gallon tank shown) 3:1 (282398) or 5:1 (84934) pump and universal suction kit (85949).



55-gallon drum mount on lube truck using drum cover

3:1 (282398) or 5:1 (84934) pump, eyebolt kit (84941), drum cover/tie–down kit (83115) and 55-gallon drum suction kit (85755).





# Series 25 • 3:1 • Motor Oil, ATF, Gear Lube and Other Fluid Lubricants

#### Shop/Garage Applications— 16-Gallon Drums Model 2437

Complete with pump, 73060 lubricant connecting hose, 241584 volume elbow, 72060 air connecting hose, 815 air coupler, 11659 air nipple.

#### Model 83447

Pump elevator assembly lifts pump assembly clear of drum for easy, one person drum changes. Helps prevent introduction of foreign material into grease during drum changes. Height with drum is 393/8", 671/4" with elevator raised. Drum not included.

#### 55-Gallon Drums Model 2424

Comes complete with 282133 pump, 84538 2" NPT(m) bung bushing, to fit original 55-gallon bung opening drums, 241584 volume union elbow, 815 air coupler, 11659 air nipple, 73060 lubricant connecting hose and 72060 air hose.

#### Model 284168

Comes complete with 282396 pump and 85949 universal suction tube kit, 84538 bung bushing, air and lubricant connecting hose. Pumps oil, gear lube, ATF, etc. from tanks, drums.

#### Lube Truck/Mobile Applications— 55-Gallon Drum Model 284231

Contractor pump assembly for 55 gallon drums, comes complete with 282133 pump, 84941 eyebolt kit and 83115 drum cover with tie down assembly providing a rigid and sealed drum mount for protection against the elements. Air coupler and air nipple also included.

All models based on the 282396 series 25 3:1 bare oil pump which delivers 6 gpm free flow plus a suction tube.

### **Series 25 Oil Pumps**

284231

		-						
Model	Description	Bare Pump No.	Free Delivery	Ratio	Drum Size	Air Inlet	Material Outlet	Use/ Location
282133	Bare drum pump	282396	6 gallons	3:1	55-gallon	1/4" NPT	1/2" NPT	replacement
282396	Bare stub pump	282396	6 gallons	3:1	stub/universal	1/4" NPT	1/2" NPT	universal
2424	Stationary	282133	6 gallons	3:1	55-gallon	1/4" NPT	1/2" NPT	shop
2437	Stationary w/ suction kit 85716	282396	6 gallons	3:1	16-gallon	1/4" NPT	1/2" NPT	shop
282398	Stub pump assemb.	282396	6 gallons	3:1	stub/universal	1/4" NPT	1/2" NPT	universal
284168	Stationary tank	282396	6 gallons	3:1	250-/275-gallon	1/4" NPT	1/2" NPT	shop
284231	Lube truck	282133	6 gallons	3:1	55-gallon	1/4" NPT	1/2" NPT	lube truck





# Series 40 • 5:1 • Motor Oil, ATF, Gear Lube and Other Fluid Lubricants

# Shop/Garage Applications—16 Gallon Drums Model 2537

Complete with pump, 73060 lubricant connecting hose, 241584 volume elbow, 72060 air connecting hose, 815 air coupler, 11659 air nipple, drum cover 46007.

#### Model 83447

Pump elevator assembly lifts pump assembly clear of drum for easy, one person drum changes. Helps prevent introduction of foreign material into grease during drum changes. Height with drum is 39<sup>3</sup>/8", 67<sup>1</sup>/4" with elevator raised. Drum not included.

#### 55-Gallon Drums Model 2524

Comes complete with 285133 pump, 84538 2" NPT(m) bung bushing, to fit original 55-gallon bung opening drums, 241584 volume union elbow, 815 air coupler, 11659 air nipple, 73060 lubricant connecting hose and 72060 air hose. Order drum cover 81523 separately.

#### Model 285168

Comes complete with 84933 pump and 85949 universal suction tube kit, 84538 bung bushing, air and lubricant connecting hose. Pumps oil, gear lube, ATF, etc. from tanks, drums.

# 55-Gallon Drum Model 285231

Contractor pump assembly for 55-gallon drums, comes complete with 285133 pump, 84941 eyebolt kit and 83115 drum cover with tie down assembly providing a rigid and sealed drum mount for protection against the elements. Air coupler and air nipple also included.





All models based on the 84933 Series 40 5:1 bare oil pump which delivers 6 gpm free flow plus a suction tube.

# **Series 40 Oil Pumps**

Model	Description	Bare Pump No.	Free Delivery	Ratio	Drum Size	Air Inlet	Material Outlet	Use/ Location
84933	bare stub pump	84933	6 gallons	5:1	stub/universal	1/4" NPT	1/2" NPT	universal
285133	stationary 16 gal.	84933	6 gallons	5:1	55-gallon	1/4" NPT	1/2" NPT	replacement
2524	stationary 55 gal.	285133	6 gallons	5:1	55-gallon	1/4" NPT	1/2" NPT	shop
2537	stationary 16 gal. w/ suction kit 85716	84933	6 gallons	5:1	16-gallon	1/4" NPT	1/2" NPT	shop
84934	stub pump assembly.	84933	6 gallons	5:1	stub/universal	1/4" NPT	1/2" NPT	universal
285168	stationary tank	84933	6 gallons	5:1	250- or 275-gal.	1/4" NPT	1/2" NPT	shop
285231	lube truck	285133	6 gallons	5:1	55-gallon	1/4" NPT	1/2" NPT	lube truck





#### 3:1 Ratio • Corrosive Fluids

# Series 20 Pumps/ 3:1 Press. Ratio Model 84145-9 Stainless Steel

For pumping synthetic hydraulic oil, antifreeze or corrosive products. Pump may be coupled to stand pipe, mounted with bracket and suction kit or pump tube extension may be added for bung mounting to bulk tank, 2.5-gallon a minute free delivery. Pump tube constructed of 316 stainless steel and features Teflon® packings, air inlet 1/4" NPT(f), material outlet 1/2" NPT(f) comes with air coupler and plug and 84147-9 product check assembly.

#### **Model 84080-9 Stainless Steel**

Recommended for use with antifreeze, solvents and windshield washer solution. 316 Series stainless steel construction and Teflon® packings assures long life. 3:1 ratio pump for transfer of corrosive or toxic fluids. Mounts on 55-gallon bung opening drums. Delivers 2.5 gpm. Lasts longer than carbon steel models in corrosive service. Maximum air pressure 125 psi.

#### WARNING

For safe and proper use, always consult instructions accompanying product. See **Safety Warning Information** for appropriate warnings.

# **Pumps**

# 20, 25 & 40 Pumps—Medium-Pressure Accessories





# Series 25 & 40 Bung Bushing / Low-Level Cut-Off / Foot Valves

Model	Description	escription Threaded Connection	
84538	Pump bung bushing	2" (m)	Mounts series 25 or 40 pump to 2" oil drum opening
85824	Bung bushing	2" NPT(m)	Mounts PMV pumps to 55 gal. drum or custom-built tanks
82439	Low-level cutoff	11/2" NPT(m)	Used with "new oil" oil pumps
84946	Low-level cutoff	1" NPT(m)	Used with "new oil" oil pumps
85765	Foot valve	1" NPT(f)	Used with "new oil" oil pumps

#### **Wall Mount Kits**

Model Description		Notes
84940	Wall-mount kit-Series 25 & 40	Used with 84945 Suction Kit
84942	Flange-mount kit-Series 25 & 40	Mounts pump to custom made tanks (lube trucks)

#### **Suction Kits**

Model	Description	Threaded Connection	Notes
84945	Remote suction kit	1" NPT(f)	Includes 5' oil hose, bung bushing and 1" x 32" pipe
85716	16-gal. drum suction kit	1" NPT(m)	Adapts any series 25 or 40 oil pump to 16-gallon drum
85755	55-gal. drum suction kit (steel)	1" NPT(m)	Adapts any series 25 or 40 oil pump to 55-gallon drum
85949	Universal suction kit	1" NPT(m)	Adapts any series 25 or 40 oil pump to drum or tank use

### **Pump Covers**

Model	Description	N	otes
84935	Pump cover	Se	eries 20 pumps
85935	Pump cover	Se	eries 25 & 40 pumps

#### Hose

84942

Model	Description	Threaded Connection	Notes
72036	3' low-pressure connecting	1/4" NPT(m)	Max working pressure: 250 psi
72060	5' low-pressure connecting	1/4" NPT(m)	Max working pressure: 250 psi
73036	3' medium-pressure connecting	1/2" NPT(m)	Max working pressure: 1000 psi
73060	5' medium-pressure connecting	1/2" NPT(m)	Max working pressure: 1000 psi

# Eye-Bolt Kit Model 84941

Eye bolt kit for all series 20, 25 and 40 pumps, makes drum changing easy. Two part kit screws directly onto pump for lifting with pump elevator.

#### **Shut-Off Valves**

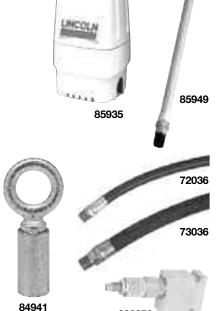
See Fittings and Accessories section for pump shut-off valves.

# Thermal Pressure Relief Valve

#### Model 282876

Protect lube system components from high-pressure spikes caused by temperature change in a closed fluid network.

Model	Application	Pre-Set Relief Pressure	Port Size
282876	Piston Pumps -	1000 psi (68 bar)	
282902		150 psi (10 bar)	1/OILNIDT
275197		500 psi (34 bar)	1/2" NPT
282957		1500 psi (105 bar)	



282876

# **Pumps**

# 20, 25 & 40 Pumps—Medium-Pressure Accessories



#### Reducing Bushing







**Reducing Couplings** 









### **Reducing Bushings**

Model	Thread	Construction
10200	<sup>1</sup> /8" NPT(f) x <sup>1</sup> /2"–27 (m)	Brass
10204	1/4" NPT(f) x 1/2"-27 (m)	Brass

### **Reducing Couplings**

Model	Thread	Construction
11852	1/8" NPT(f) x 1/2"-27 (f)	Steel
10522	1/4" NPT(f) x 1/2"-27 (f)	Brass

### **Nipples**

Model	Thread	Construction
10130	1/8" NPT(m) x 1/8" NPT(m)	Steel
10199	<sup>1</sup> /8" NPT(m) x <sup>1</sup> /2"–27 (m)	Brass
10462	1/4" NPT(m) x 1/4" NPT(m)	Steel
10198	<sup>1</sup> / <sub>4</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> "–27 (m)	Brass
10540	3/8" NPT(m) x 3/8" NPT(m)	Steel
11107	3/8" NPT(m) x 1/2" NPT(m)	Steel
11197	1/2" NPT(m) x 1/2" NPT(m)	Steel
12957	1/2" NPT(m) x 1/2"-27 (m)	Steel
10202	<sup>1</sup> / <sub>2</sub> "–27 (m) x <sup>1</sup> / <sub>2</sub> "–27 (m)	Brass
12296	3/4" NPT(m) x 3/4" NPT(m)	Steel

#### **Adapter Unions**

Model	Thread	Description
66883	<sup>1</sup> / <sub>2</sub> " NPSM(f) swivel x <sup>1</sup> / <sub>2</sub> " NPT(m)	Steel
69375	1" NPT(f) swivel x 1" NPT(m)	Steel

#### Shut-Off Valves

### **Needle-Type Valves for Chassis Grease**

Model	Thread	Description
778	1/4" NPT(f)	High Pressure
884	<sup>3</sup> /8" NPT(f)	High Pressure
885	1/2" NPT(f)	High Pressure

Maximum Working Pressure psi 10,000 / 680 Bar

#### **Quarter-Turn Valves**

### **High Pressure**

Control lever with "ON" on "OFF" positions provides visual check as to whether lubrication line is open or closed. Buna-N seals with Teflon® seat.

Model	Inlet/Outlet	Maximum Working Pressure (psi) / Bar		
69503	1/2" NPT(f)	2000 / 138		
69425	3/4" NPT(f)	2500 / 172		
69423	1" NPT(f)	2500 / 172		

#### **Medium Pressure**

Model	Inlet/Outlet	Maximum Working Pressure (psi) / Bar
256200	1/4" NPT(f)	600 / 52
66084	1/2" NPT(f)	600 / 52

### Lubricant Filters

#### Model 84004

For mounting at pump outlet. Contains replaceable 140 micron stainless steel filter element 69524. 1/2" NPT(m) inlet and outlet. 13/8" hex. steel body. Maximum pressure 5000 psi. 100 mesh screen.

# Pumps PowerMaster® III





#### **Features**

- State-of-the-art, fully pneumatic air motors 3"-4" (76-101 mm).
- Full 6" (152 mm) stroke.
- Modular design for easy repair.
- Pump tubes offer ratios and outputs to fit any application.
- Available to fit any drum or pail size, or bulk tanks.
- Offered in carbon steel, 316 stainless steel or hard chrome plated.
- Full line of priming equipment and mounting devices.

#### **Series III Air Motors**

- Full pneumatic operation for longer life and durability. Only 5 moving parts.
- Total modular design for ease of service and maintenance.
- Quiet operation. Meets or exceeds OSHA requirements at all recommended operation air pressures.
- Interchangeable with all PowerMaster® III pump tubes.
- Acceptability of pump monitors and controls, such as AirBrake™.

#### **AirBrake**<sup>™</sup>

- Shuts down pump immediately when excessive pump cycle speed (runaway) occurs.
- Prevents pump damage due to a runaway condition.
- Indicates system fault caused by empty container or broken supply line.
- Limits spills due to pump outlet hose failure.
- Sends fault signal to remote alarm locations with optional 244398 signal kit.
- Can be ordered already installed (refer to Pump Specification Chart).
- Can be added later. Order Model 85317.
- Easy to install and set—graduated dial with detents.
- Kit 273429 upgrades existing AirBrake-equipped pumps to the latest specifications.

### Pump Tubes Ball Foot Design

- For light- to medium-viscosity, flowable fluids and materials.
- Three styles: stub for bulk mounting, 55-gallon (200 liter) or 16-gallon (60 liter) drum.
- Ratios from 6:1–12:1, outputs to 3.9 gpm (14.6 lit./min).
- Complete interchangeability with all Series III Air Motors.
- Exclusive, patented, "leakless" gland assembly kit is available as an accessory.

### **Shovel Foot Design, Plunger & Bushing Style**

- For medium- to high-viscosity, non-pourable materials, such as grease.
- Available in 400 lb. (205 liter) or 120 lb. (60 liter) drum lengths or mounts on primer for high-viscosity materials.
- Full range of ratios: 10:1 through 75:1 for all applications.
- Selected fit, hardened steel plunger and bushing is particularly well suited to viscous lubricants.
- Complete interchangeability with all Series III Air Motors.
- Exclusive patented, leakless gland assembly kit (to protect gland seal-the only seal in pump tube) is available as an accessory.

# **Shovel Foot Design, Packed Piston-Style**

- For medium- to high-viscosity, non-pourable materials.
- Furnished with exclusive, patented, leakless gland assembly.
- Available in 55-gallon (205 liter) or 16-gallon (60 liter) drum lengths: also suitable for mounting on priming equipment or standpipe mounting for bulk delivery.
- Complete interchangeability with all Series III Air Motors.
- Full range of ratios 10:1 through 32:1.



# High-Viscosity Pumps—Carbon Steel for Transfer of Non-Corrosive Materials Shovel Foot Pumps—Packed Piston

Model	Ratio	Pump Tube Type	Air Motor	Diameter in. / mm	Pump Tube	Material Outlet"	Output per cycle cu. in / cc	Approx. Cycles per gal / liter	
	32:1	55-gal	84804	41/4 / 108	84978	3/4" NPTF	4.6 / 75	51 / 13	
2076*1	32:1	16-gal	84804	41/4 / 108	84979	3/4" NPTF	4.6 / 75	51 / 13	
	20:1	55-gal	84804	41/4 / 108	84976	3/4" NPTF	6.7 / 110	35 / 9	
	20:1	16-gal	84804	41/4 / 108	84977	3/4" NPTF	6.7 / 110	35 / 9	
	15:1	55-gal	84803	3 / 76	84978	3/4" NPTF	4.6 / 75	51 / 13	
	15:1	16-gal	84803	3 / 76	84979	3/4" NPTF	4.6 / 75	51 / 13	
2066*	10:1	55-gal	84803	3 / 76	84976	3/4" NPTF	6.7 / 110	35 / 9	
	10:1	16-gal	84803	3 / 76	84977	3/4" NPTF	6.7 / 110	35 / 9	

# Medium-Viscosity Pumps—Carbon Steel for Transfer of Non-Corrosive Materials Ball Pumps

		Pump Tube		Diameter	Pump	Material	Output per	Approx. Cycles	
Model	Ratio	Туре	Air Motor	in. / mm	Tube	Outlet	cycle cu. in / cc	per gal / liter	
2001¹	12:1	55-gal	84804	4 / 108	84985	3/4"	11.9 / 195	20 / 5	
20141	12:1	stub	84804	4 / 108	84986	3/4"	11.9 / 195	20 / 5	
2052	6:1	55-gal	84803	3 / 76	84985	3/4"	11.9 / 195	20 / 5	
2051	6:1	stub	84803	3 / 76	84986	3/4"	11.9 / 195	20 / 5	

<sup>1</sup> These models are also available with optional 84988 AirBrake assembled to air motor. To order, specify 94804 air motor and pump tube separately.

### **Shovel Foot Pumps—Plunger and Bushing**

Mode	el Ratio	Pump Tube Type	Air Motor	Diameter in. / mm	Pump Tube	Material Outlet"	Output per cycle cu. in / cc	Approx. Cycles per gal / liter	
2004	75:1	55-gal	84804	41/4 / 108	84997	3/4" NPTF	2.1 / 34	111 / 29	
2008	75:1	16-gal	84804	41/4 / 108	84998	3/4" NPTF	2.1 / 34	111 / 29	
2010	50:1	55-gal	84804	41/4 / 108	84995	3/4" NPTF	3.0 / 49	78 / 20	
2011	50:1	16-gal	84804	41/4 / 108	84996	3/4" NPTF	3.0 / 49	78 / 20	
2002	24:1	55-gal	84804	41/4 / 108	84991	3/4" NPTF	6.1 / 100	38 / 10	

<sup>\*</sup> Order pump tube and air motor separately for these models.

<sup>&</sup>lt;sup>1</sup> These models are also available with optional 85317 AirBrake assembled to air motor. To order, specify 94904 air motor and pump tube separately.



#### Model 2710 400 lb. Inductor

Equipped with 2010 50:1 pump, 274680 primer assembly with follower, air powered hoist, 655008 air coupler, 653112 nipple, 273304 7'air hose, 274727 7' grease hose, 602003 air regulator for hoist, and 274843 air gauge. Raised height is 103".

#### Model 2790 400 lb. Inductor with AirBrake

Same as 2710 except includes 85317 AirBrake pump runaway control.

# Pumps PowerMaster® III



	Gallons	/ Liters pe	r Minute	Min. ID Air Supply	Air Consumption Per Cycle					
Model	30 CPM	50 CPM	70 CPM	Hose in. / mm	SCFM@70 psi	M <sup>3</sup> /min.@5 bar	SCFM@100 psi	M <sup>3</sup> /min.@7 bar		
	.6 / 2.3	1.0 / 3.8	1.5 / 5.7	1/2" / 12	.48	.0014	.66	.019		
2076*	.6 / 2.3	1.0 / 3.8	1.5 / 5.7	1/2" / 12	.48	.0014	.66	.019		
	.9 / 3.3	1.5 / 5.5	2.2 / 8.2	1/2" / 12	.48	.0014	.66	.019		
	.9 / 3.3	1.5 / 5.5	2.2 / 8.2	1/2" / 12	.48	.0014	.66	.019		
	.6 / 2.3	1.0 / 3.8	1.5 / 5.7	3/8" / 10	.31	.009	.37	.011		
	.6 / 2.3	1.0 / 3.8	1.5 / 5.7	3/8" / 10	.31	.009	.37	.011		
2066*	9/3.3	1.5 / 5.5	2.2 / 8.2	3/8" / 10	.31	.009	.37	.011		
	9 / 3.3	1.5 / 5.5	2.2 / 8.2	3/8" / 10	.31	.009	.37	.011		

			Min. ID Air Supply	Air Consumption Per Cycle				
30 CPM	50 CPM	70 CPM	Hose in. / mm	SCFM@70 psi	M³ min.@5 bar	SCFM@100 psi	M3 min.@7 bar	
1.5 / 5.8	2.6 / 9.7	3.9 / 14.6	1/2" / 12	.48	.0014	.66	.019	
1.5 / 5.8	2.6 / 9.7	3.9 / 14.6	1/2" / 12	.48	.0014	.66	.019	
1.5 / 5.8	2.6 / 9.7	3.9 / 14.6	3/8" / 10	.48	.0014	.66	.019	
1.5 / 5.8	2.6 / 9.7	3.9 / 14.6	3/8" / 10	.48	.0014	.66	.019	
	30 CPM 1.5 / 5.8 1.5 / 5.8 1.5 / 5.8	30 CPM         50 CPM           1.5 / 5.8         2.6 / 9.7           1.5 / 5.8         2.6 / 9.7           1.5 / 5.8         2.6 / 9.7	1.5 / 5.8     2.6 / 9.7     3.9 / 14.6       1.5 / 5.8     2.6 / 9.7     3.9 / 14.6       1.5 / 5.8     2.6 / 9.7     3.9 / 14.6	30 CPM         50 CPM         70 CPM         Hose in. / mm           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         3/8" / 10	30 CPM         50 CPM         70 CPM         Hose in. / mm         SCFM@70 psi           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12         .48           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12         .48           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         3/8" / 10         .48	30 CPM         50 CPM         70 CPM         Hose in. / mm         SCFM@70 psi         M³ min.@5 bar           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12         .48         .0014           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12         .48         .0014           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         3/8" / 10         .48         .0014	30 CPM         50 CPM         70 CPM         Hose in. / mm         SCFM@70 psi         M³ min.@5 bar         SCFM@100 psi           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12         .48         .0014         .66           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         1/2" / 12         .48         .0014         .66           1.5 / 5.8         2.6 / 9.7         3.9 / 14.6         3/8" / 10         .48         .0014         .66	

	Gallons	/ Liters pe	r Minute	Min. ID Air Supply	Air Consumption Per Cycle					
Model	30 CPM	50 CPM	70 CPM	Hose in. / mm	SCFM@70 psi	M <sup>3</sup> /min.@5 bar	SCFM@100 psi	M <sup>3</sup> /min.@7 bar		
2004	.3 / 1.0	.5 / 1.7	.7 / 2.6	1/2" / 12	.48	.0014	.66	.019		
2008	.3 / 1.0	.5 / 1.7	.7 / 2.6	1/2" / 12	.48	.0014	.66	.019		
2010	.4 / 1.5	.6 / 2.5	1.0 / 3.7	1/2" / 12	.48	.0014	.66	.019		
2011	.4 / 1.5	.6 / 2.5	1.0 / 3.7	1/2" / 12	.48	.0014	.66	.019		
2002	.8 / 3.0	1.3 / 5.0	2.0 / 7.5	1/2" / 12	.48	.0014	.66	.019		





# Hydraulic Motor for PowerMaster III Pump Tubes

- Safe to use where electric or pneumatic motors may be hazardous.
- Virtually eliminate concerns about air supply condition and exhaust emissions.
- Efficiently generates high material pressure and flow rate with minimum hydraulic power consumption.
- Few internal moving parts. No mechanical linkages or solenoids to fail or wear out.
- An internal changeover circuit requires no external signal for reciprocating action.
- Balanced cylinder design eliminates need for separate stroke adjustments.
- All key components are machined from steel or aluminum to insure long service life in the toughest applications.
- Hydro-PowerMaster was designed and is manufactured under the strict conditions of an ISO 9001 registered quality system.

### **Hydro-PowerMaster Specifications**

Model	Cylinder Dia. in. / cm	Piston Rod Dia. in. / cm	Stroke Length in. / cm	Hydraulic Fluid Inlet	Hydraulic Fluid Outlet
85300	85300 2 / 5 1 3/8 / 3.5		6 / 15	SAE 8 (f)	SAE 10 (f)
Model	Operating Press. Range	Operating Temp.	Fluid Flow Consumption	Recommended Continuous	Wetted Part
Model	psi / bar	Range	Rate	Speed	Materials

# PowerMaster III Hydraulic-Powered Pumps NOTE: Must Order Hydraulic Motor and Pump Tube Separately

Motor	Pump Tube	Ratio	Drum Size	Material Outlet NPTF	Max. Hyd. Inlet Press. psi / bar	Max. Delivery Press. psi / bar	Max. Free Del. @75 Cycles/Min. gal / liters
85300	84985	1.5:1	55-gal	3/4"	1500 / 103	2250 / 155	3.9 / 14.6
85300	84983	1.5:1	55-gal	3/4"	1500 / 103	2250 / 155	3.9 / 14.6
85300	84982	1.5:1	55-gal	3/4"	1500 / 103	2250 / 155	3.9 / 14.6
85300	84981	1.5:1	55-gal	3/4"	1500 / 103	2250 / 155	3.9 / 14.6
85300	84984	1.5:1	16-gal	3/4"	1500 / 103	2250 / 155	3.9 / 14.6
85300	84986	1.5:1	stub	3/4"	1500 / 103	2250 / 155	3.9 / 14.6
85300	84987	1.5:1	stub	3/4"	1500 / 103	2250 / 155	3.9 / 14.6
85300	84976	2.5:1	55-gal	3/4"	1500 / 103	3750 / 258	2.2 / 8.2
85300	84977	2.5:1	16-gal	3/4"	1500 / 103	3750 / 258	2.2 / 8.2
85300	84978	4:1	55-gal	3/4"	1500 / 103	6000 / 412	1.5 /5.7
85300	84979	4:1	16-gal	3/4"	1500 / 103	6000 / 412	1.5 / 5.7
85300	84991	3:1	55-gal	3/4"	1500 / 103	4500 / 310	2.0 / 7.5
85300	84992	3:1	16-gal	3/4"	1500 / 103	4500 / 310	2.0 / 7.5
85300	84993	5:1	55-gal	3/4"	1500 / 103	7500 / 317	1.2 / 4.5
85300	84994	5:1	16-gal	3/4"	1500 / 103	7500 / 317	1.2 / 4.5
85300	84995	6:1	55-gal	3/4"	1250 / 86	7500 / 317	1.0 / 3.7
85300	84996	6:1	16-gal	3/4"	1250 / 86	7500 / 317	1.0 / 3.7
85300	84997	9:1	55-gal	3/4"	850 / 58	7650 / 527	.7 / 2.6
85300	84998	9:1	16-gal	3/4"	850 / 58	7650 / 527	.7 / 2.6

CAUTION: Do not exceed maximum hydraulic inlet pressure listed for each motor/pump tube combination.

# Pumps PowerMaster® II





#### **PowerMaster II Pump Features**

- Gives years of dependable trouble-free operation.
- Costs much less to operate—costs much less to maintain.
- High-volume output—air motor has extra-long stroke for powerful, uniform delivery on both up and down strokes.
- Shovel-type pump tube used to add mechanical priming to normal suction when needed.
- Sturdy construction—plunger and bushing of hardened steel for longer life, greater wear resistance.
- Pump outlet body of all-steel construction designed to withstand pulsation and extreme pressure. All wearing parts are tough, heat-treated steel.
- Plunger, bushing and air valve mating parts are micro-lapped to close tolerances. Prevents by-passing of lubricant and bleeding of air. Eliminates need to replace washers and packings.
- Trouble-free, positive performance. Air motor operation has no springs to wear out, rust or lose tension. Air valve is stall-proof, leak-proof and pre-lubricated. Double-acting mechanisms ensure dependable low-surge operation with minimum air consumption.
- Large air passages allow unrestricted venting.
- Simplified maintenance. Modular design of pump tube allows for easy disassembly.





# Pumps PowerMaster® II



### Ball-Type Medium-Pressure Pumps (continued next page across)

		Pump Tube		Diameter	Pump	Material	Output per	Approx. Cycles	
Model	Ratio	Type	Air Motor	in. / mm	Tube	Outlet"	cycle cu. in / cc	per gal / liter	
1931	4:1	55-gal	82737	21/2"/ 57	82790	3/4" NPTF	9 / 148	26 / 7	
1952	6:1	55-gal	82895	3" / 76	82790	3/4" NPTF	9 / 148	26 / 7	
1901	12:1	55-gal	82730	4 <sup>1</sup> / <sub>4</sub> " / 108	82790	3/4" NPTF	9 / 148	26 / 7	

#### Medium-Pressure Stub Pumps (continued next page across)

Model	Ratio	Pump Tube Type	Air Motor	Diameter in. / mm	Pump Tube	Material Outlet"	Output per cycle cu. in / cc	Approx. Cycles per gal / liter	
1940	4:1	stub	82737	2 <sup>1</sup> / <sub>2</sub> / 57	84335	3/4" NPTF	9 / 148	26 / 7	
1951	6:1	stub	82895	3 / 76	84335	3/4" NPTF	9 / 148	26 / 7	
1914	12:1	stub	82730	4 <sup>1</sup> / <sub>4</sub> / 108	84335	3/4" NPTF	9 / 148	26 / 7	

#### Shovel-Type Medium-Pressure Pumps (continued next page across)

Model	Ratio	Pump Tube Type	Air Motor	Diameter in. / mm	Pump Tube	Material Outlet <sup>⊷</sup>	Output per cycle cu. in / cc	Approx. Cycles per gal / liter	
1932	8:1	55-gal	82737	21/2" / 57	82791	3/4" NPTF	5 / 82	46 / 12	
1933	13:1	55-gal	82737	21/2" / 57	82792	3/4" NPTF	2.8 / 46	83 / 22	
1902 <sup>*</sup>	24:1	55-gal	82730	4 <sup>1</sup> / <sub>4</sub> / 108	82791	3/4" NPTF	5 / 82	46 / 12	

<sup>\*</sup> Not to be used with meters.

NOTE: Model number with "-1" indicates model including bung bushing.

Model number with "-2" indicates model including drum cover.

# Shovel Foot Pumps—Plunger & Bushing (continued next page across)

	1	Pump Tube		Diameter	Pump	Material	Output per	Approx. Cycles	
Model	Ratio	Туре	Air Motor	in. / mm	Tube	Outlet	cycle cu. in / cc	per gal / liter	
1935	50:1	55-gal	82737	21/2 / 57	83665	3/4" NPTF	.6 / 10	385 / 100	
1903	40:1	55-gal	82730	41/4 / 108	82792	3/4" NPTF	2.8 / 46	83 / 22	
1910	50:1	55-gal	82730	41/4 / 108	83271	3/4" NPTF	2.3 / 38	101 / 26	
1904	75:1	55-gal	82730	41/4 / 108	82793	3/4" NPTF	1.6 / 26	144 / 39	
1907	40:1	16-gal	82730	41/4 / 108	82841	3/4" NPTF	2.8 / 46	83 / 22	
1908	75:1	16-gal	82730	41/4 / 108	82883	3/4" NPTF	1.6 / 26	144 / 39	

<sup>\*</sup>All PowerMaster pumps include 12018 3/4" NPTF(m) x 1/2" NPTF(f) bushing in the material outlet. See pages 20 through 23 for PowerMaster drum covers, follower plates and other mounting accessories.

<sup>\*\*</sup> All PowerMaster pumps include 12018, 3/4" NPTF(m) x 1/2" NPTF(f) bushing in the material outlet.

# Pumps PowerMaster® II



Gallons / Liters per Minute				Min. ID Air Supply	Min. ID Air Supply Air Consumption Per Cycle					
Model	30 CPM	50 CPM	70 CPM	Hose in. / mm	SCFM@70 psi	M <sup>3</sup> /min.@5 bar	SCFM@100 psi	M <sup>3</sup> /min.@7 bar		
1931	1.1 / 4.4	1.9 / 7.4	2.7 / 10.3	3/8"/ 10	.17	.005	.21	.006		
1952	1.1 / 4.4	1.9 / 7.4	2.7 / 10.3	3/8"/ 10	2.5	.007	.31	.009		
1901	1.1 / 4.4	1.9 / 7.4	2.7 / 10.3	1/2" / 12	.5	.014	.62	.017		

	Gallons / Liters per Minute			Min. ID Air Supply				
Model	30 CPM	50 CPM	70 CPM	Hose in. / mm	SCFM@70 psi	M <sup>3</sup> /min.@5 bar	SCFM@100 psi	M³/min.@7 bar
1940	1.1 / 4.4	1.9 / 7.4	2.7 / 10.3	<sup>3</sup> /8"/ 10	.17	.005	.21	.006
1951	1.1 / 4.4	1.9 / 7.4	2.7 / 10.3	<sup>3</sup> /8"/ 10	2.5	.007	.31	.009
1914	1.1 / 4.4	1.9 / 7.4	2.7 / 10.3	<sup>1</sup> /2" / 12	.5	.014	.62	.017

	Gallons / Liters per Minute			Min. ID Air Supply	Air Consumption Per Cycle					
Model	30 CPM	50 CPM	70 CPM	Hose in. / mm	SCFM@70 psi	M <sup>3</sup> /min.@5 bar	SCFM@100 psi	M <sup>3</sup> /min.@7 bar		
1932	.6/ 2.4	1 / 4.1	1.5 / 5.7	3/8"/ 10	.17	.005	.21	.006		
1933	.4 / 1.4	.6 / 2.3	.8 / 3.2	<sup>3</sup> /8"/ 10	.17	.005	.21	.006		
1902 <sup>*</sup>	.6 / 2.4	1 / 4.1	1.5 / 5.7	1/2" / 12	.5	.014	.62	.017		

	Gallons	Gallons / Liters per Minute		Min. ID Air Supply	Air Consumption Per Cycle			
Model	30 CPM	50 CPM	70 CPM	Hose in. / mm	SCFM@70 psi	M <sup>3</sup> /min.@5 bar	SCFM@100 psi	M <sup>3</sup> /min.@7 bar
1935	.08 / .3	.1 / .5	.2 / .7	3/8" / 10	.17	.005	.21	.006
1903	.4 / 1.4	.6 / 2.3	.8 / 3.2	1/2" / 12	.5	.014	.62	.017
1910	.3 / 1.1	.5 / 1.9	.7 / 2.6	1/2" / 12	.5	.014	.62	.017
1904	.2 / .8	.3 / 1.3	.5 / 1.8	1/2" / 12	.5	.014	.62	.017
1907	.4 / 1.4	.6 / 2.3	.8 / 3.2	1/2" / 12	.5	.014	.62	.017
1908	.2 / .8	.3 / 1.3	.5 / 1.8	1/2" / 12	.5	.014	.62	.017





# **Accessories**

# **Pump Hoists**

# **Model 1709 Single Post Elevator**

Ideal for contractor use. Can be mounted on truck body or used in maintenance shop for fast power-operated drum changing. Lifts any Lincoln pump from one 400 lb. or 120 lb. drum and lowers it into another. Can serve one or a cluster of four drum pumps from one location.

# **Model 2716 Single Post Primer**

For use with PowerMaster III Series 2000 pumps. Air-operated single post pump hoist for 55-gallon drums performs several functions in applications of low- to medium-viscosity materials. Facilitates drum changeovers. Includes follower and wiper which uses normal suction to help maintain pump prime. Includes mounting bracket for all PowerMaster III pumps.

# **Specifications**

	Hei	ight	Operating Air	Bea	ım	
Model	Lowered	Raised	Pressure psi / bar	Length	Rotation	Lift Capacity
1709	70 <sup>1</sup> / <sub>2</sub> " / 1.8m	108 <sup>1</sup> / <sub>2</sub> " / 2.8m	50-200 / 3-14	19" / .5m	360°	400 lb / 182kg
2716	73" / 1.9m	110 <sup>1</sup> / <sub>2</sub> " / 2.8m	40-200 / 3-14	19" / .5m	360°	400 lb / 182kg

# **Model 1716 Pump Hoist**

For use with all PowerMaster II Series 1900 pumps. Air-operated single post pump hoist for 55-gallon drums performs several functions in applications of low-to medium-viscosity materials. Facilitates drum changeovers. Includes follower and wiper which uses normal suction to help maintain pump prime.

# **Specifications**

	Hei	ight	Operating Air	Bea	am	
Model	Lowered	Raised	Pressure psi / bar	Length	Rotation	Lift Capacity
1716	73" / 1.9m	110 <sup>1</sup> /2" / 2.8m	40-200 / 3-14	19" / .5m	360°	400 lbs/182kg

# **Drum Dollys**

# Model 84377 400 lb. Drum Dolly

Use with any 400 lb. drum. ID  $23^{1}/4$ ", height  $5^{1}/4$ ", hard rubber wheels: 1" wide,  $2^{1}/2$ " dia. Capacity: 650 lbs.

# Model 84192 120 lb. Band Dolly

Band-type dolly for use with 120 lb. refinery containers; caster 66060.

# Model 66060 Caster for Roll-A-Round Base Units

Standard equipment on Lincoln drum and band dollies.

# PowerMaster III only

# **Model 84963 Flange Mounting Assembly**

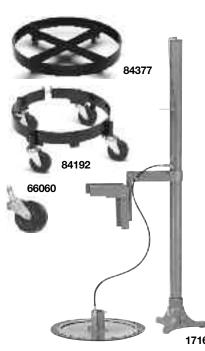
For rigid mounting of PowerMaster III pumps to the top of fabricated bulk tanks.

# **Model 86214 Gland Protection Sleeves**

For all ball foot design pump tubes.

# **Model 84722 Muffler Adapter Kit**

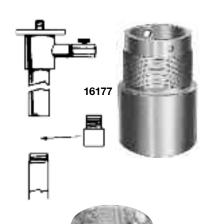
Replaces standard built-in muffler on Series III air motors. Pipes exhaust away from pump. Converts exhaust port to 3/4" NPT(f) thread.





83132











# **Accessories**

PowerMaster II and III

# **Model 84826 Wall Mounting Bracket Kit**

For PowerMaster II or III air motor assemblies.

# **Model 16177 Foot Valve Adapter**

For extending length of drum pumps with 82790 and 82773 PM II pump tubes or 84984 and 84985 PM III pump tubes. Install when standard tubes will not reach bottom of tank for addition of  $1^{1}/2^{\circ}$  NPTF(m) extension pipe (customer furnished).

# Model 83132 Bung Bushing

Screws in bung opening of 400 lb. drums and custom-built tanks to secure any PM II & III pumps. Plated to resist rust. Threaded 2" NPT(m).

# Model 82979 Bung Sealing Kit

Use with 81482 drum to keep oil from splashing onto drum cover top.

# **Model 1709 Single Post Pump Elevator**

See page 20 for description and specifications.

# **Model 84945 Suction Kit**

For transfer of product from drums, bulk tanks or reservoirs. Includes bung bushing suction tube, hose and coupling assembly. NOTE: 2" x 1" bell reducer required for use with Model 1914, not included.

# **Model 82439 Low-Level Cutoff**

Automatically shuts off flow of oil; keeps supply lines primed. Recommended when dispensing oil through metering devices to conform with standards of the National Conference of Weights and Measures. Assembles to 11/2" NPT standpipe which assembles to pump.

# **Model 84946 Low-Level Cutoff**

Same as 82439, except 1" NPT.

# Thermal Pressure Relief Valve Model 282876

Protect lube system components from high-pressure spikes caused by temperature change in a closed fluid network.

Model	Application	Pre-Set Relief Pressure	Port Size
282876	Piston Pumps	1000 psi (68 bar)	1/2" NPT

## Other Accessories

# **Model 83732 Standpipe Adapter Kit**

Necessary to assemble PowerMaster II or III pumps to 83727 stand pipe assembly for pumping from bulk tanks.

# **Model 83727 Standpipe Assembly**

Mounts PowerMaster II or III pump on floor to accept suction line from bulk tank. Inlet 3" NPTF. 71/2"(19mm) height; 8"(200mm) diameter.

NOTE: PowerMaster II and III requires 83732 standpipe assembly adapter kit.

# **Model 83131 Tie Rod Kit**

For bung opening 400 lb. drums. Tie rods and eye-bolts  $^{5}/8$ " diameter steel plated to resist rust.

# Mounting Brackets Model 84723 Cover Panel Kit

Metal cover fits over tie rod ends and encloses moving plunger rod. Prohibits foreign matter from attaching to pump plunger and causing premature wear.

# **Pumps**

# PowerMaster® II & III Accessories



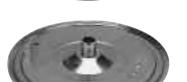


81538



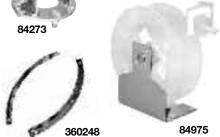
81412











# **Accessories**

# **Drum Covers Model 81538**

Standard 16-gallon drum cover for mounting PowerMaster II and III drum pumps to full open drums.

# Model 81412

Standard 55-gallon drum cover for mounting PowerMaster II & III Series drum pumps on full open drums.

# Model 83166

Same as 81412 except includes a port for installation of material agitator.

## **Follower Plates**

Recommended when pumping lubricants that will not seek their own level.

# Model 84775

Deluxe universal follower for use with 25 to 50 lb. containers for 1", 11/4", 11/2" diameter pump tubes. All rubber unit ensures complete grease dispensing to the bottom of dented or plastic lined drums; wipes pail or drum clean. Metal cap holds insert firmly in place, ensuring seal and maintaining vacuum.

# **Model 84780**

Same as 84775 except for use with 120 lb. containers for 1", 11/4", 21/8" diameter pump tubes.

# Model 83369

For 400 lb. drums. Diameter 215/8".

# Model 81482 400 lb.

Includes mounting flange and tie rods for mounting any PM II pump. Includes 84318 drum cover and 84273 adapter flange.

## Model 84291 120 lb.

Same as 81482, except for 120 lb. drums. Includes 84299 drum cover and 84273 adapter flange.

# Model 84767 120 lb.

Same as 84291 except for PM III. Includes 84299 drum cover and 84963 adapter flange.

# **Model 84273 Flange Mounting Assembly**

For rigidly mounting any PM II stub pump or drum pump to top of a fabricated bulk tank.

# **Model 83119 Tie Rod Assembly**

Same as 83131 except for 120 lb. drums.

# **Model 84975 Secondary Support Arm**

Add to heavy-duty reels 82206 and 84672 for extra support. Ideal for lube trucks, this bolt-on kit has self-aligning bearing and mounting hardware.

# Model 360248 Drum Locator

Positions and secures 400 lb. drums when truck is in motion. Two identical angles in a circular segment with an 11<sup>1</sup>/<sub>2</sub>" radius. Holes provided for fastening angle to platform. Welding optional.



# **Bulk Oil Systems**

# 3:1 and 5:1 Ratio Pump Packages

Lincoln pump 3:1 and 5:1 ratio packages include 600003 regulator, 600401 gauge, 815 coupler and 11659 nipple. Control valve, inline meter or handheld metering control valve must be ordered separately (except model 4283).

# Model 4283 5:1 with 50' Reel & Meter

Deluxe assembly including 84934 5:1 ratio pump with bung bushing, universal suction tube with foot valve to fit any size container up to 275 gallons. Includes 1/2" x 50' oil hose reel 94354 with 2' connecting hose. 967 electronic meter totalizes in gallons with quart, gallon or pint readout.

NOTE: Pipe, fittings and hardware for installation of overhead reel assembly supplied by others.

# Reel • Pump • Meter Packages

Lincoln puts all the components you specify in one easy-to-order package.

# **RPM Packages**

Model	Pump Kit/Ratio	Reel/30'	Electronic Meter	Air Regulator	Air Gauge
RPM 7	282398/3:1	94334	952 quarts	600003	600401
RPM 8	282398/3:1	94334	954 universal	600003	600401
RPM 10	84934/5:1	94334	954 universal	600003	600401

NOTE: Always consult fluid/solution manufacturer specifications AND local fire code(s) before installing any pump into service. Most modern automotive fluid/solutions include some type of "additive package" which may not be compatible with the typical applications listed below. Some fluids or solutions are considered flammable and/or combustible in which case the dispensing pump should be properly grounded. (Order air coupler and air nipple separately)



4283

# Model 4493 Value Series Pump, Reel and Meter Package

- Configured for above-ground tank installations.
- For use with natural and synthetic oils, automatic transmission fluid, gear oil, antifreeze or hydraulic oil throughout the shop.
- Fast, reliable dispensing with the 4491/six GPM free delivery pump.
- Easy handling, dependable service with the 94000 Series hose reel's heavy-gauge steel base, brass bushings and extra-wide hose guide.
- Accurate and easy dispensing with the 952 electronic oval gear meter with flexible extension.
- Package includes 4491/3.5:1 pump, 94334 reel with 30' x ½" hose, ball stop,
   952 electronic meter (measures in quarts), air line regulator and gauge, air coupler and nipple, 2' fluid connecting hose from pump to reel and adapter union.



4493 System for mounting pump and reel on tank

# Air-Operated Diaphragm





85630



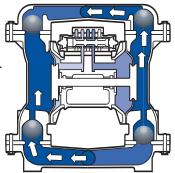


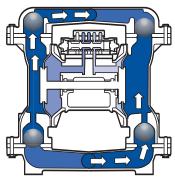


# 1/4" - 2" Air-Operated Pumps

# **Basic Design Features**

Diaphragm pumps are driven by compressed air. The directional air distribution valve and pilot valve—the "air end"—are located in the center section of the pump. Liquid moves through two manifolds and outer chambers of the pump—the "wet end". Generally, check valves are located at the top and bottom of each outer chamber or on a common manifold. The two outer chambers are connected





Right chamber—discharge Left chamber—suction

Left chamber—discharge Right chamber—suction

by suction and discharge manifolds. Lincoln's double diaphragm self-priming design offers many advantages over other pumps.

- Pump abrasive and sheer-sensitive materials. Low interval velocities move abrasives easily with no damage. Gentle pumping action does not sheer fragile materials.
- Pumps viscous materials. Even heavy or solids-laden materials can be pumped.
- Environmentally friendly. No motors, seals or packing to leak.
- Self-priming. Able to dry prime under most suction lift or flooded suction conditions.
- Variable flow. Regulate the inlet air supply to adjust flow.
- Runs dry without damage.
- Deadheads against closed discharge. Excessive back pressure stops operation without damage until discharge opens. Eliminates bypass systems or relief valves.
- Explosion-proof. Eliminates sparking concerns of other electrical or rotating pumps.

# WARNING

The pump exhaust should be piped to an area for safe disposal of product being pumped in the event of a diaphragm failure.

# 1:1 Air-Operated Diaphragm Pump Line

Model Number	Pump Description	Pump Body	Wetted or Soft Parts	Pump Inlet/Outlet NPT	Max. Free Delivery gpm	Air Inlet NPT(F)	Max. Rec. Inlet Air Pressure	Max. Susp. Solids	Application	
85630	1/4"	Polyprop	PTFE	1/4" / 1/4"	4	1/4"	100 psi	1/32"	New oil, AF, windshield washer	
85631	1/2"	Aluminum	Buna-N	1/2" / 1/2"	15	1/4"	100 psi	1/8"	New/used oil, AF	
85632	1/2"	Aluminum	Teflon®	1/2" / 1/2"	15	1/4"	100 psi	1/8"	New oil, AF	
85633	1/2"	Aluminum	Hytrel	1/2" / 1/2"	15	1/4"	100 psi	1/8"	New oil	
85622	1/2"	Polyprop	Santoprene	1/2" / 1/2" *	14	1/4"	100 psi	1/8"	High abrasion materials	
85623	1/2"	Polyprop	Teflon®	1/2" / 1/2" *	14	1/4"	100 psi	1/8"	New oil, AF	
85626	1/2"	Polyprop	Buna-N	1/2" / 1/2" *	14	1/4"	100 psi	1/8"	New oil, AF	
85629	1"	Aluminum	Hytrel	1"/ 1"	45	1/2"	125 psi	1/4"	New oil	
85628	1"	Aluminum	Teflon®	1"/ 1"	45	1/2"	125 psi	1/4"	New oil, AF	
85627	1"	Aluminum	Buna-N	1"/ 1"	45	1/2"	125 psi	1/4"	New/used oil, AF	
85621	1½"	Aluminum	Buna-N	1½" / 1½"	106	3/4"	125 psi	1/4"	New/used oil, AF	
85624	2"	Aluminum	Buna-N	2"/ 2"	150	3/4"	125 psi	1/4"	New/used oil, AF	
Dual	Inlet									
85636	1/2"	Aluminum	Buna-N	1/2" / 1/2"	15	1⁄4"	125 psi	1/8"	AF/Water	
85637	1/2"	Polyprop	Buna-N	1/2" / 1/2"	14	1/4"	100 psi	1/8"	AF/Water	
85639	1"	Polyprop	Buna-N	1"ANSI**	45	1/2"	100 psi	1/4"	AF/Water	
85638	1"	Aluminum	Buna-N	1"/ 1"	42	1/2"	125 psi	1/4"	AF/Water	

<sup>\*</sup> Can be converted to dual 1/2" outlet. \*\* 85639 requires 275631 Adapter and 275632 Seal Kit for Pipe Thread installations

# **Pumps**

# Air-Operated Diaphragm Accessories



# **U.L. Listed**

85634	1" UL	Aluminum	Buna-N	1"/ 1"	45	1/2"	50 psi *	1/4"	Used oil, diesel, kerosene
85635	1" UL	Aluminum	Teflon®	1"/ 1"	45	1/2"	50 psi *	1/4"	Unleaded gas, diesel, kerosene, used oil

<sup>\* 50</sup> psi flammable liquids, 125 psi others.





# Model 85255 Wall Mount Bracket

Wall mount bracket for 1/4" to 1/2" air-operated diaphragm pumps.

# Model 84817 Wall Mount Bracket

Wall mount bracket for 1/2" to 2" air-operated diaphragm pumps.

# Other Accessories

# Model 240994 Drum Adapter Kit

For use with 1/2" polypropylene AOD pumps. Includes 2" NPT(f) bung bushing, 1" x 36" suction tube and adapter.

# Model 275631 1" ANSI Flange To 1" NPT Adapter

Adapts 1" ANSI flange of 85639 polypropylene dual inlet pump to 1" NPT(f). PVC for low pressure installations. Three required to convert all pump inlets/outlets.

# Model 275632 ANSI Bolt Kit with Seal

Attaches adapter to 85639 pump. One bolt kit required for each adapter. Three required to convert all pump inlets/outlets.

# Transfer Pump Accessories

## Suction Kits

# Model 84945 Suction Kit

For transfer of product from drums, bulk tanks or reservoirs. Includes bung bushing suction tube, hose and coupling assembly. NOTE: 2" x 1" bell reducer required for use with Model 1914, not included.

# Model 85256

Same as 84945 except for use with 1/4" AOD pump.

# **Used-Fluid Overfill Warning Valves**

Float rises with used fluid to activate "whistle" warning at prescribed level.

# Model 84815 Single Wall

For single wall tanks & drums in used fluid systems and above ground tanks.

## Model 84824 Double Wall

Same as 84815 except for double walled tanks and above ground tanks.

# 4-Way Valve

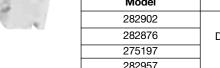
## Model 84816

Four port, two position valve used in waste fluid systems. Enables one pump to pump into and out of drum or tank.

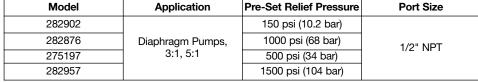
# Thermal Pressure Relief Valve

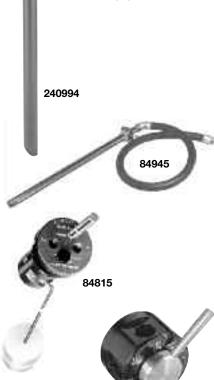
## Model 282902

Protect lube system components from high-pressure spikes caused by temperature change in a closed fluid network.



84816



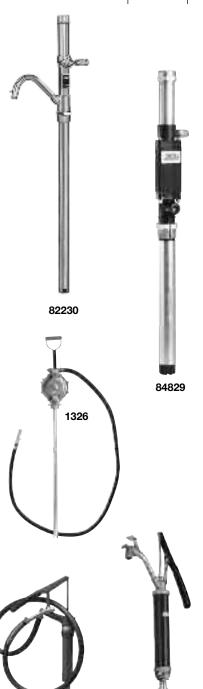


282902



# **1:1 Piston Transfer Pumps**

Model	Pump Descrip.	Pump Body	Wetted or Soft Parts	Pump Inlet/Outlet NPT	Max. Free Delivery GPM	Air Inlet NPT(f)	Max. Rec. Inlet Air Pressure	Max. Susp. Solids Dia.	Typical Automotive Use
84829	stub	alum/steel/ plastic	Buna-N	1"/ 3/4"	14 gpm	1/4"	150 psi	NA	Universal/new oil transfer
82230	55-gal. drum	alum/steel	Buna-N	<sup>3</sup> / <sub>4</sub> " – 11 <sub>1</sub> / <sub>2</sub> " A.N.	20 gpm	1/8"	150 psi	NA	55-gal. drum/new oil transfer



# **Model 84829 Universal**

Stub pump design provides the versatility to transfer and dispense controlled amounts of lubricant using an oil spigot, control valve or meter. Adaptable for 16-or 55-gal. containers as well as bulk tank or standpipe installations. Delivers 12.5 cu. in. per cycle. Includes air motor 84831, pump tube 84828, suction tube, bung bushing, air coupler and air nipple.

# Model 82230

Transfer pump quickly transfers fluids directly from 55-gallon drums. 2" bung bushing adjusts to varied drum lengths. Designed to stall against lubricant pressure. Use built-in air control valve to adjust fluid output flow.

# Model 82715 Teflon® Kit

For use with 82230, to allow compatibility with additional products.

# **Model 1326 Diaphragm Action**

Neoprene seals resist wear from abrasive fluids. Double-acting diaphragm delivers one full gallon per eight strokes. 8' hose with discharge nozzle.

# **Transfer Pump**

Model	Drum Size	<b>Bung Bushing</b>	Output
1326	16- to 55-gal. w/2" bung opening	2" NPT(m)	1 pint per stroke

# **Model 1335**

This close tolerance pump utilizes brass rings for extreme durability and expanded fluid compatibility. Telescoping pick-up tube for 16- through 55-gallon drums with standard 2" bung openings. Bung opening tool built into pump head to open sealed refinery container. Provides 8.5 fl. oz. per full stroke. For use with non-corrosive fluids such as motor oil, transmission fluid, gear oil, engine coolant, silicone oils, and more.

# **Model 1340 Lever Action Barrel Pump**

Extended pump body improves top-of-barrel clearance while providing excellent flow per stroke.

- Pumps non-corrosive automotive, agricultural and industrial fluids \*
- Extended pump body for improved top-of-barrel clearance and excellent flow (14.0 fl oz. minimum per stroke)
- Removable non-drip spout allows for threaded hose connection
- Telescoping pick-up tube for 16- to 55-gallon drums
- Three-tier threaded bung fits standard 2" and 1.5" drums and plastic drums utilizing 56 x 4 mm buttress threads
- \* Not suitable for gasoline

1340

1335

# Pumps Transfer / 1:1 - Value Series





# Features and Benefits-Designed for Value

- Proven horizontal, valved-piston motor design for simplicity and reliability
- Provides quick dispense, fill or transfer with high-volume output
- Built-in muffler for quiet operation
- Cost-effective solution for oil distributors who need to supply pumps for customers who purchase bulk oil in tanks or drums
- Available as stub pump, 16-/55-gallon pump or 250- to 275-gallon tank pump
- Motor's single-stroke action delivers cost effective, high performance and high flow
- Provides quick dispense and fill of ATF, oil, gear lube and other fluid lubricants with the speed of many higher-priced pumps
- Ideal for use with one or two overhead reels in applications such as medium-to-light vehicle service facilities, car dealerships, small contractors, farmers and agriculture equipment dealers



# **Specifications**

	Output/ Delivery			atic Inlet ssure	Oper. Temp.	Weight	Pneum. Port	Material Port	Rec'd. Fluids
Ratio	Stroke	Output	Max.	Min.	Range	(Empty)	Inlet	Outlet	
3.5:1	5.6 in <sup>3</sup> 91 cm <sup>3</sup>	6 GPM	120 psig 8.3 bar	20 psig 1.4 bar	30°F - 120°F -1°C - 49°C	14 lbs.	1/4-18 NPTF	½ NPTF	Motor oils, transmission fluid, petroleum-based fluids



# **Pump Models**

Model No.	Application	Mounting	Down Tube Length		
4490	16-55 gallon	2" NPT male bung adapter	36.5"		
4491	250-275-gallon oval tank	2" NPT male bung adapter	47.0"		
4492	Stub	1.5" NPT male	N/A		

# **Model 4475 Series Pump**

The Model 4475 pump is a reciprocating-piston, low-pressure single action pump. Air powers the pump's piston on the dispensing, or working, stroke. An internal spring returns the piston and resets it for the working stroke. It pumps continuously when the dispensing (fluid outlet) valve is open and 20-120 psig air is supplied to the pump.

# **Specifications**

Model	Description	Material Outlet	Operation	Pump Tube Length	Attachment	Effective Pump Ratio	Inlet Air Pressure	Output/ Stroke	Free Delivery
*4475	Bare Pump	½" NPTF	Pneum. pressure		2" Bung, adj.	Approx.	Max: 120 psi		
*4480	Spigot Pump	Spigot extension with on/off valve	delivery stroke, spring return stroke	34" (86 cm)	for 55- & 16-gal. drums, bench & portable tank	0.7:1 to 0.8:1 depending on inlet air pressure	(8.3 bar) Min: 20 psig (1.4 bar)	2.9 in <sup>3</sup> (48 cm <sup>3</sup> )	Up to 4 gpm (15 lpm)

<sup>\*</sup> Bung bushing 261102, 261103, 261104

# Pumps **Lube Dispensing Stations**





## **Model 4030**

This inline design, 6 product console is compact—the perfect dispensing station for "between the bays" installations which allows servicing of two vehicles from one location. Heavy-duty welded lower cabinet construction is finished in safety red. Metering control valves rest on top of the console in the meter cradle, eliminating the need for ball stops on oil products. Air or water hoses rest in small O.D. hose brackets which require a ball stop. Hoses gravity feed through the floor into the fast oil change basement or pit area.

The inline console includes composite hose guide plates and a composite meter cradle which:

- Are constructed of self-lubricating composite material—hoses glide over easily
- Replaces rollers—no rollers are needed
- Does not require maintenance
- Two small OD hose brackets are included with each 4030 console

# **Specifications**



Hoses, meters, control valves and ball stops (required for non-metered products only) are available separately.



# Oil Bar Assembly Model 84959

Includes single delivery spigot for dispensing motor oil, ATF and other fluids. Base unit may be expanded two additional positions by adding spigot kits, meters or other accessories. Removable tray for disposal of spillage; 14 gauge steel.

# Model 84957 Oil Bar Spigot Kit

To add products to base model 84959, order one spigot kit for each additional product to be dispensed. Includes hardware and 84956 bulkhead fitting kit.

# Oil Spigots Model 84950

Spring-loaded oil spigot is used with oil pumps to dispense fluids into oil crankcase fill cans.  $^{1}/_{2}$ " NPT(m).

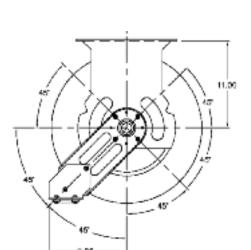


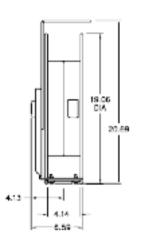
# **Hose Reels**

# Lincoln's Fluid Reel (LFR) Series









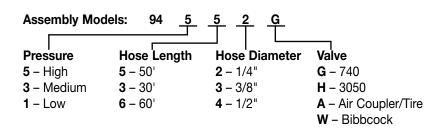
Lincoln's Fluid Reel Series (LFR) incorporates both new and proven design features and capabilities.

- Advanced design provides consistent, repetitive performance.
- Top-of-the-line features in our most popular reel.
- Engineered for durability and reliability.
- Low-, medium- and high-pressure models available.

# **Features**

- Low-pressure, fully-ported swivel designed to be corrosion resistant when used for air and water-based solutions.
- Medium-pressure, fully-ported swivel provides unrestricted flow, dispensing higher volumes of fluid.
- High-pressure swivel includes quick-disconnect for easy hose attachment.
- Two hose clamps perfectly spaced to prevent the hose from locking in the fully extended position.
- Easily accessible-yet fully contained-power springs designed for optimum performance at various operating pressures.
- Dual needle bearings reduce the stress on the spring, providing smooth, balanced operation during both hose extension and retraction.
- Rounded edges on hose guide face enhances safety.
- Electroless nickel plated, corrosion-resistant, low-pressure axle prevents contamination of fluid and restriction of flow.
- Double ratchet teeth provide solid latch to lock hose in multiple usable positions.
- Mounting base accepts Lincoln No. 82206 mounting pattern and is slotted at both ends for easy installation.
- Powder-coat finish creates a corrosion-resistant reel that stands up to the elements.

Pressure Application	Hose Diameter	Max. Working Pressure psi (bar)
High	1/4"	5,000 (340)
	3/8" & 1/2"	4,000 (272)
Medium	1/2"	1,500 (102)
Low	1/4" & 3/8"	250 (17)
	1/2"	200 (13.6)



# Lincoln's Fluid Reel (LFR) Series





# **Bare Reel Specifications**

		Hose Capacity			Max.	
Model	Application	Rating	Туре	Max. Length	Working Pressure Bare Reel, psi	Inlet/ Outlet (f)
94100	Air, A-F, Water, WW	RMA	Class A	60'	1000*	1/2" NPTF
94300	Oil	SAE100R3	73	60'	2500*	1/2" NPTF
94500	Grease	SAE100R2	75, 76	50'	8000*	3/8" NPTF

<sup>\*</sup> Note: Actual working pressure of the reel should not exceed pressure rating of the installed hose. 60' hose should be used on installations allowing for a 10' to 12' hose hand down.

# High-Pressure Reels and Assemblies Grease Reel and Hose Assemblies

			Included with Reel Assemblies						
Model	Description	Bare Reel Model	Connecting Hose	Delivery Hose	Ball Stop	Control Valve or Meter			
94532	1/4" x 30'	94500	75024	75360	85515	NA			
94552	1/4" x 50'	94500	75024	75600	85515	NA			
94553	3/8" x 50'	94500	75024	76600B	85516	NA			



# Grease Assemblies with Universal Swivel & Control Valve

94532G	1/4" x 30'	94500	75024	75360	85515	81387 & 740
94552G	1/4" x 50'	94500	75024	75600	85515	81387 & 740
94553H	3/8" x 50'	94500	75024	76600B	85516	81729 & 3050

# Medium-Pressure Reels and Assemblies Oil Reel and Hose Assemblies

94334	1/2" x 30'	94300	73024	73360	85517	NA
94354	1/2" x 50'	94300	73024	73600	85517	NA
94364	1/2" x 60'	94300	73024	73720	85517	NA

# Low-Pressure Reels and Assemblies Air, Water Reel and Hose Assemblies

94132	1/4" x 30'	94100	74024	72360	85515	NA
94133	3/8" x 30'	94100	74024	72360A	85516	NA
94152	1/4" x 50'	94100	74024	72600	85515	NA
94153	3/8" x 50'	94100	74024	72600A	85516	NA
94154	1/2" x 50'	94100	74024	74600	85517	NA
94163	3/8" x 60'	94100	74024	74720	85516	NA



# Air Assemblies with Air Coupler and Tire Chuck

94132A	1/4" x 30'	94100	74024	72360	85515	815/11659/66951
94133A	3/8" x 30'	94100	74024	72360A	85516	815/11659/66951
94152A	1/4" x 50'	94100	74024	72600	85515	815/11659/66951
94153A	3/8" x 50'	94100	74024	72600A	85516	815/11659/66951
94154A	1/2" x 50'	94100	74024	74600	85517	815/11659/66951

# Water Assemblies with Water/Antifreeze Bibbcock

94132W	1/4" x 30'	94100	74024	72360	85515	846 Bibbcock
94133W	3/8" x 30'	94100	74024	72360A	85516	846 Bibbcock
94152W	1/4" x 50'	94100	74024	72600	85515	846 Bibbcock
94153W	3/8" x 50'	94100	74024	72600A	85516	846 Bibbcock
94154W	1/2" x 50'	94100	74024	74600	85517	846 Bibbcock

# **Dual Support Hose Reel**

		Hose Capacity			Max.	
Model	Application	Rating	Туре	Max. Length	Working Pressure Bare Reel, psi	Inlet/ Outlet (f)
94100DS	Air, Water	RMA	Class A	60'	1000	1/2" NPTF
94300DS	Oil	SAE100R3	73	60'	4000	1/2" NPTF
94500DS	Grease	SAE100R2	75, 76	50'	8000	3/8" NPTF

# **Hose Reels Heavy-Duty Series**



The Heavy-Duty Series reels are the finest Lincoln lube reels ever designed. Years of engineering, testing and experience preceded their introduction. The quality and reliability the professional expects from Lincoln is not only met but exceeded in form and function by the HD Series. Value, long-life and top performance were the criteria demanded before these incredible reels were released.

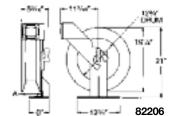
You should expect the best from Lincoln... the HD Series reel delivers it.



# **Features**

- All bare reels rated for high, medium and
   Components individually powder paint-
- Reel assemblies available in standard 30', 40' and 50' hose lengths
- Dual needle roller bearings
- Ball bearing inlet swivel design
- · Quick disconnects on delivery and connecting hose
- Spring canister with seals
- Thirteen position roller outlet arm
- Delrin rollers
- · Quarter-inch thick steel welded base and roller outlet arm
- Reel sheaves are rolled

- ed for long life and scratch resistance
- All reel assemblies factory assembled and pressure tested to insure a quality leak-free installation every time
- Basic reel assemblies can be ordered with one model number; include delivery hose, ball stop and connecting hose
- Complete reel assemblies with meter, control valve or air coupler are also available as one model number
- Backed by a five-year limited warranty. See your Lincoln representative for details



# **Bare Reel Specifications**

	Lincoln Reel	Ho	se Capac	city	Working	Sheave	Inlet/
Model	Application	Rating	Туре	Length	Pressure	Width	Outlet
82206	Heavy-duty long length	SAE100R2	75	50'	8000*	5 <sup>1</sup> /2"	1/2" NPTF
		SAE100R2	76A	50'	8000*	5 <sup>1</sup> /2"	1/2" NPTF
		SAE100R2	76B	50'	8000*	5 <sup>1</sup> /2"	1/2" NPTF
		SAE100R3	73	50'	8000*	5 <sup>1</sup> /2"	1/2" NPTF
		SAE100R1	78	50'	8000*	5 <sup>1</sup> /2"	1/2" NPTF
		RMA	Class A	50'	8000*	51/2"	1/2" NPTF

<sup>\*</sup> Note: Actual working pressure of the reel should not exceed pressure rating of the installed hose.

# Model 84275

Extra-heavy-duty dual reel sheave support base design and large hose capacity make this 1/2" (inlet/outlet) reel the ideal high-pressure reel for grease, petroleum oils, air and

# **High-Flow Reel Specifications**

Model	Designation	SAE	HOSE CAPACITY Type	Length	Inlet/ Outlet NPTF	Working Pressure psi	Sheave Width	INSTALI Width	LATION Depth
	Extra-	100R1	78	75'					
84275	heavy-duty	100R2	75/76A/76B	75'	1/2"	5000	10"	13 <sup>1</sup> /8"	123/4"
	large capacity	100R3	73	75"					

# Mounting Kits Model 85641

Universal kit for mounting up to 12 reels, any series, open or decorative.



84275

# I-Beam Clamp Model 85654

The I-beam clamp accessory allows users to easily mount the 94000 series reels to existing I-beams.





# **Basic Grease Assemblies** Less Hose End Control

Basic Reel	Bare Reel	Delivery Hose	Hose Size	Connecting Hose	Ball Stop	Control Valve
85003-30	82206	75360	30' x <sup>1</sup> /4"	75024	85516	NA
85004	82206	75480	40' x <sup>1</sup> / <sub>4</sub> "	75024	85516	NA
85004-50	82206	75600	50' x <sup>1</sup> / <sub>4</sub> "	75024	85516	NA
85006-30B	82206	76360B	30' x <sup>3</sup> /8"	76024B	85517	NA
85004-50B	82206	76600B	50' x <sup>3</sup> /8"	76024B	85517	NA
85008-50A	82206	76600A	50' x <sup>1</sup> /2"	76024A	85517	NA

Complete Grease Assemblies with Universal Swivel & Control Valve

Assembly	Included with Reel Assemblies (Quantity)							
Model	Bare Reel	Delivery Hose	Hose Size	Connecting Hose	Ball Stop	Control Valve	Swivel	Nipple
85050	82206	75360	30' x <sup>1</sup> /4"	75024	85516	740	81387	12957(2)
85051	82206	75600	50' x <sup>1</sup> / <sub>4</sub> "	75024	85516	740	81387	12957(2)



# Medium Pressure Reels & Assemblies Basic Oil, Fluid Lubricant, Antifreeze & WW Fluid Assemblies Less Hose End Control

Basic Reel	Bare Reel	Delivery Hose	Hose Size	Connecting Hose	Ball Stop	Control Valve
83463	82206	73240	20' x <sup>1</sup> /2"	73024	85517	NA
83463-30	82206	73360	30' x <sup>1</sup> /2"	73024	85517	NA
83464	82206	73480	40' x <sup>1</sup> /2"	73024	85517	NA
83464-50	82206	73600	50' x <sup>1</sup> /2"	73024	85517	NA
85009-50	82206	78600	50' x 5/8"	78024	84347	NA

# Low Pressure Reels & Assemblies Basic Air, Water Less Hose End Control



85232	82206	72360	30° X 1/4"	72024	80010	NA NA
85002	82206	72480	40' x <sup>1</sup> /4"	72024	85515	NA
85011	82206	72600	50' x <sup>1</sup> /4"	72024	85515	NA
85002A	82206	72480A	40' x <sup>3</sup> /8"	72024A	85516	NA
85001	82206	72600A	50' x <sup>3</sup> /8"	72024A	85516	NA
85012	82206	_	60' x <sup>3</sup> /8"	72024A	85516	NA
85005	82206	74480	40' x <sup>1</sup> /2"	74024	85517	NA
85010-50	82206	74600	50' x <sup>1</sup> /2"	74024	85517	NA

# **Complete Medium Pressure Assemblies-Gear Lube**

85052	82206	73360	30' x <sup>1</sup> /2"	73024	85517	780
85053	82206	73600	50' x <sup>1</sup> /2"	73024	85517	780
85054	82206	73360	30' x <sup>1</sup> /2"	73024	85517	878 (meter)
85055	82206	73600	50' x <sup>1</sup> /2"	73024	85517	878 (meter)

# **Complete Medium Pressure Assemblies-Oils**

85056	82206	73360	30' x <sup>1</sup> /2"	73024	85517	877 (meter)
85057	82206	73600	50' x <sup>1</sup> /2"	73024	85517	877 (meter)
85058	82206	73360	30' x <sup>1</sup> /2"	73024	85517	3866 (meter)
85059	82206	73600	50' x <sup>1</sup> /2"	73024	85517	3866 (meter)

# Complete Medium Pressure Assemblies-Oils Elec/Digital

65000	02200	73300	30 X 1/2	73024	00017	907 (meter)
85061	82206	73600	50' x <sup>1</sup> /2"	73024	85517	967 (meter)

# **Complete Low Pressure Assemblies-Air Service**

Assembly	y Included with Reel Assemblies								
Model	Bare Reel	<b>Delivery Hose</b>	Hose Size	<b>Connecting Hose</b>	Ball Stop	Air Coupler	Nipple	Air Chuck	Bushing
85062	82206	72600	50' x <sup>1</sup> /4"	74024	85515	815	11659	66951	12080
85063	82206	72600A	50' x <sup>3</sup> /8"	74024	85516	815	11659	66951	67069/10049

# **Complete Low Pressure Assemblies-Water Service**

Assembly							
Model	Model Bare Reel   Delivery Hose   Hose Size   Connecting Hose   Ball Stop						Bibbcock
85064	82206	72600	50' x <sup>1</sup> /4"	74024	85515	12080	846
85065	82206	72600A	50' x <sup>3</sup> /8"	74024	85516	67069/10049	846

# Hose Reels Decorative



Lincoln's plastic decorative overhead hose reel cabinets are constructed of a lightweight, durable resin. This design offers dramatically reduced installation time and ease of maintenance. The modular design eliminates reel enclosure end panels. Plastic decorative cabinet models are dent and scratch resistant, non-conductive and non-corrosive.



# **Plastic Decorative Reel Cabinet**

			Required Mount	ting Components	
	Hose Reel Series	Cabinets (1 Per Reel)	Adapter Plate Kit (1 Per Reel)	Mounting Kit (1-12 Reels)	
	94000	85640	05640	85641	
_	82206	85240	85642	00041	

# **Metal Decorative Reel Cabinet**

		End Panel	Required Mounting Components		
Hose Reel	Cabinets	Assembly	Adapter Plate Kit	Mounting Kit	
Series	(1 Per Reel)	(1 Per Set of Reels)	(1 Per Reel)	(1-12 Reels)	
94000	83872	82164	85642	85641	
82206	03072	02104	00042	00041	

# **Model 85641 Universal Mounting Kit**

Universal mounting kit allows installation of up to twelve reels, any series, open or decorative. Twelve reels can be installed side by side with this kit or cut to fit your reel installation needs. Includes 2 mounting struts and hardware to mount 12 reels.

# **Series 3100 Heavy-Duty, Decorative, 30 Feet**

		Bare	Delivery	Connecting	Ball	Hose End			
Model	Description	Reel	Hose (30')	Hose	Stop	Controls	Swivel	Coupler	Nipple
3191	Grease w/Control Valve & Swivel	82206	75360 <sup>1</sup> /4"	75024	85515	740	81387		
3189	Motor Oil/Antifreeze w/Electronic Meter	82206	73360 1/2"	73024	85517	954	NA	NA	NA
3194	Motor Oil/Antifreeze w/Quarts Meter	82206	73360 1/2"	73024	85517	877	NA	NA	NA
3195	Gear Oil w/Pints Meter	82206	73360 <sup>1</sup> /2"	73024	85517	878	NA	NA	NA
3196	Gear Oil w/Control Valve	82206	73360 1/2"	73024	85517	780	NA	NA	NA
3197	ATF w/Quarts ATF Meter	82206	73360 1/2"	73024	85517	883	NA	NA	NA
3193	Air w/Air Chuck	82206	72360 <sup>1</sup> /4"	72024	85515	66951	NA	815	11659
3192	Water w/Bibbcock, 30' Hose	82206	72360 <sup>1</sup> /4"	72024	85515	846	NA	NA	NA

# Series 3200 Heavy-Duty, Decorative, 50 Feet

	I	Bare	Delivery	Connecting	Ball	Hose End	1	ı	ı
Model	Description	Reel	Hose (50')	Hose	Stop	Controls	Swivel	Coupler	Nipple
3291	Grease w/Control Valve & Swivel	82206	75600 <sup>1</sup> /4"	75024	85515	740	81387	NA	NA
3289	Motor Oil/Antifreeze w/Electronic Meter	82206	73600 1/2"	73024	85517	954	NA	NA	NA
	Motor Oil/Antifreeze	82206	73600 1/2"	73024	85517	NA	NA	NA	NA
3294	Motor Oil/Antifreeze Quarts Meter	82206	73600 <sup>1</sup> /2"	73024	85517	877	NA	NA	NA
3295	Gear Oil w/Pints Meter	82206	73600 1/2"	73024	85517	878	NA	NA	NA
3296	Gear Oil w/Control Valve	82206	73600 1/2"	73024	85517	780	NA	NA	NA
3297	ATF w/Quarts ATF Meter	82206	73600 <sup>1</sup> /2"	73024	85517	883	NA	NA	NA
3198	Air w/Air Chuck	82206	72600 <sup>1</sup> / <sub>4</sub> "	72024	85515	66951	NA	815	11659
3199	Air w/Air Chuck	82206	72600A <sup>3</sup> /8"	72024A	85516	66951	NA	815	11659
3190	Water w/Bibbcock	82206	72600A <sup>3</sup> /8"	72024A	85516	846	NA	NA	NA

# **Hose Reels Dual Support Hose Reel**



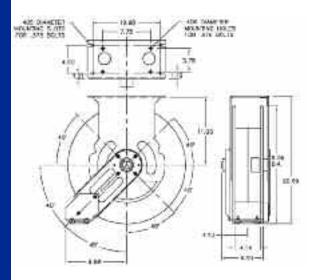


The Dual Support Reel utilizes the same technology as Lincoln's dependable 94000 reels. These new heavy-duty reels include a dual arm and dual pedestal to give the added stability needed for demanding environments.

The three-point bolt design on the support arm allows for easy installation of the delivery hose and provides instant access to the reel's working parts.

# **Features and Benefits**

- Design based on the proven 94000 series reels
- Dual support from base to axle to roller outlet provides stability for applications with heavy vibration and impact
- Easy to install



# **Specifications**

Model	Description	Hose	Application	Working Pressure	Sheave Width	Inlet/Outlet
94100DS	Bare Reel	NA	Air & Water	1000 psi		½" NPTF
94300DS	Bare Reel	NA	Oil	4000 psi	41/2"	½" NPTF
95000DS	Bare Reel	NA	Grease	8000 psi		3/8" NPTF

Maximum Hose Capacities	Maximum Length
<sup>1</sup> / <sub>4</sub> " ID Air/water/grease hose	60'
<sup>3</sup> / <sub>8</sub> " ID Air/water/grease hose	60'
<sup>1</sup> / <sub>2</sub> " ID Oil hose	50'

# Hose Reels High-Flow Series



Extra-Heavy-Duty Reels for Applications that Require High Product Flow and/or Longer Hose such as Service Trucks, Lube Trucks, Transit Facilities and Large Fleet Shops.



# Model 84672

Extra-heavy-duty high flow design makes this <sup>3</sup>/<sub>4</sub>" inlet/outlet reel the perfect medium-pressure reel for petroleum oils, used fluid evacuation, air and water service.

# Model 84673

Extra-heavy-duty dual reel sheave support base, high flow design and large hose capacity make this <sup>3</sup>/<sub>4</sub>" inlet/outlet reel the ideal medium-pressure reel for petroleum oils, used fluid evacuation, air and water service.



Dual reel sheave support base design and high-flow swivel make this 1" inlet/outlet reel the ideal low-pressure/volume reel. This reel is suitable for gasoline, diesel fuel, fuel oil, air and water. Not suitable for ceiling or wall mounted applications.



# **High-Flow Reel Specifications**

			HOSE CAPACITY		Inlet/ Outlet	Working Pressure	Sheave	INSTAL	LATION
Model	Designation	SAE	Туре	Length	NPTF	psi	Width	Width	Depth
84672	Extra- heavy-duty high-flow	100R1	<sup>3</sup> /4"ID x 1 <sup>1</sup> /4"OD 78	30'	3/4"	2000	5 <sup>1</sup> /2"	9 <sup>15</sup> /16"	12 <sup>3</sup> /4"
84673	Large capacity	100R1 100R1	<sup>3</sup> /4"ID x 1 <sup>1</sup> /4"OD 78	75' 75'	3/4"	2000	10"	141/2"	123/4"
84432	Heavy-duty volume	100R3	1"OD low pressure	50'	1"	300	8"	15 <sup>3</sup> /4"	24 <sup>1</sup> /4"
89010	Super-duty high-flow	100R3	1 <sup>1</sup> / <sub>4</sub> "ID x 1 <sup>3</sup> / <sub>4</sub> "OD low pressure	50'	1 <sup>1</sup> /4"	500		221/8"	261/4"



# Model 84433

1" x 50' volume fuel reel assembly comes complete with spring-powered reel 84432, 1" x 50' delivery hose 247926, ball stop 84257 and 1" x 2' connecting hose. Order control valve/nozzle separately.



1<sup>1</sup>/<sub>4</sub>" NPT(f) inlet, 50 psi. Aluminum body and outlet tube.

# Model 69825

Auto shut-off, 1" NPT(f) inlet, 50 psi. Aluminum body and outlet tube.

# Model 69824

Same as 69825 except 3/4"NPT(f) inlet.



# **High-Flow Reel Assemblies**

Basic Reel	Bare Reel	<b>Delivery Hose</b>	Hose Size	Ball Stop	Control Valve
84433	84432	247926	1" x 50'	84257	order separately



# **Recommended Mounting/Application**

Bare Reel	Mounting	Applications				
84275	Floor, wall, ceiling, lube truck	Grease, oils, air				
84672	Floor, wall, ceiling, lube truck	Oils, used fluid evacuation, air, water				
84673	Floor, wall ceiling, lube truck	Oils, used fluid evacuation, air, water				
84432	Floor, platform, lube truck	Fuel, volume oils, used fluid evac., air, water				

Contact Lincoln for more information regarding super-duty reels with extra large hose capacity suitable for aircraft fuels.





# Air Reel - Value Series

Lincoln's Value Series air hose reels are constructed of durable, heavy-gauge steel and heavy-duty rubber air hoses. The slotted mounting base allows for easy attachment to ceilings, walls and work benches. Features include five-position adjustable outlet roller arm, spring-powered automatic recoil, angled hose guide for smooth, parallel hose pull-out and retraction and an eight-position ratchet gearing that locks the reel at the desired hose length.

# **Model 83753**

<sup>3</sup>/8" x 50' assembled air hose reel includes bare hose reel, 50' delivery hose and ball stop.

# Model 83754

<sup>1</sup>/2" x 50' assembled air hose reel includes bare hose reel, 50' delivery hose and ball stop.

# **Specifications**

Model	Assembly Description	Inlet/Outlet Connection	Maximum Pressure	Maximum Air Flow
83753	50' of <sup>3</sup> /8" air hose	<sup>1</sup> /4" NPT	300 psi	25 cfm
83754	50' of 1/2" air hose	<sup>1</sup> /2" NPT	300 psi	35 cfm

# **Replacement Hose**

Model	Assembly Description	Inlet/Outlet Connection	Maximum Pressure	Maximum Air Flow
275173	50' of <sup>1</sup> / <sub>2</sub> " air hose	1/2" NPT	300 psi	35 cfm
275172	50' of <sup>3</sup> /8" air hose	<sup>1</sup> /4" NPT	300 psi	25cfm

## WARNING

Reels used with hazardous fluids or fuels, hose with static grounding wire must be used. For aircraft fuels, a separate static grounding cable must be furnished by the user. Consult federal and local codes for details.

# Mini Workbench Reel

# Lincoln's smallest reel excels in the tightest places.



- Narrow 5-1/4" width and 14" spool makes this the most narrow reel in its class
- 1" quality spring provides reliable, consistent performance and retractability
- 5-year warranty
- Integrated swivel stem and shaft design means easy servicing by simply removing the swivel body
- High gloss, UV-resistant powder coat finish reduces scuffs and impact marks



# **Specifications**

Model	Pressure	Fluid	Diameter	Length
81133	Low	Air/Water	3/8"	35'
81323	Medium	Oil	3/8"	25'



# Lincoln high-, medium- & low-pressure hoses—every size for every application

# **High-Pressure Hose-Grease**

Model	Size	Hose Type/SAE	Inch ID	nes   OD	Thread	Max Pressure psi (bar) Working		
75024	2'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75060	5'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75084	7'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75120	10'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75168	14'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75240	20'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75360	30'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75480	40'	75/100R2A	1/4	11/16	1/2"-27(f)	5000 (340)		
75600	50'	75/100R2A	1/4	11/16	1/2" <b>–</b> 27(f)	5000 (340)		
76024B	2'	76B/100R2	3/8	27/32	1/2"NPT(f)	4000 (272)		
76120B	10'	76B/100R2	3/8	27/32	1/2"NPT(f)	4000 (272)		
76360B	30'	76B/100R2	3/8	27/32	1/2"NPT(f)	4000 (272)		
76600B	50'	76B/100R2	3/8	27/32	1/2"NPT(f)	4000 (272)		
76900B	75'	76B/100R2	3/8	27/32	1/2"NPT(f)	4000 (272)		
76024A	2'	76B/100R2	1/2	27/32	1/2"NPT(f)	4000 (272)		
76600A	50'	76B/100R2	1/2	27/32	1/2"NPT(f)	4000 (272)		

# Medium-Pressure Hose—Oil, Gear Lube & Antifreeze

73024	2'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73036	3'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73060	5'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73120	10'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73240	20'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73360	30'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73480	40'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73600	50'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
73900	75'	73/100R3	1/2	<sup>13</sup> /16	1/2"NPT(m)	1500 (102)
1230120	10'	1230/100R2	3/4	1 <sup>1</sup> / <sub>4</sub>	3/4"NPT(m)	2250 (153)

# **Hose Accessories**

# **Ball Stops**

Lincoln Ball Stops are used to cushion and stop hose retraction.



Model	Description	Hose Type	OD
85515	Adjustable	RMA Class A	5/8"
85516	Adjustable	RMA Class A & 74	11/16" - 23/32"
85517	Adjustable	73, 74, 76A & 76B	27/32" - 31/32"
84347	Adjustable	78 & 78B	11/32"
84122	Adjustable	NA	13/4" – 17/8"
84257	Adjustable	NA	11/2" – 15/8"



# Low-Pressure Hose—Air & Water

Model	Size	Hose Industrial	Inch ID	nes   OD	Thread	Max Pressure psi (bar) Working
72024	2'	RMA Class A	1/4	5/8	1/4"NPT(m)	250 (17.01)
72036	3'	RMA Class A	1/4	5/8	1/4"NPT(m)	250 (17.01)
72060	5'	RMA Class A	1/4	5/8	1/4"NPT(m)	250 (17.01)
72120	10'	RMA Class A	1/4	5/8	1/4"NPT(m)	250 (17.01)
72240	20'	RMA Class A	1/4	5/8	1/4"NPT(m)	250 (17.01)
72360	30'	RMA Class A	1/4	5/8	1/4"NPT(m)	250 (17.01)
72600	50'	RMA Class A	1/4	5/8	1/4"NPT(m)	250 (17.01)
72024A	2'	RMA Class A	3/8	23/32	<sup>3</sup> /8"NPT(m)	250 (17.01)
72360A	30'	RMA Class A	3/8	23/32	<sup>3</sup> /8"NPT(m)	250 (17.01)
72480A	40'	RMA Class A	3/8	23/32	<sup>3</sup> /8"NPT(m)	250 (17.01)
72600A	50'	RMA Class A	3/8	23/32	<sup>3</sup> /8"NPT(m)	250 (17.01)
74024	2'	RMA Class A	1/2	27/32	1/2"NPT(m)	200 (13.61)
74060	5'	RMA Class A	1/2	27/32	1/2"NPT(m)	200 (13.61)
74480	40'	RMA Class A	1/2	27/32	1/2"NPT(m)	200 (13.61)
74600	50'	RMA Class A	1/2	27/32	1/2"NPT(m)	200 (13.61)

# Lincoln High-Pressure Replacement Hose Cross Reference

Model	Original Threads	Replacement		
Alemite	<sup>1</sup> /2"-27(f) x <sup>1</sup> /2"-27(f)	Any Type 75 Hose		
Aro	1/8" NPT(m) x 1/8" NPT(f)	Any Type 75 Hose, 10199 Nipple, 10200 Bushing		
Balcrank	<sup>1</sup> /2"-27(f) x <sup>1</sup> /2"-27(f)	Any Type 75 Hose		
Graco	<sup>1</sup> /4" NPT(m) x <sup>1</sup> /4" NPT(m)	Any Type 75 Hose, Two (2) 10198 Bushing		





# **Hose Accessories** Nipples, Couplers & Bushings for Lincoln 75 Grease Hose

# **Nipples**

Model	Thread
10198	<sup>1</sup> /4" NPT(m) x <sup>1</sup> /2"-27(m)
10199	<sup>1</sup> /8" NPT(m) x <sup>1</sup> /2"-27(m)
10202	<sup>1</sup> / <sub>2</sub> "-27 NPT(m) x <sup>1</sup> / <sub>2</sub> "-27(m)
12957	1/2" NPT(m) x 1/2"-27(m)

# **Reducing Couplings**

11852	<sup>1</sup> /8" NPT(f) x <sup>1</sup> /2"-27(f)
10522	<sup>1</sup> / <sub>4</sub> " NPT(f) x <sup>1</sup> / <sub>2</sub> "-27(f)

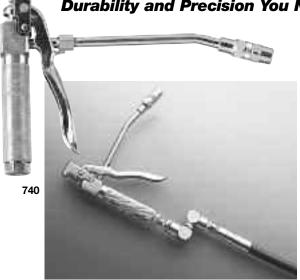
# **Bushings**

10200	1/8" NPT (f) x 1/2"-27(m)
10204	<sup>1</sup> /4" NPT(f) x <sup>1</sup> /2"-27(m)
12287	1/2"-27(f) x 1/2" NPT(m)

# Grease

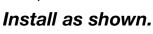


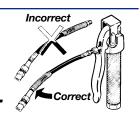




# WARNING

Whip Hoses Models 3029, 3034, 5812, 5818, 5861, 81725, 81726, 81795





## WARNING

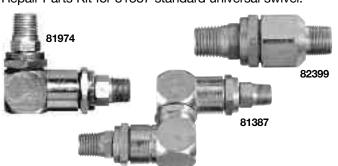
For safe and proper use, always consult instructions accompanying product. See **Safety Warning Information** for appropriate warnings.

# Swivels Volume High-Pressure Swivels

Model		Description	Thread Size		
	81728	Straight	<sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>3</sup> / <sub>8</sub> " NPT(m)		
-	82072	Straight	<sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> " NPT(m)		
	82087	90° Angle	<sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> " NPT(m)		
	81729	Universal	<sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>3</sup> / <sub>8</sub> " NPT(m)		
	82073	Universal	<sup>1</sup> /2" NPT(m) x <sup>1</sup> /2" NPT(m)		

# Model 82158 Repair Kit

Repair Parts Kit for 81387 standard universal swivel.



# **Model 740 Heavy-Duty High-Pressure**

- 7500 psi maximum operating pressure
- Precision-machined, all steel handle, body and guard bracket provides durability and longevity
- Unique, precision control inlet check valve provides ease of handle operation even with increase in pressure
- Knurled handle for positive grip
- Handy trigger guard prevents pinching
- Reversible inlet check seat and hydraulic jaws provide double life
- Balanced design reduces user fatigue
- Lubricant inlet 1/4" NPT(f); outlet 1/8" NPT(f)
- · Easily repaired for extended life

# **Model 3050 Volume High-Pressure**

Same as 740 except with 3/8" NPT(f) lubricant inlet for use with Lincoln volume high-pressure swivels and hose.

# Model 82157 Repair Parts Kit

For control valves 740 and 3050.

# **High-Pressure Grease Control Valve**

Model	Description	Thread Size	Extension	Coupler	Valve
740	Heavy-Duty	1/4" NPT(f)	Rigid Tube	5845	82393
3050	Volume	3/8" NPT(f)	Riaid Tube	5845	81495

# **High-Pressure Control Valve** No Extension

Model	Description	Thread Size	
82393	Heavy-Duty	1/4" NPT(f)	
81495	Volume	3/8" NPT(f)	

# **High-Pressure Swivels**

Model	Description	Thread Size
*81606	Straight	1/8" NPT(f) x 1/8" NPT(m)
*81703	Straight	1/8" NPT(m) x 1/8" NPT(m)
82080	Straight	<sup>1</sup> /2"-27 (m) x <sup>1</sup> /2"-27 (m)
82399	Straight	<sup>1</sup> / <sub>2</sub> "-27 (m) x <sup>1</sup> / <sub>4</sub> " NPT(m)
81386	90° Angle	1/2"-27 (m) x 1/8" NPT(m)
81723	90° Angle	1/8" NPT(m) x 1/8" NPT(f)
81974	90° Angle	1/2"-27 (m) x 1/4" NPT(m)
82251	90° Angle	1/8" NPT(m) x 1/8" NPT(m)
81387	Universal	<sup>1</sup> /2"-27 (m) x <sup>1</sup> /4" NPT(m)
82252	Universal	1/8" NPT(m) x 1/8" NPT(m)
83594	Universal	1/4" NPT(m) x 1/4" NPT(m)
83938	Straight	1/4" NPT(m) x 1/4" NPT(m)

<sup>\*</sup>Whip Hose only; max. pressure 4500psi

# Fluid Lubricants





# **Heavy-Duty Fluid Control Valves**

These new fluid control valves provide all the benefits of the latest design technology, and offer all the features and components for a low-cost solution for your fluid dispensing needs.

- Rugged aluminum construction
- Dispenses all automotive fluids: motor oils, gear oils, transmission fluid and antifreeze
- All indoor and outdoor applications

# 708 Series

Oil control gun with automatic nozzle operation. Inlet 1/2" NPT(f).

# 712 Series

Oil control gun with semi-automatic nozzle operation. Inlet 3/4" NPT(f).

# **Model 780**

Gear oil shut-off valve for use with fluid lubricant pumps. Includes built-in swivel and 82070 non-drip nozzle extension.

Inlet 1/2" NPT(f).

# **Model 769**

Includes 780 valve with built-in swivel, flexible extension and 91392 nozzle.

# **Model 758**

Includes 260381 rigid extension. Inlet/outlet 1/2" NPT(f). Can be locked in open position for continuous dispensing. Trigger guard prevents accidental dispensing. 1,015 psi (70 bar) maximum operation pressure. 5 GPM flow.

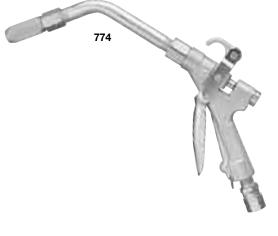
# Model 758F

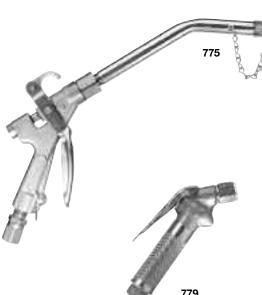
Same as 758 except with flexible extension.

758F

# Fluid Lubricants









# Heavy-Duty Volume Model 774

Includes 82906 shut-off valve, pipe extension and 91392 nozzle.

# **Model 775**

Includes 82906 shut-off valve and 82932 rigid extension nozzle.

# **Model 776**

Includes 82906 shut-off valve and 12" flexible hose and 91392 non-drip nozzle with manual shut-off.

# **Model 779**

Gear oil shut-off valve for use with fluid lubricant pumps.

# Model 282930

High-flow valve rated up to 15 gpm and 1500 psi. Includes flexible extension and manual nozzle.

# Model 282951

Same as Model 282930 without the nozzle.

# **Oil Control Valves**

Model No.	Max. Flow Rate	Inlet Thread Size	Extension	Nozzle
708	8 GPM	1/2 NPT(f)	Rigid Pipe	276282
708RSF	8 GPM	1/2 NPT(f)	Rigid Pipe	276311
708F	8 GPM	1/2 NPT(f)	Flex Hose	276280
708F90	8 GPM	1/2 NPT(f)	90° Flex Hose	276254
712R	12 GPM	3/4 NPT(f)	Rigid Pipe	276282
712F	12 GPM	3/4 NPT(f)	Flex Hose	276281
780	5 GPM	<sup>1</sup> /2 NPT(f)	Rigid Pipe	82070
758	7.5 GPM	1/2 NPT(f)	Rigid Assembly	260381
758F	7.5 GPM	1/2 NPT(f)	Flex Assembly	260380
774	5 GPM	1/2 NPT(f)	Rigid Pipe	91392
775	5 GPM	1/2 NPT(f)	Rigid Pipe	82932
776	5 GPM	1/2 NPT(f)	Flex Hose	91392
282930	15 GPM	3/4 NPT(f)	Flex Hose	282941 Kit

# Model 66584 Strainer

For use with 775, 776, 82906. #30 mesh, 9/16" OD.

# **Control Valves/Meters**8GPM and 12GPM Meter Series





Lincoln's new meter offerings utilize a unique new design to deliver exceptionally high flow rates. Coupled with the high 1,500 psi operating pressure, these meters decrease dispense time and help increase productivity.

- 908 mechanical and electronic meters and 912 electronic meters
- Lincoln's new meters have a working pressure of 1,500 psi
- Units of measure include quarts, gallons and liters
- Operators can choose from a rigid pipe or flexible hose extension
- Removable filter screen in the swivel captures contaminants
- Ball-bearing swivel on all units
- Unique ergonomic design allows for easy, comfortable use
- 5-year warranty



12 gpm/45 lpm electronic meter with flexible hose extension. Maximum operating temperature 130°F (55°C).

# Model 912ER

12 gpm/45 lpm electronic meter with rigid hose extension. Maximum operating temperature 130°F (55°C).

# Model 908EF

8 gpm/30 lpm electronic meter with flexible hose extension. Maximum operating temperature 130°F (55°C).

# Model 908ER

8 gpm/30 lpm electronic meter with rigid hose extension. Maximum operating temperature 130°F (55°C).

# Mechanical Meters Model 908MFQ

8 gpm mechanical meter with flexible hose extension. Maximum operating temperature 130°F (55°C). Totalizes in quarts.

# Model 908MRQ

8 gpm mechanical meter with rigid pipe extension. Maximum operating temperature 130°F (55°C). Totalizes in quarts.

# Model 908MFG

8 gpm mechanical meter with flexible hose extension. Maximum operating temperature 130°F (55°C). Totalizes in gallons.

# **Model 908MRG**

8 gpm mechanical meter with rigid pipe extension. Maximum operating temperature 130°F (55°C). Totalizes in gallons.

# Mechanical Metric Meters Model 908MFM

30 lpm mechanical meter with flexible hose extension and metric meter. Maximum operating temperature 130°F (55°C).

# Model 908MRM

30 lpm mechanical meter with rigid pipe extension and metric meter. Maximum operating temperature 130°F (55°C).





# **Control Valves/Meters**8GPM and 12GPM Meter Series



# **Oil Control Valves**

Model	Description	Inlet Thread Size	Extension	Nozzle
780	Gear Oil	½ NPT	Rigid Pipe	82070
758	STD Volume	½ NPT	Rigid Assembly	260381
758F	STD Volume	½ NPT	Flex Assembly	260380
774	HD Volume	½ NPT	Rigid Pipe	91392
775	HD Volume	½ NPT	Rigid Pipe	82932
776	HD Volume	½ NPT	Flex Hose	91392
282930	High Flow	3/4 NPT	Flex Hose	282941 Kit



# **Electronic Lube Meters**

Totalizing in liters or gallons. 1/2" NPT.

Model	Extension	Lock-On/ Lock Open	PSI	GPM
905**	Rigid/ 70°/Auto nozzle	Yes	1000	5.0*
905SF**	For water-based solutions	Yes	1000	5.0
908EF	Flexible	Yes	1500	8.0
908ER	Rigid	Yes	1500	8.0
912EF***	Flexible	Yes	1500	12.0
912ER***	Rigid	Yes	1500	12.0
952	Flexible/90°/Manual tip	No	1500	6.0
953	Rigid/30°/Auto tip	No	1500	6.0
954	Flexible with auto nozzle	No	1500	6.0
967	Flexible w/ 84799 nozzle	Yes	1500	4.0

<sup>\* 8.0</sup> gpm without nondrip nozzle. \*\* Models 905 & 905SF offer a pre-set count down mode. \*\*\* 3/4" NPT Model 905 – ATF, hydraulic fluid, motor oils, gear oils Model 905SF – Antifreeze, windshield washer solution, brake fluid

# **Mechanical Lube Meters**

Totalizing in meters. 3-1/2" diameter, inlet/outlet 1/2" NPT.

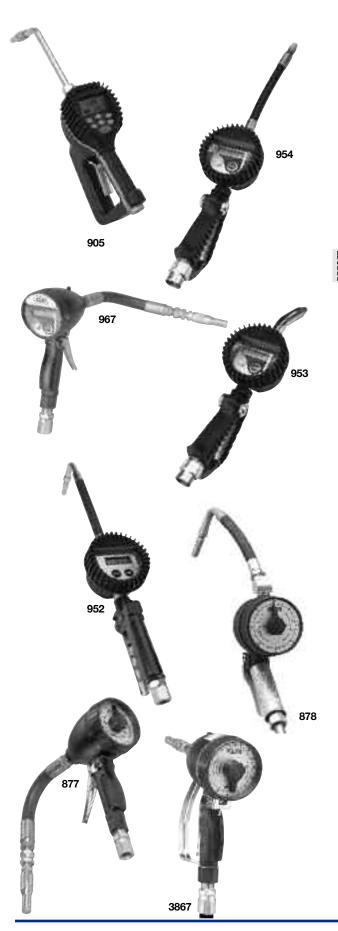


Model	Dial Totals	Graduation	Extension	PSI	GPM
867	16 gallons	1/16 gallon	10" flex w/ 84799	1000	4.0
876	16 quarts	1/4 quart	4" rigid w/ 93548	1000	4.0
877	16 quarts	1/4 quart	10" flex w/ 84799	1000	4.0
878	8 pints	1/16 gallon	7" rigid w/ nozzle	1000	4.0
881	10 liters	1/10 liter	7" rigid w/ nozzle	1000	4.0
883	16 quarts	1/4 quart	20" flex w/ 84799	1000	4.0
68410	16 quarts	1/4 quart	None	1000	4.0
899	10 liters	1/10 liter	10" flex w/ 84799	1000	4.0
908MFG		1/10 gallon	Flexible	1500	8.0
908MFQ		1/10 quart	Flexible	1500	8.0
908MRG		1/10 gallon	Rigid	1500	8.0
908MRQ		1/10 quart	Rigid	1500	8.0
908MFM		1/10 liter	Flexible	1500	8.0
908MRM		1/10 liter	Rigid	1500	8.0
3866*	16 quarts/10 liters	1/16 gallon	Rigid w/ 93548	1000	4.0
3867*	60 quarts	1/4 quart	Rigid w/ 93548	1000	4.0
3868*	60 gallons	1/4 quart	Rigid w/ 93548	1000	4.0
3942*	60 liters	1/10 liter	Rigid w/ 93548	1000	4.0

<sup>\*</sup> Pre-sets will count down for oils and antifreeze

# **Control Valves/Meters** *Fluid Lubricants*





# **Electronic Lube Meters Features**

- Dispense motor oil, ATF and gear lube
- One model can dispense pints, quarts, liters or gallons
- Automatic non-drip nozzle
- · Narrow nozzle fits into small I.D. ATF fill tubes
- Easy to read digital display for accurate bulk dispensing
- .01 increment readout for precise measurement
- Includes inline swivel, rigid extension, automatic non-drip nozzle and inline containment filter

# **Electronic Lube Meters**

Totalizing liters or gallons. 1/2" NPT(f).

	Model	Lock-On/Lock-Open	Extension	psi	gpm
SET	905*	Rigid/ 70°/Auto nozzle	Yes	1000	5.0*
PRESI	905SF**	For water-based solutions	Yes	1000	5.0
	954- <b>NEW</b>	Flexible with auto nozzle	Yes	1500	6.0
	953- <b>NEW</b>	Rigid/30°/Auto tip	Yes	1500	6.0
	967	Flexible w/ 84799 nozzle	Yes	1500	4.0

 $<sup>^{\</sup>star}$  8.0 gpm without nondrip nozzle.  $^{\star\star}$  Models 905 and 905SF offers preset mode Model 905 – ATF, hydraulic fluid, motor oils, gear oils

Model 905SF - Antifreeze, windshield washer solution, brake fluid

# **Value-Priced Electronic Lube Meter**

New value-priced control valve includes large digital display, shroud protector and trigger guard. 1/2" NPT(f) inlet swivel. Flexible manual nozzle.

Model   Measure		Measure	Extension	psi	gpm	
	952	quarts	Flexible/90°manual tip	1500	6.0	
	952	guarts	Flexible/90°manual tip	1500	6.0	

# **Electronic High Flow Control Valve**

Model	Measure	Extension	psi	gpm
280690	Programmable	Flexible	1500	15

# **Mechanical Lube Meters**

Totalizing meters. 31/2" diameter, inlet/outlet 1/2" NPT(f).

Model	Dial Totals	Graduation	Extension	psi	gpm
Oils, ATF	and Antifreeze				
867*	16 gallons	1/16 gallon	10" flex w/ 84799	1000	4.0
876*	16 quarts	1/4 quart	4" rigid w/ 93548	1000	4.0
877*	16 quarts	1/4 quart	10" flex w/ 84799	1000	4.0
883*	16 quarts	1/4 quart	20" flex w/ 84799	1000	4.0
68410	16 quarts	1/4 quart	None	1000	4.0
899*	10 liters	½10 liter	10" flex w/ 84799	1000	4.0
Gear Lube					
878	8 pints	1/16 gallon	7" rigid w/ nozzle	1000	4.0
881	10 liters	½10 liter	7" rigid w/ nozzle	1000	4.0
Pre-set C	Countdown for Oils, A	TF and Antif	reeze		
3866*	16 quarts/10 liters	½ quart	Rigid w/ 93548	1000	4.0
3867*	60 quarts	1 quart	Rigid w/ 93548	1000	4.0
3868*	60 gallons	1 gallon	Rigid w/ 93548	1000	4.0
3942*	60 liters	1 liter	Rigid w/ 93548	1000	4.0
*Includes	90464 swivel.				

<sup>\*</sup>Includes 90464 swive

# Accessories-Fluid Lubricants





90464

# Non-Drip Nozzles & Assemblies Model 93547 Nozzle

1/4" NPT(F) inlet automatic non-drip nozzle with manual closure feature.

# Model 93548 Nozzle

Same as 93547 with 1/2" NPT(m) inlet.

# Model 84799 Nozzle

Packaged version of 93547 with 1/4" NPT(f).

# Model 85799 Nozzle

Same as 84799 with 1/2" NPT (f) inlet.

# Model 91392 Nozzle

<sup>1</sup>/<sub>2</sub>" NPT(f), manual non-drip nozzle.

# **Model 82258 Assembly**

1/2" x 1/4" NPT(m), 10" hose 91241 and nozzle 93547.

# Control Valve Accessories Model 276280

Flexible extension with auto non-drip nozzle (708) 1/2" NPT(f).

## Model 276281

Flexible extension with semi-auto nozzle (712) 3/4" NPT(f).

## **Model 276282**

Rigid extension with auto non-drip nozzle (708) 1/2" NPT(f).

## Model 276283

Riaid extension with semi-auto nozzle (712) 3/4" NPT(f).

# Model 276310

Flex extension 90 degree with auto non-drip nozzle (708) 1/2" NPT(f).

## Model 276311

Rigid extension with auto non-drip nozzle (708 RSF only) 1/2" NPT(f).

# **Control Valves Accessories**

Model No.	Description
276280	Flex. ext. w/auto non-drip nozzle for 1/2" NPT(f)
276281	Flex. ext. w/semi-auto non-drip nozzle for 3/4" NPT(f)
276282	Rigid ext. w/auto non-drip nozzle for 1/2" NPT(f)
276283	Rigid ext. w/semi-auto non-drip nozzle for 3/4" NPT(f)
276310	Flex. ext. 90° w/auto non-drip nozzle for 1/2" NPT(f)
276311	Rigid ext. w/auto non-drip nozzle for 1/2" NPT(f)

# Electronic Meter Accessories Model 260379

Rigid extension outlet with patented 45° swivel for versatile fluid dispensing. **Note:** Only fits models 977 and 978.

# Model 260380

Flexible extension with non-drip valve for fluid dispensing in hard to reach areas. **Note:** Only fits models 977 and 978.

## Model 260381

Rigid extension with non-drip valve. **Note:** Only fits models 977 and 978.

# **Colored Swivel Guards**

Attach these flexible swivel guards to separate meters to differentiate between fluids. Available in red, black, blue, yellow and green.

## **Meter Accessories**

# Model 242911 Shroud Protector

Universal shock protector for all 31/2" diameter Lincoln electronic lube meters. Heavy-duty rubber cover fits easily over meter face. Order as separate accessory.

## Model 90464 Swivel

Straight oil meter swivel, 1/2"NPT(m) x 1/2"NPT(f). 1000 psi (68 bar) maximum working pressure.

# Inline/Volume Meters





# **Model 961 High-Volume Gallons**

U.L. approved for gasoline and diesel fuels. Meters light-weight petroleum-base products by pump or gravity flow. Volume flow of 6 to 38 gpm. Calibrated in U.S. gallons;  $^{1}$ /10 gallon graduations. Straight readout to 999.9 gallons; reset knob on meter body. Non-reset totalizer on meter face. 50 psi max. pressure.  $^{61}$ /4" h,  $^{71}$ /8" w;  $^{51}$ /2 lbs. 1" NPT(f) inlet/outlet.

NOTE: For consumer use only. Not intended for measurement where resale is contemplated.

# **Model 964 Liters**

Same as 961, except meter is calibrated in liters. Straight readout to 999.9 liters. Maximum working pressure: 3.5 kilograms per square centimeter.



For oils and ATF up to SAE 40 weight. Calibrated in U.S. gallons; <sup>1</sup>/<sub>10</sub> gallon graduations. Straight readout to 999.9 gallons; reset knob on meter body. Non-reset totalizer on 6" diameter dial face. 1000 psi max. pressure. 1" NPT(f) inlet/outlet. *NOTE: For consumer use only. Not intended for measurement where resale is contemplated.* 



Same as 962, except meter is calibrated in liters.

# **Model 8002 Liters**

Calibrated and totalized in liters. Total measure on dial is four liters.

# **Model 870 Pints**

Dial diameter 3<sup>1</sup>/<sub>2</sub>"; inlet <sup>1</sup>/<sub>2</sub>" NPT(f). 1000 psi maximum working pressure.

# **Model 871 Quarts**

Calibrated and totalizes in quarts. Total measure on dial is 4 quarts.

# **Model 873 Liters**

Calibrated and totalizes in liters. Total measure on dial is 10 liters.



962

## Model 857—NEW

Calibrated in quarts. Large electronic display to 999.9.

# **Model 2873 Liters**

Calibrated in liters. Total on dial is 4 liters.

# **Inline Lube Meters**

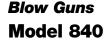




# **Control Valves/Meters** *Air & Water Controls*







- Handy thumb-button design provides ease of operation
- Brass stem and synthetic packaging for service life
- Addition of air nipple permits quick connect or disconnect
- Inlet 1/4" NPT(f); outlet 7/64" diameter

# Model 950

- Same as 840, except with air restricter
- Nozzle inlet pressure 30 psi maximum complies with Federal Safety Regulation 50-204.8 and OSHA 1910 242.B.

# Model 960

- Light-weight cast aluminum pistol grip
- Inlet 1/4" NPT(f); outlet 7/64" diameter; height 53/4"
- Nozzle inlet pressure 30 psi maximum complies with Federal Safety Regulation 50-204.8 and OSHA 1910 242.B.

# Model 940

- Same as 960 less air restricter
- When used for large cleaning requirement or chip cleaning, regulated air pressure must not exceed Federal recommended maximum.



- Thumb control provides comfort and ease of operation
- Inlet 1/4" NPT(f); outlet 1/8" NPT(f) outlet



# **Model 5990 Rubber Tip for Blow Guns**

- Rubber tip will not scratch surfaces.
- Fits 840, 940 and 5980 blow guns, as well as many competitive models.
- 1/8" NPT(m) threads.



# Air & Water Accessories Model 846 Water Bibbcock

For attaching to water service hose.

- 1/4" NPT(f) inlet.
- Thumb-action trigger. Built-in strainer filters out contaminants.

# **Model 845 Water Bibbcock**

Same as 846 except inlet 3/4"-111/2" AN connects to standard lawn hose.

# **Air/Water Accessories**



Model	Description	Style
815	1/4"(f) Air Coupler	Lincoln "Long Stem"
845	Inlet 3/4" -111/2" AN	Connects to standard lawn hose
846	1/4"(f) Water Bibbcock	Low-pressure water
11659	<sup>1</sup> /4"(m) Air Nipple	Lincoln "Long Stem"
66951	1/4"(f) Tire Chuck	Standard tire chuck



# **Lincoln Regulators, Filters & Lubricators**

A well-planned compressed air system ensures minimum pressure loss in the system, and the removal of contaminants: water, compressor oil, etc. An inefficient system results in higher costs per unit of compressed air, improper or erratic tool operation, shortened component life and reduced capacity. Lincoln provides individual components and combined component systems to give you the highest quality for your compressed air tool operations.

Changes in air pressure can affect the performance of air-powered equipment. Most equipment will operate beyond recommended pressure, but this causes excess torque, force and wear and wastes compressed air. Lincoln air regulators eliminate this problem by providing the consistent pressure required for each tool, ensuring maximum life and working efficiency for your pneumatic equipment.

Air filters are essential for proper performance of air powered tools, equipment and machinery. Lincoln filters are designed to minimize water vapor and contaminates in the air supply. Install a large filter in the main distribution line immediately after the compression accumulator tank. Another smaller filter should be placed inline within 20 feet of the equipment it will protect. This ensures the removal of solid particles at point of use and most condensed moisture.

Most air-operated tools, equipment and components of air systems require oil lubrication for proper function and to ensure long service life. Lincoln air line lubricators are designed to meter precise amounts of lubricant into the air supply, improving the efficiency of cylinders, valves and air motors. Lubrication is automatically provided in a nearly constant oil-to-air ratio over a wide range of air flows. Air passing through the operated device is a very fine mist that can be carried over a long distance, serving more than one tool at a time.



# 66100



# Miniature Units Model 600003 Miniature Regulator

All brass construction with Buna N diaphragm. For 1/4" pipe size. Maximum supply pressure 300 psig. Reduced pressure range: 0-125 psig. Operating temperature range: -40° to 180°F. Diameter 13/8", height 23/4", weight 1/2 lb.

## Model 600103 Miniature Filter

All brass construction with porous bronze filter (20 micron) element and shatter proof polycarbonate bowl. For <sup>1</sup>/<sub>4</sub>" pipe size. Maximum supply pressure 200 psi. Maximum operating temperature 120°F. Diameter 19/<sub>16</sub>", height 4", weight <sup>3</sup>/<sub>8</sub> lb.

# **Model 600203 Miniature Lubricator**

All brass construction with shatterproof polycarbonate bowl. For  $^{1/4}"$  pipe size. Maximum supply pressure 200 psi. Maximum operating temperature 120°F. Oil viscosity limitation not over 800 S.S.U. (SAE #30 not under 85°F.). Diameter  $1^{9}/16"$ , height  $4^{3}/8"$ , weight  $^{1/4}$  lb.

# Gauges Model 66100 Gauge

Registers pressures up to 200 psi. Dial diameter 2". 1/4" NPT(m) bottom connection. Calibrated both in psi and kg/cm2.

# Model 66101 Gauge

Same as 66100 except 1/8" NPT(m) bottom connection.

# Model 600401 Gauge

Same as 66100 except with 1/4" NPT center back connection.

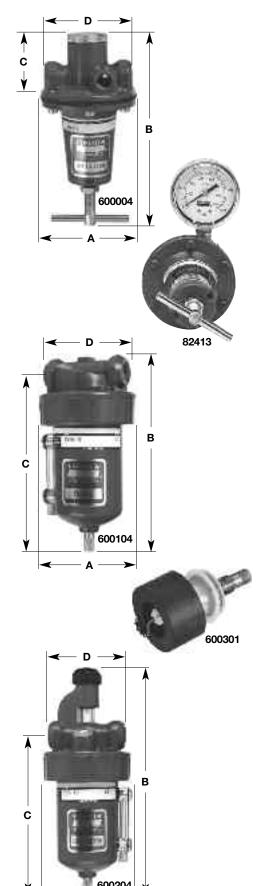
# Model 66111

Same as 66100 except registers to 5000 psi.

FRL/AIRCARE

# FRL/AirCare™

# Regulators, Filters & Lubricators



# Regulators

Die-cast zinc construction with stainless steel strainer and renewable brass seat. Diaphragm and disc are oil-resistant Buna-N. Secondary pressure side gauge connections are <sup>1</sup>/<sub>4</sub>" NPTF and are sealed with removable pipe plugs. Maximum supply pressure is 300 psi (20 bar) for all sizes listed. Operating range 0-250 psi (0-17 bar). Operating temperature range: 40°–120°F (4°–49°C).

Model	Pipe Size inches	A in (mm)	B in (mm)	C in (mm)	D in (mm)	Weight lbs (kg)
600004	1/4	3 (75)	6 (150)	1 <sup>3</sup> /8 (35)	23/8 (70)	1.8 (0.8)
600006	3/8	3 (75)	6 (150)	1 <sup>3</sup> /8 (35)	23/8 (70)	1.8 (0.8)
600008	1/2	39/16 (90)	7 (175)	11/2 (38)	31/4 (79)	2.8 (1.3)
600012	3/4	4 <sup>11</sup> /16 (119)	10 (254)	1 <sup>7</sup> /8 (48)	4 <sup>3</sup> /8 (111)	6.2 (2.8)
600016	1	4 11/16 (119)	10 (254)	1 <sup>7</sup> /8 (48)	4 <sup>3</sup> /8 (111)	6.2 (2.8)

# **82413 Control Assembly**

Includes 66100 Gauge and 600004 Regulator. Inlet and outlet 1/4" NPTF.

## **Filters**

Construction of die-cast zinc with 40 micron filter element of porous bronze. Metal bowl with sight glass. Maximum supply pressure 250 psi (17 bar). Maximum temperature 150°F (65°C).

	Pipe Size	Capacity	Α	В	С	D	Weight
Model	inches	oz (cc)	in (mm)	in (mm)	in (mm)	in (mm)	lbs (kg)
600104	1/4	5 (148)	2 <sup>15</sup> /16 (75)	5 <sup>5</sup> /8 (143)	51/8 (130)	21/2 (64)	1.8 (0.8)
600106	3/8	5 (148)	2 <sup>15</sup> /16 (75)	5 <sup>5</sup> /8 (143)	5 <sup>1</sup> /8 (130)	21/2 (64)	1.8 (0.8)
600108	1/2	8 (237)	33/4 (95)	6 <sup>1</sup> /4 (159)	55/8 (143)	31/4 (83)	2.8 (1.3)
600112	3/4	16 (473)	4 <sup>7</sup> /8 (124)	83/4 (222)	73/4 (197)	4 <sup>9</sup> / <sub>16</sub> (116)	6.3 (2.9)
600116	1	16 (473)	4 <sup>7</sup> /8 (124)	83/4 (222)	73/4 (197)	4 <sup>9</sup> /16 (116)	6.3 (2.9)

# 600301 Automatic Drain Conversion Kit

Converts manual drain filter to automatic drain. Increases filter efficiency and eliminates problem of manual draining.

## Lubricators

Constructed of die-cast zinc. Metal bowl with sight glass. Maximum supply pressure 250 psi (17 bar). Maximum temperature 150°F (65°C). Oil viscosity maximum not over 800 S.S.U. (SAE 30, not under 85°F/29°C).

Note: Oil adjustment may be made tamper-proof by removing "Dial Set" knob on all models. All sizes may be filled while under pressure.

Model	Pipe Size inches	Capacity oz (cc)	A in (mm)	B in (mm)	C in (mm)	D in (mm)	Weight lbs (kg)
600204	1/4	5 (148)	2 <sup>15</sup> /16 (75)	7 <sup>5</sup> /8 (194)	5 <sup>5</sup> /8 (143)	21/2 (64)	2.2 (1)
600206	3/8	5 (148)	2 <sup>15</sup> /16 (75)	7 <sup>5</sup> /8 (194)	5 <sup>5</sup> /8 (143)	21/2 (64)	2.2 (1)
600208	1/2	8 (237)	33/4 (95)	8 <sup>1</sup> /8 (206)	5 <sup>3</sup> / <sub>4</sub> (146)	31/4 (83)	3.3 (1.5)
600212	3/4	16 (473)	4 <sup>7</sup> /8 (124)	10 <sup>1</sup> / <sub>2</sub> (267)	7 <sup>7</sup> /8 (200)	4 <sup>9</sup> /16 (116)	4.2 (1.9)
600216	1	16 (473)	4 <sup>7</sup> /8 (124)	10 <sup>1</sup> / <sub>2</sub> (267)	77/8 (200)	4 <sup>9</sup> /16 (116)	4.2 (1.9)

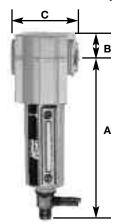
# FRL/AirCare™

# AirCare Air Preparation Systems



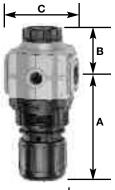
# Lincoln's MODULAR AirCare™ Regulators, Filters and Lubricators

- Modular components snap into place for quick assembly and service
- Wide selection of sizes, styles and capacities to meet specific application requirements



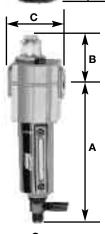
# **Modular Air Line Filters**

Model	Max. Air			rial of	Element	
No.	Supply psi / bar	Temperature Range - F / C	Construction Body Bowl		Material	Particle Size
602104		0 to 150 -18 to 65	Zinc	Zinc*	Sintered Polypropylene	40 μ
602106	250					
602108	17	0 to 175	A1 .	Aluminum*		
602109			Aluminum			



# **Modular Air Line Regulators**

	Max. Air	_Operating	Material of Construction				Secondary	
Model No.	Supply Temperature psi / bar Range		Body	dy Bonnet Val		Bottom Plug	(Gauge) Connections (in.)	
602004			Zinc	Acetal	Brass		% NPT (F)	
602005		0 to 150				Acatal		
602006	300	-18 to 65						
602007	20				Nitrile	Acetal		
602008		0 to 175	A1	Δ1			1/ NDT /C)	
602009		-18 to 79	Aluminum	Aluminum			14 NPT (F)	



# **Modular Air Line Lubricators**

Model	Max. Air	Operating	Mate	Recommended		
No.	Supply psi / bar	Temperature Range - F / C	Body	Bowl	Sight feed Dome	Lubricants
602204			Zinc	Zinc*		Misting type oil 50 to 200 SSU
602206	250				Transp	
602208	17.2	0 to 175 -18 to 79	Aluminum	Aluminum*	Nylon	(ISO Grade 7 to 46 at 100°F/38°C)

<sup>\*</sup> Transparent nylon liquid level indicator lens.



# Integrated/Modular Filter/Regulator with Gauge

Can be used with other AirCare Modular Components.

Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Outlet Pressure Adj. Range psi/bar		
602134		0 to 150 -18 to 65				
602136	250		40μ	5 to 150		
602138	17	0.3 to 10 / -18 to 79		0.3 to 10		

# FRL/AirCare<sup>TM</sup> AirCare Air Preparation Systems



Model	Drain	Port Size PTF		Weight			
No.	Туре		Α	В	С	Dia.	lbs/kg
602104		1/4	5.27	0.75	1.98	1.91	1.1
602106	Manual	3/8	134	19	50	48	0.5
602108		1/2	6.95 / 177	1.00	3.15	2.89	1.8
602109	Automatic	/2	6.35 / 161	25	80	74	0.8

Model	Outlet Press. Adj. Range	Connections NPT-Female (in.)	Dimensions - in. / mm				Adjuster	Weight
No.	psi / bar		Α	В	С	D	Aujustei	Weight
602004		1/	4.0 / 102		2.0		T-Handle	0.8
602005	5 to 150	1/4	2.88 / 73	1.31		3.2	Knob	
602006	0.3 to 4	3/	4.0 / 102	33	50	83	T-Handle	0.4
602007		3/8	2.88 / 73				Knob	
602008	10 to 250 / 0.7 to 16	½	5.95 / 151	1.69	3.15	5.1	T-Handle	1.77
602009	5 to 150 / 0.3 to 4		5.0 / 127	43	80	130	Knob	0.80

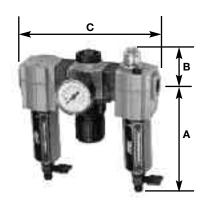
Model	Connections NPT-Female	Bowl		Weight			
No.		Capacity ozs. / ml	Α	В	С	D	lbs. / kg
602204	1/4	2.0	5.27	1.63	1.98	1.91	1.1
602206	3/8	58	134	41	50	48	0.5
602208	1/2	7.0 / 207	6.95 / 177	2.12 / 53	3.15 / 80	2.89 / 74	1.6 / 0.7

Model No.	Drain Type	Port		Weight			
		Size PTF	Α	В	С	D	lbs. / kg
602134	Manual	1/4	5.27	2.89	1.98	3.29	1.2
602136		3%	134	73	50	83	0.5
602138		1/2	6.95 / 177	4.98 / 127	3.15 / 80	5.10 / 130	2.6 / 1.2

# FRL/AirCare™

# AirCare Air Preparation Systems



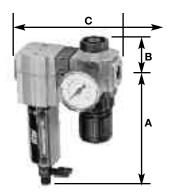


# **Modular Air Line Combination Units**

Filter-Regulator with Gauge-Lubricator

	Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Outlet Pressure Adj. Range psi/bar	Lubricator Bowl Capacity ozs./ml
	85387-4		0 to 150			2.0
	85387-6	250 17	-18 to 65	40μ	5 to 150 0.3 to 10	58
-	85387-8		0 to 175 / -18 to 79			7.0 / 207

<sup>\*</sup> Transparent nylon liquid level indicator lens.

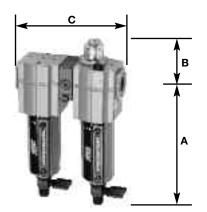


# **Modular Air Line Combination Units**

Filter-Regulator with Gauge

Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Outlet Pressure Adj. Range psi/bar	
85388-4	250	0 to 150 / -18 to 65	40	5 to 150	
85388-8	17	0 to 175 / -18 to 79	- 40μ	0.3 to 10	

<sup>\*</sup> Transparent nylon liquid level indicator lens.

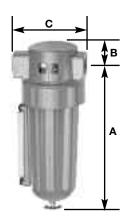


# **Modular Air Line Combination Units**

Filter-Lubricator

Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Lubricator Bowl Capacity ozs. / ml
85389-8	250 / 17 2	0 to 175 / -18 to 79	40u	7.0 / 207

<sup>\*</sup> Transparent nylon liquid level indicator lens.



# **High-Capacity Air Line Filters**

Model	Max. Air			Construction	Element	
No.	Supply psi / bar	Temperature Range - F / C	Body	Bowl	Material	Particle Size
602112		0 to 175 -18 to 79	Aluminum	Aluminum* w/ Pyrex sight glass	Sintered Bronze	50μ
602113	250					
602116	17.2					
602117						

<sup>\*</sup> Pyrex liquid level indicator.

# FRL/AirCare<sup>TM</sup> AirCare Air Preparation Systems



Model	Drain	Port	Dir	Weight		
No.	Type	Size PTF	Α	В	С	lbs. / kg
85387-4		1/4	5.27	1.63	6.46	3.3
85387-6	Manual	3/8	134	41	164	1.5
85387-8		1/2	6.95 / 177	2.12 / 53	10.52 / 267	6.2 / 2.8

84-1-1	<b>.</b>	Port	Dii	Walada		
Model No.	Drain Type	Size PTF	Α	В	С	Weight lbs. / kg
85388-4	Manual	1/4	5.27 / 134	1.31 / 33	4.22 / 108	2.1 / 1.0
85388-8		1/2	6.95 / 177	1.69 / 43	6.84 / 174	4.2 / 2.0

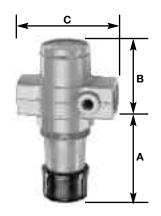
Madal	Dunin	Port	Dii	\A/a:adat		
	Type	Drain Size	A	В	С	Weight lbs. / kg
85389-8	Manual	1/2	6.95 / 177	2.12 / 53	6.84 / 174	3.8 / 1.7

Model	Drain	Port Size PTF		Weight			
No.	Туре		Α	В	С	Dia.	lbs/kg
602112	Manual	3/.	10.44 / 265				
602113	Automatic	3/4	10.06 / 256	1.25	4.75	5.52	4.1
602116	Manual	4	10.44 / 265	32	121	140	1.9
602117	Automatic	'	10.06 / 256				

# FRL/AirCare™

# AirCare Air Preparation Systems





# **High-Capacity Air Line Regulators**

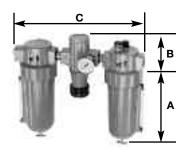
		Max. Air Supply psi / bar	Operating Temperature Range	Material of Construction				Secondary
	Model No.			Body	Bonnet	Valve Seals	Bottom Plug	(Gauge) Connections (in.)
	602012							
-	602013	300	0 to 175 -18 to 79	Aluminum	Aluminum	ım Aluminum Nitrile	Aluminum	1/4 NPT (F)
-	602016		101010					



# **High-Capacity Air Line Lubricators**

Mode	J	Max. Air	Operating	Mate	erial of Constru	Recommended	
No.		Supply psi / bar	Temperature Range - F / C	Body	Bowl	Sight feed Dome	Lubricants
60221	602212 250		0 to 175	Aluminum	Aluminum*	Transp	Misting type oil 50 to 200 SSU
60221	6	17.2	-18 to 9	Aldiniilain	Auminum	Nylon	(ISO Grade 7 to 46 at 100°F/38°C)

<sup>\*</sup> Pyrex liquid level indicator.

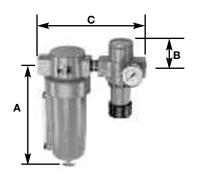


# **High-Capacity Air Line Combination Units**

High Capacity Filter-Regulator with Gauge-Lubricator

Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Outlet Pressure Adj. Range psi/bar	Lubricator Bowl Capacity ozs./ml
85387-12	250	0 to 175	50	5 to 125	32
85387-16	17	-18 to 79	50μ	0.3 to 8.6	946

<sup>\*</sup> Pyrex liquid level indicator.

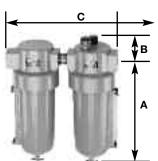


# **High-Capacity Air Line Combination Units**

Filter-Regulator with Gauge

Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Outlet Pressure Adj. Range psi/bar
85388-12	250 / 17	0 to 175 / -18 to 79	50μ	5 to 125 / 0.3 to 8.6

<sup>\*</sup> Pyrex liquid level indicator.



# **High-Capacity Air Line Combination Units**

Filter-Lubricator

•	Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Lubricator Bowl Capacity ozs. / ml
	85389-12	250	0 to 175	50μ	32
	85389-16	17	-18 to 79	30μ	946

<sup>\*</sup> Pyrex liquid level indicator.

# FRL/AirCare<sup>TM</sup> AirCare Air Preparation Systems



Model	Outlet Press. Adj. Range	Connections NPT-Female	Dimensions - in. / mm			mm Adjuster		Weight
No.	psi / bar	(in.)	Α	В	С	D	Aujustei	Weight
602012	10 to 250 / 0.7 to 16	3/4	5.69 / 145				T-Handle	
602013	5 to 150 / 0.3 to 10	94	4.71 / 120	2.38 60	4.25 108	2.38	Knob	2.5 1.1
602016	10 to 250 / 0.7 to 16	1	5.69 / 145				T-Handle	

		Connections NPT-Female	Bowl					
_	Model No.		Capacity ozs. / ml	A	В	С	D	Weight lbs. / kg
	602212	3/4	32	10.24	2.22	4.50	5.52	3.6
	602216	1	946	260	56	114	140	1.6

Model	Drain	Port	Dii	Weight		
No.	Туре	Size PTF	Α	В	С	lbs. / kg
85387-12	Manual	3⁄4	10.44	2.22	14.75	10.6
85387-16	iviai iuai	1	265	56	375	4.8

	Model No.	Drain	Port		Dimension	- in. / mm		Weight
		Туре	Size PTF	Α	В	С	D	lbs. / kg
	85388-12	Manual	3⁄4	10.44 / 265	2.38 / 60	10 / 254	5.52 / 140	6.9 / 3.1

Madal	Duration 1	Port		Wataka			
Model No.	Drain Type	Size PTF A	В	С	D	Weight lbs. / kg	
85389-12	Manual	3⁄4	10.44	2.22	10.25	5.52	7.8
85389-16	IVIAIIUAI	1	265	56	260	140	3.5

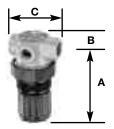
# AirCare Air Preparation Systems





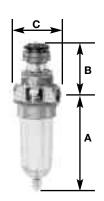
### Miniature Air Line Components—Air Line Filter

Model No.	Max. Air Supply	Operating Temperature Range		Construction	Element		
	psi / bar	- F / C	Body	Bowl	Material	Particle Size	
602103	150 / 10.3	0 to 125 / -18 to 79	Zinc	Polycarbonate	Porous Polypropylene	50μ	



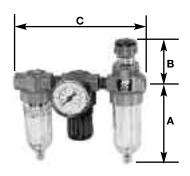
#### Miniature Air Line Components—Air Line Regulator

	Max. Air	Operating		Material of	Secondary		
Model No.	Supply psi / bar	Temperature Range	Body	Bonnet	Valve Seals	Bottom Plug	(Gauge) Connections (in.)
602003	300/20	0 to 150 / -18 to 65	Zinc	Acetal	Brass/Nitrile	Acetal	1/8 NPT (F)



### **Miniature Air Line Components—Air Line Lubricator**

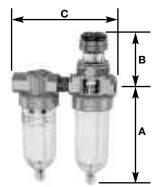
	Max. Air	Operating	Mate			
Model No.	Supply psi / bar	Temperature Range - F / C	Body	Bowl	Sight feed Dome	Recommended Lubricants
602203	150 / 10.3	0 to 125 / -18 to 52	Aluminum	Polycarbonate	Transp. Nylon	Misting type oil 50 to 200 SSU (ISO Grade 7 to 46 at 100°F/38°C)



#### **Miniature Air Line Combination Units**

Filter-Regulator with Gauge-Lubricator

Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Outlet Pressure Adj. Range psi/bar	Lubricator Bowl Capacity ozs./ml
85672	150 / 10.3	0 to 150 / -18 to 65	50μ	5 to 100 / 0.3 to 6.9	1.0 / 30



### **Miniature Air Line Combination Units**

Filter-Lubricator

Model No.	Max. Air Supply psi/bar	Operating Temperature Range - F / C	Element Particle Size	Lubricator Bowl Capacity ozs. / ml
85674	150 / 10.3	0 to 125 / -18 to 52	5μ	1.0 / 30

# FRL/AirCare<sup>TM</sup> AirCare Air Preparation Systems



Model	Drain	Port Size		Weight			
No.	Туре	PTF	Α	В	С	Dia.	lbs/kg
602103	Manual	1/4	3.25 / 83	0.38 / 10	1.63 / 42	1.45 / 37	0.3 / 0.12

Model	Outlet Press. Adj. Range	Connections NPT-Female	Din	nensions -	Adiuster	Weight		
No.	psi / bar	(in.)	Α	В	С	D	,	lbs. / kg
602003	5 to 100 / 0.3 to 6.9	1/4	2.52 / 64	0.39 / 10	1.63 / 41	1.45 / 37	Knob	0.3 / 0.13

N41 -1	Connections Bowl		Dimension - in. / mm				
Model No.	NPT-Female in.	Capacity ozs. / ml	A	В	C	Dia.	Weight lbs. / kg
602203	1/4	1.0/30	3.25 / 83	1.98 / 50	1.63 / 41	1.45 / 37	0.3 / 0.13

Model	Drain	Port	]	Weight			
No.	Туре	Size PTF	Α	В	С	Dia.	lbs. / kg
85672	Manual	1/4	3.25 / 83	1.98 / 50	5.61 / 143	1.45 / 37	1.3 / 0.6

Model	Drain Port			Weight			
No.			Α	В	С	Dia.	lbs. / kg
85674	Manual	1/4	3.25 / 83	1.98 / 50	3.66 / 93	1.45 / 37	0.9 / 0.4





### Modular Air Line Equipment Accessories— Lockout Valve

Install in-line or modular with other AirCare products to help conform to OSHA Lockout Regulations. In the closed position, valves block inlet air flow and exhaust downstream air.

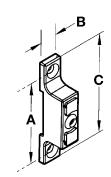
Model	For Modular Use With	For In-Line Use With	Max. Air Supply psi / bar	Operating Temperature Range F / C
247770	1/4" Modular	1/4"	250	0 to 150
247771	%" Modular	3%"	17	-20 to 65
247772	½" Modular	1/2"	11	-20 10 00



### Modular Air Line Equipment Accessories— Quick Clamp

Use with Modular Air Line Components to provide modular installation capability. Flanges on the products slide into "V" grooves in the quick clamp. Two face-sealing o-rings in the quick clamp provide an air tight connection when the clamp is closed.

Model No.	For Modular Sizes	Dimensions - in. / mm
247782	14" and %"	1.50 / 38
247783	½" and ¾"	2.00 / 51



### Modular Air Line Equipment Accessories— Quick Clamp Wall Mounting Bracket

Use with quick clamp to provide secure mounting to a wall, machine panel or other flat surface.

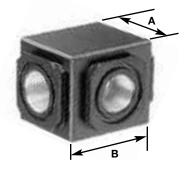
Model No.	For Modular Sizes	Dimensions - in. / mm			
Woder No.	FOI WIOGUIAI SIZES	Α	В	С	
247792	14" and 36"	2.32 / 59	0.55 / 14	2.91 / 74	
247793	1/2" and 3/4"	3.25 / 83	0.95 / 24	4.0 / 102	



### Modular Air Line Equipment Accessories— Quick Mount Pipe Adapters

Use with quick clamp to provide threaded connections to the system piping.

Model No.	For Modular use with	Port Size - in.
247787	%" Modular	3%
247789	½" and ¾" Modular	3/8
247791		3⁄4



### Modular Air Line Equipment Accessories— Manifold Block

Installs with quick clamps. Ports are threaded pipe to provide manifolding capability for up to three components.

Model	Port Size	For Modular	Dimensions-in. / mm		
No.	in.	Sizes	Α	В	
247795	3/4	1/2" and 3/4"	2.27 / 57.8	3.15 / 80	



### Modular Air Line Equipment Accessories— Pressure Switch

Monitors air pressure and provides an electrical signal when the pressure drops below or exceeds the preset pressure. Installs between two quick clamps. Also provides three additional ¼" auxiliary outlets.

Model No.	For Modular Sizes	Maximum Inlet Pressure psi / bar	Operating Temperature Range F / C	Adjustment Range
247797	1/2" and 3/4"	250 / 17	0 to 150 / -20 to 65	30 to 150 / 2 to 10



### Modular Air Line Equipment Accessories— Tamper Resistant Cover & Seal Wire

Install on the adjusting knob of regulators to help prevent unauthorized adjustment of the pressure setting.

Model No.	For Modular Sizes
247778	1/2" and 3/4"

### Modular Air Line Equipment Accessories— Wall Mount Bracket

Use to secure Modular Air Line components to a wall, machine panel or other flat surface.

Model No.	For Modular Sizes
247775	14" and %"
247776	½" and ¾"



### Air Line Equipment Accessories— Mounting Bracket and Nut-Miniature

Use to secure Miniature Air Line components to a wall, machine panel or other flat surface.

Model No.	Component
247774	All Regulators and Lubricators



### Air Line Equipment Accessories—Pressure Gauges

Available in 1/8" NPT and 1/4" NPT back connection.

Model No.	For Regulator Sizes	Gauge Dia.	Connection	Pressure Range
247843	14" and 36"	1½"	1/8" NPT	0 to 160 / 0 to 11
247844	16" 3/" and 1"	2"	14" NPT	010100701011
247863	½", ¾" and 1"		74 INP1	0 to 300 / 0 to 20

# **Used Fluid Handling**

# **Portable Used-Oil Gravity Drains**





#### Choose the fluid handling equipment that fits your needs.

**Traditional Drain:** the traditional method for handling used fluids allows gravity to drain fluids from vehicle(s) into a portable or mobile fluid drain and then gravity allowing those fluids to drain into a used fluid storage tank.

**Drain & Evacuate:** instead of gravity draining fluids into a storage tank, fluids are evacuated from the fluid drain into the tank with a suction pump system.



# Standard Oil Drains Model 613

Used with 16-gallon (120 lb.) open-top drum (66493 drum not included). Convenient float gauge shows when drum is full. Includes 17" square rolling base 80895 with  $2^{1}/2$ " ball bearing caster wheels and 14" drain bowl 91197 (without lid).

Order suction pick-up tube and fluid nipple Kit 247748 for easy evacuation through drum cover using a used-oil evacuation pump. Order evacuation pump 4100 and fluid coupler 244390 separately.



#### **Model 3644**

Used with 16-gallon (120 lb.) open-top drum. (66493 drum not included). Float gauge shows when drum is full. Includes 17" square rolling base 80895 with  $2^{1/2}$ " caster wheels. 20" diameter drain bowl 3609 is adjustable from  $42^{3}/4$ " to 70".

# Pedestal-Style Oil Drain Model 3605

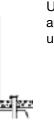
Lightweight, easy to position and maneuver. Latch trigger automatically locks drain bowl at any height. Reversible for double life! Bowl cover lid hinged for splash guard extends to catch oil flowing from hard to reach drain plugs. Spring actuated valve in drain bowl to prevent leakage. Includes 82460 drain adapter bushing for draining bowl. Includes large 13<sup>1</sup>/<sub>2</sub>", 4<sup>1</sup>/<sub>2</sub>-gallon bowl assembly 83386.



#### Truck Oil Drain

#### Model 84714 20-Gallon Cart

Ideal oil drain for RV, truck, heavy equipment maintenance and repair. Low profile, large 20-gallon capacity cart. 42" T-handle for easy cart positioning. Used-oil transfer by either gravity or suction evacuation. Order drain valve or suction evacuation pump and fluid couplings separately. Two stationary rear wheels and one front wheel caster with grab handle for ease of under vehicle positioning. Metal grating, two baffles and continuous side splash guards to prevent oil spillage during vehicle draining and cart movement. Maximum height is 8.65".



#### **Model 82460 Drain Adapter**

Used with 3605 to drain bowl. When bowl is set into drain adapter bushing a pin automatically releases spring loaded valve. Adapter bushing assembles to a 2" NPT used-oil tank stand pipe or screws directly into a 2" 55-gallon drum opening.

# Used Fluid Handling Portable Used-Fluid Recovery



#### Handling / Recovery / Accessories

**Drain & Pressurize:** this new concept in used fluid handling employs the benefits of the drain & evacuate system without an evacuation pump—the fluid drain is pressurized to evacuate the used fluid.



#### **Pressurized Evacuation Drains**

#### Model 3624 26-Gallon Tank

Pressurized waste oil tank and bowl made from high-strength polyethylene—no dents or corrosion. Built-in oil filter drain, tool tray and sight gauge. Very stable and easy to maneuver. Includes pop-off valve and fixed air regulator for safety. Compatible with all lubrication fluids.

#### Model 3614 20-Gallon Tank

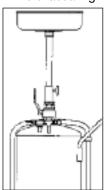
This new model simplifies the used fluid evacuation process by allowing the technician to drain, transfer and evacuate used oils with virtually no chance of spillage. Extra large 18-inch offset bowl easily catches fluid without repositioning the tank. Telescopic (44 to 72 inch range) bowl height adjustment allows for greater flexibility. Low profile design is extremely stable and easy to maneuver. Large 20-gallon (75 L) capacity averages 15-20 vehicles before tank evacuation. Special valve design allows evacuation with bowl set at any height.

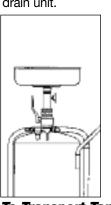
#### **Closed-Loop Pressurized Evacuation Drains**

Drain & Pressurize (Closed-loop): the newest Lincoln used fluid handling concept takes the standard drain and pressurized system to a new level by eliminating used fluid spills while evacuating the mobile drain unit.



3618







To Drain Oil

With valve fully open, (valve handle in vertical position), raise drain bowl to desired height and lock in place. Drain oil into bowl/tank assembly.

To Transport Tank

With valve fully open, (valve handle in vertical position), lower drain bowl to desired height. Always use the tank handle to transport the tank assembly.

To Evacuate Oil

Raise drain bowl and lock in place (valve handle in horizontal position) and place nozzle securely into collection reservoir. Connect air inlet nipple and discharge oil. Disconnect air supply when oil is no longer discharging into reservoir.

#### Non-Pressurized Evacuation Drains

#### **Model 3618 Used Fluid Drain**

Designed for use in shops with diaphragm pump or centralized evacuation systems, the drains were built to perform under heavy use. Drain has a male ¾-inch cam and groove connector located on top of the tank to provide a quick, clean connection to a shop's used fluid evacuation system and to reduce the chance of spills. Other features include a 20-gallon (75-liter) capacity tank, heavy-duty steel construction and an extra-large 18-inch offset drain bowl with oil filter screen.



Same as Model 3618 except for antifreeze use only.

#### **Model 3601 Value Series Used Oil Receiver**

Designed to provide an affordable option to draining, transferring and evacuating used oil quickly and safely. All-steel design includes reinforced caster supports for durability and dependability. 18-gallon tank includes a preset air regulator that allows the use of standard shop air up to 150 psi. 14-inch telescoping bowl with a height adjustment range of 45 to 72 inches. Reinforced dispensing hose doubles as a sight gauge to prevent overfilling. Includes safety valve.



# **Used Fluid Handling**

# **Gravity Used-Oil Drains—Suction and Accessories**





# Drain Bowls Model 3608

Large 20" bowl used on 3643 or to update an existing 3613 to a 20" drain bowl.

#### **Model 3609**

Large 20" bowl used on 3644 or to update an existing 613 to a 20" drain bowl.



#### **Model 91197**

Standard 14" bowl used on 613 and 3613 used-oil drains.

#### **Model 82786**

Same as 91197 but includes lid.

#### **Model 83386**

Standard 13<sup>1</sup>/<sub>2</sub>" bowl used on 3605 used-oil drains. Large 4<sup>1</sup>/<sub>2</sub>-gallon capacity.



# Funnel & Drain Adapters Model 3610

241/2" diameter. Use when larger draining area is required. 3610 molded plastic drain pan rests securely on top of used-oil drains. Can be used with pedestal or portable drain devices with 6" or larger drain.



#### Model 275296

Funnel assembly for use with 3614.

### **Model 70526 Drain Spigot**

Used fluid drain valve for use with 613. 1/2" NPT(m) connection.



#### Suction Guns Model 615

Holds up to 18 ounces of fluid. Flexible nozzle for transmission, differential or oil filter service. Precision follower fitted to barrel for superior suction and is impervious to oil, grease and water. Finished in rust-resistant, powder coated blue paint.



# SED FLUID HANDLING

# **Used Fluid Handling**

## Mityvac Fluid Evacuation Equipment





#### Fluid Evacuators

These portable units are designed for convenient evacuation of fluids from virtually any type of reservoir or tank. With capacities ranging from 1.9 quarts (1.8 liters) up to 2.3 gallons (8.8 liters), they are perfect for draining coolants from machinery, or for use when changing fluids (oil, lubricants, hydraulic fluids, etc.) on motorized equipment.

#### **Model MV7300 Pneumativac**

The larger capacity model MV7300 fluid evacuator holds up to 2.3 gallons (8.8 liters) of fluid. It uses standard compressed shop-air and a powerful venturi vacuum to quickly and conveniently evacuate reservoirs with no manual effort.

Capacity: 2.3 gallons (8.8 liters)

Weight: 7.5 lbs. (3.4 kg)

Size: 25.6" (650mm) tall x 13" (330mm) wide x 9.5" (240mm) deep



#### Model MV7400 Fluid Evacuator

The model MV7400 fluid evacuator is a manually operated unit that requires no electricity or compressed air. The unit is extremely lightweight, and features durable, chemical resistant construction, a large stable base and three evacuation tubes with adapters.

Capacity: 1.9 gallons (7.3 liters)

Weight: 5.5 lbs. (2.5 kg)

Size: 25" (725mm) tall x 7.5" (190mm) diameter



The Fluid Evacuator Plus has a reversing valve that allows the unit to be used for evacuating or dispensing fluids. It has a large 2.3-gallon (8.8) liter reservoir, and operates without electricity or compressed air. The unit features durable, chemical resistant construction, a large stable base, and three evacuation tubes with adapters.

Capacity: 2.3 gallons (8.8 liters)

Weight: 10 lbs. (4.5 kg)

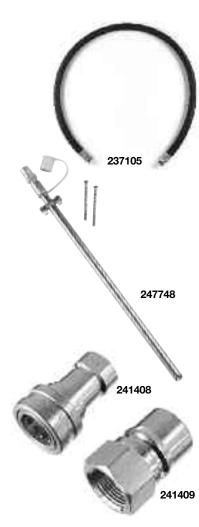
Size: 25.6" (650mm) tall x 13" (330mm) wide x 9.5" (240mm) deep



# **Used Fluid Handling**

# **Gravity Drains—Accessories and Kits**





### **Evacuation Coupler & Nipple Kit**

#### **Model 237105 Suction Hose**

For use in high-volume transfer and evacuation systems, 1" NPT(m) threads x 7'.

#### **Model 247748 Suction Kit**

Used with standard 613. Complete with suction tube, drum cover bushing and fluid nipple. *NOTE: Older mobile used fluid units may require drum cover modification.* 

#### Fluid Couplers & Nipples

Model 241408 Coupler

Model 241409 Nipple

For use in high-volume transfer applications, both models have 1" NPT(f) threads.

# Model 244390 Coupler Model 244391 Nipple

For use in volume transfer and evacuation systems, both models have  $^{3}/_{4}$ " NPT(f) threads.

### Coupler & Nipple Kit Model 68887

Includes 68887-1 plug and 68887-2 socket. Automatically seals off both ends of lubricant or hydraulic line. Plug and socket 1/2" NPT(f).

# Drum / Base / Dollys

#### Model 66493 120 lb. Drum

16-gallon (120 lb.) drum with <sup>3</sup>/<sub>4</sub>" NPT(f) threaded hole near bottom/side of drum for drain valve or spigot (70526 – sold separately).

#### Model 80895 Base

Standard roll-a-round caster base used on 613 and 3644. For use with 16-gallon (120 lb.) refinery containers. Complete with four swivel casters and drum clamps.

#### **Model 84192 Band Dolly**

For use with 16-gallon (120 lb.) refinery containers. Complete with four swivel casters and drum band clamp. Maximum O.D. is 14"

# Model 84377 Band Dolly

For use with 55-gallon (400 lb.) refinery containers. Complete with four hard rubber 21/2" x 1" swivel casters and "X" bracket base.







# **USED FLUID HANDLING**

# **Used Fluid Handling**

# Installed Fluid Evacuation & Disposal Systems



Don't waste valuable time waiting on gravity to empty waste oil drains. Lincoln installed systems provide the fast, profitable, safe way to get rid of waste oils and other fluids when gravity draining is not possible or practical. Quickly pump out fluids from rolling drain pans, portable oil drains, differentials and transaxles.

#### **Basic Fluid Evacuation Pumping System**

Lincoln's Basic Fluid Evacuation and Disposal System features a 1" U.L. Listed corrosion-resistant aluminum doublediaphragm pump that creates a powerful suction to drain used fluids quickly, and transfers them though a completely enclosed system to any type of remote storage tank. Provides clean, safe disposal of waste fluids with no drips, no spills. Pump is air-operated and can be easily mounted on any convenient wall surface. One basic system can serve multiple bays with the addition of hardware.



#### **Model 4100**

Includes rugged, heavy-duty, 1" U.L. Listed air-operated double diaphragm self-priming pump 85634, 1" x 5' fluid hose 237105, 3' air hose 72036, airline filter 600104, regulator 600004, 3/4" x 5' fluid inlet hose 68620 and other air couplings for easy outlet installation.

Note: Include (1) 241408 coupler and (1) 241409 nipple per receiver



#### Model 4105 Portable Drain Adapter Kit

Includes 1" x 7' suction hose 237105, quick disconnect coupler 241408, nipple 241409 and mounting hardware for hookup to side port of 16-gal. drum 66493 or truck oil drain 84714.



Includes suction hose, fittings and two interchangeable wands for all vehicle makes and models that allow you to drain fluids through plug openings.



# Model 84700 Rolling Drain Pan

Designed for pit installation, 30-gallon capacity 84700 features quarter-turn ball valve drain on front or back of unit for multiple drain hook-up 11/2" NPT. Infinite-adjustable axles fits pits 36" to 491/2" wide. Polyurethane wheels for smooth, quiet operation, dust cap, chain and splash guard assemblies included.



### **Model 92572 Splash Guard Assembly**

Included with 84700 drain pan. Mounts to either side to deflect oil from side draining engine oil pans.



## **Model 85255 Wall Mount Bracket**

Wall mount bracket for 1/4" to 1/2" air-operated diaphragm pumps



Wall mount bracket for 1/2" to 2" air-operated diaphragm pumps



Float rises with used fluid to activate "whistle" warning at prescribed level.

# Model 84815 Single Wall

For single wall tanks & drums in used fluid systems and above ground tanks.

### Model 84824 Double Wall

Same as 84815 except for double walled tanks and above ground tanks.

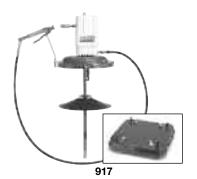
### Model 84816 4-Way Valve

Four port, two position valve used in waste fluid systems. Enables one pump to pump into and out of drum or tank.



# High-Pressure Heavy-Duty Grease Pumps





# 346P







### Series 20 • 50:1 • Air-Operated • Double Acting

The following models contain Lincoln's high-pressure Series 20 grease pumps.

#### Model 917 120 lb. Drum

Will dispense 45 ounces or 80 cubic inches of NLGI 0-2 grease per minute at 150 psi. Assures positive prime at lowest temperature. Drum cover 46007 finished in Lincoln red; roll-a-round base 80895 base in black; air motor cover in white. Height 431/8". Base 17" square. Drum not included.

#### Model 917-57 120 lb. Drum

Same as 917 without roll-a-round base.

#### **Model 346P 120 lb. Drum**

Same as 917 except with 674 hand truck which provides convenient transportation for unit. Hand truck has two semi-pneumatic disc wheels and screw-type clamp which locks unit to truck. Drum not included.

#### Model 987 25-50 lb. Pail/60 lb. Bulk

For 25-30 lb. refinery containers or 60 lb. bulk. Gasket and air vent in lid assembly makes unit completely dust-proof, leak-proof and spill-proof. Ideal for use in all types of weather; container rust-proofed and finished in Lincoln red. Height 31<sup>3</sup>/4"; inside diameter of container 12<sup>1</sup>/2".

#### Model 989 25-50 lb. Drum

Steel cover has three thumb screws to clamp securely to any original 25-50 lb. refinery container. Carrying handle provides easy portability. Follower plate assures positive prime at lowest temperatures. Cover rust-proofed and finished in Lincoln red. Bucket not included.

# Follower Plates Model 84775

Deluxe universal follower for use with 25-50 lb. containers for 1", 11/4", 11/2" diameter pump tubes. All rubber unit ensures complete grease dispensing to the bottom of dented or plastic lined drums; wipes pail or drum clean. Metal cap holds insert firmly in place, ensuring seal and maintaining vacuum.

#### Model 84780

Same as 84775 except for use with 120 lb. containers for 1", 11/4", 21/8" diameter pump tubes. Used with Series 20 and 40 air-operated grease pumps.

### **Heavy-Duty Portable Grease Pump Assemblies**

Model	Bare	Drum Cover	Base	Delivery Kit	Follower Plate	Drum Size
917	82050	46007	46007 80895 *		84780	120 lb.
917–57	82050	46007	NA	*	84780	120 lb.
346P	82050	46007	674 *		84780	120 lb.
987	83513	90656	NA	* not supplied**		25-50 lb.
989	82716	91499	NA	*	84775	25-50 lb.

<sup>&</sup>lt;sup>\*</sup>Delivery kits for all units include: 75084 high-pressure hose, 11659 nipple, 740 control valve, 815 air coupler, 82399 straight swivel and 81387 universal swivel.

NOTE: Free delivery 80 cu. in. per min.

<sup>\*\*</sup>Follower plate recommended to assure positive prime at lowest temperatures. Must be ordered separately. See page 21 for details.

## Manual High-Pressure Pumps





#### **Manual Bucket Pumps**

These quality-built Lincoln bucket pumps dispense high-pressure lubrication in any weather—even at 0°F. Select from pump units developing 2500 to 5000 psi for normal lubrication service or lubrication of trac-roll bearings.

#### **Model 1292 Grease Pump**

Unit clamps on any 25-50 lb. refinery container in 60 seconds. Includes 275184 flexible follower. Dimensions: 211/2"h. x 121/4"w. Tube size 11/4".

#### **Model 1272**

Large 30 lb. lubricant capacity with easy pumping action, develops a 3500 lb. maximum pressure to lubricate the most closely fitted bearings. Automatic pressure release prevents nozzle drippage, waste and mess. Pump and lid assembly easily removed as a single unit for filling. Order 7' hose and coupler assembly (81768) separately. Dimensions: 28"h x 14"w x 9"dia.

#### **Model 1275**

All purpose pump dispenses both lubricants and greases. Especially useful for lubrication of trac-roller bearings. Handle slot pin switches for high pressure 5000 psi or low pressure 2000 psi delivery. 40 lb. capacity steel container filled through pivot cover opening in lid. May also be used for fast, clean refilling of transmissions, differentials, gear cases and final drives. Order 5' hose (79060) and coupler (80933) separately. Dimensions: 231/2"h x 113/8"w x 145/8" long.

#### WARNING

For safe and proper use, always consult instructions accompanying product. See *Safety Warning Information* for appropriate warnings.

#### **Manual Grease Pumps**

Model	Cont. Size	Max. Pressure	Coupler Acces.	Hose	Follower	Output
FOR US	E WITH ORIG	INAL REFIN	ERY CONTA	AINERS-SUPPLIE	D W/BUCKET C	OVER ASSEMBLY
1292	25–50 lb.	2500 psi	5852	5 ft. 79060	275184	.303 oz./stroke <sup>1</sup>
SELF-C	ONTAINED M	ODELS				
1275	40 lb. bulk	5000 psi	none	nono	not aupplied	.37 oz./stroke high <sup>2</sup>
1272	30 lb. bulk	3500 psi	none	none	not supplied	.95 oz./stroke low
<sup>1</sup> Using no. 1 multi-purpose grease at 80°F				Using no. 1 cup g	rease at 70°F	

#### Filler Pumps—Portable & Stationary

- Fast (less than a minute), positive gun refilling with simple pumping action
- Filler socket assembly eliminates mess, waste and air pockets

### Model 1296 Clamp-On Carry

Clamps to any original 25-50 lb. refinery container. Handles medium and light lubricants in any weather. Includes pump, filler socket, 274790 flexible follower plate and ribbed steel drum cover. Rust resistant. Tube size 1<sup>1</sup>/<sub>2</sub>".

### Model 500L Stationary 120 lb. Drum

For use with original refinery drums with maximum head diameter of 149/16" and overall height of 265/8". Handles all high-pressure lubricants. Includes pump, filler socket and drum cover with one set of adjusting screws to accommodate variations in drum diameter. Red enamel finish; pump head and handle in black. Delivers 1 oz. per stroke.

### **Filler pumps**

1296

500L

Model	Container Size	Follower Plate	Filler Socket**	Dimensions
1296	25-50 lb.	274790	274712	20"h x 12 <sup>1</sup> / <sub>4</sub> "w
500L	120 lb.	none*	80133	26 <sup>5</sup> /8"h x 14 <sup>9</sup> / <sub>16</sub> "dia.

<sup>\*</sup> For pumping extra heavy lubricants, order follower plate 84780 for 500 pump.

<sup>\*\*</sup>Requires 91108 filler nipple





### **Value Series 40:1 Single Acting Grease Pumps**

#### **Features and Benefits**

- Professional quality lubrication at an affordable price
- High-pressure
- Portable medium- to light-duty chassis lubrication
- Proven valved piston design
- Simple grease plunger/bushing
- Control valve and universal swivel
- Easy, one-hand operation
- Built for durability and reliability

#### Model 4417 for 120 lb. Drums (Drum not included)

Includes 40:1 value series pump, drum cover, high-pressure control valve, universal swivel, coupler, 7' connecting hose, follower plate and band dolly.

### Model 4459 for 25-50 lb. Pail (Pail not included)

Includes 40:1 value series pump, pail cover, handle, high-pressure control valve, universal swivel, coupler, 7' connecting hose, follower plate and band dolly.

#### Model 4489 for 25-50 lb. Pail (Pail not included)

Same as 4459 except without band dolly.

### **Pump Models**

	Model 4417	Model 4459	Model 4489			
Container Size	120 lb.	25-50 lb.				
Four Wheel Caster Dolly	Yes No					
Delivery Kit	High-Pressure Grease Control Valve and Coupler, Universal Swivel, 7' Connecting Hose					
Ratio	40:1					
Air Motor Effective Diameter	2" / 52 mm					
Air Inlet Connection	1/4" NPTF (female)					
Lube Outlet		SAE-6 O-Ring Port				
Volume Output/Minute		5 in <sup>3</sup> / 82 cm <sup>3</sup>				
Maximum Air Pressure		100 psi / 10.34 bar				
Minimum Air Pressure		40 psi / 2.75 bar				
Maximum Grease Output Pressure	<b>sure</b> 4000 psi / 413 bar					
Flexible Follower	Included with all models					

#### **Recommended Accessories**

Air Line controls are a must for safe and effective pump operation.



Model No.	Description
815	<sup>1</sup> /4" Air Coupler
11659	<sup>1</sup> /4" Air Nipple
602003	<sup>1</sup> /4" Miniature Air Regulator
247843	Air Line Pressure Gauge
10462	1/4" Pipe Nipple for Regulator attachment



# **High-Pressure Grease Pump Accessories**





### **Delivery Hose Assemblies for Bucket Pumps**

2250 psi maximum operating pressure

Model	Length	Swivel	Coupler Extension					
FOR CONTACTING HYDRAULIC FITTINGS								
81768	7'	80924	5834					
FOR CONTA	ACTING STANDARI	BUTTON-HEAD	FITTINGS					
81673	7'	80924	81458					
FOR CONTACTING LARGE BUTTON-HEAD FITTINGS								
81168	7'	80924	80933					



#### **Model 80133 Filler Socket Assembly**

Convert guns and pumps for fast, convenient, economical loading. For attaching filler pumps other than Lincoln models; 3/8" NPT(f).

### **Drum Covers** Model 46007

Drum cover for 120 lb. or 16-gallon open top refinery containers for all series 20, 25 and 40 pumps.

#### Model 81523

Drum cover for 400 lb. or 55-gallon open top refinery containers for all series 20, 25 and 40 pumps.

#### **Drum Dollies**

#### Model 84191 25-50 lb. Band Dolly

Band-type dolly for any original 25-50 lb. refinery containers; caster 66060.

### **Model 84192 120 lb. Band Dolly**

Band-type dolly for use with 120 lb. refinery containers; caster 66060.

### **Model 84377 Drum Dolly**

Use with any 400 lb. drum. ID 23<sup>1</sup>/<sub>4</sub>", height 5<sup>1</sup>/<sub>4</sub>", hard rubber wheels: 1" wide, 21/2" dia.

#### Model 674 Hand Truck

All steel, rugged construction with 6" dia. wheels. Finished in Lincoln red. 41" high x 15" wide. For use with an 120 lb. or 16-gallon drum.

#### Model 80895 Roll-A-Round Base

Use with 120 lb. refinery containers. Four ball-bearing swivel casters and screw clamps.

#### Accessories

### Model 66060 2 1/2 Caster for Roll-A-Round **Base Units**

Standard equipment on Lincoln drum and band dollies.

#### Model 84941

Eye bolt kit for all series 20, 25 and 40 pumps, makes drum changing easy. Two part kit screws directly onto pump for lifting with pump elevator.

### **Model 84942 Flange Mount Kit**

For mounting Series 24 and 40 oil pumps to custom made tanks/lube trucks.

#### **Model 80202 Volume Elbow**

For use in stationary installations with high-pressure Lubriguns. 1/4" NPT(m) inlet; 1/4"NPT(f) outlet.



674

# Medium-Pressure Fluid Pumps









# Medium-Pressure • Gear Lube and ATF Air-Operated Mobile Gear Lube Dispensers

Fast, clean refilling using efficient Lincoln air-operated pumps.

- 3:1 (2435) and 5:1 (2535) pump ratios delivers gear oil with minimum consumption.
- Air expeller built into pump tube prevents air from registering through meter.
- Large replaceable swivel casters provide ease of maneuverability (mobile models).
- Baked on enamel finish retards rust and corrosion.
- Includes air coupler 815 and 780 shut-off valves. Drum not included.

#### **Manual Gear Lube Dispensers**

These quality manually operated pumps provide fast, clean refilling of differentials, gear cases and final drives.

- Cast iron pump outlet body and handle (except 1293) provide durability and longevity.
- Metered models have air expeller built into pump tube (prevents air from registering on meter).
- Large replaceable swivel casters provide ease of maneuverability (mobile models).
- Baked enamel finish helps prevent rust and corrosion.
- Self-contained units and sealed models prevent contamination or spillage of product being dispensed.
- Smooth, easy pumping action (no crank or gears) dispenses all types of gear lubricants, even in the coldest weather.

### **ATF Dispensers**

Provides fast, clean refilling of all types of transmissions. Ideal for passenger vehicles, light trucks and vans.

- Cast iron pump outlet body and handle provide durability and longevity.
- Air expeller built into pump tube prevents air from registering through meter.
- Large replaceable swivel casters provide ease of maneuverability (mobile models).
- Baked-on enamel finish retards rust and corrosion.
- Smooth, easy pumping action for positive fluid dispensing, even in the coldest weather.

#### WARNING

For safe and proper use of pumps, always consult instructions accompanying product. See **Safety Warning Information** for appropriate warnings.







# Medium-Pressure Fluid Pumps



#### **Air-Operated Mobile Gear Lube Dispensers**

Model	Container	Meters	Style	Base	Hose Length	Pump Tube	Nozzle	Output
2435	120 lb.	870 (pint)	Drum cover	80895 roll-a-round	5 ft. (73060)	25 <sup>3</sup> /4"	780	6 gpm
2535	120 lb.	870 (pint)	Drum cover	80895 roll-a-round	5 ft. (73060)	253/4"	780	6 gpm
2435LN	120 lb.	2873 (liter)	Drum cover	80895 roll-a-round	5 ft. (73060)	25 <sup>3</sup> /4"	780	6 gpm

### **Manual Gear Lube Dispensers**

535	120 lb.	(pints)	15" ID drum cover	80895 roll-a-round	5 ft. (74560)	253/4"	80599	*
535LN	120 lb.	2873 (liters)	15" ID drum cover	80895 roll-a-round	5 ft. (74560)	253/4"	80599	*
535-58	120 lb.	(pints)	15" ID drum cover	none	5 ft. (74560)	253/4"	80599	*
549	120 lb.	none	15" ID drum cover	80895 roll-a-round	5 ft. (74560)	253/4"	80599	*
549-58	120 lb.	none	15" ID drum cover	none	5 ft. (74560)	253/4"	80599	*
1253	30 lb. bulk	(pints)	self cont. handle	Int. 9"dia / 133/4"w	5 ft. (74560)	17" below rim	80599	*
1253LN	30 lb. bulk	2873 (liters)	self cont. handle	Int. 9"dia / 133/4"w	5 ft. (74560)	17" below rim	80599	*
1254	30 lb. bulk	none	self cont. handle	Int. 9"dia / 133/4"w	5 ft. (74560)	13" below rim	80599	*
1293	30 lb. bulk	none	12" ID clamp-on carry	none	5 ft. (74560)	13" below rim	80999	**

#### **Model 82757 Hose/Nozzle Kit**

Hose and nozzle upgrade kit for model 1293. Includes 80999 nozzle assembly and 5' 74560 hose. Order separately.

### **ATF Dispensers**

527	120 lb.	none	15" ID drum cover	80895 roll-a-round	7 ft. (91265)	253/4" below rim	93547	***
527A	120 lb.	(quarts)	15" ID drum cover	80895 roll-a-round	7 ft. (91265)	253/4" below rim	93547	***

<sup>\* 1</sup> pt. per 7 strokes using SAE 90 Gear Lubricator at 70°F

<sup>\*\*\* 8</sup> strokes per quart



#### **Model 674 Hand Truck**

All steel, rugged construction with 6" dia. wheels. Finished in Lincoln red. 41" high x 15" wide. For use with an 120 lb. or 16-gallon drum.

#### Model 80895 Roll-A-Round Base

Use with 120 lb. refinery containers. Four ball bearing swivel casters and screw clamps. Included with models listed above.



<sup>\*\* 1</sup> oz. per stroke using SAE 90 at 70°F

# Hand-Held Lubrication PowerLuber® Grease Guns



#### Professional Two-Speed 14.4-Volt Cordless Grease Gun

For years, Lincoln's PowerLuber has been the favorite of technicians, mechanics, maintenance crews, farmers and others for almost every lubrication and preventative maintenance task imaginable, from the automotive, trucking and fleet industries to everyday applications in agriculture, construction and industry.

Now, we've made the best even better. PowerLuber's versatile two-speed design gives it the capability of two powerful tools in one. At the touch of a button, it can deliver high volumes of lubricant (8.5 oz. per minute) at medium pressure or a concentrated stream at high pressure (7500 psi working pressure). We've also added a built-in stroke indicator to make it easy to measure total output.

Even with all that power, the long-lasting, high amperage 14.4 volt battery lets you work longer between recharges. When you do need to recharge, our high-tech "Smart" Charger does it in less than one hour. The "Smart" Charger even recognizes battery condition when not in use, and keeps your battery ready to go.

The 14.4 V PowerLuber's balanced design and padded grip make this tool comfortable and easy to use.



#### PowerLuber 14.4 Features

- Powerful 14.4 volt high-torque motor
  - 7,500 psi working output pressure
  - 8.5 oz/min. grease output @ 1,000 psi
- Machined and hardened piston
- Slotted powerhead accepts shoulder strap (strap sold separately)
- Includes combination air bleeder/filler valve
- Accessibility allows for easy cleaning from contaminated grease without gun disassembly
- Plated steel barrel with exclusive flip-over follower
- One-hour "smart" charger
- up to eight grease cartridges dispensed per charge under free-flow test conditions
- High-capacity NiCad 14.4-volt battery
- 30" high-pressure hose with spring guard and coupler

#### **Model 1442**

Packed in a heavy-duty compact case molded from impact- and stain-resistant plastic, Model 1442 comes complete with the 14.4 V PowerLuber and battery, a 110 Volt one-hour "Smart" Charger (Model 1410), and a 30" flex hose with spring guard (Model 1230).

#### **Model 1444**

Includes the same contents as Model 1442 plus a second 14.4-volt NiCad rechargeable battery (Model 1401) for uninterrupted lube application.

#### **Model 1400**

14.4V PowerLuber and battery only.





Multi-speed output selector\*\* – control the powerful two-speed transmission with just a push



Stroke cycle indicator pin – lets you monitor total output by touch



Motor overload protection – reset breaker protects motor from overload

<sup>\*\*</sup> High output setting (H) delivers 2.5 times the volume as lower output setting (L).

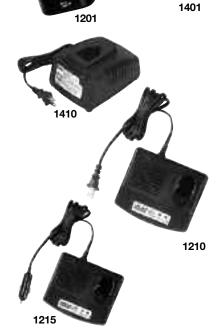
# **Hand-Held Lubrication**

#### PowerLuber® Grease Guns









#### **Model 1242**

The standard PowerLuber 1242 comes outfitted with a heavy-duty carrying case. Comes complete with:

- 110-volt fast charger (model 1210)
- 12-volt NiCad rechargeable battery (model 1201)
- 30" flex hose with spring guard (model 1230)

#### **Model 1244**

Top of the line. Includes second 12-volt rechargeable battery 1201 for uninterrupted lube application.

#### **Model 1240**

Economy packed without carrying case. Includes one 12-volt rechargeable battery 1201 and battery charger 1210.

#### **Model 1200**

PowerLuber and battery only.

# PowerLuber Accessories Batteries

High quality NiCad rechargeable PowerLuber batteries. **Model 1401** (14.4v), **Model 1201** (12.0v), **Model 1203** (7.2v), **Model 1227** (3.6v).

#### **Whip Hoses**

Attach to PowerLuber with 7/16" UNEF fitting, 1/8" NPT(m) outlet. Working pressure 7500 psi (517 bar). **Model 1218** (18"), **1224** (24"), **1230** (30") and **1236** (36").

# Chargers Model 1410

"Smart" charger recharges batteries in less than one hour and recognizes battery condition when not in use. For use with Model 1442 and 1444. **Model 1210**—110-volt one-hour fast charger for use with battery pack 1201. 6 ft. cord; UL/ULC listed. Also Model 1211 for 7.2-volt PowerLuber.

#### **Model 1215**

12-volt to 12-volt DC field charger for use with battery pack 1201 (plugs into cigarette lighter). **Model 1215A** allows use of both 12-volt and 24-volt DC input.

#### Model 1415A

14.4-volt DC field charger. Allows use of both 12-volt and 24-volt DC input.

#### **Model 1414**

Shoulder strap for hands-free movement from job to job.



# Hand-Held Lubrication Automatic Pneumatic Grease Gun





# Model 1162 PowerLuber® Fully Automatic Pneumatic Grease Gun

The variable speed trigger provides excellent grease flow control while the advanced pump design eliminates traditional priming issues

- Outstanding durability and dependability
- Fully automatic, continuous operation
- Variable-speed trigger
- Accessible check valve assembly
- Comfortable grip
- 30" high-pressure hose with coupler and attachment clip (model number 1230)
- Includes a combination filler nipple and bleeder valve
- Superior flow performance obtained through advanced design

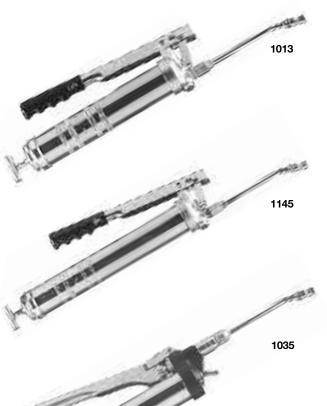
Pump Ratio:	40:1 at 150 psi
Max. Grease Pressure:	6,000 psi (414 bar)
Air Pressure Range:	40 - 150 psi (2.8 - 10.3 bar)
Weight:	5.375 lbs. (2.4 kg)



# Hand-Held Lubrication Heavy-Duty & Air-Operated Grease Guns



# Lincoln heavy-duty grease guns incorporate the same unique features as Model 1142 on page 90.



# **Dual Pressure Model 1013 and 1145**

- · High or low pressure for light- or heavy-duty greasing action
- Full pressure on short strokes for heavy greasing in tight places; develops full pressure with just 1/4" stroke
- Extension swivels 360° for hard-to-reach fittings.
- Plated barrel, head and handle
- Handy three-way loading: cartridge, filler pump or bulk
- Grease resistant rubber handle grip for positive pumping action

# Precision High-Pressure and Volume Model 1035 & 1037

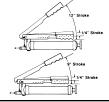
- Exclusive toggle mechanism design uses compound leverage for high-pressure pumping with little effort
- Rust resistant plated gun barrel and handle, black enamel head.
- Equipped with filler nipple for fast refill from Lincoln filler pump
- 21 oz. bulk capacity for heavy-duty greasing applications

#### Load Pin in Rear Position for High-Output Delivery

With handle in REAR (lo) shift position, grease is delivered at low pressure (maximum 4000 psi) with strokes from <sup>1</sup>/<sub>4</sub>" to 12". Output 1 ounce per 18 full strokes.

#### Load Pin in Front Position for High-Pressure Delivery

With handle in FRONT(hi) shift position, grease is delivered at high pressure (maximum 7000 psi) with strokes from <sup>1</sup>/<sub>4</sub>" to 9". Output 1 ounce per 33 full strokes.



#### **Dual-Pressure**

Model Lube Capacity		Extension	Length	Max. Pressure
1013	16oz. Bulk/14.5oz. Cartridge	6" & hydraulic coupler	22 <sup>7</sup> /8"	7000/4000 psi
1145	21oz, Bulk/14.5oz, Cartridge	5853 6" & hydraulic coupler	251/4"	7000/4000 psi

Specifications: Output at **low pressure** 1 oz. per 18 strokes; at **high pressure** 1 oz. per 33 strokes using No. 1 cup grease at  $70^{\circ}$ F. Barrel diameter  $2^{1}/4^{\circ}$ .

### **High-Pressure**

Model	Lube Capacity	Extension	Length	Max. Pressure
1035	21oz. bulk/14.5oz. cartridge	5834 6" & heavy-duty coupler	271/4"	7000 psi

Specifications: Lubricant output 1 oz. per 25 strokes using No. 1 cup grease at 70°F. Barrel diameter 21/4".

#### **Volume**

Model		Lube Capacity	Extension	Length   Max. Pressure	
	1037	21oz. bulk/14.5oz. cartridge	5834 6" & hydraulic coupler	27 1/4"	3000 psi

Specifications: Lubricant output 1 oz. per 9 strokes using No. 1 cup grease at 70°F. Barrel diameter 21/4".





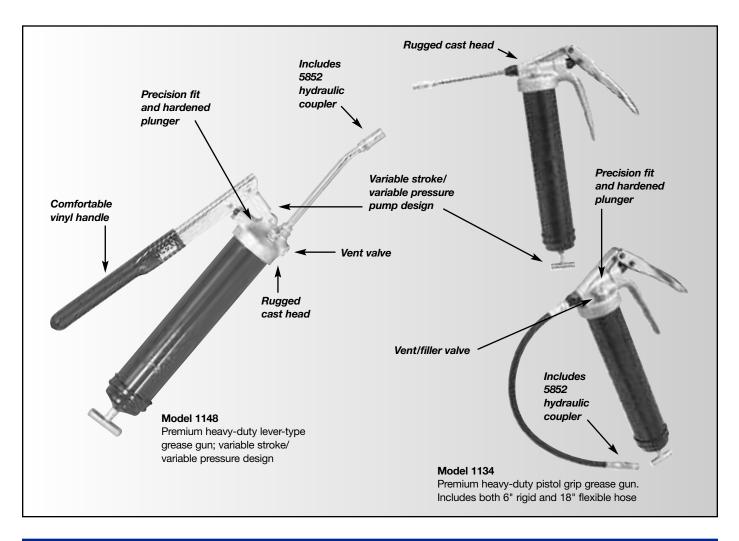
# Lincoln. . . the brand the pros demand for quality lubrication tools

For over 90 years the industry has recognized Lincoln as the leader in professional lubrication tools.

Professional automotive, agricultural and industrial mechanics depend on Lincoln tools for their livelihood. Lincoln tools offer a lifetime of performance and are backed by the most comprehensive warranty in the industry.

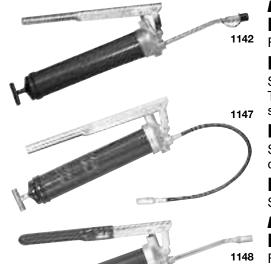
#### Lincoln hand-held grease guns offer:

- Rugged cast pump head for strength and durability.
- Jam-proof toggle mechanism prevents binding or accidental bending of plunger.
- Exclusive "Flip-Over" follower allows a superior seal for either cartridge or bulk loading applications. Tough, resilient and impervious to lubricant.
- Extra-heavy follower spring insures positive priming and uninterrupted pumping action.
- Accessible check valve allows easy cleaning without gun disassembly.
- Precision fit and hardened plunger prevents lubricant bypass, resists scoring for longer life.
- Follower rod locks into follower to force prime.



# Hand-Held Lubrication Lever & Pistol Grip Grease Guns





# Heavy-Duty Lever Type Model 1142

First choice of professionals everywhere.

#### **Model 1148**

Same as 1142, with handle grip and vent valve for purging air from gun. Two-way filling, suction and cartridge. Variable stroke/variable pressure: short stroke-high pressure; long stroke-high volume.

#### **Model 1147**

Same as 1142 with 18" whip hose and coupler; flip-over follower set for cartridge use.

#### **Model 1151**

Same as 1142 but holds 21 ounces bulk; flip-over follower set for bulk loading.

# Heavy-Duty Pistol Grip Type Model 1132

Fast, one-hand operation with similar features and benefits of Lincoln lever type grease guns. Includes 5" extension with coupler.

#### **Model 1133**

Same as 1132 with 18" whip hose and coupler.

#### **Model 1134**

1151

1142CLR

Extra-heavy-duty pistol grip grease gun. Cast head design. Jam proof handle return mechanism. Develops up to 7500 psi. Includes both 18" whip hose with coupler and 6" rigid tube. Variable stroke/pressure design.

#### Clear Grease Guns

Lincoln's high strength clear tube and aircraft aluminum adapters allows for quick grease identification eliminating the risk of mixing incompatible or unspecified greases.

### **Clear Grease Gun Models**

Model	Description
1100CLR	Clear tube
1107CLR	Clear tube-1134 only and many competitive models
1134CLR	Gun, heavy-duty grease pistol with clear tube
1142CLR	Gun, lever with clear tube
1148CLR	Gun, lever deluxe with clear tube
1240CLR	12V PowerLuber® with clear tube
1440CLR	14.4V PowerLuber® with clear tube



	<b>7</b> •			
Model	Lube Capacity	Extension	Length	
1142*	16oz. Bulk/14.5oz. Cartridge	5853 6" & 5852 coupler	213/4"	
1148*	16oz. Bulk/14.5oz. Cartridge	5853 6" & 5852 coupler	21 <sup>3</sup> /4"	
1147*	7* 16oz. Bulk/14.5oz. Cartridge 71518 18" Hose & 5852 coupler		213/4"	
1151**	21oz, Bulk/14.5oz, Cartridge	5853 6" & 5852 coupler	241/2"	

Specifications: Output 1oz. per 33 strokes using No. 1 grease at 70°F. Barrel diameter 2<sup>1</sup>/4" \*Follower set for cartridge use. \*\*Follower set for bulk loading.



1134CLR

1148CLR

### **Grease Guns Pistol Grip**

Model	Lube Capacity	Extension	Length
1133*	16oz. Bulk/14.5oz. Cartridge	71518 18" Flex Hose & 5852 coupler	15 <sup>1</sup> /2"
1132* 16oz. Bulk/14.5oz. Cartridge		6" Straight Pipe & 5852 coupler	15 <sup>1</sup> /2"
1134*	16oz. Bulk/14.5oz. Cartridge	18" Flex Hose, 6" Straight Pipe & Coupler	15 <sup>1</sup> /2"

Specifications: Output 1oz. per 33 strokes using No. 1 grease at 70°F. Barrel diameter 2¹/4" \*Follower set for cartridge use.

# **Hand-Held Lubrication**

#### **Grease Accessories**









#### Model 91108 Filler Nipple

Enables hand guns to be loaded using filler pump method. Includes ball check; 1/8" NPT(m).

#### **Model 82760 Grease Gun Holder**

Can be mounted to almost any surface. Holds grease guns and suction guns with 2<sup>1</sup>/<sub>4</sub>" OD barrel. Holds guns until ready to use.

#### Hydraulic Couplers Model 5852

- 6000 psi maximum operating pressure.
- For all hydraulic type grease fittings.
- Small outside diameter permits easy contact with recessed fittings.
- Replaceable hardened steel jaws.
- Built-in ball check prevents leak and lubricant backup.
- Inlet 1/8" NPT(f).

# Hydraulic Coupler Displays Model 5852

One hydraulic coupler in a resealable clamshell.

#### Model 5852-2

Two hydraulic couplers in the same clamshell as the 5852.

#### Model 5852-5

Contains five couplers; reduces cost per unit.

#### Model 5852-54

Contains 54 couplers in a displayable box; best value.

### Model 5845 Heavy-Duty

- 7500 psi maximum operating pressure.
- 11/16" Hex

5845

• Inlet 1/8" NPT

### **Model 5848 Adapter**

- 7000 psi maximum operating pressure.
- Built-in swivel allows full 360° circle.
- Locks in any one of eight 45° positions.
- Adjustable coupler section permits contact with fittings in reverse positions.
- Angle body has <sup>1</sup>/<sub>8</sub>" NPT(f) inlet permits addition of pipe extension when required.

# Special Access Coupler Model 5883 90° Grease Coupler

- Provides access to difficult to reach fittings.
- Allows for easy lubrication in tight areas.

#### WARNING

MATERIAL USE: Lincoln swivels are to be used only to transport grease, oil and other lubricants and are designed only for these non-abrasive and non-corrosive purposes. Do not use with abrasive and corrosive materials such as sound-deadening materials which may contain limestone and mica particles. Transport of such materials causes rapid premature wear to critical swivel components and can cause failure of swivel. Failure could expose the user to severe bodily injury, permanent disfigurement or death.

INSTALLATION & SERVICE: Tighten all fluid connections securely before using swivel. Never exceed 7500 psi maximum operating pressure. Never alter or modify any part of the swivel. Never attempt to repair or disassemble the swivel while the system is pressurized. Never stop or deflect leaks with hand or body.

MEDICAL ATTENTION: Get medical attention immediately if exposed to high-pressure fluids. Tell the attending physician what was injected.

# **Hand-Held Lubrication**

#### **Grease Accessories**





# Button-Head Couplers & Adapters Model 80933

4000 psi maximum operating pressure. For pull-on, push-on or hook-on service. Use with large <sup>7</sup>/8" diameter buttonhead fittings. <sup>7</sup>/16"-27 (f) thread.

#### Model 81458

Same as 80933 except for 5/8" diameter button-head fittings.

#### Model 10460

5000 psi maximum operating pressure. For adapting standard or large buttonhead couplers to hose with 1/8" NPT connections. 1/8" NPT(f) x 7/16"-27 (m) thread. Use gasket 31138, not included.

#### Model 10536

4500 psi maximum operating pressure. For adapting standard or large button-head couplers to hose with <sup>3</sup>/<sub>8</sub>" NPT connections. <sup>3</sup>/<sub>8</sub>" NPT(f) x <sup>7</sup>/<sub>16</sub>"-27 (m) thread. Use gasket 31138, not included.

# Coupler Extensions Model 5834

7500 psi maximum operating pressure. Includes 5845 coupler and 62028 6" extension tube. 1/8" NPT(m) connection.

#### **Model 5853**

\*5859

\*5855

\*81980

\*5849

5803

\*82784

\*83278

6000 psi maximum operating pressure. Includes 5852 hydraulic coupler and 62028 6" extension tube. 1/8" NPT(m) connection.

# Rigid Extensions Model 62028

6" length. Tough, heavy-wall seamless steel tubing. 1/8" NPT(m) at each end.

#### Model 62061

Same as 62028 except 12" length.

#### Model 62117

Same as 62028 except 18" length.

#### Model 5884\*

Contains the 5883 90° grease coupler plus a quick-connect lock-in sleeve for fast access to hard-to-reach lube points.

\* With quick-connect locking sleeve.

# Extensions Adapters Model 5859 Angle\*

- 90° angle solves problem of contacting so-called "inaccessible" grease fittings.
- Design eliminates need to remove from "deep dish" wheels for lubrication of the tie rod ends and ball joints.
- Use to service cars, truck, machines and farm equipment.

#### Model 5855 Recessed\*

Straight extension. Use to lubricate recessed fittings where obstructions will not permit use of hydraulic coupler. Includes extension nozzle and locking sleeve.

# Model 81980 Locking Sleeve\*

For adapting any <sup>1</sup>/<sub>8</sub>" NPT(m) extension nozzle to a hydraulic coupler.

#### Model 5849 360 Degree\*

7500 psi maximum operating pressure. Includes 5848 360° coupler for full swivel, 2" steel extension tube and locking sleeve.

#### Needle Nozzles Model 5803

Allows operator to contact flush type or hard-to-reach hydraulic type fittings.

#### **Model 5806**

Same as 5803 except 6" length.

#### Model 82784\*

Same as 5803 except with extension and locking sleeve.

#### Model 83278\*

Use to lubricate U-joints and spindles. Attaches to hydraulic coupler of control valve or grease gun. Includes rubber tip.

#### Extension Kit Model 58000

Heavy-duty lube accessory kit contains quick-connect versions of seven of Lincoln's most popular lube accessories. Use with all standard grease guns and dispensing devices.

#### WARNING

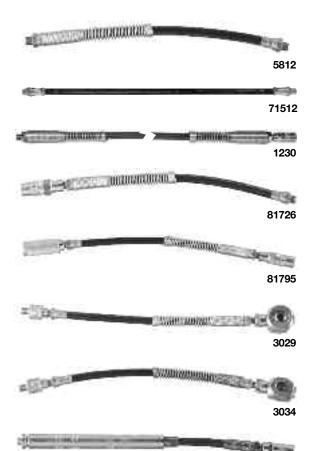
Never point needle nozzles, adapters or coupler at any part of the body or another person.



\*5884

# Hand-Held Lubrication Grease Hose Extensions





#### Extensions for Manually or Air-Operated Grease Guns

Maximum working pressure 4500 psi. Strategically placed coil spring provides non-slip, push-pull grip and prevents accidental "kinking" which could cause hose ruptures.

Model	Length	Thread Size
5812	12"	<sup>1</sup> /8" NPT(m)
5818	18"	<sup>1</sup> /8" NPT(m)
5861	36"	<sup>1</sup> /8" NPT(m)

### **Extensions for Manually Operated Grease Guns**

Maximum working pressure 3000 psi.

### Manually Operated—Packaged

Model	Length	Thread Size
71512	12"	<sup>1</sup> /8" NPT(m)
71518	18"	1/8" NPT(m)

#### Manually Operated—Bulk (Unpackaged)

Model	Length	Thread Size
75912CL	12"	<sup>1</sup> /8" NPT(m)
75918CL	18"	<sup>1</sup> /8" NPT(m)
75924CL	24"	<sup>1</sup> /8" NPT(m)
75936CL	36"	1/8" NPT(m)

#### PowerLuber® Whip Hoses

Attaches with 7/16" UNEF fitting; 1/8" NPT(m) outlet. Working pressure 7500 psi (517 bar). For use with 14.4-volt, 12-volt, 7.2-volt and Model 1163 PowerLubers.

Model	Length	
1218	18"	
1224	24"	
1230	30"	
1236	36"	

5858

#### Assemblies for Standard Hydraulic Fittings

Maximum working pressure 4500 psi.

Model	Whip Hose	Coupler	Thread Size
81725	5818/18"	5845	<sup>1</sup> /8" NPT(m)
81726	5812/12"	5845	<sup>1</sup> /8" NPT(m)
81795*	5812/12"	5845	1/8" NPT(m)

<sup>\*</sup> Includes 81980 locking sleeve.

# **Assemblies for Button-Head Couplers with Swivel** Maximum working pressure 4000 psi. Includes 81606 swivel.

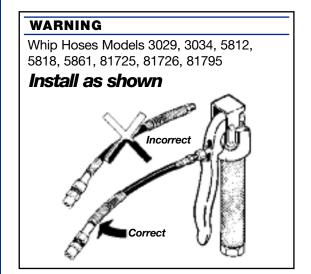
Model	Whip Hose	Coupler	Thread Size
3029	5812/12"	80933/large	<sup>1</sup> /8" NPT(m)
3034	5812/12"	81458/standard	<sup>1</sup> /8" NPT(m)

# Flexible & Rigid Extension Adapter Model 5858

Maximum working pressure 5000 psi. Allows operator to switch from flexible to rigid extension with one hand. Overall length 13". 1/8" NPT(m).

#### Model 82228

Consists of 8"  $\times$   $^{3}/_{16}$ " MPT hose, 5852 coupler and 67292  $^{1}/_{8}$ " NPT(m) nipple.



# Hand-Held Lubrication Bulk Fittings & Easy-Out Tools





# Bulk Fittings-U.S. Threads 1/8" Thread/Straight & Angle

Model	Description	Length
5000	Straight	21/32"
5003	Straight	11/4"
5200	45° angle	7/8"
5300	65° angle	29/32"
5400	90° angle	27/32"

### 1/4" Thread/Straight & Angle

Model	Description	Length	
5050	Straight 1/4" NPT	15/16"	
5350	65° angle 1/4" NPT	1 <sup>5</sup> /32"	

### 1/4"-28 Thread/Straight & Angle

	Model	Description	Length
_	5010	Straight-short thread	1/2"
	5013	Straight-long thread	11/16"
	5527	Straight-short thread	31/ <sub>64</sub> "
_	5210	45° angle-short thread	7/8"
_	5410	90° angle-short thread	25/32"

# **Bulk Fittings-Metric Threads Metric Threads**

Model	Description	Size
5175	Straight	6mm
5176	45°	6mm
5177	90°	6mm
5178	Straight	8mm
5179	45°	8mm
5180	90°	8mm
5181	Straight	10mm
5182	45°	10mm
5183	90°	10mm





Model	Description	Length	Drive Diameter
5033	Straight	9/16"	<sup>3</sup> / <sub>16</sub> "
5385	65° angle	13/16"	3/16"



#### **Button-Head Fittings**

- Precision-machined and case hardened for rugged wear.
- Smooth face prevents leakage and excessive wear.
- Long guide stem assures positive closing.

#### **Button-Head Fittings**

Model	Description	Length
5701	1/8" NPT(m) thread	25/32"
5706	1/4" NPT(m) thread	53/ <sub>64</sub> "

# Fitting Bushings & Angle Bodies Bushings & Angle Bodies

Model	Description	Length
10461	Hex bushing	1/8" NPT(f) x 1/4" NPT(m)
10787	Face bushing	1/8" NPT(f) x 1/4" NPT(m)
20028	45° angle body	1/8" NPT(f) x 1/8" NPT(m)
20029	90° angle body	1/8" NPT(f) x 1/8" NPT(m)
20026	90° angle body	1/4"-28 (m) x 1/8" NPT(f)

#### Easy-Out Tools

A combination tool used to remove worn or broken fittings and to retap holes for installation of new fittings. Tool has socket wrenches for removing both straight and angle fittings. May also be used to remove old pin-type fittings.

#### Model 66953

For tapping 1/4"-28 threads and removal of both 3/8" and 5/16" hex. straight or angle fittings.

#### **Model 90776**

For tapping <sup>1</sup>/<sub>8</sub>" NPT threads and removal of <sup>7</sup>/<sub>16</sub>" hex. straight or angle fittings.

# Fitting Drive Tools Model 11485

Use to install straight Drive-Type Fittings only.

#### Model 11509

Use to install angle Drive-Type Fittings only.

# Impact Fitting Cleaner Model 5805

- Clears hardened grease from fittings/joints.
- Includes steel drive cylinder, piston, safety shield, high-pressure hose and 5852 coupler.

#### **Metric Thread Adapters**

Convert any <sup>1</sup>/<sub>4</sub>"-28 thread grease fitting to metric thread.

### **Metric Thread Adapters**

Model	Thread	
103307E	6mm x <sup>1</sup> /4"-28 (f)	
103308E	8mm x <sup>1</sup> / <sub>4</sub> "-28 (f)	
103309E	10mm x <sup>1</sup> / <sub>4</sub> "-28 (f)	

# Hand-Held Lubrication

# **Packaged Grease Fittings**





# Packaged Fittings-U.S. Threads

All the most popular fittings and sizes

#### Model 5468 Mini

Ten assorted grease fittings in three popular sizes, blister packed on one card.

#### **Assortment Contents**

Quantity	Description
6	<sup>1</sup> / <sub>4</sub> "-28 straight
2	<sup>1</sup> /4"-28 45°
2	¹/4"-28 90°
	6 2

### **Model 5470 Economy**

24 assorted grease fittings in six popular sizes blister packed on one card.

#### **Assortment Contents**

Quantity	Description
6	<sup>1</sup> /8" NPT straight
6	1/4"-28 straight, short thread
3	<sup>1</sup> / <sub>8</sub> " NPT 45° angle
3	1/4"-28 45° angle, short thread
3	<sup>1</sup> / <sub>8</sub> " NPT 90° angle
3	1/4"-28 90° angle, short thread



100 assorted grease fittings in six popular sizes. Sturdy, easy to handle transparent dispenser box has labeled and illustrated compartments.

#### **Assortment Contents**

Quantity	Description
20	<sup>1</sup> /8" NPT straight
40	1/4"-28 straight, short thread
10	1/4"-28 45° angle, short thread
10	<sup>1</sup> /8" NPT 65° angle
10	<sup>1</sup> /8" NPT 90° angle
10	1/4"-28 90° angle, short thread

# 1/4"-28 Taper Thread Packs Short Thread Grease

Model	Description
5191	Card of (10) straight fittings
5291	Card of (10) 45° angle fittings
5491	Card of (10) 90° angle fittings

# 1/8" Pipe Thread Packs Grease Fittings

Model	Description
5190	Card of (10) straight fittings
5290	Card of (10) 45° angle fittings
5490	Card of (10) 90° angle fittings



All the most popular fittings and sizes **Model 5184 Mini** 

An assortment of three of the most used 6mm sizes and configurations blister packed on one card.

#### **Assortment Contents**

Quantity		Description
	6	6mm straight
2		6mm 45°
	2	6mm 90°

#### **Model 5185 Economy**

30 grease fittings in three of the most popular 6mm metric sizes blister packed on one convenient card.

#### **Assortment Contents**

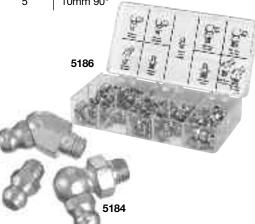
Quantity		Description
16		6mm straight
6		6mm 45°
	8	6mm 90°

#### **Model 5186 Deluxe**

100 assorted grease fittings in all the most popular metric sizes. Sturdy, easy to handle dispenser box has labeled and illustrated compartments.

#### **Assortment Contents**

Quantity	Description			
40	6mm straight			
20 6mm 45°				
10 6mm 90°				
5 8mm straight				
5	5 8mm 45°			
5	8mm 90°			
5 10mm straight				
5 10mm 45°				
5	10mm 90°			







5290

### **Hand-Held Lubrication**

# LINCOLN

# Packaged Grease Fittings/Wheel Bearing Packers







Our popular fitting models are packaged in a convenient 100 piece carton for your small order requirements. Order a quantity of one and receive 100 pieces of that fitting.

Standard Fitting Model No.	Old Model Carton 100	New Model Carton 100	Standard Fitting Model No.	Old Model Carton 100	New Model Carton 100
5000	249150	5000C	5181	249149	5181C
5003	249163	5003C	5182	249160	5182C
5010	249144	5010C	5183	249159	5183C
5013	249146	5013C	5200	249158	5200C
5031	249148	5031C	5210	249156	5210C
5033	249141	5033C	5300	249162	5300C
5050	249164	5050C	5350	249153	5350C
5175	249142	5175C	5385	249167	5385C
5176	249151	5176C	5400	249161	5400C
5177	249152	5177C	5410	249157	5410C
5178	249147	5178C	5527	249143	5527C
5179	249155	5179C	5701	249165	5701C
5180	249154	5180C	5706	249166	5706C

#### **Lincoln Bearing Packers**

Flush and pack in one operation eliminating inefficient washing and messy hand packing.

#### Model 224

Universal Bearing Packer forces out old grease while evenly injecting fresh grease. Pack bearing up to 41/2" I.D. Connects to standard grease coupler. 4.5" OD.

#### Model 816

Services bearings with 5/8" to 11/2" I.D. This versatile, compact unit mounts on work-bench or wall. Bearing is flushed and packed by contacting fitting in packer head with power gun control valve or by high-pressure hand gun. Overall dimension: 41/2" high, 4" wide. 31/4" OD.

#### Model 102891

Bearing packer head only; for bench mounting or attachment to any Lincoln air-operated economy, Series 20 or Series 40 grease pump. Services bearings  $1^3/4$ " to  $9^1/2$ " O.D. with minimum I.D. of 9/16". Accepts grease through fitting from high-pressure control valve or hand gun. For bench mount use 1/2" pipe flange.

#### Model 844

Services bearings to  $9^{1/2}$ " O.D. with minimum 9/16" I.D. Includes adapters to service bearings from 1" to  $1^{3/4}$ " O.D. For use with 120 lb. original refinery container. Includes 84780 universal follower.

Specifications: Maximum pressure 800 psi. 1 ounce per stroke. *Finish:* Drum cover in red enamel, pump head and handle in black. *Dimensions:* Overall height 41<sup>7</sup>/8" with standard 120 lb. drum.

### Model 102697 Super Speed packer

Services bearings with 5/8" to 11/2" I.D. with up to 31/4" O.D. on passenger cars, light trucks and farm vehicles. Clamps securely on 25 to 50 pound original refinery container. Primes easily and pump efficiently when using heavy greases at low temperatures. Includes flexible follower. *Specifications:* 21" overall height, 21/4" wide.

Finish: Drum cover in red enamel.

#### Model 102929

Same as 102697 except has larger packer head to service bearing to 91/2" O.D. with minimum 9/16" I.D. Includes adapter to permit servicing smaller bearings of 1" to 13/4" O.D. Includes flexible follower plate.

# Air Couplers/Nipples

# Air Couplers and Nipples





815 1/4" (f)

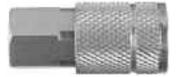


11659 <sup>1</sup>/<sub>4</sub>" (m) 11660 <sup>1</sup>/<sub>8</sub>" (m)



13329 1/4" (f)





5874 3/8" (f)



5875 3/8" (m)





Coupler and nipple can be joined without user pulling back on sleeve. A true quick-connect design!

Lincoln air couplers provide split-second coupling of grease guns, impact wrenches, paint sprayers and other air-operated equipment. Air flow products from Lincoln have the features and durability you demand for your business.

- Positive action locking mechanism so coupler cannot be detached accidentally.
- Extra large air passage insures greater air flow.
- Automatic air check valve shuts off air instantly when uncoupled, providing leak-proof seal.
- Corrosion-resistant steel plug and stainless steel check and check spring for long service life.
- Free swiveling action prevents curling or kinking of air hose.

# Lincoln-Style Couplers & Nipples for 1/4" ID Models 815, 11659, 11660, 11661

250 psi maximum operating pressure. Extra-long stem of nipple and coupler body assures long service life, easy connections under severe operating conditions. Maximum air flow 52 scfm at 100 psi. 815 Length 21/2" (65mm); diameter 11/16" (37mm); weight 41/2" ounces (126g). NOTE: 11659 is available non-packaged for bulk orders as 238394.

# ARO-Style Couplers & Nipples for 1/4" ID Models 5862, 13329, 13331

Fits ARO style nipples for 1/4" ID hose. 300 psi maximum operating pressure. 1/4" (f) NPT inlet. Maximum airflow 38 scfm at 100 psi. Length 2"; diameter 11/8"; weight 4 ounces.

# Universal Coupler Model 5862

Fits all Automotive/Tru-Flate, ARO, and Industrial/Milton-style nipples for 1/4" ID hose 300 psi maximum operating pressure. 1/4" (f) NPT inlet. Maximum airflow 38 scfm at 100 psi. Length 2"; diameter 11/8"; weight 4 ounces. Coupler and nipple can be joined without user pulling back on sleeve. A true quick-connect design!



5862

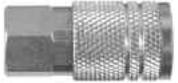
# Automotive/Tru-Flate-Style Couplers & Nipples for <sup>3</sup>/<sub>8</sub>" ID Models 5874, 5875, 5876

300 psi maximum operating pressure. Maximum air flow 100 scfm at 100 psi. Length 39/8"; diameter 1"; weight 4.8 ounces.

# Air Couplers/Nipples

# Air Couplers and Nipples





632004 1/4" (f)

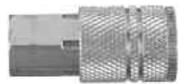
# Industrial/Milton-Style Couplers & Nipples for 1/4" ID (63 Series) Models 632004, 630104, 630204

Maximum operating pressure 250 psi (17 bar). Maximum air flow 45 scfm at 100 psi. Length 13/4" (44mm); diameter 11/8" (29mm); weight 3 ounces (84g).



630104 1/4" (m)





642006 3/8" (f)

# Industrial-Style Couplers & Nipples for 3/8" ID (64 Series) Models 642006, 640104, 640204, 640106, 640206

Maximum operating pressure 250 psi. Maximum air flow 108 scfm at 100 psi. Length  $2^{1/16}$ " (52mm); diameter  $1^{5/16}$ " (49mm); weight 6 ounces (168g).



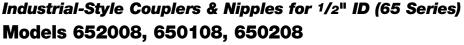
640104 1/4" (m)



640204 1/4" (f)



652008 1/2" (f)



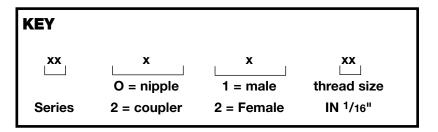
Maximum operating pressure 200 psi (14 bar). Maximum air flow 176 scfm at 100 psi. Length 39/4" (70mm); diameter 11/2" (38mm); weight 9 ounces (252g).



650108 1/2" (m)



650208 1/2" (f)



# **Air Couplers/Nipples**

#### Airline Products

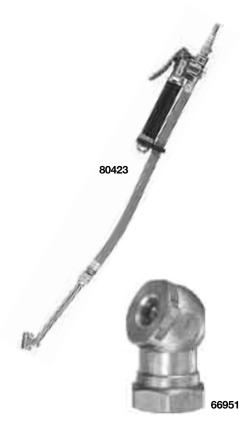








5983



### Air-Operated Sprayers Model 939

- Adjustable suction control varies fluid volume as needed.
- Strainer assembly in suction hose keeps out contaminants while assuring uninterrupted flow of fluid.
- 6' vinyl suction hose permits use with most any container from gallon jug to 400 lb. drum.
- · Convenient addition of air coupler nipple permits quick coupling to any air hose.
- Rust and corrosion resistant-pistol grip handle includes brass stem and synthetic packing.
- Use with solvents or detergent solutions. Compatible with vinyl, aluminum and carbon steel.
- Standard air inlet 1/4" NPT(f).
- Powerful spray. Maximum operating pressure 200 psi.

#### **Model 5983**

- Use with solvents or detergent solutions.
- 1/4" NPT(f) inlet.
- Maximum operating pressure 150 psi.

#### Tire Accessories

#### Model 80423 Tire Inflator

- 12" hose extension provides extra reach capacity.
- Tapered chuck nut allows inflator to fit wheel covers on cars and light
- Dual chuck permits use of gauge on trucks with dual tires.
- Includes 11659 nipple for use with 815 coupler. 200 psi maximum inlet pressure. 0-120 psi scale in 2 psi graduations.

#### **Model 66951 Air Chuck**

For inflating tire. 1/4" NPT(f) inlet.

### Self-Coiling Air Hose Model 84606

- Tough abrasive resistant material provides long service life.
- · Coiled spring guards prevent kinking.
- 1/4" I.D. x 25' long-extra length for those hard to reach places.
- Working pressures up to 200 psi. 1/4" NPT(m) fittings each end.

Note: Blow guns on page 61.



# **Typical Installations**

# **Two Oil Products**



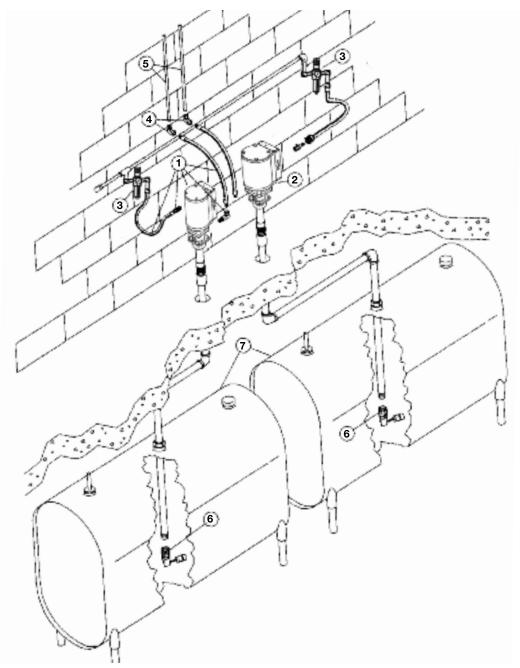
# Standpipe, Pump Station, Basement Tanks<sup>1</sup> Bill of Materials

Model	Code	Req'd.	Description
V30500SSU	1	1	PMV 5:1 Pump Hose Air & Fluid Connectors
V41000SSU	2	1	PMV 10:1 Stub/Universal Pump w/ Hose & Connectors
602136	3	2	Modular Airline Regulator and Filter w/ Gauge 3/8" NPT(f)
***	4	*	5/8" OD Tube Elbow 1/2" NPT(f)
***	5	*	Hi-Pressure Tubing 5/8" OD x .083 Wall **
82439	6	2	Low Level Cut-Off 11/2" NPT(f)
***	7	2	275-Gallon Ob-round Tank

<sup>&</sup>lt;sup>1</sup> Underground tanks would be similar.

The following schematics and bills of material are of common lubrication systems. These depictions are for reference and as an aid in system design.

Variables such as length of pipe/tube run, temperature, location and other specific parameters of a system must be taken into consideration. Please refer to detailed specification information for system componentry in previous catalog pages.



<sup>\*</sup> Requirements vary per system.

<sup>\*\* 20&#</sup>x27; length, working pressure 5000psi, 7 pack

<sup>\*\*\*</sup> Available from local petroleum equipment service distributor.



# Single Reel System from 55-Gal. Drum

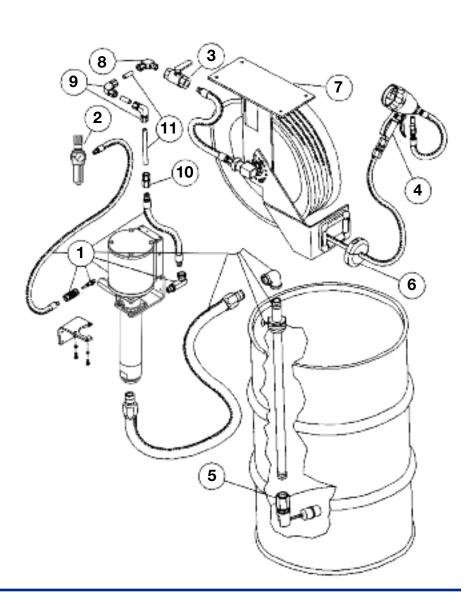
#### **Bill of Materials**

Model	Code	Req'd.	Description	
V30500SWM	1	1	5:1 PMV Pump, Hoses, Air & Fluid Connectors, Wall Mount Bracket, Suction Kit	
602136	2	1	Modular Airline Regulator and Filter w/ Gauge 3/8" NPT(f)	
66084	3	1	Medium-Pressure Quarter-Turn Shut-Off Valve 1/2" NPT(f)	
877	4	*	Metering Control Valve 1/2" NPT(f)	
84946	5	1	Low Level Cut-Off 1" NPT	
85517	6	*	Adjustable Ball Stop	
85057	7	1	Heavy-Duty Hose Reel with Hose & Fluid Connectors, 50' 73600 Hose	
***	8	**	<sup>5</sup> /8" OD Union Elbow, <sup>1</sup> /2" NPT(m)	
***	9	**	5/8" OD 90° Tube Union	
***	10	**	5/8" OD Tube Connector, 1/2" NPT(f)	
***	11	**	Hi-Pressure Tubing 5/8" OD x .083 Wall (Working Pressure: 5000 psi)†	

<sup>\*</sup> Included in each reel assembly.

#### WARNING

For safe and proper use, always consult instructions accompanying product. See **Safety Warning Information** for appropriate warnings.



<sup>\*\*</sup> Requirements vary per system

<sup>\*\*\*</sup> Available from local petroleum equipment service distributor.

<sup>† 20&#</sup>x27; length, 7 pack

# **Typical Installations Bulk Oil Systems-Motor Oil**



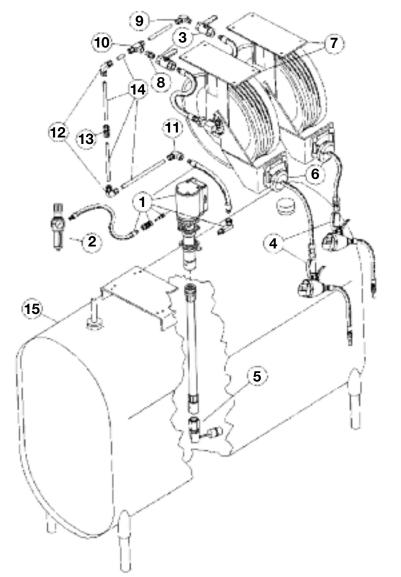
# **Single Product to Two Reels**

#### **Bill of Materials**

Model	Code	Req'd.	Description
V305275BB	1	1	5:1 PMV Pump, Hoses, Air & Fluid Connectors, 275 Gal. Suction Kit,
			Bung Bushing
602136	2	1	Modular Airline Regulator and Filter w/ Gauge 3/8" NPT(f)
66084	3	1	Medium-Pressure Quarter-Turn Shut-Off Valve 1/2" NPT(f)
877	4	*	Metering Control Valve <sup>1</sup> / <sub>2</sub> " NPT(f)
84946	5	1	Low Level Cut-Off 1" NPT
85517	6	*	Adjustable Ball Stop
85057	7	2	Heavy-Duty Hose Reel with Hose & Fluid Connectors, 50' 73600 Hose
***	8	**	Nipple, <sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> " NPT(m)
***	9	**	<sup>5</sup> /8" OD Union Elbow, <sup>1</sup> /2" NPT(m)
***	10	**	5/8" OD Tube Union Tee
***	11	**	<sup>5</sup> /8" Union Elbow, <sup>1</sup> /2" NPT(m)
***	12	**	5/8" OD 90° Tube Union
***	13	**	5/8" OD Tube Connector, 1/2" NPT(f)
***	14	**	Hi-Pressure Tubing 5/8" OD x .083 Wall (Working Pressure 5000psi)†
***	15	1	Tank

For safe and proper use, always consult instructions accompanying product. See **Safety Warning Information** for appropriate warnings.

† 20' length, 7 pack



WARNING

<sup>\*</sup> Included in 85057 reel assembly.

<sup>\*\*</sup> Requirements vary per system

<sup>\*\*\*</sup> Available from local petroleum equipment service distributor.

# **Typical Installations**

# Typical Lubrication System—Chassis Grease



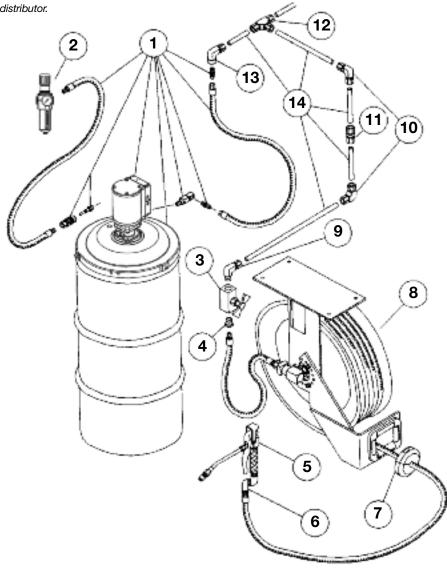
# System from 120 lb. Drum

### **Bill of Materials**

Model	Code	Req'd.	Description	
V350120DC	1	1	50:1 PMV Pump, Cover, Follower, Hoses, Air & Fluid Connectors	
602136	2	1	Modular Airline Regulator and Filter w/ Gauge 3/8" NPT(f)	
885	3	1	Hi-Pressure Shut-Off Valve <sup>1</sup> / <sub>2</sub> " NPT(f)	
12957	4	1	Nipple, <sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> "–27 (m)	
740	5	*	Hi-Pressure Control Valve 1/4" NPT(f)	
81387	6	*	Hi-Pressure Universal Swivel, <sup>1</sup> / <sub>4</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> "–27 (m)	
85516	7	*	Adjustable Ball Stop	
85050	8	1	HD Hose Reel with Hose & Lube Connectors, 30' 75360 Hose	
***	9	**	5/8" OD Tube Elbow, 1/2" NPT(m)	
***	10	**	5/8" OD 90° Elbow or Union Elbow	
***	11	**	5/8" OD Tube Union	
***	12	**	5/8" OD Tube Union Tee	
***	13	**	5/8" OD Tube Elbow, 1/4" NPT(f)	
***	14	**	Hi-Pressure Tubing <sup>5</sup> / <sub>8</sub> " OD x .083 Wall (Working Pressure: 5000 psi)†	

<sup>\*</sup> Included with each reel assembly.

† 20' length, 7 pack



<sup>\*\*</sup> Requirements vary per system.

<sup>\*\*\*</sup> Available from local petroleum equipment service distributor.

## **Typical Installations**

## Typical Lubrication System—Chassis Grease



### **Two Delivery Points from 400 lb. Drum**

#### **Bill of Materials**

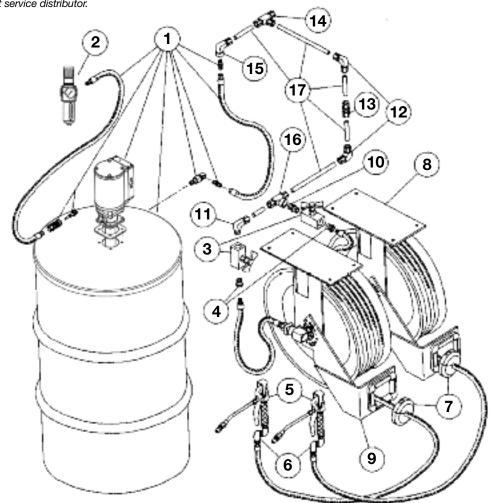
Model	Code	Req'd.	Description		
V350400DC	1	1	50:1 PMV Pump, Cover, Hoses, Air & Lube Connectors		
602136	2	1	Modular Airline Regulator and Filter w/ Gauge 3/8" NPT(f)		
885	3	2	Hi-Pressure Shut-Off Valve 1/2" NPT(f)		
12957	4	2	Nipple, <sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> "–27 (m)		
740	5	*	Hi-Pressure Control Valve 1/4" NPT(f)		
81387	6	*	Hi-Pressure Universal Swivel, 1/4" NPT(m) x 1/2"-27 Thread (m)		
85516	7	*	Adjustable Ball Stop		
85050	8	1	HD Hose Reel with Hose & Lube Connectors, 30' 75360 Hose		
85051	9	1	HD Hose Reel with Hose & Lube Connectors, 50' 75600 Hose		
11197	10	1	Nipple, <sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> " NPT(m)		
***	11	**	5/8" OD Tube Elbow, 1/2" NPT(m)		
***	12	**	5/8" OD 90° Union Elbow		
***	13	**	5/8" OD Tube Union		
***	14	**	5/8" OD Tube Union Tee		
***	15	**	5/8" OD Tube Elbow, 1/4" NPT(f)		
***	16	**	5/8" OD Tube Union Tee, 1/2" NPT(f)		
***	17	**	Hi-Pressure Tubing 5/8" OD x .083 Wall (Working Pressure: 5000 psi)†		

#### WARNING

For safe and proper use, always consult instructions accompanying product. See **Safety Warning Information** for appropriate warnings.

85825 Follower plate recommended for heavy greases and/or cold temperatures

\*\*\* Available from local petroleum equipment service distributor. † 20' length, 7 pack



<sup>\*</sup> Included in each reel assembly.

<sup>\*\*</sup> Requirements vary per system.

## **Typical Installations**

## **Pump and Reel**



# **Typical Installation Bill of Materials—Lubricating Equipment**

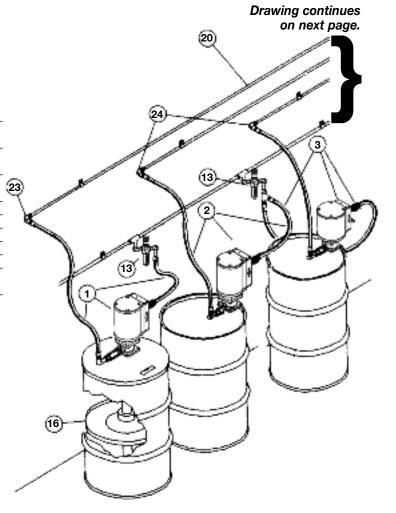
Model	Code	Req'd.	Description			
V450400DC	1	1	PMV 50:1 Pump, Air & Grease, Hoses, Connectors			
V410055BB	2	1	PMV 10:1 55 Gal. Pump, Air & Oil Hose, Connectors, Suction Tube			
V40600SWM	3	1	PMV 6:1 Wall Mount Pump, Connectors, Suction Tube, Air & Oil Hoses			
85636	4a		Dual Inlet 1/2" Air Operated Diaphragm Pump for 50/50 Antifreeze/Water			
84817	4b	1	Wall Mount Bracket			
84945	4c	1	1" Suction Kit			
V305275BB	5	1	ATF Dispenser 5:1 PMV Pump, Hoses, Air & Fluid Connectors			
85051	6	1	Chassis Reel			
85055	7	1	Gear Lubricant Reel			
85061	8	1	Motor Oil Reel			
85064	9	1	Antifreeze Reel			
85061	10	1	ATF Reel			
85063	11	1	Air Service Reel			
85242	12	6	Mounting Rail Assembly			
602136	13	2	Modular Airline Regulator and Filter w/ Gauge 3/8" NPT(f)			
602134	15	2	Air Regulator (with Gauge) 1/4" NPT(f)			
85825	16	1	Follower Plate (Chassis 400 lb. Drum)			
Others	17	2	275-Gallon Ob-round Tank			

### Bill of Materials— Lubricant Supply Lines

Model	Code	Req'd.	Description	
***	20	*	Hi-Pressure Steel Tubing	
			5/8" OD x .083 Wall (20' lengths)	
***	21	*	Medium-Pressure Steel Tubing	
			5/8" OD x .049 Wall (20' lengths)	
***	22	*	Alternate for Antifreeze 15 PVC	
			or Copper Pipe	
***	23	1	5/8" OD Tube Elbow, 1/2" NPT(m)	
***	24	4	5/8" OD Tube Elbow, 1/2" NPT(f)	
***	25	5	5/8" OD Tube Union	
***	26	5	5/8" OD Tube Union Tee, 1/2" NPT(f)	
885	27	1	Hi-Pressure Shut-Off Valve 1/2" NPT(f)	
66084	28	4	Medium-Pressure 1/4 Turn	
			Shut-Off Valve 1/2" NPT(f)	
12080	29	2	Bushing <sup>1</sup> / <sub>4</sub> " NPT(f) x <sup>1</sup> / <sub>2</sub> " NPT(m)	

<sup>\*</sup> Quantities vary with installation.

<sup>\*\*\*</sup> Available from local petroleum equipment service distributor.

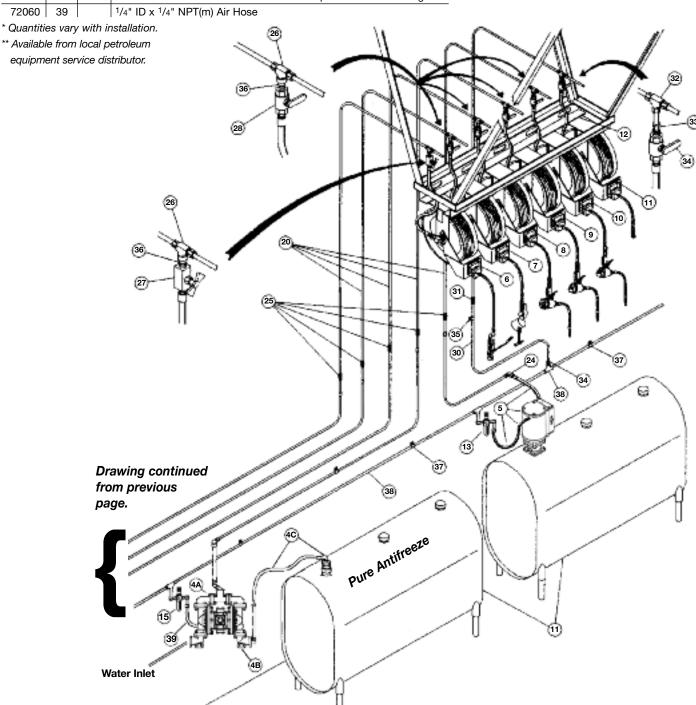


# **Typical Installations** *Pump and Reel*



## Bill of Materials—Air Supply Lines

Model	Code	Req'd.	Description
**	30	*	Low-Pressure Copper Tubing 3/8" OD or 1/2" OD
**	30	*	1/2" Schedule 40 Galvanized Steel Pipe
**	31	1	Union
**	32	1	Tee
**	33	2	Connector 1/2" NPT(m)
66084	34	2	Shut-Off Valve 1/2" NPT(f)
360108	35	*	Tube Clip for 1/2" OD Tubing 7/32" Diameter Hole
11197	36	5	Nipple <sup>1</sup> / <sub>2</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> " NPT(m)
**	37	*	Pipe Clamp for 1/2" Pipe
**	38	*	1/2" Schedule 40 ASTM A53 Buttwelded Pipe & Malleable Fittings
72060	39		1/4" ID x 1/4" NPT(m) Air Hose



## **Lube Truck Accessories**





## **Grease Application Bill of Materials**

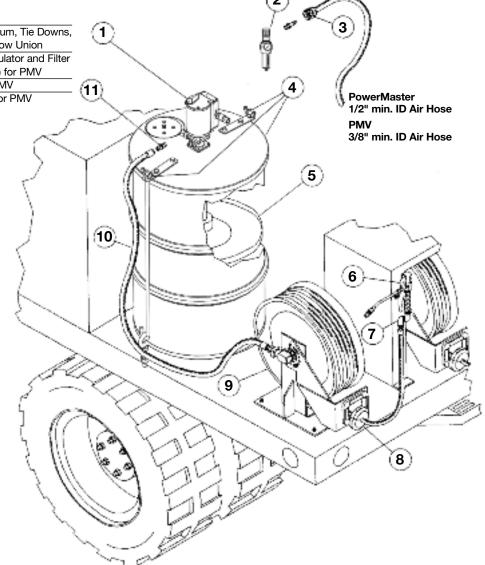
Model	Code	Req'd.	Description				
1904	1a	1	75:1 PowerMaster® II Pump				
2004	1b	1	75:1 PowerMaster III Pump				
85388-12	2a	1	Air Regulator <sup>3</sup> / <sub>4</sub> " NPT(m)				
652008	3	1	Air Socket(f) for 1/2" I.D. Hose				
81482	4a	1	400 lb. Drum Cover w/ Pump Mounting Flange & Tie Rod Assemblies for PowerMaster® II				
84318	4b	1	400 lb. Drum Cover with Tie Downs for PowerMaster III				
84963	4b	1	Flange Mount Kit for PowerMaster III				
83369	5a	1	Follower Plate				
740	6	*	Hi-Pressure Control Valve 1/4" NPT(f)				
81387	7	*	Hi-Pressure Universal Swivel, <sup>1</sup> / <sub>4</sub> " NPT(m) x <sup>1</sup> / <sub>2</sub> –27 thread (m)				
85516	8	*	Adjustable Ball Stop				
85051	9	1	Complete Reel Assembly with 50' 1/4" Hose				
76120B	10	1	Hi-Pressure Hose <sup>3</sup> /8" NPT(f)				
11197	11a	2	Steel Hex Nipple <sup>1</sup> / <sub>2</sub> " NPT(m)				

<sup>\*</sup> Included in #85051 reel assembly.

#### **Bill of Materials-PMV**

Model	Code	Req'd.	Description	
V450400LT	1c		PMV 50:1 Pump, Drum, Tie Downs,	
	4c, 3c		Air, Connectors, Elbow Union	
602136 2b			Modular Airline Regulator and Filter	
			w/ Gauge 3/8" NPT(f) for PMV	
85825	5b		Follower Plate for PMV	
10773	11b		3/8" x 1/4" Adapter for PMV	

<sup>\*</sup> Quantities vary with installation.



<sup>\*\*\*</sup> Available from local petroleum equipment service distributor.

# LUBE TRUCK ACCESSORIES

## **Lube Truck Accessories** Lube Truck



#### **Oil Application Bill of Materials**

Model	Code	Req'd.	Description
V30500SSU	1	1	PMV 5:1 Stub Pump,
			Air & Fluid Hose, Connectors **
602136	3	1	Modular Airline Regulator and
			Filter w/ Gauge 3/8" NPT(f)
83463-30	4a	1	Heavy-Duty Hose Reel with
			30' <sup>1</sup> /2" Hose
83464-50	4b	1	Heavy-Duty Hose Reel with
			50' <sup>1</sup> / <sub>2</sub> " Hose
85765	10	1	Foot Valve
*	11	1	1" NPT Black Pipe (Cut to Fit)
			(adapt to 11/2" NPT(F)
*	2	1	3/8" x 3/8" Nipple
67358	9	2	Street EI - 3/8"
			_

NOTE: Metric dimensions shown in parenthesis

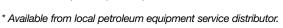
> 11/2" NPT(F) Opening

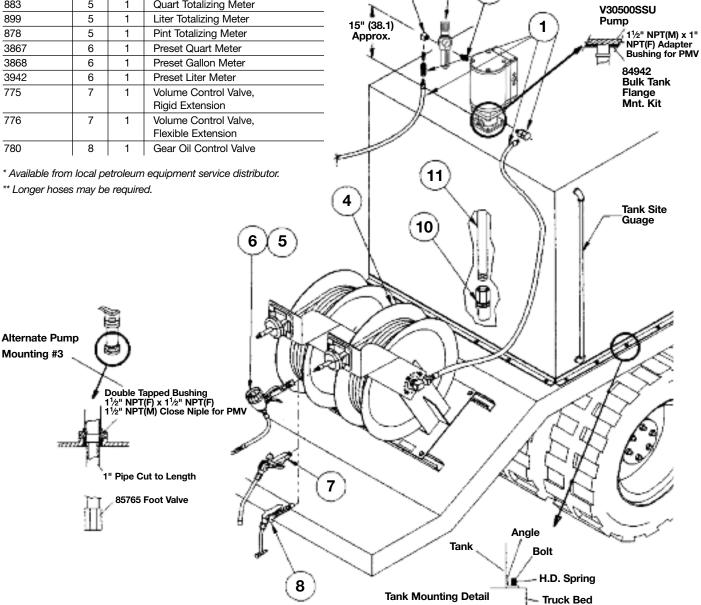
Pump/V30500SSU

1½" NPT(F) Shut-Off Valve

11/2" NPT(F) Street Ell

#### **Meter Control Valve Options** Gallon Totalizing Meter 867 5 877 5 Quart Totalizing Meter 5 883 1 Quart Totalizing Meter 899 Liter Totalizing Meter 5 1 878 5 Pint Totalizing Meter 3867 6 1 Preset Quart Meter Preset Gallon Meter 3868 6 1 3942 6 Preset Liter Meter 1 Volume Control Valve, 775 7 1 Rigid Extension 776 7 Volume Control Valve, 1 Flexible Extension 780 Gear Oil Control Valve 8





## **Typical Installations Typical Fast Lube Systems**

## **Bills Of Material**

### **Lubrication Console**

	Model	Code	Req'd.	Description		
_	*	1	1	Lubrication Console		
	967	2	2	Oil Electronic Digital Meter		
	967	3	1	ATF Electronic Digital Meter		
_	846	4	2	Water Bibbcock		
_	80423	5	1	Tire Inflator w/Gauge		
	85515	6	3	Ball Stop		
_	66084	7	6	Shut-off Valve		
_	73240	8	3	1/2" x 20' Hose Assembly (HO and ATF)		
_	72240	9	2	1/4" x 20' Hose Assembly (WW and AF)		
Ī	72240	10	1	<sup>1</sup> / <sub>4</sub> " x 20' Air Hose Assembly		

#### **Gear Oil Control Valve**

870	1	1	Pint Oil Meter			
780	2	1	Control Valve			
11197	3	1	Nipple			
66084	5	1	Shut-off Valve			
73120	6	1	Gear Oil Hose 1/2" x 10' Gear Oil Hose			
90464	7	1	Swivel Assembly			
67074	8	1	Street Ell 1/2" NPT			

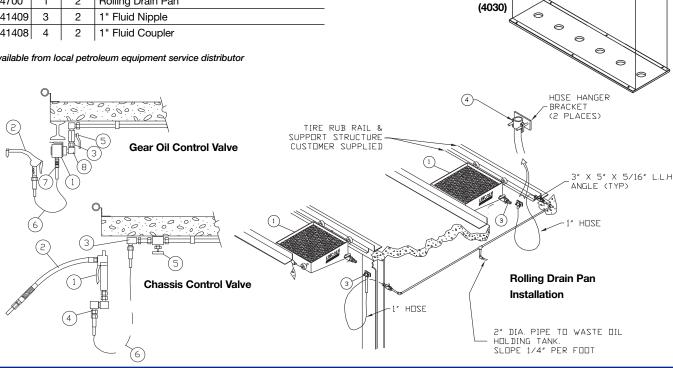
#### **Chassis Control Valve**

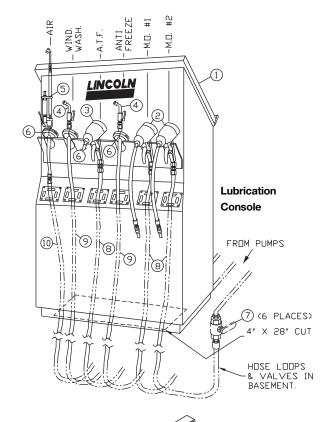
740	1	1	High-Pressure Control Valve			
5861	2	1	36' Whip Hose			
81974	3	1	90° Swivel			
81387	4	1	Universal Swivel			
778	5	1	High-Pressure Shut-off Valve			
75120	6	1	10' Chassis Grease Hose			

#### **Rolling Drain Pan**

84700	1	2	Rolling Drain Pan
241409	3	2	1" Fluid Nipple
241408	4	2	1" Fluid Coupler

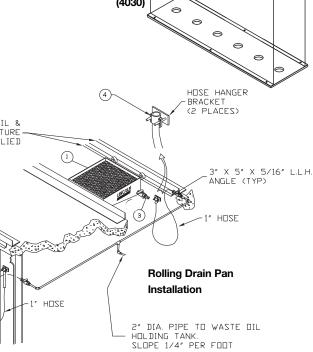
<sup>\*</sup> Available from local petroleum equipment service distributor





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**Optional In-Line Console** 



## **Safety Warning Information**



#### WARNING

Equipment contained in this catalog can generate very high fluid pressure. Before each use, make sure safety devices are in place and operating properly. Do not alter or modify any part of the equipment as this may cause fire, explosion, property damage, or result in serious bodily injury, including injecting fluid through the skin or splashing in the eyes. To reduce the risk of serious bodily injury or property damage, never exceed the maximum air or fluid working pressure of the *lowest rated system component*. Always read and follow the manual included with the equipment for more detailed information.

FAILURE TO HEED THESE WARNINGS MAY RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE.

#### WARNING

#### Pumps with ratios 1:1 to 5:1

2424, 2434, 2435, 2435LN, 2437, 485, 486, 594, 595, 596, 597, 1931, 1936, 1940, 282133, 282396, 282398, 282686, 2532, 2535, 2535LN, 2537, 282990, 284168, 284230, 284231, 284288, 284295, 284840, 284842, 282846, 284852, 284855, 284856, 284862, 284870, 285133, 285168, 285230, 285231, 285295, 285686, 285990, 84829, 84933, 84934, V305000000, V30500SSU, V305055BB, V305016DC, V305275BB, V30500SWM, V305055LT

These pumps can develop up to 1000 psi working pressure 200 psi maximum incoming air pressure. Be sure that all system equipment and accessories are rated to withstand the maximum working pressure of this pump. DO NOT exceed the maximum working pressure of the lowest rated component in the system.

#### WARNING

#### Pumps with ratios 6:1 to 49:1

930, 931, 934, 935, 936, 1901, 1902, 1903, 1905, 1906, 1909, 1914, 1932, 1933, 1934, 1937, 1938, 1939, 1951, 1952, 1955, 1996, V410000000, V406000000, V40600SSU, V40600SWM, V41000SSU, V410055DC, V410055BB, V41000SWM, V410055LB, V410055LT

These pumps can develop 7840 psi working pressure at 160 psi maximum incoming air pressure. Be sure that all system equipment and accessories are rated to withstand the maximum working pressure of this pump. DO NOT exceed the maximum working pressure of the lowest rated component in the system.

#### WARNING

#### Pumps with ratios 50:1 to 75:1

918, 923, 926, 1418, 1426, 1904, 1910, 1911, 1935, 1941, 9917, 9989, 82050, 82054, 82716, 82991, 83122, 84683, 84684, 84667, 84668, 85791, V350120000, V350400000, V350400DC, V305275BB, V350120DC, V350120HF, V350400HF, V350120LT, V350400LT, V4501200000, V4504000000, V450120DC, V450400DC, V450400HF, V450400HF, V450120LT, V450400LT

These pumps can develop 11250 psi working pressure at 150 psi maximum incoming air pressure. Be sure that all system equipment and accessories are rated to withstand the maximum working pressure of this pump. DO NOT exceed the maximum working pressure of the lowest rated component in the system.

IMPORTANT: Accessory item "whip" hoses for dispensing valve are fluid pressure rated 4500 psi. DO NOT exceed 90 psi air pressure to pump when using "whip" hoses.

DO NOT USE ANY WHIP HOSE WITH ANY PUMP RATED OVER 50:1 RATIO.

#### WARNING

Models 1272, 1273D, 1276, 1292, 1297

Be sure that all accessories are rated to withstand the maximum working pressure of the pump. DO NOT exceed the maximum working pressure of the lowest rated component in the system.

#### WARNING

Swivel Models 80353, 80924, 81386, 81387, 81388, 81606, 81703, 81723, 81728, 81729, 81974, 82071, 82072, 82073, 82080, 82087, 82249, 82251, 82252, 82399, 82677, 83594, 82822, 83938

MATERIAL USE: Lincoln swivels are to be used only to transport grease, oil and other lubricants and are designed only for these non-abrasive and non-corrosive purposes. DO NOT use with abrasive and corrosive materials such as sound-deadening materials which may contain limestone and mica particles. Transport of such materials causes rapid premature wear to critical swivel components and can cause failure of swivel. Failure could expose the user to severe bodily injury, permanent disfigurement or death.

INSTALLATION & SERVICE: Tighten all fluid connections securely before using swivel. Never exceed 5000 psi maximum operating pressure. Never alter or modify any part of the swivel. Never attempt to repair or disassemble the swivel while the system is pressurized. Never stop or deflect leaks with hand or body.

MEDICAL ATTENTION: Get medical attention immediately if exposed to high-pressure fluids. Tell the attending physician what was injected.



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72036         19, 20, 27, 54, 109         80995         15, 76, 80, 82, 85, 87         82466         76           72060         24, 25, 27, 54, 109         80995         15, 76, 80, 82, 85, 87         82715         42           72120         54         80924         86         82716         82           72240         54, 112         80933         83, 85, 95, 96         82730         34           72360A         46, 48, 49, 54         81133         52         82737         34           72360A         48, 81323         52         82757         86, 67           72480A         48, 81333         52         8276         96           72480A         48, 81333         52         8276         97           72600A         46, 84, 89, 54         81337         15, 46, 48, 49, 55         82773         37           72600A         46, 84, 89, 54         81347         81, 56, 86, 87         82791         34           73006         6, 82, 34, 94, 84, 89, 53         81412         38         85, 99, 96         82790         34, 37           73020         53, 112         81482         37, 38, 110         82792         34           73240         53, 112         81523	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
721210.         54         80924.         85         82716.         82           72240.         54.112         80933.         83,85,95.96         82737.         34           72360.         46,48,49,54         81133.         52         82737.         34           72360.         46,84         8168.         85         82760.         94           72480.         48.81         81323.         52         82760.         94           72480.         48.45         41386.         55         82773.         37           72600.         46,48,49,54         81386.         55         82773.         37           72600.         46,48,49,53         81412.         38         82796.         98           73036.         6,8,24,68,49,53         81412.         38         82796.         34,37           73060.         6,7,8,9,24,25,27,53         81482.         37,38,110         82792.         34           73200.         53,112         81523.         19,20,21,25,85         82791.         34           73240.         53,112         81523.         19,20,21,25,85         82941.         34           73480.         46,48,49,53,104,105         81673.         85,56	72036	. 19, 20, 27, <b>54</b> , 81	80599	87	1	
72240         54, 112         80933         83, 85, 95, 96         82730         34           72360         46, 48, 49, 54         81153         52         82757         33         34           72360         46, 54         81168         85         82767         86, 87         72           72480         48         81333         52         82760         94           724800         46, 48, 49, 54         81386         55         82773         37           72600         46, 48, 49, 54         81387         15, 46, 48, 49, 55         82784         96           72600A         46, 48, 49, 54         81482         33, 43         32         82784         96           72600A         46, 48, 49, 53         81412         38         82790         34, 37           73026A         67, 8, 9, 24, 25, 27, 53         81482         37, 38         82791         34           73120         63, 112         81523         19, 20, 21, 25, 85         82791         34           73240         53, 112         81523         19, 20, 21, 25, 85         8281         82791         34           73360         46, 48, 49, 53         104, 10         81538         82883         34 <td>72060</td> <td>24, 25, 27, <b>54</b>, 109</td> <td>80895</td> <td>15, 76, <b>80</b>, 82, <b>85</b>, <b>87</b></td> <td>82715</td> <td> 42</td>	72060	24, 25, 27, <b>54</b> , 109	80895	15, 76, <b>80</b> , 82, <b>85</b> , <b>87</b>	82715	42
72360         46, 48, 49, 54         81183         52         82737         34           72360A         46, 54         81168         85         82757         86, 87           72480         46, 54         81386         55         82760         94           72480A         48, 54         81386         55         82773         37           7260O         46, 48, 49, 54         81386         55         82778         9.6           7260OA         46, 48, 49, 54         81386         55, 65         82778         34           73024         6, 8, 23, 46, 48, 49, 53         81412         38         8296         34, 37           73036         6, 7, 8, 9, 24, 25, 27, 53         81482         37, 38, 110         82792         34           73020         53, 112         81495         55         82793         34           73220         53, 112         81523         19, 20, 21, 25, 85         82841         34           73800         46, 48, 49, 53         81538         36         55, 96         82891         34           73600         46, 48, 49, 53, 104, 105         81673         86         82996         57           73720         46         81	72120	54	80924	85	82716	82
72360         46, 48, 49, 54         81183         52         82737         34           72360A         46, 54         81168         85         82757         86, 87           72480         46, 54         81386         55         82760         94           72480A         48, 54         81386         55         82773         37           7260O         46, 48, 49, 54         81386         55         82778         9.6           7260OA         46, 48, 49, 54         81386         55, 65         82778         34           73024         6, 8, 23, 46, 48, 49, 53         81412         38         8296         34, 37           73036         6, 7, 8, 9, 24, 25, 27, 53         81482         37, 38, 110         82792         34           73020         53, 112         81495         55         82793         34           73220         53, 112         81523         19, 20, 21, 25, 85         82841         34           73800         46, 48, 49, 53         81538         36         55, 96         82891         34           73600         46, 48, 49, 53, 104, 105         81673         86         82996         57           73720         46         81	72240	<b>54</b> , 112	80933	83, 85, <b>95</b> , 96	82730	34
72360A         46, 54         81168         85         82757         86, 87           72480         48         81323         52         82760         94           72480A         48, 54         81396         55         82773         37           7260O         46, 48, 49, 54         81337         15, 46, 48, 49, 55         82784         95           73024         6, 8, 23, 46, 48, 49, 53         81412         38         82790         34, 37           73066         7, 8, 9, 24, 25, 27, 53         81458         85, 95, 96         82791         34           73120         6, 7, 8, 9, 24, 25, 27, 53         81482         37, 383, 110         82792         34           73240         53, 112         81495         55         82783         34           73360         46, 48, 49, 53         81638         9, 38         82893         34           73360         46, 48, 49, 53         81606         55, 66         82891         34           73400         46, 48, 49, 53, 104, 105         81673         828         82896         34           73600         46, 48, 49, 53, 104, 105         81723         55         82891         37           73720         46					82737	34
72480         4,8         81323         52         82760         94           72480A         48,54         81386         55         82773         37           7260O         46,48,49,54         81387         15,46,48,49,55         82773         37           73024         6,8,23,46,48,49,53         81412         38         82790         34,37           73036         27,53         81458         85,95,96         82791         34           73020         53,112         81623         19,20,21,25,85         82791         34           73240         53,112         81623         19,20,21,25,85         82841         34           73380         46,48,49,53         81538         38         82883         34           73400         45,13         81606         55,96         82841         34           73500         46,48,49,53         81606         55,96         82841         34           73600         46,48,49,53         81673         85         82906         57           73720         46         81703         55         82932         57,59           73900         53         81723         55         82999         17,19,20						
72480A         48, 54         81386         56         82773         37           7260O         46, 48, 49, 54         81387         15, 46, 48, 49, 55         82784         95           7260OA         46, 48, 49, 54         82, 106, 107, 110, 112         82766         78           73036         27, 53         81412         38         82790         34, 37           73060         6, 7, 8, 9, 24, 25, 27, 53         81482         37, 38, 110         82792         34           73120         53, 112         81485         55, 59         82791         34           73340         53, 112         81495         55         82792         34           73360         46, 48, 49, 53         81503         19, 20, 21, 25, 85         82841         34           73360         46, 48, 49, 53         81606         55, 96         82893         34           73600         46, 48, 49, 53, 104, 105         81673         55         82896         57           73720         46         81723         55         82992         57, 59           73990         53         81723         55         82999         17, 19, 20           74060         46, 48, 49, 53         81725		•				,
72600         46, 48, 49, 54         81387         15, 46, 48, 49, 55         82784         95           72600A         46, 48, 49, 54         82, 106, 107, 110, 112         82786         78           73024         6, 8, 23, 46, 48, 49, 53         81412         38         82790         34, 37           73036         6, 7, 8, 9, 24, 25, 27, 53         81458         8, 59, 59         82791         34           73120         53, 112         81492         37, 38, 110         82792         34           73240         53, 112         81523         19, 20, 21, 25, 85         82841         34           73480         46, 48, 49, 53         81538         38         82883         34           73400         46, 53         81606         55, 96         82895         34           73400         46, 53         81606         55, 96         82885         34           73400         46, 48, 49, 53, 104, 105         81673         85         82906         57           73900         53         81723         55         82932         57, 59           73900         54         81728         55, 96         82999         17, 19, 20           74600         46, 46, 48, 45, 53						
72600A         46, 48, 49, 54         82, 106, 107, 110, 112         82786         78           73024         6, 8, 23, 46, 48, 49, 53         81412         38         82790         34, 37           73086         27, 53         81482         37, 38, 110         82792         34           73120         53, 112         81495         55         82793         34           73240         53, 112         81523         19, 20, 21, 28, 85         82941         34           73360         46, 48, 49, 53         81538         38         82883         34           73480         48, 85         81606         55, 96         82995         34           73600         46, 48, 49, 53, 104, 105         81673         85         82906         57           73720         46         81703         55         82932         57, 59           73900         53         81723         55         82932         57, 59           74004         46, 48, 48, 48         81726         55, 96         82981         17, 19, 20           74000         54         81726         55, 96         82981         19         19           74460         54         81726         55, 96 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>						
73024         6, 8, 23, 46, 48, 49, 53         81412         38         82790         34, 37           73036         27, 53         81456         85, 95, 96         82791         34           73060         6, 7, 8, 9, 24, 25, 75, 83         81482         37, 38, 110         82792         34           73120         53, 112         81495         55         82793         34           73240         55, 112         81523         19, 20, 21, 25, 85         82841         34           73380         46, 48, 49, 53, 104, 105         81638         38         82883         34           73480         46, 48, 49, 53, 104, 105         81673         85         82996         57           73900         53         81723         55         82989         17, 19, 20           73900         53         81723         55         82979         37           74060         46, 48, 54         81726         55, 96         82891         17, 19, 20           74480         46, 48, 54         81728         55         82999         17, 19, 20           74204         46, 48, 49, 53         81795         55         86         83112-1         19           74400         5 <td></td> <td>, , ,</td> <td></td> <td></td> <td></td> <td></td>		, , ,				
73036         2,7,53         81458         85,95,96         82791         34           73060         6,7,8,9,24,25,75         81482         37,36,110         82792         34           73120         63,112         81495         55         82793         34           73240         53,112         81523         19,20,21,25,85         82841         34           73360         46,48,49,53         81508         58         82883         34           73600         46,48,49,53,104,105         81603         55,66         82895         34           73600         46,48,49,53,104,105         81673         85         82906         57           73720         46         81703         55         82932         57,59           73900         53         81725         55,96         82991         19           74060         54         81726         55,96         82991         19           74480         54         81729         4,46,55         83112         19           74720         46         81786         83,85         83112         19           74720         46         8,49,53         81794         55,12         81 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
73060         6, 7, 8, 9, 24, 25, 27, 53         81482         37, 38, 110         82792         34           73120         53, 112         81495         55         82833         34           73240         53, 112         81523         19, 20, 21, 25, 85         82841         34           73360         46, 48, 49, 53         81538         38         82883         34           73480         46, 84, 49, 53, 104, 105         81673         85         82995         34           73600         46, 48, 49, 53, 104, 105         81673         85         82932         57, 59           73720         46         81703         55         82932         57, 59           73990         53         81723         55         82999         17, 19, 20           74024         46, 85, 44         81725         55, 96         82991         19           744060         54         81728         55         82989         17, 19, 20           74720         46         81728         55         82989         17, 19, 20           74720         46         81728         55         82991         19         21           74720         46         81728         4						•
73120         53, 112         81495         .55         82793         .34           73240         53, 112         81523         19, 20, 21, 25, 85         82841         .34           73360         .46, 48, 49, 53         81538         .38         82883         .34           73480         .46, 83, 104, 105         81673         .85         82906         .57           73600         .46, 48, 49, 53, 104, 105         81673         .85         82906         .57           73900         .53         81723         .55         82932         .57, 59           73900         .53         81725         .55, 96         82991         .17, 19, 20           74000         .54         81726         .55, 96         82991         .19           744800         .54         81728         .55         86         82991         .19           74220         .46         48, 48, 54         81729         .446, 55         83112-1         19           74720         .46         81788         .85, 5         83115         .7, 9, 12, 14, 17           75024         .46, 48, 49, 53         81994         .55, 112         83113         .9, 37, 38           75120         .						
73240         53,112         81523         19,20,21,25,85         82841         34           73360         46,48,49,53         81568         38         82983         34           73600         46,48,49,53,104,105         81673         85         82906         57           73720         46         81703         55         82932         57,59           73900         53         81723         55         82932         57,59           74024         46,48,49         41726         55,96         82989         17,19,20           74080         54         81726         55,96         82999         17,19,20           74080         54         81728         55         86         82989         17,19,20           74600         46,48,49,53         81729         4,46,55         83112-1         19           74720         46         81768         83,85         83112-1         19           75064         46,48,49,53         81795         55,96         8291         19           75084         15,20,53,82         8194         55,112         83119         38           75186         53         82050         18,19,2         83						
73360         46, 48, 49, 53         81538         38         82883         34           73400         48, 53, 104, 105         81673         85, 96         8295         34           73720         46         81703         55         82932         57, 59           73900         53         81723         55         82932         57, 59           73900         53         81725         55, 96         82979         37           74024         46, 48, 54         81726         55, 96         82991         19         20           74080         54         81728         55         82991         19         20           74480         46, 48, 49, 53         81729         4, 46, 55         83112         19           7420         46         81788         83, 85         83112         19           7420         46         81768         83, 85         83112         19           7420         46         81768         83, 85         83112         19           7420         46         48, 49, 53         8194         55, 96         83112         19           7420         46, 48, 49, 53         81795         55, 96						
73480         48, 53         81606         55, 96         82895         34           73600         46, 48, 49, 53, 104, 105         81673         85         82906         57           73720         46         81703         55         82932         57,59           73900         53         81723         55         82939         37           74024         46, 48, 54         81725         55, 96         82989         17, 19, 20           74080         54         81728         55         96         82991         19           74480         54         81728         55         96         82991         19           74480         54         81728         55         96         82991         19           74480         46, 48, 49, 53         81728         55         96         83112         19           74800         46, 48, 49, 53         81795         55, 96         83112         19           74720         46         81768         83, 85         83115         7, 9, 12, 14, 17           75060         11, 13, 19, 20, 53         81940         95, 96         99, 20, 23, 24, 25           75084         15, 20, 53, 82						
73600         46, 48, 49, 53, 104, 105         81673         85         82906         57           73720         46         81703         55         82932         57, 59           73900         53         81723         55         82999         37           74024         46, 48, 54         81725         55, 96         82999         17, 19, 20           74060         54         81726         55, 96         82991         19           74480         54         81729         4, 46, 55         83112         19           74600         46, 48, 54         81729         4, 46, 55         83112         19           74720         46         81768         83, 85         83115         7, 9, 12, 14, 17           75024         46, 48, 49, 53         81795         55, 96         83115         7, 9, 12, 14, 17           75020         11, 13, 19, 20, 53         81974         55, 112         83119         33119         38119           75060         11, 13, 19, 20, 53         81974         55, 112         83131         9, 37, 38           75120         53, 112         82050         18, 19, 82         83132         3131         9, 37, 38           75240						
73720.         46         81703.         55         82932.         57,59           73900.         53         81723.         55         82979.         37           74024.         46,48,54         81725.         55,96         82991.         17,920           74080.         54         81728.         55,96         82991.         19           74600.         46,48,54         81729.         4,46,55         83112.         19           74720.         46         81768.         83,85         83112.         19           75060.         11,13,19,20,53         81795.         55,96         83112.         19           75060.         11,13,19,20,53         81974.         55,112         83119.         19,20,23,24,25           75060.         11,13,19,20,53         81980.         95,96         83131.         9,37,38           75120.         53,112.         82050.         18,19,82         83132.         37           75188.         53         82070.         56,57,59         83271.         34           75240.         53         82070.         56,57,59         83271.         34           75800.         46,48,49,53,107         82087.         55				•		
73900         53         81723         55         82979         37           74024         46,48,54         81725         55,96         82989         17,19,20           74060         54         81726         55,96         82991         19           74480         54         81728         55         83112         19           74600         46,48,54         81729         4,46,55         83112-1         19           74720         46         81768         83,85         83115         7,9,12,14,17           75024         46,48,49,53         81795         55,96         83119         19,20,23,24,25           75060         11,13,19,20,53         81974         55,112         83119         38           75084         15,20,53,82         81980         95,96         83131         9,37,38           75120         53,112         82050         18,19,82         83131         9,37,38           75168         53         82054         18,19         83132         37           75168         53         82070         56,57,59         83276         95           75400         47,53         82073         55         83276         95						
74024         46, 48, 54         81725         55, 96         82989         17, 19, 20           74080         54         81726         55, 96         82991         19           74480         54         81728         55         83112         19           74600         46, 48, 54         81729         4, 46, 55         83112-1         19           74720         46         81768         8.85         83112-1         19           75024         46, 48, 49, 53         81795         55, 96         83115         7, 9, 12, 14, 17           75024         46, 48, 49, 53         81795         55, 96         19, 20, 23, 24, 25           75080         11, 13, 19, 20, 53         81974         55, 112         83115         7, 9, 12, 14, 17           75084         15, 20, 53, 82         81980         95, 96         83131         9, 37, 38           75168         53         82050         18, 19, 82         83132         37           75168         53         82070         56, 57, 59         83271         34           75360         46, 48, 49, 53, 106, 107         82072         55         83366         19, 20, 21           75600         46, 48, 49, 53, 106, 107						,
74060         54         81726         55,96         82991         19           74480         54         81728         55         83112         19           74600         46,48,54         81729         4,46,55         83112-1         19           74720         46         81,49,53         81795         53,82         83115         7,9,12,14,17           75024         46,48,49,53         81795         55,96         3112         19,20,23,24,25           75060         11,13,19,20,53         81974         55,112         83119         38           75084         15,20,53,82         81980         95,96         83131         9,37,38           75120         53,112         82050         18,19,82         81332         37           75168         53         82070         56,57,59         83166         38           75240         53         82070         56,57,59         83278         95           75860         46,48,49,53,106         82072         55         83278         95           75912CL         96         82103         19         83466         19,20,21           75936CL         96         82103         19         83463						
74480         54         81728         55         83112         19           74600         46, 48, 54         81729         4, 46, 55         83112-1         19           74720         46         81768         83, 85         83115         7, 9, 12, 14, 17           75024         46, 48, 49, 53         81975         55, 96         19, 20, 23, 24, 25           75060         11, 13, 19, 20, 53         81974         55, 112         83119         38           75084         15, 20, 53, 82         81980         95, 96         83131         9, 37, 38           75168         53         82050         18, 19, 82         83166         38           75240         53, 112         82050         18, 19, 82         83166         38           75240         53         82070         56, 57, 59         83271         34           75360         46, 48, 49, 53, 106, 107         82072         55         83366         19, 20, 21           75480         47, 53         82073         55         83366         19, 20, 21           75912CL         96         82167         55         83366         19, 20, 21           75924CL         96         82158         55		• •		•		
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