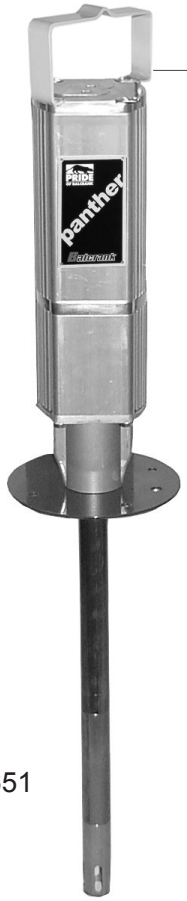
Balcrank®

PANTHER® HP SERIES GREASE PUMPS

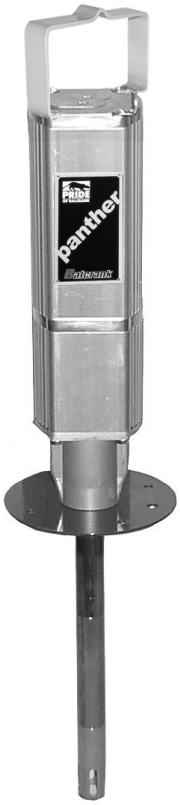
50:1 RATIO, 35 LB. PAIL, MODEL 1150-009
50:1 RATIO, 120 LB. DRUM, MODEL 1150-010
50:1 RATIO, 400 LB. DRUM, MODEL 1150-011
50:1 RATIO, STUB TOTE, MODEL 1150-017

1150-011

US Patent #6,986,651



1150-010



1150-009
&
1150-017

Thoroughly read and understand this manual before installing, operating or servicing this equipment.

OPERATION, INSTALLATION, MAINTENANCE AND REPAIR GUIDE

General Safety

Thoroughly read and understand this manual before installing, operating or servicing the described products.

⚠ IMPORTANT

Because this pump can be incorporated into a pressurized systems, the following safety precautions should be observed.

Check equipment regularly and repair or replace worn and damaged parts.

Never alter or modify any parts of this pump, doing so may cause damage to pump and/or personal injury.

Under no circumstances should the dispensing valve be aimed at any person at any time. Personal injury may result.

Release pressures built up in the system before any service or repair is begun. See the pressure relief procedure below.

Do not operate this pump above 150 PSI (10.3 BAR) air inlet pressure or 200 cycles per minute.

Always read and follow the fluid manufacturer's recommendations regarding the use of protective eyewear, clothing and respirators.

⚠ WARNING

Pressure Relief Procedure:

Follow this procedure whenever you shut off the pump, when checking or servicing any part of the system and when installing, cleaning or changing any part of the system.

1) Disconnect the air to the pump.
2) Point dispensing valve away from yourself and others.
3) Open dispensing valve until pressure is relieved.

⚠ WARNING

Use 3241-002 Pump Over-Run control valve on pump air inlet for remotely operated pumps. Failure to use this valve can cause pump to cycle quickly when barrel is empty of grease. **THIS WILL DAMAGE THE PUMP** and may void factory warranty.

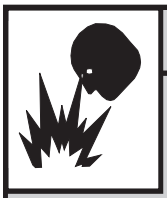
⚠ WARNING

WARNING: The Panther® 50:1 grease pump develops up to 7500 psi (517 Bar) maximum working pressure at 150 psi (10.3 Bar) maximum inlet air pressure and stall conditions. Be sure that any components or accessories used in the system are rated to withstand this pressure. To determine fluid output pressure at stall conditions, multiply the ratio of the pump by the air pressure being used.

EXAMPLE: 50:1 Pump Ratio x 100 psi air pressure = 5000 psi fluid pressure at stall.

⚠ WARNING

THIS PUMP CONTAINS ALUMINUM AND ZINC PARTS. DO NOT use 1-1-1 Trichloroethane, methylene chloride or other halogenated hydrocarbon solvents or fluids containing such solvents in this pump. Use of these solvents/fluids may result in a violent chemical reaction, causing serious bodily injury, property damage or death. All fluids used in this pump must be chemically compatible with the wetted parts materials shown on page two (2) of this manual. Consult your chemical supplier to ensure compatibility.



⚠ WARNING

DANGER: Not for use with fluids that have a flash point below 100°F (38°C). Examples: gasoline, alcohol. Sparking could result in an explosion which could result in death.

⚠ WARNING

In the presence of explosive vapors, take action to prevent static sparking. Failure to ground the pump, piping, valves, containers, or other miscellaneous equipment can result in fire or explosion. A green grounding lug is provided on the pump.

Table of Contents

Product Description

The 50:1 ratio Panther® pump is suitable for grease distribution to multiple dispensing points or for dispensing distances of up to 300 feet. Because of its superior flow rate and rugged design, it is ideal for a wide variety of applications and installations.

The Panther's proven air motor features a precision air reversing valve mechanism with dual valve ports for improved high speed breathing. It also contains a positive trip detent spool mechanism that eliminates stalling (blowing air) by preventing the pump from being caught between strokes.

The lower end is fitted with Balcrank's exclusive, patent-pending intake system that dramatically improves the pump's output by maintaining a high inlet vacuum. By creating such a high intake vacuum, the chance of producing "voids" in the grease is practically eliminated.

It has a simple yet durable construction with all internal parts lubricated at the factory using a life-tested synthetic grease (Balcrank P/N 826733). This grease coats all internal parts and repels air line moisture to inhibit corrosion.

The Panther® pump's exterior is constructed from aircraft grade extruded aluminum for an outstanding strength to weight ratio. The pump also has high quality Buna-N and urethane seals. It is a pump that has proven to be reliable, yet easy to service and maintain.

Technical Data

Pressure Ratio	50:1
Air Motor, Effective Dia.	2.44"
Stroke	3.25"
Air Motor Displacement	30.4 in^3
Cycles per pound[1]	70
Maximum Flow Rate[1]	3.1 lb/min
Operating Air Pressure Range	40-150 psi
	(2.8-10.3 Bar)
Recommend Operating Range	**40-125 psi (2.8-8.6 Bar)**
Air Consumption, @ 100 psi Air[2]	18.5 SCFM
Fluid outlet	1/4" NPTF
Air inlet	1/4" NPTF
Wetted Parts	Stainless Steel,Steel, Brass, Aluminum, Delrin, Ultrathane, Buna-N

1. Medium body grease @ 75 deg. F, free flow with 100 psi air.
2. Air consumption varies with pump speed.

Pump Installation

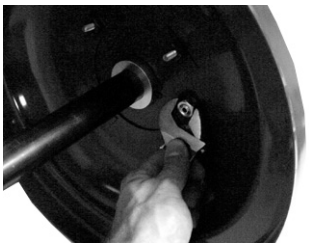
After removing the pump from its shipping carton, attach to a suitable drum cover with the mounting ring supplied with the pump.

> ⚠ **CAUTION:** Performance will be affected by a suction path seal (follower plate) that is not air tight.

To insure proper performance of your grease pump, Balcrank® recommends using a follower plate if mounting the pump to a grease pail or drum.

Refer to the following illustrations depicting a typical drum-mounted installation.

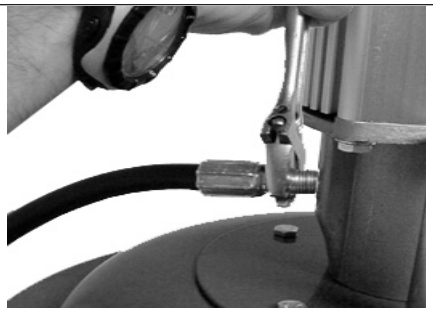
STEP 1:
Using four 1/4-28 bolts and lock washers, secure the pump to the drum cover.



STEP 2:
From underneath, tighten the holster.

STEP 3:
Slide the follower plate up the pump tube as shown.

STEP 4:
Insert pump (with follower plate) into drum and tighten thumb screws.

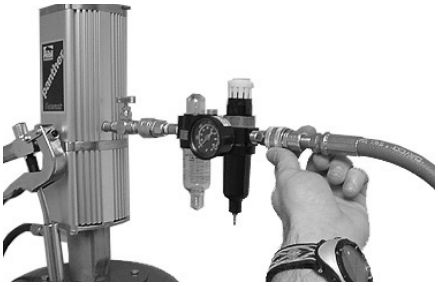


STEP 5:
Tighten one end of outlet hose to pump outlet.

STEP 6:
Secure control handle to the other end of the outlet hose.

STEP 7:
Install a coupler or a ball valve into the pump's air intake port. ***Insure the valve is closed***

STEP 8:
Install a F-R-L onto the pump. Fill the lubricator with 10-20 wt. lubricant - set for 1 drop every 2 hours.



STEP 9:
Connect compressed air to F-R-L.

STEP 10:
Set regulator to no more than 150 psi (10 bar)

STEP 12:
Open control handle into suitable container to properly prime pump and remove air from system.

Set-up complete (optional equipment shown)

25/35 LB. Installation:
Loosen set screw on mounting collar and remove from pump. Install collar on cover and complete step 1 and 2. Place cover on pail and insert pump. Raise pump one inch from bottom of pail and tighten set screw. Proceed with step 3 and rest of installation instructions.

Note: If your pail measures 16-1/2" or greater, remove the mounting ring from the collar and attach the mounting ring to the pump's outlet housing with the snap ring provided.

Preventive Maintenance

The Panther® grease pump has been designed to operate dependably with little required maintenance. However, to ensure pump longevity, the following should be observed:

- Keep the grease free of trash and debris. Periodically check the pump inlet for foreign matter and clean when necessary.
- Run the pump at the minimum pressure required to achieve the desired flow rate *(less than 125 psi and 150 cyc/min recommended).*
- Ensure the pump receives clean, moisture free air. Check and maintain the system's air filter on a regular basis.
- Although the air motor is coated with synthetic grease upon factory assembly and can run without lubricated air, Balcrank recommends an in-line F.R.L. be installed in the pumping system.
- Never let the pump run dry of the grease being pumped.

Pump Operation

CAUTION: Always read and follow grease manufacturers' recommendations regarding proper use of protective eye wear, clothing and respirators.

CAUTION: Read all limitations which apply to selection of greases which may be pumped by this product. Do not pump a grease which is not specified to be compatible.

WARNING: Attach a proper ground wire to the Panther's grounding lug before starting the pump.

To Start Pump:

1. Immerse the pump's suction tube inlet into the grease to be pumped (refer to "Pump Installation" for more detail).

2. Connect the air coupler to the pump and turn the air regulator to the minimum setting.

3. Direct pump outlet hose into an approved waste container.

4. Slowly adjust the air regulator until the pump is primed and running smoothly. Be sure all air has been purged from the system. The pump should prime in less than 30 seconds.

5. Use the air regulator to control the pump's speed and cycle rate. Always use the lowest pressure required to obtain the desired flow rate. This will increase pump and seal life.

6. Never allow a pump to be run dry of the grease being pumped. A dry pump quickly speeds up, which could damage the air motor and fluid seals. If the pump suddenly speeds up, cut off the air supply as soon as possible, refill the reservoir with grease and reprime the system.

7. Read and follow the instructions for each component in your system.

8. If the pump will be unattended for any period of time, or to shut off the system at the end of a work shift, *always* follow the **Pressure Relief Procedure** on pages 2 or 8 of this manual.

Pump Repair/Servicing

> **WARNING**: Before beginning pump repair, all internal pressure must be relieved. To reduce risk of personal injury, follow the **Pressure Relief Procedure** shown on pages 2 & 8.

Removing the Air Motor: Using a 7/16" wrench or socket, remove the four nuts (37) from the carriage bolts (30). Pulling upward on the handle (39), remove carriage bolts (30). Pull up on cap (31) and slide cap (31) outward, removing cap from tee slot connection with tripper rod (42). Pull upward on body (33) and remove. Shift air motor out from tee slot connector on rod (19) and remove air motor, seal insert (35) and lower body (36). Reassemble in reverse order, *using grease (p/n 826733) on all seals and o-rings.*

Replacing the Air Motor Seals (Installing kit 900019): Place air motor on clean work surface with the air valve mechanism up. With a straight screwdriver, remove the ball detent retainers (55) from piston (ensure the balls (57) are removed). With two 7/16" wrenches, remove the two nuts (49) from the top of the intake valves (62). Now, hold the tripper rod (42) and pull valve bar assembly from piston (59). Check for wear on all seals (32, 34, 54, and 58), balls (57), and springs (46 and 47) and replace as required. Reassemble in reverse order, using the diagram as a guide. *Use grease (p/n 826733) on all seals and o-rings.*

Replacing the Lower End Seals (Installing kit 900022): Place a 3/32" allen wrench through a slot in the intake tube (18) and through the 1/8" hole in the lower rod (26) as shown in fig. 1 below. While holding rod (26) in place with allen wrench, remove nut (29) with a 5/8" socket. The upper and lower intake disks (27 and 28) can now be removed. Using a strap wrench, remove the intake tube (18) and the high pressure cylinder (12).

Fig. 1: Removing Grease Intake Assembly

Pump Repair/Servicing
(continued)

The foot seal assembly (13, 14, 15, and 16) will slide off with the high pressure cylinder (12). Remove the lower rod (26) from the grease piston (23) by placing a 9/16" wrench on the flats of the grease piston (23) and a 1/8" allen wrench in the hole through the lower rod (26). Using a strap wrench, remove the upper tube (10) from the grease adapter (1). Clamp vise grips on the knurled portion of the connecting rod (20) and remove the grease piston (23) using the 9/16" wrench. Remove the ball (22) and spring (21) from the grease piston (23). With the vice grips still clamped onto the connecting rod (20), place a 3/32" allen wrench through the upper rod (19) and remove the connecting rod (20).

Remove the four nuts (37) from the carriage bolts (30). Pull down slightly on the grease adapter (1) and unhook the upper rod (19) from the tee slot in the piston nut (64). Pull the upper rod (19) out of the grease adapter (1). Clamp the grease adapter (1) in a vice and using a 1 -1/2" socket, remove the adapter seal carrier (2) from the grease adapter (1). Remove packings (3, 4, and 5) from adapter seal carrier (2).

Reassemble in reverse order, using the pump breakdowns and torque specifications on pages 10-15 and fig. 2 as a guide. *Use grease (p/n 826733) on all seals and o-rings.*

CAUTION: Before servicing, reduce fluid pressure to zero. For safe handling, use the recommended **Pressure Relief Procedure.**

NOTE: The air motor is lubricated with a life-tested synthetic grease (P/N 826733) at the factory. This grease coats all parts and repels air line moisture to inhibit corrosion. It is imperative that any grease removed during maintenance be replaced afterwards. Contact your local Balcrank® distributor, using the above part number, for replacement grease.

WARNING

Pressure Relief Procedure:

Follow this procedure whenever you shut off the pump, when checking or servicing any part of the system and when installing, cleaning or changing any part of the system.

1) Disconnect the air to the pump.
2) Point dispensing valve away from yourself and others.
3) Open dispensing valve until pressure is relieved.

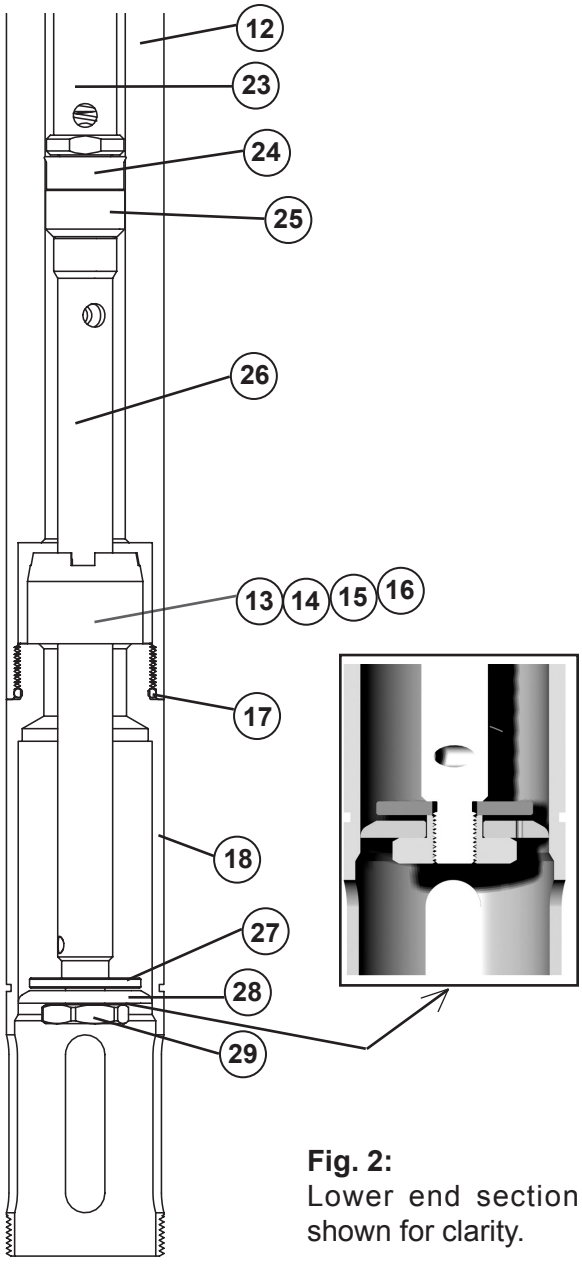


Fig. 2:
Lower end section shown for clarity.

Troubleshooting Guide

NOTE: Check all other possible causes before disassembling pump.

⚠ **CAUTION:** Before servicing, reduce fluid supply pressure to zero.

Trouble	Probable Cause	Corrective Action
Pump does not operate	Inadequate air supply pressure or restricted air line	Increase or clear air supply (1) Ensure air is on and valves are open
	Clogged lines, hoses, valves, etc.	Open; clear (1)
	Damaged air motor	Service / replace air motor
Air motor is not tripping over	Air motor seals are worn/damaged	Service / replace air motor
Air is leaking from exhaust	Air motor seals are worn/damaged	Service / replace air motor
Grease is leaking from the exhaust	Adapter seal (4) is worn/damaged	Replace
Erratic pump operation	Air entering suction line	Check for loose connections
	Grease level too low	Refill, reprime or flush
	Air motor icing	Run pump at lower pressure; run at lower cycles per minute; clean muffler (60)
Pump runs continuously	Empty fluid supply	Refill, reprime or flush
	Blockage in pump tube or foot seal (13)	Remove pump tube, clear blockage
	High pressure seal (24) is worn or damaged	Replace
Fluid output on one stroke only or continues to operate when dispensing valve is closed	High pressure ball (22) is stuck in grease piston (23) or one or both are damaged	Replace ball and reseat
Pump operates, but pump output on both strokes is low	Inadequate air supply pressure or restricted air line	Increase air supply; increase air line supply size
	Closed or clogged solenoid valve, meter, dispensing valve, etc.	Clear(1)
	Air inlet strainer/filter clogged	Clear(1)
	Orifice in lower intake disk (item 28) plugged.	Remove material from orifice.

(1) Follow the **Pressure Relief Procedure** ***(pages 2 and 8)*** and disconnect the fluid line. If the pump starts when the air is turned on again, the line, etc. is clogged.

Parts List

Panther® 50:1 Ratio Pump Lower End
Models 1150-009 , 1150-010, 1150-011, and 1150-017

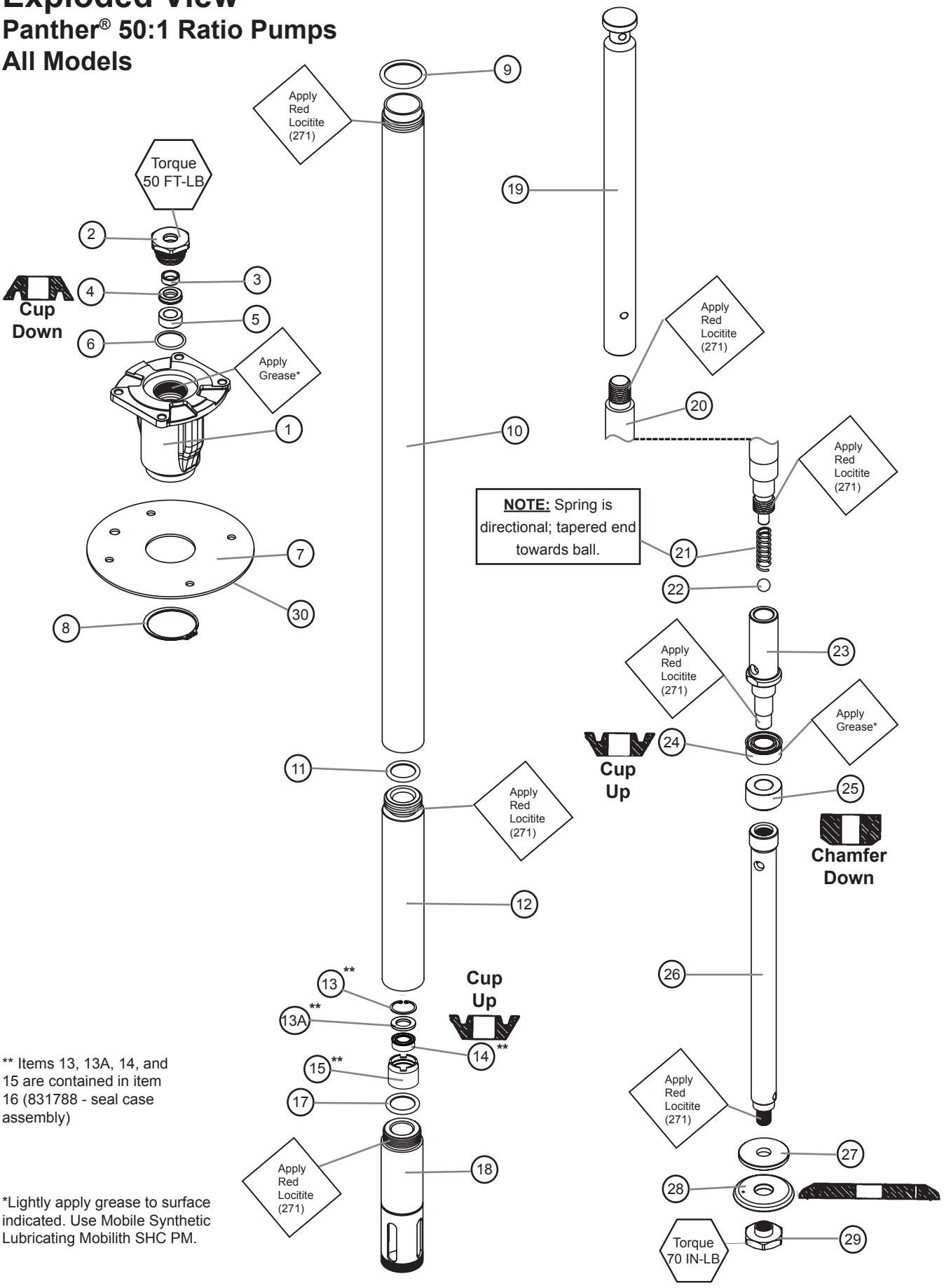
Item	Part Number	Description	Pump Qty	Service Kit Qty 900022
1	832019	Adapter, Fluid	1	0
2	830920	Seal Carrier	1	0
3	830923	Upper Back Up	1	1
4	831019	Seal, U-Cup, Urethane	1	1
5	830922	Lower Back Up	1	1
6	831018	O-Ring, Buna N, -121	1	1
7	831021	Mounting Plate (1150-009, 1150-010, & 1150-011)	1	0
	831065	Mounting Plate (1150-017)	1	0
8	831020	Snap Ring	1	0
9	831017	O-Ring, Buna N, -216	1	1
10	831607	Tube, Upper (1150-009 & 1150-017)	1	0
	831608	Tube, Upper (1150-010)	1	0
	831609	Tube, Upper (1150-011)	1	0
11	831016	O-Ring, Buna N, -119 (prior to 9/10/03)	1	1
	806899	O-Ring, Buna N, -210 (after 9/10/03)	1	1
12	831577	Cylinder, High Pressure	1	0
13		Retaining Ring (contained in item 16)	-	-
13A		Seal Case Spacer	-	-
14		Seal, U-Cup, Ultrathane (contained in item 16)	-	-
15		Seal Case (contained in item 16)	-	-
16	831788	Seal Case Assembly	1	1
17	831576	O-Ring, Buna N, -022	1	1
18	831581	Tube, Lower	1	0
19	830933	Pump Rod, Upper	1	0
20	831604	Rod, Connecting (1150-009 & 1150-017)	1	0
	831605	Rod, Connecting (1150-010)	1	0
	831606	Rod, Connecting (1150-011)	1	0
21	807454	Spring	1	1
22	806289	Ball	1	1
23	828469	Grease Piston	1	0
24	829154	Seal, U-cup, Urethane	1	1
25	828528	Back Up, Brass	1	1
26	831578	Pump Rod, Lower	1	0
27	830924	Disk, Upper, Intake	1	1
28	830925	Disk, Lower, Intake	1	1
29	830926	Nut, Intake	1	1
30	831070	Gasket (1150-017 only)	1	0
	831504	Mounting Collar (1150-009 only) (not shown)	1	0
	805709	Mounting Bolt (1150-009) (not shown)	1	0

Note: Replacement parts can be sold as individual parts (items listed with part number) or in a service kit.

Exploded View

Panther® 50:1 Ratio Pumps

All Models



** Items 13, 13A, 14, and 15 are contained in item 16 (831788 - seal case assembly)

*Lightly apply grease to surface indicated. Use Mobile Synthetic Lubricating Mobilith SHC PM.

Parts List

Panther® Pumps Upper End
All Models

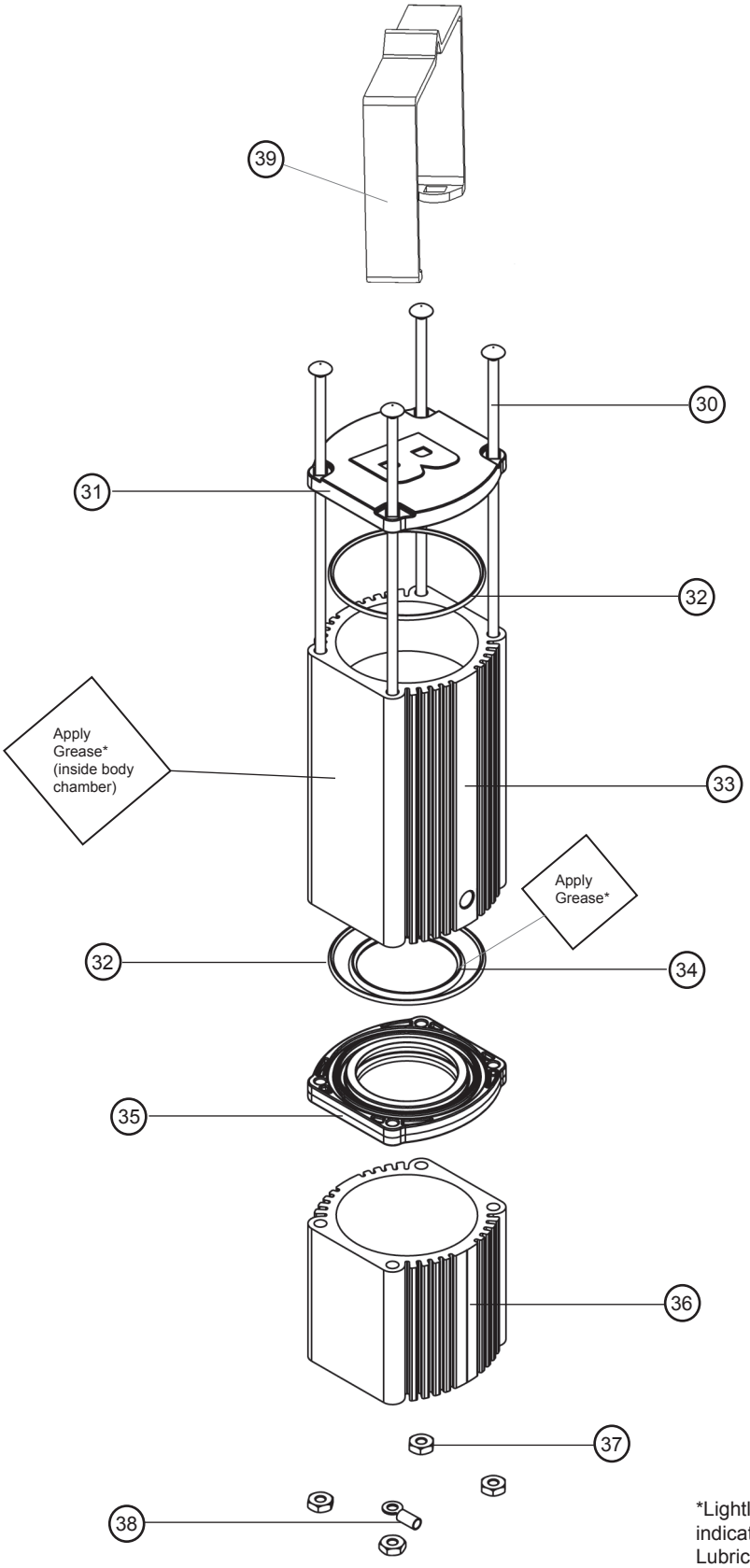
Item	Part Number	Description	Pump Qty	Service Kit Qty
				900019
30	831510	Bolt, Carriage	4	0
31	829808	Cap, Air Motor	1	0
32	829664	O-Ring, Buna N, (-239)	2	2
33	832307	Upper Body, Air Motor	1	0
34	831552	O-Ring, Buna N, (-333)	1	1
35	829809	Seal Insert, Air Motor	1	0
36	832304	Lower Body, Air Motor	1	0
37	829658	Lock Nut	4	0
38	831489	Grounding Lug	1	0
39	832005	Handle (not used on 1150-017)	1	0
40		No Longer Used	0	0
41		No Longer Used	0	0

Note: Replacement parts can be sold as individual parts (items listed with part number) or in a service kit.

Exploded View

Panther® Pumps Upper End

All Models



*Lightly apply grease to surface indicated. Use Mobile Synthetic Lubricating Mobilith SHC PM.

Parts List

Air Motor
Panther® Series Pumps

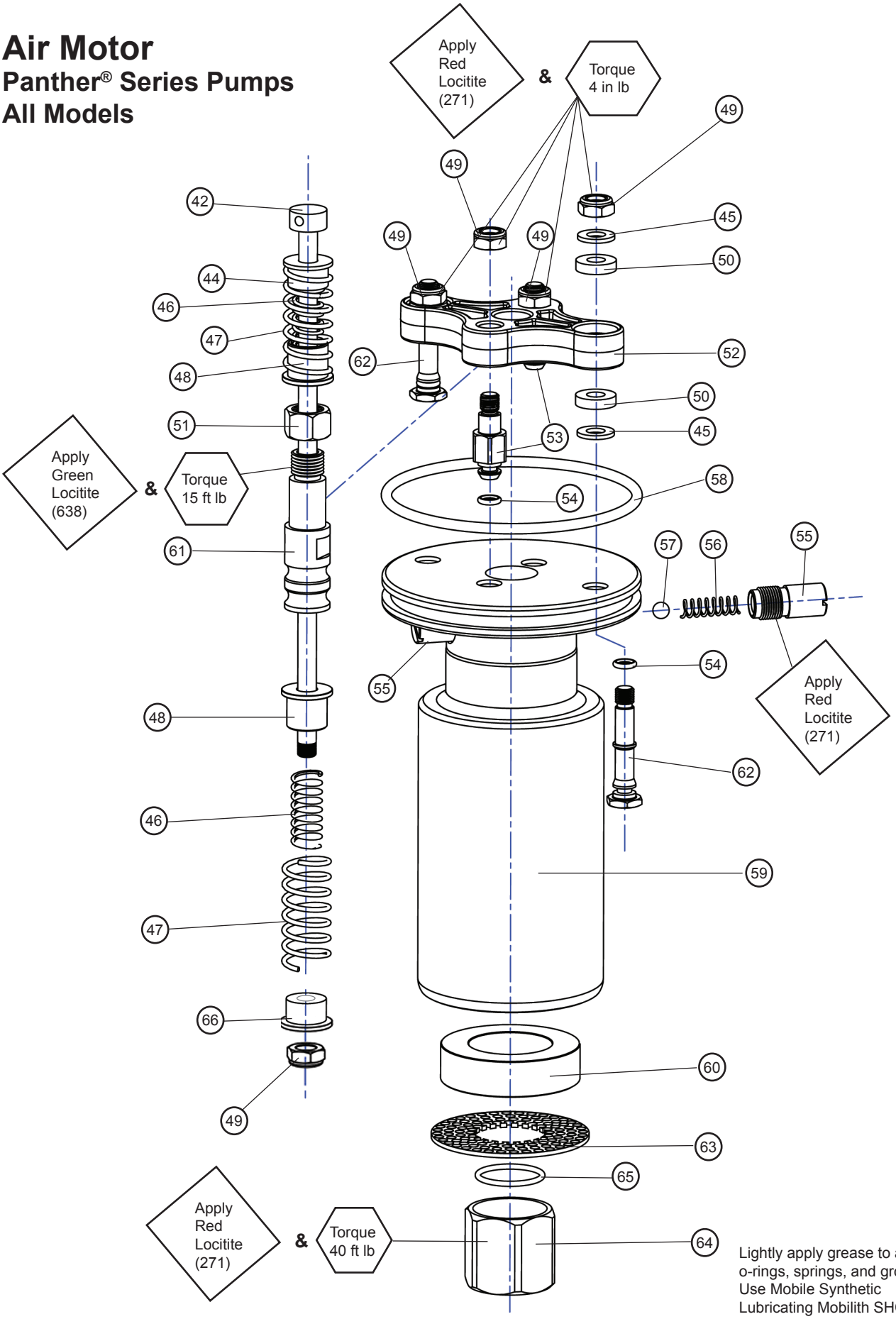
Item	Part Number	Description	Pump Qty	Service Kit Qty
				900019
42	831779	Rod, Trip	1	1
43		Not Used		
44	831778	Delrin, Thick Shoulder	1	1
45	831532	Washer	4	4
46	830240	Spring, Inner	2	2
47	830236	Spring, Outer	2	2
48	830611	Retnr.,Spring	2	2
49	808693	Nut	5	5
50	830612	Dampner	4	4
51	830143	Nut	1	1
52	829441	Valve Bar	1	1
53	830792	Valve, Exhaust	2	2
54	831551	O-Ring, Buna N, (-008)	4	4
55	829461	Retnr., Detent	2	2
56	829661	Spring, Detent	2	2
57	805810	Ball, Detent	2	2
58	831553	O-Ring, Buna N, (-236)	1	1
59	830793	Piston, Air	1	0
60	829659	Felt, Muffler	1	0
61	829999	Spool, Detent	1	1
62	830791	Valve, Intake	2	2
63	829455	Screen, Muff.	1	0
64	830723	Coupler, Rod	1	0
65	819383	O-Ring, Buna N (-019)	1	1
66	831777	Delrin, Thin Shoulder	1	1

Note: Replacement parts can be sold as individual parts (items listed with part number) or in a service kit.

Air Motor

Panther® Series Pumps

All Models



Lightly apply grease to all o-rings, springs, and grooves. Use Mobile Synthetic Lubricating Mobilith SHC PM.

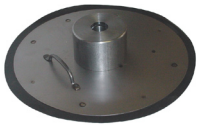
Accessories

4430-004
Filter Screen

Inlet filter screens attach to the bottom of pump tubes on Balcrank Panther® Grease Pumps to prevent foreign matter from fouling the foot valve.

Follower Plate

Follower plates help eliminate channeling of material, remove grease from the drum wall, protect the grease from contaminants, and prevent air pockets.



4440-007	**25-35 lb**
4440-008	**120 lb**
4440-009	**400 lb**

3310-009
Booster Handle

Booster handle is supplied with a 360⁰ type swivel and provides up to 10,000 psi of grease pressure. This is twice the grease pressure of standard handles.

Flexible Extension

High pressure flexible extensions are suitable for use with air operated greasing equipment

PF17	**17"**
PDF21	**21"**

4320-003
Platform Truck

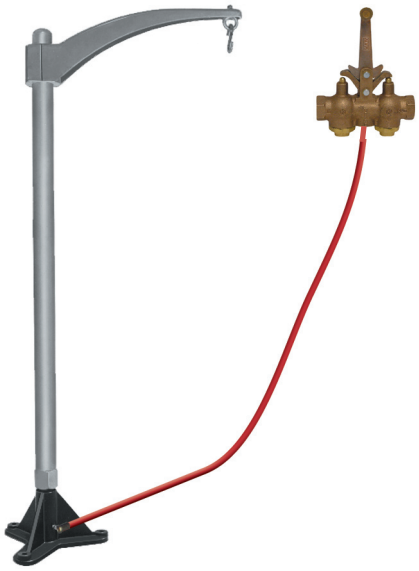
Platform truck with 10" rubber tired wheels and back caster for easy mobility. 120 lb/400 lb drums are held by a chain. Front ramp design for ease of drum change.

4460-001
Tote Adapter

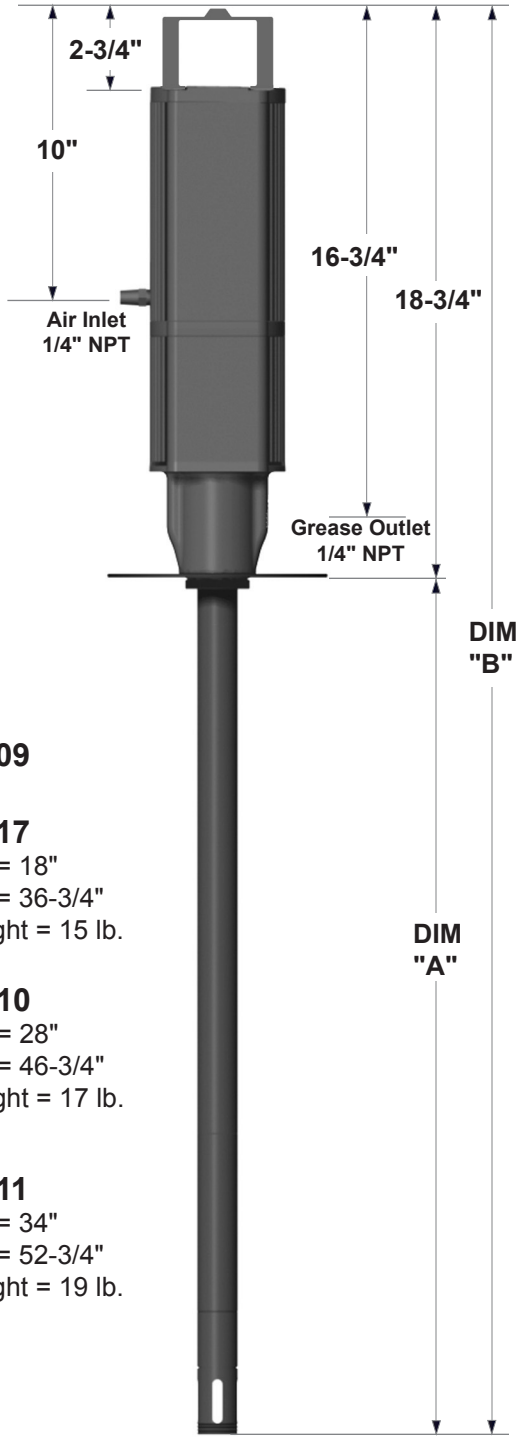
Allows Panther® Grease Pump to be attached to tote of grease.

4450-001
Air Operated Pump Lift

Single post lift for pumps. Works with 120 lb or 400 lb drum sizes. Includes model 4451-001 valve for raising and lowering air lift



Pump Dimensions



1150-009
&
1150-017
Dim "A" = 18"
Dim "B" = 36-3/4"
Dry Weight = 15 lb.

1150-010
Dim "A" = 28"
Dim "B" = 46-3/4"
Dry Weight = 17 lb.

1150-011
Dim "A" = 34"
Dim "B" = 52-3/4"
Dry Weight = 19 lb.

Quality Checklist

☐ Bill of Material checked for current content.

☐ Pump was tested in grease and met Balcrank® performance standards.

I _____
certify that this product meets or exceeds Balcrank's high quality standards.

Revision Log:

New Release - 6/2003
Rev. A - Changed o-ring (item 11)
Rev. B - Changed washer (item 66)
Rev. C - Added 831777 (item 66) and 831778 (item 44)
Rev. D - Changed item 13 , 14, 15, and 16.
Rev. E - Changed item 39, 40, and 41.
Rev. F - Added Model #1150-017
Rev. G - Updated item 13, 13A, 14, 15, & 16.
Rev. H - Changed item 1.
Rev. J - Changed part #'s page 12 (item 33,36)
Rev. K - Added note to item 21 on page 11.

Notes

Notes

WARRANTY

All Balcrank® equipment sold by authorized Balcrank® distributors is warranted to their original customer to be free from defects in materials and workmanship for a period of one year from the date the equipment was sold to the original customer. Select equipment carries extended warranty terms as individually noted within the Balcrank® Lubrication Equipment & Accessories User Price List. Any Balcrank® equipment carrying an extended warranty will be warranted for the period indicated; those items carrying a “lifetime” warranty are warranted for a period of thirty years. All Balcrank® equipment determined by Balcrank® to have defective materials or workmanship within the one year warranty period will be repaired or replaced. For equipment carrying extended warranties Balcrank®will repair or replace the product including parts and labor for the first full year and will provide parts only for the remaining period of the specified warranty.

This warranty only covers equipment installed and operated according to applicable Balcrank® Service Bulletins and Installation Instructions. Any equipment claimed to be defective must be returned, freight prepaid, to an Authorized Balcrank® Service Center. If the part(s) or equipment is found to be defective, it will be repaired or replaced, and returned freight prepaid from the Authorized Service Center. If the claimed part(s) or equipment is found not to be defective, the Authorized Balcrank® Service Center will, upon written authorization being received from the original customer, repair them for a reasonable charge to the customer which will include all applicable parts, labor, and return transportation costs. Any equipment returned to Balcrank® must have the Warranty Service Claim number (WSC#) clearly marked on the outside of the carton. Balcrank’s sole responsibility is for defects in material and workmanship, and Buyer’s sole and exclusive remedy hereunder, shall be limited to repair or replacement of the defective part or equipment.

This warranty does not cover, nor shall Balcrank® be liable for repair or replacement of parts or equipment resulting from general wear and tear through use, or damage or failure caused by improper installation, abuse, misapplication, abrasion, corrosion, insufficient or improper maintenance, negligence, accident, alteration, or substitution of non-Balcrank component parts. Furthermore the Balcrank® Warranty for Lubrication Equipment and Accessories does not cover the following specific conditions:

- Failure or damage to equipment that is caused by dirt or debris in air and fluid lines. This includes, but is not limited to clogged inlet filters, strainers, or regulators; fluid meters; control handles; fluid tips; and valves.
- Failure of normal wear parts including but not limited to: “O”-rings, packings, seals and valves unless originally improperly installed by the factory.
- Products placed in applications for which their use was not intended. Examples include but are not limited to: A lubricant pump being used to pump solvents, or placing a piece of equipment intended strictly for indoor use in an outdoor application.
- Damage to equipment resulting from operation above and beyond Balcrank’s recommendations.
- Leaks at air and fluid fittings and connections.
- Damage caused by thermal expansion when adequate pressure relief was not included in the system.
- Loose suction tubes on pumps.
- Reel spring tension adjustment.

THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. IN NO EVENT SHALL BALCRANK BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, OR OTHER DAMAGES OF SIMILAR NATURE, INCLUDING BUT NOT LIMITED TO LOST PROFITS, LOST PRODUCTION, PROPERTY DAMAGE, PERSONAL INJURY, WHETHER SUFFERED BY BUYER OR ANY THIRD PARTY, IRRESPECTIVE OF WHETHER CLAIMS OR ACTIONS, LEGAL OR EQUITABLE, FOR SUCH DAMAGES ARE BASED UPON CONTRACTS, WARRANTY, NEGLIGENCE, STRICT LIABILITY, OR OTHERWISE. ANY CLAIM OR ACTION FOR BREACH OF WARRANTY MUST BE BROUGHT WITHIN TWO (2) YEARS FROM THE DATE OF SALE TO THE ORIGINAL CUSTOMER.

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