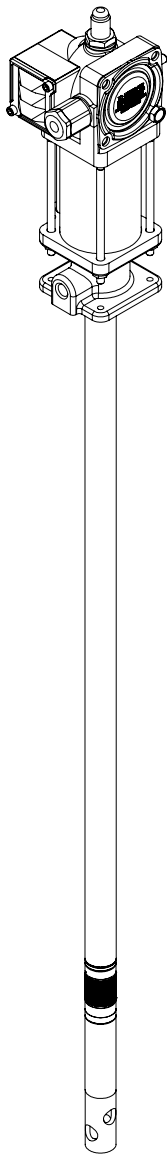


Air operated chassis pump

Models 84667 and 84668, series "A"



Date of issue **June 2017**

Form number **403514B**

Contents

Description	2
Safety information	2
Dimensions	4
Installation	5
Typical system hookup	5
Accessories	5
Pressure relief procedure	5
Operation	6
Inspection before using pump	6
Lubrication	6
Material restriction prevention	6
Corrosion prevention	6
Disassembly	6
Assembly	7
Repair	7
To lubricate air valve mechanism	8
Service parts	9
Troubleshooting	11
Warranty	16

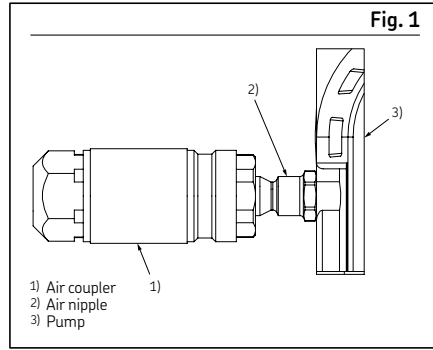
WARNING

Failure to heed the following warnings including misuse, over pressurizing, modifying parts, using incompatible chemicals and fluids, or using worn or damaged parts, may result in equipment damage and/or serious personal injury, fire, explosion, or property damage.

- Do not exceed stated maximum working pressure of pump or of lowest rated component in system.
- Do not alter or modify any part of equipment.
- Do not operate equipment with combustible gas.
- Do not attempt to repair or disassemble equipment while system is pressurized.
- Make sure all grease connections are securely tightened before using equipment.
- Always read and follow grease manufacturers recommendations regarding grease compatibility and use of protective clothing and equipment.
- Check all equipment regularly and repair or replace worn or damaged parts immediately.
- Never point dispensing valve at any part of body or at another person.
- Never try to stop or deflect material from dispensing valve or leading connection or component with hand or body.
- Always check equipment for proper operation before each use, making sure safety devices are in place and operating properly.
- Always follow pressure relief procedure after shutting off pump, when checking or servicing, and when installing, cleaning or changing any part of system.

Description

Models 84667 and 84668 are air operated chassis pumps designed to pump low and medium viscosity materials (grease) from drums and pails.



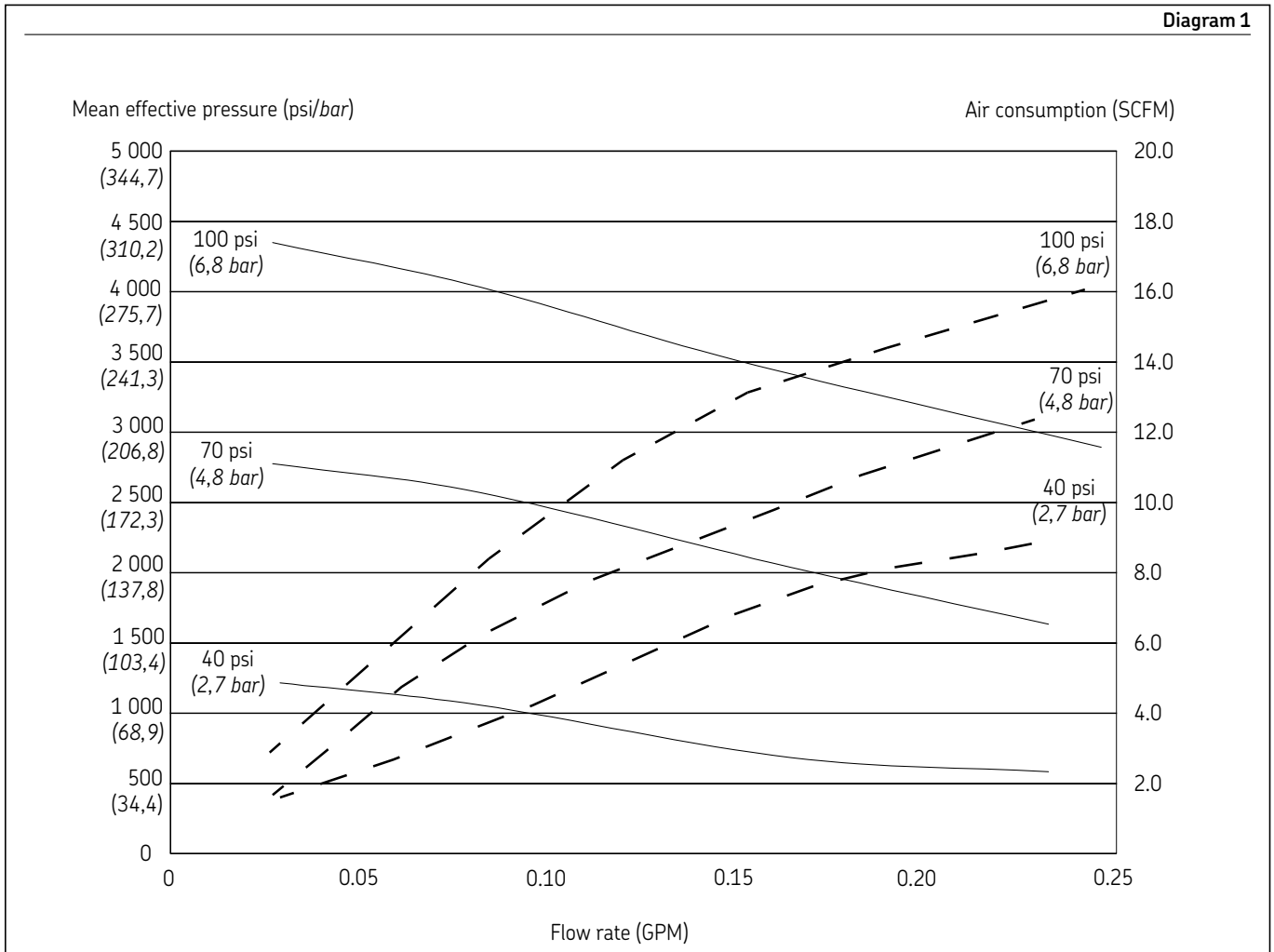
Safety information

Read and carefully observe operating instructions before operating equipment. Extreme caution should be used when operating equipment as personal injury and/or property damage can result from equipment misuse. Adequate personal protection is recommended to prevent splashing of material on skin or in eyes. Always disconnect air coupler from pump when pump is not being used.

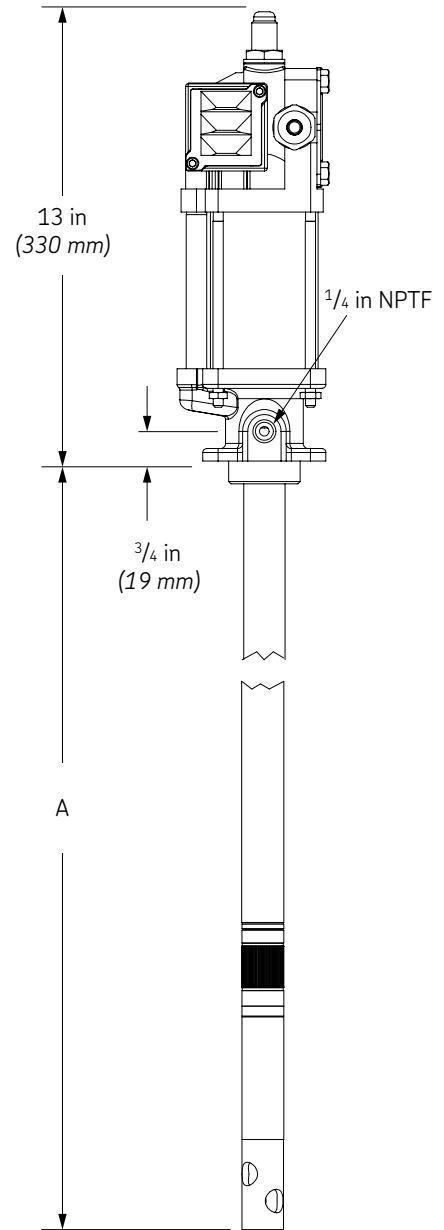
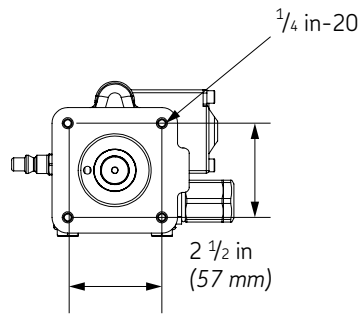
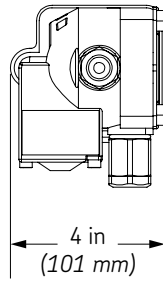
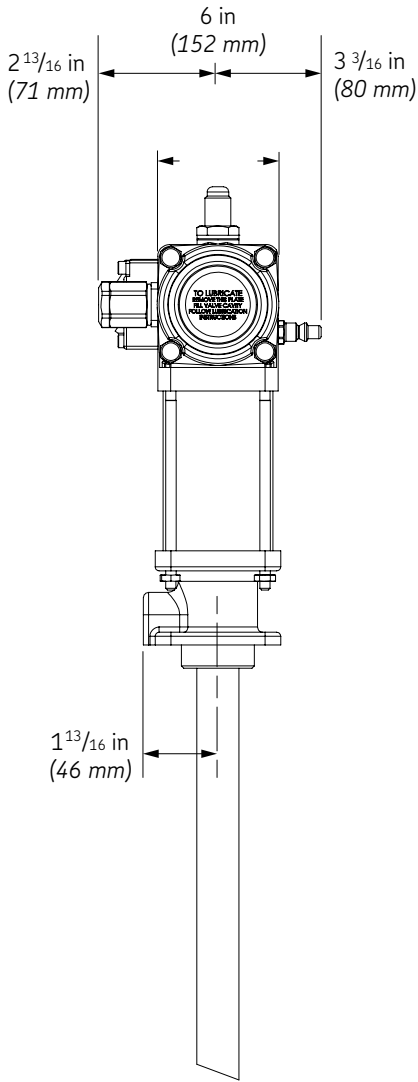
Specifications

Air motor effective diameter	2.5 in (63,5 mm)
Air inlet	1/4 in NPTF
Material outlet	1/4 in NPTF
Ratio	50:1
Delivery output	90 in ³ /min. (1 474,8 cm ³ /min)
Delivery	0.73 in ³ /cycle (11 cm ³ /cycle)
Minimum air pressure	30 psi (2 bar)
Maximum air pressure	150 psi (10 bar)
Maximum output pressure	7 500 psi (517 bar)
Noise level at 120 psi (8,2 bar)	< 85 dBA

Diagram 1



Dimensions



Name	Part no.	Weight	Length
Basic pump drum size dimension "A"	84667	120 lbs (54 kg)	$27\frac{3}{8}$ in (695 mm)
Basic pump drum size dimension "A"	84668	400 lbs (181 kg)	$33\frac{15}{16}$ in (862 mm)

Installation

Typical drum and pail hookups are described as follows only as a guide in selecting and installing a system.

Contact Lincoln factory representative for assistance in designing system for specific requirement.

⚠ WARNING

Do not exceed maximum working pressure of lowest rated component in system. Pump can develop 7 500 psi (51,7 bar) working pressure at 150 psi (10,3 bar) maximum incoming air pressure. Be sure that all system equipment and accessories are rated to withstand maximum working pressure of pump.

Failure to comply may result in serious personal injury and/or damage to equipment.

NOTE

Do not exceed 90 psi (6,2 bar) air pressure to pump when using whip hoses. Accessory item whip hoses for dispensing valve are rated 4 500 psi (310,2 bar).

Typical system hookup

- 1 Determine drum or pail system for requirement.
- 2 Obtain air line filter/regulator/lubricator to use with inlet air supply and correct sized air and grease lines hoses with any required reducers, connectors and accessories.
- 3 Flush supply lines, hoses, reducers, connectors and accessories with mineral spirits or oil based solvent, purging any contaminants such as dirt, moisture or metal shavings that could damage equipment. Blow dry with air.
- 4 Flush pump with mineral spirits or oil-based solvents if necessary.
- 5 Assemble cleaned pump and supply line together with any required accessory.
- 6 Mount assembled pump to drum or pail.
- 7 Connect material output line/hose to pump.
- 8 Connect air regulator to pump.
- 9 Make sure all connections are securely tightened.

⚠ CAUTION

Pump was tested in lightweight oil that was left in to protect pump from corrosion. Flushing pump before connecting to system might be desired to prevent possible contamination of grease pumping.

Failure to comply may result in light personal injury and/or damage to equipment.

⚠ WARNING

To reduce risk of injury from splashing or static sparking when flushing pump with solvents, always hold metal part of dispensing valve firmly to side of grounded metal pail and operate pump at lowest possible fluid pressure.

Failure to comply may result in serious personal injury and/or damage to equipment.

Accessories

- Filter/regulator/lubricator and gauge
- Eyebolt kit
- Follower plate - 120 lb., 400 lb.
- Drum cover - 120 lb., 400 lb.
- Drum cover with tie rods
- 1709 hoist

Pressure relief procedure

Always perform this procedure when pump is shut off and before checking, servicing, installing, cleaning or repairing any part of system.

- 1 Disconnect air supply to pump.
- 2 Point dispensing valve away from yourself and others.
- 3 Open dispensing valve into appropriate container until pressure is relieved.

If above procedure does not relieve pressure, dispensing valve or hose may be restricted. To relieve pressure, very slowly loosen hose end coupling. Then loosen completely and clear dispensing valve and hose.

Operation

Inspection before using pump

Prior to operation or maintenance a visual inspection shall be made. Check pump system for leaks, worn or missing parts.

Any pump that appears to be damaged in any way, is badly worn or operates abnormally shall be removed from use until repairs are made. Contact factory authorized service center for repairs.

If overpressurizing of equipment is believed to have occurred, contact factory authorized service center for inspection of pump.

Annual inspection by factory authorized service center is recommended.

⚠ WARNING

To prevent personal injury, perform **pressure relief procedure** (pg. 5) before and after operating pump.

Failure to comply may result in serious personal injury and/or damage to equipment.

To start pump, turn on main air supply. Slowly open air regulator. Regulate air pressure from 20 to 40 psi (1,3 to 2,7 bar) and throttle to prime pump. Open dispensing valve to allow air to be purged from system. Allow pump to cycle until grease without air pockets flows from dispensing valve, then close dispensing valve.

After pump is primed, adjust air pressure to achieve smooth flow of grease from dispensing valve. Do not allow pump to operate when out of material. Pump will accelerate quickly and run too fast, resulting in costly damage to pump.

If pump accelerates quickly or is running too fast, stop it immediately. Check grease supply and refill it if necessary. Prime pump to remove all air from system, or flush pump and relieve pressure.

In circulating system, pump runs continuously and slows down or speeds up as supply demands, until air supply is shut off.

In a direct supply system, with adequate air pressure supplied to motor, pump starts when gun or dispensing valve is opened and stalls against pressure when it is closed.

Use air regulator to control pump speed and grease pressure. Always use lowest pressure required to achieve desired results. Higher pressures will cause pump packings to wear prematurely.

Lubrication

An air line filter/regulator/lubricator is recommended for use with pump to remove harmful dirt and moisture from compressor air supply, and to provide automatic air motor lubrication.

If an air line lubricator is not used, the following procedure should be performed daily:

- 1 Disconnect air coupler from air fitting.
- 2 Fill air coupler with 10 SAE motor oil and reconnect to air fitting.
- 3 Operate pump to distribute lubricant.

Material restriction prevention

Flush system as required with compatible solvent to prevent material buildup when pumping material that dries or hardens.

Corrosion prevention

To prevent water or air corrosion, never leave the pump filled with water or air. Flush pump first with compatible solvent and then again with mineral spirits or oil-based solvent.

Disassembly

- 1 Remove valve cap (12), trip rod pin (11) and collar (13). Unscrew trip sleeve from trip rod (31).
- 2 Unscrew four tie rod nuts (67) from tie rods (68) and lift air valve casting (9) off of air cylinder (34).
- 3 Remove packing nut (70) and packing cap (73) from air valve casting.
- 4 Remove four valve cover screws (15) and cover (64).
- 5 Remove four toggle plate screws (16), toggle plate (65), trip shoe (66) and sleeve (8).
- 6 Remove four valve seat bolts (63), springs (62), valve guide plate (61) and valve slide seat and gasket (60).
- 7 Unscrew trip rod packing nut (20) from air valve casting and remove all packing parts.
- 8 Remove priming tube (45) from bushing extension (53).
- 9 Extend plunger rod (52) out of bushing extension (53). Place wrench on priming plunger (46). Insert awl or other small tool through opening in check seat (44) and remove priming check parts, plunger rod (52) and bushing extension (53).
- 10 Unscrew pump tube from outlet body (33).
- 11 Unscrew plunger and bushing assembly (42) from plunger adapter (55) by placing wrench on plunger and adapter.
- 12 Unscrew pump rod from connector rod by placing wrench on piston rod and connector rod. This will also allow removal of trip rod (31). Remove piston rod (39) packing and washers.
- 13 Unscrew gland packing nut (21) from outlet body and remove all gland parts.

NOTE

If complete disassembly is required, order repair kit and replace all gaskets, O-rings and packings.

Assembly

To assemble, perform **Disassembly** procedures (pg. 4) in reverse. Tighten fasteners per stated torque specifications.

NOTE

To prevent damage to air piston packing and pump gland packing, and to help increase packing life, lubricate air cylinder and air piston rod before assembly. Thread piston rod through gland packing when assembling pump.

Before tightening four valve seat screws (63), align valve slide and seat plate (60), slide valve gasket (58) and air valve casting (9) by placing a rod through center hole.

Start all fasteners by hand to avoid stripping threads when reassembling.

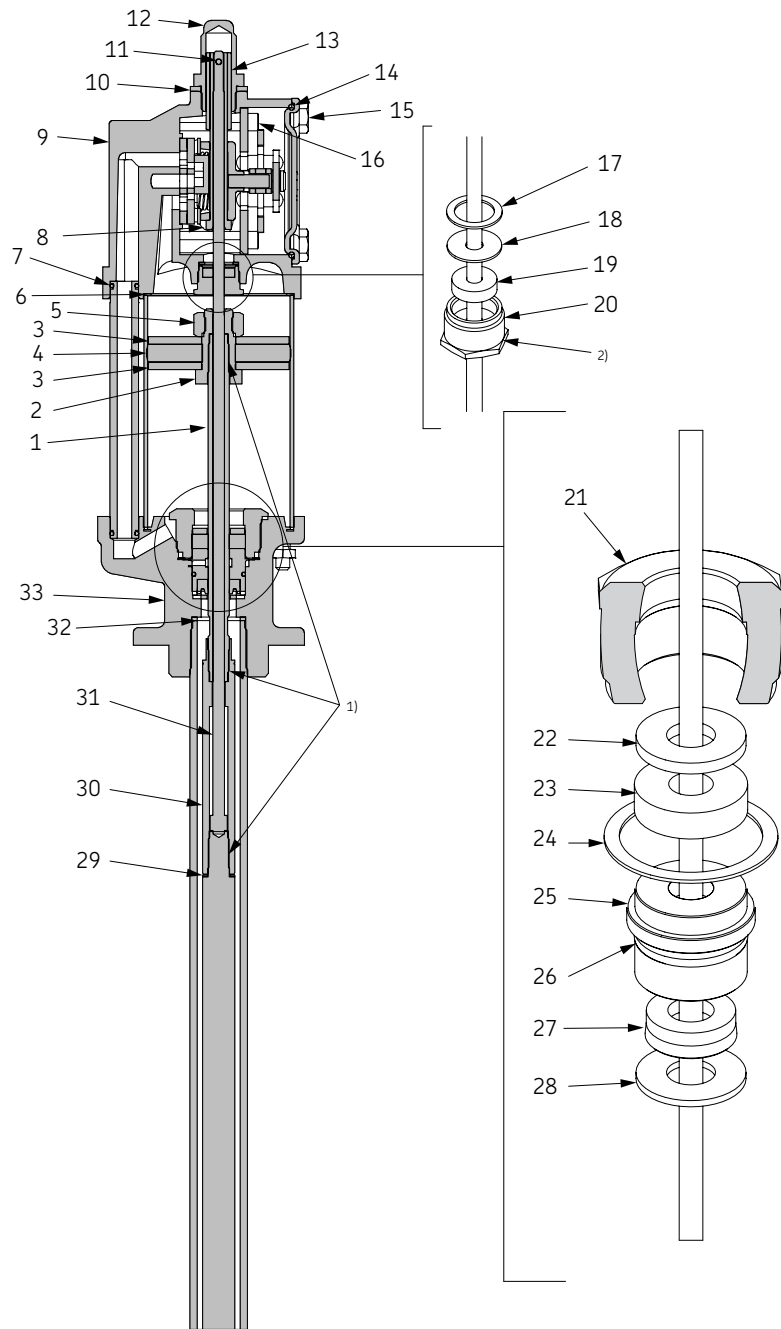
Repair

Repair is limited to replacement of listed service parts. Special procedures and tools are required. Contact Lincoln Customer Service, 5148 N. Hanley Road, St. Louis, MO 63134, (314) 679-4200 for your nearest authorized service center.

When ordering replacement parts, list: part number, description, model number and series letter.

Fig. IPB 1

Service parts



1) Use Loctite 510 gasket eliminator on threads.
 2) Tighten to 10 to 15 ft.lbf (13 to 20 Nm).

To lubricate air valve mechanism

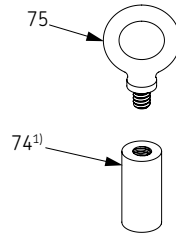
NOTE

Start fasteners by hand to avoid stripping threads when reassembling.

- 1 Disconnect air to pump.
- 2 Perform **pressure relief procedure**.
- 3 Remove four cover screws (15), cover (64) and cover plate gasket (14).
- 4 Remove air valve casting (9) from pump and disassemble.
- 5 Clean or flush air valve casting to remove any chips or other foreign particles.
- 6 Before replacing toggle assembly (65), pack cavity with grease using approximately 1 1/2 ounces (44 ml) of NLGI 1 light grade water repellent grease.
- 7 Replace cover plate gasket (14), cover (64) and cover screws (15). Tighten to prevent air leaks.
- 8 Periodic inspection of parts at least once a year is advised.

Optional eyebolt kit

(For hoisting purposes. Parts must be ordered separately.)



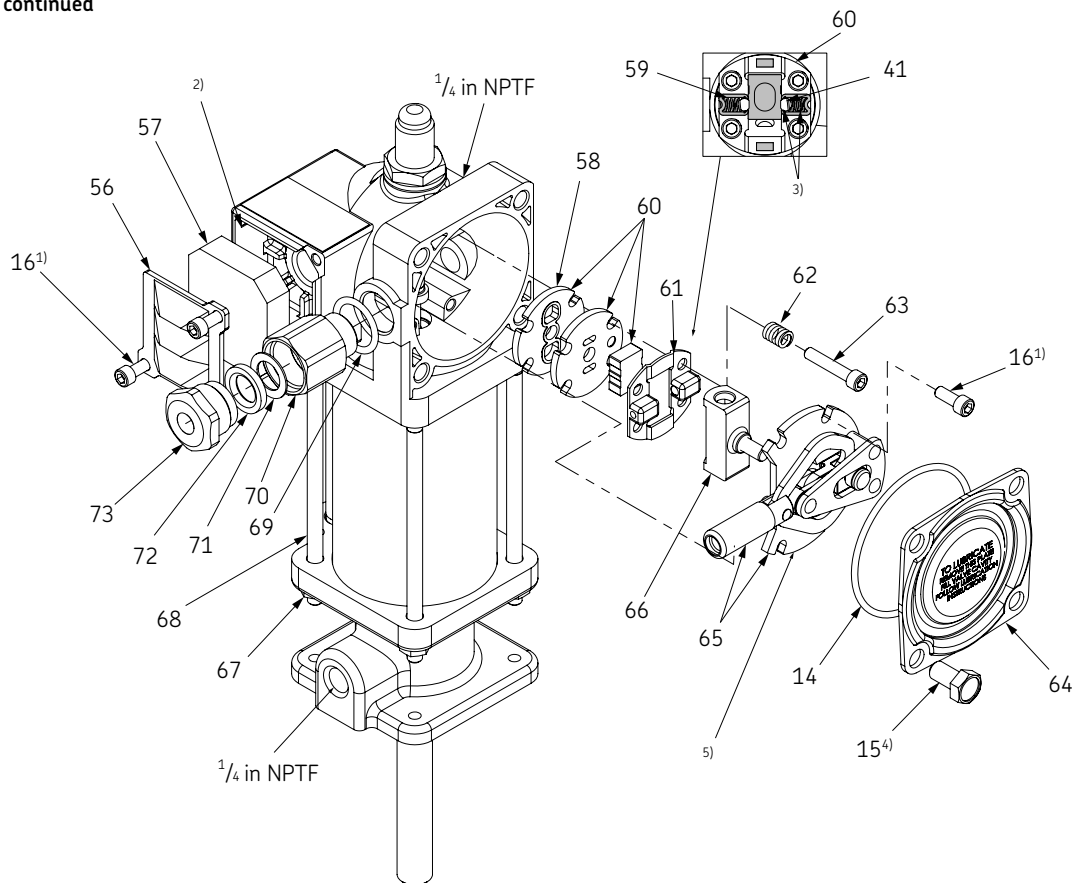
¹⁾ Threads to valve cap (12).

CAUTION

Do not exceed 15 ft.lbf (1,7 Nm) torque.
Failure to comply may result in minor personal injury and/or damage to equipment.

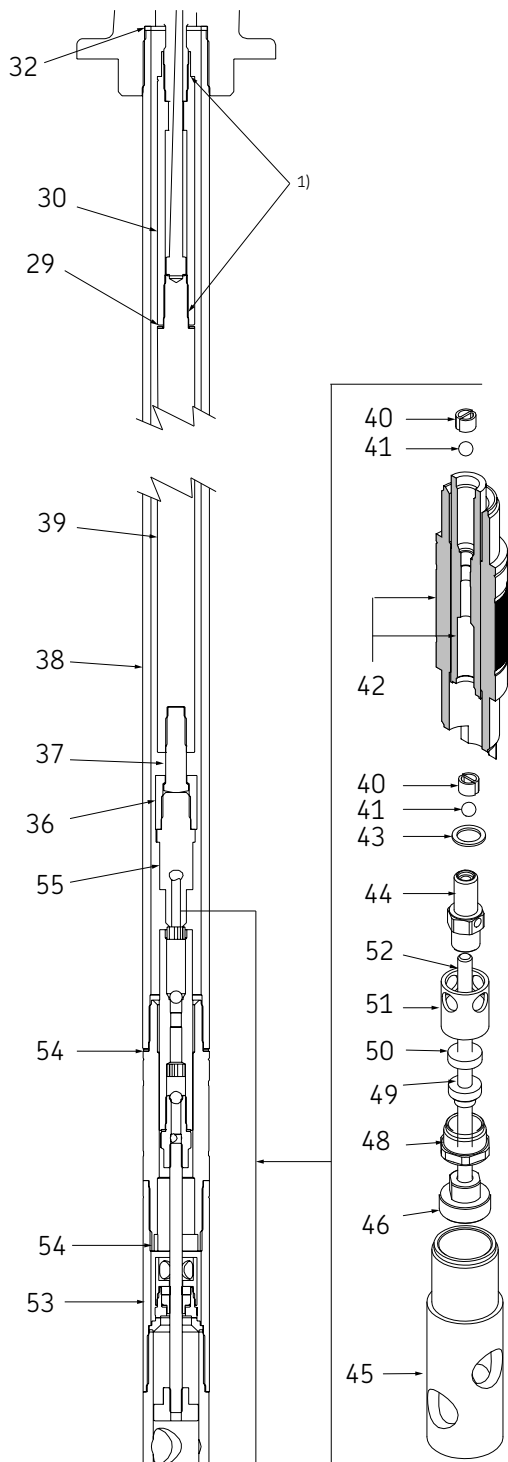
Fig. IPB 2

Service parts, continued



- 1) Tighten to 30 to 40 in.lbf (3,3 to 4,5 Nm).
- 2) Air exhaust port
- 3) Lubricate balls and springs before assembly.
- 4) Tighten to 90 to 100 in.lbf (10 to 11,2 Nm).
- 5) Air valve mechanism

Service parts, continued



1) Use Loctite 510 gasket eliminator on threads.

Service parts

Item no.	Description	Part no.	Qty.	Item no.	Description	Part no.	Qty.
1	Air piston rod	245915 ²⁾	1	40	Ball stop	57027	2
2	Air piston bolt	11329	1	41	Ball	69102 ²⁾³⁾	4
3	Air piston washer	48212	2	42	Plunger and bushing assembly	245922	1
4	Air piston packing	34090 ¹⁾	1	43	Check seat gasket	31047 ²⁾³⁾	1
5	Air piston nut	11337	1	44	Check seat	11726 ²⁾³⁾	1
6	Air cylinder gasket	33014 ²⁾	2	45	Priming tube	245917	1
7	O-ring	34368 ²⁾	2	46	Priming plunger	245873 ²⁾³⁾	1
8	Trip sleeve	11947	1	47	Priming check seat	11725 ²⁾³⁾	1
9	Valve casting kit	237563	1	48	Priming check	11721 ²⁾³⁾	1
10	Check seat gasket	30011 ²⁾	1	49	Check washer	11702 ²⁾³⁾	1
11	Trip pin	11472 ²⁾	1	50	Priming check packing	35073	1
12	Valve cap	11470	1	51	Check stop	11722	1
13	Trip rod collar	11471	1	52	Plunger rod	245918 ²⁾³⁾	1
14	Cover gasket	34158 ²⁾	1	53	Bushing extension	61273	1
15	Valve cover screw	236868	4	54	Bushing gasket	31049	2
16	Toggle plate screw	236869	6	55	Plunger adapter	11344	1
17	Gasket	33039 ²⁾	1	56	Muffler cover	236615	1
18	Packing washer	236616 ²⁾³⁾	1	57	Muffler	236833	1
19	Trip rod packing	236835 ²⁾³⁾	1	58	Slide valve gasket	38162 ²⁾	1
20	Trip rod packing nut	245425	1	59	Spring	56038 ²⁾	2
21	Gland packing nut	12333	1	60	Valve slide and seat	83063	1
22	Gland packing washer	48268	1	61	Valve guide plate	45605	1
23	Gland packing	34180 ²⁾	1	62	Spring	55138	4
24	Gland gasket	31050 ²⁾	1	63	Valve seat bolt	236870	4
25	Gland packing spacer	14940	1	64	Cover	236286	1
26	O-ring	34572 ²⁾	1	65	Toggle plate assembly	91331 ³⁾	1
27	U-cup packing	38165 ²⁾	1	66	Trip shoe	11475 ³⁾	1
28	Gland packing washer	48213	1	67	Tie rod nut	51009	4
29	Connector gasket	31048 ²⁾	1	68	Tie rod	241512	4
30	Piston rod connector	245916	1	69	Packing nut gasket	30003 ²⁾	1
31	Rod, trip assembly	245914	1	70	Packing nut	11904	1
32	Pump tube gasket	31054	1	71	Plunger packing washer	48237	1
33	Outlet body	40537	1	72	Plunger packing	34110	1
34	Air cylinder	61447 ¹⁾	1	73	Packing cap	11905	1
35	Air passage tube	62383	1	74	Extension adapter	236975	1
36	Coupling nut	11345	1	75	Eye bolt	68531	1
37	Coupling stud	11346	1	Not shown	Synthetic grease packing kit	245530	1
38	Pump tube (84667)	245912	1				
	Pump tube (84668)	245925	1				
39	Piston rod (84667)	245913	1				
	Piston rod (84668)	245924	1				

1) Recommended service part.
2) Included in 248133 repair kit.
3) Included in 248134 repair kit.

Troubleshooting

Condition	Possible cause	Corrective action
Air motor does not operate.	No air to pump. Air motor malfunction. Broken toggle or foreign object lodged in priming tube.	Turn on or connect air supply to pump. Check for broken trip rod. Check for rust, worn or scored parts.
Air seepage from air exhaust while pump is not operating.	Air motor malfunction.	Check valve slide (60), seat and gasket. Check trip rod packing (19) and gasket (17) for cut or damaged packing.
Loss of pressure, volume or continuous operation of pump when not in normal use.	Outlet check damage or contamination.	Remove and clean lower inlet checks. Check for foreign material. Inspect sealing surfaces between upper and lower inlet checks. Replace if rough or pitted. Replace shovel rod if rough or pitted. Replace prime check packing (50).
Lubricant leaking from weep hole of pump outlet casting.	System component leaking. Pump tube malfunction.	Inspect lubricant supply line for leaks or breaks. Replace O-ring (26) and U-cup (27). Make sure gland nut (21) is tight.
Excessive amount of air in lubricant or excessive amount of lubricant coming from air exhaust.	Air motor malfunction.	Replace gland packing (23), gland gasket (24), O-ring (26) and U-cup packing (27).

NOTE

If procedures do not correct problem, contact factory authorized service center. When submitting equipment to be repaired, be sure to state nature of problem and indicate if repair cost estimate is required.

NOTE

Some lubricant exhausts with air normally.

Following machinery directive 2006/42/EC, Annex II Part 1 A

The manufacturer Lincoln Industrial,
5148 N. Hanley Road, St. Louis, MO 63134
USA hereby declares that the machine

Designation: High-pressure air operated
chassis pump

Type: Lubrigun

Part number: 282396, 82050, 82050-E575,
82054, 82716, 83513, 84667, 84668, 84933

Year of construction: see type identification
plate complies with all basic requirements of
the following directives at the time when first
being launched in the market.

Machinery directive 2006/42/EC
EMC 2009/19/EC and 2004/108/EC
RoHS II 2011/65/EC

Applied standards DIN EN ISO
12100:2011-3, DIN EN 61000-2:2003-5,
DIN 40050-9:1993-5

DIN EN 809-1:2011, DIN EN 60204-
1:2011-1, DIN EN 55011:2011-4

In the case of modifications or alterations
of the above mentioned machine not
authorized by the manufacturer validity of
this EC declaration of conformity will cease.
The person empowered to assemble the
technical documentation on behalf of the
manufacturer is the head of standardization;
see manufacturer's address.

EC Declaration of Conformity
EU-Repräsentant
SKF Lubrication Systems Germany GmbH
Heinrich-Hertz-Str. 2-8
DE - 69190 Walldorf

