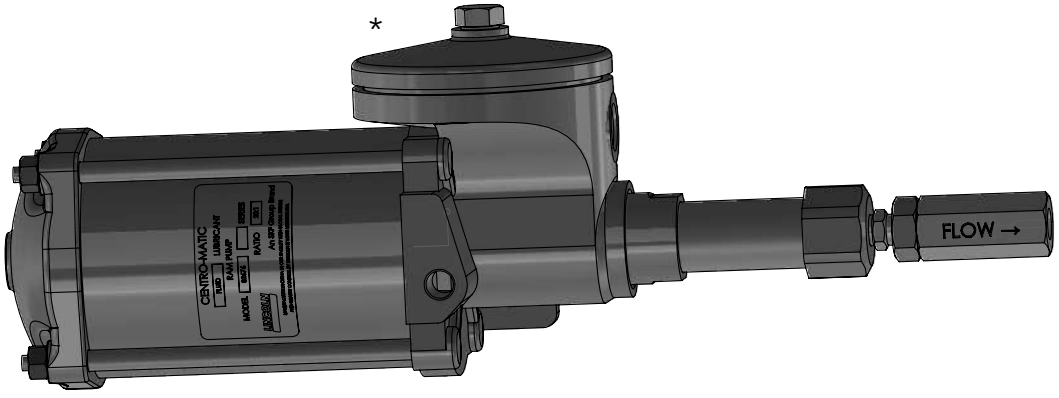
User and maintenance instructions

Air operated oil pump

Model 82676, single stroke, air return, series “F”



Date of issue	**October 2022**
Form number	**403584**
Version	**2**

* Indicates change.

Contents

* Indicates change.

SKF	Declaration of Incorporation*	DOCUMENT NUMBER 403584.DoI

Manufacturer name/address:
Lincoln Industrial Corporation
5148 N. Hanley Road
St. Louis, MO 63134 U.S.A.
TEL: +1 (314) 679-4200 FAX: +1 (314) 679-4367

Authorized to compile the technical file:
SKF Lubrication Systems Germany GmbH
Heinrich-Hertz-Straße 2-8
69190 Walldorf, Germany
TEL: +49 (0) 6227-330

EMAIL: robert.collins@skf.com WEBSITE: www.skf.com

DoI

This Declaration of Incorporation is issued under sole responsibility of the manufacturer. Lincoln Industrial Corporation hereby declares that the partly completed machinery stated below:

Name: RAM pumps
Model number(s): 82676 (series F)
Description: Air operated pumps
Year of CE: 2022

in its intended use, is in conformity with the relevant union harmonization legislation:

Machinery Directive 2006/42/EC

and conforms to the following harmonized standards:

EN ISO 4413: 2010
Hydraulic fluid power - General rules and safety requirements for systems and their components

EN ISO 12100: 2010
Safety of machinery. General principles for design. Risk assessment and risk reduction

EN ISO 4414:2010
Pneumatic fluid power. General rules and safety requirements for systems and their components

EN ISO 809:1998+A1:2009
Pumps and pump units for liquids - Common safety requirements

EN 349:1993+A:2008
Safety of machinery – Minimum gaps to avoid crushing of parts of the body

The following EHSR (Essential Health and Safety Requirements) have been applied:

1.1.2a - 1.1.2b - 1.1.2c - 1.1.3 - 1.1.5 - 1.2.5 - 1.3.2 - 1.3.3 - 1.3.5 - 1.3.7 - 1.3.8 - 1.5.3 - 1.7 - 1.7.1 - 1.7.1.1 - 1.7.3 - 1.7.4

The manufacturer maintains a technical file summary sheet containing test reports and product documentation:

Technical file summary sheet number:
RA402816-00

The partly completed machinery shown above should not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the directive, where appropriate.

I, the undersigned of Lincoln Industrial Corporation, do hereby declare that the that the partly completed machinery described above above, in its intended use, conforms to the requirements of the above EC Directive(s).

Robert Collins
Technical Compliance Manager
St. Louis, MO, U.S.A.
2022/04/05

* Indicates change.

SKF	U.K. Declaration of Incorporation*	**DOCUMENT NUMBER** **UK403584CA**

Manufacturer name/address:
Lincoln Industrial Corporation
5148 N. Hanley Road
St. Louis, MO 63134 U.S.A.
TEL: +1 (314) 679-4200 FAX: +1 (314) 679-4367

Authorized to compile the technical file:
SKF (U.K.) Limited
2 Canada Close
Banbury, Oxfordshire, OX16 2RT, GBR

EMAIL: robert.collins@skf.com WEBSITE: www.skf.com

This U.K. Declaration of Incorporation is issued under sole responsibility of the manufacturer. Lincoln Industrial Corporation hereby declares that the partly completed machinery stated below:

Name: RAM pumps
Model number(s): 82676 (series F)
Description: Air operated pumps
Year of CE: 2022

in its intended use, is in conformity with the relevant union harmonization legislation:

Supply of Machinery (Safety) Regulations 2008 (S.I. 2008:1597)

along with the following Directive(s) that were also applied with the above legislation:

EN ISO 4413: 2010
Hydraulic fluid power - General rules and safety requirements for systems and their components

EN ISO 12100: 2010
Safety of machinery. General principles for design. Risk assessment and risk reduction

EN ISO 4414:2010
Pneumatic fluid power. General rules and safety requirements for systems and their components

EN ISO 809:1998+A1:2009
Pumps and pump units for liquids - Common safety requirements

EN 349:1993+A:2008
Safety of machinery – Minimum gaps to avoid crushing of parts of the body

The following EHSR (Essential Health and Safety Requirements) have been applied:

1.1.2a - 1.1.2b - 1.1.2c - 1.1.3 - 1.1.5 - 1.2.5 - 1.3.2 - 1.3.3 - 1.3.5 - 1.3.7 - 1.3.8 - 1.5.3 - 1.7 - 1.7.1 - 1.7.1.1 - 1.7.3 - 1.7.4

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I, the undersigned of Lincoln Industrial Corporation, hereby declare that the that the partly completed machinery described above above, in its intended use, conforms with the Essential Health and Safety Requirements of U.K. legislation Supply of Machinery (Safety) Regulations 2008 No. 1597 Annex I, Declaration of Incorporation by the time of placing it on the market.

Robert Collins
Technical Compliance Manager
St. Louis, MO, U.S.A.
2022/04/05

* Indicates change.

Safety*

Read and carefully observe these installation instructions before installing/operating/troubleshooting the assembly. The assembly must be installed, maintained and repaired exclusively by persons familiar with the instructions.

Always disconnect power source (electricity, air or hydraulic) from the pump when it is not being used.

This equipment generates high pressure. Extreme caution should be used when operating this equipment as material leaks from loose or ruptured components can inject fluid through the skin and into the body. If any fluid appears to penetrate the skin, seek attention from a doctor immediately. Do not treat injury as a simple cut. Tell attending doctor exactly what type of fluid was injected.

Any other use not in accordance with instructions will result in loss of claim for warranty or liability.

- Do not misuse, over-pressurize, modify parts, use incompatible chemicals, fluids, or use worn and/or damaged parts.
- Do not exceed the stated maximum working pressure of the equipment or of the lowest rated component in your system.
- Always read and follow the manufacturer's recommendations regarding fluid compatibility, and the use of protective clothing and equipment.
- Failure to comply may result in personal injury and/or damage to equipment.

Explanation of signal words for safety

NOTE
Emphasizes useful hints and recommendations as well as information to prevent property damage and ensure efficient trouble-free operation.

⚠ CAUTION
Indicates a dangerous situation that can lead to light personal injury if precautionary measures are ignored.

⚠ WARNING
Indicates a dangerous situation that could lead to death or serious injury if precautionary measures are ignored.

⚠ DANGER
Indicates a dangerous situation that will lead to death or serious injury if precautionary measures are ignored.

⚠ WARNING

Do not operate equipment without reading and fully understanding safety warnings and instructions.

Failure to follow warnings and instructions may result in serious injury.

⚠ CAUTION
Do not operate equipment without wearing personal protective gear.

Wear eye protection. Protective equipment such as dust mask, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries.

⚠ WARNING

Do not allow any body part to be trapped by equipment. Body parts can be crushed by subassemblies during operation.

Failure to comply may result in death or serious physical injury.

⚠ WARNING

Do not allow fluid to leak onto floor when operating equipment. If spill occurs, clean any fluid on floor before continuing operation.

Failure to comply may result in death or serious personal injury.

⚠ WARNING
Do not use this equipment to supply, transport, or store hazardous substances and mixtures in accordance with annex I part 2-5 of the CLP regulation (EG 1272/2008) or HCS 29 CFR 1910.1200 marked with GHS01, GHS06 and GHS08 hazard pictograms shown:

* Indicates change.

Specifications

Ratio	Lubricant output	Air inlet	Lubricant outlet	Type of system	Lubricant operating pressure Minimum	Maximum	Recommended
20:1	2.4 in^3 *(39.3 cm^3)* [1]	1/4 in NPTF (f)	1/4 in NPTF (f)	SL-42	750 psi *(52 bar)* with 40 psi *(2.8 bar)* air	1 000 psi *(69 bar)* with 50 psi *(3.5 bar)*air	850 bar (59 bar) with 45 bar *(3.1 bar)* psi
20:1	2.4 in^3 *(39.3 cm^3)* [1]	1/4 in NPTF (f)	1/4 in NPTF (f)	SL-43	750 psi *(52 bar)* with 40 psi *(2.8 bar)* air	1 000 psi *(69 bar)* with 50 psi *(3.5 bar)*air	850 bar (59 bar) with 45 bar *(3.1 bar)* psi

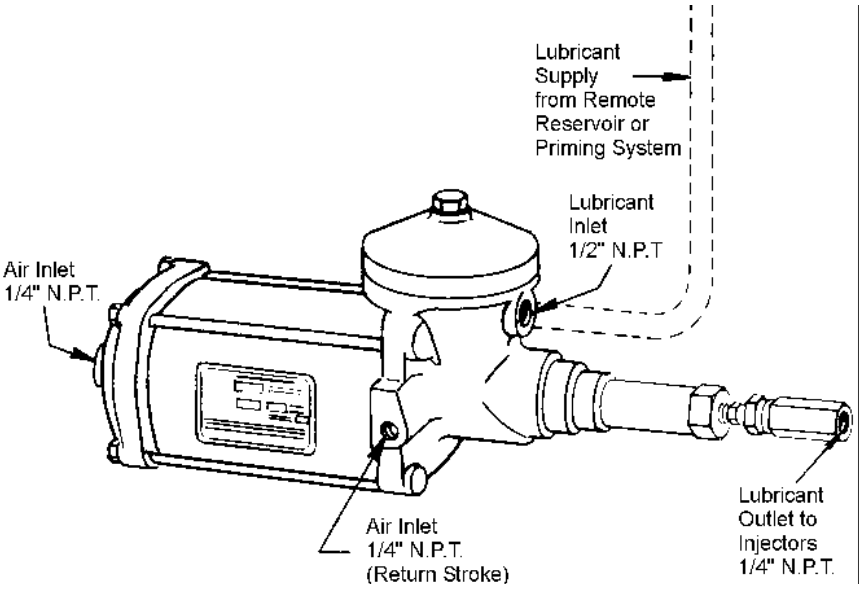
[1] Based on lubricants that are free of entrapped air. Lubricants that are aerated will reduce output of pump.

The 82676 pump is used as the pumping unit for a centralized lubrication system having a single line circuit of SL-42 Injectors and/or SL-43 Injectors.

It is an air operated, single stroke pump requiring air for both forward and return stroke and discharges 2.4 in^3 *(39.3 cm^3)* of fluid lubricant into the circuit for each pump stroke (lubrication cycle).

The total quantity of lubricant needed for the lubrication cycle of the system must not exceed the amount of lubricant discharged per pump stroke.

Fig. 1



To prime system

Supply lines

After pump reservoir has been filled with recommended lubricant, loosen (do not remove) all plugs in dead ends of the injector manifolds and supply lines. Operate pump until lubricant flows from around threads of any loosened plug. Tighten this plug and continue to operate pump until lubricant flows from around threads of another loosened plug. Repeat this procedure until all supply lines are primed.

Feeder lines

Fill each feed line with lubricant before connecting lines to outlet of injectors and bearings. This will prevent having to cycle each injector fill line between injector and bearing.

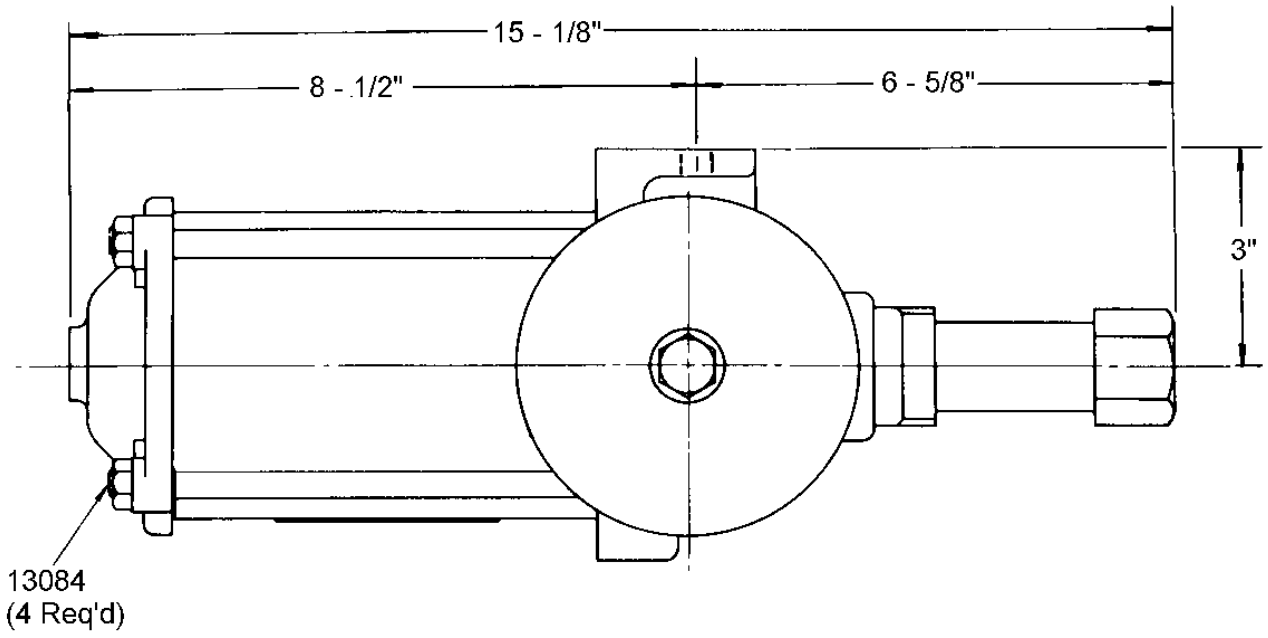
Injectors

Check each injector for proper operation. Injector stem moves when injector discharges lubricant to bearing. This may require cycling system several times. After checking injectors for operation, adjust injectors for the volume required for each bearing.

NOTE

Remote priming pressure must not exceed 80 psi *(5.5 bar)*.

Model 82676 air operated single stroke pump, series "G"



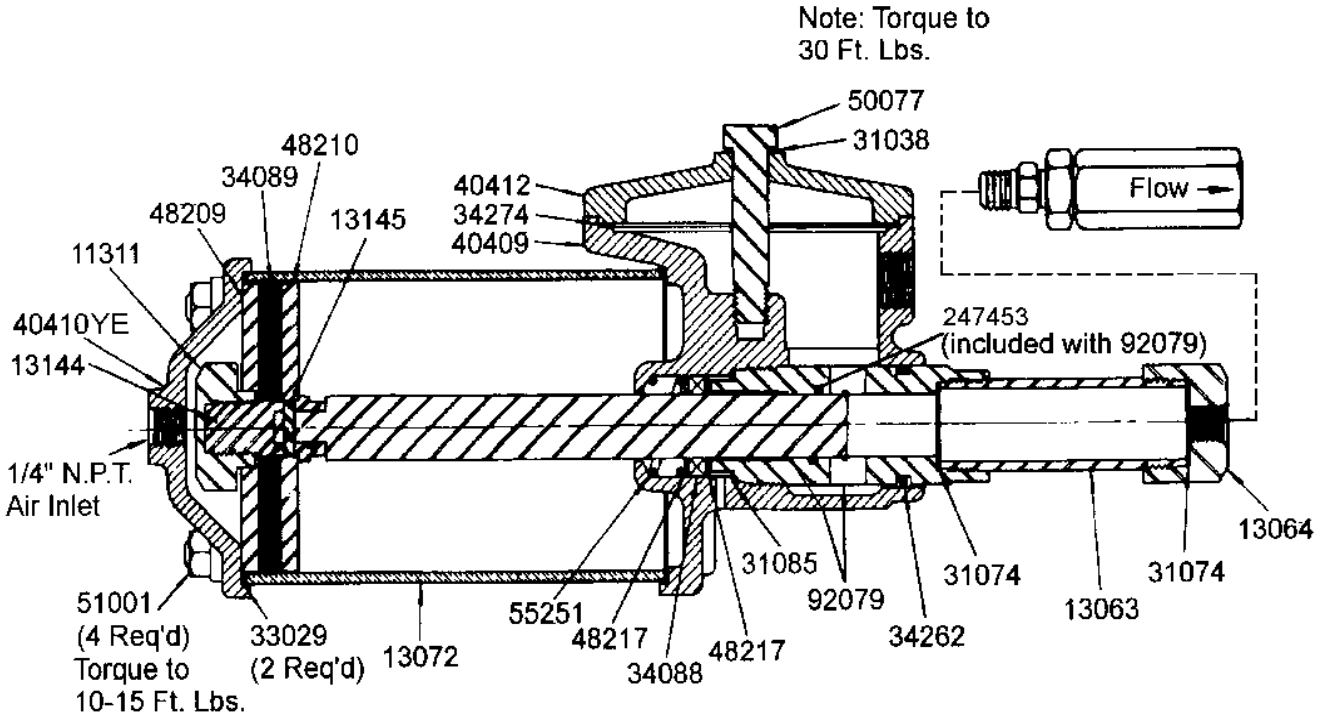
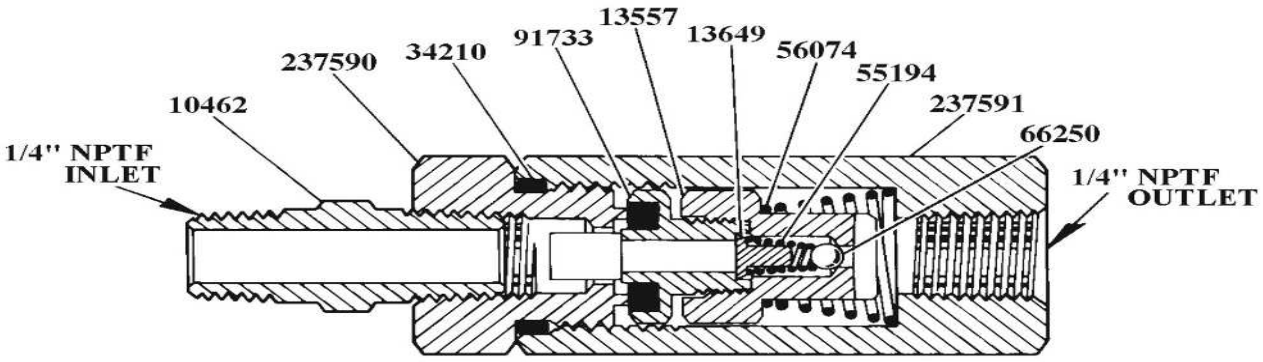


Fig. 3

83114 line check



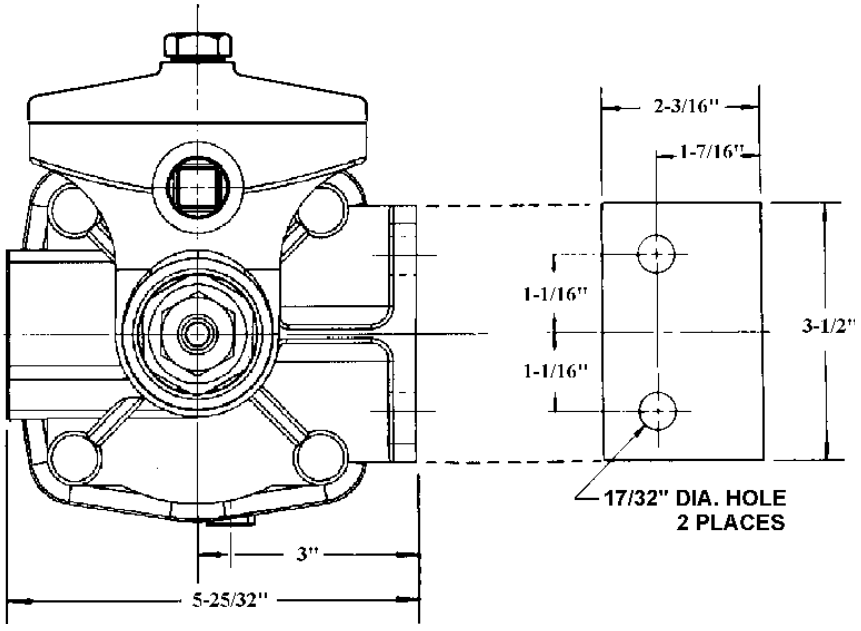
To clean line check 83114

Remove 91733 check and examine packing for presence of foreign particles. If packing is damaged, replace 91733 check.

Remove 66250 ball check, 55194 spring, and 13649 ball stop from 13557 check retainer. Examine for presence of foreign particles. Clean thoroughly.

Fig. 4

83114 line check



Service parts

Part	Description	Quantity	Part	Description	Quantity
10462	Nipple	1	34274 [1]	Gasket (Neoprene)	1
11311	Piston nut	1	40409	Body casting	1
13063	Pump tube	1	40410YE	Cylinder cap	1
13064	Outlet	1	40412YE	Body cap	1
13072	Air cylinder	1	48209	Washer	1
13084	Tie rod	4	48210	Washer	1
13144	Packing stud	1	48217	Washer	2
13145	Pin	1	50077	Bolt	1
13557	Check retainer	1	51001	Nut	4
13649 [1]	Ball stop	1	55194 [1]	Spring	1
31038 [1]	Gasket	1	55251	Spring	1
31074 [1]	Gasket	2	56074	Spring	1
31085 [1]	Gasket	1	66250 [1]	Steel Ball	1
33029 [1]	Gasket	2	83114	Line check assembly	1
34088 [1]	Packing (Nitrile)	1	91733 [1]	Check	1
34089 [1]	Packing (Nitrile)	1	92079	Bushing and plunger	1
34210 [1]	O-ring (Nitrile)	1	237590	Check seat	1
34262 [1]	O-ring (Nitrile)	1	237591	Check body	1
			247453 [1]	O-ring (Nitrile)	1

[1] Included in 252716 Soft Parts Kit.

Troubleshooting

What to do if:	
Pump loses prime	Check lubricant supply.
System failes to cycle and calculated system planning has been followed.	Lubricant is leaking by packing of 91733 check or 66250 ball check. Remove and clean. Failure of injectors to cycle can also be caused by leak in supply lines. Examine supply lines and connections.
Pump failes to operate	Check air supply 40 psi *(2.75 bar)* minimum required.

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Warranty

The instructions do not contain any information on the warranty.
This can be found in the General Conditions of Sales, available at:
www.lincolnindustrial.com/technicalservice or www.skf.com/lubrication.

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October 2022 · Form 403584 Version 2