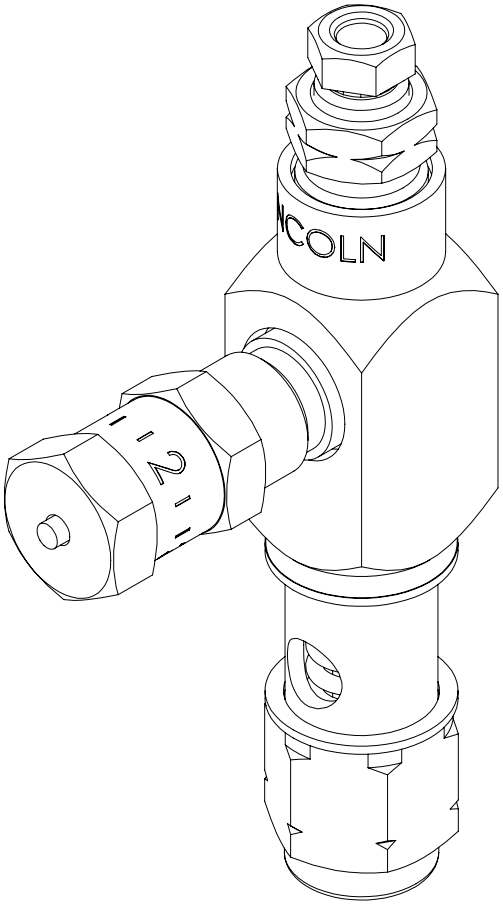
User and maintenance instructions

SL-43 injector

Models 83660, 83661 series “D”



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* Indicates change.

SKF	Declaration of Incorporation *	DOCUMENT NUMBER 403216.DoI

Manufacturer name/address:
Lincoln Industrial Corporation
5148 N. Hanley Road
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Authorized to compile the technical file:
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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: SL-43 Injector
Model number(s):
83661-1, 83661-2, 83661-3,
83661-4, 83660
Description: Metering valve (Series D)
Year of CE: 2023

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

Machinery Directive 2006/42/EC
(Article 13 Partly Completed Machinery)

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

BS EN IEC 63000:2018
Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

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

1.1.2a – 1.1.2b – 1.1.2c – 1.1.2d – 1.1.3 – 1.1.5 – 1.3.2 – 1.3.3 – 1.3.4 – 1.3.6 - 1.3.7 – 1.5.3 – 1.5.4 – 1.5.13 - 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:
RA403216-8

I, the undersigned of Lincoln Industrial Corporation, do hereby declare that the equipment specified 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.
2023/05/01

* Indicates change.

SKF	U.K. Declaration of Incorporation *	DOCUMENT NUMBER UK403216CA

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

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2 Canada Close
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UKCA

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: SL-43 Injector
Model number(s):
83661-1, 83661-2, 83661-3,
83661-4, 83660
Description: Metering valve (Series D)
Year of CE: 2023

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

BS EN IEC 63000:2018
Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

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

1.1.2a – 1.1.2b – 1.1.2c – 1.1.2d – 1.1.3 – 1.1.5 – 1.3.2 – 1.3.3 – 1.3.4 – 1.3.6 - 1.3.7 – 1.5.3 – 1.5.4 – 1.5.13 – 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:
RA403216-8

I, the undersigned of Lincoln Industrial Corporation, hereby declare that the equipment specified 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.
2023/05/01

* Indicates change.

Safety *

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 equipment 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.
- 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.

Failure to comply may result in light personal injury.

⚠ WARNING

Do not exceed the stated maximum working pressure of the equipment or of the lowest rated component in your system.

Use extreme caution when operating equipment as equipment generates very high grease pressure.

Failure to comply may result in light 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.

Table 1

Specifications

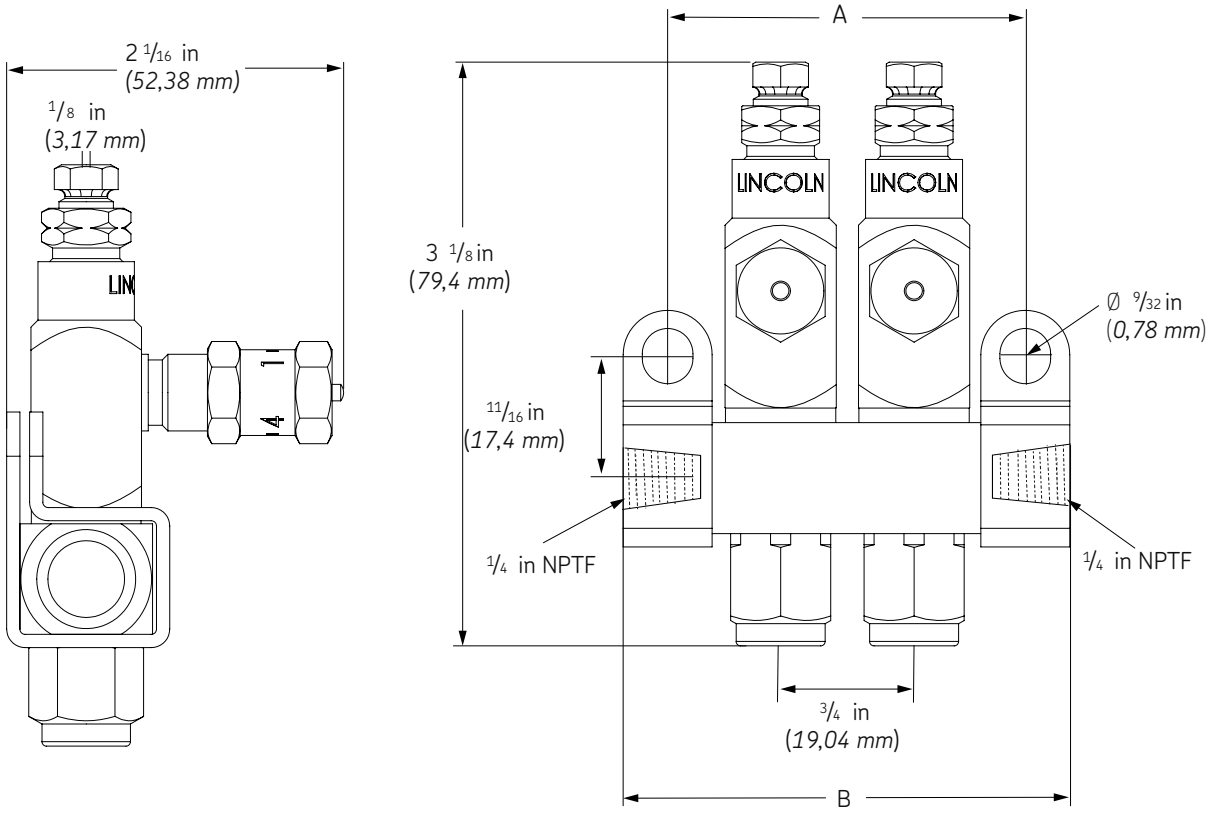
Output	Adjustable from 0.001 to 0.008 in^3 *(0,016 to 1,31 cm^3)*
Operating pressure	750 to 1 000 psi *(51 to 69 bar)*
Recommended operating pressure	850 psi *(58 bar)*
Recharge pressure	150 psi *(10 bar)*

NOTE
May be used in a system with SL-41, SL-42 or SL-44 Injectors.

NOTE
Injector used for dispensing oil.

Fig. 1

Dimensions



Manifold chart

Model	Description	Dimension A	Dimension B	Manifold
83661-1	1 unit	1 1/4 in *(32 mm)*	1 3/4 in *(44 mm)*	91883-1
83661-2	2 units	2 in *(51 mm)*	2 1/2 in *(64 mm)*	91884-1
83661-3	3 units	2 3/4 in *(70 mm)*	3 1/4 in *(83 mm)*	91885-1
83661-4	4 units	3 1/2 in *(89 mm)*	4 in *(102 mm)*	91886-1

Operation

Supply line under pressure

Normal operating pressure is 850 psi *(586 bar)*.

Lubricant pressure moves plunger to force lubricant in discharge chamber through outlet check valve to the feed line.

Lubricant from supply line charges measuring chamber.

Supply line vented

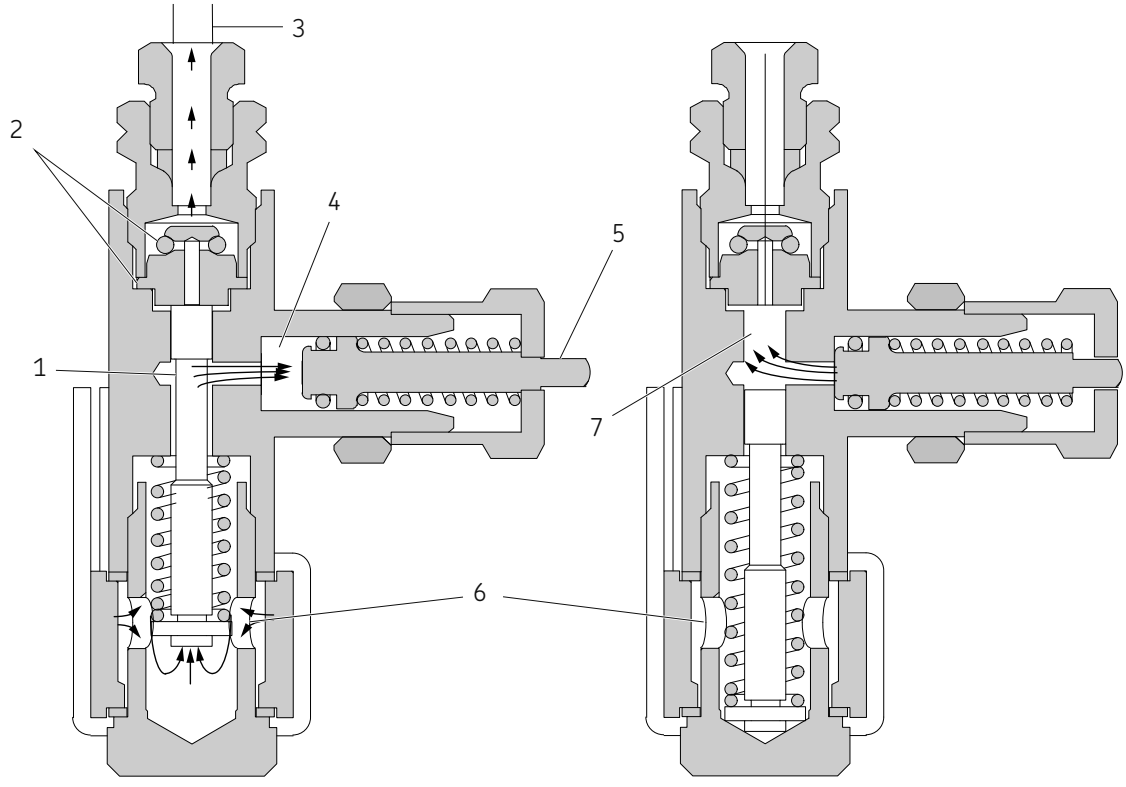
Maimum vent pressure is 150 psi *(10 bar)*.

Plunger returns to normal position after supply line is vented, connecting measuring chamber to discharge chamber.

Flow from feed line is blocked by outlet check valve.

Lubricant is automatically transferred from measuring chamber to discharge chamber.

Fig. 2



Item	Description
1	Plunger
2	Outlet check valve
3	Feed line to bearing
4	Measuring chamber
5	Indicator stem movement indicates injector cycle
6	Supply line from pump
7	Discharge chamber

Injector adjustment

Injector output is controlled by position of indicator cap that limits travel of indicator piston.

To achieve advertised minimum output setting, 0.001 in^3 *(0.016 cm^3)* hand tighten indicator cap against stop then loosen approximately 1/2 turn.

Retracting indicator cap five full turns from hand tight position permits a maximum output of 0.008 in^3 (*0.131 cm^3*) to be dispensed.

Use graduations on cap as aid in setting indicator.

When injector has been adjusted for proper lubricant output, lock nut is tightened against face of indicator cap.

NOTE

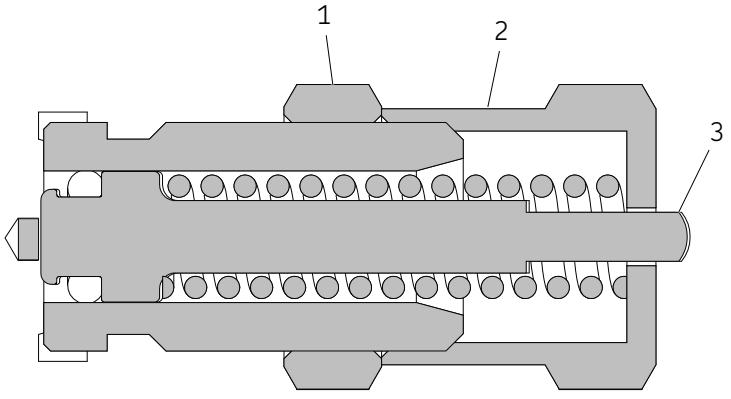
Any output setting below 1/2 turn should be monitored to verify actual output volume.

⚠ CAUTION

Indicator cap must not extend beyond retracted postion of indicator stem.

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

Fig. IPB 1



Service parts

Item	Description	Part number	Quantity	Item	Description	Part number	Quantity
1	Lock nut	51119	1	10	Packing (Nitrile)	34837 [1) 2)]	1
2	Injector cap	247942 [1) 2)]	1	11	Spring	247855 [1) 2)]	1
3	Piston	247851 [2)]	1	12	Gasket	31137 [2)]	2
4	Compression nut assembly	83924	1	13	Spring	55326 [1) 2)]	1
5	Compression nut	14658	1	14	Adapter	14176	1
6	Ferrule	14659	1	15	Mounting screw	50006	2
7	Outlet body	14986	1	16	Manifold clip	45926	2
8	O-ring (Nitrile)	34499 [1) 2)]	1				
9	Check seat	237883 [1) 2)]	1				

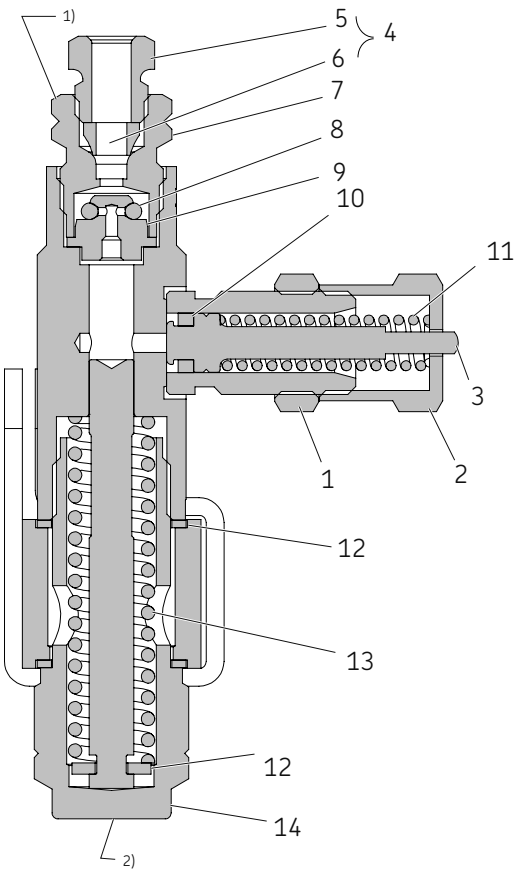
1) Included in 247962 repair kit.
2) Included in 247955 upgrade kit.

NOTE

Injectors from previous series can be improved with stenciled cap and single piece piston by use of 247955 upgrade kit.

Fig. IPB 2

Model 83660 series D replacement injector assembly, extended position

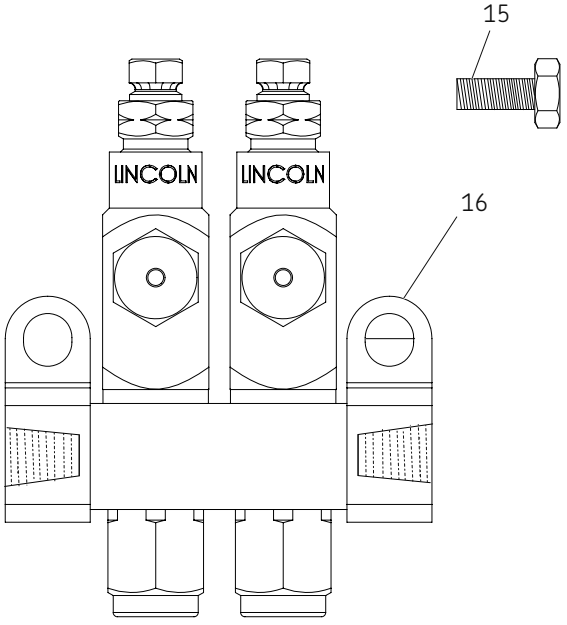


1) Torque to 10 ft.lbf *(13 Nm)*.
2) Torque to 15 ft.lbf *(20 Nm)*.

NOTE

Identification groove on piston indicator corresponds to models 83660 and 83661 only.

Fig. IPB 3



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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