L68C, L68M Micro-Fog® and Oil-Fog Tool Lubricators
Installation & Maintenance Instructions

L68★ - ★★★ - ★★★

Type
C Oil-Fog
M Micro-Fog

Port
6 3/4"
8 1"
A 1-1/4"
B 1-1/2"
N No yoke

Thread
A PTF
B ISO Rc taper
G ISO G parallel
N No yoke

Type
P Unidirectional

Drain
E Closed bottom
M Manual, spindle type
Q Manual 1/4 turn
R Remote fill

Bowl
C 1 litre (1 quart U.S.), No liquid level indicator
M 0,5 litre (1 pint U.S.), No liquid level indicator
R R...0,5 litre (1 pint U.S.), With liquid level indicator
U 1 litre (1 quart U.S.), With liquid level indicator

Options
N None
Q Quieck fill nipple

TECHNICAL DATA

Fluid: Compressed air
Maximum pressure: 17 bar (250 psig)
Operating temperature*: -20° to +80°C (0° to +175°F)
* Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).
Start point (i.e. minimum flow required for lubricator operation) at 6,3 bar (90 psig) inlet pressure:
Micro-Fog: 6 dm3/s (13 scfm)
Oil-Fog: 6 dm3/s (13 scfm)
Typical flow at 6,3 bar (90 psig) inlet pressure and 0,5 bar (7 psig) pressure drop:
Micro-Fog: 200 dm3/s (424 scfm)
Oil-Fog: 187 dm3/s (396 scfm)
Nominal bowl sizes:
0,5 litre (1 pint US)
1 litre (1 quart US)
8 litre (2 gallons US)
20 litre (5 gallons US)
Recommended lubricants: See page N/AL.8.900.935
Materials:
Body: Aluminium
Yoke: Aluminium
Bowl, 0,5 litre (1 pint US) and 1 litre (1 quart US): Aluminium
Bowl sight glass: Pyrex
Reservoirs, 8 litre (2 gallons US) and 20 litre (5 gallons US): Steel
Reservoir sight tube: Polythene
Elastomers: Synthetic rubber

REPLACEMENT ITEMS

Service kit (items circled on exploded view)

Micro-Fog models	4382-301
Oil-Fog models	4382-300
0.5 litre bowl liquid level lens (19 thru 27)	4380-060
1 litre bowl liquid level lens (30 thru 38)	4380-061
Manual drain, spindle type (44)	684-84
Manual drain, 1/4 turn (40)	619-50
Tamper resistant wire (pack of 10)	2117-01

INSTALLATION

1. Install unit vertically in air line -
- vertically (bowl down),
- with air flow in direction of arrow on body,
- upstream of cycling valves
- as close as possible to the device being lubricated,
- Oil-Fog Models - Not more than 5,2m (15 feet) from the device being lubricated, and at the same height or higher than the device.

2. Connect piping to yoke ports using pipe thread sealant on male threads only.
3. Lubricate o-rings (2, 6) with a light coat of o-ring grease, then place o-rings in grooves in body (1, 5).
4. Place clamp ring under lugs on top of yoke.
5. Make sure arrows on yoke and regulator point in same direction, then plug lubricator into yoke and tighten clamp ring hand tight.
6. Turn bowl into body until arrowhead on bowl is aligned with or to the right of the arrowhead on the body.

RECOMMENDED LUBRICANTS

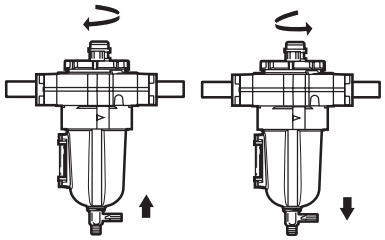
Fill reservoir with a good quality, light, misting type oil for compressed air tools. See our publication N/AL.8.900.935.

FILL RESERVOIR (OIL-FOG LUBRICATORS)

Remove fill plug (14), add oil, and reinstall fill plug. Fill plug can be removed and oil added without shutting off air pressure to the lubricator. Oil level must always be visible in lens on metal reservoirs. **DO NOT OVERFILL**.

FILL RESERVOIR (MICRO-FOG LUBRICATORS)

Shut off inlet air pressure and reduce pressure in reservoir to zero. Remove fill plug (14), add oil, and reinstall fill plug. **Do not remove the fill plug when the reservoir is pressurized, as oil will blow out the fill plug hole.** Micro-fog lubricators can be filled under pressure only if equipped with the optional quick fill cap (16), which requires a quick fill connector and oil pump. Oil level must always be visible in lens on metal reservoirs. **DO NOT OVERFILL**.



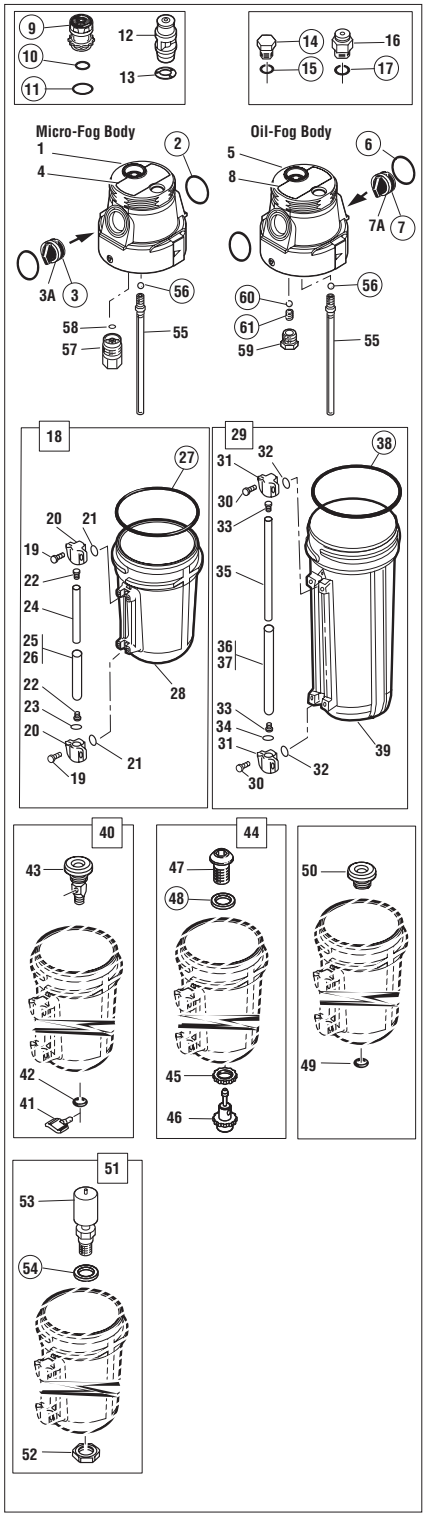
ADJUSTMENT

1. Turn on system pressure.
2. Adjust lubricator drip rate only when there is a constant rate of air flow thru the lubricator. Monitor drip rate thru sight feed dome (9).
3. **Oil-Fog Lubricators** - Oil-fog lubricators are equipped with a green lockring on sight-feed dome (9). Determine the average rate of flow thru the lubricator. Turn knob (9) to obtain one drop per minute for each 5 dm^3/s (10 scfm). For example, if the average flow is 19 dm^3/s (40 scfm), set the drip rate at 4 drops per minute. Turn knob counterclockwise to increase and clockwise to decrease the drip rate. Push green lockring down to lock drip rate setting; pull up to release.
4. **Micro-Fog Lubricators** - Micro-fog lubricators are equipped with a red lockring on sight-feed dome (9). Determine the average rate of flow thru the lubricator. Turn knob (9) to obtain the recommended drops per minute. **See Drip Rate Chart**. Turn knob counterclockwise to increase and clockwise to decrease the drip rate. Push red lock-ring down to lock drip rate setting; pull up to release.

Drip Rate Chart for Micro-Fog Lubricators

Flow - dm^3/s (scfm)	Drops per Minute
5 (10)	10
12 (25)	14
24 (50)	21
35 (75)	28
47 (100)	35
59 (125)	41
71 (150)	47
83 (175)	54
94 (200)	60
106 (225)	66
118 (250)	73
130 (275)	80

5. Monitor the device being lubricated for a few days following initial adjustment. Adjust the drip rate if the oil delivery at the device appears either excessive or low.
6. Drip rate setting can be made tamper resistant by installing a seal wire (see Replacement Items) in groove above lock-ring.



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DISASSEMBLY

1. Shut off inlet pressure. Reduce pressure in inlet and outlet lines to zero. Loosen fill plug (14).
2. Unscrew the clamp ring and remove lubricator from yoke.
3. Disassemble in general accordance with the item numbers on exploded view. Do not remove the drains (40, 44), plug (50), remote fill (51) unless malfunction occurs and replacement is necessary. Do not remove sensor and retainer (3, 3A, 7, 7A), siphon tube (55), fog generator (57), check valve (59) unless lubricator malfunctions and replacement is necessary.

CLEANING

1. Clean parts using warm water and soap.
2. Dry parts. Blow out internal passages in body with clean, dry compressed air.
3. Inspect parts. Replace parts found to be damaged.

ASSEMBLY

1. Lubricate o-rings, the portion of the plug (50) and manual drain body (43) that contacts the bowl, and the hole in the manual drain body that accommodates the stem of drain valve (41) with o-ring grease.
2. Assemble lubricator as shown on exploded view.
3. Insert sensor (3, 7) into retainer (3A, 7A), then orient as shown and press fully into bore. When fully seated, the sensor/retainer is centered between the inlet and outlet ports.
4. Assemble the liquid indicator parts (19 thru 26, 30 thru 37) to reservoir. Apply a 0.9 to 1.8 kg (2 to 4 pound) clamping force to upper and lower sight glass brackets (20, 31). Tighten screws (19, 30).
5. Torque Table

	N-m (Inch-Pounds)
9, 12 (Dome)	2,0 to 2,8 (18 to 25)
19, 30 (Screw)	1,8 to 2,3 (16 to 20)
45, 52 (Nut)	2,3 to 2,8 (20 to 25)
57, 59 (Fog generator, check valve)	2,3 to 2,8 (20 to 25)

6. Turn bowl into body until arrowhead on bowl is aligned with or to the right of the arrowhead on the body.

WARNING

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under Technical Data.
Polycarbonate plastic bowls can be damaged and possibly burst if exposed to such substances as certain solvents, strong alkalies, compressor oils containing esterbased additives or synthetic oils. Fumes of these substances in contact with the polycarbonate bowl, externally or internally, can also result in damage. Clean with warm water only.
Use metal bowl in applications where a plastic bowl might be exposed to substances that are incompatible with polycarbonate.
Before using these products with fluids other than air, for non industrial applications, or for life-support systems consult IMI Precision Engineering.