NAKANISHI

AIR LINE KIT

AL-0304

OPERATION MANUAL

OM-K0347E Rev.A

Thank you for purchasing Air Line Kit AL-0304.
It provides the air tool with micro-mist oil. Read the operation manual carefully before initial use.

1 CAUTIONS IN HANDLING

■Read these cautions carefully to correctly follow the intended use.
■Safety instructions are intended to avoid potential hazards that could result in personal injuries or damages to the device.
Safety instructions are classified as follows in accordance with the seriousness of the risk.

Class	Degree of Risk
⚠WARNING	**Existence of a hazard that could result in bodily injury or damage of the device, if the safety instructions are not foilowed.**
⚠CAUTION	**Possibility of a hazard that coutd result in light or middle degree of bodily injury or damage of device, if the safety instructions are not followed.**

⚠ WARNING

①Air pressure
Use the air pressure below 1.0MPa (10kgf/cm^2, 140psi) on primary side and 0.6MPa (6kgf/cm^2, 85psi) on secondary side.
②Use of clean air
Air shall be clean and free from chemicals, compound oil containing organic solvent, salinity, or corrosive gas to avoid damage to the device.
③Connection of Hose
Connect hose securely to avoid accidental disconnection during use. Make sure that the pressure from the air compressor does not exceed 1.0 MPa. If the pressure exceeds 1.0 MPa, hose might burst.

⚠ WARNING

An experienced and well-informed person shall assemble, operate and service the air compressor.

⚠ CAUTION

①Use of Dry Air
Connect an air filter and/or dryer between the compressor and NAKANISHI's air line kit to ensure a clean, dry air supply. Mount the air line kit as close as possible to the spindle to ensure constant oil supply. In high humidity areas, use a large capacity filter and/or dryer to ensure years of trouble free operation.
②Draining
Be sure to drain moisture condensation from the air filter regularly to avoid moisture carried by air to the air tool.
③Installation Location
Place this device on a flat surface.
④Handling
Care should be exercised and avoid breaking the plastic bowl of the air filter and lubricator when it is removed for cleaning.

⚠ CAUTIONS FOR AMBIENT CONDITIONS

① Do not use the device where corrosive gas, chemicals, seawater, water, or steam exists.
② Do not use in the direct sunlight.
③ Do not use where the device is subject to vibration or repetitive shocks.
④ Do not use where ignition source or radiant heat exists.

2 FEATURES

①Air pressure can be adjusted easily.
②The device supplies micro-mist oil in the compressed air and extends the air tool life.
③The device can be mounted on the wall.
④It eliminates dirt and debris, as the air passes the air filter.

3 SPECIFICATIONS

Primary air pressure	1.0MPa(10kgf/cm^2) max.
Maximum Operation Pressure	0.6MPa(6kgf/cm^2)
Maximum Peak Pressure	1.5MPa(15kgf/cm^2) max. (expect Air Hose for piping)
Operation Temperature Range	5 to 65℃
Filtration	0.3 μm

Set Pressure	0.04 to 0.6MPa (0.4 to 6kgf/cm^2)
Relief Pressure	Set pressure plus 0.05MPa (0.5kgf/cm^2)
Lubricant used	ISO VG15,Liquid Paraffin, or equivalent
Bowl capacity	65cc
Dimensions	W 300×D 120×H 220mm
Weight	3.7kg

Standard Accessories

- 2m Hose for piping
- 4 rubber padding, 4screws, 4washers
- Lubricant(70cc)
- Operation Manual
- Reducer(ϕ 8/ ϕ 6 Adapter)

※Lubricant
Use ISO VG15 Liquid Paraffin (Shell Ongina oil#15) for lubricator

Recommendation

Model
Lubricant oil (K-211) 70cc
Lubricant oil (K-202) 1ℓ

4 COMPONENT NAMES

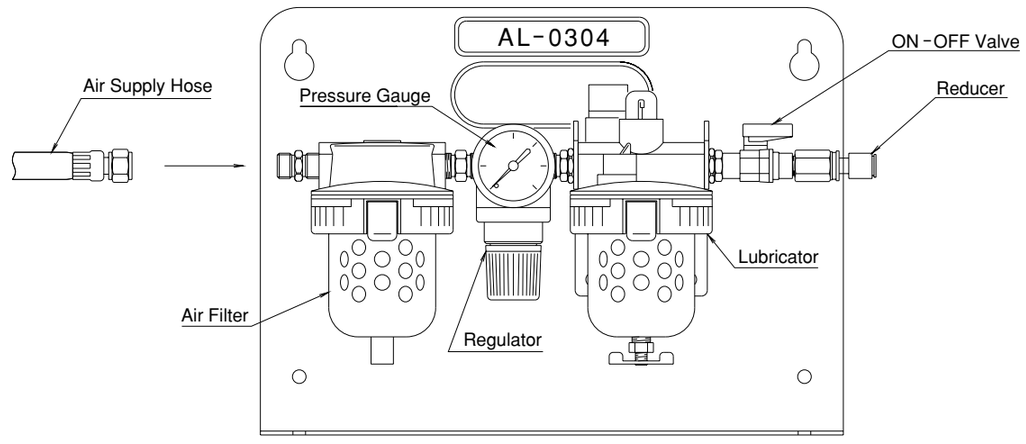

Fig.1

5 COMPONENT PARTS

①Air Filter

Moisture, dirt and debris are separated from the compressed air and collected in Plastic Bowl. Drain by pushing Drain Valve sideways. (See Fig. 2)

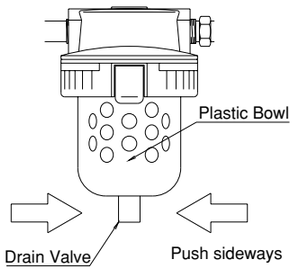

Fig. 2

②Air Pressure Regulator

To increase the air pressure, pull Regulator Knob outward and turn it in either direction. Set at the recommended air pressure. (See Fig. 3)

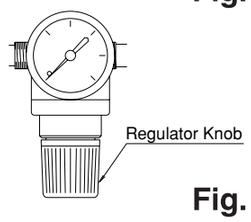

Fig. 3

③Pressure Gauge

Check the air pressure with this gauge. (See Fig. 4)

Fig. 4

④Lubricator

・Supply of Oil

Check the amount of oil in the bowl. Fill oil to the upper limit of oil level. (See Fig. 5)

⚠ CAUTION

When the lubricant is filled above the maximum oil level, remove the excess amount.
Excess oil might result in poor or failure of oil supply.
When supplying or removing oil, stop the air supply to Air Line Kit.

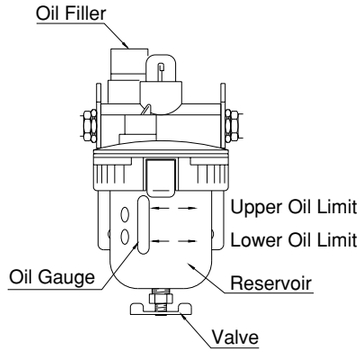

Fig. 5

・Removing oil and moisture

Remove oil in Reservoir once a month. Open Valve at the bottom of Reservoir by turning counterclockwise. Moisture might be collected and mixed with oil in Reservoir and could cause damage. (See Fig. 5)

・Adjustment of oil drip rate

While running the air tool at the proper pressure, adjust the oil drip rate to the recommended rate by turning Oil Drip Rate Adjusting Screw. The oil drip rate could be checked through Sight Dome. Turn Oil Drip Rate Adjusting Screw clockwise to increase the rate and counterclockwise to decrease. Adjust to 30-40drips/min. for NAKANISHI Air Line Kit Lubricator. (See Fig. 6)

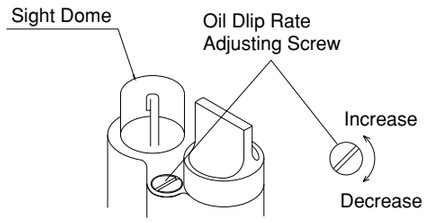

Fig. 6

⚠ CAUTION

In NAKANISHI lubricator, oil content in air exiting lubricator is approximately 3% of dripping oil. Adjust the oil drip rate so that oil, full in the bowl, depletes in 40-50 hours.

⑤ON-OFFValve

Air flow can be stopped by making a quarter turn of the lever. (See Fig. 7)

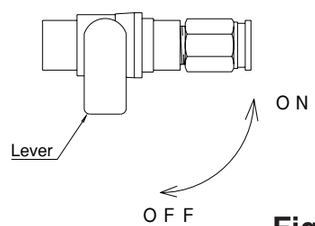

Fig. 7

6 CONNECTION AND INSTALLATION

①Connect the provided hose to Primary Connector. (See Fig. 8)

②When Filter Joint for Spindle is ϕ6㎜, connect Reducer (ϕ8/ϕ6) to the secondary joint and connect Filter Joint ϕ6㎜ to Reducer.
When Filter Joint for Spindle is ϕ8㎜, do not use Reducer (ϕ8/ϕ6) and connect to the secondary joint directly.(Fig. 8)

③To carry Air Line Kit, mount four rubber paddings and place it on a flat surface. When maunting on the wall with screws in Holes for Wall Attachment at the back of Air Line Kit, put washers between the back and the wall. (See Fig. 9)

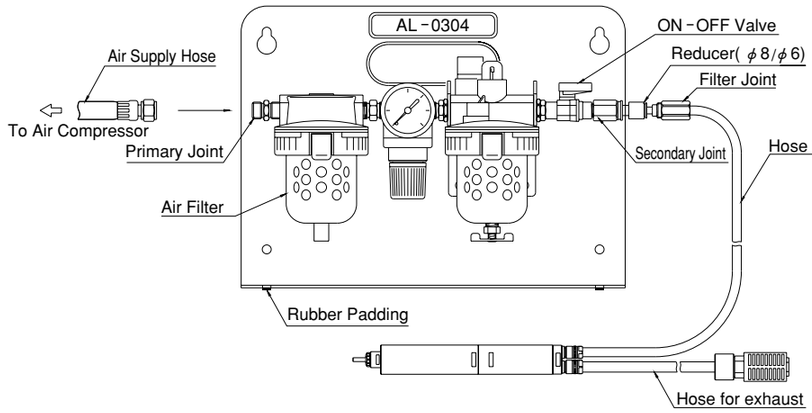

Fig. 8

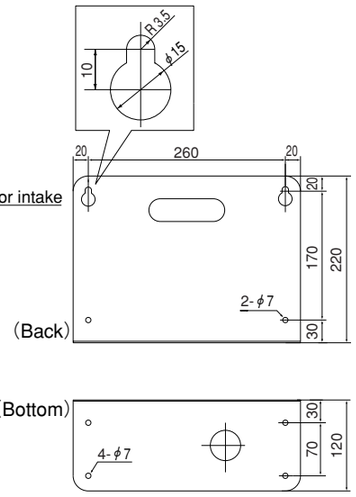

Fig. 9

7 Troubleshooting

Problem	Action Taken
Air leakage	Check the joint and re-tighten screws.
Broken hose	Replace hose
No or poor oil	Check oil volume in Lubricator and increase the oil drip rate. Using our Lubricator, Adjust to 30 to 40 drips/min. and supply lubricant into supply air hose directly.
Excess lubrication	Given excess lubrication, this air tool could not rotate regularly when inclining or giving shakes to the lubricator. This Air Line Kit should be installed on the flat, and drain oil to proper level, loosening drain valve.
	Given excess lubrication, this could not rotate normally. Drain oil to proper level by loosening drain valve.
Excess oil drips	Given excess oil drips, this could slow rotate bearings. Drain oil to proper level by loosening drain valve.
Moisture in Lubricator	Drain moisture from lubricator (replace oil).
Moisture in Air filter	Drain moisture.
No air flow	Check regulator and set at the correct air pressure. Check every hose connection.
	Check the power supply and the air outlet of the air compressor.
	Check if hose is broken, bent or disconnected.

※Specifications may be changed without notice.

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