

1. SAFETY PRECAUTIONS

1.1 SAFETY PRECAUTIONS

Prior to use, it is imperative to carefully read and fully understand the following warnings and instructions for proper use. To use this air compressor safely, these warnings and instructions are imperative. Be sure to observe them.

These warnings and instructions are attached to the air compressor as shown in the figure below.

OSP-55/75VAN2 *VPLUS*

	⚠ WARNING Explosion and Burst! ● Replace the oil and oil separator element periodically as shown in the instruction manual. Oil separator defect or oil deterioration can cause explosion or fire. ● Replace the oil separator housing if there is any defect, such as scratch, crack, deformation or corrosion. This can cause severe accident, such as damage, oil spout or burst.
	⚠ WARNING High Pressure and Hot Oil/Air! ● Do not loose the housing during operation or before internal pressure is released. High pressure and hot oil/air can cause severe injury or death.
	⚠ CAUTION Other caution! ● Prior to the inspection or replacement of the oil separator, read and understand the instruction manual. ● Before servicing, stop the air compressor, disconnect the power, verify that the internal pressure is released. ● Do not directly touch the housing when immediately the air compressor has stopped, as its surface is extremely hot. ● Use special arranged filter wrench to remove the housing. Using general one can cause the filter deformation, crack or burst. ● Replace the housing and square ring as well as the element.

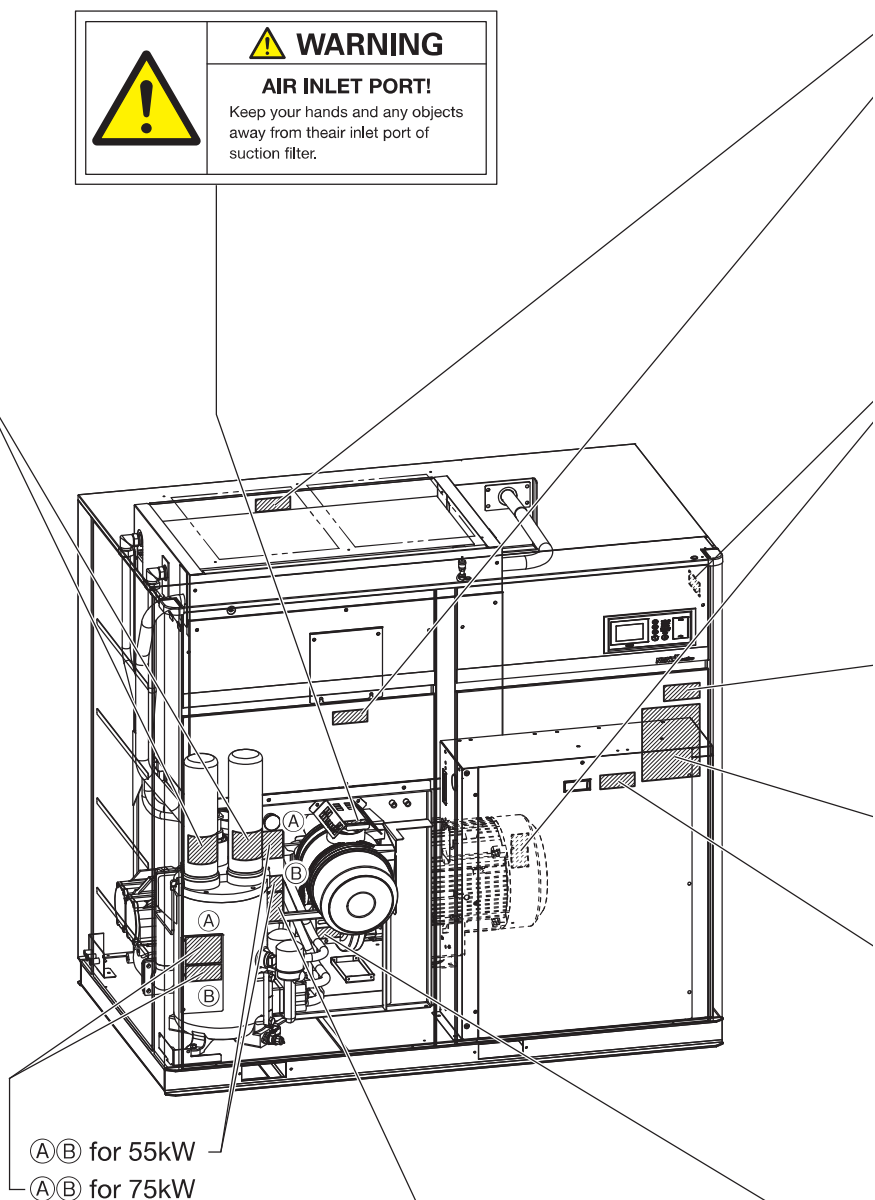
	⚠ WARNING AIR INLET PORT! Keep your hands and any objects away from their inlet port of suction filter.
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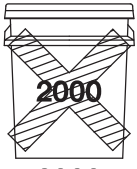
(A)

	⚠ WARNING High Pressure and Hot Oil/Air! ● High pressure and hot oil/air can cause severe injury or death. Do not open the oil drain valve when the power is ON.
 	⚠ WARNING Hot Surface! ● Do not directly touch any component inside the air compressor enclosure when the air compressor is operating or immediately it has stopped, as the components are extremely hot and can cause severe injury.

(B)

	⚠ WARNING High Pressure and Hot Oil/Air! ● Before servicing the air compressor, stop it, close the discharge stop valve, release the internal pressure, disconnect the power and verify both the pressure in the operation panel and the oil separator tank pressure gauge indicate 0MPa. ● Use caution at all times, when the air compressor is powered. The air compressor may be capable of restarting without hitting the START button.
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⚠ CAUTION USE THE GENUINE SYNTHETIC OIL ONLY. ● Always use the "NEW  SCREW OIL NEXT" (Hitachi's genuine synthetic oil) for the air compressor. ● DO not mix it with any other brands of oil. Replace the oil regularly as scheduled by the Instruction Manual.	
	
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	⚠ WARNING
	Rotating Parts! ● Keep hands and rods, etc. away from, the rotating parts, such as pulleys, belts, couplings, cooling fans etc.. ● Use caution at all times, when air compressor is powered. The air compressor may be capable of restarting without hitting the START button. ● DO NOT operate the air compressor without enclosures.

	⚠ WARNING
	STRONG MAGNETIC FIELD The motor rotor contains a powerful magnetic field. This field can affect the operation of digital devices such as watches, mobile phones etc. Assembly or handling of the rotor should not be attempted by personnel with cardiac pacemakers, defibrillators or other implanted electronic medical devices.

	⚠ CAUTION
	Replenishment main motor grease MOTOR GREASE notice appears on the touch panel and count-down starts 200 hours before shutdown. Before shutdown, apply grease and press the Cancel button on the touch panel for more than seven (7) second. The time until shutdown is reset and monitor display appears.

	⚠ WARNING
	Electric Shock Hazard! ● 10 minutes before servicing or wiring the air compressor, disconnect the power to prevent an electric shock that can lead severe injury or death. Show the notice stating "Keep switch off" etc. around the power supply. ● Do not allow any unlicensed person to wire the air compressor. Always use a licensed electrician. ● Ground the air compressor.

	⚠ WARNING
	Rotating Parts! ● Keep hands and rods, etc. away from the coupling. The air compressor is capable of restarting without hitting the START button.

	⚠ WARNING
	Do Not Breathe Air! ● Discharge air can contain Carbon Monoxide and other contaminants. Breathing the air can cause severe injury or death. ● Using compressed air insufficient ventilating area, such as in tunnel, also can cause severe injury or death.

	⚠ WARNING
	High Pressure and Hot Oil/Air! ● High pressure and hot oil/air can cause severe injury or death. Pressurized oil/air can blow out of air relief valve or oil filling port etc. at incredibly high velocities. ● Before servicing the air compressor, stop it, disconnect the power, and release the internal pressure before removing the parts, such as filter, plug, fitting or cover.

	⚠ WARNING
	Flammable and Burst! ● Keep a container of the flammable hazards, such as solvents, away from the air compressor. It can cause explosion. ● DO NOT use any oil other than "NEW HILSCREW OIL NEXT". Replace the oil and oil separator element periodically as shown in the instruction manual. Oil separator defect or oil deterioration can cause explosion or fire.

	⚠ WARNING
	Rotating Parts! ● Keep hands and rods, etc. away from, the rotating parts, such as pulleys, belts, couplings, cooling fans etc.. ● Use caution at all times, when air compressor is powered. The air compressor may be capable of restarting without hitting the START button.

	⚠ WARNING
	Electric Shock Hazard! ● 10 minutes before servicing or wiring the air compressor, disconnect the power to prevent an electric shock that can lead severe injury or death. Show the notice stating "Keep switch off" etc. around the power supply. ● Do not allow any unlicensed person to wire the air compressor. Always use a licensed electrician. ● Ground the air compressor.

	⚠ CAUTION
	Precaution against Fire! ● Do not use fire nearby it, otherwise a spark may enter the air compressor and burn it internally. ● Do not remove any compressor protective relays. Also do not make a modification of the control circuit that may result in impairing the protective relay's function. Remember that the loss of the protective relay's function may cause serious damage. ● Install an earth leakage circuit breaker. ● Ground the air compressor.

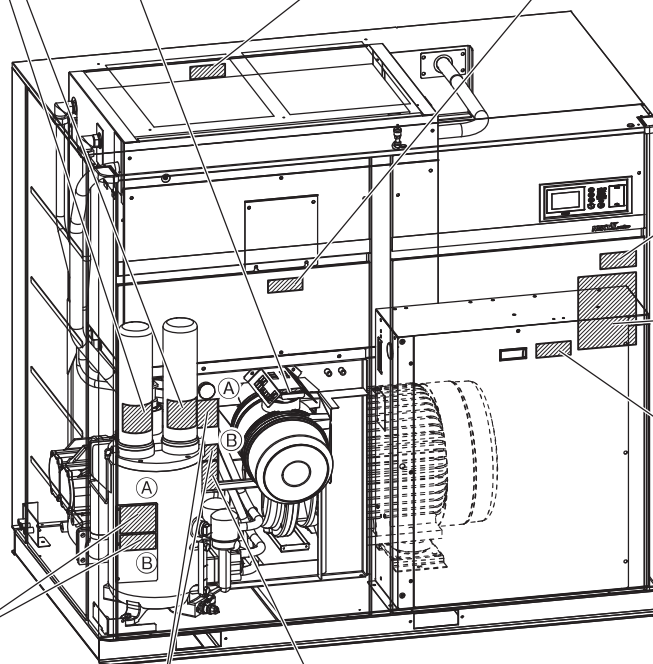
 	⚠ CAUTION
	Hot Surface! ● Do not directly touch any component inside the air compressor enclosure when the air compressor is operating or immediately it has stopped, as the components are extremely hot and can cause severe injury.

1. SAFETY PRECAUTIONS

OSP-55/75MAN2 Mtype

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	⚠ WARNING High Pressure and Hot Oil/Air! ● Do not loose the housing during operation or before internal pressure is released. High pressure and hot oil/air can cause severe injury or death.
	⚠ CAUTION Other caution! ● Prior to the inspection or replacement of the oil separator, read and understand the instruction manual. ● Before servicing, stop the air compressor, disconnect the power, verify that the internal pressure is released. ● Do not directly touch the housing when immediately the air compressor has stopped, as its surface is extremely hot. ● Use special arranged filter wrench to remove the housing. Using general one can cause the filter deformation, crack or burst. ● Replace the housing and square ring as well as the element.

	⚠ WARNING AIR INLET PORT! Keep your hands and any objects away from their inlet port of suction filter.
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(A)(B) for 55kW

(A)(B) for 75kW

(A)

	⚠ WARNING High Pressure and Hot Oil/Air! ● High pressure and hot oil/air can cause severe injury or death. Do not open the oil drain valve when the power is ON.
	⚠ WARNING Hot Surface! ● Do not directly touch any component inside the air compressor enclosure when the air compressor is operating or immediately it has stopped, as the components are extremely hot and can cause severe injury.

(B)

	⚠ WARNING High Pressure and Hot Oil/Air! ● Before servicing the air compressor, stop it, close the discharge stop valve, release the internal pressure, disconnect the power and verify both the pressure in the operation panel and the oil separator tank pressure gauge indicate 0MPa. ● Use caution at all times, when the air compressor is powered. The air compressor may be capable of restarting without hitting the START button.
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	⚠ WARNING
	Rotating Parts! ● Keep hands and rods, etc. away from, the rotating parts, such as pulleys, belts, couplings, cooling fans etc.. ● Use caution at all times, when air compressor is powered. The air compressor may be capable of restarting without hitting the START button. ● DO NOT operate the air compressor without enclosures.

	⚠ CAUTION
	Replenishment main motor grease MOTOR GREASE notice appears on the touch panel and count-down starts 200 hours before shutdown. Before shutdown, apply grease and press the Cancel button on the touch panel for more than seven (7) second. The time until shutdown is reset and monitor display appears.

	⚠ WARNING
	Electric Shock Hazard! ● 10 minutes before servicing or wiring the air compressor, disconnect the power to prevent an electric shock that can lead severe injury or death. Show the notice stating "Keep switch off" etc. around the power supply. ● Do not allow any unlicensed person to wire the air compressor. Always use a licensed electrician. ● Ground the air compressor.

	⚠ WARNING
	Do Not Breathe Air! ● Discharge air can contain Carbon Monoxide and other contaminants. Breathing the air can cause severe injury or death. ● Using compressed air insufficient ventilating area, such as in tunnel, also can cause severe injury or death.
	⚠ WARNING
	High Pressure and Hot Oil/Air! ● High pressure and hot oil/air can cause severe injury or death. Pressurized oil/air can blow out of air relief valve or oil filling port etc. at incredibly high velocities. ● Before servicing the air compressor, stop it, disconnect the power, and release the internal pressure before removing the parts, such as filter, plug, fitting or cover.
	⚠ WARNING
	Flamable and Burst! ● Keep a container of the flammable hazards, such as solvents, away from the air compressor. It can cause explosion. ● DO NOT use any oil other than "NEW HILTI SCREW OIL NEXT". Replace the oil and oil separator element periodically as shown in the instruction manual. Oil separator defect or oil deterioration can cause explosion or fire.
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	Rotating Parts! ● Keep hands and rods, etc. away from, the rotating parts, such as pulleys, belts, couplings, cooling fans etc.. ● Use caution at all times, when air compressor is powered. The air compressor may be capable of restarting without hitting the START button.
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	⚠ CAUTION
	Precaution against Fire! ● Do not use fire nearby it, otherwise a spark may enter the air compressor and burn it internally. ● Do not remove any compressor protective relays. Also do not make a modification of the control circuit that may result in impairing the protective relay's function. Remember that the loss of the protective relay's function may cause serious damage. ● Install an earth leakage circuit breaker. ● Ground the air compressor.
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	Hot Surface! ● Do not directly touch any component inside the air compressor enclosure when the air compressor is operating or immediately it has stopped, as the components are extremely hot and can cause severe injury.

1.2 Caution for the DCBL (main) motor **V_{PLUS}**

DCBL motor is the permanent magnetic motor.



WARNING

Contact the local HITACHI distributor/master dealer or representative office for the repair or disassembly. Repair and disassembly work must be performed by licensed technician to avoid **the electric shock, injury and/or fire.**

Keep the magnetic rotor from a person with electronic medical equipment, such as a cardiac pacemaker. **The medical equipment may malfunction, which may lead to a fatal danger to the person.**

Do not connect the motor with anything other than a dedicated controller to avoid **the electric shock, injury and/or fire.**



CAUTION

A very strong magnetic force of attraction or repelling is generated between the magnetic rotor and the other magnet rotors, magnets, iron pieces or iron tools.

Be careful extremely when handling the magnetic rotor. You may get your hand caught in during rotor assembly work or lose a balance because of attraction or repelling force, which may cause an accident and/or injury.

Magnets attract iron chips or other metal particles easily. Be very careful for handling.

Using the magnetic rotor with particles may cause a failure.

Do not bring the magnetic rotor close to an electronic device, such as PC board, LCD monitor.

It may cause a failure of electric device.

Do not bring the magnetic rotor to a magnetic tape, computer diskette, prepaid card, ticket, electronic clock, cathode-ray tube, etc. **Electronic record may be damaged or become unusable due to magnetization.**

■ Disposal

Dispose of DCBL (main) motor as general industrial waste. Before disposing of the magnetic rotor, heat the rotor to 500°C or higher with a gas burner or heating furnace for thermal demagnetization.