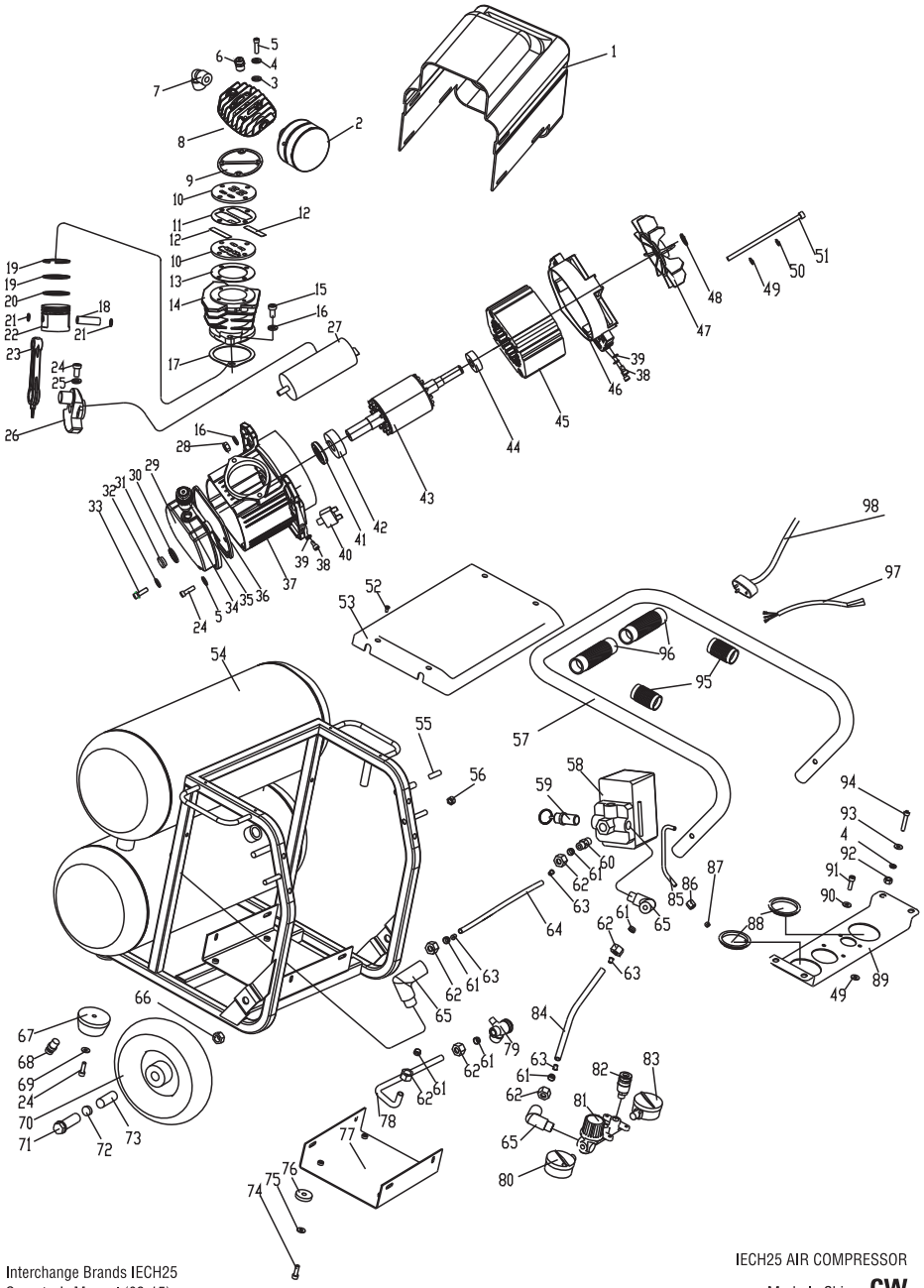
SCHEMATIC DRAWING



Interchange Brands IECH25
Operator's Manual (02-15)

IECH25 AIR COMPRESSOR
Made In China **CW**

GENUINE INTERCHANGE® BRANDS, LLC CONSTRUCTION SUPPLIES

Operator's Manual

Electric Air Compressor

Model No. IECH25
Item No. 69700

NOTE: Please read and fully understand the instructions in this manual before operating the air compressor. Carefully read through this **OPERATOR'S MANUAL** to ensure efficient, safe operation. It is recommended that the **MANUAL** be kept readily available as an important reference when using this compressor.

INTERCHANGE® Brands, LLC **www.interchangebrands.com**

CONTENTS

Note: Before using compressor for the first time, replace the plastic plug with the oil breather and install the air filter.

IECH 25 PARTS LIST

No.	Code	Description
1		Shroud
2	IECH25P2	Air Filter
3		Plain Washer
4		Spring Washer
5		Screw
6		Easy Start Valve
7		Elbow
8		Cylinder Head
9		Head Gasket
10		Valve Plate
11		Metal Gasket
12		Valve
13		Valve Plate Gasket
14		Cylinder
15		Cylinder Screw
16		Spring Washer
17		Cylinder Gasket
18		Wrist Pin
19		Compression Ring
20		Oil Ring
21		Wrist Pin Retainer
22		Piston
23	IECH25P23	Connecting Rod
24		Screw
25		Hexagon Nut
26	IECH25P26	Crank Shaft
27	IECH25P27	Capacitor
28		Hexagon Nut
29	IECH25P29	Crank Case Cover
30		O-ring
31		Oil Slight Glass
32		O-ring
33		Drain Plug
34		O-ring
35	IECH25P35	Oil Breather
36		Crank Cover Gasket
37		Crank Case
38		Bolt
39		Head Gasket
40	IECH25P40	Manual Overload Protector
41		Oil Seal
42		Bearing
43		Rotator
44		Bearing
45		Stator
46		Rear End Bell
47	IECH25P47	Fan
48		Circlip
49		Plain Washer

No.	Code	Description
50		Spring Washer
51		Bolt
52		Screw
53	IECH25P53	Tray
54		Tank
55		Bumper
56		Nut
57		Handle
58	IECH25P58	Pressure Switch
59		Safety Valve
60		Connect
61		Ferrule
62		Nut
63		Lining
64		Nilon Tube
65		Elbow
66		Nut
67	IECH25P67	Foot Pad
68		Drain Valve
69		Plain Washer
70	IECH25P70	Wheel
71		Bolt
72		Plain Washer
73		Sleeve
74		Screw
75		Plain Washer
76		Rubber Washer
77		Support
78		Exhaust Tube
79	IECH25P79	Check Valve
80	IECH25P80	Pressure Gauge
81	IECH25P81	Regulator Pressure
82		Quick Coupler
83	IECH25P83	Pressure Gauge
84		Nilon Tube
85		Unloader Tube
86		Nut
87		Ferrule
88	IECH25P88	Gauge Bezel
89		Panel
90		Plain Washer
91		Bolt
92		Hexagon Nut
93		Plain Washer
94		Bolt
95		Short Hand Grip
96		Long Hand Grip
97		Motor Cord
98		Plug

Kit	Code	Description
KIT 1	IECH25K1	Gasket Kit
KIT 2	IECH25K2	Tube Kit
KIT 3	IECH25K3	Pump Assembly Kit
KIT 4	IECH25K4	Manifold Kit

Other parts are available by special order.

IECH25 PARTS LIST_01-13-15

MAINTENANCE

DAILY Before each use:

- Check the oil level
- Be sure all nuts and bolts are tight
- Check for any unusual noise or vibration
- After use: open the air tank drain cock to drain condensation from tank

MONTHLY MAINTENANCE

- Inspect air system for leaks by applying soapy water to all joints
- Tighten those joints if leakage is observed
- Clean the air filter

250 HOURS OR SIX (6) MONTHS (whichever comes first)

- Change compressor oil (see compressor lubrication section)
- Paint spraying operations or dusty environments may require more frequent oil changes

CAUTION: All air line components (including hoses, pipe, connectors, filters, and regulators, etc.) must be rated for a minimum working pressure of 150 psi/1034 kPA/10.3 bar or 150% of the maximum system pressure, whichever is greater. Disconnect tools from the air supply before performing maintenance, clearing a jammed fastener, leaving the work area, moving the tool to another location, or handing it to another person.

TROUBLE SHOOTING

Problem	Cause	Correction
Will not start	Fuse blown or circuit breaker tripped	Check for cause and replace or reset
	Loose electrical connections	Check wiring connections
	Extension cord not correct	Max.50ft./15m, min.14ga.
	Overheated motor	Use reset button/wait for automatic reset
Low pressure	Air leak in safety valve	Check valve manually: pull up ward on rings. If condition persists, replace valve
	Restricted air filter	Clean or replace air filter
	Defective check valve	Replace check valve
Safety valve releasing	Defective pressure switch or improper adjustment	Check for proper adjustment and if problem persists, replace pressure switch
Oil discharge in air	Improper oil viscosity	Replace with SAE non-detergent oil
	Too much oil in crank case	Drain crank case and fill to proper level
	Compressor overheated	Air pressure regulated too high
	Restricted air filter	Clean or replace air filter

IMPORTANT SAFETY INSTRUCTIONS

Warning: When using any electrical or pneumatic equipment such as this, basic safety precautions should always be followed to reduce the risk of personal injury. Please familiarize yourself with the following information to prevent damage to your compressor, injury to the operator, property damage, or death.

Read all instructions before using this product.

We strongly recommend that this compressor not be modified and/or used for any application other than that for which it was designed. If you have any questions relative to its application, do not use the compressor until you have consulted with us and we have advised you.

1. **Keep work area clear** of obstructions and well ventilated. Cluttered areas invite accidents.
2. **Consider work area environment.** Do not use electrical equipment in damp or wet locations. Do not expose compressor or tool to rain. Keep the work area well lit. Do not use compressor or tool in the presence of flammable gases or liquids. Atomized fluids like paints and solvents can be highly flammable. Do not spray them near this equipment.
3. **Keep children and bystanders away.** All children should be kept away from the work area. Do not let them handle machines, tools, or extension cords. Visitors can be a distraction and are difficult to protect from injury.
4. **Store idle equipment.** Store compressor in a dry area to inhibit rust. Compressor also should be locked up to keep out of the reach of children.
5. **Guard against electric shock.** Do not use the compressor without connection to a properly grounded outlet of the specified voltage and fuse protection. Grounded compressor must be plugged into an outlet that is properly installed and grounded. Grounding provides a low-resistance path to carry electricity to ground away from the operator, should the tool malfunction electrically. Do not remove the grounding prong from the plug or alter the plug in any way. If in doubt as to whether the outlet is properly grounded according to code, check with a qualified electrician. Extension cords must also be equipped with grounded (three prong) plugs.
6. **Stay alert.** Watch what you are doing and use common sense. Do not operate any tool when you are tired.
7. **Do not abuse the cord.** Never pull on the cord to unplug it. Protect the cord from potential sources of damage: heat, oil and solvents, sharp edges, or moving parts. Replace damaged cords immediately.

8. **When working outdoors, use an outdoor rated extension cord.** An extension cord rated for outdoor use must be marked “W-A” or “W”.
9. **Do not expose electrical equipment to moisture.** Rain or wet conditions can allow water to enter the tool and lead to electric shock.
10. **Ensure the extension cord you use is of sufficient gauge for its length.**
11. **Avoid unintentional starting.** Be sure the switch is in the off position before plugging in.
12. **Always check to make sure to remove any adjusting keys or wrenches** before turning the tool on. Left attached, these parts can fly off a rotating part and result in personal injury.
13. **Do not use the compressor if it cannot be switched on or off.** Have it repaired before using.
14. **Disconnect the plug from power before making any adjustments.** Changing attachments or accessories can be dangerous if the tool would accidentally start.
15. **Compressed air cautions**: Compressed air from this unit may contain carbon monoxide. The air produced is not suitable for breathing or food processing without filtering and testing as required by law.
16. **Air only**: Use this compressor for compressing air only. Do not compress other gases.
17. **Breathing protection**: Always use a respirator when spraying paint or chemicals.
18. **Maintain compressors with care.** Keep compressors clean for better and safer performance. Follow instructions for lubricating and changing accessories. Keep dry, clean and free from oil and grease.
19. **Never use this compressor** if it is leaking air, has missing or damaged parts, guards or shield, or if it requires repair. Make sure all screws and caps are securely tightened.
20. **Do not use the air hose** to move the compressor. Release the pressure in the storage tank before moving.
21. **Do not attempt any maintenance or adjustment** with the compressor in operation, the power connected, or pressurized air in the system.
22. **Do not over reach.** Keep proper footing and balance at all times. Do not reach over machines that are running.

Only connect the product to an outlet having the same configuration as the plug. When the product must be reconnected for use on a different type of electric circuit, qualified service personnel should make the reconnection.

4. For a permanently connected product: This product must be connected to a grounded, metallic, permanent wiring system of an equipment-grounding terminal or lead on the compressor.
5. Extension Cords: Use only a 3-wire extension cord with a 3-blade grounding plug and a 3-slot receptacle that accepts the plug on the product. Make sure your extension cord is not damaged. When using an extension cord, be sure to use one heavy enough to carry the current your compressor draws. An undersized cord results in a drop in line voltage and loss of power and overheating. (NOTE: Table 1 shows the correct size to use depending on cord length and nameplate ampere rating. When in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.)

GROUNDING METHODS:

Figure 1:

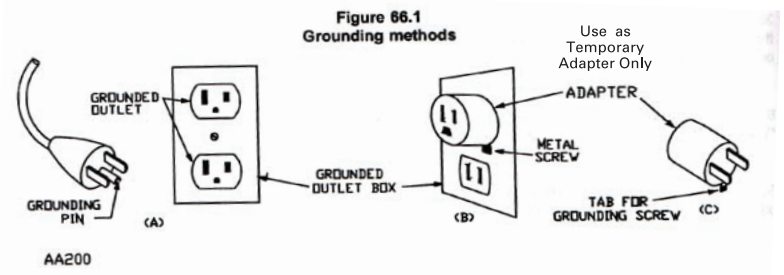


Table 1: Minimum gauge for extension cords

Ampere Rating Range	Voltage	Length of cord in feet - maximum 50’/15m recommended								
	120	25 ft.	50 ft.	100 ft.	150 ft.	200 ft.	250 ft.	300 ft.	400 ft.	500 ft.
8-10A		18	14	12	10	8	8	6	6	4
10-12A		16	14	10	8	8	6	6	4	4

MAINTENANCE

Before any maintenance or adjustments are made to your air compressor, always take the following safety precautions:

- Disconnect from electrical power
- Open the drain cock to drain air tank of pressure

GROUNDING INSTRUCTIONS

1. This product must be grounded. In the event of an electrical short circuit, grounding reduces the risk of electric shock by providing an escape wire for the electric current. This compressor is equipped with a cord that has a grounding wire with an appropriate grounding plug. The plug must be plugged into an outlet that is properly installed and grounded in accordance with all local codes and ordinances. **WARNING:** improper installation of the grounding plug can result in electric shock. When repair or replacement of the cord or plug is required, do not connect the grounding wire to either flat blade terminal. The insulated green wire with or without yellow stripes is the grounding wire.

   Check with a qualified electrician or serviceman when the grounding instructions are not completely understood, or when in doubt as to whether the compressor is properly grounded. Do not modify the provided plug if it does not fit the outlet. Have the proper outlet installed by a qualified electrician.
2. For a grounded, cord-connected product rated less than 15A and intended for use on a nominal 120-V supply circuit, follow the appropriate instructions, either (a.) or (b.)

a. This product is for use on a nominal 120-V circuit, and has a grounding plug similar to the plug illustrated in Figure 1. A temporary adapter similar to the adapter illustrated in sketches B and C may be used to connect this plug to a 2-pole receptacle as shown in sketch B when a properly grounded outlet is not available. The temporary adapter should be used only until a properly grounded outlet (sketch A) is installed by a qualified electrician. The green colored rigid ear, lug or similar part extending from the adapter must be connected to a permanent ground such as a properly grounded outlet box cover. Whenever the adapter is used, it must be held in place by a metal screw.

b. This product is for use on a nominal 120-V circuit and has a grounding plug similar to the plug illustration in Figure 1. Connect the product only to an outlet having the same configuration as the plug. Do not use an adapter with this product. *Do not use an adapter for a high-pressure airless paint sprayer.*

3. This product is intended for use on a 120V 15A circuit only.
4. This product is factory-equipped with a specific electric cord and plug for connection to the proper electric circuit.

23. **Check for damaged parts.** Make frequent inspections for the correct function of components and safety mechanism.
24. **Replacement parts.** When servicing, use only genuine replacement parts recommended by the manufacturer.
25. **Employers** must enforce compliance with the safety warnings and all other instructions in this manual. Keep it available for use by everyone assigned to use this compressor.

SAFETY PRECAUTIONS FOR COMPRESSOR COMPONENTS

1. **Tank safety valve**: This valve prevents damage to the air receiver if a malfunction in the compressor pump occurs. It is factory pre-set at a limit specific to your particular mode. Do not tamper with it. This will automatically void your warranty.
2. **Pressure switch**: The air pressure switch is factory pre-set for optimum performance. Do not bypass or remove this switch. Serious damage to compressor or personal injury could result if air pressure is too high.
3. **Motor and compressor pump**: Air compressors get hot during operation. Do not touch the motor, discharge tubing, or compressor while it is running. The compressor turns on automatically when the power is connected.
4. **Air tank**: Over-pressurizing the air receiver, piping or tank could cause it to explode or burst. To protect from over-pressurizing, the compressor is equipped with a factory preset safety valve. Do not remove, make adjustments to or substitutions for this valve. Perform a test of the valve from time to time: pull the ring on the valve to make sure that it operates freely. If the valve does not operate freely, replace it before further use. Never weld to, drill into, or change the air receiver in any way.
5. **Thermo-protector**: When the circuitry, the motor or the air compressor malfunction, the energy current of the motor will exceed the current rating and the thermo-protector will cut off automatically. When the motor recovers, it will start to work again.
6. **Tampering**: Changing or tampering with components voids the warranty. Service using only genuine replacement parts.

UNPACKING

Check that your Air Compressor kit includes:

Description	Quantity
Air Compressor	1
Air Filter Kit	1
Oil Breather	1
Operator's Manual	1

Before using compressor for the first time, replace the plastic plug with the oil breather and install the air filter.

SPECIFICATIONS

Model	IECH25
Horsepower	2.5HP
Voltage	120V
Hz	60HZ
Phase	Single
RPM	3400 RPM/min
Air tank capacity	8 Gallons
Net weight	82 Lbs.

INSTALLATION AND OPERATION

Your new air compressor can be used for operating pneumatic tools, grease and caulking guns, sandblasters, paint guns, weed killer and insecticide sprays, inflations, etc. Always ensure the air supply of the compressor is appropriate for the tool you are using. A tool with a higher air demand than this compressor can produce may cause the tool to malfunction or not function well. It may also cause the compressor to run without stopping for long periods of time.

INSTALLATION AND LOCATION

Operate the compressor in a clean, dry and well-ventilated area on a firm level surface. The compressor should be located 12 to 18 inches/30 to 45 cm from a wall or any other obstruction that would interfere with the airflow. It is equipped with heat dissipation fins that allow for proper cooling. Keep them and other parts free of dust or dirt that could interfere with cooling. A clean compressor runs cooler and provides longer service. Do not place anything on top of the compressor.

Do not use lead-tin solder to join pipes and fittings. It can melt at the temperatures of the compressors' air discharge and cause the piping to burst.

EXTENSION CORDS

If you plan to use an extension cord when operating your air compressor, please note: maximum length not to exceed 50 feet/15m and minimum wire gauge is 14 gauge. If the extension cord is too long or the wire size is too small, the air compressor will not start.

COMPRESSOR LUBRICATION

- Check the oil quantity and quality before operating the compressor. Do not add or change oil while the compressor is in operation. Use only SAE (non-detergent) oil.
- With the air compressor on a level surface, the oil level should be at the red dot on the oil level sight glass.
- If the oil level is low, remove the oil breather, add enough oil to bring level to the red dot. Do not over-fill.
- Replace oil breather before starting the compressor.

DRAINING THE OIL

Remove the oil breather (oil sight glass). Allow the oil to drain. Replace the oil drain plug (we recommend the use of a sealing compound or Teflon tape to avoid leakage). Do not over-tighten. Refill with SAE (non-detergent) oil to the red dot in the oil level sight glass.

BEFORE OPERATION

- Check that the nuts and bolts are snug.
- Check the quantity and quality of the oil (see Compressor Lubrication above).

BEFORE INITIAL OPERATION

- Before using compressor for the first time, replace the plastic plug with the oil breather and install the air filter.
- Open to permit air to escape, so no air pressure builds up in the air tank.
- Plug power supply cord into correct power source.
- Run the compressor in this no-load condition for 20 to 30 minutes to lubricate the bearings and pistons.
- Close the air tank drain cock.

Your compressor is now ready for use.

After two weeks, tighten all nuts and screws, including head bolts.