RHYAS AIR POWER

RHYAS THE PRODUCTS OF CHOICE



RHYAS 24L 9.5cfm Air Compressor

User's Manual

WARNING!!

BEFORE OPERATING PLEASE READ THESE INSTRUCTIONS CAREFULLY.

RHYAS AIR POWER

RHYAS THE PRODUCTS OF CHOICE

Compressors are quick and efficient and provide a pressurised air source, which is useful for driving air tools and spraying applications. They are safe if used with care, always follow these instructions, do not carry out the operation until you are sure you can do so in safety. Ensure that you adhere to the instructions for your air tools.

Remember to consider the work environment for safe operation of the compressor and any attached tools.

Warning!
When using compressors, basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury. Read all these instructions before attempting to operate this product.

Keep these instructions with the compressor. Save these instructions for future reference.

NOTE: *THIS IS AN OIL-LUBRICATED COMPRESSOR. BEFORE RUNNING, PLEASE FILL SUMP TO THE CORRECT LEVEL WITH SAE 30 OIL.*

PRODUCT SPECIFICATION:

MAXIMUM WORKING PRESSURE	8 bar / 115PSI
PUMP AIR DISPLACEMENT	9.5cfm
AIR RECEIVER (TANK) CAPACITY	24 Litres
MOTOR CAPACITY	1.85KW
MOTOR ROTATION SPEED	2850rpm
POWER SUPPLY VOLTAGE	230V/50HZ
MOTOR HP	2.5HP
NOISE LEVEL	97 dB-A
DIMENSIONS	600 x 290 x 645mm
WEIGHT	28kg

1 - PERSONAL SAFETY

Symbols used on the air compressor



Read the operator instructions



Warning shock hazard



Warning high temperature parts



Warning the compressor is automatic and can start unexpectedly



Read This Manual
In order to ensure working safety, read this manual and thoroughly understand how to turn the compressor on and off and to control the airflow.



Use Personal Protection Safety Equipment
The compressor ejects high-pressure air. Always wear protective eye goggles and avoid contact with air outlets.
Protect eyes with safety glasses or goggles - use safety glasses or goggles which conform to BSEN136 or CE equivalent that provide protection from the front and side. Approved safety footwear and headgear should worn as appropriate, for example on building works, when heavy weights or overhead working are involved.

Do not operate this machine or its accessories near other people unless they are wearing appropriate safety equipment also.



Dress Properly
Do not wear loose clothing or jewellery; it can get caught in moving parts.
Non-skid safety footwear is recommended when working outdoors.



Stay Alert
Watch what you are doing. Use common sense. Do not operate the compressor or any air tool when tired or after taking alcohol or prescription/ non-prescription drugs.

2 - OPERATIONAL SAFETY

What You Must Not Do

Do not allow routine to lead to mistakes
Do not allow routine, which occurs when using the machine frequently, to lead to mistakes. Remember that a slight lack of concentration can result in serious injuries in a split second.

Do not use air tools on ladders
Do not use air tools, whilst on ladders. Ensure correct platforms are used.

Do not eat, drink or smoke in the work area
Do not eat, drink or smoke while using this machine or in the work area.

Do not touch the compressor cylinder head
During operation the cooling fins of the cylinder head and the delivery pipe will become very hot. Even after use these will remain hot for some time. Avoid coming into contact with these. Do not leave inflammable objects near the compressor.

Do not let children or pets in the work area
Do not let children or pets come into contact with the compressor, high pressure hose, air tools, mains cable or work area.

Do not use the product for excessive time periods
It will work better and safer at the rate for which it was intended. See section 5 Maintenance, Care and Repair. Please note that these compressors are designed for the DIY, hobbyist and enthusiast for applications where a convenient portable source of air is required.

Do not abuse the hose/cable
Never pull the compressor by the air hose or electrical cable. Keep hose/cable away from heat and sharp edges. Do not touch the metal plug pins when connecting or removing the electrical plug.

Do not run the compressor in damp conditions
The compressor should never be used in an area where it could be exposed to water or excessively damp conditions.

Do not direct any air jet towards people or animals
High-pressure air jets can be dangerous and air jets must not be directed towards people or animals.

Do not make any alterations to the air receiver (tank)
The air receiver (tank) is made to conform to the relevant European safety standards and the air receiver must never be altered by welding or any other means.

What You Must Do

Disconnect the compressor from power supply when maintaining
Before carrying out any maintenance on the compressor. Always switch off and unplug the compressor from the power supply. Ensure that all the compressed air has been released from the air receiver.

Maintenance of electrical components
You must ensure that a suitably qualified person carries out repairs and maintenance of electrical components.

Avoid unintentional starting of the compressor
When the machine is not in use please depress the pressure switch, to ensure that it doesn't start up unexpectedly.

Using extension cables
See Section 3 Setting up the Compressor.



WARNING! Use recommended high-pressure hoses and couplings
High-pressure hoses, fittings and couplings are important for the safety of the appliance. Use only hoses, fittings and couplings designed for usage with air compressors.

Before disconnecting the air hose from the compressor
For safety close the tap and discharge residual pressure in the air hose
before disconnecting.

Using the compressor with your air tools
Before using the compressor and your air tools, CHECK every time that the connections are fully tightened and that there are no broken or worn parts. Always adhere to the processes and safety warnings, which are stated in the instructions of your air tools.

Guard against electric shock
Use an RCD (residual current device) to provide protection against electrical shock.

Consider the work environment
Make sure the area is clear of obstacles, which could cause you to trip and fall.

Before moving the compressor
The compressor air receiver must be discharged before the machine is transported.

Keep work area clean
Cluttered areas invite injuries.

3 - SETTING UP THE COMPRESSOR

Important: Only use the compressor for the purpose for which it was designed.

The compressor is designed for use as stated only; do not attempt to adapt it for other purposes. The manufacturer assumes no responsibility for any damages resulting from improper use for non-compliance with the instructions described in this manual. The compressor is for use by competent persons only.

Before Operation

Check package contents
Check for damage
Before using this item check each part is undamaged. Check all pipes are firmly connected. Check plastic covers for damage. Inspect the air receiver (tank) to ensure that it has not been damaged.

Save packaging
Save major packaging for return of product in the event of service or repair.

Electrical supply
Before using the air compressor please check that you have a suitable electrical supply to support the requirements of the motor unit. Please ensure your mains power supply corresponds to the power rating on the data label on the machine.

Electrical Cables
Ensure that all cables are damage free before connecting to the power supply.

Using Extension Cables
Use an extension cable, which is no more than 10metres long and has a conductor cross-section of at least 1.5mm^2 i.e. a heavy-duty cable. Using an excessively long or thin-wired extension cable will cause severe damage to the motor. Always fully unwind extension cables. If using extension cables outdoors always use a cable, which is marked for outdoor use.

Always maintain a clear area around the compressor
It is very important that the compressor is positioned so that there is an adequate airflow around the machine. The compressor should be situated so that it has 50cm of obstacle free space around its air receiver (tank) and pump/motor unit.

Ensure that the compressor draws clean air
For the correct function and longevity of your air compressor it is important that the air, which is drawn into the compressor is clean. The compressor should not be used in an area, where the air is contaminated with dust or over-spray from spraying applications.

Component parts (Refer to Fig 1)

1. Motor and Pump Unit
2. Air Filter Cover
3. Fan (inside cover)
4. Air Receiver (tank)
5. Drain Valve
6. Air Receiver (tank) Pressure Gauge
7. Air Outlet Pressure Gauge
8. Air Outlets
9. Air Outlet Pressure Regulator
10. Pressure Switch (on/off)

Air outlets, quick release couplers
Uni Hi Flow

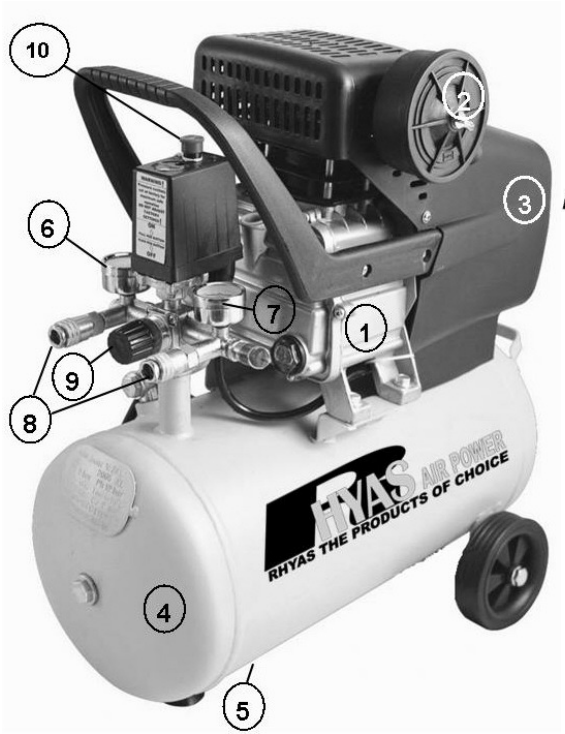


Fig 1. The Compressor

Securing the wheels to the frame
The wheels are secured to the lower frame on the underside of the air receiver. To fix the wheels to the frame, put the fixing bolt through each wheel and then through the hole in the frame. Secure by means of the washer and nut. The positioning of the wheel can be seen in Fig 1.

The safety blow off valve
The compressor is equipped with a safety valve (see fig 4). If the pump were to continue operating passed the maximum pressure, due to a defective pressure switch, the safety valve would open and eject air from the air receiver. If the safety valve discharges air, please turn off the compressor and contact the help-line. The safety valve is either located to the side of the pressure switch as in Fig 4 or directly screwed into the air receiver.



Fig 4. Pressure Switch with Safety Valve

4 - USING THE COMPRESSOR

Starting the Air Compressor

Important: Before plugging into the mains, ensure that the button on the top of the pressure switch is in the off position.

Once the air compressor is connected to the mains supply it is now ready for use as follows:

a) Pull up the button on the pressure switch (10) (fig 1). This will 'click' up into position. See figures 2 and 3 below for more detail. The motor/ pump unit will now start to run.

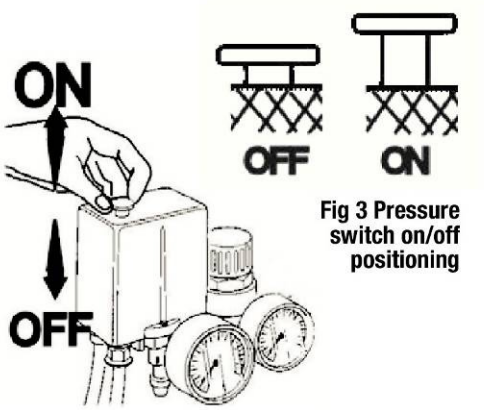


Fig 3 Pressure switch on/off positioning

Fig 2 Pressure switch On/ Off

b) Check that the motor/pump unit automatically stops when the pressure inside the air receiver reaches approximately (115PSI / 8bar) (read gauge part No. 6). Rotate the air regulator to the desired outlet pressure and plug in hose with chosen air tool connected to the other end. The air is now ready for use.

c) Check that the motor/ pump unit automatically starts, when the pressure falls by approximately 2bar.

Under normal use when the compressor is running correctly you would hear the following:

a) When the air compressor starts from no pressure within the tank there is a whistle of 'leaking' air from the pressure switch for about 20-50 seconds.

b) Whenever the motor stops there would be a quick sudden discharge of air. (This is the motor start and stop air unloading system being activated).

Shutting down the Air Compressor

Never stop the compressor by unplugging it. The pressure switch must always be used as this ensures that air is discharged from the head. This makes the starting easier for the motor and prevents motor damage.

5 - MAINTENANCE, CARE AND REPAIR

Ensure the items are disconnected from the electrical supply and cannot operate accidentally when, servicing or cleaning.

Oil-lubricated pump unit and expected usage

This air compressor has been specially designed and manufactured to meet the demands of the DIY hobbyist or enthusiast, who require a portable supply of air. It is recommended that the compressor duty cycle never exceeds 50% and its continuous running operation does not exceed 15 minutes.

Drain the air receiver (tank) weekly

Compressing air causes moisture, which is present in the air to condensate on the inside of the air receiver. This water can damage your air tools and produce a poor finish when spraying paint. It also damages the inside of your compressor and reduces its performance. It is important that the air receiver is drained weekly. This is done by first opening the air tap to discharge the pressure and then unscrewing the brass thumbscrew (fig 1 part 5) anticlockwise on the underside of the air receiver. Any water present in the air receiver should now flow out.

Check the oil level regularly
The level of the oil has to be visible in the sight glass between the red check-point mark and the upper edge of the sight glass. The first oil change should be carried out after 100 operating hours. Thereafter, drain the oil and replace it with new oil at intervals of 500 operating hours.

Changing the oil
Switch off the motor and remove the power plug from the socket outlet. Release any remaining air pressure and then unscrew the oil drain plug from the compressor pump and remove. To prevent the oil from escaping out of control, hold a small piece of metal guttering underneath the drain plug and direct the oil into an appropriate container. If any oil still remains, tilt the compressor slightly.

IMPORTANT - take the old oil to an official old oil disposal station. When all the old oil has been removed, screw the oil drain plug/sight glass into place. Use a screwdriver to remove the cap of the oil filter plug and pour oil in until the level of oil in the sight glass reaches the red mark. Replace the cap back on the oil filler plug.

Cleaning
Clean the items with a soft brush or a wipe moistened with a suitable biodegradable solvent. Do not use inflammable liquids like petrol or alcohol, they are a fire risk and will damage the finish and plastic parts.

Faults
Have the air compressor repaired by a competent person. Use only genuine replacement parts, which are available from the Helpline. Do not use modified or non-genuine parts.

Maintain tools with care
Keep the air compressor clean for better and safer performance. Follow instructions for changing accessories. Inspect the air compressor and extension cables/hoses occasionally; have them repaired by a qualified person or authorised service body.

Check for damaged parts
Do not use the air compressor with damaged parts. Before further use a damaged air compressor must be carefully checked by a qualified person to determine that it will operate properly. Check for breakage of parts, mountings and other conditions that may affect its operation. An authorised service centre should properly repair a damaged part, unless indicated otherwise in the instruction manual.

Have your tool repaired by an expert
This appliance is manufactured in accordance with relevant safety standards. Only experts must carry out repairing of electrical appliances, otherwise considerable danger for the user may result.

Storing the air compressor
When not in use the air compressor should be stored in the dry, out of reach of children and in a frost-free environment.

Cleaning/ changing the air filter (Monthly)
Please note: This compressor should not be used in a heavily dusty atmosphere. The warranty does not cover damage caused by a blocked air filter. The air filter must be cleaned or replaced monthly, or more frequently if the compressor is in regular use. The air filter can be accessed easily by unscrewing the air filter cover (Phillips screw) on top of the pump/motor cowling.

To clean a lightly soiled air filter, use soapy water and leave to dry thoroughly.

If in doubt please consult the help line for details on the servicing of this air compressor.



Do not operate the compressor without the air filter installed.
Operating the compressor without the air filter will cause severe damage to the pump unit.

TROUBLESHOOTING GUIDE

Symptom	Possible Cause (s)	Corrective Action
Compressor will not run	1. No electrical power 2. Blown fuse 3. Breaker open 4. Thermal overload open 5. Pressure switch faulty / broken	1. Plugged in? Check fuse/breaker or motor overload 2. Replace blown fuse 3. Reset, determine cause of problem 4. Motor will restart when cool 5. Replace
Motor hums but cannot run or runs slowly	1. Defective no-return valve or unloaded 2. Poor contacts, line voltage low 3. Shorted or open circuit motor winding	1. Replace or repair 2. Check connections, eliminate extension lead if used, check circuit with voltmeter 3. Replace motor **DANGER! Do not disassemble no-return valve with air in tank; bleed tank first**
Fuses blow/circuit breaker trips repeatedly CAUTION! Never use an extension cord with this product	1. Incorrect size fuse, circuit overloaded 2. Defective no-return valve or unloader	1. Check for proper fuse, use time-delay fuse. Disconnect other electrical appliances from circuit or operate compressor on its own branch circuit 2. Replace or repair **DANGER! Do not disassemble no-return valve with air in tank; bleed tank first**
Thermal overload protector cuts out repeatedly	1. Low voltage 2. Clogged air filter 3. Lack of proper ventilation/room temperature too high 4. No-return valve malfunction 5. Compressor valves failed	1. Eliminate extension cord, check with voltmeter 2. Clean filter (see Maintenance section) 3. Move compressor to well ventilated area 4. Replace 5. Replace valve assembly **DANGER! Do not disassemble no-return valve with air in tank; bleed tank**
Knocks, rattles, excessive vibration	1. Loose bolts, tank not level 2. Defective bearing on eccentric or motor shaft 3. Cylinder or piston ring is worn or scored	1. Tighten bolts, move tank to level position 2. Replace 3. Replace or repair as necessary
Tank pressure drops when compressor shuts off	1. Loose drain cock 2. No-return valve leaking 3. Loose connections at pressure switch or regulator	1. Tighten 2. Disassemble no-return valve assembly, clean or replace 3. Clean all connections with soap and water solution and tighten

TROUBLESHOOTING GUIDE (CONT)

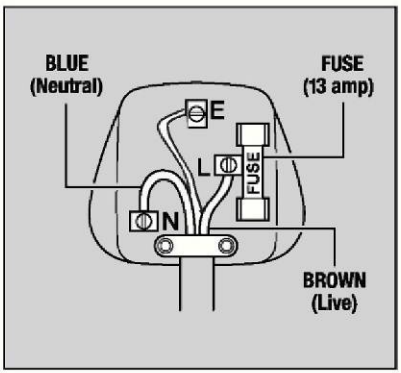
Symptom	Possible Cause (s)	Corrective Action
Compressor runs continuously and air output is lower than normal/low discharge pressure	1. Excessive air usage, compressor too small 2. Clogged intake filter 3. Air leaks in piping (on machine or in outside system) 4. Broken inlet valves 5. Piston ring worn	1. Decrease usage or purchase unit with higher air delivery (CFM) 2. Clean or replace 3. Replace leaking components or tighten as necessary 4. Replace compressor valves 5. Replace piston and cylinder
Excessive moisture in discharge air	1. Excessive water in tank 2. High humidity	1. Drain tank 2. Move to area of less humidity; use air line filter **NOTE: Water condensation is not caused by a malfunction in the compressor**
Compressor runs continuously and safety valve opens as pressure rises	1. Defective pressure switch 2. Defective safety valve	1. Replace switch 2. Replace safety valve with genuine replacement part
Excessive starting and stopping (auto start)	Excessive condensation in tank	Drain more often
Air leaking from unloader on pressure switch	No-return valve stuck in an open position	Remove and replace no-return valve **DANGER! Do not disassemble no-return valve with air in tank; bleed tank first**

WARRANTY TERMS AND CONDITIONS

- Rhyas products are covered by a 12 month warranty from the date of purchase. This warranty applies to all material defects, which may arise. No further claims are possible, of whatever nature, direct or indirect, relating to people and/or materials.
- In the event of a problem or defect, you should in the first instance consult your Rhyas dealer.
- This warranty excludes components, which are subject to normal wear and tear.
- Repairs or replacement parts will not extend the original warranty period.
- Defects, which have arisen as a result of improper use or wear, are not covered by the warranty. Damage caused by a blocked air filter is not covered by this warranty.
- The warranty stipulations apply in combination with our terms of sale and delivery.
- The warranty does not cover any collection or redelivery costs to and from the service centre.
- Products, which are poorly packaged, will not be accepted.
- Warranty claims can only be processed if the following conditions are met:
    1. Proof of the purchase date can be provided in the form of a sales receipt.
    2. No repairs or replacements have been carried out by third parties.
    3. The tool has not been subject to improper use.
    4. A description of the complaint is enclosed.

ELECTRICAL INFORMATION

It is supplied with a pre-wired mains plug, if the plug needs replacing follow these instructions. Wire correctly The wires in the mains lead are coloured in the following way:



BLUE Neutral (N)
BROWN Live (L)
GREEN/ YELLOW Earth (E)

Secure wires carefully and firmly to the correct terminals. Secure the mains cable in the plug cord grip firmly. Fit a 13-amp fuse. If a 13amp (BS1363) plug is used a (BS 1362) ASTA approved 13-amp fuse must be fitted. If in doubt always consult a qualified electrician.

Recycle/Dispose of old plug and cable
To prevent inadvertent connection to socket and risk of electric shock.

Recycle
At the end of this products or its accessories life please recycle where facilities exist - phone the Helpline for current advice on recycling.

PARTS LIST

NO	PART	QTY	NO	PART	QTY
1	Bolt M8 x 110	4	25	Switch bracket	1
2	Cylinder head	1	26	Release pipe	1
3	Cylinder head gasket	1	27	Safety valve	1
4	Valve plate	1	28	Nut 8	1
5	Valve gasket	1	29	Washer foot	1
6	Cylinder	1	30	Bolt M8x25	1
7	Cylinder gasket	1	31	Washer 8	1
8	Piston ring	3	32	Drain cock	1
9	Piston	3	33	Wheel	2
10	Cilrclip	2	34	Air tank	1
11	Connecting rod	1	35	Discharge pipe	1
12	Crankcase	1	36	Motor	1
13	Crank	1	37	Bearing 6202 RS	1
14	Bolt M8x22-right	1	38	Motor bracket	1
15	Robber gasket	1	39	Bolt M5x105	4
16	Breath pipe	1	40	Fan	1
17	Crank case cover	1	41	Circlip	1
18	Screw M5x14	6	42	Bearing 6204 RS	1
19	Oil leveller washer	1	43	Sealing ring	1
20	Oil leveller	1	44	Capacitance	1
21	Unilateralist valve	1	45	Nut M8	1
22	Pressure switch	1	46	Gudgeon pin	1
23	Pressure gauge	2	47	Fan filter	1
24	Outlet valve	2	48	Handle	1

CE DECLARATION OF CONFORMITY (UK)

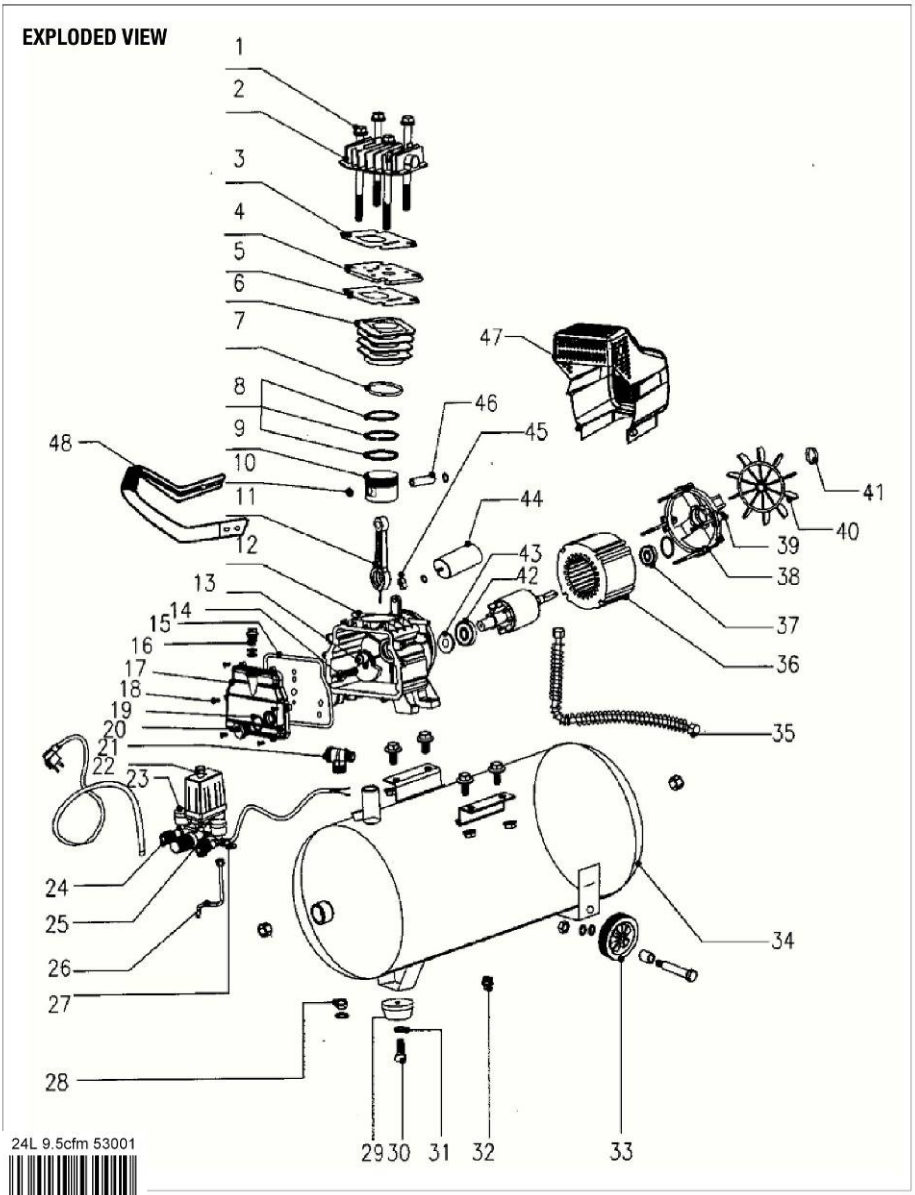
We declare under our sole responsibility that the air compressor as stated on the rating plate on the front cover of this manual is in conformity with the following safety requirement of directives:
98/37/EC
73/23/EEC (As amended and supplemented by: 93/68/EEC)
89/336/EEC (As amended and supplemented by: 92/31/EEC - 93/68/EEC - 93/97/EEC)
87/404/EEC (As amended and supplemented by: 90/488/EEC - 93/68/EEC)
that it complies with the European standards: EN1012-1/96, EN60204-1/97, EN50081-1/92, EN60335-1/94

July 2010
A Wright

RHYAS, Unit A Southern Ave, Leominster, HR6 0QF 01568 620062

Copyright: These instructions are the sole property of Rhyas and may not be reproduced.

EXPLODED VIEW



24L 9.5cfm 53001

RHYAS AIR