

PSiBAR

COMPRESSORS



INSTALLATION, OPERATION AND MAINTENANCE INSTRUCTIONS

This booklet contains important information about your machine and should be kept safely with the pressure vessel test certificate and engine manufacturers handbook.

This document must be read and understood by the owner before starting the machine for the first time.

If you would like more copies of this instruction book for multiple operator installations please call the manufacturer on 0118 986 4466 or consult your local dealer.

PSiBAR

COMPRESSORS

ARE DESIGNED AND BUILT BY

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PSiBAR

COMPRESSORS

Thank you for purchasing this quality product. Please take a few moments to read and digest these instructions to ensure your compressor has a long and trouble free life.

If in doubt about any aspect of installation or operation please ring our service department on 0118 986 4466 or consult your local dealer.

Safety Precautions

Before using your compressor it is in your own interest to read and pay attention to the following safety rules:

1. Compressed air is dangerous - never direct a jet of compressed air at people or animals.
2. Do not operate your air compressor with any guards removed.
3. Before carrying out any repairs or maintenance ensure that all pressure is expelled from the air receiver and any pipework.
4. Do not adjust or tamper with any safety valves. The maximum working pressure is stated on the machine.
5. The cylinder heads and exhaust system of your compressor become very hot during compressor operation, Care must be taken to avoid touching the machine during, and for some considerable time after, operation.
6. Never store any items on the top of the machine.
7. Adequate ventilation is required to the compressor at all times. Do not "box" the machine in.
8. Do not operate the compressors in the vicinity of combustible materials.

Installation

1. Before installing your machine, check that it's air output is sufficient for the equipment to be used. The air output from the compressor must be approximately 20% higher than the volume of air required.
2. When fixing to vehicle floors you are strongly advised to use anti-vibration mountings to prevent stress fractures of the pressure vessel, feet or mounting brackets.
3. Some vehicle floors may have to be strengthened around the mounting holes by using thick steel plates under the floor to prevent "floor flex".
4. Care must be taken to allow proper ventilation to the machine. Never operate the compressor with the doors closed.
5. Consideration must be given to weight distribution within the vehicle. When installing all equipment, ie: tyre fitting machine, wheel balancer (and weight storage), jacks, shelving & parts, generator, welder etc.
6. Total sum of equipment weight should be calculated to enable the installer to decide the best layout within the vehicle. All equipment and accessories should not, of course, exceed the G.V.W.
7. Power AND Earth cables should be used. Do not rely on the floor mounting bolts to provide an earth for the electric starter.
8. 1 x 10mm engine mounting bolt is deliberately "too long" and supplied with an extra nut and washer to act as an earth stud.
9. The power and earth cables should be at least 25mm² (approx 10mm dia.)
10. A gap of 100mm must be maintained behind the beltguard for removal and servicing, and to allow for flexing of the anti-vibration mountings under vehicle braking and acceleration.

NOTE: Warranty on the pressure vessel is void if anti-vibration mounts are not installed

General Arrangement

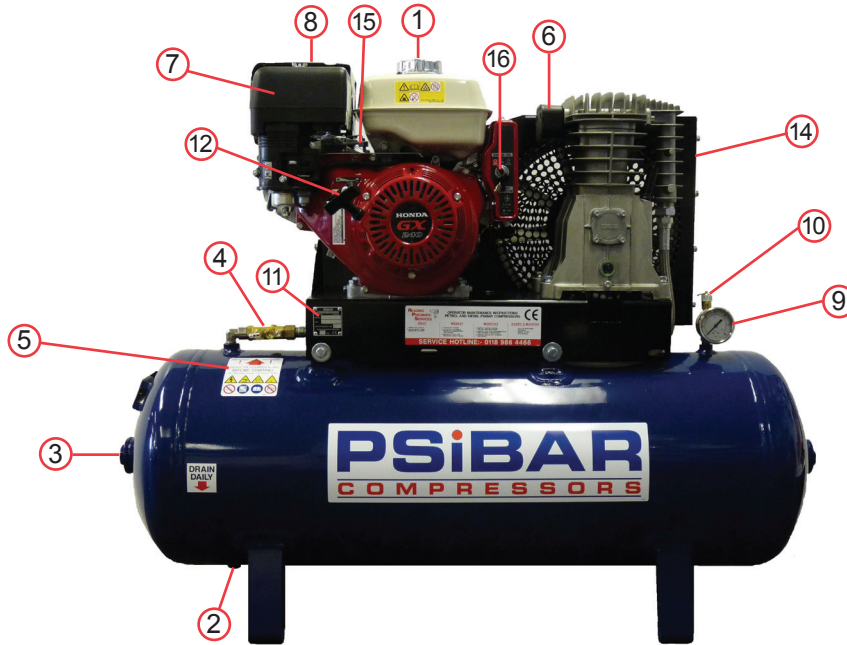


Fig 1: Petrol Engine Models



Fig 2: Diesel Engine Models

INDEX:

- | | | |
|---|-------------------------------|---------------------------------|
| 1. Fuel Tank Cap | 5. Warning Label | 11. Machine Data Plate |
| 2. Receiver Drain Valve | 6. Compressor Pump Air Filter | 12. Engine Pull Start Handle |
| 3. Outlet Valve
(Can be either or both ends) | 7. Engine Air Filter | 13. Drive Belt Inspection Cover |
| 4. Control Governor | 8. Engine Exhaust Outlet | 14. Beltguard Assembly |
| | 9. Pressure Gauge | 15. Throttle Lever |
| | 10. Safety Relief Valve | 16. Starter Keyswitch |

General Arrangement, Continued

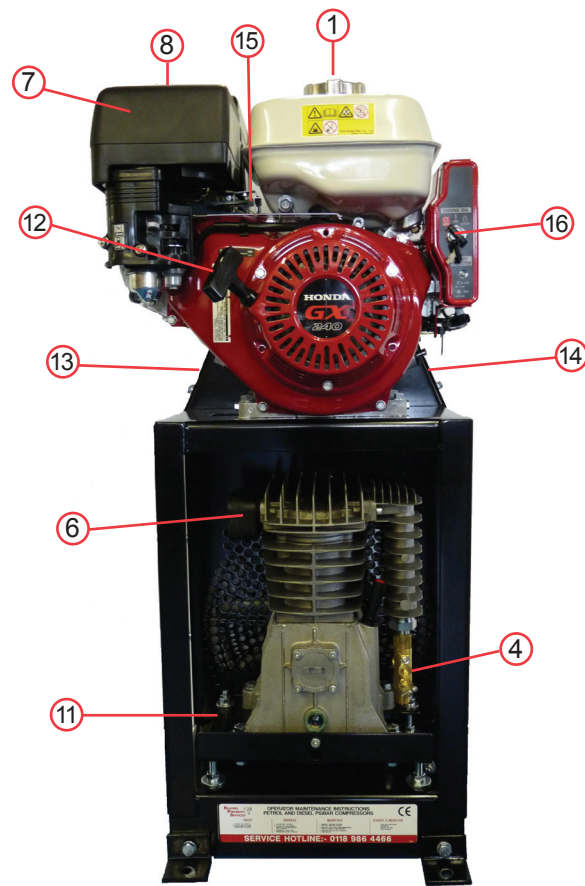


Fig 3: 'V' Version Vertical Models

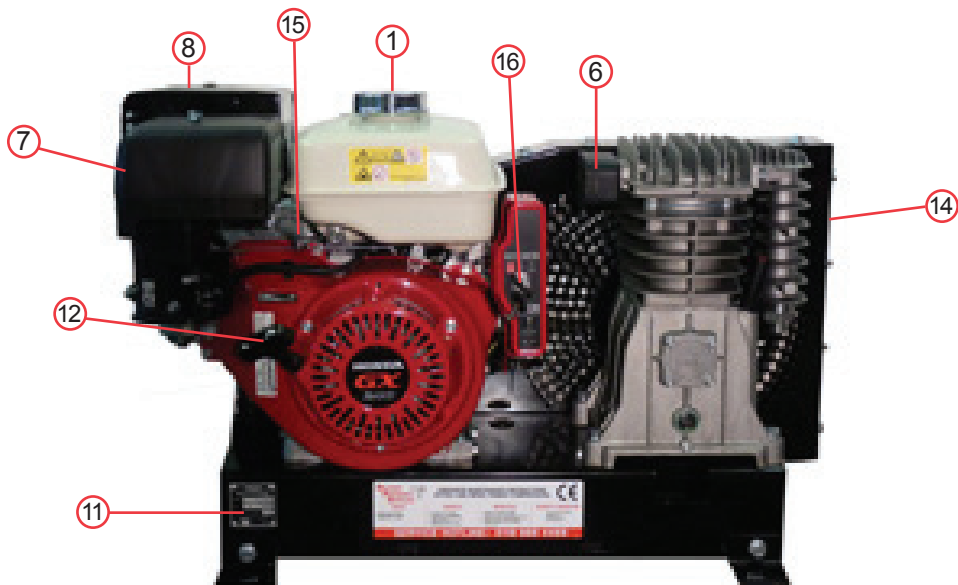


Fig 4: 'B' Version Baseplate Models

General Arrangement, Continued

INDEX:

1. Compressor Pump Oil Filler
2. Compressor Pump Oil Level Sight Glass
3. Compressor Pump Oil Drain
4. Compressor Pump Air Filter

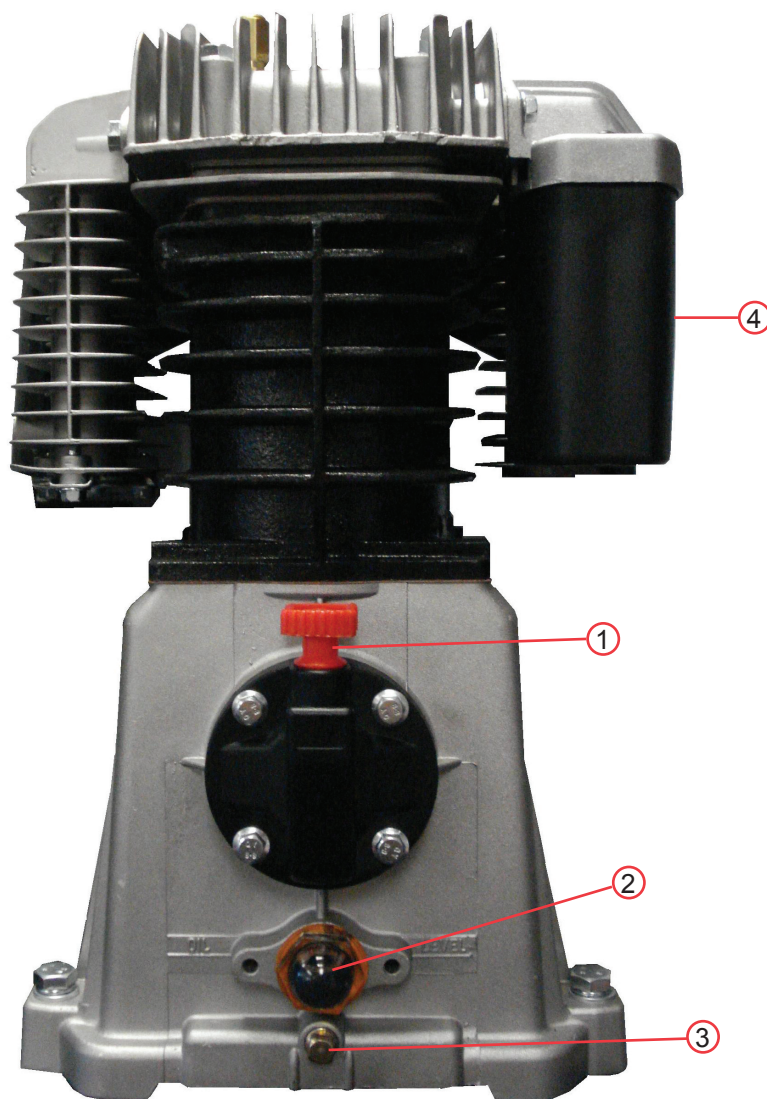


Fig 5: Pump as fitted to HD10 & P11 Models and Variants

General Arrangement, Continued

INDEX:

1. Compressor Pump Oil Filler
2. Compressor Pump Oil Level Sight Glass
3. Compressor Pump Oil Drain
4. Compressor Pump Air Filter

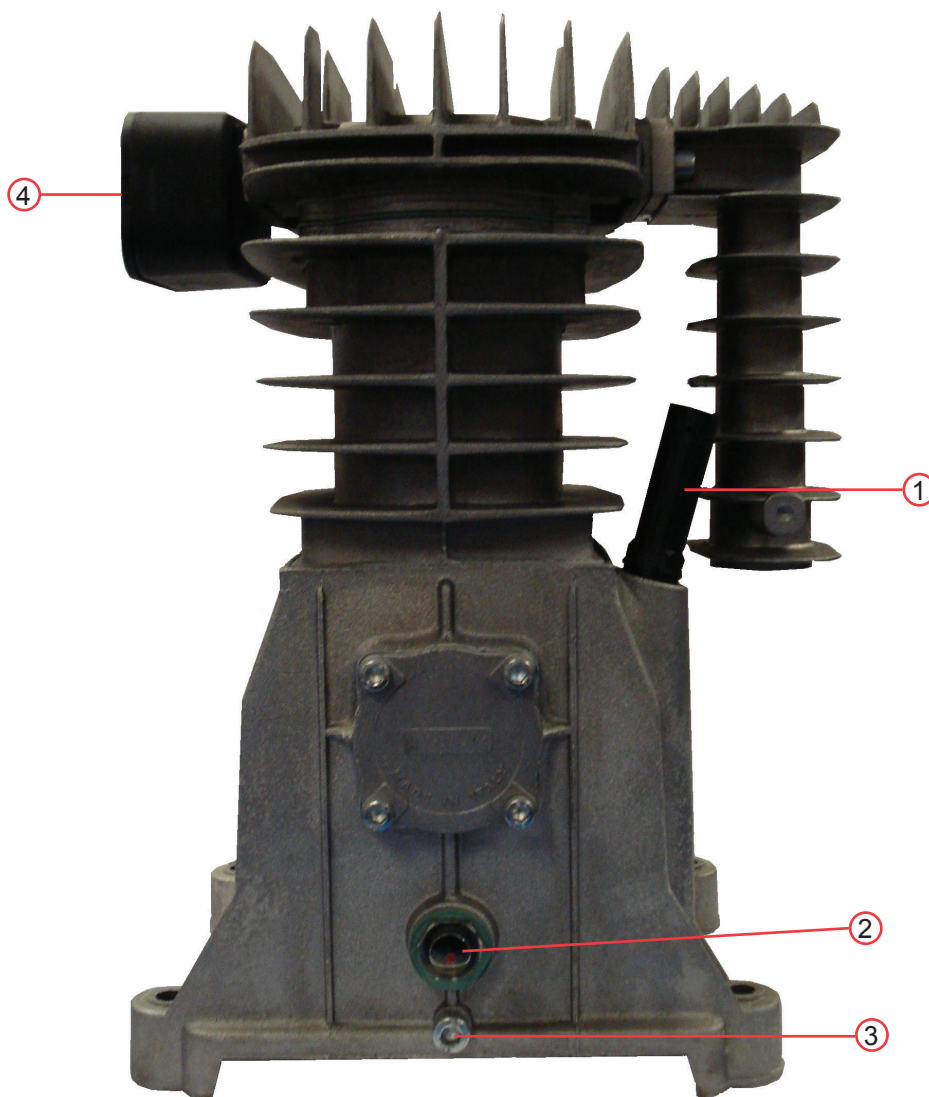


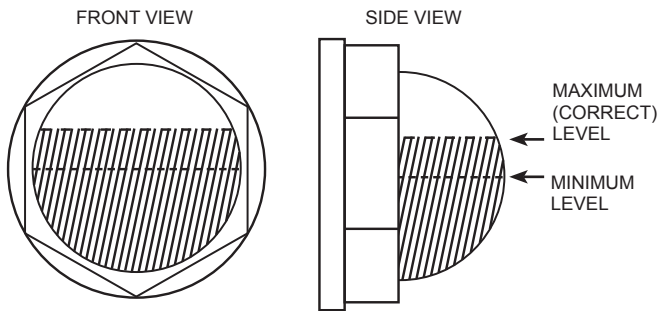
Fig 6: Pump as fitted to P80 Models and Variants

To Start Compressor

These instructions must be followed carefully to avoid serious damage to the compressor pump and/or engine.

1. Ensure compressor pump oil is visible and correct in sight glass window as shown in Fig. 7.

Fig 7



2. Ensure the engine oil is filled to correct level. Consult engine manufacturers handbook supplied with the compressor.

3. Fuel
 - a. Petrol engine models must be run on UNLEADED gasoline.
 - b. Diesel engine models run on regular diesel fuel.
4. Close drain valve on bottom of receiver.
5. Flip the control governor "unload toggle to its straight ahead position", as shown in Fig. 9a.
6. Now start the engine in accordance with the engines manufacturers instruction.
7. With the engine running satisfactory, flip the manual unload toggle on the control governor to "load" position as shown in Fig. 9.
8. The control governor is factory set to lift and automatically unload at the maximum working pressure stated on the P*Si*BAR machine data plate that is riveted to the engine/pump baseplate. This pressure is dictated by either the pressure vessel manufacturers maximum rating or by the pump manufacturers maximum rating.

The control Governor should never be adjusted so that the maximum pressure stated on the data plate is exceeded.

Stopping the Compressor

1. Allow machine to run for 2 minutes off load with reduced throttle speed setting.
2. Switch off engine (see manufacturers handbook).
3. TURN FUEL TAP OFF.
4. Drain receiver
WARNING: Compressor pump, delivery Pipes, Engine and Engine Exhaust will remain hot for some time after use.

Safety Relief Valve

The safety relief valve (Item No. 10, General Arrangement) is factory set and NOT adjustable. Do not attempt to alter the setting of this component.

The valve has a small wire loop through the centre of the stem. This is for testing the valve. Pull the ring sharply twice with the machine at full pressure and the engine switch off. The valve should discharge freely, resetting itself when finger pressure is released. On some models of relief valve the top is a knurled brass ring. This should be turned anti-clockwise to release pressure and re-seals itself when the knurled ring is turned clockwise until fully seated.

The operator should perform this test as part of the weekly maintenance schedule.

Fig 8



Control Governor Adjustment

The Control Governor is factory set and rarely requires adjustment; however if adjustment is required first ascertain what change to the setting is required!

SYMPTOM	REMEDY
<i>Maximum pressure exceeds that stated on the machine plate.</i>	Loosen the pressure locknut shown in Fig. 9 and turn pressure adjustment screw anti-clockwise until compressor unloads at the maximum working pressure stated on machine data plate. Tighten locknut.
<i>Maximum pressure is less than that stated on the machine data plate</i>	As above but turn pressure adjustment screw clockwise until machine unloads at the maximum working pressure. Tighten locknut.
<i>Machine reaches maximum working pressure OK but pressure drops too low before "loading starts again".</i>	Loosen differential locknut shown in Fig. 9 and turn the differential adjustment screw in clockwise to reduce the pressure differential as desired. Tighten locknut.
<i>Machine reaches maximum working pressure OK but as soon as any air is used the compressor 'loads' again. Machine almost permanently on load.</i>	As above but turn differential adjustment screw anti-clockwise to increase the pressure difference as desired. Tighten locknut.

NOTE: *These are very fine adjustments and several attempts may be required to obtain the correct setting. Tightening of the locknuts is enough to disturb the setting you have just laboriously achieved!*

Fig 9

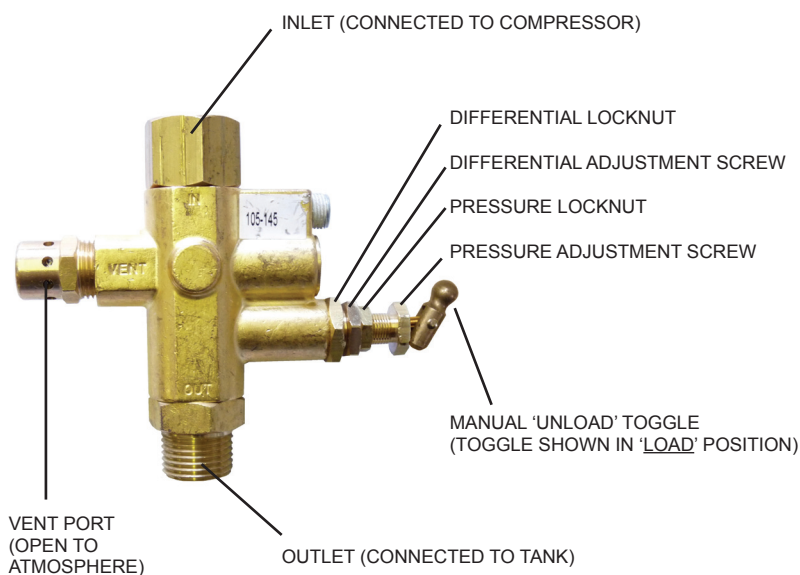
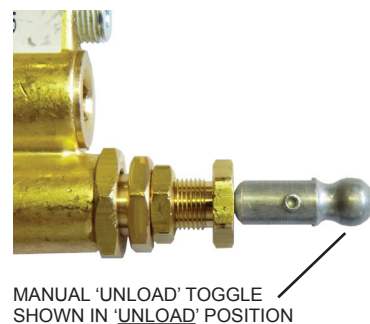


Fig 9a



Warning Label

Every receiver mounted PSiBAR compressor has a warning label on the receiver (Fig 1 & 2 Item 5) adjacent to the control governor. The compressor must be 'unloaded' manually by means of the toggle before starting as previously described in the section of the manual headed: 'To start the compressor'.

There are also a series of eight symbols on the label warning of potential hazards. These are shown below with a brief description of their meaning.



WARNING - Electric shock risk



WARNING - Hot surfaces



WARNING - Pressurised Component system



WARNING - Consult the operation and maintenance manual before commencing any maintenance



WARNING - Do not undertake any maintenance on this machine until the electrical supply is disconnected and the air pressure is totally relieved.



WARNING - Do not breathe the compressed air from this machine



WARNING - Do not operate the machine without the beltguard fitted



WARNING - Rotating flywheel and pulley on this machine

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MODEL RANGE, OPTIONAL
EXTRAS AND EXAMPLES OF
COMPLETE VEHICLE CONVERSIONS
AND INSTALLATIONS AT:**

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**USE ONLY GENUINE PSiBAR
SPARE PARTS & SERVICE
ITEMS AVAILABLE FROM YOUR
DISTRIBUTOR OR DIRECT FROM
THE MANUFACTURER: READING
PNEUMATIC SERVICES LTD.**

Service and Replacement Parts

Please contact your PSiBAR distributor for assistance or contact the manufacturer direct.

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Please keep a permanent record of your machine details in the box below to enable us to help you in the shortest possible time:

MODEL NO:
SERIAL NO:
ENGINE MAKE/MODEL:
DATE OF PURCHASE:
SUPPLIER NAME:

DEALER STAMP