

# **BELT DRIVEN AIR COMPRESSOR** HY140200PES

**User Manual** 



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## 1. SAFETY

#### 1.1 General Safety Notes.

- 1.2 The operator of the machine is responsible for, and has a duty of care in making sure that the machine is operated safely and in accordance with the instructions in this user manual. Keep the manual safe and pass it on if the machine is loaned or sold to another user.
- 1.3 Please note the following safety points.
- 1.4 The machine should never be left it in a condition which would allow an untrained or unauthorised person/s to operate this machine.
- 1.5 All due care and diligence should be taken by the operator for the safety of and with regard to those around whilst using the machine.
- 1.6 Some or all of the following warning signs, symbols and/or PPE pictograms may appear throughout this manual. You **MUST** adhere to their warnings. Failure to do so may result in personal injury to yourself or those around you.



# DANGER

Indicates a hazard, which, if not avoided, could result in serious injury or death.



# WARNING

Indicates a hazard, which, if not avoided, could result in serious injury.



# CAUTION

Indicates a hazard which, if not avoided, might result in minor or moderate injury.



# NOTE

Indicates a situation that could easily result in equipment damage.

READ and keep the manual safe and pass it on if the machine is loaned or sold to another user.

You MUST fully understand all instructions to ensure you use and operate the machine safely.

Appropriate Personal Protective Equipment (PPE), **MUST** be worn at all times when operating or repairing the machine.





- 1.11 Carbon monoxide is a colourless and odourless gas. Inhaling this gas can cause death as well as serious long term health problems such as brain damage.
- 1.12 The symptoms of carbon monoxide poisoning can include but are not limited to the following;
  Headaches, dizziness, nausea, breathlessness, collapsing or loss of consciousness.
- 1.13 Carbon monoxide poisoning symptoms are similar to flue, food poisoning, viral infections and simply tiredness. It is quite common for people to mistake this very dangerous poisoning for something else.
- 1.14 To avoid carbon monoxide poisoning **DO NOT** use Petrol/Diesel powered equipment inside any of the following; Home, garage, tent, camper van, mobile home, caravan or boat. This is not exhaustive and if you are in any doubt contact your dealer.
- 1.15 If you think you have or someone around you has been affected by carbon monoxide poisoning;
- 1.16 Get them fresh air immediately, by leaving the affected area or by opening doors and windows. If safe and practical to do so make sure that the machine is turned off. DO NOT enter a room you suspect of having carbon monoxide present – instead call the emergency services.
- 1.17 Contact a Doctor immediately or go to Hospital let them know that you suspect carbon monoxide poisoning.
- 1.18 **DO NOT** use in an enclosed area or moving vehicle.



1.21

# CAUTION

#### ALL FUELS ARE FLAMABLE

- Fire Hazard keep fuel away from all sources of ignition for example heaters. Lamps, sparks from grinding or welding.
- 1.22 **DO NOT** carry out hot work on tanks that have contained fuel.
- 1.23 **ALWAYS** keep the work area tidy.
- 1.24 **ALWAYS** clean up spills promptly using absorbent granules and a lidded bin.
- 1.25 **ALWAYS** dispose of waste fuels correctly.
- 1.30 Fueling/De-fueling (where applicable).



## ALL FUELS ARE FLAMABLE

- 1.31 **ALWAYS** fuel and defuel in a well ventilated area outside of buildings.
- 1.32 **ALWAYS** wear correct, suitable and fit for purpose Personal Protective Equipment (PPE), suggested items are but not limited to safety gloves, overalls.



- 1.33 When fueling/de-fueling **ALWAYS** avoid inhaling fumes.
- 1.34 When de-fueling **ALWAYS** use a proper fuel retriever.
- 1.35 **ALWAYS** carry fuel in the correct and clearly marked container.
- 1.40 Electrical Safety (where applicable).
- 1.41 Electricity can kill **NEVER** work on **LIVE/ENERGISED** equipment.
- 1.42 Prior to carrying out any maintenance work you **MUST** identify electrical isolation methods and isolate all electrical supplies.
- 1.43 Prior to use and with all electrical supplies isolated, you **MUST** check all electrical cables, plugs and connectors for the following;
- 1.44 Are intact and have no signs of damage, to include but not limited to bare wires, chaffing, cuts and loose wiring.
- 1.45 If there are any signs of damage, the damaged item **MUST** be taken out of service until the damage has been repaired by an electrically competent person.

All trailing cables should be routed so as not to cause any kind of trip hazard.



**NEVER** work on or near electricity with wet hands, wet clothing and wet gloves.

#### 1.50 Batteries (where present).

- 1.51 Batteries present a risk if they become damaged by the possible leaking of electrolyte. This electrolyte is an acid and can cause serious burn injuries. Care should be taken when working on or near them. **NOTE** the electrolyte may be in a liquid or gel form.
- 1.52 Should you come in to contact with electrolyte you should;
- 1.53 Remove all clothing contaminated with electrolyte. If you cannot remove then saturate them in water.
- 1.54 Get medical assistance as soon as possible. You must advise the medical staff of the type of acid.
- 1.55 Lead/acid battery = dilute sulphuric acid.
- 1.56 Nickel/cadmium = potassium hydroxide alkali electrolyte.
- 1.57 Use fresh running water to wash off excess electrolyte, continue this until medical assistance arrives. Make sure that you do not was the electrolyte to another part of your body or face.
- 1.58 If electrolyte comes in to contact with Eyes the electrolyte needs to be immediately washed away with large amounts of water. Make sure that you do not wash the electrolyte to another part of your face or body.
- 1.59 Gasses from charging batteries are highly flammable and great care should be taken to charge in well ventilated areas.
- 1.59.1 There is an explosion risk if the battery terminals are short circuited, when connecting/disconnecting **ALWAYS** exercise great care so that the terminals or battery leads are **NOT** allowed to touch and cause a spark. **ALWAYS** use suitable insulated tools.

#### 1.60 Vibrations (where applicable).

- 1.61 Prolonged use of hand held (operated) machines will cause the user to feel the effects of/from vibrations. These vibrations can lead to white finger (Raynaud's phenomenon) or carpal tunnel syndrome. This condition reduces the ability of the hand to feel and regulate temperature, causing numbness and heat sensations and may cause never damage and circulatory tissue death.
- 1.62 Not all factors that lead to white finger disease are known, but cold weather, smoking and other diseases that affect blood vessels and blood circulation as well as large and long-lasting impact of shocks are considered factors in the formation of white finger. Note the following to reduce the risk of white finger and carpal tunnel syndrome;
- 1.63 Wear gloves and keep your hands warm.
- 1.64 Take regular breaks.
- 1.65 All of the above precautions may help reduce the risk of white finger disease but not rule out the carpal tunnel syndrome. Long-term and regular users are therefore

recommended to observe the condition of your hands and fingers. Seek medical attention immediately if any of the above symptoms should occur.

#### 1.70 Noise (where applicable).

- 1.71 The operating noise of the machine can damage your hearing. Wear hearing protection such as earplugs or ear defenders to protect your hearing. Long-term and regular users are advised to have hearing checked regularly. Be especially vigilant and cautious when hearing ear protection because your ability to hear alarm warnings will be reduced.
- 1.72 Noise emissions for this equipment is unavoidable. Carry out noisy work at approved times and for certain periods. Limit the working time to a minimum. For your personal protection and protection of people working nearby it is also advisable for them to wear hearing protection.
- 1.73 See Certificate of Conformity section for Outdoor Noise declaration of conformity.

	2. MACHINE SPECIFIC SAFETY
2.0	DO NOT direct the output jet of air towards people or animals.
2.1	Familiarise yourself with the application and limitations of the air compressor.
2.2	Ensure that the compressor is in good order and condition before use. If in any doubt do not use the compressor and contact your service dealer.
2.3	Before moving or maintaining the compressor, ensure that the air tank pressure has been vented.
2.4	Only use recommended attachments and parts. Unapproved items may be dangerous and will invalidate the warranty.
2.5	Read the instructions for any accessory used with the compressor. Ensure that the safe working pressure of any air appliance used exceeds the output pressure of the compressor.
2.6	Make sure that the air supply valve is turned off before disconnecting the air supply.
2.7	Use the compressor in a well-ventilated area and ensure it is placed on a firm surface.
2.8	Remember that the air compressors engine produces harmful exhaust fumes.
2.9	Keep tools and other items away from the compressor when it is in use and keep the work area clean.
2.10	Make sure that the air hoses are not tangled, twisted or pinched.
2.11	Keep children and unauthorised persons away from the work area.
2.12	DO NOT disassemble the compressor for any reason if you are not qualified to do so. The unit must be checked by qualified persons only.
2.13	DO NOT operate the compressor within the vicinity of flammable liquids, gases or solids.
2.14	DO NOT touch the compressor cylinder, cylinder head or pipe from the head to the tank as these may be hot and will remain so for some time after shutdown.

- 2.15 DO NOT operate the compressor without all safety guards in place.
- 2.16 DO NOT attempt to move the compressor by pulling the air hose.
- 2.17 DO NOT use the compressor for a task for which it was not designed.
- 2.18 DO NOT deface the certification plate attached to the compressor tank.
- 2.19 DO NOT operate the air compressor without an air filter.
- 2.20 DO NOT use the compressor indoors, the exhaust fumes are poisonous.
- 2.21 DO NOT allow anyone to operate the compressor unless they have received full instruction.
- DO NOT check the ignition system by removing the spark plug or spark plug lead. 2.22
- 2.23 Make sure that the engine fuel is stored in an appropriate container. For long term storage, ensure that the fuel tank is drained and that the compressor is adequately protected.
- DO NOT smoke or have any naked flames nearby whilst refuelling. 2.24
- DO NOT leave the compressor unattended. 2.25
- DO NOT remove the fuel cap, or try to refuel while the engine is running or warm. Stop 2.26 the engine and allow it to cool before refuelling.
- DO NOT refuel in a closed or poorly ventilated environment as there is a danger 2.27 of explosion or fire. Refuel outdoors.
- DO NOT operate the compressor if there is a fuel leak. Move the unit to a safe area 2.28 where there is no risk of ignition until the leak has been rectified and the machine is dry.
- 2.29 DO NOT block the engine ventilation grills.
- 2.30 DO NOT cover the compressor or restrict airflow around the machine whilst it is operating.
- 2.31 The air tank is a pressure vessel and the following safety measures apply: DO NOT tamper with e safety valve and DO NOT modify the air tank in any way. DO NOT strap anything to the tank.
  - DO NOT subject the tank to impact, vibration or heat.
  - DO NOT allow contact with abrasive or corrosive materials.

YOU MUST drain condensation from the tank daily and inspect inside walls for corrosion every 12 months.

- 2.32 The pressure safety valves on Hyundai compressors have been updated to comply with the latest CE certification standards. The pressure release pull ring has been removed from the valve due to the pull ring being incorrectly used to drain the air from the compressor tank, causing excessive wear to this safety valve. The air and moisture should drained from the tank by releasing the drain valve on the bottom of the tank.
- Correct Personal Protective Equipment (PPE) MUST be worn at all times when operating 2.33 or repairing this machine. This should include but is not limited to;





















## WARNING

Seek assistance when removing the compressor from its packaging.

- 3.0 Remove the compressor from its packaging and inspect for any damaged parts. If anything is found to be missing or damaged, contact your supplier.
- 3.1 Take care to transport the compressor correctly, do not overturn it or lift it with hooks or ropes.
- 3.2 Position the compressor on a flat, level surface with a maximum permissible inclination of 10°.
- 3.3 Site in a well-ventilated area.
- 3.4 If the surface is inclined and smooth, check if the compressor moves whilst in operation.
- 3.5 If the surface is in a raised position, make sure the compressor cannot fall, securing it in a suitable way.
- 3.6 To ensure good ventilation and efficient cooling, the compressors belt guard must be at least 200cm from any wall.
- 3.7 Before using the compressor, check the oil level by looking at the sight glass gauge. If the oil is not within the red dot, it should be topped up with oil. We recommend using mineral oil in the compressor.



Check the engine oil level. It should be filled with semi-synthetic SAE 15W40 engine oil to the top of the filler neck.





3.8

## 4. STARTING PROCEDURE



### NOTE

ALWAYS check the engine oil and pump oil before starting.

- 4.0 Check the air outlet valve on the tank end-plate is closed.
- 4.1 Ensure that the engine oil and pump oil levels are correct.





- 4.2 Turn the ignition switch to the ON position and move the choke lever half way.
- 4.3 Gently pull the recoil start handle until you feel resistance and then pull swiftly until the engine starts.

DO NOT allow the starter handle to snap back, gently return it to the start position.

- 4.4 Once running, move the choke to the OFF position.
- 4.5 When the engine is running smoothly, the compressor will operate automatically, building up the pressure in the tank, which is shown on the pressure gauge to the maximum setting (factory set).
- 4.6 When the maximum tank pressure has been reached, the relief valve will automatically vent the pump output, when the tank pressure falls below the minimum threshold (approx. 2bar/29psi less than the maximum pressure), the relief valve will automatically close and the tank pressure will increase back to its maximum.





### **5. STOPPING PROCEDURE**

5.0 Turn the ignition switch to the OFF position.

### 6. USING THE MACHINE

- 6.0 To determine the correct working pressure and air flow requirements for any piece of equipment, check the corresponding manual.
- 6.1 Be aware that the air flow figure stated on tools and accessories refers to 'free air delivery' and not the piston displacement of the compressor.
- 6.2 When adjusting the regulator, always adjust up to the required pressure.
- 6.3 After fitting the desired coupling to the outlet valve, connect an air hose and hook up to an air system.

An outlet regulator is necessary to use air equipment direct from the compressor.

- 6.4 At the end of each working day, drain any moisture from the main tank.
- 6.5 Place a container under the drain plug and then carefully unscrew it anti-clockwise.
- 6.6 DO NOT allow moisture to accumulate in the tank as this will corrode the inside of the tank and affect the pressure rating of the tank.

### 7. MAINTENANCE



## WARNING

Service and maintenance must be performed by an authorised agent. DO NOT tamper with, or attempt to adjust the pressure switch or safety valve. Before moving or carrying out any maintenance on the compressor, make sure that the ignition switch is OFF, the air tank pressure has been vented and that the compressor has been allowed to cool down for a period of time.

Failure to carry out maintenance tasks, may invalidate the warranty on your compressor.

7.0 In order to keep the compressor in good working condition, periodic maintenance is essential.

Operations to be carried out after the first 60 hours of use.

- 7.1 Check that all nuts and bolts are tight, particularly those retaining the crank case and cylinder head.
- 7.2 Replace the lubricating oil.

#### Operations to be carried out daily.

7.3 Drain condensation by opening the valve located under the tank.



- 7.4 Check the pump oil level.
- 7.5 Check the engine oil level.





- 7.6 Check all guards and covers are secure.
- 7.7 Check for fuel and oil leaks.
- 7.8 Check for air leaks.
- 7.9 Check for unusual noises or vibrations.

Operations to be carried out weekly (or more frequently in dusty environments)

7.10 Remove the air filter element by undoing the screw and removing the filter cover.



- 7.11 Inspect the air filter and if worn or damaged, replace immediately. Clean the air filter by blowing through from the inside to the outside with a low pressure airline.
- 7.12 Reinstall the air filter, cover and screw.
  DO NOT operate the compressor without an air filter as foreign bodies or dust could damage the pump and will invalidate the warranty.

7.13 Clean the compressor.

DO NOT use a pressure washer or hose pipe to clean the compressor as water could penetrate critical components and cause machine failure.

- 7.14 Check that the relief valve vents pump output and reduces engine speed when maximum pressure is reached.
- 7.15 Check that the compressor restarts pressure build up automatically at 2 bar below the maximum pressure.

#### Operations to be carried out monthly

- 7.16 Check belt tension.
- 7.17 A weight of 3kg applied at the belt mid-point should give a deflection of approximately 10mm.
- 7.18 If adjustment is required, maintain the alignment of the two pulleys. Adjust by repositioning the engine using the screw adjuster.

#### Operations to be carried out every 100 hours

- 7.19 Change the air filter element.
- 7.20 Replace the pump lubricating oil with an oil suitable for temperatures ranging from -5°C to 45°C, viscosity Type 68 compressor oil.
- 7.21 Drain the oil when it is warm, not hot, as this will allow the oil to drain more effectively.
- 7.22 Place a suitable container under the drain plug and remove the drain plug.
- 7.23 Once all the oil has drained, replace the drain plug and refill with new oil to the correct level.
- 7.24 Replace the engine oil with semi-synthetic SAE 15W40 engine oil.
- 7.25 Drain the oil when it is warn, not hot, as this allows the oil to drain more effectively.
- 7.26 Place a suitable container under the drain plug and remove the drain plug.
- 7.27 Once all the oil has drained, replace the drain plug and refill with new oil to the correct level.
- 7.28 Check all tube fittings and electrical connections.
- 7.29 Inspect the pressure tank inside and out for damage or corrosion.

Maintenance Operations	Daily	Weekly	Monthly	Every 100 Hours
Drain condensation from tank				
Check for oil leaks				
Check oil levels				
Check guards and covers				
Check for noise and vibrations				
Check for air leaks				
Clean compressor				
Clean air filters				
Check safety release valve				
Check belt tension				
Change pump oil				
Replace air filter				
Check all fittings				
Inspect pressure tank				
Change engine oil				

## 8. SPECIFICATION

Model	HY140200PES
Engine	Hyundai IC420
Туре	Single Cylinder, 4 Stroke, OHV
Engine Size – cc	420
L/min	800
CFM	17
Pressure bar/psi	10 / 145
Tank Size – L	200
Dimensions – LxWxH	130 x 50 x 96
Weight – Kg	145

## 9. TROUBLESHOOTING

Fault	Cause	Remedy
Pressure drop in the tank	Air leak at connections	Run compressor to max pressure, switch off. Brush soap solution over connections and look for bubbles. Tighten connections showing leaks. If problem persists, contact your dealer
Pressure switch valve leaks when compressor is at idle speed	Non-return valve seal defective	Discharge air tank pressure. If problem persists, contact your dealer
Compressor does not stop at maximum pressure	Pressure switch fault	Contact your dealer
Compressor does not reach maximum pressure	Filter clogged / head gasket or valve fault	Replace filter element / contact your dealer
Compressor noisy with metallic knock	Low oil level / Bearing or piston damage	Turn OFF and top up with oil immediately / Contact your dealer

## **10. RECYCLING AND PRODUCT DISPOSAL**

- 10.0 We do not offer a take back scheme for the recovery of Waste Electrical Electronic Equipment (WEEE) & Batteries. Instead the responsibility to dispose of WEEE and or Batteries is passed onto you by us. So when it becomes necessary to dispose of your machine you must take it to your local Civic Amenity Site. For further information please contact your local Authority for disposal advice. 10.1 You MUST make sure that all unused oil and fuel is disposed of correctly either beforehand or at your Local Civic Amenity Site. Under NO circumstances must any fuel or oil be put down any drains. 10.2 Certain products contain WEEE waste which should not be disposed of in your domestic waste. 10.3 You MUST recycle WEEE in accordance with your local authority or recycling centre. 10.4 Certain products contain batteries which should not be disposed of in your domestic waste. 10.5 You MUST recycle batteries in accordance with your local authority or recycling centre. 10.6 Unwanted packaging and materials should be stored and taken to a recycling so centre so it can be disposed of in a manner which is compatible with the environment. 10.7 The following symbol means that you should 'Reduce - Reuse -Recycle'.
- 10.8 We are a member of the VALPAK National Compliance Scheme and our registration number is RM08660.
- 10.9 For further information about disposal please contact your Local Authority.
- 10.10 You can also get more advice and guidance about recycling at the following website <u>http://www.recycle-more.co.uk</u>
- 10.11 Should you pass this product on to another user either sold or loaned, you MUST pass on this manual. This will make sure that all other users can use and maintain this machine safely.

### **11. DECLARATION OF CONFORMITY**

Genpower Ltd confirms that these Hyundai products conform to the following CE Directives.

2006/42/EC Machinery Directive 2004/108/EC EMC Directive 2000/14/EC Amended by 2005/88/EC Noise Emissions Directive 97/68/EC\_2010/26/EC NRMM Emissions Directive

#### EC DECLARATION OF CONFORMITY

The undersigned. As authorised by: **Genpower Ltd** Declares that the following equipment manufactured under licence by Hyundai Korea

#### Conforms to the Directive:-2000/14/EC (as amended)

Of the European Parliament and of the council on the approximation of the laws of the Member States relating to the noise emission in the environment by equipment for the use outdoors.

Equipment Category:	Petrol Air Compressor
Product Name/Model:	HY140200PES
Type/Serial No:	Petrol Air Compressor
Net Installed Power:	420cc
The technical document is kept by:	Roland Llewellin, Genpower Ltd Issac Way, Pembroke Dock, Pembrokeshire, SA72 4RW.

The conformity assessment procedure followed was in accordance with the annex V of the Directive.

Notified Body:

TUV Rheinland LGA Products GmBh 90431 Nurnberg, Tillystrasse 2 Germany

Pembroke Dock, Pembrokeshire, SA72 4RW.

Measured Sound Power Level:

90dBA

90dBA

Guaranteed Sound Power Level:

A copy of this certificate has been submitted to the European Commission and the EU Member State United Kingdom.

Place of Declaration:

Signed by:

**Roland Llewellin** 

**Managing Director** 

Date:

RJLlemeth

Genpower Ltd. Isaac Wav.

Position in Company:

Name and address of manufacturer or Authorised representative:

Genpower Ltd Isaac Way, Pembroke Dock, Pembrokeshire, SA72 4RW

#### **12. CONTACT DETAILS**

12.0 POSTAL ADDRESS

Genpower Ltd, Issac Way, London Road, Pembroke Dock, Pembrokeshire. SA72 4RW. UK.

- 12.1 TELEPHONE
- 12.2 FAX
- 12.3 SUPPORT
- 12.4 WEBSITE

+44 (0) 1646 687880

+44 (0) 1646 686198

aftersales@hyundaipowerproducts.co.uk

www.hyundaipowerproducts.co.uk

#### **13. WARRANTY**

13.0 Proof of purchase will be required before you make a warranty claim. Full warranty terms and conditions can be found on the HYUNDAI POWER PRODUCTS website: www.hyundaipowerproducts.co.uk

### **14. MANUAL UPDATES**

- 14.0 Our manuals are constantly being reviewed and updated. However if you find an error, omission or something you find unclear, please contact your dealer for assistance.
- 14.1 Our latest manuals are also placed online.
- 14.2 We reserve the right to make any modifications without prior notice whenever necessary.



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