



INSTRUCTION AND PARTS LIST

MODEL: TM420SDI & TM420SDL



p : 1300 667 579

www.pilotair.com.au

USER GUIDE

Congratulations on the purchase of a PILOT air compressor. This unit has been designed to provide reliable and trouble free usage in servicing your compressed air requirements.

Please take a moment to familiarise yourself with the information contained in the following sections of this guide before attempting to operate this unit.

LOCATION OF UNIT

For optimum efficiency locate unit in a clean, dry and cool environment with good ventilation. Avoid placing obstacles either on or around unit to facilitate maximum air flow and cooling.



CHECK OIL LEVEL BEFORE USE IN CASE OF LOSSES INCURRED DURING SHIPPING

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OPERATION

ELECTRIC UNITS

Ensure ON/OFF switch is located on the pressure switch is in an OFF position (down), before inserting power plug into appropriate power point and applying power.

Unit can then be switched on using the ON/OFF switch. The pressure switch will automatically start and stop the compressor when the air receiver drops below or reaches factory set cut-in and cut-out pressures respectively.



ALWAYS SWITCH UNIT ON AND OFF VIA PRESSURE SWITCH TO ENSURE THE UNIT DOES NOT START AGAINST HIGH PRESSURE



TO PREVENT DAMAGE TO UNIT OR PERSONS DO NOT ATTEMPT TO MODIFY, BYPASS OR REMOVE PRESSURE SWITCH OR SAFETY VALVE IN ANY WAY. “TM” OR “K” SERIES ARE DESIGNED TO OPERATE TO A MAXIMUM PRESSURE OF 10 BAR.

The air receiver is equipped with a safety valve to release pressure in the event of a pressure switch cut-out failure. To prevent damage to the unit, do not attempt to modify, bypass or remove the pressure switch or safety valve in anyway.

The motor features a manual overload protection (where fitted). In poor power conditions or motor over temperature conditions, this overload protector will cut power to the motor. To reset, wait for the motor to cool then press reset button. If problems persist, check for power ratings, faulty power or poor connections.

PETROL /DIESEL DRIVEN UNITS

Please refer to OEM documentation in reference to care and operation of your petrol/diesel engine.

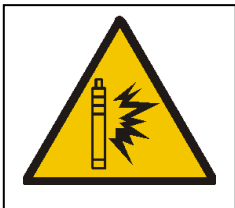
This unit has been designed to “idle down” to minimum operating speeds when factory set cut-out pressures are reached. This saves both fuel consumption and wear on moving parts. When pressure drops to set cut-in pressures the unit will automatically resume pumping at normal operating speeds.

To facilitate easy starting of the unit and to ensure no damage to the electric starter (where fitted) always open the “EASY START” valve until the unit is operating and then close for normal operation. This valve is located on the motor/pump platform (models K25P,K30P) or in the discharge pipe from the pump to the air receiver (other models).

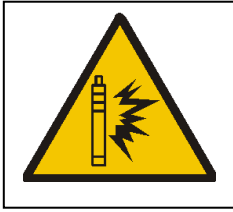
SAFETY



Pressure vessels (air receivers) are a type of plant, and as such, MAY be required to be registered with the relevant statutory authority in your state. Regulations regarding plant registration vary from state to state. Check with your relevant government authority about plant registration.



Compressed air can be dangerous. Never point compressed air tools or equipment towards another person.



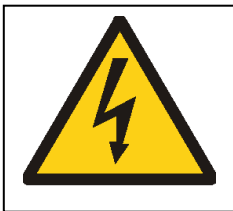
After use, drain all residual air pressure or engage outlet tap to prevent accidental discharge by children.



Keep clear of compressor pump during and after operation. Heat build up in the pump may cause burns to unwary.



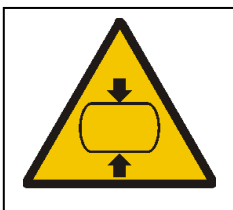
Never operate the unit without factory fitted belt guard.(belt drive models) or pump shroud (direct drive models).



Never operate the unit with damaged or exposed electrical wiring.



Do not alter, adjust or remove any components on the unit without technical support from Pilot Air or an authorised Pilot Air agent



Whenever transporting an air compressor, ensure all air is drained from the air receiver. There should be NO residual air pressure in the air receiver.

MAINTENANCE INSTRUCTIONS

- Check that fuses or circuit breakers correspond to motor rating. In case of 415-Volt units, check rotation as indicated by arrow attached to unit. On 240-Volt units, avoid using extension leads as they could cause voltage drop and power loss to motor. If extension is to be used, please follow the table below.

TABLE 1.

KW	HP	VOLTS	RECOMMENDED WIRE SIZE
1.65	2.25	240	HEAVY DUTY, 1.5MM SQUARE WIRE (MAX LENGTH 20 M)
2.20	3.00	240	HEAVY DUTY, 1.5MM SQUARE WIRE (MAX LENGTH 10 M)

- Oil level should be at the centre of the oil sight glass on the compressor pump. Do not overfill as this could cause excessive oil being expelled from the crank case breather.
- Oil is to be replaced every 1000 working hours or on a six (6) monthly basis. Recommended oil:
 - PILOT PCO-40G or equivalent (Stationary models).
 - PILOT PCO-30G or equivalent (Portable models).

Note: In humid and/or very low duty cycle environments, condensate may collect in the sump. Under these conditions, it is a requirement that the operator drain the residual water from the sump on a regular basis and/or change the oil more frequently than recommended above.

- Whenever transporting an air compressor, ensure all air is drained from the air receiver. There should be NO residual air pressure in the air receiver.
- Routine maintenance should be performed on at least a six (6) monthly basis.
- Condensation must be drained from air receiver at least weekly.

- **Unit must be kept clean to allow proper cooling to take effect. Special care should be taken to clean the crankcase breather in order to allow proper crankcase breathing.**
- **Whenever attempting to carry out any maintenance to compressors, isolate power and release all pressure from receiver.**
- **For information regarding spare parts and/or service, please always quote model and serial number.**
- **PLEASE KEEP THIS INFORMATION NEAR MACHINE, SO IT CAN BE READ BY ANYONE ATTEMPTING PREVENTATIVE MAINTENANCE.**

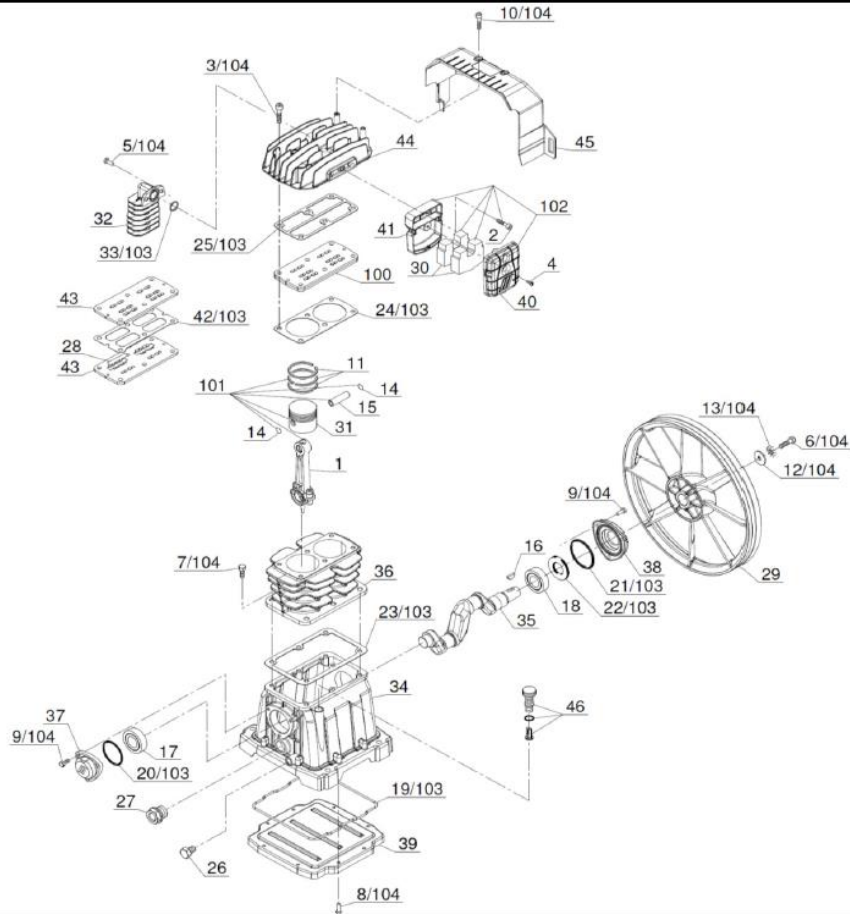


DO NOT BOLT COMPRESSOR DIRECTLY ONTO FLOOR. THIS MAY CAUSE CRACKS IN THE AIR RECEIVER. IF THE COMPRESSOR MUST BE BOLTED, ENSURE RUBBER VIBRATION PADS ARE IN PLACE AND FASTEN, LEAVING A GAP BETWEEN BOLT HEAD OR NUT AND COMPRESSOR FOOT TO AVOID ANY METAL TO METAL CONTACT.

COMPRESSOR COMPONENT DESCRIPTIONS

- **PRESSURE SWITCH (240V & 415V models only):** This switch is located on the top of the air receiver and functions as a manual on/off switch in addition to automatically stopping and starting the compressor at factory pre-set pressures (electric models only).
- **PRESSURE GAUGE:** The Pressure Gauge is located on the air receiver and indicates the pressure held in both PSI and KPA.
- **SAFETY VALVE:** The Safety Valve is located on the air receiver and is designed to release pressure in the event of a pressure switch failure.
- **OVERLOAD PROTECTION:** Electric models are fitted with an overload protector, to protect the motor in the event of an over temperature condition. These reset buttons are located either on the pressure switch or the motor itself.
- **CHECK VALVE (240V & 415V models only):** The Check Valve is located at the junction of the pump discharge pipe and the air receiver. The check valve prevents air pressure returning from the air receiver to the pump.
- **EASY START VALVE: (Petrol/Diesel models only)** The Easy Start Valve is located on the check valve for portable units and on the compressor platform for stationary units. This valve should be opened for ease of starting of the engine and closed when running for normal operation.
- **RECEIVER DRAIN:** The Receiver Drain is located at the underside of the air receiver and is used for draining condensate from the receiver.
- **OIL SIGHT GLASS:** The Oil Sight Glass is located on the side of the compressor pump (opposite the flywheel) and is used for examining the oil level of the unit.
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TM420SDI & TM420SDL PUMP



REF. RIF.	CODE CODICE	QT	DESCRIPTION DESCRIZIONE	REF. RIF.	CODE CODICE	QT	DESCRIPTION DESCRIZIONE
1	9105450240	2	Connecting rod <i>Bella</i>	41	x	1	Filter support <i>Supporto filtro</i>
2	x	1	Screw <i>Vite M8X20 UNI-5931</i>	42	x	1	Gasket <i>Guarnizione</i>
3	x	6	Screw <i>Vite M8X35 UNI-5931</i>	43	x	2	Valve plate <i>Piastra valvole</i>
4	x	1	Screw <i>Vite M4X12 UNI-1447</i>	44	9105450180	1	Head <i>Testa</i>
5	x	2	Screw <i>Vite M6X20 UNI-5739</i>	45	7153140000	1	Conveyor <i>Convogliatore</i>
6	x	1	Screw <i>Vite M8X25 UNI-5739</i>	46	9700001377	1	Brent cover <i>Tappo di sfiato</i>
7	x	6	Screw <i>Vite M8X20 DIN-6921</i>				
8	x	8	Screw <i>Vite M5X12 DIN-6921</i>				
9	x	6	Screw <i>Vite M6X16 DIN-6921</i>				
10	x	2	Screw <i>Vite M5X15 UNI-8113</i>				
11	4080070000	2	Piston rings kit <i>Kit segmenti</i>	100	4231260000	1	Valve plate Kit <i>Kit Piastra valvole</i>
12	x	1	Washer <i>Rondella Ø8,5X30X4 UNI-6593</i>	101	4291070000	1	Con rod/Piston Kit <i>Kit Biella/Pistone</i>
13	x	1	Washer <i>Rondella Ø8 UNI-3703</i>	102	4250130000	1	Intake filter kit <i>Kit filtro aspirazione</i>
14	7041410000	4	Internal snapping <i>Seeger Ø15</i>	103	4081990000	1	Gasket kit <i>Kit guarnizioni</i>
15	7050110000	2	Piston pin <i>Spinotto Ø15X55</i>	104	4080480000	1	Screw kit <i>Kit Viti AB415-515</i>
16	7051510000	1	Key <i>Linguetta 5X7,5</i>				
17	7060060000	1	Bearing <i>Cuscinetto 6205</i>				
18	7060150000	1	Bearing <i>Cuscinetto 6206</i>				
19	x	1	O-ring <i>O-ring</i>				
20	x	1	O-ring <i>O-ring 3118</i>				
21	x	1	O-ring <i>O-ring 3262</i>				
22	x	1	Oil seal <i>Paraolio MIM 30X47X7</i>				
23	x	1	Gasket <i>Guarnizione</i>				
24	x	1	Gasket <i>Guarnizione</i>				
25	x	1	Gasket <i>Guarnizione</i>				
26	7090090000	1	Plug <i>Tappo</i>				
27	7180060000	1	Oil level gauge <i>Spia livello olio</i>				
28	x	4	Valve <i>Valvola</i>				
29	7201010000	1	Flywheel <i>Volano</i>				
30	x	2	Filtering element <i>Elemento filtrante</i>				
31	7220090000	2	Piston <i>Pistone</i>				
32	9100270270	1	Aftercooler <i>Refrigeratore</i>				
33	x	1	O-ring <i>O-ring 130</i>				
34	9105450010	1	Crankcase <i>Carter</i>				
35	9105450250	1	Crankshaft <i>Albero a gomito</i>				
36	9105450060	1	Cylinder <i>Cilindro</i>				
37	9105450070	1	Front cover <i>Coperchio anteriore</i>				
38	9105450080	1	Rear cover <i>Coperchio posteriore</i>				
39	9105450090	1	Carter cover <i>Coperchio Carter</i>				
40	x	1	Filter cover <i>Coperchio filtro</i>				

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WARRANTY

Pilot Air Compressors Pty Ltd manufactured goods - 1 Year Warranty and 3 Year Warranty (where applicable)

February 2012

Pilot Air Compressors Pty Ltd (Pilot Air) warrants to the first purchaser of goods (manufactured by it) (Product) from Pilot Air and the last purchaser prior to installation that, subject to compliance with the Conditions of Warranties below that:

- 1. For a period of 12 months from the date of purchase, the Product will be free from defects due to defective factory workmanship or materials; and**
- 2. For a period of 12 months from the date of purchase that Pilot Air branded accessories supplied by Pilot Air will be free from defects due to defective factory workmanship or materials.**
- 3. The compressor pump only (and excluding all other components of the unit) in the following units:**
 - TM Series Units**
 - Classic K Series Units**
 - Petrol Industrial Series Units**
 - Three Phase Industrial Series Units**

will be free from defects due to defective factory workmanship or materials for a period of 3 years from the date of purchase.
- 4. The 'DCR' and 'FP' Series of Rotary Screw type compressors will be free from defects due to defective factory workmanship or materials for 3,000 working hours in the first 12 months from the date of purchase. This warranty is extended to a period of 2 years for the air end of the DCR and FP Series Compressors.**
- 5. Where compressors are powered with either petrol or diesel engines, the engine only is subject to the warranty provided by the manufacturer of the engine.**
- 6. Non Pilot Air accessories (meaning accessories which are not Pilot Air manufactured and branded) which are supplied by Pilot Air are not covered by this warranty. Purchasers are referred to the individual manufacturer's warranty. Purchasers can request a copy of the applicable warranties by contacting Pilot Air using the contact details below.**

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Conditions of Warranties

- a) **The warranties specified herein are subject to the following conditions:**
- b) **Pilot Air will not be liable for a breach of any of its warranties unless the Claimant provides proof of purchase of the Product and makes a written claim to Pilot Air at the address set out below, either within 30 days after the defect would have become reasonably apparent, or if the defect was reasonably apparent prior to installation, then the claim must be made prior to installation;**
- c) **The warranties are not transferable;**
- d) **The Product must be installed, operated, maintained and serviced strictly in accordance with the relevant Pilot Air literature current at the time of installation and must be installed in conjunction with the components or products specified in the Pilot Air literature. To obtain copies of such literature go to www.pilotair.com.au or telephone Pilot Air on (02) 9648 3099;**
- e) **If the claimant chooses to rely upon any warranty specified herein the claimant's sole remedy under the warranty for breach of the warranty is (at Pilot Air's option) that Pilot Air will either supply replacement Product, rectify the affected Product or pay for the cost of the replacement or rectification of the affected product;**
- f) **In the circumstances where the guarantees under the Australian Consumer Law do not apply in respect to the purchase of its Products, Pilot Air will not be liable for any losses or damages (whether direct or indirect) including property damage or personal injury, consequential loss, economic loss or loss of profits, arising in contract or negligence or howsoever arising. Without limiting the foregoing, Pilot Air will not be liable for any claims, damages or defects arising from misuse of the Product, inadequate maintenance and storage of the Product, repairs rendered necessary or arising from the use of non-genuine Pilot Air parts in the product, normal wear and tear maintenance of the Product, deterioration of any part of the Product due to normal wear and tear, work performed on the Product other than by an authorised Pilot Air service technician or their agent, use of the Product for any purpose other than which it was intended to be used, use of the Product after essential parts and accessories have been removed, operating the Product continuously under excessive load, and if the serial/model label has been removed or obscured on the Product;**
- g) **In circumstances where the guarantees under the Australian Consumer Law do not apply in respect to the purchase of its Product/s: all warranties, conditions, liabilities and obligations other than those specified herein are excluded to the fullest extent allowed by law.**
- h) **Parts repaired or replaced under any warranty specified herein are warranted only for the remaining period of the original warranty period.**
- i) **All defective parts that are the subject of a claim under any warranty specified herein become the property of Pilot Air.**

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- j) **The warranties specified herein do not apply to the following parts or conditions and cannot be relied upon in the situation whereby:**
- i. **any Pilot Air product or part has been subject to misuse, negligence, accidental damage, improper or inadequate use, inadequate maintenance or improper storage or been operated under unusual conditions or continuously under excessive load;**
 - ii. **the defect has been caused by the use of non genuine Pilot Air parts;**
 - iii. **the defect or deterioration was due to normal use, fair wear and tear and exposure, unless due to any defect in material or workmanship;**
 - iv. **work was undertaken on any Pilot Air product or part by an unauthorised Pilot Air agent;**
 - v. **the serial /model label has been removed from any Pilot Air product or part;**
 - vi. **normal maintenance items/parts including valves and piston rings**
- k) **Warranty repairs on all 240 Volt and portable units shall be on a back to base basis that the Claimant is required to return the Product to the nominated warranty agent as advised by Pilot Air, provided that such costs are not significant;**
- l) **The replacement or repair of any defective part or correction of operating faults under any warranty specified herein is to be made only after Pilot Air, or its authorised representative, have examined the unit to their satisfaction, with their decision being final.**
- m) **In the circumstances where Pilot Air accepts or it is determined by Pilot Air that the claimant has a valid claim under this warranty, and subject to paragraph (m) below, Pilot Air will bear all of the claimant's reasonable and proximate expenses incurred as a result of claiming under this warranty. The claimant is to inform Pilot Air in writing to the address identified below within 21 days from when the claimant first makes a claim under this warranty of all such claims and expenses and provide it with copies of all receipts and invoices where relevant before any reimbursement is made by Pilot Air to the claimant. The claimant is responsible for all other costs of claiming under this warranty.**
- n) **Pilot Air will not be responsible for any courier, transport or freight related costs whatsoever associated with the return to it of any defective Product that have not first been approved by it. Pilot Air reserves the right to first inspect any defective Product and decide how, if at all, the defective Product is to be returned to it. Any unapproved courier, transport or freight related costs will be to the claimant's account.**

Important Note:

If you acquire goods from Pilot Air as a consumer according to the Australian Consumer Law, our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

Any rights a consumer may have under any warranty specified herein are in addition to other rights and remedies of a consumer under a law in relation to the goods to which these warranties relate. Nothing in this document shall exclude or modify any legal rights a customer may have under the Australian Consumer Law or otherwise which cannot be excluded or modified at law.

Contact details if you wish to make a claim under any warranty specified herein:

For more information or to make a claim under any warranty specified herein please telephone Pilot Air on 1300 667 579 , email Pilot Air via our website: <http://www.pilotair.com.au> or write to Pilot Air at:

**Pilot Air Compressors Pty Ltd
115 Beaconsfield St
Silverwater NSW 2128
(P O Box 277 Ermington NSW 1700)**

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