



Part List

CPM 3 - 4 - 5 & 7

OWNERSHIP DATA

Unit type:
Motor type:
Delivery date:
Service Plan:

Owner's machine No.:
Unit Serial No.:
Motor serial No.:
First start-up date:

Capacity:

Local CP Representatives

Name:
Address:
Telephone: Contact persons: Service:
Telex: Parts:

SAFETY PRECAUTIONS

To be read attentively and acted accordingly before installing, operating or repairing the unit.

These recommendations apply to machinery processing or consuming air or inert gas. Processing of any other gas requires additional safety precautions typical to the application which are not included herein.

In addition to normal safety rules which should be observed with stationary air compressors and equipment, the following safety directions and precautions are of special importance.

When operating this unit, the operator must employ safe working practices and observe all related local work safety requirements and ordinances.

The owner is responsible for maintaining the unit in a safe operating condition. Parts and accessories shall be replaced if unsuitable for safe operation.

Installation, operation, maintenance and repair shall only be performed by authorized, trained, competent personnel.

Normal ratings (pressures, temperatures, time settings etc.) shall be durably marked.

Any modifications on the compressor shall only be performed in agreement with CP and under supervision of authorized, competent personnel.

If any statement in this book, especially with regard to safety, does not comply with local legislation, the stricter of the two shall apply.

These precautions are general and cover several machine types and equipment; hence some statements may not apply to the unit(s) described in this book.

Installation

Apart from general engineering practice in conformity with the local safety regulations, the following directives are specially stressed:

1. A compressor shall be lifted only with adequate equipment in conformity with local safety rules.

Loose or pivoting parts shall be securely fastened before lifting. It is strictly forbidden to dwell or stay in the risk zone under a lifted load. Lifting acceleration and retardation shall be kept within safe limits.

Wear a safety helmet when working in the area of overhead or lifting equipment.
2. Any blanking flanges, plugs, caps and desiccant bags shall be removed before connecting up the pipes. Distribution pipes and connections shall be of correct size and suitable for the working pressure.
3. Place the unit where the ambient air is as cool and clean as possible. If necessary, install a suction duct. Never obstruct the air inlet. Care shall be taken to minimize the entry of moisture with the inlet air.
4. The aspirated air shall be free from flammable fumes or vapours, e.g. paint solvents, that can lead to internal fire or explosion.

5. Air-cooled units shall be installed in such a way that an adequate flow of cooling air is available and that the exhausted air does not recirculate to the inlet.
6. Arrange the air intake so that loose clothing of people cannot be sucked in.
7. Ensure that the discharge pipe from the compressor to the after cooler or air net is free to expand under heat and that it is not in contact with or close to flammable material.
8. No external force may be exerted on the air outlet valve; the connected pipe must be free of strain.
9. If remote control is installed, the unit shall bear an obvious sign reading:

DANGER: This machine is remotely controlled and may start without warning.

As a further safeguard, persons switching or remotely controlled units shall take adequate precautions to ensure that there is no one checking or working on the machine. To this end, a suitable notice shall be affixed to the start equipment.

10. On units with automatic start-stop system, a sign stating "This machine may start without warning" shall be attached near the instrument panel.
11. In multiple compressor systems manual valves shall be installed to isolate each compressor. Non-return valves (check valves) shall not be relied upon for isolating pressure systems.
12. Never remove or tamper with the safety devices, guards or insulations fitted on the unit. Every pressure vessel or auxiliary installed outside the unit to contain air above atmospheric.



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Front view of CPM Compressor



Front view of CPM Compressor



Air receiver and Canopy

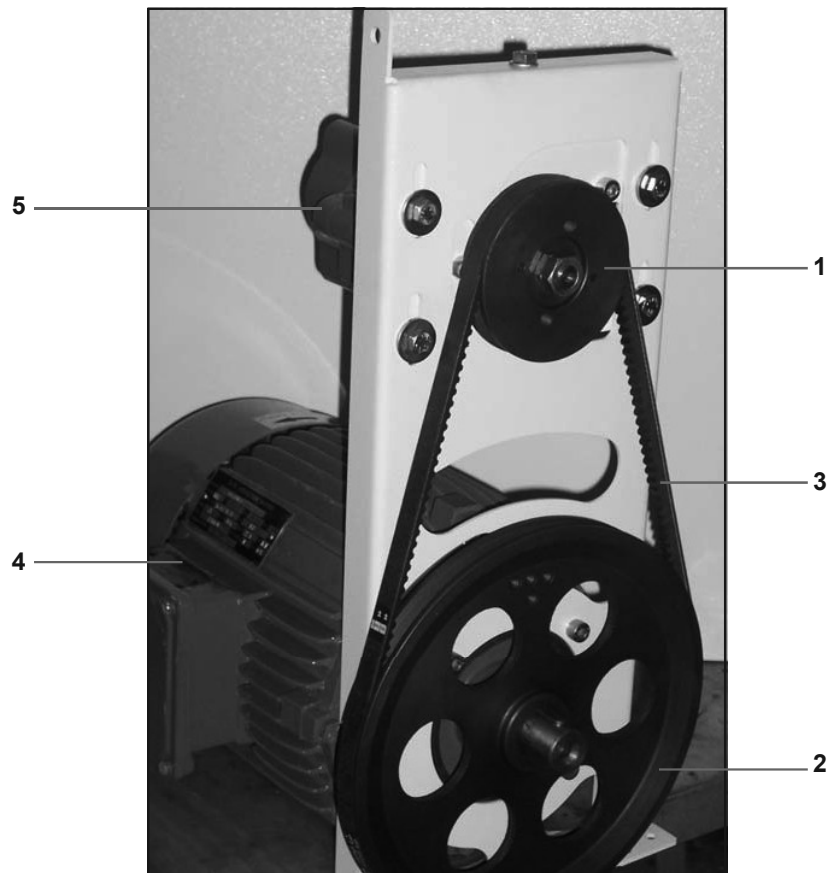


**Air receiver and Canopy**

Ref.	Part number	Qty.	Description	Ref.	Part number	Qty.	Description
1	9095 3195 51	1	Air receiver	5	1089 0642 03	1	Hour meter
2	4102 0002 69	1	Air dryer	6	0686 3716 29	1	Receiver plug
3	1619 5268 00	1	Pressure gauge	7	1503 2531 00	1	Drain valve
4	9095 0373 55	1	Canopy kit, CPM 3 & 4		2202 7420 00	1	Temperature switch
	9095 0373 56	1	Canopy kit, CPM 5 & 7				



Drive arrangement

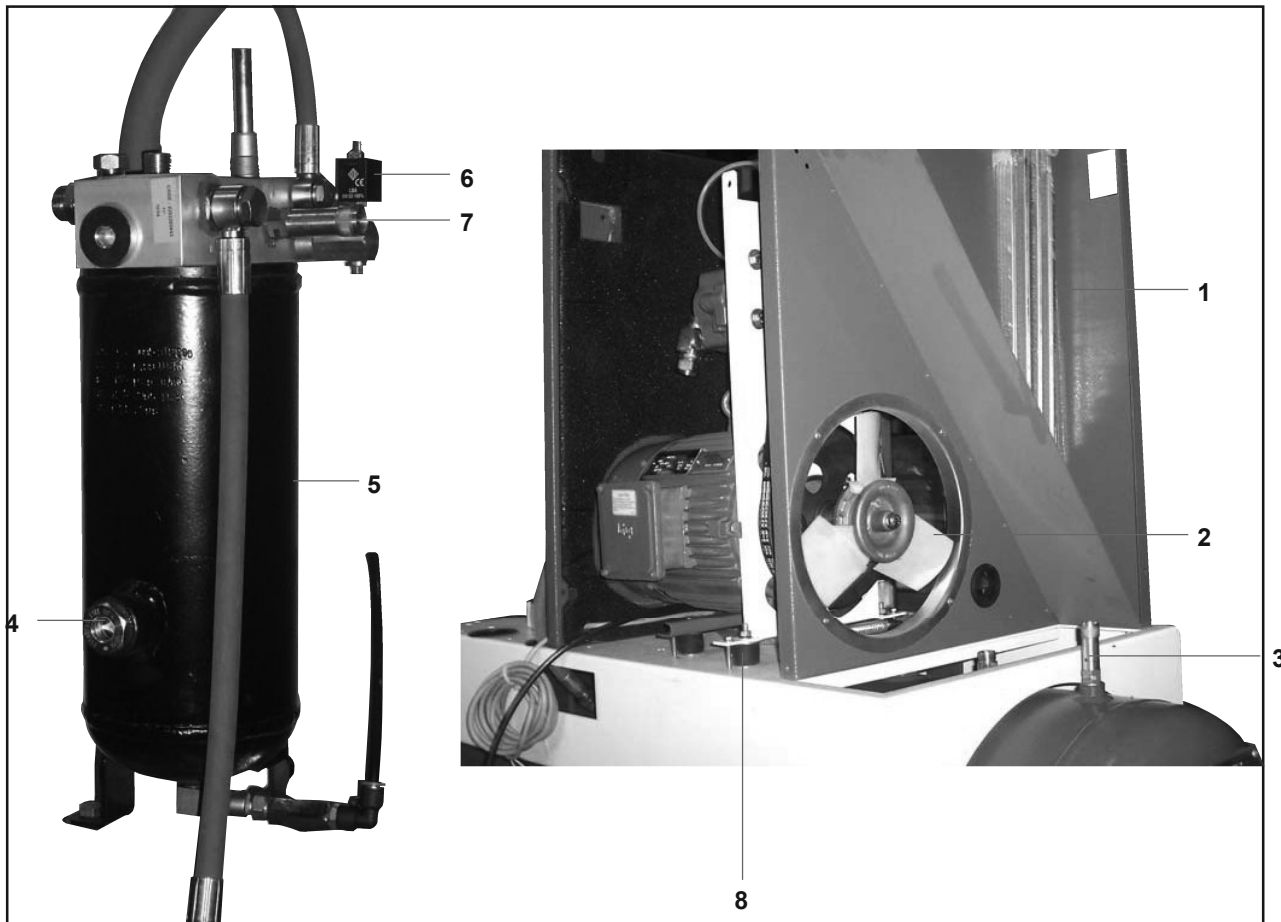


**Drive arrangement**

Ref.	Part number	Qty.	Description	Ref.	Part number	Qty.	Description
1	9095 3211 52	1	Element pulley, CPM 3	3	2200 6605 37	1	V-Belt, CPM 3
	9095 3211 51	1	Element pulley, CPM 4, 5, 7		2200 6605 36	1	V-Belt, CPM 4
2	9095 3211 31	1	Motor pulley, CPM 3, 4		2200 6605 38	1	V-Belt, CPM 5
	9095 3211 21	1	Motor pulley, CPM 5		2200 6605 39	1	V-Belt, CPM 7
	9095 3211 00	1	Motor pulley, CPM, CPM 7	4	9095 3172 00	1	Motor, CPM 3
					9095 3173 00	1	Motor, CPM 4
					9095 3174 00	1	Motor, CPM 5
					9095 3175 00	1	Motor, CPM 7
				5	1616 7103 90	1	Screw element



Fan, Cooler and Air-Oil Receiver





Fan, Cooler and Air-Oil Receiver

Ref.	Part number	Qty.	Description	Ref.	Part number	Qty.	Description
1	2202 2608 31	1	Oil cooler, CPM 3	3	2200 9507 74	1	Safety valve
	2202 2608 32	1	Oil cooler, CPM 4	4	2200 7599 10	1	Oil sight glass
	2202 2608 33	1	Oil cooler, CPM 5	-	0653 1162 00	1	Copper washer for sight glass
	2202 2608 34	1	Oil cooler, CPM 7	5	9095 3199 00	1	Oil Tank
2	2200 9005 28	1	Fan, CPM 3	6	2200 5997 70	1	Solenoid valve
	2200 9005 29	1	Fan, CPM 4 & 5	7	2202 9507 74	1	Safety valve
	2200 9005 31	1	Fan, CPM 7	8	0392 1100 15	5	Buffer



Filters and Hoses



**Filters and Hoses**

Ref.	Part number	Qty.	Description	Ref.	Part number	Qty.	Description
1	1513 0337 01	1	Oil filter element	7	9096 8012 00	1	Hose (block to scavenging)
2	2903 0623 01	1	Oil separator element	8	2202 2608 38	1	Hose (Element to receiver)
3	1622 0657 00	1	Air filter complete		9095 3209 00	1	Hose (Receiver to Dryer)
4	1622 0658 00	1	Air filter element		9095 0360 29	1	Kit Flexible hoses
5	2202 2609 43	1	Metalic scavenging pipe		2202 2609 51	1	Unloader Valve
6	2202 2608 35	1	Thermostat block				



Filters and Hoses



Ref.	Part number	Qty.	Description
1	1513 0337 01	1	Oil filter element
2	1622 0623 01	1	Oil separator element
3	9095 3205 00	1	Block to Oil cooler
4	9095 3203 00	1	Oil cooler to block
5	2200 9507 74	1	Safety valve

Ref.	Part number	Qty.	Description
6	9095 3171 02	1	Control panel, CPM 3
	9095 3171 03	1	Control panel, CPM 4
	9095 3171 04	1	Control panel, CPM 5
	9095 3171 22	1	Control panel, CPM 7
7	9095 1835 00	1	Pressure switch

SAFETY PRECAUTIONS (CONTINUED)

pressure shall be protected by a pressure-relieving device or devices as required.

13. Pipework or other parts with a temperature in excess of 80 degrees celsius and which may be accidentally touched by personnel in normal operation shall be guarded or insulated. Other high-temperature pipework shall be clearly marked.
14. If the ground is not level or can be subject to variable inclination, consult Chicago Pneumatic.
15. The electrical connections shall correspond to the local codes. The units shall be grounded and protected against short circuits by fuses.

Operation

1. Air hoses shall be of correct size and suitable for the working pressure. Never use frayed, damaged or deteriorated hoses. Use only the correct type and size of hose and fittings and connections. When blowing through a hose or air line, ensure that the open end is held securely. A free end will whip and may cause injury. Make sure that a hose is fully depressurized before disconnecting it.
Never play with compressed air. Do not apply it to your skin or direct an air stream at people. Never use it to clean dirt from your clothes. When using it to clean equipment, do so with extreme caution and use eye protection.
2. The compressor is not considered as capable of producing air of breathing quality. For breathing air quality, the compressed air must be adequately purified according to local legislation and standards.
3. Never operate the unit when there is a possibility of taking in flammable or toxic fumes.
4. Never operate the unit at pressures below or in excess of its limit ratings as indicated on the Principal Data sheet.
5. Keep all bodywork doors shut during operation. The doors may be opened for short period only e.g. to carry out checks. Wear ear protectors when opening a door.
6. People staying in environments or rooms where the sound pressure level reaches or exceeds 90 dB (A) shall wear ear protectors.
7. Periodically check that:
 - a. All guards are in place and securely fastened
 - b. All hoses and / or pipes inside the unit are in good condition, secure and not rubbing.
 - c. There are no leaks
 - d. All fasteners are tight
 - e. All electrical leads are secure and in good order.
 - f. Safety valves and other pressure - relief devices are not obstructed by dirt or paint.
 - g. Air outlet valve and air net, i.e. pipes, couplings, manifolds, valves, hoses, etc. are in good repair, free of water or abuse.
8. If warm cooling air from compressors is used in air heating systems e.g. to warm up a workroom, take precautions against air pollution and possible contamination of the breathing air.
9. Do not remove any of, or tamper with, the sound - damping material.

Maintenance

Maintenance and repair work shall only be carried out under supervision of someone qualified for the job.

1. Use only the correct tools for maintenance and repair work.
2. Use only genuine spare parts.
3. All maintenance work, other than routine attention, shall only be undertaken when the unit is stopped, the main power supply is switched off and the machine has cooled down. Take positive precaution to ensure that the unit cannot be started inadvertently. In addition, a warning sign bearing a

legend such as "work in progress; do not start" shall be attached to the starting equipment.

4. Before removing any pressurized component, effectively isolate the unit from all sources of pressure and relieve the entire system of pressure.
5. Never use flammable solvents or carbon tetrachloride for cleaning parts. Take safety precautions against toxic vapours of cleaning liquids.
6. Scrupulously observe cleanlines during maintenance and repair. Keep dirt away by covering the parts and exposed openings with a clean cloth, paper or tape.
7. Never weld or perform any operation involving heat near the oil system. Oil tanks must be completely purged. e.g. by steam-cleaning, before carrying out such operations.

Never weld on, or in any way modify, pressure vessels.

Whenever there is an indication or any suspicion that an internal part of a machine is overheated, the machine shall be stopped but no inspection covers shall be opened before sufficient cooling time has elapsed; this to avoid the risk of spontaneous ignition of the oil vapour when air is admitted.

Never use a light source with open flame for inspecting the interior of machine, pressure vessel, etc.

8. Make sure that no tools, loose parts or rags are left in or on the unit.
9. Before cleaning the unit for use after maintenance or overhaul, check that operating pressures, temperature and time settings are correct and that the control and shut-down devices function correctly. If removed, check that the coupling guard of the compressor drive shaft has been reinstalled.
10. Every time the separator element is renewed, examine the discharge pipe and the inside of the oil separator vessel for carbon deposits; if excessive, the deposits should be removed.
11. Protect the motor, air filter, electrical and regulating components, etc. to prevent moisture from entering them e.g. when steam-cleaning.
12. Make sure that all sound-damping material, e.g. on the bodywork and in the air inlet and outlet systems of the compressor, is in good condition. If damaged, replace it by genuine CP material to prevent the sound pressure level from increasing.
13. Never use caustic solvents which can damage materials of the air net, e.g. polycarbonate bowls.
14. The following safety precautions are stressed when handling refrigerant:
 - a. Never inhale refrigerant vapours. Check that the working area is adequately ventilated; if required, use breathing protection.
 - b. Always wear special gloves. In case of refrigerant contact with the skin, rinse the skin with water. If liquid refrigerant contacts the skin through clothing, never tear off or remove the latter; flush abundantly with fresh water over seek medical until all refrigerant is flushed away; then seek medical first aid.
 - c. Always wear safety glasses.
15. protect hands to avoid injury from hot machine parts, e.g. during draining of oil.

Note : With stationery machine units driven by an internal combustion engine, allowance has to be made for extra safety precautions, e.g. spark arrestors, fuelling care, etc. Consult Chicago Pneumatic.

All responsibility for any damage or injury resulting from neglecting these precautions, or by non-observance of ordinary caution and due care required in handling, operating, maintenance or repair, even if not expressly mentioned in this book, will be disclaimed by Chicago Pneumatic.



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