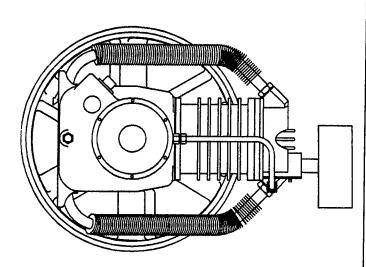


OPERATION/MAINTENANCE **MANUAL & PARTS LIST**

MODELS RV15A & RV30A TWO STAGE/RV LINE AIR COMPRESSORS & UNITS

WARNING

READ, UNDERSTAND AND RETAIN ALL INSTRUCTIONS BEFORE OPERATING THIS EQUIPMENT THIS MANUAL CONTAINS IMPORTANT SAFETY INFORMATION AND MUST BE AVAILABLE TO THOSE PERSONNEL OPERATING THIS EQUIPMENT. TO PREVENT INJURY OR EQUIPMENT DAMAGE.



MODEL RV-15A COMPRESSOR PUMP SHOWN



PNEUMATIC MACHINERY CO., INC.

1301 N. Euclid Ave. · Princeton, Illinois 61356-9990 · Phone (815) 875-3321 · FAX (815) 872-0421

Manufacturing Plants in Princeton, Illinois · Manteca, California

COMPLETE NATION-WIDE ORGANIZATION OF CHAMPION REPRESENTATIVES AT YOUR SERVICE

AN EQUAL OPPORTUNITY EMPLOYER

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FOR PARTS: REFER TO PARTS DEPOT LIST ACCOMPANYING THIS MANUAL.

SAFETY AND OPERATION PRECAUTIONS



Because an air compressor is a piece of machinery with moving and rotating parts, the same precautions should be observed as with any piece of machinery of this type where carelessness in operation or maintenance is hazardous additional safety precautions as listed below must be observed: to personnel. In addition to the many obvious safety rules that should be followed with this type of machinery, the

- i> ∵ Read all instructions completely before operating air compressor or unit
- the Occupational Safety and Health Act (OSHA) For installation, follow all local electrical and safety codes, as well as the National Electrical Code (NEC) and
- ယ grounded, metal-clad raceway system, by using a separate ground wire connected to the bare metal of the motor frame, or other suitable means. Electric motors must be securely and adequately grounded. This can be accomplished by wiring with a
- 4 Protect the power cable from coming in contact with sharp objects. Do not kink power cable and never allow the cable to come in contact with oil, grease, hot surfaces, or chemicals.
- တ္ပ Make certain that the power source conforms to the requirements of your equipment.
- to work or perform maintenance on the air compressor or unit. "Tag out" or "lock out" all power sources. Pull main electrical disconnect switch and disconnect any separate control lines, if used, before attempting
- ∞ .7 Do not attempt to remove any compressor parts without first relieving the entire system of pressure.
- Do not attempt to service any part while machine is in an operational mode.
- Do not operate the compressor at pressures in excess of its rating.
- - 5 Do not operate compressor at speeds in excess of its rating.
- in any way. Periodically check all safety devices for proper operation. Do not change pressure setting or restrict operation
- ₩ ₩ Be sure no tools, or rags or loose parts are left on the compressor or drive parts
- Do not use flammable solvents for cleaning the air inlet filter or element and other parts.
- 4 parts and exposed openings with clean cloth or Kraft paper. Exercise cleanliness during maintenance and when making repairs. Keep dirt away from parts by covering
- 5.5 Do not operate the compressor without guards, shields and screens in place.
- is installed in the line between the compressor unit and shut-off valve. Do not install a shut-off valve in the discharge line, unless a pressure relief valve, of proper design and size
- 17. Do not operate compressor in areas where there is a possibility of ingesting flammable or toxic fumes
- operate at higher temperatures. injury. With modern motors this condition is normal if operated at rated load - modern motors are built to Be careful when touching the exterior of a recently run motor - it may be hot enough to be painful or cause
- 50 Inspect unit daily to observe and correct any unsafe operating conditions found
- 22.2 Do not "play around" with compressed air because this can cause injuries.
- adequate downstream filters, purifiers and controls. Compressed air from this machine absolutely must not be used for food processing or breathing air without
- 22 Always use an air pressure regulating device at the point of use
- 23 Check hoses for weak or worn condition before each use and make certain that all connections are secure
- Always wear safety glasses when using compressed air gun.

will prevent all injuries or equipment damage. that the preceding list of Safety and Operating Precautions is all inclusive, and further that the observance of this list damage. However, Champion Pneumatic Machinery Company, Inc., does not state as fact or does not mean to imply warned that failure to follow the preceding Safety and Operation Precautions can result in injuries or equipment The user of any air compressor package manufactured by Champion Pneumatic Machinery Company, Inc., is hereby

EXPLANATION OF SAFETY INSTRUCTION SYMBOLS AND DECALS



Indicates immediate hazards which will result in severe injury or death.



Indicates hazards or unsafe practice which could result in severe injury or death.



Indicates hazards or unsafe practice which could result in damage to the Champion compressor or minor injury.

OBSERVE, UNDERSTAND AND RETAIN THE INFORMATION GIVEN IN THE SAFETY PRECAUTION DECALS AS SHOWN IN THE PARTS LIST SECTION.

ADANGER

the use of this compressor to supply breathing air will be disclaimed by the manufacturer. This reciprocating compressor must not be used for breathing air. To do so will cause serious injury whether air is supplied direct from the compressor source or to breathing tanks for later use. Any and all liabilities for damage or loss due to injuries, death and/or property damage including consequential damages stemming from



non-approved and can result in equipment damage and/or injury. Non-approved uses will also void the warranty. The use of this compressor as a booster pump and/or to compress a medium other than atmospheric air is strictly



understand and retain all information sent with special options This unit may be equipped with special options which may not be included in this manual. User must read

Introduction



workmanship. Your new Champion Reciprocating Air Compressor is constructed to exacting standards of material and

satisfactory service. The instructions in this manual have been prepared to ensure that The CHAMPION will give long and

air compressor or unit. A copy of this manual must be given to the personnel responsible for installing and operating The CHAMPION

unit must be carefully examined and the carrier notified within 24 hours in the event of mishandling Although precautions have been taken to prevent damage to your compressor or unit by freight carrier, the

serial number and be directed to: All requests for information, service, spare parts or Maintenance Manual replacement should include machine

CHAMPION PNEUMATIC MACHINERY CO., INC.

Service Department

1301 N. Euclid Avenue

Phone: Princeton, Illinois 61356 (815) 875-3321 ASU

(815) 872-0421

EXPRESS LIMITED WARRANTY

workmanship under normal use and service of a period of twenty-four (24) months from date of installation or thirty (30) months from date of shipment by **CHAMPION** or **CHAMPION** distributor, whichever may occur first. CHAMPION warrants each new piece of equipment manufactured by CHAMPION to be free from defects in material and

CHAMPION makes no warranty in respect to components and accessories furnished to CHAMPION by third parties, such as ELECTRIC MOTORS, GASOLINE ENGINES and CONTROLS, which are warranted only to the extent of the original overload protection. manufacturer's warranty to CHAMPION. To have warranty consideration, electric motors must be equipped with thermal

warranted for only the remainder of the original warranty period. When a compressor pump, or component is changed or replaced during the warranty period, the newly replaced item is

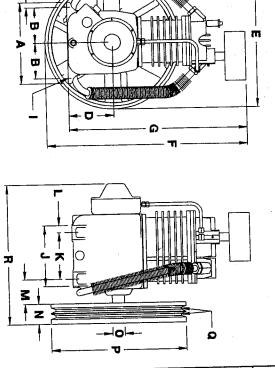
Repair, replacement or refund in the manner and within the time provided shall constitute **CHAMPION'S** sole liability and your exclusive remedy resulting from any nonconformity or defect. **CHAMPION** SHALL NOT IN ANY EVENT BE LIABLE FOR ANY DAMAGES, WHETHER BASED ON CONTRACT, WARRANTY, NEGLIGENCE, STRICT LIABILITY OR OTHERWISE, INCLUDING WITHOUT LIMITATION ANY CONSEQUENTIAL INCIDENTAL OR SPECIAL DAMAGES, ARISING WITH RESPECT TO THE EQUIPMENT OR ITS FAILURE TO OPERATE EVEN IF **CHAMPION** HAS BEEN ADVISED OF THE POSSIBILITY THEREOF.

CHAMPION MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND, EXCEPT THAT OF TITLE, AND ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY EXPRESSLY DISCLAIMED. NO SALESMAN OR OTHER REPRESENTATIVE OF CHAMPION HAS AUTHORITY TO MAKE ANY WARRANTIES



TWO STAGE AIR COMPRESSORS - MODELS RV-15A

DIMENSIONS



Rotation of Flywheel: Clockwise when viewed from front end, flywheel to rear.

		_
7/1-1/2	Overall Depth	IJ
5	LIAMITEC CIOOACO	c
2VB	Flankasi Crosvos	
16-1/2	Flywheel Diameter	ט
-5/10	Crank Diameter	0
1 1 1 1 1	Flywneel widill	z
25.50	The second second	: :
c.	Bolt Hole to Wheel (Max.)	<u> </u>
//0	Bolt Down to Edge	_
20-014	Bolt Down Depth	~
n -	Base-Depin	ے
7-10	7 7	
15/32	Bolt Down Hole Dia.	_
2	Base to Top	ດ
24-1/2	Overall Height	ח
2 7	Overall Width	L
16.13	Dayo to Claim o	
5-1/2	Base to Crank CTR	י כ
5/8	Bolt Down to Edge	ဂ
4-3/8	Bolt Down-Width	œ
5	DQSQ-AAIDUI	>
10	Baca Width	>
RV15A	TEM	
RV15A 10 4-3/8	Base-Width Rolt Down-Width	

NOTE: H.P. Exhaust Opening 3/4" Tubing

PUMP SPECIFICATIONS

175 PSIG	124	2 QT.	.02914	2	4-5/8 & 2-1/2 X 3	RV-15A
					00:10	FUNIT
MAX. PHESS	WT. LBS.	OIL CAPY.	CU.FT./REV.	NO. CYLS.	BORE & STROKE	

PERFORMANCE DATA FOR RV-15A COMPRESSOR

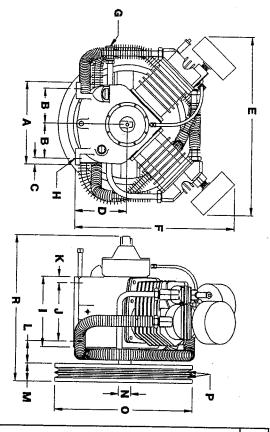
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	16,800	1195	1035	30.2	175	7 15	
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	12,000	895	775)) B	175	* 7	
					-/-	c	_
4.33	6/00	530	460	13.4	175	0	
					- 00	חר	_
Motor Pulley OD-Inches	Heat Rejection BTU/Hr	Cooling Air Flow CFM	Pump	Displ	Press	Motor	

MIN RPM 400 MAX RPM 1050

All data is based on 1800 RPM electric motors as a power source, unless noted.

* 1 Ph, 3450 RPM motor uses 3.75" OD motor pulley.

MODEL RV-30A COMPRESSOR PUMP DIMENSIONS



	ITEM	RV-30A
➤	Base-Width	11-1/8
œ	Bolt Down-Width	4-13/16
ဂ	Bolt Down to Edge	3/4
0	Base to Crank Ctr	7
т	Overall Width	25
т	Overall Height	24-7/8
ດ	HP Exhaust at Opening	3/4 NPT
I	Bolt Down Hole Dia.	17/32
_	Base-Depth	9-3/4
د	Bolt Down Depth	8-1/16
~	Bolt Down to Edge	27/32
-	Bolt Hole to Wheel (Max.)	3-1/4
K	Flywheel Width	2-23/32
Z	Crank Diameter	1-3/4
0	Flywheel Diameter	18-7/8
ס	Flywheel Grooves	2VB
æ	Overall Depth	21-1/2

Flywheel Rotation; Clockwise When Viewed From Front - Flywheel To Rear

PUMP SPECIFICATIONS

RV30A	PUMP
4 5/8 (2) & 2½ (2) x 3	BORE & STROKE
4	NO. CYLS.
.0583	CU. FT./REV.
4 QT.	OIL CAPY.
233	WT. LBS.
175 PSIG	MAX. PRESS.

PERFORMANCE DATA FOR RV-30A COMPRESSOR

	
15 15	MOTOR HP
175 175 175	PRESS. PSIG
33.52 43.13 60.62	DISPL. CFM
575 740 1040	PUMP RPM
840 1080 1515	COOLING AIR FLOW CFM
16,800 22,400 33,600	HEAT REJECTION BTU/HR
6.2 - 2VB 8.15 - 2VB 11.35 - 2VB	MOTOR PULLEY OD-INCHES

All data is based on 1800 RPM electric motors as a power source.

Min. RPM 400 Max. RPM 1050

TO DETERMINE PULLEY SIZE: Select a compressor which will deliver the required CFM at the desired pressure. Note the speed (RPM) compressor must run at to meet above requirements and the flywheel diameter of compressor. Determine RPM, shaft and keyway size of motor or engine. To determine pulley diameter, use this formula:

Pulley Dia. (approx.) - Pump RPM x Flywheel Dia.

Motor or Engine RPM

SPECIFICATIONS

ELECTRIC WIRING (BASED ON 1993 NEC)
Copper Conductor - 75°C Temp. Rating - 30°C Ambient
Wire Size (Rubber Covered) - AWG NO.

SINGLE PHASE

THREE PHASE

PIPE SIZES FOR COMPRESSED AIR LINES (Based on Clean, Smooth Schedule 40 Pipe)

		=	LENGTH OF PIPE LINE IN FEET	PE LINE P	FEET			
	25	50	75	100	150	200	250	300
PUMP MODEL								
RV15A	3/4	3/4	3%	3%	3/4	1	_	
RV30A	3/4		-	-	1	11/4	11/4	11/4
111001	:							



Never use plastic pipe or improperly rated metal pipe. Improper piping materials can burst and cause injury or property damage.



INSTALLATION

- Permanently installed compressors must be located in a clean, well ventilated dry room so compressor receives adequate supply of fresh, clean, cool and dry air. It is recommended that a compressor, used for painting, be located in a separate room from that area wherein body sanding and painting is done. Abrasive particles or paint, found to have clogged the air intake filters and intake valves, shall automatically void warranty.
- Compressors should never be located so close to a wall or other obstruction that flow of air through the fan bladed flywheel, which cools the compressor, is impeded. Permanently mounted units should have flywheel at least 12" from wall.

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Place stationary compressors on firm level ground or flooring. Permanent installations seldom require bolting to floor, however, bolt holes in tank or base feet are provided. Before bolting or lagging down, shim compressor level. Avoid putting a stress on a tank foot by pulling it down to floor. This will only result in abnormal vibration, and possible cracking of Air Receiver. As an alternative, install unit on optional vibroisolator pads. Tanks bolted directly to a concrete floor without padding will not be warranted against cracking.

If installing a bare pump, make certain the system has adequate pressure limiting controls. Controls could be a pressure switch for start/stop operation or a Mark II pilot valve for continuous operation.

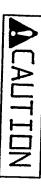
4.

ADANGER

Do not install isolating valves between compressor outlet and air receiver. This will cause excessive pressure if valve is closed and cause injury and equipment damage.



Always use an air pressure regulating device at the point of use. Failure to do so can result in injury or equipment damage.



- Do not install in an area where ambient temperature is below 32 degrees F or above 100 degrees F.
- Do not install unit in an area where air is dirty and/or chemical laden.
- Unit is not to be installed outdoors

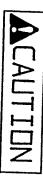
ELECTRICAL POWER SUPPLY

It is essential that the power supply and the supply wiring are adequately sized and that the voltage correspond to the unit specifications.

All wiring should be performed by a licensed electrician or electrical contractor. Wiring must meet applicable codes for area of installation.

Hecommended electrical wiring specifications are listed in "Specifications" section.

If ordered with a mounted starter, compressor unit is pre-wired at factory. It is necessary only to bring lines from properly sized disconnect switch to magnetic starter mounted on compressor, and attach to terminals as indicated on schematic diagram located inside cover of control. Be sure that power circuit and voltage correspond with the specifications.



Wiring must be such that when viewing compressor from opposite shaft end, rotation of shaft is clockwise as shown by arrow on guard. Wrong direction rotation for any length of time will result in damage to compressor.

AIR LINE PIPING

Connection to air system should be of the same size, or larger, than discharge pipe out of unit. See recommended piping sizes in "Specifications" section. A union connection to the unit and water drop leg is recommended. Install a flexible connector between the discharge of the unit and the plant air piping. Plant air piping should be periodically inspected for leaks using a soap and water solution for detection on all pipe joints. Air leaks waste energy and are expensive.

PREPARATION FOR INITIAL START-UP AND OPERATION

Pull main disconnect switch to unit to assure that no power is coming into the unit "Tagout" switch. Connect power leads to starter.



Do not attempt to operate compressor on voltage other than that specified on order or on compressor motor.

- Check compressor oil level. Add oil as required. See section on "Oil Specifications".
- Inspect unit for any visible signs of damage that would have occurred in shipment or during installation.

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Activate main disconnect switch.

4.10

"Jog" motor and check for proper rotation by direction arrow. If rotation is wrong, reverse input connections on the magnetic starter.



PREPARATION FOR INITIAL START-UP (CONT'D)

- Close receiver outlet hand valve and start unit.
- رم ب pump up to operating pressure. At this stage the With receiver hand valve closed, let machine proper cycling operation. automatic controls will take over. Check for
- œ Check for proper operation of any options, e.g. LOSC. Refer to individual option instruction sheet
- ထ operating problems, shut unit down and recheck oil level. When the initial run period has shown no
- 5 Open receiver hand valve. unit is now ready for use. The air compressor

GUIDE TO MAINTENANCE

maintenance schedule form is included to aid in keeping the To obtain reliable and satisfactory service, this unit requires consistent preventive maintenance schedule.



sure all air pressure in unit is relieved. Failure switch main disconnect switch position to assure no power is entering unit. to do this may result in injury or equipment Lock out or tag out all sources of power. Before performing any maintenance function. ಕ

DAILY MAINTENANCE

- -required. See Section on "Oil Specifications" if so equipped. Add quality lubricating oil Check oil level of both compressor and engine
- Ņ valve if tank pressure exceeds 25 PSIG. cock located in bottom of tank. Do not open drain Drain moisture from tank by opening tank drain
- ယ operation. Turn off power supply at wall switch. Turn off compressor at the end of each day's

WEEKLY MAINTENANCE

- head, motor, fan blade, air lines, intercooler and Clean dust and foreign matter from cylinder
- Remove and clean intake air filters

N



skin. Serious injury could result. Never wash cleaning element parts with compressed air. Do not exceed 15 PSIG nozzle pressure when elements in fuel oil, gasoline or flammable Do not direct compressed air against human

> to the compressor. Adjust the V-belts as follows: be tight enough to transmit the necessary power Check V-belts for tightness. The V-belts must

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drive. Remove bolts and guard to access compressor

desired position. to base. Slide motor within slots of baseplate to Loosen mounting hardware which secures motor

if necessary. bottom of adjacent belt. Make further adjustments span. Tension is correct if top of belt aligns with Apply pressure with finger to one belt at midpoint

necessary. Check the alignment of pulleys. Adjust if

Tighten mounting hardware to secure motor on

Re-install guard and secure with bolts



cause injury or equipment damage Never operate unit without belt guard in place. Removal will expose rotating parts which can

MAINTENANCE EVERY 90 DAYS OR 500 HOURS

- Change crankcase oil. Use type and grade oil as specified in the section on "Compressor Oil Specifications".
- Ы fittings, connections, and gaskets, using soap Check entire system for air leakage around solution and brush.
- ω 4. Tighten nuts and capscrews as required.
- required. Replace worn or damaged parts Check and clean compressor valve plates as



Valve plates must be replaced in original replaced each time valves are serviced. positions. Valve plate gaskets should

proper operation. Pull ring on all pressure relief valves to assure

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GENERAL MAINTENANCE NOTES

ELECTRIC MOTOR: For service refer to separate manual or chart attached to equipment.

PRESSURE RELIEF VALVE: The pressure relief valve is an automatic pop valve. Each valve is properly adjusted for the maximum pressure permitted by tank specifications and working pressure of the unit on which it is installed. If it should pop, it will be necessary to drain all the air out of the tank in order to reseat properly. Do not readjust.

TANK DRAIN VALVE: Drain valve is located at bottom of tank. Open drain valve daily to drain condensation. Do not open drain valve if tank pressure exceeds 25 PSIG. The automatic tank drain equipped compressor requires draining manually once a week.

PRESSURE SWITCH: The pressure switch is automatic and will start compressor at the low pressure and stop when the maximum pressure is reached. It is adjusted to start and stop compressor at the proper pressure for the unit on which it is installed. Do not readjust.

BELTS: Drive belts must be kept tight enough to prevent slipping. If belts slip or squeak, see V-belt maintenance in preceding section.



If belts are too tight, overload will be put on motor and motor bearings.

COMPRESSOR VALVES: If compressor fails to pump air or seems slow in filling up tank, disconnect unit from power source and remove valve plates and clean thoroughly, using compressed air. After cleaning exceptional care must be taken that all parts are replaced in exactly the same position and all joints must be tight or the compressor will not function properly. When all valves are replaced and connections tight, close receiver outlet valve for final test. Valve plate gaskets should be replaced each time valve sets are removed from pump.

CHECK VALVE: The check valve closes when the compressor stops operating, preventing air from flowing out of the tank through the pressure release valve. After the compressor stops operating, if air continues to escape through the unloader release valve, it is an indication that the check valve is leaking. This can be corrected by removing check valve and cleaning disc and seat. If check valve is worm badly, replace same.



Before removing check valve be sure all air pressure in unit is released and power is disconnected. Fallure to do so may result in injury or equipment damage.

THE INTERSTAGE PRESSURE RELIEF VALVE is provided to protect against interstage over pressure and is factory set for maximum pressure of 75 PSIG.

DO NOT RESET

If the pressure relief valve pops, it indicates trouble. Shut down the unit immediately and determine and correct the malfunction. Inspect the head valves. Serious damage can result if not corrected and can lead to complete destruction of the unit. Tampering with the interstage pressure relief valve, or plugging the opening destroys the protection provided and voids all warranty.

LUBRICATION OF COMPRESSOR: Fill crankcase to

BHICATION OF COMPRESSOR: Fill crankcase to proper level as indicated by oil sight gauge. Keep crankcase filled as required by usage.

COMPRESSOR OIL SPECIFICATIONS

AIR COMPRESSOR

Compressors shipped on units are factory filled with ISO 100 recip oil.

Compressors shipped as basic (pump only) do not have any oil in the crankcase. Be sure to add oil to these pumps prior to start-up.

It is recommended that this compressor be maintained using the ISO 100 recip oil for ambient temperatures above 32 degrees F. This is a 30 weight, non-detergent industrial oil with rust and oxidation inhibitors specially formulated for reciprocating compressors. Contact your distributor for information and purchase of this oil. For temperatures below 32 degrees F, use an ISO 68 compressor oil. A separate list of acceptable oils can be obtained from the service department.

NOTES:

Do not mix oil types, weights, or brands.
 Consult factory for the use of synthetic lubricants.
 For the first 100 hours of compressor operation, a careful and regular check of the oil level should be made. Maintain oil level at the full line.

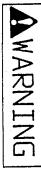
ELECTRIC MOTORS

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Electric motors are equipped with sealed-for-life bearings and require no additional lubrication.

TROUBLE SHOOTING CHART FOR COMPRESSOR





Always disconnect unit from power supply and relieve all pressure from air tank before performing any maintenance. "Lock Out" or "Tag Out" all electric switches. Failure to do so may result in equipment damage or injury.

Never operate compressor without belt guard in place.

Never use gasoline or flammable solvent on or around compressor unit.

I Ω П m D C $\boldsymbol{\varpi}$ ➣ 5 တ G 4 ယ 2 ဖ 8 Compressor Runs Hot **Excessive Belt Wear** Improper Flywheel Rotation Improper "V" Belts Tension Excess Water in Air Receiver Diaphragm in Pressure Switch Points in Pressure Switch POSSIBLE CAUSE OF PROBLEM Compressor Cycles (runs) too Often Interstage Safety Relief Valve Pops Off Continuously Air Escapes From Pressure Switch Unloader Muffler When Stopped Abnormal Pressure Fluctuation Compressor Won't Shut Off Compressor Pumps Too Slowly Belts Misaligned Pipe Line Leaks Check Valve or Line to Tank is Plugged Check Valve is Leaking Compressor Pump Valves SERVICE PROBLEM I Ω П Ш O C $\boldsymbol{\varpi}$ ⋗ ㅎ စ 8 တ G 4 ယ 2

FOR EXPLANATION SEE NEXT PAGE

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Crankcase Oil Level Too Low

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Dirty Intake Filter

EXPLANATION OF TROUBLE SHOOTING CHART

1./2. A pressure switch uses a diaphragm to open and close a set of points. dirty through use. Clean by "touching" up with sandpaper or replace. Points may become pitted or See instructions in pressure



switch. Disconnect unit from power source before checking pressure

ω of horizontal or vertical tank. If compressor is equipped with automatic tank drain, drain manually once be drained daily so that full storage capacity of tank may be used. To drain, open pet cock on bottom Water in the form of vapor is compressed along with incoming air and condenses in tank.



Do not open drain valve if tank pressure exceeds 25 PSIG

4. belt next to it, the tension is correct. Should it be necessary to change the tension, slide the engine or motor in slots provided in tank baseplate to desired position. overload the engine or motor. If, by pushing down on one belt, its top lines up with the bottom of the "V" belts must be tight enough to transmit the necessary power to the compressor; if too tight they will



Always reinstall belt guard after adjusting belts. Disconnect unit from power source before working on belts.

- Ò The fan blade flywheel must rotate in the direction shown by the arrows
- တ and extract valve plates. Clean all valve plates. Reinstall, taking caution that all parts are returned to their original position. Compressor valves may become fouled by carbon or other foreign matter. To service, remove head
- 7 All air lines from compressor to tank and from tank to air operated devices should be tight. A soap solution will show bubbles when put on a leaky joint. At 175 PSIG a 1/32" hole will allow almost 3 cubic feet per minute of air to escape.
- ∞ check valve Before servicing check valve, be sure pressure in tank is ZERO and power is disconnected. Replace
- ထ restricting flow of air and possibly plugging these parts completely. These parts should be cleaned or Badly worn compressor which is pumping oil may deposit carbon within discharge tube and check valve,



Disconnect unit from power source and relieve tank pressure before servicing these components.

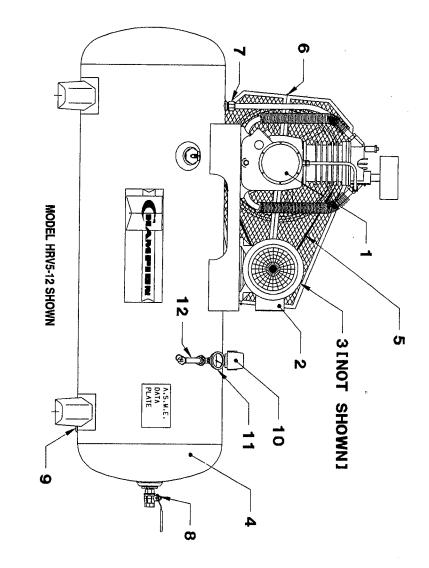
5 in or out by loosening set screw on key and tapping pulley in appropriate direction Motor pulley and flywheel must be in line to prevent wear on sides of belts. If misaligned, move pulley

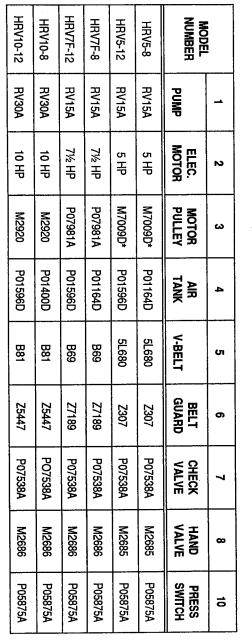


Disconnect unit from power source before adjusting pulley.

- <u>=</u> flammable solvent dusty. Heavily fouled elements should be replaced. Never clean elements with fuel oil, gasoline disassemble filter and remove elements. Element may be blown clean with air nozzle if moderately Intake filter should be cleaned periodically to allow unrestricted flow of entering air. To service filter,
- 72 Cool running and long life can be assured by careful attention to crankcase oil. Check frequently and change as indicated on compressor data sheet.

PARTS LIST MAJOR COMPRESSOR COMPONENTS





PARTS COMMON TO ALL MODELS:

5HP 1 Phase Units with 3450 RPM Motor - use:

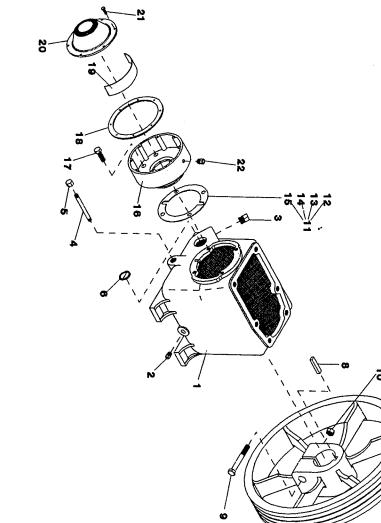
P07784A - Pulley P08136A - Bushing

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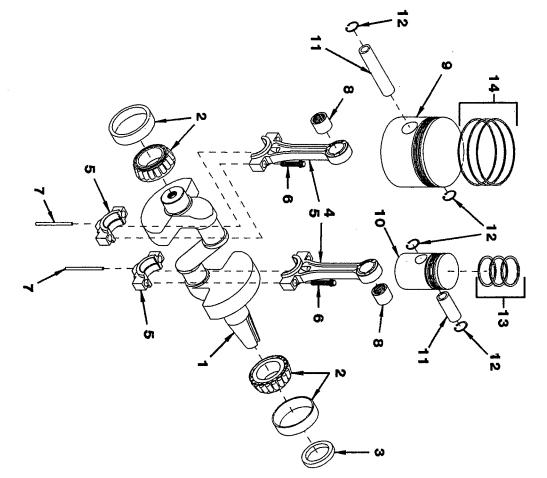
DRAIN COCK
PRESSURE GAUGE
PRESSURE RELIEF VALVE M521 M519C M2843

PARTS LIST RV-15A FLYWHEEL & CRANKCASE



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	83	껃	23	1 9	ᄚ	17	<u></u> 6	55	74	ಪ	ಸ	⇉	ö	9	00	7	<u></u>	O 1	4	ω	N	_	TEM	
Z800	M2864	M2400	P07358C	NR104	SE1489	M472	NR80A	SE1430C	SE1430B	SE1430A	SE1430	Z130	M465	M738	æ	NR7A	RE714	M461	M492	M459	M2326	M1820	PART NO.	
GASKET SET, COMPLETE PUMP	Compression Fitting	Screw, Hex Head	Cover, Governor Housing	Plate, Baffle	Gasket, Governor Cover	Screw, Hex Head	Housing, Governor	Gasket, Gov. Housing (.015" Thick)	Gasket, Gov. Housing (.010" Thick)	Gasket, Gov. Housing (.005" Thick)	Gasket, Gov. Housing (.030" Thick)	GASKET SET, Gov. Housing	Nut, Hex	Screw, Hex Head	Key, Flywheel	Flywheel	Gauge, Oil Level	Cap, Oil Drain	Pipe Nipple, Oil Drain	Pipe Plug, Oil Fill	Pipe Plug	Crankcase	NAME	
		-	œ	_	-	4					_	_	_	_	_	-1		_	_	_	_	_	REQ.	

PARTS LIST RV-15A CRANKSHAFT, PISTON AND CONNECTING ROD ASSEMBLY



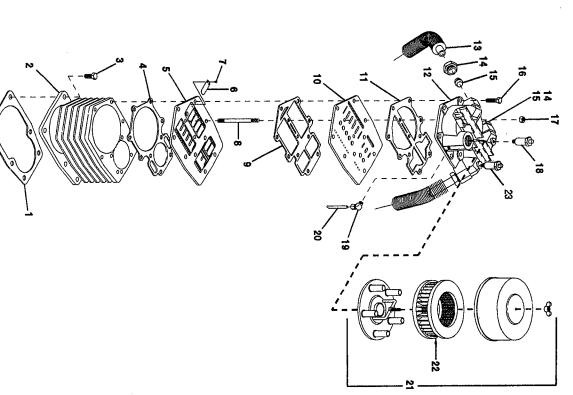
	TEM	PART NO.	NAME	REQ.	ITEM	PART NO.	NAME	REQ.
		R155	Crankshaft	_	9	ZM2091	Piston, Low Pressure w/Pin	
_	N ·	ZNR16	Main Bearing Assy.	N	ಕ	ZM2090	Piston, High Pressure w/Pin	
	ω 	OSN4	Seal, Oil		=	R1021	Pin, Piston	N
	4	Z750	Connecting Rod Assy. (Items 5-8)	2	12	R10102	Ring, Piston Pin Retaining	4
	თ	NSS	Connecting Rod	2	ಪ	Z797	RING SET, H.P. Piston	
	တ	M1583	Bolt, Connecting Rod	4	14	Z798	RING SET, L.P. Piston	_
	7	R1524	Dipper, Oil	2		Z795	KIT, H.P. Piston Assy.	
	∞	R1037	Bearing, Piston Pin	~			(Includes items 10 - 13)	
			•			Z796	KIT, L.P. Piston Assy.	
							(Includes items 9,11,12&14)	
						Z799	(Includes items 13 & 14)	_
		_			=	_		

NOTE: NSS = Not Sold Separately

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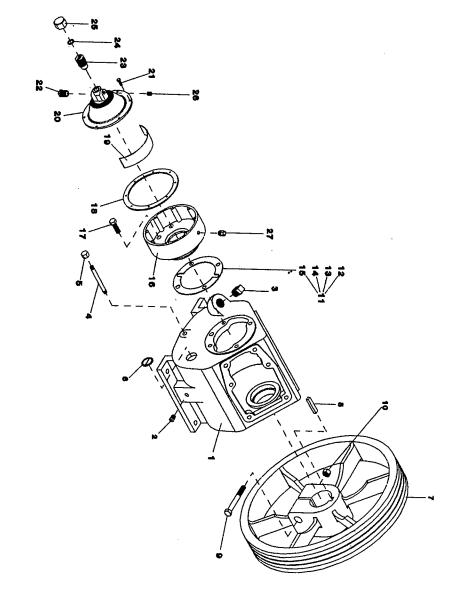


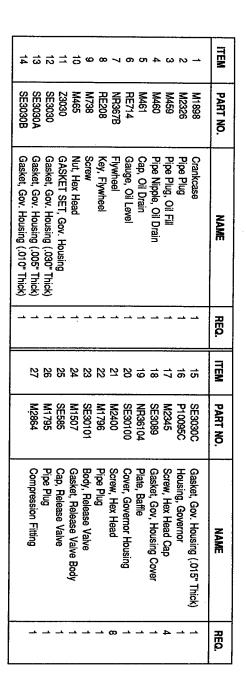
PARTS LIST RV-15A CYLINDER, VALVE AND HEAD ASSEMBLY



ПЕМ	PART NO.	NAME	REQ.	ITEM	PART NO.	NAME	REQ.
 _	NR29A	Gasket, Cylinder Flange	_	ಪ	ZP04472C	Tube, Intercooler	,
 N	M2087	Cylinder		14	SE541	Nut, Compression	ω
ယ	M2597	Screw, Hex Head	တ	5	SE542	Ferrule, Compression	ω
 4	P04421C	Gasket, Upper Cylinder	_	<u>ਛ</u>	M2598	Screw, Hex Head	ဖ
 თ	M2088	Piate, Valve		17	P08295A	Nut, Locking	∾
တ	P07497A	Valve, Reed	4	=	P09704A	Valve, Pressure Relief	
 7	M1565	Screw, Reed Valve	28	6	M2869	Fitting, Compression	
80	P05611A	Stud, Valve Plate	N	8	ZM2150	Tube, Breather	
တ	P04420C	Gasket, Valve Plate		알	P04999A	Filter, Intake	
 5	M2089	Plate, Vaive	_	R	P05050A	Element, Filter	
 ⇉	P04419C	Gasket, Head	_	ß	P03592A	Interstage Pressure Relief Valve	
 20	M2086	Head	_			,	

PARTS LIST RV-30A CRANKCASE & FLYWHEEL

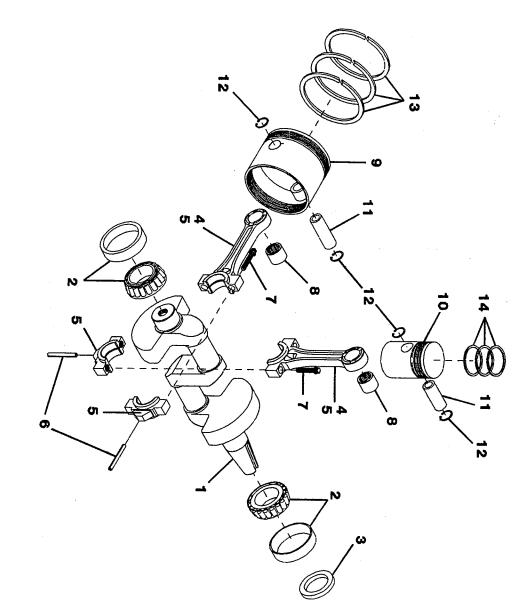








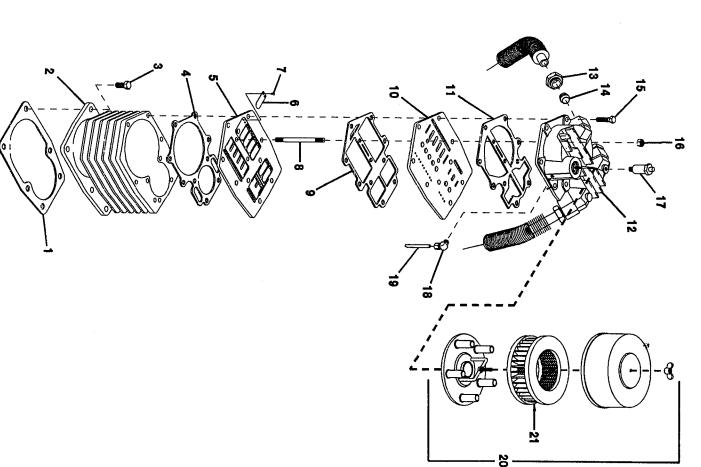
PARTS LIST PARTS LIST RV-30A CRANKSHAFT, PISTONS & CONNECTING ROD ASSY.



	ITEM	PART NO.	NAME	REQ.	ITEM	PART NO.	NAME	REQ.
	_	P10094B	Crankshaft		11	R1021	Pin, Piston	4
	~	ZNR2016	Main Bearing Assy.	N	12	R10102	Ring, Piston Pin Retaining	œ
	ယ	OSN36A	Seal, Oil	_	ಪ	Z798	RING SET, L.P. Piston	N
_	4	Z752	Connecting Rod Assy. (Items 5 - 8)	4	14	Z797	RING SET, H.P. Piston	N
	5	NSS	Connecting Rod	4		Z795	KIT, H.P. Piston Assy.	N
	6	R1024	Dipper, Oil	4			(Includes items 10,11,12 & 14)	
	7	M1583	Bolt, Connecting Rod	œ		Z796	KIT, L.P. Piston Assy.	N
	∞	RE1037	Bearing, Piston Pin	4			(Includes items 9,11,12 & 13)	
	9	ZM2091	Piston, Low Pressure w/Pin	N		Z799	KIT, RING SET	N
	6	ZM2090	Piston, High Pressure w/Pin	N			(Includes items 13 & 14)	

NOTE: NSS = Not Sold Seperately

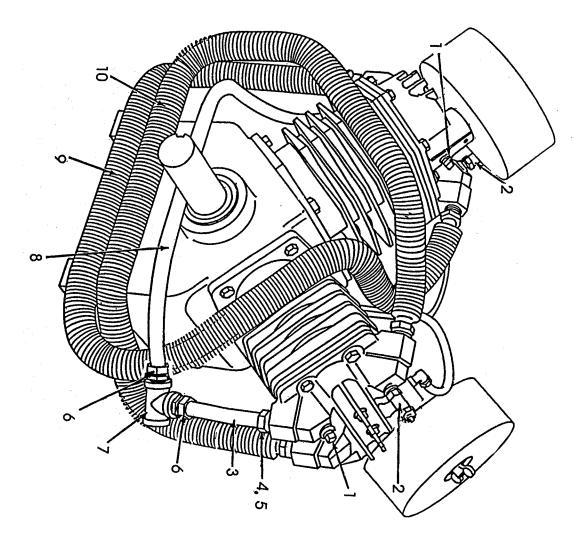
PARTS LIST RV-30A CYLINDER, VALVE AND HEAD ASSEMBLY



ITEM	PART NO.	NAME	REQ.	ITEM	PART NO.	NAME	RE Q.
_	NR29A	Gasket, Cylinder Flange	2	12	M2086	Head	N
N	M2087	Cylinder	N	ಪ	SE541	Nut, Compression	4
ယ	M2597	Screw, Cap, Hex Head	ಸ	7	SE542	Ferrule, Compression	4
4	P04421C	Gasket, Upper Cylinder	N	5	M2598	Screw, Hex Head	18
 თ	M2088	Plate, Valve	N	ಕ	P08295A	Nut, Locking	4
ത	P07497A	Valve, Reed	28	17	P09704A	Valve, Pressure Relief	_
7	M1565	Screw, Reed Valve	85	=	M2869	Fitting, Compression	_
œ	P05611A	Stud, Valve Plate	4	5	ZM2153	Tube, Breather	_
 9	P04420C	Gasket, Valve Plate	N	8	P04999A	Filter, Intake	-
5	M2089	Plate Valve	N	꼬	P05050A	Element, Filter	_
 ⇉	P04419C	Gasket, Head	N				

PARTS LIST RV-30A TUBING, ETC.





TEM	PART NO.	NAME	REQ.	ITEM	PART NO.	NAME	REQ.
-	M2326	Plug, Pipe	2	7	M480	Tee Pipe	_
N	P03592A	Interstane Pressure Relief Value	s	Ö	ZNASTEA	Tubo Atomonales Diale	
,				•	!	יישטר, ייונייניסטיורי, יוושויי	_
ú	ZMZ155	Tube, Aftercooler, Left	_	ဖ	ZP04473D	Tube, Intercooler, Right	_
4	SE-5-41	Nut, Compression	~	5	7P04474D	Tube intermoler Left	-A.
σı	SE-5-42	Ferrule, Compression	\ <u>`</u>				•
თ	M2867	Fitting, Compression	N				

PUMP HAZARD DECAL LISTING

NOTICE

Read, understand, & retain all Labels and Owners Manuals before using this equipment.



e using this equipment. POSTSM

CAUTION, SERVICE FILTER
ELEMENTS WEEKLY
MORE OFTEN IN DUSTY CONDITIONS 41736

4

ROTATION IN DIRECTION OF ARROW MODE AND ARROW MODE ARROW



ITEM	PART NO.	DESCRIPTION
_	P09879A	DECAL - RETAIN LABELS
N	P08586A	DECAL - DANGER, ADEQUATE FILTERING
ω	M442	DECAL - ROTATION DIRECTION
4	M1736	DECAL - SERVICE FILTER
Ŋ	P09852A	TAG - DANGER, VALVE INSTRUCTIONS





RECORD OF MAINTENANCE SERVICE

DAILY CHECK OIL LEVEL DRAIN MOISTURE FROM TANK	LEVEL	NOM TANK				
WEEKLY CLEAN FILTER CLEAN COMPRESSOR CHECK V-BELTS	TER MPRESSO 3ELTS	æ		MONTHLY INSPECT AIR SYSTEM		EVERY 3 MONTHS CHANGE OIL INSPECT VALVE ASSEMBLIES TIGHTEN ALL FASTENERS TEST PRESSURE RELIEF VALVE
	<u> </u>					
			:	:		
	:					
			:		,	

RECORD OF MAINTENANCE SERVICE

• CHECK OIL LEVEL • DRAIN MOISTURE FROM TANK	TANK			
WEEKLY CLEAN FILTER		MONTHLY INSPECT AIR SYSTEM	R SYSTEM	EVERY 3 MONTHS
• CLEAN COMPRESSOR • CHECK V-BELTS				 INSPECT VALVE ASSEMBLIES TIGHTEN ALL FASTENERS TEST PRESSURE RELIEF VALVE
			Addition	
			;	



