



# OWNER'S MANUAL

## Introduction

In order to receive maximum performance and long life from your compressor, the following instructions should be carefully read and all points regarding installation and operation of the unit should be noted and observed. A careful reading of this manual, prior to connecting anything to the motor or compressor, will pay dividends in terms of trouble-free operation.

## INSPECTION

Check for possible damage in transit and see that the pulley turns freely by hand. **Report any damage to delivering carrier at once.**

## LOCATION

Select a clean, dry, and well-lit location. In cold climates, the compressor should be installed in a heated building. Insulate cold water or other low temperature pipes that pass overhead to avoid the possible collection and dripping of condensate onto the compressor and motor that could cause rusting and/or motor shorting. **Do not** install the compressor in a boiler room, paint spray room, or area where sandblasting is carried on. If air in the area where the compressor is to be installed is acid or dust laden, the compressor intake should be piped to the outside. This intake pipe should be increased one pipe size for every twenty (20) feet of run and the *intake filters* should be installed at the end of the pipes with a *hood* to protect them from the elements. **Special size** filters are required for pipe away.

If the compressor has to be located where the motor will be exposed to appreciable quantities of water, oil, dirt, acid, or alkaline fumes, the motor must be of special construction to avoid rapid deterioration; i.e. TEFC.

HGPS0610WL

Unless base is exactly level, shims will probably be required. Any space between base and foot should be shimmed rather than drawing foot down thus placing strain on the unit. When unit is properly shimmed, vibration will be at a minimum.

Allow sufficient space around the compressor so that it is accessible from all sides for maintenance. Mount the unit with pulley side toward the wall, but at least 18 inches from it.

### **AIR INTAKE**

The compressors are equipped with intake filters requiring no piping. If it is necessary to pipe intake to the outdoors, see Paragraph 3, "Location".

### **PIPE CONNECTION**

A flexible connector should be used between compressor tank and building piping or connection to aftercooler or other similar equipment in order to minimize noise, vibration, vibration damage, and wear and tear.

## **Caution**

- A. Never install a shut-off valve, such as a globe or gate valve, between the compressor discharge opening and the receiver unless a safety valve is installed in the line between this valve and the compressor.
- B. Never operate pump at pressures or speeds in excess of those recommended by factory.

### **TANK**

Tank feet should be placed on vibration isolator pads available through your dealer. Anchor bolts should be gently snugged, but not tight, to allow for vibration. Remember, the bolt is only a guide to hold the compressor in place. Do not over tighten the legs of the tank against the pads...it will damage your tank. **CAUTION:** Do not set tank on dirt. Over time, the tank will tilt causing pump failure from no lubrication.

### **STARTING**

- A. Check the oil level before starting.
- B. Turn compressor over a few revolutions by hand to make sure that everything is free.
- C. Check tension of the belts.
- D. Remove tools, rags, and any other objects from the vicinity of the compressor.
- E. Never put hands on the belts of idle units unless main motor switch is off.

- F. Note the direction of the arrow on the flywheel and be sure that the direction of rotation is correct when the machine is started. Correct direction is counter-clockwise when standing facing the flywheel. Air should be drawn through the intercooler onto the cylinders for maximum cooling.

## **Operation and Care**

### **SERVICE**

Oil should be changed within the first 50 hours or 30 days, whichever ever comes first. Use a mobile Rarus 427 available through your dealer or any non-detergent air compressor oil. **WARNING!!**-Under **NO** circumstance should you use AUTOMOTIVE TYPE OIL. REPEAT-**DO NOT USE** AUTOMOTIVE TYPE OIL.

- Oil should be changed every 90 days. Oil level should be at halfway level in sight glass.
- If oil is milky, oil should be changed!
- Inspect air filters weekly and change as needed.

### **Bare Pumps**

1/4" Copper tubing that runs across the cylinder heads will not be hooked up. This is for the continuous run. You must have a pilot valve to utilize the continuous run feature.

### **BELT ADJUSTMENT**

**ALWAYS PULL THE MOTOR DISCONNECT SWITCH BEFORE WORKING ON BELTS SO THE MOTOR CANNOT START UP UNEXPECTEDLY.** When belt tension is adjusted properly, the belts can be depressed at a point midway between the motor pulley and the flywheel *approximately one half of an inch*. Loose belts will slip on the motor pulley and cause undue heating and wear. *A belt that is too tight will overload the bearings.* Adjustments can be made by sliding the motor along its base. When installing new belts, it is necessary that the motor bolts be loosened and the motor be moved toward the compressor. The new belts can then be installed without damage or strain. As belts will stretch, it is recommended that **all** belts be changed at the same time.

### **DAILY CARE**

- Check oil level in crankcase and, if necessary, add sufficient oil to bring to (but not above) halfway level in sight glass (with motor not running).

HGPS0610WL

- Drain air receiver, drop legs, etc.
- Stop, look, and listen a moment for any unusual noise, failure to compress, overheating, vibration, or belt slippage. Correct before damage of a serious nature can develop.

### **MONTHLY CARE**

- Check and tighten all bolts as required.
- Check air connections and joints for leaks.
- Check all unloading lines for air leaks. Air leaks in the unloading lines will cause the unloaders to chatter as well as cause short cycling.
- Check “V” belts for any possible misalignment and tightness. See “Belt Adjustment”.

## **Maintenance-Trouble Shooting-Repairs**

SLOW PUMPING OR INSUFFICIENT PRESSURE CAN BE CAUSED BY:

- A. Clogged inlet filter-(Disassemble and clean thoroughly)
- B. Leaks in airlines, valves, fittings, etc.-(Located using soapy water if necessary; replace or tighten threaded parts)
- C. Compressor too small for equipment being operated-(Check air requirements and add to compressor capacity-**consult dealer**).
- D. Leaking head valves-(Remove hold-down covers and remove valves for examination. Repair or replace faulty valves)
- E. If the power is “Network” distributed with 208 volts entering the building, order a 208-volt motor. If the starting voltage is much less than 90% of the motor nameplate voltage, the motor cannot be expected to start and the interior building wiring must be corrected.

### **OVERHEATING**

Compression of air generates heat, much of which is dissipated as air passes over the intercooler and/or aftercooler. Overheating can be caused by:

- A. Pump running backwards-(reverse direction). Proper rotation is counter-clockwise when facing the flywheel.
- B. One or more head valves are failing to seat properly.
- C. Blown cylinder head gasket.
- D. Restriction in head, intercooler, or check valve.
- E. Lack of oil-(check oil level).
- F. Dirt in intercooler fins or cylinder fins-(blow out with air).
- G. Poor ventilation and high-room temperature.



HGPS0610WL  
**EMAX, INC.**

## **Piston Equipment Warranty**

### **LIMITED WARRANTY**

**EMAX, Inc.** warrants to the original purchaser that all products covered under this warranty are free from defects in material and workmanship. Products covered under this warranty include air compressors which have the following warranty periods:

**1 YEAR** – Parts & labor.

**2 YEAR** - Limited warranty on all air compressor components.

**5 YEARS** - Limited warranty on oil-lubricated air compressor pumps.

**EMAX, Inc.** will repair or replace, at **EMAX, Inc.** option, products or components which have failed within the warranty period. Service will be scheduled according to the normal work flow and business hours at the service center location and the availability of replacement parts. All decisions made by **EMAX, Inc.** With regard to this limited warranty shall be final.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

#### **RESPONSIBILITY OF ORIGINAL PURCHASER (initial User):**

1. To process a warranty claim on this product, **DO NOT RETURN PRODUCT TO THE STORE.** The product must be evaluated by **EMAX, Inc.'s Authorized Warranty Service provider**, For warranty service issues and/or questions, **please call 877-283-7614.**
2. Retain original sales receipt as proof of purchase for warranty work.  
Use reasonable care in the operation and maintenance of the product as described in the Owners Manual(s).
3. Deliver or ship the product to the nearest **EMAX, Inc.** Authorized dealer. Freight costs, if any, must be paid by the purchaser.  
If the purchaser does not receive satisfactory results from the **EMAX, Inc.** authorized warranty service provider, the purchaser should contact **EMAX, Inc.**.
4. Must use **EMAX Oil** or Oil authorized in writing by **EMAX, Inc.**
4. Oil must be changed after every 2,000 hours. If for any reason the compressor is not being used or not reaching 2,000 hours of use the Oil must be changed once annually.
5. Oil must be checked quarterly free of charge by **EMAX.** (Please refer to Oil guidelines in manual)

**THIS WARRANTY DOES NOT COVER: (Limitations)** Merchandise that has become damaged or inoperative because of ordinary wear, misuse, cold, heat, rain, excessive humidity, freeze damage, use of improper chemicals, negligence, accident, failure to operate the product in accordance with the instructions provided in the Owners Manual(s) supplied with the product, improper maintenance, the use of accessories or attachments not recommended by **EMAX, Inc.**, or unauthorized repair or alterations. \*An air compressor that pumps air more than 50% during a one hour period is considered misuse because the air compressor is undersized for the required air demand.

Repair and transportation costs of merchandise determined not to be defective.

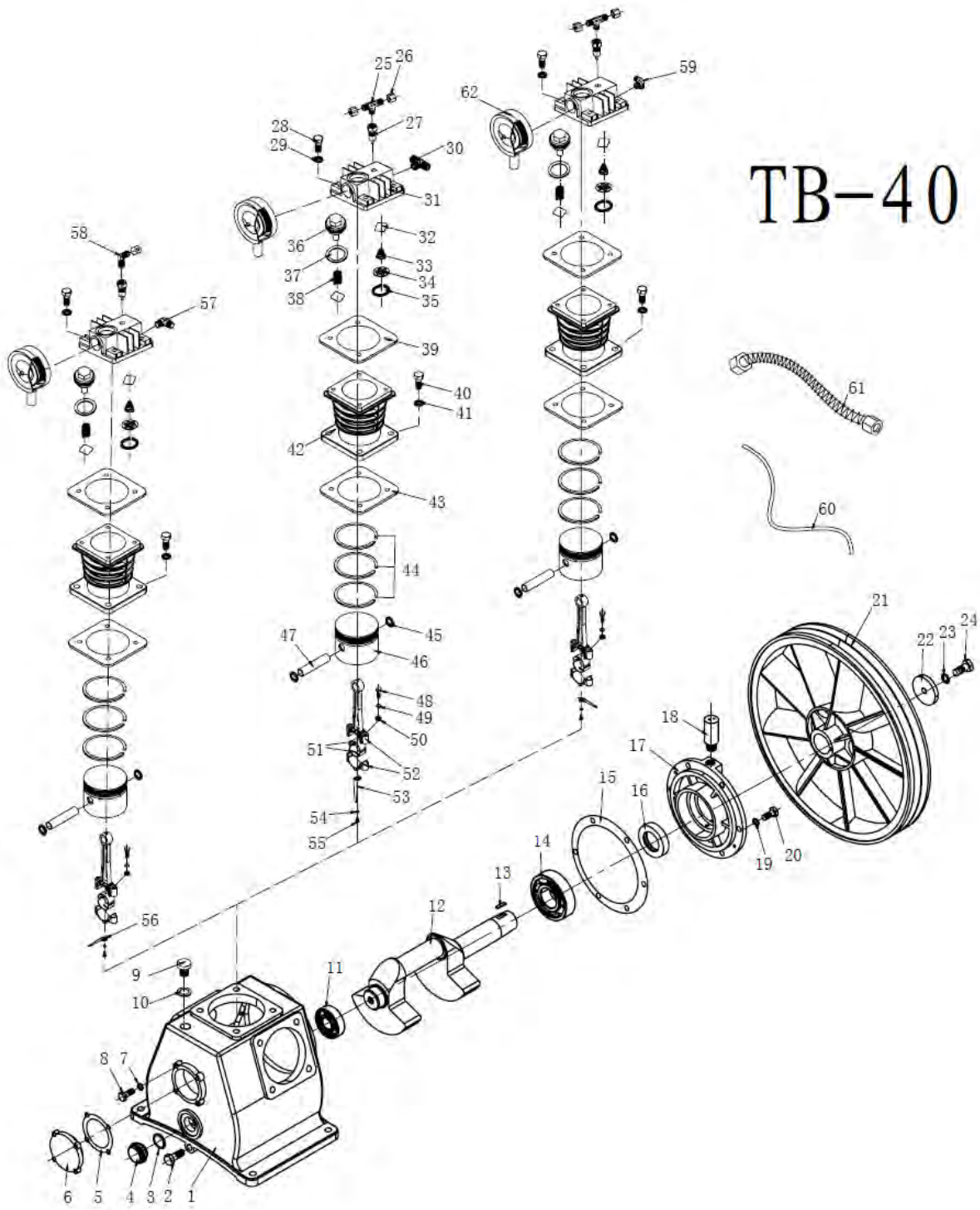
Costs associated with assembly, required oil, adjustments or other installation and start-up costs.

Expendable parts or accessories supplied with the product which are expected to become inoperative or unusable after a reasonable period of use.

Merchandise sold by **EMAX, Inc.** which has been manufactured by and identified as the product of another company, such as gasoline engines. The product manufacturer's warranty, if any, will apply.

**ANY INCIDENTAL, INDIRECT OR CONSEQUENTIAL LOSS, DAMAGE, OR EXPENSE THAT MAY RESULT FROM ANY DEFECT, FAILURE OR MALFUNCTION OF THE PRODUCT IS NOT COVERED BY THIS WARRANTY.** Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

**IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED TO ONE YEAR FROM THE DATE OF ORIGINAL PURCHASE.** Some states do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.



## 1. Parts List – EMAX Model: APP3Y0518S

No.	Part#	Part Description	Qty	No.	Part#	Part Description	Qty
1	CCZ0040001	Crank case	1	32	VPZ0040032	Valve plate	6
2	DPZ0040002	Drain plug	1	33	ISZ0040033	Inlet valve spring	3
3	SRZ0040003	Seal ring	1	34	ICZ0040034	Inlet valve barrier chip	3
4	OGZ0040004	Oil sight glass	1	35	CLZ0040035	Clip	3
5	RGZ0040005	Rear cover gasket	1	36	VGZ0040036	Valve gland	3
6	RGZ0040006	Rear cover gasket	1	37	GAZ0040037	Gasket	3
7	WAZ0040007	Washer	4	38	ESZ0040038	Exhaust valve spring	3
8	BOZ0040008	Bolt	4	39	GAZ0040039	Gasket	3
9	SPZ0040009	Screw-plug	1	40	BOZ0040040	Bolt	12
10	GAZ0040010	Gasket	1	41	WAZ0040041	Washer	12
11	BEZ0040011	Bearing	1	42	CYZ0040042	Cylinder	3
12	CSZ0040012	Crank shaft	1	43	CGZ0040043	Cylinder lower gasket	3
13	BOZ0040013	Bond	1	44	PSZ0040044	Piston ring set	3
14	BEZ0040014	Bearing	1	45	CLZ0040045	Clip	6
15	FWZ0040015	Front cover washer	1	46	PIZ0040046	Piston	3
16	OSZ0040016	Oil seal	1	47	WPZ0040047	Wrist piston	3
17	FCZ0040017	Front cover	1	48	BOZ0040048	Bolt	6
18	BRZ0040018	Breather	1	49	WAZ0040049	Washer	12
19	WAZ0040019	Washer	4	50	NUZ0040050	Nut	6
20	BOZ0040020	Bolt	4	51	BBZ0040051	Bearing bush	6
21	PUZ0040021	Pulley	1	52	CRZ0040052	Connecting rod	3
22	GAZ0040022	Gasket	1	53	OSZ0040053	Oil splashier (straight)	1
23	WAZ0040023	Washer	1	54	WAZ0040054	Washer	3
24	BOZ0040024	Bolt	1	55	SCZ0040055	Screw	3
25	TCZ0040025	T Coupling	2	56	OSZ0040056	Oil splashier	2
26	CTZ0040026	Compact unloading tube	5	57	ELZ0040057	90°Elbow	1
27	UDZ0040027	Unloading device	3	58	LCZ0040058	L Coupling	1
28	BOZ0040028	Bolt	12	59	TEZ0040059	120°Tee	1
29	WAZ0040029	Washer	12	60	UTZ0040060	Unloading tube	2
30	TTZ0040030	T tee	1	61	EPZ0040061	Exhaust pipe	2
31	COZ0040031	Cover	3	62	AFZ0040062	Air filter	3

HGPS0610WL