



THOMAS[®]
COMPRESSORS
& VACUUM PUMPS

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ULTRA

AIR-PAC[®]

OWNER'S MANUAL

and OPERATING INSTRUCTIONS for

TG-275/TG-275H

- 5.5 HP HONDA OHV OR 5 HP BRIGGS AND STRATTON ENGINE
- 7 GALLONS AIR STORAGE
- 8.5 CFM @ 100 PSI
- WOB•L[®] PISTON COMPRESSOR
- PERMA-LUBE[™] DESIGN

Performance, portability, and reliability makes the AIR-PAC[®] TG-275 ULTRA our finest, most convenient gas powered compressor. It is ideal for use in

applications requiring a heavy-duty compressed air source in areas where an electrical connection is not available.



This symbol points out important safety instructions which if not followed could endanger the personal safety and/or property of yourself and others. Read and understand the information in this owner's manual and the engine owners manual before operating.



FOR SERVICE AND PARTS

For service contact the dealer from whom you purchased the compressor.

To place parts orders, provide the model data located on the nameplate of the compressor and call our national parts center at **1-800-323-0620**.

1. The compressor should be located in a dry, clean, and well ventilated area.
2. Inspect before use for signs of damage. Do not use if a deficiency is found. Contact your nearest service center for replacement parts. Never operate a damaged unit.
3. **Do not tamper with safety valve as it has been factory set. Any adjustment of this valve could cause serious injury.**
4. Compressed air must never be aimed at anyone because it can cause serious injury. Keep children away. **WEAR EYE PROTECTION.**
5. All air compressors generate heat under normal operating conditions. To avoid serious burns, never touch the air compressors during or immediately after operation.
6. Never run engine indoors or in enclosed, poorly ventilated areas. Engine exhaust contains carbon monoxide, an odorless and deadly gas.
7. Before servicing, cleaning, or removal of any part, stop engine and relieve air pressure.
8. This system produces 135 PSI. To avoid rupture and injury, do not operate this compressor with components rated less than 135 PSI working pressure.
9. Keep hands, feet, hair, and loose clothing away from any moving parts on engine and compressors.
10. Do not tamper with the engine speed or air/fuel mixture. These items have been factory set.

If warranty service or repairs are needed, contact your nearest authorized service center. If one does not exist contact the factory. Unauthorized repairs or teardown of the unit will void the factory warranty.

Read and understand the information in this owner's manual and the engine owner's manual before operating.

SET UP

NOTE: The engine is shipped with oil inside. It is recommended that you change the oil as described in your engine owner's manual maintenance schedule.

Always check the oil level before starting engine. (See engine owner's manual for oil and fuel recommendations.)

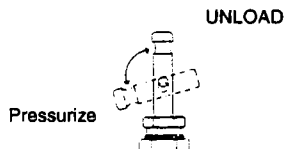
STARTING ENGINE

1. Turn fuel valve to "ON" position.
2. Flip engine switch to the "ON" position.
3. Place foot on base, grasp starter handle, and start engine as you would a lawn mower. Use choke if necessary.

STARTING ENGINE AGAINST PRESSURIZED TANKS

MANUAL UNLOADER VALVE

1. Move to "UNLOAD" position.
2. Start engine.
3. Return to "PRESSURIZE" position.



When STARTING the engine with air pressure in the tanks (i.e. after refueling, etc.), manually unload the compressors by moving the valve to the "UNLOAD" position, starting the engine, and then moving the valve back to the "PRESSURE" position.

This allows the compressors to turn freely (exhaust to atmosphere) without the back pressure of the tanks.

OPERATION

The engine will start with the control lever in the "FAST" position and will compress air until the tank pressure reaches 135 PSI. When the tank pressure reaches 135 PSI, the unloader valve will automatically actuate the throttle control causing the engine to run at idle speed, and vent the compressed air to atmosphere.

When the tank pressure drops to 115 PSI, the unloader valve will reactuate the throttle control, causing the engine to run at high speed, and redirect the compressed air to the tank.

WARNING: Before using air tools or accessories, check manufacturer's maximum pressure rating. Maximum pressure rating must be above 135 PSIG.

STOPPING

1. Flip the engine switch to the "OFF" position.
2. Release air from tank.
3. Drain water from both tanks.
4. Turn fuel valve to "OFF" position.
5. Drain excess gas if compressor is to be stored indoors (see engine owners manual).

WARNING: To avoid risk of tank failure during use, drain tank after each use or every four (4) operating hours to prevent condensation build up and corrosion inside tanks.

To drain tank, slowly and carefully turn and open drain fittings, tip unit towards drain, and allow water to drain out.

NOTE: When draining tank, watch for debris (rust particles). If there appears to be debris in the water, contact your dealer for possible tank replacement.

WARNING: Do not weld on the air tanks of this compressor. Welding on the air compressor tank can severely impair tank strength and cause an extremely hazardous condition. Welding on the tank in any manner will void the warranty. If warranty service or repairs are needed contact your nearest authorized service center. If one does not exist contact the factory. Unauthorized tear down of the unit will void the factory warranty.

MAINTENANCE

AIR FILTER – COMPRESSORS

Inspect compressor air filters regularly. Clean filter with soap and water as necessary. If filter becomes clogged or damaged, replace it.

WARNING: Never clean air filter with a flammable liquid or solvent. Explosive vapors may accumulate in the air tank and cause an explosion, resulting in serious injury or death.

CAUTION: Do not operate air compressor without air filter.

CONTROL VALVE

The control valve is preset at the factory to load at 115 psi and unload at 135 psi and should not require adjustment.

If adjustment is necessary the unload pressure is adjusted by slightly turning the pressure adjusting nut (9/16" Hex) while holding the locking nut (5/8" Hex). Turn clockwise to increase, and counterclockwise to decrease the unload pressure.

Changing the differential (the difference between the load and unload pressure) is accomplished by holding the locknut (7/8" Hex) closest to the body of the valve (so it does not move) then turning the (3/4" Hex) nut next to it very slightly clockwise to increase the differential, and counterclockwise to decrease it.

ENGINE

Refer to engine owner's manual for proper maintenance procedures.

NOTE: Disconnect spark plug wire before servicing engine, or compressors.

ENGINE WARRANTY AND REPAIRS

Engine adjustments, repairs, and warranty service are to be handled through your engine manufacturer's authorized service centers. They are listed in your telephone book yellow pages under "Engines, gasoline."

SPECIFICATIONS

Air Displacement	15 CFM (425 LPM)
Air Delivery	8.5 CFM @ 100 PSI (225 LPM @ 690 kPa)
Safety Valve Setting	165 PSI (1140 kPa)
Engine Idle Speed	2000 ± 150 RPM
Engine Run Speed	3450 ± 150 RPM
Automatic Control	Continuous Run unloader Valve Unloads @ 135 PSI (930 kPa) Loads @ 115 PSI (795 kPa)
Engine Oil-Recommended	See Engine Owner's Manual
Air Tank Capacity	Twin Tanks 3.5 Gallons Each
Unit Weight (Dry)	95 lbs. (43 kg)
Unit Dimensions LxWxH (in)	45 x 18 x 27 (cm) 114 x 46 x 69
Compressor Type	Oil-less compressor, PermaLube™ design
Pump-Up Time	55 ± 5 Sec.
Recovery Time	12 ± 3 Sec.
Regulator Connection Size	1/4-NPT

CFM = Cubic Feet Per Minute

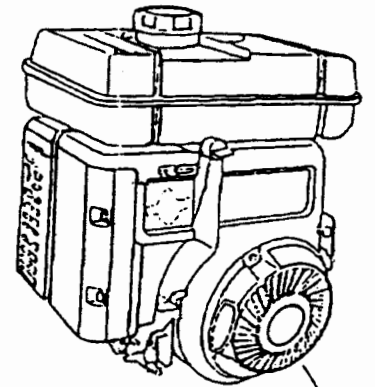
LPM = Liters Per Minute

PSI = Pounds Per Square Inch

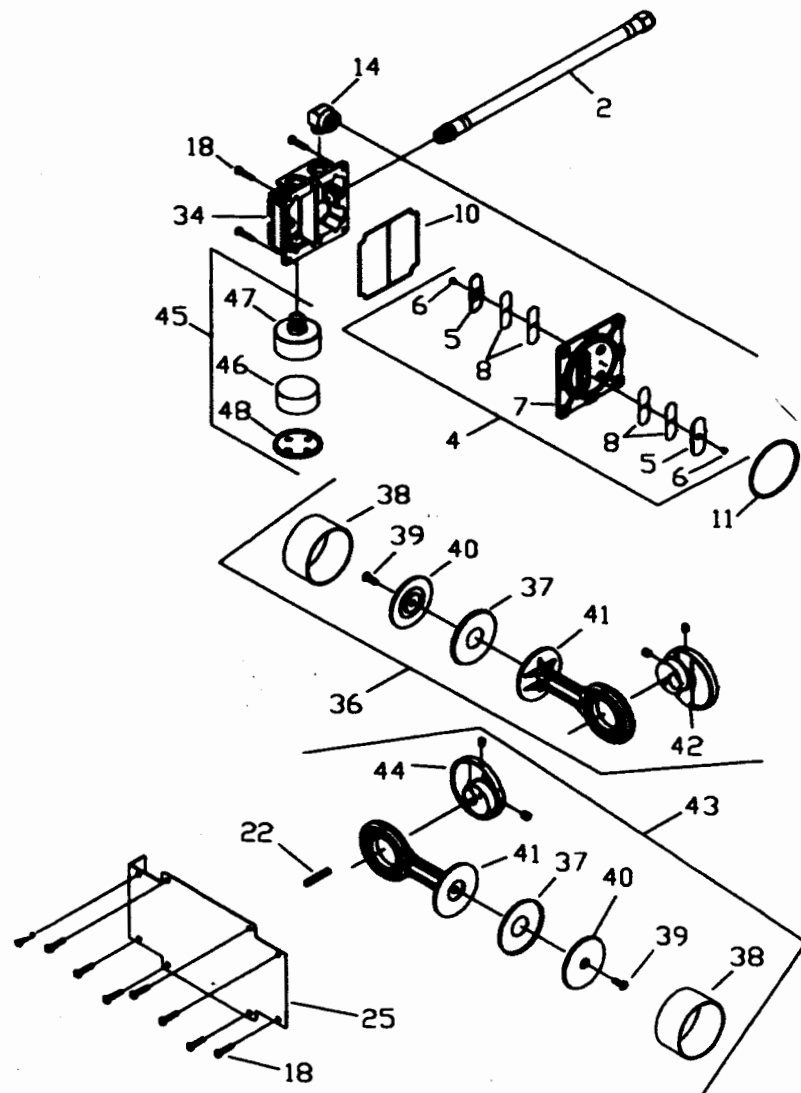
kPa = kilopascals

PARTS LIST

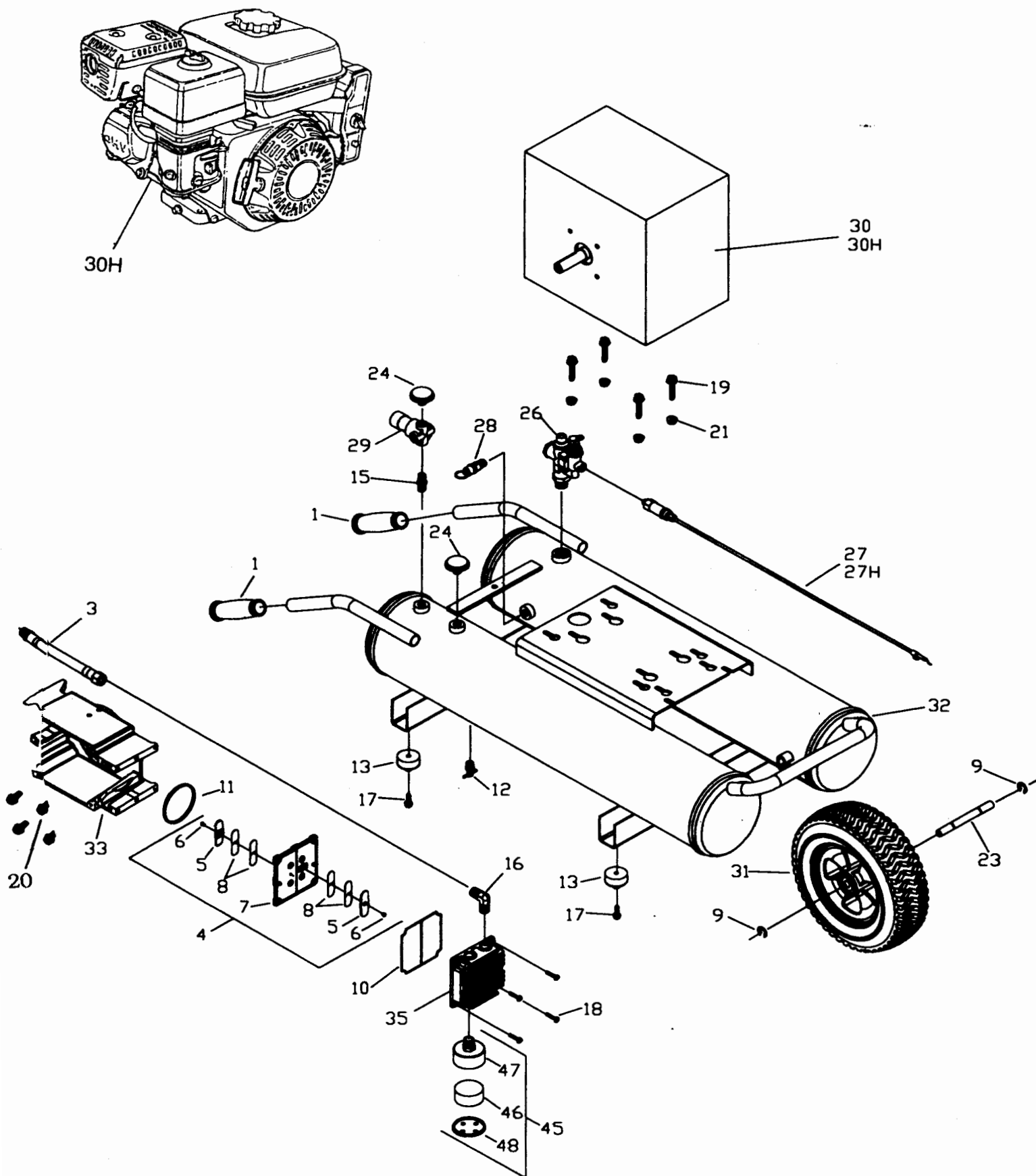
Item No.	Part No.	Component Part	Description	Qty.
1	604229		Hand Grip	2
2	615575		Hose Assembly 10.5"	1
3	615576		Hose Assembly 13.75"	1
4	621476-540		Valve Plate Assembly	2
5	617312		Valve Restraint	2
6	625857		Screw - Flapper	2
7	662053-540		Valve Plate - Black	2
8	662054		Valve Flapper Intake & Exhaust	4
9	623601		Retaining Ring - Bowed	2
10	623624		O Ring Gasket - Head	2
11	623638		O Ring	2
12	624200		Drain Fitting	2
13	624654		Bumper	4
14	624765		Elbow - Street	1
15	624925		Fitting	1
16	624955		Elbow	1
17	625406		Screw - Bumper	6
18	625646		Screw - Head & Front Cover	16
19	625823		Screw - Engine to Tank Base	4
20	625847		Screw - Housing to Motor	4
21	626831		Nut - Engine to Tank Base	4
22	626866		Key	1
23	629205		Axle 5"	1
24	638262		Gauge - Pressure	2
25	664728		Front Cover	1
26	638505		Valve Unloading	1
27	638510		Throttle Control 15"	1
27H	638572		Throttle Control 18"	1
28	638526		Safety Valve	1
29	641133		Regulator - Air	1
30	643318		Engine - Briggs & Stratton 5.0 HP	1
30H	643317		Engine - Honda 5.0 HP	1
31	647226		Wheel 10.5"	1
32	662975-540		Tank Assembly	1
33	664668-540		Twin Housing	1
34	664557-500		Head	1
35	664558-500		Head	1
36	666151		Connecting Rod, Ecc. & Brg. Ass'y.	1
37	614907		Piston Cup	2
38	618119		Piston Sleeve	2
39	625776		Screw - Retainer	2
40	626730		Retainer - Piston Cup	2
41	666373		Connecting Rod & Brg. Ass'y.	2
42	667403		Eccentric Assembly	1
43	666152		Connecting Rod, Ecc. & Brg. Ass'y.	1
44	667404		Eccentric Assembly	1
45	660588		Filter Assembly	2
46	641010		Filter	2
47	660777		Filter Body	2
48	660803		Filter Body Cap	2



30



AND DRAWING FOR TG-275 AND TG-275H



TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	REMEDY
Engine won't start	Out of gas	Refuel
	Oil level low	Add oil
	Switch is off	Turn to 'ON'
	Fuel valve is off	Turn to 'ON'
	Engine flooded	Turn off choke, and pull starter until excess fuel is removed
	Bad spark plug	Replace
	No spark	Check spark across plug gap
	Engine air filter wet, clogged or dirty	Inspect and replace if necessary, should be clean and dry
	Fuel not reaching carburetor	Check by loosening fuel drain screw with fuel valve on
	Defective low oil sensor switch	Check by disconnecting the wires of the sensor See authorized engine service center for repairs
Recoil starter pulls very hard	Air pressure in the tanks	Move hand unloader to 'Unload' position while starting
Compressor won't build pressure	Air leak	Use a solution of soapy water to find leak
	Hand unloader is in 'Unload' position	Move to 'Load' position
	Worn piston cup and/or sleeve	Remove head and valveplate to inspect, Replace if needed
	Broken flapper valve	Remove head and valveplate to inspect, Replace if needed
	Resistance in throttle control	Clean and lubricate the cable casing and control cylinder
Engine won't return to high speed	Resistance in throttle linkage	Loosen friction nut on the throttle linkage of the engine
	Control valve set incorrectly	With compressor running, adjust control valve by loosening the 9/16" hex while holding the 5/8" jam hex. Loosen slowly - 1/8th turn at a time.
Safety valve blows open and engine won't return to idle	Control valve set incorrectly	With compressor running, adjust control valve by loosening the 9/16" hex while holding the 5/8" jam hex. Loosen slowly - 1/8th turn at a time.
Compressor slow to recover	Air leak	Use a solution of soapy water to find leak
	Engine run speed too low	Turn run speed adjustment screw (CCW) see engine manual
	Control valve set incorrectly	See control valve setting instructions
	Throttle cable out of adjustment	Adjust throttle cable by removing the attachment screw and turning the attachment clip (which is threaded).
	Worn piston cup and/or sleeve	Remove head and valveplate to inspect, Replace if needed
	Resistance in throttle control	Clean and lubricate the cable casing and control cylinder
	Resistance in throttle linkage	Loosen friction nut on the throttle linkage of the engine
Compressor recovers fast	Control valve set incorrectly	See control valve setting instructions
	Air tanks full of water	Drain water out of tanks
	Throttle cable out of adjustment	Adjust throttle cable by removing the attachment screw and turning the attachment clip (which is threaded).
Excessive vibration	Engine speed out of adjustment	Adjust run speed to 3450 rpm +/- 150 rpm Adjust idle speed to 2200 rpm +/- 150 rpm
	Resistance in throttle control	Clean and lubricate the cable casing and control cylinder
	Resistance in throttle linkage	Loosen friction nut on the throttle linkage of the engine
	Throttle cable out of adjustment	Adjust throttle cable by removing the attachment screw and turning the attachment clip (which is threaded).
	Loose engine bolts	Tighten the bolts that connect engine to baseplate of tank.
	Engine quits	Oil level low
Incorrect cut-in/cut-out pressure	Too much oil in engine	Place on level surface, check oil level, drain if necessary
	Idle speed too low	Turn idle speed adjustment screw (CW) to 2200 +/- 150 rpm
	Resistance in throttle control	Clean and lubricate the cable casing and control cylinder
	Resistance in throttle linkage	Loosen friction nut on the throttle linkage of the engine
	Control Valve set incorrectly	See control valve setting instructions
Spark plugs wet/fouled	Engine idle speed too low	Turn idle speed adjustment screw (CW) to 2200 +/- 150 rpm
	Engine run with choke on	Set choke to run position when engine is running
	Engine idles for long periods	Increase idle speed to 2500 +/- 150 rpm or replace spark plug with a spark plug one heat range "hotter" - see authorized engine service center
Engine speed fluctuates	Engine is running out of fuel	Refuel

Engine Questions: Contact the engine manufacturer's authorized service centers

Compressor Questions: Contact Thomas Industries

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Control Valve Setting Instructions

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