

DAVEY

Model 125 PVC

Permanane Rotary Compressor

**OPERATION AND
MAINTENANCE MANUAL**

WITH

PARTS LIST

MPL-141

**DAVEY
COMPRESSOR**



THE DAVEY COMPRESSOR CO.

11060 KENWOOD ROAD
CINCINNATI, OHIO 45242

FOREWORD

This manual is designed to provide you, the operator, with sufficient knowledge of the operation, use and maintenance of the Davey portable rotary compressor to realize the full capability of this machine.

It is recommended that all sections of this manual be read carefully, and if any doubt exists about the function of any part of the compressor, that you contact our nearest dealer or representative for clarification.

It is not intended to cover the operation, use and maintenance of the engine in this manual, except in such instances where special equipment has been added to the engine. The engine or equipment supplier's manual should be referred to for detailed instructions.

NOTE

Part I of this manual is restricted to the operation, maintenance, and repair of the air compressor. Manuals covering the engine, engine accessories, and engine parts list will be found in Part II which follows the air compressor manual.

MODEL 125 PVC PERMAVANE ROTARY

COMPRESSOR SPECIFICATIONS

UNIT DATA

Mounting two wheel, leaf type springs
Tire Size 6.50-16, 4 ply
Tire Pressure 45 lbs.
Towing Speed 20 mph
Wheel Bearings Tapered Roller
Towing Hitch Lunette Eye
Fuel Tank Capacity 19-1/2 gallons

Dimensions:
Length (overall) 124 in.
Height (overall) 70 in.
Width 66 in.
Shipping weight 2400 lbs.

COMPRESSOR

Number of Rotors 1
Rotor Slots 8
Vaness per Slot 1
Type of Vane Light Metal *Permavane
Vane Thickness 3/16 inch, nominal
Capacity Control Full modulation with
air pressure control

Operation Pressure 100 psi
Rated Capacity 125 cfm
Full Load Speed 2200 rpm
Lubrication Full flood, force feed
Oil Capacity 14 qts.
Oil Filter Permanent screen
Air Cleaner Dry type

OIL SEPARATOR

Type Vertical labyrinth type

Element Replaceable cartridge

ENGINE

Type Diesel, 4-cylinder, 4 cycle
Make Hercules
Model D2000 x 109
Bore 3-3/4 in.
Stroke 4-1/2 in.

Piston Displacement 198 cu. in.
Horsepower (at 2200 rpm) 63.5
Torque (Max.) 156 ft. lb. at 1500 rpm
Lubrication Forced feed

*Patent No. 2905376

TABLE OF CONTENTS

PART I – AIR COMPRESSOR

Paragraph	Page	Paragraph	Page
SECTION 1			
INTRODUCTION AND DESCRIPTION			
1-1 Description	1-1	2-9 Operation in Salt Water and High Humidity Areas	2-5
1-2 Major Components	1-1	2-10 Operation at High Altitude	2-5
1-3 Rotary Compressor Assembly	1-1	2-11 Operating Precautions	2-5
1-4 Thermal Bypass Valve	1-2	SECTION 3	
1-5 Engine Assembly	1-2	MAINTENANCE INSTRUCTIONS	
1-6 Electrical System	1-2	3-1 Preventive Maintenance	3-1
1-7 Speed Control	1-2	3-2 Engine Maintenance	3-1
1-8 Instrument Panel	1-2	3-3 Corrective Maintenance	3-1
1-9 Blowdown Valve Assembly	1-2	3-5 Disassembly	3-1
1-10 Minimum Pressure Valve Assembly	1-2	3-6 Cleaning	3-5
1-11 Intake Control Assembly	1-2	3-7 Repair or Replacement	3-6
1-12 Thermostat Assembly	1-2	3-8 Assembly of Compressor	3-7
1-13 Oil Filter	1-2	3-9 Inspection After Assembly	3-8
1-14 Overspeed Switch	1-2	3-10 Speed Control Linkage Adjustment	3-8
SECTION 2		3-11 Air Pressure Regulator Adjustment	3-8
OPERATING INSTRUCTIONS			
2-1 Preparation for Use	2-1	3-12 Brake Adjustment	3-8
2-2 Lubrication	2-1	SECTION 4	
2-3 Operating Controls and Indicating Instruments	2-1	TROUBLESHOOTING	
2-4 Starting the Unit	2-4	4-1 Troubleshooting	4-1
2-5 Stopping the Unit	2-4	SECTION 5	
2-6 Operation in Extreme Cold	2-5	PARTS LIST	
2-7 Operation in Extreme Heat	2-5	5-1 Introduction	5-1
2-8 Operation in Dusty or Sandy Areas	2-5	5-2 Instructions for Ordering Parts	5-1

LIST OF TABLES AND ILLUSTRATIONS

FIGURE OR TABLE	DESCRIPTION	PAGE	FIGURE OR TABLE	DESCRIPTION	PAGE
1-0	Compressor unit assembly	iv	3-6	Compressor rotor installation	3-7
1-1	Air cycle schematic diagram	1-1	3-7	Gripspring installation	3-7
1-2	Oil cycle schematic diagram	1-1	3-8	Speed control linkage adjustment	3-9
2-1	Lubrication chart	2-2	3-9	Air pressure regulator adjustment	3-9
2-2	Instrument panel assembly	2-3	4-1	Troubleshooting	4-1
2-3	Wiring diagram	2-7	5-1	Compressor unit assembly (sheet 1 of 4) .	5-2
3-1	Operator's preventive maintenance chart .	3-2	5-1	Compressor unit assembly (sheet 2 of 4) .	5-4
3-2	Periodic inspection chart	3-3	5-1	Compressor unit assembly (sheet 3 of 4) .	5-6
3-3	Compressor non-drive end	3-4	5-1	Compressor unit assembly (sheet 4 of 4) .	5-7
3-4	Rotor blade inspection	3-4	5-2	Air cleaner assembly	5-10
3-5	Rotor, shaft, and end cover assembly	3-6	5-3	Housing group	5-11

TABLE OF CONTENTS

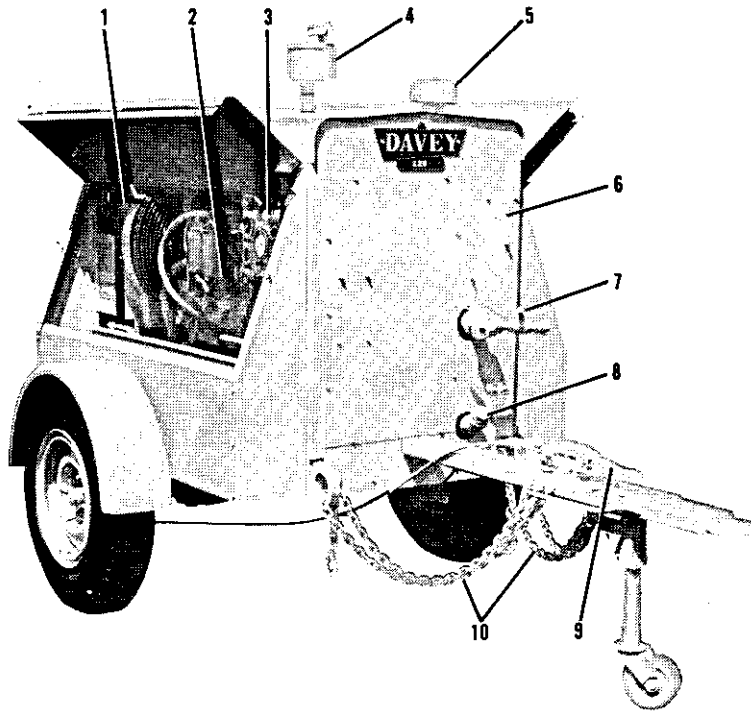
LIST OF TABLES AND ILLUSTRATIONS (CONT)

FIGURE OR TABLE	DESCRIPTION	PAGE	FIGURE OR TABLE	DESCRIPTION	PAGE
5-4	Instrument panel assembly	5-13	5-10	Air compressor assembly	5-22
5-5	Radiator-cooler assembly	5-15	5-11	Compressor oil filter assembly	5-25
5-6	Fuel tank group	5-16	5-12	Axle assembly	5-27
5-7	Blowdown valve assembly	5-18	5-13	Brake assembly	5-28
5-8	Pressure regulator assembly	5-19	5-14	Quick start kit	5-30
5-9	Oil separator assembly	5-20			

SAFETY PRECAUTIONS

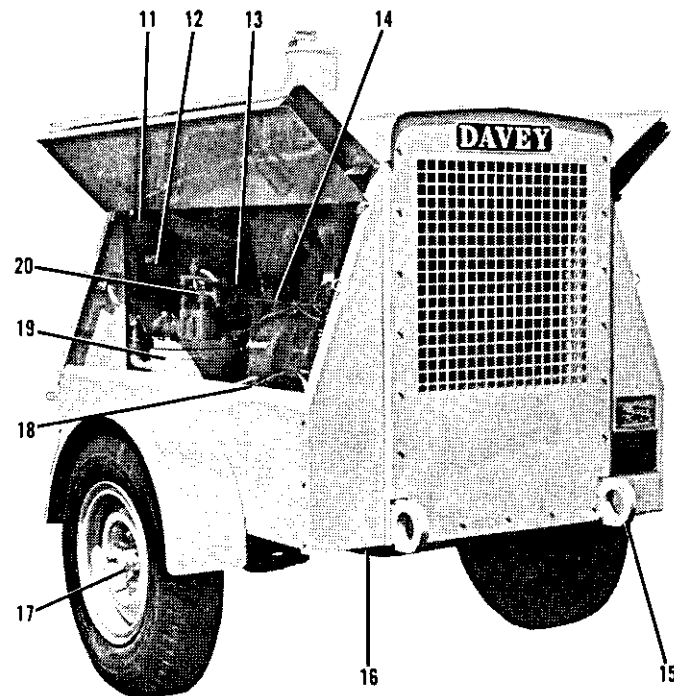
The following precautions should be observed to prevent injury to operating personnel or damage to the equipment.

1. If the engine fails to start within 20 seconds, release the starter button and allow the starter to cool for 1 to 2 minutes before attempting another start.
2. Do not leave operating equipment unattended for prolonged periods. Operator should listen closely to unit at least daily to detect any bearing rumble or other abnormal noises. Observance of this precaution can prevent serious damage to the unit.
3. If the unit was shut down automatically, do not attempt to restart until the cause of such failure has been determined.
4. Many oils will jell at extremely cold temperatures. It is essential that oils are fluid at the temperature being experienced. Check your oil supplier for pour point data if in doubt. A quick check is to momentarily remove the drain plug of the engine.
5. If repairs or adjustments must be made while the unit is operating, use extreme care to avoid severe burns or serious injuries.
6. Do not attempt any disassembly or repair of the unit until all air pressure has been relieved. Blowdown valve will relieve pressure in about 10 seconds after shutdown.
7. During cleaning procedures, be sure to observe solvent manufacturer's instructions and precautions.



1. Radiator - cooler assembly
2. Engine assembly
3. Instrument panel assembly
4. Muffler
5. Air cleaner assembly
6. Housing group
7. Air service valve
8. Oil separator filler
9. Hand brake lever
10. Safety chains

THREE-QUARTER FRONT VIEW



11. Voltage regulator
12. Engine overspeed switch
13. Air compressor assembly
14. Speed control
15. Tie-down and lifting eyes
16. Fuel tank group
17. Axle assembly
18. Battery
19. Oil separator assembly
20. Blowdown valve assembly

THREE-QUARTER REAR VIEW

Figure 1-0. Compressor unit assembly

SECTION 1

INTRODUCTION AND DESCRIPTION

1-1. DESCRIPTION.

The Davey Permavane Portable Compressor consists of a rotary type air compressor directly coupled to and driven by a heavy duty industrial type engine. The compressor-prime mover unit assembly is mounted on a rugged, channel section, welded steel frame. The standard running gear is two or four wheel spring mounted, and has pneumatic tire wheels. Tandem axle, steel wheels, or skid mounting are optional. A functionally designed housing with tool box provides weather protection.

Compressor operating components include an oil cooler, air cleaner, combination air receiver-oil separator, oil filter, indicating instruments and regulating devices. Engine accessories include a cooling radiator, fuel supply tank and muffler. A speed control linkage mechanism is provided to regulate engine speed and compressor intake in relation to air demand.

1-2. MAJOR COMPONENTS.

1-3. ROTARY COMPRESSOR ASSEMBLY. The compressor is an oil flooded, sliding vane, rotary type. It is rigidly supported from an adapter which is bolted to the flywheel housing of the engine. A pilot flange insures and maintains proper alignment.

The rotor is mounted and keyed on a shaft which is supported at each end by a bearing. The rotor is enclosed in a sealed eccentric-bored stator and is located so that it is constantly concentric with a cutaway portion of the stator. The vanes are inserted radially in longitudinal slots in the rotor. Multi-staged cooling oil injection provides cooling, sealing and lubrication during the air compression cycle.

a. **AIR CYCLE.** (See figure 1-1.) Free air is drawn into the stator through the air cleaner and intake control. The air enters through large ports in the end cover at a point where the vanes are well out of the rotor slots, thus filling the space segments between the vanes with air. In rotation, the vanes are moved radially inward in their slots by the bore wall. The volume between the vanes decreases, thus compressing the trapped air. At the rated point of compression, the discharge ports are reached and the compressed air passes into the discharge chamber. Oil is injected during the above cycle to cool the air, seal all leakage and lubricate all rubbing parts. The discharge chamber is positioned at the bottom of the stator to favor natural oil drainage.

The air is delivered into the receiver-oil separator where three stages of oil separation remove virtually all oil particles from the air before final discharge.

b. **OIL CYCLE.** (See figure 1-2.) After oil is separated

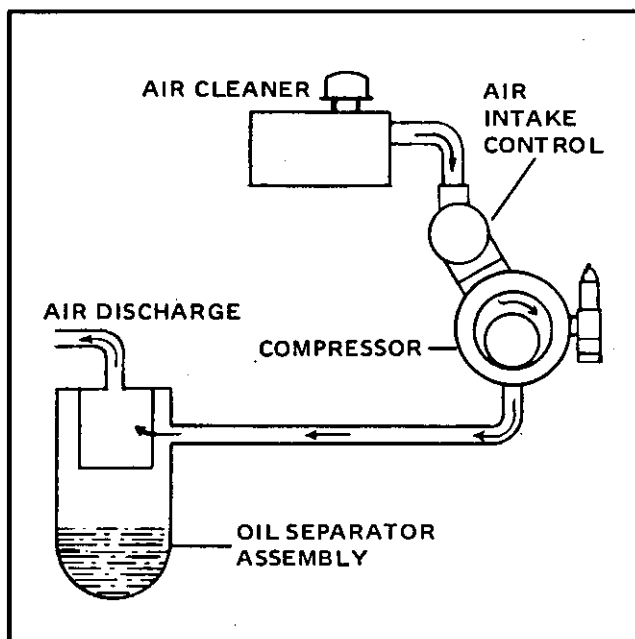


Figure 1-1. Air cycle schematic diagram

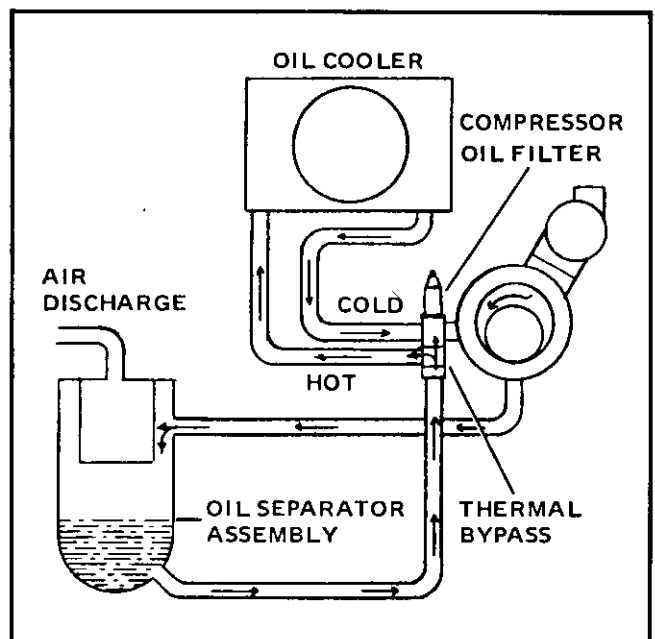


Figure 1-2. Oil cycle schematic diagram

from the compressed air, it accumulates in the receiver-oil separator. The discharge air pressure forces it into thermal bypass valve which senses the temperature of the oil. When the oil is cool, it bypasses the cooler and is passed directly into the oil filter; when the oil warms up, it is directed to the oil cooler for heat dissipation and then into the oil filter. The oil is then passed into the compressor where it is injected under pressure into the rotor bore compartment and to the bearing and end faces.

Since the injected oil was cooled before being mixed with the air, the heat of compression is removed. This provides a low final discharge temperature.

The location and the combining of the engine radiator core serves to cool the compressor oil and engine water with the engine fan.

1-4. **THERMAL BYPASS VALVE.** The thermal bypass valve attached to the underside of the oil filter serves two purposes.

a. Rapid warming of the compressor oil at initial startup is provided by the normally open thermal bypass valve. This valve bypasses the oil from the receiver-oil separator around the cooler directly through the filter into the compressor. When the oil temperature reaches approximately 150° degrees Fahrenheit, the bypass valve starts to close and part or all of the oil is circulated through the oil cooler before entering the filter and compressor.

Unless the compressor is operating in extremely hot ambient temperatures, the thermal bypass valve will mix the hot oil from the receiver-separator and the cool oil from the cooler to maintain a constant oil temperature.

b. The thermal bypass valve thus maintains a relatively constant minimum operating temperature. This helps control temperature and also minimizes the formation of moisture condensate in the system, as well as providing slightly more energy to the air compressed.

1-5. **ENGINE ASSEMBLY.** The prime mover options are gasoline or diesel engines. Refer to Part II for detailed engine data.

1-6. **ELECTRICAL SYSTEM.** This unit is equipped with a 12 volt electrical system with current being supplied by an alternator. Refer to Part II of this manual for alternator details and figure 2-3 for wiring diagram of the units electrical system.

1-7. **SPEED CONTROL.** Speed control is accomplished by adjustable linkage between the compressor intake control

and the engine fuel injection pump (diesel), or the engine carburetor (gasoline). See Part II of this manual for engine data. This mechanism is used to select the proper engine speed and compressor intake opening to suit air demand within the capacity of the compressor. Refer to figure 5-1, sheet 4 of 4, for air tubing diagram.

1-8. **INSTRUMENT PANEL.** A master control and indicator panel contains engine controls and indicating instruments for the compressor and engine assemblies.

1-9. **BLOWDOWN VALVE ASSEMBLY.** The blowdown valve assembly is installed on the oil separator assembly (figure 5-1, sheet 4 of 4). This valve automatically relieves air pressure from the system after shutdown.

1-10. **MINIMUM PRESSURE VALVE ASSEMBLY.** This valve maintains approximately 70 pounds per square inch of air pressure in the system. This pressure aids in preventing a carryout of oil with the discharge air; also, it maintains sufficient pressure in the system to provide oil circulation.

1-11. **INTAKE CONTROL ASSEMBLY.** The intake control assembly is regulated by the discharge air pressure demand. It also closes off the intake when the unit is shut down. This prevents oil and air mixture from the compressor being vented to the atmosphere.

1-12. **THERMOSWITCH ASSEMBLY.** This is an automatic control that is located in the rotary compressor discharge. If the air-oil discharge mixture of the rotary compressor assembly should exceed 220° F (104° C), this switch will cause the unit to shut down. No action is required by the operator to open the thermoswitch. However, no restart should be attempted until the reason for the high temperature of the air-oil mixture being discharged from the compressor assembly is determined. Do not attempt a restart until the oil has cooled.

1-13. **OIL FILTER.** Two oil filters are provided, one each for compressor and engine. Refer to Part II for engine oil filter details. The compressor oil filter and thermal bypass valve, described in paragraph 1-4, are mounted on the side of the compressor as an assembly (see figure 1-2).

1-14. **OVERSPEED SWITCH.** An electrically operated overspeed switch is provided with the switch transmitter connected to the engine tachometer drive. The switch will automatically shut down the unit if engine speed should exceed the setting of the switch.

SECTION 2

OPERATING INSTRUCTIONS

2-1. PREPARATION FOR USE.

This equipment should be located so that it is nearly level on the operating site. The angle of out-of-level operation should not exceed 15 degrees either direction. Check engine and compressor oil levels carefully before operating out-of-level. They should be full, but not overfilled. The following procedures should be observed before starting the unit.

a. INSPECTION OF NEW EQUIPMENT.

(1) Check all of the equipment against the packing list. Examine identification plates for positive identification of the equipment. Record the unit and compressor serial numbers on page 5-1 for future reference. Include unit model, unit serial number, and compressor model number when ordering spare parts.

(2) Inspect for and tighten any loose nuts or bolts.

(3) Inspect the controls, instruments, and gauges for damage or loose mountings.

(4) If supplied, inspect the air service hoses for kinks and loose connections.

(5) Inspect the electrical wiring for cuts, fraying and loose connections.

(6) Inspect all tubing and piping for loose connections or damage.

(7) Check all accessories for damage and loose mountings.

b. SERVICING NEW EQUIPMENT.

(1) Lubricate the air compressor as indicated by the lubrication chart, figure 2-1. Fill the fuel tank with the recommended grade of fuel and fill the radiator with coolant. (See Engine Manual in Part II.)

(2) Perform the operator's daily before-operation services described in Section 3 of this manual.

(3) Perform the preventive maintenance services as specified in Section 3 of this manual.

c. AIR CLEANER. The air cleaner is of the dry, replaceable element type. It is important to service the air cleaner

regularly. Excessive wear and poor performance will result if the air cleaner is clogged or allows contamination to enter the engine or compressor. Dirt entering the compressor will eventually settle on the separator element and will produce a high pressure drop across the separator. Refer to maintenance instructions in Section 3 for service procedures and intervals for cleaning the air cleaner.

2-2. LUBRICATION.

Refer to figure 2-1, "Lubrication Chart", for the manufacturer's recommended lubricants and servicing intervals.

a. ENGINE. Refer to Engine Manual in Part II for initial lubrication procedure.

b. COMPRESSOR. Lubricate the air compressor as follows:

(1) Check oil level in the receiver-oil separator by removing the filler plug and visually check level. If oil is low, fill to overflow with oil specified in figure 2-1. Recheck oil level after operating fifteen minutes (with unit stopped).

(2) Run the unit until warm before shutting down to drain oil. Remove filler plug and allow sufficient time for all oil to drain. Drain oil by opening valve at the bottom of the receiver-separator.

NOTE

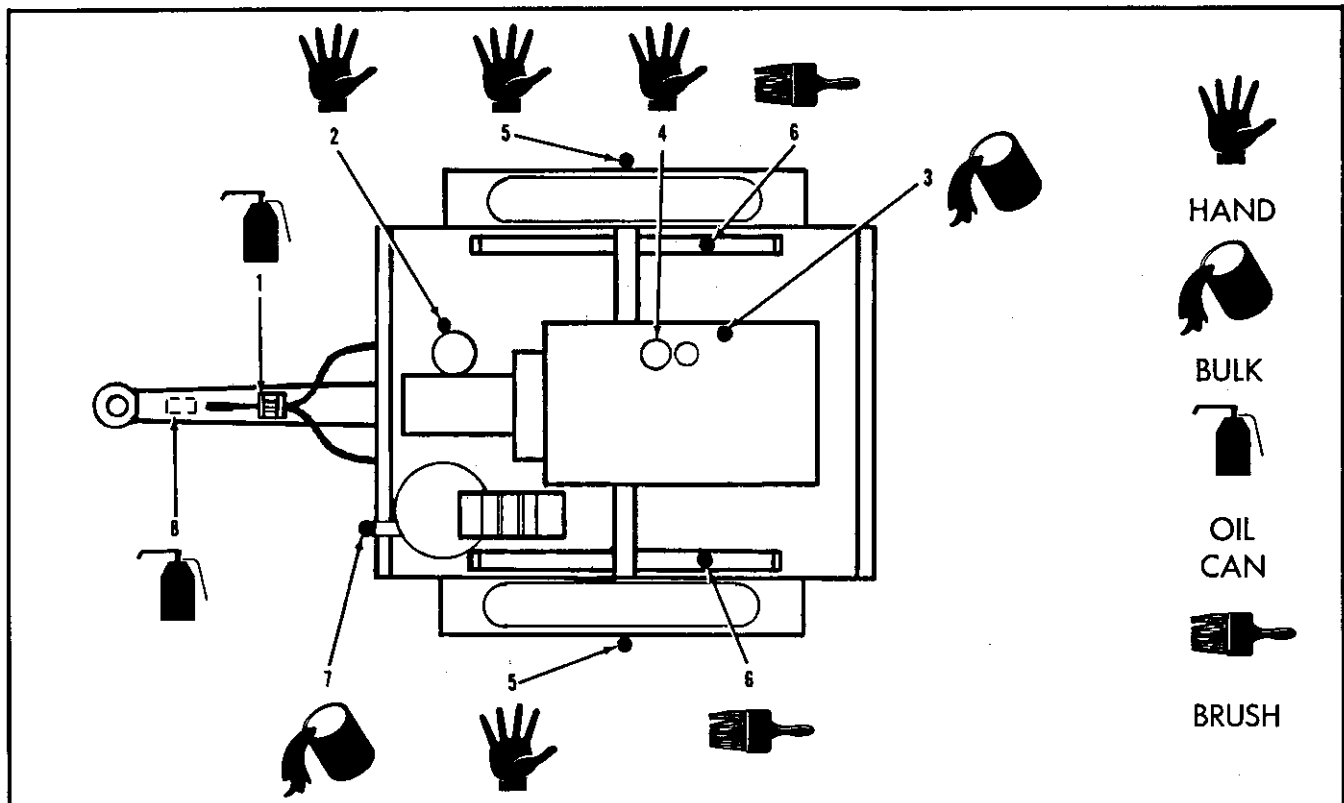
BE SURE TO CLOSE DRAIN VALVE BEFORE REFILLING.

2-3. OPERATING CONTROLS AND INDICATING INSTRUMENTS. (Reference figure 2-2.)

a. RECEIVER AIR PRESSURE GAUGE. Indicates unit air pressure in PSI.

b. ENGINE OIL PRESSURE GAUGE. Indicates oil pressure in the engine oil gallery. A pressure switch is mounted on the back of the gauge and the diesel fuel pump solenoid is wired through the switch as a safety measure. If the engine oil pressure falls below four psi, the unit will automatically shut down.

c. AMMETER. The ammeter indicates the charging or discharging rate of the battery. Refer to figure 2-3 for wiring diagram.



REF NO.	ITEM	INSTRUCTION	OPERATING PERIOD	LUBRICANT
1	Handbrake lever	Clean, oil mechanism sparingly	500 hrs	OC
2	Compressor oil filter	Remove, clean and dry element. Soak in oil before installing	*100 hrs	OC
3	Engine oil filler	Check oil level and fill as necessary (also refer to Engine Manual, Part II)	Daily	OC
4	Engine oil filter	Refer to Engine Manual, Part II	REF	REF
5	Wheel Bearings	Remove wheels, clean hubs, spindles, and repack.	1000 hrs	WB
6	Springs	Clean and brush on oil sparingly	1000 hrs	OC
7	Oil separator	Check oil level, add as necessary Drain tank and refill, capacity 14 qts	Daily **500 hrs	OC OC
8	Caster wheel	Clean at pivot point, oil sparingly	1000 hrs	OC

*Replace element if badly clogged.

**Replace element every 4000 hrs.

SYMBOL	LUBRICANT	TEMPERATURE		
		Below 32°F(†)	32°F to 75°F	Over 75°F
OC	Heavy Duty Motor Oil - Series 3 or Supplement 1 (MS-Motor Severe designation). (MIL-L-2104)	SAE 10	SAE 20	SAE 30
WB	General Purpose Grease. (MIL-G-10924)	No. 0	No. 0	No. 1

†When operating in temperature below 0°F, use OES MIL-L-10925 oil in compressor. Refer to Part II for engine recommendations.

Figure 2-1. Lubrication chart

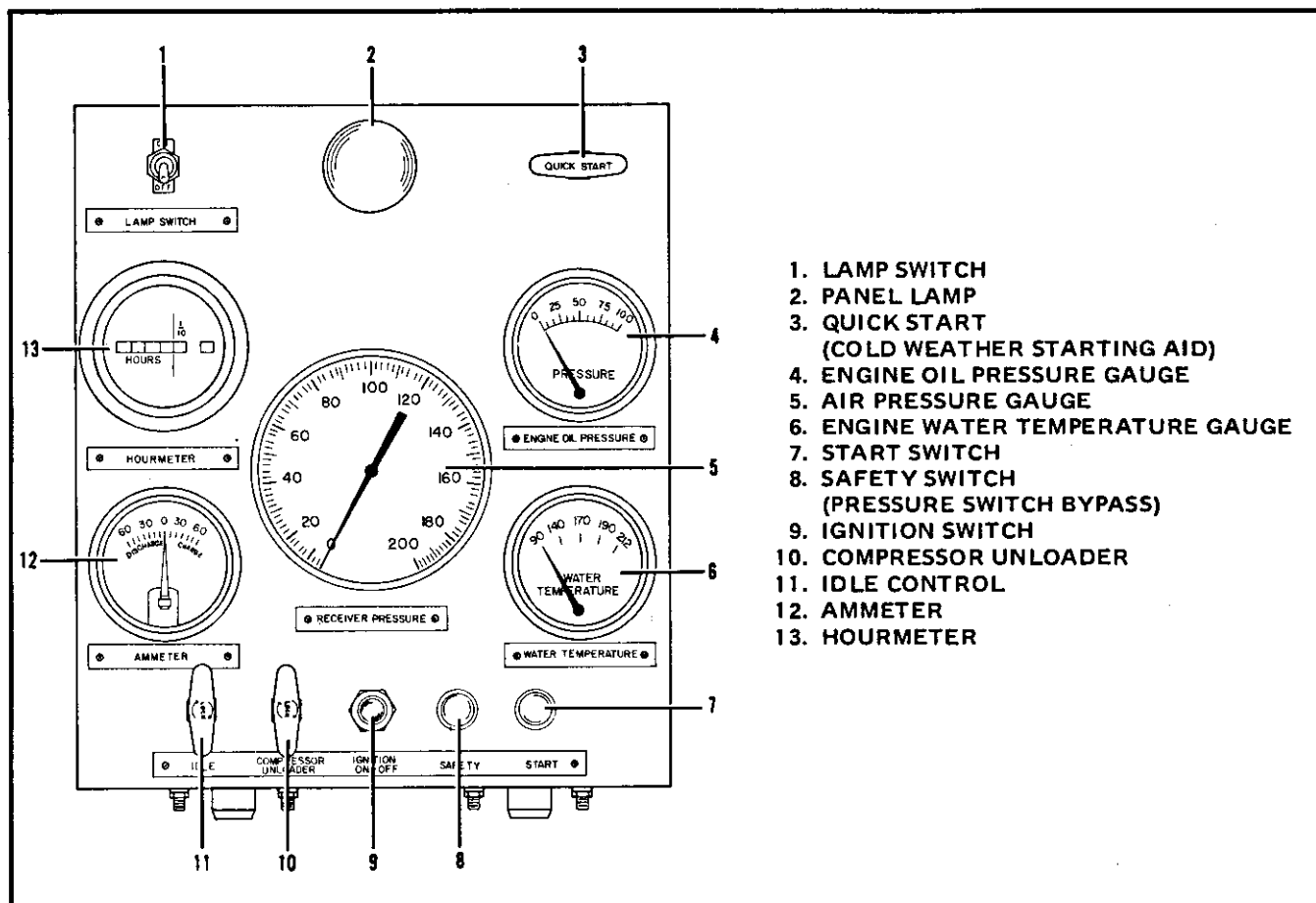


Figure 2-2. Instrument panel assembly

d. **STARTER SWITCH (BUTTON).** When this button is depressed, it completes the electrical circuit of the starting system. The starter assembly will then be energized to turn the engine.

e. **OIL PRESSURE BYPASS SWITCH (BUTTON).** This "safety" pushbutton is in parallel with the pressure switch on the oil pressure gauge and is pressed during starting to bypass the switch.

In order to start, the ignition circuit must be completed and this is accomplished by depressing the bypass switch pushbutton simultaneously with the start switch. After starting, and engine oil pressure is obtained, the "safety" pushbutton may be released. The pressure switch is now closed.

NOTE

No attempt should be made to restart the unit after an oil pressure shut down has been caused by the safety pressure switch until the cause of the low oil pressure has been determined.

1. LAMP SWITCH
2. PANEL LAMP
3. QUICK START
(COLD WEATHER STARTING AID)
4. ENGINE OIL PRESSURE GAUGE
5. AIR PRESSURE GAUGE
6. ENGINE WATER TEMPERATURE GAUGE
7. START SWITCH
8. SAFETY SWITCH
(PRESSURE SWITCH BYPASS)
9. IGNITION SWITCH
10. COMPRESSOR UNLOADER
11. IDLE CONTROL
12. AMMETER
13. HOURMETER

f. **ENGINE WATER TEMPERATURE GAUGE.** Indicates the water temperature in the engine assembly in degrees Fahrenheit.

g. **COMPRESSOR UNLOADER.** Pulling out this control shuts off the air intake of the compressor. This allows no-load engine and compressor warm-up in cool weather. Lock control in desired position by turning handle clockwise.

h. **IDLE CONTROL.** Pulling out this control slows down the engine. This control is used to regulate engine speed during warmup. Lock control in position by turning handle clockwise.

i. **OIL PRESSURE SWITCH.** If the engine oil pressure drops below minimum during operation, this switch automatically shuts down the engine by breaking the ignition circuit.

j. **HOURMETER.** The hourmeter indicates the length of time the equipment has been operating. Inspection and servicing periods may be recorded and scheduled from the readings of the hourmeter.

k. **PANEL LAMP AND SWITCH.** The instrument panel lamp switch is a toggle type switch with an indicator plate marked ON and OFF. The panel lamp is used to illuminate the instrument panel.

l. **IGNITION ON-OFF SWITCH.** This switch is used to make or break the unit electrical circuit for starting and stopping. The switch is pulled outward (on) for starting and remains in this position during operation. Pushing the switch inward (off) opens the circuit thereby stopping the unit.

2.4. STARTING THE UNIT.

a. Open the unit housing side doors and secure in the open position during operation for proper air circulation.

b. Perform the before operation procedures listed in figure 3-1. (Also, refer to Engine Manual, Part II.)

c. Open the air outlet service valves. Press the start switch (7, figure 2-2) for approximately three seconds to crank the engine a few revolutions; then, release the start switch.

d. Pull the ignition switch (9) out (on), unlock compressor unloader handle (10) and pull out and lock by turning handle clockwise.

e. In cool weather, below 40°F (4.4°C), pull quick start (3) handle out and push in when start switch (7) is pressed.

NOTE

The cold weather starting aid (quick start) ether cylinder is not supplied by the manufacturer of this unit. Install proper cylinder prior to operation in cool weather



If engine fails to start within 20 seconds, release switches (7, 8) and allow a 1 to 2 minute cooling interval before attempting another start.

f. Press the start switch (7) and safety switch (8) (oil pressure switch bypass) simultaneously. (Actuate the quick start handle (3) as necessary.)

g. When engine starts, release the start switch (7) but continue to hold safety switch (8) until engine oil pressure of approximately 10 psi is indicated on pressure gauge (4); then, release switch (8).



If engine oil pressure does not register within three to five seconds after engine starts, release safety switch and determine cause of no engine oil pressure.

h. After engine starts, unlock idle control (11) by turning handle counterclockwise and pull handle out to fast idle. Lock handle by turning clockwise. Allow engine to run at fast idle until engine water temperature reaches approximately 140°F.

i. When operating temperature is reached, unlock compressor unloader handle (10) and idle control handle (11). Push both handles in and lock by turning clockwise. Close the air outlet service valves.

j. Check the readings on all gauges. Normal operating readings are:

Air pressure	90 - 100 psi
Engine oil pressure	40 - 60 psi
Engine water temperature	160 - 185°F

k. Unit is now ready for use and will cycle through load and unload automatically in relation to air demand.



Do not allow equipment to operate unattended for prolonged periods. The operator should observe all gauges periodically to be certain unit is operating normally and listen to the unit for any abnormal noises. Observance of these precautions can prevent serious damage to the unit.

NOTE

This unit is equipped with safety devices to automatically stop the unit in the event of low engine oil pressure, high engine coolant temperature, high compressor air temperature, and engine overspeed. Do not attempt to restart unit until cause for such automatic stop has been determined.

2.5. STOPPING THE UNIT.

a. Close the air outlet service valves and allow the unit to run unloaded for five minutes.

b. Push the ignition switch (9, figure 2-2) in (off).

c. Perform the after operation procedures found in figure 3-1. Close and secure the unit housing side doors.

2-6. OPERATION IN EXTREME COLD (Below 0° Fahrenheit.)

a. Lubricate the air compressor in accordance with the lubrication table, figure 2-1. Lubricate the engine per instructions in the Engine Manual, Part II.

CAUTION

Many oils will jell at extremely cold temperatures. It is essential that oil(s) used are fluid at the temperature being experienced. Check your oil supplier for pour point data if in doubt. A quick check is to momentarily remove the drain plug of the engine.

b. Clean off all ice and snow.

c. For temperatures below 40°F, use the cold weather starting equipment supplied with the unit. For procedures, refer to paragraph 2-4e and 2-4f.

d. In cold weather, pull compressor unloader out during warmup.

e. Keep the unit doors closed during operation in extreme cold temperatures. Open the door on the instrument panel side of the machine from time to time to check machine operation.

2-7. OPERATION IN EXTREME HEAT.

a. Locate the air compressor in a well ventilated area and keep all doors open.

b. Keep the radiator assembly clean and full of coolant.

c. Lubricate the air compressor in accordance with lubrication table.

2-8. OPERATION IN DUSTY OR SANDY AREAS.

a. Locate the air compressor in a sheltered area, if possible.

b. Keep the engine unit as clean as possible.

c. Lubricate the unit in accordance with the lubrication table. Lubricate more often than under normal conditions.

d. Service the air cleaner and oil filters every five hours of operation.

e. Wet down the surrounding area to help keep down dust.

2-9. OPERATION IN SALT WATER AND HIGH HUMIDITY AREAS.

a. Wipe all exposed area frequently.

b. Cover the air compressor when not in operation.

c. Keep all electrical components (leads, starter, alternator, battery, etc.) clean and dry.

d. Service the air cleaner and oil filters frequently.

2-10. OPERATION AT HIGH ALTITUDE.

This unit will operate satisfactorily at high altitudes. A slight loss of efficiency may be noticed at altitudes greater than 5000 feet. This is a normal condition that cannot be prevented.

2-11. OPERATING PRECAUTIONS.

a. Do not remove, lubricate or adjust any parts while the unit is operating.

b. Do not play with compressed air. Pressurized air can cause serious injuries to personnel.

c. Watch all instruments for any indication that the unit is malfunctioning.

d. Provide sufficient ventilation. Exhaust gases contain carbon monoxide which is a colorless, odorless and deadly gas.

e. Do not attempt any disassembly or repair of the unit air end with air pressure in system. Allow minimum of three minutes after shutdown for pressure to bleed off. In an emergency, pull out on lever of safety valve on separator assembly to relieve pressure in separator assembly and compressor.

f. Do not fill fuel tank with engine running.

g. Do not touch the muffler or engine with bare hands while the equipment is running. Shut down the unit and allow it to cool off before making repairs.

h. Keep compressor and engine oil and air filters clean to protect the unit against rapid wear and low output.

i. Do not attempt to start the engine until the unit has been checked for lubricating oil, water and fuel supply. (Also see Engine Manual.)



If repairs or adjustments must be made while the unit is operating, use extreme care to avoid severe burns or serious injuries.

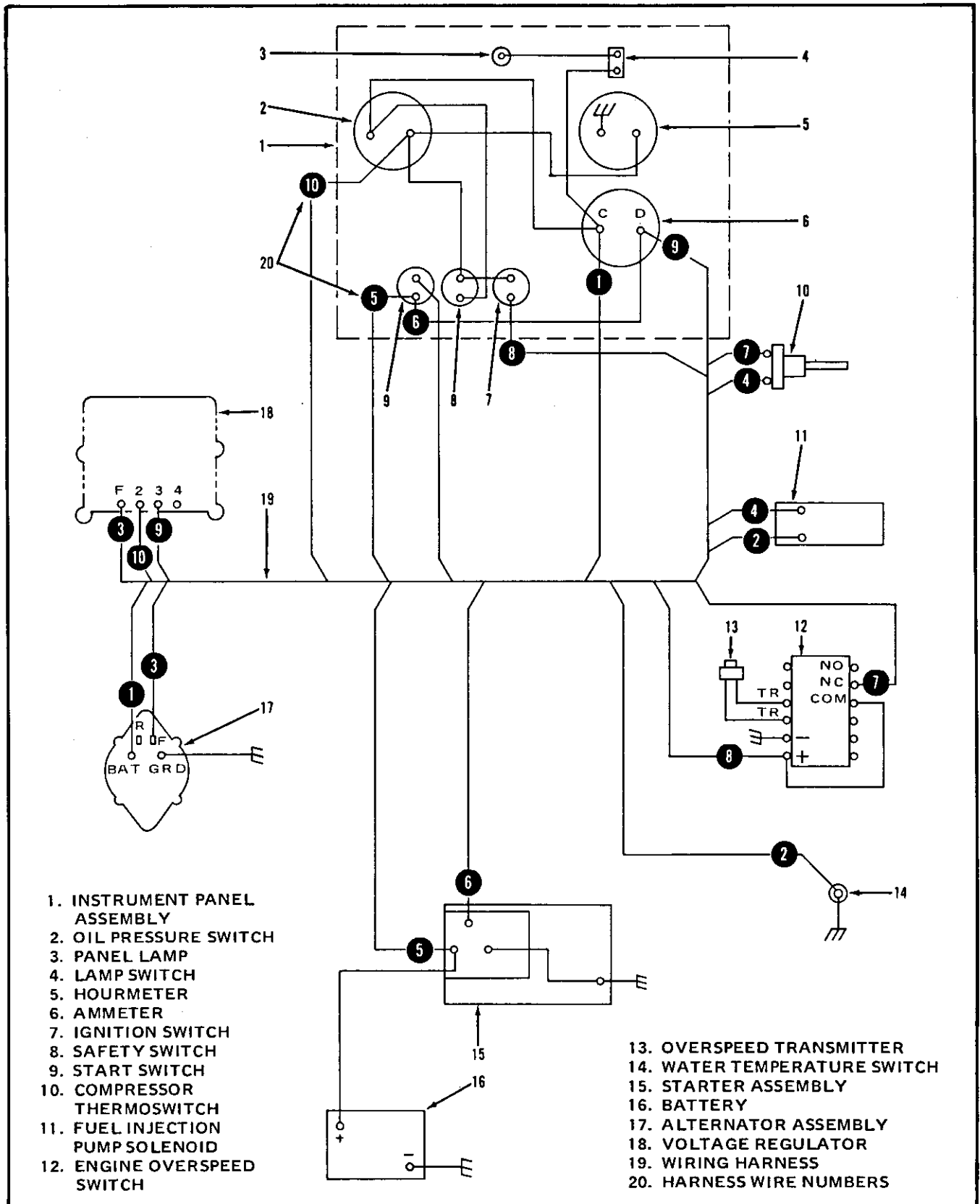


Figure 2-3. Wiring diagram



SECTION 3

MAINTENANCE INSTRUCTIONS

3-1. PREVENTIVE MAINTENANCE.

To ensure that the equipment is ready for operation at all times, it must be inspected systematically by the operator before operation, during operation, and after operation (see figure 3-1); biweekly, quarterly and every 1000 hours of operation (see figure 3-2). The biweekly interval will be equivalent to a maximum of 100 hours of use. The quarterly interval will be equivalent to 3 months or a maximum of 500 hours of use, whichever occurs first. In this manner, defects will be discovered and corrected before they result in serious damage or failure.

The necessary preventive maintenance services will be performed before operation. Defects discovered during operation of the unit will be noted for correction to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noticed during operation which would damage the equipment if operation were continued. After-operation services will be performed at intervals based on the normal operation of the equipment. Reduce interval to compensate for abnormal conditions.

3-2. ENGINE MAINTENANCE. Refer to Engine Manual in Part II for all engine maintenance procedures.

3-3. CORRECTIVE MAINTENANCE.

3-4. Major maintenance will not normally be required, provided that preventive maintenance and periodic maintenance is observed. It is essential that oil be changed regularly and that oil filters and air cleaner are inspected and serviced regularly. Cleanliness of these components is extremely important.

WARNING

Do not attempt any disassembly or repair of the unit until all air pressure has been relieved. Blowdown valve will relieve pressure in about 10 seconds after shutdown.

3-5. DISASSEMBLY.

a. Disassembly of the air compressor unit, or any of the major components, is accomplished by following the order of key index numbers assigned on the figures in Section 5. Exception to this index order is that attaching parts follow the part or assembly they attach. These parts are indicated

by the code (AP) following the description. Many of the components can be removed and replaced without disturbing the rest of the assembly. Disassemble only to the extent necessary to accomplish needed maintenance or repair. Components requiring special disassembly instructions are covered in the following paragraphs.

b. Air Compressor Rotor Blade Inspection. Disassembly of the air compressor for inspection or replacement of rotor blades is as follows:

(1) Disconnect and remove the compressor unloader cable and idle control cable from compressor intake control. Disconnect control arm return spring from stop block. Remove lock nut and disconnect stop block from control arm. (Disconnecting stop block from control arm will not disturb the speed control rod setting.)

(2) Disconnect all hose assemblies connected to the intake control housing.

(3) Remove bolts (1, figure 3-3) and sealing washers (2) securing the intake housing and end cover assembly (3) to stator (6). Tap the assembly (3) lightly with mallet to free from stator and carefully remove assembly (3).

(4) Use a wire bent to form a hook at one end to extract blades (4, figure 3-3) from rotor (5) slots at top of rotor. To rotate rotor to position blades at top, rotate the engine by repeatedly engaging starter.

(5) Inspect blades for evidence of excessive wear. See figure 3-4. Blades are excessively worn when 25 percent of covering, per side, has been removed and shiny metal is exposed. Blades worn on one side only can be turned around and reused. Replace blades which have suffered a loss of 1/16 inch in height due to wear. Replace blades worn on both sides or damaged by scoring or chipping.

(6) Dip new end cover o-ring and blades in clean compressor oil before assembly.

(7) Assemble the compressor non-drive end of compressor in the reverse of disassembly just described, see figure 3-3.

c. Disassembly of Air Compressor (figure 5-10). Disconnect all hose assemblies, intake control cable, and speed control rod from compressor (reference figure 5-1). Disassembly is essentially in order of index numbers with special

BEFORE	DURING	AFTER	PROCEDURE
OPERATION			
X		X	VISUAL INSPECTION – Make a general inspection of the entire unit for obvious deficiencies, such as oil leaks, loose or missing bolts, nuts, screws, loose connections, broken wires, and any damage that may have occurred since the equipment was last operated. Inspect for a bent or cracked housing or frame. Correct any deficiencies.
X			TAMPERING – Inspect the air compressor for evidence of tampering or damage. Do not operate the unit until defects are corrected.
X			LUBRICATION – Lubricate the air compressor in accordance with the lubrication table, figure 2-1.
X		X	BATTERY – Check level of electrolyte in the batteries. Use distilled water to maintain proper level.
X			AIR CLEANER – The dry filter of the air cleaner shall be removed and cleaned every eight hours of operation. The element may be washed in a solution of lukewarm water and detergent. Dry with compressed air. In conditions of extreme dust, dirt, or blowing sand, the element should be cleaned every four hours of operation.
X		X	COOLING SYSTEM – Inspect the condition of the fins on the radiator assembly. See that they are clean and free from dust and dirt. Backwash with water or blow air through radiator and cooler fins to remove dust.
X	X	X	INSTRUMENTS – Inspect the instruments for broken glass, improper operation, and insecure mounting. Replace any defective instruments. When the compressor is operating, the gauges should give satisfactory readings.
X	X	X	AIR HOSES – Inspect the air hoses for breaks, wear or leaks. Replace defective air hose.
	X		LEAKS – Inspect all air lines and fittings for air leaks. Correct all deficiencies.
		X	CLEAN EQUIPMENT – See that the equipment is clean and free of grease, oil and dirt on all surfaces. Clean with nonflammable cleaning solvent and wipe dry.
		X	PROTECTION – Protect the unit by placing and covering it in a sheltered place to protect it from tampering and weather.

Figure 3-1. Operator's preventive maintenance chart

100 HOURS (2 Weeks)	500 HOURS (3 Months)	1000 HOURS (6 Months)	PROCEDURE
X			AIR CLEANER – Inspect the air cleaner for loose connections and mountings.
X			Tighten any loose connections or mounting hardware. Replace clogged or defective air cleaner.
X			TIRES – Check air pressure; maintain per Specification listing.
X			REGULATORS, CHECK VALVES, SAFETY VALVES, GAUGES. Inspect the condition of all gauges, valves and safety valves. Start the air compressor and see that all gauges read correctly and that the glass is not cracked. Inspect the condition of all safety valves to see they are working properly.
X			Tighten any loose mounting screws and connections. Replace any defective or damaged gauges, check valves, and safety valves.
X			Check settings of safety valves and pressure gauges.
X			FAN AND SHROUDS – Inspect the engine fan assembly for insecure mounting and improper operation. Check fan and alternator belts for proper tension.
X			Remove compressor oil filter. Clean or replace.
	X		LUBRICATION – Drain oil in rotary compressor and engine and refill with clean oil of type and grade specified on lubrication chart.
	X		APPEARANCE – Inspect the general appearance of the air compressor, paying particular attention to dirt, illegible markings of identification, and poor condition of the paint surfaces.
	X		HOOD, SIDE PANELS – Inspect the doors, side panels, and cover panels for loose or missing nuts and screws and damaged hinges, latches, and panels.
	X		CONTROLS, WIRING – Inspect all controls and instruments on the control panel for damaged or improper operation. Inspect all controls and instruments for loose mountings and connections and damaged wiring. Clean the accumulated dust and dirt from the control panel. Tighten any loose connections and replace damaged controls, instruments, or wiring.
	X		Check condition, gap and clean engine spark plugs. Replace any defective plug. (Gasoline engine driven units.)
	X		Check battery voltage and recharge if voltage is low. If condition persists, check ignition system per Engine Manual.
		X	WHEEL BEARINGS – Remove, clean out old grease and repack per lubrication chart, figure 2-1.

Figure 3-2. Periodic inspection chart

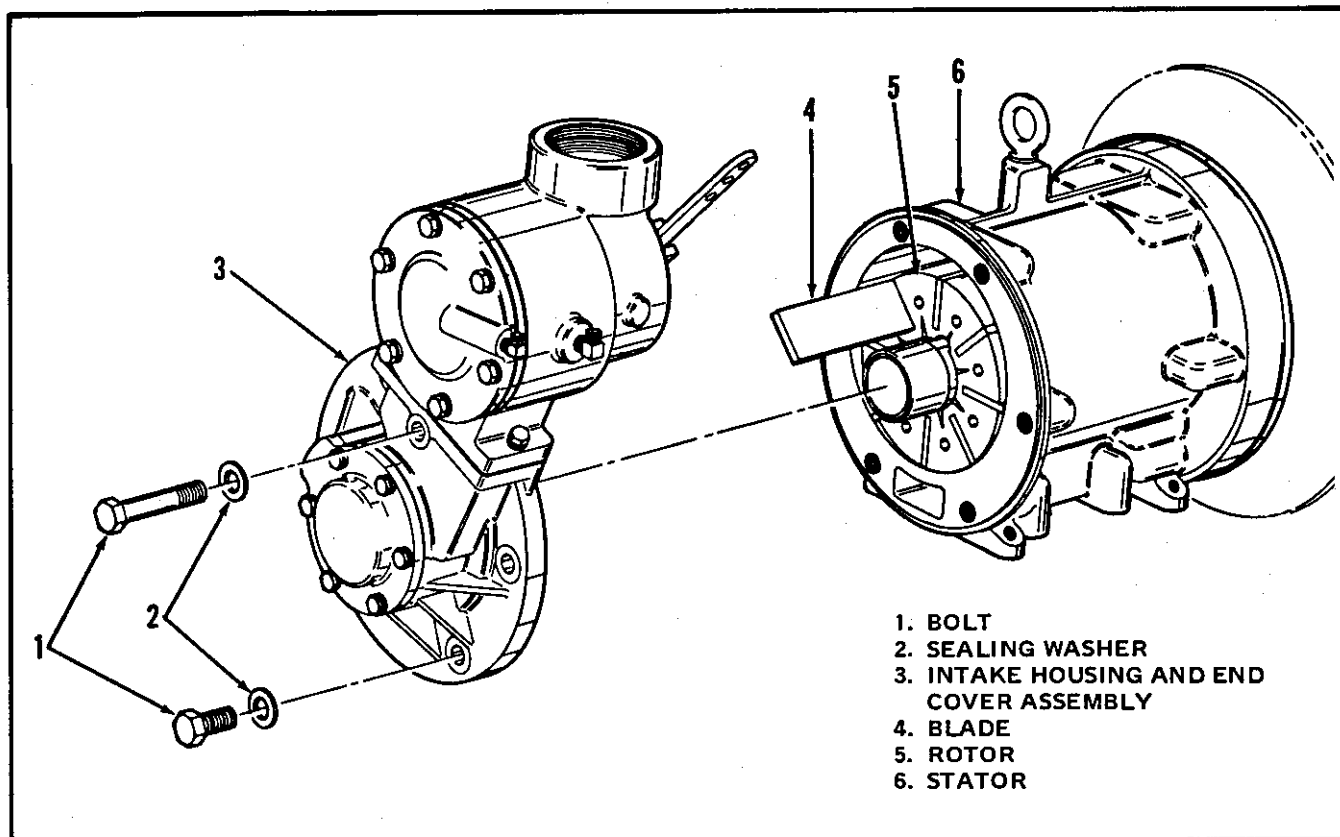


Figure 3-3. Compressor non-drive end

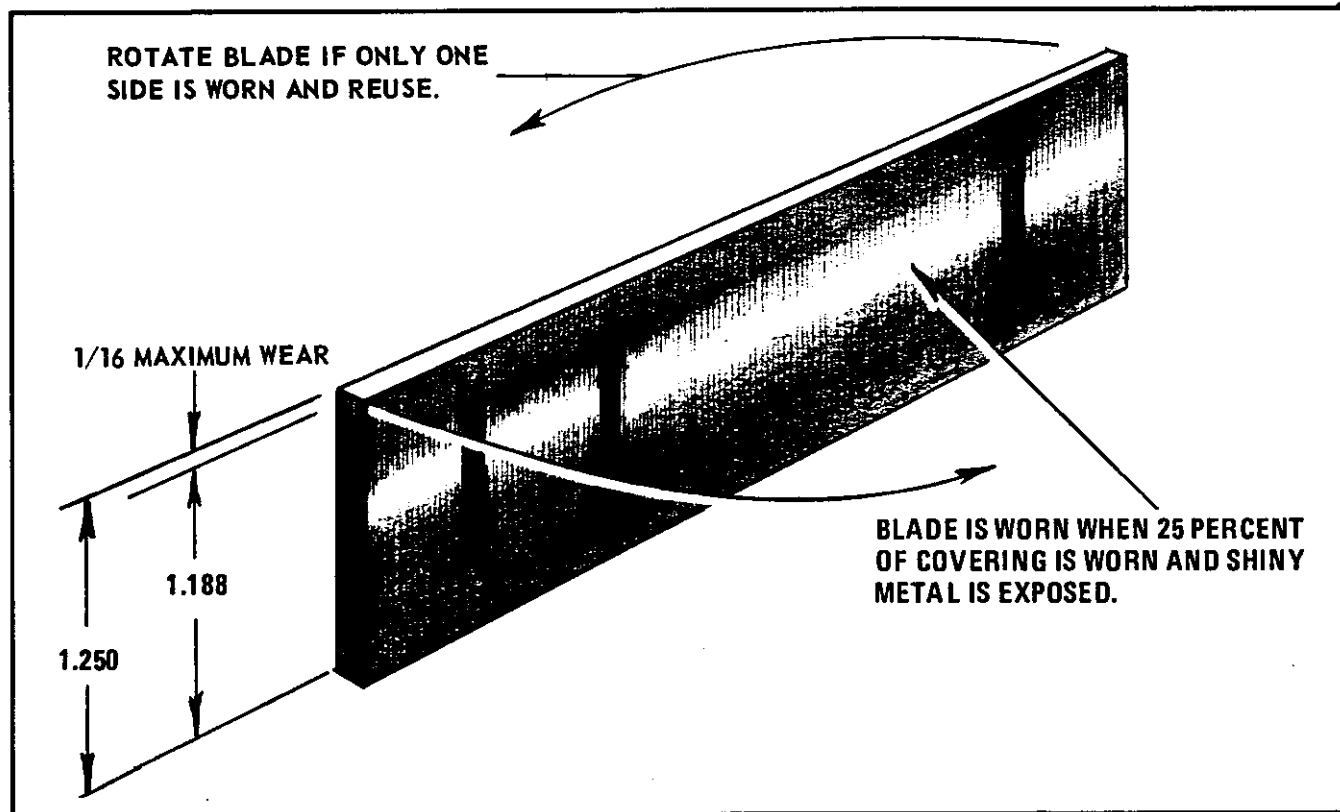


Figure 3-4. Rotor blade inspection

attention to any peculiar disassembly or special notes on disassembly described in following paragraphs. To remove intake housing (54) from end cover (62), parts (21 through 33) must be removed to gain access to center bolt (55) within intake housing cavity.

Do not disassemble rotor, shaft, and drive end cover assembly (89 through 93) and inner race of bearing (67) unless it is determined that one of these parts must be replaced. When necessary to disassemble the rotor, shaft, and drive end cover, refer to figure 3-5 and disassemble in the following manner. Remove nondrive end bearing inner race with a suitable gear puller. If inner race cannot be removed with a puller, apply heat from a torch and heat the inner race evenly; then, remove from shaft with the puller.

CAUTION

Discard bearing races that have been removed by applying heat and replace the entire bearing.

Slide rotor (2, figure 3-5) off shaft (8), remove key (3), pull end cover (9) and bearing (4) off shaft. The bearing facing washer (5) will fall free. With suitable puller, remove outer race (6) from end cover (9). Remove inner race (7) as described above for removal of nondrive end bearing inner race.

3-6. CLEANING.

- a. Wash all metal parts with a solvent, Federal Specification P-D-680, or a commercial equivalent.
- b. Strip off all gasket material and clean surfaces where sealing compound may have been used.
- c. Clean all foreign matter from internal surfaces, rotor slots, and all passages.
- d. Clean the air cleaner (figure 5-2) in accordance with instructions found on decal attached to the air cleaner assembly.
- e. Clean radiator-cooler assembly (figure 5-5) cooling fins of accumulated dust and dirt by blowing compressed air through the fins in the reverse of normal air flow (fan is suction type).
- f. Clean the compressor oil filter element (5, figure 5-11) in solvent by soaking and agitating. Do not scrape or wire brush as damage may occur. If the element is coated with varnish (a dark brown sticky substance) a prolonged soaking in MEK (methyl ethyl ketone) will remove the varnish.

WARNING

Methyl ethyl ketone (MEK) is toxic and flammable. Use in a well ventilated area.

If a varnish condition exists, the compressor oil separator and oil cooler must also be cleaned. Refer to paragraphs following for suggested cleaning method.

NOTE

Varnishing is a malfunction and the cause must be corrected or serious damage to the compressor may occur. Varnishing can be the result of the use of improper oil, poor filter maintenance, operating above normal operating temperatures, and over extended oil change periods.

CAUTION

Do not attempt to clean the oil separator element or reuse the element because of a clean appearance. The element shall be replaced every 4000 hours of operation.

- g. At regular compressor oil change intervals, the compressor oil filter shall be cleaned and inspected for varnish conditions as described in step f above. When this condition exists, a suggested method of cleaning the separator, compressor, oil filter, and oil cooler is to use a super detergent mixed with the compressor oil. There are several brands of super detergents available. The manufacturer of this unit recommends THERMA-SOLVE CONCENTRATE. Check with your industrial oil dealer for THERMA-SOLVE, or equivalent. (THERMA-SOLVE is available through a Davey dealer or from Davey factory service department).

CAUTION

Follow the detergent manufacturer's instructions for use and handling procedures. Use only when a varnish condition exists.

Mix the THERMA-SOLVE with compressor oil in the separator tank in a ratio of one gallon of THERMA-SOLVE to each ten gallons of oil. Operate the unit under normal conditions for 40-60 hours allowing the treated oil to dissolve and suspend the varnish. After this operating period, stop the compressor while running under full load. This will allow maximum air to mix with the oil and force maximum amount of oil from the oil cooler into the separator tank.

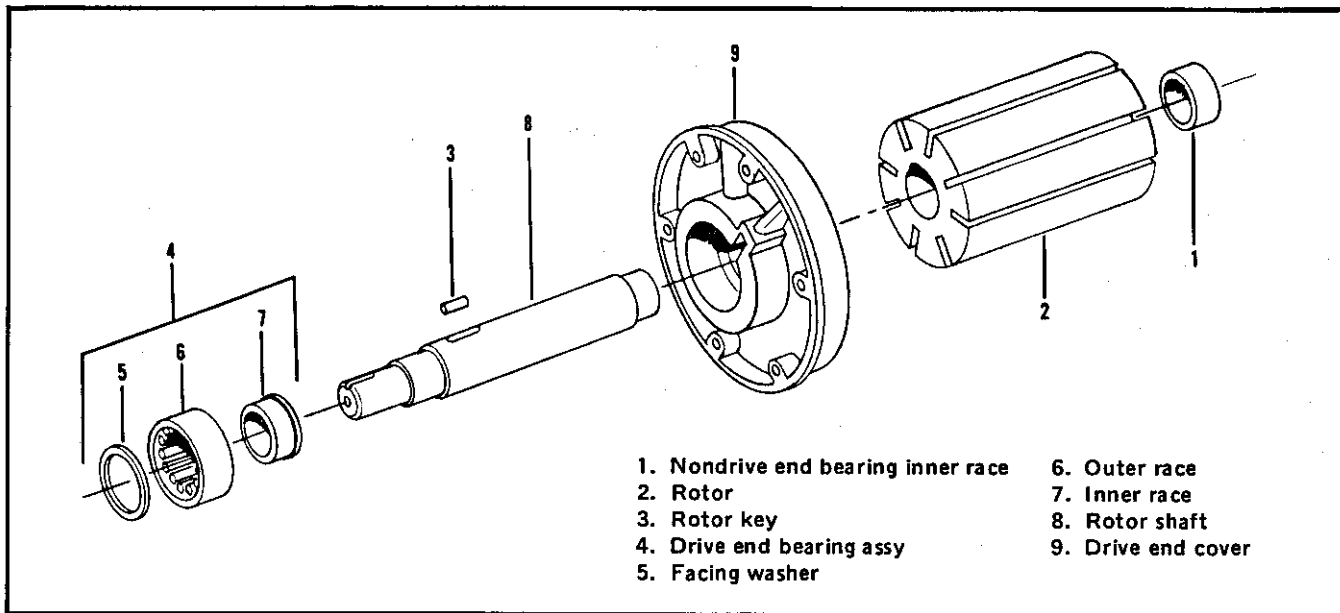


Figure 3-5. Rotor, shaft, and end cover assembly

While the oil is still hot, drain oil from separator tank. Remove and replace the oil separator element (33, figure 5-9), clean the compressor oil filter element, and fill the separator tank with clean oil.

WARNING

Destroy a used separator element to prevent accidental reuse. Over pollution of metal salts collecting on the element can produce a hazardous condition by lowering the flash point causing a fire in the separator.

NOTE

As an aid in preventing varnish buildup, THERMA-SOLVE CONCENTRATE may be added to the compressor oil at a ratio of one quart THERMA-SOLVE to each ten gallons of oil approximately 40 hours prior to scheduled oil change.

3-7. REPAIR OR REPLACEMENT.

a. Replace all o-rings, seals, and gaskets at assembly of repaired or replaced components.

b. Inspect air cleaner (figure 5-2) for damaged parts. If not repairable, replace. Replace element after six cleanings or when damaged.

c. Inspect instrument panel (figure 5-4) gauges for broken glass and proper operation. Replace all faulty gauges. Check and repair wiring connections as necessary.

d. Inspect radiator-cooler assembly (figure 5-5) for damaged cores or fins. If leakage cannot be repaired by soldering, replace damaged part.

e. Inspect oil separator element (33, figure 5-9) for varnish condition and damage, such as dents and holes. Replace a damaged or varnished element. (See paragraph 3-6g for cleaning when varnish condition exists.

f. Examine air compressor rotor (89, figure 5-10) and stator (104) for minor nicks or scratches on machined surfaces. These may be removed with a fine honing stone or emery cloth. When scored or galled, replace damaged parts. Replace rotor blades (88) when coating is worn off and bare metal is exposed on blade sides. If one side of blade is not worn, rotate blade 180 degrees and replace in slot. Blades should slide freely in slots. Replace bearings (67, 91) that feel gritty or bind when rolled manually. Replace complete bearing when inner race was heated to remove from shaft.

g. Repair or replace all damaged air hoses, control cables, control rod, levers, and the like.

h. Replace a damaged compressor oil filter element (5, figure 5-11). Replace defective power element (24).

i. Replace a cut, frayed, or otherwise damaged air pressure regulator diaphragm assembly (9, figure 5-8).

j. Replace broken brake cables (7, figure 5-12) and wheel bearings (16, 17, 18, 22) that feel gritty or bind when wheel is turned manually. Replace a broken spring (29).

k. Replace brake shoe and lining assemblies (3, 4, figure 5-13) with lined shoe replacement package when shoes become excessively worn (see figure 5-13 parts list).

3-8. ASSEMBLY OF COMPRESSOR.

a. Assembly of the compressor is essentially the reverse of disassembly (figure 5-10). Specific assembly procedures which require special note follow.

b. Coat o-rings, blades, internal machined parts, and bearings with clean lubricating oil at time of assembly.

c. Coat gaskets with a light coating of grease to hold in place while assembling.

d. If the rotor, shaft, and end cover were disassembled (see paragraph 3-5b), refer to figure 3-5 and assemble as follows.

(1) Heat bearing inner races (1, 7) evenly in hot cooking oil to a maximum of 350°F(177°C). Install drive end bearing inner race (7) on shaft (8) to the shaft shoulder.

(2) Assemble the bearing outer race (6) and facing washer (5) on inner race (7). Assemble shaft and bearing assembly through end cover (9) pressing bearing assembly (4) into cover (9).

(3) Place rotor key (3) in keyway of shaft (8) and slide rotor (2) onto shaft (8). Make certain that relief holes in rotor blade slots are on the leading edge in relation to direction of rotation. Refer to figure 3-6.

(4) Place heated nondrive end bearing inner race (1, figure 3-5) on shaft (8) to shoulder. The rotor, shaft, and end cover assembly may now be assembled into stator as assembly progresses.

e. At assembly of gripsprings (73, figure 5-10), it is essential that they be installed correctly to obtain proper grip to secure drive coupling to shaft. Improper installation will result in slippage of coupling on shaft causing excessive wear. Refer to figure 3-7 and assemble as follows:

(1) Install one of the smaller gripsprings (3) on rotor shaft (2) against face of oil seal sleeve (82, figure 5-10). Make certain beveled edge of gripspring is facing outward.

(2) Position one of the larger gripsprings (4, figure 3-7) over smaller gripspring (3), just assembled on shaft, so that the beveled edges match.

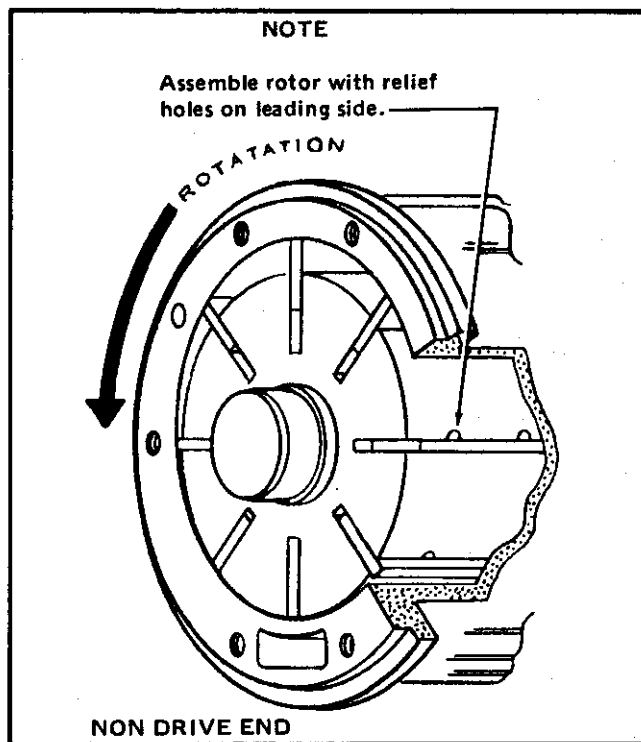


Figure 3-6. Compressor rotor installation

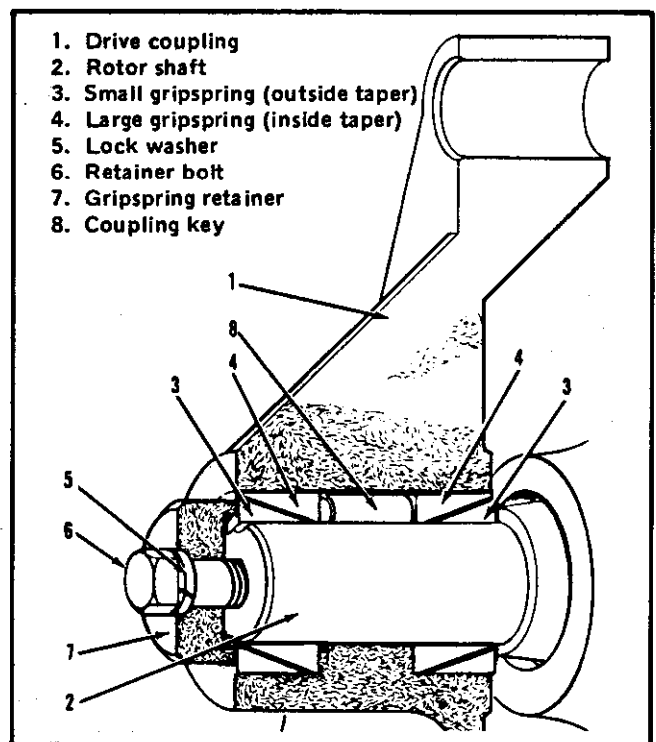


Figure 3-7. Gripspring installation

(3) Install key (8 , figure 3-7) in keyway on shaft. Slide coupling (1) on shaft over key (8) and gripsprings (4, 3) until coupling seats.

(4) Position second larger gripspring (4) in coupling bore with beveled edge facing outward.

(5) Install second smaller gripspring (3) on shaft with beveled edge matching with gripspring (4).

(6) Position gripspring retainer (7) and secure with washer (5) and bolt (6). Torque bolt (6) to 45 foot pounds.



After assembly, service the unit per paragraphs 2-1 and 2-2 before starting engine and compressor.

3-9. INSPECTION AFTER ASSEMBLY.

a. Start the unit in accordance with instructions found in paragraph 2-4. Allow unit to run until pressure reaches 100 psi.

b. Make a careful visual inspection of all fittings, joints, etc. for signs of oil leaks. Tighten connections or repair as necessary. Check all air line connections for leakage using a soapy water solution applied with a brush. Leakage is indicated by bubbling of the solution. Tighten or repair leaking connections as necessary.

c. Operate unit at partial load or no load for minimum of 15 minutes to stabilize operating temperatures.

d. Stop the unit per instructions found in paragraph 2-5. Recheck oil levels of engine and oil separator. Fill to proper level as necessary. Recheck radiator coolant level and add coolant as necessary.

e. Unit is now ready for normal use.

3-10. SPEED CONTROL LINKAGE ADJUSTMENT. (Reference figure 3-8.)

a. Start the unit per instructions found in paragraph 2-4 and allow to operate until normal operating temperatures are achieved.

b. With all air discharge valves closed and compressor running unloaded check engine speed with a tachometer or other suitable device. If speed at idle is not 1000 rpm plus or minus 50 rpm, hold the speed control rod between

compressor intake control arm and fuel injection pump lever. Loosen the locking nuts on either side of the stop block attached to the compressor control arm and move the control rod as required to set the engine idle speed at 1000 rpm. Tighten the locking nuts on each side of the control arm stop block.

c. Cycle the compressor several times, load and unload, by opening and closing air discharge service valves.

d. Check engine idle speed each time compressor is running unloaded to ensure idle remains at 1000 rpm. Re-adjust as described above when necessary.

3-11. AIR PRESSURE REGULATOR ADJUSTMENT. (Reference figure 3-9.)

a. Start the unit per instructions found in paragraph 2-4 and allow to operate until normal operating temperatures are achieved.

b. With compressor running in the unloaded condition, observe the air pressure gauge. Air pressure should read 115-117 psi.

c. If the indicated pressure is other than 115-117 psi, and the engine idle speed is 1000 rpm, plus or minus 50 rpm, the air pressure regulator requires adjusting.

d. Loosen the locking nut on the air pressure regulator adjusting screw and turn the screw counterclockwise to decrease pressure and clockwise to increase pressure. Open the air discharge service valve and bleed off excess air. Close service valve and readjust the regulator as necessary.

e. Cycle the compressor several times by opening and closing the air discharge service valves. Observe the air pressure gauge each time the compressor is running unloaded to ensure that pressure setting remains stable; then, tighten locking nut.

3-12. BRAKE ADJUSTMENT.

a. Jack the trailer up so that the wheel to be adjusted is off the ground. Actuate the brake handle several times to center brake shoes on drum; then, release brakes completely.

b. Remove the grommet from the adjusting hole in the bottom of brake backing plate assembly.

c. Insert a screwdriver through the adjusting hole so that the end of screwdriver blade engages with the star wheel of the adjusting screw. Rotate the wheel while turning the star wheel tightening the brake shoes against drum until the wheel will not turn.

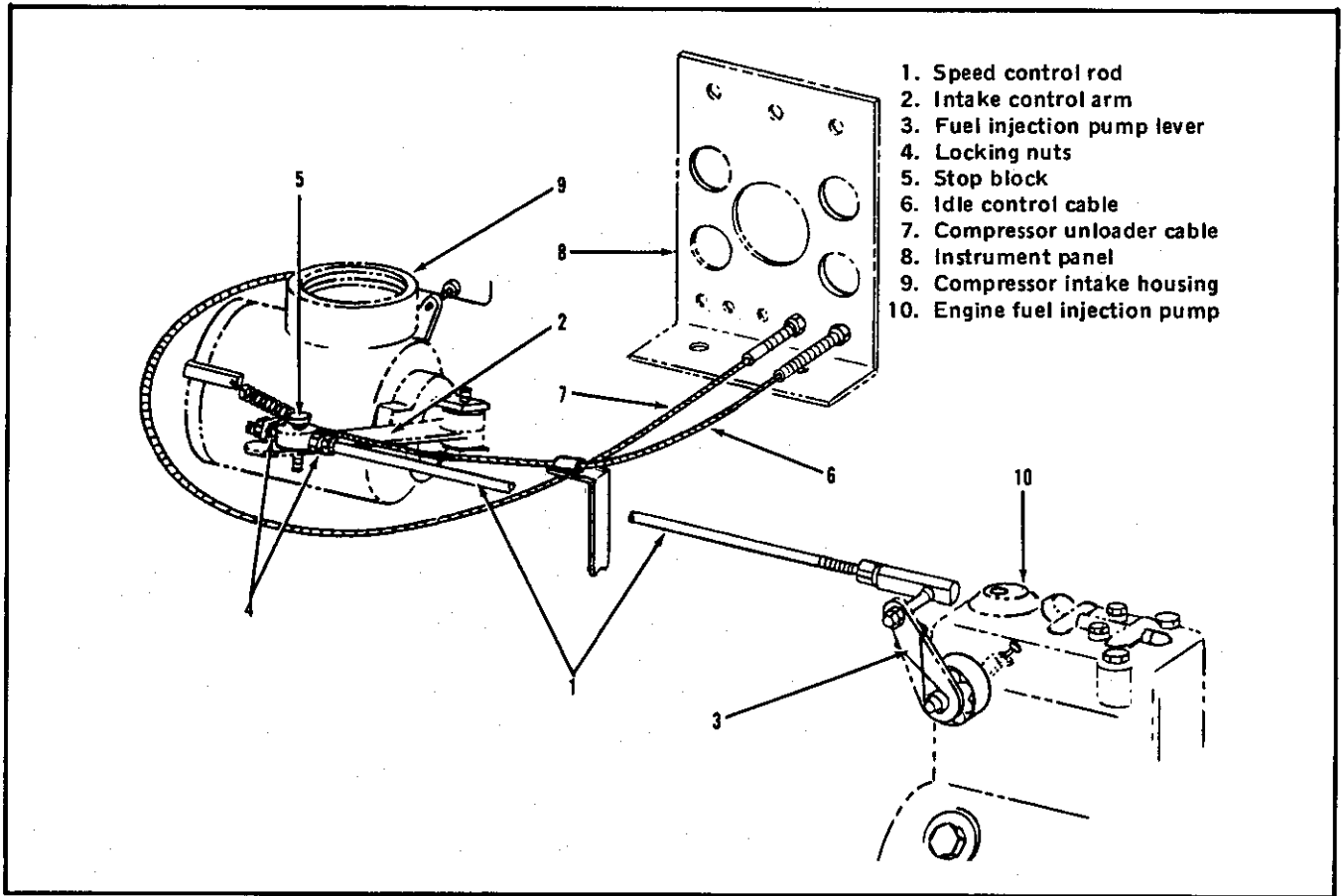


Figure 3-8. Speed control linkage adjustment

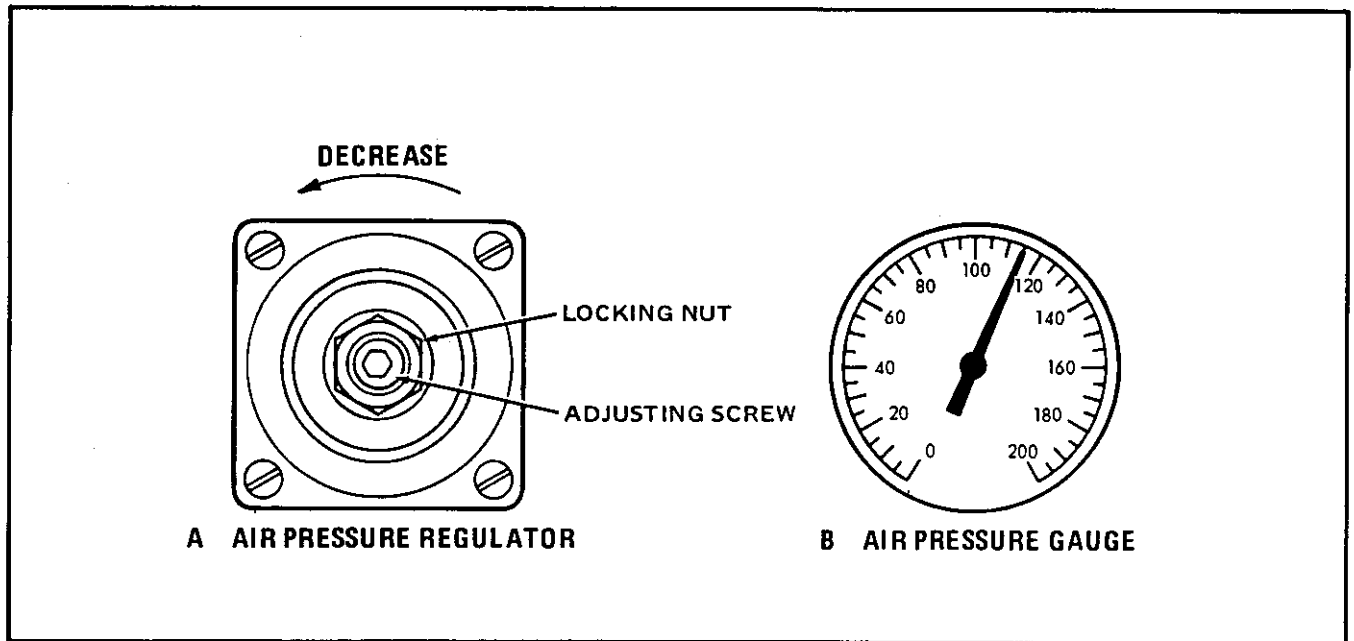


Figure 3-9. Air pressure regulator adjustment

d. Turn the star wheel in the opposite direction just far enough to fully release brake with no lining drag against the drum when wheel is turned.

e. Install the grommet in backing plate assembly adjusting hole. Release the jack and lower the trailer.

f. Place the jack on opposite side of trailer and adjust the other brake in the same manner.

g. Adjust the hand brake lever assembly by turning the adjusting knob on the end of lever handle clockwise to increase force applied to brakes by the brake cables.

h. If excessive force is required to apply the brakes, turn the adjusting knob on brake lever handle counterclockwise until lever can be moved to on and off position with normal hand force.

i. When necessary to adjust effective travel of brake cables so that each cable applies equal force to brakes, loosen locking nuts at accumulator plate and lengthen or shorten effective travel as required; then, tighten locking nuts on each side of accumulator plate.

SECTION 4

TROUBLESHOOTING

4.1. TROUBLESHOOTING.

4.2. The following table lists possible troubles, their probable causes, and suggested remedies. For engine troubles, refer to engine manufacturer's manual found in Part II of this publication.

WARNING

Do not attempt any repair, removal, or replacement of unit air end components or parts until all air pressure has been relieved from the system.

Table 4-1. Troubleshooting

TROUBLE	PROBABLE CAUSE	REMEDY
Engine will not crank when start switch is pressed	Battery charge too low to crank engine.	Check specific gravity and charge battery as necessary. If electrolyte is low, add to cover battery plates.
	Start switch inoperative.	Check wiring connections and tighten as necessary. Inspect for defective wire assemblies and replace frayed or burned wire assembly. Replace a damaged start switch.
	Starting motor inoperative.	Inspect starter cables and terminals for tightness. Tighten as necessary or replace damaged cables.
	Starting motor defective.	Refer to Part II of this manual.
	Defective engine.	Refer to Part II of this manual.
Engine cranks but will not start	No fuel in tank.	Fill fuel tank with proper grade of fuel.
	Contaminant in fuel.	Drain fuel tank and fuel lines. Fill tank with proper grade of fuel. Prime fuel system.
	Oil pressure bypass switch (safety) not being pressed simultaneously with start switch.	Refer to starting procedure in paragraph 2-4.
	Defective fuel pump.	Refer to engine manual in Part II.
	Air intake or exhaust restricted.	Service the air cleaner. Check intake and exhaust for obstructions.
Engine stops during operation	Out of fuel.	Fill fuel tank with proper grade of fuel.
	Low engine oil pressure causing oil pressure switch to open.	Check engine oil level. Fill to proper level with recommended grade of oil.

Table 4-1. Troubleshooting (Cont)

TROUBLE	PROBABLE CAUSE	REMEDY
Engine stops during operation (Cont)	Engine overheated causing safety circuit to open.	Check coolant level and fill radiator as necessary. Check and tighten fan belt if loose. Clean any debris from radiator fins. Defective thermostat, replace.
	Engine overspeed switch causing safety circuit to open.	Refer to engine manual in Part II.
	Compressor air-oil discharge temperature too high causing safety circuit to open.	Refer to trouble "Compressor overheats."
Loss of engine oil pressure	Low engine oil level.	Add engine oil to proper level.
	Clogged engine oil filter.	Service the engine oil filter.
	Engine oil leaks.	Inspect engine and refer to engine manual in Part II for repairs.
	Incorrect grade of oil.	Change oil and use grade specified in Lubrication Chart.
	Defective engine oil pressure gauge.	Replace oil pressure gauge.
	Damaged engine oil pressure hose from engine to gauge	Repair or replace hose assembly as necessary.
Engine overheats	Low radiator coolant.	Fill radiator with coolant. Check for leaks and repair or replace hoses, clamps, or defective parts.
	Fan belt loose.	Check and adjust fan belt tension.
	Dirt or debris clogging radiator.	Clean radiator fins.
	Insufficient engine lubricating oil.	Fill to proper level with correct grade of oil.
	Defective thermostat.	Replace thermostat.
	Defective water pump.	Refer to engine manual in Part II.
Battery discharging	Loose battery connections.	Check and clean terminals and tighten connections.
	Short circuits.	Check wiring connections and wiring harness for defects. Repair or replace as necessary. Refer to figure 2-3.
	Defective voltage regulator.	Replace the voltage regulator.

Table 4-1. Troubleshooting (Cont)

TROUBLE	PROBABLE CAUSE	REMEDY
Battery discharging (Cont)	Alternator not charging.	Check and adjust drive belt as necessary. Replace a defective alternator. See Part II for alternator details.
	Defective battery.	Replace the battery.
Alternator not charging	Loose drive belt.	Adjust belt tension as necessary.
	Defective voltage regulator.	Replace voltage regulator.
	Defective alternator.	Refer to Part II for alternator details.
Compressor overheats	Separator oil level too low.	Fill separator to overflow with proper grade of oil.
	Dirty compressor oil filter.	Service the oil filter.
	Faulty thermal bypass valve.	Repair the thermal bypass valve located within the compressor oil filter assembly.
	Dirt or debris clogging oil cooler.	Clean the oil cooler and radiator fins of all dirt and debris.
	Compressor defective.	Overhaul the compressor.
Compressor operation is noisy	Low separator oil level.	Fill separator to overflow with proper grade of oil.
	Air pressure regulator defective or out of adjustment.	Adjust air pressure regulator or repair as necessary.
	Loose, worn, or damaged compressor parts.	Overhaul the compressor if normal service and tightening of external components does not remedy noisy operation.
Compressor not operating to full capacity or pressure	Air pressure regulator out of adjustment or defective.	Adjust or repair air pressure regulator.
	Leaks in air hoses or connections.	Check air hoses and connection while unit is operating. Use soapy water solution applied with brush. Tighten connections or replace defective hoses or fittings.
	Air cleaner dirty or clogged.	Service the air cleaner.
	Safety valve on oil separator leaking.	Replace faulty safety valve.
	Air service valves leaking.	Replace defective air service valves.

Table 4-1. Troubleshooting (Cont)

TROUBLE	PROBABLE CAUSE	REMEDY
Compressor fails to load or unload	Dirt buildup on intake-unloader valve seat.	Clean the intake-unloader valve and seat.
	Unloading pressure set too high or too low.	Adjust the air pressure regulator.
	Control air hoses damaged or leaking.	Tighten connection and replace damaged hoses.
	Ruptured diaphragm in intake-control.	Replace a damaged diaphragm.
	Moisture in control hose assemblies.	Disconnect hose assemblies, clean, and reconnect.
Compressor unloads but engine does not idle	Speed control linkage out of adjustment.	Adjust the speed control linkage and replace any damaged parts.
Engine returns to idle, compressor does not unload.	Faulty compressor intake control.	Check for defective diaphragm, sticking intake valve, damaged or plugged hose assemblies to intake-control.
Condensate and/or emulsion in oil separator	Unusually low oil temperature and high humidity.	If a climatic condition, change separator oil to proper grade for operating condition.
	Faulty thermal bypass valve.	Repair the thermal bypass valve.
Excessive compressor oil consumption	Leak in oil system.	Check and repair oil lines and connections.
	Low separator pressure (below 70 psi).	Defective minimum pressure valve spring or pressure regulator. Replace all defective minimum pressure control components.
	Clogged line from separator to intake orifice or clogged orifice.	Remove hose assembly and orifice, clean, and reinstall.
	Ruptured oil separator element.	Replace element.
Engine stalls at idle	Idle speed set too low.	Adjust idle to 950 rpm minimum.
	Speed control linkage out of adjustment.	Adjust linkage. Replace any defective parts.
Compressor output too low	Intake-control valve sticking or worn.	Inspect intake-control valve, clean, or replace if worn.
	Speed control out of adjustment.	Adjust speed control to correct operating speed.

Table 4-1. Troubleshooting (Cont)

TROUBLE	PROBABLE CAUSE	REMEDY
Compressor output too low (Cont)	Damaged rotor blades.	Replace damaged blades.
Excessive oil in air discharge	Clogged oil return hose or saturated oil separator element.	Remove, clean, and install oil return hose. Should this not remedy condition, replace separator element.
	Minimum pressure valve assembly and/or pressure regulator on oil separator faulty causing separator pressure to drop below 70 psi. Drop in separator pressure will allow oil blowout when service air demand exceeds separator pressure.	Inspect minimum pressure valve assembly components and pressure regulator. Replace all defective parts.
Parking brake will not set or release	Parking brake handle out of adjustment.	Adjust by turning handle as necessary to tighten or loosen tension.
	Brakes out of adjustment.	Adjust brakes.
	Brake shoes worn.	Replace brake shoes.
	Broken actuating cable.	Replace broken cable.



SECTION 5

PARTS LISTS

5-1. INTRODUCTION.

This section contains illustrated parts lists for the Davey PERMAVANE Series Portable Compressor. Index numbers are in order of disassembly except that attaching hardware follow the part which they secure. In some instances, hardware, fittings and some accessories are not indexed if it is not deemed necessary. They are identified either by Davey part number or commercial designation and are listed in most suitable sequence of disassembly.

5-2. INSTRUCTION FOR ORDERING PARTS.

a. ALL PARTS ARE SHIPPED F.O.B. Cincinnati, Ohio, USA., EXCEPT parcel post packages and United Parcel Service (UPS) which are prepaid and billed to customer on invoice.

b. WHEN ordering by telegram or telephone, be sure to send us confirming order.

c. WHEN in doubt as to any item send in sketch, or the old part (prepaid) and specify on order "as per sketch" or as per sample."

NOTE

Do not send part (sample), or any returned goods, without prior authorization.

d. IF you return old part as sample be sure to advise us that you are doing so, and put a tag on part with your name and address for identification. Also advise disposition of old part.

e. ALWAYS give the SERIAL NUMBER and MODEL NUMBER of compressor. This is shown on the serial number plate attached to the unit.

ATTENTION

Write in your UNIT MODEL, UNIT SERIAL NO. and COMP. MODEL now! Parts shipment will be quicker and more accurate when you give this information with your parts order.

UNIT MODEL: _____

UNIT SERIAL NO.: _____

COMPRESSOR MODEL: _____

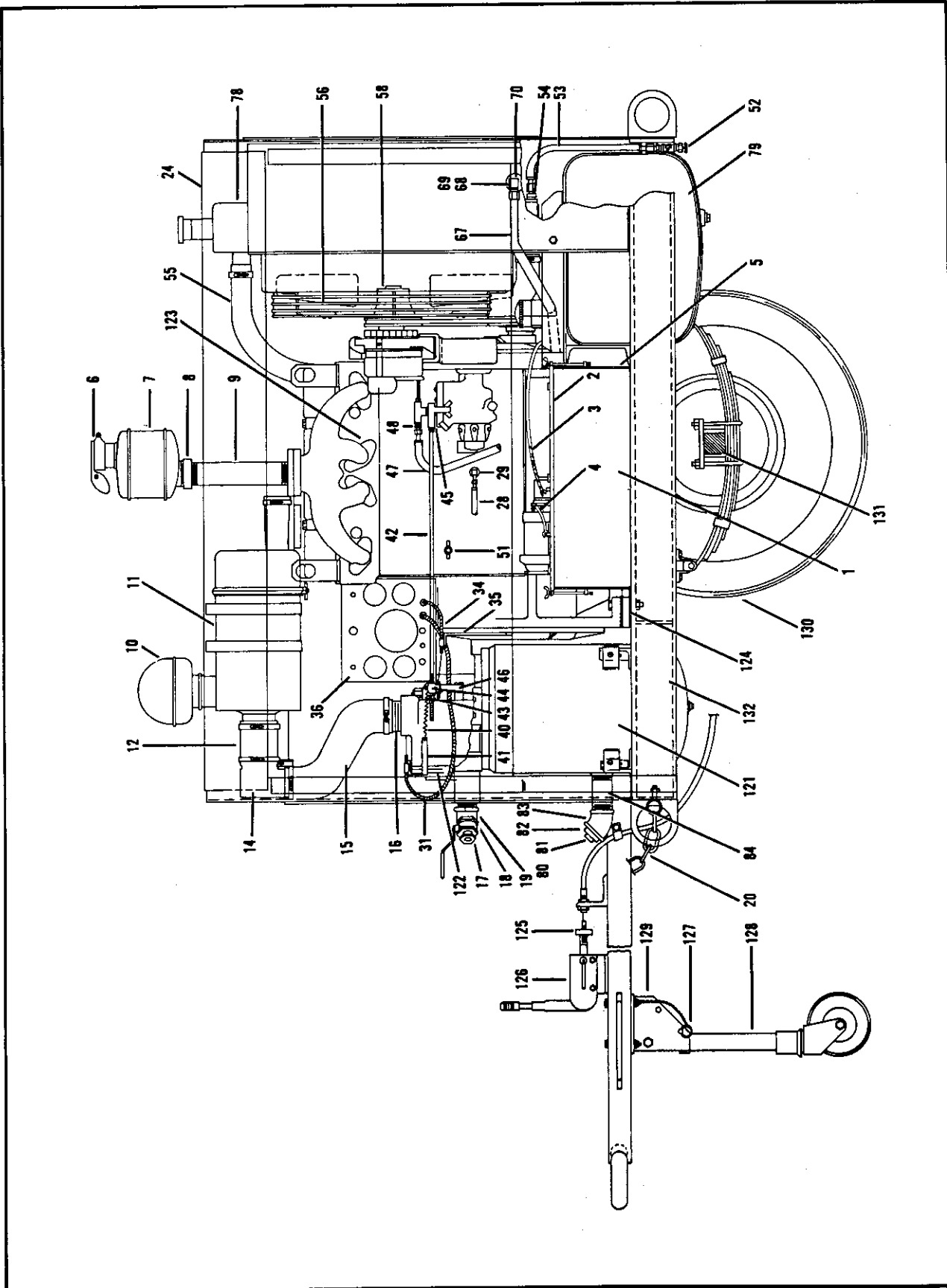


Figure 5-1. Compressor unit assembly, Model 4M125PVC (Sheet 1 of 4)

Parts List

SECTION 5

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-1	65894	COMPRESSOR UNIT ASSEMBLY, Model 4M125PVC	1	
-1	41178	. BATTERY	1	
-2	41702	. HOLDDOWN, Battery (AP)	1	
	126177	. WING NUT, Holddown (AP)	2	
	49274	. WASHER, Flat, holddown (AP)	2	
	65436	. BOLT, Holddown (AP)	2	
-3	11028	. CABLE, Battery, ground	1	
	443335	. NUT, Lock, hex, 3/8-16NC (AP)	1	
	120233	. BOLT, Hex, 3/8-16NC x 1 in. lg (AP)	1	
	60837	. DECAL, Negative ground	1	
-4	49021	. CABLE, Battery to starter	1	
-5	41701	. TRAY, Battery	1	
	9416918	. NUT, Lock, hex, serr flg, 1/4-20NC (AP)	4	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	4	
-6	49665	. SHIELD, Rain, muffler	1	
-7	29391	. MUFFLER, Engine exhaust	1	
-8	179742	. COUPLING, Pipe, 1-1/2NPT	1	
-9	219834	. NIPPLE, Pipe, 1-1/2NPT x 10 in. lg	1	
-10	43516	. CAP, Air cleaner	1	
-11	46155	. CLEANER, Air (see figure 5-2 for details)	1	
		(Donaldson FWG08-0023)		
-12	46168	. HOSE, Air cleaner, 3 in. ID	1	
	61055	. CLAMP, Hose (AP)	2	
-13	50675	. HOSE, Engine air intake, 35 in. lg	1	
	46330	. CLAMP, Hose (AP)	2	
-14	45813	. MANIFOLD, Air intake	1	
-15	49012	. HOSE, Compressor air intake	1	
	61055	. CLAMP, Hose (AP)	2	
-16	45846	. PIPE, Air intake	1	
-17	24046	. COUPLING, Service hose	2	
-18	62565	. VALVE, Throttle, air service	2	
	192470	. NIPPLE, Close, 3/4NPT	2	
-19	60827	. REDUCER, "Y" Connection	1	
	219820	. NIPPLE, Pipe, shoulder, 1-1/2NPT	1	
-20	67336	. CHAIN ASSY, Safety	2	
-21	1119513	. REGULATOR, Voltage (supplied with engine, see Part II)	1	
		(Delco-Remy)		
	9416918	. NUT, Lock, hex, serr flg, 1/4-20NC (AP)	2	
	273771	. SCREW, Hex serr wshr hd, 1/4-20NC x 1/2 in. lg (AP)	2	
	48161	. CONNECTOR, Terminal	1	
	11031	. CLIP, Tubing	1	
-22	67343	. SWITCH, Overspeed	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	2	
	273771	. SCREW, Hex serr wshr hd, 1/4-20NC x 1/2 in. lg (AP)	2	
	49023	. WIRE ASSY, Overspeed switch ground	1	
	67733	. WIRE ASSY, Overspeed switch COM to plus term	1	
	65434	. DECAL, Overspeed reset	1	
	49065	. WIRE ASSY, Alternator ground	1	
	62172	. DECAL, Alternator instr	1	
	66395	. WIRE ASSY, Water temp ground	1	
	67977	. WIRING HARNESS	1	
	70541	. TIE, Wire	5	
-23	46246	. QUICK START KIT, Cold weather starting aid (see figure 5-14)	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	2	
	274473	. SCREW, Hex serr wshr hd, 1/4-20NC x 5/8 in. lg (AP)	2	
-24	No Number	. HOUSING GROUP (See figure 5-3 for details)	1	
-25	67839	. PLATE, Operating instructions	1	
	9426053	. SCREW, Self-tapping, no. 4 x 1/4 in. lg (AP)	4	
-26	44744	. PLATE, Data	1	
	9426053	. SCREW, Self-tapping, no. 4 x 1/4 in. lg (AP)	4	

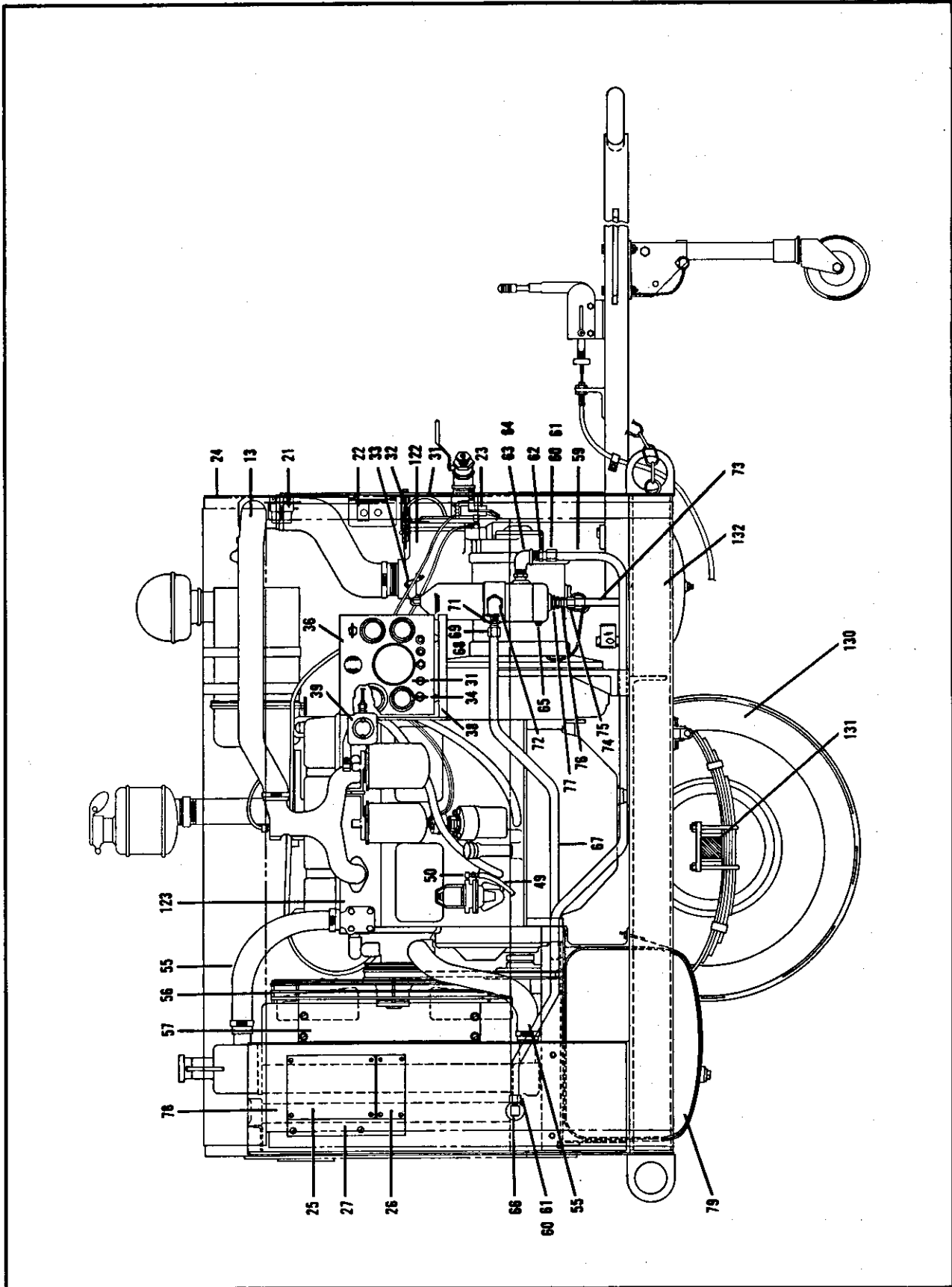


Figure 5-1. Compressor unit assembly, Model 4M125PVC (Sheet 2 of 4).

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-1-27	46151	. PLATE, Mounting	1	
-28	45331	. HOSE ASSY, Engine block to oil pressure gauge	1	
	41958	. . SLEEVE	2	
	41959	. . NUT	2	
	47212	. . HOSE END	2	
	47213	. . HOSE, 1/4 in. ID, 32 in. lg	1	
-29	41899	. ELBOW, Oil pressure hose, in engine block	1	
-30	61083	. HOSE ASSY, Air Pressure	1	
	28881	. . SLEEVE	2	
	28886	. . NUT	2	
	61065	. . HOSE END	2	
	61064	. . HOSE, 3/8 in. ID, 23 in. lg	1	
-31	27854	. CABLE, Control, unloader (cut to suit)	1	
	67981	. WIRE STOP, Unloader control cable	1	
	60886	. CLIP, Cable	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	1	
	273771	. SCREW, Hex serr wshr hd, 1/4-20NC x 1/2 in. lg (AP)	1	
-32	44506	. BRACKET, Unloader cable	1	
-33	30024	. LEVER, Unloader control	1	
-34	27854	. CABLE, Control, idle (cut to suit)	1	
	20588	. WIRE STOP, Cable	1	
	60886	. CLIP, Cable	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	1	
	274473	. SCREW, Hex serr wshr hd, 1/4-20NC x 5/8 in. lg (AP)	1	
	120394	. WASHER, Flat, 3/8 (AP)	1	
-35	64929	. BRACKET, Idle control cable	1	
-36	67832	. INSTRUMENT PANEL ASSY (see figure 5-4 for details)	1	
	443335	. NUT, Lock, hex, 3/8-16NC (AP)	3	
	122168	. BOLT, Hex hd, 3/8-16NC x 1-3/4 in. lg (AP)	2	
	120233	. BOLT, Hex hd, 3/8-16NC x 1 in. lg (AP)	1	
	47157	. GROMMET	1	
	122550	. BOLT, Hex hd, 9/16-12NC x 1 in. lg (AP)	1	
	121458	. WASHER, Flat, 9/16 in. (AP)	2	
-37	67978	. BRACE, Instrument panel (AP)	1	
-38	67843	. BRACKET, Instrument panel support	1	
	122253	. BOLT, Hex hd, 7/16-14NC x 1 in. lg (AP)	2	
	120383	. WASHER, Lock, 7/16 in. (AP)	2	
-39	48641	. SWITCH, Engine water temp	1	
-40	27365	. SPRING, Speed control	1	
-41	62680	. BRACKET, Speed control spring	1	
-42	65852	. ROD, Speed control	1	
	120375	. NUT, Hex, 1/4-20NC (AP)	5	
-43	27359	. STOP BLOCK, Wire	1	
-44	18952	. STOP BLOCK, Control arm	1	
-45	9665	. BALL JOINT	1	
	443331	. NUT, Lock, hex, 1/4-20NC (AP)	2	
-46	62286	. ARM, Speed control	1	
-47	61085	. HOSE ASSEMBLY, Fuel	1	
	28881	. . SLEEVE	2	
	28886	. . NUT	2	
	61065	. . HOSE END	2	
	61064	. . HOSE, 3/8 in. ID x 25 in. lg	1	
-48	40783	. CONNECTOR, Hose	1	
-49	61075	. HOSE ASSEMBLY, Fuel	1	
	28881	. . SLEEVE	2	
	28886	. . NUT	2	
	61065	. . HOSE END	2	
	61064	. . HOSE, 3/8 in. ID x 15 in. lg	1	
-50	41000	. ELBOW	1	
-51	14026	. DRAIN COCK, Engine block	1	

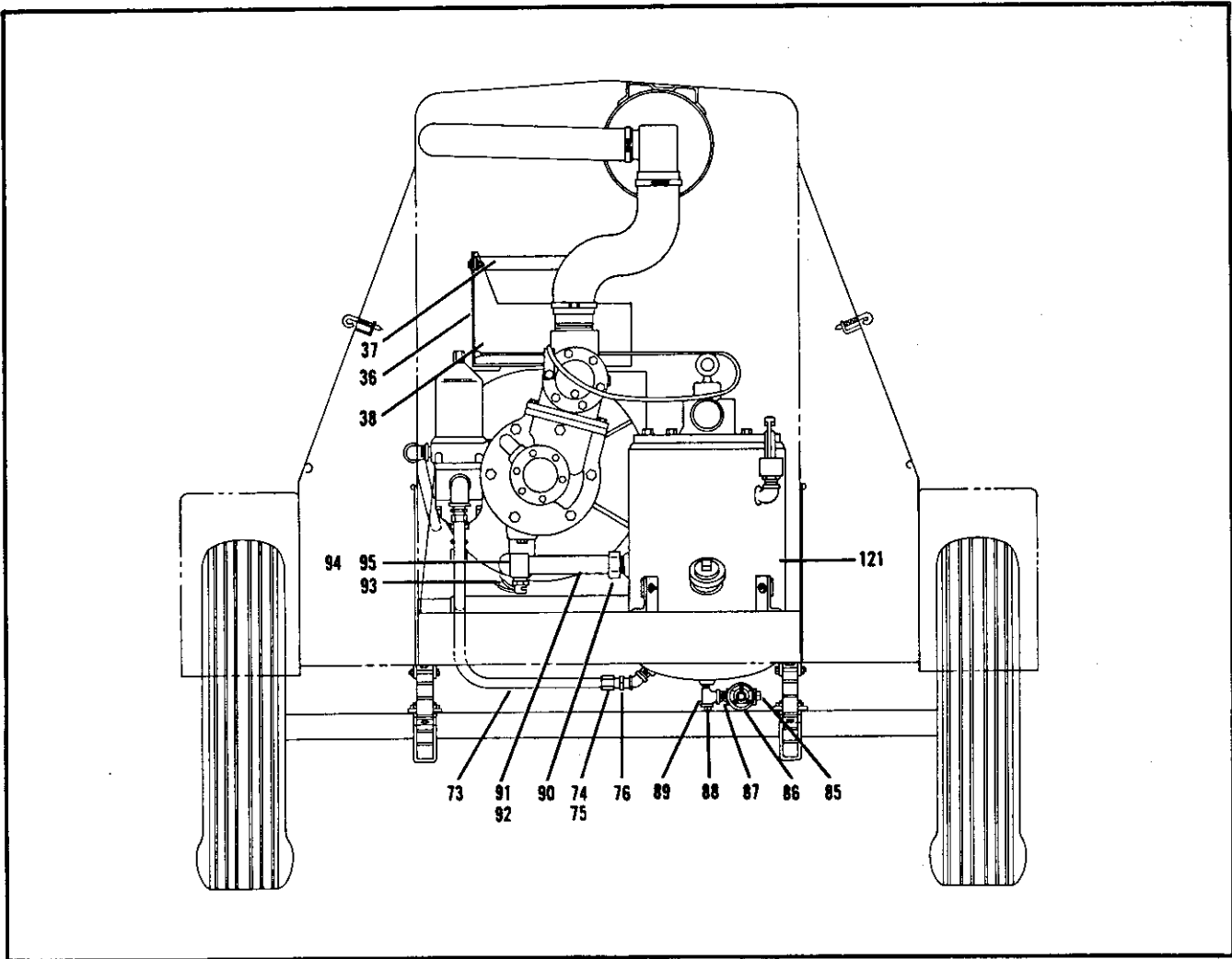


Figure 5-1. Compressor unit assembly, Model 4M125PVC (Sheet 3 of 4)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-1-52	14028	. DRAIN COCK, Radiator								1	
	144069	. COUPLING, Pipe, 3/8NPT								1	
	23681	. CLAMP								1	
-53	61074	. HOSE ASSEMBLY, Radiator drain								1	
	28881	. SLEEVE								2	
	28886	. NUT								2	
	61065	. HOSE END								2	
	61064	. HOSE, 3/8 in. ID x 14 in. lg								1	
-54	44265	. CONNECTOR, Hose								2	
-55	44696	. HOSE, Radiator								2	
	61038	. CLAMP, Radiator hose (AP)								4	
-56	67825	. GUARD, Fan								1	
	9419376	. SCREW, Hex serr wshr hd, 1/4-20NC x 1 in. lg (AP)								4	
	63002	. WASHER, Special (AP)								4	
	62864	. WASHER, Rubber (AP)								8	
-57	67824	. GUARD, Fan								1	
	273771	. SCREW, Hex serr wshr hd, 1/4-20NC x 1/2 in. lg (AP)								4	

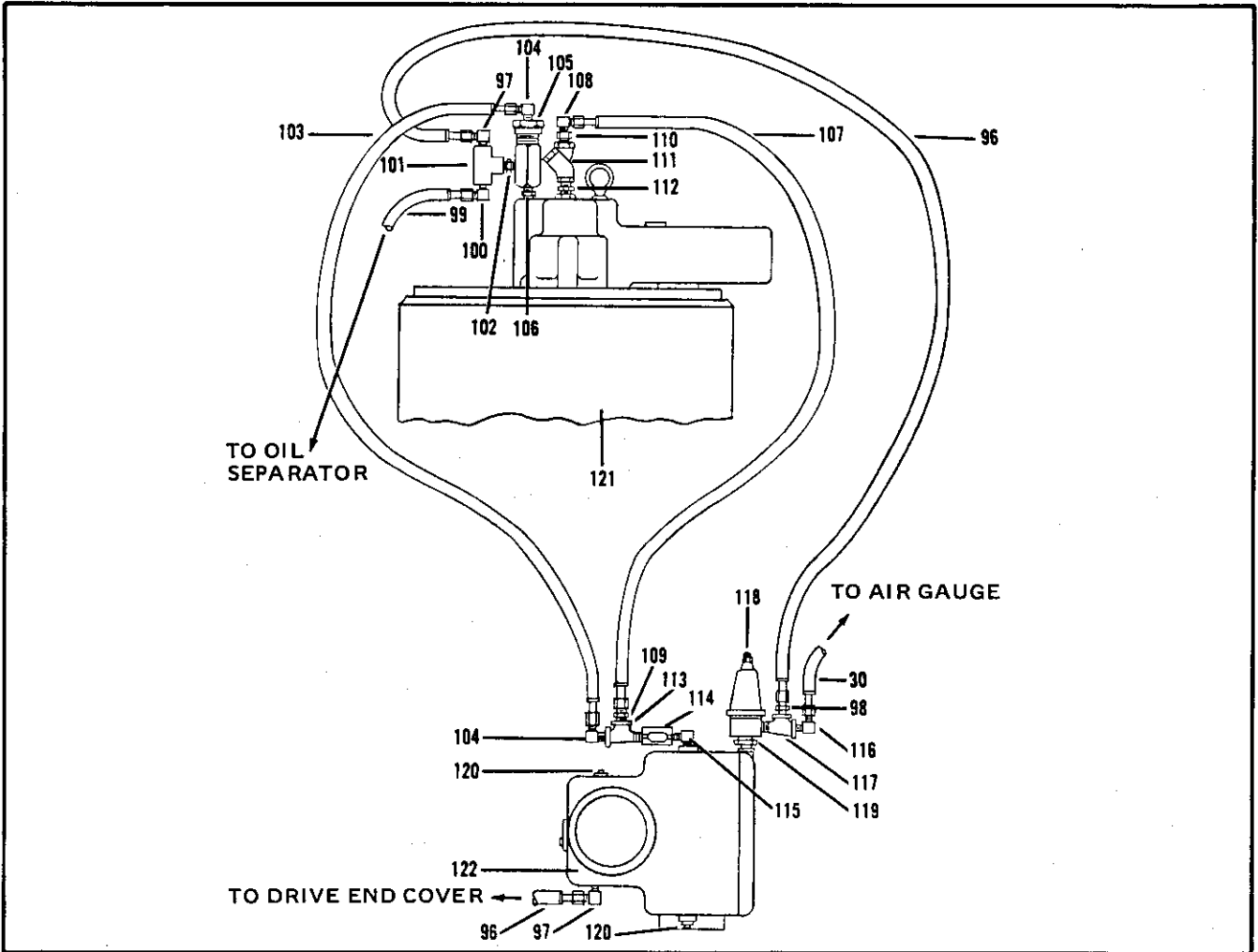


Figure 5-1. Compressor unit assembly, Model 4M125PVC (Sheet 4 of 4)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-1-58	48538	. SPACER, Fan hub								1	
	122040	. BOLT, Hex hd, 5/16-18NC x 1-1/2 in. lg (AP)								4	
	120214	. WASHER, Lock, 5/16 in. (AP)								4	
-59	49018	. TUBE, Oil, filter to cooler								1	
-60	45247	. SLEEVE, Tube								2	
-61	45250	. NUT, Tube								2	
-62	42587	. CONNECTOR, Tube								2	
-63	144113	. ELBOW, Street, 90°, 3/4NPT								1	
-64	144056	. BUSHING, Reducing, 1NPT to 3/4NPT								1	
-65	143934	. PLUG, Pipe, sq hd, 3/8NPT (see index 14, figure 5-11)								REF	
-66	45456	. ELBOW, Tube								1	
-67	49019	. TUBE, Oil, cooler return								1	
-68	45247	. SLEEVE, Tube								2	
-69	45250	. NUT, Tube								2	
-70	45456	. ELBOW, Tube								1	
-71	144056	. BUSHING, Reducing, 1NPT to 3/4NPT								1	
-72	144113	. ELBOW, Street, 90°, 3/4NPT								1	
-73	49094	. TUBE, Oil, separator to filter								1	
-74	45247	. SLEEVE, Tube								2	

SECTION 5

Parts List

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-1-75	45250	. NUT, Tube	2	
-76	42587	. CONNECTOR, Tube	2	
-77	144056	. BUSHING, Reducing, 1NPT to 3/4NPT	1	
-78	60843	. RADIATOR-COOLER ASSY (See figure 5-5 for details)	1	
	443335	. NUT, Lock, hex, 3/8-16NC (AP)	2	
	60744	. WASHER, Channel (AP)	4	
	120382	. WASHER, Lock, 3/8 in. (AP)	2	
	120233	. BOLT, Hex hd, 3/8-16NC x 1 in. lg (AP)	2	
	120918	. BOLT, Hex hd, 3/8-16NC x 1-1/2 in. lg (AP)	2	
-79	No Number	. FUEL TANK GROUP (See figure 5-6 for details)	1	
-80	26359	. PLUG, Separator filler	1	
-81	24982	. O-RING, Filler plug	1	
-82	63062	. ADAPTOR, Filler plug	1	
-83	179462	. ELBOW, Pipe, 45°, 1-1/2NPT	1	
-84	219821	. NIPPLE, Pipe, 1-1/2NPT x 2-1/2 in. lg	1	
-85	143935	. PLUG, Pipe, 1/2NPT, sq hd	1	
-86	14034	. VALVE, Globe, separator drain	1	
-87	140537	. NIPPLE, Pipe, 1/2NPT x 2 in. lg	1	
-88	48390	. PLUG, Magnetic drain	1	
-89	67742	. TEE, Street, 1/2NPT	1	
-90	44090	. ADAPTOR, Discharge tube	1	
-91	46152	. TUBE, Discharge	1	
-92	24502	. O-RING, Discharge tube	2	
-93	48414	. THERMOSWITCH	1	
	23921	. CONNECTOR, Wire	2	
-94	47159	. CONNECTION, Discharge	1	
	122145	. BOLT, Hex hd, 3/8-16NC x 1-1/4 in. lg (AP)	2	
	120382	. WASHER, Lock, 3/8 in. (AP)	2	
-95	24033	. O-RING, Discharge connection	1	
-96	61071	. HOSE ASSEMBLY	2	
	28881	. . SLEEVE	2	
	28886	. . NUT	2	
	61065	. . HOSE END	2	
	61064	. . HOSE, 3/8 in. ID x 11 in. lg	1	
-97	28890	. ELBOW	2	
-98	28888	. CONNECTOR	1	
-99	61072	. HOSE ASSEMBLY (See index 11, figure 5-9)	REF	
-100	28890	. ELBOW	1	
-101	65609	. TEE	1	
-102	65610	. NIPPLE, Hex	1	
-103	61074	. HOSE ASSEMBLY	1	
	28881	. . SLEEVE	2	
	28886	. . NUT	2	
	61065	. . HOSE END	2	
	61064	. . HOSE, 3/8 in. ID x 14 in. lg	1	
-104	28890	. ELBOW	2	
-105	60226	. BLOWDOWN VALVE ASSY (See figure 5-7 for details)	1	
-106	65610	. NIPPLE, Hex	1	
-107	61077	. HOSE ASSEMBLY	1	
	28881	. . SLEEVE	2	
	28886	. . NUT	2	
	61065	. . HOSE END	2	
	61064	. . HOSE, 3/8 in. ID x 17 in. lg	1	
-108	28890	. ELBOW	1	
-109	28888	. CONNECTOR	1	
-110	49776	. ORIFICE	1	
-111	47690	. STRAINER ASSEMBLY, Line	1	
	61119	. . ELEMENT, Screen	1	
-112	65610	. NIPPLE, Hex	1	
-113	67800	. TEE, Street, 1/4NPT	1	

Parts List

SECTION 5

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-1-114	62234	. GAUGE, Flow sight	1	
-115	65644	. ELBOW	1	
-116	28890	. ELBOW	1	
-117	67800	. TEE, Street, 1/4NPT	1	
-118	64142	. REGULATOR ASSY, Air pressure (see figure 5-8 for details)	1	
-119	65610	. NIPPLE, Hex	1	
-120	143933	. PLUG, Pipe, sq hd, 1/4NPT	2	
-121	68007	. OIL SEPARATOR ASSY (see figure 5-9 for details)	1	
	443335	. NUT, Lock, hex, 3/8-16NC (AP)	4	
	120394	. WASHER, Flat, 3/8 in. (AP)	8	
	122145	. BOLT, Hex hd, 3/8-16NC x 1-1/4 in. lg (AP)	4	
-122	62259	. AIR COMPRESSOR ASSY (See figure 5-10 for details)	1	
	122145	. BOLT, Hex hd, 3/8-16NC x 1-1/4 in. lg (AP)	12	
	120382	. WASHER, Lock, 3/8 in. (AP)	12	
-123	67811	. ENGINE ASSEMBLY, White Engines, Inc Model D2000X109	1	
		(See Part II for engine data)		
	428211	. BOLT, Hex hd, 5/8-11NC x 1-1/4 in. lg (AP)	1	
	121574	. WASHER, Lock, 5/8 in. (AP)	1	
	443339	. NUT, Lock, hex, 1/2-13NC (AP)	2	
	120396	. WASHER, Flat, 1/2 in. (AP)	4	
	122499	. BOLT, Hex hd, 1/2-13NC x 3-1/2 in. lg (AP)	2	
-124	48872	. SPACER, Engine rear mount	2	
-125	68004	. PLATE, Accumulator, brake cable	1	
	120369	. NUT, Hex, 3/8-24NF	2	
	120647	. BOLT, Hex hd, 3/8-24NF x 1 in. lg (AP)	1	
	11033	. CLAMP, Brake cable	2	
	273771	. SCREW, Hex serr wshr hd, 1/4-20NC x 1/2 in. lg (AP)	2	
-126	68005	. HANDLE ASSY, Brake	1	
	443335	. NUT, Lock, hex, 3/8-16NC (AP)	2	
	122181	. BOLT, Hex hd, 3/8-16NC x 2 in. lg (AP)	2	
-127	43383	. PIN, Lock, caster leg	1	
	27655	. CHAIN, Lock pin	1	
	177928	. PIN, Cotter, 1/8 DIA x 3/4 lg (AP)	1	
-128	No Number	. CASTER LEG ASSY	1	
	67339	. WHEEL, Caster	1	
	67338	. LEG, Caster	1	
	443335	. NUT, Lock, hex, 3/8-16NC (AP)	1	
	120394	. WASHER, Flat, 3/8 in. (AP)	2	
	122207	. BOLT, Hex hd, 3/8-16NC x 3 in. lg (AP)	1	
-129	67337	. BRACKET, Caster leg	1	
	443335	. NUT, Lock, hex, 3/8-16NC (AP)	4	
	120394	. WASHER, Flat, 3/8 in. (AP)	4	
	142271	. BOLT, Hex hd, 3/8-16NC x 3-1/4 in. lg (AP)	4	
-130	63041	. TIRE AND TUBE, 6:50-16, 4 ply, highway type, load rating "C"	2	
-131	49654	. AXLE ASSEMBLY (See figure 5-12 for details)	1	
	443339	. NUT, Lock, hex, 1/2-13NC (AP)	8	
	60734	. WASHER, Channel, 1/2 in. (AP)	8	
	122446	. BOLT, Hex hd, 1/2-13NC x 1-3/4 in. lg (AP)	8	
-132	67822	. FRAME	1	

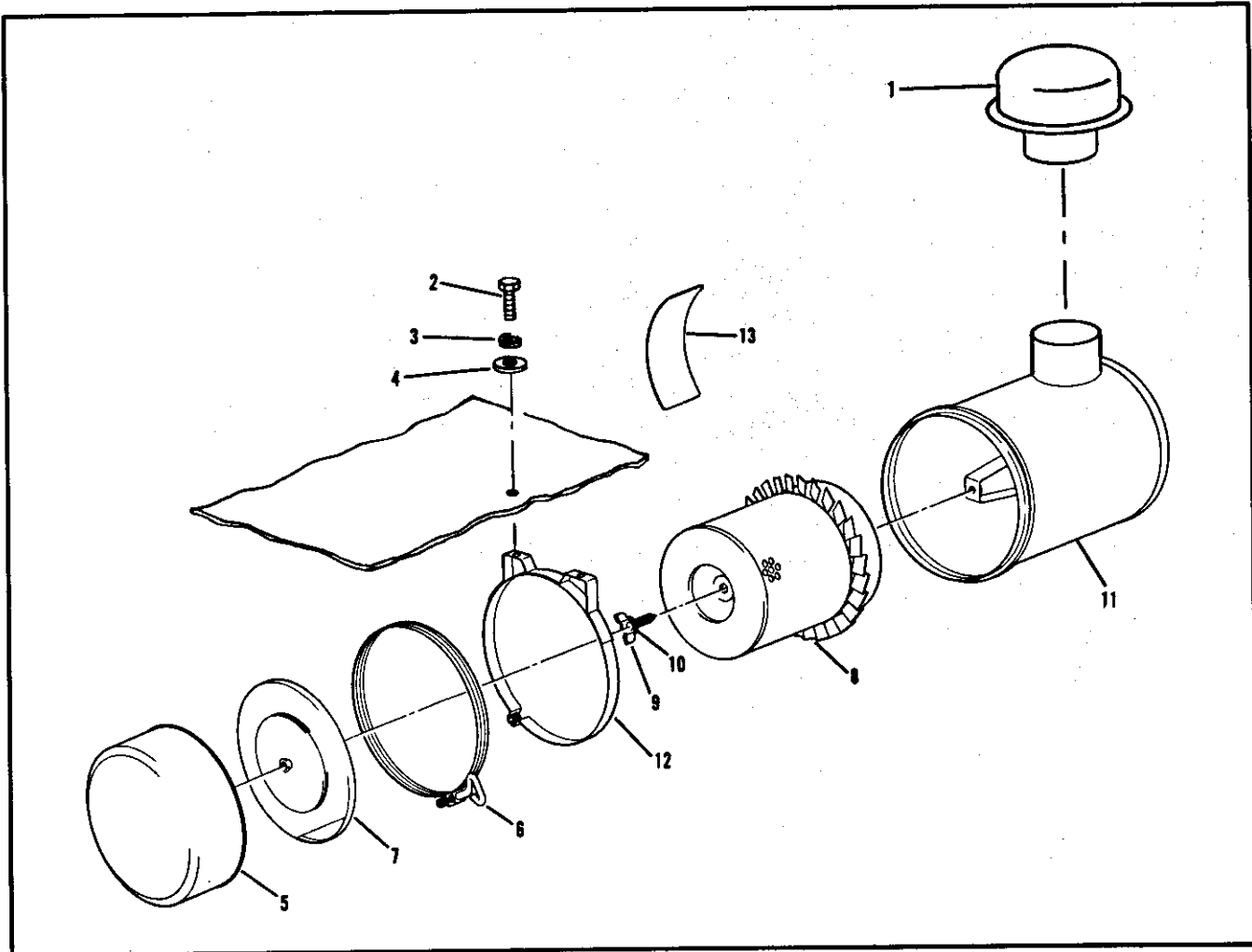


Figure 5-2. Air cleaner assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS	USABLE ON CODE
			PER ASSY	
5-2	46155	AIR CLEANER ASSEMBLY (See index 11, figure 5-1 for NHA) (Donaldson FWG08-0023)	REF	
-1	43516	. CAP, Air cleaner (see index 10, figure 5-1 for NHA) (Donaldson GAX00-2014)	REF	
-2	120233	. BOLT, Hex, 3/8-16NC x 1 in. lg (AP)	4	
-3	120382	. WASHER, Lock, 3/8 in. (AP)	4	
-4	120394	. WASHER, Flat, 3/8 in. (AP)	4	
-5	P10-3113	. CUP ASSEMBLY (Donaldson)	1	
-6	P3951	. CLAMP ASSEMBLY (AP) (Donaldson)	1	
-7	P10-2980	. BAFFLE ASSEMBLY (Donaldson)	1	
-8	48141	. ELEMENT ASSY (Donaldson P10-1246)	1	
-9	P10-2144	. THUMBSCREW (Donaldson)	1	
-10	P10-1872	. GASKET, Thumbscrew (Donaldson)	1	
-11	P10-3153	. BODY ASSEMBLY (Donaldson)	1	
-12	45864	. BRACKET, Mounting (AP)	2	
-13	63302	. DECAL, Air cleaner	1	

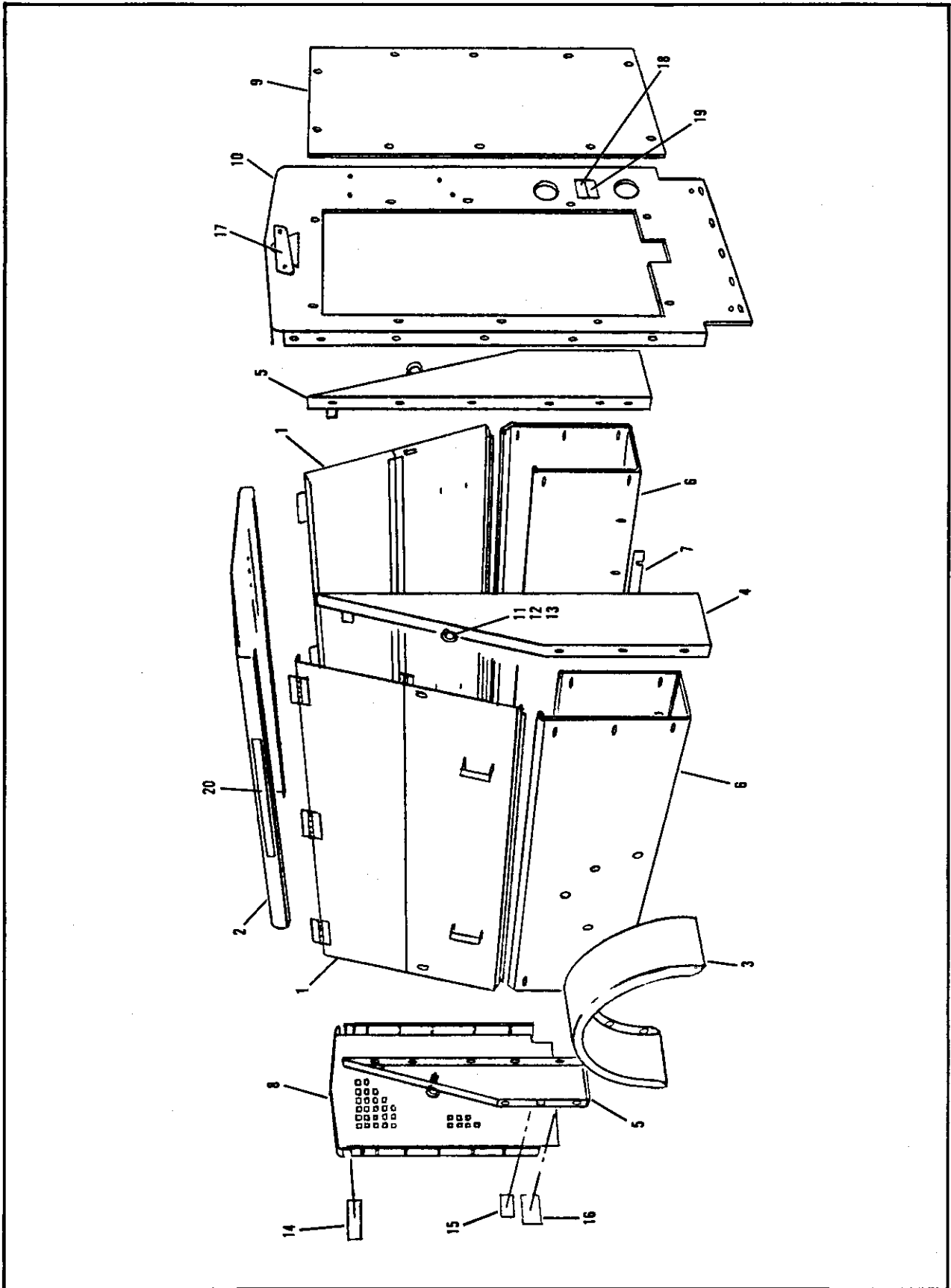


Figure 5-3. Housing group

SECTION 5

Parts List

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-3	No Number	HOUSING GROUP (See index 24, figure 5-1 for NHA)	REF	
-1	67144	. DOOR ASSEMBLY, Side	2	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	12	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	12	
-2	67143	. ROOF	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	6	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	6	
	273771	. SCREW, Hex serr wshr hd, 1/4-20NC x 1/2 in. lg (AP)	6	
-3	44702	. FENDER	2	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	10	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	10	
-4	67333	. PANEL, End	2	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	11	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	16	
-5	67332	. PANEL, End	2	
	9416918	. NUT, Lock, hex serr flg 1/4-20NC (AP)	11	
	274825	. SCREW, Hex serr wshr flg, 1/4-20NC x 3/4 in. lg (AP)	16	
-6	67139	. BOX, Tool	2	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	12	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	12	
-7	68025	. SPACER, Tool box	2	
-8	67141	. SUPPORT, Housing	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	17	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	12	
	9419376	. SCREW, Hex serr wshr hd, 1/4-20NC x 1 in. lg (AP)	5	
-9	67989	. COVER, Housing support	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	10	
	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)	10	
-10	67142	. SUPPORT, Housing	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	5	
	9419376	. SCREW, Hex serr wshr hd, 1/4-20NC x 1 in. lg (AP)	5	
-11	27327	. EYE, Door latch	4	
-12	27328	. BRACKET, Door latch	4	
-13	27329	. SPRING, Door latch	4	
-14	14621	. NAMEPLATE, Davey	1	
	9426053	. SCREW, Self-tapping, no. 4 x 1/4 in. lg (AP)	4	
-15	67837	. PLATE, Identification (Government furnished)	1	
	113103	. NUT, Hex, brass, no. 8-32 (AP)	4	
	121841	. WASHER, Lock, no. 8 (AP)	4	
	100959	. SCREW, Sltd rdh, brass, no. 8-32 x 1/2 in. lg (AP)	4	
-16	67838	. PLATE, Transportation data	1	
	113103	. NUT, Hex, brass, no. 8-32 (AP)	4	
	121841	. WASHER, Lock, no. 8 (AP)	4	
	100959	. SCREW, Sltd rdh, brass, no. 8-32 x 1/2 in. lg (AP)	4	
-17	48717	. PLATE, Model identification	1	
	48726	. MODEL PLATE, "125"	1	
	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)	2	
	273771	. SCREW, Hex serr wshr hd, 1/4-20NC x 1/2 in. lg (AP)	2	
-18	61872	. DECAL, Fill to overflow	1	
-19	63303	. DECAL, Oil recommendation	1	
-20	67836	. DECAL, USN registration number (31-06256 through 31-66284)	2	

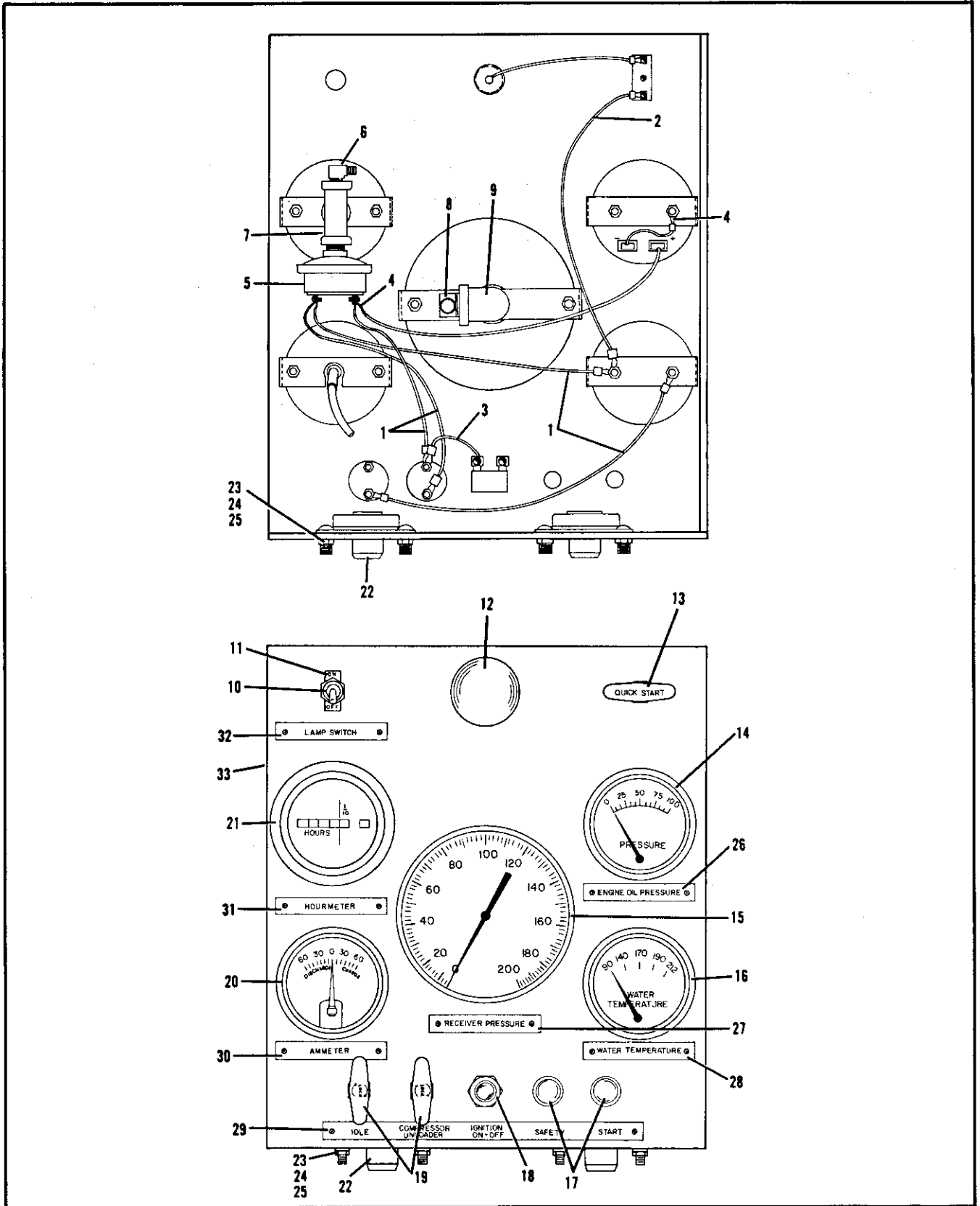


Figure 5-4. Instrument panel assembly

SECTION 5

Parts List

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-4	67832	INSTRUMENT PANEL ASSEMBLY (See index 36, figure 5-1 for NHA)..	REF	
-1	49292	. WIRE ASSEMBLY, Pressure switch to safety switch, pressure switch to ammeter, and ammeter to start switch	4	
-2	49294	. WIRE ASSEMBLY, Lamp switch to ammeter	1	
-3	29187	. WIRE ASSEMBLY, Safety control switch to ignition switch	1	
-4	24855	. LUG, Terminal, installed on hourmeter cut leads	2	
-5	14439	. SWITCH, Pressure	1	
-6	41899	. ELBOW	1	
-7	144082	. TEE, Pipe, 1/8NPT	1	
-8	28890	. ELBOW	1	
-9	144127	. ELBOW, Pipe, 90°, 1/4NPT	1	
-10	27670	. SWITCH, Lamp	1	
-11	27671	. PLATE, Lamp switch	1	
-12	32357	. LAMP ASSY, Panel	1	
		. BULB, Lamp, G.E.-89 or equivalent, 12 volt	1	
-13	LP3864R-36	. CABLE, Control, quick-start (furnished with cold weather starting kit) (see index 23, figure 5-1 for NHA) (Turner Corp.)	REF	
-14	62085	. GAUGE, Oil pressure	1	
-15	14950	. GAUGE, Air pressure	1	
-16	24157	. GAUGE, Water temperature	1	
-17	14073	. SWITCH, Pushbutton, start and safety control	2	
-18	46551	. SWITCH, Ignition on-off	1	
-19	27854	. CABLE, Control, compressor unloader and idle, cut to suit (see index 31, 34, figure 5-1 for NHA)	REF	
-20	48271	. AMMETER	1	
-21	60135	. HOURMETER	1	
-22	60186	. MOUNT, Vibration	2	
-23	115295	. NUT, Hex, no. 10-32 (AP)	8	
-24	120217	. WASHER, Lock, no. 10 (AP)	8	
-25	132908	. SCREW, Mach, rd hd sltd, no. 10-32 x 1/2 in. lg (AP)	8	
-26	60488	. PLATE, Engine oil pressure	1	
-27	60487	. PLATE, Receiver air	1	
-28	60491	. PLATE, Engine water temperature	1	
-29	67996	. NAMEPLATE, Control	1	
-30	66161	. PLATE, Ammeter	1	
-31	66162	. PLATE, Hourmeter	1	
-32	41998	. PLATE, Lamp switch	1	
	9426053	. SCREW, Self-tapping, no. 4 x 1/4 in. lg (AP)	14	
-33	67831	. PANEL, Instrument	1	

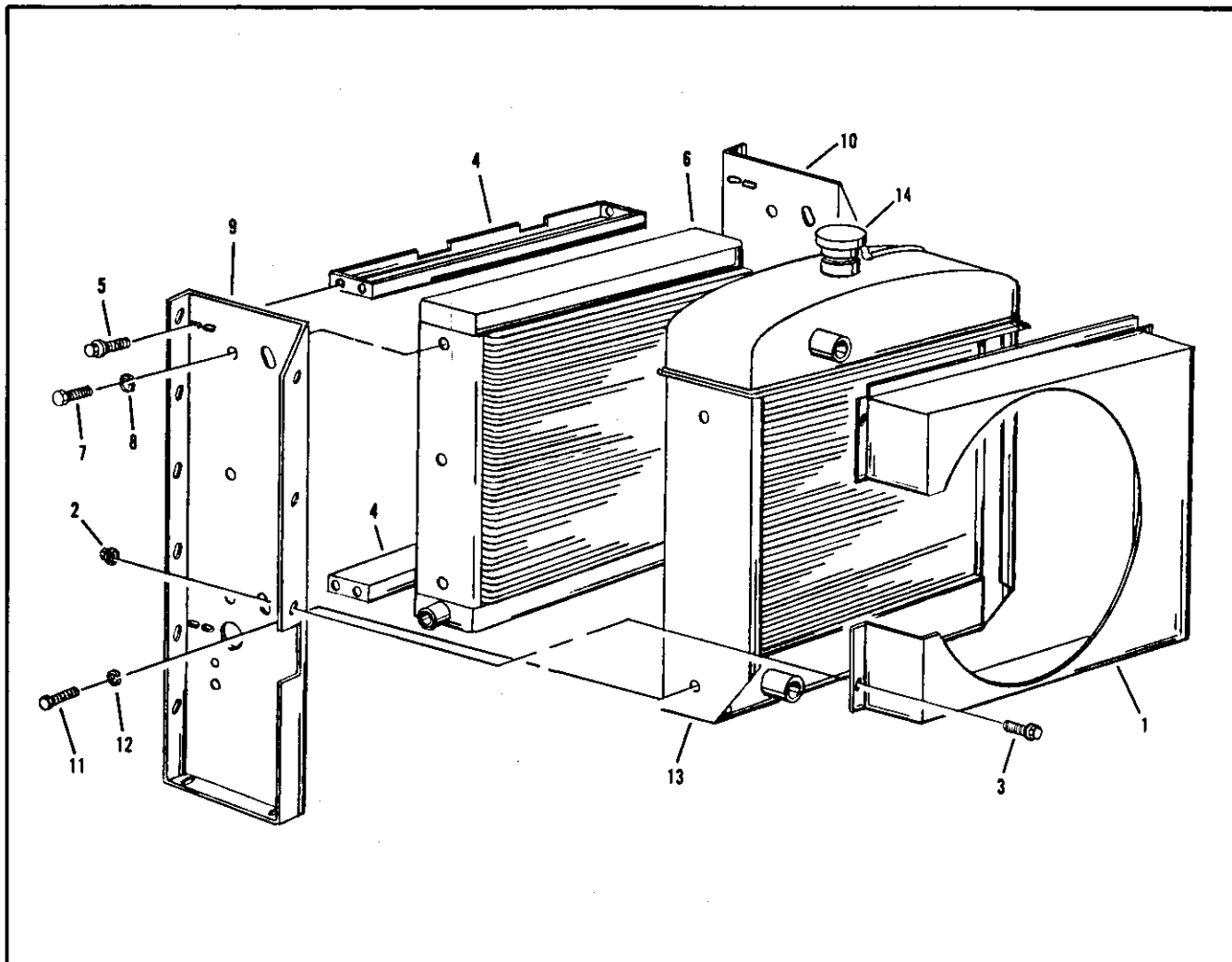


Figure 5-5. Radiator-cooler assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-5	60843	RADIATOR-COOLER ASSEMBLY (See index 78, figure 5-1 for NHA) ...								REF	
-1	49669	. SHROUD, Fan								1	
-2	9416918	. NUT, Lock, hex serr flg, 1/4-20NC (AP)								5	
-3	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)								5	
-4	61364	. BAFFLE								2	
-5	274825	. SCREW, Hex serr wshr hd, 1/4-20NC x 3/4 in. lg (AP)								8	
-6	49354	. COOLER, Oil								1	
-7	122119	. BOLT, Hex hd, 3/8-16NC x 3/4 in. lg (AP)								6	
-8	120382	. WASHER, Lock, 3/8 in. (AP)								6	
-9	61365	. SUPPORT, LH								1	
-10	61366	. SUPPORT, RH								1	
-11	122119	. BOLT, Hex hd, 3/8-16NC x 3/4 in. lg (AP)								4	
-12	120382	. WASHER, Lock, 3/8 in. (AP)								4	
-13	49388	. RADIATOR ASSEMBLY								1	
-14	85885	. . CAP, Radiator (Young Radiator Co)								1	

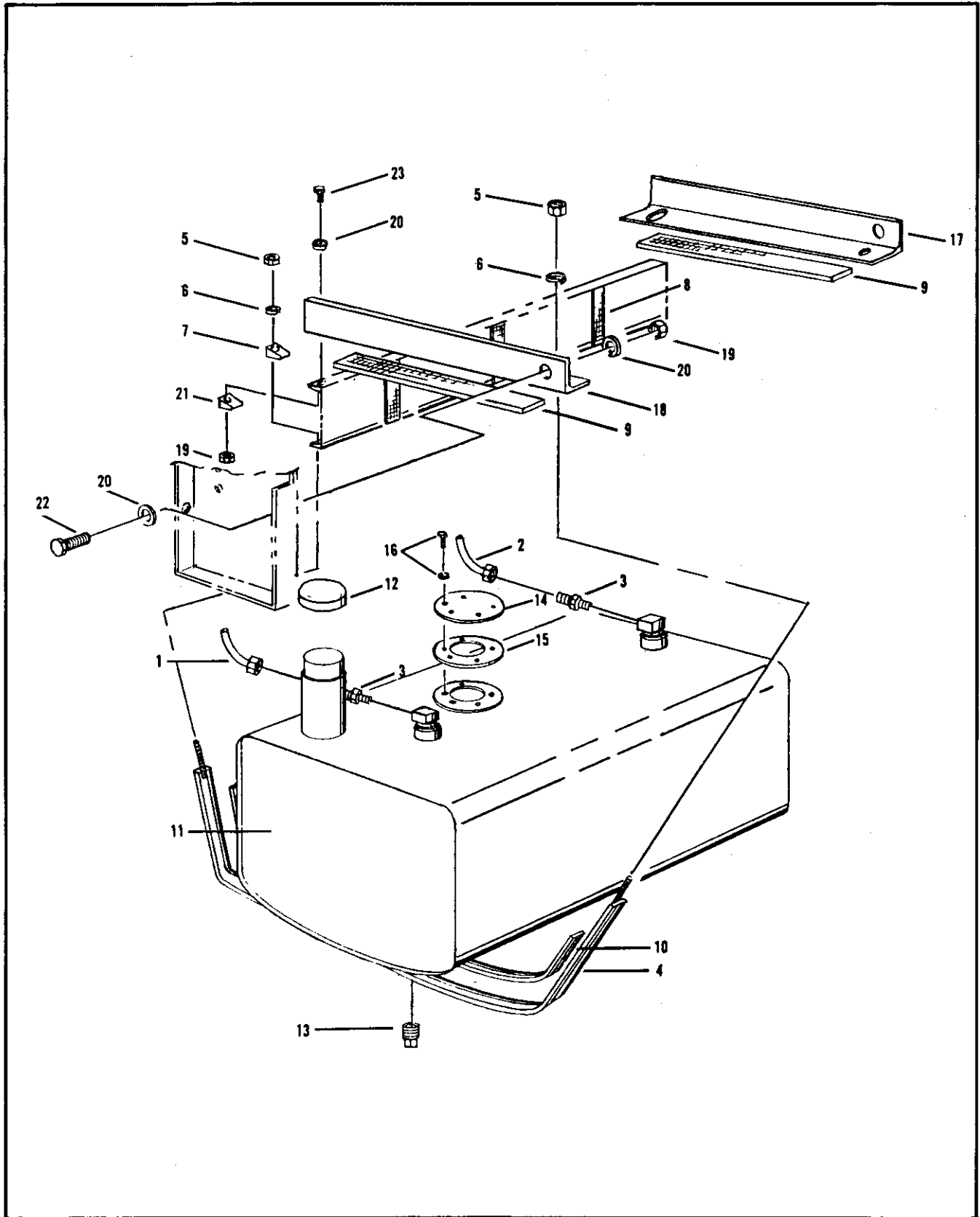


Figure 5-6. Fuel tank group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
5-6	No Number	FUEL TANK GROUP (See index 79, figure 5-1 for NHA)	REF	
-1	61085	. HOSE ASSEMBLY, Fuel (see index 47 figure 5-1 for NHA)	REF	
-2	61075	. HOSE ASSEMBLY, Fuel (see index 49, figure 5-1 for NHA)	REF	
-3	28888	. CONNECTOR, Hose	2	
-4	60909	. STRAP, Fuel tank	2	
-5	120378	. NUT, Hex, 1/2-13NC (AP)	4	
-6	120384	. WASHER, Lock, 1/2 in. (AP)	4	
-7	60734	. WASHER, Channel, 1/2 in. (AP)	2	
-8	14048	. WEBBING, 6 in. lg	3	
-9	14048	. WEBBING, 15 in. lg	2	
-10	14048	. WEBBING, 28 in. lg	2	
-11	45826	. TANK ASSEMBLY, Fuel	1	
-12	47868	. . CAP, Fuel filler	1	
-13	143933	. . PLUG, Pipe, sq hd, 1/4NPT	1	
-14	44741	. COVER, Flange	1	
-15	44427	. GASKET, Flange cover	1	
-16	No Number	. SCREW ASSY, Mach, cross recess rd hd, no. 10-32 x 1/2 in. lg	5	
		with washer (AP) (supplied with tank)		
-17	45834	. BRACKET, Tank support, LH	1	
-18	45833	. BRACKET, Tank support, RH	1	
-19	443335	. NUT, Lock, hex, 3/8-16NC (AP)	4	
-20	120394	. WASHER, Flat, 3/8 in. (AP)	8	
-21	60744	. WASHER, Channel, 3/8 in. (AP)	2	
-22	120233	. BOLT, Hex hd, 3/8-16NC x 1 in. lg (AP)	2	
-23	120918	. BOLT, Hex hd, 3/8-16NC x 1-1/2 in. lg (AP)	2	

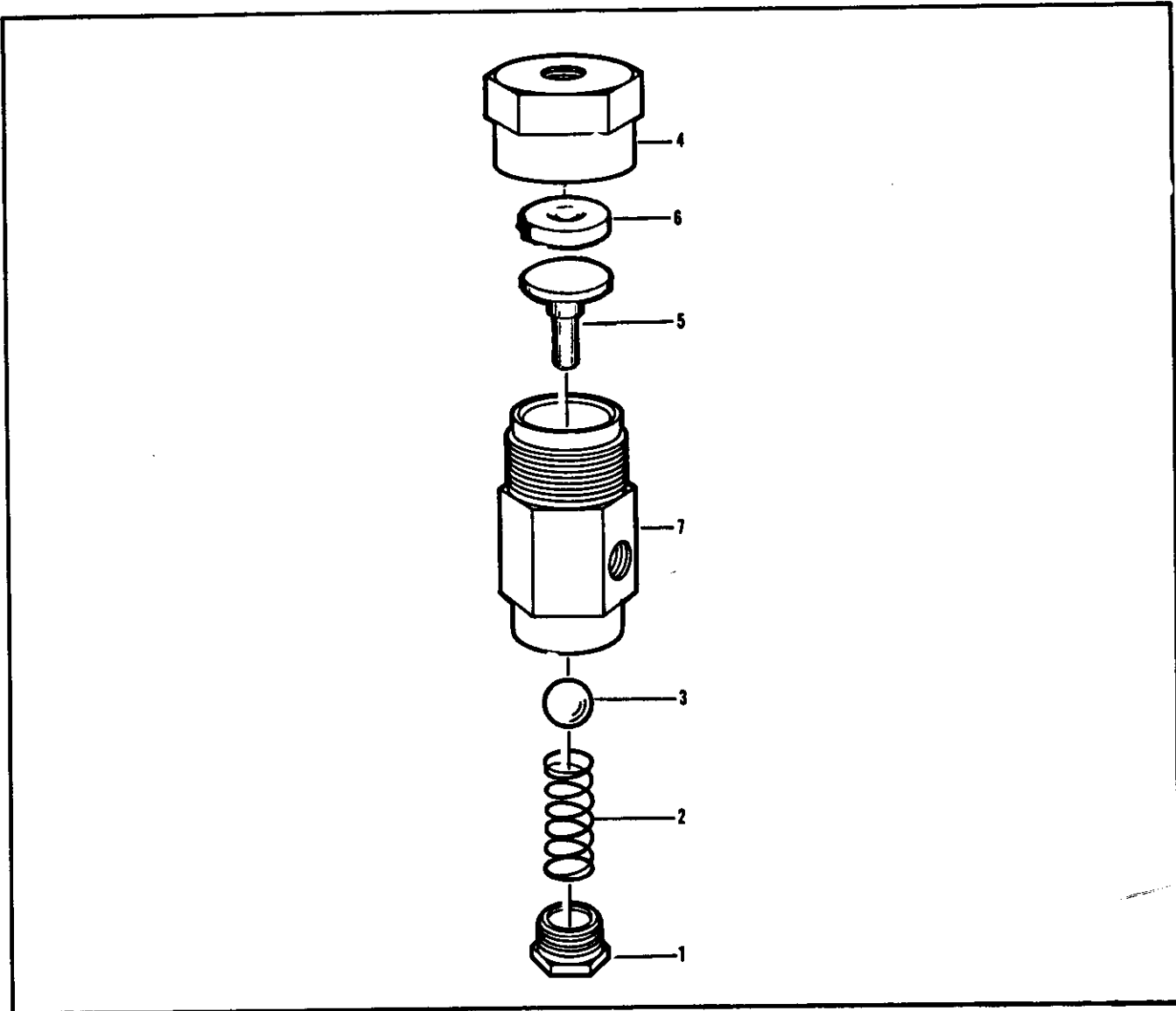


Figure 5-7. Blowdown valve assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE		
			1	2	3	4
5-7	67486	BLOWDOWN VALVE ASSEMBLY (See index 105, figure 5-1 for NHA) ..	REF			
-1	36560	. BUSHING	1			
-2	41829	. SPRING	1			
-3	65127	. BALL	1			
-4	44705	. CAP	1			
-5	67487	. PISTON	1			
-6	67482	. CUP	1			
-7	36559	. BODY	1			

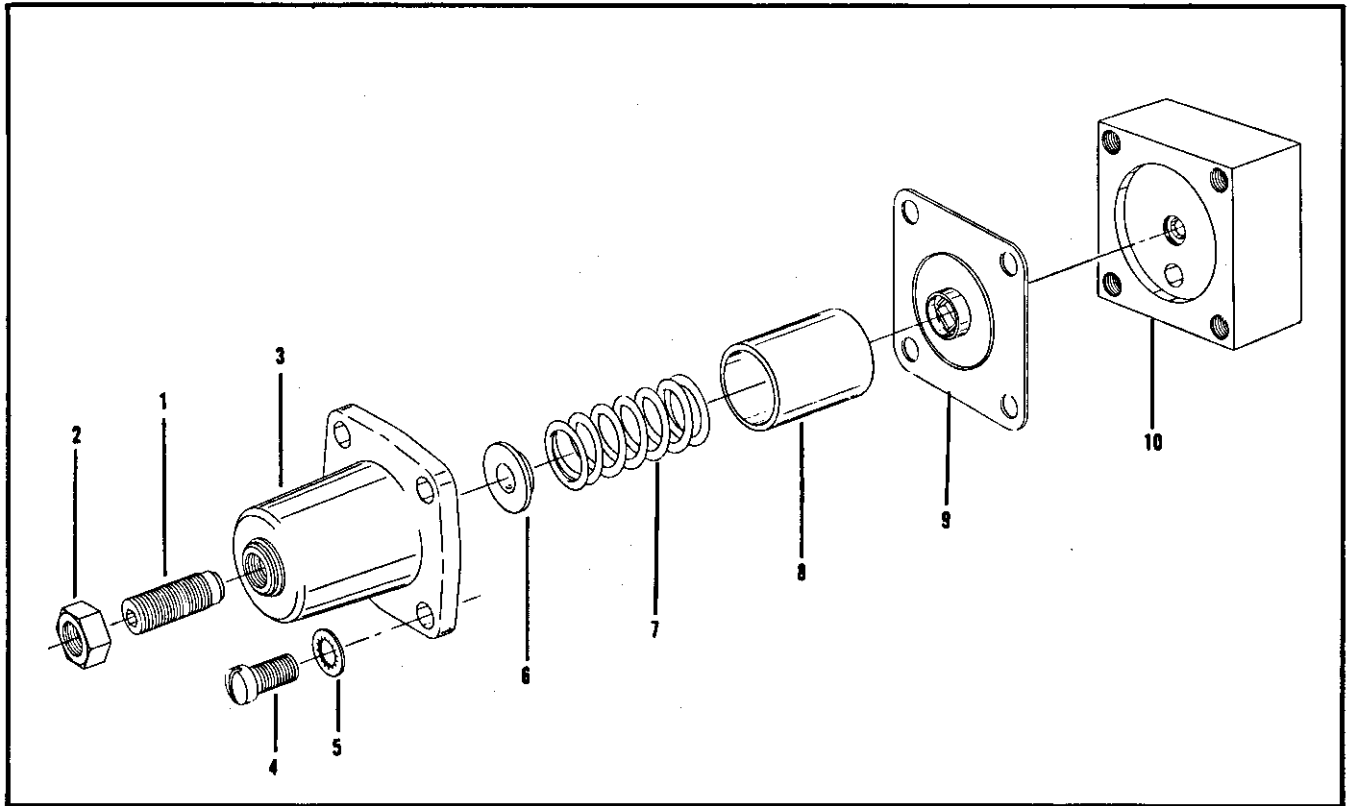


Figure 5-8. Pressure regulator assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-8	64142	REGULATOR ASSEMBLY, Air pressure (see index 118, figure 5-1 for NHA)								REF	
-1	40869	. SCREW, Adjusting								1	
-2	120369	. NUT, Hex, 3/8-24NF								1	
-3	40864	. HOUSING, Spring								1	
-4	132259	. SCREW, Fil hd, 1/4-20 x 5/8 in. lg (AP)								4	
-5	28149	. WASHER, Lock (AP)								4	
-6	40536	. SEAT, Spring								1	
-7	40863	. SPRING, Regulator								1	
-8	65959	. TUBE, Spring								1	
-9	64141	. DIAPHRAGM ASSEMBLY								1	
-10	64140	. BASE, Regulator								1	

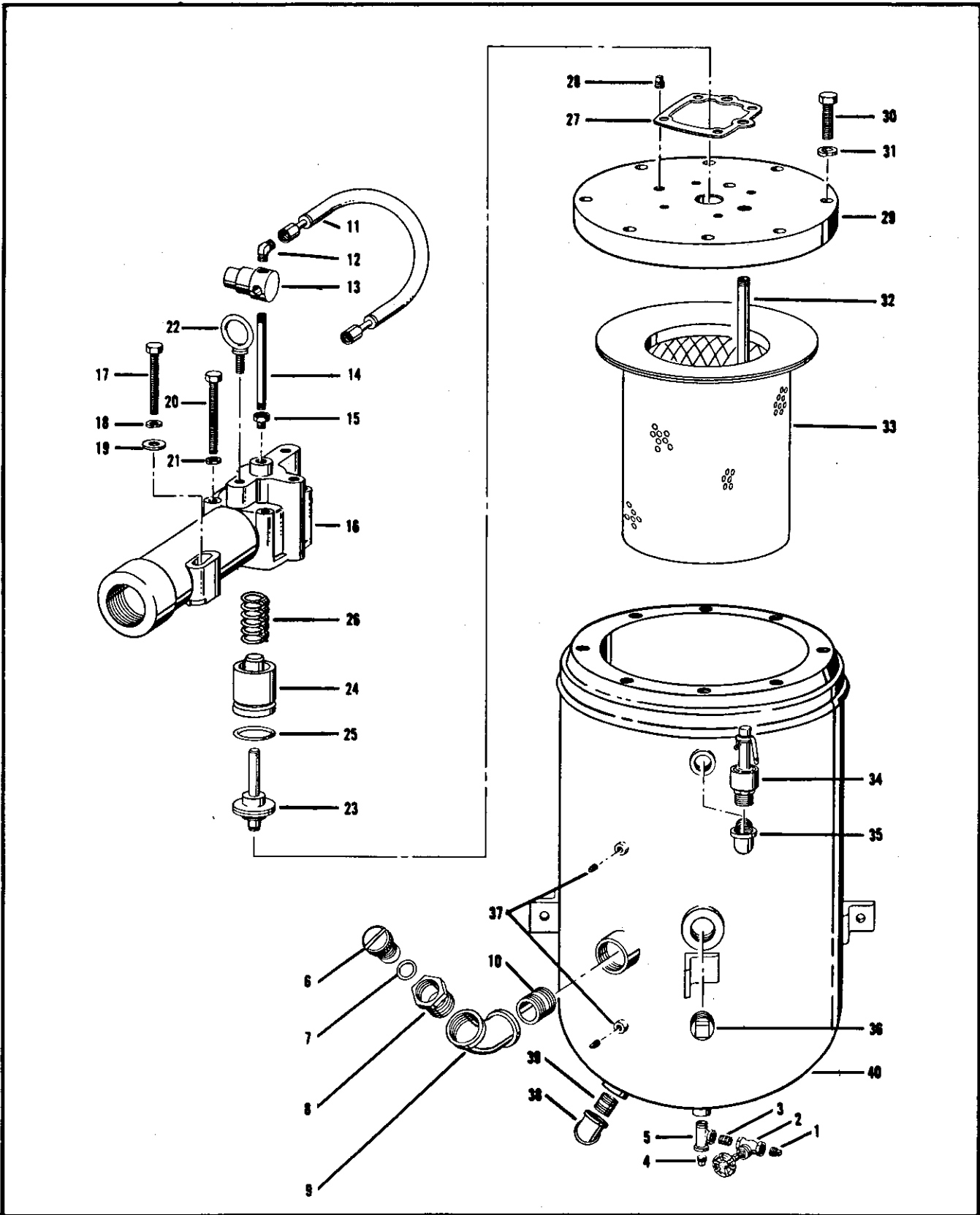


Figure 5-9. Oil separator assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-9	68007	OIL SEPARATOR ASSEMBLY (See index 121, figure 5-1 for NHA)	REF	
-1	143935	. PLUG, Pipe (see index 85, figure 5-1)	REF	
-2	14034	. VALVE, Globe (see index 86, figure 5-1)	REF	
-3	140537	. NIPPLE, Pipe (see index 87, figure 5-1)	REF	
-4	48390	. PLUG, Magnetic drain (see index 88, figure 5-1)	REF	
-5	67742	. TEE, Street (see index 89, figure 5-1)	REF	
-6	26359	. PLUG, Filler (see index 80, figure 5-1)	REF	
-7	24982	. O-RING, Plug (see index 81, figure 5-1)	REF	
-8	63062	. ADAPTOR, Plug (see index 82, figure 5-1)	REF	
-9	179462	. ELBOW, Pipe (see index 83, figure 5-1)	REF	
-10	219821	. NIPPLE, Pipe (see index 84, figure 5-1)	REF	
-11	61072	. HOSE ASSEMBLY	1	
	28881	. . SLEEVE	2	
	28886	. . NUT	2	
	61065	. . HOSE END	2	
	61064	. . HOSE, 3/8 in. ID x 12 in. lg	1	
-12	28890	. ELBOW	1	
-13	64916	. REGULATOR, Pressure	1	
-14	192057	. NIPPLE, Pipe, 1/4NPT x 4 in. lg	1	
-15	144036	. BUSHING, Reducing, 3/8 to 1/4NPT	1	
-16	60826	. HOUSING, Minimum press. valve	1	
-17	61453	. BOLT, Hardened (AP)	1	
-18	120384	. WASHER, Lock, 1/2 in. (AP)	1	
-19	120396	. WASHER, Flat, 1/2 in. SAE (AP)	1	
-20	122207	. BOLT, Hex hd, 3/8-16NC x 3 in. lg (AP)	4	
-21	120382	. WASHER, Lock, 3/8 in. (AP)	4	
-22	24636	. BOLT, Eye	1	
-23	62232	. VALVE ASSY, Non return	1	
	62303	. . NUT, Lock, stem	1	
	47371	. . WASHER, Seat	1	
	47373	. . SEAT, Valve	1	
	47370	. . FACING, Washer	1	
	47372	. . STEM, Valve	1	
-24	26284	. PISTON, Valve	1	
-25	24999	. O-RING, Piston	1	
-26	26283	. SPRING, Piston	1	
-27	44088	. GASKET, Housing	1	
-28	143933	. PLUG, Pipe, sq hd, 1/4NPT	1	
-29	43375	. COVER, Separator tank (furnished with tank)	1	
-30	61873	. BOLT, Hardened, grade 5, 1/2-13NC x 1-3/4 in. lg (AP)	7	
		(furnished with tank)		
-31	120384	. WASHER, Lock, 1/2 in. (AP)	7	
-32	60979	. PIPE, Oil return	1	
-33	48772	. ELEMENT, Oil separator	1	
-34	14776	. VALVE, Relief	1	
-35	144113	. ELBOW, Street, 90°, 3/4NPT	1	
-36	219306	. PLUG, Pipe, sq hd, 1-1/4NPT	1	
-37	143933	. PLUG, Pipe, sq hd, 1/4NPT	2	
-38	144137	. ELBOW, Pipe, 45°, 3/4NPT	1	
-39	219657	. NIPPLE, Pipe, 3/4NPT x 2 in. lg	1	
-40	49872	. TANK, Oil separator (includes cover and hardened bolts)	1	

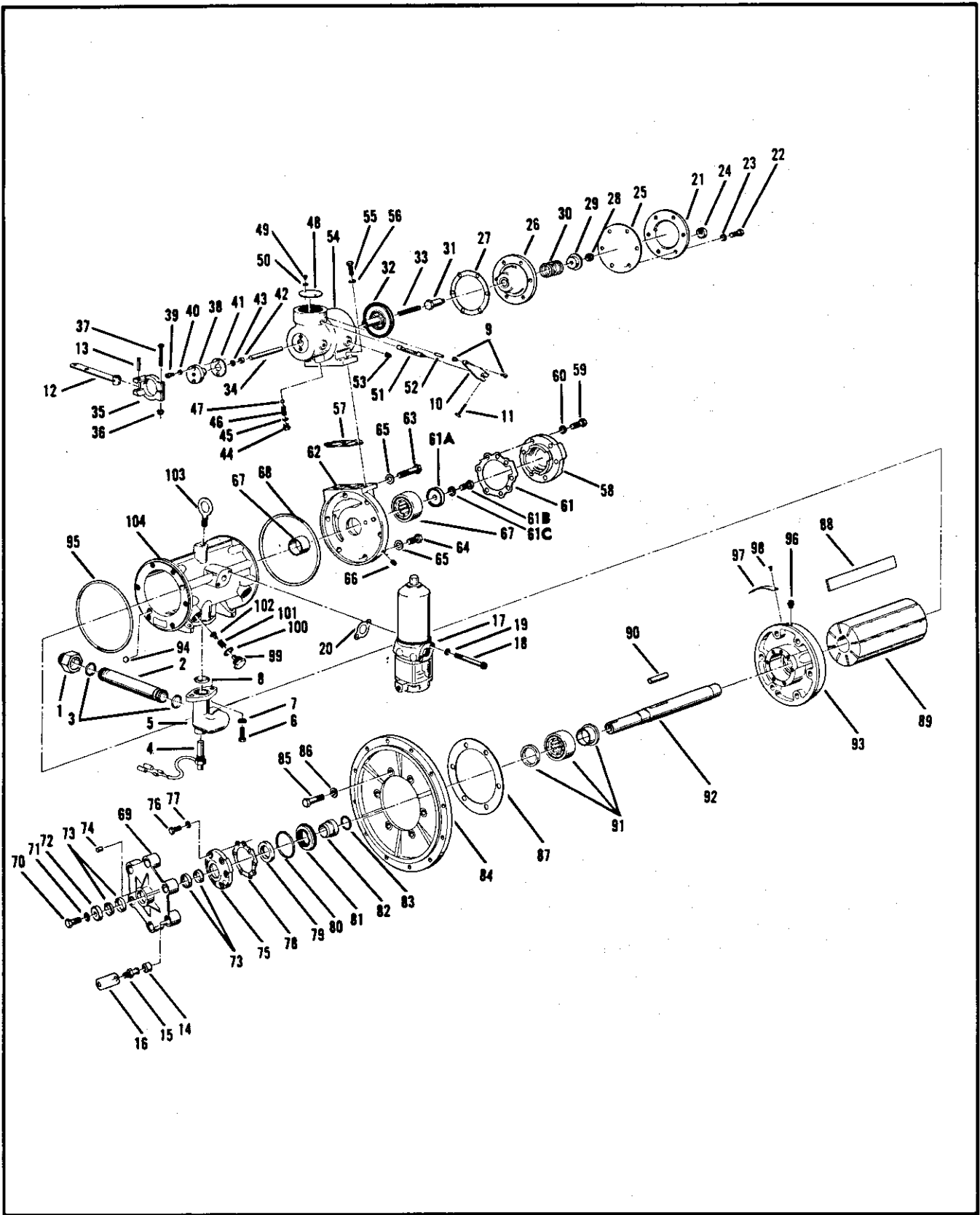


Figure 5-10. Air compressor assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-10	62259	AIR COMPRESSOR ASSEMBLY (See index 122, figure 5-1 for NHA)	REF	
-1	†44090	. ADAPTOR, Discharge tube (see index 90, figure 5-1)	REF	
-2	†46152	. TUBE, Discharge (see index 91, figure 5-1)	REF	
-3	†24502	. O-RING, Discharge tube (see index 92, figure 5-1)	REF	
-4	†48414	. THERMOSWITCH (See index 93, figure 5-1)	REF	
	†23921	. CONNECTOR, Wire	REF	
-5	†47159	. CONNECTION, Discharge (see index 94, figure 5-1)	REF	
-6	†122145	. BOLT, Hex hd, 3/8-16NC x 1-1/4 in. lg (AP)	REF	
-7	†120382	. WASHER, Lock, 3/8 in. (AP)	REF	
-8	†24033	. O-RING (See index 95, figure 5-1)	REF	
-9	†67981	. WIRE STOP	REF	
-10	†30024	. LEVER, Unloader control (see index 33, figure 5-1)	REF	
-11	†187838	. SCREW, Mach, hex hd, no. 10-32 x 5/8 in. lg (AP)	REF	
-12	†62286	. ARM, Speed control (see index 46, figure 5-1)	REF	
-13	40596	. PIN, Control arm(AP)	1	
-14	†25673	. BUSHING, Drive	6	
-15	†44056	. PIN, Coupling	6	
-16	†44736	. STRAP, Locking	3	
-17	44686	. OIL FILTER ASSEMBLY (See figure 5-11 for details)	1	
-18	67724	. BOLT, Socket head, 5/16-18NC x 4-1/2 in. lg (AP)	2	
-19	28147	. WASHER, Lock (AP)	2	
-20	44051	. GASKET, Oil filter	1	
-21	65422	. COVER, Intake housing	1	
-22	122040	. BOLT, Hex hd, 5/16-18NC x 1-1/2 in. lg (AP)	6	
-23	120214	. WASHER, Lock, 5/16 in. (AP)	6	
-24	40868	. BREATHER	1	
-25	42942	. DIAPHRAGM, Intake control	1	
-26	43363	. CYLINDER	1	
-27	43365	. GASKET	1	
-28	67911	. NUT, Lock, hex, 5/16-18NC	1	
-29	43364	. PISTON	1	
-30	43396	. SPRING	1	
-31	42948	. STEM	1	
-32	44064	. VALVE, Intake	1	
-33	44919	. SPRING	1	
-34	61758	. ROD, Push	1	
-35	61757	. CLAMP	1	
-36	443331	. NUT, Lock, hex, 1/4-20NC (AP)	1	
-37	121966	. BOLT, Hex hd, 1/4-20NC x 2-1/2 in. lg (AP)	1	
-38	61759	. GUIDE	1	
-39	426816	. BOLT, Socket hd, 1/4-20NC x 3/4 in. lg (AP)	2	
-40	28149	. WASHER, Lock (AP)	2	
-41	61761	. GASKET, Guide	1	
-42	26981	. BUSHING, Guide	1	
-43	24498	. O-RING, Guide	1	
-44	45121	. PLUG	1	
-45	24498	. O-RING, Plug	1	
-46	46888	. SPRING	1	
-47	24527	. BALL	1	
-48	44502	. PLATE, Valve	1	
-49	121832	. SCREW, Mach, no. 8-32 x 3/8 in. lg (AP)	2	
-50	40045	. WASHER, Lock	2	
-51	44507	. SHAFT, Valve plate	1	
-52	30788	. PIN, Stop	1	
-53	143933	. PLUG, Pipe, sq hd, 1/4NPT	1	
-54	61595	. HOUSING, Intake	1	
-55	122145	. BOLT, Hex hd, 3/8-16NC x 1-1/4 in. lg (AP)	3	
-56	120382	. WASHER, Lock, 3/8 in.	3	
-57	44045	. GASKET, Intake housing	1	
-58	43355	. COVER, Bearing	1	

†Items so marked are not part of compressor assembly. They are shown on this figure for assembly reference.

SECTION 5

Parts List

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
5-10-59	122027	. BOLT, Hex hd, 5/16-18NC x 1-1/4 in. lg (AP)	6	
-60	120214	. WASHER, Lock, 5/16 in.	6	
-61	43357	. GASKET, Bearing cover	1	
-61A	63197	. RETAINER, Bearing	1	
-61B	120233	. BOLT, Hex hd, 3/8-16NC x 1 in. lg (AP)	1	
-61C	120382	. WASHER, Lock, 3/8 in. (AP)	1	
-62	48012	. COVER, Intake end	1	
-63	120236	. BOLT, Hex hd, 1/2-13NC x 2-3/4 in. lg (AP)	1	
-64	120426	. BOLT, Hex hd, 1/2-13NC x 1-1/4 in. lg (AP)	5	
-65	43397	. WASHER, Sealing	6	
-66	143932	. PLUG, Pipe, 1/8NPT	1	
-67	43399	. BEARING, Rotor shaft, intake end	1	
-68	42976	. O-RING, End cover	1	
-69	46978	. COUPLING, Drive	1	
-70	48478	. BOLT, Retaining (AP)	1	
-71	120384	. WASHER, Lock, 1/2 in. (AP)	1	
-72	44068	. RETAINER, Coupling	1	
-73	44060	. GRIPSPRING	2	
-74	46971	. KEY, Coupling	1	
-75	48793	. COVER, Seal	1	
-76	122027	. BOLT, Hex hd, 5/16-18NC x 1-1/4 in. lg (AP)	6	
-77	120214	. WASHER, Lock, 5/16 in. (AP)	6	
-78	43357	. GASKET, Cover	1	
-79	48015	. SEAL, Oil	1	
-80	24972	. O-RING, Sealing sleeve	1	
-81	47786	. SLEEVE, Sealing	1	
-82	47784	. SLEEVE, Oil seal	1	
-83	24999	. O-RING, Oil seal sleeve	1	
-84	44054	. ADAPTOR, Compressor mounting	1	
-85	122472	. BOLT, Hex hd, 1/2-13NC x 2-1/2 in. lg (AP)	6	
-86	43397	. WASHER, Sealing (AP)	6	
-87	44413	. GASKET	1	
-88	44525	. BLADE, Rotor	8	
-89	44523	. ROTOR, Compressor	1	
-90	42950	. KEY, Rotor	1	
-91	43400	. BEARING, Rotor shaft, drive end	1	
-92	46979	. SHAFT, Rotor	1	
-93	48016	. COVER ASSY, End	1	
-94	9314	. BALL	1	
-95	42976	. O-RING, End cover	1	
-96	40783	. CONNECTOR, Hose	1	
-97	44972	. PLATE, Serial number	1	
-98	9426053	. SCREW, Self-tapping, no. 4 x 1/4 in. lg (AP)	2	
-99	43392	. PLUG	2	
-100	24964	. O-RING, Plug	2	
-101	43394	. SPRING	2	
-102	43393	. VALVE	2	
-103	24636	. EYEBOLT	1	
-104	44522	. STATOR	1	

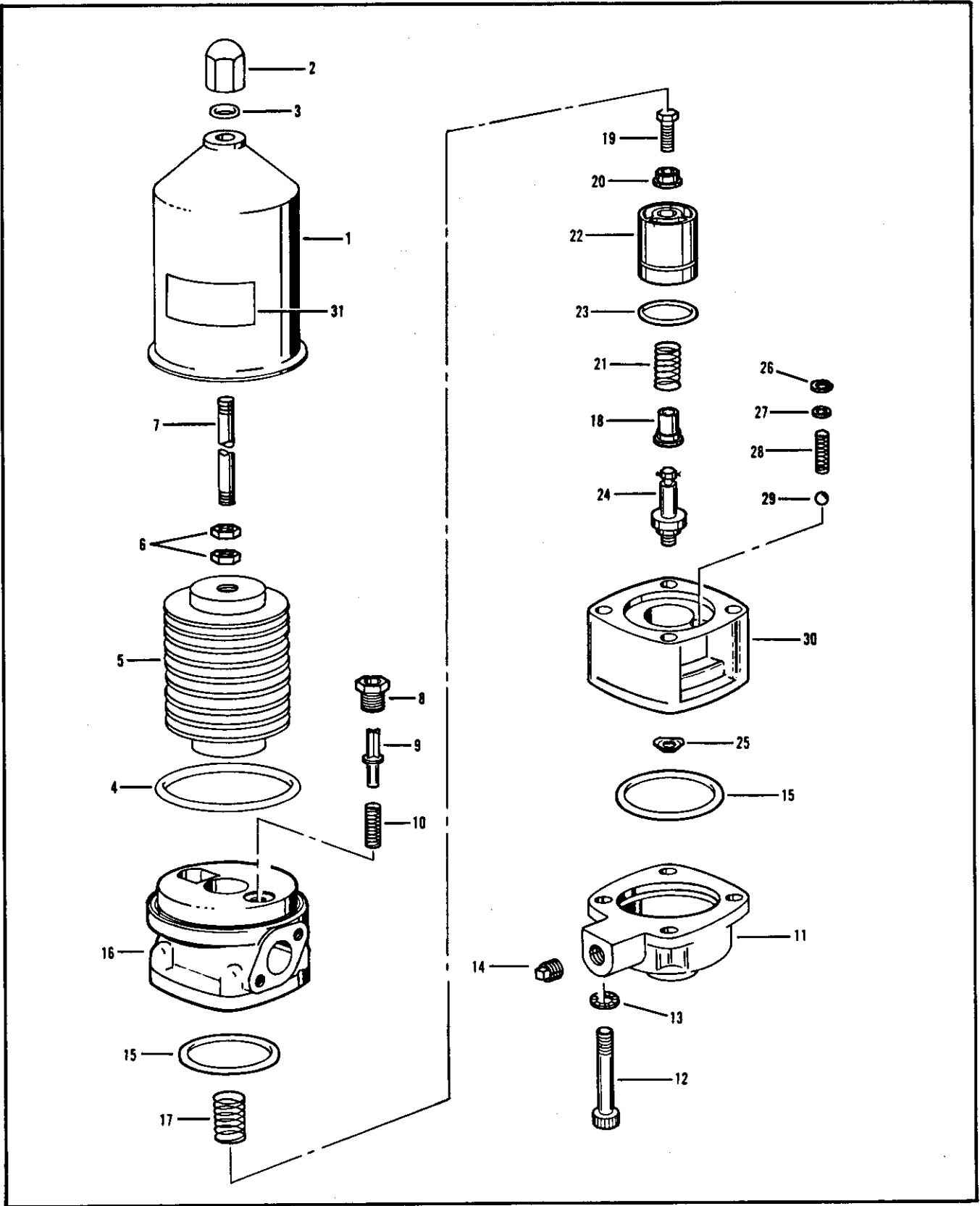


Figure 5-11. Compressor oil filter assembly

SECTION 5

Parts List

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
5-11	44686	COMPRESSOR OIL FILTER ASSY (See index 17, figure 5-10 for NHA)	REF	
-1	27267	. HOUSING, Filter	1	
-2	28545	. NUT, Housing	1	
-3	24649	. O-RING, Housing nut	1	
-4	28412	. O-RING, Housing	1	
-5	27268	. ELEMENT, Oil filter	1	
-6	120377	. NUT, Hex, 3/8-16NC (AP)	2	
-7	44689	. STUD, Center	1	
-8	43369	. PLUG, Valve	1	
-9	44066	. VALVE	1	
-10	44371	. SPRING, Valve	1	
-11	46218	. COVER	1	
-12	9421633	. SCREW, Sch, 5/16-18NC x 3-1/4 in. lg (AP)	4	
-13	28147	. WASHER, Lock (AP)	4	
-14	143934	. PLUG, Pipe, sq hd, 3/8NPT	1	
-15	27293	. O-RING, Cover and body	2	
-16	44698	. CONNECTION, Bypass and filter	1	
-17	40679	. SPRING	1	
-18	46175	. PLUNGER	1	
-19	121900	. BOLT, Hex hd, 1/4-20NC x 1 in. lg (AP)	1	
-20	46174	. GUIDE	1	
-21	40678	. SPRING	1	
-22	29941	. SHUTTLE	1	
-23	24999	. O-RING, Shuttle	1	
-24	40434	. POWER ELEMENT ASSY	1	
-25	49275	. NUT, Spring	1	
-26	44449	. RING, Retaining	1	
-27	131014	. WASHER, Flat, no. 6	1	
-28	44501	. SPRING	1	
-29	24527	. BALL	1	
-30	43367	. BODY	1	
-31	63301	. DECAL, Oil filter service	1	