

# **DAVEY** Model 250 RPV

*Permanane Rotary Compressor*

## **OPERATION AND MAINTENANCE MANUAL**

*WITH*

## **PARTS LIST**

DAVEY COMPRESSOR COMPANY  
11060 KENWOOD ROAD  
CINCINNATI, OHIO 45242

CONTRACT DLA700-85-C-8195  
MIPR NO.: N0024985RCD233

DAVEY MODEL 19M250RPDQ  
COMPRESSOR UNIT ASSEMBLY  
NSN4310-00-879-8724

USN REGISTRATION NO.: USN31-07062  
MANUAL STOCK NO. 1H-7610-LL- L84-5233

### CONTENTS

COMPRESSOR UNIT OPERATION, MAINTENANCE, AND PARTS LIST  
ENGINE, OPERATION, MAINTENANCE, PARTS LIST AND ENGINE  
ACCESSORIES MAINTENANCE AND PARTS LISTS.

**DAVEY**

*Built to  
serve and endure*

THE DAVEY COMPRESSOR CO.

MPL-176-85

11060 KENWOOD ROAD  
CINCINNATI, OHIO 45242



## MODEL 250 RPV PERMAVANE ROTARY COMPRESSOR SPECIFICATIONS

### UNIT DATA

Mounting ..... 4-wheel; dual leaf type springs  
Tire Size ..... 78-15, 4 ply  
Tire Pressure ..... 32 PSI  
Towing Speed ..... 20 mph  
Wheel Bearings ..... Tapered Roller  
Towing Hitch ..... Lunette Eye  
Fuel Tank Capacity ..... 40 gallons

### Dimensions:

Length (w/towbar)..... 166 in.  
Height (w/raincap)..... 87 in.  
Width ..... 72-1/2 in.

### COMPRESSOR

Number of Rotors ..... 1  
Rotor Slots ..... 8  
Vaness per Slot ..... 1  
Type of Vane ..... Light Metal \*Permavane  
Vane Thickness ..... 1/4 inch, nominal  
Capacity Control ..... Full modulation with  
air pressure control

Operation Pressure ..... 100 psi  
Rated Capacity ..... 250 cfm  
Full Load Speed ..... 1750 rpm  
Lubrication ..... Full flood, force feed  
Oil Capacity ..... 33 qts.  
Oil Filter ..... Permanent screen  
Air Cleaner ..... Dry type

### OIL SEPARATOR

Type ..... Vertical labyrinth type

Element ..... Replaceable cartridge

### ENGINE

Type ..... Diesel, 6-cylinder, 4 cycle  
Make ..... Hercules  
Model ..... D-3400  
Bore ..... 4 in.  
Stroke ..... 4-1/2 in.

Piston Displacement ..... 339 cu. in.  
Horsepower (at 1800 rpm) ..... 93  
Torque (Max.) ..... 275 ft. lb. at 1300 rpm  
Lubrication ..... Forced feed

\*Patent No. 2905376

### NOTE

Engine manuals may be obtained directly  
from the engine manufacturer.

## 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

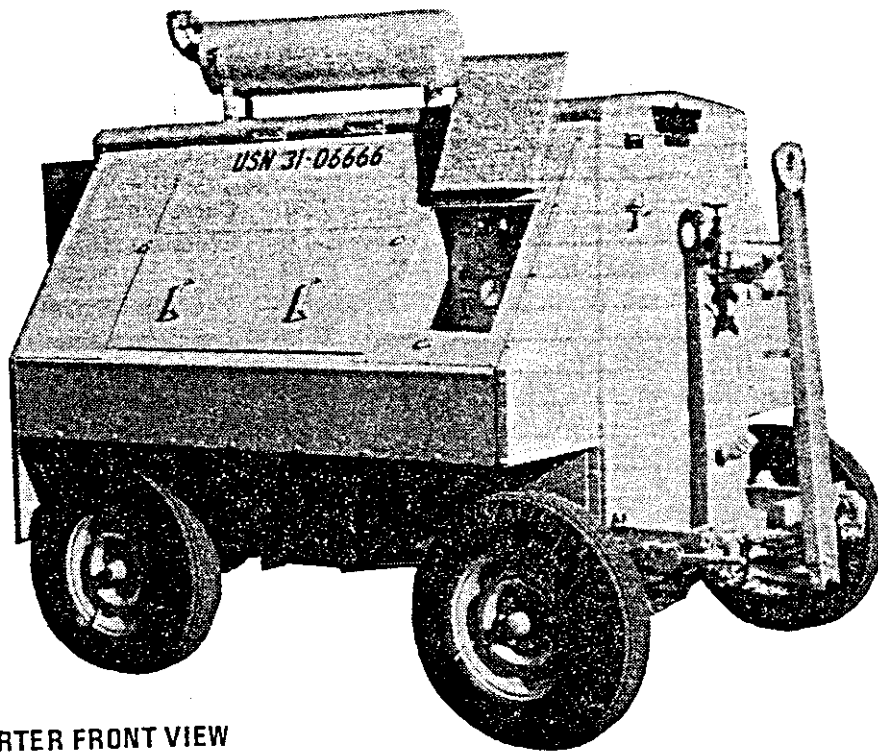
Part I of this manual is restricted to the operation, maintenance, and repair of the air compressor. Manuals covering the engine, engine accessories, and engine parts list will be found in Part II which follows the air compressor manual.

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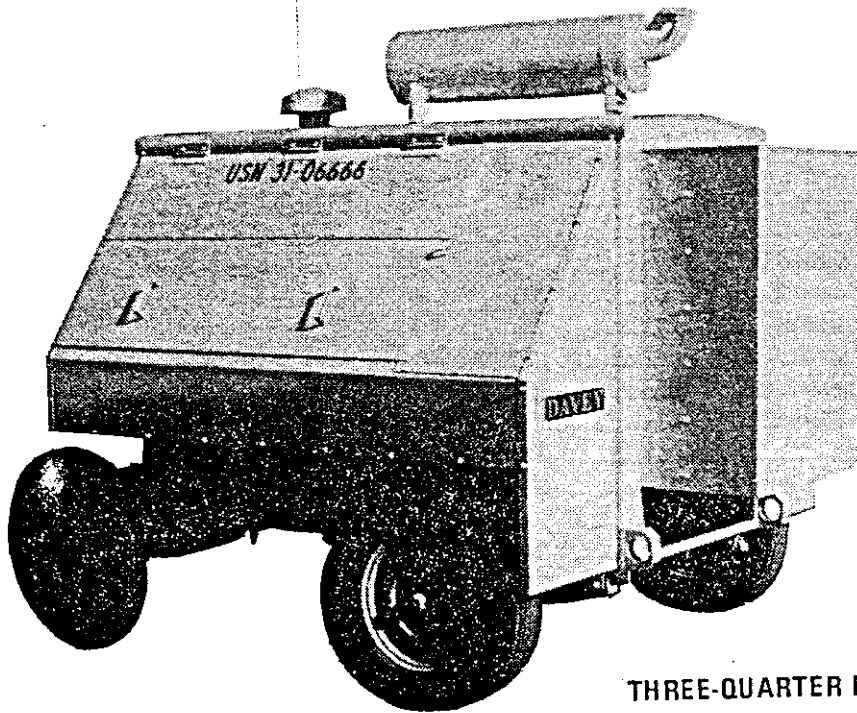
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THREE-QUARTER FRONT VIEW



THREE-QUARTER REAR VIEW

*Rotary air compressor unit*



## 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 on a shaft which is supported at each end by ball bearings. The rotor is en-

closed 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 from the compressed air, it accumulates

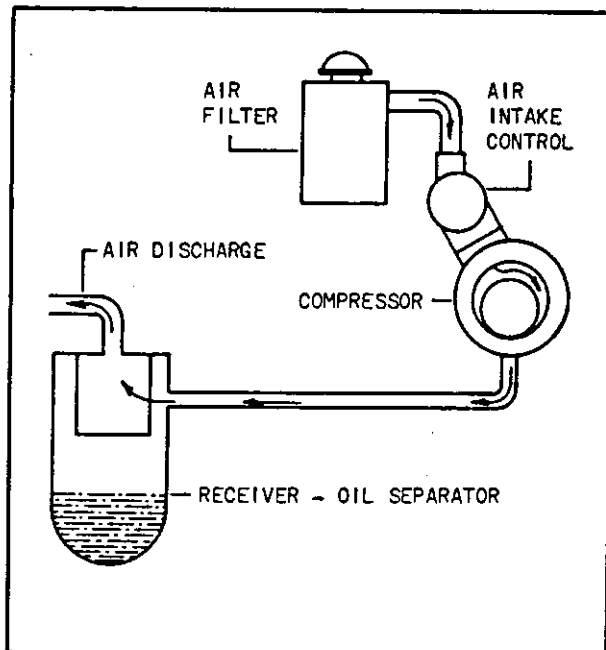


Figure 1-1. Air cycle schematic diagram

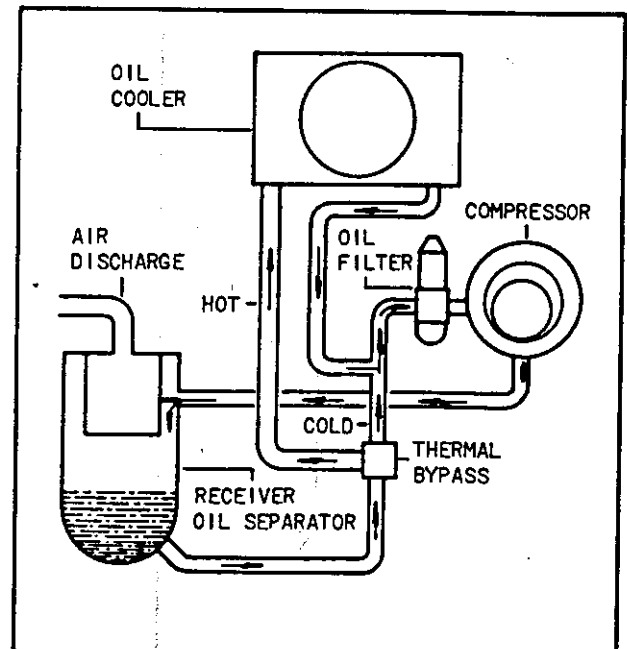


Figure 1-2. Oil cycle schematic diagram



in the receiver-oil separator. The discharge air pressure forces it into the 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 and oil cooler 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.

**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 (20, Figure 5-17). 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 discharge of the rotary compressor assembly should exceed 220 degrees Fahrenheit, 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 oil in the rotary 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. Each filters the lubricating oil before it enters the unit. The compressor oil filter is incorporated after the thermal bypass valve described in paragraph 1-4.





## 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 lengthwise or sidewise. 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 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.

### 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. Oil capacity of the compressor is 33 quarts.

(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.

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.

### 2-3. OPERATING CONTROLS AND INDICATING INSTRUMENTS (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.

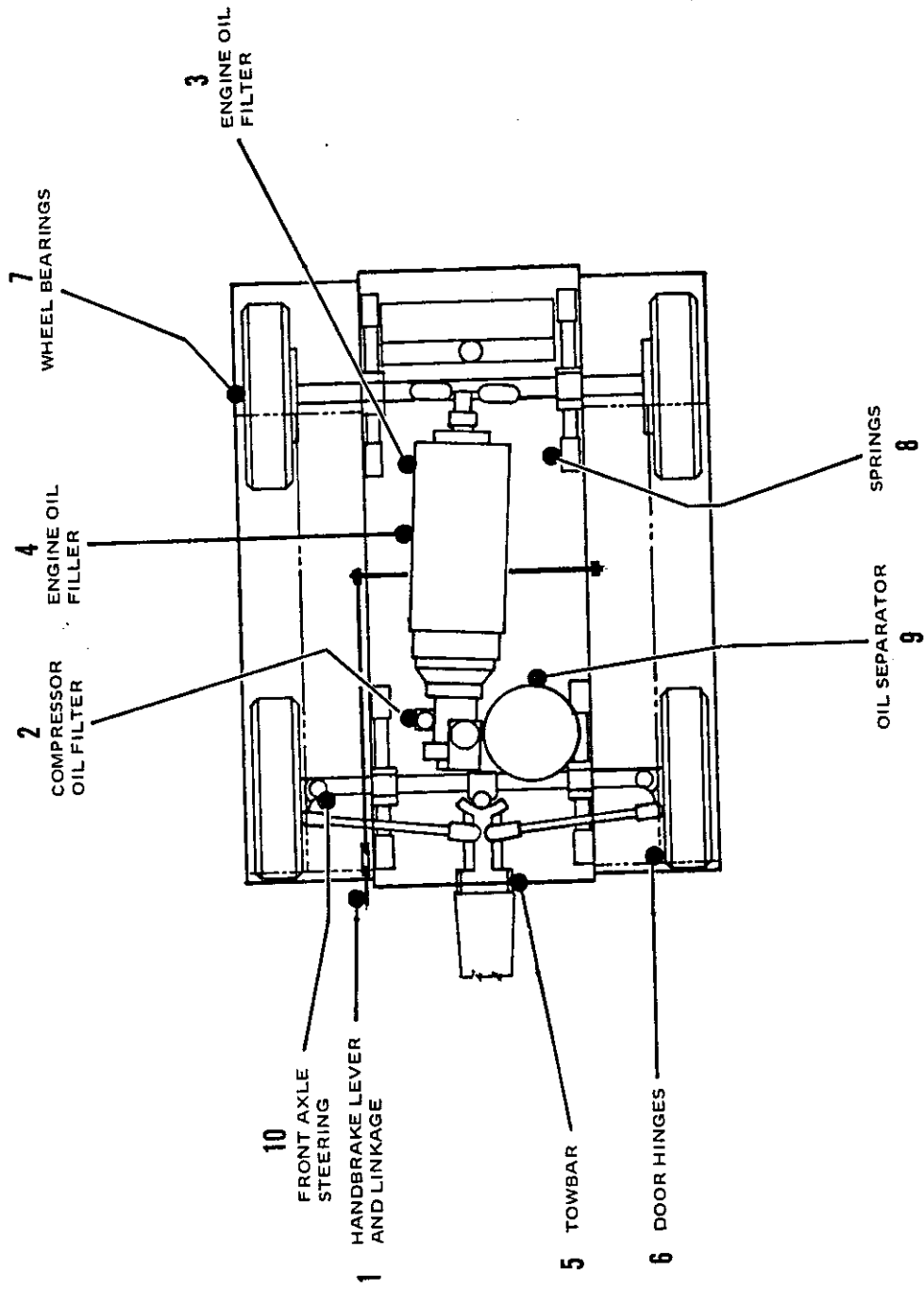


Figure 2-1. Lubrication chart (sheet 1 of 2)



REF NO.	ITEM	INSTRUCTION	OPERATING PERIOD	LUBRICANT
1	Handbrake lever and linkage	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	Towbar	Clean, oil pivot points sparingly	500 hrs	OC
6	Door hinges	Clean, oil hinges sparingly	500 hrs	OC
7	Wheel Bearings	Remove wheels, clean hubs, spindles, and repack.	1000 hrs	WB
8	Springs	Clean and brush on oil sparingly	1000 hrs	OC
9	Oil separator	Check oil level, add as necessary Drain tank and refill.	Daily **500 hrs	OC OC
10	Front axle steering	Clean fittings, grease nine fittings	1000 hrs	WB

\*Replace element if badly clogged.  
\*\*Replace element every 4000 hrs.

SYMBOL	LUBRICANT	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
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 (sheet 2 of 2)

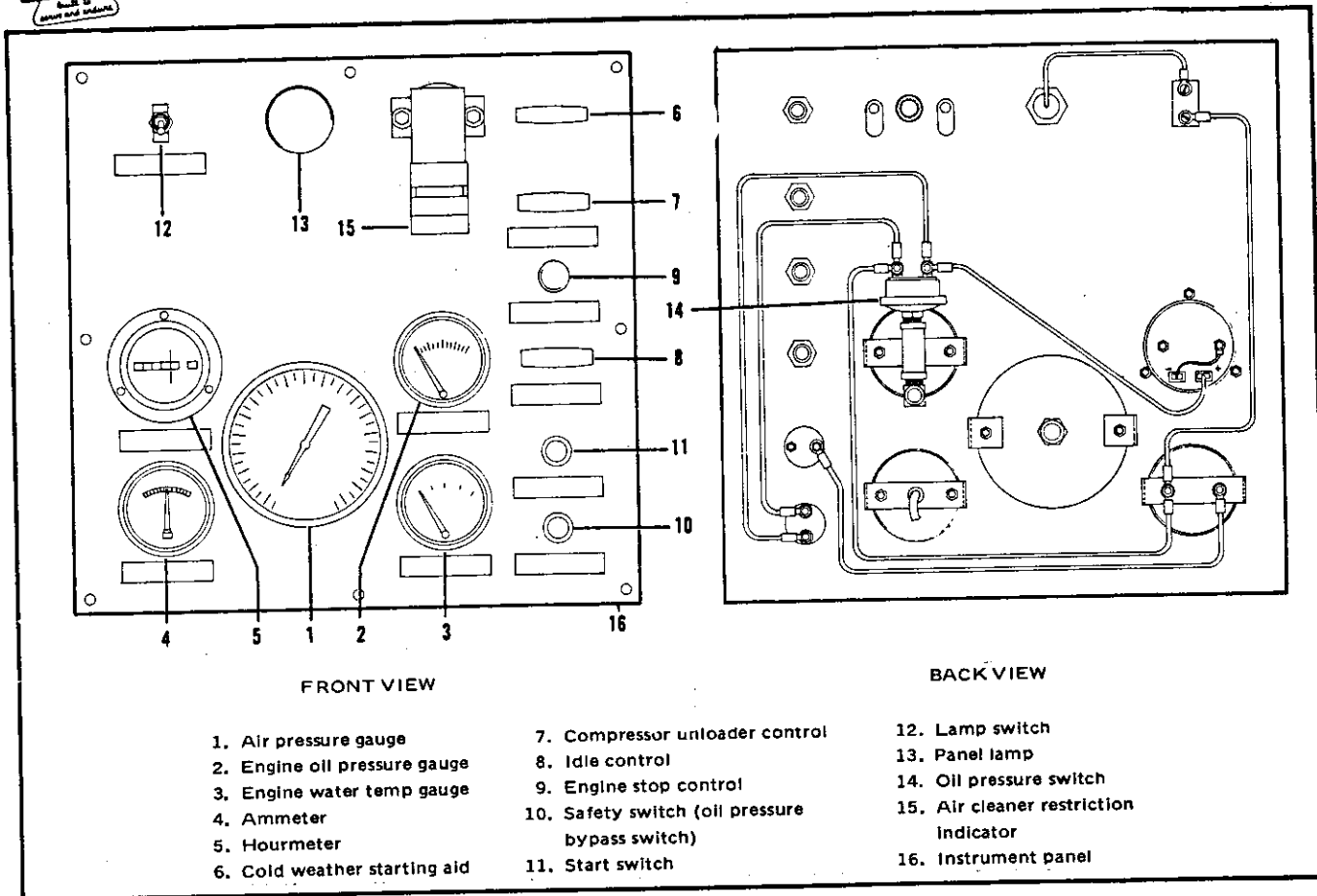


Figure 2-2. Instrument panel assembly

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. **SAFETY SWITCH (Oil Pressure Bypass)**. This pushbutton is in parallel with the pressure switch on the oil pressure gauge.

In order to start, the ignition circuit must be completed and this is accomplished by depressing the bypass switch pushbutton. After starting, and engine oil pressure is obtained, the 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 switch until the cause of the low oil pressure has been determined.

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. **STOP CONTROL.** The engine stop control, when pulled outward, actuates the fuel injection pump shutoff lever thereby stopping the engine. Refer to Part II for engine fuel injection pump details.

m. **AIR CLEANER RESTRICTION INDICATOR.** This indicator monitors the air pressure drop through the air cleaner. When the pressure drop is satisfactory, the indicator shows green. When intake air is restricted by dirt or any other reason, the indicator shows red. After restriction has been cleared, reset indicator by pressing down on the cap of the indicator until green is showing.

n. **COLD WEATHER STARTING AID CONTROL (QUICK START).** This cable is used to inject cold weather starting aid fuel into the engine air intake. Do not operate until start switch is depressed. Do not leave cylinder installed in unit in warm weather. Accidental use could result in engine damage.

#### 2-4. STARTING THE UNIT.

a. Open the housing side doors and instrument panel door.

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. Pull the engine stop cable (9, figure 2-2) all the way out to stop position. Press the start switch (11) for approximately three seconds to crank the engine a few revolutions; then release the start switch.

d. Push the engine stop cable (9) all the way in toward panel. Pull compressor unloader handle (7) out and lock by turning handle clockwise.

e. In cool weather, below 40°F (4.4°C) use cold weather starting aid control (6, figure 2-2). Do not operate control until start switch (11) and bypass switch (10) are pressed.

#### CAUTION

If engine fails to start within 20 seconds, release switches (10, 11) and allow the starter to cool for 1 to 2 minutes before attempting another start.

f. Press the start switch (11) and oil pressure bypass switch (10) simultaneously. (Actuate cold weather starting aid handle as necessary.)

g. When engine starts, release the start switch (11) but continue to hold oil pressure bypass switch (10) until engine oil pressure gauge (2) indicates a pressure of approximately 10 psi; then, release bypass switch (10).

#### CAUTION

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

h. After engine starts, unlock idle control (8) 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 temperature reaches 140°F.

i. When operating temperature is reached, unlock compressor unloader handle (7) and idle control handle (8) and push these handles in and lock by turning clockwise. Close the air outlet valves.

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

Air pressure gauge .....	90 to 100 psi
Engine oil pressure gauge .....	40 to 60 psi
Engine water temperature gauge .....	160° to 185°F

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

#### CAUTION

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. Pull the engine stop control (9, figure 2-2) outward until engine stops; then, push inward to the run position.

c. Perform the after operation procedures found in table 3-1. Close housing side doors and instrument panel door.

## 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.

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.)

### WARNING

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

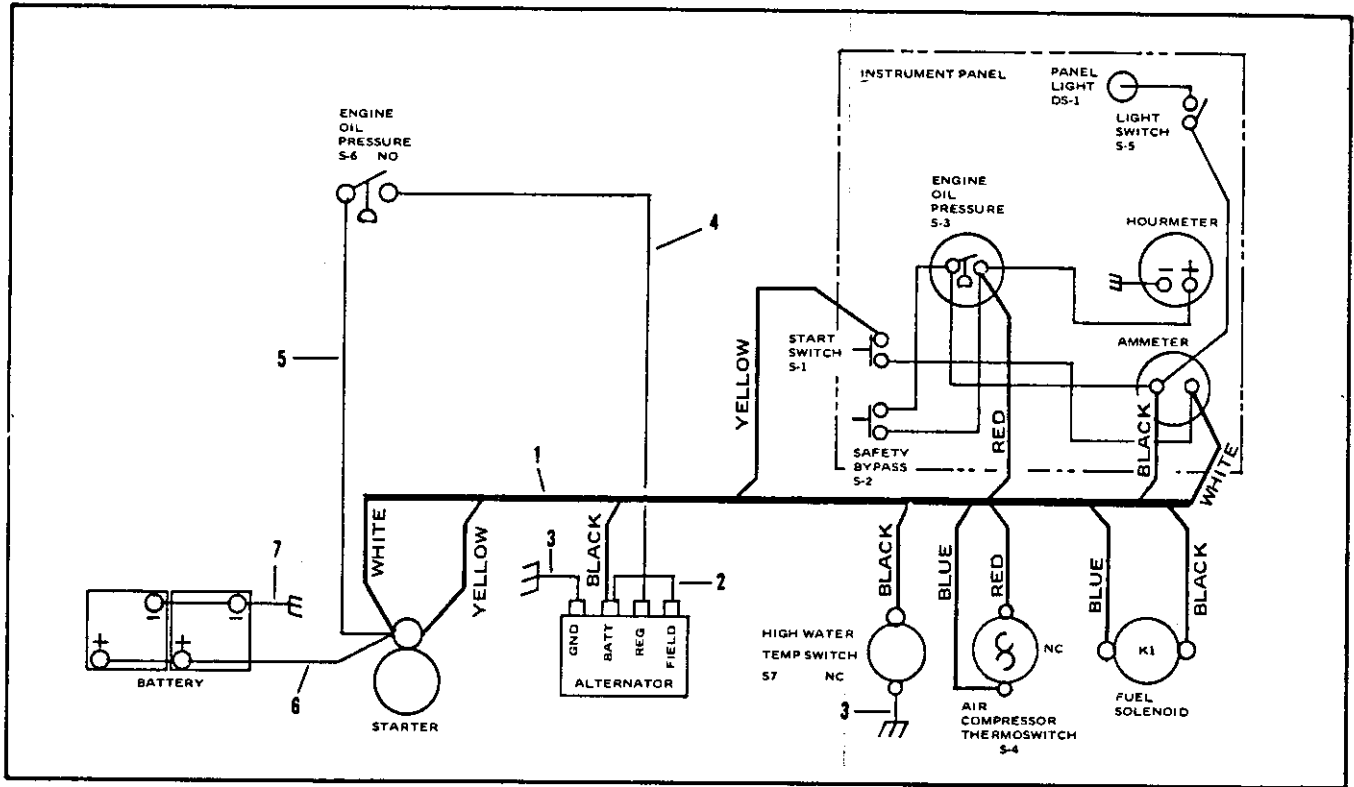


Figure 2-7. Wiring Diagram







### 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: Major maintenance will normally not be required, provided that normal 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.

3-4. DISASSEMBLY OF AIR COMPRESSOR UNIT. (Fig. 5-1). Disassembly of the air compressor unit or any of

the major components is accomplished by following the order of the key index numbers assigned to figures in section five of this manual. Many of the components can be removed and replaced without disturbing the rest of the assembly. Disassemble to the extent required to accomplish repair.

a. Disassembly of Air Compressor. (Fig. 5-18). Disconnect all tubing or hose assemblies and the intake control cable and cable clip. For blade and rotor inspection, it is only necessary to remove nondrive end cover (61) with intake control and bearing cover attached. To remove intake control body (44), parts (27 thru 38) must be removed to gain access to bolt (51) within the intake control body.

Do not disassemble rotor and drive end cover assembly (89) unless it is determined that a part must be replaced. To disassemble rotor and drive end cover assembly, refer to figure 3-3. Remove nondrive end bearing inner race by first applying a suitable gear puller. If inner race fails to move, apply heat from a torch and heat the inner race evenly. Apply gear puller and remove race.

#### **NOTE**

Discard bearing races that have been removed by applying heat. Replace with entire new bearing.

#### 3-5. CLEANING.

a. Wash all metal parts with solvent, Federal Specification P-D-680, or a commercial equivalent prior to inspection.

b. Strip off all gaskets and clean surface where sealing compound was used.

c. If varnish exists, carefully scrape off or soak components in commercial solvents available for this purpose.

#### **CAUTION**

Be sure to observe manufacturer's instructions and precautions.

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		LEAKS — Inspect all air lines and fittings for air leaks. Correct all deficiencies.
X			LUBRICATION — Lubricate the air compressor in accordance with the lubrication table, figure 2-1.
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	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.
X		X	BATTERY — Check level of electrolyte in the batteries. Use distilled water to maintain proper level.

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 a clogged or defective air cleaner.
X			TIRES — Check air pressure; maintain at 36 psi.
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		LUBRICATION — Drain oil in rotary compressor and engine and refill with clean oil of type and grade specified on lubrication chart.
X			Remove compressor oil filter. Clean or replace.
	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

d. Clean all foreign matter from internal surfaces, rotor slots, and all passages.

e. Wash air cleaner (Fig. 5-8) thoroughly and air dry. Wash bowl, wipe dry.

f. Wash oil filter element (6, Fig. 5-19). Use a brush to clean the wafer elements, then air dry.

**NOTE**

Do not attempt to wash oil separator fiber glass element (46, Fig. 5-17). Replace if clogged.

g. Blow out any dust or dirt accumulation from between radiator-cooler tubes.

**3-6. REPAIR OR REPLACEMENT.**

a. Replace all O-rings, seals, and gaskets at overhaul or disassembly.

b. Remove minor nicks or scratches from machined surfaces of rotor (2, Fig. 3-3) and stator (103, Fig. 5-20) with a fine honing stone or emery cloth. If extremely scored or galled, replace damaged parts.

e. Inspect air cleaner (Fig. 5-8) for clogging or other damage. Replace if not repairable.

d. Oil filter elements (Fig. 5-19) that are damaged or cannot be unclogged shall be replaced.

e. Varnished or damaged oil separator element (46, Fig. 5-17) shall be replaced.

f. Replace blades (88, Fig. 5-18 and Fig. 3-6) 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. (Also, see Fig. 3-4.)

g. Replace any hoses (Fig. 5-11), cables or other parts with obvious damage that are not repairable.

h. Replace bearings (56 and 90, Fig. 5-18) that feel gritty or bind when rolled manually. Replace bearing when inner race must be heated to remove from shaft.

**3-7. REASSEMBLY OF AIR COMPRESSOR.** (Fig. 5-18). Reassembly is essentially the reverse of disassembly. In addition, observe the following special reassembly procedures.

a. Coat O-rings, blades, and internal machined parts with clean lubricating oil at time of reassembly. Reassemble rotor (Fig. 3-3 and 3-4) with the follow-

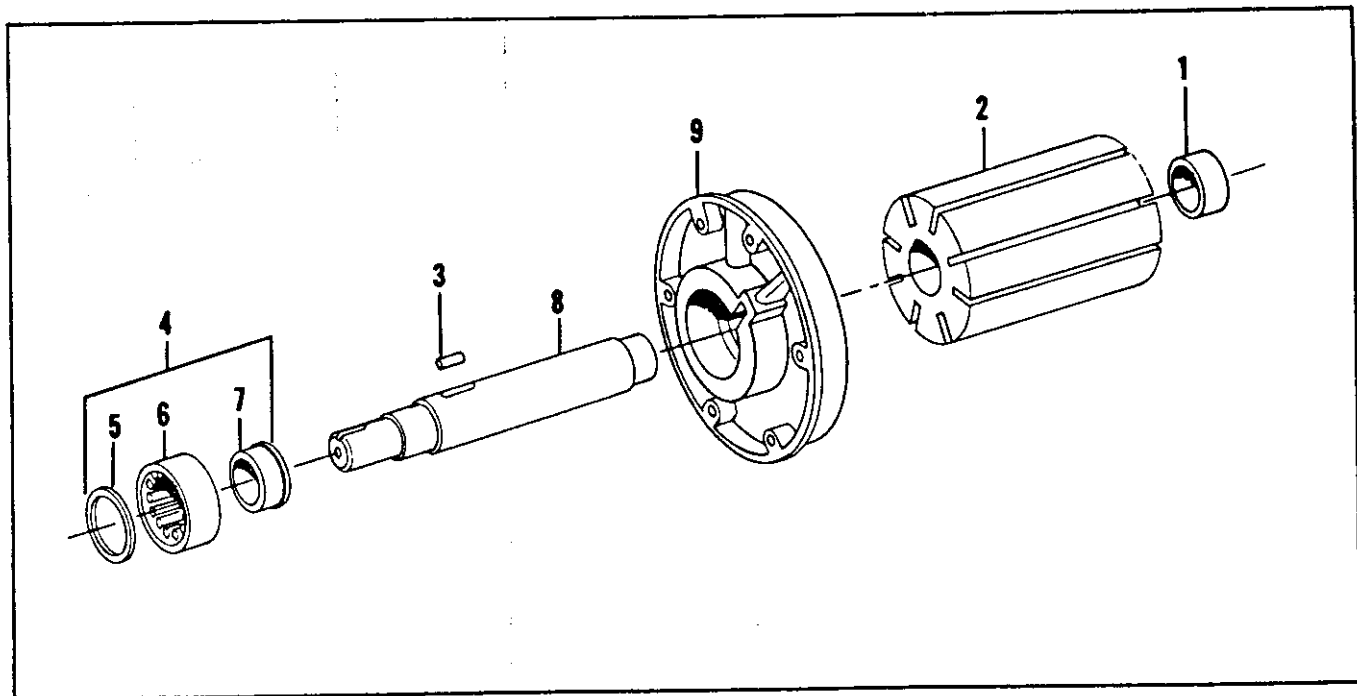


Figure 3-3. Rotor assembly

ing instructions. Heat bearing inner races (1 and 7) evenly in hot cooking oil to a maximum of 350°F. Install inner race (7) on shaft to shoulder. Assemble outer race (6) and spacer (5) on bearing inner race. Press bearing and shaft into cover (9). Place key (3) in shaft and slide rotor on shaft, making sure relief slots in rotor are leading in the direction of rotation (Fig. 3-4). Place heated bearing inner race (1) on shaft to shoulder. Complete assembly, referring to Figures 5-18 and 3-5.

b. Hold O-rings (65 and 86, Fig. 5-18) in place on end covers (61 and 92) with grease until secured in reassembly.

c. Gripsprings: During reassembly of the compressor, it is essential that the gripsprings (70, Fig. 5-18) be installed in the correct sequence. Improper installation of the gripsprings will result in slippage between the shaft and the coupling and cause excessive wear. Refer to Figure 3-5 and assemble the gripsprings as follows:

(1) Install smaller gripspring (3) on shaft (2) with beveled edge out.

(2) Position larger gripspring (4) over gripspring (3) so that the beveled edges meet.

(3) Install key (8) on shaft. Slide coupling (1) on shaft and over key and gripsprings until it seats.

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

(5) Install second smaller gripspring (3) on shaft. Be sure beveled edges of gripsprings (3 and 4) match.

(6) Position gripspring retainer (7) and secure with washer (5) and bolt (6).

d. Service the unit per paragraphs 2-1 and 2-2 before restarting compressor.

3.8. ENGINE SPEED CONTROL LINKAGE ADJUSTMENT (Figure 3-7). After replacing or due to normal wear of a component affecting the speed of the compressor may require the adjustment of the linkage to obtain the desired RPM. Adjust linkage as follows:

a. Start unit (Paragraph 2-4) and allow it to operate until normal operating temperature is attained.

b. Close the air service valves.

c. Pull UNLOADER handle out and lock.

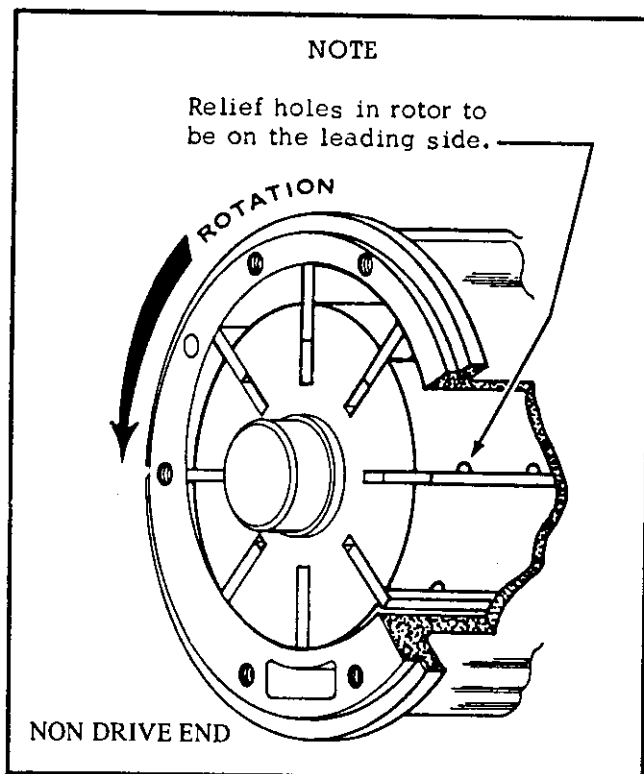


Figure 3-4. Compressor rotor installation

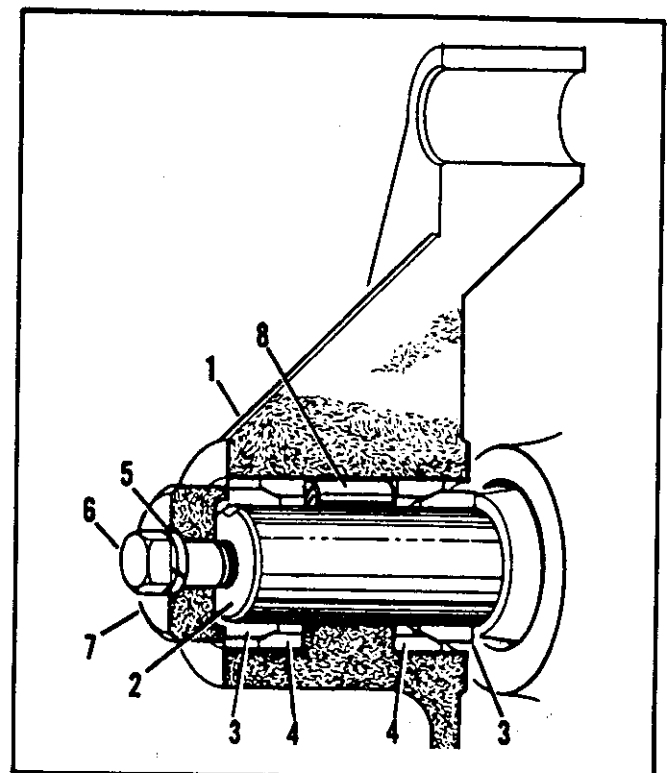


Figure 3-5. Gripspring installation

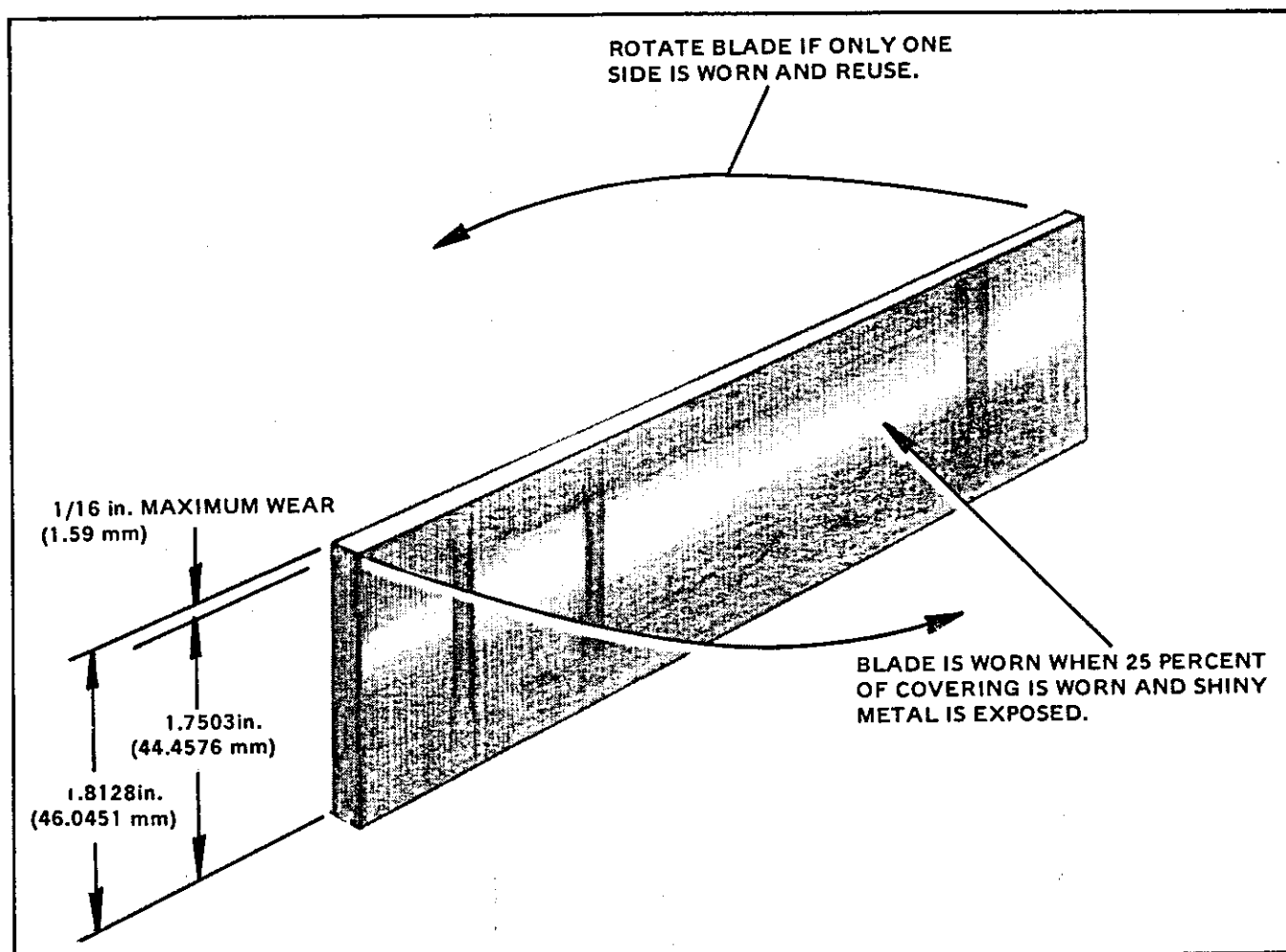
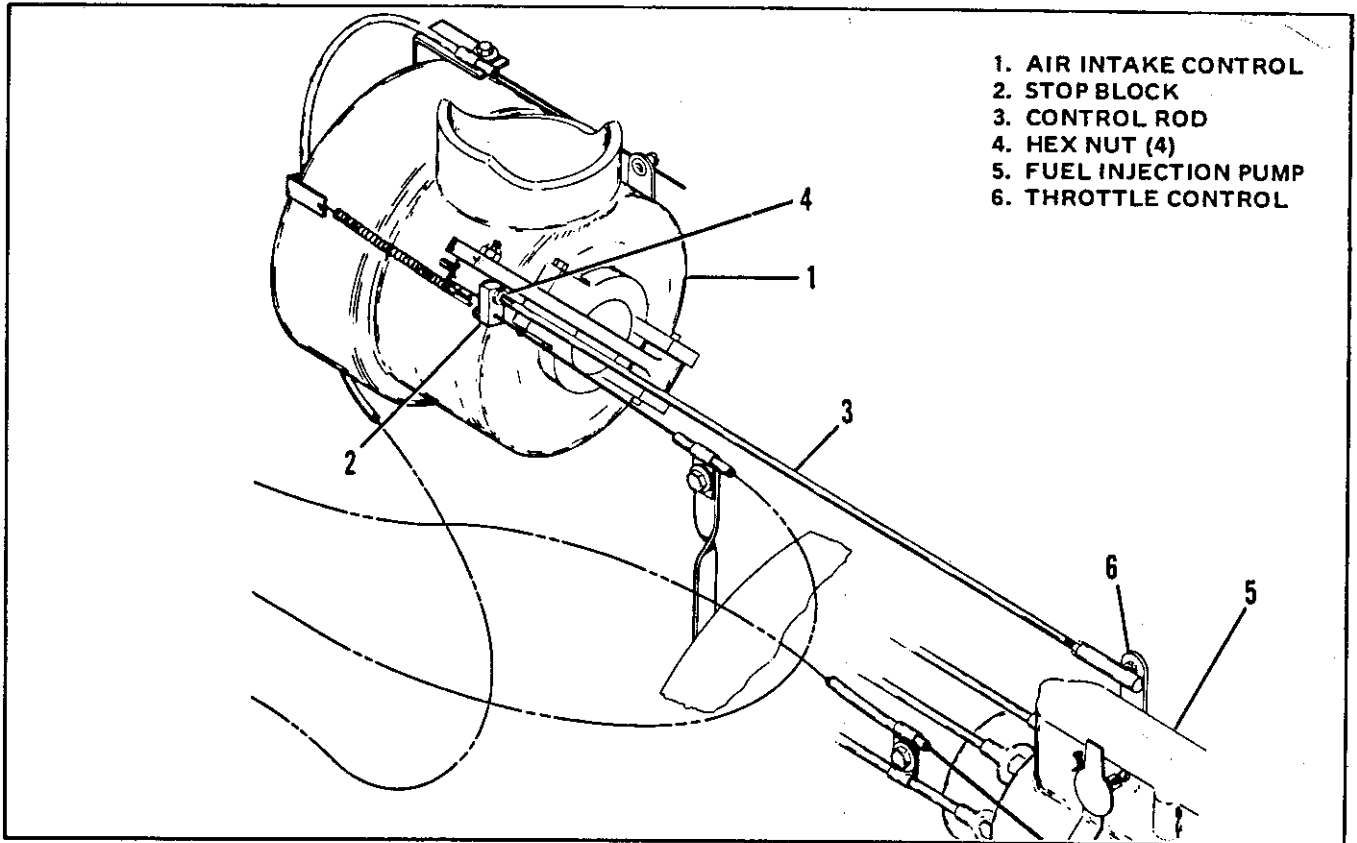


Figure 3-6. Rotor Blade Inspection

- d. Loosen jam nuts (4) on control rod at stop block (2).
- e. While observing tachometer reposition stop block on control rod by rotating adjusting nuts (4). Set engine idle speed at  $1050 \pm 25$  rpm.
- f. Cycle the compressor several times, to insure setting is correct, by pushing UNLOADER control in and opening a service valve momentarily.
- g. When the engine idle speed of  $1050 \pm 25$  rpm is attained, tighten jam nuts.
- h. Push UNLOADER and IDLE CONTROL in.
- i. Observe TACHOMETER for  $1800 \pm 50$  rpm, during the load mode. Open an air service valve slightly to obtain 95 to 100 psi indication on AIR PRESSURE gauge.
- j. If the desired RPM is not obtained, perform the procedure necessary in paragraph 3-5 of Engine Operation and Maintenance manual until desired RPM is attained.

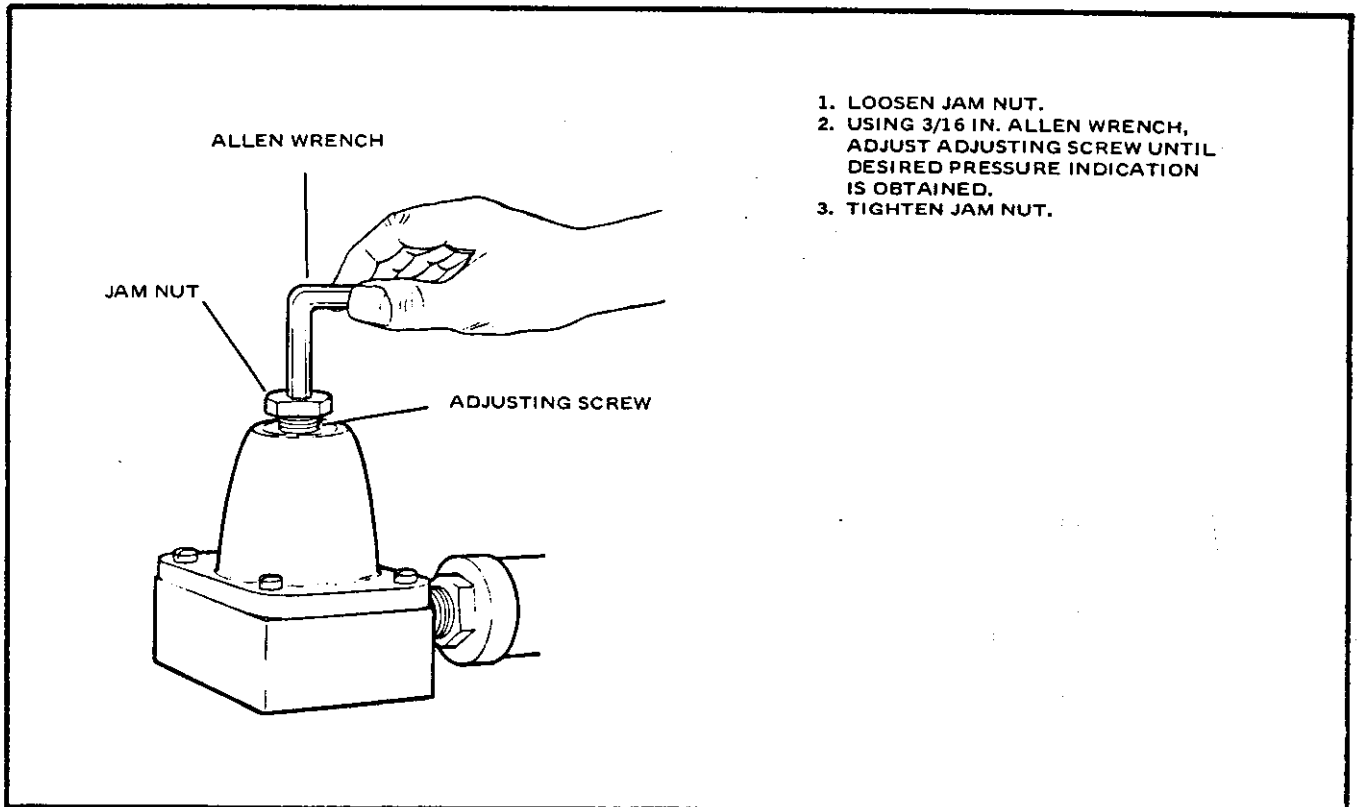
**3-9. AIR PRESSURE REGULATOR ADJUSTMENT.**  
After replacement or overhaul of engine, compressor or oil separator assembly the resetting of the air pressure regulator valve may be required. Adjust regulator valve as follows: (See figure 3-8.)

- a. Start unit and allow to operate until normal operating temperature is attained (para 2-4).
- b. Observe TACHOMETER for proper engine RPM (para 3-8).
- c. Loosen jam nut on air pressure regulator and using a allen wrench, set adjusting screw until AIR PRESSURE gauge indicates  $115 \pm 5$  psi.
- d. Cycle compressor several times while observing gauges. Tighten jam nut.



1. AIR INTAKE CONTROL
2. STOP BLOCK
3. CONTROL ROD
4. HEX NUT (4)
5. FUEL INJECTION PUMP
6. THROTTLE CONTROL

Figure 3-7. Engine Speed Control Linkage



1. LOOSEN JAM NUT.
2. USING 3/16 IN. ALLEN WRENCH, ADJUST ADJUSTING SCREW UNTIL DESIRED PRESSURE INDICATION IS OBTAINED.
3. TIGHTEN JAM NUT.

Figure 3-8. Air Pressure Regulator Adjustment







### SECTION 4 TROUBLE SHOOTING

4-1. TROUBLE SHOOTING. The following chart gives common troubles, their probable causes

and suggested remedies. For engine troubles, refer to Part II.

TROUBLE	PROBABLE CAUSE	REMEDY
COMPRESSOR OVER-HEATS	Dirty oil cooler	Clean the cooling fins.
	Low oil level	Fill with oil as specified in the lubrication chart.
	Sticking thermal bypass valve	Dismantle and clean.
	Oxidized oil	Dismantle compressor and separator. Clean using Oakite Composition No. 111, Oakite Products, Inc. Reassemble. Replace oil separator element. Fill with oil, specified on lubrication chart.
	Blade damaged or stuck in slots	Clean or replace blades. If varnish deposits are excessive, clean compressor as specified above.
NOISY COMPRESSOR OPERATION	Lack of lubricant	Fill to oil levels specified in the lubrication chart. If it is determined that damage has occurred due to lack of lubrication, follow procedure below.
	Loose, worn or damaged internal or external parts	Tighten all accessible external attaching parts and components. If it is determined that internal parts are the cause of the trouble, remove compressor unit for overhaul.
COMPRESSOR NOT COMPRESSING TO FULL CAPACITY OR PRESSURE	Leak in piping	Shut down pressure; check piping for leaks with soap and water solution. Repair or replace defective piping or fittings. If unloader is leaking, remove for overhaul.
	Air service valve open or leaking	Close the service valve or replace as necessary.
	Safety valve leaking	Replace safety valve.

#### NOTE

If the equipment fails to compress to full capacity or pressure, check all piping connections and components for leaks.

#### **WARNING**

Do not attempt any adjustment or repair to the unit until all air pressure has been relieved.

*Figure 4-1. Trouble Shooting Chart*

TROUBLE	PROBABLE CAUSE	REMEDY
COMPRESSOR FAILS TO LOAD OR UNLOAD	Faulty unloader	Remove defective unit for overhaul.
	Plugged orifice	Clean.
	Dirt on control valve seat.	Clean valve seat.
	Ruptured diaphragm in control assembly	Replace diaphragm.
	Unloading pressure too high or too low	Readjust.
	Defective hose assemblies between compressor and minimum pressure valve housing	Repair hose assemblies or replace.
ENGINE STALLS WHILE IDLING	Engine or compressor is not warm enough	Run at part load until equipment is warmed up.
	Idle speed set too low	Readjust.
	Backlash in linkage	Readjust linkage.
COMPRESSOR OVERHEATING	Dirty oil filter	Remove, clean with non-flammable solvent and install.
	Clogged oil cooler fins	Clean oil cooler fins of debris and dirt accumulated on fins.
COMPRESSOR OUTPUT LOW	Faulty air filter element	Remove, clean or replace.
	Intake valve malfunction	Remove intake control. Remove intake valve assembly. Clean or replace worn parts.
	Dirty fuel and/or filters	Remove, clean, or replace fuel filter. Drain water or foreign particles from fuel tank.
	Low power unit RPM	Refer to Engine Manual.
	Damaged blades	Drain oil. Remove non-drive end cover. Remove blades, inspect for burrs. Replace damaged blades.
COMPRESSOR FAILS TO LOAD AND UNLOAD	Moisture in control lines	Disconnect control lines, clean and replace.

Figure 4-1. Trouble Shooting Chart (cont)

TROUBLE	PROBABLE CAUSE	REMEDY
COMPRESSOR FAILS TO LOAD AND UNLOAD (Cont)	Damaged intake valve	Inspect for damaged seat or back-up washer.
ENGINE RETURNS TO IDLE, COMPRESSOR FAILS TO UNLOAD	Faulty intake control	Check for sticking intake valve, punctured diaphragm in intake control assembly, damaged or plugged lines to intake control.
EXCESSIVE OIL IN DISCHARGE LINE	Dirty oil return valves, or saturated oil separator element	Disassemble, clean, and assemble oil return valves. Should this remedy fail to correct the problem, install new oil separator element.
ENGINE STALLS OR SHUTS DOWN DURING OPERATION	Oil safety switch cutting out due to low engine oil pressure	Refer to Engine Manual in Part II.
	Engine overspeed switch shutting down the unit	Engine running at speed exceeding 2250 ± 50 rpm. Refer to Engine Manual in Part II.
	High compressor air temperature	Check compressor oil supply and cooling system. Check operation of thermal bypass valve.
	High engine coolant temperature.	Check coolant level in radiator and fill as necessary. Check radiator hoses and radiator for leaks and repair as necessary.

Figure 4-1. Trouble Shooting Chart (cont)



## ANNEX

CONTRACTOR'S  
PART NUMBERACTUAL MANUFACTURER'S  
FSCMACTUAL MANUFACTURER'S  
PART NUMBER

109524	24617	190524
111300	24617	111300
115295	24617	115295
116332	24617	116332
120214	24617	120214
120233	24617	120233
120367	24617	120367
120369	24617	120369
120377	24617	120377
120378	24617	120378
120380	24617	120380
120382	24617	120382
120384	24617	120384
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120394	24617	120394
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122017	24617	122017
122027	24617	122027
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132259	24617	132259
138208	24617	138208
132908	24617	132908
132915	24617	132915
14026	79470	145
14034	14652	UBW125MM 1-2
14048	70470	TYPE 3 125x1x500
14073	87930	5570-9
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144112	24617	144112
144113	24617	144113
144138	24617	144138

## ANNEX

CONTRACTOR'S  
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23342	98660	AC2000-16
23681	00624	900729-21
23921	81263	2323
24527	96906	MS150459
24636	71177	3050
24638	77060	5292849
24639	77060	5292850
24855	96906	MS25036-8
24963	04845	GVA88-2844-4
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274825	24617	274825
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27671	15605	30-5632-14
27691	79470	69X6X8
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27854	70436	116-032-120
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28149	78189	1214-05
28150	78189	1210-00
28218	00736	03RA18B-231
28219	00736	B16367-158
28545	00736	A15621
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28890	79470	69X6
28892	79470	72X6
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40045	78189	1208-00
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40783	79470	68X6A
40864	79227	SA3-SA11273
40875	05469	4N6-D
41000	79470	69X6X2
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41899	79470	69X5
41935	79470	68X5

## ANNEX

CONTRACTOR'S  
PART NUMBERACTUAL MANUFACTURER'S  
FSCMACTUAL MANUFACTURER'S  
PART NUMBER

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M60H  
M52H  
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2550-108  
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PF20-4  
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444255  
52NTE-066  
FT191-4  
RO-188-24-24  
710HC-34  
3177-1006  
2-1-2  
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16816-AJ  
22003-14  
22003-13  
233-12  
TEKS/3  
S-569

ANNEX

CONTRACTOR'S  
PART NUMBER

ACTUAL MANUFACTURER'S  
FSCM

ACTUAL MANUFACTURER'S  
PART NUMBER

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63483

TYPE 2CN 4 ID

80982

63483

TYPE 2CN 3 ID

81241

73842

766763261

8188

77574

R21

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96906

~~MS~~5150465

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9414204

9416918

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9416918

9421633

24617

9421633

9426053

24617

9426053

9665

01428

SP1002CP



MANUFACTURER'S CODE, NAME AND ADDRESS

00624	Aeroquip Corp., Aircraft Div. Jackson Plant 300 S. East Ave. Jackson, MI 49203	15801	Fenwal Electronics Div. of Kidde Inc. 63 Fountain St. Farmingham, MA 01701
00736	Air Maze Div. of International Inc. 25000 Miles Road Cleveland, OH 44128	16004	Davey Compressor Co. 11060 Kenwood Road Cincinnati, OH 45242
01428	Superior Ball Joint 1200 S. Quality Dr. Newhaven, IN 46774	16764	Delco-Remy Div. of General motors Corp. 2401 Columbus Ave. Anderson, IN 46011
04845	Automatic Switch Co. 56A Hanover Road Florham Park, NJ 07932	17284	Mercury Metal Products 1201 South Mercury Drive Schaumburg, IL 60172
05469	Bearings Inc. 3634 Euclid Ave. P.O. Box 6925 Cleveland, OH 44101	17633	Kinetics Corp. 3820 Colerain Ave. Cincinnati, OH 45223
06762	Ridgeway Mfg. Corp. 1405 Sixteenth St. Racine, WI 53403	18265	Donaldson Co., Inc. 1400 West 94th St. Minneapolis, MN 55431
08484	Breeze Corporations Inc. 700 Liberty Ave. Union, NJ 07083	22938	Prototype Development Inc. 7750 Hub Parkway Cleveland, OH 44125
09393	Rochester Gauges Inc. of Texas P.O. Box 20180 Dallas, Texas 75220	24161	Gates Rubber Co. 999 S. Broadway Denver, CO 80217
09527	Faria, Thomas G., Co. Faria Rd. Uncasville, Conn. 06382	24617	General Motors Corp. 3044 Grant Blvd. W. Detroit, MI 48203
12197	Empex Industrial Hose Div. of Master Prcessing Corp. 6925 Paramount Blvd. P.O. Box 710 Long Beach, CA 90801	28265	White Engine Inc. 101 11th St. S. E. Canton, OH 44707
14652	United Brass Works Inc. S. Main Ext. Randleman, NC 27317	33955	Teleflex Inc., Electrical Systems Division 1816 57th St. Sarasota, FL 33580
15291	Adjustable Bushing Corp. 11905 Vose St. North Hollywood, CA 91605	34281	Kelsey Products Div. Kelsey-Hayes Company 38481 Huron River Dr. Romulus, MI 48174
15605	Cutler-Hammer Inc. 4201 N. 27th St. Milwaukee, WIS 53216	34494	Kunkle Valve Co., Inc. 121 S. Clinton Fort Wayne, IN 46802
		43990	Norgren CA Co. 5400 S. Delaware St. Littleton, CO 80120

51600	Rollaway Bearing Co., Inc 7600 Morgan Rd. Liverpool, NY 13088	77060	Packard Electric Div. of General Motors Corp. 408 Dana St. N. E. Warren, OH 44481
56878	Standard Pressed Steel Co. Box 608 Benson East Jenkintown, PA 19046	77260	Pierce Co. The, A Div of Avis Industrial Corp. 201 N.8th ST. P.O. Box 2000 Upland, IN 46989
60038	Timken Roller Bearing Co. 1835 Dueber Ave. S. W. Canton, OH 44706	77574	Richland Auto Parts Co., Inc. 151 Distl Ave. Mansfield, OH 44903
61112	Turner Corp. 821 Park Ave. Sycamore, IL 60178	78189	Illinois Tool Works Inc., Shakeproof Division St. Charles Road Elgin, IL 60120
63483	Dura-Vent Corp. 1177 Barkley Dr. Plymouth, IN 46563	79136	Waldes Kohinoor Inc. 47-16 Austel Place Long Island, NY 11101
70436	Arens Controls Inc. 2017 Greenleaf St. Evanston, IL 60204	79154	Victaulic Co. of America 4901 Kesslersville Rd. P.O. Box 31 Easton, PA 18042
70470	Astrup Co. 2937 W. 25th St. Cleveland, OH 44113	79227	Watts Regulator Co. 10 Embankment St. P.O. Box 628 Lawrence, MA 01842
70707	Bostic Division U S M Corp. Boston St. Middleton, MA 01949	79470	Weatherhead Co., The 300 East 131 Street Cleveland, OH 44108
71177	Buckeye Forge Div., Gulf And Western Ind. Prod. Co. 9217 Miles Ave. Cleveland, OH 44105	79911	Ohio Brass Co. 380 North Main St. Mansfield, OH 44902
72962	Amerace Corp., Esna Div. 2330 Vauxhall Rd. Union, NJ 07083	79934	Tire And Rim Association Inc. 3200 W. Market St. Akron, OH 44313
73842	Goodyear Tire And Rubber Co. 1144 E. Market St. Akron, OH 44316	80753	Griffin Lamp Co. Highway 61 South Shelby, MS 38774
74400	Hobbs Div. Of Stewart Warrner Corp. Yale Blvd. And Ash St. Springfield, IL 62705	80885	Oil-Rite Corp. 2318 Waldo Blvd. Manitowoc, WI 54220
75272	Kickhaefer Mfg. Co. 1964 Wisconsin Ave. Grafton, WI 53024	81155	Eaton Corp. Stamping Div. 17877 ST. Clair Ave. Cleveland, OH 44110
76700	Nelson Div. of Nelson Industries Inc. Hwy. 51 West P.O. Box 428 Stoughton, WI 53589	81263	Douglas Components Corp. Sub of Orion Planning Group Inc 141 Railroad St. Bronson, MI 49028

81860	Barry Div. of Barry Wright Barry Wright Corp. Watertown, MA 02172	87930	Tower Mfg. Corp. 25 Reservoir Ave. Providence, RI 02907
84760	Stanadyne/Hartford Div. P.O. Box 1440 Hartford, CT 06102	96906	Military Standards Promulgated By Standardization Division Directorate of Logistic Services DSA
86579	Precision Rubber Products Corp. 311 Oakridge Drive Dayton, OH 45417	98660	Flodar Corp., Div. of Alco Standard Corp. 16911 ST. Clair Ave. Cleveland, OH 44110
87373	Parker-Hannifin Corp. Hose Product Div. 30240 Lakeland Blvd. Wickliffe, OH 44092		





## 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. INSTRUCTIONS 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.

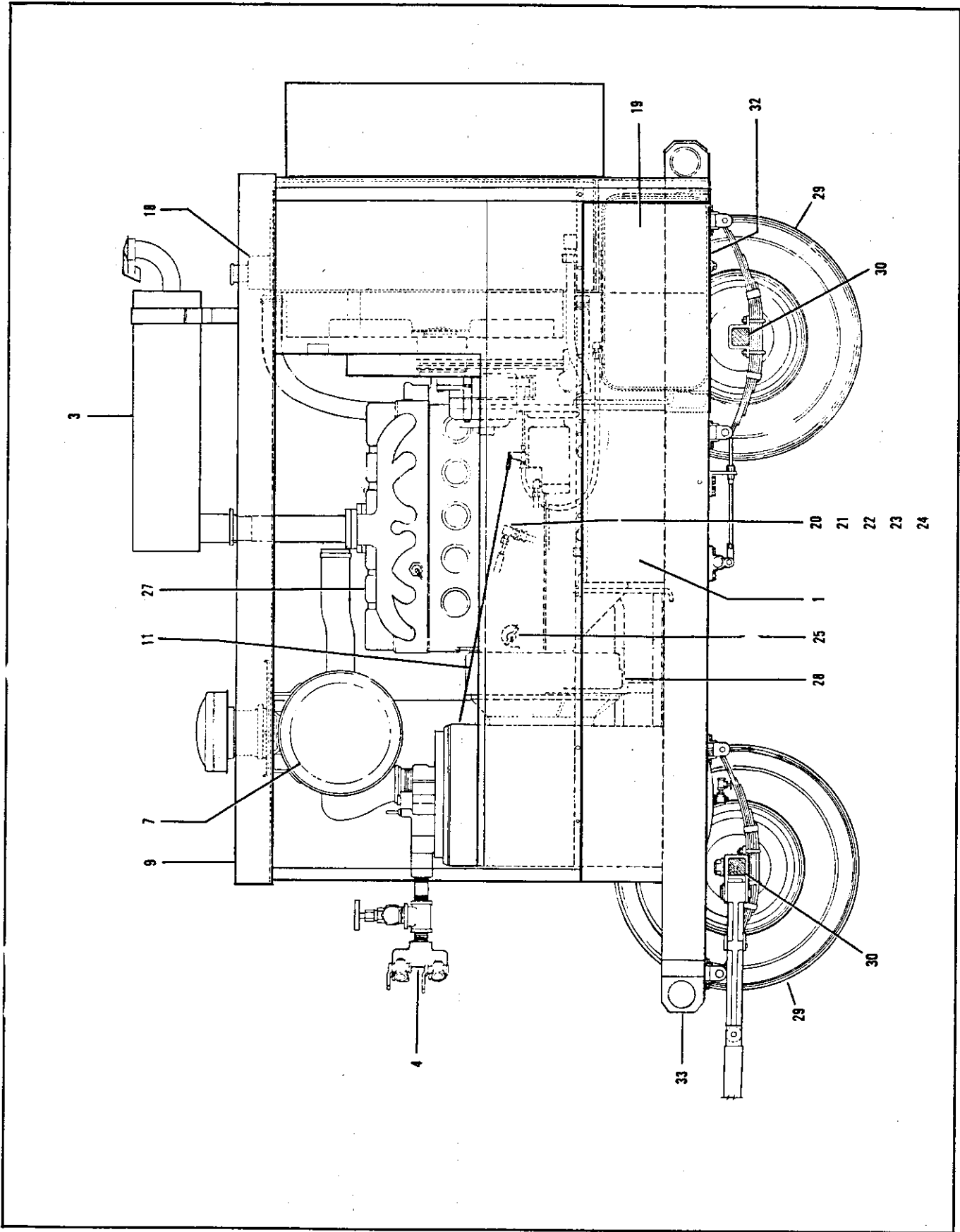


Figure 5-1. Unit Assembly (sheet 1 of 3)

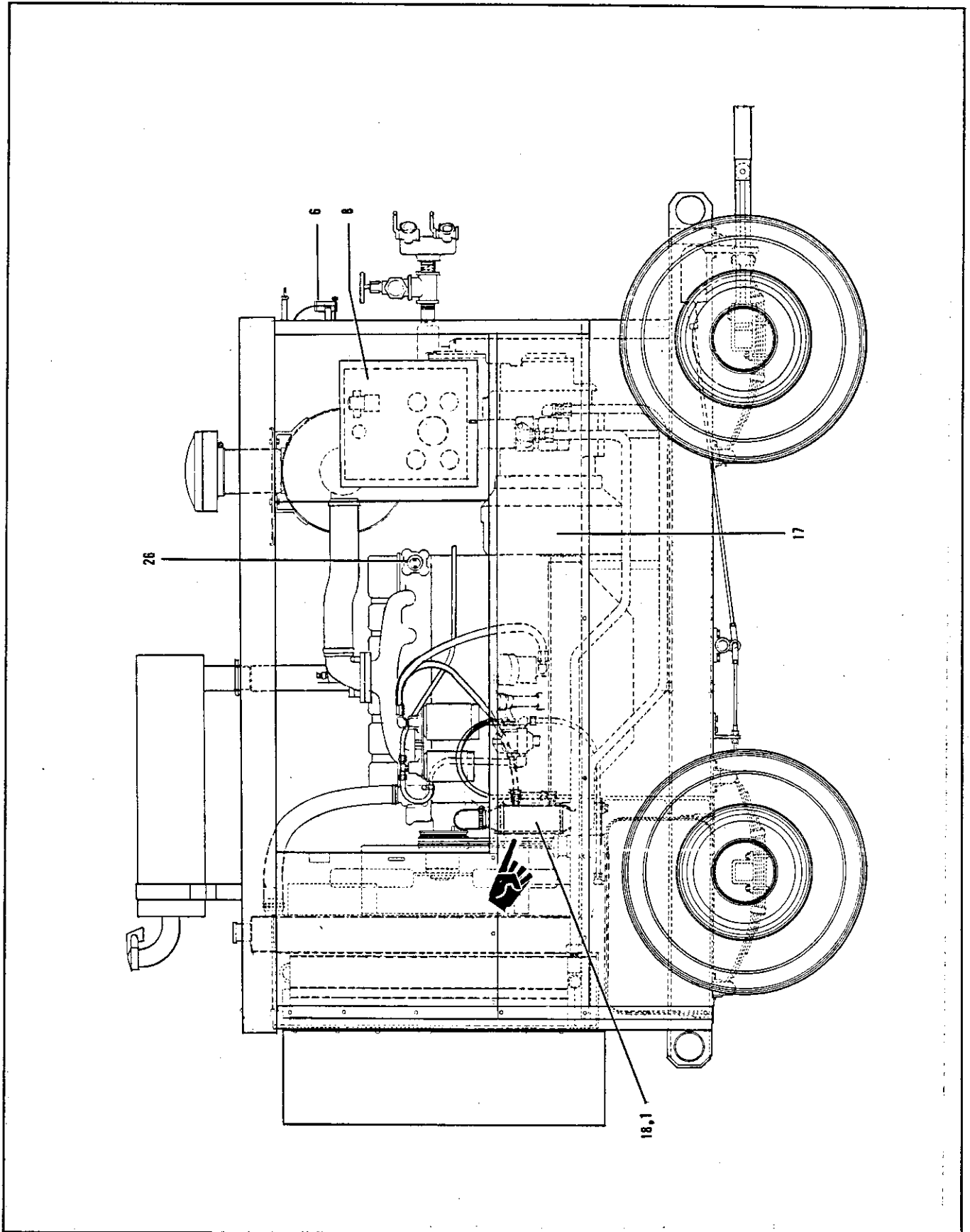


Figure 5-1. Unit Assembly (sheet 2 of 3)

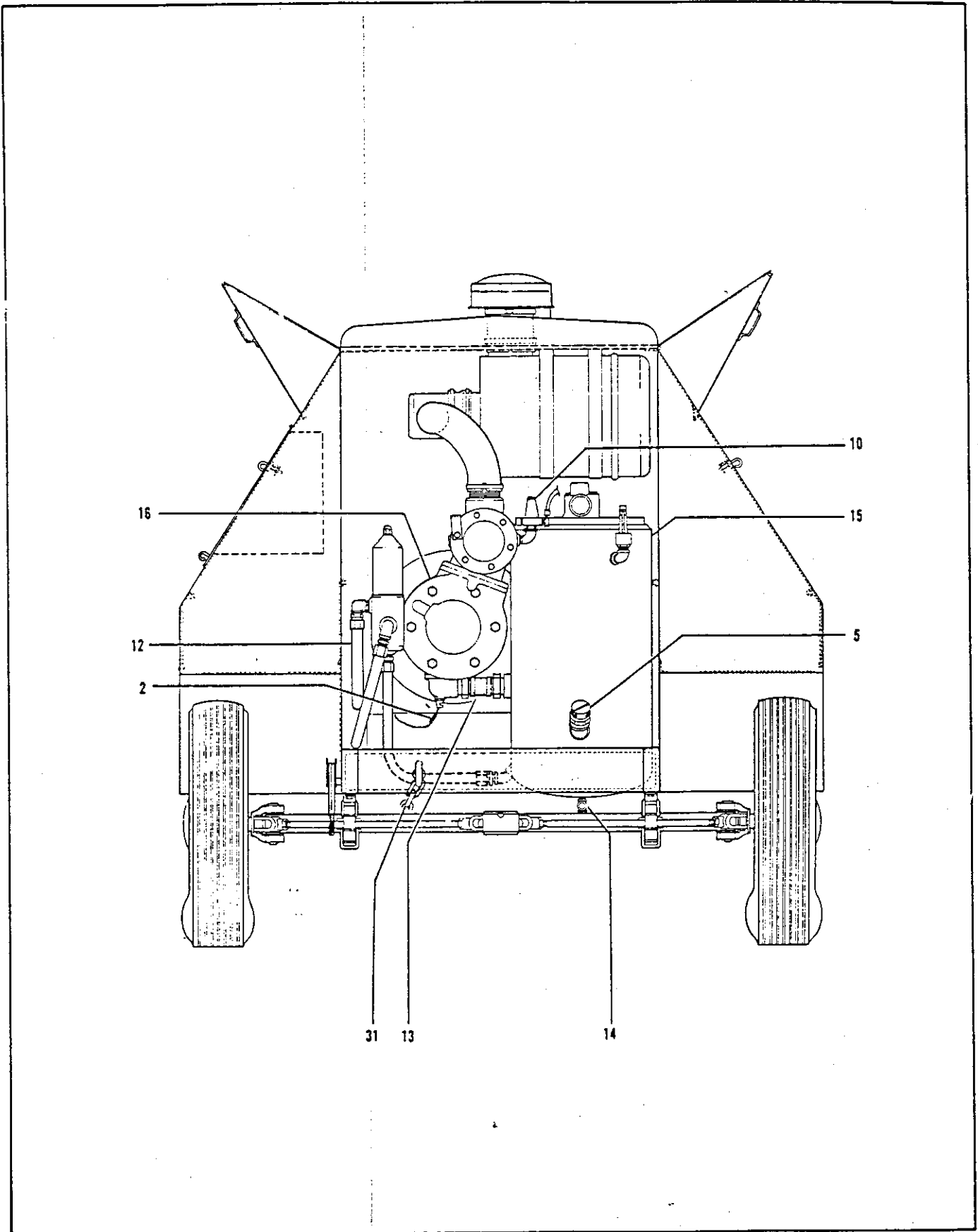


Figure 5-1. Unit Assembly (sheet 3 of 3)



FIG. & INDEX NO.	PART NUMBER	DESCRIPTION						UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6		
5-1	80932	UNIT ASSEMBLY, 19M250RPV .....						1	
-1	No Number	. BATTERY GROUP, (See figure 5-2 for details) .....						1	
-2	No Number	. ELECTRICAL WIRING GROUP (See figure 5-3 for details) .....						1	
-3	No Number	. MUFFLER GROUP (See figure 5-4 for details).....						1	
-4	No Number	. AIR SERVICE VALVE AND MANIFOLD GROUP .....						1	
		(See figure 5-5 for details)							
-5	No Number	. OIL FILLER GROUP (See figure 5-6 for details) .....						1	
-6	No Number	. QUICK START GROUP (See figure 5-7 for details) .....						1	
-7	No Number	. AIR CLEANER GROUP (See figure 5-8 for details) .....						1	
-8	No Number	. INSTRUMENT PANEL GROUP (See figure 5-9 for details).....						1	
-9	No Number	. HOUSING GROUP (See figure 5-10 for details) .....						1	
-10	No Number	. AIR CONTROL LINES GROUP (See figure 5-11 for details).....						1	
-11	No Number	. SPEED CONTROL GROUP (See figure 5-13 for details) .....						1	
-12	No Number	. COMPRESSOR OIL LINES GROUP (See figure 5-14 for details).....						1	
-13	No Number	. COMPRESSOR DISCHARGE GROUP (See figure 5-15 for details) .....						1	
-14	No Number	. OIL SEPARATOR DRAIN GROUP (See figure 5-16 for details) .....						1	
-15	No Number	. OIL SEPARATOR GROUP (See figure 5-17 for details) .....						1	
-16	No Number	. COMPRESSOR GROUP (See figure 5-18 for details) .....						1	
-17	No Number	. COMPRESSOR DRIVE GROUP (See figure 5-20 for details) .....						1	
-18	No Number	. OIL COOLER AND RADIATOR GROUP (See figure 21 for details) ..						1	
-18.1	No Number	. ENGINE OIL COOLER GROUP (See figure 21.1 for details)..						1	
-19	No Number	. FUEL LINES AND TANK GROUP (See figure 5-22 for details) .....						1	
-20	60884	. HOSE ASSY, Engine to oil pressure gauge .....						1	
-21	14439	. SWITCH, Pressure, oil .....						1	
-22	44209	. ELBOW, 1/4 pipe to 5/16 tube .....						1	
-23	144035	. BUSH, Reducing, 1/4 to 1/8 in. ....						1	
-24	67800	. TEE, Street, 1/4 NPT .....						1	
-25	14026	. COCK, Drain .....						1	
-26	48641	. SWITCH, Highwater temperature .....						1	
-27	D3400X258	. DIESEL ENGINE ASSEMBLY (28265) (16004 Part No. 80269) .....						1	
		... (see Part II for engine parts list)							
-28	No Number	. ENGINE MOUNTING GROUP (See figure 5-23 for details) .....						1	
-29	81241	. TIRE, Tubeless, H78-15B, 4 ply .....						4	
	TR-416S	. VALVE, Pneumatic (79934) .....						4	
-30	No Number	. RUNNING GEAR GROUP (See figure 5-24 for details) .....						1	
-31	67821	. SAFETY CHAIN ASSEMBLY .....						1	
-32	48302	. PAN, Fuel tank .....						1	
	121900	. SCREW, Cap, hex hd, 1/4 - 20 NC x 1 in. lg .....						5	
	120380	. WASHER, Lock, 1/4 in. ....						5	
-33	80127	. FRAME ASSEMBLY .....						1	

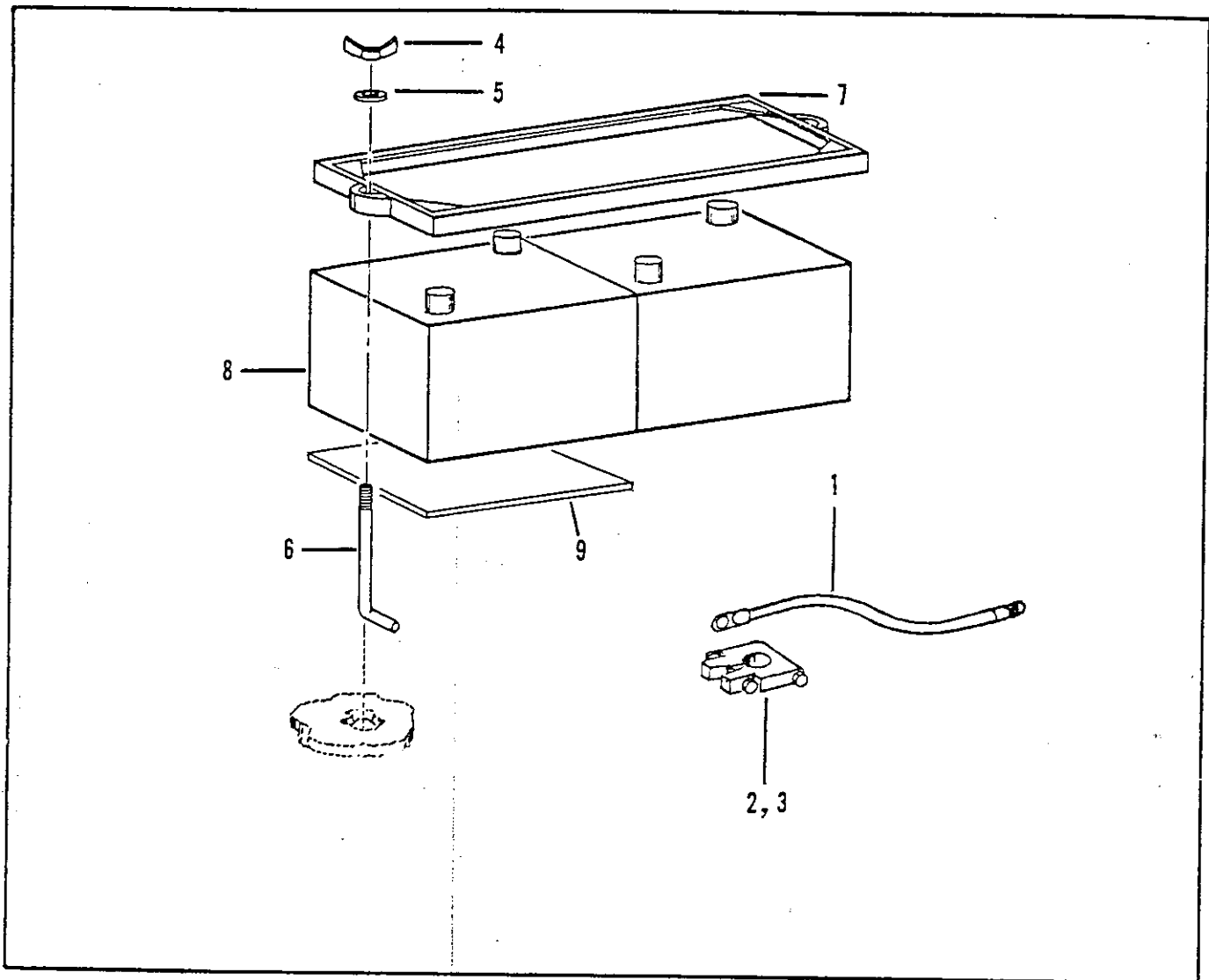


Figure 5-2. Battery Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-2	No Number	BATTERY GROUP (See figure 5-1 for NHA) .....								REF	
-1	80893	. CABLE, Jumper .....								2	
-2	24639	. TERMINAL, Positive .....								2	
-3	24638	. TERMINAL, Negative .....								2	
-4	126032	. NUT, Wing, 3/8-16 NC (24617) .....								2	
-5	120394	. WASHER, Flat, 3/8 in. (24617) .....								2	
-6	48808	. BOLT, "J" 3/8-16 NC thd one end .....								2	
-7	68017	. RETAINER, Battery .....								1	
-8	41898	. BATTERY, 12 volt .....								2	
-9	60673	. PAD, Battery .....								2	

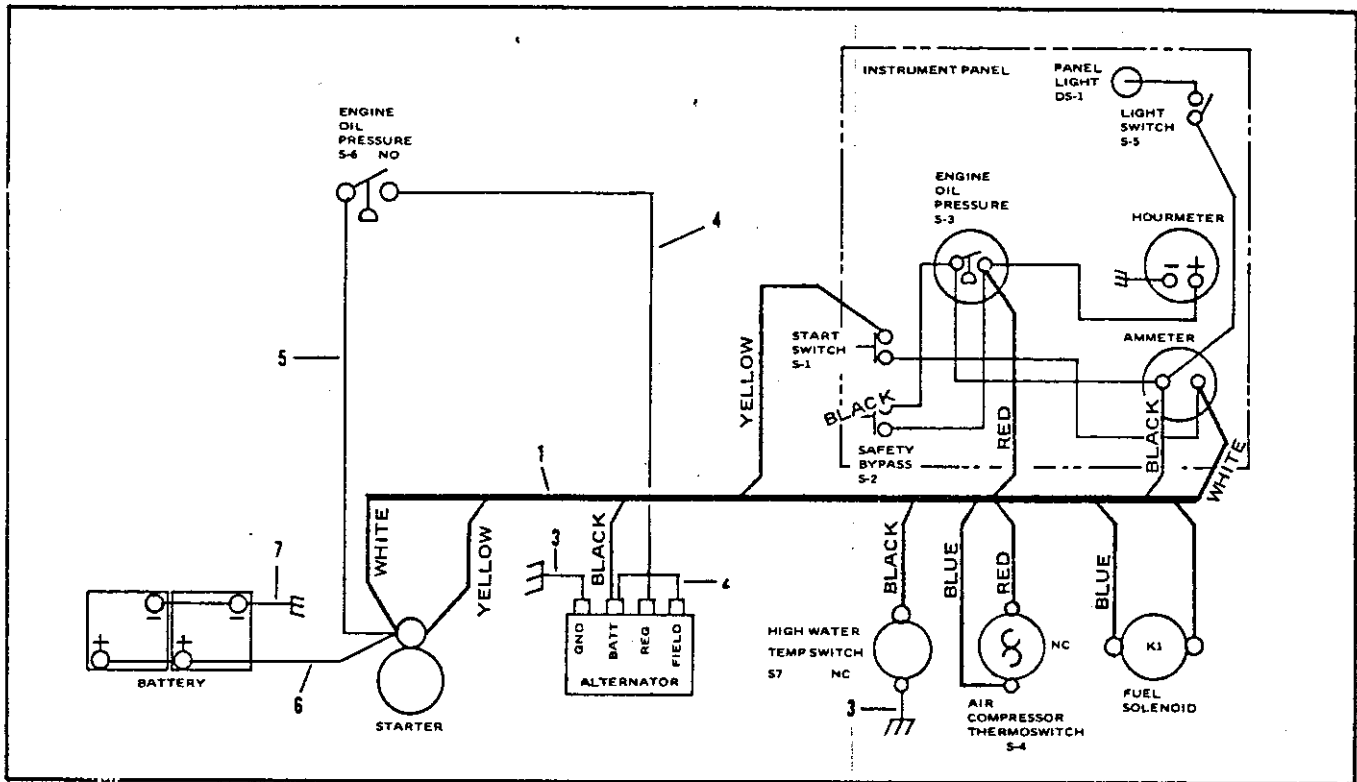


Figure 5-3. Electrical Wiring Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION								UNITS PER ASSY	USABLE ON CODE
			1	2	3	4	5	6	7		
5-3	No Number	ELECTRICAL WIRING GROUP (See figure 5-1 for NHA)								REF	
-1	81491	· WIRING HARNESS								1	
-2	68466	· WIRE ASSEMBLY								1	
-3	66394	· WIRE ASSEMBLY								2	
-4	68597	· WIRE ASSEMBLY, With diode								1	
-5	66584	· WIRE ASSEMBLY								1	
-6	49791	· CABLE, Battery to starter								1	
-7	49791	· CABLE, Battery ground								1	

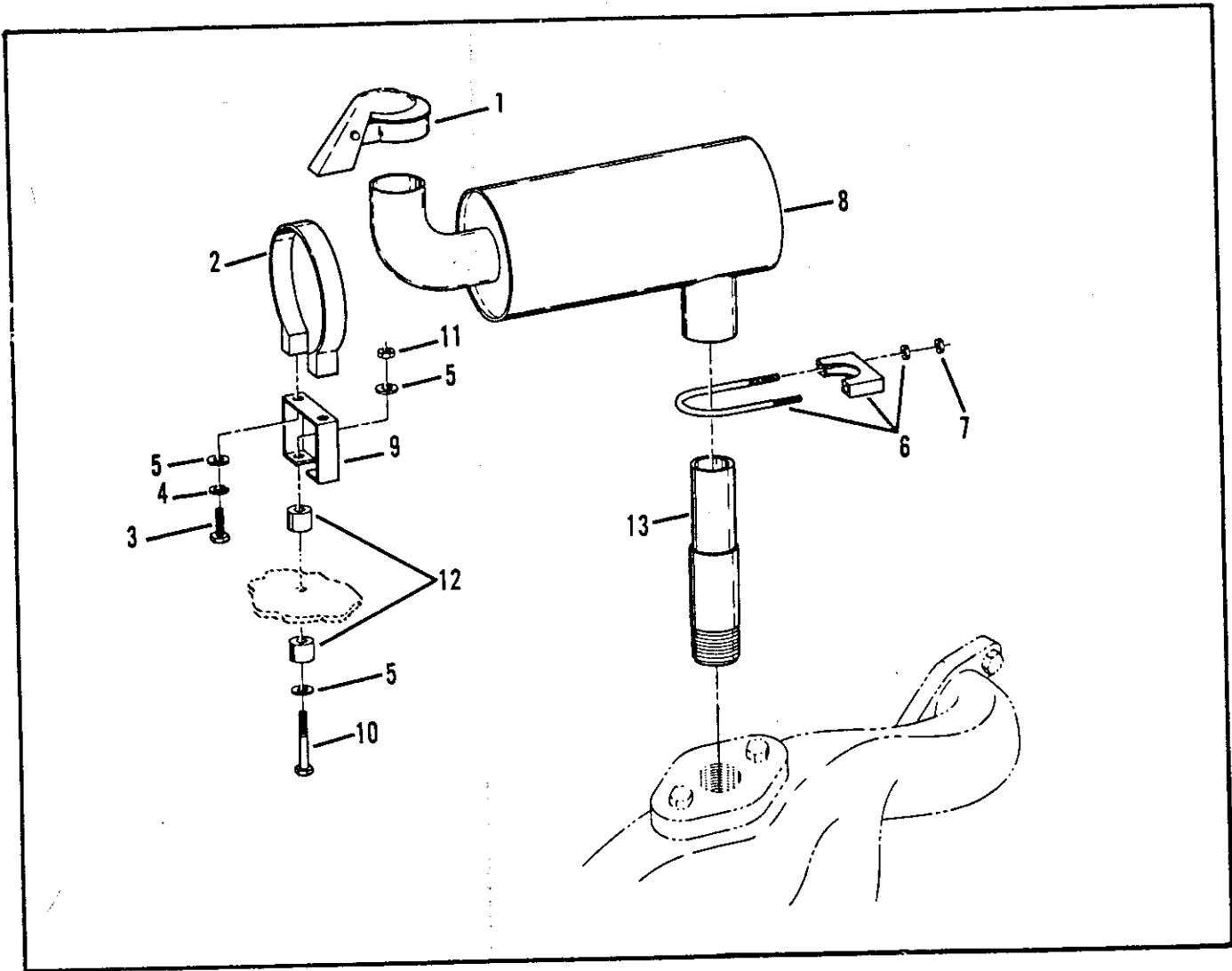


Figure 5-4. Muffler Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-4	No Number	MUFFLER GROUP (See figure 5-1 for NHA) .....								REF	
-1	80139	. CAP, Rain .....								1	
-2	62110	. BAND, Mounting .....								1	
-3	120233	. SCREW, Cap (AP), 3/8-16 UNC x 1" lg .....								2	
-4	120382	. WASHER, Lock (AP) 3/8" .....								2	
-5	120394	. WASHER, Flat (AP) 3/8" .....								6	
-6	63481	. CLAMP, Muffler (AP) .....								1	
-7	443335	. NUT, Lock (AP) 3/8-16 UNC .....								2	
-8	80146	. MUFFLER .....								1	
-9	80140	. BRACKET, Mounting .....								1	
-10	122207	. SCREW, Cap (AP) 3/8-16 UNC x 3" lg .....								2	
-11	443335	. NUT, Lock (AP) 3/8-16 UNC .....								2	
-12	80141	. PAD, Mounting .....								4	
-13	80846	. STACK, Exhaust .....								1	

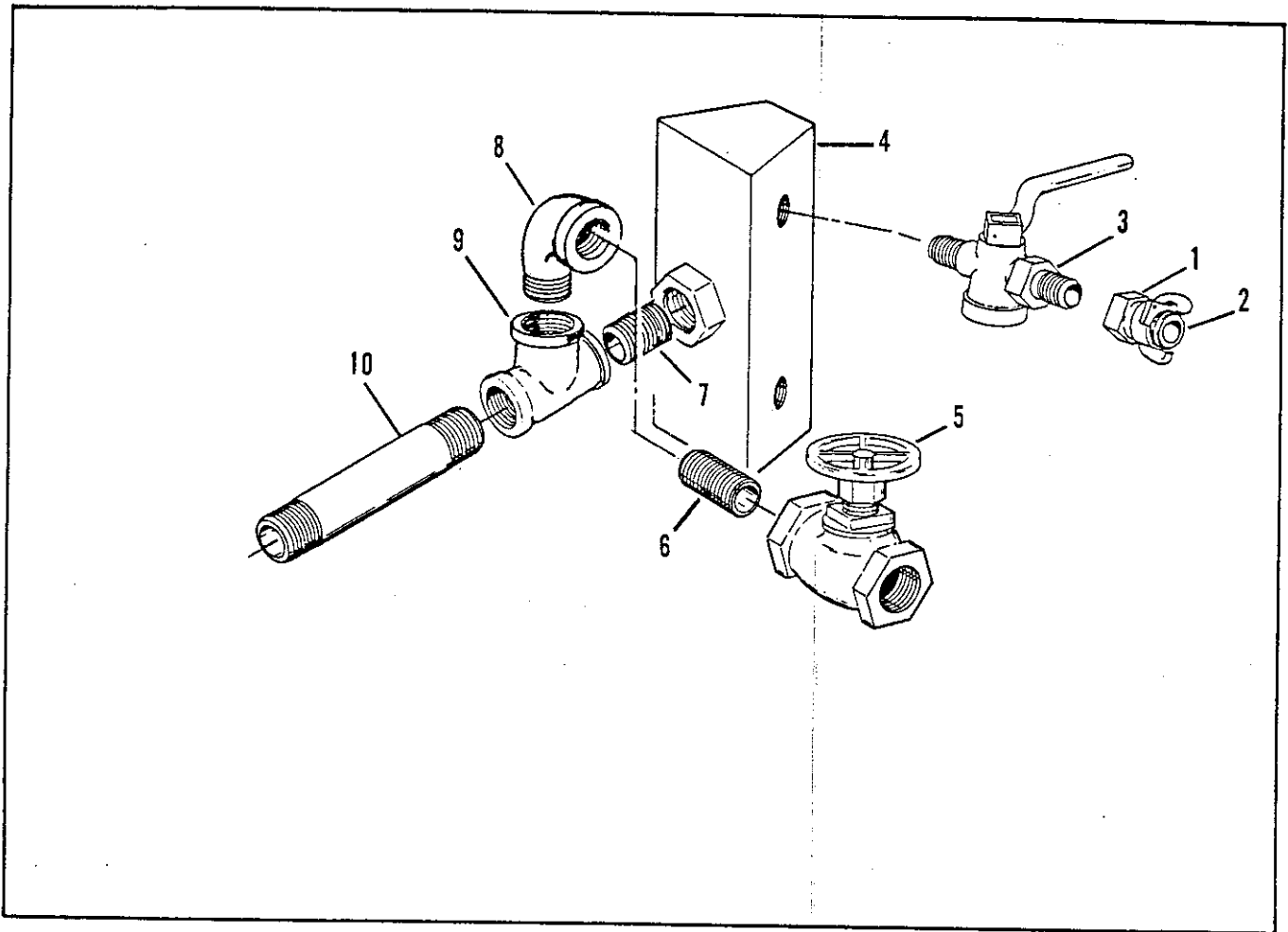


Figure 5-5. Discharge Manifold Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-5	No Number	AIR SERVICE VALVE AND MANIFOLD GROUP .....							REF	
		(See figure 5-1 for NHA)								
-1	UF-75-M	. COUPLING, Hose (87373) (16004 PN 24045) .....							4	
-2	UG	. . SEAL, Coupling (87373).....							4	
-3	VM-75	. VALVE ASSY., Plug (87373) (16004 PN 63997) .....							4	
-4	60825	. MANIFOLD, Service, air.....							1	
-5	43132	. VALVE, Globe, 1-1/2 NPT .....							1	
-6	219813	. NIPPLE, Close, 1-1/2 NPT .....							1	
-7	219813	. NIPPLE, Close, 1-1/2 NPT .....							1	
-8	179444	. ELBOW, Street, 90°, 1-1/2 NPT .....							1	
-9	179430	. TEE, Pipe, 1-1/2 NPT .....							1	
-10	219823	. NIPPLE, Pipe, 1-1/2 NPT x 3" lg .....							1	

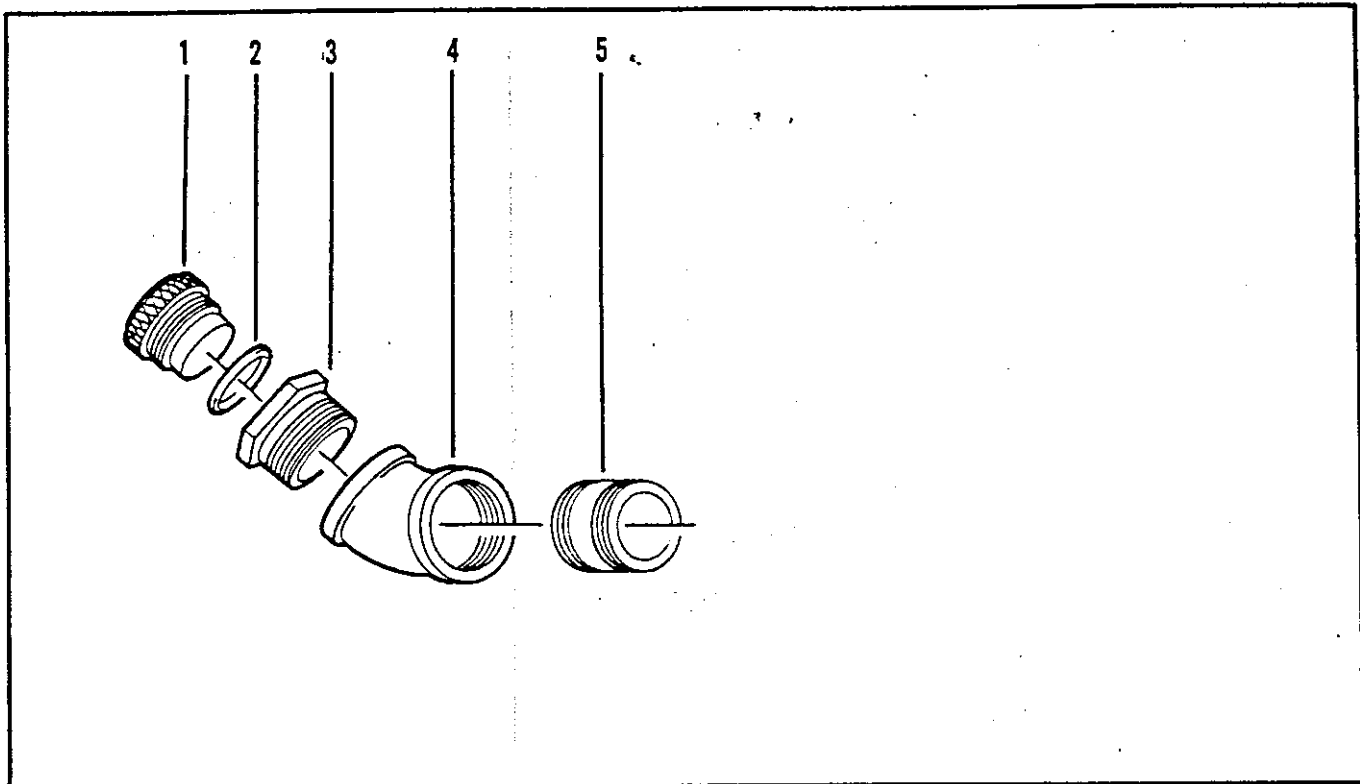


Figure 5-6. Oil Fill Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-6	No Number	OIL FILL GROUP (See figure 5-1 for NHA).....							REF	
-1	26359	. PLUG .....							1	
-2	24982	. O-RING .....							1	
-3	63062	. BUSHING, Adapter .....							1	
-4	179462	. ELBOW, 45°, 1-1/2 NPT .....							1	
-5	219823	. NIPPLE, 1-1/2 NPT x 3" lg .....							1	

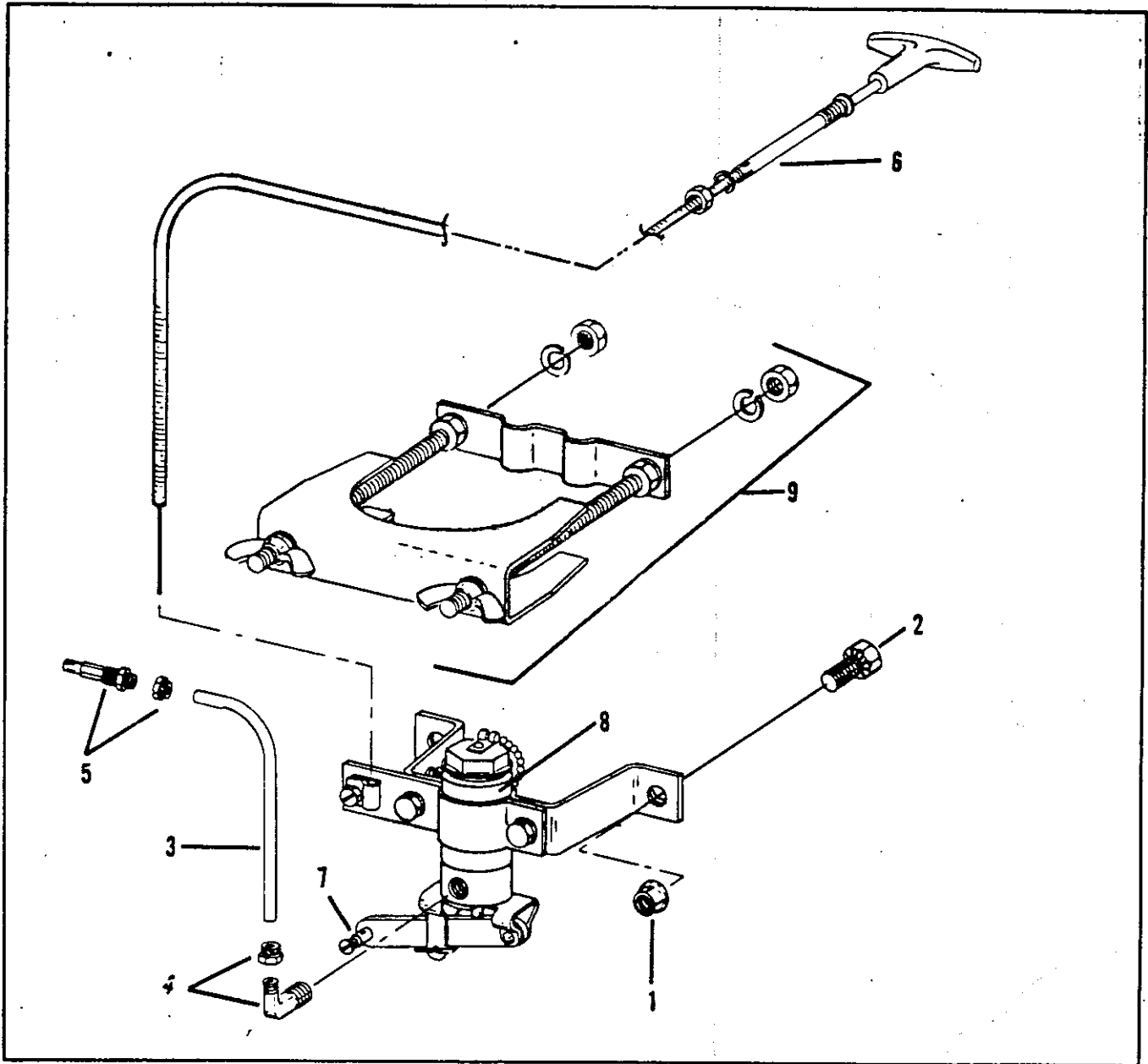


Figure 5-7. Quick-Start Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-7	No Number	QUICK-START GROUP (See figure 5-1 for NHA) .....							REF	
-1	9416918	. . NUT, Lock .....							2	
-2	274473	. . SCREW, Mach .....							2	
	46246	. . KIT, QUICK START .....							1	
-3	LP-3239	. . TUBE, Fuel line (61112) .....							1	
-4	LP-1698	. . FITTING, Angle valve (61112) .....							1	
-5	LP-2377-11	. . FITTING, Engine manifold (61112) .....							1	
-6	LP-3864R-36	. . CABLE, Control (mounted on instrument panel, figure 5-9)(61112) .....							1	
-7	LP-2814	. . STOP ASSEMBLY, Cable (61112) .....							1	
-8	QS-2-ITC	. . VALVE ASSEMBLY, Quick-Start (61112) .....							1	
-9	LP-2299	. . CLAMP ASSEMBLY, Cylinder mounting (61112) .....							1	

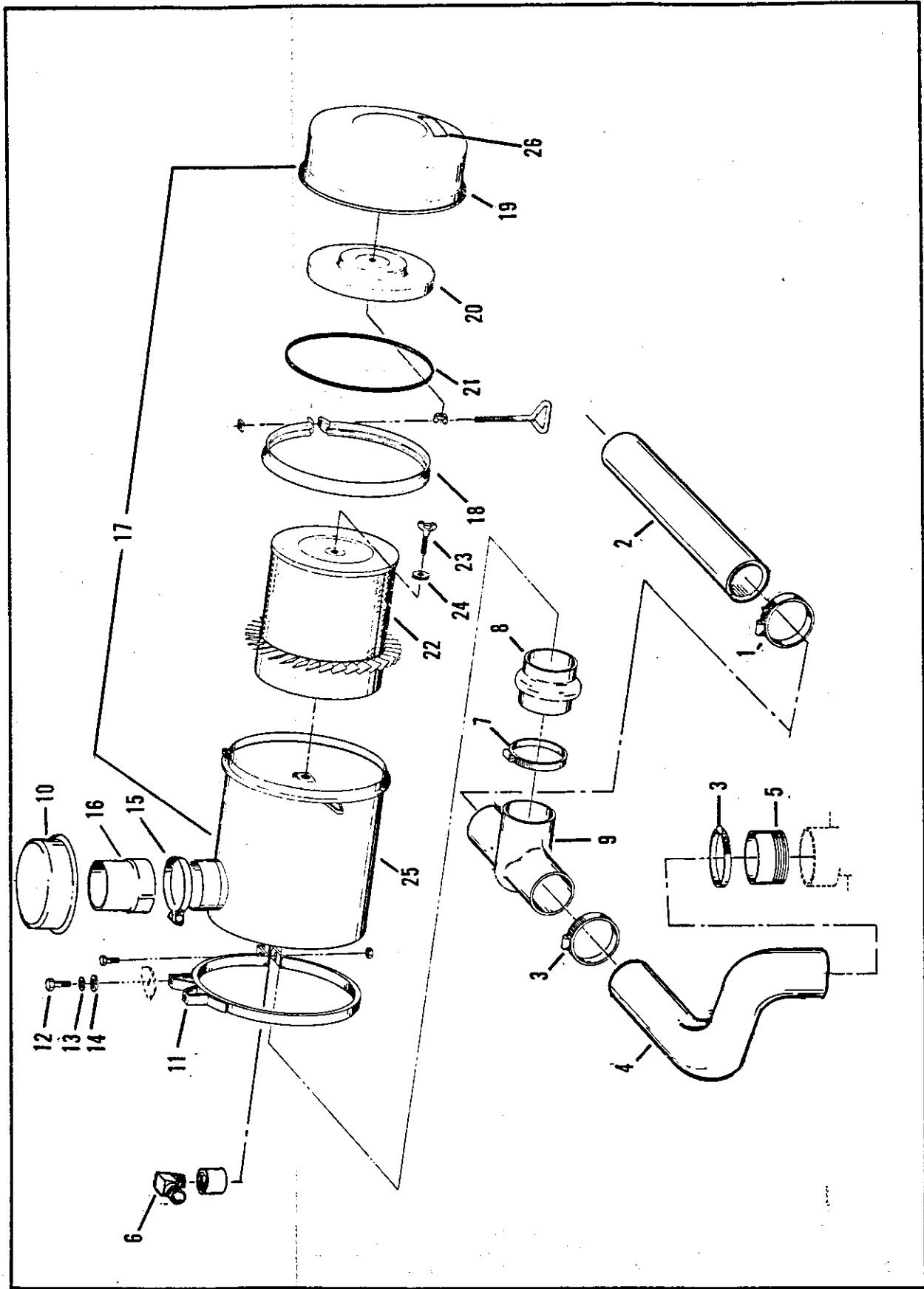


Figure 5-8. Air Cleaner Group



FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS	USABLE
			PER ASSY	ON CODE
5-8	No Number	AIR CLEANER GROUP (See figure 5-1 for NHA) .....	REF	
-1	61055	CLAMP, Hose .....	2	
-2	80981	HOSE, Air intake, engine, 3" ID x 15" lg .....	1	
-3	61054	CLAMP, Hose .....	2	
-4	80982	HOSE, Air intake, compressor, 3-1/2" ID x 23" lg .....	1	
-5	67701	PIPE, Toe, compressor intake .....	1	
-6	41899	ELBOW, 90°, 1/8" pipe to 5/16" tube .....	1	
	144067	COUPLING, Pipe, 1/8 NPT .....	1	
-7	61039	CLAMP, Hose .....	2	
-8	70218	HOSE, Hump, manifold to cleaner .....	1	
-9	48387	MANIFOLD, Air intake .....	1	
-10	GAH00-0165	CAP, Air cleaner (18265) (Davey 48334) .....	1	
-11	62113	BAND, Mounting, air cleaner .....	2	
-12	120233	SCREW, Cap, hex hd, 3/8-16NC x 1" lg .....	4	
-13	120382	WASHER, Lock, 3/8" ID .....	4	
-14	446362	WASHER, Flat, 3/8" ID .....	4	
-15	48367	CLAMP, Tube .....	1	
-16	48314	TUBE, Air cleaner .....	1	
-17	FWG14-0077	AIR CLEANER ASSEMBLY (18265) (Davey 48318) .....	1	
-18	P10-0866	CLAMP ASSEMBLY (18265) .....	1	
-19	P10-6773	CUP ASSEMBLY (18265) .....	1	
-20	P10-6771	BAFFLE ASSEMBLY .....	1	
-21	P01-7335	GASKET .....	1	
-22	P11-7331	ELEMENT ASSEMBLY .....	1	
-23	P01-6984	SCREW, Thumb (18265) .....	1	
-24	P01-8462	GASKET .....	1	
-25	No Number	BODY, Air cleaner .....	-	
-26	63302	DECAL, Air cleaner service .....	1	

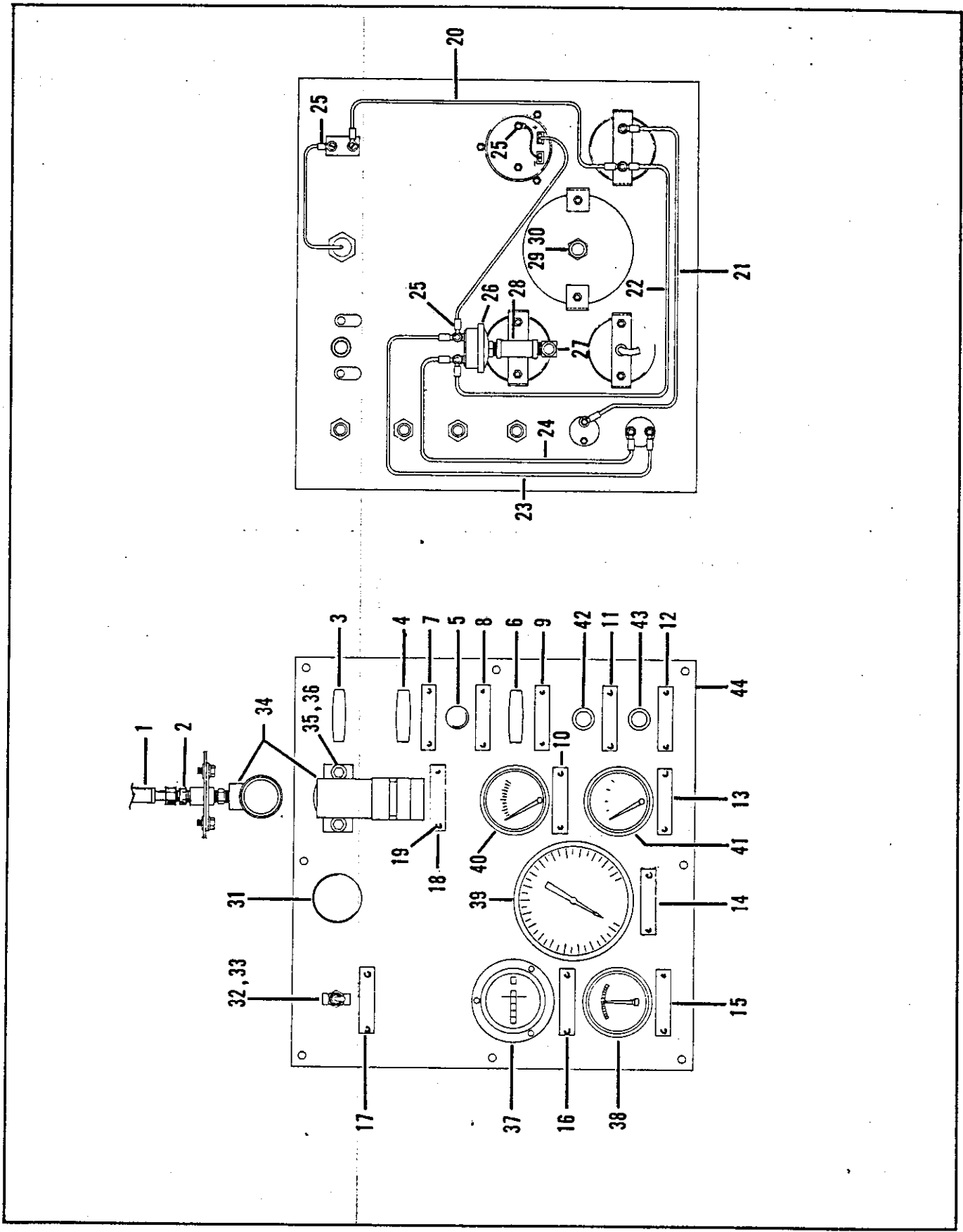


Figure 5-9. Instrument Panel Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY.	USABLE ON CODE
5-9	No Number	INSTRUMENT PANEL GROUP (See figure 5-1 for NHA) .....	REF	
-1	45302	. HOSE ASSEMBLY, Restriction indicator to air cleaner .....	1	
-2	41935	. ADAPTER, Tube .....	1	
-3	LP-3864R-36	. CABLE, Quick-start (see figure 5-7 for NHA) .....	REF	
-4	27854	. CABLE, Control, unloader .....	1	
-5	8188	. CABLE, Control, engine stop .....	1	
-6	27854	. CABLE, Control, idle .....	1	
-7	63702	. PLATE, Ident, unloader .....	1	
-8	61619	. PLATE, Ident, stop .....	1	
-9	41997	. PLATE, Ident, idle .....	1	
-10	60488	. PLATE, Ident, oil pressure, engine .....	1	
-11	61618	. PLATE, Ident, start .....	1	
-12	61624	. PLATE, Ident, safety override .....	1	
-13	60491	. PLATE, Ident, water temperature, engine .....	1	
-14	60487	. PLATE, Ident, receiver pressure .....	1	
-15	66161	. PLATE, Ident, ammeter .....	1	
-16	66162	. PLATE, Ident, hourmeter .....	1	
-17	41998	. PLATE, Ident, lamp .....	1	
-18	68018	. PLATE, Ident, restriction indicator .....	1	
-19	9426053	. SCREW, Self tapping, No. 4 x 1/4" lg .....	24	
	80961	INSTRUMENT PANEL ASSEMBLY .....	1	
	273771	. SCREW, Mach, serrated hd, (AP), 1/4-20 UNC x 1/2" lg .....	8	
-20	29188	. WIRE ASSEMBLY, Ammeter to lamp switch, yellow .....	1	
-21	49059	. WIRE ASSEMBLY, Ammeter to start switch, blue .....	1	
-22	49292	. WIRE ASSEMBLY, Ammeter to pressure switch, black .....	1	
-23	49493	. WIRE ASSEMBLY, Safety switch to pressure switch, brown .....	1	
-24	49057	. WIRE ASSEMBLY, Safety switch to pressure switch, green .....	1	
-25	24855	. TERMINAL .....	3	
-26	14439	. SWITCH, Pressure .....	1	
-27	41899	. ELBOW, Tube, 1/8 pipe to 5/16 tube .....	1	
-28	144082	. TEE, Pipe, 1/8 NPT .....		
-29	28888	. ADAPTER, Tube, 1/4 pipe to 3/8 tube .....	1	
-30	144068	. COUPLING, Pipe, 1/4 NPT .....	1	
-31	80223	. LAMP ASSEMBLY BULB, 12V .....	1	
-32	27670	. SWITCH, Toggle, lamp .....	1	
-33	27671	. PLATE, Switch .....	1	
-34	45899	. INDICATOR, Restriction, air cleaner .....	1	
-35	80255	. MANIFOLD, Restriction indicator .....	1	
-36	9414204	. SCREW, Mach, serrated flange, 1/4-20 UNC x 3/8" lg .....	2	
-37	60135	. GAUGE, Hourmeter .....	1	
-38	48271	. GAUGE, Ammeter .....	1	
-39	14950	. GAUGE, Receiver pressure, air .....	1	
-40	62085	. GAUGE, Pressure, oil, engine .....	1	
-41	68265	. GAUGE, Temperature, water, engine .....	1	
-42	14073	. SWITCH, Safety override .....	1	
-43	14073	. SWITCH, Start .....	1	
-44	80960	. PANEL .....	1	

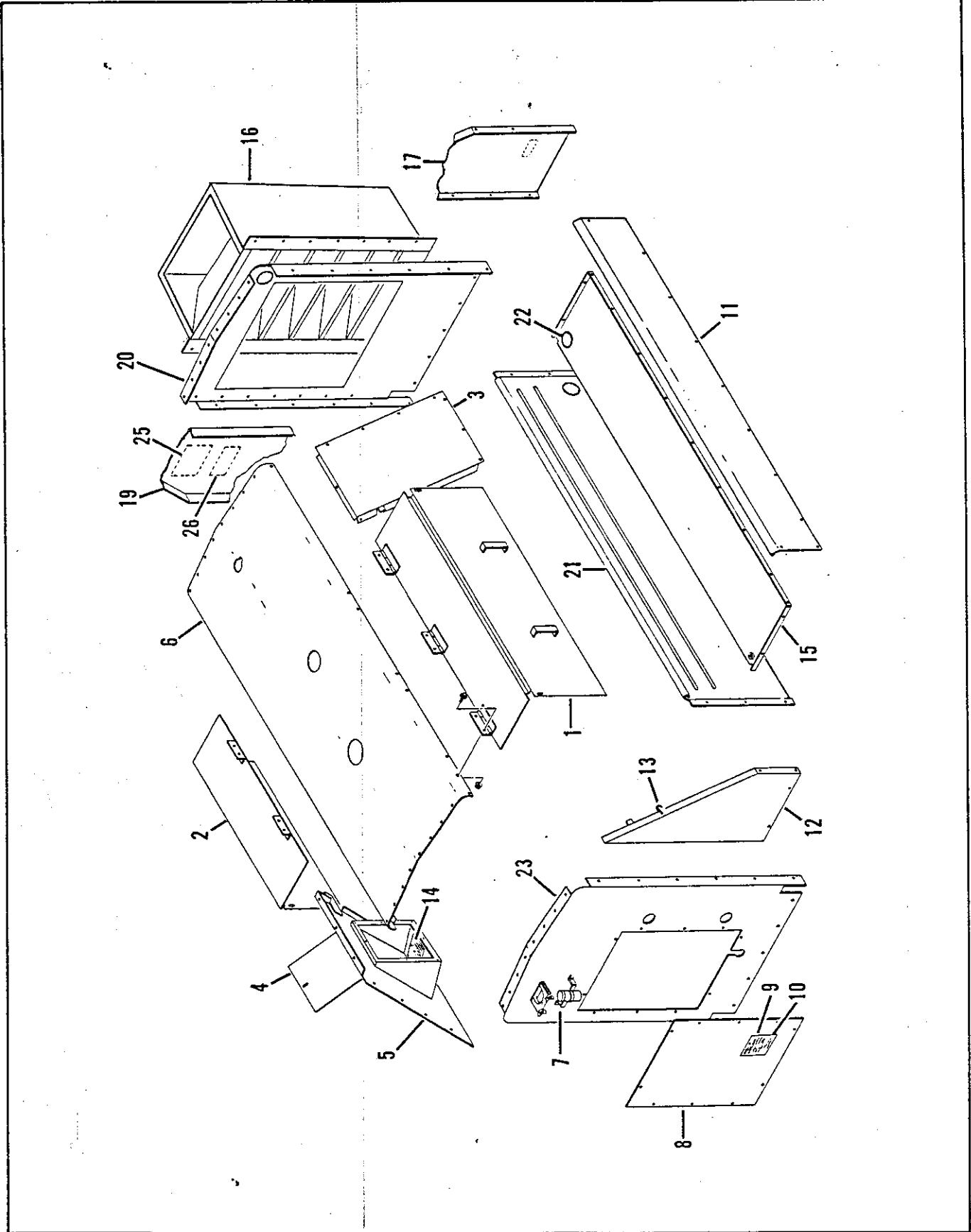


Figure 5-10. Housing Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-10	No Number	HOUSING GROUP (See figure 5-1 for NHA) .....	REF	
-1	67145	. DOOR, R.H. ....	1	
-2	80258	. DOOR, Curb side L.H. ....	1	
	9416918	. NUT, 1/4-20 (AP) (24617) .....	10	
	273771	. SCREW, 1/4 - 20 x 1/2 (AP) (24617) .....	10	
-3	67335	. PANEL, Door support, R.H. ....	1	
	67334	. PANEL, Door support, L.H. ....	1	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	20	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	20	
-4	80254	. DOOR, Instrument panel .....	1	
	80476	. SCREW, Self-tapping (AP) (24617) .....	5	
	80961	. INSTRUMENT PANEL ASSY (See figure 5-9 for details) .....	REF	
	273771	. SCREW, 1/4 - 20 x 1/2 (AP) (24617) .....	REF	
-5	80257	. PANEL, Door support/instrument panel .....	1	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	6	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	10	
-6	80259	. ROOF .....	1	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	10	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	10	
	273771	. SCREW, 1/4 - 20 x 1/2 (AP) (24617) .....	10	
-7	No Number	. QUICK-START GROUP (See figure 5-6) .....	REF	
-8	80135	. COVER, Housing support .....	1	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	10	
	273771	. SCREW, 1/4 - 20 x 1/2 (AP) (24617) .....	10	
-9	*61872	. DECAL, Fill to overflow .....	1	
-10	*63303	. DECAL, Oil recommendation .....	1	
-11	80956	. PANEL, Side .....	2	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	14	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	14	
-12	80958	. PANEL, End, front, R.H. ....	1	
	80959	. PANEL, End, front, L.H. (not shown) .....	1	
	9416918	. NUT, 1/4 - 20 .....	14	
	274825	. SCREW, 1/4 - 20 x 3/4 .....	14	
-13	†27327	. EYE, Door latch .....	5	
	†27328	. BRACKET, Door, latch .....	5	
	†27329	. SPRING, Door, latch .....	5	
-14	67982	. PLATE, Instruction .....	1	
	9426053	. SCREW, Self-tapping, no. 4-40 x 1/4 .....	4	
-15	67987	. FLOOR, Tool box .....	2	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	14	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	14	
-16	80955	. BAFFLE ASSY, Sound .....	1	
	273771	. SCREW, 1/4 - 20 x 2-1/2 (AP) (24617) .....	14	
-17	80727	. PANEL, End, R.H. ....	1	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	7	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	7	
-18	DELETED			
	DELETED			
-19	80728	. PANEL, End, L.H. ....	1	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	7	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	7	
-20	80726	. SUPPORT, Rear housing .....	1	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	19	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	5	
-21	67146	. PANEL, Back, tool box .....	2	
	9416918	. NUT, 1/4 - 20 (AP) (24617) .....	8	
	274825	. SCREW, 1/4 - 20 x 3/4 (AP) (24617) .....	8	
	273771	. SCREW, 1/4 - 20 x 1/2 (AP) (24617) .....	18	
-22	80862	. PLUG, Sheet metal .....	5	
-23	80957	. SUPPORT, Housing, front .....	1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-10-24  -25 -26	9416918	.	NUT, 1/4 - 20 (AP) (24617)	.....					5	
	278225	.	SCREW, 1/4 - 20 x 3/4 (AP) (24617)	.....					5	
	DELETED									
	DELETED									
	DELETED									
	GFM	.	PLATE, Identification	.....					1	
	DELETED									
	80476	.	PLATE, Trans. Data	.....					1	
	68457		KIT, Repair, door latch	.....					AR	
	DC-VIS		FOAM SHEET, Sound dampening, 54" x 72" (99806)	.....					3	
	1142		(16004 PN 64114) cut to fit part	.....						
	EC 1099		ADHESIVE, Foam sheets (70707) (16004 PN 64115)	.....					2 qts.	
		ADHESIVE, Foam sheets (alternate) (28136)	.....					2 qts.		

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-11	No Number		AIR CONTROL LINES GROUP (See figure 5-1 for NHA)	.....					REF	
-1	61090	.	HOSE ASSEMBLY, Tee to receiver pressure gauge	.....					1	
-2	28888	.	ADAPTER, Tube, 1/4 pipe to 3/8 tube	.....					1	
-3	61079	.	HOSE ASSEMBLY, Blowdown valve to regulator	.....					1	
-4	28890	.	ELBOW, Tube, 1/4 pipe to 3/8 tube	.....					1	
-5	67800	.	TEE, Street, 1/4 NPT	.....					4	
-6	No Number	.	PRESSURE REGULATOR GROUP (See figure 5-12 for details)	.....					2	
-7	65610	.	NIPPLE, Hex	.....					1	
-8	144112	.	ELBOW, Street, 90°, 1/4 NPT	.....					1	
-9	61084	.	HOSE ASSEMBLY, Oil separator to compressor	.....					1	
-10	61082	.	HOSE ASSEMBLY, Blowdown valve to compressor	.....					1	
-11	62234	.	GAUGE, Flow sight	.....					1	
-12	65644	.	ELBOW, Pipe, 90°, 1/4 NPT	.....					1	
-13	61079	.	HOSE ASSEMBLY, To compressor drive end cover	.....					1	
-14	144011	.	PLUG, Pipe, socket head, 1/4 NPT	.....					1	

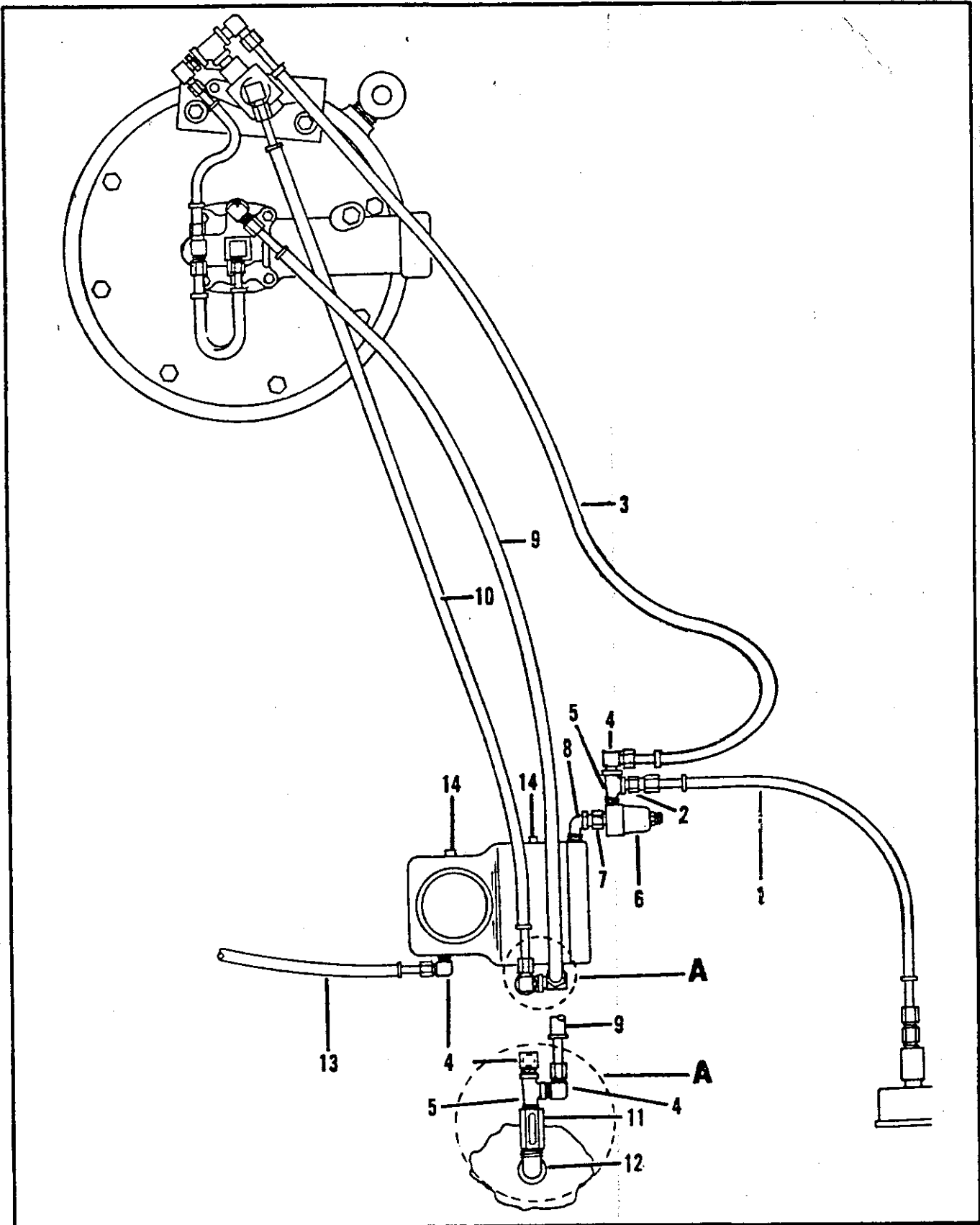


Figure 5-11. Air Control Lines Group

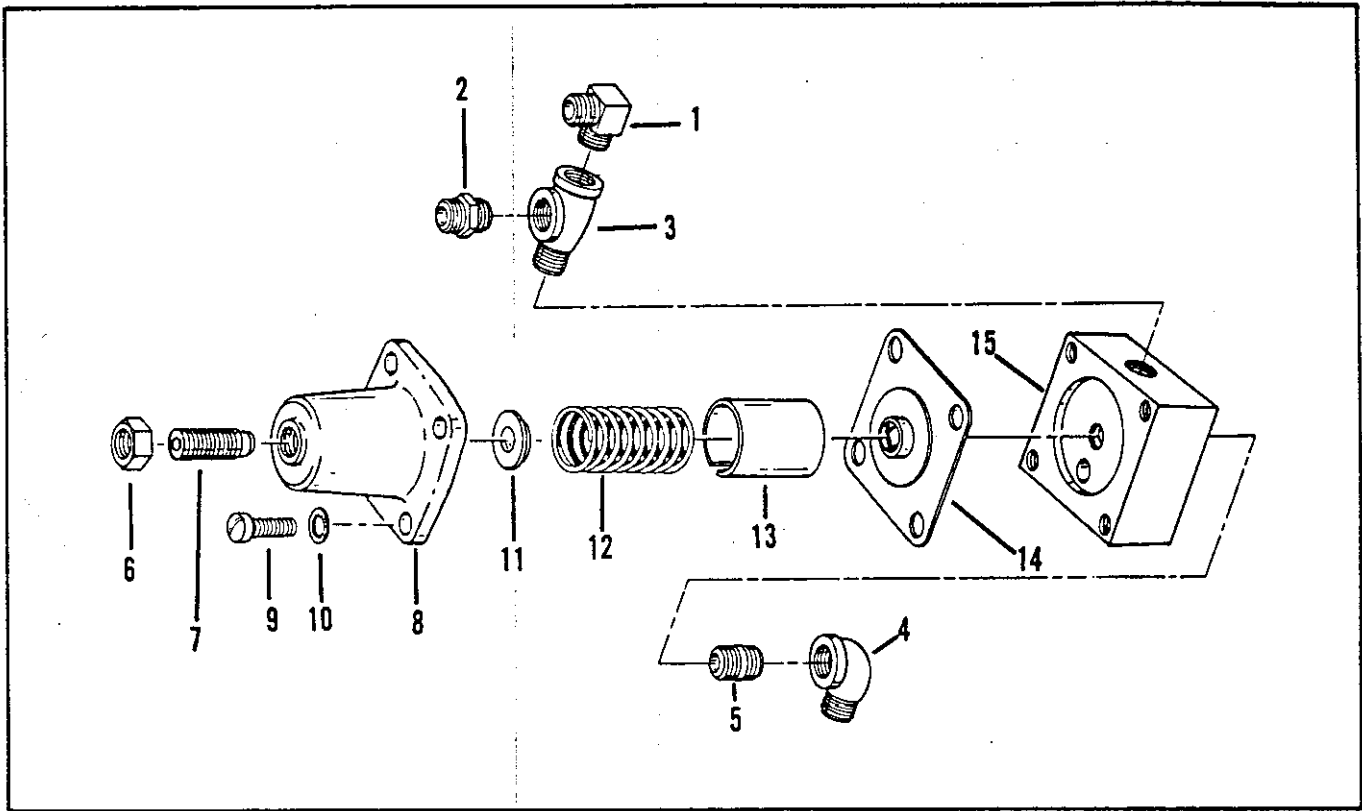


Figure 5-12. Air Pressure Regulator Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-12	No Number	AIR PRESSURE REGULATOR GROUP (See figure 5-11 for NHA) .....							REF	
-1	28890	. ELBOW, Tube, 1/4 NPT x 3/8 .....							1	
-2	28888	. CONNECTOR, Tube, 1/4 NPT x 3/8 .....							1	
-3	67800	. TEE, Street, 1/4 x 1/4 x 1/4 .....							1	
-4	144112	. ELBOW, 90° Street, 1/4 NPT .....							1	
-5	192050	. NIPPLE, Close, 1/4 NPT .....							1	
	64142	. REGULATOR ASSY, Air pressure .....							1	
-6	120369	. . . NUT, Hx, 3-24 NF .....							1	
-7	40869	. . . SCREW, Adjustment, 3/8-24 NF .....							1	
-8	40864	. . . HOUSING, Spring .....							1	
-9	132259	. . . SCREW, Mach, Fil hd, 1/4-20NC x 5/8 .....							4	
-10	28149	. . . WASHER, Lock, Intl tooth, 1/4 .....							4	
-11	40536	. . . SEAT, Spring .....							1	
-12	40863	. . . SPRING, Regulator .....							1	
-13	65959	. . . TUBE, Spring .....							1	
-14	64141	. . . DIAPHRAGM ASSY .....							1	
-15	64140	. . . BASE, Regulator .....							1	



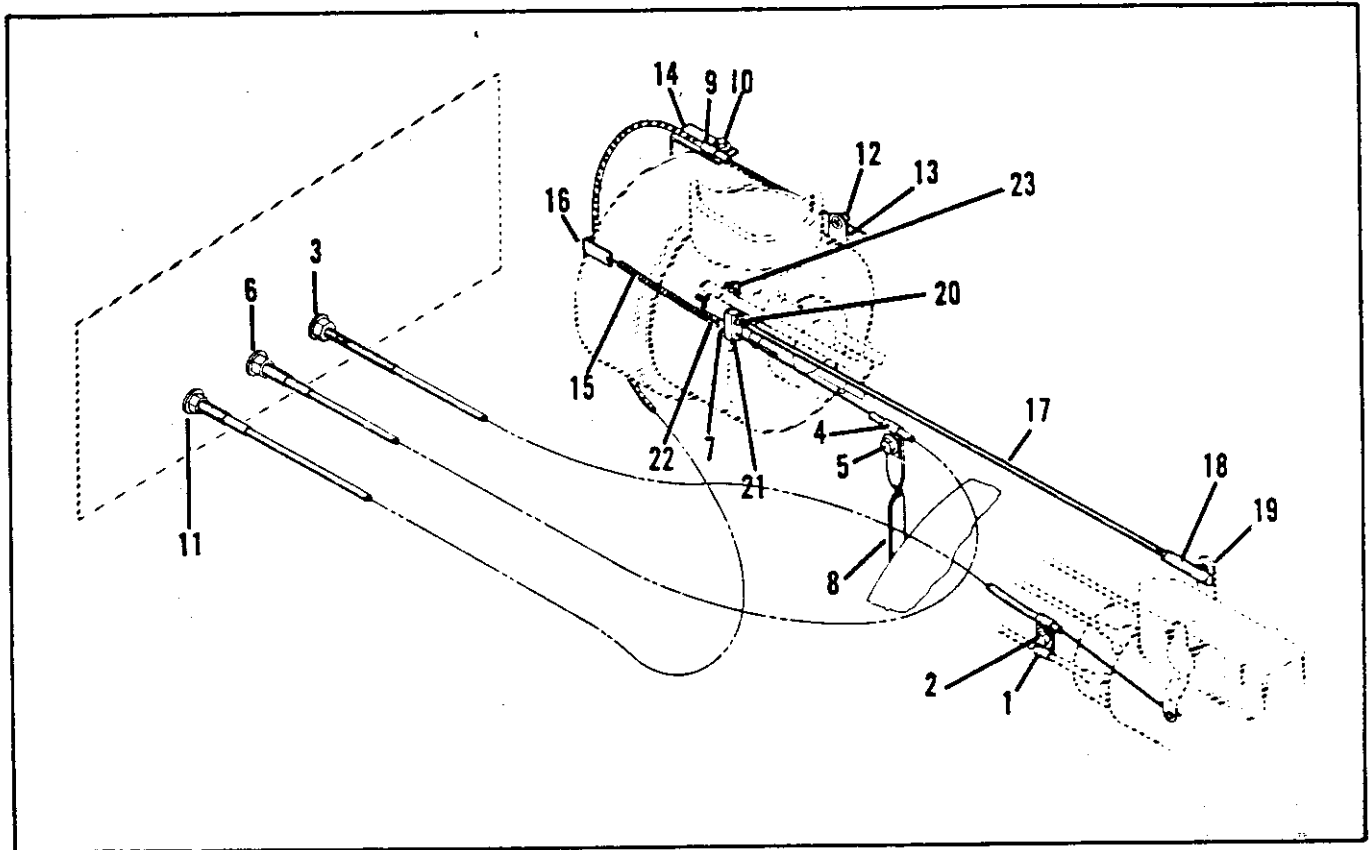


Figure 5-13. Speed Control Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-13	No Number	SPEED CONTROL GROUP (See figure 5-1 for NHA) .....								REF	
-1	60886	. CLIP .....								2	
-2	273771	. SCREW, Cap, serr fl .....								1	
	9416918	. NUT, Serr fl .....								1	
-3	8188	. CABLE, Control, Stop engine (see figure 5-9) .....								REF	
-4	60886	. CLIP .....								1	
-5	273771	. SCREW, Cap, serr fl .....								1	
	9416918	. NUT, Serr fl .....								1	
-6	27854	. CABLE, Control, idle (see figure 5-9).....								REF	
-7	20588	. STOP, Wire .....								1	
-8	65878	. BRACKET, Throttle cable .....								1	
-9	60886	. CLIP .....								1	
-10	273771	. SCREW, Cap serr fl .....								1	
	9416918	. NUT, Serr fl .....								1	
-11	27854	. CABLE, Control, unloader (see figure 5-9) .....								REF	
-12	67981	. STOP, Wire .....								1	
-13	30024	. ARM, Lever .....								1	
-14	44506	. BRACKET, Cable, unload .....								1	
-15	27365	. SPRING, Throttle .....								1	
-16	62620	. BRACKET, Spring, throttle .....								1	
-17	65876	. ROD, Control .....								1	
-18	9665	. JOINT, Ball .....								1	
-19	443332	. NUT, Lock (AP) .....								1	
-20	120367	. NUT, Hex (AP) .....								5	
-21	27359	. BLOCK, Stop .....								1	
-22	18952	. STOP, Block .....								1	
-23	443332	. NUT, Lock (AP) .....								1	

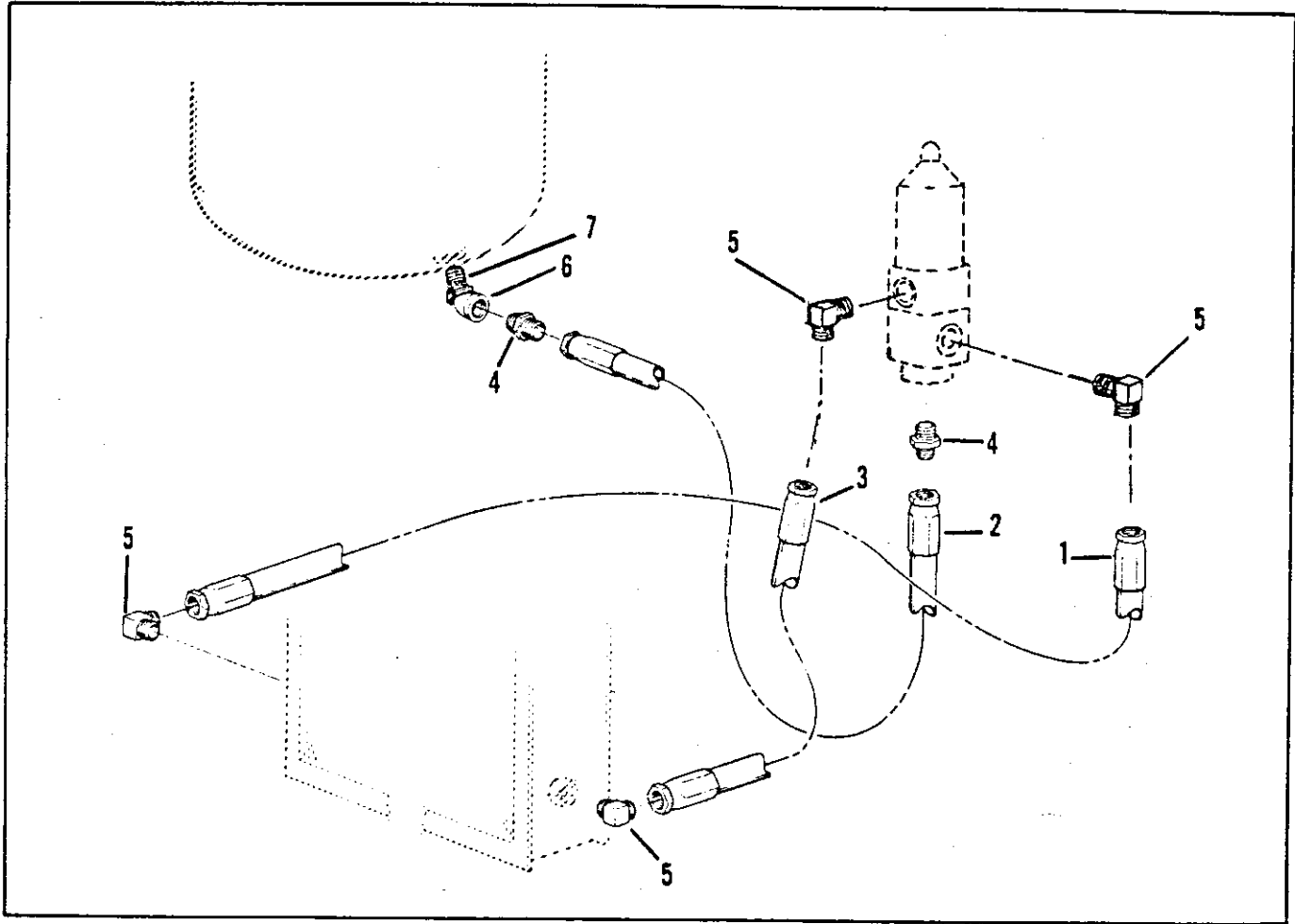


Figure 5-14. Compressor Oil Lines Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS	USABLE
			PER ASSY	ON CODE
5-14	No Number	COMPRESSOR OIL LINES GROUP (See figure 5-1 for NHA) .....	REF	
-1	80379	. HOSE ASSEMBLY .....	1	
-2	73666	. HOSE ASSEMBLY .....	1	
-3	80121	. HOSE ASSEMBLY .....	1	
-4	23341	. ADAPTER .....	4	
-5	23342	. ELBOW .....	4	
-6	144138	. ELBOW .....	1	
-7	190752	. NIPPLE, Close .....	1	

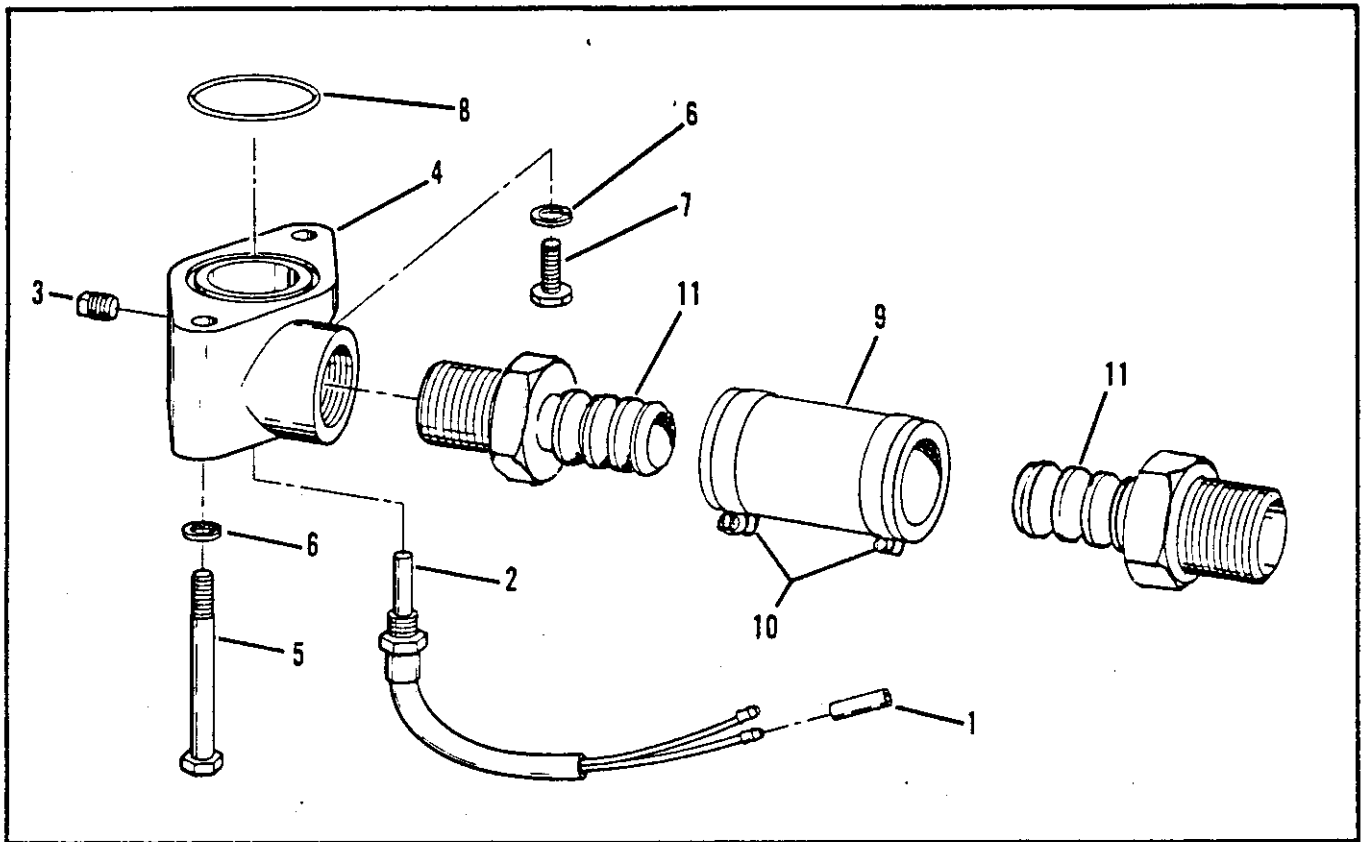


Figure 5-15. Compressor Discharge Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-15	No Number	COMPRESSOR DISCHARGE GROUP (See figure 5-1 for NHA) .....								REF	
-1	23921	. CONNECTOR, Wire .....								2	
-2	48414	. THERMOSWITCH .....								1	
-3	143935	. PLUG.....								1	
-4	68521	. CONNECTION, Discharge .....								1	
-5	122207	. SCREW, Cap, hex hd. 3/8-16 NC x 3 in. lg .....								1	
-6	120382	. WASHER, Lock .....								2	
-7	120233	. SCREW, Cap, hx hd, 3/8-16 NC x 1 in. lg .....								1	
-8	24549	. O-RING .....								1	
-9	80969	. HOSE, Discharge .....								1	
-10	68294	. CLAMP .....								2	
	122027	. BOLT, Hex hd, 5/16 - 18 NC x 1-1/4 in. lg .....								2	
	109524	. NUT, 5/16 - 18 NC .....								2	
	120393	. WASHER, Flat, 5/16 in. ....								2	
-11	68293	. ADAPTER, Discharge .....								2	

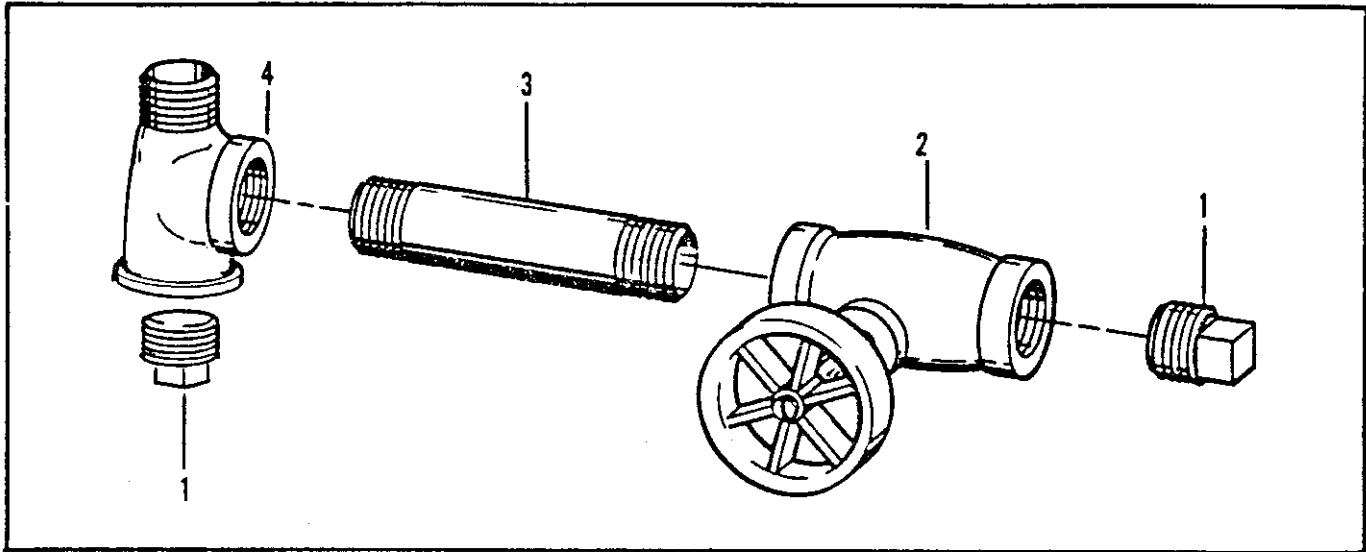


Figure 5-16. Separator Drain Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-16	No Number	SEPARATOR DRAIN GROUP (See Figure 5-1 for NHA) .....							REF	
-1	143395	.							2	
-2	14034	.							1	
-3	192074	.							1	
-4	67742	.							1	

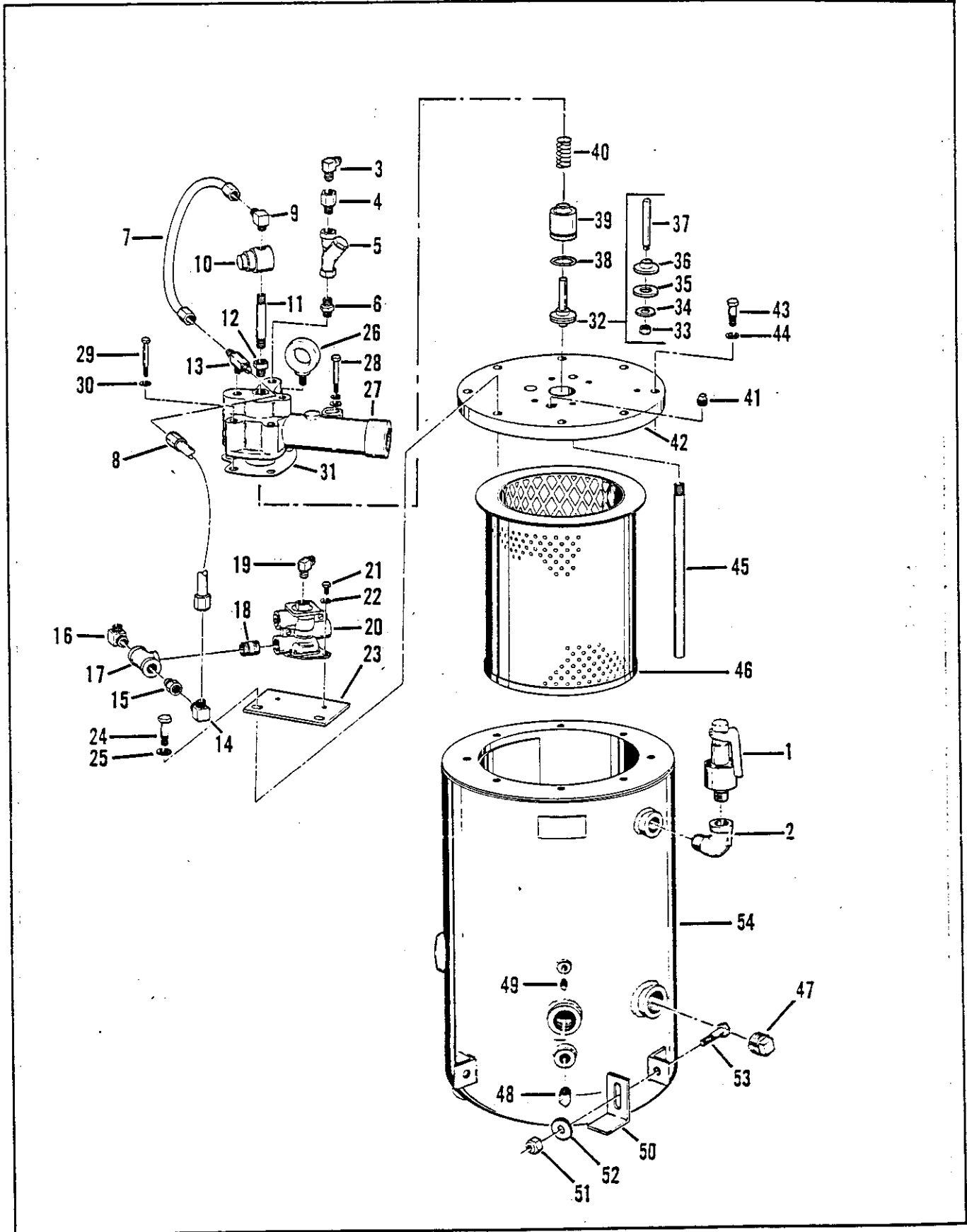


Figure 5-17. Oil Separator Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
5-17	81026	OIL SEPARATOR ASSEMBLY (See figure 5-1 for NHA) .....	REF	
-1	14776	. VALVE, Safety .....	1	
-2	144113	. ELBOW, Street, 90°, 3/4 NPT .....	1	
-3	28890	. ELBOW, Tube, 1/4 P to 3/8 T .....	1	
-4	49966	. ORIFACE "Y" .....	1	
-5	47690	. STRAINER .....	1	
	24963	. CAP, Strainer (Not sold separately) .....	REF	
	61119	. "O"-RING .....	1	
		. ELEMENT, Strainer .....	1	
-6	65610	. NIPPLE, Hex .....	1	
-7	61072	. HOSE ASSEMBLY .....	1	
-8	61067	. HOSE ASSEMBLY .....	1	
-9	28890	. ELBOW, Tube, 1/4 P to 3/8 T .....	1	
-10	64916	. REGULATOR .....	1	
-11	152055	. NIPPLE, Pipe, 1/4 NPT x 3" lg .....	1	
-12	144036	. BUSHING, Pipe, 3/8 to 1/4 NPT .....	1	
-13	28892	. TEE, Tube, 1/4 P to 3/8 T .....	1	
-14	28890	. ELBOW, Tube, 1/4 P to 3/8 T .....	1	
-15	144038	. BUSHING, Pipe, 1/2 to 1/4 NPT .....	1	
-16	27691	. ELBOW, Tube, 1/2 P to 3/8 T .....	1	
-17	144085	. TEE, Pipe, 1/2 NPT .....	1	
-18	192074	. NIPPLE, Close, 1/2 NPT .....	1	
-19	41000	. ELBOW, Tube, 1/8 P to 3/8 T .....	1	
-20	65550	. BLOW DOWN VALVE .....	1	
-21	120834	. SCREW, Cap, hex hd, 5/16-18 NC x 1/2 lg .....	2	
-22	120214	. WASHER, Lock, 5/16" I.D. ....	2	
-23	68460	. BRACKET, Blow down valve .....	1	
-24	62914	. SCREW, Cap, hex hd, 5/8 - 11 NC x 2-1/2" lg .....	2	
-25	121574	. WASHER, Lock, 5/8" I.D. ....	2	
	131016	. WASHER, Flat, 5/8" I.D. ....	2	
-26	24636	. BOLT, Eye, lifting .....	1	
-27	60826	. HOUSING, Non-return valve .....	1	
-28	61720	. SCREW, Cap, hex hd, 1/2-13 NC x 3-1/2" lg .....	1	
	120384	. WASHER, Lock, 1/2" I.D. ....	1	
	120396	. WASHER, Flat, 1/2" I.D. ....	1	
-29	122207	. SCREW, Cap, hex hd, 3/8-16 NC x 3" lg .....	4	
-30	120382	. WASHER, Lock, 3/8" I.D. ....	4	
-31	44088	. GASKET, Housing .....	1	
-32	62232	. VALVE ASSEMBLY, Non return .....	1	
-33	62303	. NUT, Lock .....	1	
-34	47371	. WASHER, Valve .....	1	
-35	47373	. SEAT, Valve .....	1	
-36	47370	. FACING, Valve .....	1	
-37	47372	. STEM, Valve .....	1	
-38	24999	. "O"-RING .....	1	
-39	26284	. PISTON .....	1	
-40	26283	. SPRING .....	1	
-41	143933	. PLUG, Pipe, sq hd, 1/4" NPT .....	1	
-42	No Number	. COVER, Separator (furnished with tank only) .....	REF	
-43	61874	. SCREW, Cap, hex hd, grade 5, 5/8-11NC x 2" lg .....	6	
-44	121574	. WASHER, Lock, 5/8" I.D. ....	6	
-45	60624	. PIPE, Schavenger .....	1	
-46	64746	. ELEMENT, Separator .....	1	
-47	219306	. PLUG, Pipe, sq hd, 1-1/4 NPT .....	1	
-48	143935	. PLUG, Pipe, sq hd, 1/2 NPT .....	1	
-49	143933	. PLUG, Pipe, sq hd, 1/4 NPT .....	1	
-50	49966	. SUPPORT, Separator .....	4	
-51	443339	. NUT, Lock, 1/2 - 13 NC .....	4	
-52	120396	. WASHER, Flat, 1/2" I.D. ....	4	
-53	76062	. SCREW, Cap, hex hd, 1/2-13 NC x 1-1/2" lg .....	4	
-54	49733	. TANK, Separator (furnished with cover, index no. 42) .....	1	

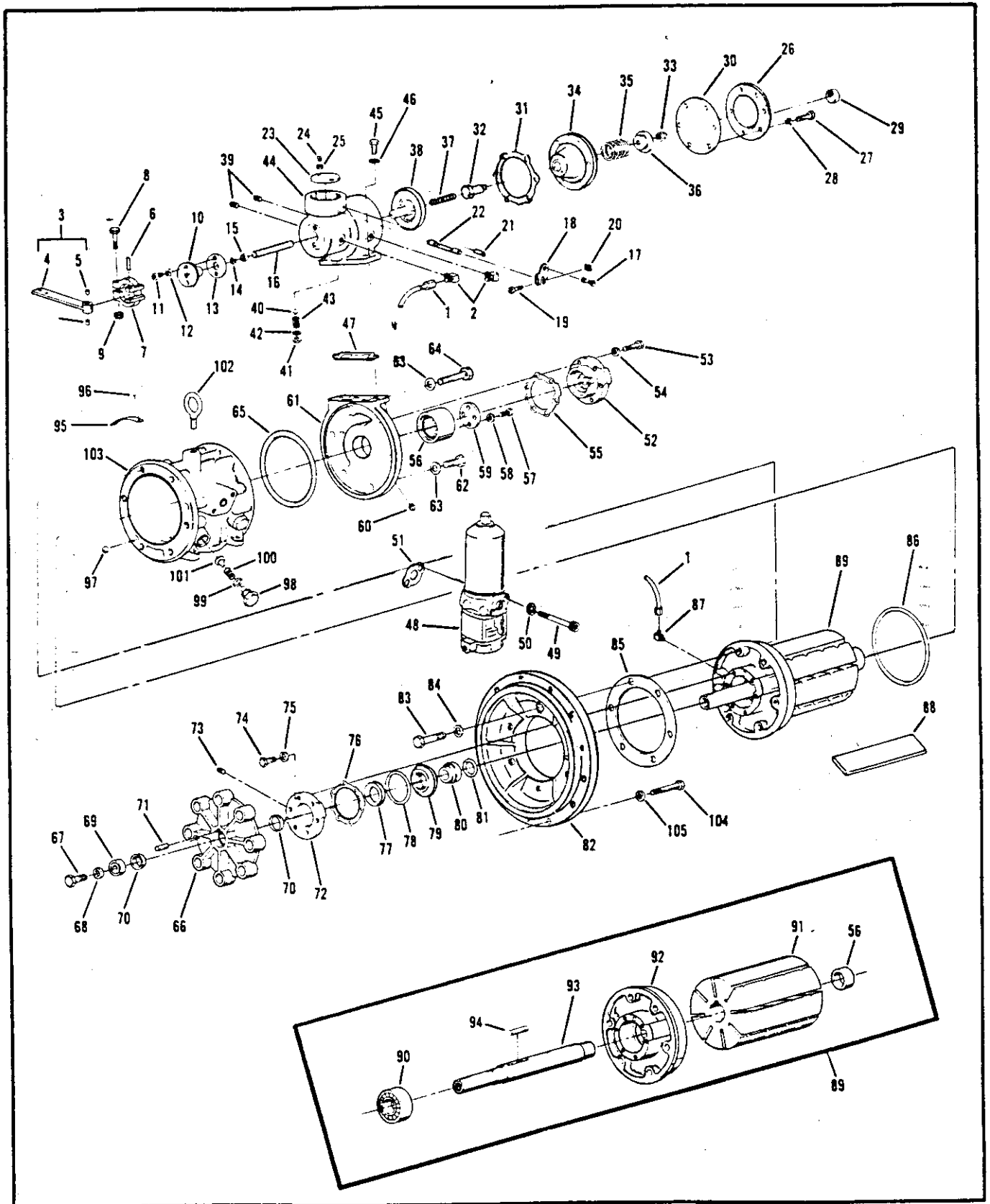


Figure 5-18. Compressor Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS PER ASSY	USABLE ON CODE
5-18	No Number	COMPRESSOR GROUP (See Figure 5-1 for NHA) .....	REF	
-1	61079	. HOSE ASSEMBLY .....	1	
-2	28890	. ELBOW, Tube .....	2	
	66132	. COMPRESSOR ASSEMBLY .....	1	
-3	62286	. . ARM ASSY, Control speed .....	1	
-4	62285	. . . ARM .....	2	
-5	40875	. . . BUSHING .....	1	
-6	40596	. . . PIN .....	1	
-7	61757	. . . CLAMP, Control speed .....	1	
-8	138208	. . . BOLT, Soc. hd (AP) .....	1	
-9	443331	. . . NUT, Lock (AP) .....	1	
-10	61759	. . . GUIDE, Control, speed .....	1	
-11	426816	. . . SCREW, Cap sch 1/4 - 20 x 3/4 (AP) .....	2	
-12	28149	. . . WASHER, Lock (AP) .....	2	
-13	61761	. . . GASKET .....	1	
-14	24498	. . . O-RING .....	1	
-15	26981	. . . BUSHING, Guide .....	1	
-16	62047	. . . ROD, Push .....	1	
-17	67981	. . . STOP, Wire .....	1	
-18	30024	. . . ARM, Lever .....	1	
-19	132915	. . . SCREW, Rd hd. 10-32 (AP) .....	1	
-20	115295	. . . NUT (AP) .....	1	
-21	30788	. . . PIN, Stop .....	1	
-22	45074	. . . SHAFT, Valve .....	1	
-23	45073	. . . PLATE, Valve .....	1	
-24	121832	. . . SCREW, Mach rd hd 8-32 x 3/8 .....	2	
-25	40045	. . . WASHER, Lock, no. 8 .....	2	
-26	63794	. . . COVER, Intake control .....	1	
-27	120918	. . . SCREW, Cap, hx hd, 3/8 - 16 NC x 1-1/2 .....	6	
-28	120382	. . . WASHER, Lock, 3/8 in. ....	6	
-29	40868	. . . DISC, Breather .....	1	
-30	44753	. . . DIAPHRAGM, Intake control .....	1	
-31	44430	. . . GASKET, Cylinder .....	1	
-32	44756	. . . STEM, Intake control .....	1	
-33	67910	. . . NUT, Lock, flex, thin, 3/8 - 16 NC .....	1	
-34	62144	. . . CYLINDER, Intake control .....	1	
-35	44444	. . . SPRING, Intake control .....	1	
-36	44755	. . . PISTON, Intake control .....	1	
-37	44919	. . . SPRING, Valve .....	1	
-38	44758	. . . VALVE, Intake control .....	1	
-39	143933	. . . PLUG, Pipe, 1/4 NPT .....	2	
-40	24527	. . . BALL .....	1	
-41	45121	. . . PLUG .....	1	
-42	24498	. . . O-RING .....	1	
-43	46888	. . . SPRING .....	1	
-44	62336	. . . HOUSING, Intake .....	1	
-45	122145	. . . SCREW, Hx hd, 3/8 - 16 NC x 1-1/4 .....	3	
-46	120382	. . . WASHER, Lock, 3/8 .....	3	
-47	44446	. . . GASKET, Housing .....	1	
-48	44897	. . . BY-PASS ASSEMBLY, Oil filter and (see figure 5-19) .....	1	
-49	67724	. . . SCREW, Cap, sch, 5/16 - 18 NC x 4-1/2 .....	2	
-50	28147	. . . WASHER, Lock, int tooth, 5/16 .....	2	
-51	44051	. . . GASKET, Filter bypass .....	1	
-52	46884	. . . COVER, Bearing, non drive end .....	1	
-53	122027	. . . SCREW, Cap, hx hd, 5/16 - 18 NC x 1-1/4 .....	6	
-54	120214	. . . WASHER, Lock, split, 5/16 .....	6	
-55	47325	. . . GASKET, Cover .....	1	
-56	46869	. . . BEARING, Ball, non drive end .....	1	
-57	122017	. . . SCREW, Cap, hx hd, 5/16 - 18 NC x 1 .....	4	
-58	120214	. . . WASHER, Lock, split, 5/16 .....	4	



FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-18-59	63196	. . . RETAINER, Bearing .....	1	
-60	143932	. . . PLUG, Pipe, 1/8 NPT .....	1	
-61	46875	. . . COVER, Intake end .....	1	
-62	428217	. . . SCREW, Cap, hx hd, 5/8 - 11 NC x 1-1/2 .....	5	
-63	26393	. . . WASHER, Sealing .....	6	
-64	428712	. . . SCREW, Cap, hx hd, 5/8 - 11 NC x 3-3/4 .....	1	
-65	44428	. . . O-RING .....	1	
-66	48185	. . . COUPLING, Drive .....	1	
-67	48479	. . . SCREW, Special 3/4 - 10 x 1-3/4 (SAE 5) .....	1	
-68	131046	. . . WASHER, Lock, split, 3/4 .....	1	
-69	46882	. . . RETAINER, Gripspring .....	1	
-70	46890	. . . GRIPSPRING .....	2	
-71	46889	. . . KEY, Dowel, coupling .....	1	
-72	46872	. . . COVER, Seal, oil .....	1	
-73	143932	. . . PLUG, Pipe, 1/8 NPT .....	1	
-74	122027	. . . SCREW, Cap, hex hd 5/16 - 18 NC x 1-1/4 .....	6	
-75	120214	. . . WASHER, Lock, split, 5/16 .....	6	
-76	47325	. . . GASKET .....	1	
-77	46879	. . . SEAL, Oil .....	1	
-78	46886	. . . O-RING .....	1	
-79	47716	. . . SLEEVE, Oil seal .....	1	
-80	46878	. . . SLEEVE .....	1	
-81	24978	. . . O-RING .....	1	
-82	48187	. . . ADAPTER, Compressor .....	1	
-83	428703	. . . SCREW, Cap hx hd, 5/8 - 11 NC x 3 .....	6	
-84	26393	. . . WASHER, Sealing .....	6	
-85	44443	. . . GASKET, Adaptor .....	1	
-86	44428	. . . O-RING .....	1	
-87	41000	. . . ELBOW, Tube .....	1	
-88	44798	. . . BLADE, Rotor .....	8	
-89	No Number	. . . ROTOR, End cover and shaft assy .....	REF	
-90	46868	. . . BEARING, Ball, drive end .....	1	
-91	47215	. . . ROTOR, Compressor .....	1	
-92	46887	. . . COVER, End, non drive .....	1	
-93	46873	. . . SHAFT, Rotor .....	1	
-94	24986	. . . KEY, Dowel .....	1	
-95	44972	. . . PLATE, Identification .....	1	
-96	145369	. . . PIN, Drive .....	2	
-97	9314	. . . BALL, Steel .....	1	
-98	43392	. . . PLUG, Valve .....	2	
-99	24964	. . . O-RING .....	2	
-100	43394	. . . SPRING, Valve .....	2	
-101	43393	. . . VALVE, Relief .....	2	
-102	24636	. . . BOLT, Eye .....	1	
-103	47352	. . . STATOR, Compressor .....	1	
-104	120918	. . . SCREW, Hx hd, 3/8 - 16 x 1-1/2 (AP) .....	12	
-105	120382	. . . WASHERS, Lock, 3/8 (AP) .....	12	

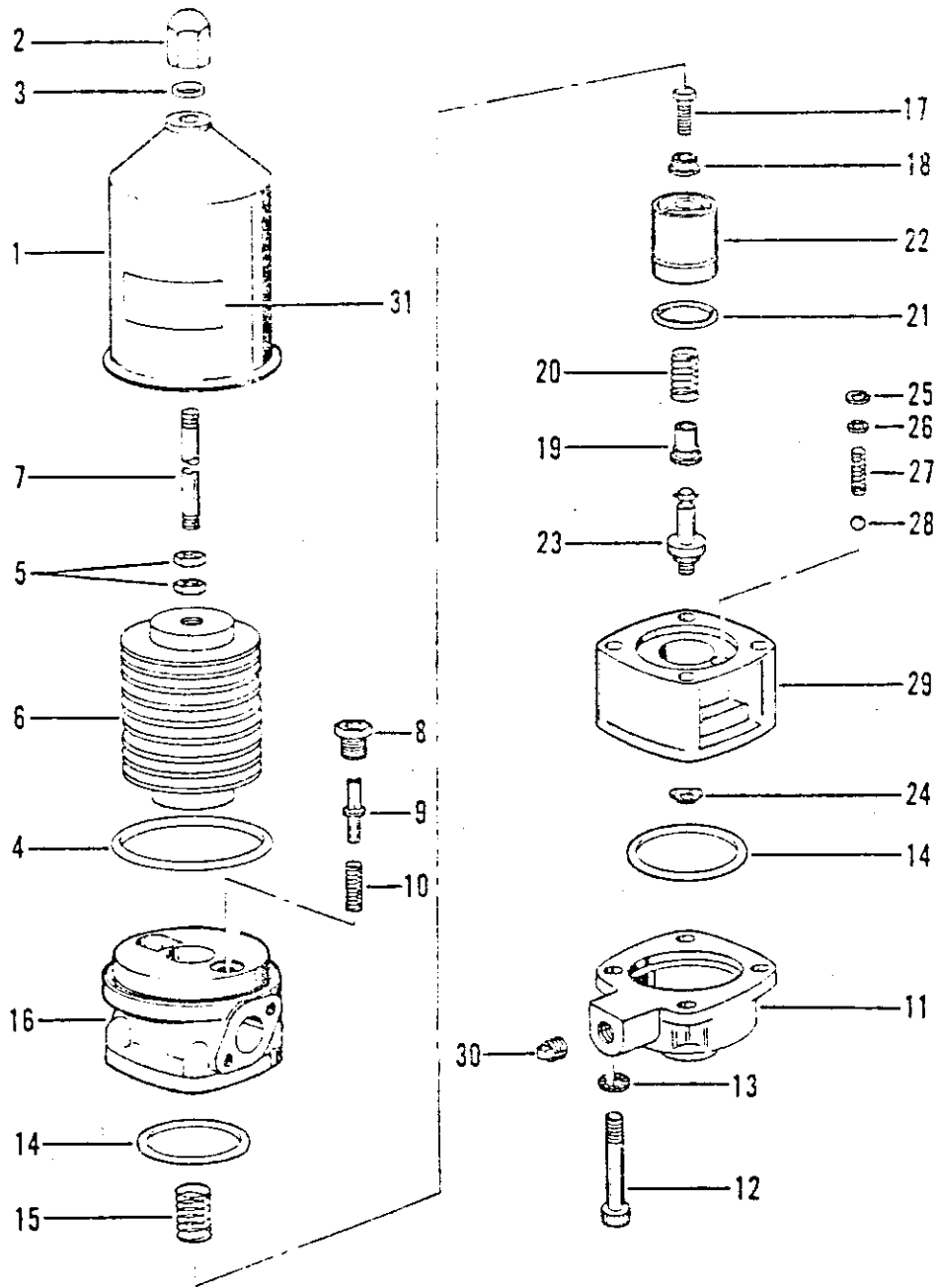


Figure 5-19. Compressor oil filter-bypass assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-19	44897	OIL FILTER-BYPASS ASSY, Compressor (see figure 5-18 for NHA) .....	REF	
-1	28219	. HOUSING, Oil filter .....	1	
-2	28545	. NUT, Retaining (AP) .....	1	
-3	24649	. PACKING, Preformed, o-ring .....	1	
-4	28412	. PACKING, Preformed, o-ring .....	1	
-5	120377	. NUT, Hex, 3/8-16 NC .....	2	
-6	28218	. ELEMENT, Oil filter .....	1	
-7	45070	. STUD, Element .....	1	
-8	43369	. PLUG, Bypass .....	1	
-9	44066	. VALVE, Bypass .....	1	
-10	43371	. SPRING, Bypass valve .....	1	
-11	46218	. COVER .....	1	
-12	9421633	. SCREW, Cap, sch, 5/16-18NC x 3-1/4 in. lg .....	4	
-13	28147	. WASHER, Lock, internal tooth, 5/16 in. ....	4	
-14	27293	. PACKING, Preformed, o-ring .....	2	
-15	40679	. SPRING .....	1	
-16	44698	. CONNECTION .....	1	
-17	121900	. SCREW, Cap, hex hd, 1/4-20 x 1 in. lg .....	1	
-18	46174	. GUIDE, Spring .....	1	
-19	46175	. PLUNGER .....	1	
-20	40678	. SPRING .....	1	
-21	24999	. PACKING, Preformed, o-ring .....	1	
-22	29941	. SHUTTLE .....	1	
-23	40434	. POWER ELEMENT .....	1	
-24	5300-1-4-28	. NUT, Spring (AP) (79136) (16004 PN 49275) .....	1	
-25	5000-37	. RING, Retaining (79136) (16004 PN 44449) .....	1	
-26	131014	. WASHER, Flat, no. 6 .....	1	
-27	44501	. SPRING .....	1	
-28	24527	. BALL, Steel .....	1	
-29	43367	. BODY, Bypass .....	1	
-30	143934	. PLUG, Pipe, sq hd, 3/8 NPT .....	1	
-31	63301*	. DECAL, Oil filter .....	1	

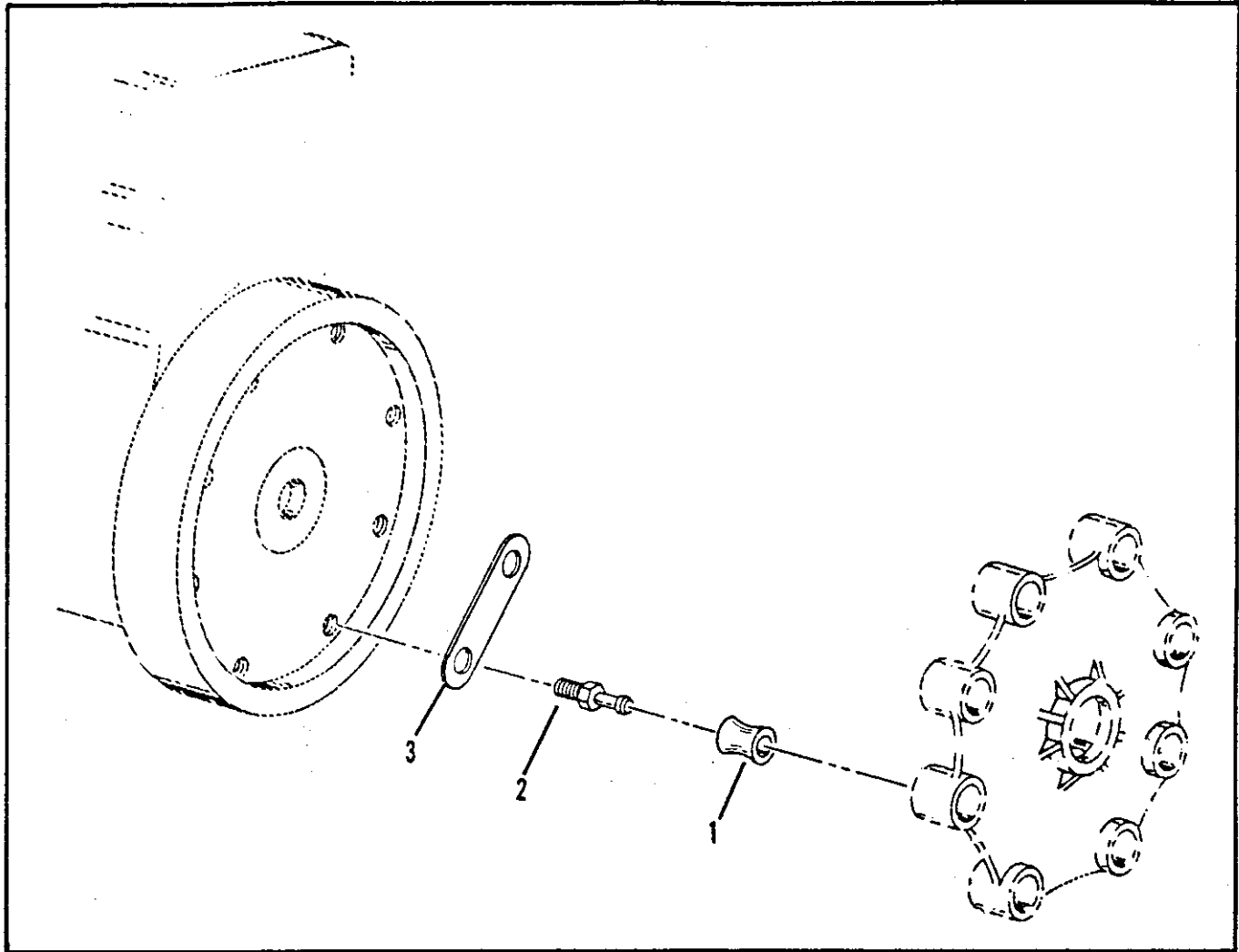


Figure 5-20. Compressor Drive Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-20	No Number	COMPRESSOR DRIVE GROUP (See figure 5-1 for NHA).....							REF	
-1	25673	. BUSHING, Drive .....							8	
-2	44056	. PIN, Drive .....							8	
-3	47737	. STRAP, Locking .....							4	

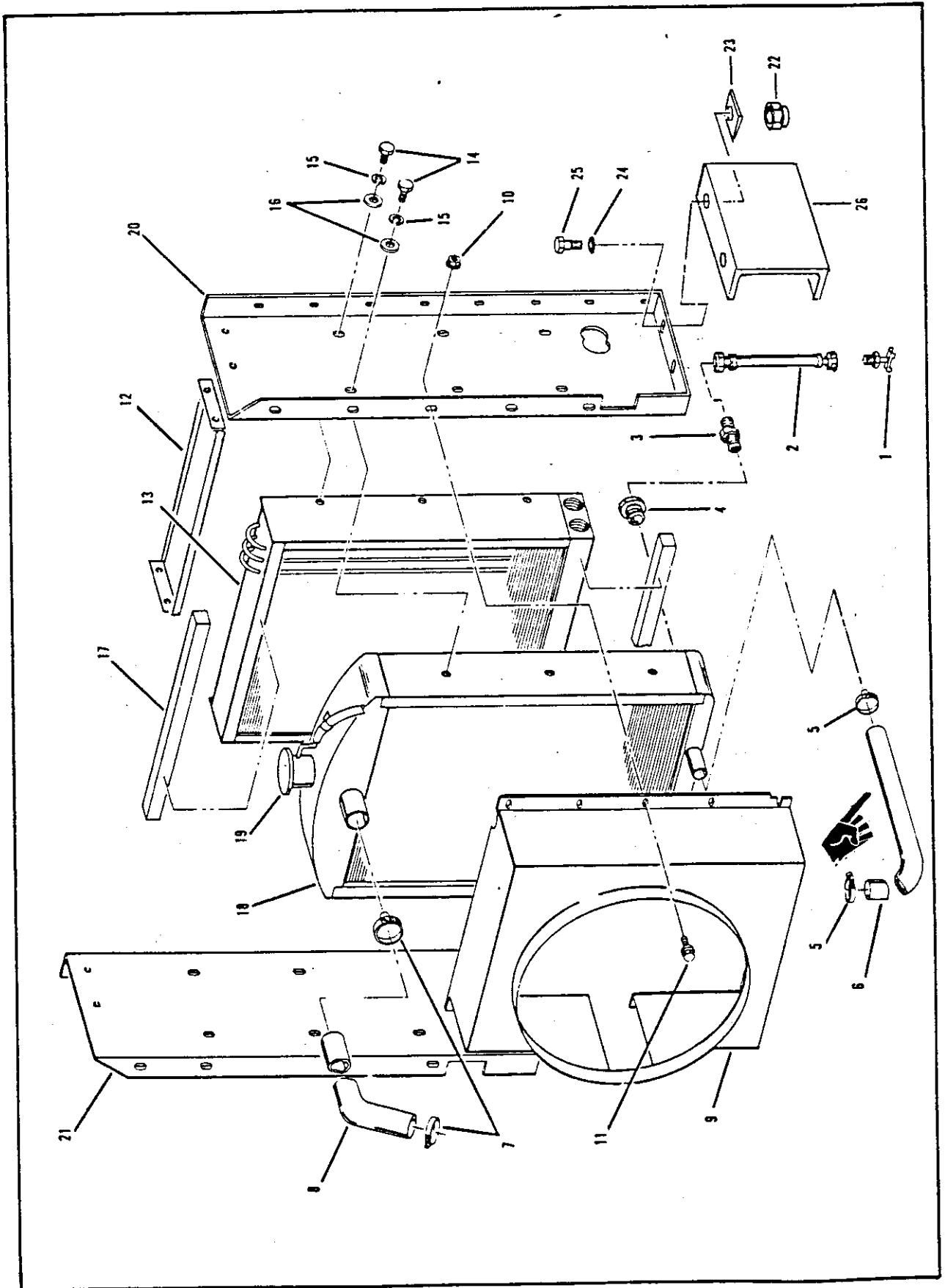


Figure 5-21. Compressor Oil Cooler and Radiator Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION 1 2 3 4 5 6 7	UNITS	USABLE ON CODE
			PER ASSY	
5-21	No Number	COMPRESSOR OIL COOLER AND RADIATOR GROUP .....	REF	
		(See figure 5-1 for NHA)		
-1	14026	. COCK, Drain, radiator .....	1	
-2	37438	. HOSE ASSEMBLY, radiator drain .....	1	
-3	43024	. ADAPTER, Straight, tube .....	1	
-4	116332	. BUSHING, Reducing, 3/8" to 1/4" NPT .....	1	
-5	46330	. CLAMP, Hose, two each end .....	4	
-6	80503	. HOSE, Radiator, bottom (24161 PN Type 4684-CF) .....	1	
-7	46330	. CLAMP, Hose, two each end .....	4	
-8	62337	. HOSE, Radiator, upper .....	1	
-9	80132	. SHROUD, Fan .....	1	
-10	9416918	. NUT, Lock, serrated flange, 1/4-20 NC .....	8	
-11	274473	. SCREW, Cap, serrated flange, 1/4-20 NC x 5/8" lg .....	8	
-12	48403	. BAFFLE, Cooler .....	2	
	274825	. SCREW, Cap, serrated flange, 1/4-20 NC x 3/4" lg .....	8	
-13	48159	. COOLER, Oil .....	1	
-14	122119	. SCREW, Cap, hex hd, 3/8-16 NC x 3/4" lg .....	12	
-15	120382	. WASHER, Lock, 3/8" I.D. ....	12	
-16	120394	. WASHER, Flat, 3/8" I.D. ....	12	
-17	80607	. STRIP, Foam .....	2	
-18	68548	. RADIATOR .....	1	
-19	MS35840-1	. CAP, Radiator (96906) .....	1	
-20	48171	. SUPPORT, R.H., Cooler radiator .....	1	
-21	48172	. SUPPORT, L.H., Cooler radiator .....	1	
-22	443335	. NUT, Lock, 3/8-16 NC .....	4	
-23	60744	. WASHER, Channel, 3/8 .....	4	
-24	120394	. WASHER, Flat, 3/8" I.D. ....	4	
-25	120918	. SCREW, Cap, hex hd, 3/8 - 16 NC x 1-1/2" lg .....	4	
-26	48191	. SPACER, Cooler support .....	2	
	443339	. NUT, Lock, 3/8-16 NC .....	4	
	60739	. WASHER, Channel, 3/8 .....	4	
	122446	. SCREW, Cap, hex hd, 3/8-16 NC x 1-3/4" lg .....	4	

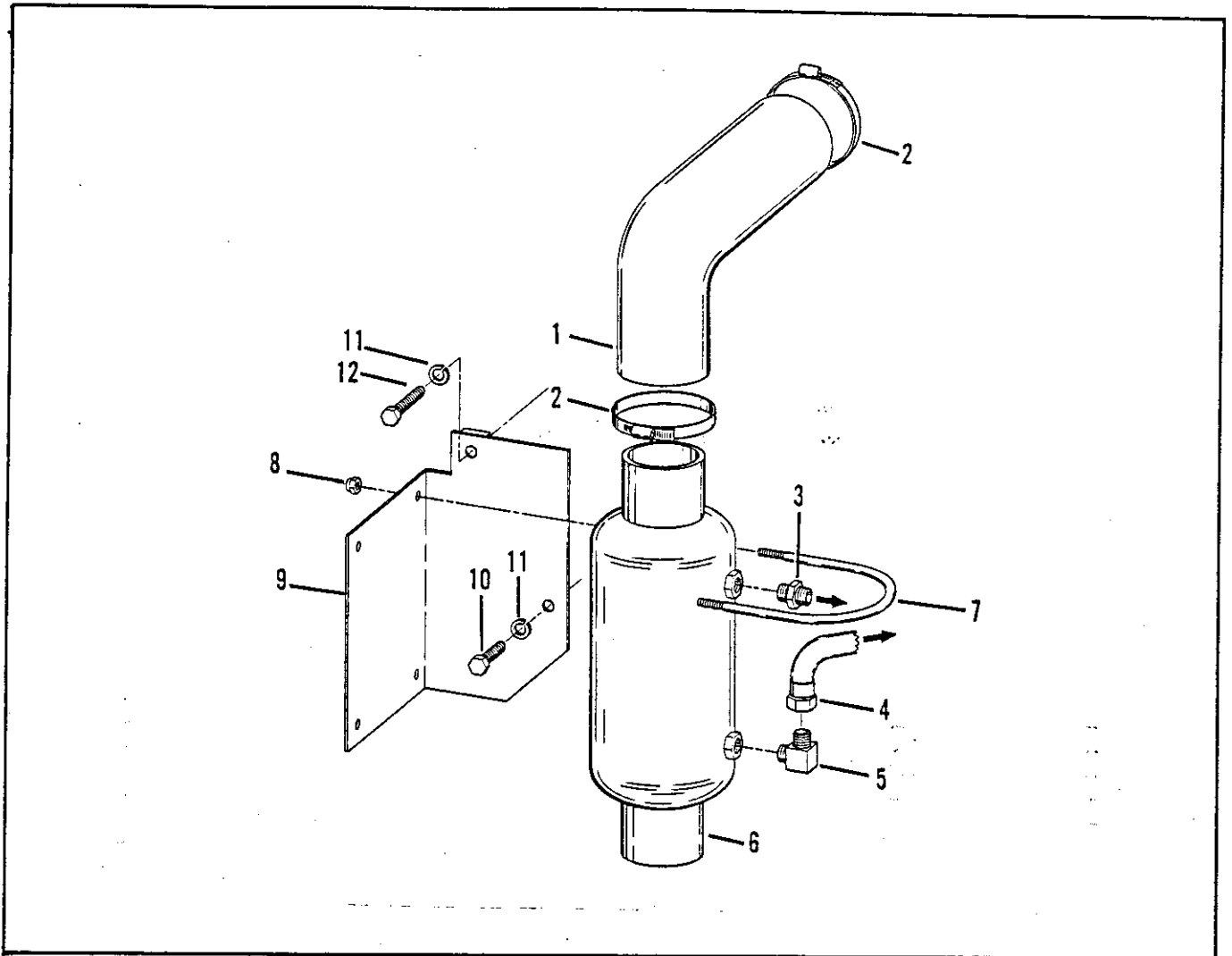


Figure 5-21.1. Engine Oil Cooler Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE
5-21.1	No Number	ENGINE OIL COOLER GROUP (See figure 5-1 for NHA) .....	REF	
-1	46221	. HOSE (24161 PN 4276-8514).....	1	
-2	46330	. CLAMP, Hose (08484 PN M36H) .....	2	
-3	23672	. ADAPTER, Tube (79470 PN C5205X8) .....	1	
-4	80504	. HOSE ASSEMBLY .....	1	
-5	23679	. ELBOW, Tube (79470 PN C5405X8).....	1	
-6	80501	. EXCHANGER, Heat (28265 PN 40-3095502).....	1	
-7	80503	. U-BOLT (AP) .....	2	
-8	443335	. NUT, Lock (AP) (24617).....	4	
-9	80502	. BRACKET .....	1	
-10	122408	. SCREW, Cap (AP) (24617).....	1	
-11	120384	. WASHER, Lock (AP) (24617).....	2	
-12	122433	. SCREW, Cap (AP) (24617) .....	1	





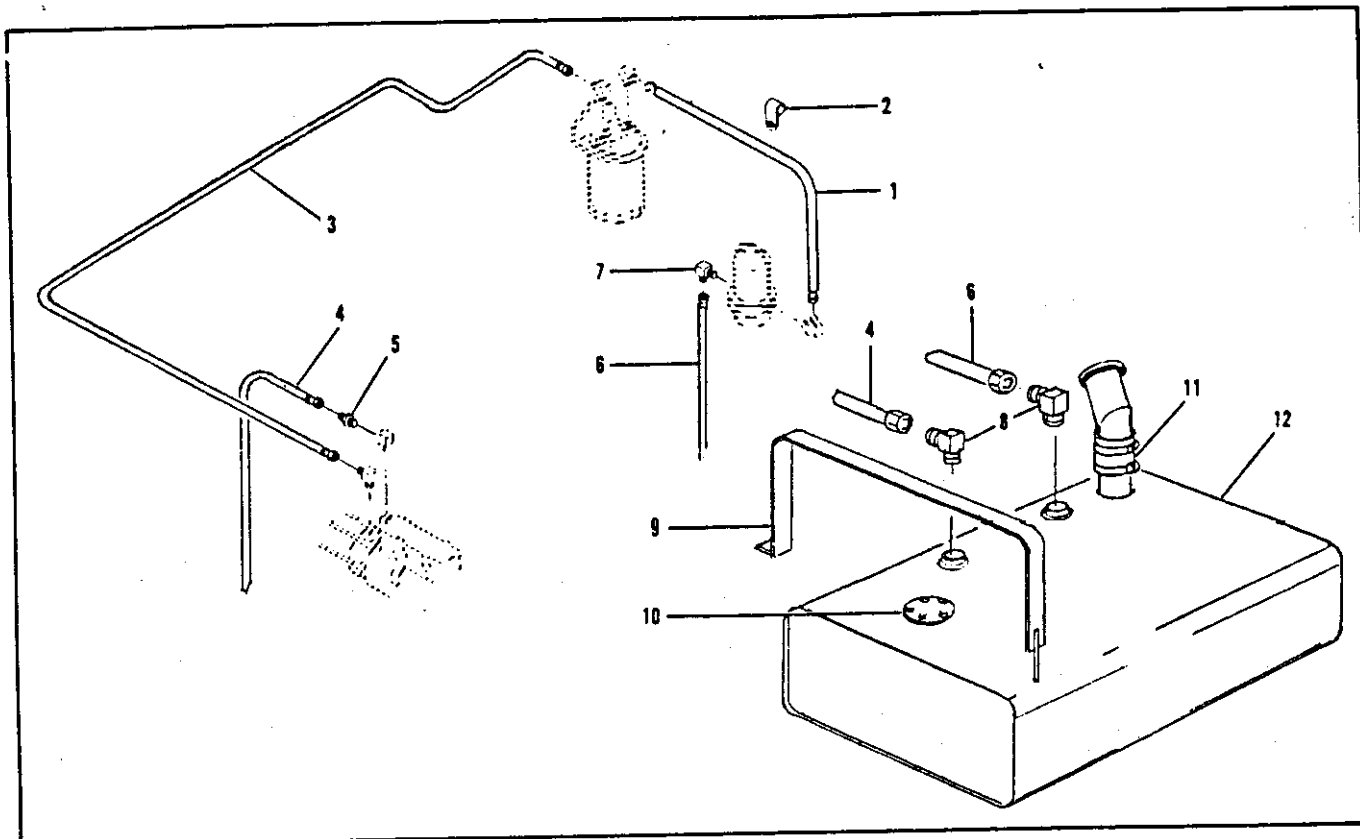


Figure 5-22. Fuel Lines and Tank Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS	USABLE
			PER ASSY	ON CODE
5-22		FUEL LINES AND TANK GROUP (See figure 5-1 for NHA).....	REF	
-1	80509	. HOSE ASSEMBLY .....	1	
-2	23681	. CLAMP, Hose .....	1	
-3	80508	. HOSE ASSEMBLY .....	1	
	23681	. CLAMP, Hose .....	1	
-4	61091	. HOSE ASSEMBLY .....	1	
-5	40783	. ADAPTER .....	1	
-6	61081	. HOSE ASSEMBLY .....	1	
-7	41000	. ELBOW .....	1	
-8	28890	. ELBOW .....	2	
-9	48301	. STRAP, Tank mounting .....	2	
	443339	. NUT, Lock, 1/2 - 13 .....	2	
	120396	. WASHER, Flat, 1/2 in. ....	2	
	120378	. NUT, Hex, 1/2 - 13 .....	2	
	120384	. WASHER, Lock, 1/2 in. ....	2	
	122433	. SCREW, Cap hex hd, 1/2 - 13 x 1-1/2 in. lg .....	2	
-10	44741	. COVER, Gauge flange .....	1	
	44427	. GASKET, Cover .....	1	
	132908	. SCREW, Mach, rd hd, 10-32 x 1/2 in. lg .....	5	
	28150	. WASHER, Lock, No. 10 .....	5	
-11	63188	. HOSE, Filler neck .....	1	
	46330	. CLAMP, Hose .....	2	
-12	63607	. TANK, Fuel .....	1	
	CA-565	. CAP, Fuel tank (18163) .....	1	
	No Number	. NECK, Filler .....	1	
	143933	. PLUG, Pipe, 1/4 in. ....	1	
	14048	. WEBBING, (not shown) 64 in. lg .....	2	

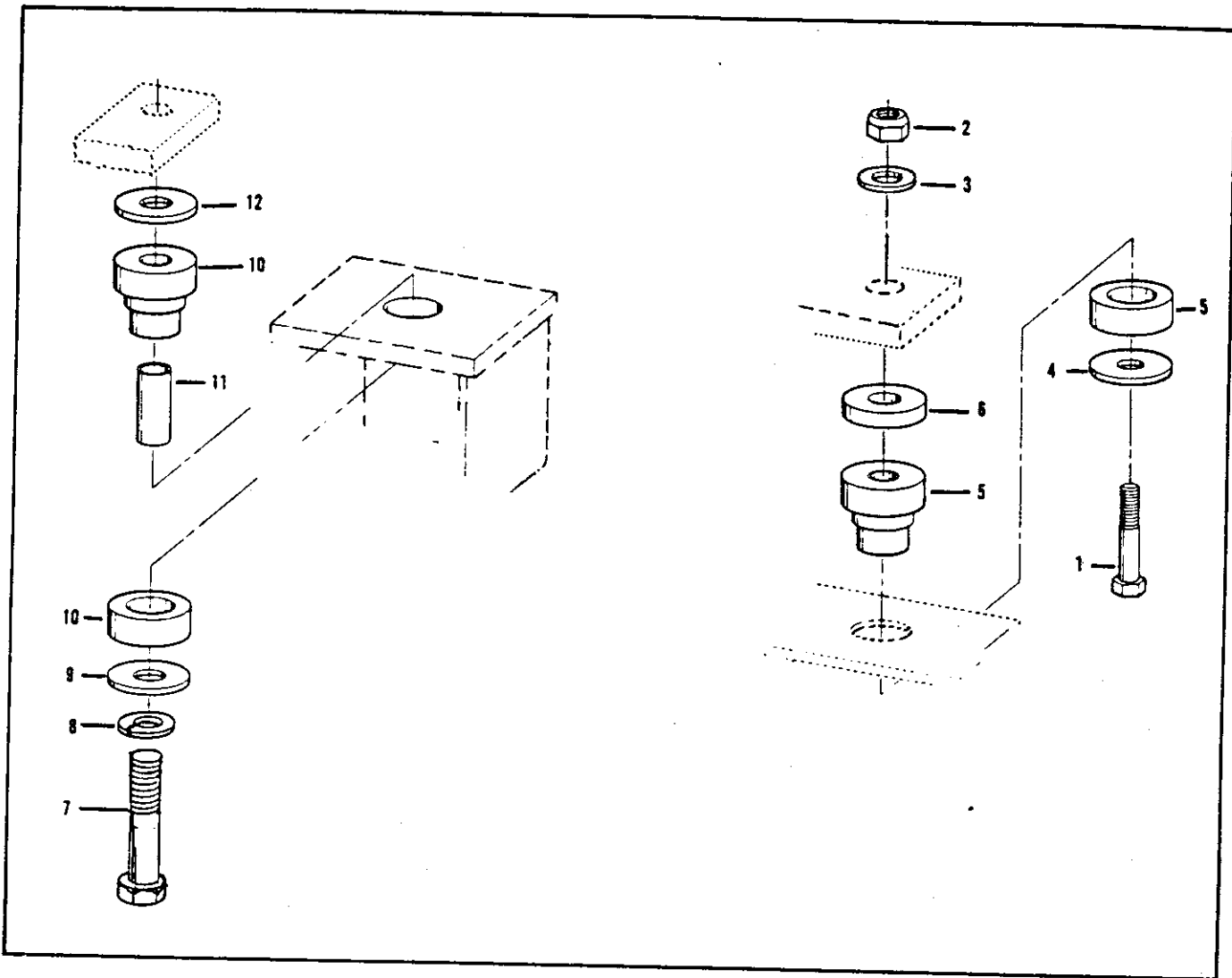


Figure 5-23. Engine Mounting Group

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY							USABLE ON CODE	
			1	2	3	4	5	6	7		
5-23	No Number	ENGINE MOUNTING GROUP (See figure 5-1 for NHA) .....								REF	
-1	454425	. SCREW, Cap, hex hd. 5/8-11 NC x 5" lg .....								2	
-2	443343	. NUT, Lock, 5/8-11 NC .....								2	
-3	131016	. WASHER, Flat, 5/8" I.D. ....								2	
-4	80138	. WASHER, Flat (lower) .....								2	
-5	80196	. MOUNT, Vibration, blue, rear mount .....								2	
-6	80137	. WASHER, Flat (upper) .....								2	
-7	111300	. SCREW, Cap, hex hd, 1/2 - 13 NC x 4-1/2" .....								2	
-8	120384	. WASHER, Lock, 1/2" I.D. ....								2	
-9	80054	. WASHER, Lower .....								2	
-10	80197	. MOUNT, Vibration, green, front mount .....								2	
-11	80265	. SLEEVE .....								2	
-12	80236	. WASHER, Upper .....								2	

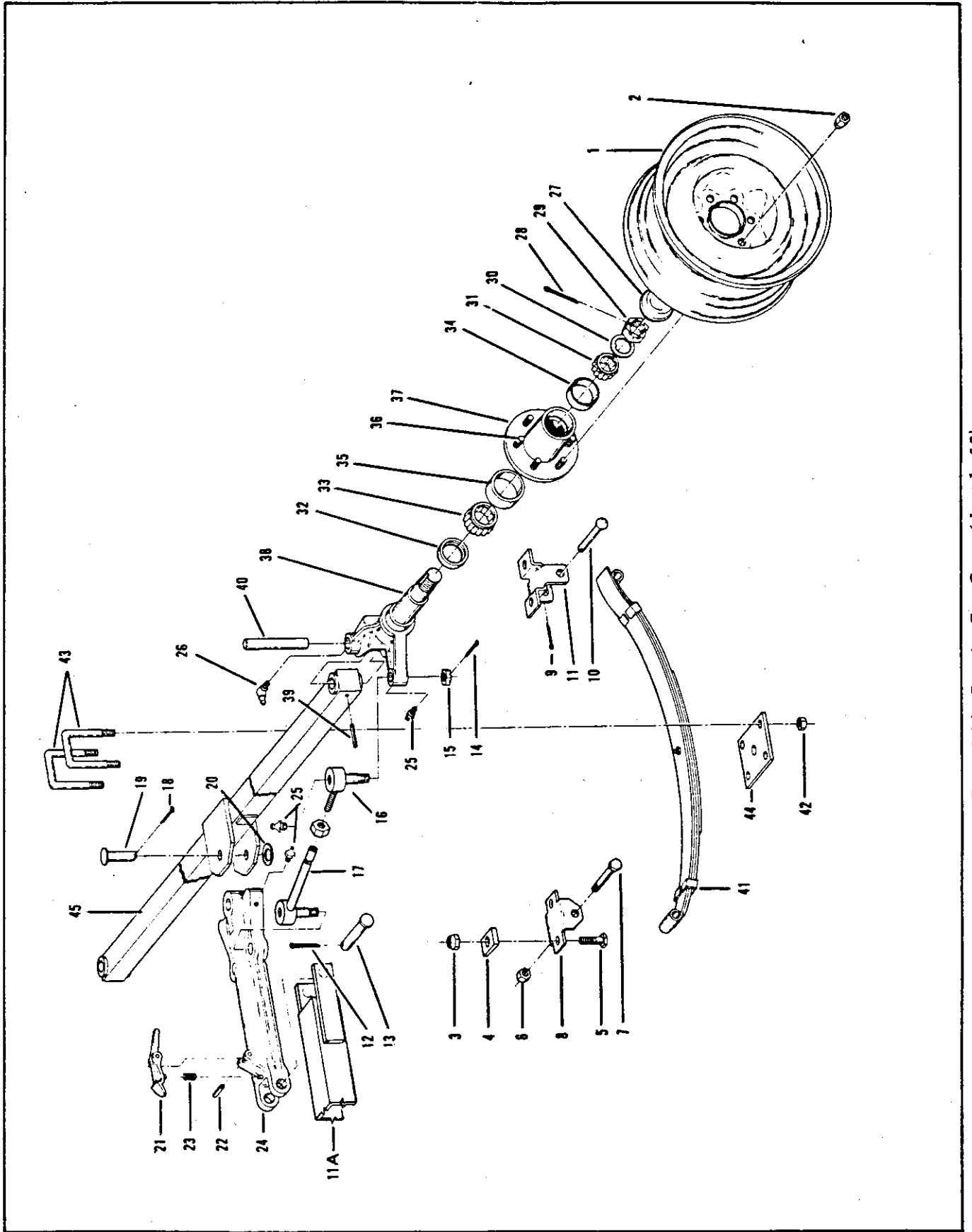


Figure S-24. Running Gear Group (sheet 1 of 2)

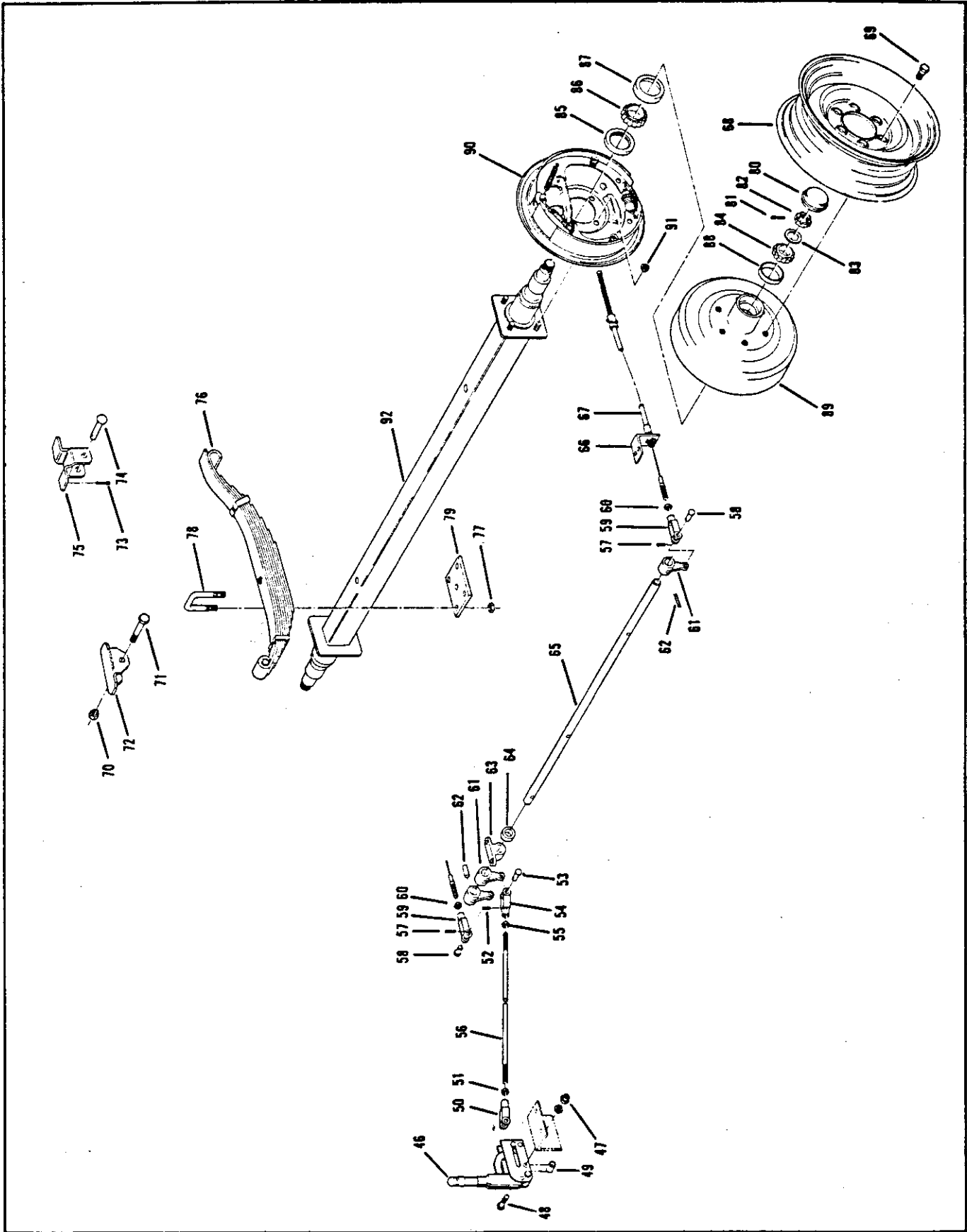


Figure 5-24. Running Gear Group (sheet 2 of 2)

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS PER ASSY	USABLE ON CODE		
					1	2
5-24	No Number	RUNNING GEAR GROUP (See figure 5-1 for NHA) .....	REF			
-1	91905	WHEEL (34281) .....	4			
-2	4630-1	NUT, Wheel (22938) .....	12			
	4912	SCREW, Cap, hex hd, 1/2 - 20 .....	12			
	411-20510	FRONT AXLE ASSEMBLY (22938) .....	1			
-3	443339	NUT, Lock (AP) 1/2-13 .....	4			
-4	60734	WASHER, Channel (AP) 1/2 in. ....	4			
-5	122446	SCREW, Cap, hex hd, (AP) 1/2 - 13 x 1-3/4 in. lg .....	4			
	4-4251	BRACKET ASSEMBLY, Spring, front .....	2			
-6	4601-33	NUT, Lock (22938) .....	1			
-7	4901-19	SCREW, Cap hex hd (22938) .....	1			
-8	4251	BRACKET, Spring .....	1			
	1-4251	BRACKET ASSEMBLY, Spring, hook end .....	2			
-9	MS24665-538	PIN, Cotter (96906) .....	1			
-10	5403-1	PIN, Hinge (22938) .....	1			
-11	4251	BRACKET, Spring, (22938) .....	1			
-11A	1-3502	DRAWBAR ASSEMBLY (22938) .....	1			
-12	MS24665-624	PIN, Cotter (96906) .....	1			
-13	5416	PIN, Hinge (22938) .....	1			
	3906-270	TIE ROD ASSEMBLY (22938) .....	2			
-14	MS24665-285	PIN, Cotter (96906) .....	2			
-15	4602-1	NUT, Jam, RH (22938) .....	1			
	4602-2	NUT, Jam, LH (22938) .....	1			
-16	3950-1	JOINT, Ball, RH (22938) .....	1			
	3950-2	JOINT, Ball, LH (22938) .....	1			
-17	3900-233	TUBE, Tie rod (22938) .....	1			
	3-3854	CENTER ARM ASSEMBLY (22938) .....	1			
-18	MS24665-623	PIN, Cotter (96906) .....	1			
-19	5400-5	PIN, Center arm (22938) .....	1			
-20	4701-3	WASHER, Flat (22938) .....	1			
-21	3855	LATCH, Drawbar (22938) .....	1			
-22	MS9047-300	PIN, Roll (96906) .....	1			
-23	4006	SPRING, Latch (22938) .....	1			
-24	3854	ARM, Center (22938) .....	1			
-25	MS14001-1	FITTING, Grease (96906) .....	6			
-26	MS15003-1	FITTING, Grease (96906) .....	2			
	13-3615	HUB ASSEMBLY (22938) .....	2			
-27	6323	CAP, Grease (22938) .....	1			
-28	MS24665-360	PIN, Cotter (96906) furnished with spindle .....	1			
-29	4600-1	NUT, Spindle (22938) furnished with spindle .....	1			
-30	4702-1	WASHER, Spindle (22938) .....	1			
-31	L44649	CONE, Bearing, outer (60038) .....	1			
-32	6317	SEAL, Grease (22938) .....	1			
-33	L68149	CONE, Bearing inner (60038) .....	1			
-34	L44610	CUP, Bearing outer (60038) .....	1			
-35	L68111	CUP, Bearing outer (60038) .....	1			
-36	4603-1	STUD, Hub, wheel (22938) .....	6			
-37	3615	HUB (22938) .....	1			
-38	3-3800	SPINDLE AND KNUCKLE ASSY, RH (22938) .....	1			
	4-3800	SPINDLE AND KNUCKLE ASSY, LH (22938) .....	1			
-39	MS16562-81	PIN, Roll (96906) .....	2			
-40	5401	PIN, King (22938) .....	2			
-41	1-4010-2	SPRING ASSEMBLY (22938) .....	2			
-42	4601-7	NUT, Hex (AP) (22938) .....	8			
-43	5100-15	U-BOLT, Spring (22938) .....	4			
-44	5600-8	PLATE, Spring (22938) .....	2			
-45	411-205X-1	BEAM, Axle .....	1			
	411-5901	HANDBRAKE LEVER AND CROSS SHAFT ASSEMBLY .....	REF			
-46	1-5919	LEVER ASSEMBLY, Brake (22938) .....	1			
-47	443335	NUT, Lock, 3/8 - 16 NC (AP) .....	2			

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION	UNITS							USABLE ON CODE	
			1	2	3	4	5	6	7		PER ASSY
5-24-48	122207	SCREW, Cap, hex hd, 3/8-16NC x 3 in. lg (AP)								2	
-49	80999	SPACER, Mounting (AP)								2	
	MS24665-283	PIN, Cotter (96906)								1	
	5206	PIN, Yoke (22938)								1	
	5204	SPACER (22938)								2	
-50	5205	YOKE, 3/8-24 SAE (22938)								1	
-51	4601-5	NUT, Yoke, 3/8-24 (22938)								1	
-52	MS24665-283	PIN, Cotter (96906)								1	
-53	5206	PIN, Yoke (22938)								1	
-54	5205	YOKE, 3/8-24 SAE (22938)								1	
-55	4601-5	NUT, Yoke, 3/8-24 (22938)								1	
-56		ROD, Brake (22938)								1	
-57	MS24665-283	PIN, Cotter (96906)								2	
-58	5206	PIN, Yoke (22938)								2	
-59	5205	YOKE, 3/8-24 SAE (22938)								2	
-60	4601-5	NUT, Yoke, 3/8-24 (22938)								2	
-61	5909	LEVER, Shaft (22938)								3	
-62	5000-2	PIN, Roll, 5/16 dia x 1-1/4 in. lg (22938)								3	
-63	59008	BEARING, Shaft (22938)								2	
	443335	NUT, Lock, (AP), 3/8-16 NC								4	
	60744	WASHER, Channel (AP) 3/8 in.								4	
	120918	SCREW, Cap, hex hd, (AP), 3/8-16 NC x 1-1/2 in. lg								4	
-64	6319-2	COLLAR, Shaft, with setscrew (22938)								2	
-65	5910-411	SHAFT, Cross (22938)								1	
-66	80997	SUPPORT, LH, Brake cable								1	
	80998	SUPPORT, RH, Brake cable								1	
	443335	NUT, Lock, 3/8-16 NC (AP)								4	
	60744	WASHER, Channel (AP) 3/8 in.								4	
	122145	SCREW, Cap, hex hd (AP) 3/8-16 NC x 1-1/4 in. lg								4	
-67	8319-1	CABLE, Brake (22938)								2	
-68	91905	WHEEL (34281) (See index -1)								REF	
-69	4912	SCREW, Cap, hex hd, 1/2-20 (see index -2)								REF	
	348-20010	REAR AXLE ASSEMBLY (22938)								1	
	443339	NUT, Lock (AP) 1/2-13 NC								4	
	60734	WASHER, Channel (AP) 1/2 in.								4	
	122446	SCREW, Cap, hex hd (AP) 1/2-13 NC x 1-3/4 in. lg								4	
	122433	SCREW, Cap, hex hd (AP) 1/2-13 NC x 1-1/2 in. lg								6	
	120384	WASHER, Lock (AP) 1/2 in.								6	
	4-4251	BRACKET ASSEMBLY, Spring, eye end								2	
-70	4601-33	NUT, Lock (22938)								1	
-71	4901-19	SCREW, Cap, hex hd (22938)								1	
-72	4251	BRACKET, Spring								1	
	1-4251	BRACKET ASSEMBLY, Spring, hook end								2	
-73	MS24665-353	PIN, Cotter (96906)								1	
-74	5403-1	PIN, Hinge (22938)								1	
-75	4251	BRACKET, Spring (22938)								1	
-76	1-4010-2	SPRING ASSEMBLY								2	
-77	4601-7	NUT, Lock (22938)								8	
-78	5100-15	U-BOLT (22938)								4	
-79	5600-8	PLATE, Spring								2	
	6-3615	HUB AND DRUM ASSEMBLY								2	
-80	6323	CAP, Grease								1	
-81	MS24665-360	PIN, Cotter (96906) furnished with axle								1	
-82	4600-1	NUT, Spindle (22938) furnished with axle								1	
-83	4702-1	WASHER, Spindle (22938) furnished with axle								1	
-84	L44649	CONE, Bearing, outer (60038)								1	
-85	6317	SEAL, Grease (22938)								1	
-86	L68149	CONE, Bearing, inner (60038)								1	
-87	L68111	CUP, Bearing, inner (60038)								1	
-88	L44610	CUP, Bearing, outer (60038)								1	

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE	
		1	2	3	4	5	6	7			
5-24-89	3615-6	.	.	.						1	
-90	3201913	.	.	.						1	
	3201914	.	.	.						1	
-91	MS51986-12	.	.	.						8	
	MS35338-47	.	.	.						8	
-92	411-20010-2	.	.	.						1	

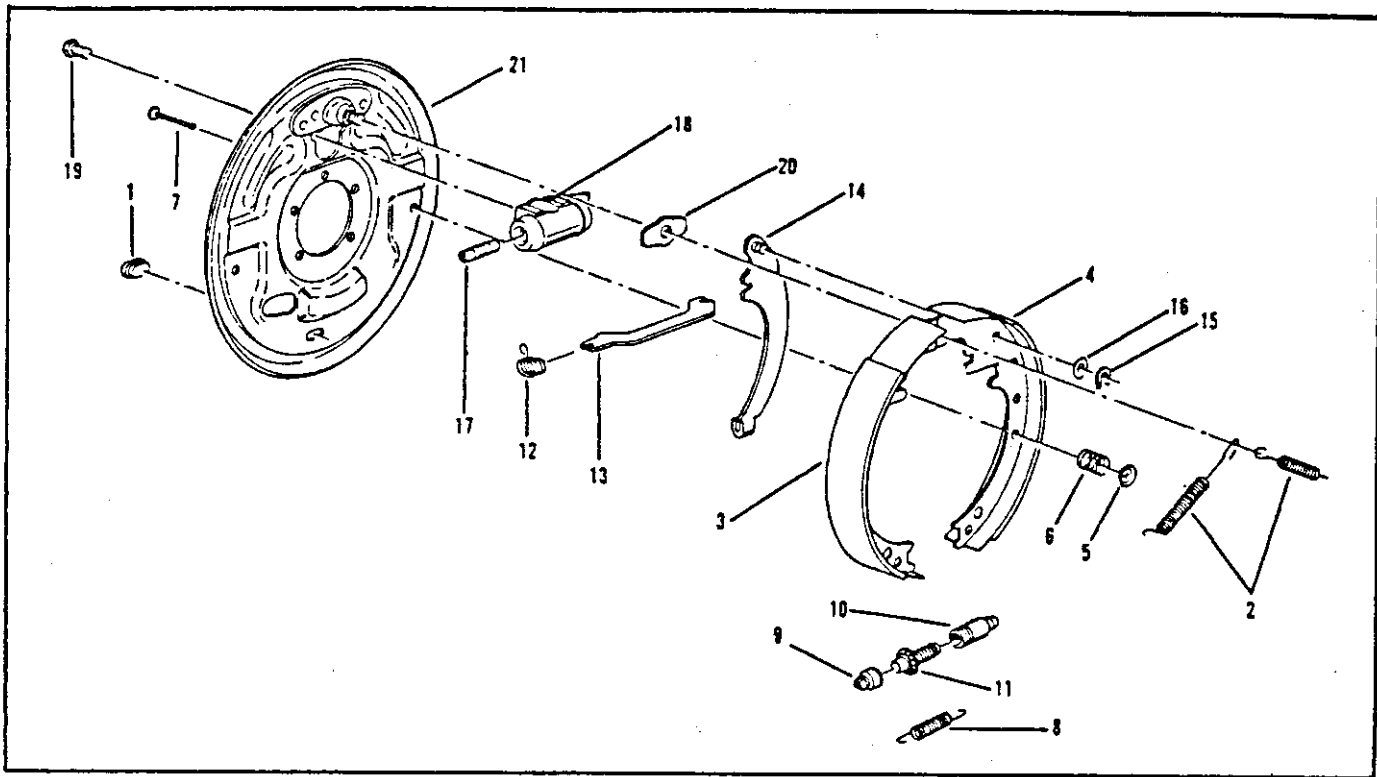


Figure 5-25. Brake Assembly

FIG. & INDEX NO.	PART NUMBER	DESCRIPTION							UNITS PER ASSY	USABLE ON CODE
		1	2	3	4	5	6	7		
5-13	3201913	BRAKE ASSEMBLY, LH (14892) (see index 24, figure 5-12 for NHA).....							REF	
	3201914	BRAKE ASSEMBLY, RH (14892) (see index 24, figure 5-12 for NHA) ....							REF	
-1	301055	. COVER, Adjusting hole (14892) .....							1	
-2	34852	. SPRING, Anchor to shoe, 50 lb. grey (14892) .....							2	
-3	†3202019	. SHOE AND LINING, Primary (14892) .....							1	
-4	†3202023	. SHOE AND LINING, Secondary (14892) .....							1	
-5	23969	. CUP, Shoe holddown spring (AP) (14892) .....							4	
-6	24784	. SPRING, Shoe holddown, 18 lb. light blue (AP) (14892) .....							2	
-7	49341	. PIN, Shoe holddown (AP) (14892) .....							2	
-8	23815	. SPRING, Adjusting screw, 30 lb. black (14892) .....							1	
	3202026	. ADJUSTING SCREW ASSEMBLY (14892) .....							1	
-9	304230	. . SOCKET, Adjusting screw (14892) .....							1	
	304214	. . SCREW ASSEMBLY (14892) .....							1	
-10	304229	. . . NUT, Adjusting screw (14892) .....							1	
-11	27099	. . . SCREW, Adjusting (14892) .....							1	
-12	39244	. SPRING, Strut to shoe, 8.5 lb, black (14892) .....							1	
-13	49005	. STRUT, Parking brake lever (14892) .....							1	
-14	321035	. LEVER ASSY, Parking brake, left hand (shown) (14892) .....							1	
	321036	. LEVER ASSY, Parking brake, right hand (opposite) (14892) .....							1	
-15	41029	. RETAINER, Lever pin (AP) (14892) .....							1	
-16	41647	. WASHER, Spring (AP) (14892) .....							1	
-17	47865	. LINK, Connecting, wheel cylinder (14892) .....							1	
-18	617855	. CYLINDER ASSY, wheel, left hand (shown) (14892) .....							1	
	617856	. CYLINDER ASSY, Wheel, right hand (opposite) (14892) .....							1	
-19	47862	. SCREW, Cap, and washer (AP) (14892) .....							2	
-20	32594	. PLATE, Shoe guide (14892) .....							1	
-21	3202038	. BACKING PLATE ASSY, Left hand (shown) (14892) .....							1	
	3202039	. BACKING PLATE ASSY, Right hand (opposite) (14892) .....							1	
	3202027	KIT, Package, lined shoes (14892) .....							1	

†Component of Kit 3202027

(14892) BENDIX CORP. BRAKE & STEERING DIV.





**PART II - ENGINE - ACCESSORIES**

**ENGINE SERVICE MANUAL**

**ENGINE PARTS MANUAL**

**SPEED CONTROL MANUAL**

**ALTERNATOR MANUAL**

