

# AIR TECHNIQUES INCORPORATED



TECHNICAL MANUAL

OIL-LESS COMPRESSO-DRI

MODEL A6-1

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## SECTION I

### INTRODUCTION

#### 1-1. GENERAL

This manual contains complete operating and maintenance instructions for Compresso-Dri, Model A6-1, manufactured by Air Techniques, Inc., P.O. Box 870, 70 Cantiague Rock Road, Hicksville, New York 11802.

#### 1-2. DESCRIPTION AND PURPOSE

The compressor is a complete portable unit with an integral air drying section which automatically regenerates the drying agent. The unit supplies compressed air, free of oil, moisture, and particulate matter. An integral part of the compressor is a portable transit case. The compressor can be rapidly placed into operation and is readily maintained.

#### 1-3. SPECIFICATIONS

The specifications of the compressor are contained in table 1-1.

#### 1-4. EQUIPMENT SUPPLIED

Table 1-2 lists the separate items supplied with the compressor. Refer to Section VI, Parts List, for a complete list of components.

#### 1-5. TOOLS AND TEST EQUIPMENT

The tools and test equipment required to maintain the compressor are listed in table 1-3.

#### 1-6. STORAGE DATA

Compressor should not be stored in ambient temperatures below 0°F and above 130°F. There are no special storage preservation requirements for the compressor.

Table 1-1. A6-1 Oil-Less Compresso-Dri Specifications

Item	@60 HZ	@ 50 HZ
Horsepower	2	2
Volts- Single Phase	220	220
Full Load Amperes	13	11
Recovery Time 80 to 100#	28 sec.	35 sec.
Recovery Time 0 to 100#	80 sec.	100 sec.
Purge Time 100 to 0#	40 to 45 sec.	40 to 45 sec.
Purge Time 80 to 40#	14 - 20 sec.	14 - 20 sec.
Air Delivery in CFM @ 80#	7.4	6.2
Air Delivery in CFM @ 100#	6.0	5.0
Unit Dimensions in inches	34H, 30L, 30D	34H, 30L, 30D
Weight	200 lbs.	200 lbs.
Tank Size	11 gal.	11 gal.

If available voltage is below 210; install boost transformer, P/N 67000. Do not operate compressor below 40°F or above 120°F.

Table 1-2. Equipment Supplied

Item	Description
Interconnecting air hoses	A 10-foot section, with appropriate connectors, to connect compressor to Treatment Unit
Technical Manual	Complete operating and maintenance instructions

Table 1-3. Tools and Test Equipment

Item	Use
Multimeter	For checking voltage and continuity
8 in. and 10 in. adjustable open-end wrench	For removing valves and fittings
5 mm and 6 mm Allen wrenches	For removing compressor head bolts
½ in. socket and drive	For removing compressor from transit case
Screwdriver	For removing screws
Phillips screwdriver, No. 1 point	For removing screws
½ in. box and open-end wrench	For removing mounting nuts
5/16 in. nut driver	For removing motor terminal
2 hardened, tempered jacking bolts 5/16- 18 x 4½ in. long	For removing compressor crankshaft assembly

## SECTION II

### PREPARATION AND INSTALLATION

#### 2-1. GENERAL

Check the transit case and contents for signs of damage before using the unit. If any damage is apparent, refer to Section V, Maintenance Procedures, for the applicable repair procedure.

#### 2-2. INSTALLATION

The compressor may be installed in any location that is not greater than 10 feet from the point of use (10 feet is the length of interconnecting hose supplied) and provides protection from the elements.

CAUTION: Do not allow water to accumulate in the transit case.

#### 2-3. PREPARATION FOR USE

To prepare the compressor for use, proceed as follows:

- a. Remove transit case from shipping carton.
- b. Unscrew pressure relief valve on transit case cover and remove transit case cover.
- c. Check purge tank pressure gauge to be sure that the purge tank is not pressurized. If it is pressurized, release pressure by pressing red unloader valve tab (refer to figure 3-4, item 11).
- d. Set circuit breaker to OFF.
- e. Attach interconnecting hose from compressor to treatment unit.
- f. Connect power cable to 220 volt 50 or 60 HZ power source.
- g. Open main tank shut-off valve and set circuit breaker to ON.

#### 2-4. OPERATIONAL CHECK-OUT

- a. Insure that the dryness indicator is blue in color. If pink or white, see table 5-1-F.
- b. Insure that the storage tank is not pressurized. Then turn circuit breaker on.
- c. Check the recovery time for 0 PSI to 100 PSI. DRAIN NO AIR FROM COMPRESSOR DURING TIME TEST: It should be 80 sec. for 60 HZ operation or 100 sec. for 50 HZ.
- d. Observe the purge time. The purge tank should be completely empty 46 seconds after compressor stops.

IF ANY FAILURES ARE ENCOUNTERED, SEE TABLE 5-1.

## SECTION III

### THEORY OF OPERATION

3-1. PUMP-UP - The compressor comes on when the tank pressure drops to 80 PSI. Compressed air flows from the head(s) past the unloader valve to the drying chamber. In the drying chamber the water vapor is trapped and the air is filtered.

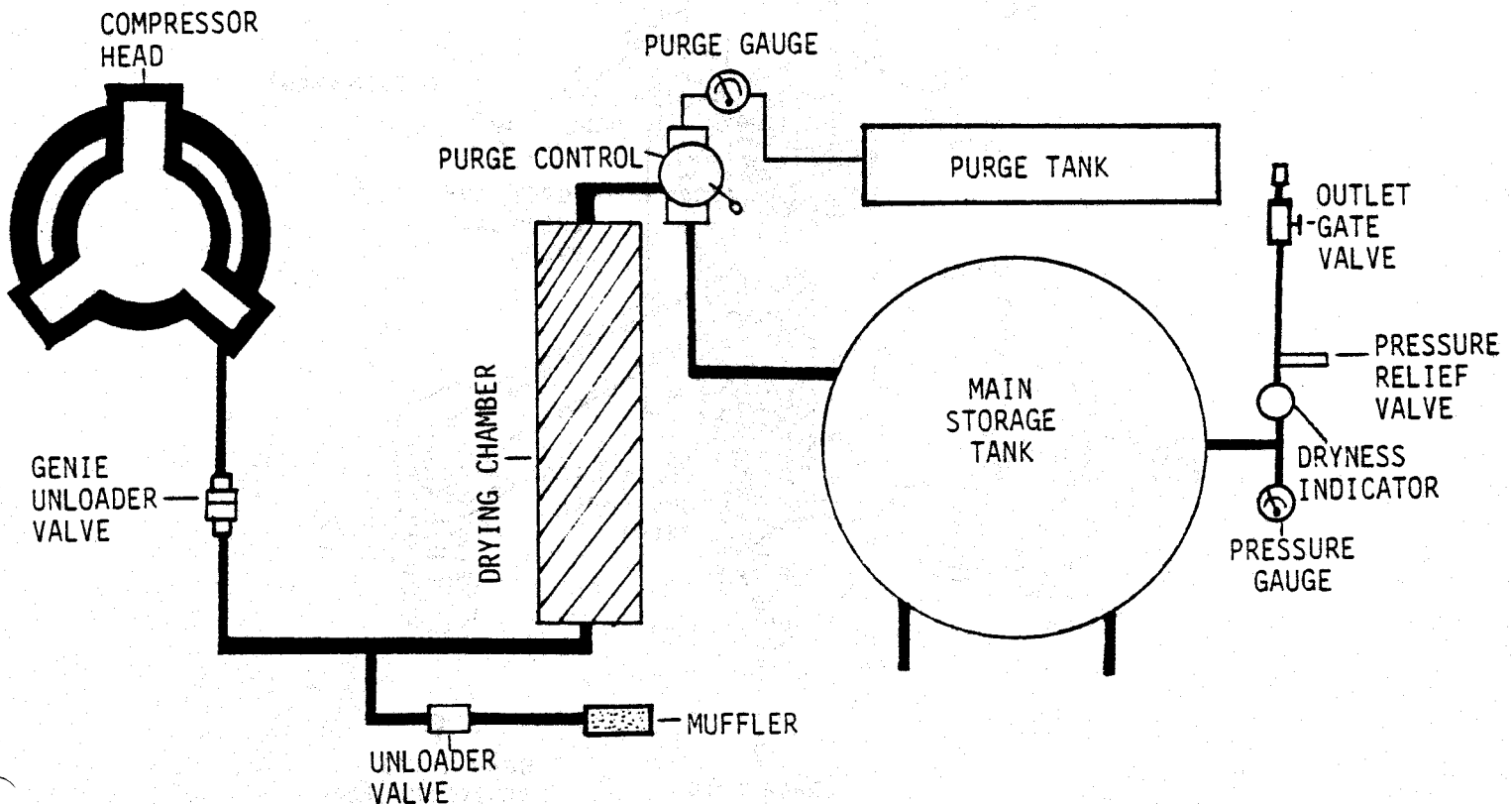
At the top of the drying chamber the air enters a purge control manifold and the air flow is split. Part of the air goes into the purge tank but most enters the main storage tank. When 100 PSI (in the main storage tank) is sensed by the pressure switch the compressor motor will stop, the unloader valve will open and the purge cycle begins.

3-2. PURGE CYCLE - The purge cycle is essential for proper operation of the drying system. During the purge cycle the compressed air in the purge tank is bled through a small orifice in the purge control. This air is expanded as it is passed back through the drying chamber to the unloader valve, removing any moisture from the desiccant in the drying chamber. When the purge cycle is complete (about 40 to 45 seconds), the dryer is ready for another pump-up cycle.

FIGURE 3-1

### COMPRESSO-DRI

### SCHEMATIC



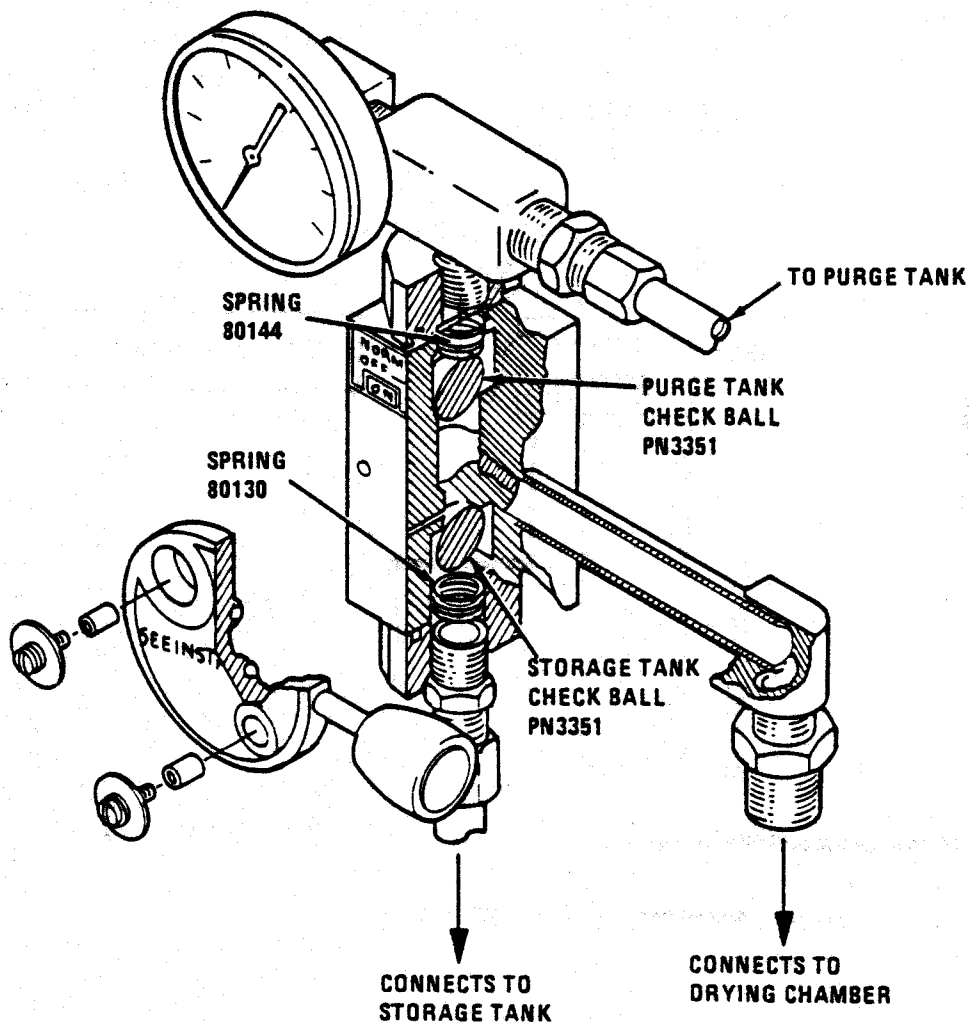
## PURGE CONTROL

3-3

Several functions are performed by the purge control manifold assembly:

1. The ball and spring in the bottom are the main tank check valve.
2. The ball and orifices in the top control the rate of flow in and out of the purge tank.
3. When the total regeneration control on the front is in the "ON" position air from the main storage tank is allowed to bypass the main tank check valve and pass through the dryer. In the normally "OFF" position, this path is sealed off.

FIGURE 3-2. PURGE CONTROL MANIFOLD



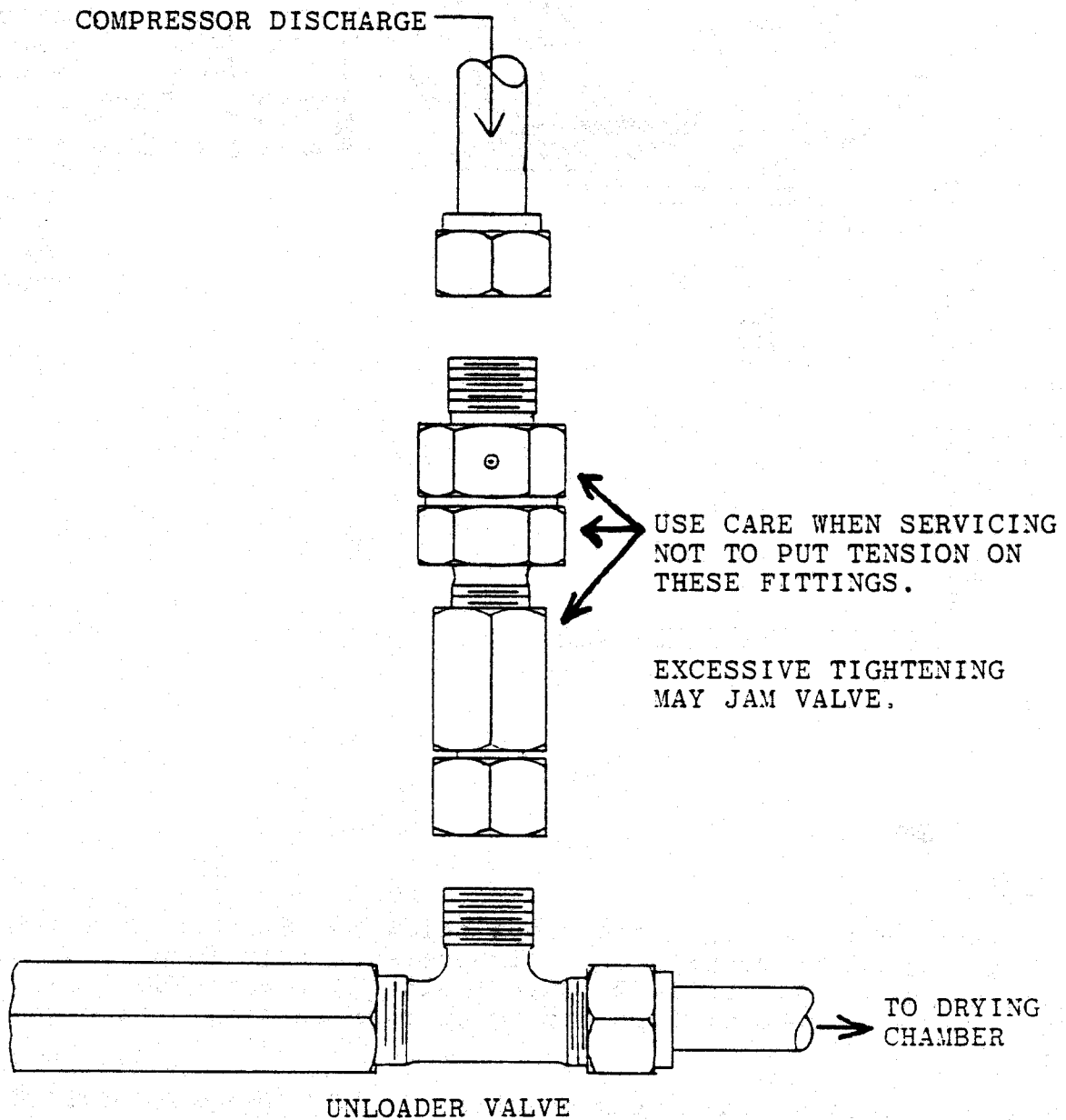


3-4 Unloading System

THE GENIE UNLOADER VALVE

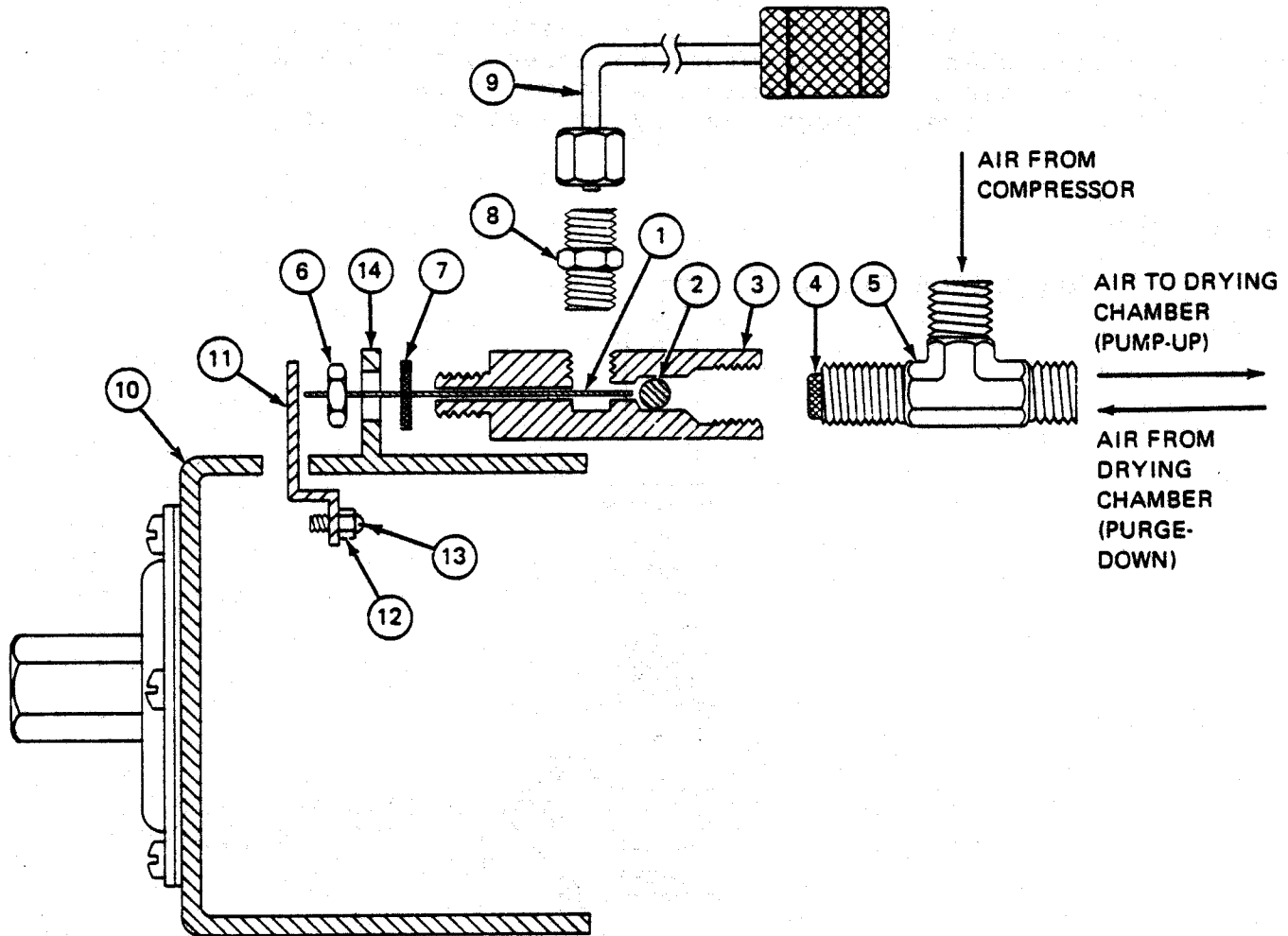
The Genie unloader is provided to give positive unloading to the compressor head whenever the motor is turned off. The Genie will unload the compressor head within 5 seconds, thus allowing a re-start of the head even though the drying system has not purged.

Figure 3-3



## PRESSURE SWITCH UNLOADER VALVE

FIGURE 3-4



### OPERATION:

When pressure in storage tank drops below 80 PSI, Pressure Switch (10) closes, turning on compressor. Air pressure from compressor seats Ball (2), closing valve. Ball (2) pushes Pin (1) toward Tab (11). All air from compressor goes through drying chamber into main tank and purge tank.

When pressure in storage tank reaches 100 PSI, Pressure Switch (10) opens, turning off compressor. Tab (11) is pushed against Pin (1), unseating Ball (2), which opens the valve. Air from purge tank passes through drying chamber, through the valve and out the Unloader Muffler (9).

## SECTION IV

### OPERATING INSTRUCTIONS

#### 4-1. OPERATING PROCEDURES

Prior to operating the compressor perform the operational check-out procedures given in paragraph 2-4. The actual operating procedures of the compressor are fully automatic. As compressed air is required by the load, the compressor will operate to supply the required air. There are no operating adjustments associated with normal operation.

#### 4-2. INTERMITTENT OPERATION

If compressed air is not to be drawn from the compressor for a prolonged period of time, set the ON-OFF circuit breaker to OFF.

#### 4-3. RESTARTING

To restart the compressor, set the circuit breaker to ON.

#### CAUTION

Always remove compressor head pressure by depressing the red unloader valve tab on the pressure switch while setting the circuit breaker to on. Failure to depress the red tab may result in tripping of the circuit breaker.

#### 4-4. TURN-OFF PROCEDURE

To turn off the compressor at the end of each days use, proceed as follows:

- a. Set circuit breaker to OFF.
- b. Drain storage tank to zero pressure.
- c. When pressure gauge indicates 0 PSI, close main shut-off valve and place quick disconnect hose inside transit case.

## SECTION V

### MAINTENANCE INSTRUCTIONS

#### 5-1. GENERAL

This section contains maintenance instructions for the compressor. If replacement parts are required for any of the maintenance procedures detailed in the following paragraphs, refer to Section VI, Parts List.

#### 5-2. CLEANING

Any accumulation of dust and dirt should be periodically removed from compressor. Particular attention should be given to the intake silencer and fan guard. If extreme operating conditions produce a heavy accumulation of dust and dirt on the intake silencer it should be replaced. As an expedient measure, the intake silencer can be cleaned by unscrewing it from the compressor head and blowing air back through it.

#### WARNING

DO NOT USE ANY TYPE OF LIQUID CLEANER OR SOLVENT TO CLEAN THE INTAKE SILENCER ELEMENT.

#### 5-3. INSPECTION

Visually inspect the compressor for any obviously damaged hoses, tubes, cables or other items. Repair or replace as required.

#### 5-4. PERFORMANCE VERIFICATION

The operational checkout procedure given in paragraph 2-4 should be performed daily to verify proper functioning of the compressor.

#### 5-5. TROUBLESHOOTING

Table 5-1 gives the probable causes for any abnormal indications that may be obtained during operation of the compressor, as well as the corrective action to be taken.

TABLE 5-1

TROUBLE SHOOTING

PROBLEM:

a. Compressor motor will not start.

CAUSE

CORRECTIVE MEASURES

No power at motor terminals

Check for voltage at outlet. If there is voltage there and not at motor terminals check for:

1. Bad contacts on pressure switch.
2. Defective circuit breaker.
3. Broken or loose wire.

Defective capacitor

Replace

Frozen motor/compressor

With power off, try to turn the fan in back of the motor. It should turn freely in either direction. If it does the motor/compressor is not frozen. If it won't turn, see section 5-14.

PROBLEM:

b. Compressor motor runs but is noisy.

CAUSE

CORRECTIVE MEASURES

Plastic intake hose is not installed properly or is cracked.

Replace; make sure plastic hose does not touch chrome tubing.

Broken valves

Check valves and replace if necessary. (See sec. 5-14)

Defective bearing

Replace bearing. (See section 5-14)

TABLE 5-1 (continued)

TROUBLE SHOOTING

PROBLEM:

c. Compressor motor tries to start but circuit breaker trips out.

CAUSE

CORRECTIVE MEASURES

Voltage too low

A minimum of 210 volts is needed. If voltage is 210V or below, install a boost transformer.

High voltage drop

If voltage drop during start-up is excessive (less than 205V), check wiring size, remote switch rating and connections.

VOLTAGE PROBLEMS ARE NOT COMPRESSOR MALFUNCTIONS.

Unloader valve not opening with compressor off

1. Check unloader adjustment. (See Unloader Adjustment, section 5-12).
2. Be sure pressure switch tab is working freely. Replace pressure switch if tab sticks.

Defective circuit breaker

Replace

PROBLEM:

d. Compressor motor runs but will not build-up pressure to 100 PSI.

CAUSE

CORRECTIVE MEASURES

Broken valves

If valves are broken the compressor motor will generally vibrate. Check valves and replace if necessary.

Unloader valve not closing when compressor runs

Pressure switch unloader valves - clean valve and adjust. (See section 5-11)

Intake may be restricted

Remove intake filter. If this corrects problem replace filter.

Leak in compressor

Close the main tank shut-off valve. Check compressor discharge tubing, cylinder heads, bolts, packing gland of tank shut-off valve, relief valve and all fittings for leaks. Check pump-up time.

TABLE 5-1 (continued)

TROUBLE SHOOTING

PROBLEM:

- e. Compressor cycles with no air being used.

CAUSE

CORRECTIVE MEASURES

Total regeneration - valve in "ON" position

Turn total regeneration valve "OFF".

Leak in office air system

Close the main tank shut-off valve. Pump-up main tank to 100 PSI. If pressure is maintained at 100 PSI for 15-20 minutes leak is in air system, not compressor.

Leak in compressor

Tank check valve located in bottom of purge control manifold may be dirty or defective - disassemble and clean or replace; check for leaks at main tank shut-off valve packing gland and relief valve.

PROBLEM:

- f. Dryness indicator is not blue. (Drying system wet/wet air)

CAUSE

CORRECTIVE MEASURES

Unloading system not functioning properly

Check to see that the unloader closes when the compressor runs and opens when the compressor stops. Purge tank pressure should decrease from 100 to 0 PSI within 45 seconds of shut-off. If not, check for clogged or sticking pressure switch unloader valve.

Compressor running too frequently

Compressor undersized for installation. Leaks in system - locate and repair. Regenerate drying system as described in section 5-13.

#### 5-6. REMOVAL OF COMPRESSOR ASSEMBLY FROM TRANSIT CASE.

To remove the compressor assembly from the transit case, proceed as follows:

- a. Remove four nuts, lockwashers, and flat washers from bolts securing compressor base plate to lower transit case.
- b. Lift compressor assembly (mounted on wood base) from lower transit case.

#### NOTE

The four bolts extending through the lower transit case have rubber washers under the heads. Be sure they are in place when re-assembling to assure water proof integrity.

#### 5-7. REMOVAL OF PRESSURE SWITCH

To remove the pressure switch, proceed as follows:

- a. Remove cover from pressure switch by removing acorn nuts.
- b. Remove pressure switch wires from under appropriate screws within pressure switch.
- c. Disconnect cable from pressure switch.
- d. Disconnect fittings between pressure switch and storage tank and remove unloader valve nut and lock washer.
- e. Remove two screws & lockwashers, from the pressure switch bracket.
- f. Raise pressure switch from bracket assembly.

#### 5-8. REMOVAL OF MOTOR AND COMPRESSOR ASSEMBLY

To remove the motor and compressor assembly proceed as follows:

- a. Disconnect metal flex hose between unloader valve and compressor cylinder.
- b. Disconnect cable from motor box to capacitor at connector on capacitor.
- c. Disconnect cable from circuit breaker at motor box.
- d. Remove four nuts, lockwashers, and washers from motor shock mounts that secure motor and compressor assembly to main tank saddle.
- e. Lift motor and compressor assembly from tank.



### 5-9. REMOVAL OF CAPACITOR

To remove the capacitor, proceed as follows:

- a. Remove cable between motor and capacitor at connector on capacitor.
- b. Loosen 2 locking tab screws securing capacitor to base plate.
- c. Pull capacitor out of bracket.

### 5-10. DISASSEMBLY AND REPAIR

The following paragraphs contain disassembly and repair procedures for those units of the compressor that can be field repaired. Disassemble only to the extent required to accomplish the repair.

### 5-11. UNLOADER VALVE

The unloader valve can be disassembled, cleaned, repaired & readjusted as required. Refer to figure 3-4 and proceed as follows:

- a. Remove inlet tee (5) from valve body (3).
- b. Remove strainer (4) from inlet tee.
- c. Tilt valve body to remove ball (2) and pin (1).
- d. Remove muffler and valve body.
- e. Inspect all parts for wear, pock marks, dirt or other signs of damage. Clean and/or replace as required. Use no lubricants.
- f. Reassemble unloader valve by inserting pin, ball, strainer and inlet tee into valve body. Install muffler. (If unloader valve is not being installed on compressor at this time, place tape over mounting nut end to prevent pin from being lost).

#### CAUTION

When installing unloader valve, be sure lock-washer is positioned on correct side of pressure switch bracket as shown in Figure 3-4.

### 5-12. UNLOADER VALVE ADJUSTMENT (Refer to Figure 3-4).

#### CAUTION

Always disconnect power to unit when performing the adjustment inside of the pressure switch.

- a. Remove pressure switch cover.
- b. Loosen Locknut (12). Turn Adjusting Screw (13) clockwise as far as possible -- then -- Turn Adjusting Screw (13) counterclockwise SEVEN full turns.

- c. Run compressor until it turns itself off at 100 PSI. Unloader valve should not discharge air.
- d. Turn Adjusting Screw (13) clockwise until air begins escaping through unloader valve -- then --  
Turn Adjusting Screw clockwise ONE more full turn.
- e. Tighten Locknut (12). Be sure Screw (13) doesn't move when tightening Locknut (12).
- f. Replace Pressure Switch Cover.

### 5-13. REGENERATION OF DRYING SYSTEM

Occasionally the drying system may be overtaxed because of a major air leak in the system, an unloader valve failure, or some other malfunction. To restore dry air to the system and a blue color to the dryness indicator, a total regeneration should be performed.

After the cause of the failure has been corrected (see table 5-1-F).

- a. Open the tank drain valve and drain any water from the main tank.
- b. Locate the total regeneration valve and turn it to "ON".
- c. Close the main tank outlet valve.
- d. Allow the compressor to cycle for 12 hours. The compressor will cycle approximately every 10 minutes.
- e. At the end of this period, the dryness indicator should have turned blue. If it has not, repeat the procedure. If after the second attempt, the dryness indicator has not turned a blue color, it should be replaced. The new dryness indicator should remain blue.
- f. Turn the regeneration control to off and open the main tank outlet.

### 5-14. MOTOR AND COMPRESSOR ASSEMBLY

The motor and compressor assembly must be disassembled for replacement of any damaged or worn parts. Suspected damage to the reed valves should be verified before disassembly. Disconnect the intake flex hose from between the cylinders and remove the intake silencer from the top cylinder. With the compressor running, check one cylinder at a time by placing your thumb across the open end of each cylinder elbow or tee. (For the top cylinder, use three fingers to block all parts of the tee). A strong suction should be felt at each cylinder. If little or no suction is felt, either the inlet or outlet reed valve is defective in that cylinder and the valve assembly must be changed.

### CAUTION

If any reed valves are broken, all pieces of the reeds must be located and removed from the compressor. These pieces may be anywhere within the tubing and the connecting system.

To disassemble the motor and compressor assembly, refer to Figure 6-2 and proceed as follows:

### NOTE

Only disassemble the assembly to the extent necessary to replace the worn or damaged part.

- a. Remove motor and compressor assembly from base plate as described in paragraph 5-10.
- b. Remove intake flex hoses and discharge tubes from between cylinders.
- c. Remove intake silencer from top cylinder.
- d. Remove cylinder assemblies by removing four bolts and lockwashers from each cylinder head. Inspect O-ring head circle and shim (if present) for damage.
- e. Remove valve assemblies from each cylinder and inspect for damage.
- f. Inspect compression and expander rings for signs of wear or damage. If they are to be replaced, carefully remove them from pistons.
- g. Remove crankcase cover and front half of crankcase by removing three bolts.
- h. Remove cooling fan and counterbalance by removing one bolt and lockwasher.
- i. Insert two jacking bolts (refer to table 1-3) into the two threaded holes in crankshaft assembly. Slowly turn them, in equal increments, to pull piston assembly off motor shaft.
- j. If motor or crankcase is to be replaced, remove rear half of crankcase by removing four bolts and lockwashers.
- k. If rear half of crankcase was removed, replace and secure in place with four bolts and lockwashers. Torque these bolts to 250 inch-pounds.

### NOTE

The front and rear halves of the crankcase are a matched assembly and must be replaced as a set.

1. Place piston assembly and counter balance on motor shaft with key in place and secure in place with bolt and lockwasher.

### NOTE

The piston assembly and counterbalance are a matched assembly and must be replaced as a set.

5-14 (continued)

- m. If any compression and expander rings are removed from pistons, replace them in their proper position.
- n. Install front half of crankcase and secure in place with three bolts.
- o. Assemble cylinder head and valve assemblies as shown in Figure 6-2. Apply a thin film of O-ring grease to the O-ring head circle. Install cylinders and secure in place with four bolts and lockwashers. Torque these bolts to 70 inch-pounds.

CAUTION

Check head clearance while rocking piston, between top of cylinder and piston using a depth gauge. Clearance must be between 0.010" and 0.016". Insert appropriate shim (if required) between cylinder and crankcase.

- p. Install intake flex hoses, using appropriate hose clamps, and left and right outlet tubes between cylinders.

REPLACEMENT

The replacement of units on the compressor are essentially the reverse of the removal procedures. All fittings must be leak-proof. Apply paste type pipe dope to all threads before assembling.

SECTION VI

PARTS LIST

TABLE 6-1 REPLACEMENT PARTS LIST

<u>FIG NO.</u>	<u>INDEX NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
6-1	1	82600	Case, Transit	1
	2	88074	Bolt, Step: 5/16-18 x 3 in.	4
	3	88073	Washer, Rubber	4
	4	30053	Nut, Hex: 5/16-18 st. cad pl	12
	5	30131	Washer, Flat: 5/16 st. cad pl	12
	6	30102	Washer, Split: 5/16 st. cad pl	12
	7	82200-50	Compressor Ass'y (See fig. 6-2)	1
	8	83049-2	Hose, Flex (intake)	2
	9	88116	Clamp, Hose: 7/8" Flexible	4
	10	80150	Clamp, dual hose ass'y	2
	11	82002R	Tank, Main Pressure	1
	12	60092	Drain Valve	1
	13	82501	Wood Base	1
	14	80022	Motor Mount	4
	15	30080	Bolt 5/16-18x $\frac{1}{2}$ in. hex hd. st. cad pl	4
	16	30100	Bolt: 5/16-18x1 $\frac{1}{2}$ in. hex hd. st. cad pl	4
	17	60007	Drying Chamber	1
	18	80004	Purge Tank	1
	19	60045	Metal Strap	2
	20	80088	Manifold, Purge Control	1
	21	60011	Pressure Gauge	1
	22	82062	Capacitor	1
	23	80092	Bracket, Top	1
	24	80184	Bracket, Bottom	1
	25	84102	Clip, Mounting	2
	26	30401	Screw, #10x5/8 in. hex. hd. self tap	5
	27	84031	Wire Harness, Capacitor	1
	28	60049	Cable Grip	2
	29	60016	Pressure Switch	1
	30	82030	Housing, Switch	1
	31	82041	Housing, Cover Plate	1
	32	30097	Screw, #6-32 x $\frac{1}{4}$ in. st. pl, self tap	1

<u>INDEX NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
33	80090-11	Conduit Flex	1
34	31000	Cable Grip	2
35	111149-3	Wire Ass'y: white 34" lg.	1
36	111140-10	Wire Ass'y: Black 8" lg.	1
37	111140-16	Wire Ass'y: Black 30" lg.	1
38	60074	Bushing, Plastic	2
39	82038	Circuit Breaker	1
40	30009	Screw #6-32 x $\frac{1}{4}$ in. Rd. Hd. st. pl.	2
41	82025	Wire Harness	1
42	80175	Unloader Valve Ass'y (see fig. 6-3)	1
43	80301	Genie Unloader Valve	1
44	80055	Unloader Muffler Ass'y	1
45	80129	Flexible Discharge Tubing	1
46	89503	Compression Nut 3/8"	1
47	89502	Compression Ferrul 3/8"	1
48	60078	Elbow 1/8" mptx $\frac{1}{4}$ tube	1
49	60077	Elbow $\frac{1}{4}$ mpt x $\frac{1}{4}$ tube	3
50	60075	Tubing $\frac{1}{4}$ " o.d. copper	4 ft.
51	60076	Tubing 3/8" o.d. copper	3 ft.
52	80017	Elbow $\frac{1}{4}$ " mpt x 3/8 tube	2
53	84040	Power Cord	1
54	64073	Handy Box	1
55	64073-2	Handy Box Cover	1
56	37093	Wire Nut	2
57	82033	Nipple, $\frac{1}{2}$ " npt x 5" lg.	1
58	80025	Tank Outlet Ass'y (See fig. 6-4)	1
59	88112	Poly Flow Hose Ass'y	1

TABLE 6-1 CONTINUED

COMPRESSOR ASSEMBLY

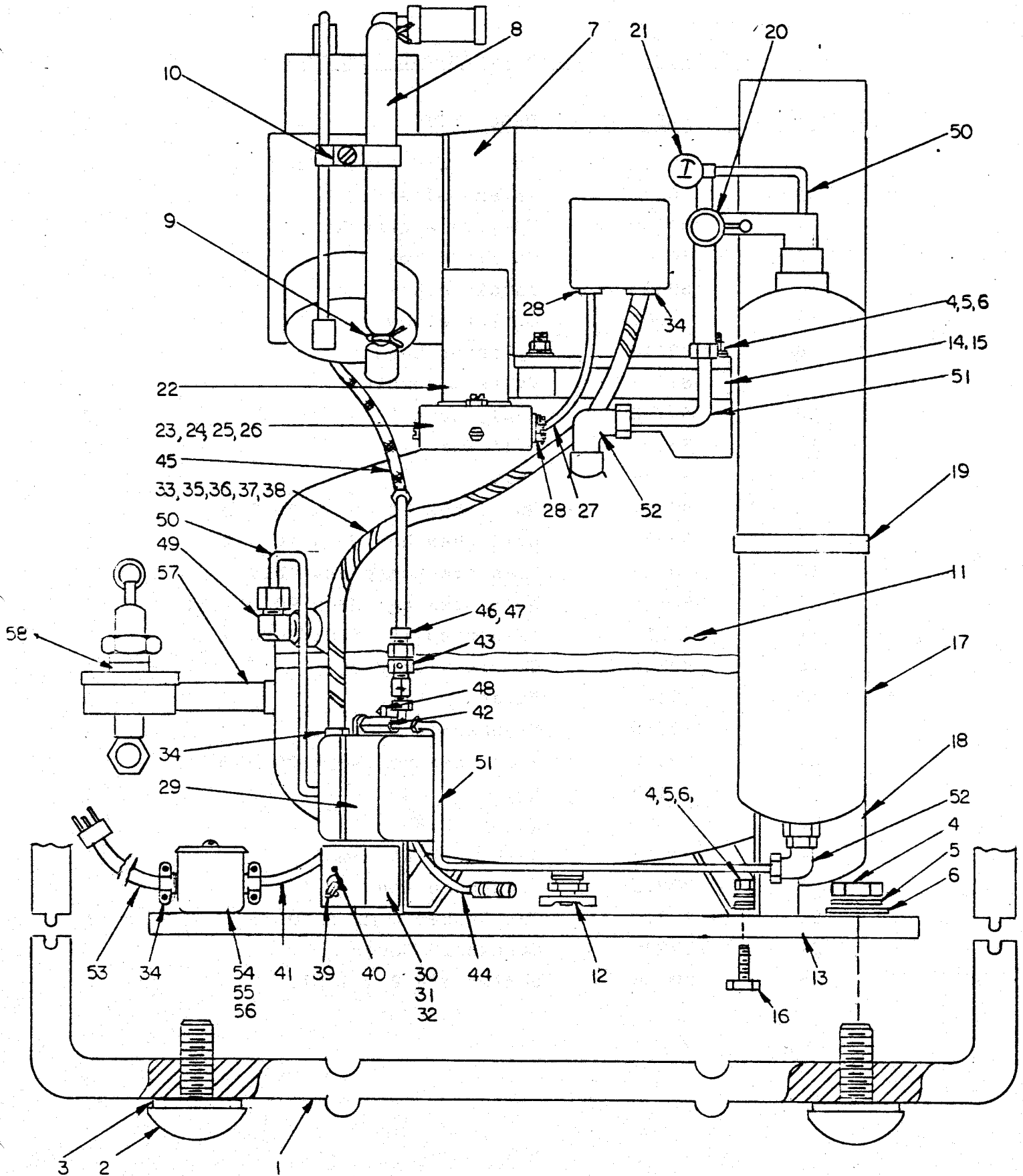


FIGURE 6-1.

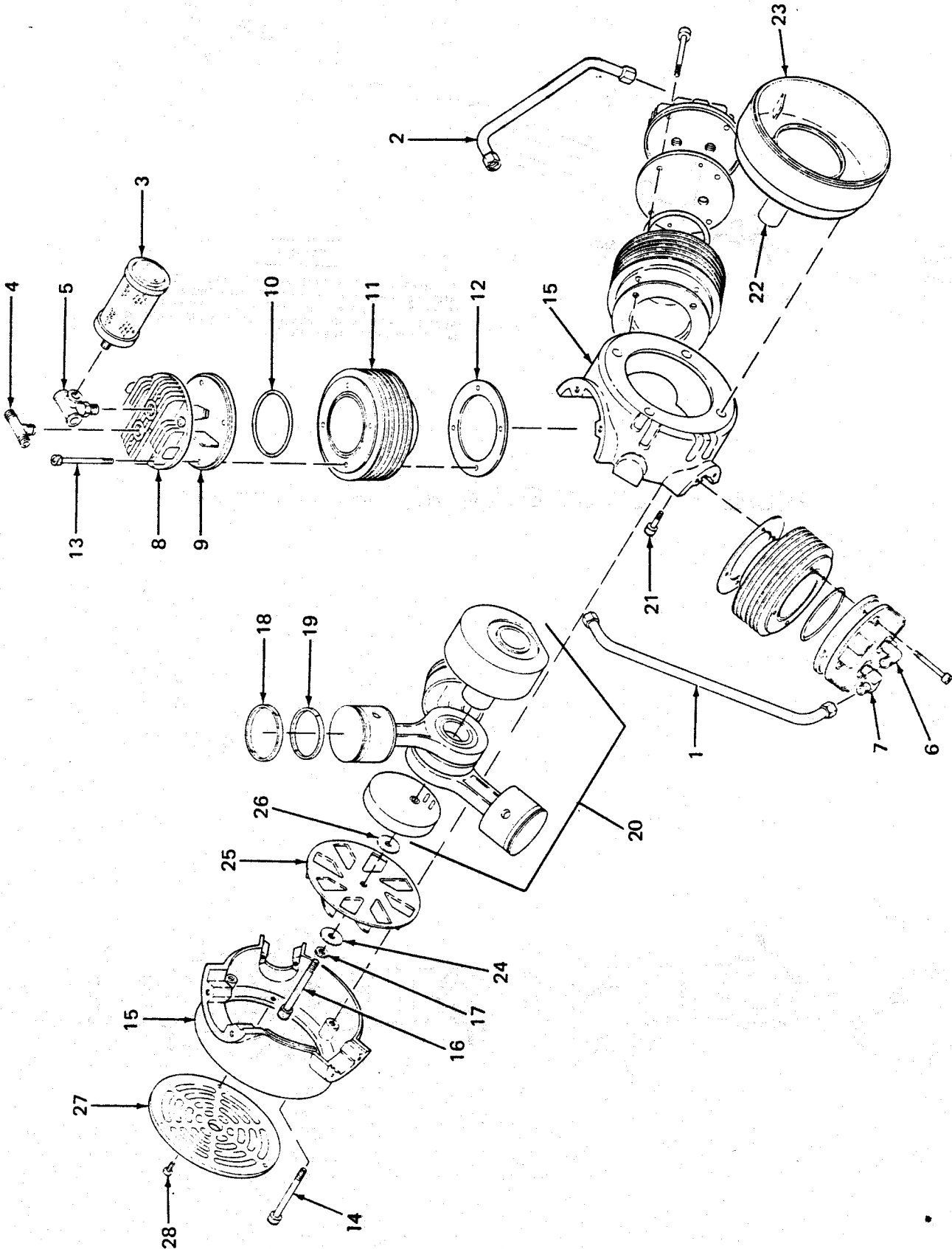
(6-3)

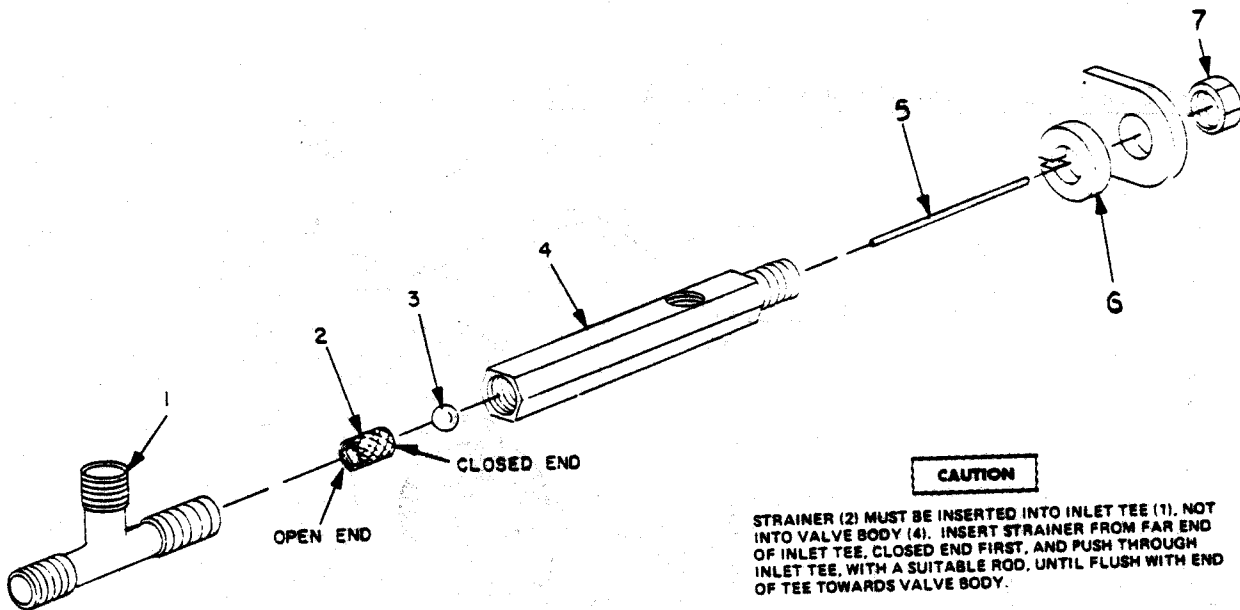
TABLE 6-2 COMPRESSOR/MOTOR ASSEMBLY

<u>FIG NO.</u>	<u>INDEX NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
6-2	1	89318	Chrome Discharge Tube	1
	3	80050	Intake Silencer	1
	4	89500	Tee, Male branch	1
	5	80048	Modified Tee	1
	6	89510	Intake elbow	2
	7	89501	Outlet elbow	2
	8	89114	Cylinder head	3
	9	89128	Valve assembly	3
	10	89143	Seal, head	3
	11	89133	Cylinder	3
	12	89149	Shim	AR
	13	89567	Bolt, hex hd: M6 x 75 912	12
	14	89551	Bolt, hex hd: M6 x 70 912	3
	15	89214	Open crankcase assembly	1
	16	89225	Bolt, hex he: M8 x 90 DIN 912	1
	17	89554	Washer split: 8 DIN7980	1
	18	89145	Compression ring	3
	19	89144	Expander ring	3
	20	89625	Crankshaft assembly	1
	21	89552	Bolt, hex hd: M8 x 20 DIN6912	4
	22	89119	Key	1
	23	89402	Motor, 2 HP	1
	24	89217	Washer, Flat: 8mm	1
	25	89213	Crankcase Fan	1
	26	89218	Fan Washer 8 mm x 40 mm	1
	27	89230	Crankcase Cover	1
	28	30058	Screw: #8-32 x 1/2 pl.	3



FIGURE 6-2 COMPRESSOR MOTOR ASSEMBLY





**CAUTION**

STRAINER (2) MUST BE INSERTED INTO INLET TEE (1), NOT INTO VALVE BODY (4). INSERT STRAINER FROM FAR END OF INLET TEE, CLOSED END FIRST, AND PUSH THROUGH INLET TEE, WITH A SUITABLE ROD, UNTIL FLUSH WITH END OF TEE TOWARDS VALVE BODY.

FIGURE 6-3 UNLOADER VALVE, PART NO. 88043

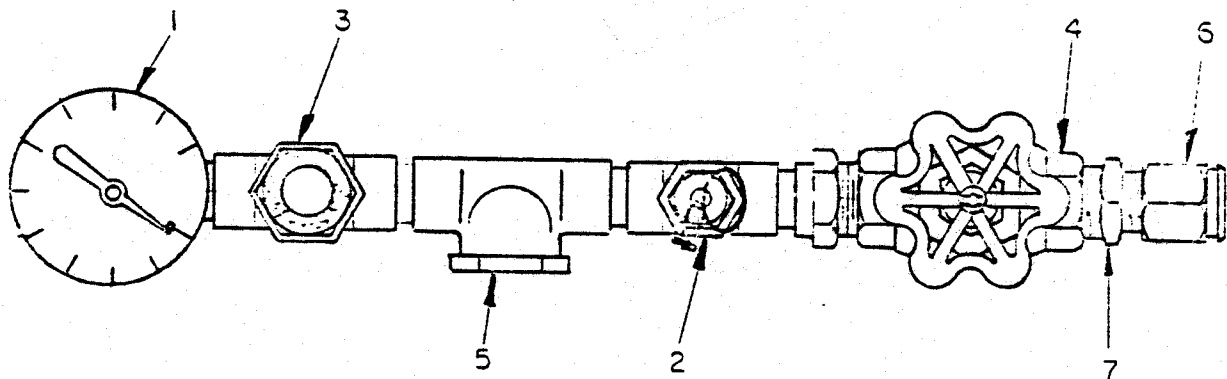


FIGURE 6-4

TABLE 6-3 UNLOADER VALVE

<u>FIG NO.</u>	<u>INDEX NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
6-3	1	88024	Tee, Male run 3/8 in x 1/4 in.	1
	2	3832	Strainer	1
	3	3822	Ball, 1/4" dia.	1
	4	88044	Body, Valve	1
	5	88046	Pin	1
	6	30102	Washer, split: 5/16, st. cad pl.	1
	7	30370	Nut, hex, JAM 5/16-24, Brass	1

TABLE 6-4 TANK OUTLET ASSEMBLY

<u>FIG NO.</u>	<u>INDEX NO.</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
6-4	1	60011	Pressure Gauge	1
	2	60017	Relief Valve	1
	3	60013	Dryness Indicator	1
	4	60019	Outlet Valve	1
	5	80028	Outlet Body	1
	6	88033	Polyflow Shut-off Body	1
	7	60091	Reducer coupling 1/2 mpt x 1/4 fpt	1

FIGURE 6-5 COMPRESSOR WIRING DIAGRAM

