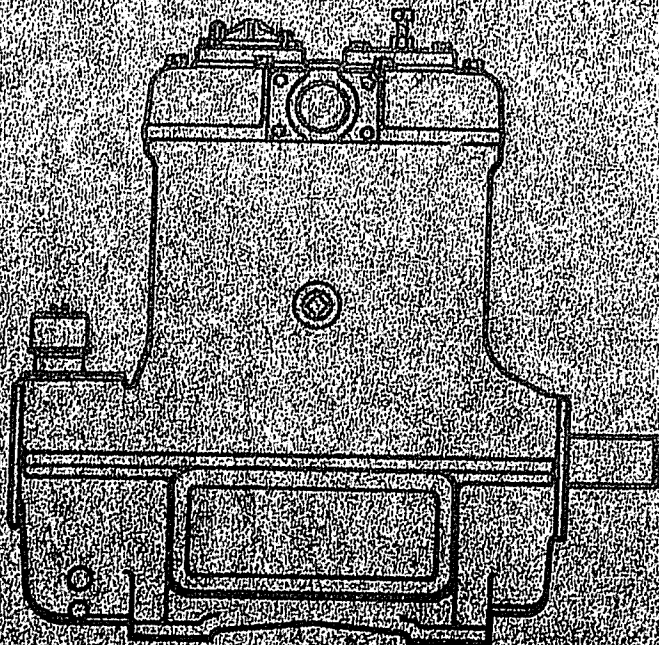


GARDNER-DENVER

PARTS LIST WITH INSTALLATION & OPERATING INSTRUCTIONS 4-1/2" x 4" AAB & 5" x 4" AAC STATIONARY AIR COMPRESSOR



INSTRUCTIONS FOR ORDERING REPAIR PARTS

Refer to Compressor Model, Size and Serial Number (see name-plate on compressor) when ordering parts.

Reference numbers shown in the left hand column of the Parts Lists are used to help locate the parts shown on the drawings and sectional views. Do not order by reference number. Order by symbols.

After locating the reference number the symbol of the part may be found for your compressor unit under the Model number column.

Specify exactly the number of the parts required (see column "No. Req'd. Per Unit"). Do not order by sets.

In sending parts to us for duplication, care should be taken that they are securely tagged with your name and address. This should be put inside the package as we have no other means of identification.

PARTS RETURNED

All claims must be made within five days after receipt of goods. If order has been filled correctly, we cannot allow the return of the goods without our consent and then only on a basis of a charge for service and rehandling plus transportation charges.

Transportation charges must be prepaid. If it is necessary to return a part to the factory do not fail to do the following:

1. Write us a letter advising what material you wish to return and why.
2. After obtaining our permission to return the item or items, place a tag in the package showing your name and address.
3. Tag each article in the box or package stating what and how many are returned.
4. Always give the serial number of the machine from which the parts were removed or the invoice number on which the parts were originally shipped.

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INSTALLATION

LOCATION

The compressor should be installed in a clean, well lighted place, with plenty of space all around it, and in such a manner as to be accessible from all sides. Do not place compressor near other machinery or too close to the wall.

QUIET INSTALLATIONS

When a compressor is installed in a location where noise from the suction or discharge is objectionable, such as a hospital, school, theatre or hotel, special attention must be given to the installation. While the compressor itself is practically noiseless, unless unusual care is used the installation may be noisy, as it sometimes happens that the air receiver acts as a drum to magnify noises due to the discharge pulsations from the compressor.

When a compressor is installed in such a location, mufflers should be provided on the suction and discharge lines to eliminate the undesirable noises. There are a number of satisfactory mufflers on the market which may be purchased complete, ready to install.

A simple and effective muffler for the discharge line may be made locally. Install a piece of pipe about three or four feet long in the discharge line between the compressor and the air receiver. The diameter of this pipe to be at least four times the diameter of the compressor discharge opening. Make the discharge line from the compressor to the muffler the full size of the opening on the compressor. The line from the muffler to the air receiver should be much smaller, one-half the diameter of the compressor opening if the distance from the muffler to the tank is ten feet or less. If the length of the line from the muffler to the tank is between ten and thirty feet in length, make the cross sectional area of the pipe one-half that of the compressor discharge opening. If a check valve is used, place it in the small diameter line between the muffler and tank with a safety valve in the muffler tank. Muffler must be provided with a drain and both the muffler and receiver must be drained at least once each day.

Care should be used in building compressor foundation to see that it is entirely separate from the main foundation of the building, and also that it does not touch any building piers, columns or beams. Unless this precaution is observed, noise may be transmitted to some part of the building at a considerable distance from the compressor.

FOUNDATION

The "V" belt and direct connected units are provided with a substantial baseplate and while these compressors are practically self contained, for best results they should be installed on a good solid foundation or floor. Foundation plan giving all general dimensions of the compressor unit is furnished with each machine.

Holes for foundation bolts can be drilled through cement floor and bolts may be secured with cement, sulphur or lead. Base should be set level, using wedges when necessary, and the space between base and floor filled with grout.

In the case of a belt driven compressor without a base-plate and with a long flat belt drive, the belt tends to pull the compressor over. This tendency must be resisted by the foundation. A compressor with a long center flat belt drive therefore, should be installed upon a concrete foundation built in accordance with the foundation plan furnished by the Gardner-Denver Company.

Be sure to allow the foundation to harden before permanently setting up the compressor.

"V" belt drive consists of a number of rubber fabric composition ropes or belts operating in grooved pulleys. Adjustable motor base is provided to take up stretch of belts. Belts should be run with same slack allowed, never run vee belts drum tight. Slight inequalities of length in the various strands need cause no concern as belts will equalize on tight side under load. When running, the tight side of the belts should be at the bottom. No belt dressing of any sort is required. Never attempt to run new belts with part of the old belts which have been installed and operated for any length of time. The new belts will carry all the load and probably fail before they have stretched to the length of the old belts. Always install a complete set of new belts.

FLEXIBLE COUPLING

The coupling for the direct coupled motor driven compressor is of the fly-wheel type. After compressor

unit has been installed and sub-base has been drawn down firmly, but before permanently grouting in place, the alignment of the motor and compressor should be checked. This may be done by turning over the compressor and motor by hand by means of the coupling. If the unit does not turn freely it is because the foundation bolts are not pulled down evenly.

Alignment may be checked by removing the disc retainer, clamp piece and the rubber fabric disc. The face of the coupling "A" and the face of the coupling flange (motor half) "B" should be lined up by means of a straight edge and checked at four points 90° apart. The distance between the machined portion of the fly-wheel "C" and the hub of the coupling flange "D" should be checked by means of a pair of inside calipers and should be the same at any point of the circumference. This distance should be checked at not less than four points 90° apart. If any of these measurements do not check, loosen foundation bolt nuts and pull down evenly all around, until all measurements check. When alignment is correct the disc, disc retainer, and clamp piece should be replaced and all nuts tightened.

Nuts must be tightened uniformly, which can be done by tightening them all finger tight and then tightening with a wrench about one turn on each nut, continuing in this way until all are tight.

Nuts should be checked for tightness at intervals, as the coupling depends upon the tightness of the clamp piece for a grip. Compressor must not be run unless coupling nuts are absolutely tight. Do not attempt to tighten them when motor is running.

The compressor and motor may be disconnected by removing the nuts from the studs. If either the compressor or motor are removed from the base and replaced it will be necessary to check the alignment before again putting the unit into service.

PIPING

Air discharge pipe must be full size of discharge opening on air cylinder. The discharge pipe should be as short and direct as possible, eliminating short bends and fittings and avoid pockets. If for any reason it is necessary to install a gate or globe valve between compressor and receiver, it is imperative that a pop safety valve be placed in the line between compressor and the valve.

As the air cools in being carried through the distributing lines to the point at which it is to be used, it deposits moisture mixed with a small amount of oil. This moisture is objectionable in pneumatic tools, sand blasting, paint spray work and similar operations. Much of the trouble with water in the air lines can be overcome if small receivers to act as collecting tanks are put in the lines at frequent intervals, otherwise suitable moisture traps should be used.

AIR RECEIVER

When possible locate the air receiver outside the building where it has an opportunity to dissipate most of the heat. Drain cock should be located at the lowest point in the receiver for drawing off the accumulated oil and water at least once a day. Where there is a danger of freezing, safety valve should be located on the inside wall, preferably with the compressor control equipment. Safety valve should be tested frequently by hand, to be sure that it does not stick.

The discharge line for the compressor should be connected near the top of the air receiver and the service line to the work at a lower point.

CONNECTING MOTOR LEADS

On units equipped with radiator and self-contained cooling system, compressor must be run in the direction indicated on drawing and wheel, so that pump and fan will run in the right direction. The motor leads must be connected to give the required direction of rotation.

AIR FILTER

The intake of every air compressor should be equipped with an air cleaner or filter. The intake air is never clean and an air filter is necessary to prevent dust and other abrasives being drawn into the cylinders.

In cases where no air filter is installed, the company will assume no responsibility for excessive wear of pistons, piston rings, cylinder bore or valve details, even though such wear occurs very soon after compressor is installed.

STARTING AND OPERATING

After the compressor has been installed and piped in accordance with the instruction and the foundation has been allowed to set for a sufficient time, the following precautions should be observed when starting.

- (1) Go over all bolts and nuts and see that they are tight. Compressors have been thoroughly tested under working conditions before shipment, but should be checked to see that nothing has been tampered with while machine was in transit.
- (2) Fill the compressor crankcase with lubricating oil until the oil just flows through the oil level pet cock. After compressor has run for several hours it may be necessary to add a small quantity of oil to replace that retained in bearings and on walls of compressor.
- (3) If there is a globe or gate valve between the compressor and the air receiver, be sure that it is open. At the same time test the safety valve so that you know it will work. Inspect all piping and see that it is properly installed and connected. The jacket water inlet must be at the bottom of the cylinder and the outlet at the top.
- (4) Read the instructions covering motor, motor starter and pressure regulator (if any). Be sure that all installations requirements have been met.
- (5) Turn on cooling water and see that a liberal amount is flowing into the opening funnel.
- (6) Turn machine over by hand several times to be sure that everything is clear and free.
- (7) After the current has been turned on, note the compressor oil gauge and be sure that it registers pressure. Run the compressor slowly for a few minutes shutting it down as it gains speed. After you are sure that all parts are functioning properly, run the compressor for at least thirty minutes without building up the air pressure. This will insure the lubricant being properly distributed over all of the wearing surfaces.

Build up the receiver pressure to that required and see that the Unloader Pilot unloads the compressor when the required pressure is reached.

Open an outlet valve on the receiver and permit the pressure to drop until the pilot reloads the compressor.

On a compressor equipped with automatic start and stop control, the automatic pressure regulator will shut down the unit as soon as the maximum receiver pressure is attained. When this occurs pull the main line disconnecting switch and turn the compressor over by hand to be sure that it is unloaded for starting. If an automatic water control valve is used see that it shuts off the water when the compressor stops. If the machine turns over easily throw in the main line switch, and then bleed the air out of the tank to the minimum pressure when the unit will again start. The starting and stopping pressures are controlled by the setting of the pressure regulator. Read the instructions accompanying the regulator.

COOLING

Sufficient cooling water must be used to keep down the heat of the compression and the flow of water should be controlled by a valve in the inlet line. City water should be used when possible. Outlet water should flow into an open funnel allowing frequent temperature readings to be taken. Water outlet temperature should not exceed 125° F. when leaving compressor or drop below 110° F. This will insure the highest operating efficiencies. A rise in temperature indicates deficient cooling, carbonized discharge valves or leaking piston rings. Water should be shut off when compressor is stopped, and all jacket drains must be opened in freezing weather.

Based on a water temperature of 70° F., approximately one gallon of water per minute should be used for each 100 cubic feet of displacement of the compressor when operating against 100 pounds air pressure. The use of Thermo Syphon cooling system is not recommended.

COLD WEATHER PRECAUTIONS

If compressor must stand idle when exposed to temperatures below the freezing point, water must be drained from the jackets and jacket piping, to prevent damage to cylinder blocks and heads. Compressor is equipped with a drain cock, but if any portion of the piping is lower than the drain cock, a globe valve should be installed in the lowest point in the piping and used as a drain valve. Units cooled by means of a radiator must either be drained or equipped with antifreeze if exposed to freezing temperatures.

Also see that oil is of proper viscosity to flow freely at low temperatures.

LUBRICATION

Use good oil. Most air compressor troubles are caused by the use of a poor grade or unsuitable oil. For correct oil recommendations consult the oil company with whom you are dealing. Crankcase should be drained, cleaned and refilled with fresh oil after each 200 hours operation.

Lubrication is positive and automatic. A plunger type oil pump driven by an eccentric on the end of the crankshaft feeds a continuous supply of oil to the main and crankpin bearings through drilled passages in the crankshaft. Pistons and piston pins are lubricated by the spray from the crankpin bearings. Open oil level pet cock and fill crankcase through the breather opening until oil flows through the pet cock which thus indicates correct oil level. After filling compressor crankcase always check oil level after 10 or 15 minutes running to be sure that oil level is high enough. Do not carry oil level higher than the pet cock or compressor may "pump oil." Maintain oil level at the proper height by adding oil when necessary. In operation oil pressure is indicated on the oil pressure gauge. When machine is started cold, oil pressure should be not less than 15 pounds. After compressor is thoroughly warmed up (after about two hours running) oil pressure should be not less than 10 pounds. These pressures are the minimum, a new compressor will show considerably higher oil pressures.

Oil pressure may be increased by means of the oil relief plug. Latest model compressors have oil pressure adjustment outside of the crankcase in the plate containing oil pressure gauge.

Never clean cylinders with kerosene, benzine or gasoline, this is a dangerous practice and should be prohibited.

NOTE: The lubricating system of the single cylinder compressor differs slightly from those of the duplex and "V" type machines. On the single compressor the oil pump delivers the oil to a constant level trough in the crankcase. A splash pin on the connecting rod splashes oil on all bearings, piston and cylinder walls.

The approximate amount of oil required to fill the crankcase is 6 quarts.

VALVES

The valves are the vital parts of the compressor and should not be tampered with. An occasional inspection to see that there is no excessive accumulation of carbon or any broken parts in the valves is all that is necessary.

One inlet and one discharge valve are located in the head over each cylinder bore. Each valve is assembled as a complete unit. The valve seat and bumper, with plate valves and springs in proper position, are securely held together by a stud and lock nut. The complete valve unit can easily be removed for inspection and cleaning by simply removing the valve cover plate and lifting the valve out.

Each valve is numbered and the pockets are correspondingly numbered. Be sure to return each valve to its proper compartment. If it is necessary to take a valve apart, note the manner in which the various parts are arranged so that the proper relation of parts will be followed in reassembling the valve, be absolutely sure that plate valves are not pinched between the seat and the bumper so that they cannot lift. When replacing a valve see that the seat gasket is in good shape. If the gasket is damaged install a new one.

Replace valve assembly and cover plate and observe if cover plate is down to position. If valve assembly is not installed correctly the locking screws will hold the cover plate away from the gasket and cylinder face indicating some part of the whole assembly is now down on its seat. When sure parts are in correct position replace nuts or screws and tighten moderately applying equal pressure to all.

Then loosen locking nuts on hold down screws, back off hold down screws one turn, finish seating cover plate nuts or screws, reset locking screws tight and reset hold down screw locknuts. This method will prevent incorrect assembly or damage and distortion of valve parts.

IMPORTANT: Do not use a long handle wrench on adjusting screws as too much pressure will injure valve assembly. Valves and valve seats must be kept clean. The presence of any deposit on valves indicates that either the intake air is dirty or the wrong kind of oil is being used. Valves should be examined periodically and thoroughly cleaned before being replaced. It is a good idea to have a few spare parts available. If a complete suction and discharge valve are carried as spares, the operator will be able to remove and replace a valve in minimum time and can clean the dirty valves at his leisure.

Never run the compressor with a valve that does not operate properly, as a leaky valve will cause excessive temperature which is a dangerous condition.

CONNECTING RODS

Connecting Rods are of the automotive type. The piston end is clamped on the piston pin. The crankpin end is easily adjustable by removing shims. When replacing shims see that tips of shims fit snugly against crankpin, to avoid excessive loss of oil because of poorly fitted shims. Connecting rod bearings should be examined at intervals. Do not let them run loose, but when adjusting don't get them too tight. If you have the misfortune to burn out a crankpin bearing, a new connecting rod complete may be obtained from our nearest branch office. Upon return of the damaged rod to the factory, transportation charges prepaid, credit will be issued so that the net charge will cover only the re-babbitting and machining of crankpin bearing.

MAIN BEARINGS

Main bearings are of the bronze-backed babbitt-lined type, held in place by screws and adjustable by means of shims. Bearings should be examined at regular intervals and should never be permitted to run loose. Bearings are easily accessible through the hand-hole plates on the sides of the crankcase. Bearings are adjusted by removing just enough shims so that shaft will rotate freely and without play when the bearing cap is drawn down firmly. Shims of the same thickness should be removed from each side of the bearing.

IN REPLACING SHIMS SEE THAT THE SMALL PROJECTION ON EACH END BEARS SOLIDLY AGAINST THE SHAFT. IF A SHIM IS NOT PROPERLY INSTALLED THERE WILL BE EXCESSIVE OIL LEAKAGE AT THAT POINT AND OTHER BEARINGS MAY NOT RECEIVE SUFFICIENT OIL. Enough shims must be used so that the main bearing bolts are set up tight. Compressor must not be run with bearing bolt nuts only partially tightened.

When new main bearings are installed be sure that there is side clearance between the ends of the bearing shells and the throws of the crankshaft. If the ends of the bearing are tight against the shaft it will be necessary to file the ends of the bearings for clearance. Center bearing must have clearance on both sides.

When installing new main bearings it is essential that both edges of the bearing fit flush with the bored portion of the main frame. The half of the bearing in the cap must be flushed with the cap on both edges. If one edge of the bearing is low in either the frame or the cap, the bearing will leak an excessive amount of oil.

Bearing caps are marked and should be replaced in their original position. If it is necessary to replace the main bearings in a direct connected compressor, motor and compressor will have to be checked for alignment as described under "Flexible Coupling."

SUCTION VALVE UNLOADER

Unloading is accomplished by holding the suction valves off their seats when a predetermined pressure is reached for which the unloader pilot is set. Suction valve unloaders are of two types, the diaphragm and packed plunger types.

DIAPHRAGM TYPE UNLOADER - SAFETY SPRING

The safety spring type diaphragm unloader combines all of the advantages of both the large diaphragm unloader and the packed plunger unloader; and, in addition, it is designed to limit the total load which may be exerted on the suction bumper and stud regardless of the air pressure used. When air is applied above diaphragm, the entire unloader plunger assembly moves as a unit until the suction valve disc strikes the bumper. Additional movement of the upper plunger is permitted by the compression of the unloader plunger spring until the upper plunger bottoms in the counter-bore of the suction valve cover plate.

This type of valve is designed so that it does not require any adjustment. The diaphragm should be checked and replaced if showing signs of rotting.

PACKED PLUNGER TYPE UNLOADER

This type of unloader does not require any adjustments. Parts must be installed in their proper positions.

The packing must be tight, but must not bind the Plunger. If it is necessary to repack the plunger, see that it works freely before replacing the cap.

CARE OF UNLOADING SYSTEM

If the unloading system does not function properly DO NOT TAMPER WITH THE PILOT UNTIL YOU ARE

SURE THE TROUBLE IS THERE. Check all air lines between the pilot and unloading valves to be sure there are no air leaks. See that the diaphragm is not damaged.

If after checking over the unloading system no trouble is found, the unloader pilot should be examined.

TYPE AUX WATER CONTROL VALVE

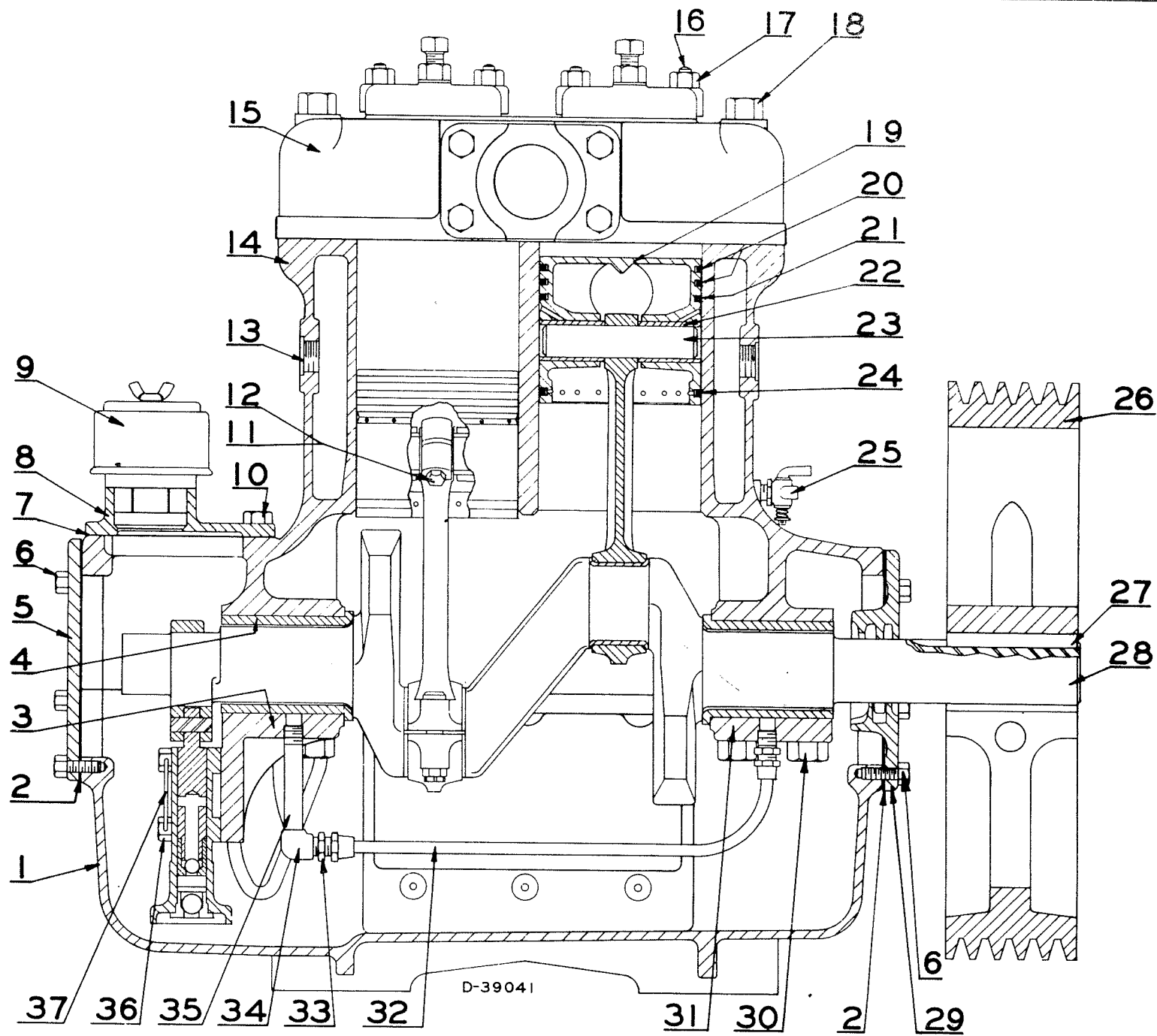
Automatic water control valve is furnished only when specially ordered, and may be used with automatic start and stop and constant pressure control compressors with suction unloading valves. The water control valve must be installed in the water inlet line and as close to the compressor as possible.

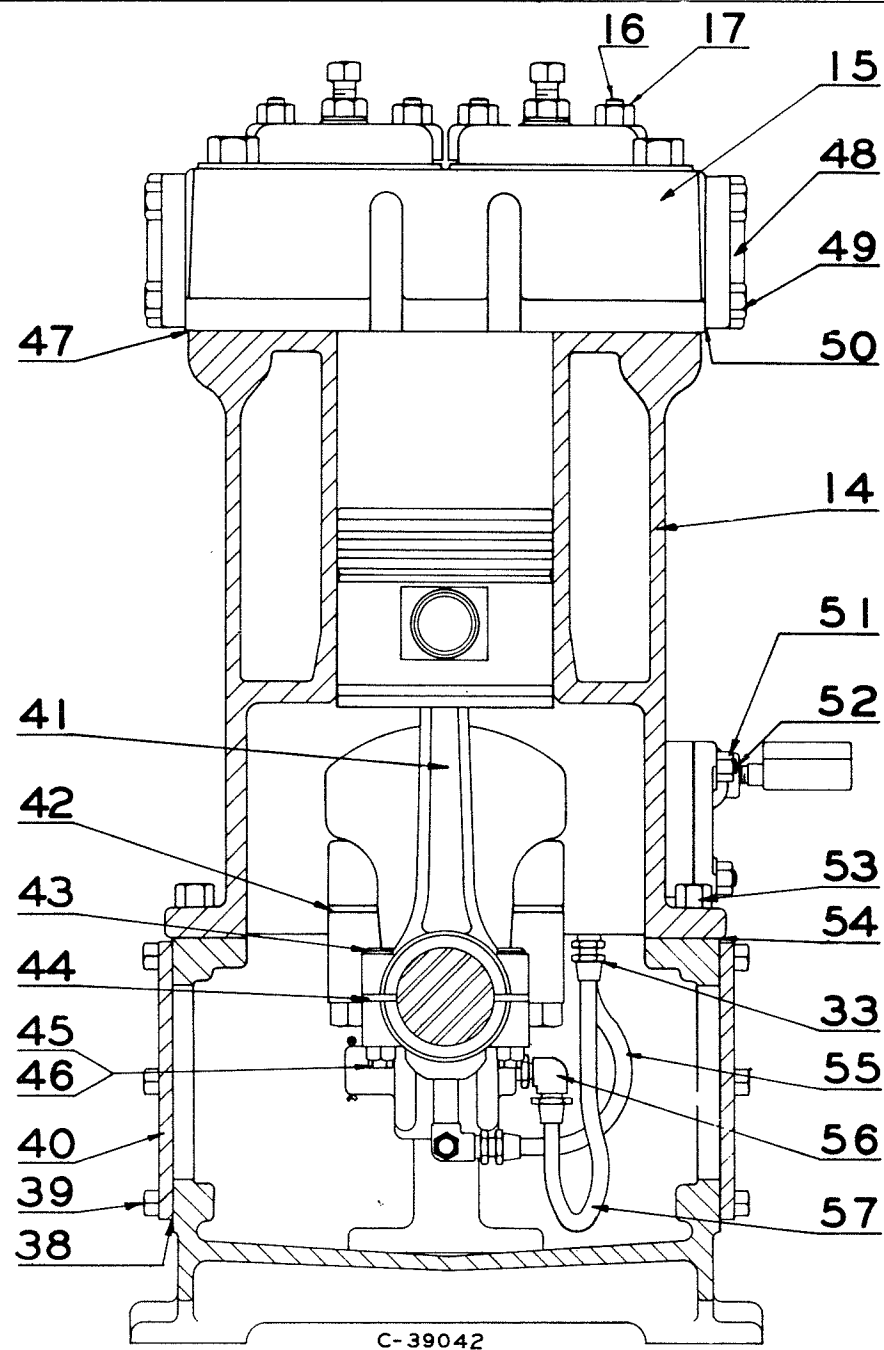
An open type water funnel should be installed in the water discharge line, and globe shut-off valve in the inlet water line ahead of the water control valve. By piping in this manner the amount of water going through the compressor can be properly regulated. (See paragraph on "Cooling").

GASKETS

The joints between air cylinder head and cylinder, and between cylinder block and crankcase are sealed with gaskets which insure perfectly sealed joints. If necessary to break either of these joints, be sure that both metal surfaces are clean and smooth before reassembling. Install new gaskets when reassembling compressor. The cylinder head gasket must be the same thickness as the one originally supplied with the compressor or the clearance will be changed, also the efficiency of the compressor.

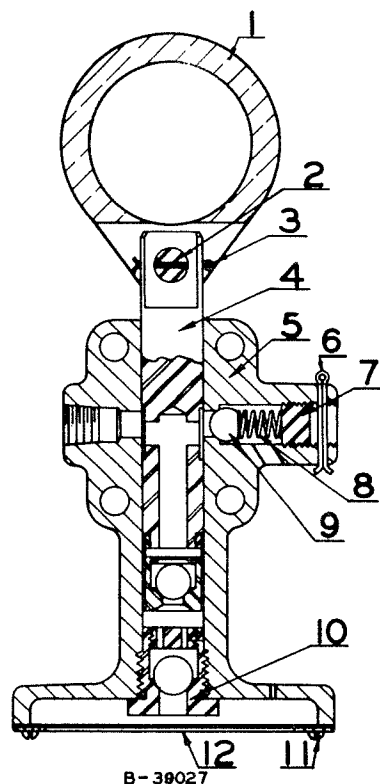
A complete set of gaskets carried as spares will be highly appreciated in an emergency.





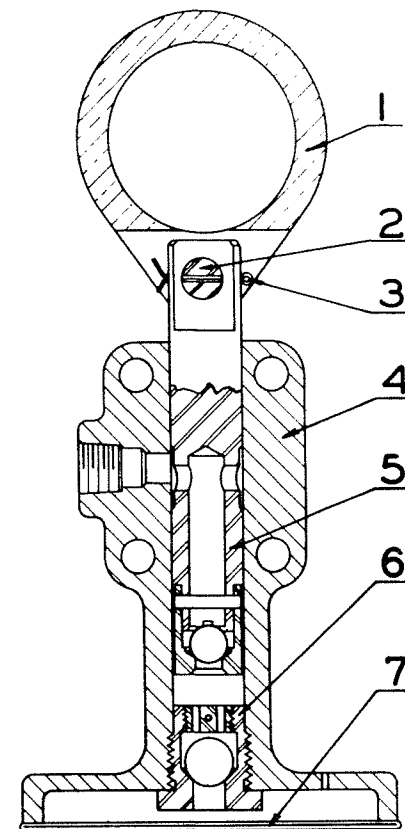
REF. NO.	NAME OF PART	NO. PER COMP.	MODEL AAB-1000	MODEL AAB-1001 AAB-1002	MODEL AAC-1000	MODEL AAC-1001 AAC-1002
			<u>SYMBOL</u>	<u>SYMBOL</u>	<u>SYMBOL</u>	<u>SYMBOL</u>
1	Crankcase	1	AAB-1	AAB-1	AAB-1	AAB-1
	Oil Drain Plug - Not Shown	1	64A4	64A4	64A4	64A4
	Oil Level Cock - Not Shown	1	90W1	90W1	90W1	90W1
2	Bearing End Plate Gasket	2	25C38	25C38	25C38	25C38
3	Bearing Cap (Pump End)	1	1-AAB-28	1-AAB-28	1-AAB-28	1-AAB-28
4	Bearing Cap Bushing (Half)	4	1-AAB-29	1-AAB-29	1-AAB-29	1-AAB-29
5	Bearing End Plate (Pump End)	1	AAB-5	AAB-5	AAB-5	AAB-5
6	Bearing End Plate Screw	14	75A5	75A130	75A1	75A130
7	Oil Filler Body Gasket	1	25C40	25C40	None	25C40
8	Oil Filler Body	1	AAB-32	4-AAB-32	AAB-32	4-AAB-32
9	Oil Filler Breather Cap	1	AAB-517	5C3	AAB-517	5C3
10	Oil Filler Body Screw	6	75A5	75A130	75A5	75A130
11	Piston Pin Clamp Screw	2	75E2	75E2	75E2	75E2
12	Piston Pin Clamp Screw Wire	2	97A1	97A1	97A1	97A1
13	Cylinder Jacket Plug	1	64B4	64B4	64B4	64B4
14	Cylinder	1	AAB-502	AAB-502	AAC-502	AAC-502
15	Head with Studs	1	AAB-505	AAB-505	1-AAC-505	1-AAC-505
16	Valve Cover Plate Stud	16	79A34	79A148	79A141	79A141
17	Valve Cover Plate Stud Nut	16	50B7	50B7	50B5	50B5
18	Cylinder Head Screw	10	75L9	75L9	75L10	75L10
19	Piston with Bushings	2	AAB-576	AAB-576	AAC-576	AAC-576
20	Piston Ring (Compression)	4	65A1	65A1	65A3	65A3
21	Piston Ring (Simplex)	2	65H3	65H3	65H4	65H4
22	Piston Pin Bushing	4	12F13	12F13	12F8	12F8
23	Piston Pin	2	62F4	62F4	62F1	62F1
24	Piston Ring (Oil Reg.)	2	65J3	65J3	65J4	65J4
25	Cylinder Drain Cock	1	90W3	90W3	90W3	90W3
26	Sheave - Consult Quincy Office for Symbol	1				
27	Crankshaft Key	1	35B2	35B2	35B2	35B2
28	Crankshaft	1	AAB-4	AAB-4	AAB-4	AAB-4
29	Bearing End Plate Drive End	1	AAB-6	AAB-6	AAB-6	AAB-6
30	Bearing Cap Screw	8	75L6	75L6	75L6	75L6

REF. NO.	NAME OF PART	NO. PER COMP.	MODEL AAB-1000	MODEL AAB-1001 AAB-1002	MODEL AAC-1000	MODEL AAC-1001 AAC-1002
31	Bearing Cap (Drive End)	1	<u>SYMBOL</u> AAB-27	<u>SYMBOL</u> AAB-27	<u>SYMBOL</u> AAB-27	<u>SYMBOL</u> AAB-27
32	Oil Tube (Main Brg. to Main Brg.)	1			87A27	87A27
33	Oil Tube Single Union	5			86A6	86A6
34	Side Outlet Elbow	1			64T3	64T3
35	Bearing Inlet Nipple	1			63D22	63D22
36	Oil Pump to Bearing Cap Screw	4	75B1	75B7	75B1	75B7
37	Oil Pump to Bearing Cap Wire	1	97A2	97A7	97A2	97A7
38	Handhole Plate Gasket	2	25B26	25B26	25B26	25B26
39	Handhole Plate Screw	16	75B130	75B130	75A130	75A130
	Model Plate - Not Shown	1	1-AAA-201	69A25	1-AAA-201	69A25
	Oil Plate - Not Shown	1	AAA-202	69A28	AAA-202	69A28
	Plate Drive Screw - Not Shown	8	75K1	75K1	75K8	75K1
40	Handhole Plate	2	AAB-8	AAB-8	AAB-8	AAB-8
41	Conn. Rod Assembly Incl. Parts Ref. #11, 12, 43, 44, 45 & 46	2	AAB-508	AAB-508	AAB-508	AAB-508
42	Bearing Cap Bushing Shim	4	77A23	77A23	77A23	77A23
43	Conn. Rod Bolt	4	15K3	15K3	15K3	15K3
44	Conn. Rod Shim	4	77A26	77A26	77A26	77A26
45	Conn. Rod Bolt Nut	4	50E5	50E5	50E3	50E5
46	Conn. Rod Bolt Nut Cotter	4	62E5	62E5	62E5	62E5
47	Cylinder Head Gasket	1	25C36	25C36	25C41	25C41
48	Suct. & Disc. Flange (2")	2	XT-184	XT-184	XF-184	XF-184
49	Suct. & Disc. Flange Screw	8	75A12	75A12	75A12	75A12
50	Suct. & Disc. Flange Gasket	2	25C9	25C9	25C48	25C48
51	Oil Filter or By-Pass Plate Nut	4	50B3	50B3	50B3	50B3
52	Oil Filter or By-Pass Plate Stud	4	79A19	79A297	79A297	79A297
53	Cyl. to Crankcase Screw	10	75A2	75A2	75A2	75A2
54	Cyl. to Crankcase Gasket	2	25C37	25C37	25C37	25C37
55	Oil Tube (Filter to Main brg.)	1			87A27	87A26
56	Oil Tube Elbow	1			86A8	86A8
57	Oil Tube (Pump to Filter)	1			87A25	87A25



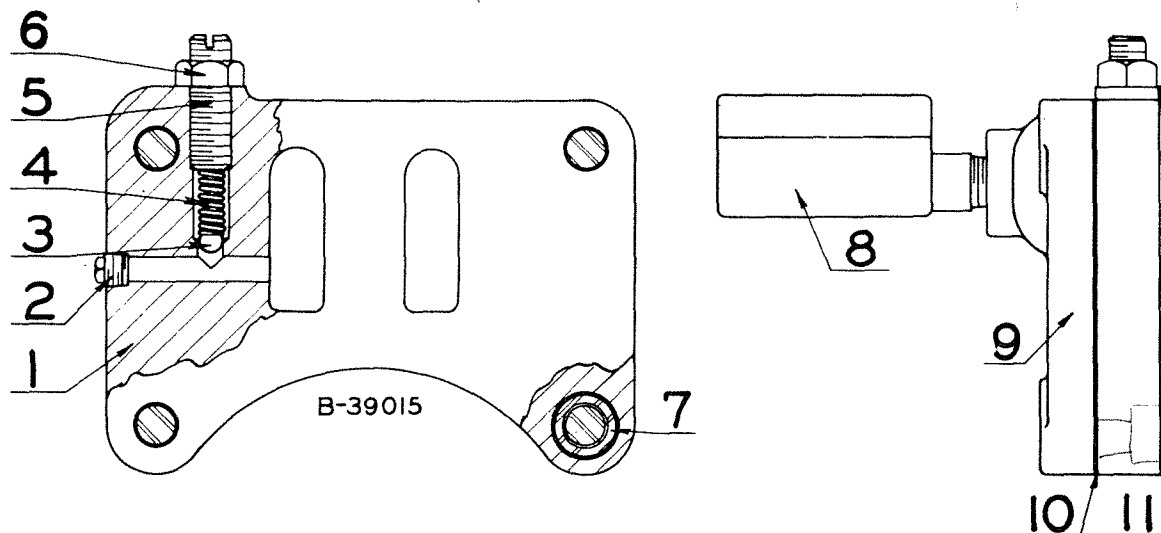
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REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAB-1000 AAC-1000 SYMBOL
<u>OIL PUMP & ECCENTRIC STRAP</u>			
1	Oil Pump Eccentric Strap	1	AAB-22
2	Oil Pump Eccentric Strap Pin	1	AAA-23
3	Oil Pump Eccentric Strap Cotter	1	62E6
	Oil Pump Assem., Parts Ref. #4 thru 12	1	AAB-518
4	Oil Pump Plunger	1	AAA-510
5	Oil Pump Body	1	AAB-197
6	Oil Pressure Relief Plug Pin	1	62E9
7	Oil Pressure Relief Plug	1	AAB-21
8	Oil Pressure Relief Spring	1	78A18
9	Oil Pressure Relief Ball	1	10A2
10	Oil Pump Inlet Assembly	1	AAB-520
11	Oil Pump Screen Screws	4	75G1
12	Oil Pump Screen	1	AAB-19

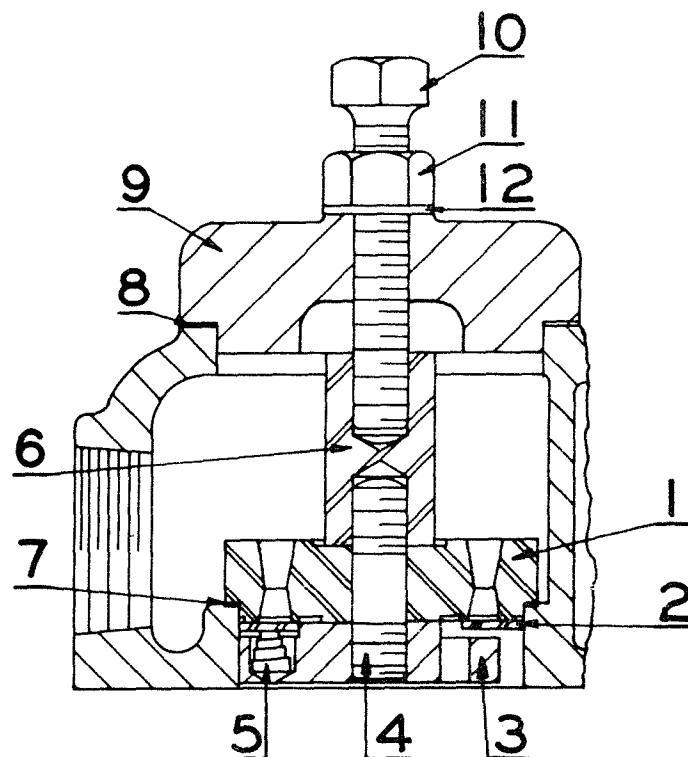


B-39014

REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAB-1001 AAB-1002 AAC-1001 AAC-1002 SYMBOL
<u>OIL PUMP & ECCENTRIC STRAP</u>			
1	Eccentric Strap	1	AAB-22
2	Strap to Plunger Pin	1	AAA-23
3	Strap to Plunger Pin Cotter	1	62E6
	Oil Pump Assembly, Parts 4 thru 7	1	1-AAB-533
4	Oil Pump Body	1	2-AAB-197
5	Oil Pump Plunger	1	1-AAA-510
6	Oil Pump Inlet	1	1-AAB-520
7	Oil Pump Screen	1	AAB-19

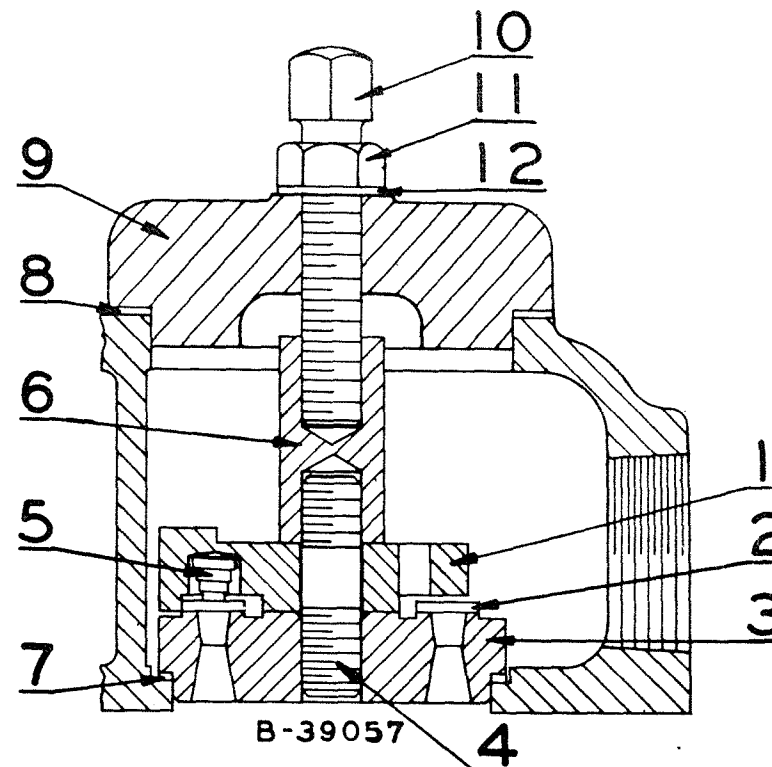


REF. NO.	NAME OF PART	NO.REQ'D. PER COMP.	MODEL AAC-1000 AAC-1001 AAC-1002 <u>SYMBOL</u>
<u>OIL RELIEF VALVE</u>			
	Oil Relief Valve Plate Assembly, Parts Ref. #1 thru 6	1	AAB-550
1	Oil Relief Valve Plate	1	AAB-134
2	Oil Relief Valve Plate Plug	1	64A1
3	Oil Pressure Relief Ball	1	10A7
4	Oil Pressure Relief Spring	1	78A40
5	Oil Pressure Adjusting Screw	1	76K1
6	Oil Pressure Adjusting Screw Nut	1	50G3
7	Oil Relief Valve Plate Safety	1	AAB-141
8	Oil Pressure Gauge	1	27B5
9	Oil By-Pass Plate	1	AAB-90
10	Oil Relief Valve Plate Gasket	1	25C159
11	Oil By-Pass Plate Gasket	1	25C159
<u>WRENCHES</u>			
		NO.REQ'D. PER COMP.	MODEL AAB-1000 AAB-1001 AAC-1000 AAC-1001 <u>SYMBOL</u>
	WRENCHES		MODEL AAC-1002 AAC-1002 <u>SYMBOL</u>
	Wrench for Valve Clamp Screw Nut	1	99B15
	Socket Wrench for Conn. Rod Nuts, Piston Pin		
	Clamp Screws & Valve Adj. Screws	1	XE-81
	The above wrenches and the following make up a "complete set of wrenches."		
	Single End Wrench 9/16"	1	99B8
	Double End Wrench 1-1/16" & 3/4"	1	99U12
	Double End Wrench 7/8" & 1-1/16"	1	99U23



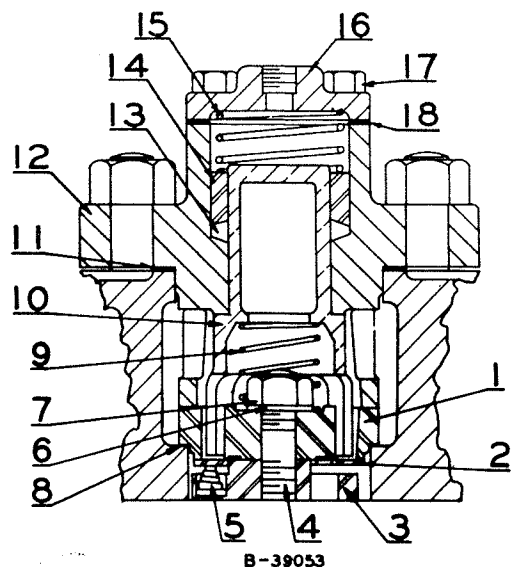
B-39060

REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAB-1000
	<u>SUCTION VALVE - PLAIN</u>		<u>SYMBOL</u>
	Suction Valve Assembly, Parts #1 thru 6	2	AAA-506
1	Suction Valve Seat	2	3-YA-14
2	Suction Valve Disc	2	90E3
3	Suction Valve Bumper	2	3-YA-128
4	Suction Valve Bumper Stud	2	79C8
5	Suction Valve Spring	6	78C6
6	Suction Valve Clamp Piece	2	1-YA-194
7	Suction Valve Seat Gasket	2	25L3
8	Cover Plate Gasket	2	25A4
9	Cover Plate	2	AAA-11
10	Clamp Screw	2	76D3
11	Clamp Screw Nut	2	50B5
12	Clamp Screw Gasket	2	97A14

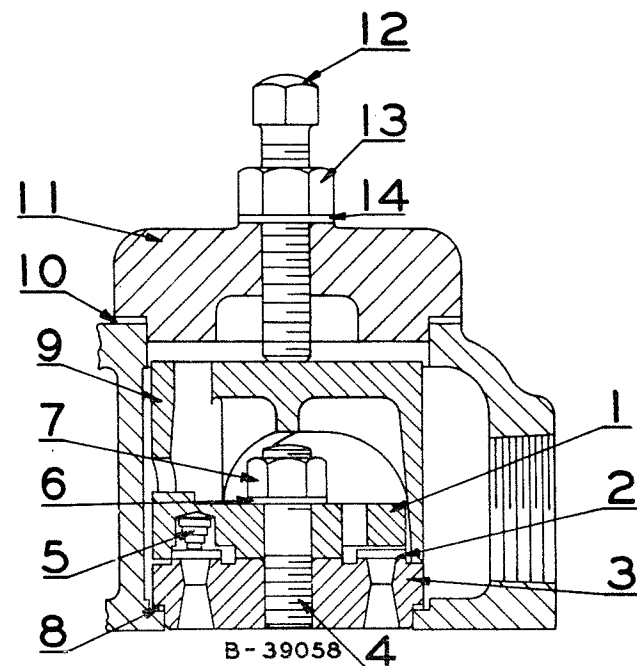


B-39057

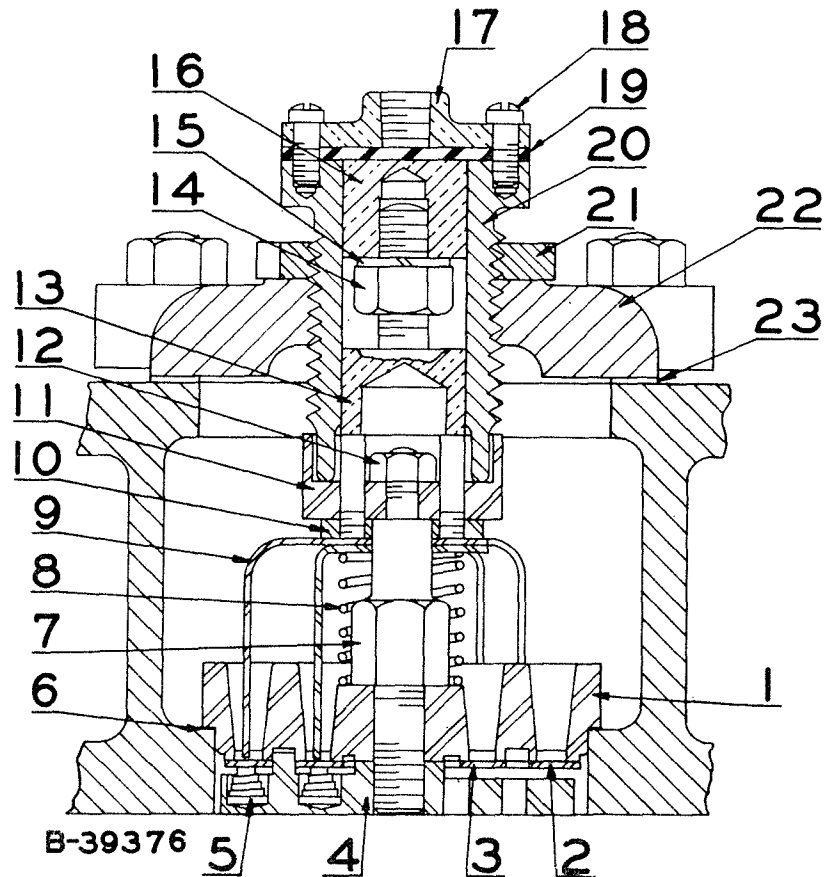
REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAB-1000
	<u>DISCHARGE VALVE - PLAIN</u>		<u>SYMBOL</u>
	Discharge Valve Assembly - Parts #1 thru 6	2	AAA-507
1	Discharge Valve Bumper	2	4-YA-128
2	Discharge Valve Disc	2	90E3
3	Discharge Valve Seat	2	2-YA-127
4	Discharge Valve Bumper Stud	2	79C7
5	Discharge Valve Spring	6	78C6
6	Discharge Valve Clamp Piece	2	1-YA-194
7	Discharge Valve Seat Gasket	2	25L3
8	Cover Plate Gasket	2	25A4
9	Cover Plate	2	AAA-11
10	Clamp Screw	2	76D3
11	Clamp Screw Nut	2	50B5
12	Clamp Screw Gasket	2	97A14



REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAB-1001 SYMBOL
	SUCTION UNLOADING VALVE- PACKED PLUNGER TYPE		
	Suction Unldg. Valve Assem.-all parts	2	1-AAB-526
	Suction Valve Assem., Parts #1 thru 7	2	1-AAA-506
1	Suction Valve Seat	2	3-YA-14
2	Suction Valve Disc	2	90E3
3	Suction Valve Bumper	2	3-YA-128
4	Suction Valve Bumper Stud	2	79C8
5	Suction Valve Spring	6	78C6
6	Suction Valve Bumper Washer	2	95H5
7	Suction Valve Bumper Stud Nut	2	50C5
8	Suction Valve Seat Gasket	2	25L3
9	Unloader Plunger Spring	2	78A51
10	Unloader Plunger	2	1-AAB-217
11	Cover Plate Gasket	2	25B29
12	Cover Plate	2	1-AAA-185
13	Plunger Packing	2	60B2
14	Plunger Packing Gland	2	AAD-208
15	Plunger Packing Spring	2	78D2
16	Cover Plate Cap	2	AAD-274
17	Cover Plate Cap Screw	8	75A33
18	Cover Plate Cap Gasket	2	25C336

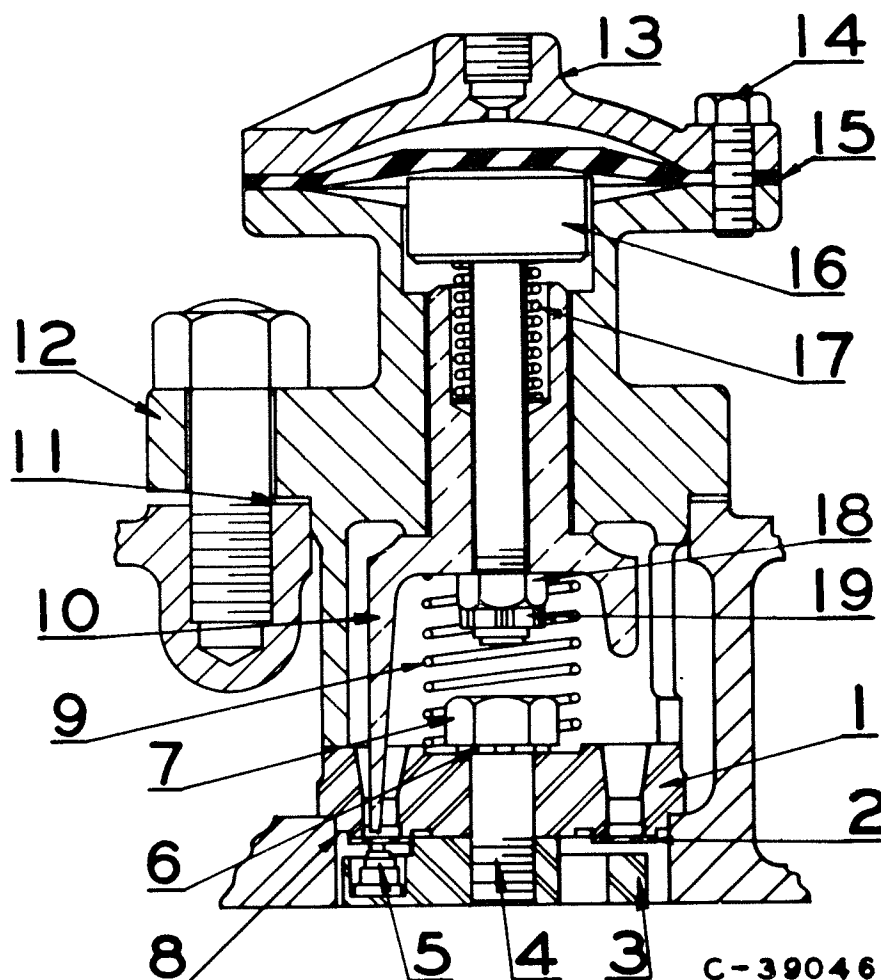


REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAB-1001 AAB-1002 SYMBOL
	DISCHARGE VALVE		
	Discharge Valve Assembly, Part #1 thru 7	2	1-AAA-507
1	Discharge Valve Bumper	2	4-YA-128
2	Discharge Valve Disc	2	90E3
3	Discharge Valve Seat	2	2-YA-127
4	Discharge Valve Bumper Stud	2	79C7
5	Discharge Valve Spring	6	78C6
6	Discharge Valve Bumper Washer	2	95H5
7	Discharge Valve Bumper Nut	2	50C5
8	Discharge Valve Seat Gasket	2	25L3
9	Discharge Valve Clamp	2	AAA-194
10	Discharge Valve Cover Plate Gasket	2	25R4
11	Discharge Valve Cover Plate	2	AAA-11
12	Discharge Valve Clamp Screw	2	76D3
13	Discharge Valve Clamp Screw Nut	2	50B5
14	Discharge Valve Clamp Screw Gasket	2	97A14

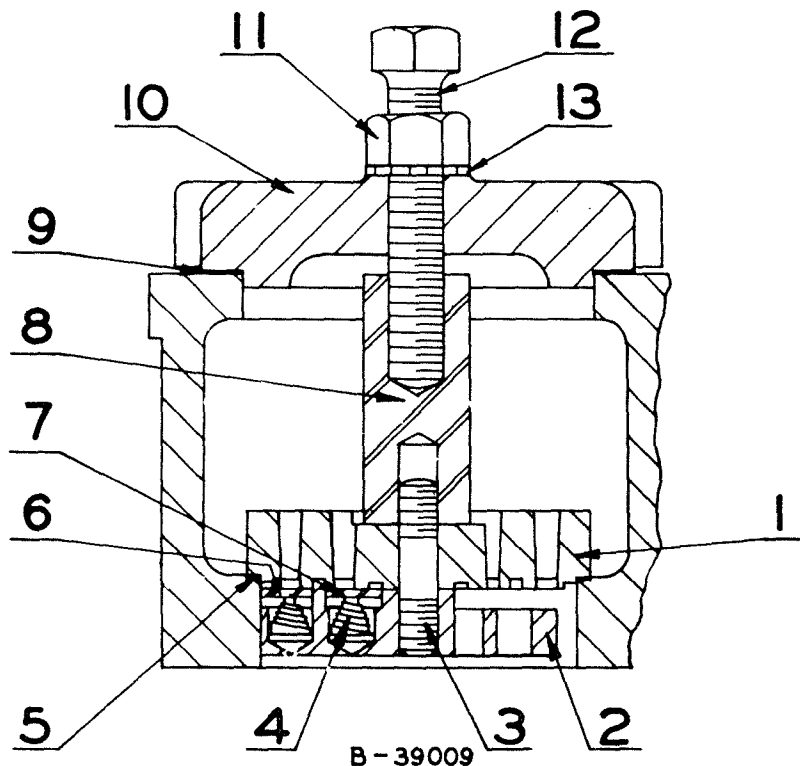


SUCTION UNLOADING VALVE WITH SMALL DIAPHRAGM-USED ON SOME OF THE EARLY MODEL AAB-1001 & AAC-1001 COMPRESSORS.

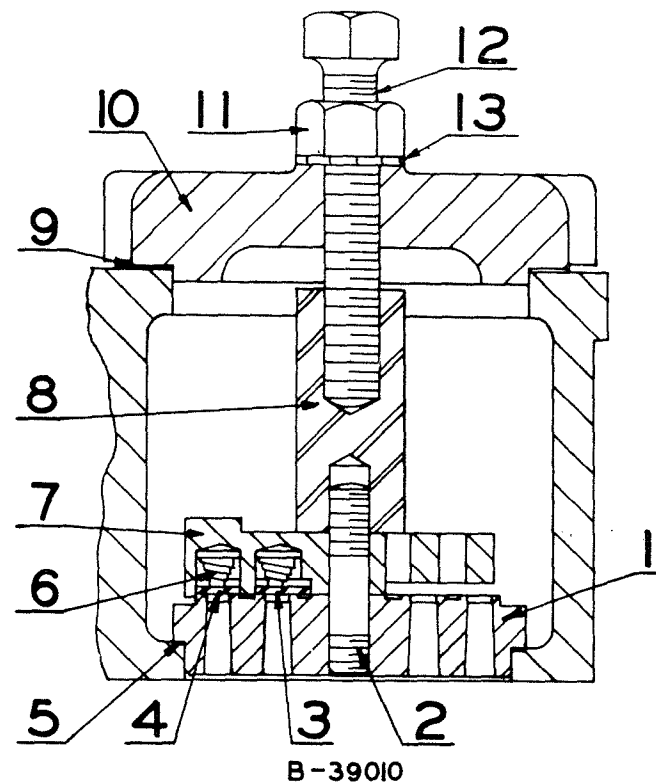
REF. NO.	NAME OF PART	NO.REQ'D. PER UNIT	MODEL AAB-1001	MODEL AAC-1001
	Suction Valve Assembly, Parts Ref. Nos. 1, 2, 3, 4, 5, 7 & 12	2	<u>SYMBOL</u> AAA-506	<u>SYMBOL</u> AAC-506
1	Suction Valve Seat	2	3-YA-14	2-YA-14
2	Suction Valve Disc (Outer)	2	90E3	90E4
3	Suction Valve Disc (Inner)	2	None	90E5
4	Suction Valve Bumper with Stud	2	3-YA-128	2-XD-128
5	Suction Valve Spring	See ()	78C6 (6)	78C6 (12)
6	Suction Valve Seat Gasket	2	25L3	25L4
7	Unloading Valve Stud & Nut	2	XF-221	XG-221
8	Unloading Valve Spring	2	78A3	78A9
9	Unloading Finger	2	XF-218	2-XG-218
10	Unloading Plate with Pins	2	XH-406	XH-406
11	Suction Unloader Adj. Screw Seat	2	XT-215	1-XH-215
12	Unloading Valve Stud Nut	2	50B2	50B2
13	Suction Unloader Plunger with Nut & Washer	2	XF-316	XF-316
14	Suction Unloader Plunger Nut	2	50G5	50G5
15	Suction Unloader Plunger Lockwasher	2	95B5	95B5
16	Suction Unloader Plunger	2	1-XF-217	1-XF-217
17	Suction Unloading Diaphragm Cap	2	XH-274	XH-274
18	Suction Unloading Diaphragm Cap Screw	6	75J2	75J2
19	Suction Unloading Diaphragm	2	XF-315	XF-315
20	Suction Unloading Adj. Screw	2	1-XF-214	1-XF-214
21	Suction Unloading Adj. Screw Nut	2	2-AUX-83	2-AUX-83
22	Suction Valve Cover Plate	2	AAA-185	AAC-185
23	Suction Valve Cover Plate Gasket	2	25A4	25A1



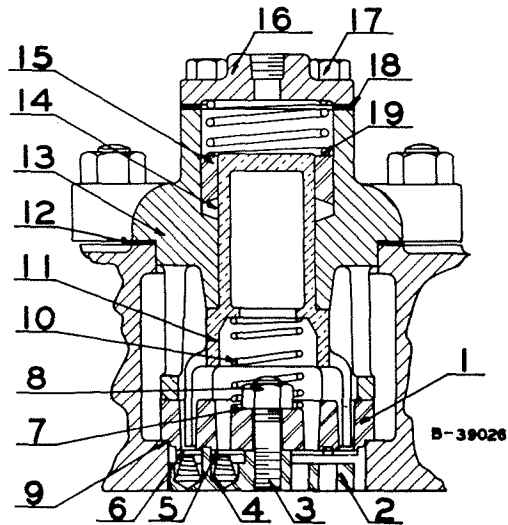
REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAB-1002 SYMBOL
	<u>SUCTION UNLOADING VALVE- DIAPHRAGM OPERATED</u>		
	Suction Unloading Valve Assembly, All Parts.	2	4-AAB-526
	Suction Valve Assem., Parts #1 thru 7	2	1-AAA-506
1	Suction Valve Seat	2	3-YA-14
2	Suction Valve Disc	2	90E3
3	Suction Valve Bumper	2	3-YA-128
4	Suction Valve Bumper Stud	2	79C8
5	Suction Valve Spring	6	78C6
6	Bumper Stud Washer	2	95H5
7	Bumper Stud Nut	2	50C5
8	Valve Seat Gasket	2	25L3
9	Lower Unloader Plunger Spring	2	78A124
10	Lower Unloader Plunger	2	WHD-217
11	Cover Plate Gasket	2	25B29
12	Cover Plate	2	3-AAA-185
13	Diaphragm Cap	2	1-WAU-274
14	Diaphragm Cap Screw	12	75A34
15	Diaphragm	2	2-AAB-215
16	Upper Unloader Plunger	2	1-WBG-467
17	Upper Unloader Plunger Spring	2	78A126
18	Upper Unloader Plunger Nut	2	50E4
19	Upper Unloader Plunger Cotter	2	62E3



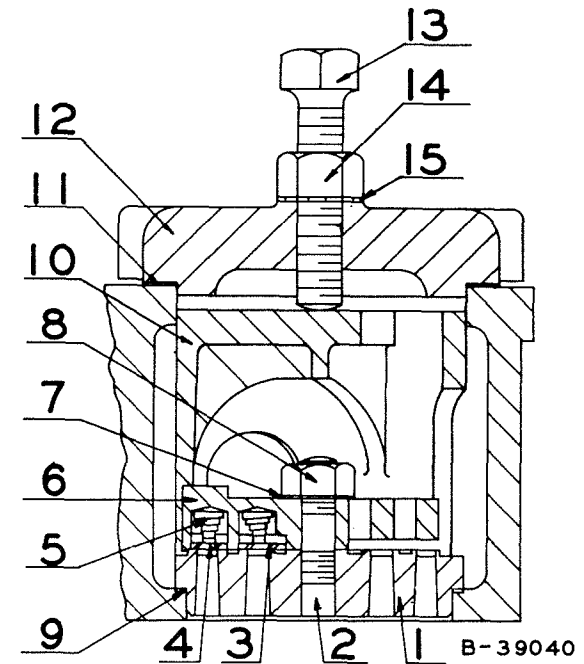
REF. NO.	NAME OF PART	NO. REQ' D. PER COMP.	MODEL AAC-1000 SYMBOL
	<u>SUCTION VALVE - PLAIN</u>		
	Suction Valve Assembly, Parts #1 thru 8	2	AAC-506
1	Seat	2	2-YA-14
2	Bumper	2	2-XD-128
3	Stud	2	79A59
4	Spring	6	78C2
5	Seat Gasket	2	25L4
6	Valve (Outer)	2	90E4
7	Valve (Inner)	2	90E5
8	Clamp Piece	2	YA-194
9	Cover Plate Gasket	2	25A1
10	Cover Plate	2	AAC-11
11	Cover Plate Screw Nut	2	50B5
12	Cover Plate Screw	2	76D2
13	Cover Plate Screw Gasket	2	97A14



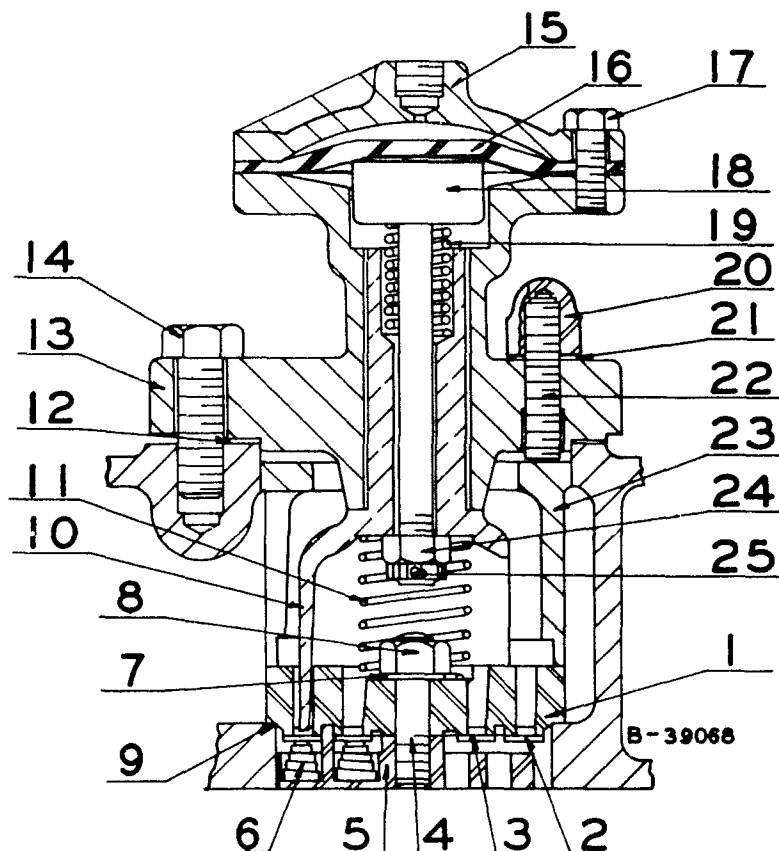
REF. NO.	NAME OF PART	NO. REQ' D. PER COMP.	MODEL AAC-1000 SYMBOL
	<u>DISCHARGE VALVE - PLAIN</u>		
	Discharge Valve Assembly, Parts #1 thru 8	2	AAC-507
1	Seat	2	3-YA-127
2	Bumper Stud	2	79A60
3	Valve (Inner)	2	90E5
4	Valve (Outer)	2	90E4
5	Seat Gasket	2	25L4
6	Valve Spring	12	78C6
7	Bumper	2	5-YA-128
8	Clamp Piece	2	YA-194
9	Cover Plate Gasket	2	25A1
10	Cover Plate	2	AAC-11
11	Clamp Screw Nut	2	50B5
12	Clamp Screw	2	76D2
13	Clamp Screw Gasket	2	97A14



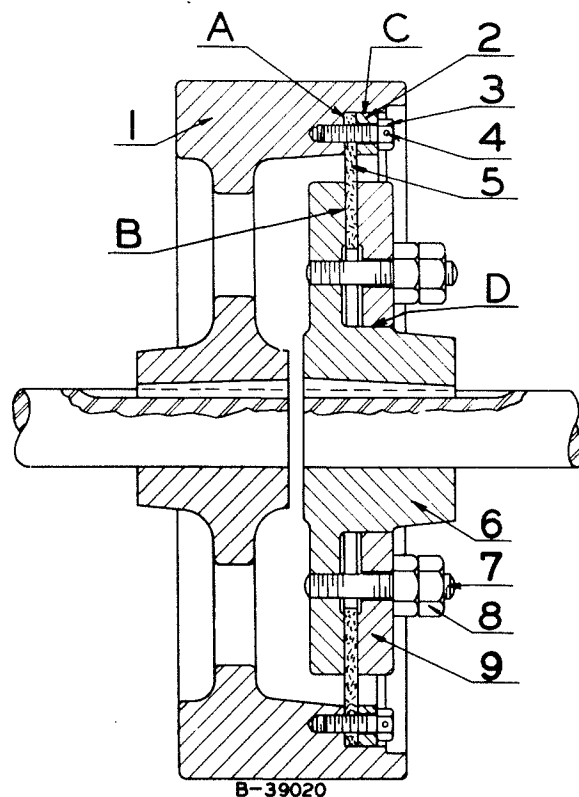
REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAC-1001 SYMBOL
	SUCTION UNLOADING VALVE PACKED PLUNGER		
	Suction Unloading Valve Assembly, All Parts Listed	2	1-AAC-526
	Suction Valve Assembly, Parts Ref. #1 thru 8	2	1-AAC-506
1	Seat	2	2-YA-14
2	Bumper	2	2-XD-128
3	Bumper Stud	2	79A59
4	Valve Spring	12	78C6
5	Valve Disc	2	90E5
6	Valve Disc	2	90E4
7	Bumper Stud Washer	2	95H3
8	Bumper Stud Nut	2	50B3
9	Valve Seat Gasket	2	25L4
10	Unloader Plunger Spring	2	78A51
11	Unloader Plunger	2	AAC-217
12	Cover Plate Gasket	2	25B34
13	Cover Plate	2	1-AAC-185
14	Plunger Packing	2	60B2
15	Plunger Packing Gland	2	AAD-208
16	Cover Plate Cap	2	AAD-274
17	Cover Plate Cap Screw	8	75A33
18	Cover Plate Cap Gasket	2	25C336
19	Plunger Packing Spring	2	78A51



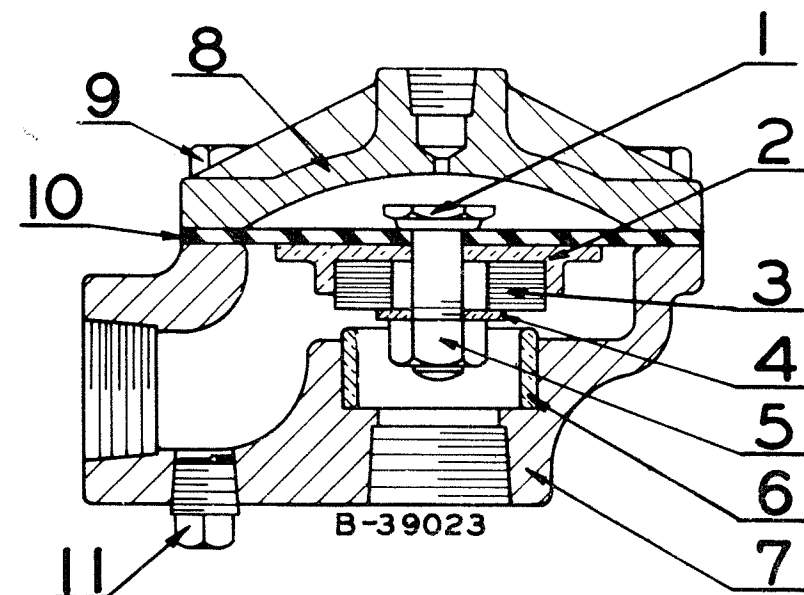
REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODEL AAC-1001 AAC-1002 SYMBOL
	DISCHARGE VALVE		
	Discharge Valve Assembly, Parts Ref. #1 thru 8	2	1-AAC-507
1	Seat	2	3-YA-127
2	Bumper Stud	2	79A30
3	Valve Disc (Inner)	2	90E5
4	Valve Disc (Outer)	2	90E4
5	Valve Spring	12	78C6
6	Bumper	2	5-YA-128
7	Bumper Stud Washer	2	95H3
8	Bumper Stud Nut	2	50B3
9	Valve Seat Gasket	2	25L4
10	Clamp	2	AAC-194
11	Cover Plate Gasket	2	25R1
12	Cover Plate	2	AAC-11
13	Clamp Screw	2	76D3
14	Clamp Screw Nut	2	50B5
15	Clamp Screw Gasket	2	97A14



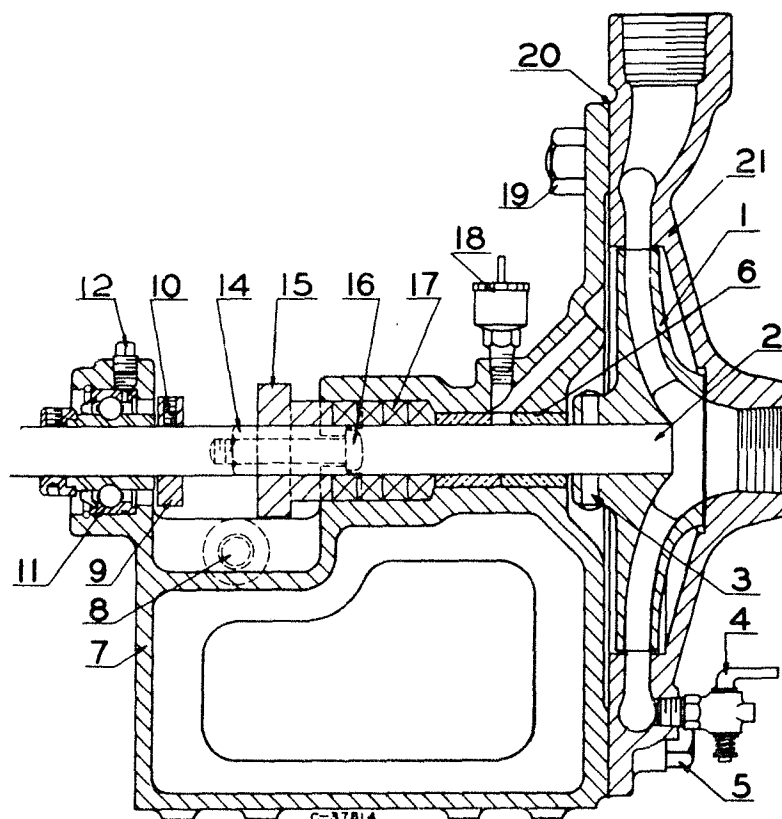
REF. NO.	NAME OF PART	NO. REQ' D. PER COMP.	MODEL AAC-1002
	<u>SUCTION UNLOADING VALVE-DIAPHRAGM OPERATED</u>		<u>SYMBOL</u>
	Suction Unloading Valve Assembly, all parts shown.	2	3-AAC-526
	Suction Valve Assembly, parts ref. 1 thru 8	2	1-AAC-506
1	Suction Valve Seat	2	2-YA-14
2	Suction Valve Disc (Outer)	2	90E4
3	Suction Valve Disc (Inner)	2	90E5
4	Suction Valve Bumper Stud	2	79A59
5	Suction Valve Bumper	2	2-XD-128
6	Suction Valve Spring	12	78C6
7	Suction Valve Bumper Washer	2	95H3
8	Suction Valve Bumper Nut	2	50B3
9	Seat Gasket	2	25L4
10	Lower Unloader Plunger	2	2-AAC-217
11	Lower Unloader Plunger Spring	2	78A124
12	Cover Plate Gasket	2	25R1
13	Cover Plate	2	VAB-185
14	Cover Plate Screw	8	75A20
15	Unloader Diaphragm Cap	2	1-WAU-274
16	Unloader Diaphragm	2	2-AAB-215
17	Unloader Diaphragm Cap Screw	12	75A34
18	Upper Unloader Plunger	2	1-ABL-467
19	Upper Unloader Plunger Spring	2	78A126
20	Clamp Screw Nut	4	50Q13
21	Clamp Screw Gasket	4	25F15
22	Clamp Screw	4	76GG9
23	Clamp	2	VAB-194
24	Unloader Plunger Nut	2	50E4
25	Unloader Plunger Cotter	2	62E3



REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODELS AAB & AAC
	<u>FLEXIBLE COUPLING-OPTIONAL EQUIPMENT</u>		<u>SYMBOL</u>
	Flexible Coupling Assembly, Parts #1 thru 9	1	AAB-532
1	Coupling Flywheel (Comp. Half)	1	2-XT-398
2	Coupling Flange Disc Retainer	1	XG-294
3	Disc Retainer Screw	8	75B38
4	Disc Retainer Screw Wire	1	97A8
5	Coupling Flange Disc	1	XG-295
6	Coupling Flange with Studs & Nuts	1	AAB-548
7	Coupling Flange Stud	6	79A16
8	Coupling Flange Stud Nut	12	50F7
9	Coupling Flange Piece	1	XF-49



REF. NO.	NAME OF PART	NO. REQ'D. PER COMP.	MODELS AAB & AAC
	<u>WATER CONTROL VALVE-OPTIONAL EQUIPMENT</u>		<u>SYMBOL</u>
	Water Control Valve Assembly, Parts Ref. #1 thru 11	1	AUX-503
1	Valve Stud	1	HAB-478
2	Valve Carrier	1	HAB-479
3	Valve	1	90R1
4	Valve Washer	1	95G1
5	Valve Nut	1	50Y3
6	Valve Seat	1	HAB-477
7	Valve Body	1	AUX-8
8	Valve Diaphragm Cap	1	1-WAU-274
9	Valve Diaphragm Cap Screw	6	75A34
10	Valve Diaphragm	1	1-HAB-480
11	Valve Body Plug	1	64A2



REF. NO.	NAME OF PART	NO. REQ' D. PER COMP.	MODELS AAB & AAC SYMBOL
	<u>WATER CIRCULATING PUMP- OPTIONAL EQUIPMENT</u>		
1	Impeller	1	C1F-1A1
2	Shaft	1	C1B-5A1
3	Pin	1	62A19
4	Casing Drain Cock	1	90W4
5	Casing Screw	8	75A54
6	Pushing	2	12K28
7	Frame	1	C1B-4A2
8	Pipe Plug - Drain	1	64A1
9	Deflector	1	C1B-9A1
10	Deflector Set Screw	2	76C12
11	Ball Bearing	1	12AE11
12	Pipe Plug - Bearing Housing	1	64A2
14	Gland Nut	2	50B3
15	Gland	1	C1B-10A1
16	Gland Bolt	2	15BB36
17	Packing	1	60A149
18	Grease Cup	1	40A14
19	Casing Nut	8	50B5
20	Casing Gasket	1	25D107
21	Casing	1	C1F-2A1

NAME OF PART	NO.REQ'D. PER COMP.	MODELS AAB&AAC
LIST OF PARTS REQ'D. FOR DIRECT CONNECTED WATER PUMP		
Pump Drive Collar	1	1-AAB-62
Pump Drive Collar Screw	2	75B3
Pump Drive Collar Screw Wire	1	97A2
Bearing End Plate (used in place of AAB-5)	1	4-AAB-61
Bearing End Plate Oil Seal	1	60G37
Coupling Half (Crankshaft Half)	1	51A13
Coupling Spider	1	51A14
Coupling Half (Pump Half)	1	51A19
Pump to End Plate Screw	4	75A4
Pump to End Plate Washer	4	95A5
Water Piping (Pump to Compressor)		
Pump Outlet St. Elbow	1	64D14
Pump Outlet Half Nipple	2	63A15
Pump Outlet Hose	1	29A65
Pump Outlet Hose Clamp	2	29B4
Jacket Inlet St. Elbow	1	64D10
List Of Parts Required For Vee Belt Driven Water Pump		
Crankcase to Cylinder Screw	2	75A7
Pump Drive Sheave - on crankshaft	1	31-AUX-174
Pump Drive Sheave Screw	2	75A7
Vee Belt	1	13C76
Driven Sheave - on Pump Shaft	1	73B1
Pump Bracket	1	8-AUX-115
Pump Bracket Brace	1	85-AUX-90
Brace to Bracket Screw	1	75A185
Brace to Bracket Screw Washer	1	95B1
Brace to Case	1	75AA100
Pump to Bracket Screw	4	75A20
Pump to Bracket Washer - Plain	4	95F5
Pump to Bracket Lockwasher	4	95B5
Pump to Bracket Nut	4	50B5
Water Piping - Pump to Compressor		
Street Ell	2	64D10
Half Nipple	2	63A75
Hose	1	29A99
Hose Clamp	2	29B4
Street Elbow	1	64X6

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