

PARTS & INSTRUCTION MANUAL

FOR

POLYPUMP

MILLENNIUM SERIES

MODELS: DP-193-PP
DP-282.1-P
DP-332-P
DP-448-P
DP-555-P
DP-687-P

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Table of Contents

NOTES TO THE OWNER.....	3
SELECTION OF PUMP AND EQUIPMENT DESIGN.....	3
SAFETY PRECAUTIONS.....	3-4
GENERAL	3
OPERATIONAL	4
INSTALLATION	4
INSTALLATION SCHEME.....	5-6
CHECKS TO MAKE BEFORE USING THE PUMPS	5
SUCTION HEAD	5
OPERATING INSTRUCTIONS	6
AFTER USE	6
ORDINARY MAINTENANCE FOR DIAPHRAGM PUMPS.....	6-7
VALVE ASSEMBLY AND O-RING REPLACEMENT	6
DIAPHRAGM REPLACEMENT	7
OIL CHANGE	7
COUPLING TO AGRICULTURAL MACHINERY	8
COUPLING TO ELECTRIC MOTORS AND GASOLINE ENGINES	8
PRESSURE REGULATOR OPERATING INSTRUCTIONS.....	9
CHEMICAL RESISTANCE CHART.....	9
PARTS LIST AND DRAWINGS.....	10-19
PUMP DIMENSIONS	20-21
TROUBLES AND CURES REFERENCE CHART.....	BACK COVER
WARRANTY.....	BACK COVER

WARNING: This product can expose you to certain chemicals, which are known to the State of California to cause cancer or birth defects or other reproductive harm. **For more information go to: www.P65Warnings.ca.gov.**

WARNING: USE OF THIS PRODUCT FOR ANY PURPOSES OTHER THAN ITS ORIGINAL INTENT, ABUSE OF THE PRODUCT, AND/OR MODIFICATION TO THE ORIGINAL PRODUCT IS STRICTLY PROHIBITED BY JOHN BLUE COMPANY. JOHN BLUE COMPANY RESERVES THE RIGHT TO DENY WARRANTY OR LIABILITY CLAIMS IN ANY/ALL SITUATIONS INVOLVING MISUSE, ABUSE OR MODIFICATION.

THE ORIGINAL INTENT OF THIS PRODUCT DOES NOT INCLUDE USE WHERE THE MAXIMUM ALLOWED SPEED, PRESSURE, OR TEMPERATURE IS EXCEEDED. AND IT DOES NOT INCLUDE APPLICATIONS UTILIZING FLUIDS THAT ARE NOT COMPATIBLE WITH THE PRODUCTS COMPONENT MATERIALS. DO NOT USE THIS PRODUCT WITH FLAMMABLE OR COMBUSTIBLE FLUIDS SUCH AS GASOLINE, KEROSENE, DIESEL, ETC ..., AND DO NOT USE IN EXPLOSIVE ATMOSPHERES. FAILURE TO FOLLOW THIS NOTICE MAY RESULT IN SERIOUS INJURY AND/OR PROPERTY DAMAGE AND WILL VOID THE PRODUCT WARRANTY. IF IN DOUBT ABOUT YOUR APPLICATION, CONTACT YOUR STOCKING DEALER OR THE JOHN BLUE TECHNICAL STAFF AT 1-800-253-2583.

NOTES TO THE OWNER

Thank you for purchasing a John Blue pump. These pumps are equipped with mechanical diaphragms. They are manufactured with materials that make them suitable for weed control, liquid fertilizer, spraying and washing. A complete system with accessories is easily adapted to tractors, sprayers and boom sprayers, electric motors and gasoline/diesel engines.

This manual has been prepared and illustrated to assist you in the maintenance of your John Blue pump. Enter your serial number and date of purchase for the diaphragm pump in the space provided below for ordering parts and service information.

Because our engineering department is constantly improving products, we reserve the right to make design and specification changes without notice.

Serial No. _____

Purchase Date _____

SELECTION OF PUMP AND EQUIPMENT DESIGN

With regard to safety, all pumps meet the regulations in effect at publishing time.

Choose the pump type carefully, according to the kind of liquid used and to the technical specifications (output, pressure) needed. If there are any questions about which pump type should be used, please contact our Technical Department.

John Blue pumps are designed and manufactured with materials that are compatible with water. They are also compatible with most pesticides and herbicides currently on the market in the concentration recommended by manufacturer. Use only pump liquid that is compatible with the pump component materials. Failure to follow this warning can result in injury and/or property damage.

The technical specifications of each pump (RPM, output, pressure) are shown on the label attached to the pump. For more information, call our Technical Department at 1-800-253-2583.

Carefully evaluate which pump model series to use. Using the correct pump type and size for the operation system can prevent possible bodily injury. Also use similar care when selecting the electric, gasoline/diesel motors or driven systems so they conform to the recommended performance to prevent personal injury and environment damage. Finally, it is important to be cautious during the design and construction of the equipment to prevent bodily injury, coming not from the pump, but from the design, construction or improper use of equipment.

A certified electrician should be used when wiring an electrically driven pump.

SAFETY PRECAUTIONS

GENERAL

- Do not operate equipment until you read and understand Operators Manual.
- Carry a first aid kit and five (5) gallons of clean water to flush contaminated skin and eyes.
- Agricultural chemicals can be dangerous. Improper selection or application can injure persons, animals, plants, soils or other property. Follow label from chemical manufacturer.
- Always wear eye protection and protective clothing when in the area of spray pump and/or control.
- In addition to the pressure regulator, use the proper safety relief valve in the plumbing after the pump.
- Before each use, make certain that all connections are tight and secure.
- Disconnect power before servicing.

- Do not pump flammable or combustible fluids.
- Do not operate pump above recommended rpm.
- Provide adequate protection in guarding around the moving parts such as the shaft and the pulley.
- Stop pump and release all pressure within the system before servicing any component.
- Do not operate pump above 145°F (62°C) liquid temperature.
- Do not remove the pressure dampener until air pressure has been completely vented.

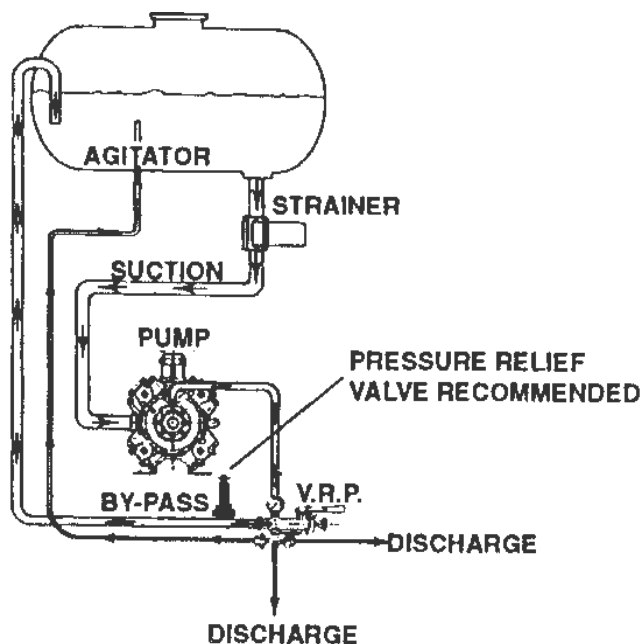
WARNING: Severe Bodily injury may occur if the above precautions are not taken.

OPERATIONAL

- Equipment should be operated only by trained, responsible people.
- Do not allow anyone but operator on equipment.
- Wear safety goggles and/or respirator when operating applicator.
- Do not attempt any service or disassembly without stopping machine and releasing all pressure from system.
- Do not operate equipment with shields removed.
- Make a visual inspection of all hose and fittings for soundness on a scheduled basis.
- Replace anything which appears questionable.

INSTALLATION

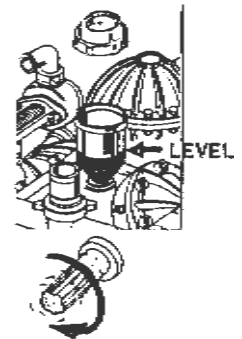
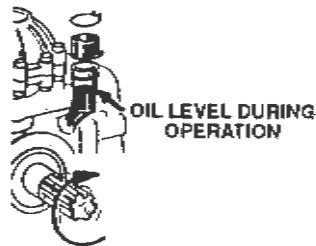
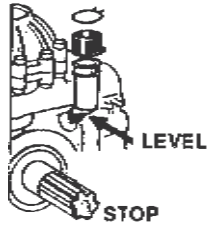
1. Pump should be installed perfectly lined up with the driven gears (pulleys, gear boxes, overgears, etc.).
2. Attach the pump to a strong base plate and anchor it with bolts sufficiently strong enough to hold it in place.
3. Proper selection of type and hose size is vital to good performance:
 - Diameter of suction, discharge and by-pass hoses should be at least that of the pump hose barb or greater.
 - Use only hoses rated for maximum pressure rating of the pump.
4. Use suction line of spiral steel wire braid reinforced suction hose to prevent collapse. Use good quality hose clamps and tighten securely.
5. Use only components (hose, fittings, clamps, etc.) rated for maximum pressure rating of the pump.
6. Failure to follow the above information can result in malfunctions of the pump and will void the product warranty.



INSTALLATION SCHEME

CHECKS TO MAKE BEFORE USING THE PUMPS

- With the pump not running, check to make sure that the oil level is correct. Add oil, if needed, taking care not to exceed the indicated level. Repeat with pump running. See “Oil Change” on page 7.



- Check to make sure the inlet and discharge hoses are not crimped. Also make sure the strainer is clean.
- Prevent any hose restrictions and be sure connections are tight to prevent air entering, since these conditions will compromise pump performance.
- If pumping from a tank, check to make sure that the control unit by-pass line is not too close to the inlet line. Make sure that it does not create turbulence inside the tank.
- Turn the pressure adjustment lever to the by-pass position when starting the pump.
- The pulsation dampener on the pump or on the pressure line is generally charged at 80-120 psi, the recommended pressure rating for the pump.
- For different working pressures, set the pressure of the pulsation dampener as follows:

WORKING PRESSURE	PULSATION DAMPENER PRESSURE
300 - 700 psi	80 - 120 psi
150 - 300 psi	70 - 80 psi
70 - 150 psi	15 - 70 psi

Note: As a general rule, set the pulsation dampener to 1/3 the working pressure without exceeding 100 psi. Also, with the pump not running, check the pressure with a pressure gauge. It is a good practice to inspect the pulsation dampener diaphragm at regular intervals.

SUCTION HEAD

Do not use pump for filling the tank. The hydroinjector, with a proper nozzle, can be used for this purpose. Avoid suction head higher than approximately 10 ft. and use the correct length for hoses, without elbow runs, better if pre-charged. In this case some problems may occur with the pump diaphragms.

OPERATING INSTRUCTIONS

- When starting pump, turn the valve lever to the dump position (by-pass) to facilitate priming. Once the pump is primed, turn the valve lever to the “PRESS” position and adjust the working pressure with the knob: turning knob clockwise will increase pressure, turning knob counterclockwise will decrease pressure.
- Operating pump above recommended rpm will not improve performance, but may damage the pump. Operation at rpm higher than specification voids all warranties.
- Be sure that the oil level is not above the maximum level with the pump running with pressure.

AFTER USE

After use, in order to prevent damage, flush the pump and let it operate for a few minutes at working pressure with a solution that will neutralize the liquid last pumped (refer to that manufacturer's instructions). Afterward empty the pump, so that the pressure drops to zero (“O”), and then let the pump run without liquids for two minutes.

To protect pump from freezing, flush pump per instructions above (after use) and then flush with straight RV-antifreeze. Empty the pump per the instructions above.

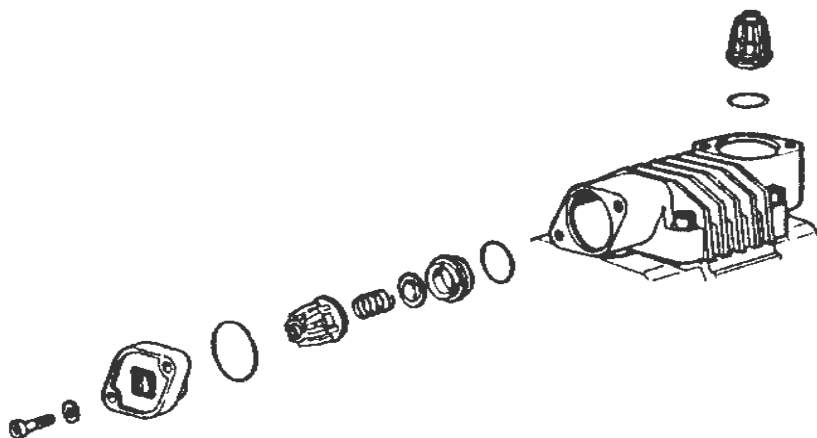
ORDINARY MAINTENANCE FOR DIAPHRAGM PUMPS

Routine maintenance on the pump includes changing the diaphragms, oil, valve assembly and o-rings, all of which are normal wear parts.

VALVE ASSEMBLY AND O-RING REPLACEMENT

Occasionally, debris can cause the valves to not seat properly or damage o-rings. To check for this problem, please follow these steps:

1. Remove the valve cover (or the manifold) and remove the valves, check for debris and wear. Check o-rings as well.
2. Replace necessary parts and reassemble.
3. Repeat for all valves. Consult the parts list for the corresponding valve kit or o-ring kit part number.



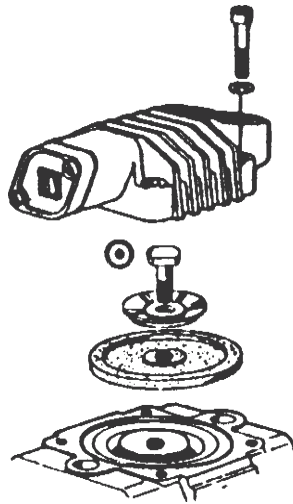
DIAPHRAGM REPLACEMENT

1. Remove the pump heads one by one.
2. Use a wrench to remove the diaphragm bolt, diaphragm and support washer.
3. If you removed the piston sleeves, replace them one at a time in their previous position. It is a good idea to mark them as they are removed.
4. Insert the new diaphragm on the piston and install it with its bolt. Use these tightening torques:

			Diaphragm Bolt Size	Torque
M 6 x 1	=	5 N.m.	6 mm	44 inch-pounds
M 8 x 1,25	=	12 N.m.	8 mm	106 inch-pounds
M 10 x 1,25	=	25 N.m.	10 mm	221 inch-pounds

The diaphragms should be replaced with the piston at its bottom and the edges inserted perfectly into the groove all the way around.

5. Replace the heads and attach them with their bolts.
6. Refill pump with oil through the reservoir and rotate the shaft to distribute oil and fill to proper level. Repeat all the checks described above in the section "Checks to make before using the pump."
7. Check the oil level with the pump running and without pressure until all air bubbles have been vented. Close the cap on the oil sight tube after the air has been completely emptied.
8. After the first inspection of the oil level as above, check the oil level again with the pump running with pressure.



OIL CHANGE

Change oil after 500 hours as follows:

1. Remove the tank plug and the drain plug.
2. Rotate the shaft until the oil stops flowing.
3. Wash inside parts with diesel oil.
4. Put the drain plug and pour oil (SAE 30) slowly into sight tube while turning the pump shaft.
5. Start the pump at zero ("0") pressure for a few minutes to allow the correct lubrication of inside parts.
6. While the pump is operating, check the oil level inside the reservoir.
7. If necessary, fill oil to proper level.

WARNING: Too much oil causes pressure into the crankcase and this can result in leakage or diaphragm failures.

For pumps without the drain plug, it is not necessary to periodically change the oil. However, the oil should be changed when replacing diaphragms.

COUPLING TO AGRICULTURAL MACHINERY

1. Check that the PTO of the machine does not exceed the maximum rpm shown on the pump plate.
2. Synchronized the PTO with the motor speed, consult the service manual to get the gear number and rpm corresponding to the maximum pump rotation speed.
3. When the rpm of the PTO is higher than the maximum speed, use the suggested reduction gear.
4. Disconnect PTO when moving pump out of service. If that is impossible, then disengagement should be provided.

COUPLING TO ELECTRIC MOTORS AND GASOLINE ENGINES

For direct coupling always use the suggested reduction gear.

For coupling with pulley, check alignment of the two pulleys.

$$\text{Maximum Transmission Ratio} \frac{\text{Motor RPM}}{\text{Max Pump RPM}} = K$$

After determining K, you can establish the motor or pump pulley diameter:

$$\text{Motor Pulley Pitch Diameter} = \frac{\text{Pump Pulley Pitch Diameter}}{\text{Pump RPM}} = K$$

$$\text{Pump Pulley Pitch Diameter} = \text{Motor Pulley Pitch Diameter} \times K$$

For special installation or application consult our Technical Department for the necessary modifications.

WARNING: All wiring should be done by a qualified electrician.

WARNING: Do not handle a pump or pump motor with wet hands or when standing on a wet damp surface, or in water.

ORIGINAL SPARE PARTS

Use only original spare parts otherwise warranty will be declined.

Always enter the serial number printed on the pump label.

When ordering parts, please specify the following:

- pump model
- part number
- description
- quantity
- means of shipment

PRESSURE REGULATOR OPERATING INSTRUCTIONS

Before starting, turn the valve lever counterclockwise to the dump position (by-pass flow). Failure to follow this will void the warranty on the pump.

Turn the adjustment knob counterclockwise to decrease the pressure to zero ("0") psi. In the initial start-up this is absolutely recommended.

When the valve is in the by-pass line, start the unit and let it run for at least two (2) minutes or until oil is displaced in the cylinder and air is evacuated from circuit.

Turn the valve lever clockwise to pressure position, close the spray gun or spray boom. Turn the adjustment knob clockwise to achieve operating pressure. Then open the spray gun or spray boom.

CHEMICAL RESISTANCE CHART

The recommendations in the chart below are based upon information from material suppliers and careful examination of available published information and are believed to be accurate. The resistance of metals, plastics and elastomers may be affected by concentration, temperature, presence of other chemicals and other factors. This information should be considered as a general guide rather than an unqualified guarantee. All recommendations assume ambient temperatures unless otherwise noted. The ratings for these materials are based upon the chemical resistance only.

Material	Viton	Buna N (Nitrile)
Acetaldehyde	A	B
Acetamide	A	A
Acetate Solv ²	D	D
Acetic Acid, Glacial	D	D
Acetic Acid 20%	D	D
Acetic Acid 80%	D	C
Acetic Acid	C	C
Acetic Anhydride	D	A

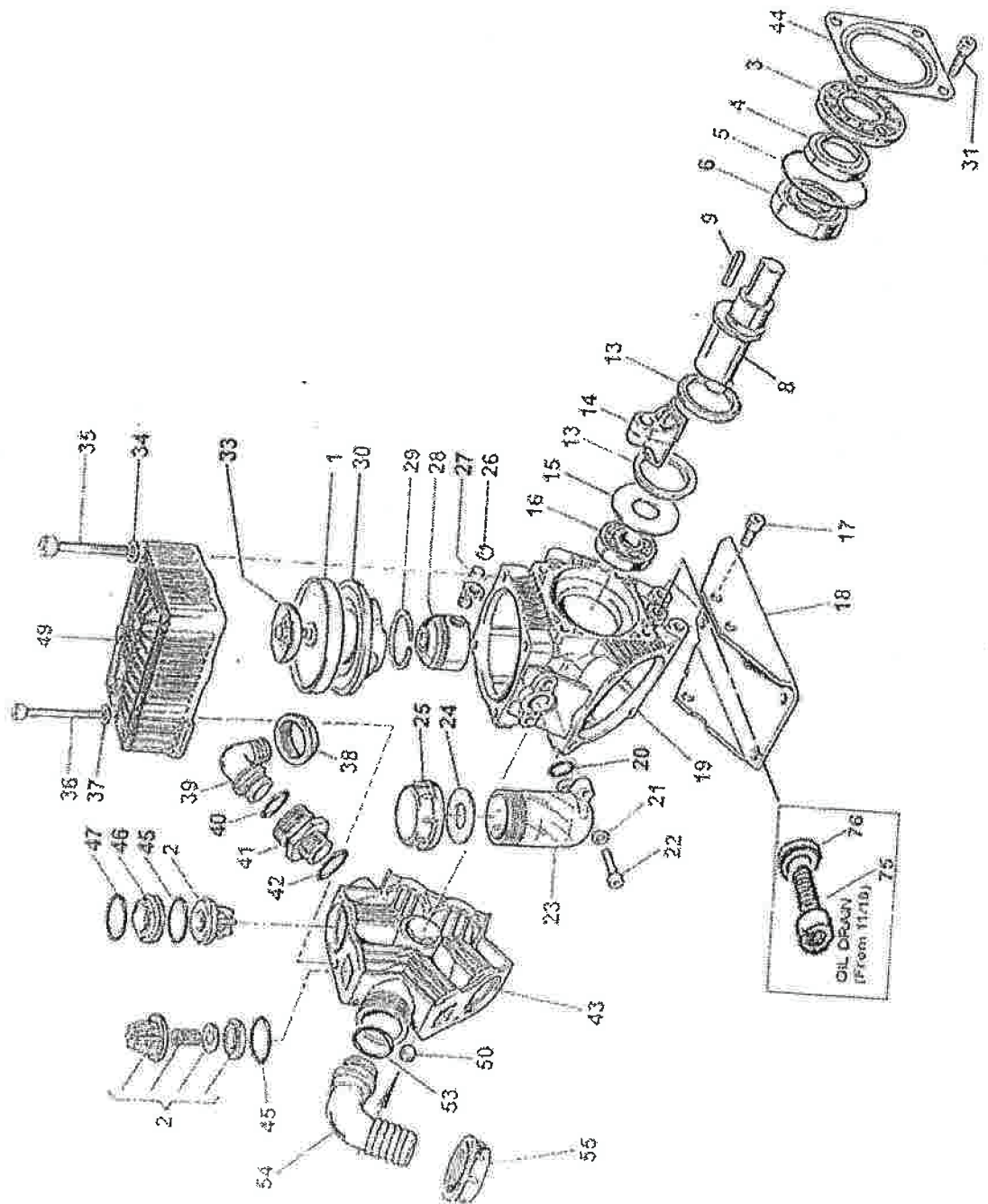
Material	Viton	Buna N (Nitrile)
Acetone	D	D
Acetylen ²	A	A
Acrylonitrile	C	D
Alcools Amyl	A	A
Benzyl	A	D
Butyl	A	A
Diacelone ²	D	D

Material	Viton	Buna N (Nitrile)
Ethyl	A	A
Hezyl	A	A
Isobutyl	A	C
Isopropyl	A	C
Methyl	C	B
Octyl	A	B
Propyl	A	A

A = Acceptable, No effect
B = Acceptable, Minor effect

C = Questionable, Moderate effect
D = Not Recommended, Severe effect

DP-193-PP

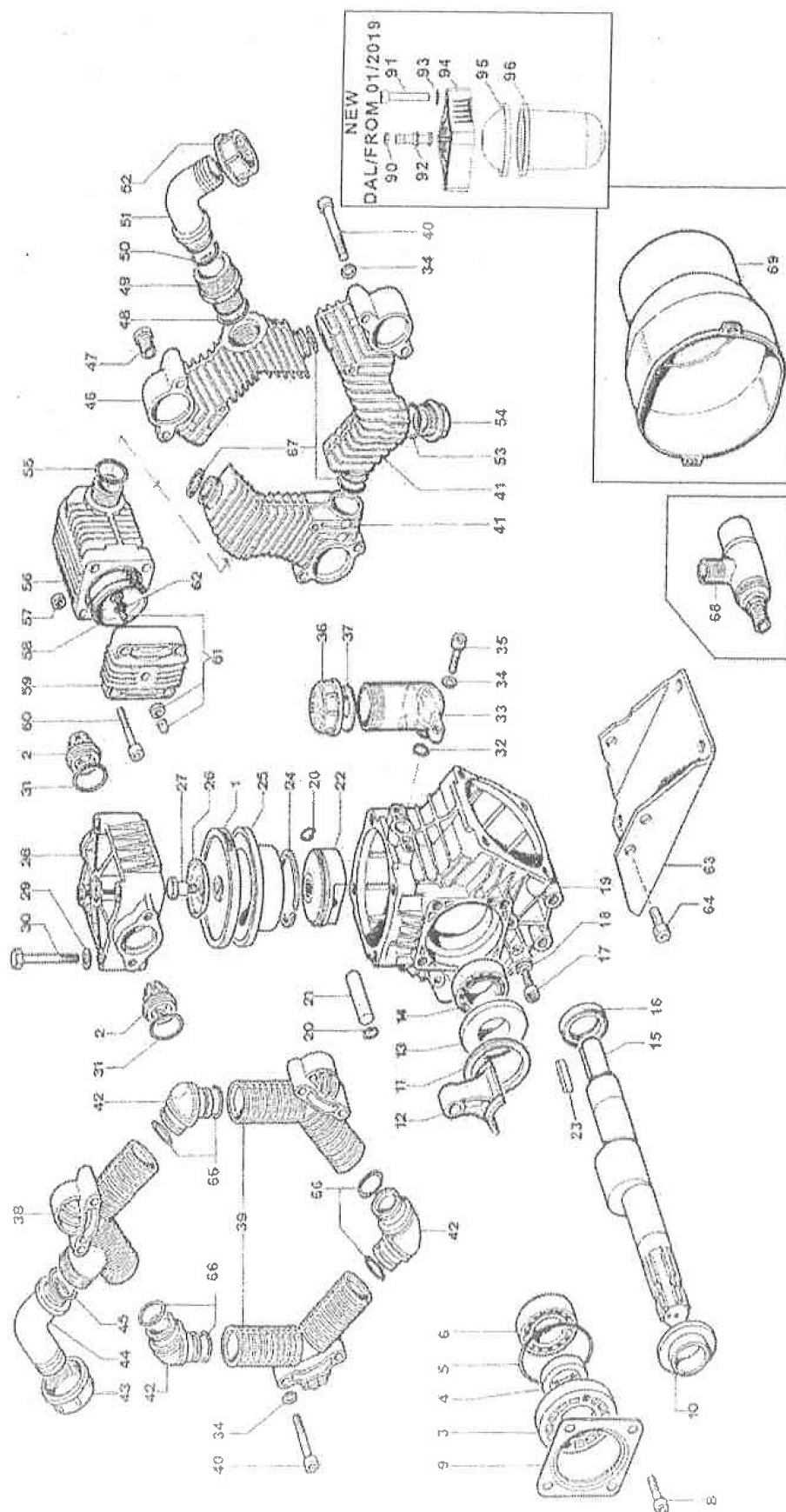


DP-193-PP

※ Pump Kit: DP-63988097 ■ Pump Kit with Shaft Seals: DP-63988197 □ SS-Valve Kit: DP-639872973 ◆ Desmopan Diaphragm Kit: DP-63987397

ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
■◆1	DP-95004000	DESMOPAN PISTON DIAPHRAGM	3	34	DP-84380500	WASHER DIA. 10, 5 X 21 X 2	12
□2	DP-28980997	SS VALVE ASSY	6	35	DP-86356250	SCREW M10 X 70 UNI5931	12
3	DP-53000732	HOUSING	1	36	DP-86300105	SCREW M8 X 75 UNI5931	3
■※4	DP-80214310	OIL SEAL DIA. 35 X 52 X 7	1	37	DP-84369700	WASHER 8, 4 X 18 X 2	3
■※5	DP-80331000	O-RING 4, 0 X 82	1	■38	DP-82006750	WING NUT G. 1-1/4"	1
6	DP-81283700	BALL BEARING DIA. 35 X 62 X 14	1	39	DP-84054240	90° ELBOW CONNECTOR DIA. 25	1
13	DP-26004776	RING	2	■40	DP-80321905	O-RING 3, 0 X 25 VITON	1
14	DP-23000509	CONNECTING ROD	1	41	DP-83508950	NIPPLES G.1" - G.1-1/4"	1
15	DP-95009761	CRANKSHAFT SPACER	1	■42	DP-80321850	O-RING, 3 X 22 VITON	1
16	DP-81264600	BALL BEARING DIA. 20 X 52 X 15	1	43	DP-63011032	MANIFOLD	1
17	DP-86326550	SCREW M10 X 25 UNI5931	3	44	DP-17001661	FLANGE	1
18	DP-63000661	MOUNTING RAIL	1	■※□45	DP-80332070	O-RING, 5, 0 X 40 VITON	6
19	DP-63000109	CRANKCASE	1	46	DP-28022932	VALVE ASSY SPACER	4
■20	DP-80318000	O-RING 2, 62 X 15, 08	1	■※□47	DP-80321990	O-RING, 3, 0 X 39 VITON	4
21	DP-84368540	WASHER DIA. 8, 2 X 15 X 1, 5	2	49	DP-63002232	HEAD	3
22	DP-86268400	SCREW M8 X 25 UNI5931	2	50	DP-85258600	CAP G.3/8	1
23	DP-23000832	OIL FILLER	2	■53	DP-80321915	O-RING 3, 0 X 30 VITON	1
■24	DP-82412000	GASKET DIA. 45 X19 X 1, 5	1	54	DP-84057100	90° ELBOW CONNECTOR DIA. 38	1
25	DP-85275000	OIL FILLER CAP	1	55	DP-82007000	WING NUT G. 1-1/2"	1
26	DP-80002100	RING DIA. 15	6	75	DP-86369465	SCREW M12 X 20	1
27	DP-85200670	PISTON PIN DIA. 15	3	76	DP-82406600	GASKET, 13,2 X 17 X 1 COPPER	1
28	DP-63001409	PISTON	3				
29	DP-81850450	PISTON RING	3				
30	DP-63001501	PISTON SLEEVE	3				
31	DP-86318705	SCREW M10 X 16 UNI5739	4				
33	DP-63980197	KIT SCREW/DISK INOX	3				

DP-282.1-P

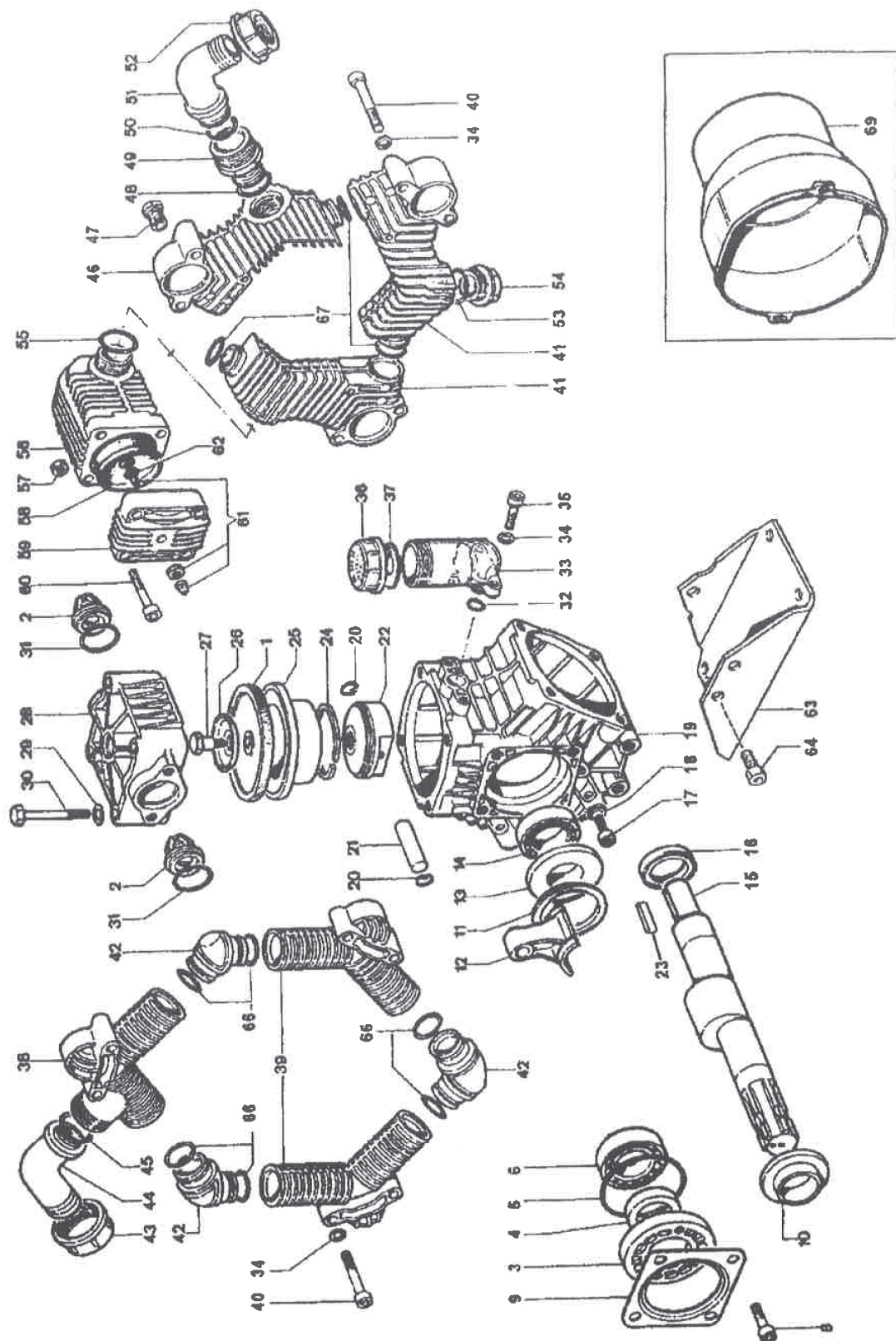


DP-282.1-P

❖ Pump Kit: DP-62980397
 ■ Pump Kit with Shaft Seals: DP-62981097
 □ SS Valve Kit: DP-62980597
 ◆ Desmopan Diaphragm Kit: DP-62980797
 ● Viton Diaphragm Kit: DP-62980997

POS	PART NUMBER	DESCRIPTION	QTY	POS	PART NUMBER	DESCRIPTION	QTY
●■◆1	DP-62004000ADS	DIAPHRAGM DURAMAX	3	39	DP-62000332	MANIFOLD PIPE	2
1	DP-62004036	HPS PISTON DIAPHRAGM (OPT)	3	40	DP-86295105	SCREW M8 X 65 UNI5931	12
□2	DP-28990597	SS VALVE ASSY	6	41	DP-62000232	MANIFOLD PIPE (OUTLET)	2
3	DP-53000732	HOUSING	1	42	DP-62000732	ELBOW MANIFOLD	3
■*4	DP-80214310	OIL SEAL DIA. 35 X 52 X 7	1	43	DP-82007000	WING NUT G. 1-1/2"	1
■*5	DP-80331000	O-RING 4. 0 X 82	1	44	DP-84057100	90° ELBOW CONNECTOR DIA. 38	1
6	DP-81284600	BALL BEARING DIA. 35 X 72 X 17	1	■45	DP-80321915	O-RING 3, 0 X 30, VITON	1
8	DP-86318705	SCREW M10 X 18 UNI 5931	4	46	DP-62003132	MANIFOLD PIPE G. 3/8	1
9	DP-17001661	FLANGE	1	47	DP-85257700	CAP G. 3/8 + OR	1
10	DP-62002909	SPACER CRANKSHAFT	1	■48	DP-80324760	O-RING 3,53 X 28,17, VITON	1
11	DP-98004776	CONNECTING ROD RINGS	2	●49	DP- 83508900	NIPPLES G. 1- G. 1-1/4"	1
12	DP-62000811	CONROD	3	■50	DP-80321905	O-RING 3, 0 X 25, VITON	1
13	DP-28002709	SHAFT SPACER	1	51	DP-84054240	90° ELBOW CONNECTOR DIA .25	1
14	DP-81283700	BALL BEARING DIA. 35 X 62 X 14	1	52	DP-82006750	WING NUT G. 1-1/4"	1
15	DP-62002726	CRANKSHAFT "VDA"	1	●53	DP-80320650	O-RING 2, 62 X 28, 25,	1
■16	DP-80214310	OIL SEAL DIA. 35 X 52 X 7	1	54	DP-85272000	CAP G 1 "	1
17	DP-86369465	SCREW M12 X 20 UNI 5931	1	●55	DP-80321910	O-RING 3, 0 X 30, VITON	1
■18	DP-82407900	GASKET DIA. 13, 2 X 17 X 1 COPPER	1	56	DP-27004032	DAMPER BODY	1
19	DP-62003009	CRANKCASE	1	57	DP-81458050	NUT M8	4
20	DP-80002100	RING DIA. 15	6	●◆58	DP-23004131	BALLASTER DIAPHRAGM (BEFORE 1/19)	1
21	DP-85200670	PISTON PIN DIA. 15	3	59	DP-11000409	BALLASTER COVER (BEFORE 1/19)	1
22	DP-63001309	PISTON DIA. 72	3	60	DP-86275210	SCREW M8 X 35 UNI 5931 (BEFORE 1/19)	4
23	DP-80647500	TAB 6, 36 X 6, 36 X 38	1	61	DP-86160850	AIR VALVE (BEFORE 1/19)	1
24	DP-81953000	PISTON RING DIA. 72	3	■62	DP-80321300	O-RING 3, 0 X 6 (BEFORE 1/19)	1
25	DP-62000501	PISTON SLEEVE DIA. 72	3	63	DP-63000661	MOUNTING RAIL	1
26	DP-41005468	DISK INOX	3	64	DP-86325510	SCREW M10 X 25 UNI5931	3
27	DP-62004551	DIAPHRAGM LOCKING BOLT	3	●■*66	DP-80320650	O-RING 2, 62 X 28, 25, VITON	6
28	DP-62002532	HEAD	3	●■*67	DP-80320450	O-RING 2,62 X 23, 81, VITON	3
29	DP-84384500	WASHER DIA. 12, 2 X 21 2, 5	12	69	DP-31146832	PLAIN SAFETY CONE (OPT)	1
30	DP-86406850	SCREW M12 X 75 UNI5931	12	70	DP-62981897	KIT SCREW / DISK INOX	3
●■*□31	DP-80331450	O-RING 4, 5 X 40, VITON	6	90	DP-86161100	AIR VALVE NUT (FROM 1/19)	1
■32	DP-80318000	O-RING 2, 62 X 15, 08	1	91	DP-86285200	SCREW M8X45 (FROM 1/19)	4
33	DP-23000832	OIL FILLER	1	92	DP-86160900	AIR VALVE (FROM 1/19)	1
34	DP-84368540	WASHER DIA. 8 2 X 15 X 1, 5	14	93	DP-84368540	SS WASHER (FROM 1/19)	4
35	DP-86273100	SCREW, M8 X 30	2	94	DP-11018332	BALLASTER COVER (FROM 1/19)	1
36	DP-85275000	OIL FILLER CAP	1	95	DP-10004131	SUP. BALLASTER DIAPHRAGM (FROM 1/19)	1
■37	DP-82412000	GASKET DIA. 45 X 19 X 1, 5	1	96	DP-23009431	INF. BALLASTER DIAPHRAGM (FROM 1/19)	1
38	DP-62000432	MANIFOLD PIPE G. 1-1/2"	1				

DP-332-P



DP-332-P

※ Pump Kit: DP-62980397

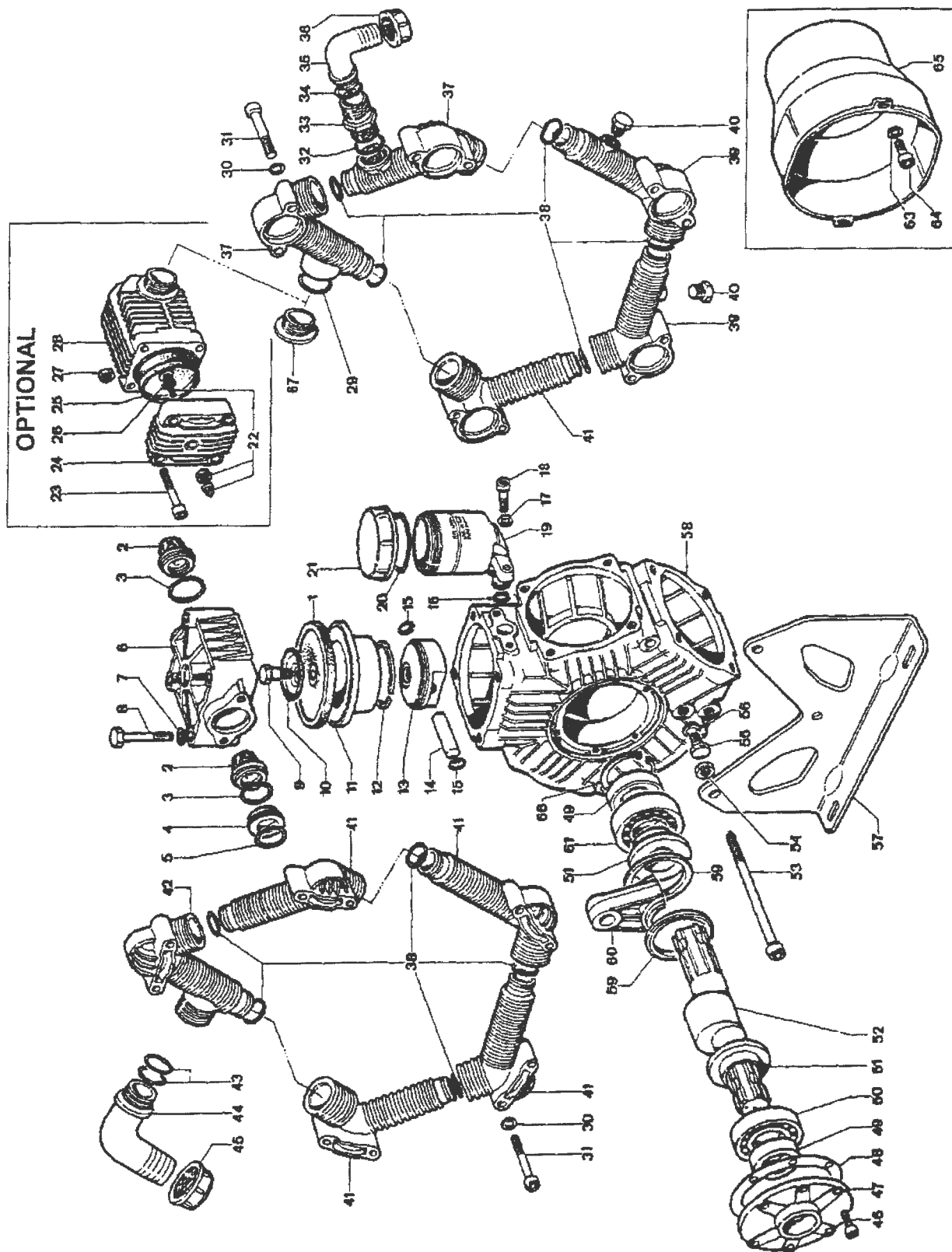
■ Pump Kit with Shaft Seals: DP-62981097

□ SS Valve Kit: DP-62980597

◆ Desmopan Diaphragm Kit: DP-62980797

POS	PART NUMBER	QTY	DESCRIPTION	POS	PART NUMBER	QTY	DESCRIPTION
1	DP-62004000	3	DESMOPAN PISTON DIAPHRAGM	33	DP-23000832	1	OIL FILLER
1	DP-62004036	3	HPS PISTON DIAPHRAGM (OPT)	34	DP-84368550	14	WASHER DIA. 8, 2 X 15 X 1, 5
2	DP-28980997	6	SS VALVE ASSY	35	DP-86268250	2	SCREW M8 X 25 UNI5931
3	DP-53000732	1	HOUSING	36	DP-85275000	1	OIL FILLER CAP
4	DP-80214310	1	OIL SEAL DIA. 35 X 52 X 7	37	DP-82412000	1	GASKET DIA. 45 X 19 X 1, 5
5	DP-80331000	1	O-RING 4. 0 X 82	38	DP-62000432	1	MANIFOLD PIPE G. 1-1/2"
6	DP-81284600	1	BALL BEARING DIA. 35 X 72 X 17	39	DP-62000332	2	MANIFOLD PIPE
8	DP-86318750	4	SCREW M10 X 18 UNI 5931	40	DP-86296000	12	SCREW M8 X 65 UNI5931
9	DP-17001661	1	FLANGE	41	DP-62000232	2	MANIFOLD PIPE (OUTLET)
10	DP-62002909	1	SPACER CRANKSHAFT	42	DP-62000732	3	ELBOW MANIFOLD
11	DP-98004776	2	CONNECTING ROD RINGS	43	DP-82007000	1	WING NUT G. 1-1/2"
12	DP-62000811	3	BRONZE CONRODS	44	DP-84057100	1	90° ELBOW CONNECTOR DIA. 38
13	DP-28002709	1	SHAFT SPACER	45	DP-80321910	1	O-RING 3, 0 X 30
14	DP-81283700	1	BALL BEARING DIA. 35 X 62 X 14	46	DP-62003132	1	MANIFOLD PIPE G. 3/8
15	DP-62002726	1	CRANKSHAFT "VDA"	47	DP-85257600	1	CAP G. 3/8
16	DP-80214310	1	OIL SEAL DIA. 35 X 52 X 7	48	DP-80321910	1	O-RING 3, 0 X 30
17	DP-86369450	1	SCREW M12 X 20 UNI 5931	49	DP- 83508900	1	NIPPLES G. 1- G. 1-1/4"
18	DP-82407900	1	GASKET DIA. 13, 2 X 17 X 1 COPPER	50	DP-80321900	1	O-RING 3, 0 X 25
19	DP-62003009	1	CRANKCASE	51	DP-84054240	1	90° ELBOW CONNECTOR DIA .25
20	DP-80002100	6	RING DIA. 15	52	DP-82006750	1	WING NUT G. 1-1/4"
21	DP-85200670	3	PISTON PIN DIA. 15	53	DP-80320600	1	O-RING 2, 62 X 28, 25
22	DP-62001809	3	PISTON DIA. 78	54	DP-85271000	1	CAP G 1 "
23	DP-80647500	1	TAB 6, 36 X 6, 36 X 38	55	DP-80321910	1	O-RING 3, 0 X 30
24	DP-81854000	3	PISTON RING DIA. 78	56	DP-27003532	1	DAMPER BODY
25	DP-62001901	3	PISTON SLEEVE	57	DP-81457450	4	NUT M8 UNI5588
26	DP-28008568	3	DISK	58	DP-23004131	1	BALLASTER DIAPHRAGM
27	DP-62004551	3	DIAPHRAGM LOCKING BOLT	59	DP-11000409	1	BALLASTER COVER
28	DP-62002532	3	HEAD	60	DP-86275210	4	SCREW M8 X 35 UNI 5931
29	DP-84384450	12	WASHER DIA. 12, 2 X 21 2, 5	61	DP-86160850	1	AIR VALVE
30	DP-86406800	12	SCREW M12 X 75 UNI5931	62	DP-80321300	1	O-RING 3, 0 X 6
31	DP-80331450	6	O-RING 4, 5 X 40	63	DP-63000661	1	MOUNTING RAIL
32	DP-80318000	1	O-RING 2, 62 X 15, 08	64	DP-86326400	3	SCREW M10 X 25 UNI5931
				66	DP-80320600	6	O-RING 2, 62 X 28, 25
				67	DP-80321750	3	O-RING 3, 0 X 19
				69	DP-31146832	1	PLAIN SAFETY CONE (OPT)

DP-555-P



DP-555-P

❖ Pump Kit: DP-555980197

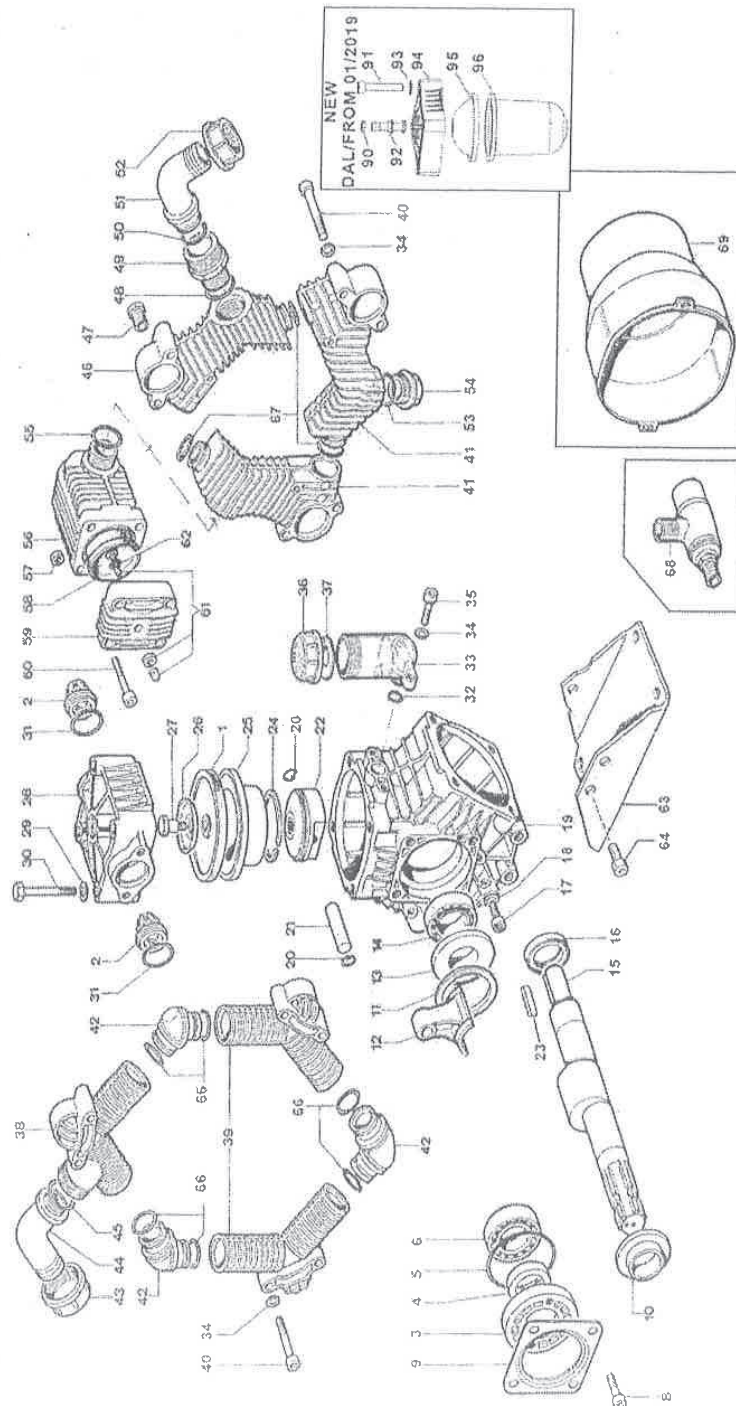
■ Pump Kit with Shaft Seals: DP-55980997

□ SS Valve Kit: DP-55980397

◆ HPS Diaphragm Kit: DP-55980697

POS	PART NUMBER	QTY	DESCRIPTION	POS	PART NUMBER	QTY	DESCRIPTION
1	DP-62004036	5	HPS PISTON DIAPHRAGM	34	DP-80321900	1	O-RING 3, 0 X 25
1	DP-62004000	5	DESMOPAN PISTON DIAPHRAGM (OPT)	35	DP-84054240	1	90° ELBOW CONNECTOR DIA. 25
2	DP-28980997	10	SS VALVE ASSY	36	DP-82006750	1	WING NUT G.1"1/4
3	DP-80331450	10	O-RING 4, 5 X 40, VITON	37	DP-55000832	2	MAINFOLD PIPE G.1"
4	DP-28022932	5	VALVE ASSY SPACER	38	DP-80325000	10	O-RING 3, 53 X 31, 34
5	DP-80320930	5	O-RING 2, 62 X 42, 52 VITON	39	DP-55000932	2	MAINFOLD PIPE G.3/8"
6	DP-62002532	5	HEAD	40	DP-85257600	2	CAP G.3/8"
7	DP-84384450	20	WASHER DIA. 12, 2 X 21 X 2, 5	41	DP-55000632	5	MAINFOLD PIPE
8	DP-86406800	20	SCREW M12 X 75 UNI5931	42	DP-55000732	1	MAINFOLD PIPE G.2"
9	DP-62004551	5	DIAPHRAGM LOCKING BOLT	43	DP-80320910	2	O-RING 2, 62 X 40, 95
10	DP-28008568	5	DISK	44	DP-84061000	1	90° ELBOW CONNECTOR DIA. 50
11	DP-62001901	5	PISTON SLEEVE	45	DP-82012000	1	WING NUT G.2"
12	DP-81854000	5	PISTON RING DIA. 78	46	DP-86256250	6	SCREW M8 X 20 UNI5931
13	DP-62001809	5	PISTON DIA. 78	47	DP-14001109	1	COVER
14	DP-85200670	5	PISTON PIN DIA. 15	48	DP-91011072	1	COVER GASKET
15	DP-80002100	10	RING DIA. 15	49	DP-80214310	2	OIL SEAL DIA. 35 X 52 X 7
16	DP-80318000	1	O-RING 2, 62 X 15, 08	50	DP-81287600	1	BALL BEARING DIA 35 X 100 X 25
17	DP-84368550	2	WASHER DIA. 8, 2 X 15 X 1, 5	51	DP-14001601	2	SHAFT SPACER
18	DP-86268250	2	SCREW M8 X 35 UNI5931	52	DP-14000926	1	CRANSHAFT POLYPUMP 260
19	DP-55000432	1	OIL FILLER	53	DP-86413900	3	SCREW M12 X 160
20	DP-80310920	1	O-RING 1, 8 X 67	54	DP-81468950	3	M12 UNI 5589 DACROMET NUT
21	DP-28004432	1	OIL FILLER CAP	55	DP-86369450	1	SCREW M12 X 20 UNI5931
22	DP-86160850	1	AIR VALVE	56	DP-82407900	1	GASKET DIA. 13, 2 X 17 X 1 COPPER
23	DP-86275210	4	SCREW M8 X 35 UNI5931	57	DP-55000361	2	MOUNTING RAILS
24	DP-11000409	1	BALLASTER COVER	58	DP-55000109	1	CRANKCASE
25	DP-23004131	1	BALLASTER DAIPHARGM	59	DP-14001576	2	CONROD RING
26	DP-80321300	1	O-RING 3, 0 X 6	60	DP-55000511	5	CONNECTING ROD
27	DP-81457450	4	NUT M8 UNI5588	61	DP-81286700	1	BALL BEARING DIA. 35 X 80 X 21
28	DP-27003532	1	DAMPER BODY	63	DP-84371000	2	WASHER DIA. 8, 5 X 24 X 2
29	DP-80321910	1	O-RING 3, 0 X 30	64	DP-86268250	2	SCREW M8 X 25 UNI 5931
30	DP-84368550	20	WASHER DIA. 8, 2 X 15 X 1, 5	65	DP-31146832	1	PLAIN SAFETY CONE (OPT)
31	DP-86299000	20	SCREW M8 X 70 UNI 5931	66	DP-80136900	1	RING DIA. 25
32	DP-80321910	1	O-RING 3, 0 X 30	67	DP-85271000	1	CAP G.1"
33	DP-83508900	1	NIPPLE G.1" - G.1-1/4"				

DP-687-P



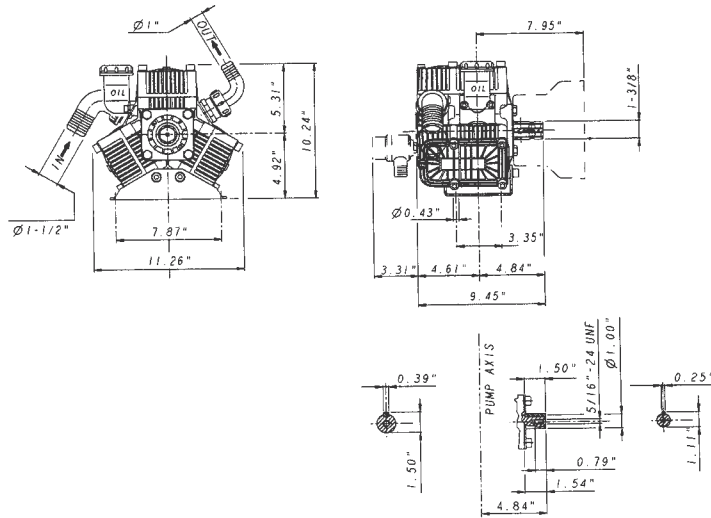
DP-687-P

□ SS-Valve Kit: DP-14987697 ♦ Diaphragm Kit: DP-14987997 ※ Pump Kit: DP-14988397 ■ Pump Kit w/Seals: DP-14988497 ● Viton Diaphragm Kit: DP-14988697

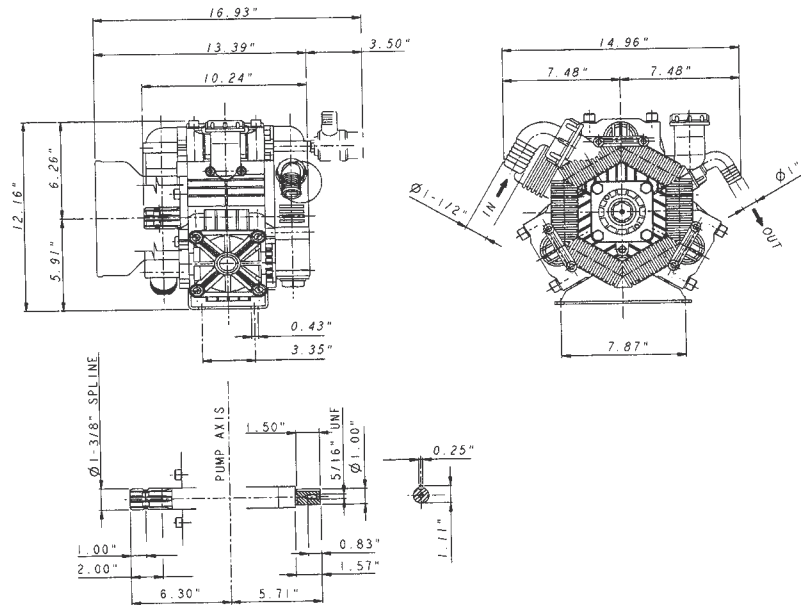
ITEM	PART NO.	DESCRIPTION	QTY	ITEM	PART NO.	DESCRIPTION	QTY
● 1	DP-6200400ADS	DIAPHRAGM - DURAMAX	6	29	DP-81287600	BALL BEARING 35X100X25	1
◆ 1	DP-62004036	HPS PISTON DIAPHRAGM	6	■ ※ 30	DP-91011072	COVER GASKET	1
□ 2	DP-28990597	SS VALVE ASSY	12	31	DP-14001109	COVER	1
● ■ ※ □ 3	DP-80331450	O-RING 4,5X40 VITON	12	32	DP-86256220	SCREW M8X20	6
4	DP-28022932	VALVE ASSY SPACER	6	34	DP-86268250	SCREW M8X25	2
● ■ ※ □ 5	DP-80320930	O-RING 2,62X 42,52, VITON	6	35	DP-31146832	PLAIN SAFETY CONE	1
6	DP-62002532	HEAD	6	36	DP-80320915	O-RING 2,62X40.95, VITON	2
7	DP-84384500	WASHER 13X 24 X 2.5	24	37	DP-84061000	90 DEG. ELBOW CONNECTOR	1
8	DP-86406850	SCREW M12X75	24	38	DP-82012000	WING NUT G.2"	1
9	DP-82007000	WING NUT G.1"1/2	1	39	DP-84369700	WASHER 8,4X18X2	24
10	DP-84056100	90 DEG. ELBOW CONN.	1	40	DP-86304405	SCREW M8X90	24
11	DP-14003032	PIPE MANIFOLD G. 3/8"	1	41	DP-14003232	PIPE MANIFOLD G2"	1
12	DP-80321915	O-RING 3.0X30 VITON	1	43	DP-14011732	BOWL OIL FILLER	1
13	DP-14002932	PIPE MANIFOLD	8	44	DP-84358500	WASHER	2
● ■ ※ 14	DP-80326450	O-RING 3, 53X44, 04, VITON	12	45	DP-86216800	SCREW M6X22	2
15	DP-85257710	CAP, G.3/8 + OR	2	46	DP-28014432	OIL FILLER CAP	1
16	DP-14003132	PIPE MANIFOLD G1"1/2	1	47	DP-62981197	KIT, SCREW/DISK	6
17	DP-14000109	CRANKCASE	1	48	DP-62001901	PISTON SLEEVE	6
■ ※ 18	DP-80214310	OIL SEAL 35X52X7	2	49	DP-81854000	PISTON RING DIA. 78	6
19	DP-81286700	BALL BEARING 35X80X21	1	50	DP-62001809	PISTON DIA. 78	6
20	DP-14001601	SHAFT SPACER	2	51	DP-80002100	RING DIA.15	12
21	DP-14001576	CONROD RING	2	52	DP-85200670	PISTON PIN DIA. 15	6
22	DP-14002711	CONROD	2	53	DP-80320900	O-RING	1
23	DP-14000926	CRANKSHAFT	6	54	DP-80136900	RING DIA. 52	1
24	DP-82406600	GASKET	1	55	SC-85116100	PIN D.4X45	24
25	DP-86369465	SCREW M12X20	1	56	DP-41001731	DIAPHRAGM OIL FILLER	1
26	DP-14001861	MOUNTING RAIL	1	57	DP-14011632	SPACER	1
27	DP-81468930	NUT M12	2	58	DP-14988897	OIL FILLER KIT	1
28	DP-86413910	SCREW M12X160	3	59	DP-14004232	PIPE MANIFOLD G. 1"F	1
			3	60	DP-85272000	CAP G.1	1
				61	DP-80320650	O-RING, 2,62X28,25, VITON	1

PUMP DIMENSIONS

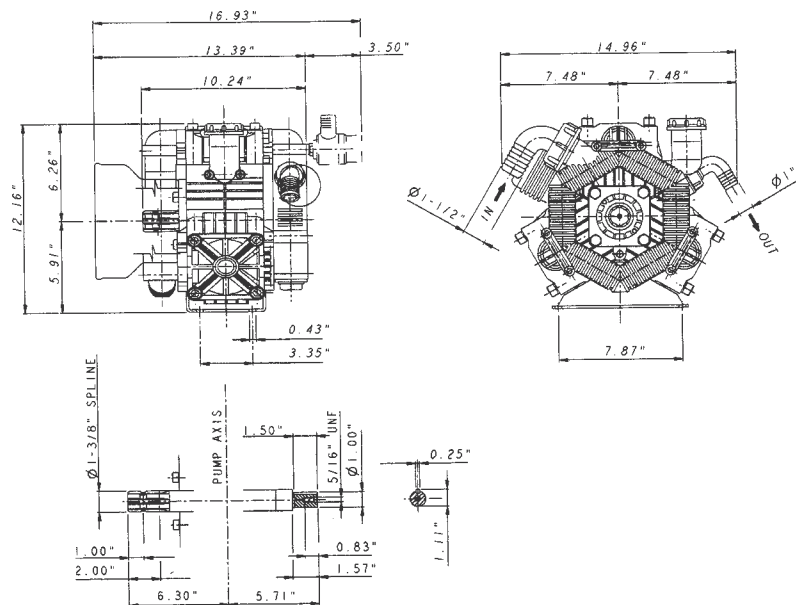
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DP-282.1-P

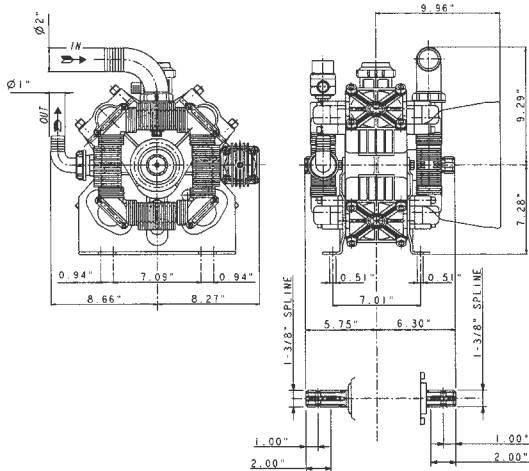


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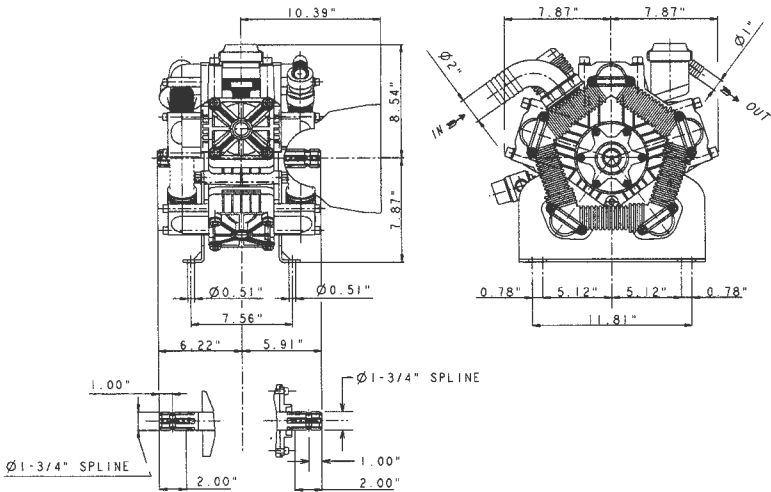


PUMP DIMENSIONS

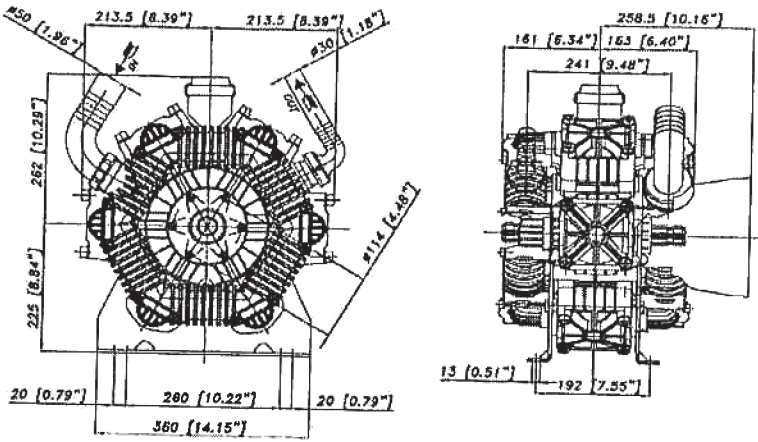
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DP-555-P

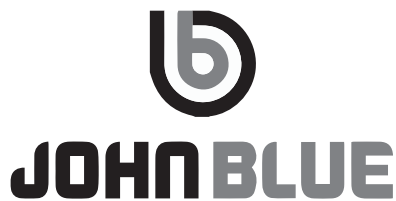


DP-687-P



NOTES

NOTES



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TROUBLES AND CURES

TROUBLES	CAUSES	CURES
The pump doesn't reach the required pressure	<ul style="list-style-type: none"> • valves have worn seats • suction hose with air pockets or irregular elbows • worn nozzles or with wrong diameter (see chart) • Clogged strainer 	<ul style="list-style-type: none"> • check valves • check hoses • check nozzles • clean strainer
The pressure gauge fluctuates	<ul style="list-style-type: none"> • pump is sucking air, or air hasn't been evacuated completely • valves blocked 	<ul style="list-style-type: none"> • start pump with the gun the air and commutate • clean and change valves
The liquid flow is irregular	<ul style="list-style-type: none"> • the air in the pulsation-damper is incorrectly set 	<ul style="list-style-type: none"> • check pressure in pulsation chart)
Output drops and the pump is noisy	<ul style="list-style-type: none"> • oil level is too low 	<ul style="list-style-type: none"> • top up with oil to correct the sump), when pump is operating
Oil comes out of the discharge pipe	<ul style="list-style-type: none"> • one or more diaphragms are broken 	<ul style="list-style-type: none"> • Drain the pump of oil. Dismantle the head and change diaphragms. Fill to the correct oil level.
Oil is changing color into white	<ul style="list-style-type: none"> • Diaphragm failures. Stop pump immediately. 	<ul style="list-style-type: none"> • Drain the pump of oil. Dismantle the head and change diaphragms. Fill to the correct oil level.

LIMITED WARRANTY

THIS WARRANTY IS IN LIEU OF ALL OTHER WRITTEN OR EXPRESS WARRANTIES AND REPRESENTATIONS. ANY IMPLIED WARRANTIES INCLUDING MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY LIMITED TO THIS WRITTEN WARRANTY. JOHN BLUE COMPANY SHALL NOT BE LIABLE FOR CONSEQUENTIAL DAMAGES.

Use of this product for any purpose other than its original intent, abuse of the product, and/or any modification to the original product is strictly prohibited by the manufacturer, John Blue Company. Any modification to the product should be approved by John Blue Company prior to use. John Blue Company will deny Warranty claims and liability in any situation involving misuse, abuse or modification.

Each new machine or component manufactured by John Blue Company through original buyer is warranted by John Blue Company to buyer and to any party or parties to whom buyer may resell, lease or lend the equipment to be free from defects in material and workmanship under normal use and service. This obligation of John Blue Company under this warranty is limited to the repair or replacement of defective parts or correction of improper workmanship of any parts of such equipment which shall within one year from the date of John Blue's original delivery thereof, be returned to John Blue's factory, transportation charges prepaid and which John Blue Company shall determine to its satisfaction upon examination thereof to have been thus defective. When it is impractical to return the defective parts of such equipment to John Blue's factory, then John Blue shall have no liability for the labor cost involved in repairing or replacing any such parts and shall be liable solely for supplying the material necessary to replace or repair the defective parts, provided that prior thereto John Blue Company shall have determined to its satisfaction that any such parts are thus defective.

This warranty shall not apply to any equipment which shall have been repaired or altered outside John Blue's factory in any way so as to affect its durability, nor which has been subjected to misuse, abuse, negligence or accident, or operated in any manner other than in accordance with operating instructions provided by John Blue Company. This warranty does not extend to repairs made necessary by the use of inferior or unsuitable parts or accessories, or parts or accessories not recommended by John Blue Company.

John Blue Company makes no warranties in respect to parts, accessories or components not manufactured by John Blue Company, same ordinarily being warranted separately by their respective manufacturers.

DIVISION OF ADVANCED SYSTEMS TECHNOLOGY, INC.

HUNTSVILLE, AL

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