

AIRABLO®

TUBING WASHER

MODEL D2T991

MODEL D2T9101

MODEL D2T9821

MODEL D2T41

GENERAL MAINTENANCE

Check the oil levels of the air compressor and the high pressure water pump. In both cases use high quality non-detergent motor oil. You should use SAE 20 when the temperature is below 60 F (15C) or SAE 30 above 60 F (15C). You have to check the oil level after every 15 hours of operation and add oil if needed. If the oil seem to be a milky color, change it immediately. When you have extremely bad working conditions, like tubing washing season (high humidity rate) it is suggested to change the oil after every 24 hours of operation. While you are using your equipment as an air compressor or high pressure pump, change oil after each 200 hours of operation or every three months.

It is very important to use non detergent motor oil. If you use detergent motor oil it will clean the air compressor head and decrease the air compressor capacity.

Verify V-Belt tension ,V-Belt should depress 1/2" when you press with your thumb. If V-Belt is too tight it will increase the motor load, but if it is too loose it will slip at the starting. To adjust the V-Belt use motor and pump V-Belt tightener.

You will have to drain air reservoir daily in certain adverse conditions to drain, open valve # 6 (figure 1)

You will have to check the inlet air filter daily if you are working in a very dusty location. You should check it every week to be sure that the air compressor intake is free.

The water regulator valve #3 (figure 1) should be cleaned regularly. Unscrew filter cap and clean it.

The safety valve #2 (figure 1) is pre-set at the factory. You should not re-adjust it unless it has been tampered with. Normally it is set at 75 psi.

If you are using chlorine solution to wash tubing, you will have to rinse your pump at the end of the each day's operation.

IMPORTANT:

If AIRABLO tubing washing is stored in freezing area ,you will have to follow these instruction;

- Unscrew cap #11 and drain valve # 3
- Check you that there is no water inside water pump #12 or in the piping system. Remove water in suction water tube #9 and let pressure pump run 2 minutes to drain it.
- Unscrew pressure gauge # 21 and store it in heated area

- 1) Priming valve
- 2) Safety valve
- 3) Regulator
- 4) Pressure gauge
- 5) Check valve
- 6) Drain valve
- 7) Check valve
- 8) Air valve
- 9) Suction hose
- 10) Tubing washing output
- 11) Drain cap
- 12) High pressure pump
- 13) Overflow valve
- 14) Air reservoir
- 15) Air compressor
- 16) Clean water reservoir
- 17) Air pressure gauge
- 18) Motor
- 19) Washing valve
- 20) High pressure valve kit
- 21) High pressure gauge
- 22) High pressure regulator
- 23) Soap injector
- 24) High pressure gun
- 25) Pump inlet
- 26) Pump outlet
- 27) pre-filter

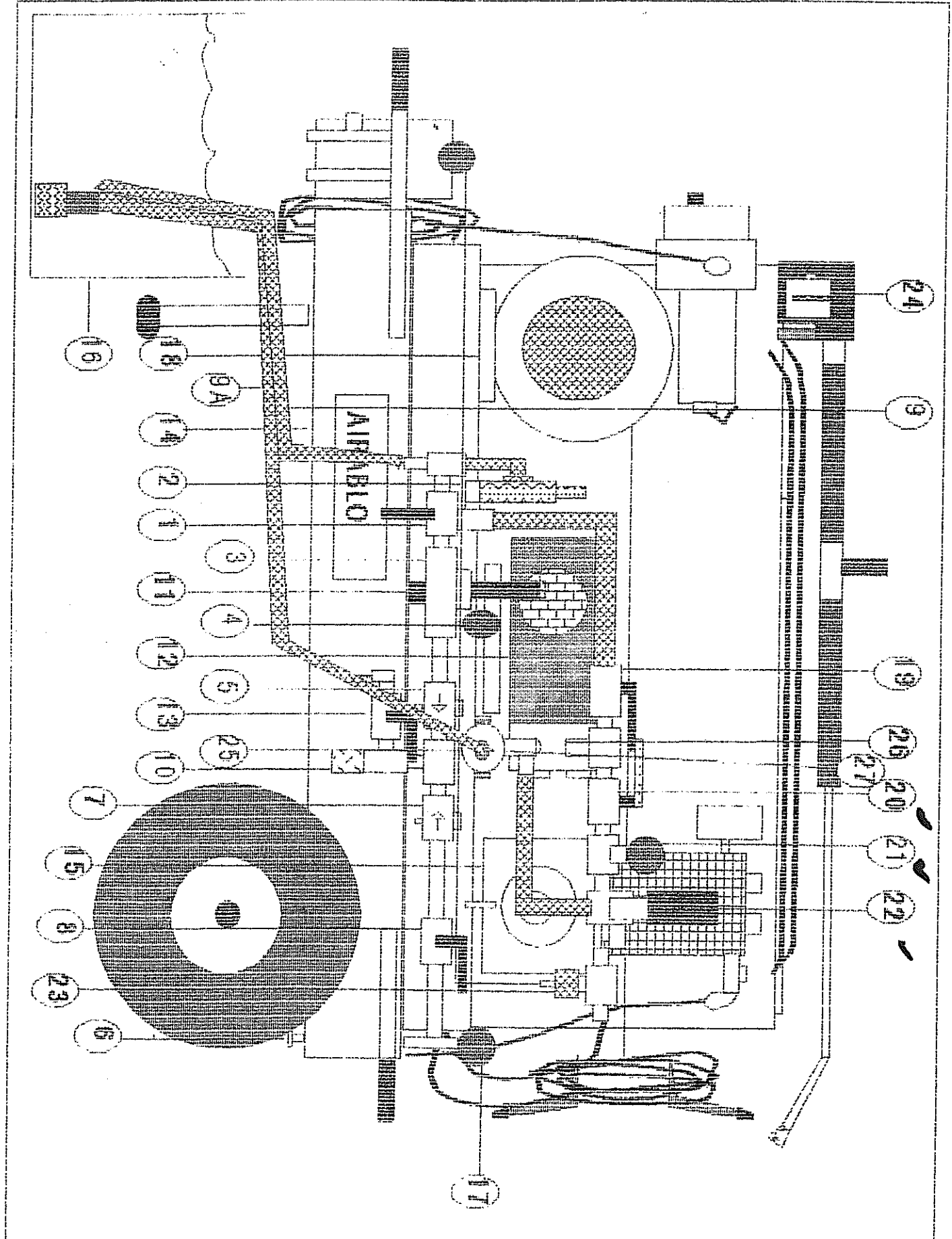


FIGURE #1

See figure #1

TUBING WASHING INSTRUCTIONS

You have to follow these instructions before starting tubing washing.

- 1) Place Airablo in horizontal position
- 2) The electric motor has to be installed according to electrical code
- 3) Check oil level of air compressor and high pressure pump and gas motor
- 4) For owner of high pressure kit only (open valve #19 and turn off valve #20)
- 5) Put both tubing #9 and #9 A in the clean water reservoir or washing solution
- 6) Install main line at the output # 10
- 7) Open valve #1 to prime the pump *in horizontal position.*
- 8) Turn off valve #8. You can now start the AIRABLO ,let it run for a few minutes.
- 9) Turn off ^{→ vertical} valve #1 as soon as there is a full flow of water inside tubing #9A. The water flow will enter automatically in the main line *(O)*.
- 10) After one minute open the air compressor valve #8 slowly
- 11) After 20 minutes the pressure should reach 60 psi.

See figure # 2

Washing main line during the season

- 1) Install a check valve at the end of the main line
- 2) Install the tubing washing machine at the pump station
- 3) Turn off the vacuum on line with valve #1
- 4) To wash open valve #6
- 5) Wash the line for 15 to 30 minutes
- 6) Open valve #1 on tubing washing machine to drain line # 1

N.B. The check valve permits the water passage to the end of the main line and closes automatically when vacuum is applied

FIGURE # 2

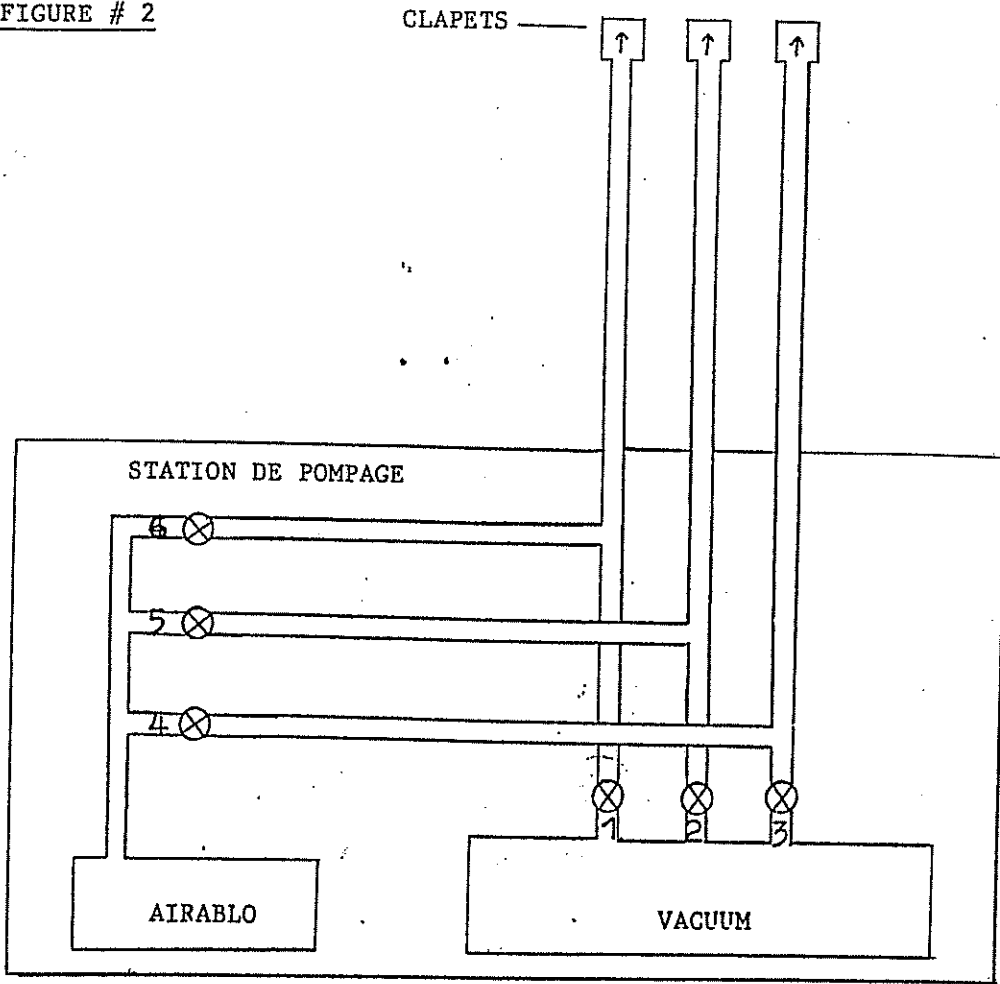
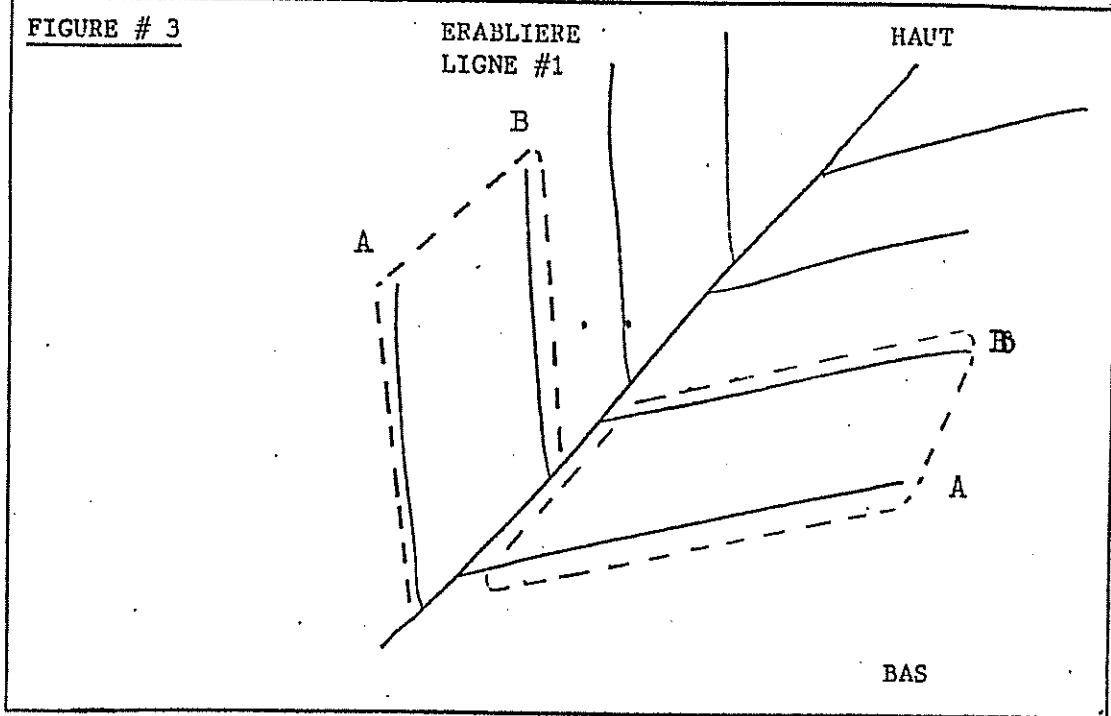


FIGURE # 3



See figure #3

Washing method after the season on flat sugarbush

- 1) Open A & B
- 2) Wash A from top to buttom (open each spile and let water out 30 to 45 seconds each, and plug it back)
- 3) Wash B from bottom to top
- 4) Turn off secondary line A & B
- 5) Use the same process for the other lines

N.E. You will have to leave 5 to 10 sponts open all the time

Washing method after the season on hilly sugarbush

- 1) Open 5 to 10 spouts, one at the end of each 5/16" line at the top of the mountain, leave them open during the washing time.
- 2) Plug the end of the main line if you have a check valve. Wash the spout from the bottom to the top. Let the water jets wash the 5/16" and plug it after. It is very important to repair leaks.

N.B. Always wash one line at a time, when there is an intersection it is very important that you install valve to close the section of the line which you are not washing.

See figure # 1:

High pressure pump utilisation mode:

- 1) Install suction tubing # 9 in a clean water source, you have to check that your water source will be able to supply the water flow required by the pump.
- 2) Close valve # 8
- 3) Open valve # 20
- 4) Unscrew valve # 22 a few turns
- 5) Start tubing washer
- 6) Screw valve # 22 till it reaches the maximum pressure. It is very important to stop to screw the unloader valve # 22 when you get the maximum pressure .
- 7) To inject soap, unscrew the nozzle handle.
- 8) To adjust soap flow, screw or unscrew the injector knob.

Air compressor only:

- 1) If your water pump is fed by water with an overflow in a reservoir, open valve #1, turn off valve #8.
- 2) If your water pump is not fed by water, you will have to remove the high pressure pump V-Belt to use only the air compressor.

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Limited Warranty

Your tubing washer has been designed to wash sugarbush tubing efficiently and problem free, therefore if you have any problems the warranty is the following.

A.Pellerin & Fils Ltée warrants its tubing washer against defects in material and workmanship for a period of twelve months after receipt by the end user.

This warranty does not cover damage that results from improper installation, inadequate maintenance and service, or for operation beyond capacities as specified by A.Pellerin & Fils Ltée at date of shipment.

The Warrant is limited to repair or replacment of parts .It is further limited to repair or replacement of parts. It is further limited to exclude any contingent liabilities for damage resulting from equipment failure.

CONGRATULATIONS on your new "FU SHENG" Air Compressor. Please examine the compressor for shipping damage(s) and if any are found report it immediately to the carrier.

INSTALLATION

A. LOCATION

1. Select a clean and dry location with a rigid floor strong enough to support the compressor.
2. Maximum ambient temperature in which the compressor and motor should be operated is 40°C (104°F). therefore, Adequate ventilation must be provided.

B. MOTOR INSTALLATION

1. Check the electrical supply for voltage, phase, and frequency to see that they match the nameplate stamping on the compressor.
2. Put on the V-Belt(s) as noted in Figure 1.

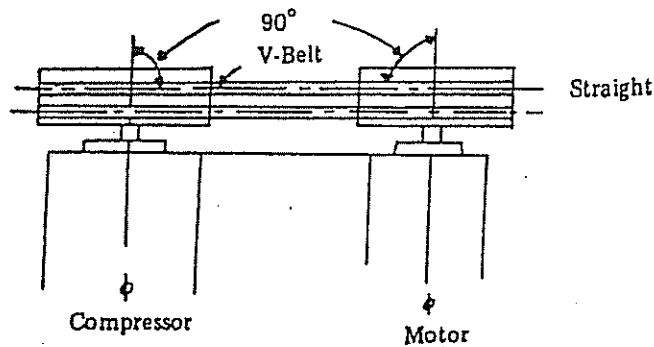


Figure #1

3. Checking belt tension

The V-Belt(s) should be so adjusted that a declination of about 3/8-1/2 inch will be obtained when it is pushed by a finger at the middle point as shown in Figure 2.

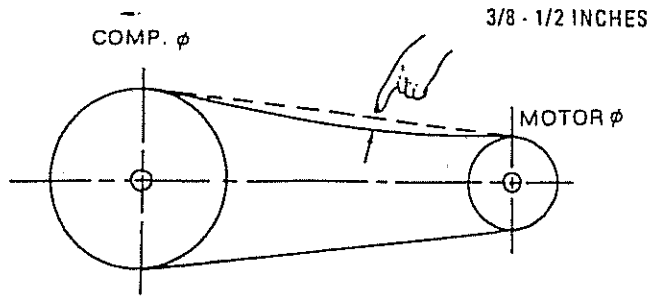


Figure #2

CAUTION: over tightening the V- Belt(s) will result in overloading of the motor and belt failure, while a loose belt will be slipping and resulting in an unstable speed and overheating the belt.

To change tension, loosen the motor hold-down bolts and slide the motor on the base, using a lever if necessary, or by turning the adjusting bolt at the end of the base.

Retighten motor hold-down bolts.

NOTE: Do not overtighten belts.

C. WIRING

Use electrical wires of adequate size to carry the full load current of the motor without excessive voltage drop.

Referential charts are as follows:

Type	Hp	1 ϕ / 110V		3 ϕ / 220V	
		Wire MM ²	Fuse A	Wire MM ²	Fuse A
CA-51	0.25	1.6	10		
CA-65 VA-51	0.5	1.6	20	1.6	10
VA-65 HVA-65	1	2.0	30	1.6	10
TA-65 HTA-65	2			1.6	15
VA-80 B-1	3			1.6	20
TA-80 HTA-80 B-2	5			2.0	30
VA-100 HTA-100	7.5			5.5	30
TA-100 HTA-100H B-3	10			8	50
TA-120 HTA-120	15			14	50

Table #1

Follow the National Electric Code or local electric code in providing wiring, fusing and disconnect switches.

SAFETY PRECAUTIONS

The following safety precautions are recommended in the use of this compressor:

1. Use a totally enclosed belt guard to cover the drive assembly. Where possible, place the flywheel toward the wall, and mount the unit a minimum distance of 2 feet from the wall for maintenance convenience.
2. Turn off & lock out the electrical disconnect switch before working on the unit to prevent the unit from starting unexpectedly.
3. Release all air pressure from the system before working on the unit, for safety precaution.
4. Do not by-pass motor overcurrent protection.
5. Do not change the setting or in any way affect the operation of the safety valve.
6. Keep unit securely anchored so that movement will not put a strain on piping, wiring, or air receiver.

START – UP PROCEDURES

If the compressor is equipped with an automatic start-stop control (with pressure switch unloading), it is automatically unloaded upon starting, and will automatically load after attaining running speed. If the compressor is equipped with a constant speed control (pilot valve unloading), it is necessary to manually unload the compressor. If there is pressure in the discharge line, in order to achieve an unloaded start, the compressor must be manually loaded after the compressor has attained full running speed; thereafter, it functions automatically to maintain operating pressure until the unit is shut off.

Close the disconnect switch and start the compressor. Observe the direction of rotation, which should be counterclockwise when viewed from the flywheel side of the compressor on all models. For single-phase units, the direction of rotation is determined by the motor nameplate instructions, and is adjusted at the factory. For three-phase units, if the rotation is incorrect, stop the unit and interchange any two of the three wires to the motor at the disconnect switch. This will reverse the direction of rotation of the motor and compressor.

ADJUSTMENT OF PRESSURE CONTROL SYSTEM

Unless otherwise requested, the pressure control system is preset at the factory at:

Unloading pressure: 7kg/cm²

Loading pressure: 6 kg/cm²

the built-in pressure can be reset or changed according to the following procedure:

A. PILOT VALVE CONTROL

1) Adjust unloading pressure

1. loosen upper locknut.
2. turn unloading pressure adjustment bolt clockwise to increase, counterclockwise to decrease unloading pressure.
3. tighten upper locknut.

2) adjust pressure difference

1. loosen lower locknut.
2. turn pressure difference adjustment cap to decrease, counterclockwise to increase pressure difference.
3. tighten lower locknut.

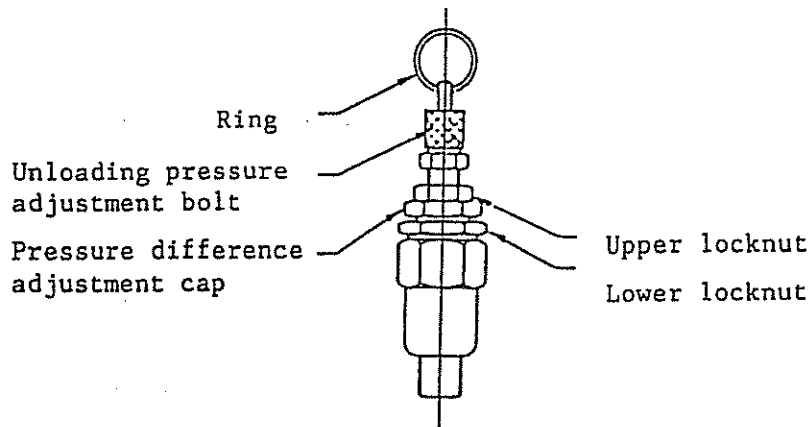


Figure #3 Pilot valve

B. PRESSURE SWITCH CONTROL

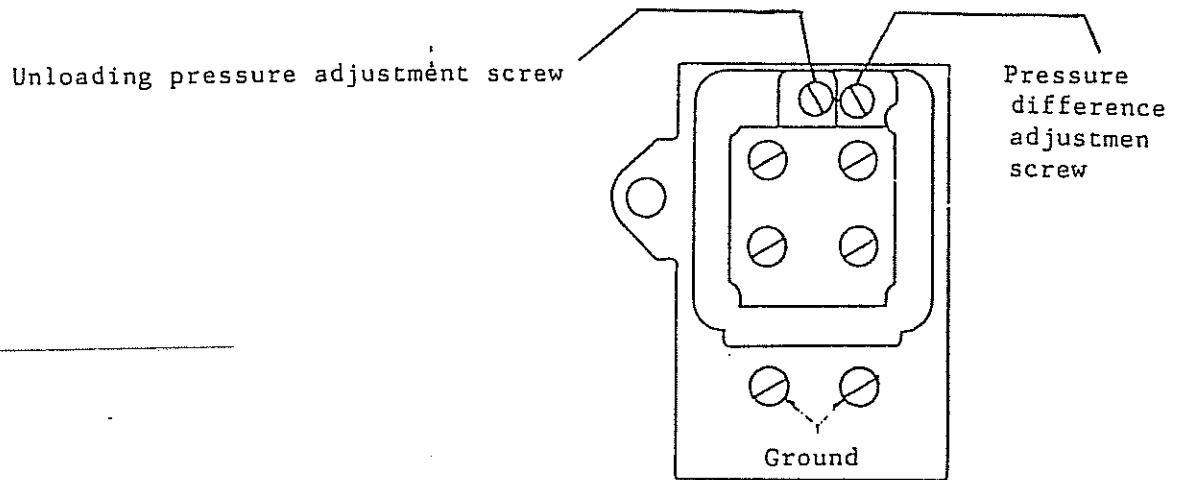


Figure #4 Pressure switch

- A. Turn unloading pressure adjustment screw clockwise to increase unloading pressure.
- B. Turn pressure difference adjustment screw clockwise to decrease pressure difference.

PREVENTIVE MAINTENANCE

A good maintenance program will add years of service to your air compressor. The following is recommended as a minimum maintenance program. (TURN OFF POWER BEFORE SERVICING)

A. DAILY MAINTENANCE

1. Check and maintain oil level at centerline of sight glass and add oil as necessary.
2. Drain air tank every 8 hours or 4 hours depending on the moisture content of the atmosphere.
3. Check for unusual noise or vibration. (See "Trouble Shooting")

B. WEEKLY MAINTENANCE

1. Clean the air filters. A clogged air filter can seriously affect the efficiency of the compressor and cause overheating and oil usage.
2. Clean all external parts of the compressor and driver. Be sure to clean the intercooler finned surface on two-stage compressor. A dirty compressor will cause abnormally high discharge temperature and resulting oil car-

bonization on internal valve components.

3. Check the safety valve manually (by pulling ring or lever) to see that it is not stuck.

C. MONTHLY MAINTENANCE

1. Inspect the entire air system for leaks.
2. Inspect condition of oil and change if necessary.
3. Check drive belt tension and tighten if needed.

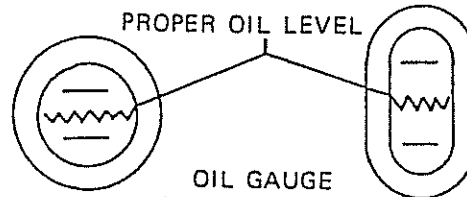
D. EVERY 3 MONTHS OR 1,000 HOURS OF OPERATION

1. Change oil.
2. Inspect valves. Clean the carbon from valves and head if necessary.
3. Check and tighten if necessary all bolts, nuts, etc.
4. Check unloader operation.

E. LUBRICATION

1. Use SAE 20 in winter and SAE 30 in summer.
2. For proper lubrication the compressor shall not be operated below the minimum or above the maximum R.P.M. recommended for the various models.
3. Maintain oil level mid-way between the upper and lower lines of the crankcase oil gauge.

NOTE
ILLUSTRATION



4. Stop compressor to add and gauge oil.
5. Do not fill above the upper line and do not operate compressor with oil level below the lower line.

DO NOT OVER FILL

6. Change oil at the first 100 hours of operation and 1000 hours there-after, or as required. It may be necessary to change oil more frequent due to abnormal humid and contained conditions.

INSPECTION & MAINTENANCE
OF VALVE ASS'Y
B SERIES (B-1, B-2, & B-3)

INSTRUCTION FOR B SERIES COMPRESSOR MODEL HEAD VALVE ASSEMBLY INSPECTION AND MAINTENANCE.

Model B SERIES valve assembly inspection and maintenance instruction.

1. Inspect valve assemblies every 1000 hours of operation or as necessary to maintain efficient operation.
2. Turn off power, red tag power supply switch (caution: Maintenance in process — DO NOT START). Drain all air pressure from system before starting work.
3. Disconnect air piping from head.

Remove valve package.

- A1. Loosen and remove head bolts. On constant run models, remove copper tubing from unloader cylinder.
- A2. Remove cylinder head to expose valve assembly.
- A3. Remove valve assembly, head to valve package gasket and valve package to cylinder gasket. Use new gaskets in re-assembly. Note conditions of cylinders, clean out any foreign material and cover with clean shop cloth while open.
- A4. Refer to parts breakdown for description of valve packages.
- A5. Secure valve assembly package, loosen and remove socket head bolts to separate the upper and lower valve seats. This will expose the valve springs and valve plates.
CAUTION: Do not interchange upper and lower valve seats.
- A6. Thoroughly clean and wash all valve seats and parts with a suitable non-flammable cleaning fluid.
CAUTION: Use care to not scratch or deform valve parts in the cleaning.
- A7. Carefully inspect the valve seats, plates and springs for dents, cracks, wear, and any reasons to prevent proper and efficient operation.
- A8. Replace all parts not in proper condition.

Assemble valve assembly package.

- B1. Secure lower valve plate in flat position with spring slots "up".
- B2. Refer to parts breakdown for valve package breakdown.
- B3. Place valve springs and valve plates in proper positions over slots in seat.

- Use tag wire or string for tie to hold in position for completing assembly.
- B4. Secure upper valve seat in flat position with spring slots up.
 - B5. Use new valve seat gasket.
 - B6. Place valve seat gasket in position on lower valve plate.
 - B7. Place upper valve seat with valve springs and valve plates tied in position on top of lower valve seat with new valve seat gasket in place between the two seats.
 - B8. Start center and then the two end valve plates socket head bolts, tighten finger tight being careful not to damage seat gasket, use socket head wrench to torque the three bolts uniformly to secure the top valve seat to the lower valve seat using care to avoid damage to the gasket, and valve springs and plates from moving out of position.
 - B9. Remove ties to free valve springs and plates.
 - B10. Check to be sure valve springs and valve plates are in proper position and the plates are free to flex when manually touched with blunt instrument.
- Assemble valve assembly package into compressor.
- C1. Use new gaskets, valve package to cylinder and cylinder head to valve package. Select gaskets by part numbers from parts breakdown.
 - C2. Remove shop cloth to expose open cylinder bores. Remove any foreign matter from cylinder bores and top of cylinder.
 - C3. Place gasket on top of cylinder, place and align valve package, place gasket on top of valve package and align holes for head bolts.
 - C4. Place clean head on top of valve package with gasket and align with cylinder bolt holes.
 - C5. Insert cylinder head bolts using care to avoid damage to the gaskets, start each bolt threading evenly to contact head surfaces.
 - C6. Torque head bolts homogeneously.
 - C7. Attach and tighten copper tubing of constant running compressors.
 - C8. Assemble and tighten discharge tubing.
 - C9. Check oil level in crank case.
 - C10. Close and tighten valve or the connections used to drain air pressure from system.
 - C11. Remove all tools and make area safe to start compressor.
 - C12. Turn on power at main switch and inspect to see that unit is operating properly.
 - C13. Stay with unit for normal pump up to cut out pressure.

- C14. If unit has performed through a running cycle properly put on line for duties and remove red tag from power supply switch.
- C15. Make entering in equipment maintenance log.

TROUBLE-SHOOTING

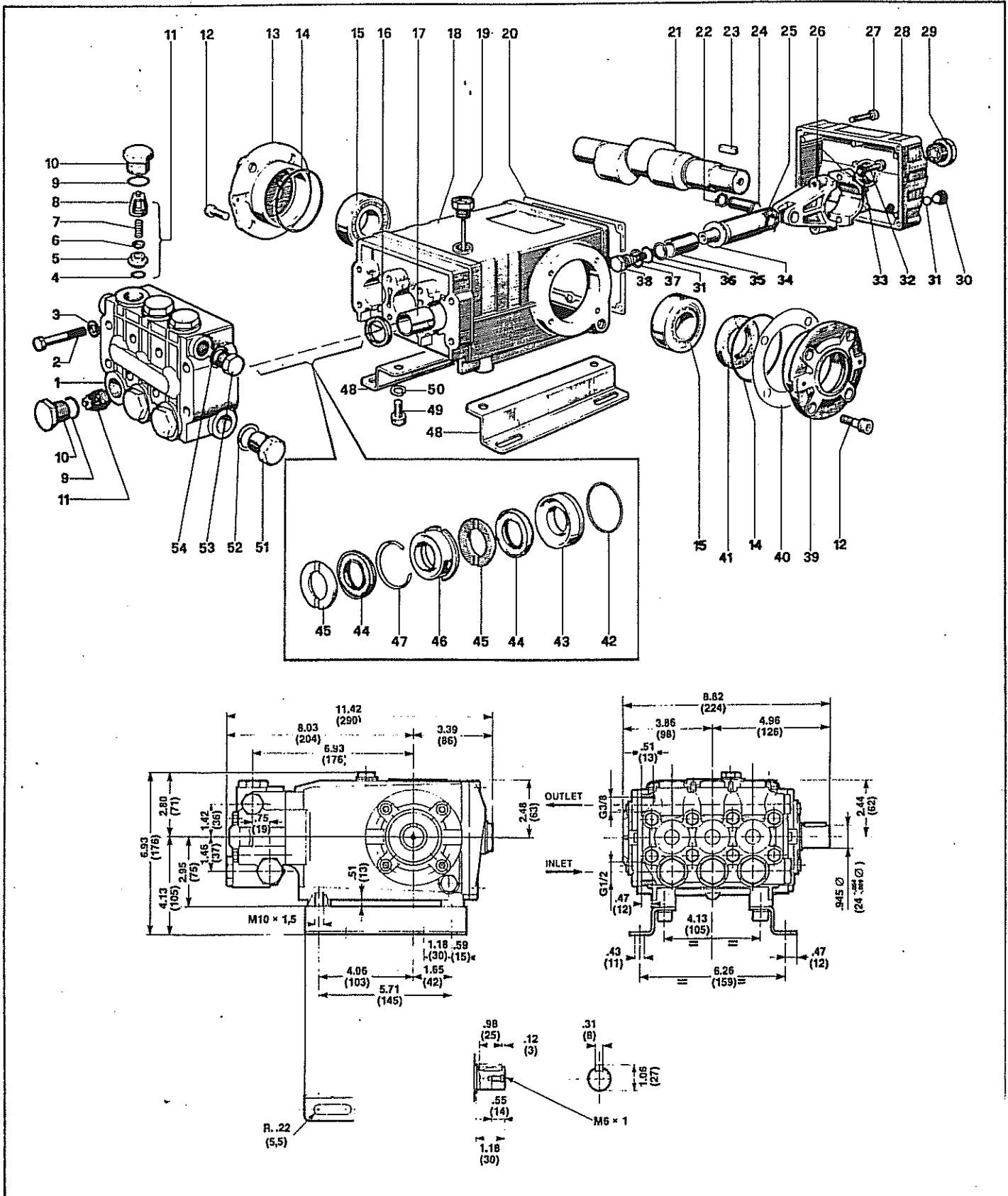
	SYMPTOMS	CAUSES	REMEDIES
WHEN COMPRESSOR CAN BE STARTED	Flywheel revolves in wrong direction	Incorrect connection of motor terminal.	Re-arrange terminal connection.
	Overheating of bearings	1. Insufficient lubrication. 2. Bad lubrication system. 3. Crankshaft placed improperly.	1. Add lubrication oil. 2. Remove and examine the system. 3. Remove and put it in place.
	Revolution slows down	1. Heavy lubrication oil. 2. Drop of voltage. 3. Worn motor condenser.	1. Refill with lighter lubrication oil. 2. Contact power company or install a transformer. 3. Replace motor condenser.
	Severe vibration	Bent crankshaft	Send to factory for repair
	Abnormal noise	1. Loose valve assembly. 2. Piston hits cylinder cover. 3. Loose bearing metals.	1. Tighten valve bolt and lock nut. 2. Put on an additional cylinder head gasket. 3. Repair or replace bearing metals.
	Pressure cannot be built up or only up to a certain extent	1. Worn valve plate. 2. Valve springs have lost their temper. 3. Dirt on the valve plate. 4. Leaks from safety valve. 5. Leaks from bolt holes. 6. Uneven valve seat surface. 7. Leaks from piston rings. 8. Bad packing (gasket too thick) 9. Leaks of air lock or drain cock.	1. Repair or replace valve plate. 2. Replace valve springs. 3. Remove and clean it. 4. Repair or replace safety valve. 5. Tighten the nuts even with packing packing. 6. Remove and lap the surface. 7. Replace with new ones. 8. Replace packing (gasket). 9. Replace with new ones.
	Inaccuracy of pressure gauge	Pressure gauge damaged.	Replace with new ones
	Excessive consumption of lubrication oil	1. Worn piston ring. 2. Worn piston. 3. Worn cylinder.	1. Replace with new ones. 2. Replace with new ones. 3. Replace with new ones.
	Slipping of belts	1. Working pressure too high. 2. Improper belt tension. 3. Worn belt.	1. Lower working pressure. 2. Adjust belt tension. 3. Replace with new ones.
	Overheating of electric motor	1. Overloading of motor due to excessive working pressure (higher than the stipulated pressure). 2. Burnt piston. 3. Burnt bearing metals. 4. Drop of voltage.	1. Lower working pressure. 2. Rebuild compressor. 3. Rebuild compressor. 4. Contact power company or install a transformer.
WHEN COMPRESSOR CANNOT BE STARTED	No sound	1. Breakdown of electric current. 2. Line failure. 3. Malfunction of motor.	1. Contact power company. 2. Examine the line. Replace with new wiring. 3. Contact Motor Mfg.
	Fuse tends to blow	1. Fuse too fine. 2. Wrong connections. 3. Overloading of motor. 4. Overloading of motor due to leaks of outlet valve. 5. Crankshaft too tight.	1. Replace with heavy ones. 2. Change connections. 3. Eliminate the loading. 4. Remove and repair outlet valve. 5. Remove crankshaft and examine it.

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Code	Description	Qté	#	Code	Description	Qté	
1	01.01.0035	tete de pompe en cuivre	1	27	01.01.0084	boulon	5
2	01.01.0091	boulon	8	28	01.01.0050	o-ring	4
3	01.01.0065	rondelle	8	29	01.01.0074	indicateur de niveau d'huile	1
4	01.01.0052	o-ring	6	30	01.01.0077	bouchon	1
5	01.01.0004	siège de valve	6	31	01.01.0028	vilbrequin	1
6	01.01.0002	valve	6	32	01.01.0075	axe de piston	3
7	01.01.0062	ressort	6	33	01.01.0059	clavette	1
8	01.01.0003	guide de valve	6	34	01.01.0029	bielle	3
9	01.01.0053	o-ring	6	35	01.01.0064	rondelle	6
10	01.01.0082	bouchon	6	36	01.01.0063	rondelle	6
11	01.01.0005	ensemble de valve	6	37	01.01.0085	boulon de bielle	6
12	01.01.0048	bage d'étanchéité	6	38	01.01.0032	guide de piston	3
13	01.01.0042	bage intermediaire	3	39	01.01.0070	rondelle	3
14	01.01.0034	bage de tete	6	40	01.01.0030	piston	3
15	01.01.0033	bage porte garniture	3	41	01.01.0056	bage anti-extrusion	3
16	01.01.0051	o-ring	3	42	01.01.0069	rondelle	3
17	01.01.0044	bage radiale	3	43	01.01.0020	boulon de piston	3
18	01.01.0083	boulon	8	44	01.01.0040	entretoise	1
19	01.01.0036	couvercle de carter	2	45	01.01.0046	bage radiale	1
20	01.01.0121	entretoise	1	46	01.01.0039	ped de pompe	2
21	01.01.0055	o-ring	2	47	01.01.0066	rondelle	4
22	01.01.0060	roulement à billes	2	48	01.01.0088	boulon	4
23	01.01.0027	carter	1	49	01.01.0078	bouchon	1
24	01.01.0079	bouchon d'huile	1	50	01.01.0081	bouchon	1
25	01.01.0041	garniture de couvercle	1	51	01.01.0072	rondelle	1
26	01.01.0037	couvercle de carter	1	52	01.01.0071	rondelle	1

KIT N.	KIT 1	KIT 4	KIT 6	KIT 19	KIT 20	KIT 21	KIT 22	KIT 23	KIT 27
Positions Included	4-5-6-7 8-(11)	9-10	28-41 42-43	12	13	14	15-16	17	12-13 14-15 16
Posizioni Incluse									
N. pcs.	6	6	3	6	3	6	3	3	1

T991



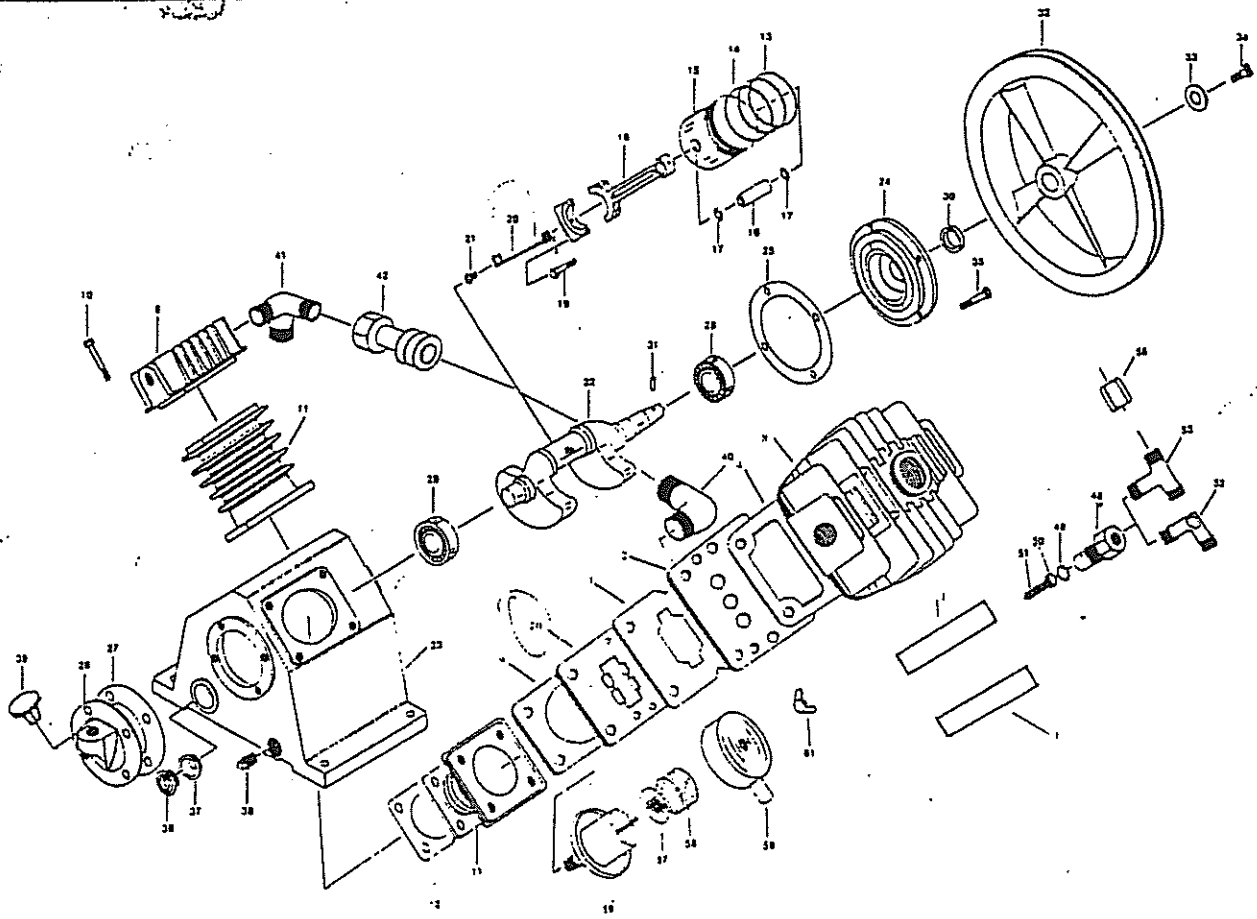
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 01.01.0098 Pompe TS821B (seule)

Code	Description	Qté	#	Code N	Description	Qté	
1	01.01.0013	tete de pompe en cuivre	1	28	01.01.0016	couverture de carter	1
2	01.01.0092	boulon	8	29	01.01.0074	indicateur de niveau d'huile	1
3	01.01.0067	rondelle	8	30	01.01.0077	bouchon	1
4	01.01.0052	o-ring	6	31	01.01.0050	o-ring	4
5	01.01.0004	siège de valve	6	32	01.01.0090	boulon de bielle	6
6	01.01.0002	valve	6	33	01.01.0065	rondelle	6
7	01.01.0062	ressort	6	34	01.01.0070	rondelle	3
8	01.01.0003	guide de valve	6	35	01.01.0009	piston	3
9	01.01.0053	o-ring	6	36	01.01.0056	baque anti-extrusion	3
10	01.01.0082	bouchon	6	37	01.01.0069	rondelle	3
11	01.01.0005	ensemble de valve	6	38	01.01.0020	boulon de piston	3
12	01.01.0089	boulon	8	39	01.01.0014	couverture de carter	1
13	01.01.0015	couverture de carter	1	40	01.01.0073	espacement	2
14	01.01.0054	o-ring	2	41	01.01.0047	baque radiale	1
15	01.01.0061	roulement à billes	2	42	01.01.0183	o-ring	3
16	01.01.0045	baque radiale	3	43	01.01.0011	baque hexagonale	3
17	01.01.0058	douille	3	44	01.01.0049	baque d'étanchéité	6
18	01.01.0006	carter	1	45	01.01.0012	baque de tete	6
19	01.01.0080	bouchon d'huile	1	46	01.01.0019	baque intermédiaire	3
20	01.01.0018	garniture de couvercle	1	47	01.01.0057	baque longue-vie	3
21	01.01.0001	vilbrequin TS1011	1	48	01.01.0017	ped de pompe	2
21	01.01.0007	vilbrequin TS821	1	49	01.01.0093	boulon	4
22	01.01.0043	baque d'arret	6	50	01.01.0068	rondelle	4
23	01.01.0059	clavette	1	51	01.01.0081	bouchon	1
24	01.01.0076	axe de piston	3	52	01.01.0072	rondelle	1
25	01.01.0010	guide de piston	3	53	01.01.0078	bouchon	1
26	01.01.0008	bielle	3	54	01.01.0071	rondelle	1
27	01.01.0084	boulon	5				

KIT N.	KIT 1	KIT 2	KIT 3	KIT 4	KIT 6	KIT 7	KIT 8	KIT 9	KIT 10	KIT 28
Positions Included	4-5-6-7 8-(11)	16	41	9-10	31-36 37-38	45	44	46-47	42-43	42-43 44-45 46-47
Posizioni Incluse										
N. pcs.	6	3	2	6	3	6	6	3	3	1

TS1011
TS821

PV-01, PV-02, PT-03 MAIN PARTS



VALVES

- 1. 2103 Inlet & outlet valve plate
- 2. 2101 Inlet & outlet valve seat
- 3. 2104 Valve seat packing
- 4. 2105 Valve & head packing

CRANKCASE & CYLINDER

- 8. 0101 Cylinder head
- 9. 0102 Cylinder & Valve packing
- 11. 4101 Cylinder
- 12. 4103 Cylinder & case packing
- 23. 4701 Crankcase
- 26. 4706 Rear bearing cover
- 27. 4707 Rear bearing cover packing
- 36. 4772 Gauge cover
- 37. 4773 Gauge cover seal
- 38. 80112 Crankcase oil plug
- 39. 4761 Breather cap
- 40. 7701 Outlet pipe joint =A
- 41. 7702 Outlet pipe joint =B
- 42. 7710 Compressor body discharge pipe ass'y
- 56. 5601 Air strainer body
- 57. 5611 Air strainer mesh wire
- 58. 5614 Air strainer filter
- 59. 5617 Air strainer cover

CRANK ASSEMBLY

- 13. 5103 Compression ring
- 14. 5105 Oil control ring
- 15. 5101 Piston
- 16. 5112 Piston pin
- 17. 5107 Piston pin snap ring
- 18. 5120 Connecting rod assembly
- 19. 5125 Connecting rod bolt
- 20. 5129 Oil splash dipper
- 21. 81505 Oil splash dipper bolt
- 22. 4601 Crankshaft
- 24. 4702 Front bearing cover
- 25. 4704 Front bearing cover packing
- 29. 33501 Front bearing
- 29. 33501 Rear bearing
- 30. 4708 Front oil seal
- 32. 6601 Compressor pulley
- 33. 5621 Compressor pulley thrust washer
- 34. 51507 Compressor pulley thrust bolt
- 31. 4606 Compressor pulley pin

UNLOADERS

- 43. 0121 Auto. unloader cylinder
- 49. 32001 Spring (unloader)
- 50. 0122 Auto. unloader piston
- 51. 0123 Auto. unloader spring
- 52. 54926 Unloading elbow
- 53. 54927 Unloading tee
- 55. 50921 Connecting tee nut