



INSTRUCTIONS AND PARTS LIST

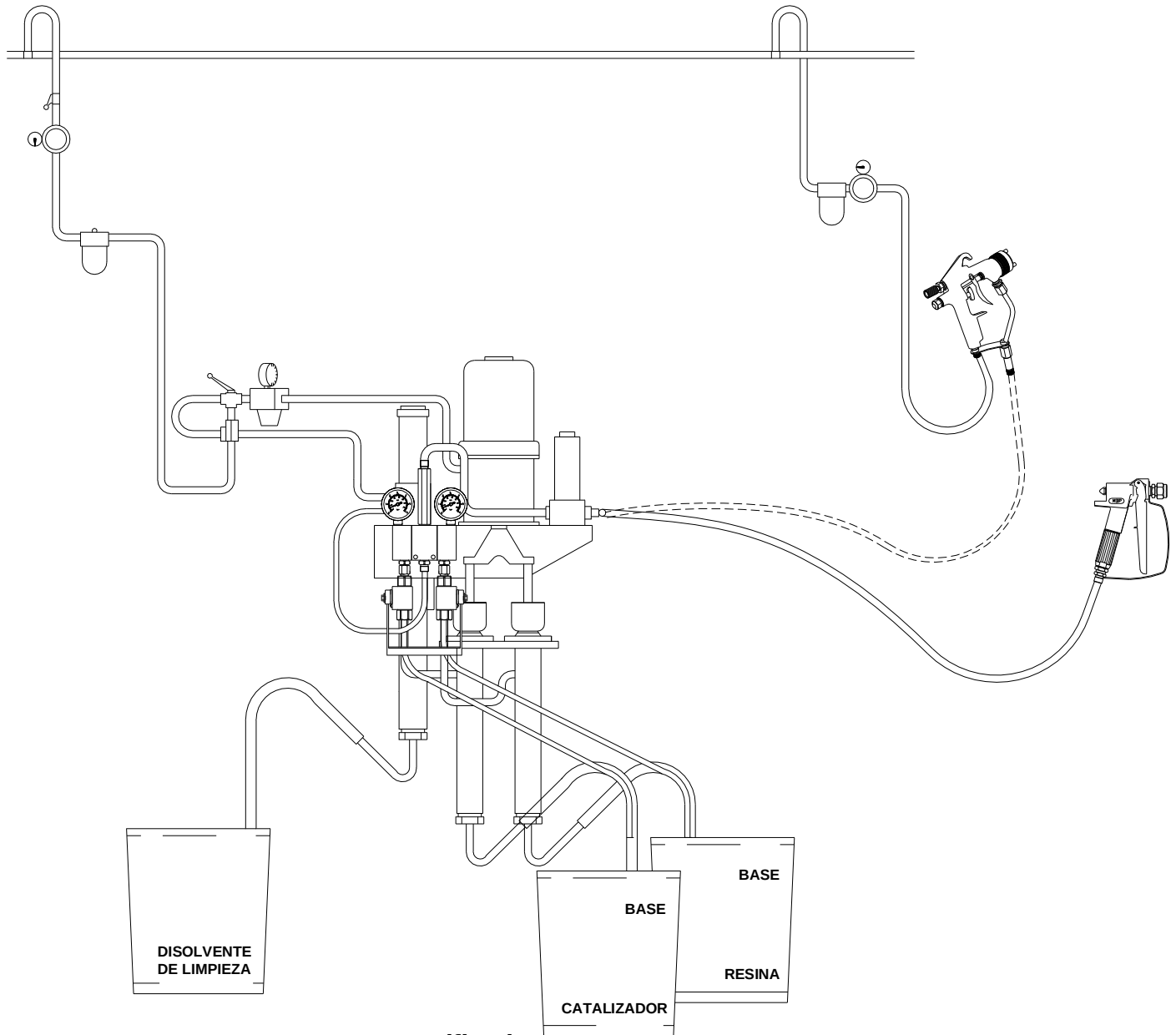
SERIES TEL 15-2K-I (1:1) SS-316



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TYPICAL INSTALLATION



(fig.1)

WARNING

ATTENTION!! Read and understand all instructions carefully before operating equipment.

INJECTION HAZARD

This equipment generates very high fluid pressure. Spray from the gun, leaks or ruptured components can inject fluid through your skin and into your body and cause extremely serious bodily injury.

The spray gun should never be handled carelessly, nor spray directed toward any part of the body. Never put hand or fingers over the spray tip.

Be sure equipment safety devices are operating properly before each use.

If any fluid appears to penetrate your skin, get emergency medical care at once. Do not treat as a simple cut. Tell the doctor exactly what fluid was injected.

FIRE HAZARD

Static electricity is created by the high velocity flow of fluid through the pump and hose. If every part of spray equipment is not properly grounded, sparking may occur, and the system may become hazardous. Check the entire system for positive grounding.

GROUNDING

Before starting to work the pump must be connected to ground:

- 1.- The pump must be connected to ground with a ground wire which is supplied with the pump (4 mm² of section and a clamp).
- 2.- **SPRAY GUN:** Obtain grounding through connection to a properly grounded fluid hose and pump.
- 3.- **OBJECT BEING SPRAYED:** Use ground wire and clamp.
- 4.- **AIR COMPRESOR:** Follow air compressor manufacturer's recommendations.
- 5.- Use **ONLY METAL PAILS**, which are conductive. Do not place the pail on a non-conductive surface, such as paper or cardboard, which interrupts the grounding continuity.

PRESSURE RELIEF PROCEDURE

- 1.- Engage the gun safety latch.
- 2.- Turn off the air to the pump.
- 3.- Close the air inlet valve.
- 4.- Disengage the gun safety latch.
- 5.- Hold a metal part of the gun firmly to the side of a grounded metal pail, and trigger the gun safety latch.
- 6.- Engage the gun safety latch.
- 7.- Open the drain valves (fig.2), having a grounded metal container ready to catch the drainage.
- 8.- Leave the drain valves open until you are ready to spray again.

OPERATING INSTRUCTIONS

Follow all instructions above, be sure that fittings at pump outlet and at gun are tight. Use two wrench to tighten the main fitting.

Fill the packing nut with oil to help prolong the packing life.

- Turn on the air to the pump (See fig.2), but the position of this valve must be "close air".
- Check that the A (See fig.3), B and C (See fig.5) valves are in position "1" before open the air valve.
- Put the suction pipes into the respective containers:

"C" to base product (varnish)

"B" to catalyst

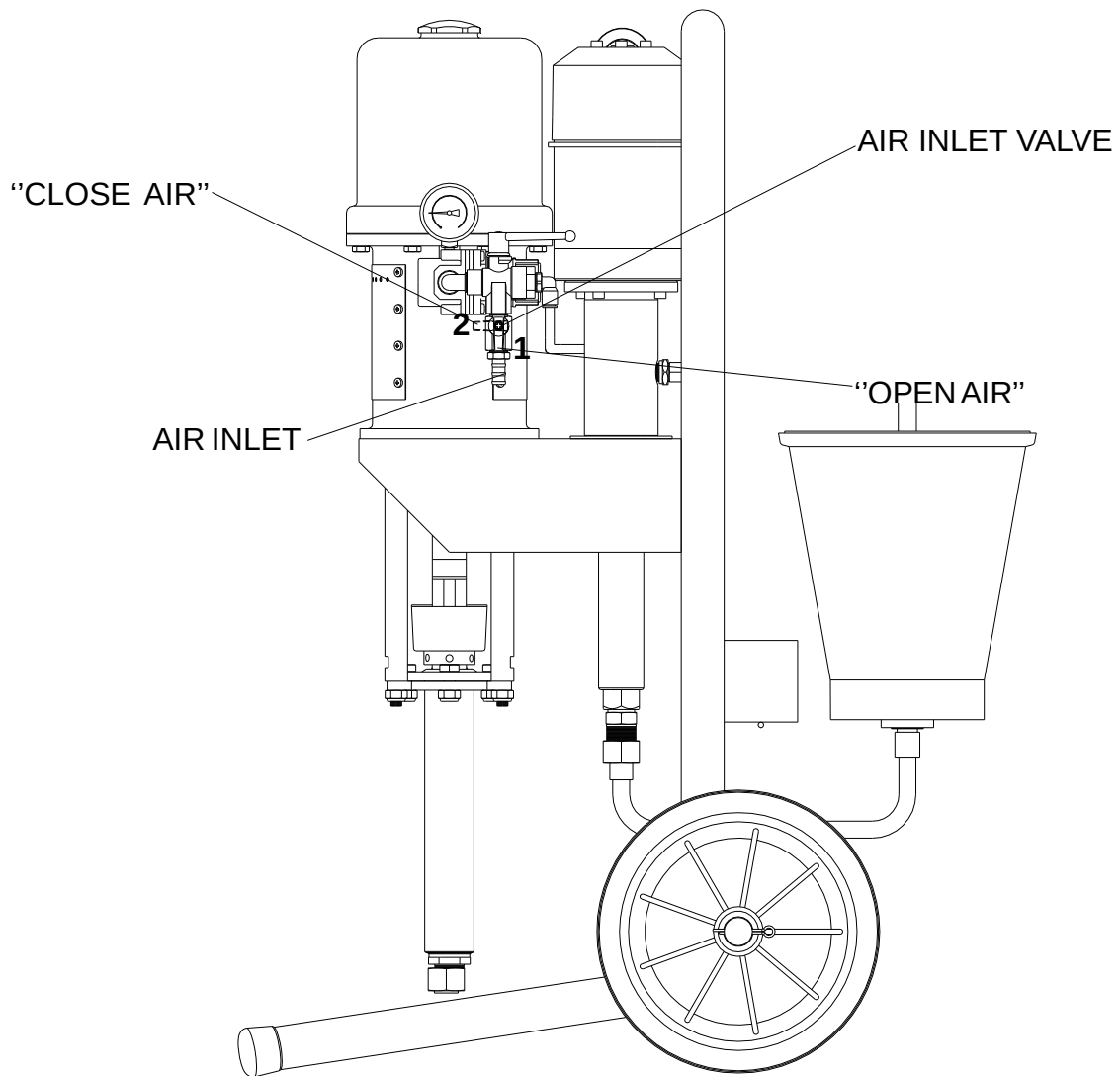
- Open the air inlet valve (See fig.2) and turn on the air regulator until the pump begins to cycle. Allow the pump to cycle slowly until all air is purged from the fluid lines. The lines are purged when the fluids emitted from the drain valves "B" and "C" (See fig.5) is flowing in a steady stream.

- The pump is ready.

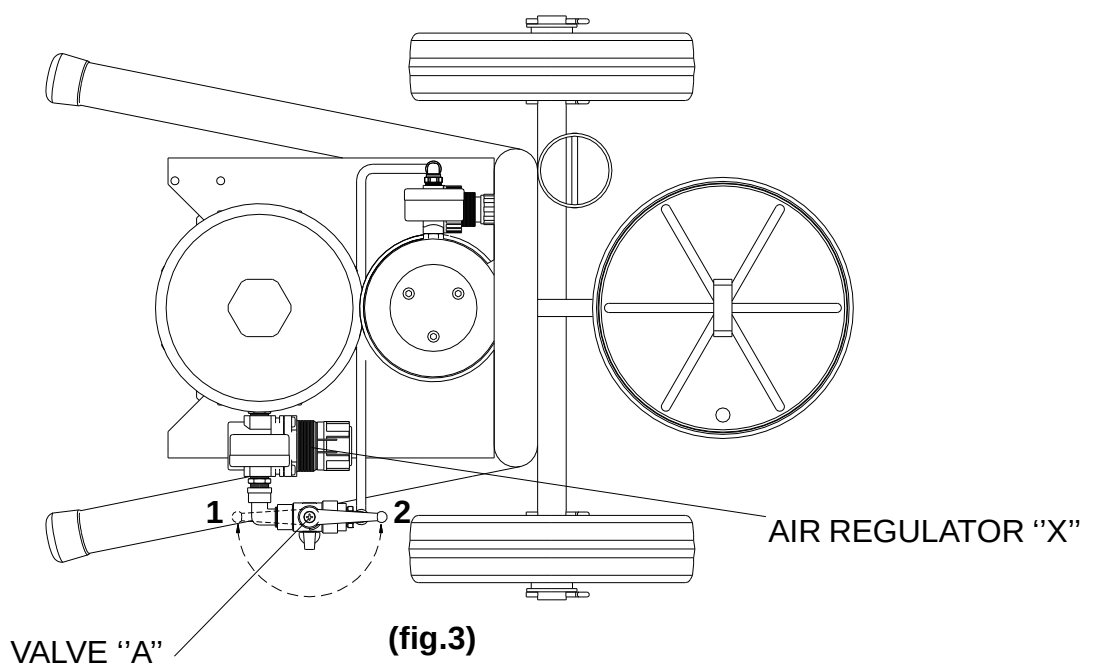
CLEANING

- Turn off the air inlet valve (See fig.2).
- Remove the spray tip and trigger gun to relieve pressure.
- Set the air inlet valve "A" (See fig.3) in position n°2. Turn on the air inlet valve (See fig.2). Now, the cleaning pump will start to pumping solvent.
- Trigger the gun until the solvent runs clear.

When the pump stay a long time without working, is necessary to circulate solvent through the three suction pipes.



(fig.2)

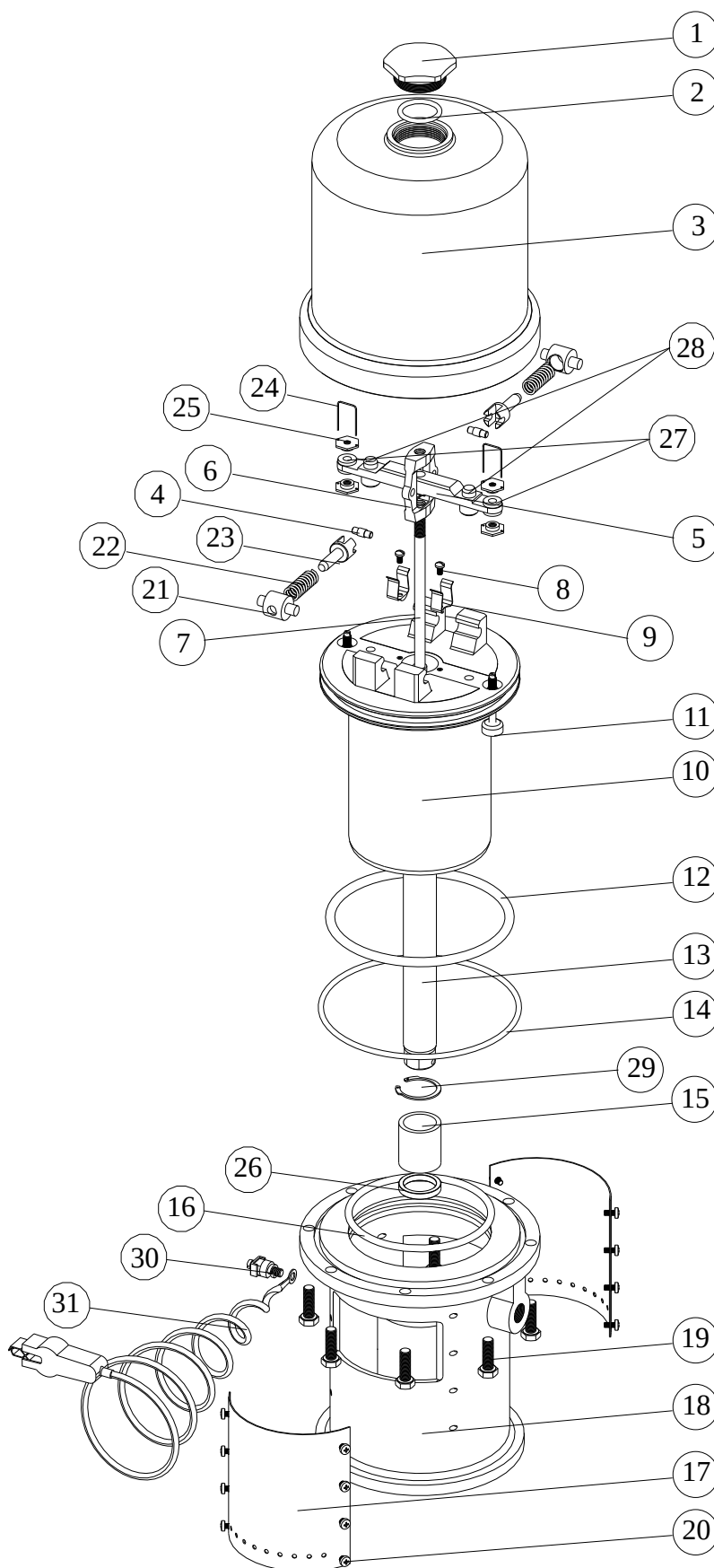


(fig.3)

AIR MOTOR

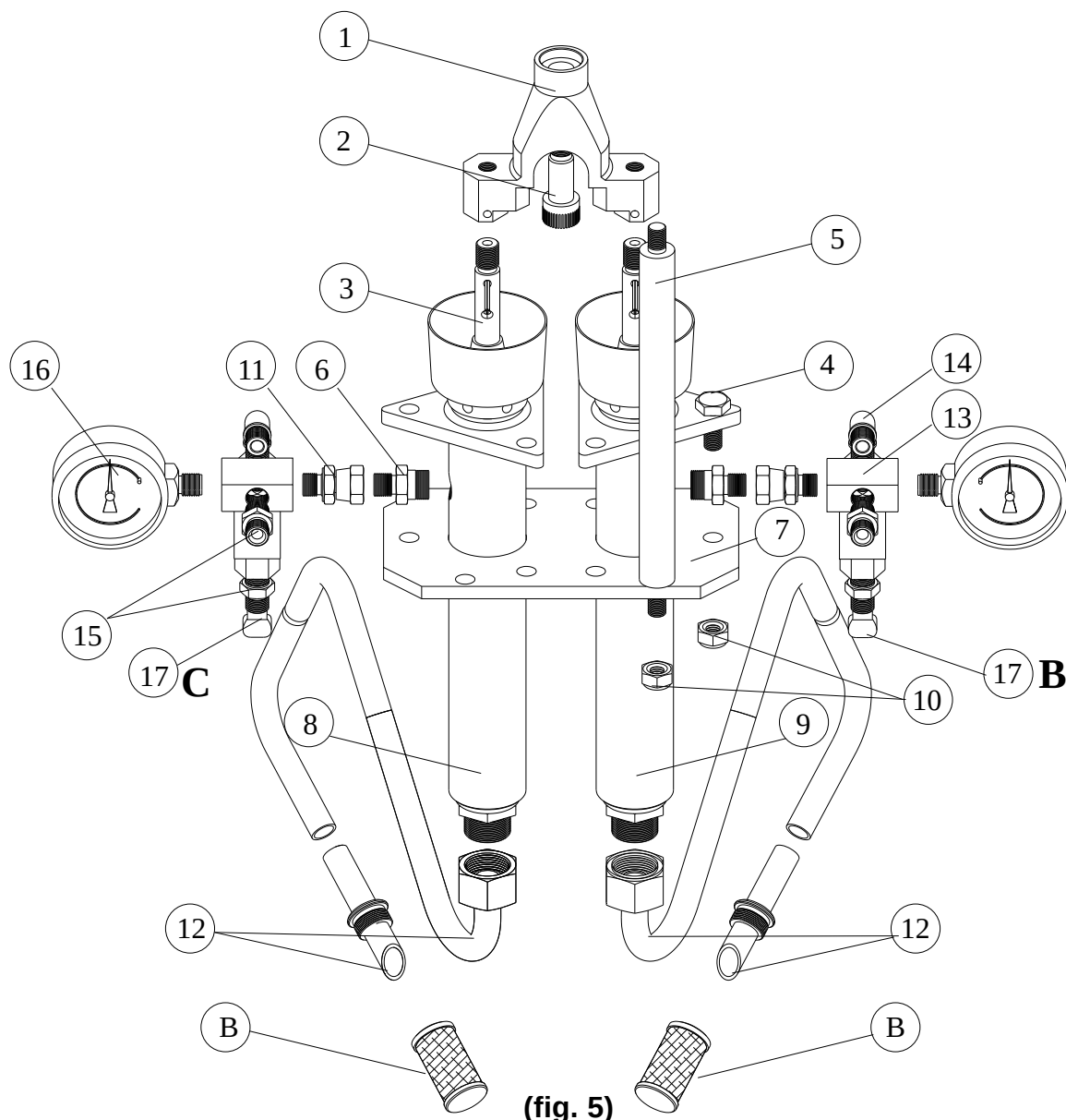
16A.200.00

Nº	REF.	DESCRIPCION	Q
1	A.110.02	CAP	1
2	C.JT0.01	JOINT	1
3	A.210.01	CYLINDER	1
4	A.120.04	ROD	2
5	A.220.07	SUPPORT	1
6	A.120.08	YOKE	1
7	A.221.00	ROD	1
8	C.TJ0.02	SCREW	2
9	A.240.02	CLIP	2
10	A.240.01	PISTON	1
*11	A.122.00	STEM	2
*12	C.JT0.05	JOINT	1
13	A.220.11	ROD	1
*14	C.JT0.07	JOINT	1
15	CB2.015	SLEEVE	1
*16	C.JT0.06	JOINT	1
17	A.130.02	PLATE	2
18	A.250.01	BASE	1
19	C.TA0.01	SCREW	6
20	C.TC0.01	SCREW	16
21	A.120.01	ROCKER	2
22	A.120.02	SPRING	2
23	A.120.03	ROD	2
*24	A.120.05	CLIP	2
25	A.120.06	NUT	4
26	A.150.02	JOINT	1
*27	A.120.10	JOINT	2
*28	A.220.09	JOINT	2
29	CAR 125	RETAINER	1
30	101.400.00	GROUND	1
31	101.620.00	WIRE GROUND	1



(fig. 4)

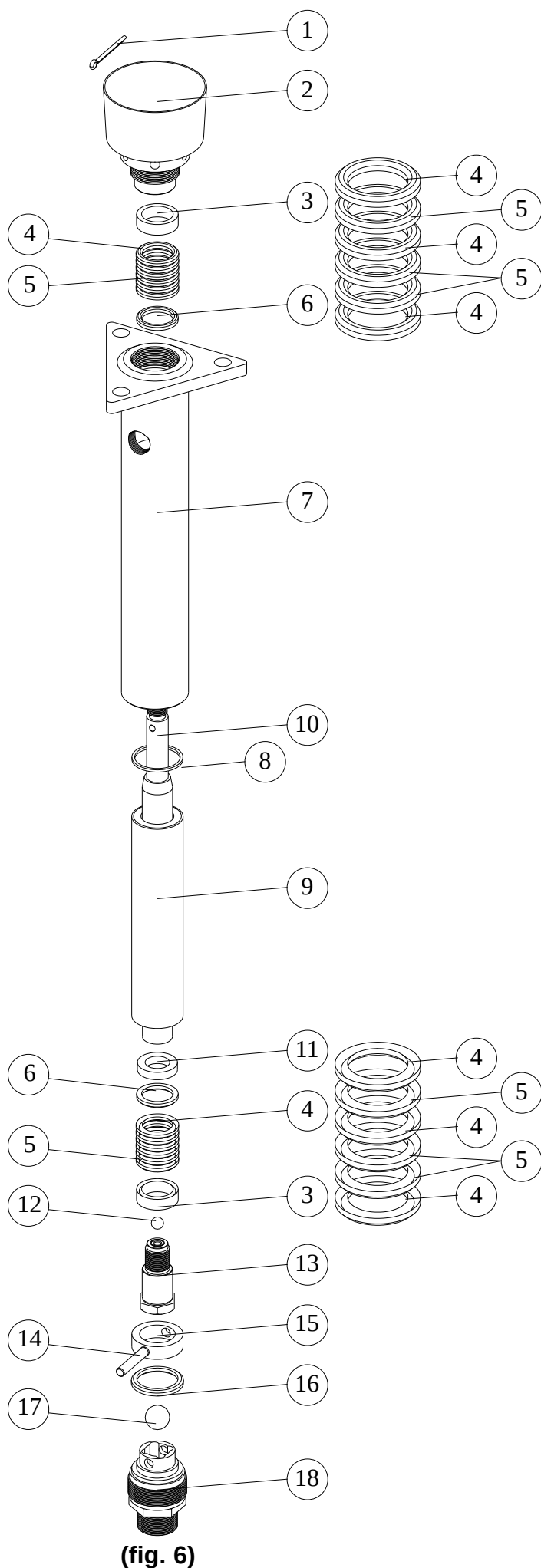
* Included in KIT.054



DISPLACEMENT PUMP ASSEMBLAGE FOR TEL 15-2K SS-316

N°	REF.	DESCRIPTION	Q
1	15.200.02	UNION	1
2	16.000.04	SCREW	1
3	CPA.101	PIN	2
4	CTA.005PR	SCREW	6
5	16.200.01PR	TIE	4
6	16.000.07PR	COUPLING	2
7	16.200.03PR	SUPPORT	1
8	B.101.00PR	PUMP A (BASE)	1
9	B.101.00PR	PUMP B (CATALYST)	1
10	CTU.101PR	NUT	10
11	CNA.116X	COUPLING	2
12	16.300.00X	SUCTION	2
B	16.313.00X	FILTER	2
13	G.100.10PR	HOUSING	2
14	CNA.113	ELBOW	2
15	G.100.06PR	COUPLING	4
16	CNB.017	GAUGE	2
17	CNC.001X	VALVE	2

PUMP A&B



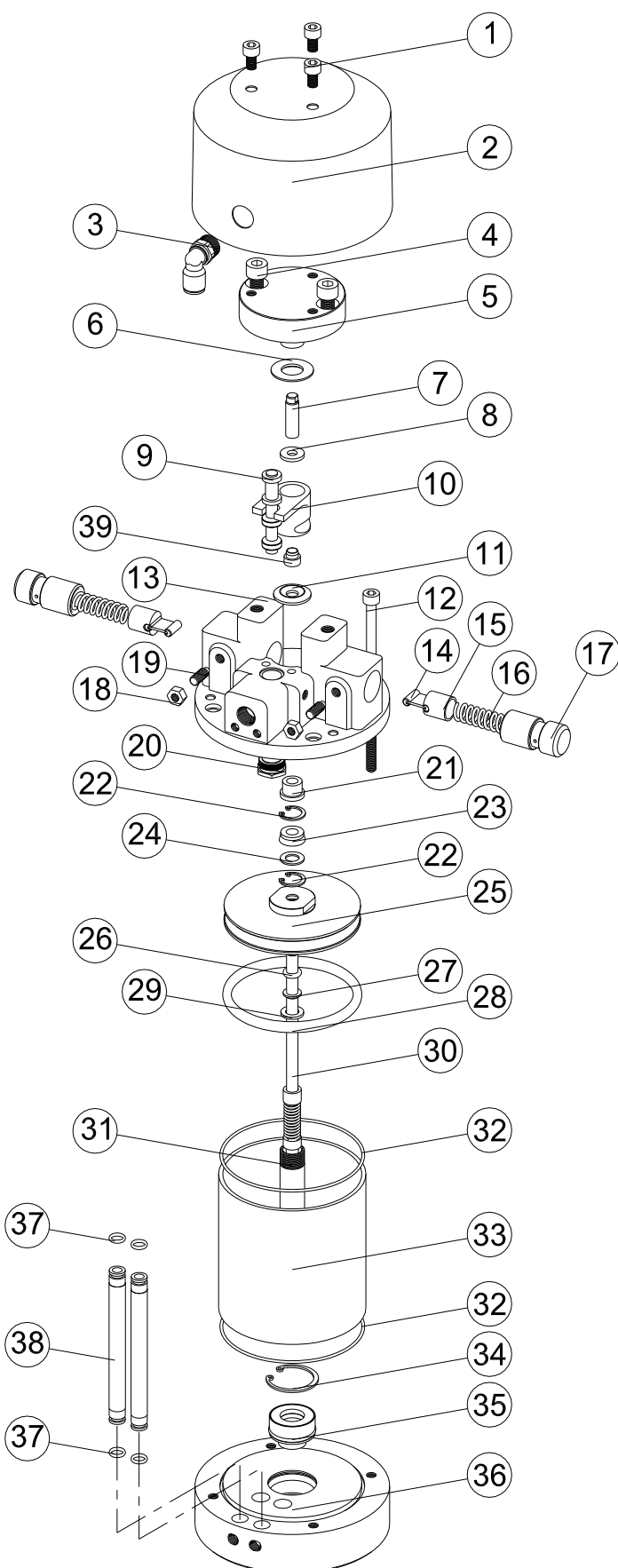
B.101.00PR

N°	REF.	DESCRIPTION	Q
1	CPA.101	PIN	1
2	B.120.00PR	PACKING NUT	1
*3	B.130.01PR	FEMALE GLAND	2
*4	100.230.02	PACKING	6
*5	B.130.02	PACKING	6
*6	B.130.03PR	MALE GLAND	2
7	B.110.00PR	HOUSING	1
8	B.100.01	JOINT	1
9	B.100.02PR	SLEEVE	1
10	B.100.03PR	ROD	1
11	B.140.01PR	WASHER	1
12	CBO.101PR	BALL	1
13	B.150.00PR	PISTON	1
14	B.100.05PR	PIN	1
15	B.100.04PR	RETAINER	1
16	B.100.06	JOINT	1
17	CBO.104PR	BALL	1
18	B.160.00PR	VALVE	1

*** Included in KIT 039PR**

NOTE: Fix parts 10 and 13 with loctite 542 or similar (wait 1 hour before start running the unit).

AIR MOTOR "CLEANING PUMP"

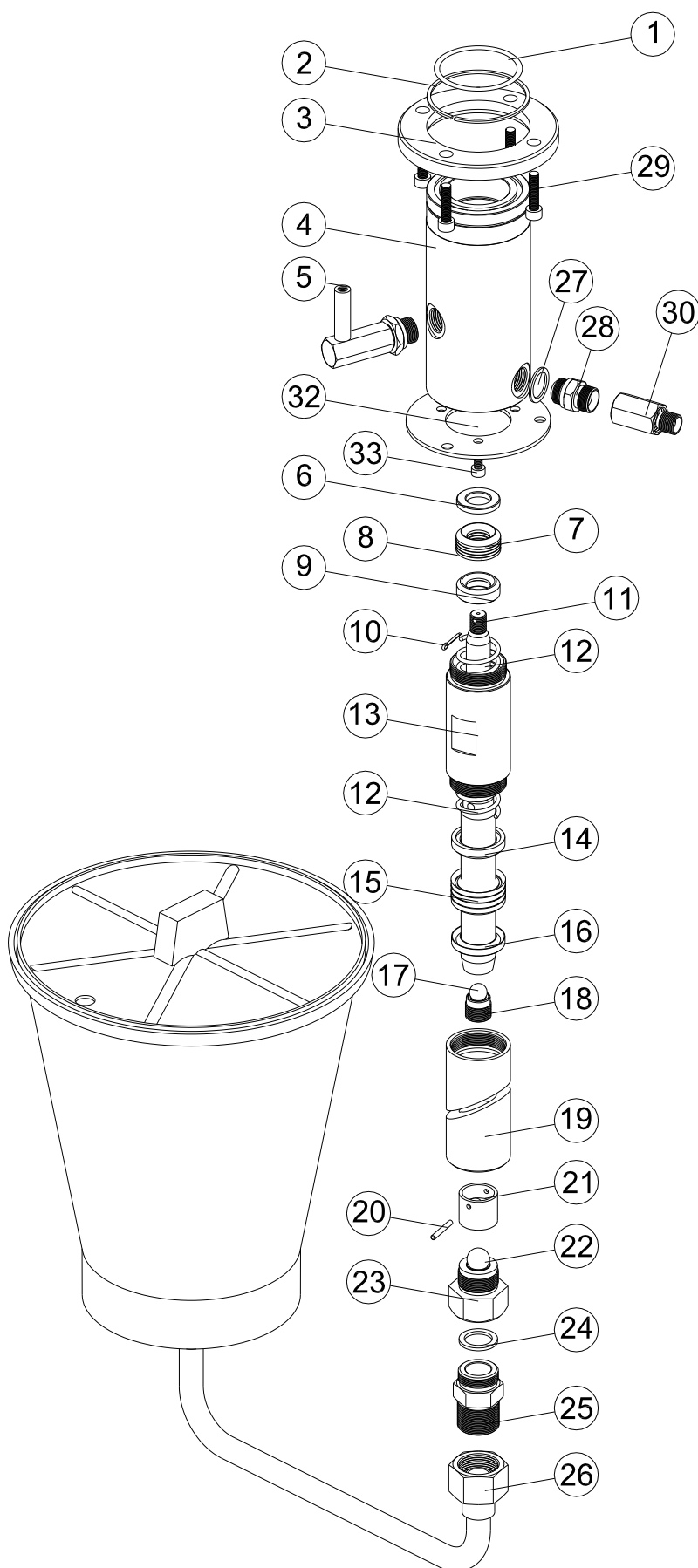


(fig. 7)

Nº	REF.	DESCRIPTION	Q
1	CTB.002	SCREW	3
2	080.100.01	COVER	1
3	CNA.065	ELBOW	1
4	CTB.023	SCREW	2
5	080.120.00	COVER	1
6	080.100.05	SNUBBER	1
7	080.170.05	GUIDE	1
8	080.100.08	WASHER	1
*9	080.150.00	AIR DISPENSER	2
10	080.100.07	HOUSING	1
11	080.100.04	SNUBBER	1
12	CTB.030	SCREW	4
13	080.110.00	MOTOR BODY	1
14	080.140.00	SPRING SUPPORT	2
15	080.100.09	SPRING BUTT END	2
16	080.100.11	SPRING	2
17	080.100.10	SUPPORT	2
18	CTU.002	NUT	2
19	CTG.009	SCREW	2
20	080.130.00	PLUG	1
21	080.100.02	BUSHING	1
22	CAR.112	RETAINER	2
*23	CAB.005	RING	1
24	080.100.03	SEAT	1
25	080.170.01	PISTON	1
26	CJT.022	JOINT	1
27	080.170.02	SEAT	1
*28	CJT.023	JOINT	1
29	080.170.03	WASHER	1
30	080.171.00	ROD	1
31	080.170.04	ROD	1
32	CJT.024	JOINT	2
33	080.100.13	CYLINDER	1
34	CAR.118	RETAINER	1
*35	080.800.00	KEEPING BACK	1
36	080.100.12	MOTOR BASE	1
37	CJT.025	JOINT	4
38	080.100.14	PIPE	2
39	080.100.06	RING	1

* Included in KIT.055

DISPLACEMENT PUMP “CLEANING PUMP”



(fig. 8)

Nº	REF.	DESCRIPTION	Q
1	CJT.026	JOINT	1
2	CAR.111	RETAINER	1
3	080.200.03	BRIDLE	1
4	080.200.01	BODY	1
5	080.210.00	OIL TUBE	1
*6	080.200.04X	FEMALE GLAND	1
*7	B.131.02	PACKING	4
*8	B.930.04	PACKING	1
*9	080.200.06X	MALE GLAND	1
10	CPA.109	PIN	1
11	080.200.16	ROD	1
12	080.200.07	SPRING	2
13	080.200.08X	CYLINDER	1
*14	080.200.12X	MALE GLANG	1
*15	080.200.13	PACKING	4
*16	080.200.15X	FEMALE GLAND	1
17	CBO.110	BALL	1
18	080.230.00	PISTON VALVE	1
19	080.200.09	HOUSING	1
20	080.200.11	PIN	1
21	080.200.10	BALL GUIDE	1
22	CBO.111	BALL	1
23	080.220.00X	INLET VALVE	1
24	080.200.19	JOINT	1
25	080.000.01X	COUPLING	1
26	D.200.00X	FLUID SUCCION	1
27	CAR.015	WASHER	1
28	080.240.00X	ANTIRRETORNO	1
29	CTB.013	SCREW	4
30	CNA.046	COUPLING	1
32	16.000.01	SUPPORT	1
33	CTB.019	SCREW	3

* Included in KIT 024X

NOTE: Fix parts 11 and 18 with loctite 542 or similar (wait 4 hour before start running the unit).

SERVICING THE AIR MOTOR

RESTARTING A STALLED AIR MOTOR.

To reseal the air transfer valves and restart a stalled air motor, relieve the air supply pressure to the motor by closing the air valve. If the air transfer valves fail to reseal, screw the cap nut (1) out of the cylinder (3), pull up on the trip rod (7) and screw the cap nut back into the cylinder. See fig.9. Be sure the air supply pressure is less than 12 bar (180 psi) before opening the air valve.

DISASSEMBLING AND REASSEMBLING THE AIR MOTOR.

Manually push on the piston rod to move the piston to the top of its stroke. Screw the cap nut (1) out of the cylinder (3). Pull up on the cap nut, grip the trip rod (7) with padded pliers (A-A) and screw the cap nut off of the trip rod. See fig. 9.

Do not damage the plated surface of the trip rod. Damaging the surface of the trip rod can result in erratic air motor operation.

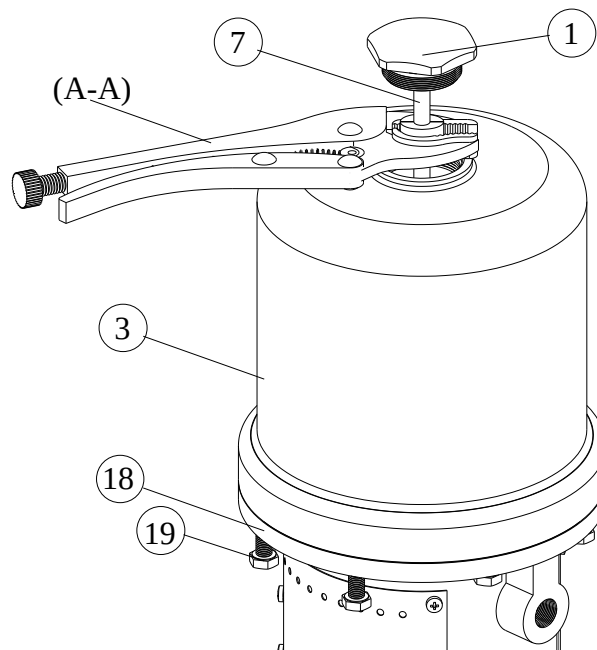
Remove the screws (19) holding the cylinder (3) to the base (18) and carefully pull the cylinder straight up off of the piston. See drawing 9. Always keep fingers clear of the toggle assemblies (X), to avoid pinching or amputating them.

Use a screwdriver to push down on the trip rod yoke (6) and snap the toggle assemblies (X) down. Remove the lockwires (24) and upper adjusting nuts (25) from the air transfer valves (H). Screw the valve stems (11) out of the grommets (27) and lower adjusting nuts (25) and inspect them for cracks. See fig.10.

Grip the toggle rocker (21) with pliers, compress the spring (22), swing the toggle assembly (X) up and away from the piston lugs (10) and remove the parts. See fig. 10. Inspect the valve actuator (5) to be sure it is supported by the spring clips (9), but slides into them easily. Remove the trip rod yoke (6), valve actuator (5) and the trip rod (7). Check the exhaust valve poppets (28) for cracks. Pull the piston (10) up out of the base (18) and inspect the o-ring (12) in the base casting (10).

To remove the exhaust valve poppets (28), stretch them out and cut them with a sharp knife.

Clean all parts thoroughly and inspect for wear or damage. Replace parts as necessary. Inspect the polished surfaces of the piston, piston rod and cylinder walls for scratches or wear. Lubricate all parts with a light waterproof grease. Be sure the o-rings are in place, slide the piston rod down through the throat bearing and lower the piston (10) into the base (18).

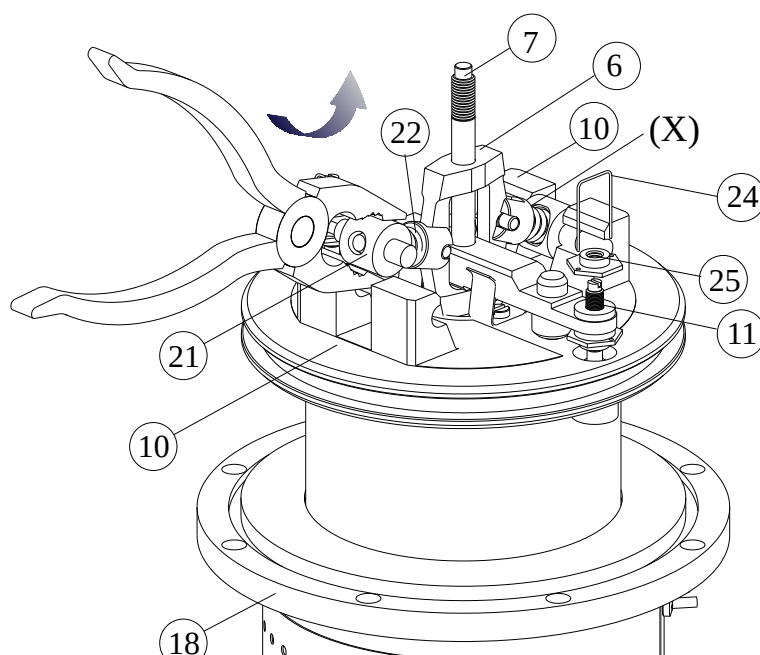


(fig. 9)

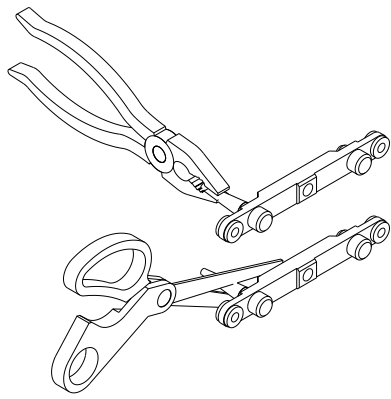
Pull the exhaust valve poppets (28) into the valve actuator (5) and clip off the top part shown with dotted lines. See fig. 11 and 12. Reassemble the valve stems (11), grommets (27), adjusting nuts (25) trip rod (7), valve actuator (5), trip rod yoke (6) and the toggle assemblies (X) on the piston (10). See fig. 12.

Adjust the valve stems (11) so there is a 4,17 mm. clearance between the valve poppets (11) and the piston (10) when the toggle assemblies are in the down position. See fig. 12.

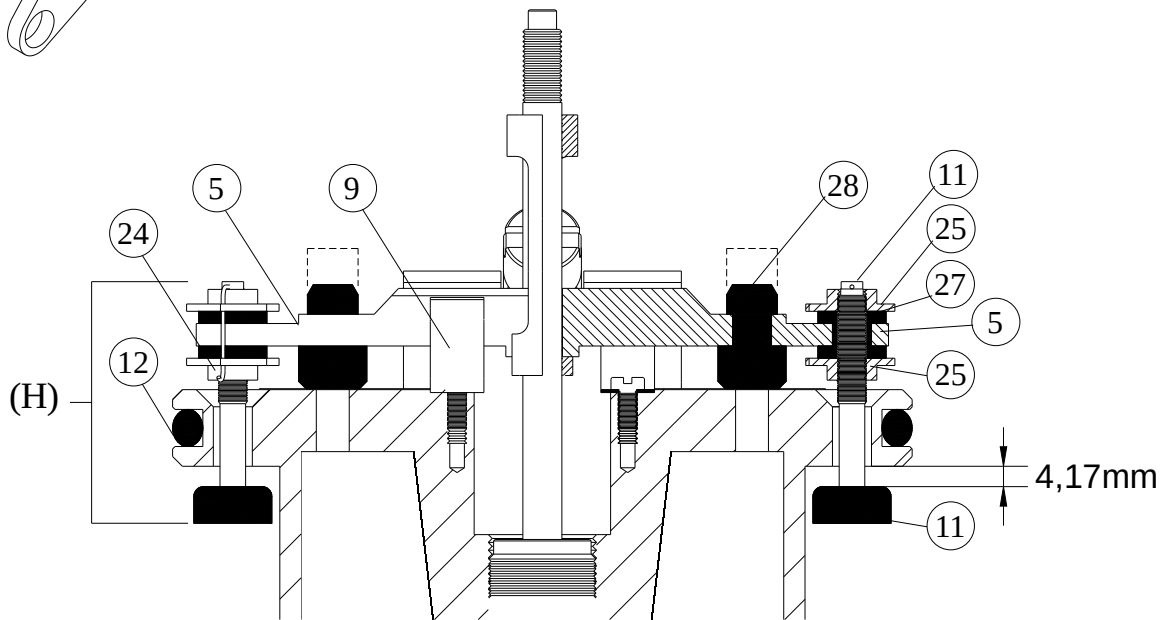
Be sure the toggle assemblies (X) are in the up position and then reinstall the cylinder (3) and the cap nut (1). See fig. 9. Reassemble the air motor to the displacement pump. Before mounting the pump, connect an air hose to the air motor and run the pump to be sure it operates smoothly.



(fig. 10)

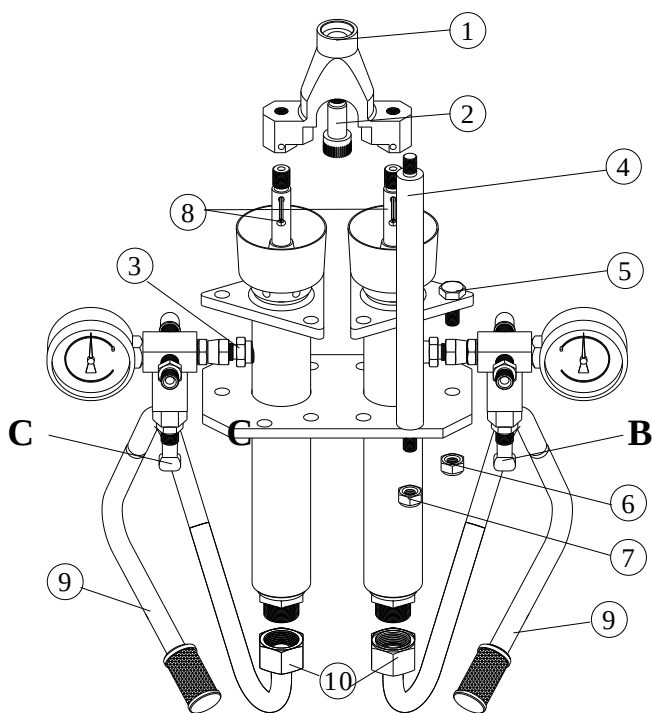


(fig. 11)



(fig. 12)

PROCESS FOR PACKING REPLACEMENT, DISASSEMBLY AND ASSEMBLY OF THE FLUID SECTION.



(fig. 13)

- 1.- Clean the unit with solvent or water, as applicable. Decompress.
- 2.- Close the air inlet valve.
- 3.- Disconnect the fluid hose from the pump outlet.
- 4.- Loosen the suction hose (9) with the nut (10) of the suction valve.
Repeat the process on the other base.
- 5.- Loosen the screw (2) connecting the "Y" (1) of the hydraulic motor and loosen the outlet fittings (3) of the hydraulic bases.
- 6.- Loosen the four nuts (7) connecting the spacers (4) to the hydraulic motor.
- 7.- Loosen the six screws (5) securing each base to the support.
- 8.- Remove the pins (8) from the yoke (1) and unscrew the bases to open them.

DISPLACEMENT PUMP SERVICE

NOTES:

- 1.- Repair Kit is available for Pumps. For the best results, use all the new parts, even if the old parts look good.
- 2.- Clean all the parts thoroughly when disassembling. Check them carefully for damage or wear, replacing parts as needed.

INTAKE VALVE .

Screw the intake valve housing (20) out of the outlet housing (8). If the valve is seized in the housing, squirt penetrating oil around the threads and gently tap around the housing with a plastic hammer to loosen. See fig.9.

Remove the ball stop pin (15), guide (16), joint (17), and the ball (19). Reassemble the valve, using new parts as necessary, and screw it back into the pump housing.

PISTON, SLEEVE OR DISPLACEMENT ROD.

Screw the intake valve housing (20) out of the outlet housing (8). Loosen the tie rod locknuts (2). Disconnect the displacement rod (11) from the air motor (18) piston rod by removing the cotter pin (1), then unscrewing the connecting rod (18) or displacement rod. Remove from the tie rods (7). Loosen the packing nut (3) and push the displacement rod down out of the housing. Secure the flats of the rod in a vise. Screw the piston seat (14) out of the rod. Remove the ball (13), retainer (12), packings (5) and glands (4, 6).

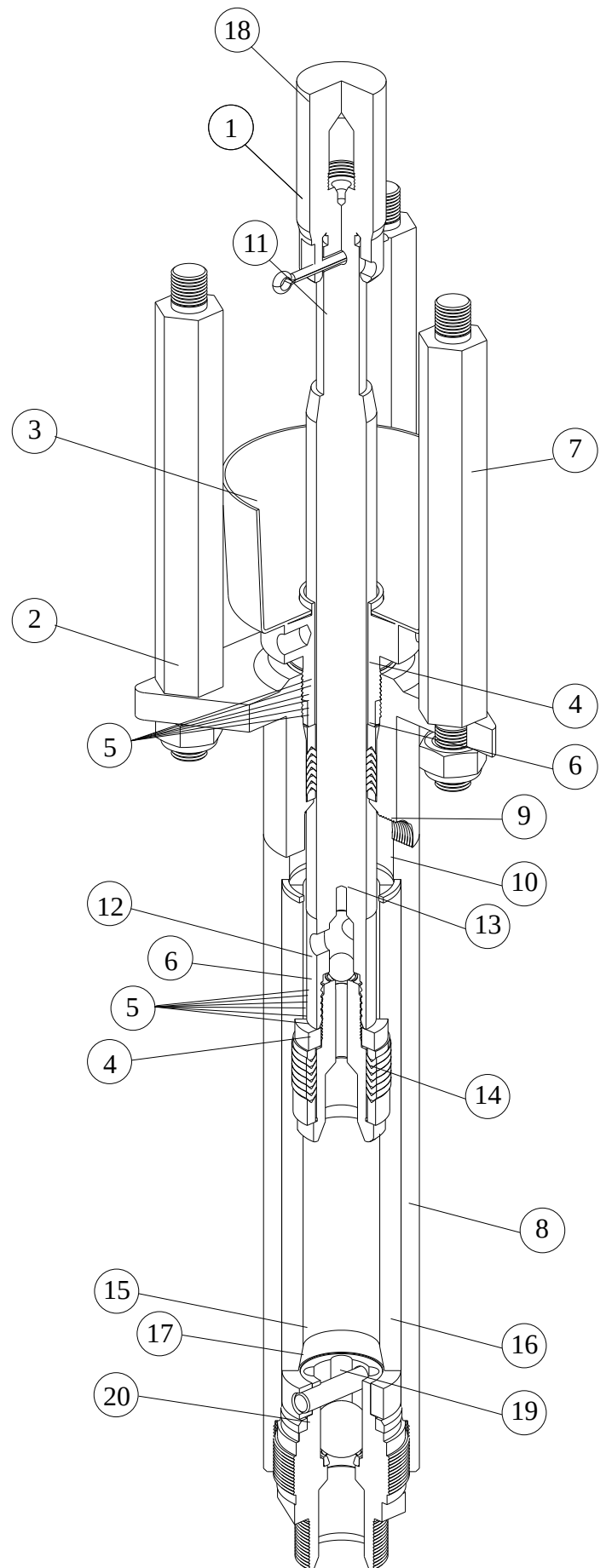
Scoring or irregular surfaces on the displacement rod or polished inner wall of the sleeve cause premature packing wear and leaking. Check these parts by rubbing a finger on the surfaces or by holding the parts up to a light at an angle. Replace worn parts. If the sleeve needs replacing, be sure to install a new sleeve with the tapered end down.

If it is necessary to replace the sleeve (10), you have to replace the joint (9) that is between the pump housing (8) and the sleeve (10).

Install the packings on the piston as instructed below. Be sure the lips of the v-packings face UP, against fluid pressure. Lubricate the packings with grease compatible with the fluid being pumped. Always use new glands with new packings for a good seal.

One at a time, install a female gland (4) an v-packings (5), a male gland (6), and the packing retainer (12) onto the piston (14). See fig.9.

Use thread sealer (loctite 542) on the piston seat and stud. Install the piston, packings, and ball (13) into the displacement rod (11). Torque the piston to 65-75 ft-lb (88-102 N-m).



(fig. 14)

THROAT PACKINGS.

Screw the intake valve housing (20) out of the outlet housing (8) and remove the piston and displacement rod as explained to the left. Then screw the packing nut (3) out of the housing (8) and take the packings (5) and glands (4, 6) out of the cavity.

Install the throat packings as instructed below. Be sure the lips of the v-packings face down, against fluid pressure. Lubricate the packings with grease compatible with the fluid being pumped. Always use new glands with the new packings.

One at a time, install a male gland (6), v-packings (5), and a female gland (4) into the throat of the pump housing (8). See fig. 9.

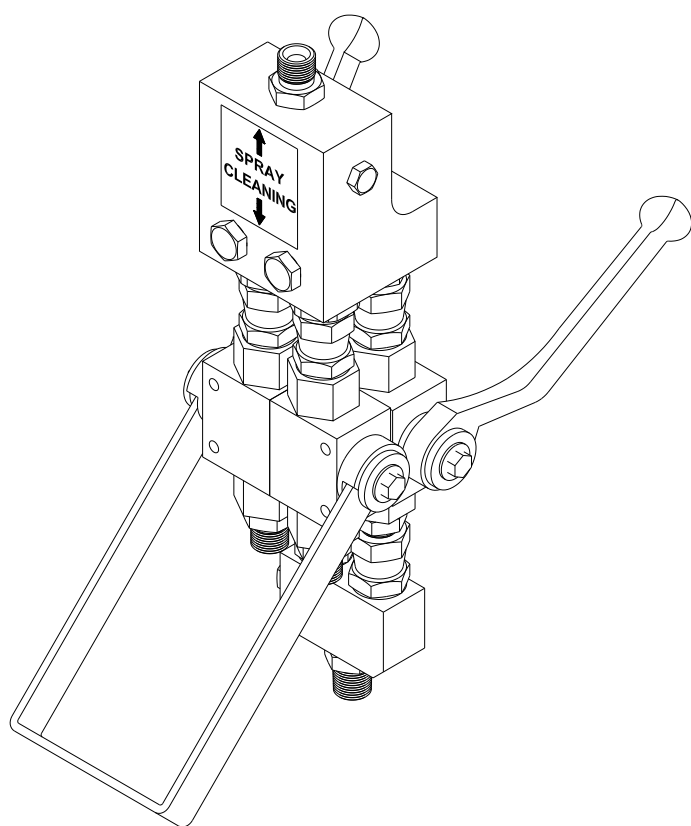
Reassemble the pump in reverse order of disassembly. Check the tie rods to be sure that they are tightened securely into the air motor base. Assemble the connecting rod to the air motor and screw the locknuts loosely onto the tie rods. Tighten the packing nut until it's just snug. Finish tightening the locknuts evenly to 35-50 ft-lb (47-68 N.m) Then tighten the packing nut just enough to stop leakage-no tighte. Start the pump and run it at 40 psi (3 bar) minimum air pressure to check the tie rods for signs of binding. Adjust if necessary.

Note:

If the grounding wire was disconnected before servicing, be sure to reconnect it before operating the pump.

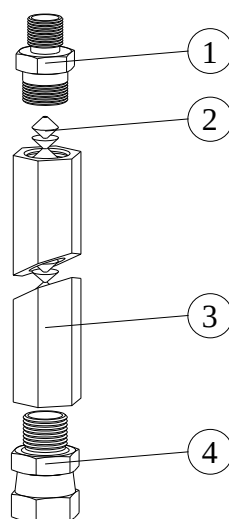
ACCESSORIES

INJECTOR MANIFOLD «MI.100.00-4V»



(fig. 15)

MIXER ASSEMBLY



(fig. 16)

N°	REF.	DESCRIPTION	Q
1	16.000.07X	NIPPLE	1
2	CNE.004	MIXER	1
3	M.410.01	PIPE	1
4	CNA.140X	CONNECTOR	1

TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Pump. fails to operate.	■ Restricted line or inadequate air supply. ■ Insufficient air pressure, closed or clogged air valves, etc. ■ Exhausted fluid supply. ■ Obstructed fluid hose, gun or dispensing valve. ■ Clogged spray tip or filters.	■ Clear, increase air. ■ Open, clean. ■ Refill; purge all air from pump and fluid lines. ■ Clear. ■ Clear or replace.
Pump operates but output low on down stroke.	■ Clogged filters. ■ Throat packings nut too tight or too loose. ■ Exhausted fluid supply. ■ Obstructed fluid hose or gun. ■ Worn spray tip. ■ Held open or worn intake valve. ■ Held open or worn fluid piston or packings.	■ Clear or replace. ■ Adjust. ■ Refill and prime. ■ Clear. ■ Replace. ■ Clear. ■ Clear or replace.
Erratic or accelerated operating.	■ Exhausted fluid supply. ■ Check valves need adjustment. ■ Held open or worn intake valve. ■ Held open or worn fluid piston or packings.	■ Refill and prime. ■ Adjust. ■ Clear. ■ Clear or replace.

For trouble free operation is absolutely essential that your sprayer be kept clean and free of residual paint build-up on the internal parts. It must be cleaned and lubricated after each use.

WARRANTY

M.B.P., will any repairs necessary during the first 12 months after purchase of a new unit, with the exceptions shown under 1 and 2 below, and under the conditions shown in item 3.

- 1.- Damage caused by external abuse, customer negligence, or failure to operate the unit in accordance with the instructions supplied with the unit.
- 2.- Normal maintenance items.
- 3.- Within the first 12 months after purchase, M.B.P. will pay 100% of the cost of covered repairs.

In no case will M.B.P. liability extend beyond repair or replacement of the equipment. Such liability is limited to the amount of the original purchase price paid for the unit, minus a reasonable deduction for the time the unit has been in service. It is the responsibility of the purchaser under this warranty to ship or deliver the failed paint sprayer to the authorized service center at the purchaser's expense. Parts or components covered under this warranty may either be repaired or replaced at M.B.P. option.

Equipment not covered by M.B.P. warranty. Accessories or components of equipment sold by M.B.P. that are not manufactured by M.B.P. are subject to the warranty, if any, of their manufacturer. M.B.P. will provide purchaser with reasonable assistance in making such claims.

The Industry Department of The Basque Government, states that all electric and pneumatic airless equipment manufacture by M.B.P. S.L., follows the "CE" standards under the number 83/392/CEE.

DECLARACION DE CONFORMIDAD "CE" "EC" DECLARATION OF CONFORMITY

MODELO / MODEL TEL 15 - 2K-I (1:1) SS-316

Este producto cumple con la siguiente directiva de la Comunidad Europea.

This Product complies with the following European Community Directive.

Directiva 2014/34/EU Atex sobre máquinas. (Ex II 2G c T6 X)

Machinery Directive 2014/34/EU Atex Directive. (Ex II 2G c T6 X)

APROBADO POR /

APPROVED BY

AITOR ORTIZ

FECHA / DATE

MBP, S.L. figura inscrita en el Registro Industrial del País Vasco con el N° 01/8030 y cumple los requisitos para el desarrollo de su actividad comercial.

MBP, S.L. is registered in the Industrial Register of the Basque Country with the N° 01/8030.

