

MANUAL



WHEELBARROW 120LT
MOTORPUMP 415/63 12V

**USE
MAINTENANCE
ACCESSORIES
SPARE PAERTS**

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CHARACTERISTICS	
CODE	50040
MEMBRANE PUMP 415	X
PRESSURE/BAR	12
DELIVERY L/min.	2,8
3 m POWER CABLE	X



VERY IMPORTANT: READ AND UNDERSTAND THIS MANUAL BEFORE STARTING TO USE YOUR MOTORPUMP H63 220V



The disposal of electronic and electrical appliances in landfill sites or through incineration creates a number of environmental problems. **MAKE SURE TO DISPOSE SEPARATELY.** Worn-out and obsolete equipment must be disposed in accordance with the waste disposal laws of your country with special care for tanks and liquid agents (oils etc...) that **SHOULD NOT BE THROWN IN THE ENVIRONMENT** nor left unattended.

OPERATORS USING THIS EQUIPMENT MUST WEAR PERSONAL PROTECTION TOOLS AND CLOTHS

**USE A RESPIRATOR OF A SUITABLE TYPE DEPENDING ON TOXICITY CLASS OF THE AGENTS SPRAYED
USE SAFETY GLOVES WHEN BATCHING THE PRODUCTS**

WARNING:

DANGER OF NOISE INDUCED HEARING LOSS OPERATING THIS EQUIPMENT MAY EXPOSE THE USER TO A DAILY NOISE LEVEL OF 86,5 dB (A)

WARNING:

NEVER STAND BARE FEET NOR ON WATERY SURFACES WHEN YOU START THE ENGINE AND MAKE SURE THAT YOUR HANDS ARE DRY AND CLEAN.

IMPORTANT

Make sure to connect the equipment to a conformant power supply and that all electric safety measures are effectively installed and available in compliance with the Safety Regulations of the country.

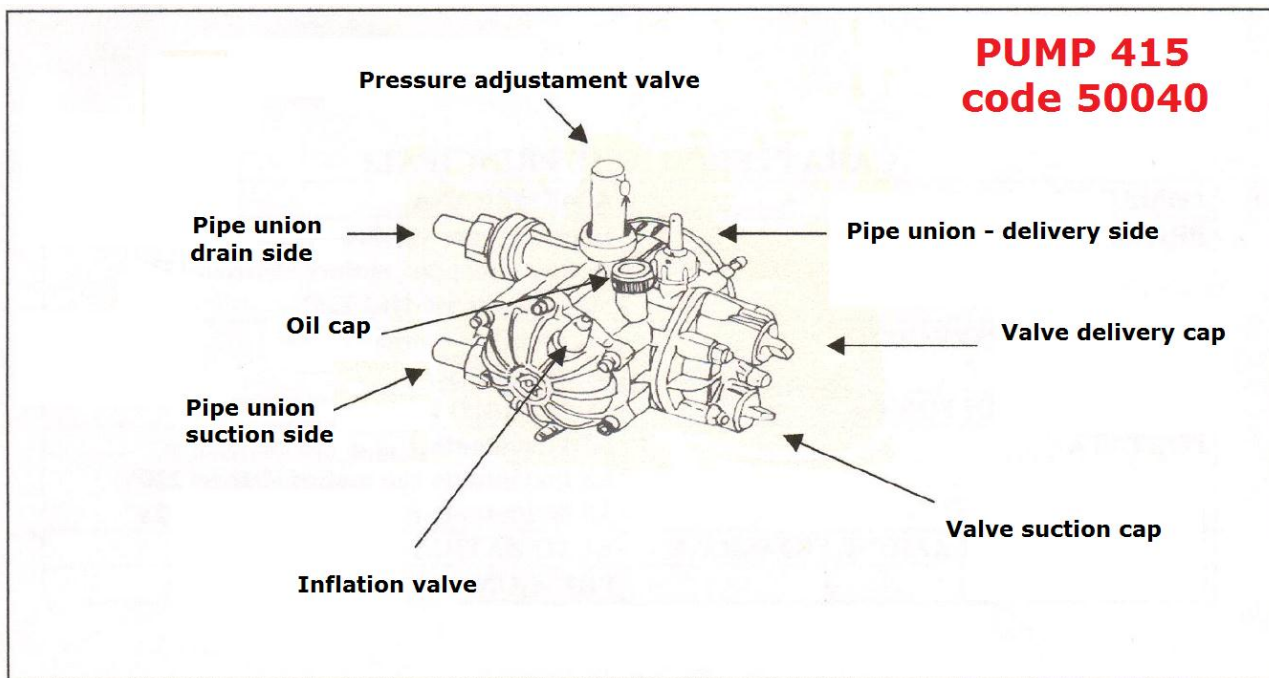
Also, by your electrician approve, make sure that your house network is duly certified, grounded and fitted with a 30 mA residual current device (RCD).

MAIN APPLICATIONS: spraying of herbicides and various agents for treatment, disinfection and weeds-control of vineyards and plantations (not suitable for liquids containing solvents as solvents are susceptible of causing strain and buckling of rubber membranes). **Spray chemicals may be very dangerous for humans. Misuse or use of a wrong chemical may cause severe health hazards for the persons, the animals and the plants in the environment.**

Make sure to spray the best chemical for your application, handle chemicals with extreme care and comply with the instructions of the manufacturer printed on the packaging or packed inside!

ALWAYS WEAR SUITABLE PERSONAL PROTECTION TOOLS AND EVENTUALLY A RESPIRATOR OF A SUITABLE TYPE

USE SAFETY GLOVES FOR BATCHING THE PRODUCT
SPRAYERS ARE STRICTLY DESIGNED FOR SPRAYING APPLICATIONS.
DO NOT EVER USE THIS EQUIPMENT TO SPRAY ANY AGENT INSIDE OR NEAR AN EXPLOSIVE ENVIRONMENT.



PUMP 415	MEMBRANE PUMP
OPERATING PRESSURE	12 kg./cm ²
PUMP VALVES AND MOUNTS	OUT OF STAINLESS STEEL
DELIVERY	2,8 l/min
PRESSURE ADJUSTMENT VALVE	AUTOMATIC
AIR CHAMBER	FACTORY SETTINGS: INFLATION PRESSURE 3 ATM

WHAT TO DO AT THE END OF THE DAY

CLEANING:

AT THE END OF EACH WORKING SHIFT AND BEFORE STORAGE: PLEASE ACCURATELY CLEAN THE TANK BY USING CLEAN WATER AND POWER ON THE PUMP, IN THIS WAY ALL INTERNAL PARTS WILL BE CLEAN. KEEP FLUSHING WITH WATER FOR SEVERAL CYCLES. AFTER EACH CLEANING, CHECK THE PUMP SUCTION FILTER, FILTER AND NOZZLE

STARTING:

PERFORM PRELIMINARY CHECK UP AND START THE ENGINE

OPERATING:

WHEN THE LIQUID AGENT FLOWS INTO THE TANK, THE PUMP IS READY FOR USE

AFTER USE:

AT THE END OF EACH DAY AND AFTER HAVING SPRAYED ALL THE PRODUCT OUT OF THE TANK, RINSE AND CLEAN BOTH THE TANK AND THE PUMP FLUSHING THEM WITH FRESH WATER. MAKE SURE ALL PARTS ARE VERY CLEAN AND STORE OVERNIGHT IN A SAFE PLACE.

WARNING TO FROSTING TEMPERATURES!!

OIL CHANGE:

AFTER EACH 250-300 HOURS OF OPERATION PROVIDE EXTENSIVE OIL REPLACEMENT IN THE PUMP. STRICTLY USE SAE OIL 20W (abt. 270 cc).

RUNNING-IN:

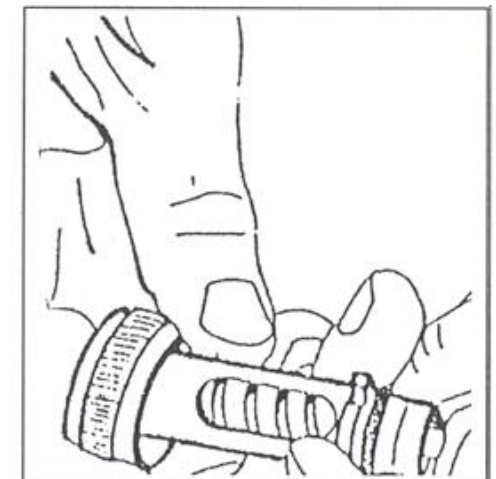
THE PUMP IS PARTLY RUN-IN BY THE MANUFACTURER, AFTER $\frac{3}{4}$ OF A WORKING HOUR, SET THE ADJUSTMENT SCREW ON MAX PRESSURE POSITION AND IF REQUIRED CONTINUE AS SHOWN HERE.

CHECK THE PRESSURE REGULATOR:

DISMOUNT THE VALVE FROM THE PUMP BODY, MAKE SURE THAT THE PIN CAN MOVE SMOOTHLY INSIDE PRESSURE REGULATOR BODY.

CHECK THAT THE SPRING, IT DOESN'T HAVE SIGN OF CORROSION.

RE-MOUNT THE VALVE AGAIN AND MAKING SURE TO MATCH THE SPECIAL CENTRING DOWELS.



OPERATION METHODS:

THE ENGINE AND THE PUMP FORM A UNIT THAT CAN BE DISMOUNTED BY SIMPLY RELEASING THE TWO BUTTERFLY NUTS AND THE TWO RING-NUTS USED TO FIX THE UNIT RESPECTIVELY ON THE ENGINE AND ON THE PUMP SIDE.

CHEMICAL RESISTANCE:

THE PUMP STANDARD VERSION IS VERY RESISTANT AGAINST NUMEROUS CHEMICAL AGENTS AND PERFORMS VERY WELL AT HARD ALKALI (i.e. COMMERCIAL SODA OR POTASH) IN CONCENTRATIONS UP TO 50% EVEN AT HIGHER TEMPERATURE THAN THE AMBIENT ONE. SEVERE AND EVEN PERMANENT DAMAGES ARE LIKELY TO HAPPEN WITH THE PUMP WHEN USED WITH STRONGLY OXIDIZING AGENTS AND HARD ACIDS. THE PUMP MAY BE DAMAGED BY CONTACT WITH ORGANIC SOLVANTS TOO.

PRELIMINARY CONTROLS:

A) MAKE SURE THAT THE SUCTION FILTER IS PERFECTLY CLEAN AT ALL TIMES.

B) MAKE SURE THAT THE OIL LEVEL IN THE PUMP IS CORRECT (OIL MUST BE SLIGHTLY VISIBLE THROUGH THE CAP).

PRESSURE REGULATOR:

IF YOU NEED MORE PRESSURE, SIMPLY ACT ON VALE IN THIS WAY:



**Valve set on:
MIN PRESSURE**

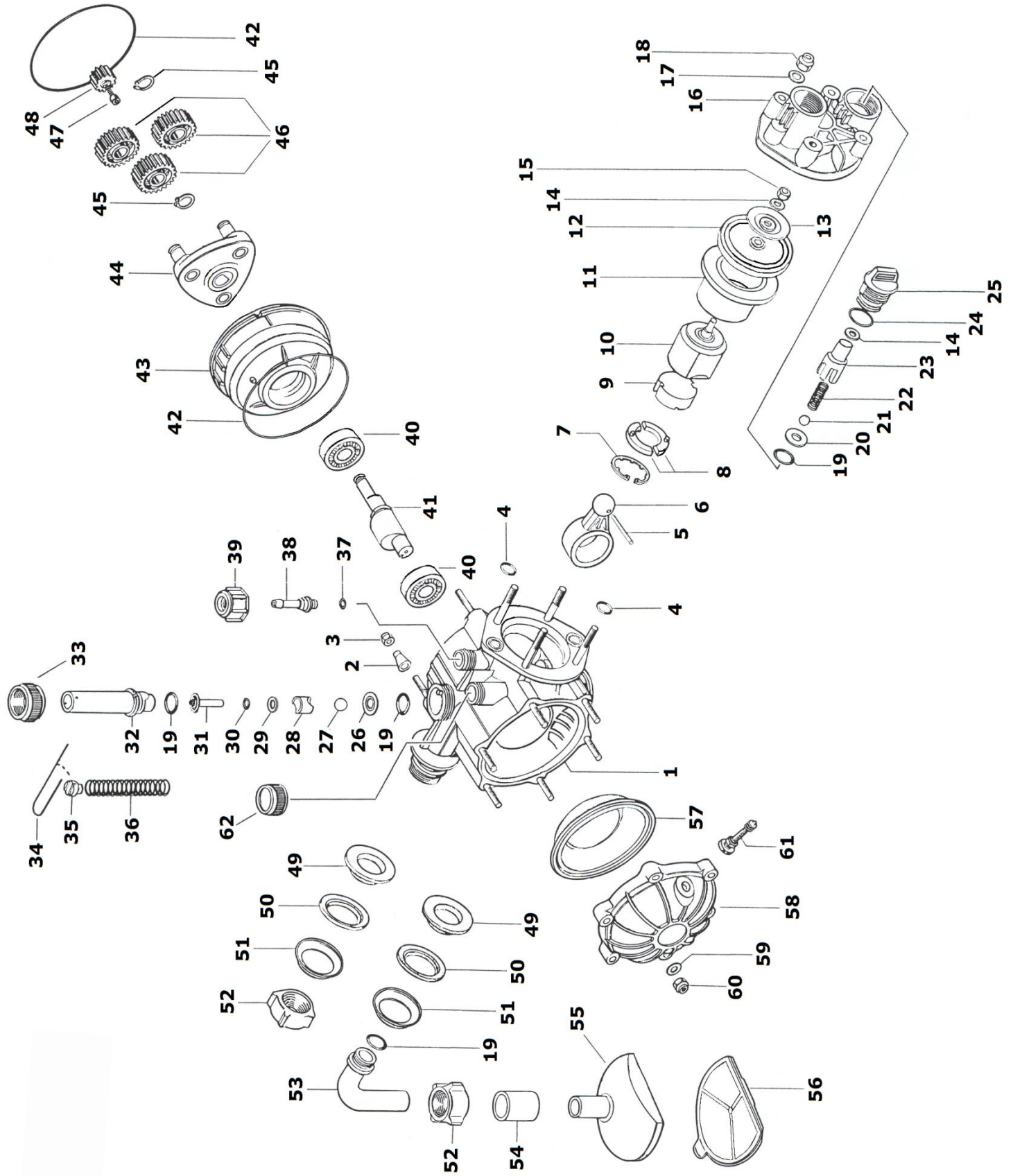


**Push down and
turn ¼**



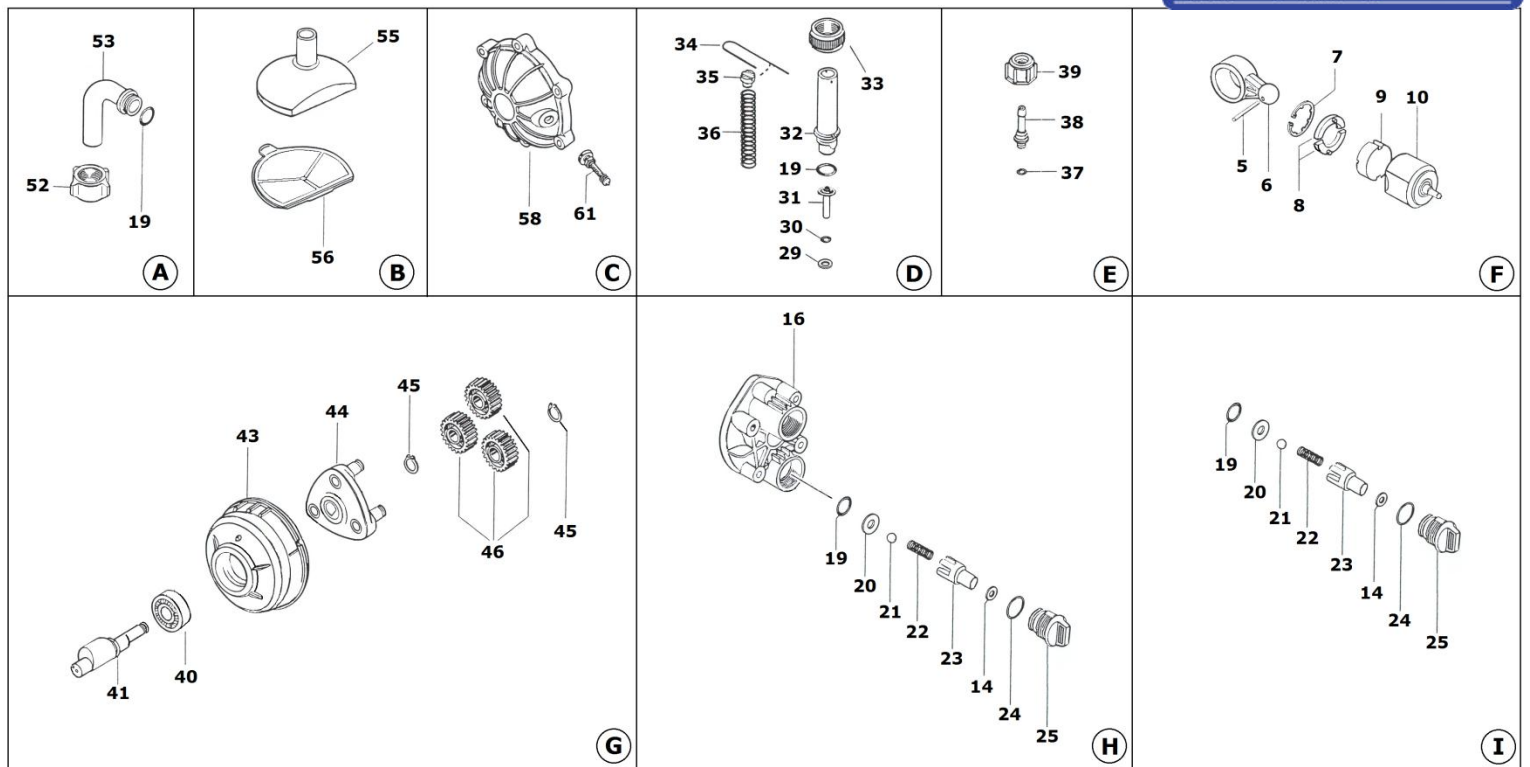
**Valve set on:
MAX PRESSURE**

WITH SCREWDRIVER PUSH AND TURN ¼ ROUND AND AFTER RELEASE



N°	Codice	Q.ty	Description
1	5.11.01Z	1	BODY WITH BEARING
-	5.11.01	1	BODY
2	5.11.17	3	SPACER
3	5.13.07"	3	FLAT NUT M5 UNI 7474
4	5.11.18	2	O-RING GASKET 114
5	5.11.05	1	GUDGEON PIN Ø 2,5x26 DIN 1481
6	5.11.04	1	CONNECTING ROD
7	5.11.10	1	STOP RING Ø 30 DIN 984
8	5.11.09	1	LOWER JOINT SEAT
9	5.11.08	1	UPPER JOINT SEAT
10	5.11.07	1	PISTON
11	5.11.11	1	CYLINDER
12	5.11.12	1	DIAPHRAGM
13	5.11.13	1	COUNTER PLATE
14	5.11.14	3	STAINLESS STEEL WASHER Ø 5
15	5.11.15	1	STAINLESS STEEL M5 NUT UNI 5587
16	5.12.01	1	HEAD
17	5.12.09	4	WASHER 6.4x13x1,5 UNI 1734 ZNT
18	5.12.10	4	NUT M6 UNI 5587 ZNT
19	5.12.02"	5	O-RING GASKET 2050
20	5.12.03	2	VALVE SEAT
21	5.12.04	2	5/16 BALL AISI 304
22	5.12.05	2	VALVE SPRING Ø 0,45
23	5.12.06	2	VALVE CAGE
24	5.12.07	2	O-RING GASKET 2062
25	5.12.08	2	VALVE PLUG
26	5.15.06	1	SEAT OF THE PRESS. REGUL.VALVE
27	5.15.05	1	PRESS. REGUL.. BALL 3/8 AISI 304
28	5.15.04	1	VALVE CHAMBER PROTECTION
29	5.11.14	1	STAINLESS STEEL WASHER Ø 5
30	5.15.03V	1	VITON ORING GASKET 2021
31	5.15.02	1	PRESSURE REGULATOR ROD
32	5.15.01	1	PRESSURE REGULATOR BODY
33	5.15.07	1	BODY LOCK NUT
34	5.15.11	1	SEAL
35	5.15.10	1	SPRING HOLD-DOWN
36	5.15.09	1	SPRING SET FOR 12 ATM
37	5.15.03"	1	ORING GASKET 2021
38	5.16.06"	1	BRASS UNION, DELIVERY PIPE
39	5.16.07"	1	BUTTERFLY SCREW 3/8" GAS
40	7.01.051	2	BEARING 6201
41	5.11.03	1	ECCENTRIC SHAFT
42	5.17.02	2	O-RING GASKET 80x1,8
43	5.17.01	1	REDUCTION GEAR CASING
44	5.17.05	1	SATELLITE HOLDER
45	5.17.08	4	BENZING LOCK RING 12 DIN 471
46	5.17.06	3	SATELLITE
47	5.17.04*	1	BOLT M4x12 UNI 5931
48	5.17.03*	1	MOTOR PIGNON Z12
49	5.18.03"	2	EXTER. SHOCK ABSORBER, TANK
50	5.18.02"	2	INTER. SHOCK ABSORBER, TANK
51	5.18.01P"	2	PLASTIC SHAPED WASHER
52	5.16.02"	2	BUTTERFLY SCREW 25x1,5
53	5.16.01"	1	SUCTION ELBOW
54	5.16.03"	1	SLEEVE
55	5.16.04"	1	FILTER BODY
56	5.16.05"	1	FILTER ELEMENT
57	5.13.01	1	AIR CHAMBER CAP
58	5.13.02	1	AIR CHAMBER COVER
59	5.13.06	6	WASHER 5,3x10x1 UNI 6592 Z.
60	7.01.11	6	NUT M5 65 UNI 5587 ZNT
61	5.13.03	1	INFLATION VALVE
62	5.11.16	1	OIL CAP

"These part numbers are just shown as a mere information and NOT in the single pump 415 (code 50040)



MAINTENANCE KIT:

FIG.	CODE	DESCRIPTION
A	51618	SUCTION/DELIVERY ELBOW
B	51616	COMPLETE SUCTION FILTER
C	51310	COMPLETE AIR CHAMBER COVER 02/03
D	51516	COMPLETE 12 BAR VALVE
E	51620	CONNECTION UNION Ø 6 W. LOCK NUT
F	51107Z	PREASSEMBLED PISTON ROD
G	51705Z	COMPLETE PREASSEMBLES REDUCTION GEAR
H	51211	COMPLETE HEAD
I	52901	SET OF SUCTION/DELIVERY VALVE 415
	52904	SET OF O-RINGS
	52904V	SET OF VITON O-RINGS
	53108	270 cc. OIL FOR HYDRAULIC MOTORS "TYPE SAE 20"

TROUBLE	REMEDIES
NO SUCTION IN THE PUMP	CHECK THE SUCTION FILTER CHEKK THE EFFICIENCY OF THE SUCTION VALVE CHECK THE EFFICIENCY OF THE DELIVERY VALVE
THE PUMP DELIVERS WATER BUT DOESN'T REACH THE REQUIRED PRESSURE	CLEAN THE PRESSURE REGULATOR
INTERMITTENT PUMP DELIVERY	INFLATE THE AIR CHAMBER INFLATE THE AIR CHAMBER
LEAKING ALONG THE JOINT LINE OF THE AIR CHAMBER	

ELECTRIC MOTOR

TECHNICAL DATA

The main technical data are printed on manufacturer's label on the motor.

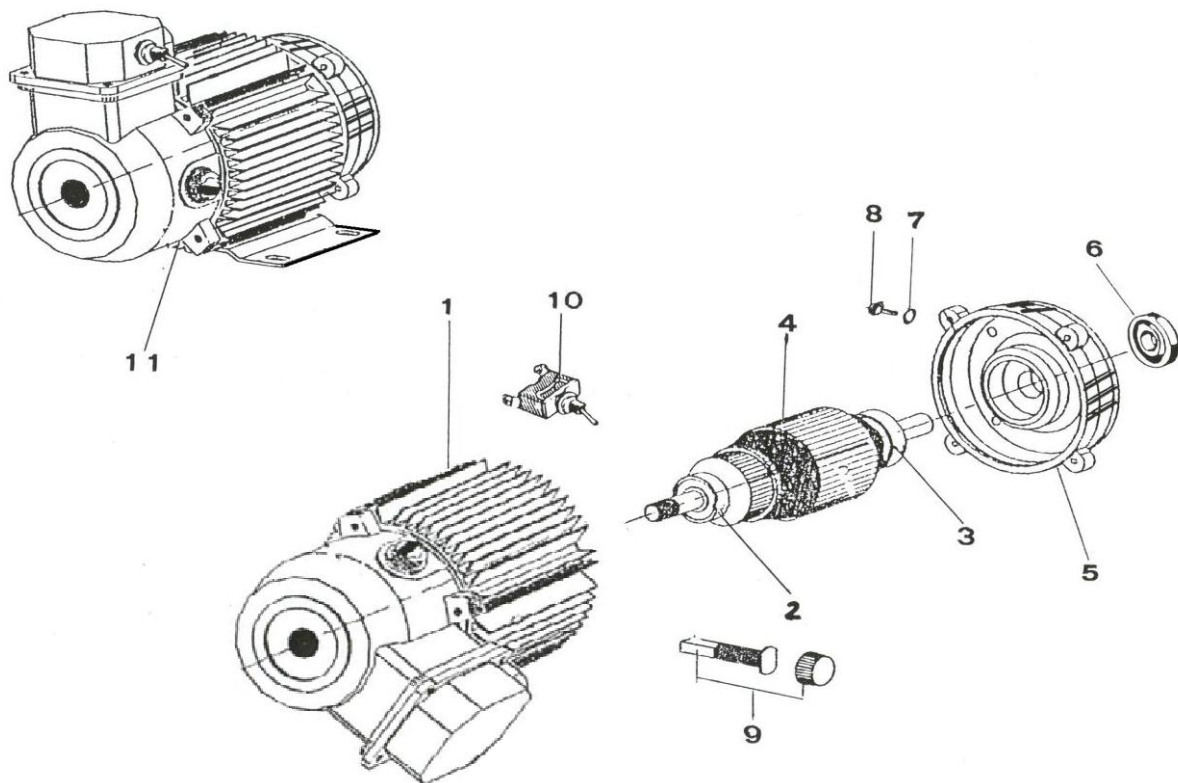
CLEANING

Make sure to disconnect power and switch the unit off before any cleaning or maintenance operation.

Remove any residual dust, oil, grease or any other kind of dirt from the motor and make sure that the aeration grid is always clean and free from obstructions.

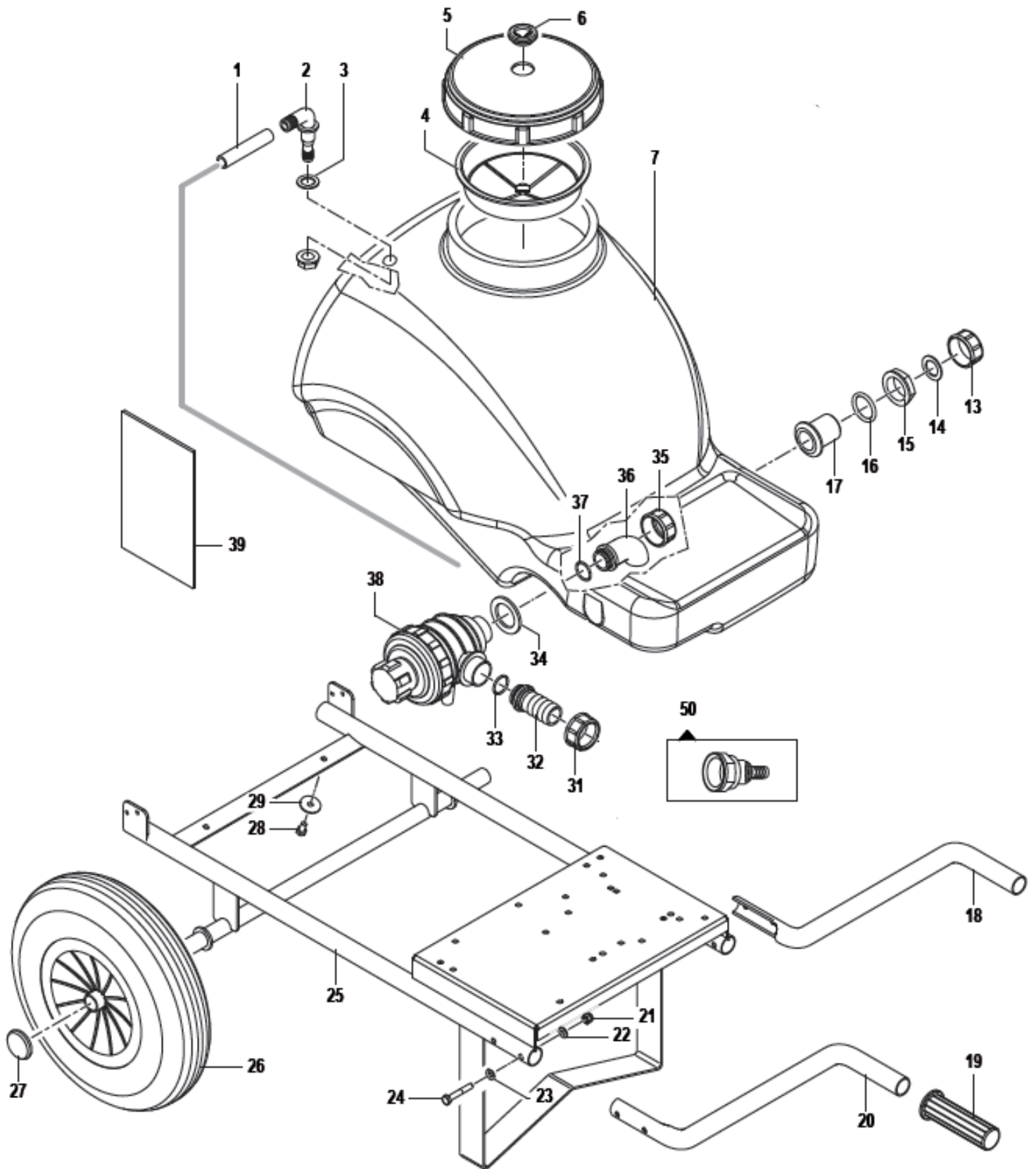
WARNING:

Never stand bare feet nor on watery surfaces when you start the engine and make sure that your hands are dry and clean.



N°	CODE	DESCRIPTION
1	52051A	CARCASS+ STATOR H 63 12V
2	52053.1	BEARING 6201 ZZ
3	52053	BEARING 6202 ZZ
4	52011	SHAFT + ROTOR
5	52022	FLANGE H 63 12V
6	52055	SEALING RING 12x24x7
7	52054	SEAL OR 2015
8	70308	SCREW M4x8 UNI 6107
9	52004.T	COMPLETE BRUSH
10	52013	UNIPOLAR SWITCH 16A
11	52091	COMPLETE ELECTRIC MOTOR H 63 12V

WHEELBARROW: TANK 120LT



N°	Cod.	Descrizione	Description	Note	Q.ty	Model
1	3208 1179	Tubo	Hose	Ø14x20 L=700	1	
2	2803 0483	Raccordo	Coupling	G1/2"	1	
3	1209 0063	Guarnizione	Gasket	Ø21x33x2	1	
4	1002 0007	Filtro Cisterna	Tank Filter		1	
5	0402 0084	Coperchio Cisterna	Tank Cover		1	
6	3600 0052	Sfiato Cisterna	Tank Vent		1	
7	0461 0577	Cisterna	Tank	80l	1	81 ECO
	0461 0578	Cisterna	Tank	120l	1	120 ECO
8	ONLY FOR GASOLINE ENGINE		Spray Gun		1	
9			Gasket	Ø12x18x2	1	
10			Coupling	Ø6x8	1	
11			Wing Nut	G1/2"	1	
12			Hose	Ø8x14 L=10m	1	
13			Plug		1	
14			Gasket	Ø26x40x2	1	
15			Ring Nut	G1 1/4"	1	
16			O-Ring	Ø5,34x37,47	1	
17		0206 0041	Bocchetta Scarico	Discharge Outlet	G1 1/4"	1
18	1803 0091	Manubrio Destro	Right Handlebar		1	
19	1817 0063	Manopola	Knob		2	
20	1803 0092	Manubrio Sinistro	Left Handlebar		1	
21	0604 0039	Dado	Nut	M8x9,5	4	

N°	Cod.	Descrizione	Description	Note	Q.ty	Model
22	2811 0016	Rondella	Washer	Ø8,4x17x1,6	4	
23	2811 0016	Rondella	Washer	Ø8,4x17x1,6	4	
24	3607 0222	Vite	Screw	M8x50	4	
25	3206 0341	Telaio	Frame		1	
26	2810 0118	Ruota	Wheel	Ø25x75	2	
27	0009 0727	Anello	Ring	Ø25	2	
28	3607 0010	Vite	Screw	M8x16	2	
29	2811 0236	Rondella	Washer	Ø8,4x32x2	2	
30	3208 1180	Tubo	Hose	Ø25x33 L=700	1	
31	ONLY FOR GASOLINE ENGINE		Wing Nut	G1 1/4"	1	
32			Coupling	G1 1/4"	1	
33			O-Ring	Ø2,62x26,65	1	
34	1209 0074	Guarnizione	Gasket	Ø40x60x4	1	
35	1200 0046	Galletto	Wing Nut	G1 1/4"	1	
36	2801 0099	Raccordo Curvo	Elbow Coupling	Ø25	1	
37	1210 0079	Guarnizione OR	O-Ring	Ø2,62x26,65	1	
38	1002 0234	Filtro	Filter		1	
39	3049 0137	Busta Porta Documenti	Documents Bag		1	
50	2803 0515	Kit Collegamento	Connection Kit		1	

TECHNICAL DATA

The main technical data are printed on manufacturer's label on the frame.

CLEANING

Make sure to disconnect power and switch OFF the unit before any cleaning or maintenance operation.

After work wash the tank by using clean water and make sure to clean filter tank.

Filter tank is composed by:

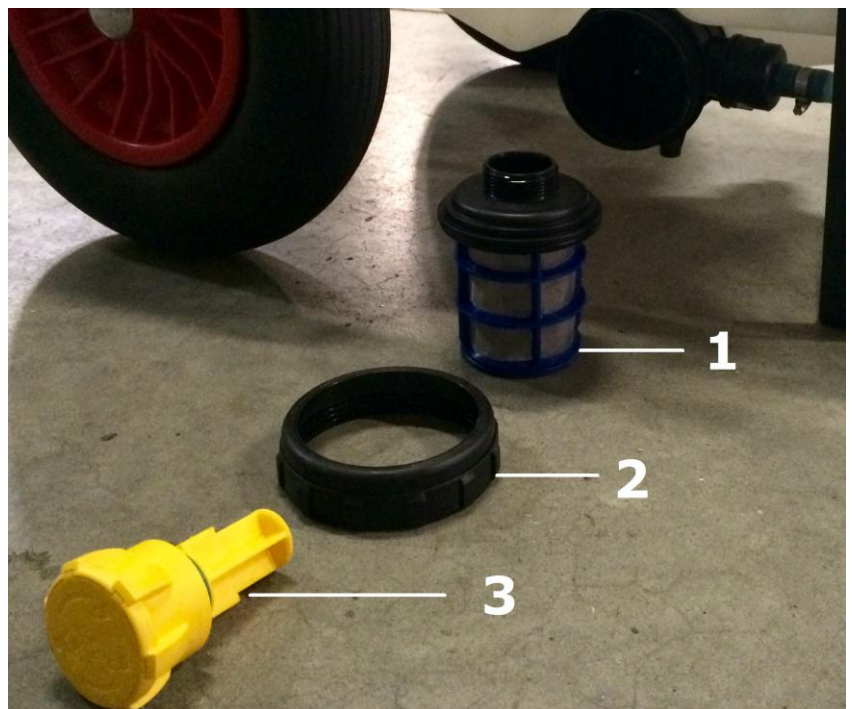
- 1- filter
- 2- threaded ring
- 3- quick release system

Act in this way to clean it:

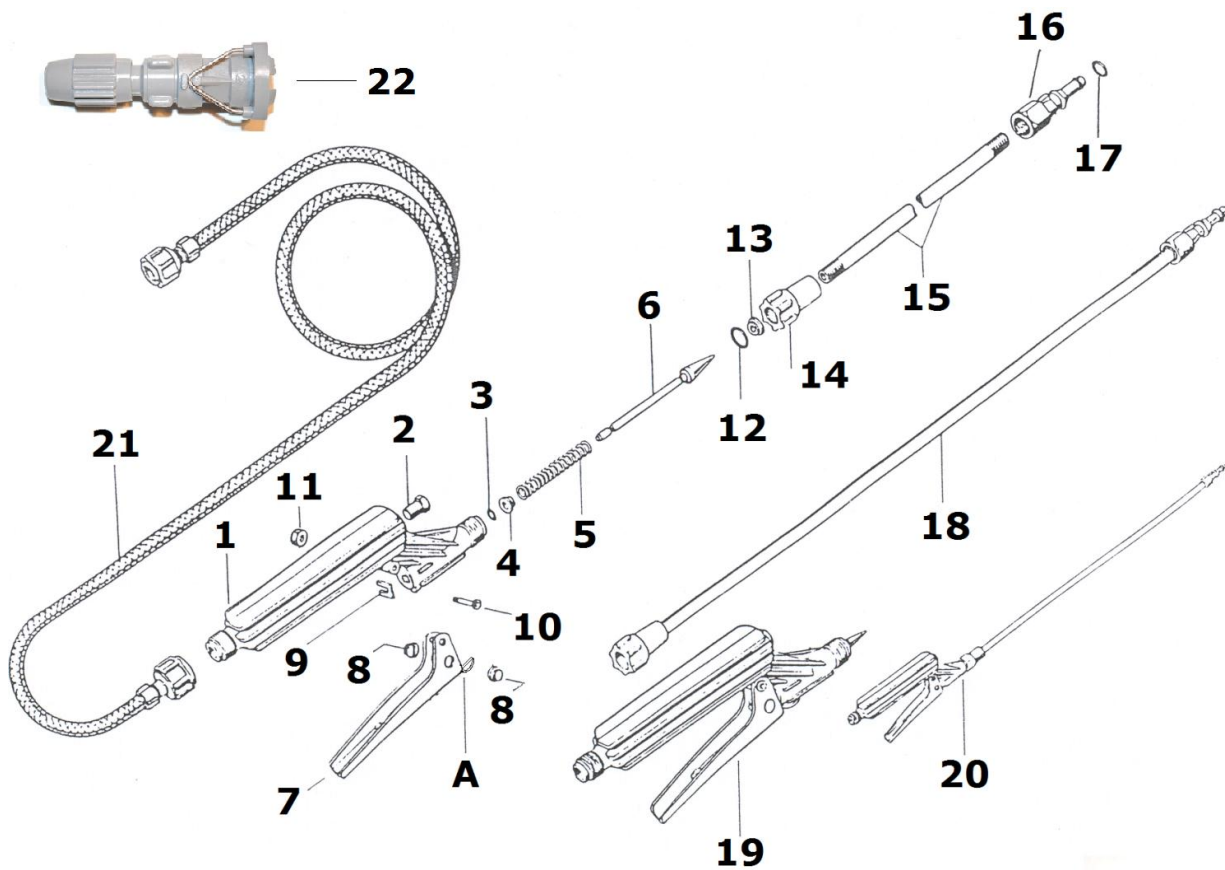
Push and turn left $\frac{1}{4}$ round the unlocks quick release system so, all remaining water can come out, after that, unscrew the threaded ring, now filter can be dismantled and cleaned.

Act now in reverse way to remount filter.

Accommodate filter on his carcass, screw threaded ring, push and turn right $\frac{1}{4}$ round the unlocks quick release system to lock him.



LANCE:



N°	CODE	DESCRIPTION
1	51011	COCK BODY
2	51013	PLUG
3	51503V	GASKET OR 2021 VITON
4	51014	SPRING GUIDE
5	51015	STAINLESS S. SPRING Ø 1,5
6	51016	NEEDLE
7	51017P	LEVER
8	51018	ARTICULATION
9	51019	ARTICULATION PLATE
10	519240	SCREW M4X20 DIN 84
11	70613	NUT M4 UNI 5587 GALVANIZED
12	51202	GASKET OR 2050
13	51022	NEEDLE SEAT
14	51023	FEMALE NIPPLE
15	51098A	EXTENSION cm. 70
16	51012	M 10x0,75 QUICK COUPLING
17	51503	GASKET OR 2021
18	51098	EXTENSION cm. 70
19	51043	COMPLETE LANCE COCK
20	52219	LANCE WITH EXTENSION cm.70
21	-----	DELIVERY HOSE mt. 10
22	51032	ADJUSTABLE NOZZLE

Postadress:

TRÄDGÅRDSTEKNIK AB
Helsingborgsvägen 578, Varalöv
262 96 ÄNGELHOLM

Telefon : 0431-222 90
Bg.nr : 5743-7980
Org.nr : 556409-6120

URL:

www.tradgardsteknik.se
E-postadress:
info@tradgardsteknik.se