



CE-20 WATER BLASTER
500 Bar
3X 400 V 50 Hz
3X 440 V 60 Hz
UNLOADER

**USER GUIDE &
SPARE-PART BOOK**



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Thank you for choosing our water blaster. For your safety and correct operation, please carefully read the information and instructions in this manual before use.

NOTE: All of the information stated in this manual is based on data available at the time of printing. DEN-JET reserves the right to modify or change its products and / or specification data at any time without prior notice.

DEN-JET has no responsibility or liability regarding misuse of the product or use of the product with third party products.

DEN-JET warranty's is limited to repair or replacement of faulty items at the time of manufacture.

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Model:	CE20-500
Technical details:	
50 Hz Version W.P. Bar / Psi Flow Lpm / Gpm	500 / 7250 16 / 4.2
60 Hz Version W.P. Bar/ Psi Flow Lpm / Gpm	500 / 7250 16 / 4.2
Electrical Spec. Motor Hp/ Kw Voltage 50/60 Hz Amperage A	20 / 15 400 / 440 21 / 19
Dimensions L x W x H mm Weight Kg	1060 x 760 x 850 280

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Certificate of E.U conformity:

DEN-JET Nordic A/S
Terndrupvej 7, Astrup
DK-9510 Arden
Denmark

According to E.U. Machine Directive 2006/42/EC. Appendix IIA

We hereby declare that the electrical driven high-pressure water blaster machines:

CE-20-500 50/60 Hz

Has been designed, manufactured and tested to fully comply with the health and safety requirements of the E.U. machine regulations.

ANY modification or change of the machine without our prior consent will render this declaration null and void.

Appropriate E.U. regulations: E.U. Machine Directive (2006/42/EC) Current issue.
E.U. Low Voltage Directive (2006/95/EC)
E.U. EMC Directive (2004/108/EC).

Coordinated standards

Used particularly:

EN 809	pr EN 1889
EN 292 part 1 & 2	EN 60204-1
EN 574	EN 294
	EN 50081-2
	EN 6100-6-2

Date: June 2017

Benny S. Jensen

Managing Director.

Safety Precautions:

To safeguard the operator who uses the machine and its accessories and as accident prevention and protection of bystanders and property, the following safety precautions must be observed. Always treat the water blaster in the same way as any other power driven high speed cutting tool!

Never let children or people who have not been properly instructed operate the machine.

Use the electric plug in a proper socket with ground to earth wiring. The entire electrical installation must be with earth wiring! All electrical installations must be made only by an electrician. A GFCI (Residual current device) is recommended.

Always keep the high-pressure cleaner and the belonging accessories in good working condition. Check that the machine and its accessories are free from defects, and in good working condition, with special attention to the insulation on the electric cable. In case of defect: Do NOT OPERATE THE MACHINE! Get the machine serviced.

Eye protection must be worn at all times when operating the machine to protect against repelling or ricocheting materials hitting the eyes and causing damage.

Ear protection must be worn at all times when operating the machine to protect against hear loss during operation.

Proper footwear and protective clothing must be worn at all times when using the equipment to avoid and prevent damage to the operator.

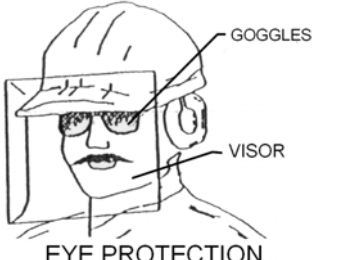




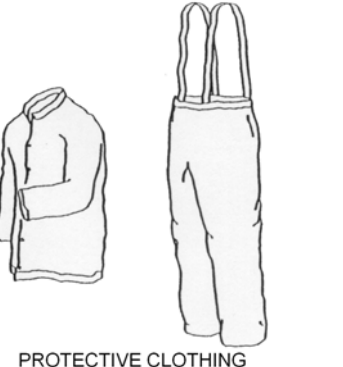
NEVER direct the jet at yourself. Do not attempt to clean your clothes or footwear with the machine.

Precautions must be made to keep bystanders away from the working range.
NEVER spray-jet on humans or live animals, the high pressure jet can cause severe injury.

NEVER spray at electrical equipment, or at the machine itself.
Make sure the machine is turned off and disconnected from the main power supply before service or repair.

Safety Precautions:

The below shown protective clothing and devices should be worn both by personnel operating the water blaster system and equipment and by those working nearby:

 <p>EYE PROTECTION</p>	<p>Operators must wear visors or goggles to guard against spray and flying debris. A combination of both goggles and visor is recommended. It will protect the eyes and the face during both water-blasting as well as abrasive water-blasting.</p>
 <p>HEAD PROTECTION</p>	<p>Safety helmets must be worn at all time by personnel within the work area. Helmet material must be able to withstand mechanical shock exceeding 10G in 8ms without fracturing.</p>
 <p>HAND PROTECTION</p>	<p>Shear proof gloves must be worn by the operator at all times. A glove combination of a cloth inner lining and a water tight outer layer is preferable.</p>
 <p>FOOT PROTECTION</p>	<p>Safety boots with steel toecaps minimum 0.5mm (0.02”) thick must be worn. The toecap must cover at least 30% of the footwear length. Basic safety footwear must also be equipped with metatarsal guards to protect the instep. Safety boots are available in numerous designs.</p>
 <p>HEARING PROTECTION</p>	<p>Operators and other personnel exposed to noise levels of more than 90-dBa for more than 1 hour must wear suitable ear protection. Ear plugs or ear muffs are usually sufficient.</p>
 <p>PROTECTIVE CLOTHING</p>	<p>Waterproof clothes protect the operator only from spray and flying debris. They do NOT deflect direct jet impact. Therefore, an operator must take care never to point a water-jet either at them selves or other personnel.</p>

Medical emergency information:

Immediate medical attention should be given to personnel who sustain equipment related injuries while operating the system. In such cases, it is vital that medical personnel be apprised of all facts relevant to such injuries. Therefore, all operating personnel should be provided with waterproof emergency medical alert tags or cards, describing the nature of their work and the possibility of injury inherent in the use of water jetting equipment. The below example of a standard card can be printed out or photo copied, bend, laminated and used as medical alert tag.

MEDICAL ALERT

This card is to be carried by personnel working with high-pressure water jetting equipment. Obtain medical treatment immediately for ANY high-pressure water-jet injuries.



This person has been working with water jetting at pressures up to 55,000 psi (374Mpa, 3,740bar, 3,867 kg/cm²) with a jet velocity of up to 3,000 fps (914 mps). This should be taken into account during diagnosis. Unusual infections with microaerophilic organisms occurring at lower temperatures have been reported. These may be gram-negative pathogens such as found in sewage. Bacterial swabs and blood cultures may therefore be helpful. A local poison control centre should be contacted for additional treatment information and advise.



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Preparing the machine for operation:

1) Place the machine in a safe location and secure the unit with lashing belts.

2) Freshwater Connection.

Prepare the water supply for the blaster, by attaching a 3/4" hose to the supplied low pressure inlet coupling on the side of the water tank. Connect the other end to the **fresh water** supply from the vessel. Open for the water supply and fill up the water tank before starting the machine. Always use the inlet connection on the tank for supplying water.

3) High Pressure Hose Connection

Mount the 1/2" high pressure hose to the blaster by attaching the swivel of the hose to the outlet fitting of the pump head. Please use 2 x 27mm spanners / wrenches to tighten the connection. Additional high pressure hoses supplied with the machine should be mounted now by using the supplied 1/2" nipples male-male to connect the hoses together. Please use 2 x 27mm spanners / wrenches to tighten the connection.

4) Trigger Gun Connection

Mount the trigger gun with lance to the high pressure hose. Please use 2 x 27mm spanners / wrenches to tighten the connection. Mount the correct nozzle at the end of the lance.

5) Electrical Power Connection

Connect the power cable CEE plug to an earthed 3 phase 32 Amp power socket. Should the CEE plug provided with the machine not fit your electrical system, replace the plug with one that fits.

6) Machine is now ready for operation.

Operation of the Machine:

- A) Ensure that the water supply is open.
- B) Turn the main power switch to ON. Press the green START button – machine starts. Allow the machine a few seconds for the automatic star – delta switch to turn over.
- C) Get a firm grip with both hands on the trigger gun handle and lance handle. Press the trigger and start blasting. Always be aware of other crew members in your working area – Safety is first priority.

Note: Do NOT let the machine run idle for more than 10 minutes, as it may cause damage to the pump. (Water heats up).

Shut-down of the Machine:

- A) Press the red STOP button – machine stops.
- B) Squeeze the trigger gun to release the pressure inside the high pressure hose.
- C) Turn off the water supply.

Storage of machine during winter time.

Store the machine in a frost free location.

Drain the water from the machine and flush the pump with anti-freeze fluid.

Preparing the machine for operation:

The machine is equipped with the following safety devices:

- a) STOP button. The STOP button (pos. 18 Electrical spare-parts assembly) stops the machine when pushed in. (The optional emergency STOP pos. 41 do the same, twist to release)
- b) Main switch. The main switch (pos. 19 Electrical spare-parts assembly) disconnects the main supply. UN-PLUG MACHINE WHEN REPAIRING!!!
- c) Over load relay. The overload relay protects the motor against overloading (pos. 27 Electrical spare-parts assembly)
- d) Safety valve. The safety valve built onto the top of the pump is protecting against over-pressure (pos. 1 -500 Bar Pump assembly.)

Set-Up & Use:

Check	Task
Daily Inspection	<p><i>Check the strainer in the water-tank. Clean if necessary.</i></p> <p><i>Check the oil level on the crankcase of the pump. Fill up if necessary.</i></p> <p><i>Check for air-bubbles in the suction hose between tank and pump. If there are bubbles then tighten the hose-clips.</i></p> <p><i>Check high pressure connections for leakage. NEVER tighten connections under pressure.</i></p> <p><i>Check high pressure hoses for wear and cracks. Replace if necessary.</i></p> <p><i>Check the power cord for wear and cracks. Replace if necessary.</i></p> <p><i>Check the air intake grill of the electric motor. Clean for dust if necessary.</i></p>
	<p>Notice: To prevent damage to hoses and electrical cord, avoid letting the high-pressure hoses rub against sharp edges for example manholes or getting squeezed in door openings etc. Replace if necessary.</p>
	<p>Inlet water temperature must be below 60°C (140°F)</p>

Maintenance:

Maintenance	Task
Lubrication	<p><i>Oil renewal on the pump crankcase is to be completed the first time after no more than 50 hours of use. Oil renewal is hereafter to be completed in every 400 hours of use. Or at least one time a year.</i></p> <p><i>Use a SAE 30 or 10W-40 Oil (part number:83600870)</i></p> <p><i>Quantity: 1,04 Liter (0,27 US Gallon)</i></p> <p><i>Fill up until the oil level is visible in the sight glass.</i></p>
Renewal of oil	<p>Switch off the machine. Loosen the oil drain screw on the lower back of the pump crank-case. Let the oil drain out into a waste oil-tray. Remount the oil drain screw and pour in new oil through the oil inlet on top of the pump until visible in the oil sight glass.</p> <p>Notice: Always dispose of the used oil in a proper manner.</p>
Cleaning	<p><i>A part of keeping the machine and its accessories in good working condition is keeping it clean. But NEVER clean the machine itself with high-pressure. Do not use solvents.</i></p>
Storage	<p><i>Keep the unit frost free, or flush the pump thoroughly with non alcoholic antifreeze fluid.</i></p>

Trouble shooting and repair:

Problem	<i>Repair</i>
When the main switch is turned on And the green start button is pushed in, the Water-blaster will not start.	<p><i>Fault somewhere in the power supply.</i></p> <p>Is the Power light on? Make sure the main supply cable is connected correctly. Inspect cord for cracks and wears.</p>
The motor is humming but the pump does not run.	<p><i>Too low voltage, one phase is missing. High-pressure pump is blocked.</i></p> <p>Check the mains voltage. Check the main connection voltage with a meter. With the machine turned off, hand turn the motor, at the fan, if it remains blocked, check the pump.</p>
The pressure drops and the Water-blaster works irregularly.	<p><i>The strain filter in the water tank is blocked or dirty or the water supply from the tap is insufficient. Air in the Suction hose.</i></p> <p>Clean the strain water filter. The machine should always suck from the water-tank. Open fresh water tap fully. Tighten the hose clamps on the suction hose.</p>
The Water-blaster is running at high pressure when trigger is released.	<p><i>The check valve in the un-loader out-let fitting is stuck or leaking.</i></p> <p>Clean the check-valve in the un-loader out-let fitting. Replace the O-ring</p>
The Water-blaster does not reach the right working pressure when the trigger handle is activated.	<p><i>Leakage from: Safety valve, hose connections, trigger-gun. The pump sucks air. The high-pressure nozzle is worn or too big in size. The un-loader valve or safety valve is not correctly adjusted, or is worn. Plunger packings are worn.</i></p> <p>Turn of the water-blaster. Inspect for leakage. Replace the nozzle. Set the un-loader, repair if necessary. Change packings.</p>
The Water-blaster works with approximately 2/3 of the maximum pressure, and the high-pressure hose is vibrating.	<p><i>There is dirt in the valves.</i></p> <p>Turn off the Water-blaster. Dismantle the pump head and the valves, remove the dirt and check to ensure the valve discs are moving freely and fits tight and smooth to their seats.</p>

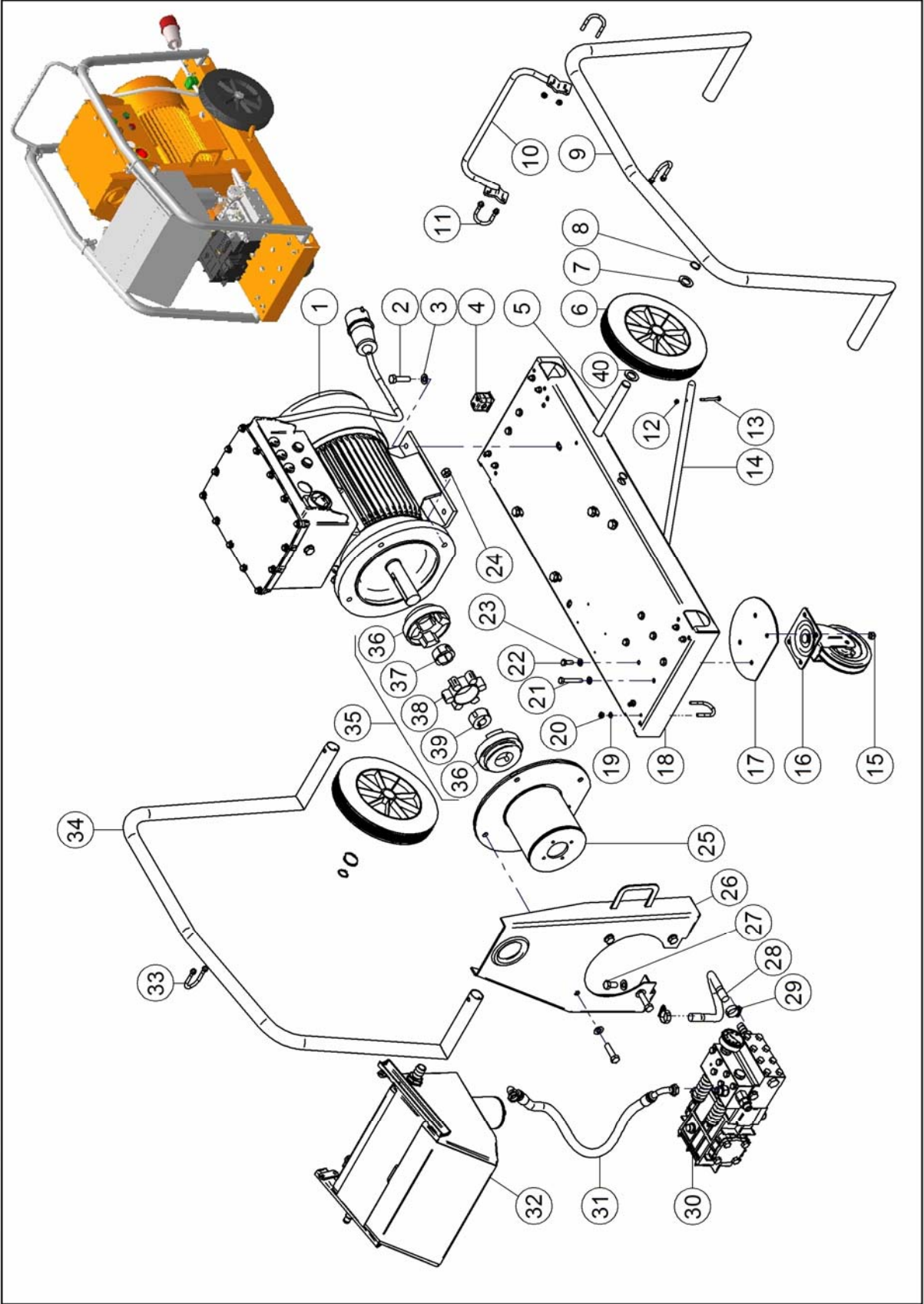
Trouble shooting and repair:

Problem	Repair
Excessive water leakage from under the pump	<i>Packing is worn</i> Replace packing. (Always replace O-ring as-well)
Noisiness	<i>The pump sucks air. One or more valve springs are broken or stuck. Dirt in the valves. No or too little oil in the crankcase or motor bearings worn out.</i> Inspect the low-pressure water supply. Tighten hose clips. Replace springs. Clean the valves. Replace the bearings.
Water in the oil	<i>The Oil-seal is worn out. High moisture in the air (condensing inside the crankcase) The high pressure seals are completely worn out.</i> Check or replace the oil-seals. Renewal of the crankcase oil more often. Replace the high pressure seals.

Coupling Mounting



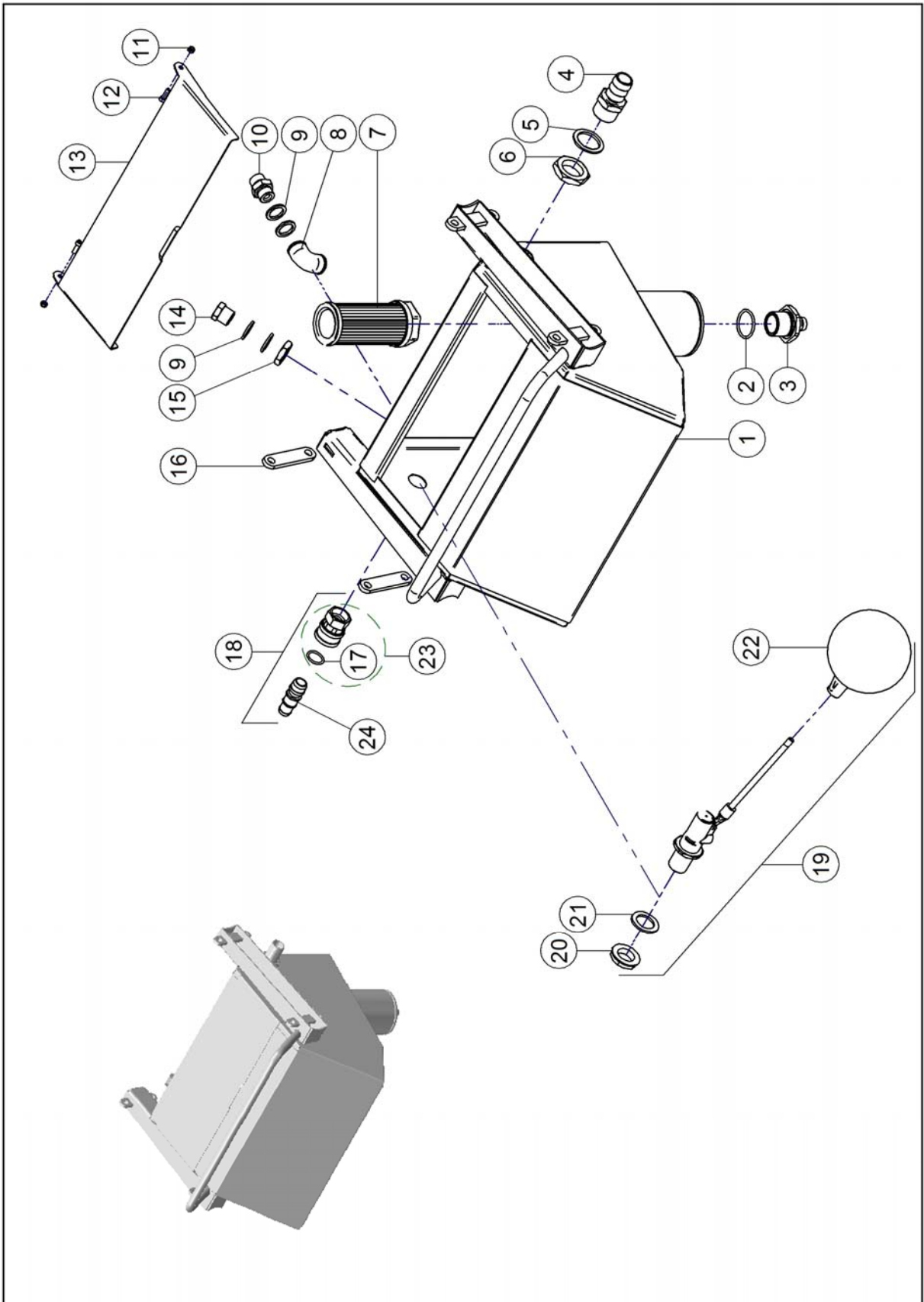
**CE20-500 WATER-BLASTER
MAIN SPARE-PARTS ASSEMBLY**



**CE20-500 WATER-BLASTER
MAIN SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1		1	EL SYSTEM
2	80101084	8	SCREW
3	80100851	10	WASHER
4	80100597	1	CABLE CLAMP
5	81000720	1	AXLE
6	81001356	2	RUBBER WHEEL
7	81001125	2	WASHER
8	80100669	2	CIRCLIP
9	81000715	1	LEFT FRAME
10	81000683	1	CABLE HOLDER
11	80100774	6	U-BOLT SHORT
12	80100053	1	LOCK NUT
13	80100254	1	SCREW
14	81000723	1	MECHANICAL BRAKE
15	80100710	8	LOCK NUT
16	81000235	1	CASTOR WHEEL
17	81000445	1	SUPPORT CASTOR WHEEL
18	81000242	1	BASE PLATE
19	80100732	8	WASHER
20	80100697	16	LOCK NUT
21	80100707	4	SCREW
22	80100258	4	SCREW
23	80100310	8	WASHER
24	80100847	10	LOCK NUT
25	81000240	1	BELL HOUSING
26	81000250	1	LIFT PLATE COMPLETE
27	80100629	2	SCREW
28	83400525	0,5m	HOSE SUCTION
29	80100527	2	HOSE CLIPS
30	81200664	1	PUMP 500 BAR 60Hz
30	81200665	1	PUMP 500 BAR 50Hz
31	81300594	1	HOSE DUMP BACK
32	81000719	1	WATER TANK
33	80100725	2	U-BOLT
34	81000714	1	RIGHT FRAME
35	81000244	1	COUPLING
36	81000592	2	COUPLING HALF
37	81000268	1	TAPER BUSH
38	81000594	1	RUBBER ELEMENT
39	81000595	1	TAPER BUSH
40	80500429	2	BONDED SEAL

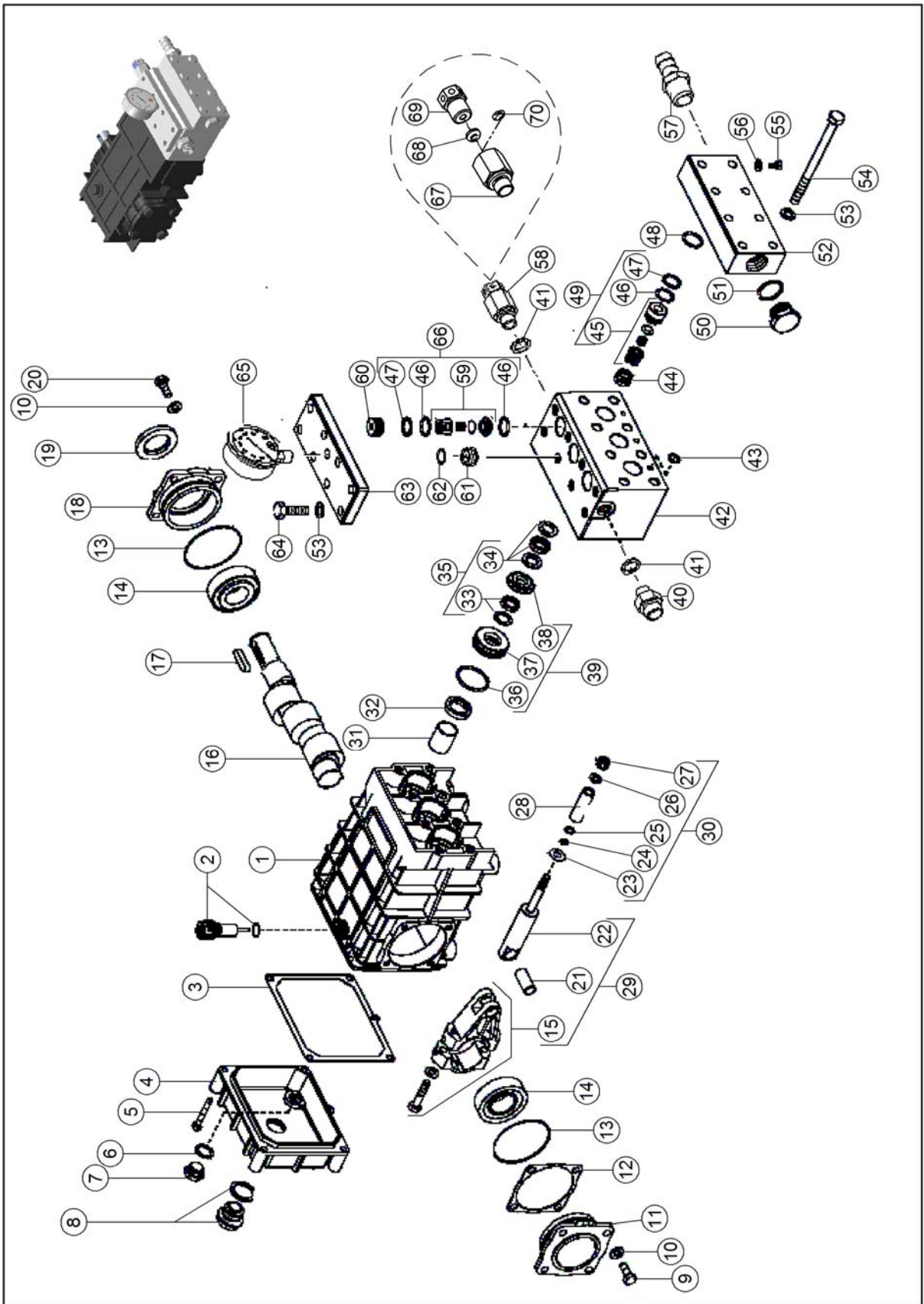
**CE20-500 WATER BLASTER
WATER TANK SPARE-PARTS ASSEMBLY**



**CE20-500 WATER BLASTER
WATER TANK SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1	81000313	1	WATER TANK WELDED CE20
2	80200402	1	O-RING
3	80500761	1	HOSE NIPPLE
4	80500227	1	HOSE NIPPLE
5	80500975	1	BONDED SEAL
6	80100405	1	CONTRA NUT
7	81000902	1	FILTER STRAINER
8	80500647	1	ELBOW
9	80500429	4	BONDED SEAL
10	80500427	1	NIPPLE
11	80100513	2	LOCK NUT
12	80100605	2	SCREW
13	81000311	1	LID
14	80500495	1	PLUG
15	80100632	1	CONTRA NUT
16	81000425	4	BRACKET FOR U BOLT
17	80200612	1	O-RING
18	80500423	1	QUICK COUPLING
19	81000602	1	FLOAT VALVE COMPLETE
20	80100802	1	CONTRA NUT
21	80500974	1	BONDED SEAL
22	81000606	1	BALL
23	80500604	1	QUICK COUPLING FEMALE
24	80500603	1	QUICK COUPLING HOSE NIPPLE

CE20-500 WATER BLASTER PUMP SPARE-PARTS ASSEMBLY



**CE20-500 WATER BLASTER
PUMP SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1	81200631	1	CRANK CASE *) Before June 2017
1	81201752	1	CRANK CASE **) After May 2017
2	81200621	1	OIL BREATHER
3	81200622	1	BACK COVER GASKET
4	81200623	1	CRANK CASE BACK COVER *) Before June 2017
4	81201751	1	CRANK CASE BACK COVER **) After May 2017
5	80100604	5	SCREW Torque: 11Nm / 8 lb _r •ft
6	81200624	1	GASKET
7	81200625	1	PLUG Torque: 11Nm / 8 lb _r •ft
8	81200365	1	OIL LEVEL GLASS
9	80100603	4	SCREW Torque: 25Nm / 19 lb _r •ft
10	80100170	8	WASHER
11	81200620	1	FLANGE CLOSED
12	81200632	1	SHIM
13	80200407	2	O-RING
14	80400506	2	BEARING
15	81200636	3	CONNECTING ROD Torque: 30Nm / 22 lb _r •ft Part of con. rod kit 81200599 & 81201755 (pos.29)
16	81200627	1	CRANKSHAFT 50 Hz
16	81200628	1	CRANKSHAFT 60 Hz.
17	81200629	1	KEY
18	81200633	1	FLANGE OPEN
19	81200635	1	OIL SEAL
20	80100171	4	SCREW Torque: 25Nm / 19 lbf•ft
21	81200637	3	WRIST PIN Part of con. Rod kit 81200599 & 81201755 (pos 29)
22	81200638	3	CROSS HEAD * < June 17 Part of con. rod kit 81200599 (pos.29)
22	81201754	3	CROSS HEAD ** > May 17 Part of con. Rod kit 81201755 (pos. 29)
23	81200600	3	PLUNGER.DISC Part of con. rod kit 81200599 (pos.29) Part of plunger rep. kit 81200704 (pos.30)
24	81200601	3	RING Part of plunger rep. kit 81200704 (pos.30)
25	80200610	3	O-RING Part of plunger rep. kit 81200704 (pos.30)
26	80100398	3	COPPER SEAL Part of plunger rep. kit 81200704 (pos.30)
27	81200630	3	PLUNGER NUT Torque: 30Nm / 22 lb _r •ft Part of plunger rep. kit 81200704 (pos.30)
28	81200616	3	PLUNGER SLEEVE
29	81200599	1	CONNECTING ROD ASSEMBLY
30	81200704	1	PLUNGER REP KIT W/O PLUNGER SLEEVE
31	81200602	3	GUIDE BUSHING *) Before June 2017
31	N/A		NOT IN USE **) After May 2017
32	81200603	3	OIL SEAL *) Before June 2017
32	81201753	3	OIL SEAL **) After May 2017
33	81200605	3	LOW PRESSURE SEAL KIT Part of seal rep. kit 81200619 (pos.35)
34	81200607	3	HIGH PRESSURE SEAL KIT Part of seal rep. kit 81200619 (pos.35)
35	81200619	1	SEAL KIT COMPLETE
36	80200607	3	O-RING Part of back up ring rep. kit 81200634 (pos.39)
37	81200604	3	BRASS RING Part of back up ring rep. kit 81200634 (pos.39)
38	81200606	3	BACK UP RING Part of back up ring rep. kit 81200634 (pos.39)
39	81200634	1	BACK UP RING KIT
40	80500716	1	NIPPLE (optional, ordered separately with pump) Torque: 80Nm / 60 lb _r •ft
41	80500605	2	BONDED SEAL

**CE20-500 WATER BLASTER
PUMP SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
42	81200608	1	PUMP HEAD
43	80200598	3	O-RING
44	81200609	3	SPACER
44	81200609	3	SPACER
46	80200608	9	O-RING Part of valve rep. kit 81200617 (pos.66) Part of valve rep. kit 81200612 (pos.49)
47	80200611	6	BACK-UP RING Part of valve rep. kit 81200617 (pos.66) Part of valve rep. kit 81200612 (pos.49)
48	80200612	3	O-RING
49	81200612	1	REP. KIT SUCTION VALVE
50	81200615	1	PLUG Torque: 140Nm / 103 lbf•ft
51	81200614	1	WASHER
52	81200613	1	INLET BLOCK
53	80100599	14	WASHER
54	80100602	8	SCREW Torque: 50Nm / 37 lbf•ft
55	80100601	1	SCREW
56	80200609	1	WASHER
57	80500436	1	HOSE NIPPLE (optional, ordered separately with pump)
58	81300772	1	RUPTURE DISC ASSEMBLY (optional, ordered separately with pump)
59	81200712	3	DISCHARGE VALVE Part of valve rep. kit 81200617 (pos.66)
60	81200618	2	VALVE PLUG
61	81201183	1	PLUG FOR GAUGE DISCHARGE VALVE
62	80200100	1	O-RING
63	81201184	1	COVER (optional, ordered separately with pump)
64	80100780	6	SCREW Torque: 50Nm / 37 lbf•ft
65	81300621	1	GAUGE HP 600 BAR (optional, ordered separately with pump)
66	81200617	1	DISCHARGE VALVE ASSEMBLY
67	81300771	1	RUPTURE DISC HOLDER 3/8"BSPP
68	81300642	1	RUPTURE DISC SEAT
69	81300641	1	RUPTURE DISC THRUST SCREW
70	81300646	1	RUPTURE DISC

**CE20-500 WATER BLASTER
VALVE REPAIR KIT**

Item No./Kit Description	Pos.	Item No.	Qty.	Description
Pos. 66 81200617 / DISCHARGE VALVE REP. KIT	46	80200608	6	O-RING
	47	80200611	3	BACK-UP RING
	59	81200712	3	DISCHARGE VALVE
Pos. 49 81200612 / SUCTION VALVE REP. KIT	45	81200711	3	SUCTION VALVE
	46	80200608	3	O-RING
	47	80200611	3	BACK-UP RING

Item No./Kit Description	Pos.	Item No.	Qty.	Description
Pos. 29 81200599 / CONNECTING ROD KIT	15	81200638	1	CROSS HEAD
	22	81200636	1	CONNECTING ROD
	23	81200637	1	WRIST PIN

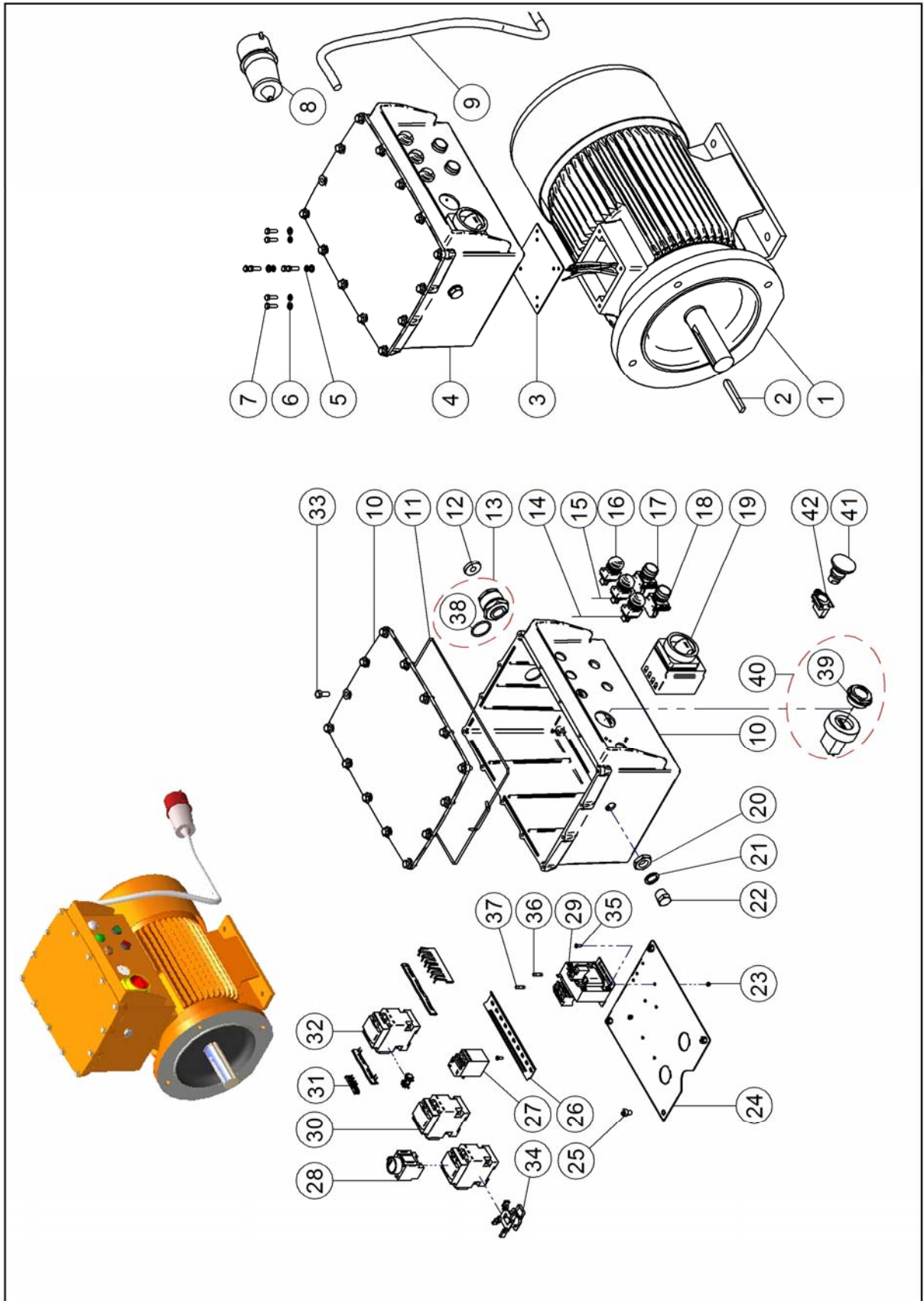
3 set of Connecting Rod Kit are required to overhaul one pump

Item No./Kit Description	Pos.	Item No.	Qty.	Description
Pos. 30 81200704 / PLUNGER REP. KIT	23	81200600	3	PLUNGER.DISC
	24	81200601	3	RING
	25	80200610	3	O-RING
	26	80100398	3	COPPER SEAL
	27	81200630	3	PLUNGER NUT

Item No./Kit Description	Pos.	Item No.	Qty.	Description
Pos. 35 81200619 / SEAL REP. KIT	33	81200605	3	LOW PRESSURE SEAL KIT
	34	81200607	3	HIGH PRESSURE SEAL KIT

Item No./Kit Description	Pos.	Item No.	Qty.	Description
Pos. 39 81200634 / BACK UP RING REP. KIT	36	80200607	3	O-RING
	37	81200604	3	BRASS RING
	38	81200606	3	BACK UP RING

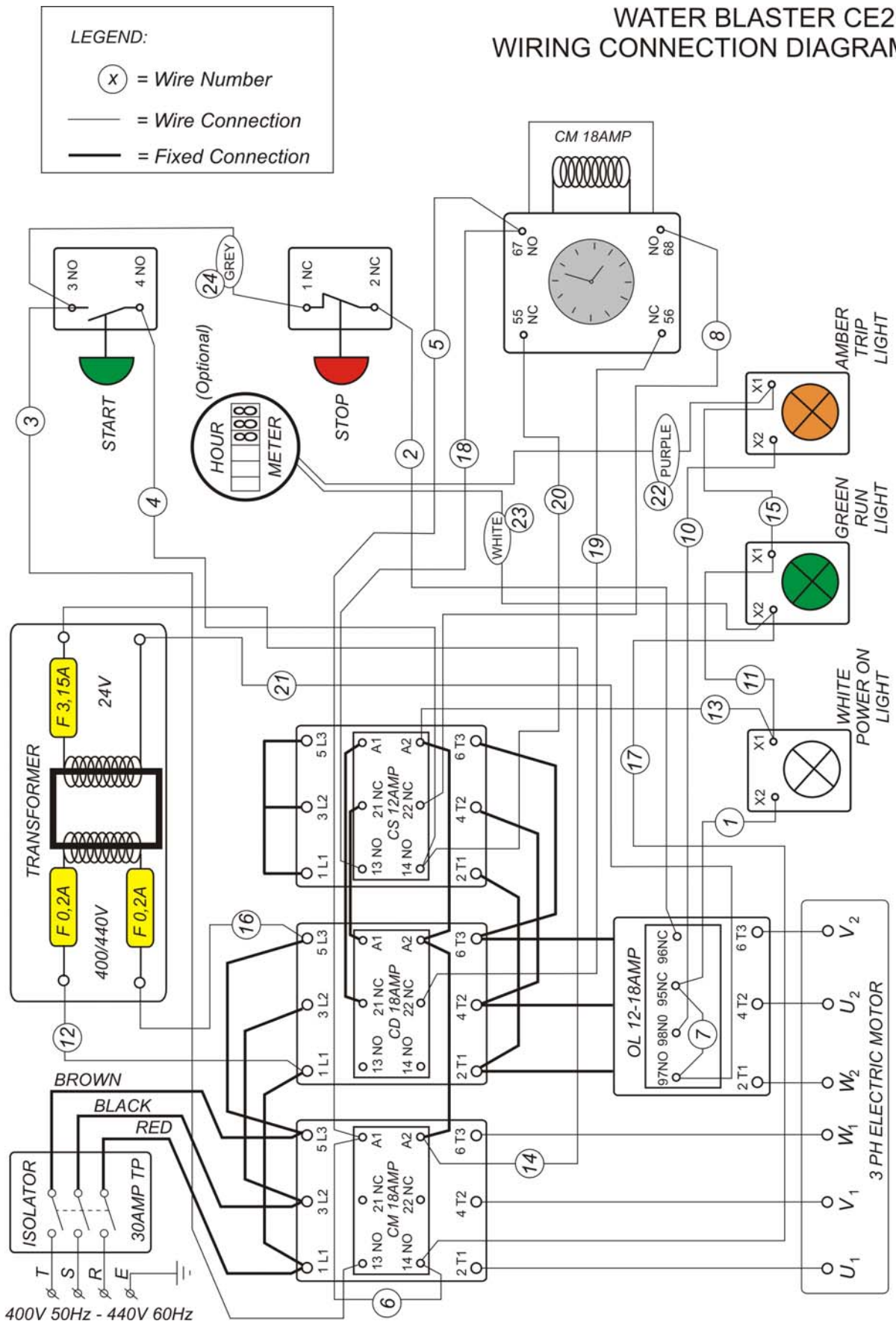
CE20-500 WATER BLASTER ELECTRICAL SYSTEM SPARE-PARTS ASSEMBLY



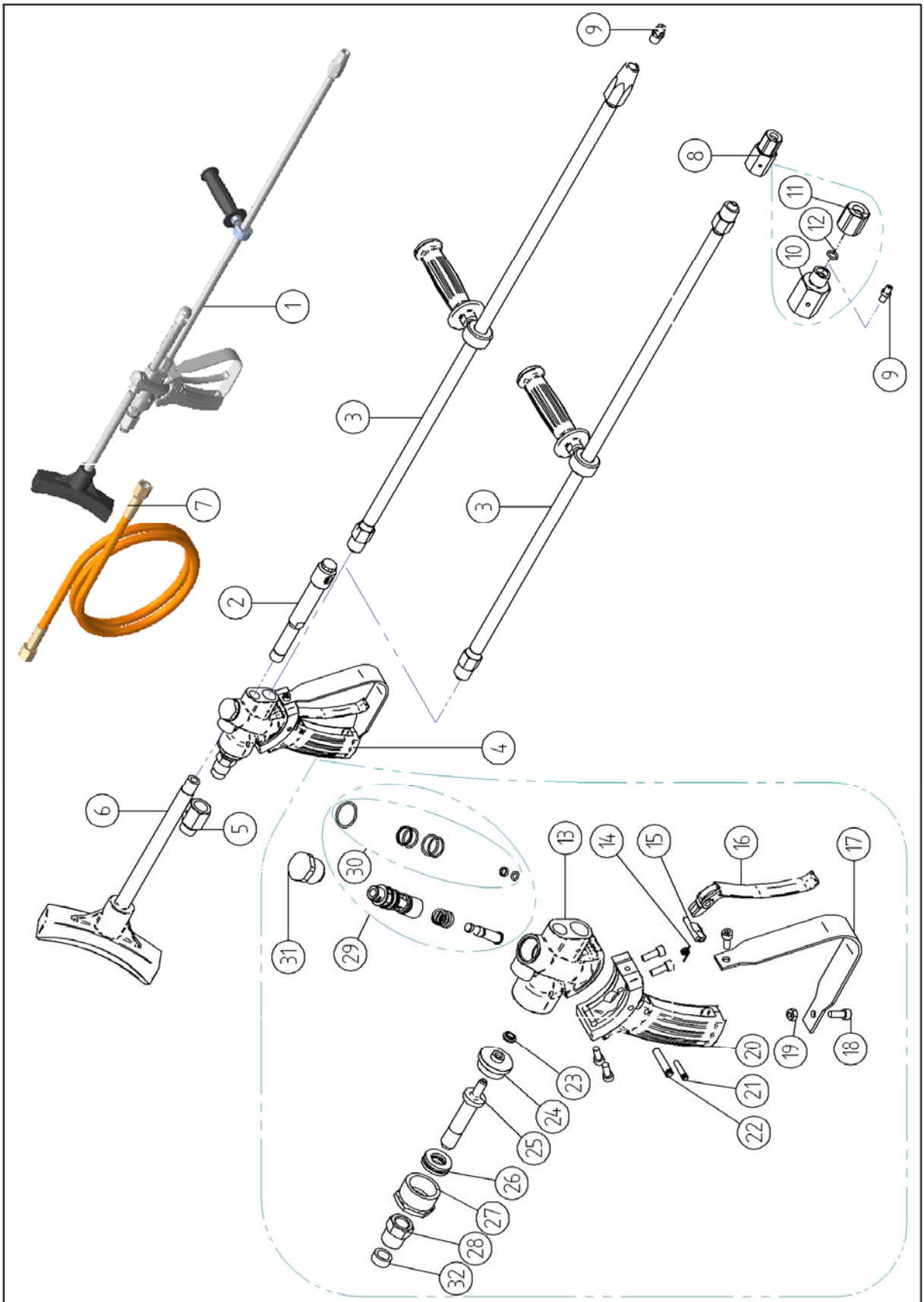
**CE20-500 WATER BLASTER
ELECTRICAL SYSTEM SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1	81100245	1	MOTOR 20hp 4P B35 CASING 160L 400/690V-50/60HZ
2	81100602	1	KEY
3	81100600	1	RUBBER WASHER
4	81100683	1	EL-BOX ASSY. CE20
5	80100618	4	COPPER WASHER
6	80100398	4	COPPER WASHER
7	80100385	8	SCREW
8	81100630	1	PLUG CEE FOR CE20-50Hz
8	81100707	1	PLUG CEE FOR CE20-60Hz
9	83500592	15M	CABLE
10	81001127	1	EL-BOX (BOX+ LID)
11	83300602	1.3M	ROPE SEAL
12	81100632	1	RUBBER SEAL
13	81000406	1	GLAND NUT COMPLETE
14	81100594	1	PILOT LIGHT AMBER
15	81100596	1	PILOT LIGHT GREEN
16	81100595	1	PILOT LIGHT WHITE
N/A	81100597	3	BULB FOR PILOT LIGHT
17	81100598	1	PUSH BOTTON ON (GREEN)
18	81100599	1	PUSH BOTTON OFF (RED)
19	81100581	1	CIRCUIT BREAKER
20	80100632	1	CONTRA NUT
21	80500429	1	BONDED SEAL
22	80500495	1	PLUG
23	80100596	4	LOCK NUT
24	81000396	1	MOUNTING PLATE
25	80100382	4	SCREW
26	81100575	1	OMEGA RAIL
27	81100577	1	OVER LOAD RELAY
28	81100580	1	TIMER
29	81100500	1	TRANSFORMER
30	81100576	2	CONTACTOR (inclusive coil)
31	81100572	1	CONNECTION SET
32	81100578	1	CONTACTOR (inclusive coil)
33	80100671	14	SCREW
34	81100579	3	COIL FOR CONTACTOR (spare part)
35	80100595	4	SCREW
36	81100574	1	FUSE 3.15 A
37	81100573	3	FUSE 0.2 A
38	80200402	1	O-RING
39	81000757	1	SIGHT GLASS OPTIONAL
40	81100857	1	HOUR METER ASSY. OPTIONAL
41	81100700	1	EMERGENCY BUTTON OPTIONAL
42	81100699	1	EMERGENCY BREAKER OPTIONAL
	81100601		WIRE HARNESS

WATER BLASTER CE20 WIRING CONNECTION DIAGRAM



DUMP GUN 10 KPSI SPARE-PARTS ASSEMBLY



**DUMP GUN 10 KPSI
SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1	81400664		TRIGGER GUN STD. DUMP 10 KPSI FOR NOZZLE ¼" BSP
1	81401188		TRIGGER GUN SHORT DUMP 10 KPSI FOR NOZZLE ¼" BSP
1	81400970		TRIGGER GUN DUMP 10 KPSI FOR NOZZLE FORM 4
2	81400136	1	DUMP TUBE
3	81400886	1	LANCE FOR DUMP GUN P/N 81400664
3	81401187	1	LANCE FOR DUMP GUN P/N 81401188
3	81400969	1	LANCE FOR DUMP GUN P/N 81400970
4	81400668	1	HANDLE FOR TRIGGER GUN DUMP ASSY
5	81400416	1	ADAPTOR ½" BSP
5	81400717	1	ADAPTOR M22
5	81400716	1	ADAPTOR M24
5	81400947	1	FEMALE ADAPTOR ½" BSPPF
6	81400231	1	SHOULDER SUPPORT
7	81400962		HOSE (H.P) 500 BAR 20M, W/ ½" BSPP FEMALE SWIVEL
8	81500046	1	NOZZLE HOLDER ASSY
9	*	1	NOZZLE
10	81500027	1	NOZZLE HOLDER
11	81500127	1	RETAINER NUT
12	80200623	1	O-RING
13	81400638	1	VALVE HOUSING DUMP GUN
14	80300051	1	SPRING
15	81400048	1	SAFTY LATCH
16	81400047	1	TRIGGER LATCH
17	81400058	1	TRIGGER GUARD
18	80100052	6	SCREW ALLEN
19	80100053	1	LOCK NUT
20	81400036	1	HANDLE
21	81400049	1	PIN
22	81400050	1	PIN
23	80200627	1	FLEXI SEAL
24	81400152	1	BACK-UP RING
25	81400149	1	INLET SWIVEL
26	80400143	1	THRUST BEARING
27	81400151	1	RETAINER NUT
28	80500041	1	GLANDNUT
29	81400056	1	VALVE KIT DUMP GUN
30	81400296	1	O-RING KIT
31	81400055	1	VALVE PLUG DUMP GUN
32	80500040	1	COLLAR

Customer's Requirements

**DUMP GUN
REPAIR KITS**

Item No./Kit Description	Item No.	Qty.	Description
Pos. 30 81400296 O-RING & PACKING REP. KIT FOR VALVE KIT DUMP GUN	80200060	1	BACK-UP RING
	80200059	1	O-RING
	80200610	1	O-RING
	80200232	1	BACK UP RING
	80200070	1	O-RING
	80200074	1	BACK-UP RING FOR O-RING
	80200057	1	O-RING

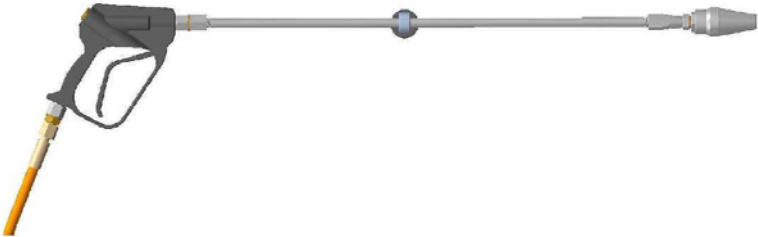
Item No./Kit Description	Item No.	Qty.	Description
Pos. 29 81400056 VALVE KIT DUMP GUN	80200060	1	BACK-UP RING
	80200059	1	O-RING
	80200610	1	O-RING
	80200232	1	BACK UP RING
	80200070	1	O-RING
	80200074	1	BACK-UP RING FOR O-RING
	81400064	1	VALVE PIN
	81400065	1	VALVE SEAT
	80300115	1	SPRING FOR VALVE KIT DUMP GUN

OPERATION PROCEDURE FOR ROTATING NOZZLE

OPERATION PROCEDURE FOR ROTATING NOZZLE

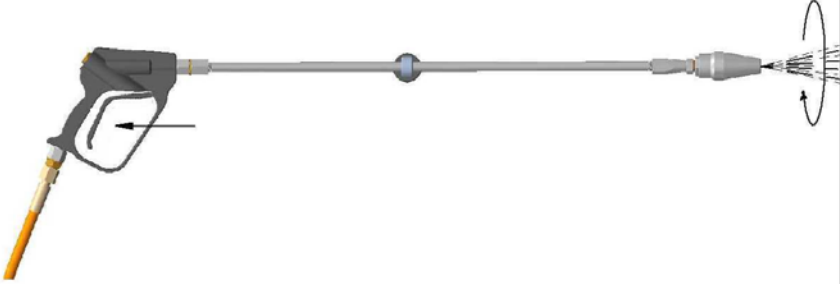
①

HOLD GUN UPRIGHT
NOZZLE FACING DOWN



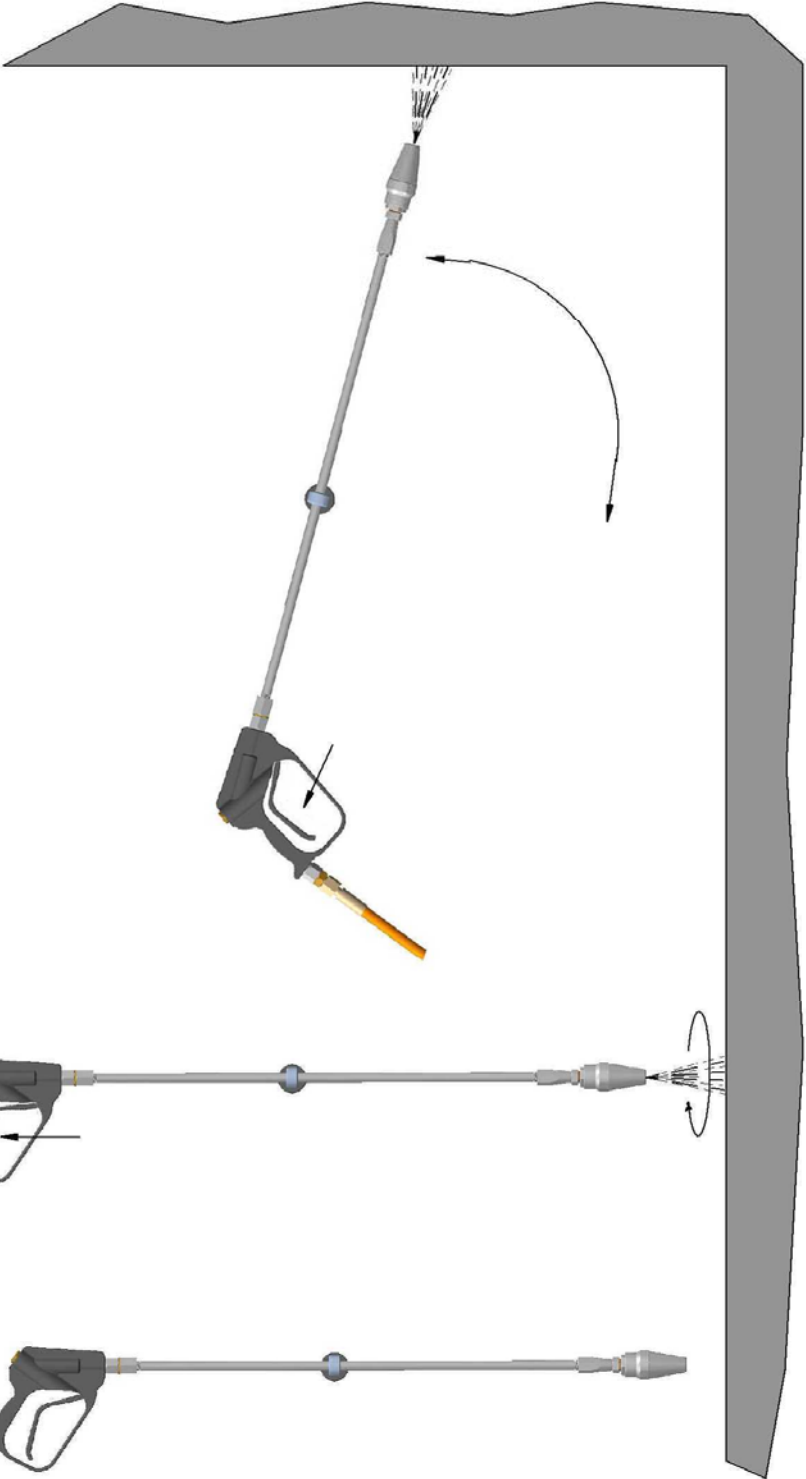
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SQUEEZE TRIGGER
OBSERVE NOZZLE ROTATE

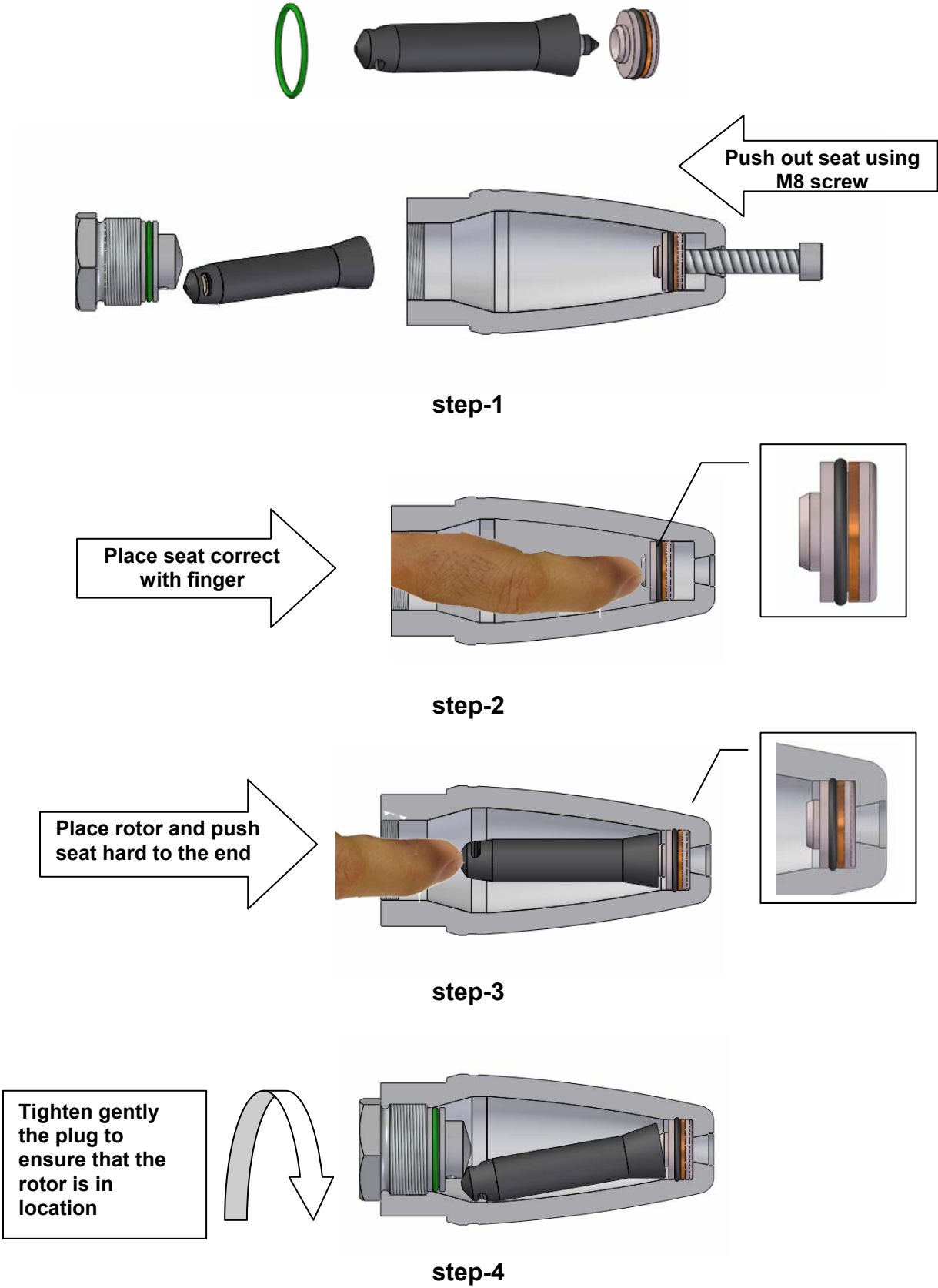


③

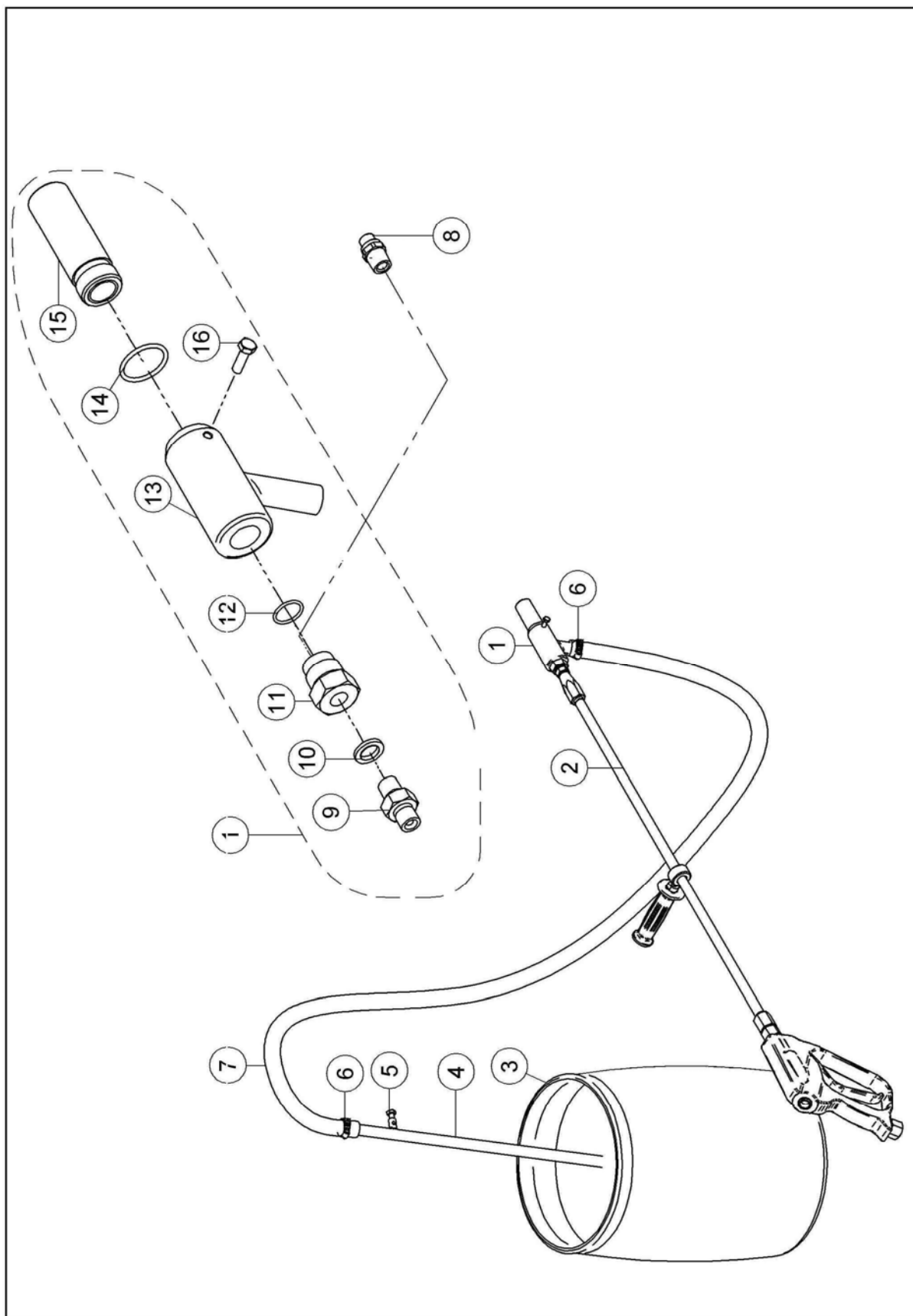
KEEP TRIGGER SQUEEZED
MOVE NOZZLE TO HORIZONTAL BLASTING POSITION



Rotating Nozzle Replacement Procedure Repair Kit



**SAND BLASTING EQUIPMENT 1/4" BSPP
SPARE PART ASSEMBLY**



**SAND BLASTING EQUIPMENT 1/4" BSPP
SPARE PART LIST**

Pos.	Item No.	Qty.	Description
1	81400643	1	VENTURI HOUSING COMPLETE FOR 1/4"BSPP FEMALE INLET
2			TRIGGER GUN (NOT INCLUDED)
3	81400641	1	GRIT CONTAINER 120 LITER W/ LID
4	81400629	1	POKER FOR SANDBLASTING EQUIP.
5	80100671	1	SCREW
6	80100527	2	HOSE CLIPS
7	83400596	15m	HOSE
8	81500702	1	WATER NOZZLE SAND BLASTING 035
9	80500654	1	NIPPLE
10	80500971	1	BONDED SEAL
11	81400472	1	NOZZLE ADAPTOR 1/4"BSPP FOR VENTURI SAND BLASTER
12	80200057	1	O RING
13	81500469	1	VENTURI SANDBLASTING
14	80200397	1	O-RING
15	81500567	1	NOZZLE S.B BORON CARBIDE
16	80100671	1	SCREW
	80100672	1	NUT
	81400654		SAND BLASTING KIT 1/4"BSPP W. POKER Pos.(1,4,5,6,7)

Blasting media:

If available, we recommend "Copper slag" 10/30 Grit (0,5mm to 1,8mm) as blasting media.
If using "Quarts sand", use a blend of 0,8mm – 1,8mm, do NOT use too fine sand, it will not flow and it does not give an efficient use of the equipment.



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