



CE40 WATER BLASTER
50 – 60 Hz
MECHANICAL BOOSTER PUMP

**USER GUIDE &
SPARE-PART BOOK**

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.

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50Hz Model:						
Technical details:	CE40-400	CE40-550	CE40-750	CE40-800*	CE40-1250	CE40-1380
W.P. Bar/PSI Flow: LPM/GPM PLUNGER"Ø"	400 / 5800 36 / 9.5 Ø20	550 / 7975 30 / 7.9 Ø18	750 / 10875 23 / 6 Ø16	800 / 11600 18 / 4.7 Ø14	1250 / 18125 13 / 3.4 Ø12	1380 / 20000 12 / 3.2 Ø12
60Hz Model:						
Technical details:	CE40-400	CE40-500	CE40-700	CE40-800	CE40-1050	
W.P. Bar/PSI Flow: LPM/GPM PLUNGER "Ø"	400 / 5800 43 / 11.3 Ø20	500 / 7250 35 / 9.2 Ø18	700 / 10150 28 / 7.4 Ø16	800 / 11600 22 / 5.8 Ø14	1050 / 15225 16 / 4.2 Ø12	
Electrical Spec. Motor Hp/Kw Voltage 50/60Hz Amperage A	40 / 30 400 / 440 57 / 52	40 / 30 400 / 440 57 / 52	40 / 30 400 / 440 57 / 52	40 / 30 400 / 440 57 / 52	40 / 30 400 / 440 57 / 52	40 / 30 400 / 440 57 / 52
Dimensions L x W x H mm Weight Kg	1600x1050x1150 630	1600x1050x1150 630	1600x1050x1150 630	1600x1050x1150 630	1600x1050x1150 630	1600x1050x1150 630

***) 1000 Bar available with Ultra Impact Nozzle.**

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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:

CE40-400, 50/60Hz CE40-550 50Hz. CE40-500 60Hz, CE40-750 50Hz, CE40-700 60Hz,
CE40-800 50/60Hz, CE40-1250 50Hz, CE40-1050 60Hz & CE40-1380 50Hz
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

Norwegian Labour Inspection order no.: 522

Date: January 2017

Benny S. Jensen

Managing Director.

WARNING 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. Be especially alert when pulling or releasing the trigger as sudden reaction forces will occur

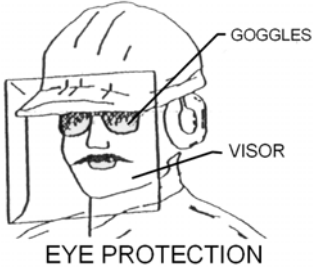



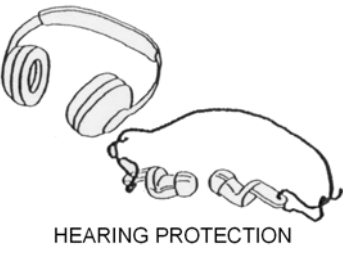
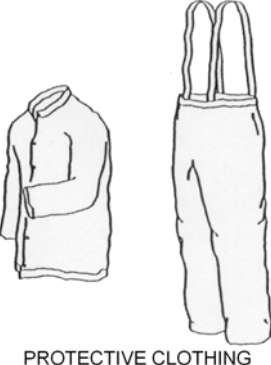
Precautions must be made to keep bystanders away from the working range. Especially when pulling the trigger as sudden reaction forces can make changes in the direction of the jet. NEVER spray-jet on humans or live animals, the high pressure jet can cause severe injury and/or death.

NEVER spray at electrical equipment, or at the machine itself.

Before service or repair: Make sure the machine is turned off, and pressure is released from the system by pulling the trigger after shutting down the machine. The machine should be disconnected from the main power supply by pulling out the electrical plug.



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.

<div><h1>MEDICAL ALERT</h1><p>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.</p></div>
<p>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.</p> <div><p>DEN-JET Nordic A/S Terndrupvej 7, Astrup, DK-9510 Arden, Denmark Tel: +45 98 55 88 68 Fax: +45 98 55 88 18 www.denjet.com</p></div>

Set-Up & Use:

Mount the ½” high-pressure hose on to the Water-blaster by screwing the swivel on to the 1/2” high-pressure fitting on the left side of the cylinder-head. Mount the trigger gun with lance to the ½” high-pressure hose. Always use two wrenches when tightening the hoses.

Prepare the water supply for the Water-blaster, by attaching a 1” hose to the supplied low pressure inlet coupling on the back of the water tank. Connect the other end of the water supply hose to a fresh water tap. Open the tap. To prevent water spill always use the float valve inlet.

Connect the main power cords CEE plug to an earthed 3 phase main power supply. Turn on the power and push the start button on the electric panel. Allow the machine a few seconds for the star delta connection to switch over automatically before pulling the trigger.

Get a firm grip with both hands on the gun handle and the lance handle. Press the trigger and start blasting. Pay special attention to the fact that energizing the gun causes reaction forces that can cause the jet to change direction.

After shut down of the Water-blaster, always release the pressure inside the high-pressure hoses by pulling the trigger on the spray-gun before dismantling the high-pressure hoses. Trapped high-pressure can cause severe injury.

Notice:

Make sure your local power supply specifications are suitable for the motor need. Refer to the ID-plate located at the base of the chassis plate.

Onboard vessels:

Position the Water-blaster machine behind the super structure or on the poop deck. Securely fastened. Engage the built in brake when running the machine.

The machine is equipped with the following safety devices:

- a) Stop button. The stop button (pos. 18 Electrical spare-parts assembly page 32) stops the machine when pushed in.
- b) Main switch. The main switch (pos. 19 Electrical spare-parts assembly page 32) 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 page 32)
- d) The safety valve built onto the top of the pump is protecting against over-pressure (pos. 33 page 24)
- e) Low pressure shut off prevents the pumps from running dry (pos. 39 page 22)

Set-Up & Use:

Check	Task
Daily Inspection	<i>Check the strainer in the water-tank.</i> Clean if necessary. <i>Check the oil level on the crankcase of the pump.</i> Fill up if necessary. <i>Check for air-bubbles in the suction hose between tank and pump.</i> If there are bubbles then tighten the hose-clips. <i>Check high pressure connections for leakage.</i> NEVER tighten connections under pressure. <i>Check high pressure hoses for wear and cracks.</i> Replace if necessary. <i>Check the power cord for wear and cracks.</i> Replace if necessary. <i>Check the air intake grill of the electric motor.</i> Clean for dust if necessary.
	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.
	Inlet water temperature must be below 60°C (140°F)

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 Industrial purpose 220 Oil</i> <i>Examples: Shell Tellus 220, Esso Nuto 220, Texaco Regal EP220</i> <i>Statoil: Lubeway XA220</i> <i>Quantity: 4 Liter</i></p> <p><i>Fill up until the oil level is visible in the middle of the sight glass.</i></p>
Renewal of oil	<p>Switch off the machine. Loosen the oil drain screw on the lower side 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	Repair
When the main switch is turned on And the green start button is pushed in, the Water-blaster will not start.	<i>Fault somewhere in the power supply.</i> Is the Power light on? Make sure the main supply cable is connected correctly. Inspect cord for cracks and wears.
The motor is humming but the pump does not run.	<i>Too low voltage, one phase is missing. High-pressure pump is blocked.</i> 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.
The pressure drops and the Water-blaster works irregularly.	<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> 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.
The Water-blaster continues jetting at high pressure when trigger is released. The Water-blaster is running at high pressure when trigger is released and no jetting.	<i>The Gun valve is stuck by dirt and indicate That the filter or hoses has not been clean before assembly</i> Replace gun rep kit and ensure that system is flushed at low pressure before mounting nozzle <i>The check valve in the un-loader out-let fitting is stuck or leaking.</i> The hose may still contain pressure so loosen hose and bleed pressure slowly before opening fully. Clean the check-valve in the un-loader out-let fitting. Replace the O-ring.
The Water-blaster does not reach the right working pressure when the trigger handle is activated.	<i>Leakage from: Safety valve, hose connections, trigger-gun. The pump sucks air. The high-pressure nozzle is worn or too big in size. or safety valve is not correctly adjusted, or is worn. Rupture disc is burst. Plunger packings are worn.</i> Turn of the water-blaster. Inspect for leakage. Replace the nozzle. Set the safety valve, repair if necessary. Change rupture disc. Change packings.
The Water-blaster works with approximately 2/3 of the maximum pressure, and the high-pressure hose is vibrating.	<i>There is dirt in the valves.</i> 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.

Trouble shooting and repair:

Problem	Repair
Excessive water leakage from under the pump	<i>Packing is worn</i> Replace packings. (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.

Nozzle change:

Change the nozzle when it is worn, (spray pattern becomes irregular and/or a drop in pressure occurs. Use 2 wrenches when changing nozzle. Only change to a correctly sized new nozzle. Repack nozzle thread with PTFE packing tape. Please notice that the size rating for one particular nozzle may differ from another, for example: The same sizes fan and straight jet may differ in pressure.

Using optional Nozzle types:

The gun can be used with different types of nozzles: Straight-jet, fan-jet and self-rotating types.

The gun is also suitable for using with wet sand-blasting.

Overhauling gun:

If the gun starts to leak or parts become damaged it can be repaired. Please refer to the main spare-parts assembly for correct position of parts during repair.

Cleaning the strainer in the water tank:

Drain the water tank by un-screwing the drain plug located on the down left hand corner of the water tank.

Flush out the tank inside with a water hose.

Unscrew and take out the water strainer from inside the water tank. Wash it from inside with a water hose. Scrub it on the outside if stubborn dirt.

Screw back the cleaned strainer, re-pack and screw in the drain plug.

Trouble shooting and repair:

Changing the micro filter cartridge:

Drain the water from the tank as described above. Unscrew the hexagon nut on top of the round filter cartridge located beneath the water tank.

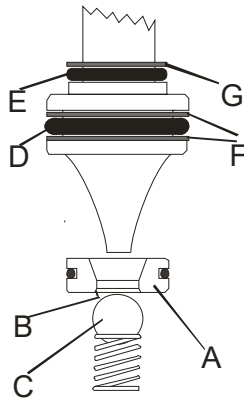
Take out the corrugated filter cartridge. Discard the cartridge. The filter cartridge absorbs dirt particles, **THE CARTRIDGE IS DISPOSABLE AND CANNOT BE CLEANED.**

Flush the filter housing with water. Refit a new filter cartridge into the filter housing, ensure the length of the filter is correct, measured against the discarded cartridge. Clean and put O-rings back in place. Mount the filter housing and tighten the hexagon top nut.

Remember to tighten the drain screw at the bottom of the filter housing.

Overhauling and adjusting safety / un-loader valve:

Dismantle the un-loader / safety valve and overhaul by refitting the parts supplied in the repair kit(s). Ensure the parts are put in place as shown below. Pay attention to the orientation of the valve seat A, the short seat edge B, should be facing the ball C. Assemble the un-loader / safety valve again.

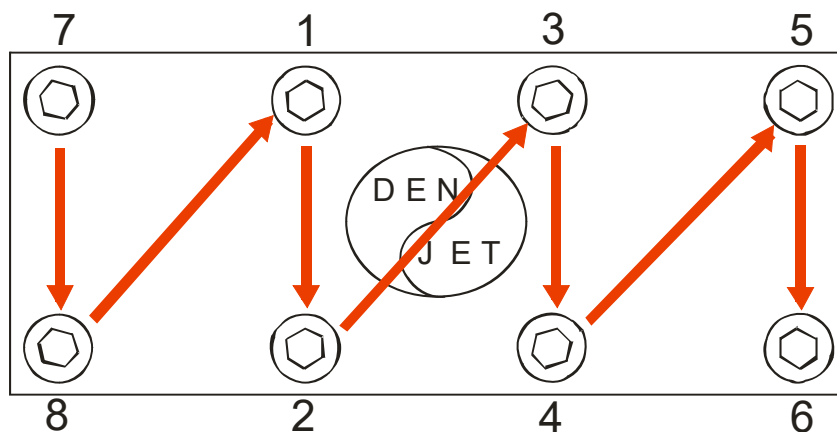


Re-adjust the safety valve by running the machine with a correctly sized nozzle. Pull the trigger and start tighten the nut for the thick black spring, until there is no leak from the safety valve.

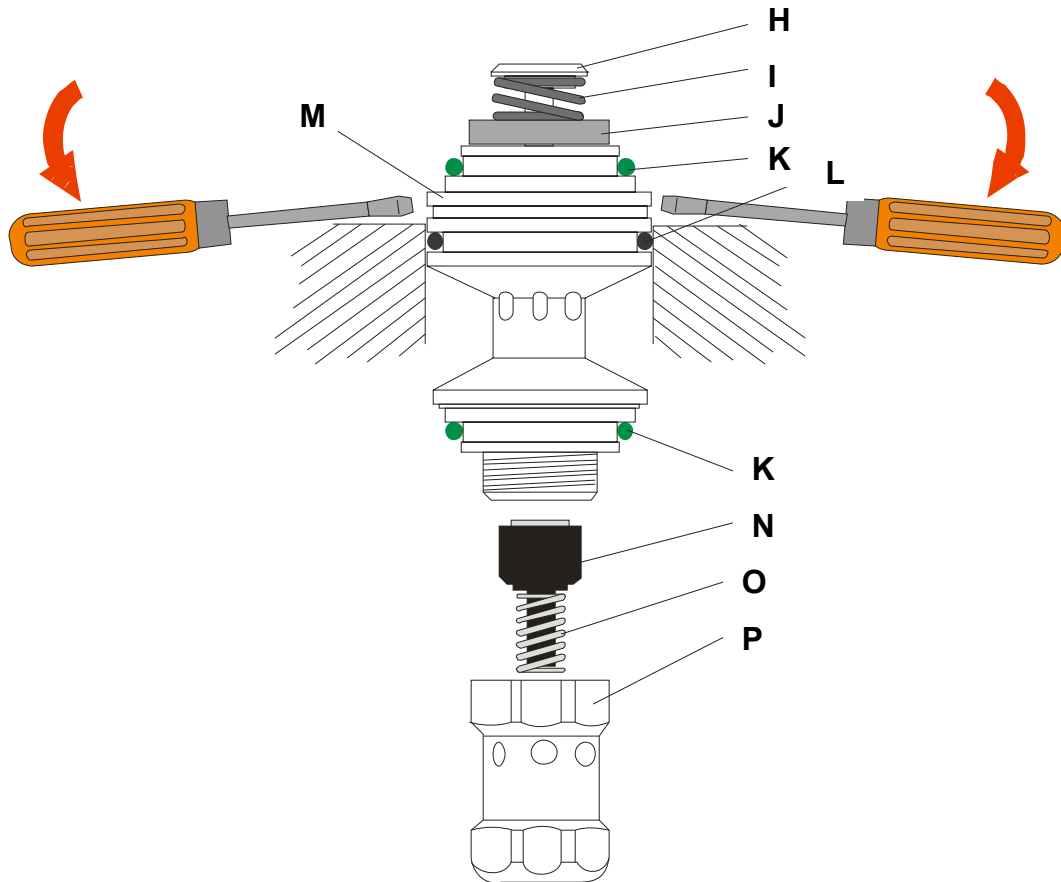
Make sure that the black spring still has movement allowance after setting the correct pressure. The correct working pressure is regulated by the size of the nozzle, and the nozzle should never be too small.

Overhauling pump, valves:

Start dismantling the front of the pump by removing water supply and cooling hoses. Loosen the cylinder head bolts in reverse order as shown:



Do not loosen one bolt entirely, loosen them bit by bit and alternate according to the pattern. Pull out the valve by applying pressure in the extraction groove with 2 flat-face screwdrivers as shown below:

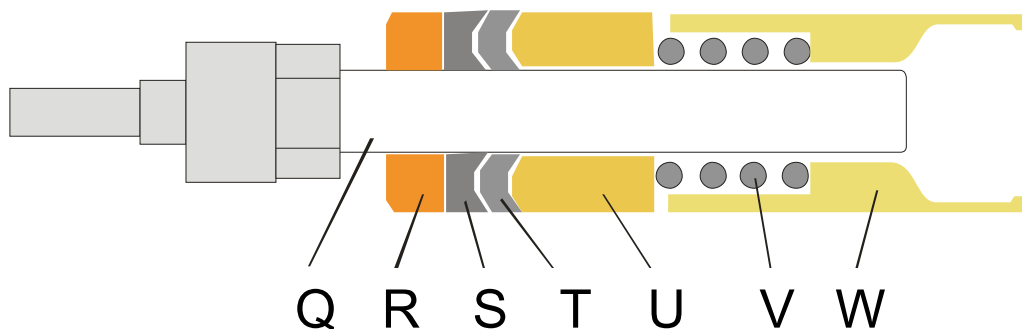


Dismantle the valve assembly by clamping on the spanner face of the valve-body M And unscrewing H and P.

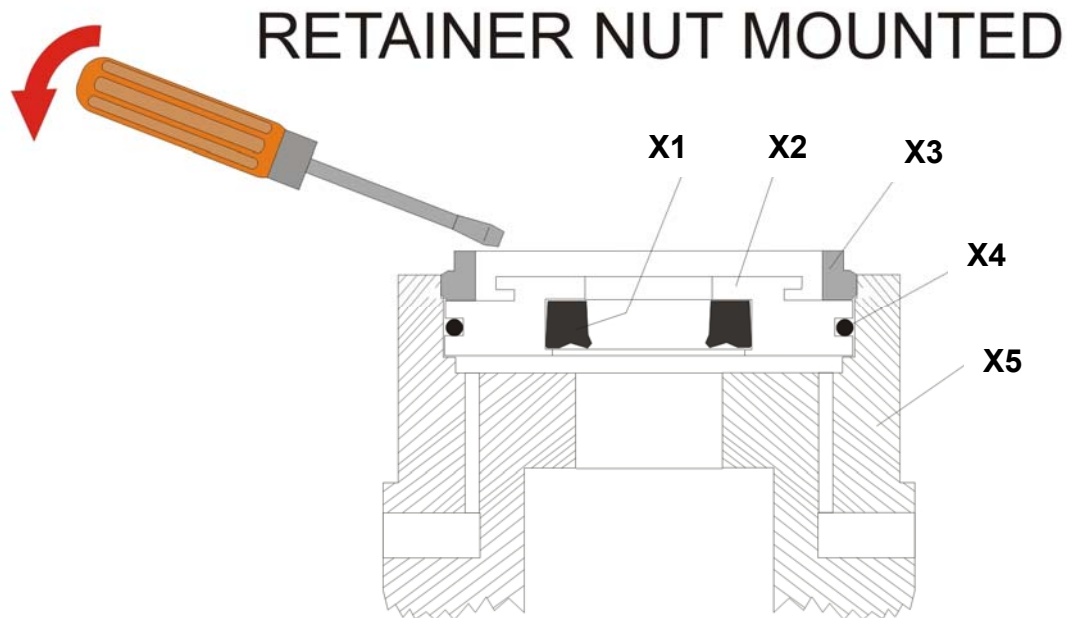
Check the mating surfaces of the inlet valve disc J and the body M, and the outlet valve N and the body M. The mating surfaces should be free from wear and tear. It is possible to touch up the mating surfaces by lapping the parts on a piece of very fine sand-paper laid out on an absolutely flat surface. If wear and tear are too severe for touch up, replace items. Ensure O-rings and packings K and L are in good condition, replace if worn. Re-assemble the valve, be careful not to over-tighten the screw H. Push the assembled valve back into the cylinder-head.

Changing Packing and Plungers:

Take of the cylinder-head as explained earlier. Remove the cooling pipes on top and below on the cylinders. Gently, to prevent plunger damage, pull out the cylinders one by one, the parts R until W will follow inside each cylinder. The plungers will remain on the crossheads extensions.

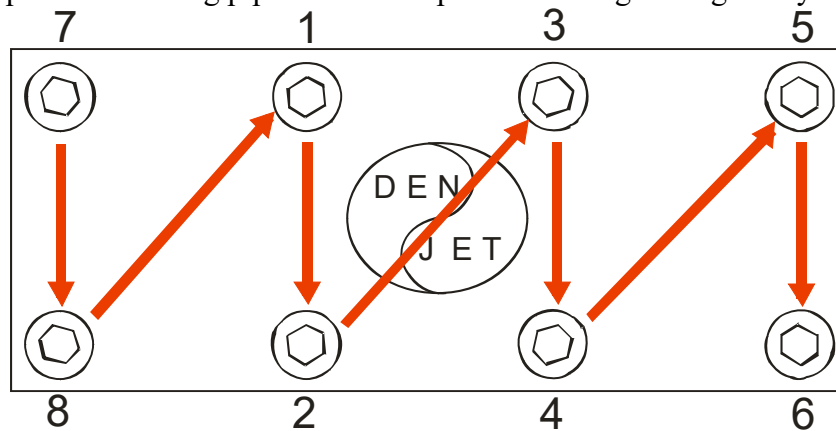


Unscrew the big hexagon retainer nut “X3” at the back of the cylinder support “X5”. Use a screw driver to gently pry out the cooling plate assembly “X2” Seal assembly “S” needs replacement every time when the pump has been disassembled after running. Unscrew the plunger “Q” using the supplied orange –Z- shaped spanner. Inspect plunger surface and replace if necessary. Ensure the low pressure cooling seal “X1” is in good condition, replace both seal “X1” and o-ring “X4” if worn.



Assemble parts, paying attention to place position and orientation.

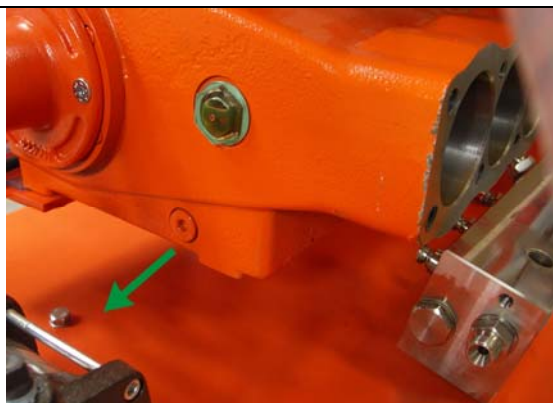
Remember to put back cooling pipes and cover plate before tightening the cylinder head



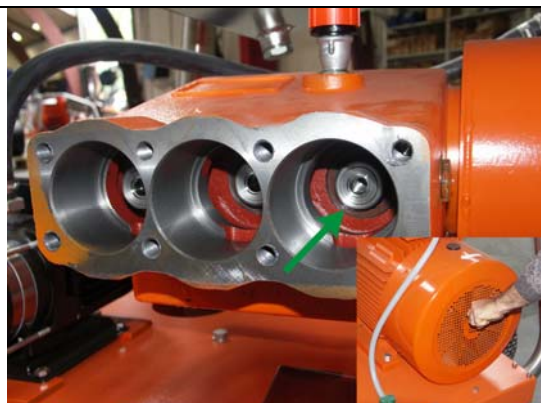
Tighten the bolts in the above shown pattern in steps of torque.

(20Nm - 60Nm - 80Nm – and finally 120Nm) alternating between bolts

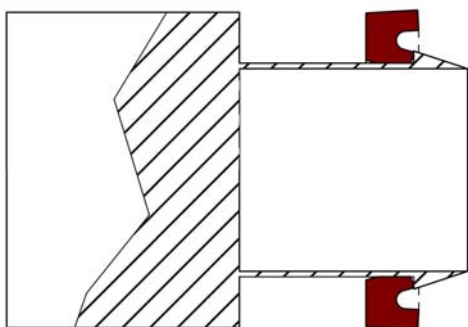
Procedure for Seal Extraction



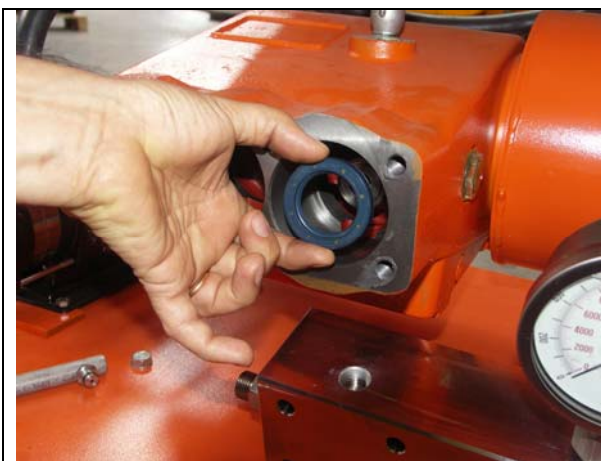
Take the oil out



Turn to get the right position



Take the seal off



Put the new seal in place using just fingers

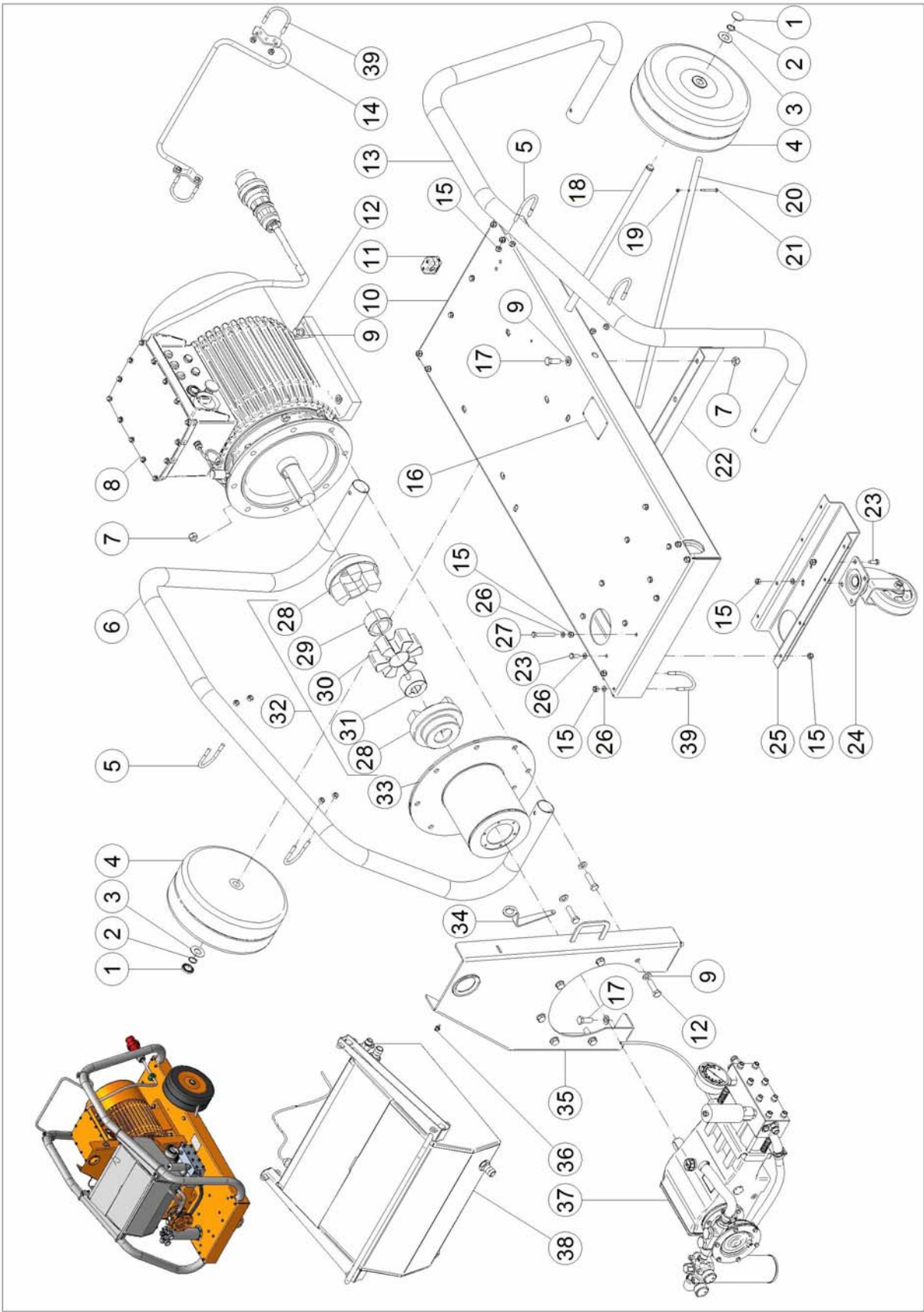


Hammer it gently and equally



Turn the pump to next seal

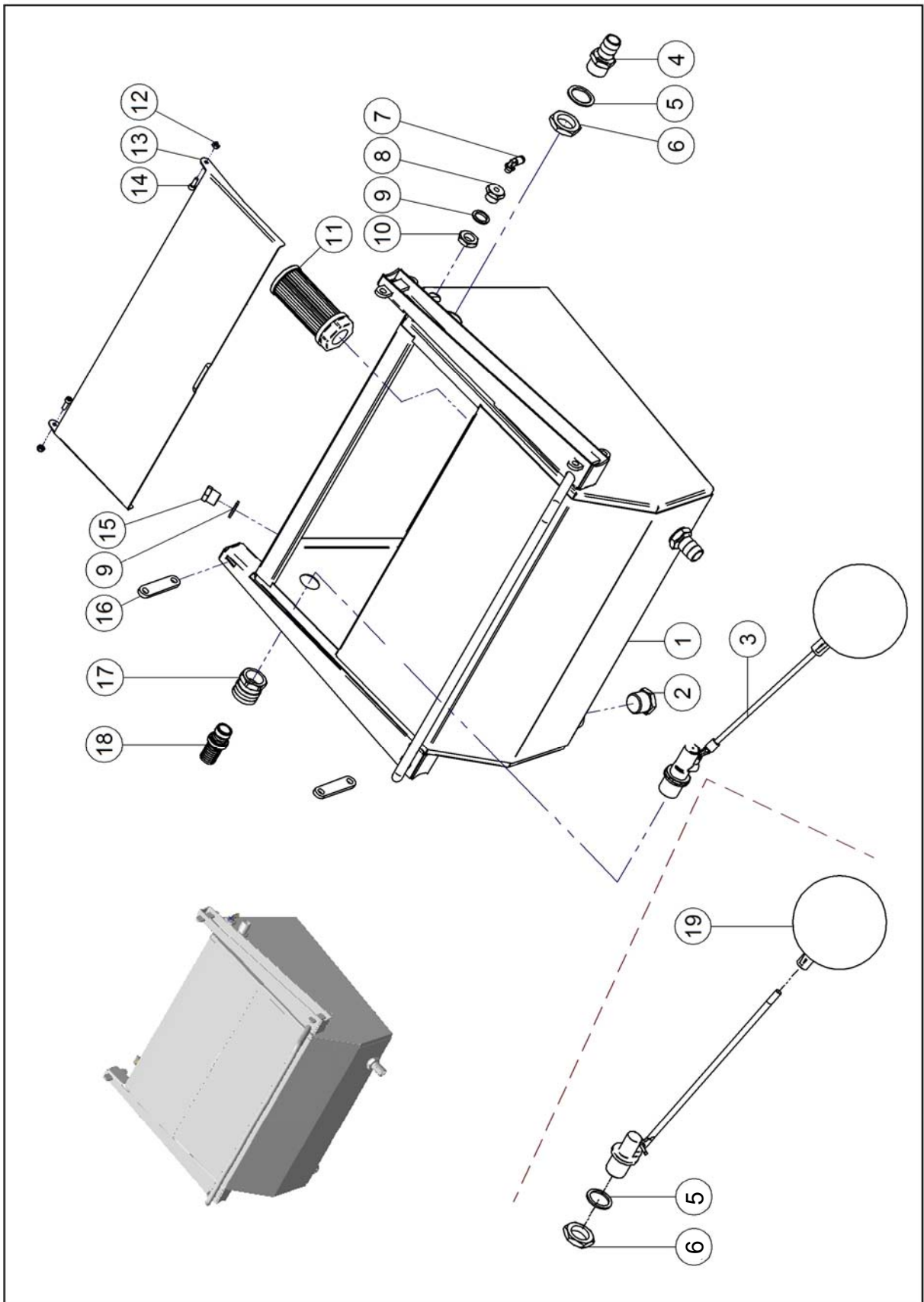
**CE40 SERIES WATER-BLASTER
MAIN SPARE-PARTS ASSEMBLY**



**CE40 SERIES WATER-BLASTER
MAIN SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1	81000619	2	HUB-CAP
2	80100669	N/A	CIRCLIP Part of wheel (pos. 4)
3	81001837	N/A	WASHER SS Part of wheel (pos. 4)
4	81001838	2	WHEEL
5	80100617	4	U-BOLT LONG
6	81000182	1	FRAME RIGHT
7	80100257	16	LOCK NUT
8	N/A	1	EL-SYSTEM C40
9	80100637	15	WASHER
10	81000178	1	BASE PLATE
11	80100518	1	CABLE CLAMP
12	80100256	12	SCREW
13	81000183	1	FRAME LEFT
14	81000448	1	CABLE HOLDER
15	80100259	39	LOCK NUT
16	81000504	1	NAME PLATE
17	80100650	3	SCREW
18	81000620	1	AXLE
19	80100053	1	LOCK NUT
20	81000176	1	MECHANICAL BRAKE C40
21	80100193	1	SCREW
22	81000439	1	FRAME REINFORCEMENT
23	80100258	12	SCREW
24	81000658	1	CASTOR WHEEL
25	81000438	1	BRACKET FOR CASTOR WHEEL
26	80100506	24	WASHER
27	80100379	4	SCREW
28	81000499	2	COUPLING HALF Part of coupling complete (pos. 32)
29	81000270	1	TAPER BUSH Part of coupling complete (pos. 32)
30	81000501	1	RUBBER ELEMENT Part of coupling complete (pos. 32)
31	81000269	1	TAPER BUSH Part of coupling complete (pos. 32)
32	81000189	1	COUPLING COMPLETE
33	81000177	1	BELL HOUSING
34	83800440	1	PLUNGER WRENCH
35	81000181	1	LIFT PLATE
36	81100641	1	PLASTIC STRIPS
37	N/A	1	PUMP UNIT
38	81000198	1	WATER TANK
39	80100775	6	U-BOLT SHORT

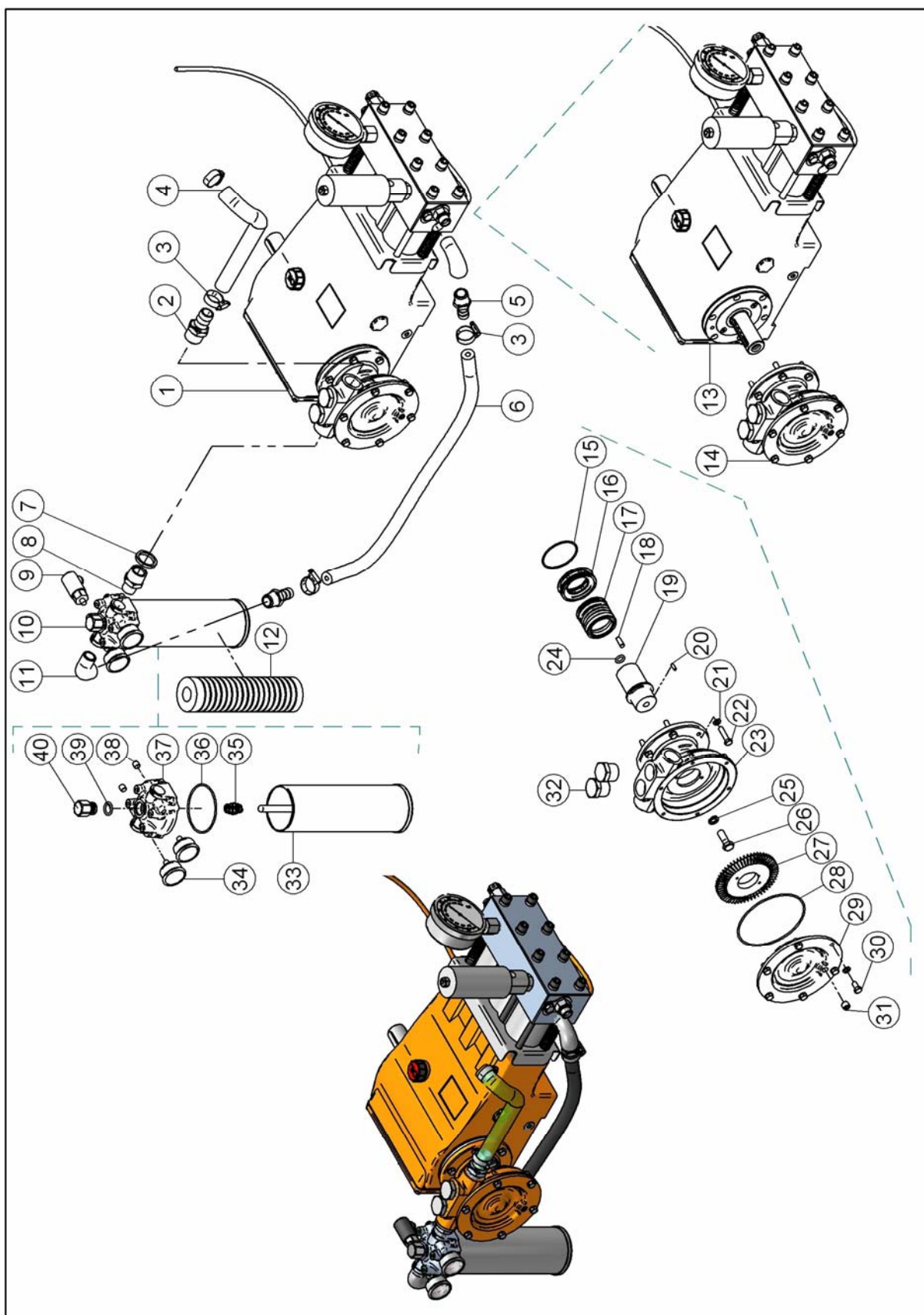
CE40 SERIES WATER-BLASTER WATER TANK SPARE-PARTS ASSEMBLY



**CE40 SERIES WATER-BLASTER
WATER TAN81000198
K SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1	81000322	1	WATER TANK BODY
2	80500607	1	PLUG
3	81000428	1	FLOAT VALVE
4	80500227	1	HOSE NIPPLE
5	80500975	2	BONDED SEAL
6	80100405	2	CONTRA NUT
7	80500279	1	ELBOW
8	80500606	1	BUSHING
9	80500973	3	BONDED SEAL
10	80100632	2	CONTRA NUT
11	81000902	1	FILTER STRAINER
12	80100053	2	LOCK NUT
13	81000324	1	LID
14	80100052	2	SCREW
15	80500495	1	PLUG
16	81000425	4	BRACKET
17	80501065	1	QUICK COUPLING
18	80501066	1	QUICK COUPLING HOSE NIPPLE
19	81000519	1	BALL Part of float valve (pos. 3)

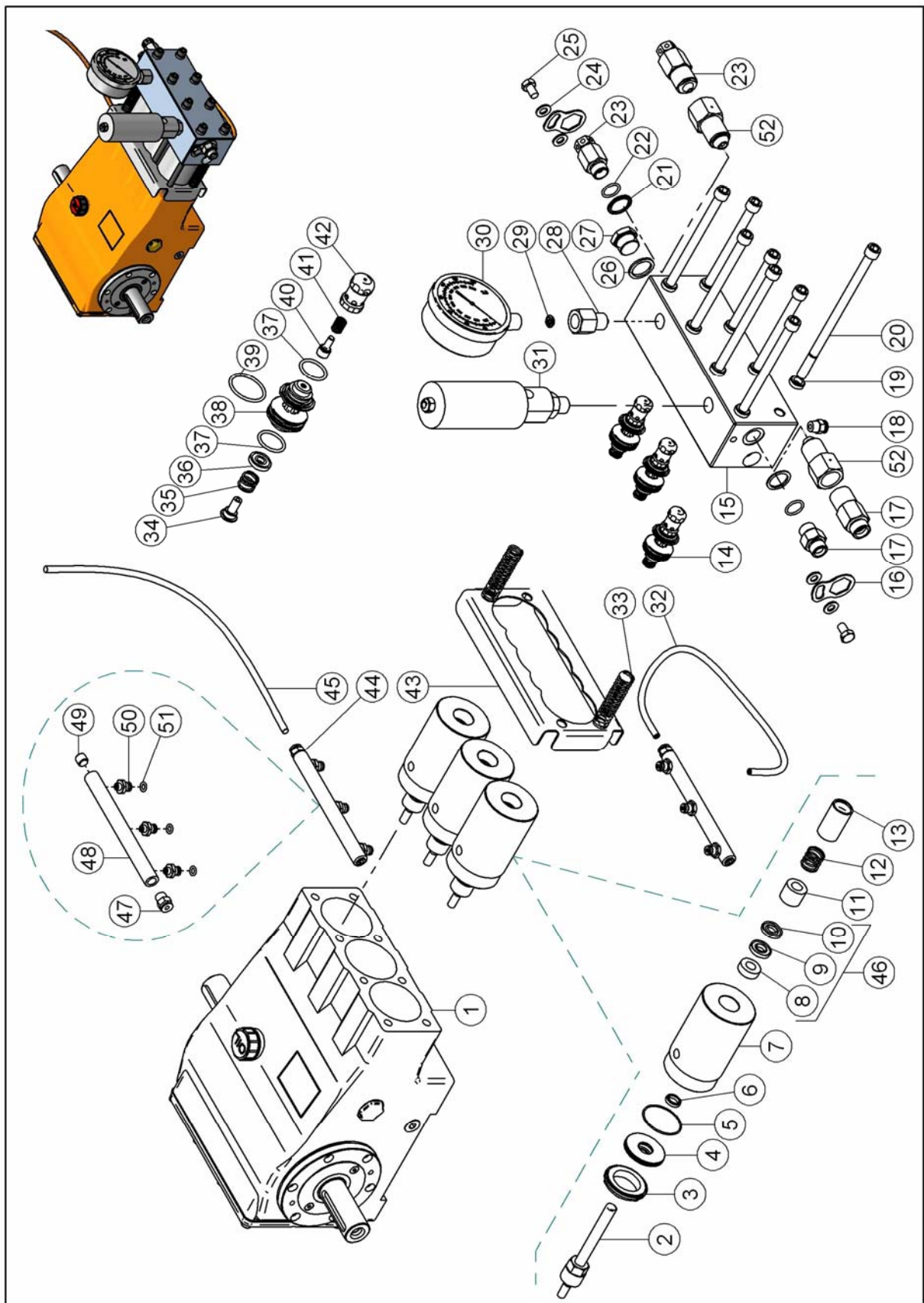
CE40 SERIES WATER-BLASTER PUMP UNIT SPARE-PARTS ASSEMBLY



CE40 SERIES WATER-BLASTER PUMP UNIT SPARE-PARTS LIST

Pos.	Item No.	Qty.	Description
1	81201429	1	PUMP COMPLETE W. FEED PUMP Ø12 - 1380
1	81200595	1	PUMP COMPLETE W. FEED PUMP Ø12 - 1050/1250
1	81200594	1	PUMP COMPLETE W. FEED PUMP Ø14 - 800
1	81200596	1	PUMP COMPLETE W. FEED PUMP Ø16 - 700/750
1	81200597	1	PUMP COMPLETE W. FEED PUMP Ø18 - 500/550
1	81201071	1	PUMP COMPLETE W. FEED PUMP Ø20 - 400
2	80500227	1	HOSE NIPPLE
3	80100527	4	HOSE CLIPS
4	83400524	1m	HOSE SUCTION
5	80500436	2	HOSE NIPPLE
6	83400599	1m	RUBBER HOSE
7	80501412	1	DISTANCE BUSHING
8	80500260	1	NIPPLE
9	81100844	1	PRESSURE SWITCH
10	81000647	1	FILTER
11	80500437	2	ELBOW
12	81000523	1	FILTER INSERT
13	81201427	1	PUMP COMPLETE CE40 Ø12 - 1380
13	81200592	1	PUMP COMPLETE CE40 Ø12 - 1050/1250
13	81200187	1	PUMP COMPLETE CE40 Ø14 - 800
13	81200593	1	PUMP COMPLETE CE40 Ø16 - 700/750
13	81200974	1	PUMP COMPLETE CE40 Ø18 - 500/550
13	81200899	1	PUMP COMPLETE CE40 Ø20 - 400
14	81200158	1	BOOSTER PUMP COMPLETE
15	80200407	1	O-RING
16	81200163	1	DRAIN BUSHING
17	80200157	1	MECHANICAL SEAL
18	81200164	1	KEY
19	81200173	1	AXLE ADAPTOR
20	81200165	1	KEY
21	80100732	12	WASHER
22	80100704	6	SCREW
23	81200160	1	HOUSING BOOSTER PUMP
24	80200634	1	O-RING
25	80500971	1	BONDED SEAL
26	80100168	1	SCREW
27	81200172	1	IMPELLER
28	80200568	1	O-RING
29	81200162	1	END COVER
30	80100703	6	SCREW
31	80500341	1	PLUG ALLEN
32	80500607	2	PLUG
33	81000572	1	HOUSING FOR FILTER
34	81300631	2	GAUGE
35	80300604	1	DISTANCE SPRING
36	80200878	1	O-RING
37	81000650	1	COVER
38	80500094	2	PLUG ALLEN
39	80200491	1	O-RING
40	81000649	1	TOP SCREW

CE40 SERIES WATER-BLASTER PUMP SPARE-PARTS ASSEMBLY



CE40 SERIES WATER-BLASTER PUMP SPARE-PARTS LIST

Pos.	Item No.	Qty.	Description
1	81200202	1	POWER END ORANGE RAL 2009
1	81201352	1	POWER END BLUE RAL 5005
2	81201188	3	PLUNGER Ø12MM CE40-1380
2	81200266	3	PLUNGER Ø12MM CE40-1050/1250
2	81200206	3	PLUNGER Ø14MM CE40-700/800
2	81200299	3	PLUNGER Ø16MM CE40-700/750
2	81200304	3	PLUNGER Ø18MM CE40-500/550
2	81200779	3	PLUNGER Ø20MM CE40-400
3	81200966	3	RETAINER NUT FOR COOLING PLATE
4	81200465	3	COOLING PLATE Ø12 CE40-1050/1250/1380
4	81200215	3	COOLING PLATE Ø14 CE40-700/800
4	81200347	3	COOLING PLATE Ø16 CE40-700/750
4	81200328	3	COOLING PLATE Ø18 CE40-500/550
4	81200794	3	COOLING PLATE Ø20 CE40-400
5	80200222	3	O-RING
6	80200466	3	COOLING SEAL Ø12 CE40-1050/1250/1380
6	80200272	3	COOLING SEAL Ø14 CE40-700/800
6	80200337	3	COOLING SEAL Ø16 CE40-700/750
6	80200329	3	COOLING SEAL Ø18 CE40-500/550
6	80200671	3	COOLING SEAL Ø20 CE40-400
7	81201428	3	CYLINDER FOR CE40-1050/1250/1380
8	81200461	3	BACK UP RING Ø12 CE40-1050/1250/1380
8	81200203	3	BACK UP RING Ø14 CE40-700/800
8	81200467	3	BACK UP RING Ø16 CE40-700/750
8	81200457	3	BACK UP RING Ø18 CE40-500/550
8	81200782	3	BACK UP RING Ø20 CE40-400
9	81200412	3	PACKING BACK Ø12 CE40-1050/1250/1380
9	81200271	3	PACKING BACK Ø14 CE40-700/800
9	81200343	3	PACKING BACK Ø16 CE40-700/750
9	81200327	3	PACKING BACK Ø18 CE40-500/550
9	81200783	3	PACKING BACK Ø20 CE40-400
10	81200411	3	PACKING FRONT Ø12 CE40-1050/1250/1380
10	81200213	3	PACKING FRONT Ø14 CE40-700/800
10	81200344	3	PACKING FRONT Ø16 CE40-700/750
10	81200326	3	PACKING FRONT Ø18 CE40-500/550
10	81200784	3	PACKING FRONT Ø20 CE40-400
11	81200462	3	PACKING SUPPORT Ø12 CE40-1050/1250/1380
11	81200214	3	PACKING SUPPORT Ø14 CE40-700/800
11	81200345	3	PACKING SUPPORT Ø16 CE40-700/750
11	81200325	3	PACKING SUPPORT Ø18 CE40-500/550
11	81200781	3	PACKING SUPPORT Ø20 CE40-400
12	80300225	3	PACKING SPRING Ø12MM, Ø14MM, Ø16MM & Ø18MM
12	80300605	3	PACKING SPRING Ø20MM
13	81200463	3	CYLINDER BUSHING Ø12 CE40-1050/1250/1380
13	81200204	3	CYLINDER BUSHING Ø14 CE40-700/800
13	81200346	3	CYLINDER BUSHING Ø16 CE40-700/750
13	81200229	3	CYLINDER BUSHING Ø18 CE40-500/550
13	81200780	3	CYLINDER BUSHING Ø20 CE40-400
14	81200208	3	VALVE COMPLETE

Part of
seal kit plunger
(pos.46)

CE40 SERIES WATER-BLASTER PUMP SPARE-PARTS LIST

Pos.	Item No.	Qty.	Description
15	81200210	1	PUMP HEAD
15	81201230	1	PUMP HEAD (for CE40 – 1380 only)
16	81200494	2	LOCK PLATE
17	80500375	1	NIPPLE ½"BSPP M OUTLET
17	80500657	1	NIPPLE M24 OUTLET
17	80500760	1	NIPPLE M22 OUTLET
17	80500318	1	NIPPLE 1.1/8"UNF- M24x1.5 OUTLET (for CE40 – 1380 only)
18	80500095	1	QUICK COUPLING
19	80101077	8	WASHER
20	80101031	8	SCREW
21	80500696	2	BONDED SEAL RING
22	80200828	2	O-RING
23	81300644	1	RUPTURE DISC ASSEMBLY
23	81300643	1	RUPTURE DISC ASSEMBLY 1.1/8"UNF (for CE40 – 1380 only)
24	80100310	4	WASHER
25	80100706	2	SCREW
26	80500974	1	BONDED SEAL
27	80500496	1	PLUG
28	81300408	1	NIPPLE ADAPTOR
29	80500413	1	COPPER SEAL
30	81300497	1	GAUGE
31	81300498	1	SAFETY VALVE
31	81300774	1	SAFETY VALVE FOR CE40-1380 ONLY
32	83400522	0,5m	HOSE ORANGE
33	80300661	2	SPRING
34	81200216	3	SCREW SUCTION VALVE
35	80300223	3	SPRING SUCTION VALVE Part of valve rep. kit 81200709
36	81200218	3	SUCTION VALVE DISC Part of valve rep. kit 81200709
37	80200226	6	O-RING Part of valve rep. kit 81200709
38	81200207	3	VALVE BODY
39	80200339	3	O-RING Part of valve rep. kit 81200709
40	81200464	3	DISCHARGE VALVE ASSEMBLY Part of valve rep. kit 81200709
41	80300224	3	SPRING DISCHARGE VALVE Part of valve rep. kit 81200709
42	81200209	3	DISCHARGE VALVE GUIDE
43	81200335	1	COVER FOR COOLING SYSTEM
44	81200334	2	COOLING PIPE ASSEMBLY
45	83400522	0,5m	HOSE
46	PAGE 27	3	SEAL KIT PLUNGER (3 required to overhaul pump)
47	80500095	1	QUICK COUPLING
48	81200332	1	COOLING PIPE
49	80500341	1	PLUG
50	81200333	3	NIPPLE FOR COOLING PIPE
51	80200340	3	O-RING
52	80500681	2	ADAPTOR (for CE40 – 1380 only)

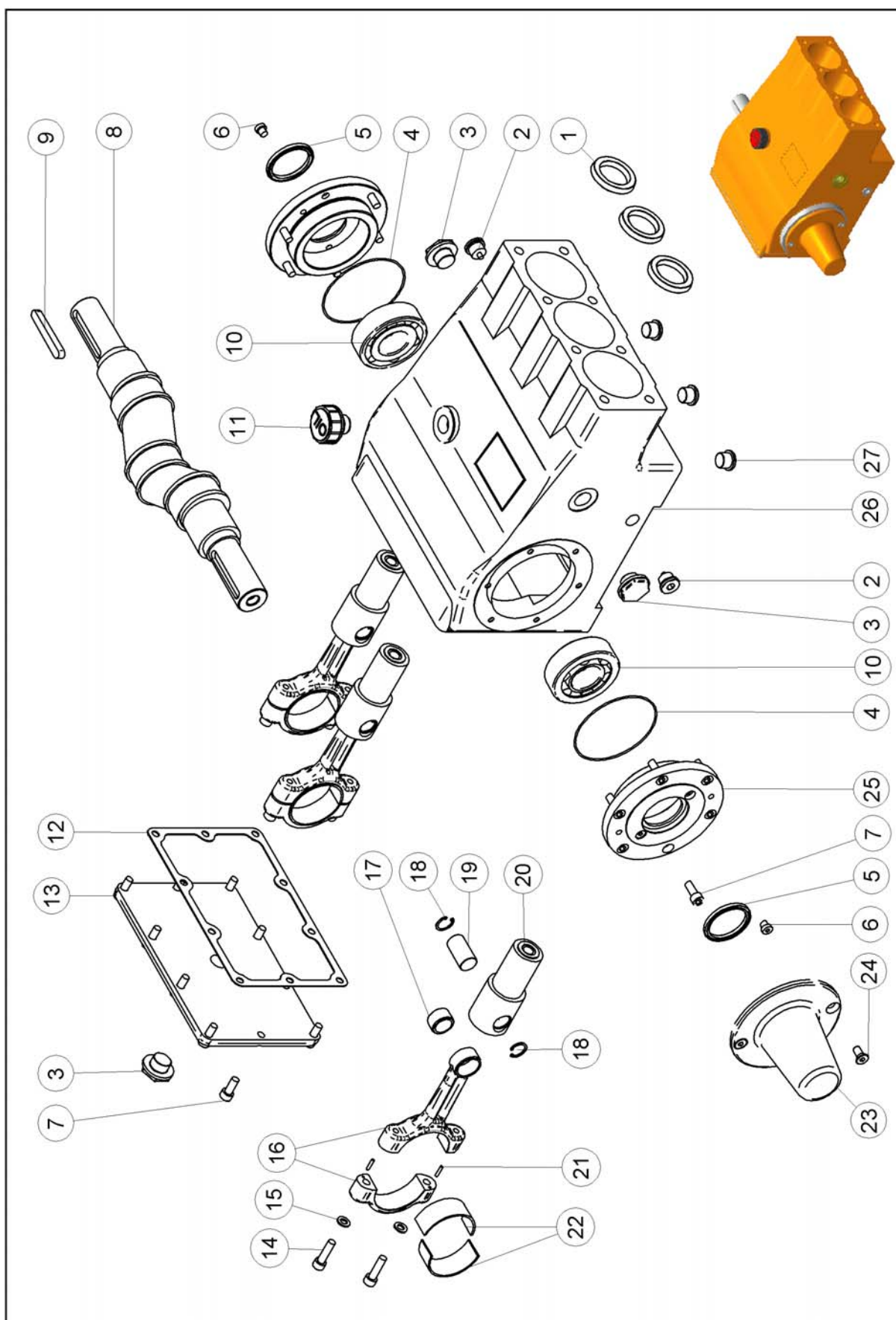
***) Part-number is applicable for machines after serial number 0400890109 and 406120109 being produced from Jan 2009.**

PUMP SPARE-PARTS KITS

Item No./Kit Description	Pos.	Item No.	Qty.	Description
81200698* / SEAL KIT PLUNGER Ø12 CE40-1050/1250/1380 Pos. 46	8	81200461	1	BACK UP RING
	9	81200412	1	PACKING BACK
	10	81200411	1	PACKING FRONT
81200697* / SEAL KIT PLUNGER Ø14 CE40-700/800 Pos. 46	8	81200203	1	BACK UP RING
	9	81200271	1	PACKING BACK
	10	81200213	1	PACKING FRONT
81200699* / SEAL KIT PLUNGER Ø16 CE40-600/700 Pos. 46	8	81200467	1	BACK UP RING
	9	81200343	1	PACKING BACK
	10	81200344	1	PACKING FRONT
81200700* / SEAL KIT PLUNGER Ø18 CE40-500/550 Pos. 46	8	81200457	1	BACK UP RING
	9	81200327	1	PACKING BACK
	10	81200326	1	PACKING FRONT
81200900* / SEAL KIT PLUNGER Ø20 CE40-400 Pos. 46	8	81200782	1	BACK UP RING
	9	81200783	1	PACKING BACK
	10	81200784	1	PACKING FRONT
Item No./Kit Description	Pos.	Item No.	Qty.	Description
81200709* / VALVE REP. KIT PUMP CE40	35	80300223	1	SPRING SUCTION VALVE
	36	81200218	1	SUCTION VALVE
	37	80200226	2	O-RING
	39	80200339	1	O-RING
	40	81200464	1	DISCHARGE VALVE ASSY.
	41	80300224	1	SPRING DISCHARGE VALVE

*3 required to overhaul pump

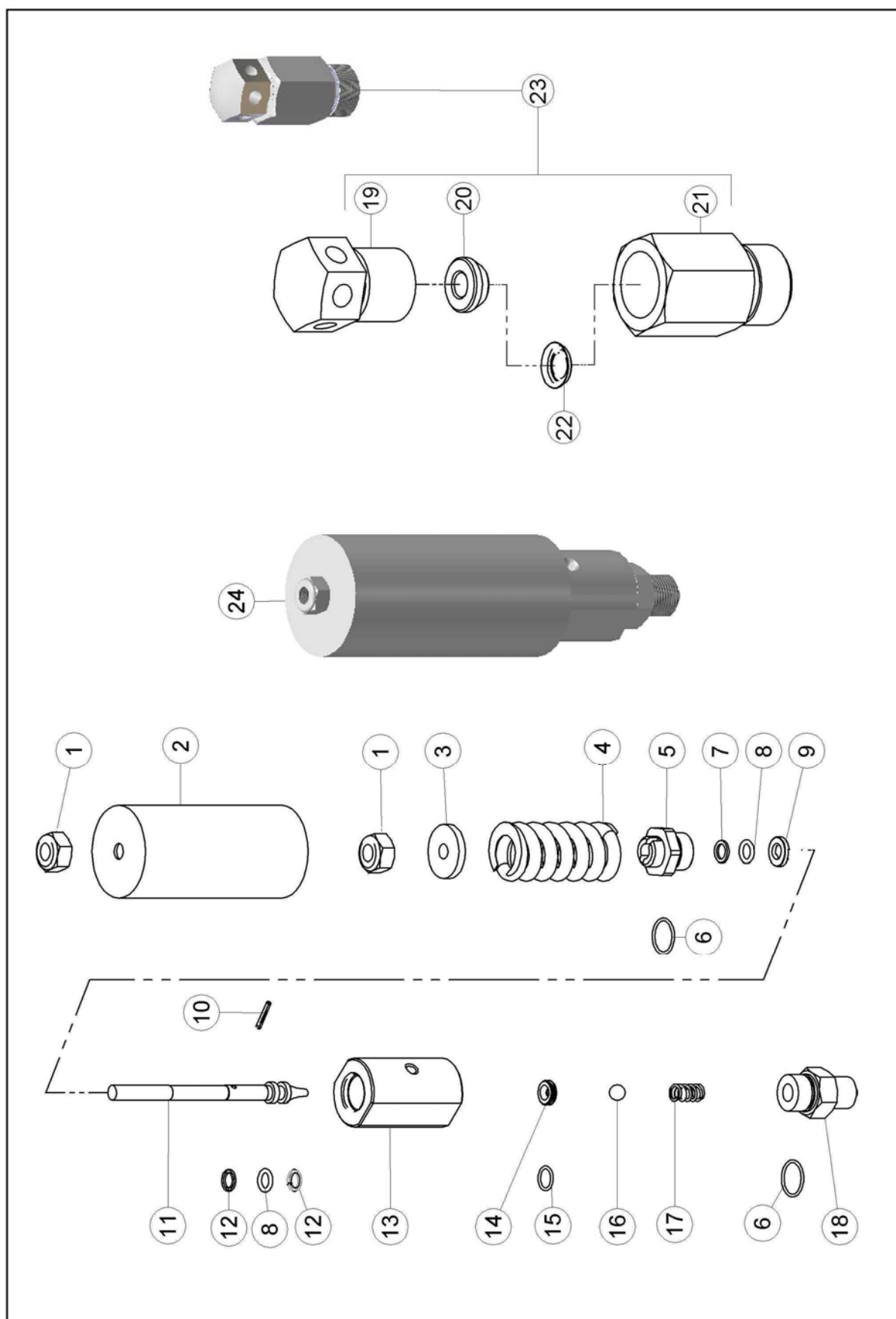
CE40 SERIES WATER-BLASTER POWER END SPARE-PARTS ASSEMBLY



**CE40 SERIES WATER-BLASTER
POWER END SPARE-PARTS LIST**

Pos.	Item No.	Qty.	Description
1	80200595	3	SEAL
2	81200350	2	PLUG OIL DRAIN
3	81200365	3	OIL LEVEL GLASS
4	80200354	2	O-RING
5	80200353	2	SEAL POWER END
6	81200358	4	PLUG
7	80100194	22	SCREW Torque 25Nm / 18,5 LbsFt
8	81200359	1	CRANK SHAFT
9	81200368	1	KEY CRANK SHAFT
10	80400355	2	BEARING
11	81200349	1	OIL FILL
12	81200371	1	PACKING OIL COVER PUMP C40
13	81200369	1	OIL COVER
14	80100367	6	SCREW CONNECTING ROD C40 Torque 25Nm / 18,5 LbsFt
15	80100170	6	WASHER
16	81200366	3	CONNECTING ROD
17	81200362	3	BUSHING
18	80300363	6	SNAP RING
19	81200361	3	PIN
20	81200360	3	GUIDE PISTON
21	81200370	6	PIN
22	81200364	6	BNEARING SHELL
23	81200356	1	SHAFT PROTECTION
24	80100357	2	SCREW
25	81200352	2	COVER
26	81200348	1	PUMP BODY
27	81200351	3	PLUG

CE40 SERIES WATER-BLASTER SAFETY VALVE & RUPTURE DISC SPARE-PARTS ASSEMBLY



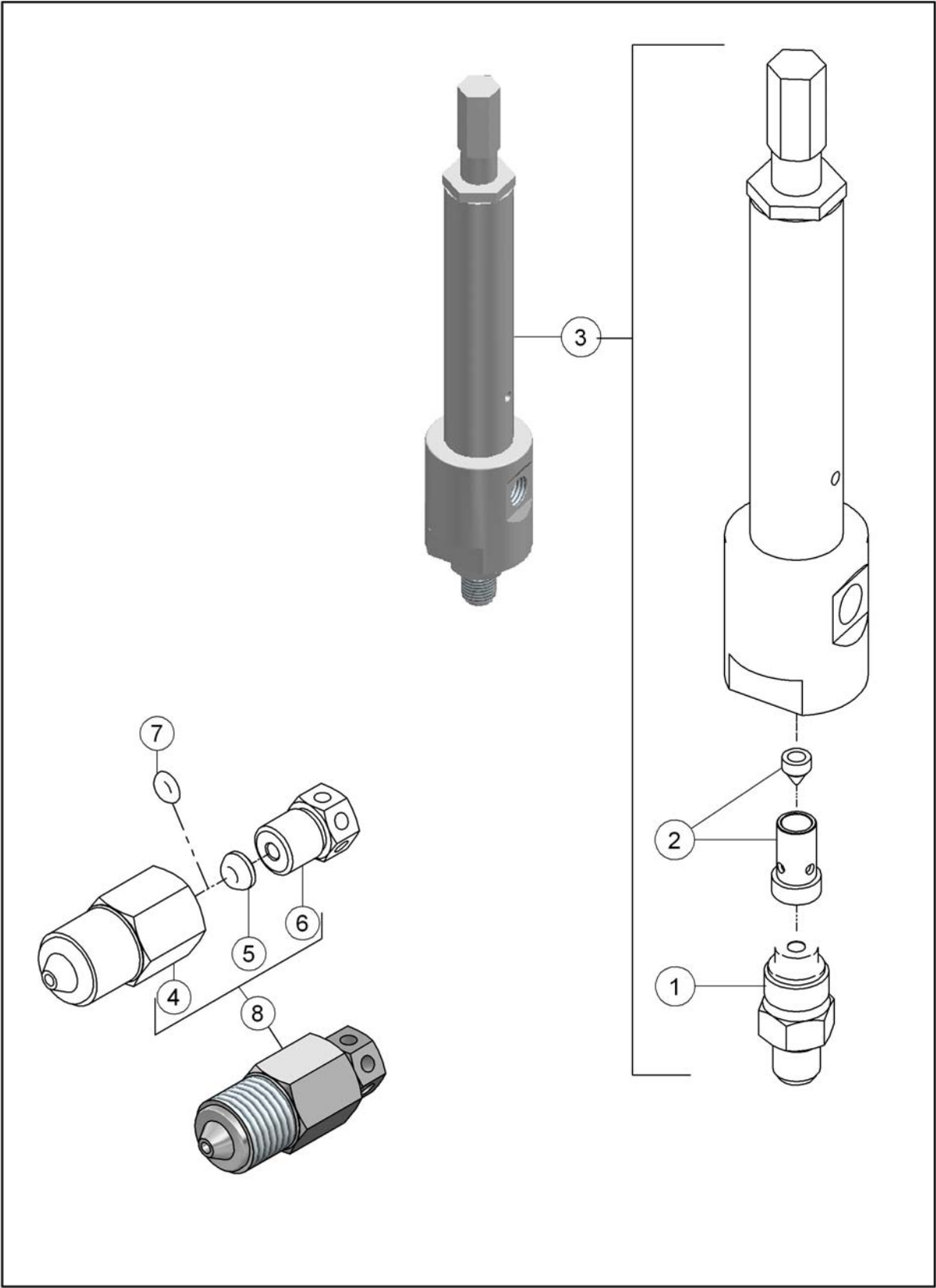
CE40 SERIES WATER-BLASTER SAFETY VALVE SPARE-PARTS LIST

Pos.	Item No.	Qty.	Description
1	80100449	2	NUT
2	81300453	1	COVER
3	81300550	1	SPRING GUIDE
4	80300549	1	SPRING BLACK
5	81300451	1	PISTON HOUSING
6	80200599	2	O-RING Part of rep. kit 81300630
7	80200604	1	BACK UP RING Part of rep. kit 81300630
8	80200598	2	O-RING Part of rep. kit 81300630
9	81300415	1	WASHER
10	81300551	1	PIN
11	81300450	1	PISTON
12	80200452	2	BACK-UP RING Part of rep. kit 81300630
13	81300410	1	SAFETY VALVE HOUSING
14	81300414	1	SEAT Part of rep. kit 81300630
15	80200597	1	O-RING Part of rep. kit 81300630
16	81300559	1	BALL Part of rep. kit 81300630
17	80300555	1	SPRING
18	81300409	1	NIPPLE ADAPTOR
	81300630	1	REP. KIT SAFETY VALVE
19	81300641	1	RUPTURE DISC THRUST SCREW
20	81300642	1	RUPTURE DISC SEAT
21	81300640	1	RUPTURE DISC HOLDER
22	81300645	1	RUPTURE DISC 11000 PSI WHITE WP 400 & 500 BAR
22	81300646	1	RUPTURE DISC 15000 PSI BLANK WP 800 BAR
22	81300677	1	RUPTURE DISC 18000 PSI GREEN WP 1000 BAR
22	81300647	1	RUPTURE DISC 21000 PSI YELLOW WP 1250 BAR
22	81300702	1	RUPTURE DISC 25000 PSI PURPLE WP 1380 BAR
23	81300644	1	RUPTURE DISC ASSEMBLY W/O RUPTURE DISC
24	81300498	1	SAFETY VALVE COMPLETE

SAFETY VALVE REPAIR KIT

Item No./Kit Description	Pos.	Item No.	Qty.	Description
81300630 REP. KIT SAFETY VALVE	6	80200599	2	O-RING
	7	80200604	1	BACK UP RING
	8	80200598	2	O-RING
	12	80200452	2	BACK-UP RING
	14	81300414	1	SEAT
	15	80200597	1	O-RING
	16	81300559	1	BALL

**CE40-1380 WATER-BLASTER
RELIEF VALVE & RUPTURE DISC SPAREPART ASSEMBLY**

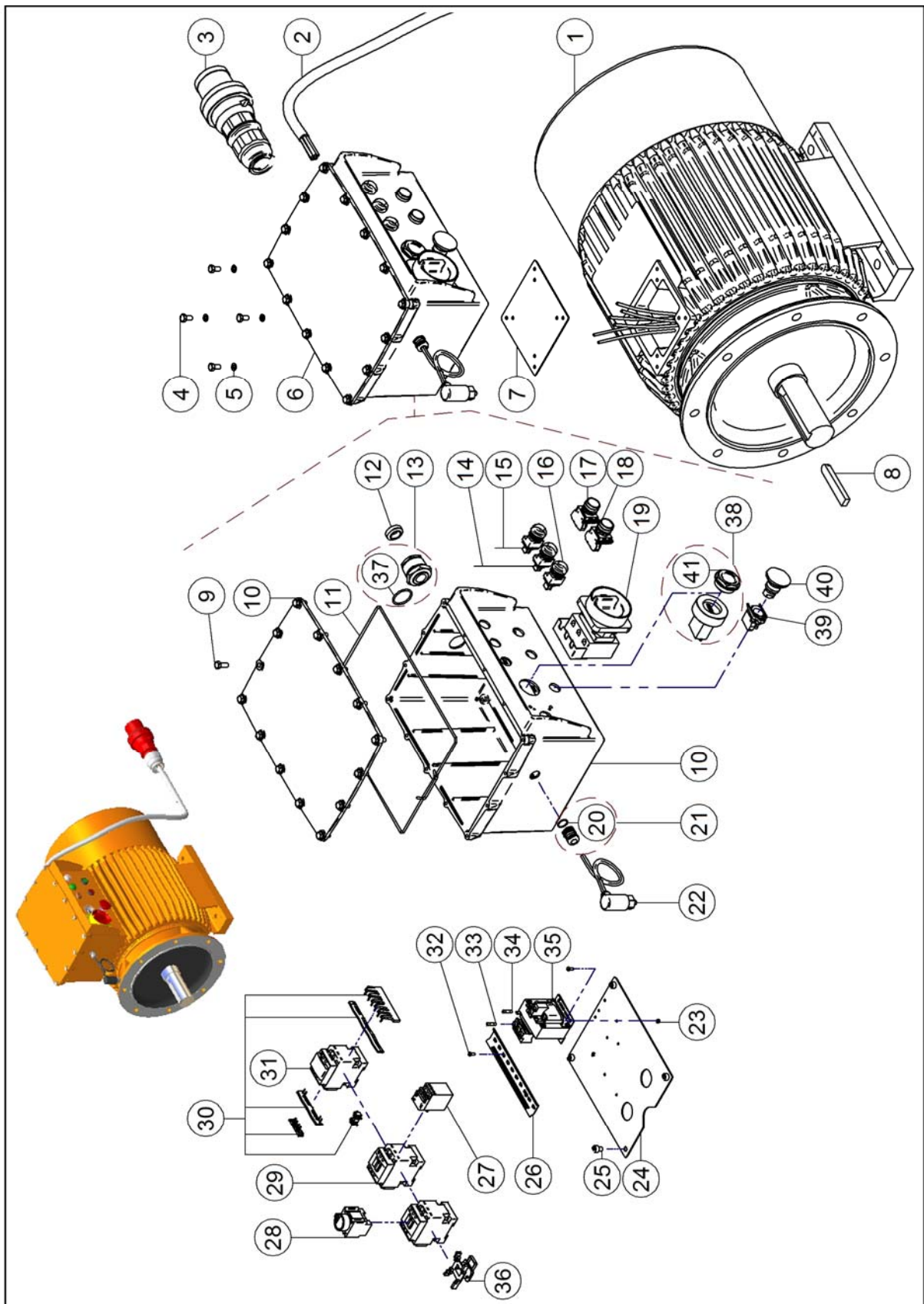


CE40-1380 WATER-BLASTER

RELIEF VALVE & RUPTURE DISC SPAREPART ASSEMBLY LIST

Pos.	Item No.	Qty.	Description
1	81300775	1	ADAPTOR
2	81300776	1	REP KIT FOR RELIEF VALVE
3	81300774	1	RELIEF VALVE 11-21KPSI (for CE40 – 1380 only)
4	81300639	1	RUPTURE DISK HOLDER 1.1/8UNF
5	81300642	1	RUPTURE DISC SEAT
6	81300641	1	RUPTURE DISC THRUST SCREW
7	81300702	1	RUPTURE DISC 25000 PSI PURPLE WP 1380 BAR
8	81300643	1	RUPTURE DISC ASSEMBLY W/O RUPTURE DISC (for CE40-1380 only)

CE40 SERIES WATER-BLASTER ELECTRICAL SYSTEM SPARE-PARTS ASSEMBLY



CE40 SERIES WATER-BLASTER ELECTRICAL SYSTEM SPARE-PARTS LIST

Pos.	Item No.	Qty.	Description
1	81100648	1	MOTOR
2	83500142	1 m	ELECTRIC CABLE
3	81100631	1	PLUG CEE 5
4	80100169	4	SCREW
5	80100398	4	WASHER COPPER
6	81100684	1	EL-BOX ASSY.
7	81100616	1	RUBBER WASHER
8	81100615	1	KEY
9	80100671	14	SCREW
10	81001127	1	EL-BOX (BOX+ LID)
11	83300602	1	ROPE SEAL
12	81100403	1	RUBBER SEAL
13	81000406	1	GLAND NUT COMPLETE
14	81100596	1	PILOT LIGHT GREEN
15	81100595	1	PILOT LIGHT WHITE
16	81100594	1	PILOT LIGHT AMBER
N/A	81100597	3	BULB FOR PILOT LIGHT
17	81100598	1	PUSH BOTTON ON (GREEN)
18	81100599	1	PUSH BOTTON OFF (RED)
19	81100582	1	MAIN CIRCUIT BREAKER
20	80200059	1	O RING
21	81100647	1	CABLE GLAND
22	81100844	1	PRESSURE SWITCH
23	80100596	4	LOCK NUT
24	81000396	1	MOUNTING PLATE
25	80100382	4	SCREW
26	81100575	1	OMEGA RAIL
27	81100592	1	OVER LOAD RELAY
28	81100580	1	TIMER
29	81100584	2	CONTACTOR (inclusive coil)
30	81100572	1	CONNECTION SET
31	81100585	1	CONTACTOR (inclusive coil)
32	80100595	4	SCREW
33	81100573	3	FUSE
34	81100574	1	FUSE
35	81100500	1	TRANSFORMER
36	81100579	N/A	COIL FOR CONTACTOR (spare part)
37	80200402	1	O-RING
38	81100857	1	HOUR METER ASSY.
39	81100699	1	EMERGENCY BREAKER OPTIONAL
40	81100700	1	EMERGENCY BUTTON OPTIONAL
41	81000757	1	SIGHT GLASS OPTIONAL
	81100617	1	WIRE HARNESS

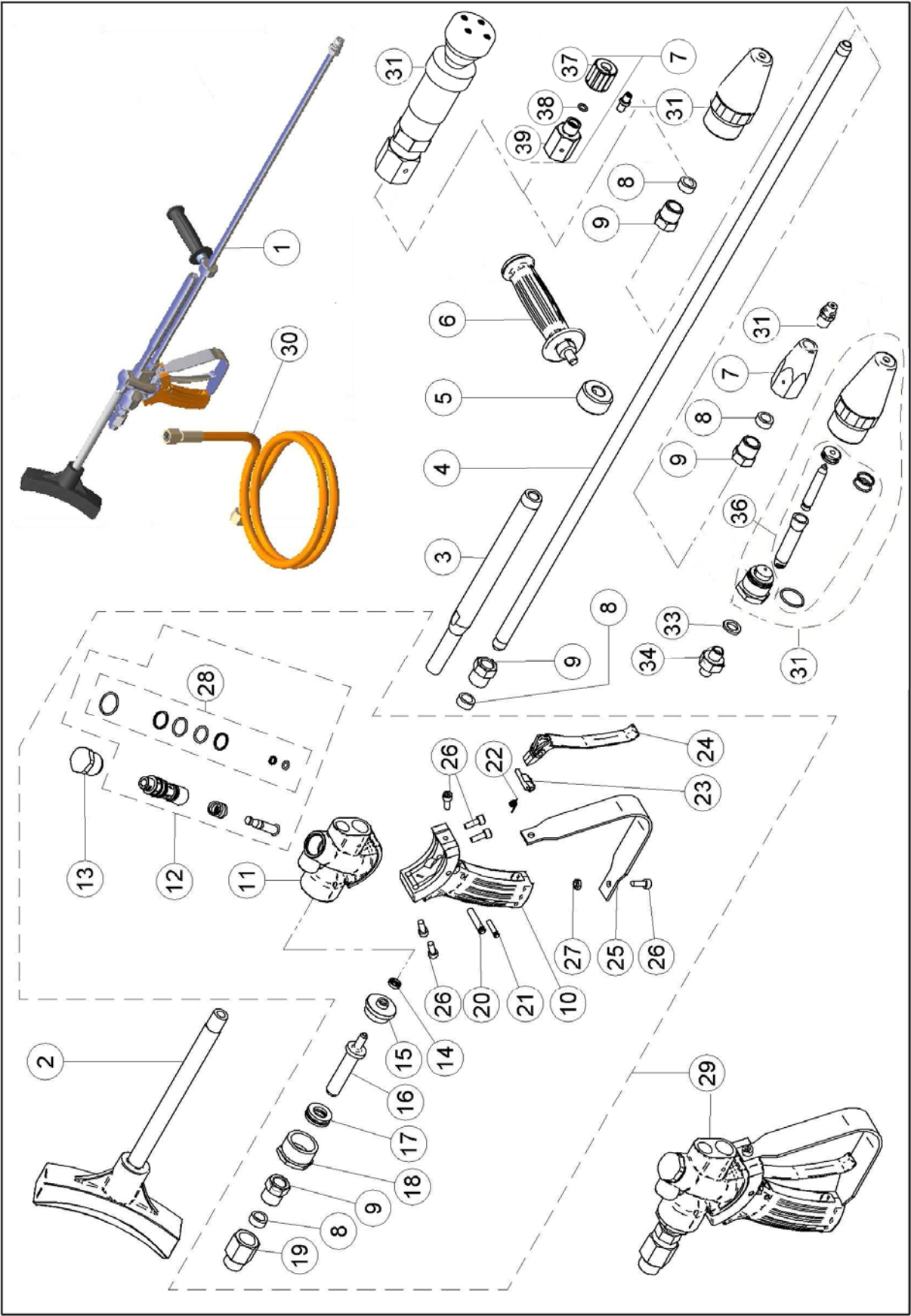
LEGEND:

———— = Wire Connection

— = *Fixed Connection*



DUMP GUN 15 & 20 KPSI
SPARE-PARTS ASSEMBLY



DUMP GUN 15 & 20 KPSI SPARE-PARTS LIST

Pos.	Item No.	Qty.	Description
1	81400037		DUMP GUN 20KPSI W/O NOZZLE HOLDER
1	81400669		DUMP GUN 15KPSI W/O NOZZLE HOLDER
2	81400231	1	SHOULDER SUPPORT
3	81400136	1	DUMP TUBE
4	81400042	1	BARREL TUBE
5	81400076	1	HOLDER FOR SIDE HANDLE
6	81400075	1	SIDE HANDLE
7	81500129	1	NOZZLE HOLDER FOR ¼"NPT NOZZLE
7	81500128	1	NOZZLE HOLDER FOR ¼"BSP NOZZLE
7	81500046	1	NOZZLE HOLDER ASSY. FOR NOZZLE FORM 4,19 Pos. (37,38,39)
8	80500040	3	COLLAR
9	80500041	3	GLAND NUT
10	81400036	1	HANDLE
11	81400638	1	VALVE HOUSING 15 KPSI
11	81400054	1	VALVE HOUSING 20 KPSI
12	81400056	1	VALVE KIT
13	81400055	1	VALVE PLUG
14	80200627	1	SWIVEL SEAL COMPLETE
15	81400152	1	BACK-UP RING INLET SWIVEL
16	81400149	1	INLET SWIVEL SPINDLE
17	80400143	1	THRUST BEARING
18	81400151	1	RETAINER NUT INLET SWIVEL
19	81400416	1	ADAPTOR FOR HOSE END ½" BSPP
19	81400716	1	ADAPTOR FOR HOSE END M24x1.5 M- 13/16"UNF F FOR 9/16"M
19	81400717	1	ADAPTOR FOR HOSE END M22x1.5 M- 13/16"UNF F FOR 9/16"M
19	81401196	1	ADAPTOR FOR HOSE END M26x1.5 M- 13/16"UNF F FOR 9/16"M
20	81400050	1	PIN FOR TRIGGER LATCH
21	81400049	1	PIN FOR SAFETY LATCH
22	80300051	1	SPRING FOR SAFETY LATCH
23	81400048	1	SAFETY LATCH
24	81400047	1	TRIGGER LATCH
25	81400058	1	TRIGGER GUARD
26	80100052	6	SCREW ALLEN
27	80100053	1	LOCK NUT
28	81400296	1	O-RING & PACKING REP KIT
29	81400668	1	TRIGGER GUN HANDLE 15KPSI
29	81400035	1	TRIGGER GUN HANDLE 20KPSI
30	81400962		HOSE (H.P) 500 BAR 20M, W/ ½"BSPP FEMALE SWIVEL (CE40-550)
30	81400776		HOSE (H.P) 1250 BAR 20M, W/ ½"BSPP FEMALE SWIVEL (CE40-1250)
30	81401470		HOSE (H.P) 1400 BAR 20M (CE40-1380)
31	*	1	NOZZLE (SEE BELOW)
32	N/A		
33	80500971	2	BONDED SEAL
34	80500651	1	NIPPLE
35	N/A		
36	*	1	REP. KIT ROTATING NOZZLE (SEE BELOW)
37	81500127	1	RETAINER NUT NOZZLE HOLDER
38	80200623	1	O-RING
39	81500027	1	NOZZLE HOLDER

*Customer's Requirements

DUMP GUN REPAIR KITS

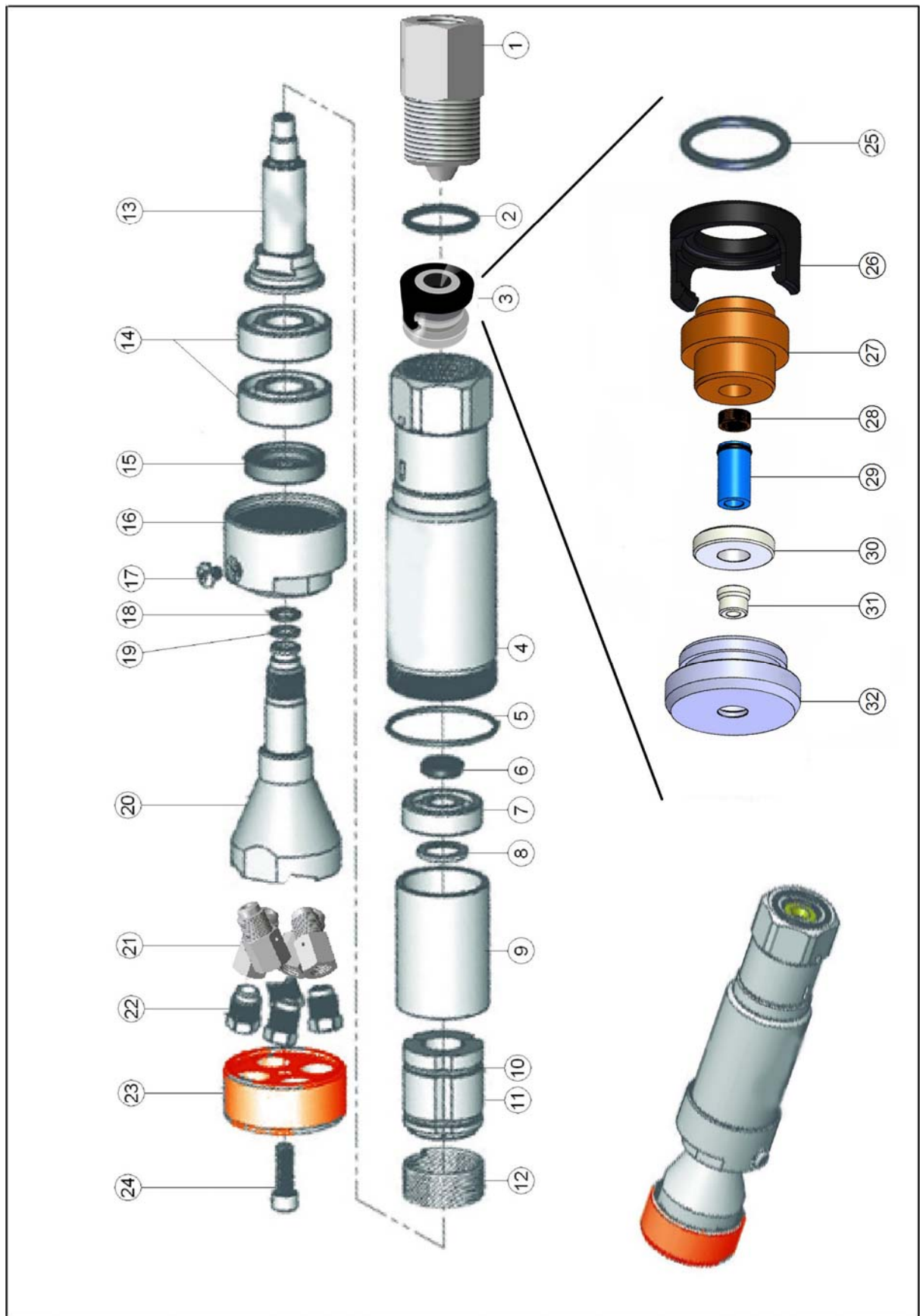
Item No./Kit Description	Item No.	Qty.	Description
Pos. 28 81400296 O-RING & PACKING REP. KIT DUMP GUN	80200060	1	BACK-UP RING
	80200059	1	O-RING
	80200610	1	O-RING
	80200232	1	BACK UP RING
	80200070	1	O-RING
	80200074	1	BACK-UP RING
	80200057	1	O-RING

Item No./Kit Description	Item No.	Qty.	Description
Pos. 12 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
	81400064	1	VALVE PIN
	81400065	1	VALVE SEAT
	80300115	1	SPRING

NOZZLE LIST

Pos.	Item No.	Qty.	Description	Model
31	81500764	1	NOZZLE STRAIGHT JET 1,7mm	CE40-400 (50Hz)
31	81500387	1	NOZZLE FAN JET 2,0mm/20°	
31	81500849	1	ROTATING NOZZLE 08	
36	81500939		Rep. Kit ROT. NOZZLE 08	
31	81500643	1	NOZZLE STRAIGHT JET 075 -1/4"BSPT	CE40-500 (60Hz)
31	81500644	1	NOZZLE FAN JET 075/15° -1/4"BSPT	
31	81500619	1	ROTATING NOZZLE 065	
36	81500621		Rep. Kit ROT. NOZZLE 065	
31	81500390	1	NOZZLE STRAIGHT JET 1,6mm FORM 4	
31	81500779	1	NOZZLE FAN JET 1,95mm/20° FORM 19	
31	81500639	1	NOZZLE STRAIGHT JET 060 -1/4"BSPT	CE40-550 (50Hz)
31	81500640	1	NOZZLE FAN JET 06/15° -1/4"BSPT	
31	81500756	1	ROTATING NOZZLE 055	
36	81500755		Rep. Kit ROT. NOZZLE 055	
31	81500813	1	NOZZLE STRAIGHT JET 1,4mm FORM 4	
31	81500777	1	NOZZLE FAN JET 1,75mm/20° FORM 19	
31	81500795	1	ROTATING NOZZLE 045	CE40-700 (60Hz)
36	81500783		Rep. Kit ROT. NOZZLE 045	
31	81500862	1	NOZZLE STRAIGHT JET 1,3mm FORM 4	
31	81500775	1	NOZZLE FAN JET 1,55mm/20° FORM 19	
31	81500785	1	ROTATING NOZZLE 040	CE40-750 (50Hz)
36	81500784		Rep. Kit ROT. NOZZLE 040	
31	81500886		NOZZLE STRAIGHT JET 1,15mm FORM 4	
31	81500765		NOZZLE FAN JET 1,40mm/20° FORM 19	
31	81500668	1	ROTATING NOZZLE 030	CE40-800 (60Hz)
36	81500667		Rep. Kit ROT. NOZZLE 030	
31	81500743	1	NOZZLE STRAIGHT JET 1,05mm FORM4	
31	81500772	1	NOZZLE FAN JET 1,25mm/20° FORM 19	
31	81501029	1	ULTRA IMPACT NOZZLE "See Page 41,42	
31	81500697	1	ROTATING NOZZLE 025	CE40-800 (50Hz)
36	81500669		Rep. Kit ROT. NOZZLE 025	
31	81500670	1	NOZZLE STRAIGHT JET 0,95mm FORM 4	
31	81500673	1	NOZZLE FAN JET 1,15mm/20° FORM 19	
31	81501029	1	ULTRA IMPACT NOZZLE "See Page 41,42	
31	81501029	1	ULTRA IMPACT NOZZLE "See Page 41,42	CE40-800 (50Hz) 1000 Bar
31	81500758	1	ROTATING NOZZLE 0,8mm	CE40-1050 (60Hz)
36	81500759		Rep. Kit ROT. NOZZLE 0,8mm	
31	81500726	1	NOZZLE STRAIGHT JET 0,8mm FORM 4	
31	81500682	1	NOZZLE FAN JET 1,0mm/20° FORM 19	
31	81501029	1	ULTRA IMPACT NOZZLE "See Page 41,42	
31	81500760	1	ROTATING NOZZLE 0,7mm	CE40- 1250 (50Hz)
36	81500761		Rep. Kit ROT. NOZZLE 0,7mm	
31	81500719	1	NOZZLE STRAIGHT JET SAPPHIRE 0,8mm FORM 4	
31	81500888	1	NOZZLE FAN JET 0,85mm/20° FORM 19	
31	81501527	1	ULTRA IMPACT NOZZLE "See Page 43,44	
31	81500719	1	NOZZLE STRAIGHT JET SAPPHIRE 0,8mm FORM 4	CE40- 1380 (50Hz)
31	81500888	1	NOZZLE FAN JET FORM 19	
31	81501527	1	ULTRA IMPACT NOZZLE "See Page 43,44	

ULTRA IMPACT NOZZLE 2800R SPARE-PART ASSEMBLY



ULTRA IMPACT NOZZLE 2800R SPARE-PART LIST

Pos.	Item No.	Qty.	Description
	81501029		ULTRA IMPACT 2800 ROTATING NOZZLE LOW FLOW pos.2-21,23,24
	81501030		ULTRA IMPACT 2800 ROTATING NOZZLE STANDARD pos.2-21,23,24
1	80500891	1	ADAPTOR LANCE 20-40KPSI
2	80200779	1	O-RING
3	81501748	1	OVERHAUL REP.KIT ULTRA IMPACT NOZ. NEW IMPROVED TYPE
4	81501020	1	BODY
5	80200702	1	O-RING
6	81500982	1	SHAFT SEAL
7	80400610	1	BEARING
8	81500971	1	WASHER
9	81500993	1	SLEEVE
10	81500980	1	GARTER SPRING
11	81500979	1	WEIGHTS
12	80300626	1	SPRING
13	81500992	1	SHAFT
14	80400609	2	BEARING
15	80200749	1	OIL SEAL WITH DUST LIP
16	81501019	1	CAP
17	81501018	1	PORT SCREW
18	80200487	1	O-RING
19	80200754	1	BACK-UP RING
20	81501022	1	NOZZLE HEAD STANDARD
20	81501021	1	NOZZLE HEAD LOW FLOW
21	81500944	4	NOZZLE ADAPTOR 3/8"-7/16" UNF
22*	81501106	4	NOZZLE FOR CE40- 700 60Hz 0.029" (0,75) 3/8" Sapphire
22*	81500961	2	NOZZLE FOR CE40- 800 50Hz 0.022" (0,55) 3/8" Sapphire
	81500729	2	0.024" (0,60) 3/8" Sapphire
22*	81500729	4	NOZZLE FOR CE40- 800 60Hz 0.024" (0,60) 3/8" Sapphire
22*	81500961	3	NOZZLE FOR CE40- 800 (1000 BAR) 50Hz 0.022" (0,55) 3/8" Sapphire
	81500593	1	0.020" (0,50) 3/8" Sapphire
22*	81500592	1	NOZZLE FOR CE40-1050 60Hz 0.018" (0,45) 3/8" Sapphire
	81500593	3	0.020" (0,50) 3/8" Sapphire
22*			NOZZLE FOR OTHER MODELS "See Nozzle List"
23	81500945	1	WEAR CAP FOR EXTENDED NOZZLES
23	81501451	1	WEAR CAP FOR EXTENDED NOZZLES ALUMINIUM (optional)
24	80100776	1	SCREW
25	80200059	1	O-RING
26	81501749	1	SNAP FIT HOUSING
27	81501750	1	INLET SEAT
28	81501751	1	SPRING
29	81501752	1	SEAL ASSEMBLY
30	81501753	1	SEAL RETAINER
31	81501754	1	CARBIDE SEAT
32	81501755	1	HOUSING

*Please order pos.22 nozzles according to machine model

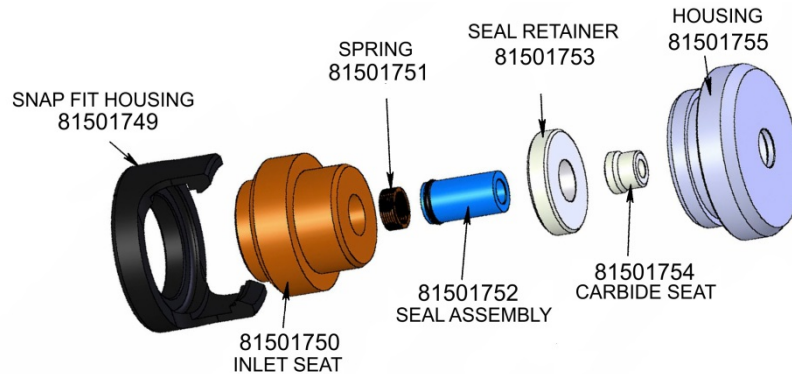
NOZZLE LIST

Part No.	Description	Size
81500137	NOZZLE PLUG 3/8"UNF	
81500723	NOZZLE 3/8"UNF	0.010"(0.25mm)
81500613	NOZZLE 3/8"UNF	0.012"(0,30mm)
81500594	NOZZLE 3/8"UNF	0.013"(0.33mm)
81500595	NOZZLE 3/8"UNF	0.014"(0.35mm)
81500614	NOZZLE 3/8"UNF	0.016"(0,40mm)
81500592	NOZZLE 3/8"UNF	0.018"(0.45mm)
81500593	NOZZLE 3/8"UNF	0.020"(0.50mm)
81500729	NOZZLE 3/8"UNF	0,024"(0.60mm)
81500596	NOZZLE 3/8"UNF	0.026"(0.65mm)
81500597	NOZZLE 3/8"UNF	0.028"(0.70mm)
81500788	NOZZLE 3/8"UNF	0.031"(0.80mm)
81500645	NOZZLE 3/8"UNF	0.036"(0.90mm)

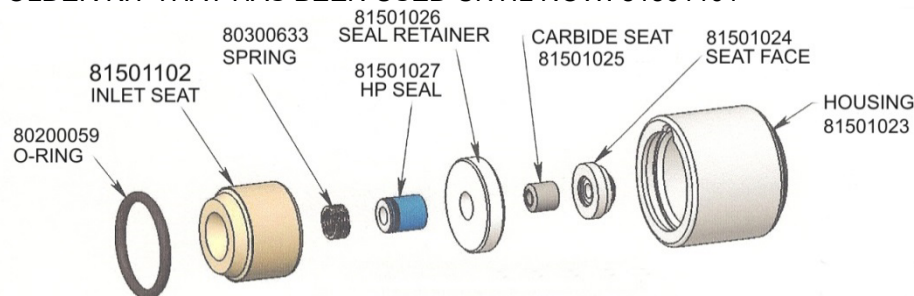
ULTRA IMPACT NOZZLE 2800R OVERHAUL KIT 81501748 ORIENTATION OF PARTS

OVERVIEW OF THE DIFFERENT DESIGNS OF REP. KIT FOR THE ULTRA IMPACT:
THE NEWEST REP. KIT WILL SUBSTITUTE THE OLDER REP. KITS

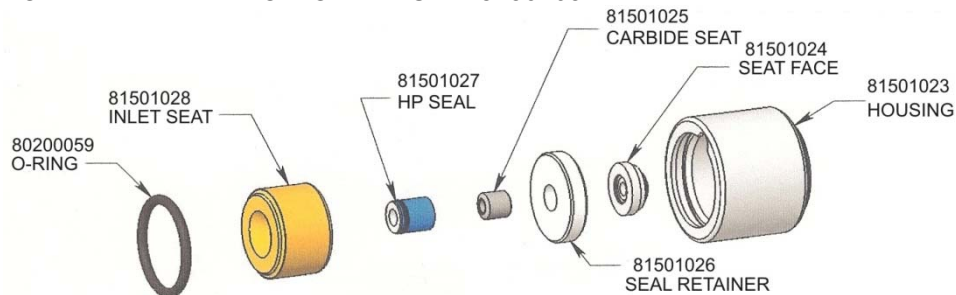
THIS IS THE NEWEST REP. KIT THAT WILL BE PUT IN TO USE AS FROM NOW: 81501748



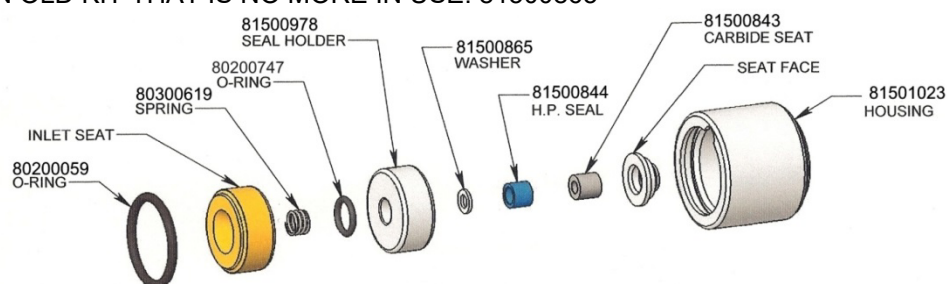
THIS IS AN OLDER KIT THAT HAS BEEN USED UNTIL NOW: 81501101



THIS IS AN OLD KIT THAT IS NO MORE IN USE: 81501057



THIS IS AN OLD KIT THAT IS NO MORE IN USE: 81500865

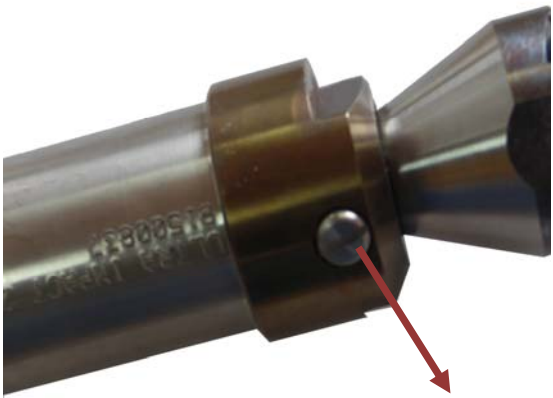


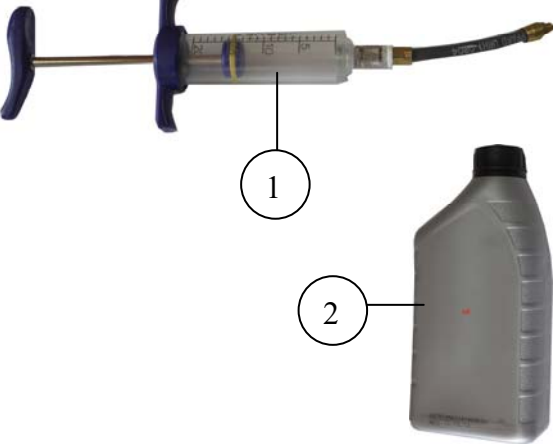
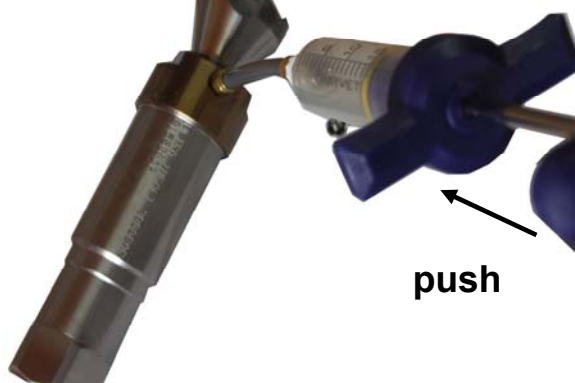
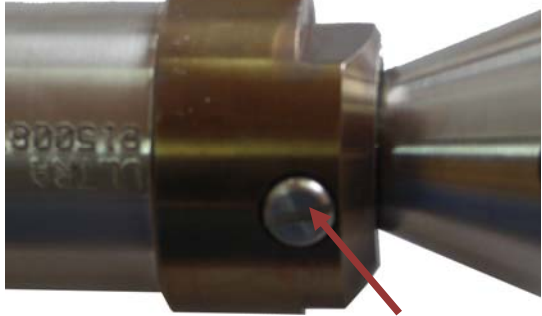


The old overhaul kit 81500896, 81501057 & 81501101 can be completely substituted with the new kit 81501748 and if a complete old rep kit is ordered, the new type kit will be delivered by default.

The internal parts of the old overhaul kit are NOT compatible or interchangeable with the new kit or vice versa. If you wish to buy internal parts to refurbish your old repair kit please refer to the above spare-parts assembly. Not all parts are available

If you are going to order almost all of the internal parts for the old repair kit, we suggest that you consider ordering a complete new repair kit 81501748, it will do a complete overhaul, as well as improve durability.

ULTRA IMPACT MAINTENANCE PROCEDURE & SPARE/PART LIST

 <p>unscrew plug</p>	
 <p>pull</p> <p>drain old oil out</p>	 <p>Discard of old oil in a proper manner fill it with new oil</p>
 <p>push</p> <p>Press new oil in</p>	 <p>Screw the plug on</p>

Pos.	Item No.	Qty	Description
1	81501042	1	SYRINGE ULTRA IMPACT
2	83600613	1L	OIL

Recommended oil change / refill every 20 to 40 hours of operation.
Do **NOT** operate the Ultra Impact Nozzle without oil.

OPERATION PROCEDURE FOR SINGLE JET ROTATING NOZZLE

OPERATION PROCEDURE FOR ROTATING NOZZLE

①

HOLD GUN UPRIGHT
NOZZLE FACING DOWN



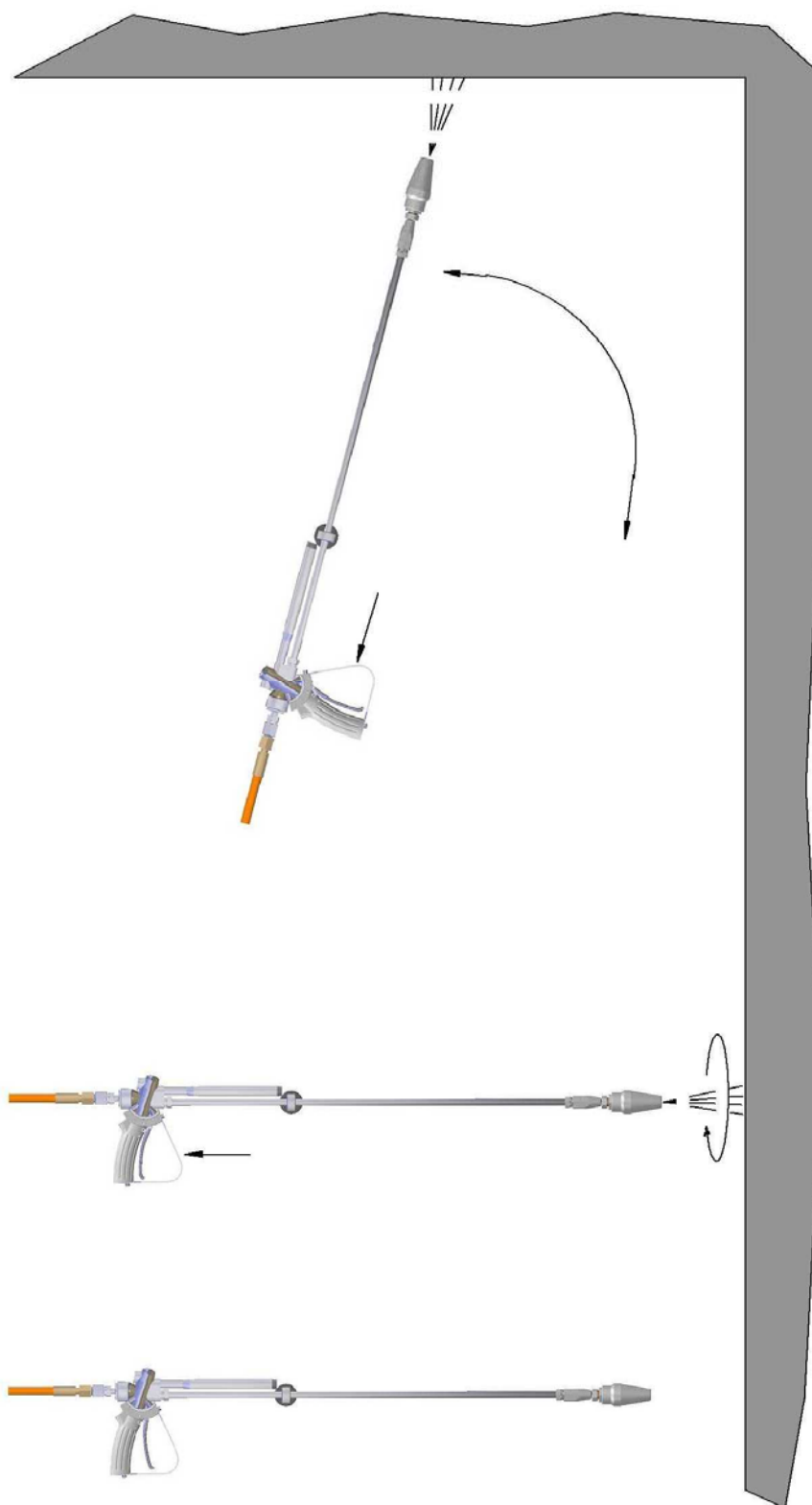
②

SQUEEZE TRIGGER
OBSERVE NOZZLE ROTATE

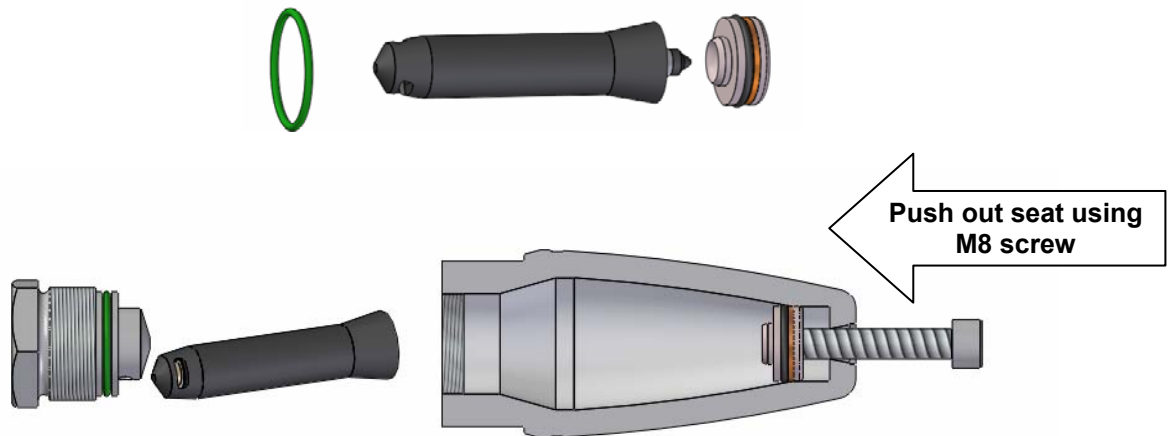


③

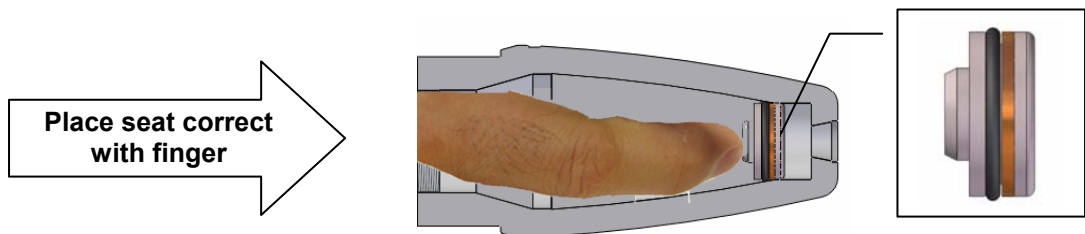
KEEP TRIGGER SQUEEZED
MOVE NOZZLE TO HORIZONTAL BLASTING POSITION



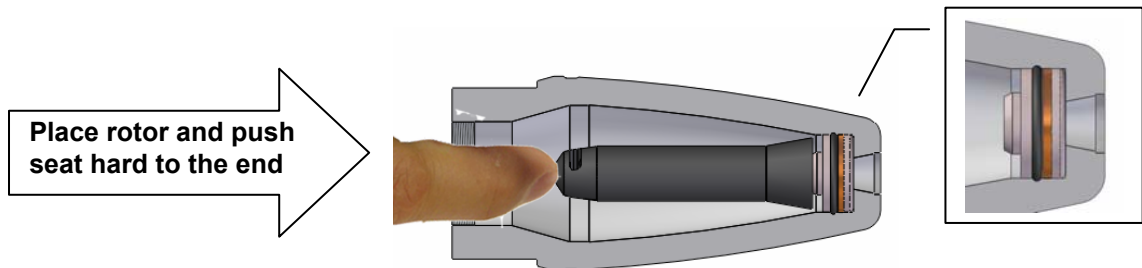
Rotating Nozzle Replacement Procedure Repair Kit



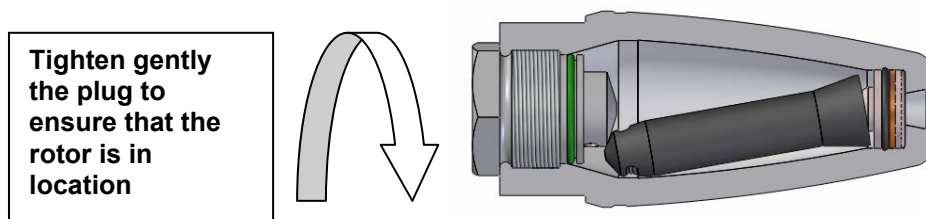
step-1



step-2



step-3



step-4