Core 140

Core 140 IH

Repair Manual ver. 1.0

Nilfisk

Index

Safety precautions.

WARNING!

- High pressure jets can be dangerous. Never direct the water jet at persons pets, live electrical equipment or the machine self.
- The operator and anyone in the immediate vicinity of the site of cleaning should take action to protect themselves from being struck by debris dislodged during operation. Wear goggles during operation.
- Never try to clean clothes or footwear on yourself or other persons.
- Do not let children or people who have not read the instruction manual operate the machine.
- Never use the machine in an environment where there could be a danger of explosion. If any doubt arises, please contact the local authorities.
- It is not allowed to clean asbestos- containing surfaces with high pressure.
- This high pressure washer must not be used at temperatures below 0°C.
- Never let any persons stay under the product when stored on the wall.

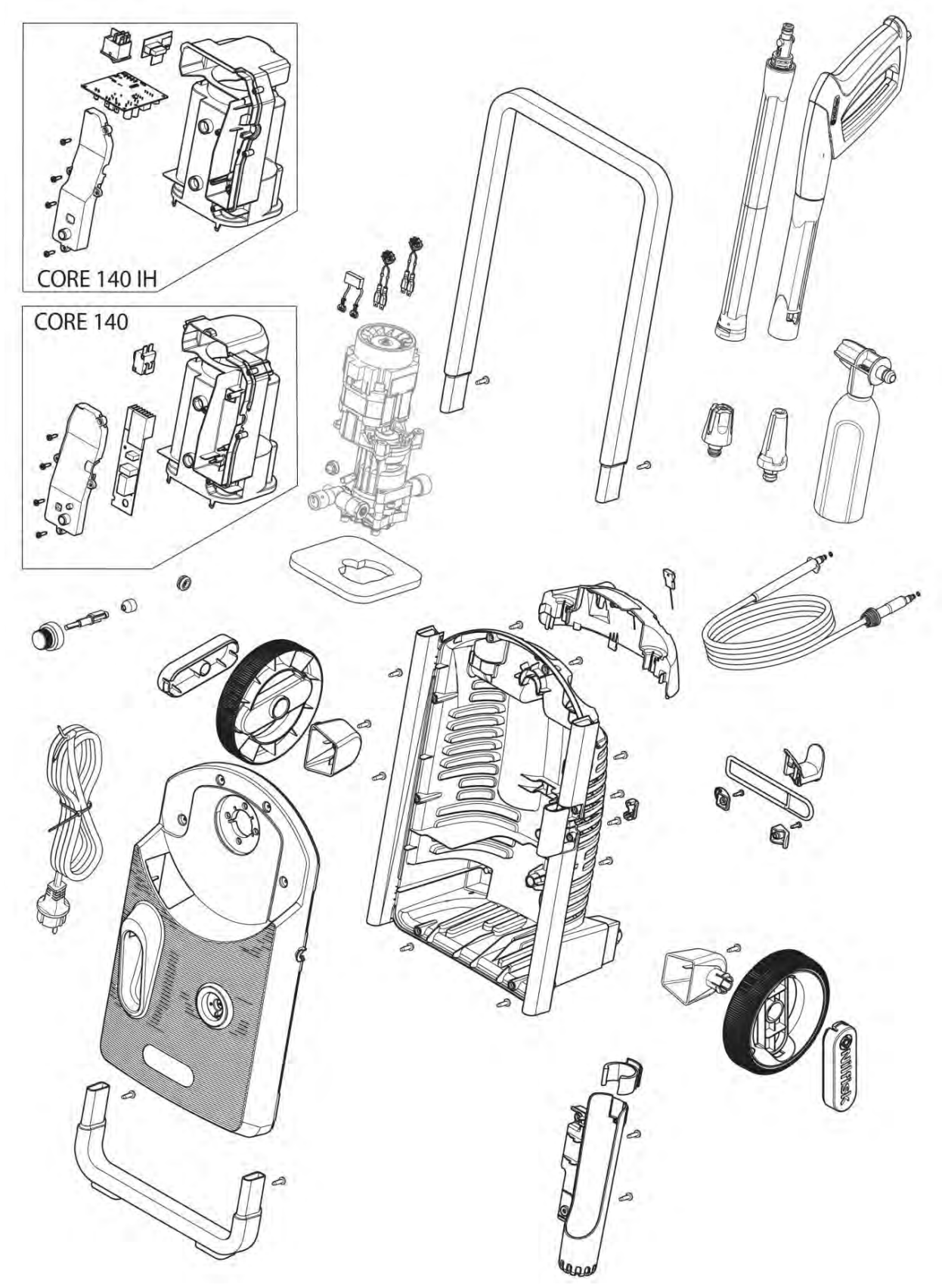
Technical Data.

Product segment: Consumer		Core 140	Core 140 IH
Specification	bar	Max 140	Max 140
Voltage	V	220-240	230-240
Frequency	Hz	50-60	50-60
Power consumption	A	7	7
Power absorbed	KW	1,8	1,8
Water volume,HP	l/min.	5,8	5,8
Pump pressure	bar	100	100
Opening pressure	bar	110-130	110-130
Retaining time	min.	5	5
Oil contents	ml	55	55
Oil type		GB3141 N32/ ISO VG32	GB3141 N32/ ISO VG32
Max water inlet temperature	C	40	40
Max water inlet pressure	bar	10	10
High pressure hose length	m	6 m G1 Soft Hose Ø10mm	8 m G1 Soft Hose Ø10mm
Suction height	m	Max 0.5	Max 0.5
Electric cable	m	5	5
Insulation class		F	F
Tightness		IPX5	IPX5

Construction.

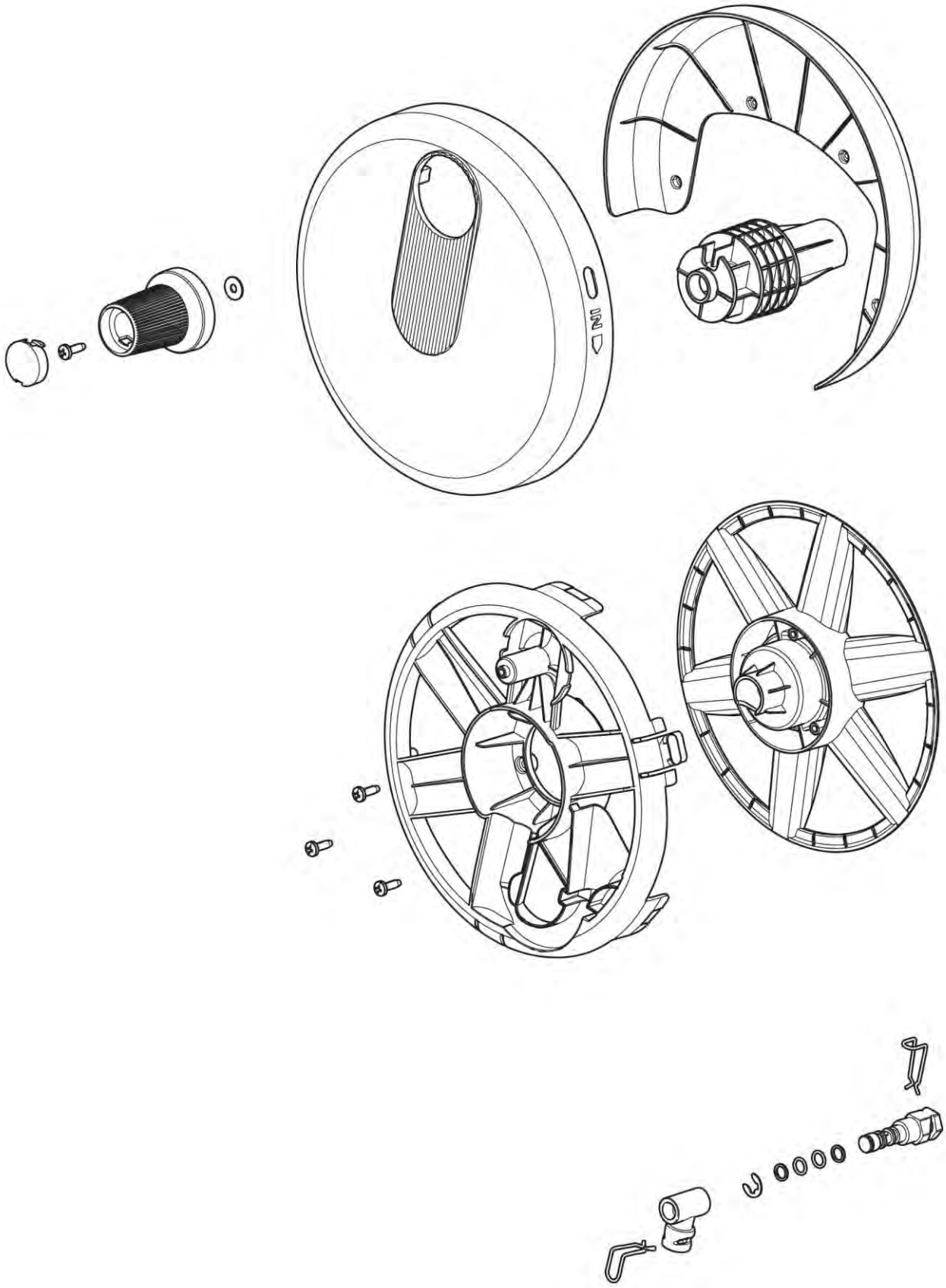
Core 140—Core 140 IH

Construction of cabinet parts.



Core 140—Core 140 IH

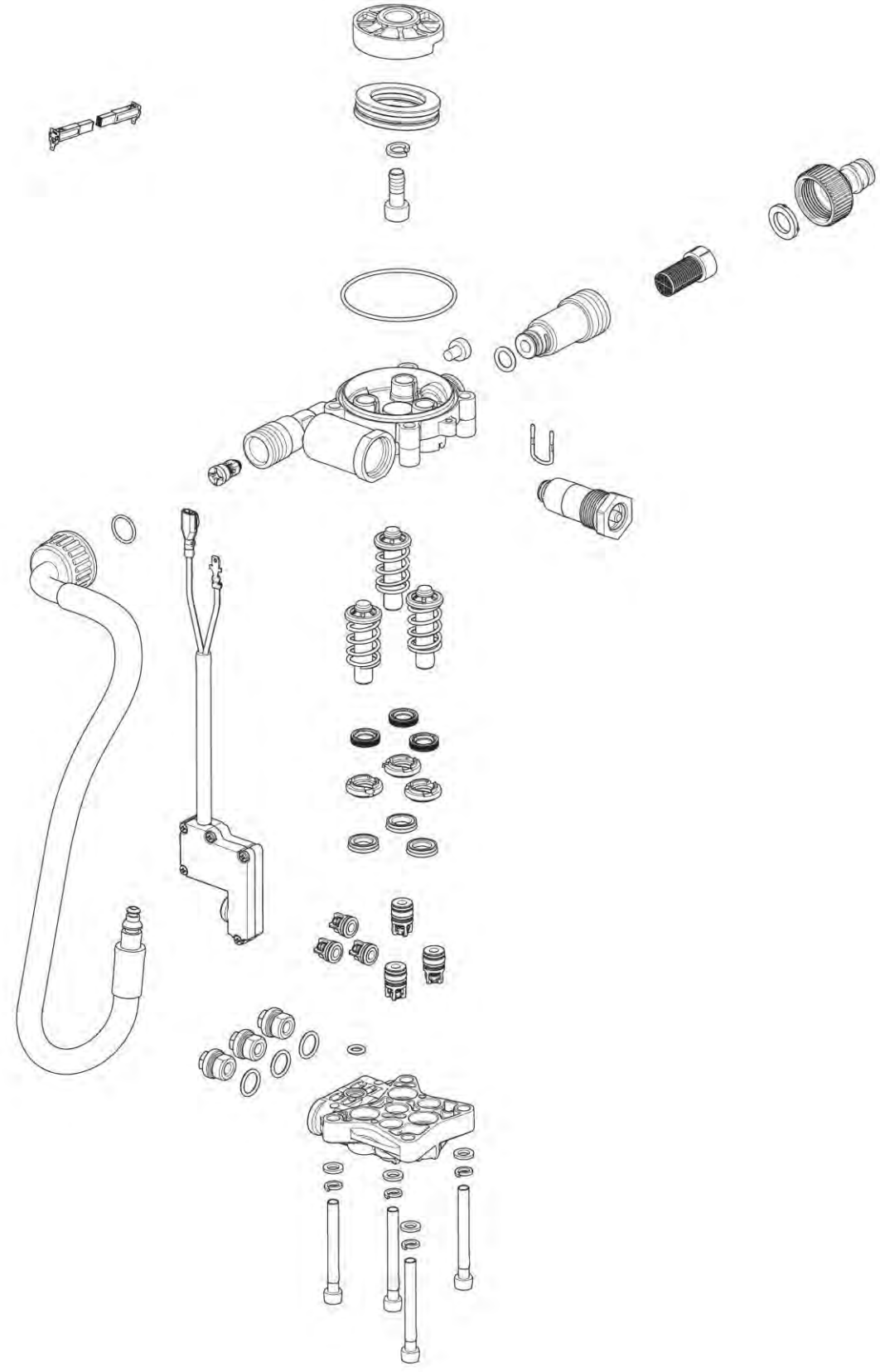
Construction of cabinet parts.



Core 140

Core 140 IH

Construction of pump unit.

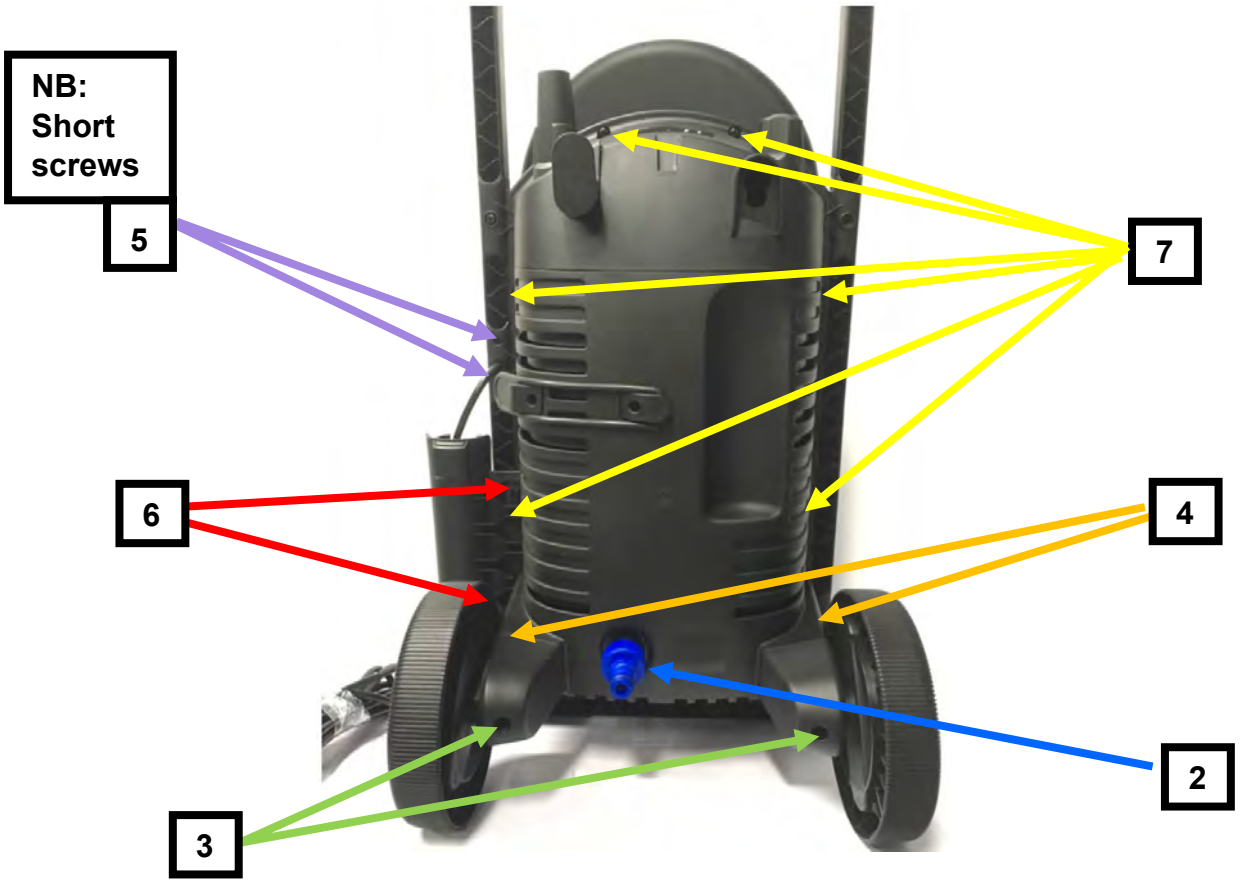


Dismounting of cabinet rear part on following variants: Core 140 + Core 140 IH

1. Tools: Screwdriver PH2 (fig. 1)
2. Remove the water inlet coupling (fig. 2)
3. Remove the 2 screws to remove the wheels for easy disassembly (fig. 2)
4. Remove the 2 screws behind the wheels (fig.2)
5. Remove the 2 short screws at cable relief (fig.2)
6. Remove the 2 screws on lance holder (fig.2)
7. Remove the remining 6 screws fixing the cabinet rear part (fig.2)
8. The cabinet rear part can be removed and there is now access to the motor pump unit

Fig. 1

Fig. 2



Dismount / mounting of switch box cover and switch box Core 140.

1. Remove the 4 screws. (fig 1)
2. Remove the switch box cover. (fig 1)
3. *Assembly: Ensure that the single cords are inside the box and are not squeezed during assembly and that cable relief is mounted correctly in the slut in the switchbox.*
4. *Assembly: Ensure that the switch is correctly mounted the two fixing tap's (fig 2)*
5. *Assembly: Turn knob axle counter clockwise, and align with knob in its right position when mounting the front part including the knob.*

Fig. 1

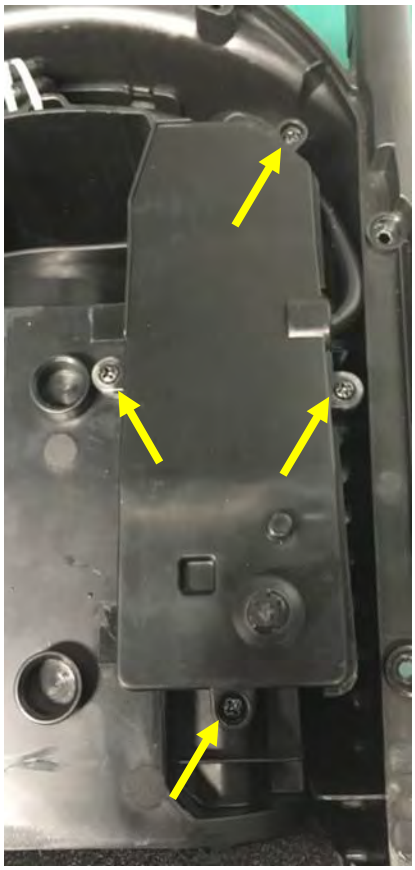


Fig. 2

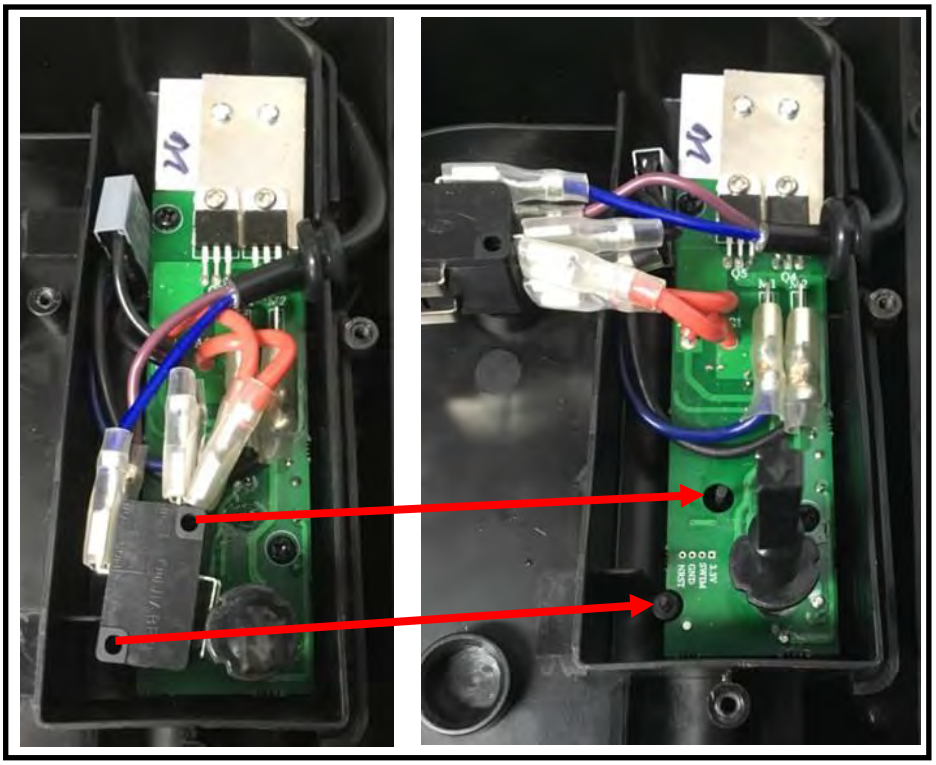
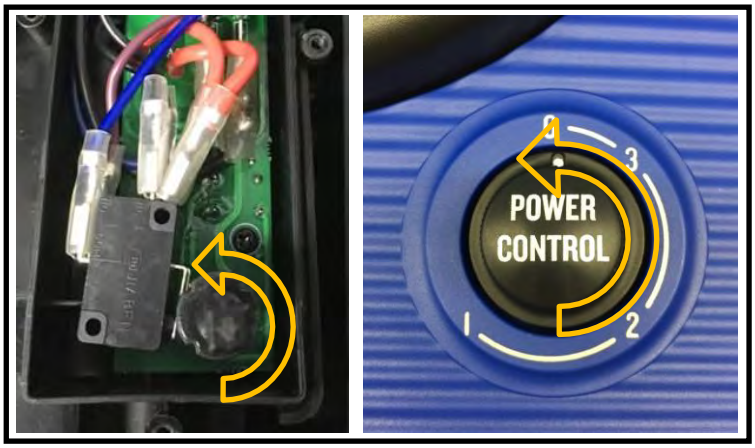


Fig. 3



Dismount / mounting of switch box cover and switch box Core 140 IH.

1. Remove the 4 screws. (fig 1)
2. Remove the switch box cover. (fig 1)
3. *Assembly: Ensure that the single cords are inside the box and are not squeezed during assembly and that cable relief is mounted correctly in the slut in the switchbox.*
4. *Assembly: Ensure that the switch is correctly mounted the two fixing tap's (fig 2)*

Fig. 1

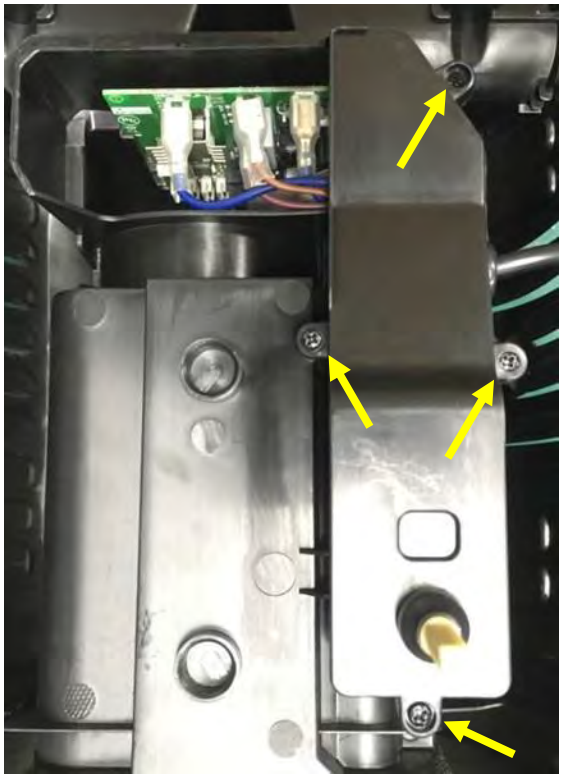


Fig. 2

Dismounting / mounting of the start / stop valve Core 140 - Core 140 IH.

Fig 1 is showing how the start / stop valve must be assembled.

A special tool is needed in order to take out the seat of the start / stop valve (fig 2)

Please use “Puller for valve seat M4” item number 31000189.

NOTE: the valve seat is no longer usable after using the puller.

Fig. 1

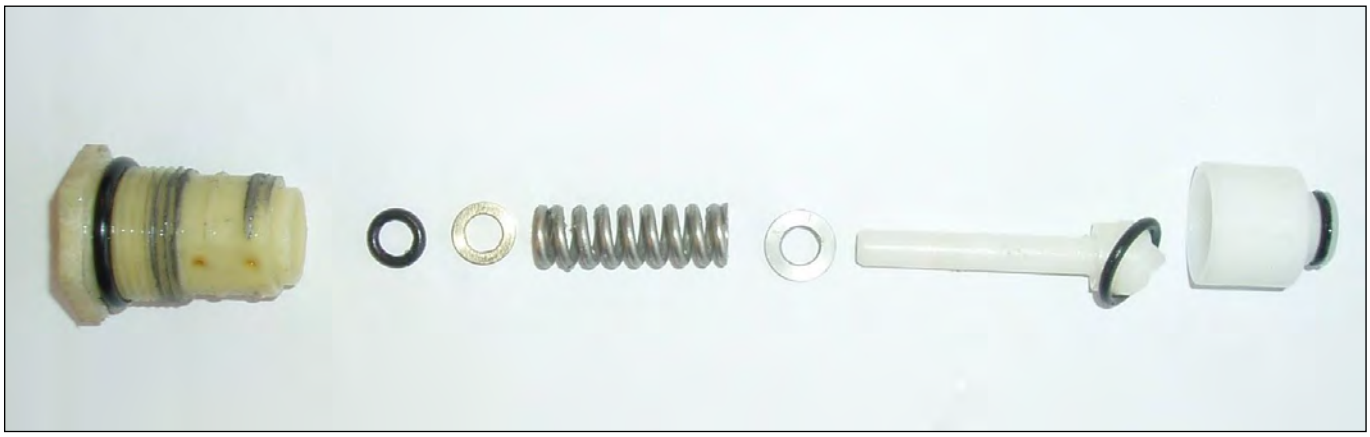


Fig. 2

Dismounting / mounting of water / oil seal and valves.

To change the oil seals, water seals and pressure valve, use a screw driver to dismount the parts (fig 3 & 4).

Alternatively there is a puller number 1220103 to pull out the valves seats (pressure and suction valves.

Note: the seat is no longer usable after using the puller

Cleanup and lubricate before mounting!

Fig 1 is showing the pump after opening the cylinder head from the cylinder block.

Fig 2 is showing how all the parts must be assembled into the cylinder head.

Fig. 1

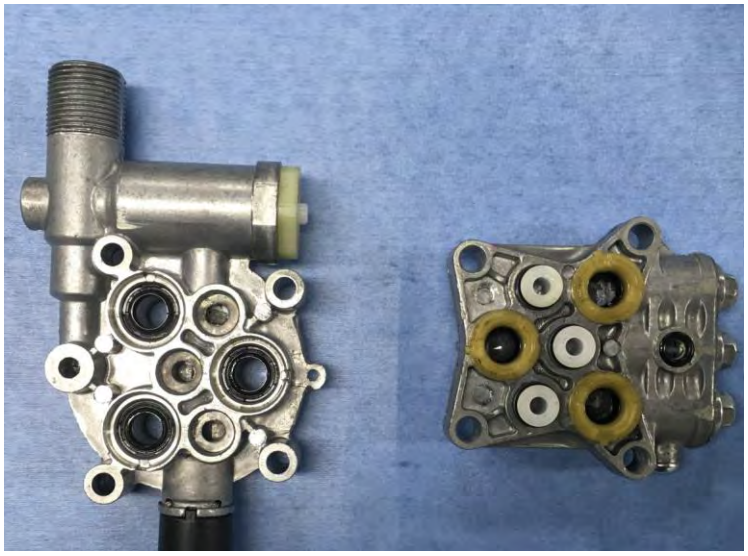


Fig. 2

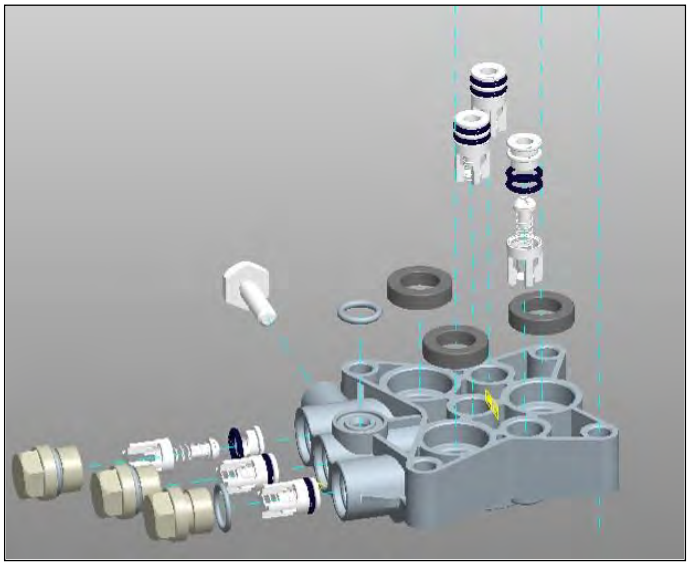


Fig. 3

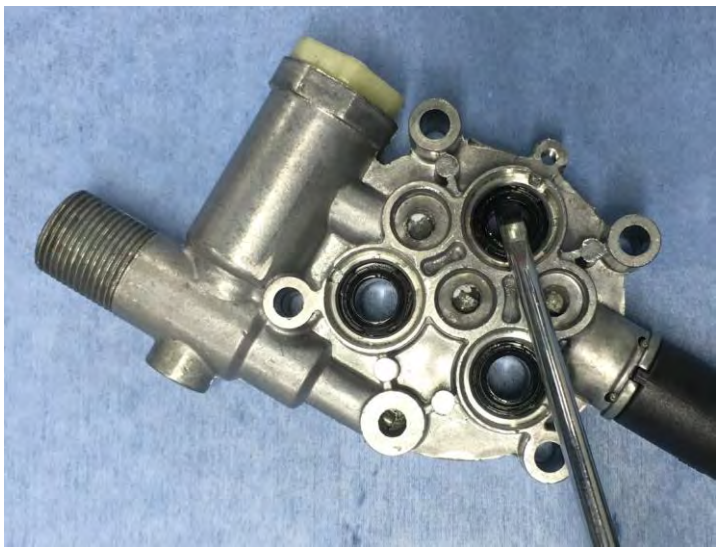
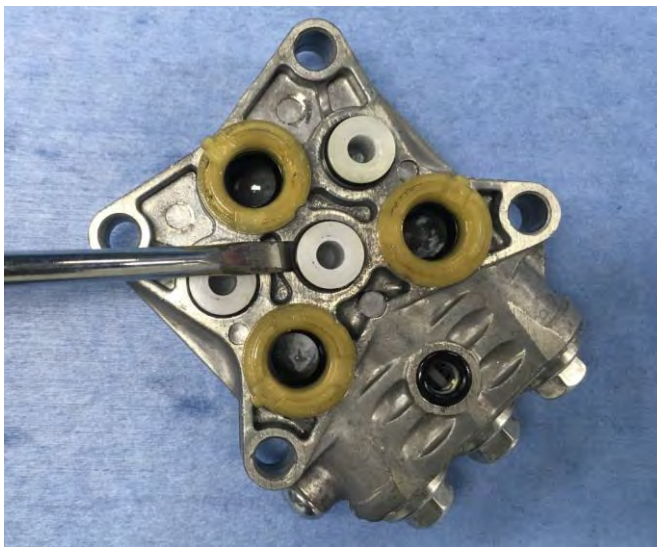


Fig. 4

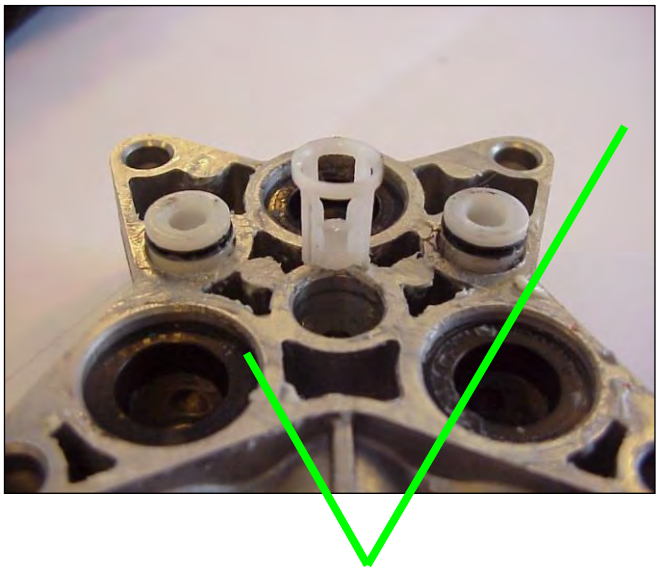


IMPORTANT mounting information:

In order to optimize the self suction mode the valve bodies must be positioned correct according to the water canals inside the cylinder head. The “leg” of the valve body must not be placed in front of a canal. Fig 1 is showing the WRONG positioning and fig 2 is showing the CORRECT positioning.

Fig. 1

Fig. 2



Core 140:

Precaution when assembling the switch box.

1. Ensure that the cable and cable relief is mounted correct in the switch box (fig. 1)

Precautions when assembling the switch box.

1. Ensure the cable outside switch box is put between switch box and cabinet part. (fig. 2)

Fig. 1

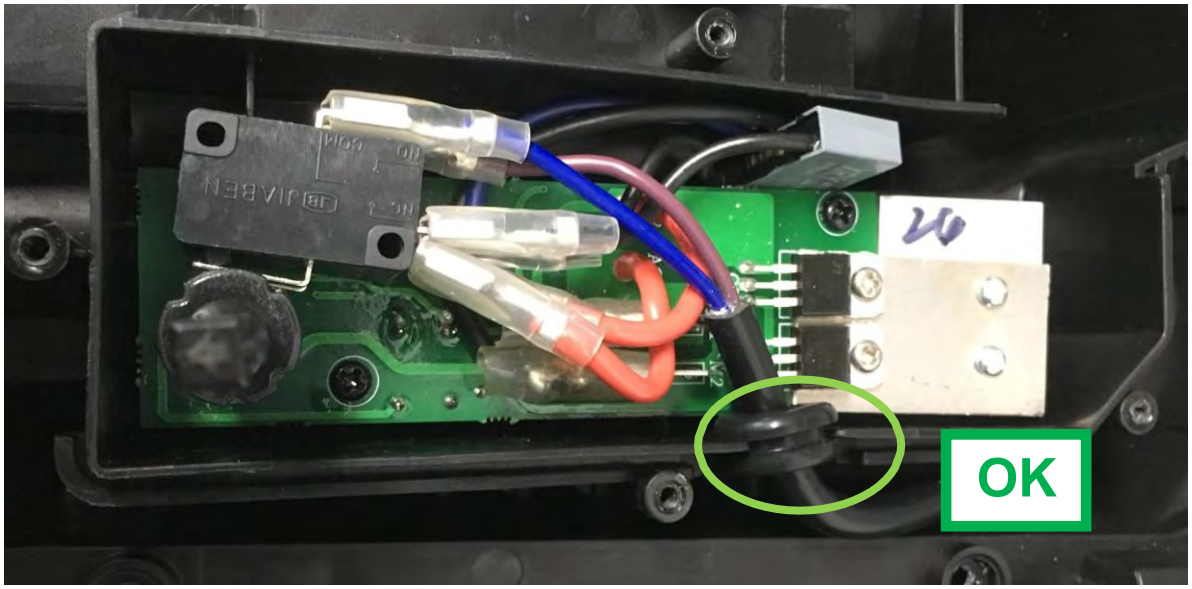
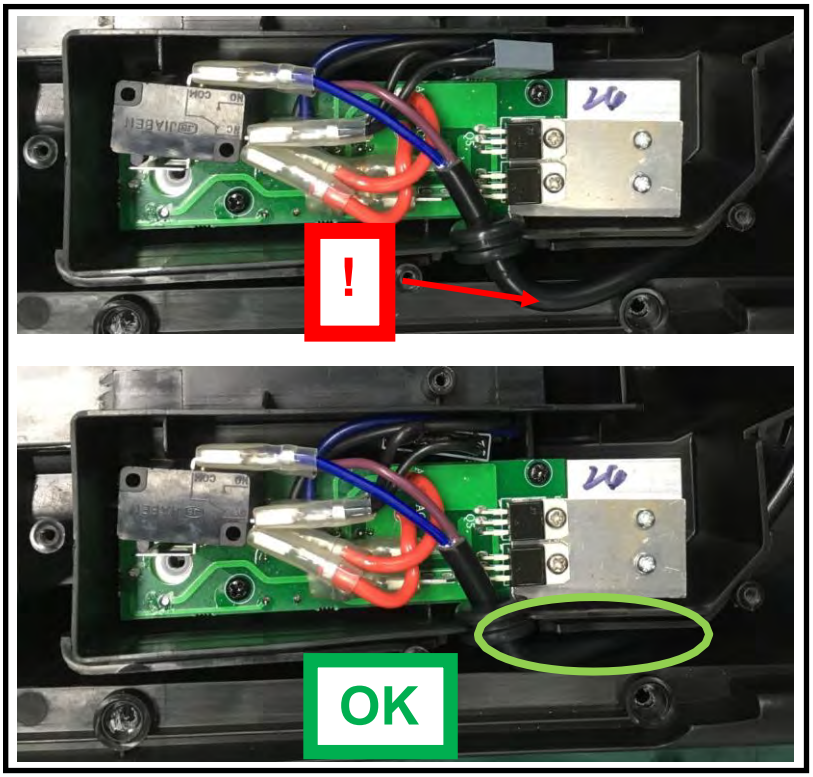


Fig. 2



Core 140 IH:

Precaution when assembling the switch box.

1. Ensure that the cable and cable relief is mounted correct in the switch box (fig. 1)

Precautions when assembling the switch box .

1. Ensure the cords are kept inside switch box and are not squeezed able outside switch

Fig. 1

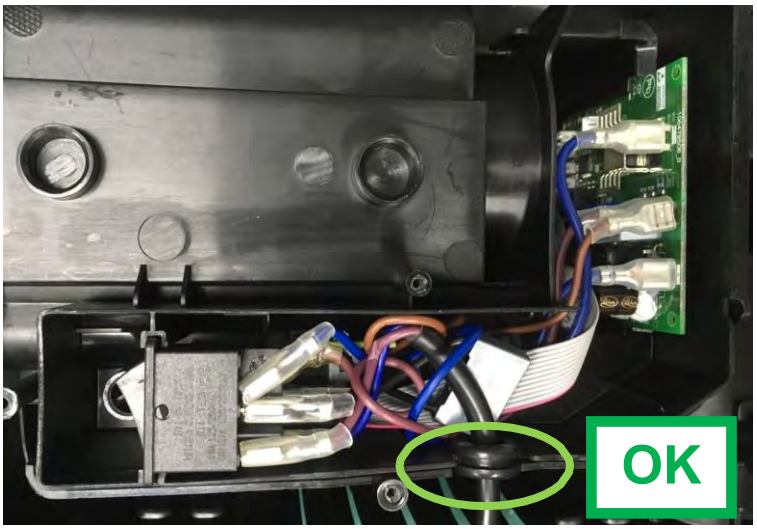
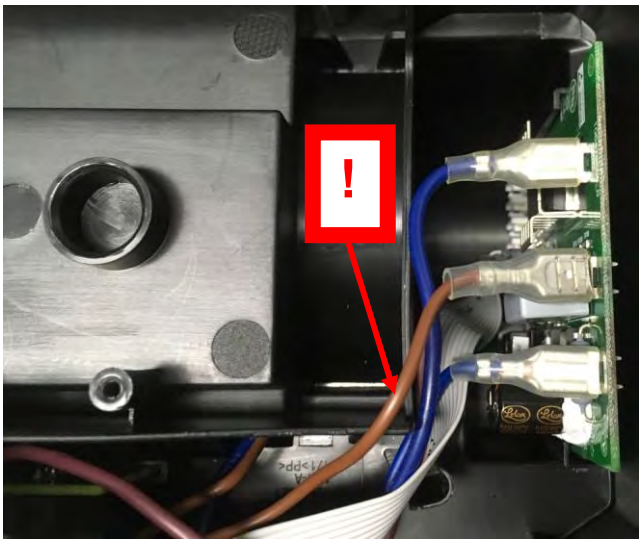
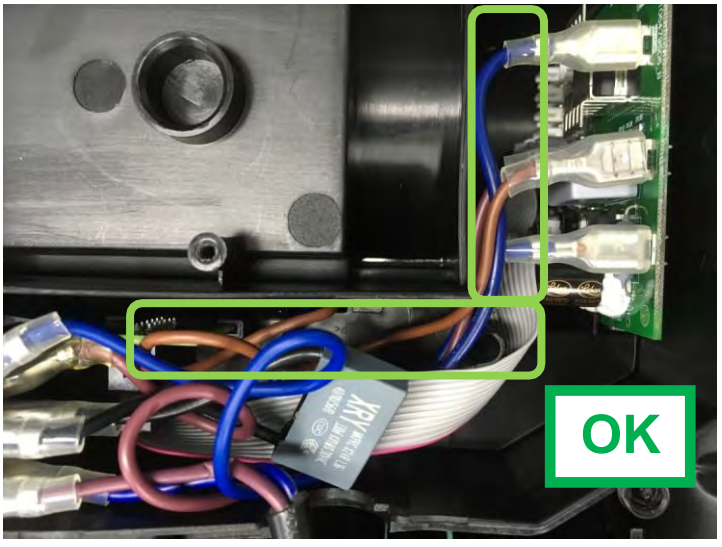


Fig. 2



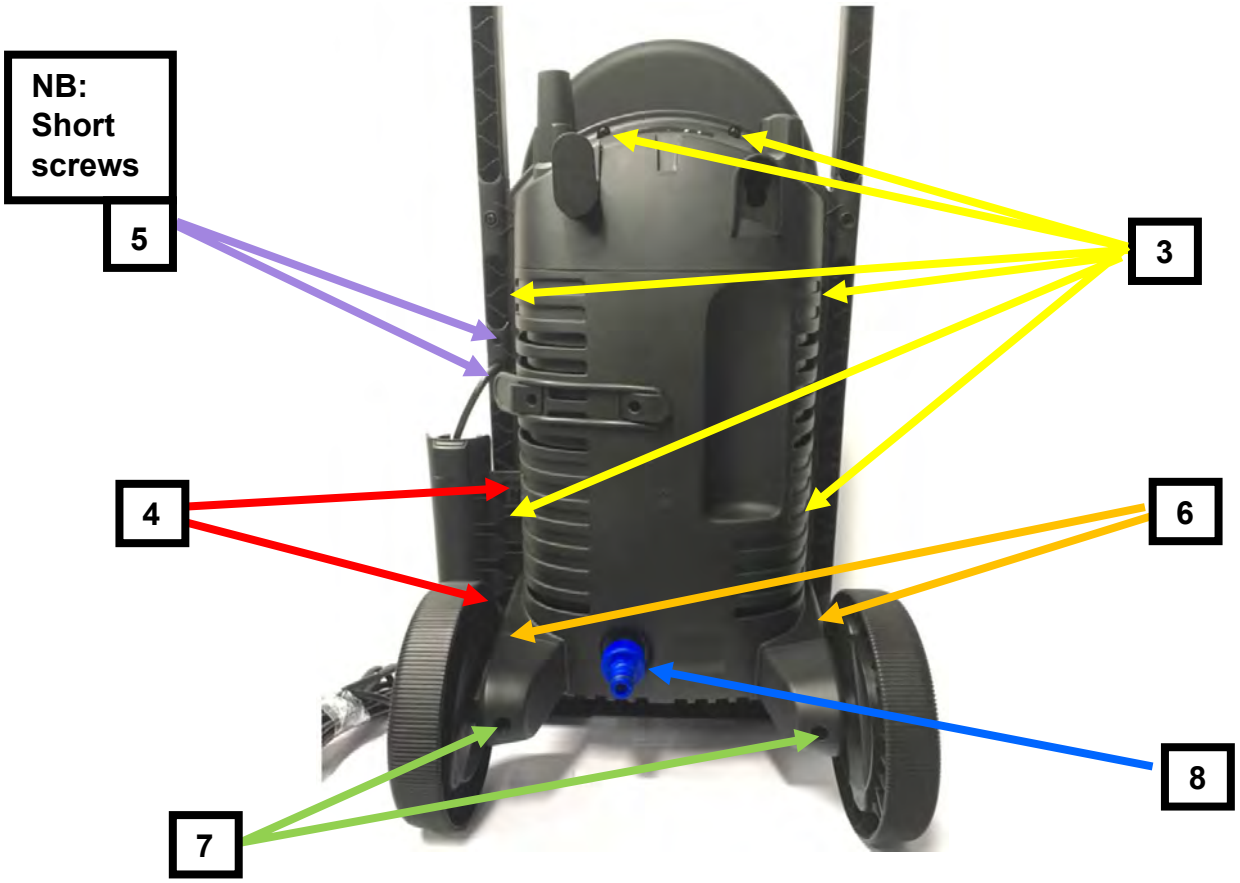


Mounting of cabinet rear part on following variants: Core 140 + Core 140 IH

1. Tools: Screwdriver PH2 (fig. 1)
2. Put the motor pump unit in its right position and mount rear cabinet part
3. Mount the 6 screws fixing the cabinet rear part (fig.2)
4. Mount the lance holder by the 2 screws (fig.2)
5. Mount the 2 short screws at cable relief (fig.2)
6. Mount the 2 screws behind the wheels (fig.2)
7. Mount the wheels by the 2 screws (fig. 2)
8. Mount the water inlet coupling (fig. 2)

Fig. 1

Fig. 2



Exchange of hose in hose reel (Only Core 140 and Core 140 IH).

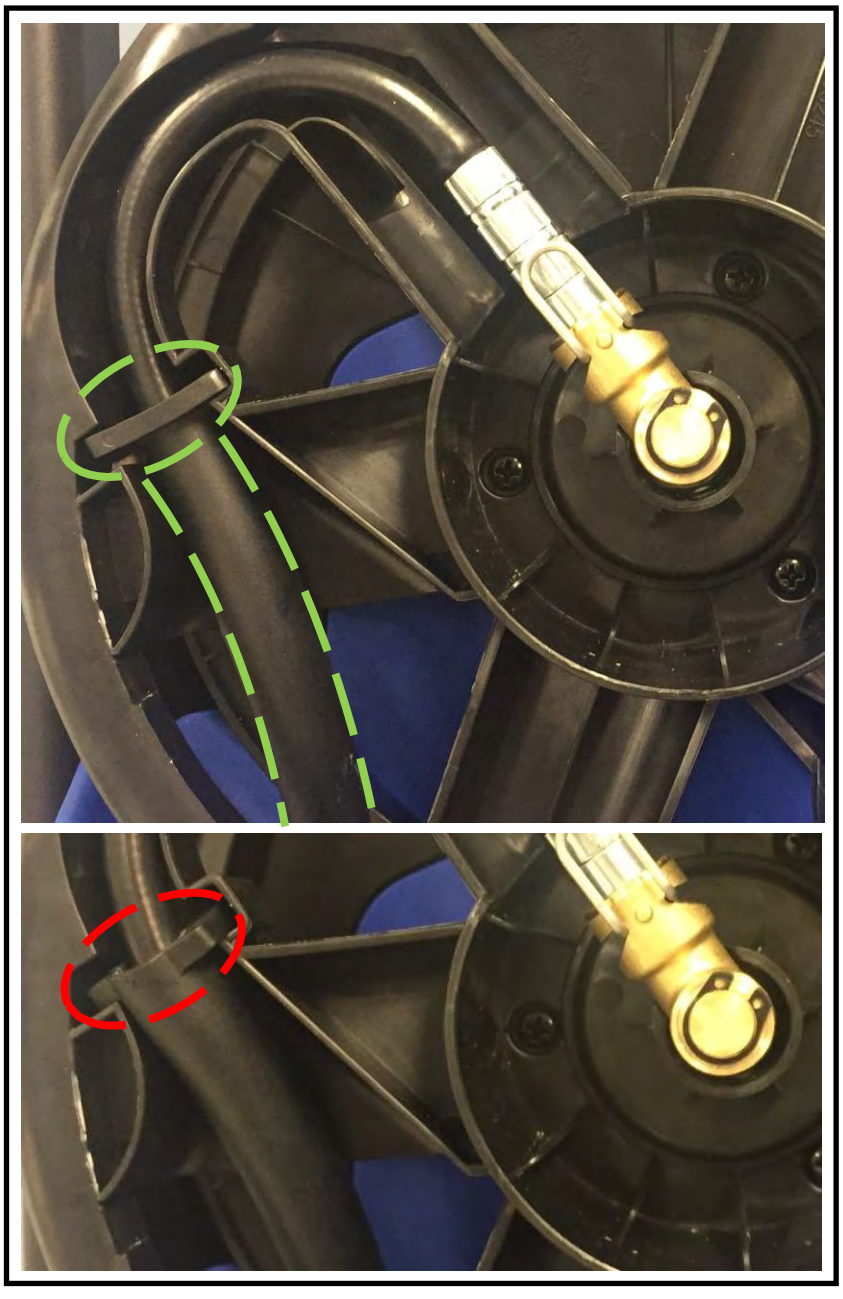
Pairing of the machine and the Wireless Handle:

1. Release the 3 lock snap's and remove the hose reel cover, (fig. 1)
2. Remove lock spring (fig. 2)
3. Remove the hose by pulling it out trough the hose channel in the machine
4. Push the real end of new hose trough the channel in the machine , and mount it in the brass connector and fix it with the lock spring. (fig. 2)
5. Make sure that hose guide is mounted correct, to ensure clockwise rewind only (fig. 3)

Fig. 1

Fig. 2

Fig. 3



Pairing of the machine and the Wireless handle (Only Core 140 IH).

Pairing of the wireless devices is needed if:

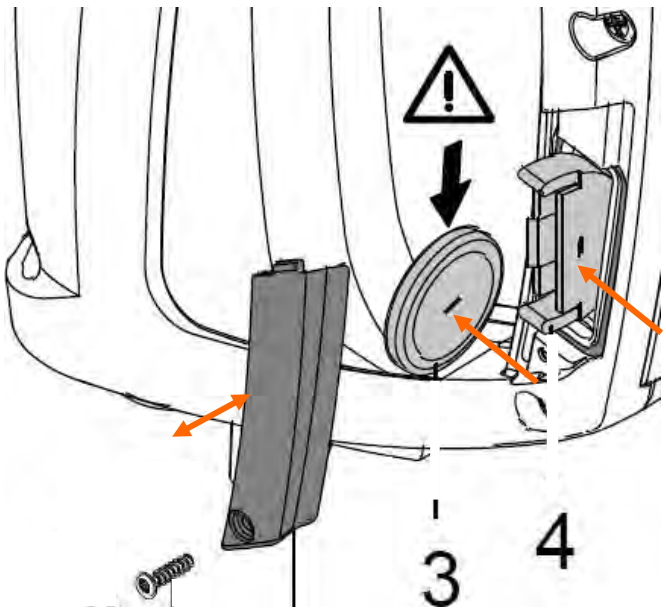
- the Wireless Handle has been exchanged
- the Wireless Unit inside the Wireless handle has been exchanged
- the Control Unit in the machine has been exchanged
- the Wireless Unit has been exchanged in the machine
- Or if the user hasn't paired the machine and the Wireless Handle

Pairing of the machine and the Wireless Handle:

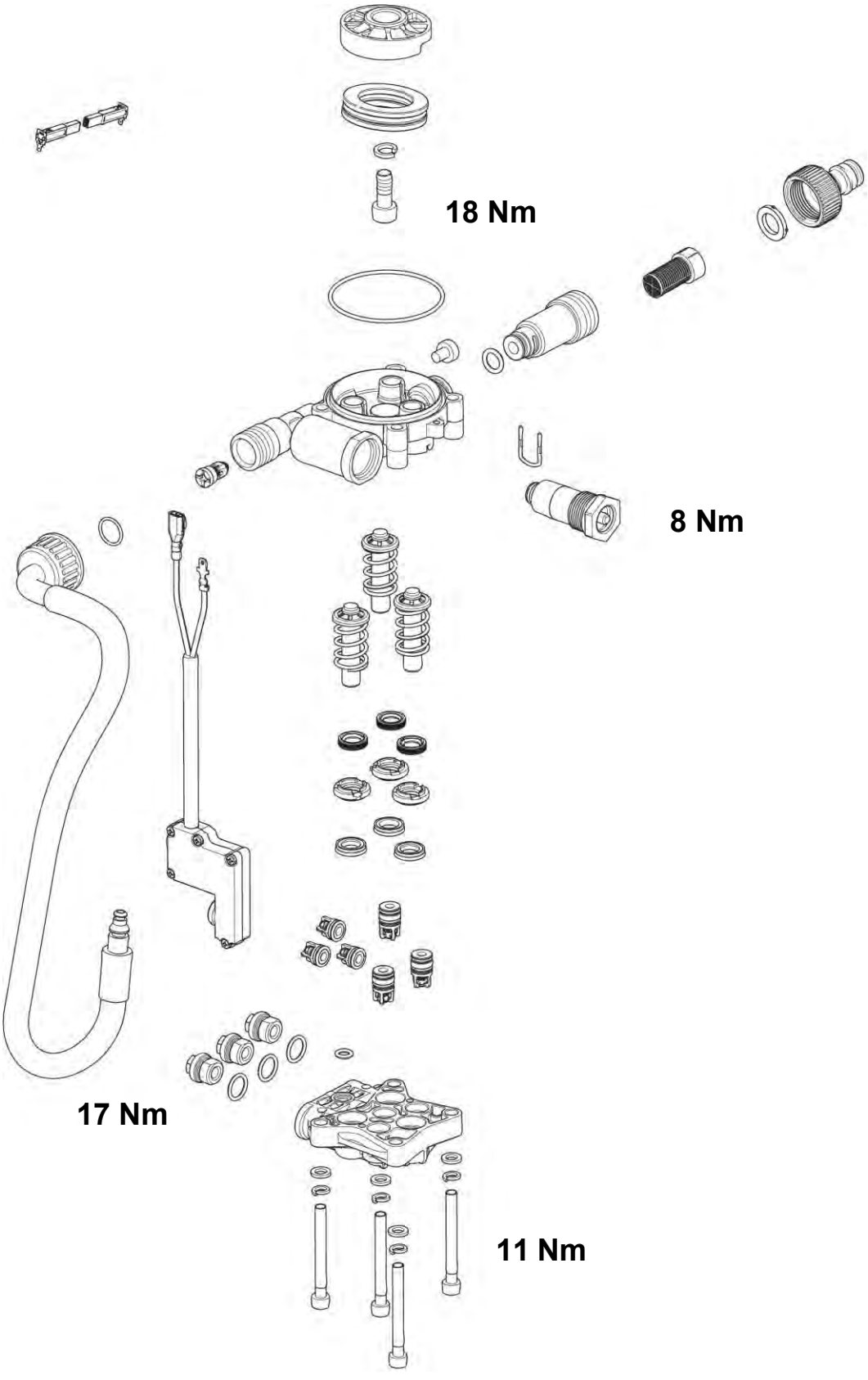
1. Ensure that the machine is not turned on
2. Dismount the battery and mount the battery again
3. Orange indicator on the handle is now blinking in approx. 2 minutes, indicating that the handle is in pairing mode.
4. Turn on the machine within the 2 minutes of pairing mode, when the orange indicator stops blinking, the handle and the machine has been paired and can now be operated.

Exchange battery (cell type: CR 2032) in Wireless Handle.

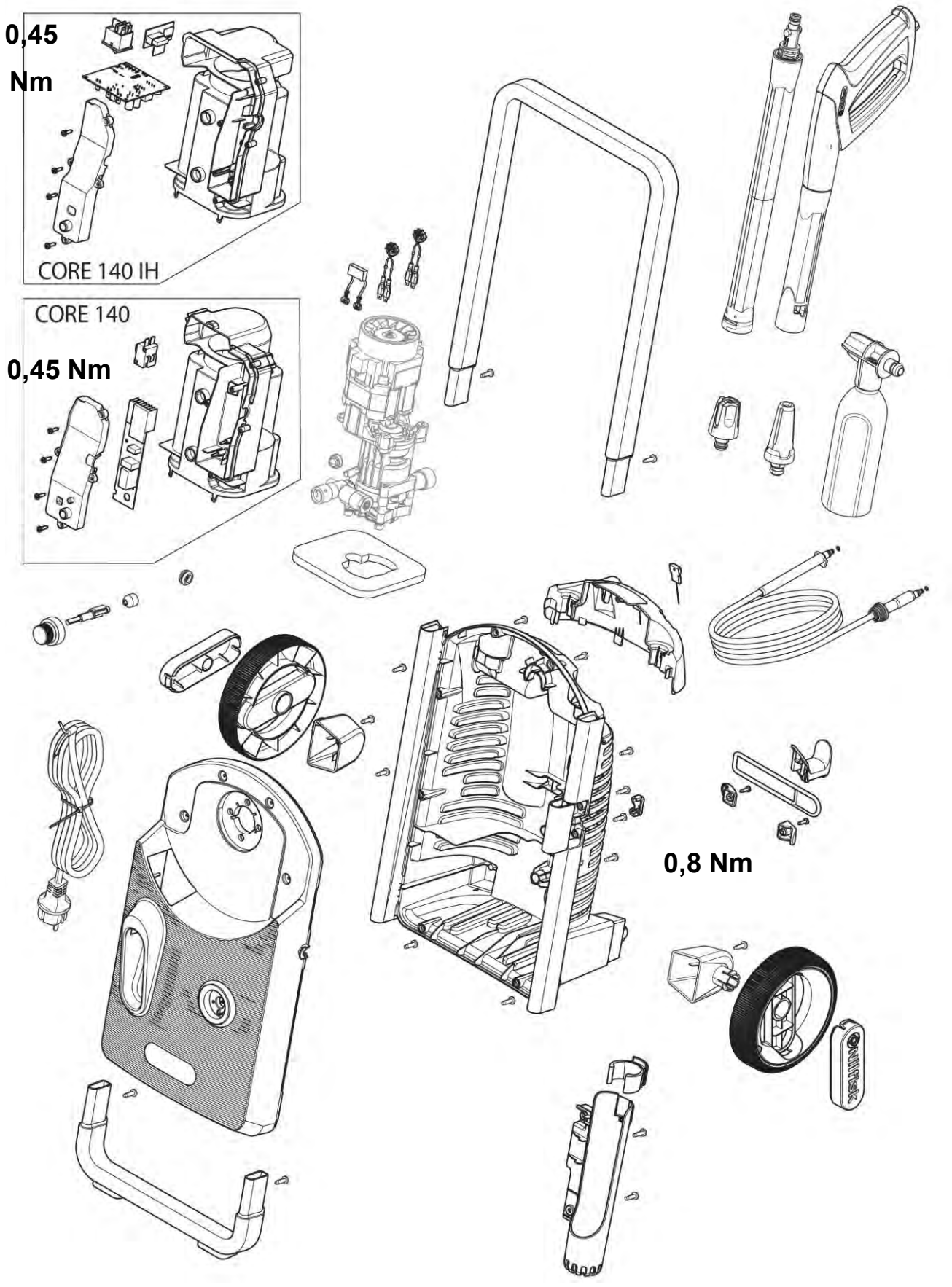
1. Dismount the screw (Phillips) and the cover to the battery. Dismount the old battery
2. Ensure that the new battery is mounted with the right polarity in the battery holder
3. Mount the battery cover and mount the screw



Pump torque. Core 140 - Core 140 IH

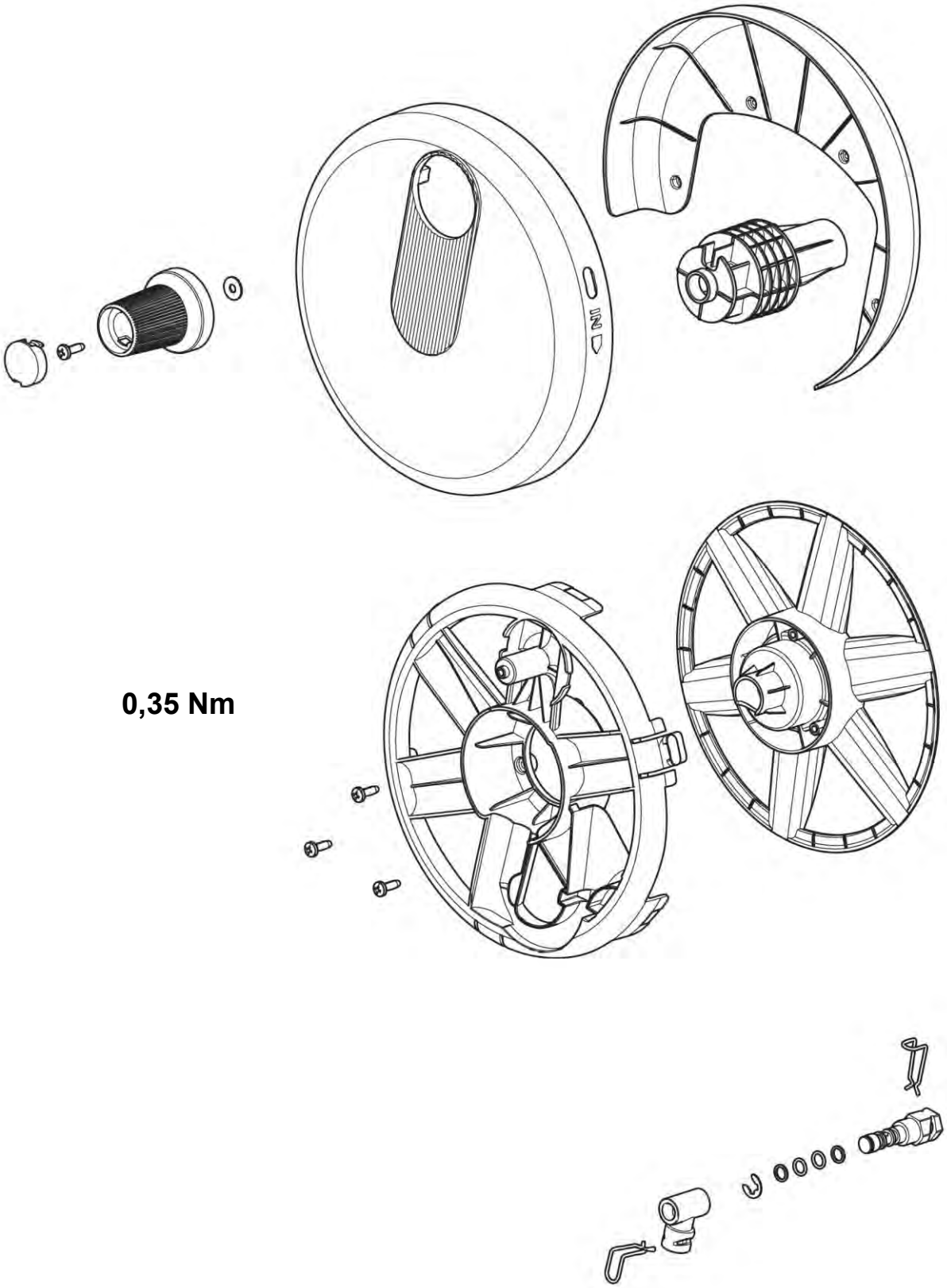


Cabinet screw torque. **Core 140 - Core 140 IH**



Torque.

Cabinet screw torque. **Core 140 - Core 140 IH**



0,35 Nm

Recommended oil types:

The pump is filled with 55 ml GB3141 N32/ISO VG32 from the production.

In case of service where the oil must be changed Nilfisk recommends to use 55 ml ISO VG46 / Bartran HV 46.

Alternative oil types that are allowed:

BP, Bartran HV 46

Shell, Tellus T 46

Exxon, Statoil Univis N 46

Mobil Oil Mobil DTE 25

Recommended lubrication:

White grease for o-rings, sealings etc.:

Silicone grease, DOW CORNING(R) 55 O-RING LUBRICANT

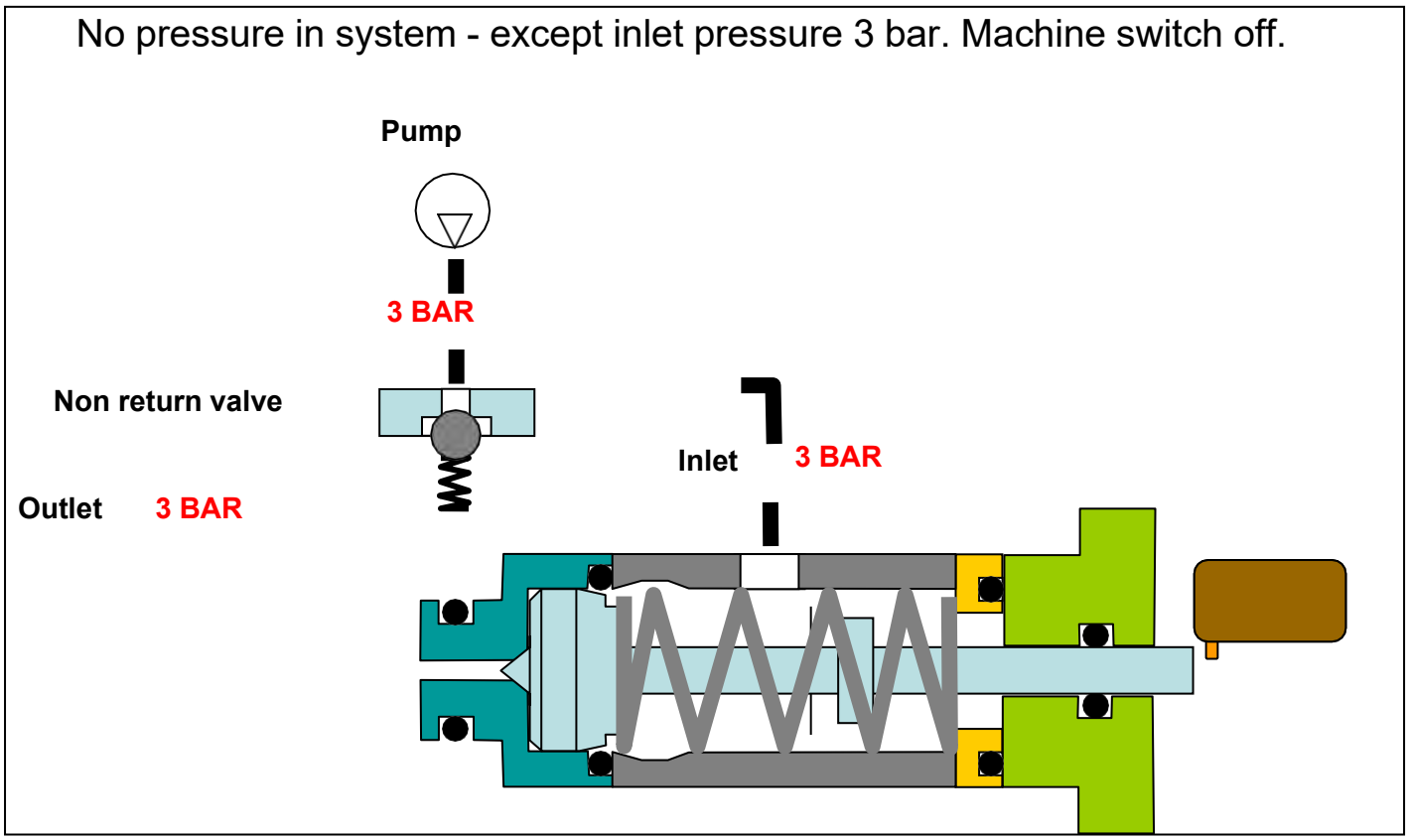
Special tools:

Puller for valve seat M4—item number 31000189 (Page 12).

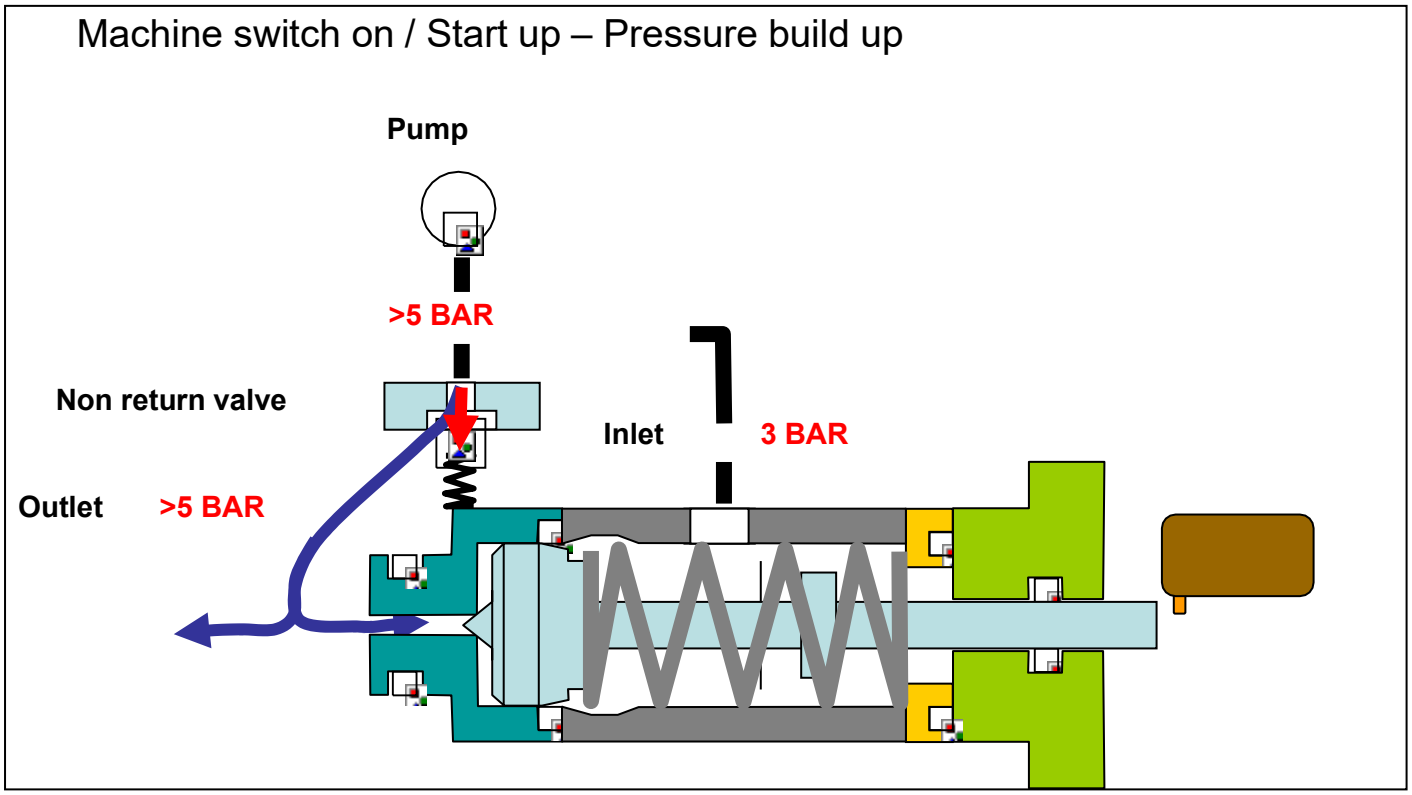
Puller for valve seat (pressure and suction valve) - item number 1220103 (Page 13)

3.0 Start stop System guide

3.1 No pressure in system (Core 125, Core 130, Core 140 and Core 140 IH)

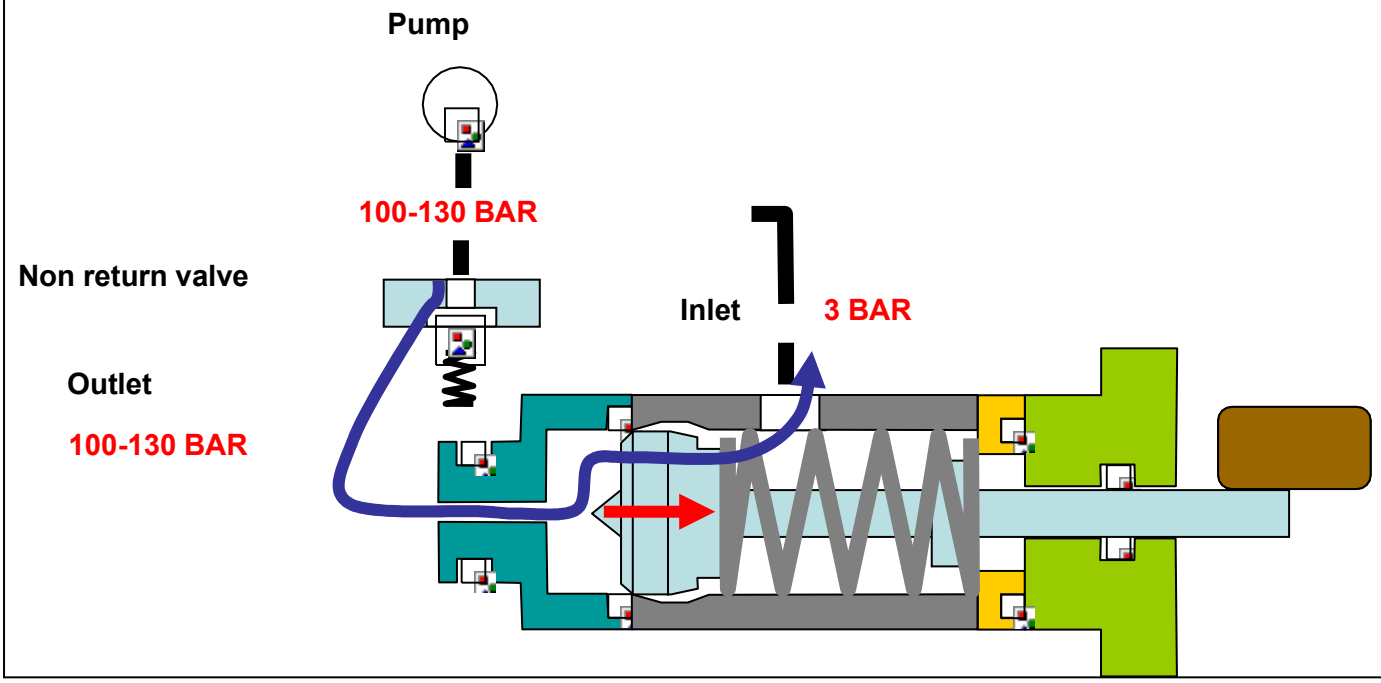


3.2 Start up-pressure build up (Core 125, Core 130, Core 140 and Core 140 IH)



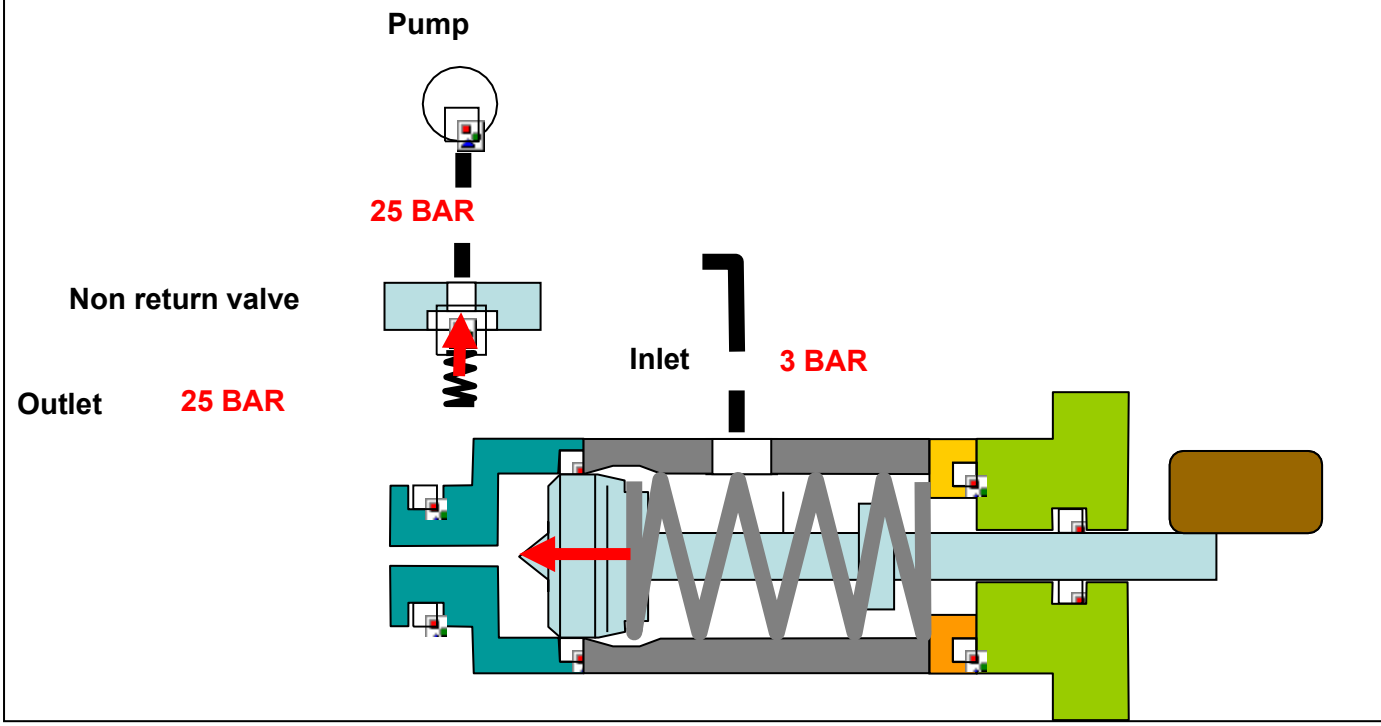
3.3 Pressure build up-opening pressure / close gun (Core 140 and Core 140 IH)

Gun close. Pressure build up. Opening pressure. Micro switch is activated



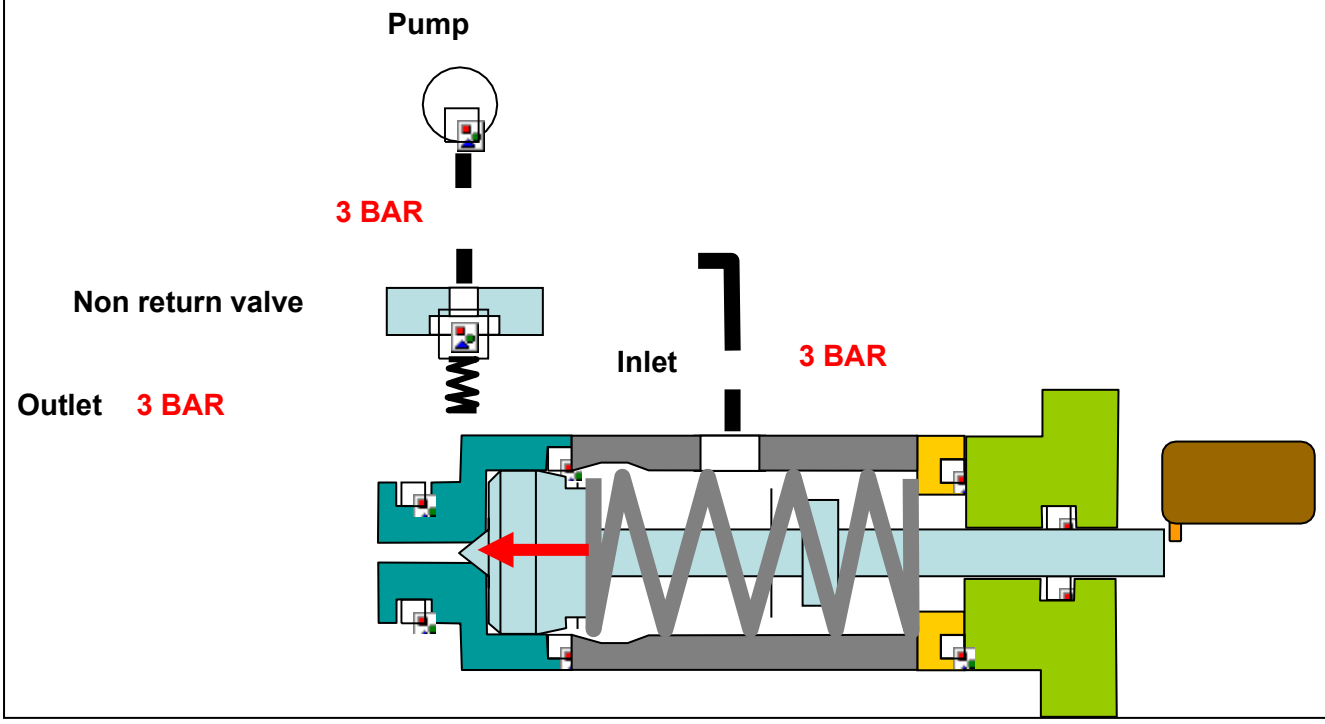
3.4 Motor stop – Standby pressure (Core 140 and Core 140 IH)

Gun close. Motor stops. Pressure in hose decreases to standby pressure. Pump pressure is also standby pressure.



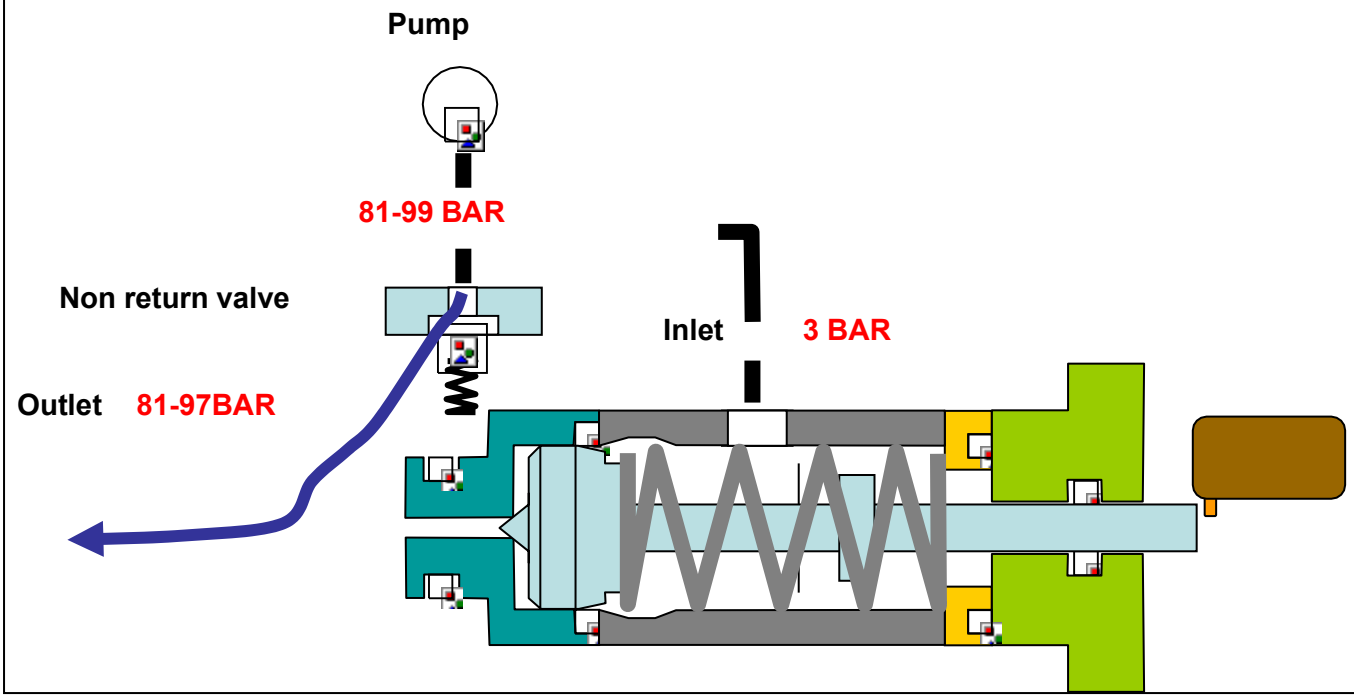
3.5 Gun is activated (Core 140 and Core 140 IH)

Gun is open - Control piston is closed. Micro switch is deactivated. Motor starts.

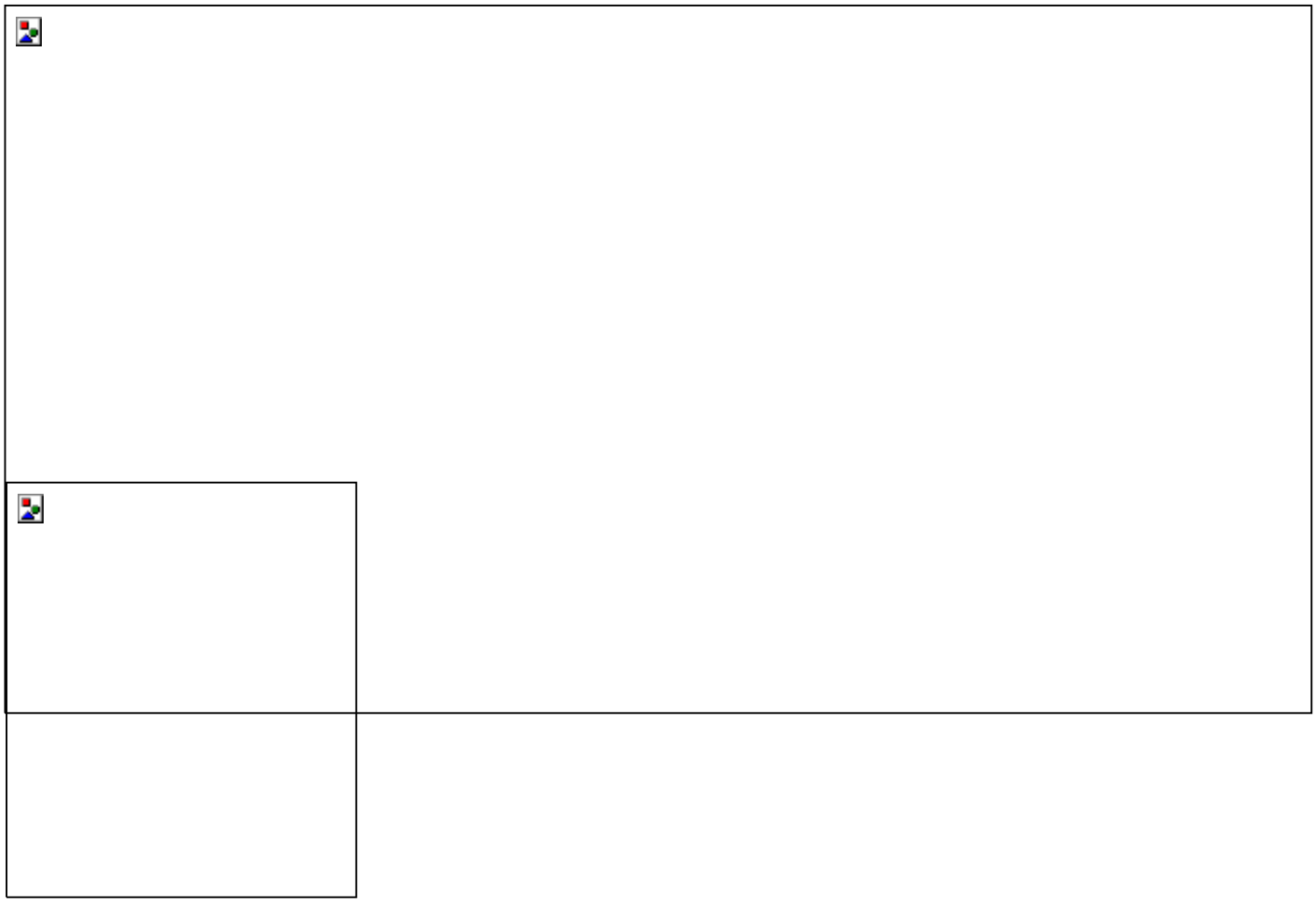


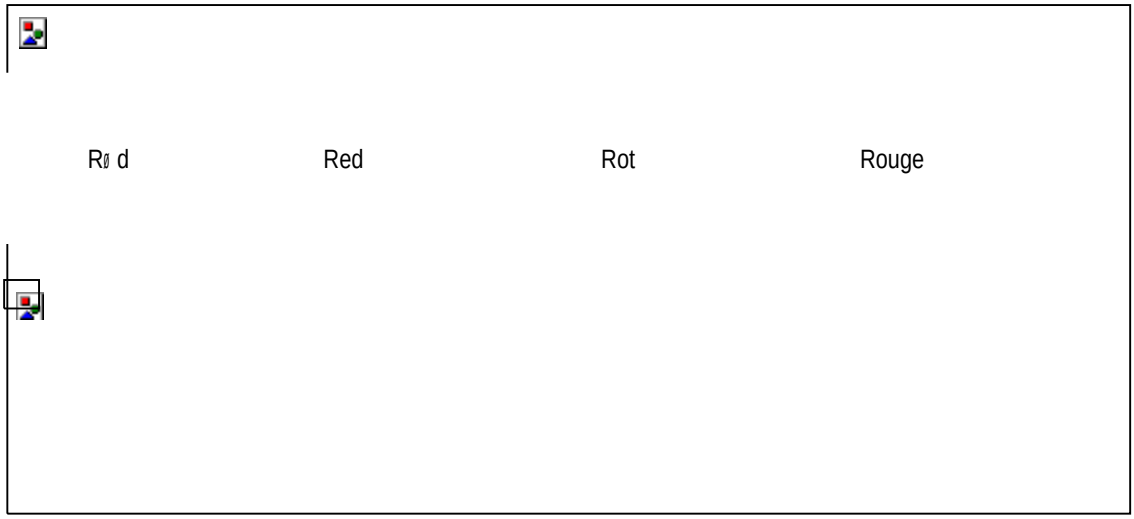
3.6 Machine run

Machine runs (normal working pressure). Gun is open.

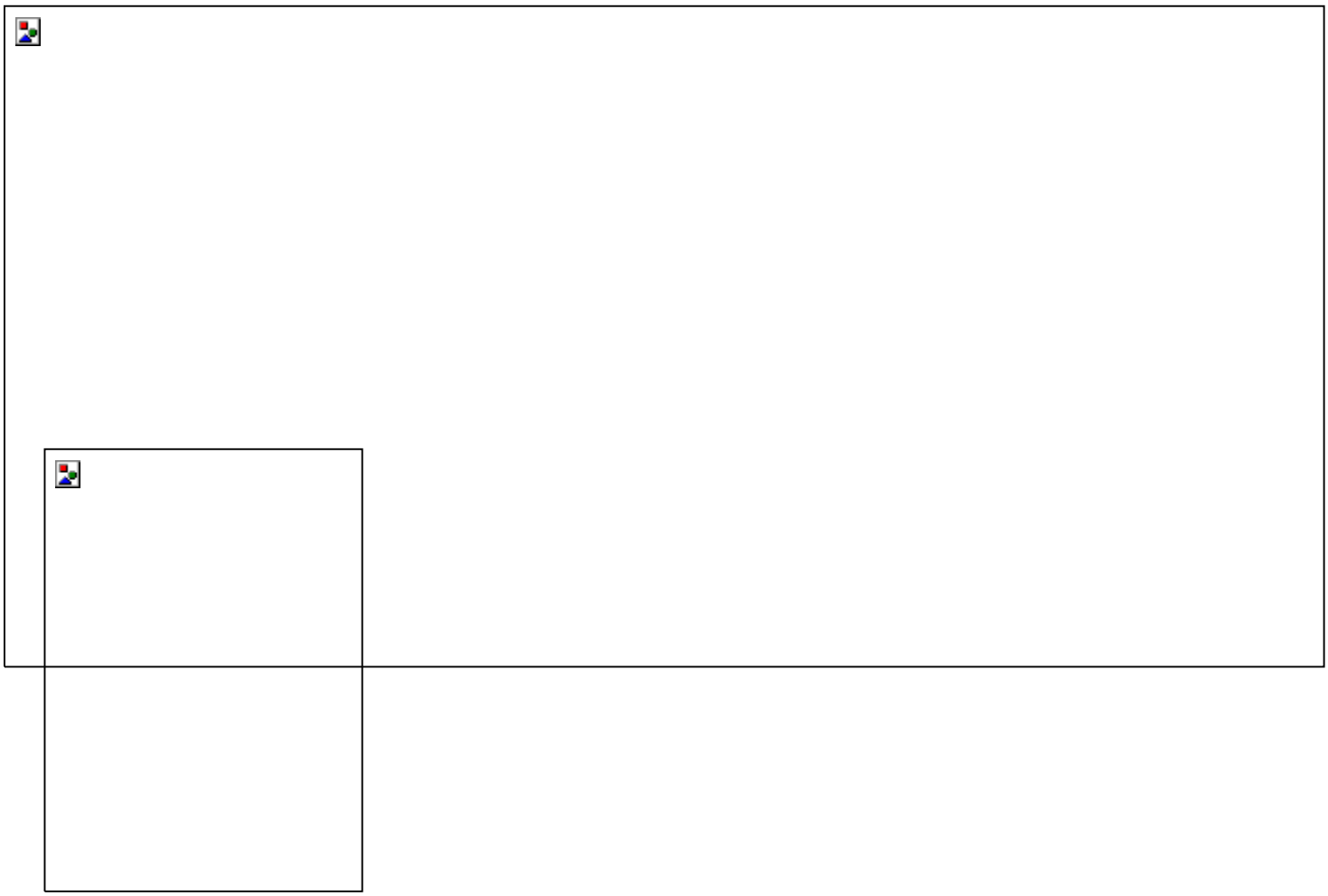


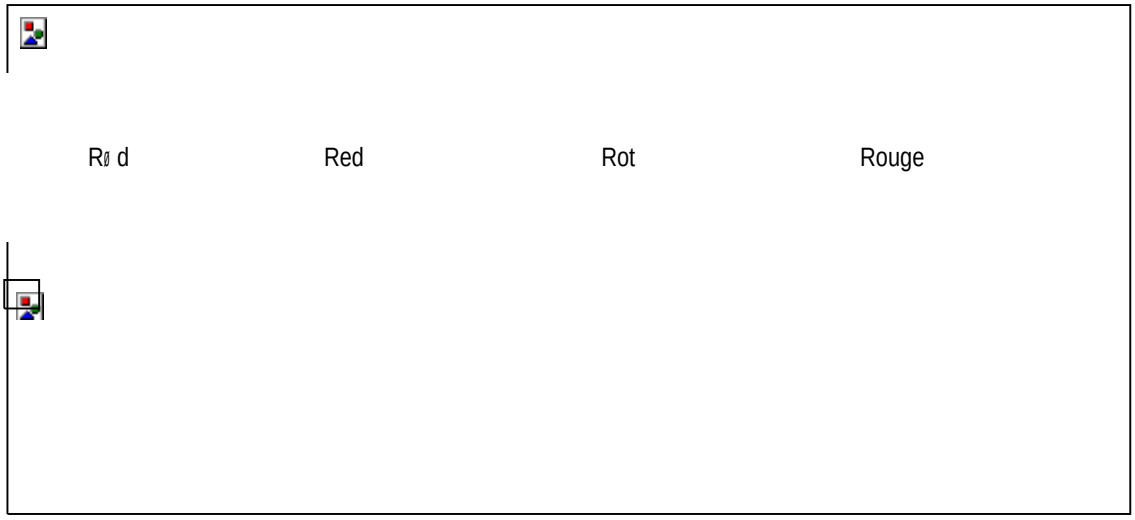
Wiring and Circuit Diagram Core 130 and Core 140 only





Wiring and Circuit Diagram Core 140 IH only





Troubleshooting

Symptom	Cause	Recommended action
Machine refuses to start	Machine not plugged in Defective socket Fuse has blown Defective extension cable	Plug in machine. Try another socket. Replace fuse. Switch off other machines. Try without the extension cable.
Fluctuating pressure	Pump sucking air Valves dirty, worn out or stuck Pump seals worn out	Check that hoses and connections are air-tight. Clean and replace or refer to local Nilfisk-distributor Clean and replace or refer to local Nilfisk-distributor.
Motor busses	Low voltage or low temperature	Activate the trigger of the spray handle.
Machine stops	Fuse has blown Incorrect mains voltage Thermal sensor activated Nozzle partially blocked	Replace fuse. Switch off other machines. Check that the mains voltage corresponds to specification on the model tag. Leave the washer for 5 minutes to cool down. Clean the nozzle
Fuse blows	Fuse too small	Change to an installation higher than the amp. consumption of the machine. You may try without the extension cable.
Machine pulsating	Air in inlet hose/pump Inadequate supply of mains water Nozzle partially blocked Water filter blocked Hose kinked	Allow machine to run with open trigger until regular working pressure resumes. Check that the water supply corresponds to specifications required (see model tag) NB! Avoid using long, thin hoses (min. 1/2") Clean the nozzle Clean the filter Straighten out hose.
Machine often starts and stops by itself	 Spray handle is leaking	Contact your nearest Nilfisk Service Centre. Replace seat/ball/O-ring in the valve of the spray handle.
Machine starts, but no water comes out	Pump/hoses or accessory frozen No water supply Water filter blocked Nozzle blocked	Wait for pump/hoses or accessory to thaw. Connect inlet water. Clean the filter Clean the nozzle