INSTRUCTION MANUAL WINTEX 3000

- 0-90 cm
- For all soils
- Fully automatic
- Optimum speed
- Minimum maintenance
- Robust, reliable
- Hydraulic hammer
- Three samples in one step

Wintex Agro, Vilhelmsborgvej 15, DK-7700 Thisted
+45 97990800, contact@wintexagro.com, www.wintexagro.com

201708

Manufactured by:	WINTEX AGRO Vilhelmsborgvej 15 DK-7700 Thisted
Type designation:	WINTEX 3000
Voltage:	12 volt DC
Year of production:	2017

CE

FOR YOUR SAFETY

Before starting the WINTEX 3000 please make sure that nobody is present within a range of 10 meters.

When inspecting the WINTEX 3000, you must always activate the emergency stop, and the vehicle must be turned off.

Every time you start the WINTEX 3000, you must test the emergency stop. If the emergency stop does not turn off the soil sampler, you must not use it.

1. STARTING THE WINTEX 3000

Start the vehicle, and deactivate the emergency stop. The red button must be up.

Make sure that the dead-man's vigilance system is activated.

Note: The emergency stop must always be activated at long stops, or the battery might be discharged.

2. SELECTION OF PROGRAM

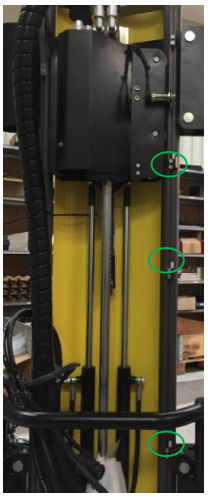
Program 1 takes a soil sample from 0-90 cm. The depth can be adjusted.
Program 2 takes soil samples from three different layers, from 0-30 cm and from 30-60 cm. The depth can be adjusted infinitely variable.
Program 3 takes soil samples from three different layers, from 0-30 cm, from 30-60 cm and from 60-90 cm. The depth can be adjusted infinitely variable.

The soil sampler is adjusted to standard rotation (= extra rotation "off"). It is possible to add an extra rotation (= extra rotation "on").

3. ADJUSTING THE DEPTH

The lower sensor plate defines the depth in program 1, program 2 and in program 3. Loosen the screws, and move the sensor plate up or down to the desired depth.

The sensor plates in the middle define where the soil sample in program 3 will be divided. The depth can be adjusted. Loosen the screws, and move the sensor plates to the depth in which the soil sample shall be divided.



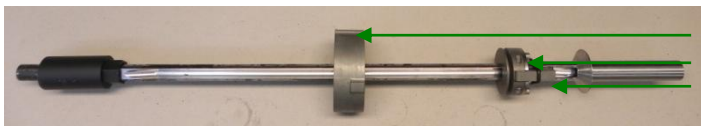
When adjusting the depth, it might be helpful to use the marked starting points at 30 cm, 60 cm and 90 cm from which the desired depth can be measured and then adjusted.

4. INTERRUPTING THE PROCESS

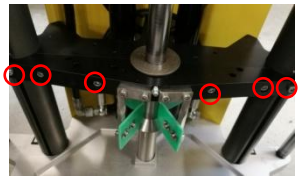
Due to various reasons it might be necessary to interrupt the process. In this case just deactivate the foot switch, and the process will stop immediately. When reactivating the foot switch and the brake at the same time, the probe will go back into start position. The soil will be discarded and not filled into the soil boxes.

If the soil sampler is delivered with a remote control, the process will be interrupted by activating the stop switch of the remote control instead.

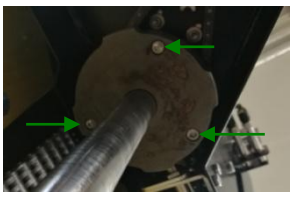
5. REPLACEMENT OF O-RING, SCRAPER AND PROBE



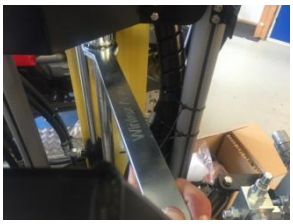
Revolving platform
O-ring
Scraper



REPLACEMENT OF PROBE
Remove the soil boxes, and unscrew the six bolts. One half of the plate can now be removed.



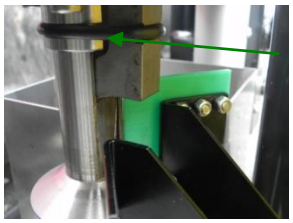
Unscrew the three bolts. The revolving platform can now be pulled down along the probe.
Caution: The probe has sharp edges!



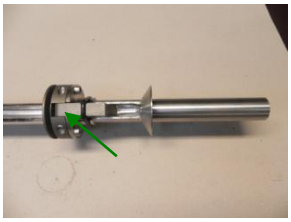
Remove the coupling nut with the special key which is delivered together with the soil sampler. It is now possible to remove the probe.

Coupling nut

Special key

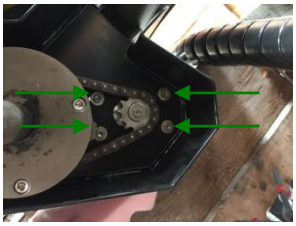


REPLACEMENT OF O-RING
When the probe is removed, it is possible to replace the O-ring.

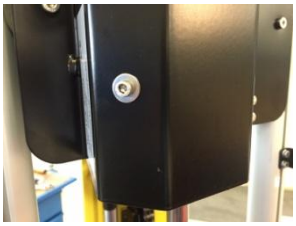


REPLACEMENT OF SCRAPER
At first force the knurled pin out. Then replace the scraper and replace the old knurled pin with a new one.

6. ADJUSTMENT OF CHAIN FOR ROTATION

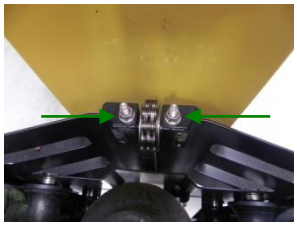


Loosen the four screws.



Then adjust the chain for rotation by turning the insex bolt (clockwise to tighten the chain, counter-clockwise to loosen the chain. When the chain is adjusted correctly, the four screws must be tightened again.

7. ADJUSTMENT OF CHAIN PROBE UP/DOWN



Move the probe ca. 20 cm down. The chain can now be adjusted by tightening the bolts.

8. ACTIVATING THE HYDRAULIC VALVES MANUALLY

Soil sampler up/down:
The soil sampler goes down when pressing the valve. The soil sampler goes up when pulling the valve.

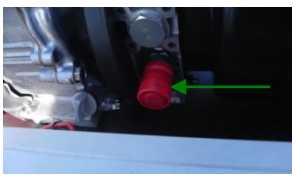
Probe up/down:
The probe goes down when pulling the valve. The probe goes up when pushing the valve.

Rotation:
Screw counter-clockwise to activate the rotation process. Then press the main valve.
Important: Re-set the button into start position after use.

Do always activate the main valve by pressing it down using a screw driver or another tool when activating the other functions.

9. ADJUSTING THE HYDRAULICS

ADJUSTING THE MAIN PRESSURE
Start the motor with max. r.p.m. Press the main valve. The manometer must show 120 bar.



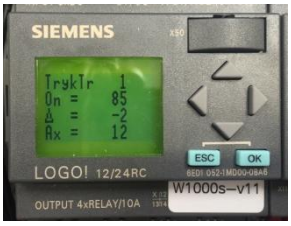
This valve is for adjusting the main pressure. The main pressure is pre-set on 120 bar. It must only be adjusted after signing a written agreement with Wintex Agro.

Fuse: There is a 7.5 amp fuse for current control in the box and a 15 amp fuse for the oil cooler.

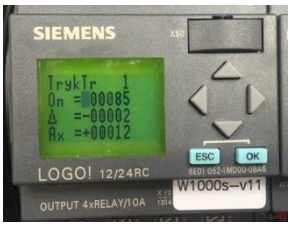
ADJUSTING THE PRESSURE OF THE SOIL SAMPLER TOWARDS THE GROUND
Open the lit of the electricity box.
Deactivate the emergency stop.
Adjust the Siemens logo:

Press “ESC”.

Press the downward arrow to “Set Param”.
Press ”Ok”.



Press the downward arrow until ”0n=”.



Move the cursor to change the numbers.
Larger numbers = higher pressure
Lower numbers = lower pressure

The pressure is from the factory pre-set at a proper pressure. Yet it might be necessary to adjust it a bit so that the soil sampler stands firmly on the ground.

ADJUSTING THE ROTATION SPEED
Press the button down, and turn it counter-clockwise. The button will come up. Start the motor with max. r.p.m. Press the main valve, and the probe will rotate.

Loosen the lock nut. The rotation speed is adjusted by turning the screw. When turning to the left, the probe will move faster. When turning to the right, the probe will slow down. The adjusting screw must be set to 50 r.p.m.

Press the button down. Turn it to the left so that it stays down.

ADJUSTING THE PRESSURE OF THE PROBE
Loosen the lock nut. Adjust with a 6 mm hex key. Pressure will rise when turning to the right. Lower the pressure by turning to the left.

Depending on the vehicle's weight and the kind of soil, the pressure must be between 10 and 30 bar. Read the pressure on this manometer, which only is for reading the pressure of the probe.

10. ADJUSTING AND MOUNTING THE SENSORS

The upper sensor plate determines when the probe is in top position.

The sensor plates in the middle determine where the soil sample will be divided.

The lower sensor plate determines the depth in which the soil sample will be taken.

The gap between both sensors and the sensor plates must be 2-3 mm. Make sure that the gap of both sensors towards the sensor plates is exactly the same. It is recommended to adjust the sensors in relation to the lower sensor plate.

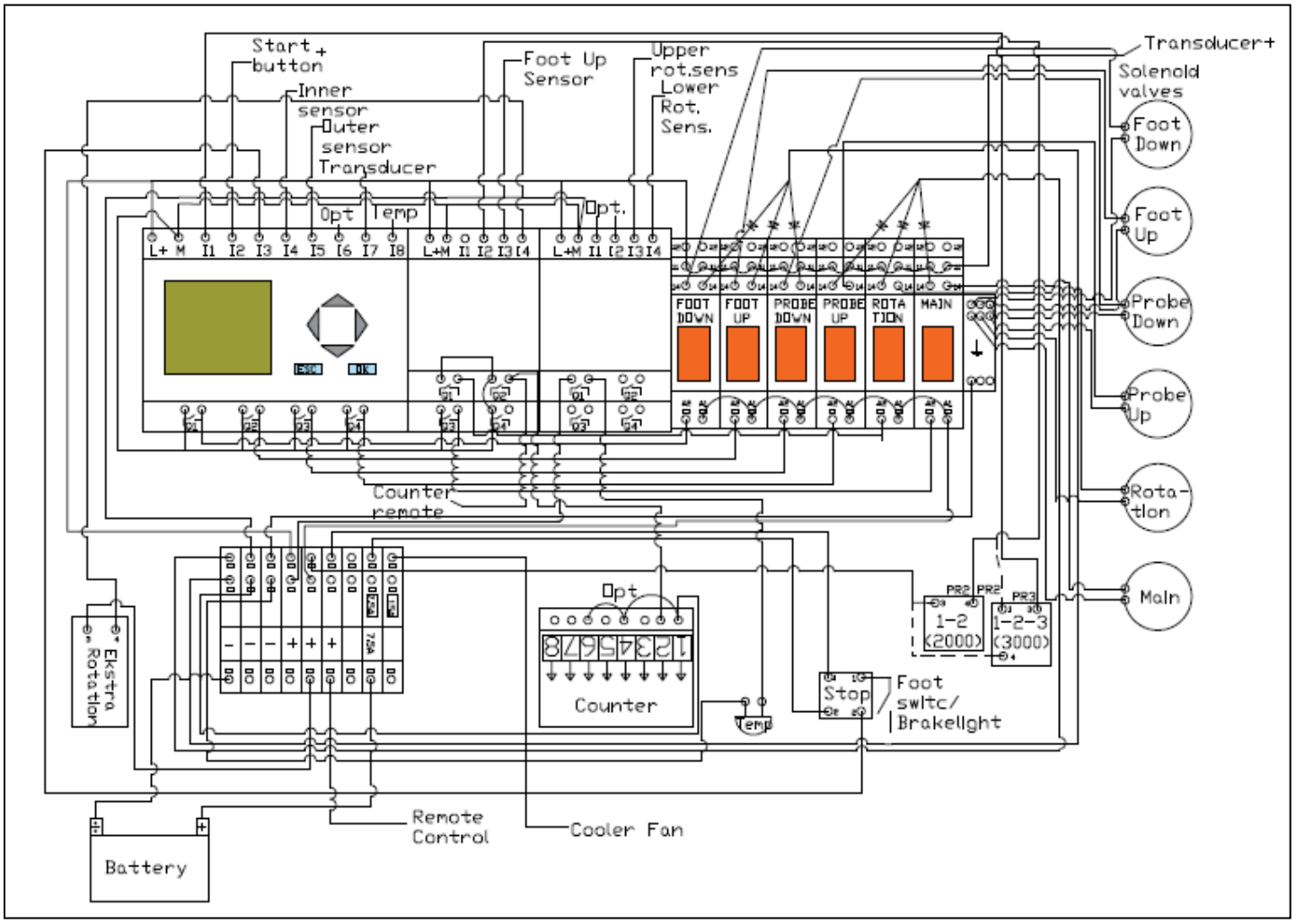
You can see a light when the sensor is activated.

Make sure to connect the sensor and the sensor plug correctly by being aware of the notch.

11. PROTECTION AGAINST OVERHEATING

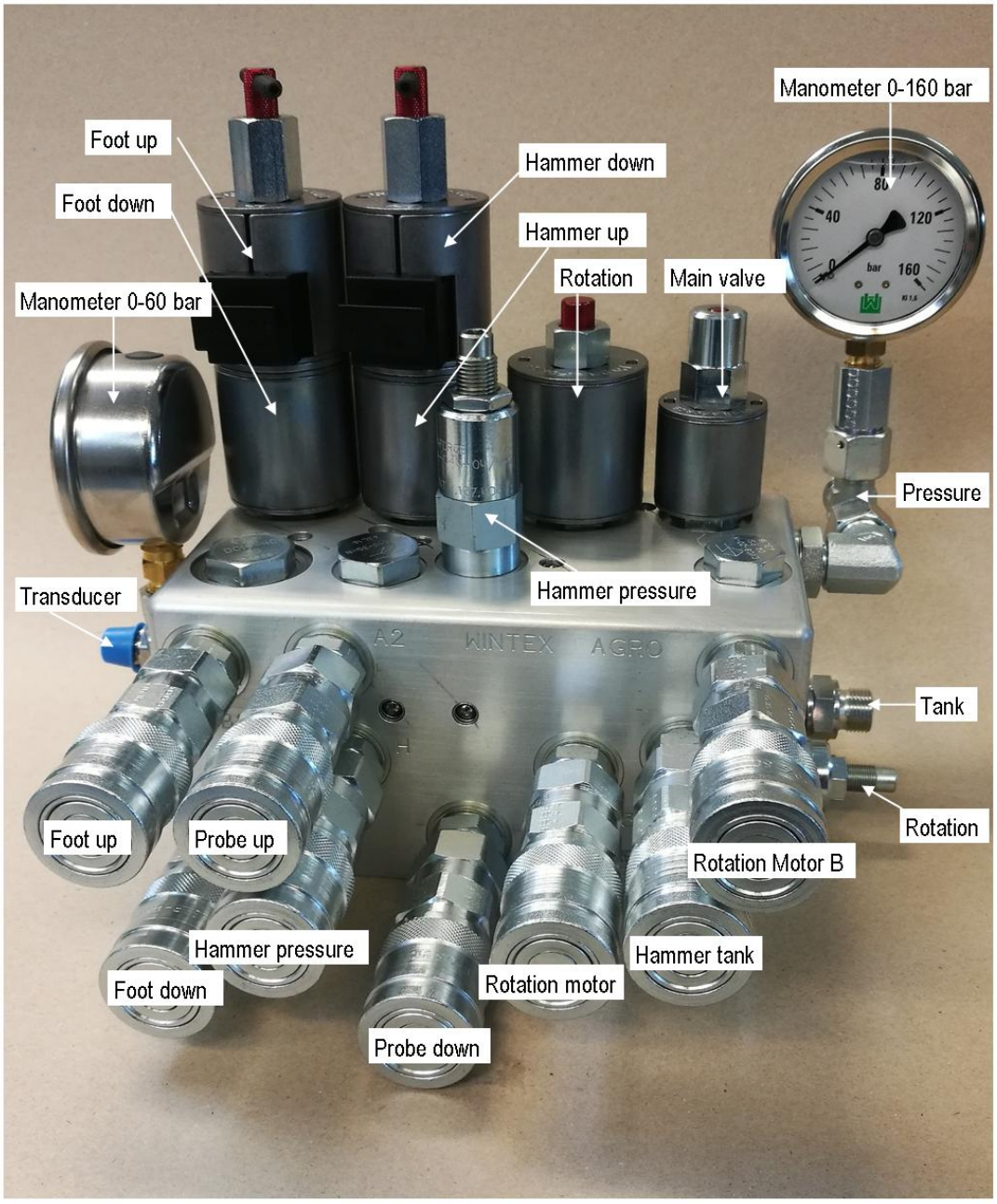
If the oil temperature exceeds 70^{O} C, the electricity box will be temporarily disconnected, and the redindicator light will be on. Wait until the temperature of the oil has lowered. In extremely hot areas or if the oil temperature would become a problem, shift to another oil type.

12. ELECTRICITY BOX



Connection of wires in the electricity box

13. HYDRAULICS



14. MAINTENANCE

Daily:

After three hours in use tighten all screws and bolts.
Check the chain for rotation. Lubricate if necessary.
Check the upper end of the probe. Lubricate if necessary.
Check the grease fitting for rotation. Lubricate if necessary.
Check all screws and bolts.
Clean the probe and the ejector.
Clean the soil box.
Clean the scraper blades.
Common cleaning of the soil sampler.
Check the level of the hydraulic oil and refill with oil if necessary.
Check the hydraulics for leaks.
Clean the oil tank.
Clean the oil cooler.

Check weekly and exchange/adjust if necessary:

50101038	Guiding rolls
19101022	Guiding pipe
19101002	Rotary sensor plate
50101044	Slide bearing
50101045	Gearwheel for rotation, 30 teeth
50101046	Gearwheel for rotation, 12 teeth

Check daily and exchange if necessary:

50101004	O-ring for scraper
50101003	Scraper
50101014	Scraper blade
50101039	Spring roll pin for scraper
19101001	Probe

Exchange after 500 hours in use and at least once a year:

10000002	Hydraulic oil filter
10000002	Hydraulic oil

Exchange if necessary:

15101196	Oil level rod with filter cap

Honda GX200 motor:

See instruction manual

15. PROBLEM SOLVING

PROBLEM	CAUSE	POSSIBLE SOLUTIONS
The WINTEX 3000 does not start soil sampling.	1) The fuse is blown. 2) The emergency stop is activated. 3) The inner sensor is broken. 4) A switch is broken. 5) There is a gap between the inner sensor and the upper sensor plate. 6) The hydraulic oil is overheated (the red indicator light is on).	1) Replace the fuse with a new 7.5 amp fuse. 2) Deactivate the emergency stop. 3) Replace the sensor with a new one. 4) Replace the switch with a new one. 5) Adjust the upper sensor plate. The gap should be 2-3 mm. 6) Wait until the oil has cooled down.
The soil sampler does not reach the ground before the probe starts to move downwards.	1) There is too much oil supply, or the oil viscosity is too high.	1) Change the oil, reduce the oil supply, or reduce the rotation speed of the pump. Adjust the oil pressure (r.p.m., manual point 7).
The hammer has no or too little power.	1) The probe is mechanically blocked. 2) The pressure accumulator is broken. 3) The hydraulic oil pump is broken. 4) The hydraulic oil filter is blocked.	1) Remove potential nicks. Lubricate the probe. 2) Replace the accumulator with a new one. 3) Replace the hydraulic oil pump with a new one. 4) Replace the hydraulic oil filter. The probe must be able to move freely for 15-20 mm.
The probe does not rotate properly.	1) The push button on the rotation valve is activated. 2) The sensors for rotation are not adjusted correctly.	1) Deactivate the push button by pressing and turning it clockwise. Then release the button. 2) Adjust the sensor. The gap should be 1-2 mm.
The probe gets stuck when moving upwards.	1) There are nicks/notches on the probe. 2) The revolving platform is not lubricated sufficiently.	1) Remove/repair the nicks. If there are notches, mount a new probe. 2) Lubricate the revolving platform.
The oil gets overheated.	1) The fuse for the electric fan is blown. 2) The thermostatic switch for the fan is broken. 3) The cooling fins are blocked.	1) Exchange the 15 amp fuse in the electricity box. 2) Replace the thermostatic switch for the fan with a new one. 3) Clean the cooler fins.
The soil sample is not divided correctly.	1)The gap between the outer sensor And the sensor plate in the middle is too wide. 2) The sensor in the middle is broken. 3) The gap between the sensors and the lower sensor plate isnot adjusted correctly.	1) Adjust the sensor plate in the middle. The gap should be 2-3 mm. 2) Replace the sensor with a new one. 3) Adjust the lower sensor plate.

16. FAULT LOCATION HAMMER

Before starting locating faults, check that the oil flow from the power source is correct and that the pressure relief valve is set correctly.

PROBLEM	CAUSE	POSSIBLE SOLUTIONS
The hammer does not start. There is pressure in hose P.	1) The oil supply goes to connection T instead of connection P. 2) The striking piston is stuck in the cylinder.	1) Switch hose P and hose T. 2) Polish or replace the components.
The hammer works irregularly.	1) There are impurities in the hydraulic oil. 2) The oil level in the power source is too low.	1) Replace the oil and the oil filter. 2) Add hydraulic oil.
The hammer performs badly.	1) There is an internal leak. 2) The oil flow from the power source towards the hammer is incorrect. 3) The accumulator pressure is too low. 4) The return pressure is too high.	1) Dismount the valve housing and replace the o-rings. 2) Check the oil flow. 3) Charge the accumulator with nitrogen or replace it. 4) Check the power source, the hoses and the filter.

15. DISMOUNTING THE ACCUMULATOR

Loosen the screws carefully.
Note: There are two screws in each hole.

16. CONTROLLING THE ACCUMULATOR

Put a long rod down the hole the accumulator to check if the accumulator is pressurized.

If the diaphragm can be pushed a lot, the accumulator must be charged with Nitrogen or the diaphragm is defective.

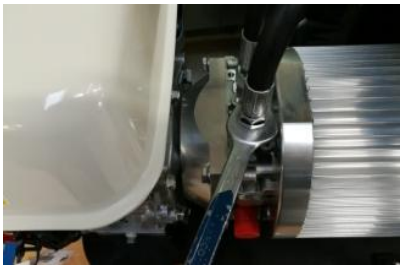
In case of a defective diaphragm, the accumulator must be replaced

Loosen the charging screw.
If the accumulator is in order, you can hear a whistling sound of Nitrogen. In this case merely recharge the accumulator.

If there is no whistling sound, the diaphragm is probably damaged and must be replaced.

17. CHANGING OIL AND OIL FILTER

Plug the filling hole with a solid plug.



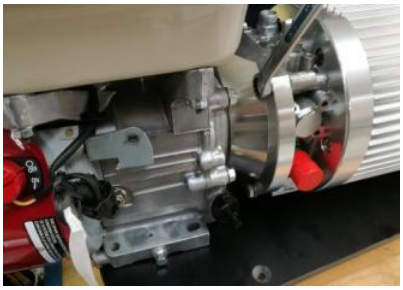
Remove both hoses.

Unbolt the engine and the tank.

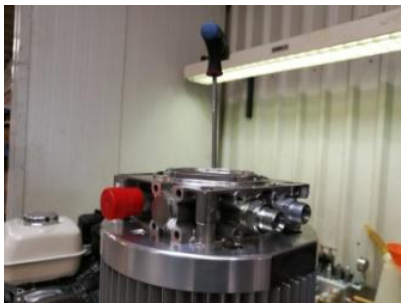
.

Remember the bolt under the tank.

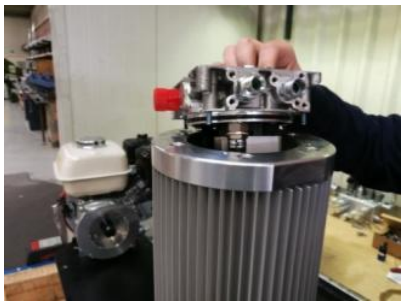
.



Slide the engine and the tank out under the cooler bracket and unbolt the engine.



Move the tank into an upright position. Unscrew the pump.



Replace the filter with a new one. Clean the tank thoroughly.
Then remount pump, tank and engine.