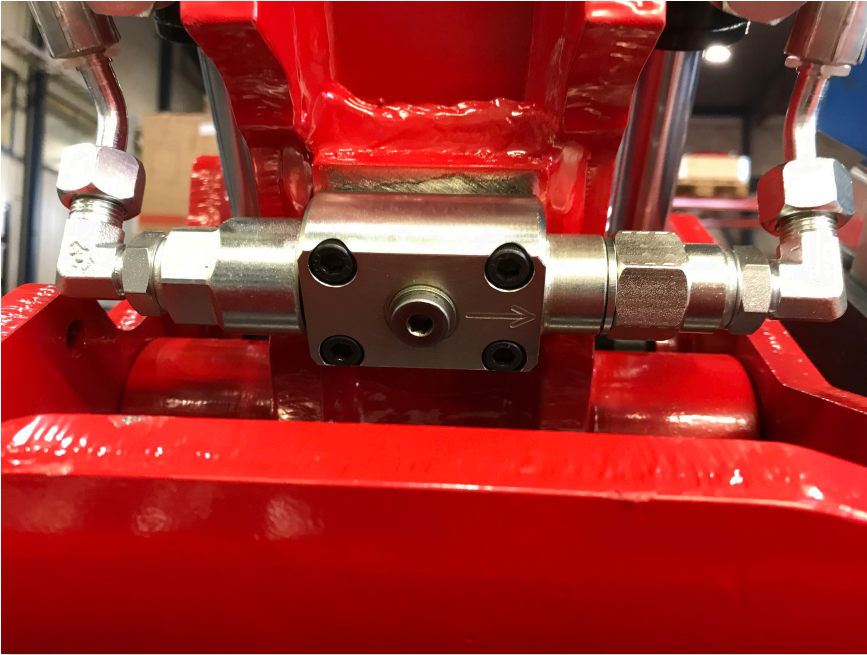
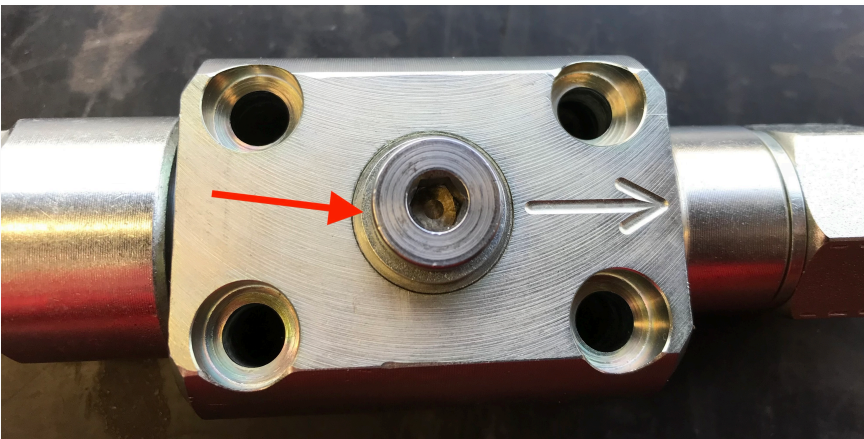


HOW TO CHECK IF THE LUBRICATION OIL PUMP (400-220223) IS WORKING PROPERLY

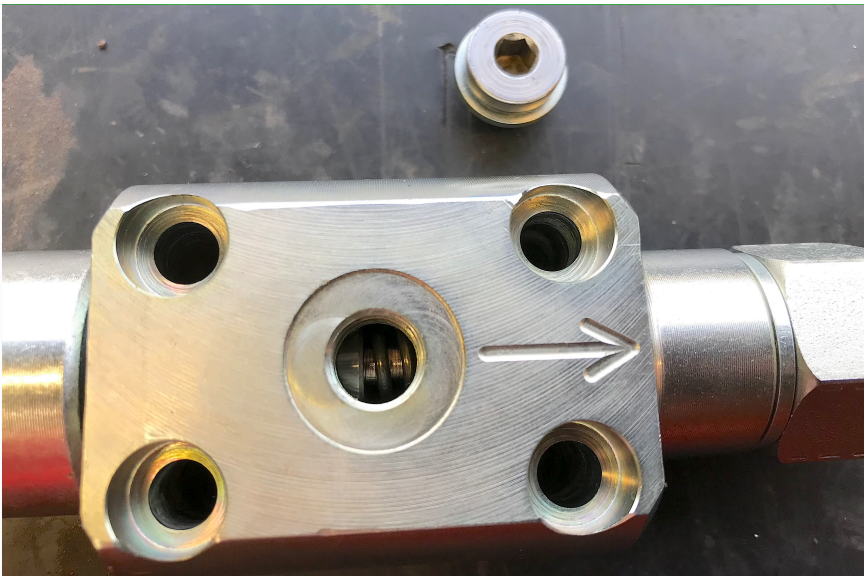
NOTE! Remember to keep a safe distance from the saw bar and saw chain!



Tilt the grapple saw so that the lubrication oil pump is visible and accessible. The oil pump doesn't need to be removed from the grapple saw. In the instruction it is removed only in order to get better pictures.



Unscrew the plug in the middle of the oil pump, marked with a red arrow in the picture.



When the oil pump is in a neutral position you can to the left see a part of the piston and to the right a part of the spring.

When you saw the piston should move to the right, in the direction of the arrow. When you stop sawing, the piston should automatically move back to the neutral position.



If the piston in the oil pump doesn't return to the neutral position, but remains in the far right position, there is still pressure in the oil pump.

Loosen the fitting coming from the hydraulic hose 400-220925 (in SG160 400-220976). If the piston returns to its neutral position when the pressure is relieved, the pump is working as it should. However there is residual pressure in the hydraulic system that prevents the piston from returning to its neutral position. This could be a result of several different reasons, one could be that there is a wrong type of valve to grapple open/ close on the machinery the grapple saw is mounted on. Another possibility is that there is a diverter valve on the line to the grapple function that is preventing the hydraulic pressure to equalise.

If the piston is still in the far right position, remove the oil pump and clean it. If this doesn't help, the oil pump needs to be replaced (see separate instruction).



NOTE!! For safety reasons, remove the saw bar and saw chain before testing this step.

It is difficult to see with the naked eye if there is coming oil to the saw chain or not since the amount is very small.

To check this, remove the lubrication hose 400-220937 going to the saw bar attachment, and hold it over a bottle, bowl or similar container. When sawing with the grapple saw, you should get 2 ml of oil per saw action in your container.

If the oil is pumping as expected through the hose, please check the saw bar attachment for debris in the channel leading the oil to the saw bar.