

Service description

Product: VM420	Service description No.: 4120-S030	Ver: 2
-------------------	--	-----------

Symptom

Oljetemperaturen exceeds over 70°C. Heat build up in the hydraulic system.

Cause

1. Worn out cooling fan. The fan blades are straightened after long time use..
2. Chips, dust and dirt have piled up inside the machine and made an isolating layer covering hoses, valves and oil tank.
3. The cooling air for the machine do not flow right.
4. The machine do not have necessary oil quantity.
5. The main security valve being operated by the safety lid above the splitting bed, takes av half way position and leaks oil back to tank. This causes heat build u in the valve and reduced oil flow for the cooling fan causing reduced cooling effect and heat build up.
6. Worn our saw motor. The internal leakage in the motor causes increased temperature.
7. Worn out hydraulic pump. The internal leakage in one or several of the hydraulic pumps causes increase temperatur.
8. Poor oil quality. Condensation and old oil.
9. Uncorrectly adjusted safety valves. Oil leaks out and caused heat.
10. The black knob adjusting the power of the saw movement is blocked in open position and leaks too much oil. The saw bar consequently pushes too hard into the log causing the saw motor valve to open and stops the saw chain rotation..Heat build up when oil passes this safety valve. The oil flow for the cooling fan is reduced and the cooling effect is also reduced..
11. The conveyor works with resistance. Chips and contaminants give the carriers more resistance. The gear wheel powering the chains has metal to metal contact with the motor and is slow working. The safety valve for the conveyor drive leaks oil and creates heat.
12. Constrictions in the hydraulic valve or other flow reductions can cause heat. Hoses can be bent during operation or being inflected by higher temperature causing them to have narrowing bends..

Solution

1. Replace fan with a new one
2. Clean the machine internally. Remove all chips dust and contaminants outside hydraulic components and tank.

3. Ensure that cooling ribs allow air to come in and pass the tank. Control that the cooling fan removes chips by blowing the out..
4. Cheque oil level. Refill to indicated level at the level glass in the oil tank.
5. Control that safety valves is completely closed when the safety cover for the splitting bed is in closed position. If this does not close properly adjust to correct position. See [4120-S015](#)
6. Replace saw motor. See [4120-S007](#)
7. Replace poumps.
8. Follow the machine instructions for oil replacement. Also change filter. If there is condensation in the oil it must be replaced..
9. Control safety valve adjustments.. See [4120-S001](#)
10. If the machine does not build up heat when not working (idle running), but build up heat when in use: Clean the adjustment valve or replace it. See [4120-S029](#)
11. Clean the conveyor and ensure that is it easy running. Also control whether the gir wheel contacts the motors metal. Operate the conveyor belt speed control function and adjust to complete stop. If the cooling fan speed increases when the oil flow is stopped, the safety valve is leaking. The safety valve for the cnveyor has to be adjusted. Adjust the safety valve in the valve for the conveyor belt. See [4120-S001](#)
12. Can be hard to find. We advise to control seprate circuits and replace hoses. The defect can be visual with increased temperature. Touch valves in order to find heat build ups. Control that hoses have even bends and not reduced diameter reducing oil flow.