

CERTIFICATE OF WORK COMPLETED UNDER XADO TECHNOLOGY

CHP pumps and ID fan: bearing vibration reduced on in-service equipment

RUP Grodnoenergo, Lida Heating Networks · work performed by GT ODO VaTT · certificate approved by the chief engineer of RUP Grodnoenergo

Lida, Belarus · work 12.02–18.03.2002 · certificate dated 18.03.2002

PRODUCT

XADO technology
XADO gel for bearings and compressors · XADO Revitalizing grease

TREATED EQUIPMENT

Six heating-network machines
SE-1250-140 network pumps ·
5N-8x4 fuel-oil pumps · TP-35 boiler ID fan

DOCUMENT TYPE

Certificate dated 18.03.2002
signed and bearing two stamps

MACHINE	TYPE AND ITEM	WHAT WAS MEASURED
Network pumps	SE-1250-140, items SN-1 and SN-3 — 2 units	Bearing vibration, motor noise
Fuel-oil pumps	5N-8x4, No. 1, 2 and 4 — 3 units	Bearing vibration, motor noise
TP-35 boiler ID fan	ORGRES07-132 — 1 unit	Bearing vibration, motor noise

Measurements were taken before the work started and repeated after 350-400 h of running time — on the same parameters and following the XADO technology procedure.

Key result

↓ **10-30 %**

bearing vibration of the pumps and the boiler ID fan

Results after 350-400 hours of running time

COMPONENT	PARAMETER	RESULT
Bearing assemblies of the pumps and the ID fan	Bearing vibration	Reduction of 10-30 %
Drive motors of the machines	Motor noise	Reduction recorded in the certificate

The results are given in the section "The following results were achieved" of the certificate; per-machine measurements are documented in Annex 2.

Scope of work and material consumption

ITEM	VALUE
Work period	12 February — 18 March 2002
Machines treated	6 — 2 network pumps, 3 fuel-oil pumps, 1 boiler ID fan
Running time before the repeat measurement	350-400 h as per the XADO technology procedure
XADO gel for bearings and compressors	95 ml for the entire scope of work
XADO Revitalizing grease	4475 ml for the entire scope of work

The machines were treated by specialists of GT ODO VaTT following the XADO technology.

Conclusions and recommendations of the certificate

The RUP Grodnoenergo certificate states: the positive results obtained demonstrate the effectiveness of applying XADO technology to heating-network equipment. Restoration was carried out while the equipment stayed in service — repeat measurements of the same parameters were taken after **350-400 hours** of running time of the treated machines. According to the conclusions of the certificate, XADO technology makes it possible to reduce machine noise and vibration and to cut equipment repair costs. The signatories recommend including restoration of machines by XADO technology in the scheduled equipment maintenance system; the technology is recommended for further roll-out at RUP Grodnoenergo and at other enterprises operating similar equipment. The work covered six machines of the Lida Heating Networks — network and fuel-oil pumps and the TP-35 boiler ID fan.



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The results relate to the SE-1250-140 network pumps, the 5N-8x4 fuel-oil pumps and the TP-35 boiler ID fan of the Lida Heating Networks; on other equipment and under different operating conditions the figures may differ. The original RUP Grodnoenergo certificate dated 18.03.2002, signed and stamped, is published in full and available for download.