



KHARKOVENERGOREMONT

Limited Liability Company



YEAR OF INCORPORATION
1946

OUR PHILOSOPHY

One of the major advantages of the Company's philosophy is the concept of team working. This simple but at the same time fundamental principle will ensure our success, prosperity and recognition as a reliable partner and, eventually, effective development of the Company.

Owing to the flexibility and high technical potential we are able to develop and present the solutions, products and services which satisfy to the utmost the interest and requirements of the Customer.

We are ready to keep up with the times in the ever-changing world and want to see you among our partners!





DEAR CUSTOMERS, PARTNERS, COLLEAGUES!

We welcome all those who get acquainted with the catalogue of the company "KHARKOVENERGOREMONT". On the pages of the catalogue you can get background information on our services, works and products.

LLC "KHARKOVENERGOREMONT" is one of the largest Energy Repair Company in Ukraine. Years of experience in the global energy market confirm the high rating of the company and high personnel qualification. Our intellectual property in the form of new and proven operating procedures, technological and design documentation, as well as our own industrial base allow us to perform today any and even the most complex "turnkey" projects

The services, works and products that we offer can satisfy your interest and will give us the opportunity to prove in practice the prospects of cooperation.

TOMORROW BEGINS TODAY

- MAKE THE RIGHT CHOICE!



For 70 years, KHARKOVENERGOREMONT have been performing services and deliveries to domestic and foreign generating companies and power facilities of industrial enterprises.

During this period, close contacts and relations have been established with companies in many countries around the world.

Rich experience and deep knowledge of the company's employees accumulated over the past period ensure continuous interaction of our management with partners almost everywhere in the world.

THE COMPANY'S ACTIVITIES INCLUDE THE FOLLOWING AREAS:

- market research of services to energy facilities and analysis of the generating companies' equipment;
- comprehensive services for technical upgrading, reconstruction and modernization, recovery and maintenance of power equipment of thermal power stations, hydroelectric power stations, heating plants and power facilities of industrial enterprises;
- project management related to installation of power equipment and "turnkey" project transfer to the customer;
- determination of maintenance level with further recommendations for corrective actions;
- information support of the company in studying the achievements and new trends of Ukrainian and foreign companies in power equipment repair management.

IN RECENT YEARS THE COMPANY HAS SUCCESSFULLY IMPLEMENTED THE FOLLOWING PROJECTS:

- Major overhaul of hydraulic unit No.1, Krasny Oskol HPP, Ukraine;
- Repair of the rotor and wheel space - АП-6-35КТ3, Akhtyrka CHP, Ukraine;
- Major overhaul of the turbine generator TTB -200M with the replacement of the stator winding, station No.9, Kurakhovo TPP, DTEK, Ukraine;
- Major overhaul of the turbine generator TBC-30, station No 4, Odessa CHP, Ukraine;
- Major overhaul of the turbine K-100-90 ЛМ3, station No.2, TPP Falai, Vietnam;
- Major overhaul of the turbine K-300-170-1P ЛМ3, station No.1, TPP "Wong Bi", Vietnam;
- Major overhaul of the main and auxiliary equipment of CHP, Barentsburg mine, Spitsbergen archipelago, Norway;
- Major overhaul of the turbine K-300-240-2T-ЛМ3, measurement of magnetization intensity of HP, LP, MP rotors and their demagnetization at the TPP "Ramin", Iran;
- Major overhaul of the turbine K-210-130 ЛМ3 at the TPP "Orhanelli", Turkey;
- Reconstruction and modernization of power units K50-90-4 ЛМ3 No.1 and No.2, TPP "Gorazal", Bangladesh;
- Major overhaul of power units N-210-130 Harbin (China) Stations No.1, No.2 and No.3, TPP "Dzhamsharo", Pakistan;
- Major overhaul of turbine generating units K-500-240-2, LLP «AES Ekibastuz», Kazakhstan;
- Reconstruction and modernization of power units No.1 and No.2, TPP "Obra", India;
- Disassembly, manufacture and installation of heat power equipment, JSC "Experimental TPP", Krasny Sulin, Russia and many other projects in the countries of CIS, Asia and Europe.

BOILER AND TURBINE DEPARTMENT

MAIN ACTIVITIES OF THE BOILER DEPARTMENT:



- installation, repair and reconstruction of low and high power boilers;
- reconstruction and modernization of steam boilers in order to increase steam production, fuel change;
- transfer of steam boilers to hot water mode of operation;
- reconstruction and repair of vessels under pressure;
- installation, repair and reconstruction of gas-supply systems, installation of gas-distributing units and gas distribution substations;
- manufacture of elements for boilers, pipelines, vessels;
- a range of works for extending the life of equipment;
- special rigging works; auxiliary equipment repair.

COMMISSIONING WORKS FOR:

- steam and hot water boilers running on gaseous, liquid and solid fuels;
- acid cleaning of boilers in different ways;
- pre-start boil-out;
- acid cleaning of heat exchangers;
- conservation of thermal power equipment;
- steam-oxygen cleaning of boilers and pipelines;
- chemical treatment of water (Na-cation exchange, H Na-cation exchange, ADP - autonomous demineralizing plant, BDP - block demineralizing plant).
- New technologies in this field:
 - correctional treatment feed and boiler water;
 - thermochemical testing (setup of water chemistry treatment).



During 2007-2012 inclusive, the boiler team of KHARKOVENERGOREMONT completed disassembly of the old and installation of a new boiler equipment together with reconstruction of furnace systems, installation of two chimneys at the CHP of the mine Barentsburg, Spitsbergen Archipelago, Norway. The works were carried out in harsh conditions of the Far North. The works included disassembly and installation of thermal insulation of heat and water supply systems of residential settlement. In 2008, the boiler team of the Department carried out an overhaul of boilers at the stations No. 7 and No. 9 at Shostka CHP, including manufacture and replacement of platen superheaters and boiler economizers BK3-160-100ГМ. Superheaters and economizers were manufactured at the own industrial yard of KHARKOVENERGOREMONT.

Technical proposals of our boilermakers are based on experience of more than half a century in reconstruction and modernization of the main and auxiliary boiler and turbine equipment, and steam and hot water lines at the power stations in Ukraine, CIS and non-CIS countries.

The experts of the Boiler Department ensure technologically accurate and strategically correct technical solutions allowing to extend the service life of the customer's equipment or to create opportunities for the development of new capacities.

MAIN ACTIVITIES OF THE TURBINE DEPARTMENT



- installation, repair, modernization, reconstruction and adjustment of turbine units and auxiliary equipment;
- standard and specialized repair of all types of steam, hydraulic, driving and gas turbine units with a warranty;
- major overhaul, testing and adjustment of turbine automatic control in power plants;
- delivery of equipment and spare parts for thermal mechanical equipment;
- major overhaul and adjustment of all types of pumps, manufacture and repair of heat exchangers and other equipment directly on-site or at KHARKOVENERGOREMONT's industrial yard.

SPECIAL ACTIVITIES OF THE TURBINE DEPARTMENT:

- replacement of obsolete and outdated automatic control systems with modern electronic-hydraulic systems;
- analysis and elimination of excessive vibration of turbine units and all rotating machinery;
- dynamic balancing of rotors in their own bearings and on the balancing machine.

The specialists of the Turbine Department have performed a unique restoration and overhaul of steam turbine K-500-240-2 at the station No. 4 of LLP "AES" Ekibastuz" where low-pressure cylinder structural parts manufactured at the Leningrad Metal Plant, Russia, have been completely replaced with the construction of Turboatom, Ukraine, with preliminary design correlation, and the following works: emergency repairs of the turbine K-300-240 at the station No. 2, subsequent repair with replacement of rotor blades of the high-pressure hose – 4 stages, low-pressure hose - 10 stages, medium-pressure hose - 10 stages at the power station "Ramin", Iran; overhaul of the power unit N-210-130, Harbin, China, station No. 2, TPP "Dzhamskharo", Pakistan with replacement of 4 stages of low-pressure hose; reconstruction and modernization of power units No 1 and No 2, TPP "Obra", India and many other projects around the world.

During performance of the works the Turbine Department specialists use their personnel's rich experience and qualification accumulated over many years of implementation of such projects, apply the latest technology and their own "know-how", develop original equipment and facilities in the framework of ongoing projects.



MAIN HYDROPOWER ACTIVITIES:



KHARKOVENERGOREMONT has been successful for a long time in the market of services for repair and modernization of energy facilities in Ukraine, CIS countries and abroad.

The Hydropower Department performs installation, commissioning, overhaul and reconstruction of hydropower and hydromechanical equipment for hydroelectric power plants and pumping stations. Works are carried out on all known hydraulic units of various designs. In the process of repair of hydraulic units a thorough fault detection of units and mechanisms is conducted.

A complicated method of turbine repairs without disassembling has been developed (with lifting of the turbine cover). The method enables to reduce labor intensity and to save time for disassembling. The specialists' qualification level enables to perform at the repair stage complicated works that were previously performed only at the factory. In the process of repair works new technologies of work performance are widely used. We have developed a method of modernization of guide vane bearings, turbine bearing and thrust bearing, sealing systems using new technologies and materials, protection of the turbine wheel and wheel space against cavitation damage based on ceramic polymer and new technologies.



In addition, we have experience in modernization and reconstruction of small hydropower plants.

We offer repair and recondition of nonstandard equipment using new repair technologies. We produce non-standard (of large size and complex geometric shapes), seals, hubs, sliding bearings made of new anti-friction materials for heavy duty operations in aggressive, abrasive environments and under water.

The resource of products made of these materials is several times higher than the standard products used in very critical subassemblies, the replacement of which requires a lot of time and energy.

Having experienced, highly qualified personnel, as well as established relations with a number of industrial and engineering companies, we offer to our customers a full cycle of comprehensive works for repair, modernization and construction of new energy facilities.



ELECTRIC DEPARTMENT:

MAIN ACTIVITIES:



Major overhaul of turbine generators, hydro-generators, high voltage motors, synchronous compensators:

- checking turbine generator for gas tightness and eliminating leakages;
 - disassembly and reassembly;
 - removal and installation of oil interceptors, diffusers, upper and lower end shields;
 - rotor removal and introduction;
 - active steel seal and repair, loss and heating testing;
 - stator slot rewedging;
 - testing for hydraulic density of stator winding;
 - resoldering of the stator winding heads with re-insulation;
 - replacement of the cord bands;
 - replacement of stator windings;
 - replacement of frame insulation, compounded insulation of a rod, coil;
 - rotor removal and installation;
 - generator preparation, electrical testing, measuring, hydraulic testing;



- Repair of the rotor:
 - checking for fit and condition of retaining and centering rings;
 - repair of fan slip rings, current leads, balancing weight fasteners, check for gas tightness and hydraulic density;
 - replacement of slip rings;
 - replacement of slip rings insulation;
 - repair of current leads, replacement of central current lead insulation and a tire;
 - restoration and replacement of rotor winding coils;
 - rewedging of rotor slots;
 - repair of retaining rings;
 - replacement and repair of banding insulation;
 - removal, repair and installation of the fan blades;
 - repair of the shaft oil seal system;
 - repair of a brush-contact device, contact rings boring and polishing;
 - repair of gas coolers;
 - repair and manufacture of stator winding terminal leads;
 - repair of generator gas system.



- Additional works performed during major overhauls:
 - hard and soft soldering of winding;
 - preparation of parts for ultrasonic and dye penetration inspection
 - acquisition of necessary materials and spare parts.

ELECTRIC DEPARTMENT

- Major overhaul of transformers (without replacement of winding):

- preparation of the repair area;
- transformer disassembly on the foundation (disconnection of control cables, preparation for rerolling, if necessary);
- partial oil discharge;
- disassembly of the transformer units (expander, exhaust pipe, dehydrating filter);
- lead-in removal;
- active part opening;
- repair of the tank detachable part;
- tank repair (replacement of gaskets, elimination of oil leaks);
- inspection and repair of the active part (magnetic conductor testing, elimination of closures, checking the grounding, winding testing, winding pre-pressing, checking insulation condition);
- repair of a switching device (inspection and repair of switching device contacts, inspection and repair of a switching device actuator);
- cooling system repair;
- repair of the transformer units (expander, dehydrating filter, etc.);
- lead-in repair (testing, oil change, if necessary, drying);
- installation of units, assembly of the transformer;
- encapsulation of the transformer active part;
- oil filling;
- installation on the foundation;
- oil refilling
- testing.

- Additional works performed during overhaul of transformers:

- handling operations;
- transformer warming before opening;
- transformer pre-drying (drying);
- transformer oil recovery (drying, cleaning, decontamination);
- acquiring necessary materials and spare parts.

- Possible volume of works for the repair of transformers and generators installed at the steel plants:

- general purpose oil transformer of voltage class up to 110 kV (6, 10, 35, 110 kV), with a capacity of 1,000 to 80,000 kVA, according to standard volume of repair works (repair of the active part, repair of the transformer units, drying and purification of transformer oil);
- special transformers for electric furnaces of various purposes;
- oil and dry transformers of voltage class up to 6 kV; 10 kV and 35 kV with a capacity of 40 000 kVA, according to standard volume of repair works;
- standard overhaul of turbine generators and reconstruction.

- The Electric Department is equipped with modern equipment, repair accessories and tools. When performing the fieldwork, the department specialists independently design and manufacture required original devices at the industrial yard of KHARKOVENERGOREMONT.

The Department employees' qualification is proved due to many years of work and a large number of completed projects in Ukraine and abroad.

Thanks to modern technology and scientific potential of the department our specialists have developed, manufactured and delivered leads for the generator GE – by the order of "KONCAR-Generators & Motors Inc. ", Croatia; have performed emergency repair of the stator winding of the turbine generator "Siemens-Schuckert" type FT 490 / 60-3000, production year 1943 at Kharkov CHP-3; overhaul reconditioning with replacement of stator winding rods of the turbine generator TBB-800-2, with manufacture and replacement of contact rings of the exciter BT-6000 at Slavyansk TPP of PJSC "Donbassenergo", and many other projects in Ukraine, CIS, Europe and Asia.



GENERATOR TERMINAL LEADS



Production of stator winding terminal leads with a capacity of up to 500 MW, voltage up to 20 kV using fiberglass insulators for air-, hydrogen- and water-cooled turbine generators.

The material used to manufacture cylinders complies with TR U 26.1-22641550-001-2004.

SPECIFICATIONS AND PARAMETERS

	Lead assembly	ТГБ-300	ТГБ-200	ТГБ-200М	ТБС-30	СГК-538/160-70М	ТГБ-500
1.	Nominal rating power, MW	300	200	200	30	19,5	500
2.	Nominal voltage, kV	20	15,75	15,75	10,5	6,3	20
	Fiberglass insulator						
1.	Density, gr/cm ³	1,8-2,0	1,8-2,0	1,8-2,0	1,8-2,0	1,8-2,0	1,8-2,0
2.	Ultimate stress, MPa, not less - under static bending - under compression along an axis	250 150	250 150	250 150	250 150	250 150	250 150
3.	Voltage test at frequency 50 hz over the surface, kV/mm	0,265	0,265	0,265	0,265	0,265	0,265
4.	Volume resistivity, Ohm meter, not less initial condition after placing in a humidity chamber for 24 hours	5·10 ¹¹ 1·10 ⁹	5·10 ¹¹ 1·10 ⁹	5·10 ¹¹ 1·10 ⁹	5·10 ¹¹ 1·10 ⁹	5·10 ¹¹ 1·10 ⁹	5·10 ¹¹ 1·10 ⁹
5.	Surface resistance, Ohm meter, not less initial condition after placing in a humidity chamber for 24 hours	1·10 ¹² 1·10 ⁹	1·10 ¹² 1·10 ⁹	1·10 ¹² 1·10 ⁹	1·10 ¹² 1·10 ⁹	1·10 ¹² 1·10 ⁹	1·10 ¹² 1·10 ⁹
6.	Dielectric loss factor at frequency 50 hz, no more than 3%	1,5	1,5	1,5	1,5	1,5	1,5

Repair and modernization of leads with the replacement of porcelain insulators with fiberglass for all types of turbine generators with a capacity of 500 MW, voltage not exceeding 20kV.

We have developed the design and manufactured 4 sets of generator terminal leads of 100 and 200 MW for "KONCAR-Generators & Motors Inc.", Croatia. In 2013 we have delivered two sets of terminal leads of turbine generator TGV-200M for TURENTTRADING, INC, British Virgin Islands. Active cooperation with customers in Ukraine is in process.

In addition, terminal leads have been manufactured and delivered to the following customers:
Burshtyn TPP, Ukraine; Zuevskaya TPP, Ukraine; Uglegorsk TPP, Ukraine
Starobeshevo TPP, Ukraine; Lugansk TPP, Ukraine; Kiev HPP, Ukraine.

We are able to develop leads for other types of machines according to the Customer's specifications.

SPECIAL ACTIVITIES DEPARTMENT

Our specialists will perform a range of works for inspection, repair, reconstruction, modernization and adjustment of the main intra-turbine steam pipelines, steam extraction from cylinders, vapor exhaust from seals, feed pipeline and elements of support and suspension systems (SSS).

If necessary, our specialists will calculate the strength and homing action of pipeline with issuance of a conclusion according to RD 10-249-98 (ASTRA-STATS-11). Repair work procedures for the supports of all types of turbine generators and regulatory documents RD 34.30.506-90 "Guidelines for normalization of thermal expansion of steam turbine cylinders of thermal power plants" require compulsory works with regard to support and suspension systems (SSS) of turbine generator steam pipelines.

Unsatisfactory condition of pipeline SSS affects uniform distribution of loads on the support from cylinder feet and has a negative effect on thermal expansion of turbine generator cylinders, which leads to biting and pinching of chairs on longitudinal keys and emergence of uncompensated twisting moments of longitudinal beams. Main hazardous factors related to pipelines and SSS that affect general condition of a turbine generator are non-standard efforts and torques that cause different types of vibrations, with all the consequences that come with it.



MAIN ACTIVITIES:

- inspection of steam pipelines and support and suspension system (SSS) in order to specify a layout, lack of deflections and jamming, as well as compliance with the design;
- check of springs installed, their location and design for compliance with the design;
- calculation of SSS load of steam lines (pipelines); due to replacement of HPC and MPC we develop and implement technical measures for connection of pipelines to the outer HPC, MPC of the turbine and subsequent
- "cold" draws and adjustment of loads on the suspension rods; heights of spring tension of spring hangers are measured and actual load values in a cold state are calculated with
- preparation of comments and recommendations for their adjustment;
- adjustment of springs of spring hangers with allowance for admissible and design loads; multistage adjustment of steam pipeline SSS connected to HPC and MPC in order to normalize and balance loads on HPC and MPC feet;
- preparation and issuance of the data sheets for spring tension of spring hangers of the steam lines OP, GPP, HPP, PV, HPC bypass steam lines, extractions, etc;
- analysis of thermal movements of steam pipelines OP, GPP, HPP according to the data sheets for thermal movements;
- a report on the completed work is prepared.



LABORATORY OF METALS



Inspection is conducted for:

- examination of facilities subordinate to National Committee for Occupational Health and Safety with obtainment of necessary permits for further operation, inspection of metal and welded joints, lifting devices and gas pipelines;
- testing;
- non-destructive testing:
 - visual and optical (VT);
 - ultrasonic (UT);
 - magnetic-particle (MT);
 - penetrant (PT);
- destructive inspection method:
 - hardness measurement;
 - mechanical testing;
 - metallographic analysis;
 - metallographic arc spectroscope;
- technical diagnosis:
 - (experimental survey);
- technical inspection (besides primary inspection).

INSPECTION IS CONDUCTED FOR:

- steam and hot water boilers;
- vessels operating under pressure;
- steam and hot water pipelines;
- steam turbines;
- lifting cranes;
- gas pipelines.



WELDING LABORATORY, WELDING WORKS

THE MAIN ACTIVITIES OF THE WELDING LAB ARE:



- training and re-certification and advanced training of certified electric welders for the following qualifications:
- semi-automatic welding in active gases;
- manual argon arc welding;
- electric arc welding of pipe heating surfaces, steam and hot water pipelines, pipe elements of boilers, metal structures of vessels operating under pressure of low-carbon low-alloy steels in all 3D positions of welds.

The Welding Laboratory has a staff of qualified professionals: engineers, foremen, instructors and is equipped with necessary equipment:

- inverters – САИ-160; ИСТ-160;
- rectifiers – ВСЖ-303; ВД-306 У3; ВДГ-303 У3; ВДУ-506С-ПДГО-508; ВДМ-1001; ВДМ-1201; ВКС-500М1;
- welding transformers – ТДФ-1001 У3; ТДФЖ-1002 У3;
- weld rod oven;
- pendulum hammer МН 30А;
- microscope МИМ-8М;
- pull test machine P-50;
- hardness testing machine HRC stationary;
- ultrasonic detector УЗД-2-12.



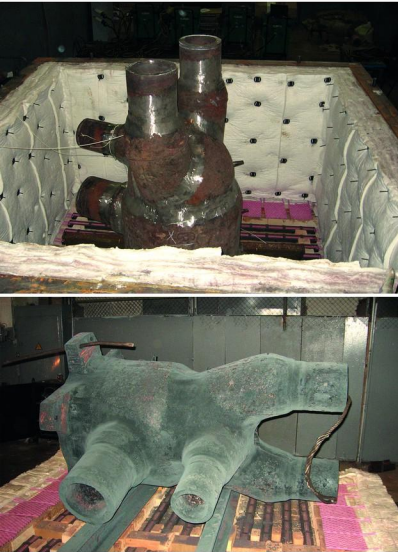
THE WELDING LABORATORY PROVIDES THE FOLLOWING SERVICES:

- development of technological processes for particularly difficult repairs of power equipment units and components;
- welding procedure certification;
- technical guidance and execution of welding technical documentation in the process of power equipment repair;
- quality control of welding materials and welded connections in the process of welding works;

Years of experience in the energy industry, available qualified personnel, necessary regulatory technical documentation, special equipment and accessories enable us to solve successfully the most complex tasks of repairing power equipment parts and components using various types of welding.



RHT (RECOVERY AND HEAT TREATMENT)



In the process of welding works, including repair of power equipment we will perform heat treatment in a quality and timely manner, in particular:

- preheating during welding;
- high tempering;
- normalization;
- austenization.

Our specialists will provide professional services for recovery and heat treatment:

Time-consuming and expensive replacement of pipelines and bends, body parts of lock and control valves, boiler drums, turbine cast parts, SSS (support and suspension system) fixtures may be avoided due to timely recovery and heat treatment (RHT) of a metal having a limited service life.

The purpose of RHT is to restore the structure and properties of metal used for a long time in the process of complete phase recrystallization to a level corresponding to the original condition of the metal (casting condition), as well as to heal defects.

We offer:

Feasibility study of RHT effectiveness in order to extend service life.

In the process of the whole scope of RHT works a permit for extension of service life is issued.

List of the main types of works in the process of RHT:

- feasibility analysis of RHT effectiveness;
- development of work performance program and technologies of recovery heat treatment process;
- development of repair technologies to eliminate the detected defects;
- manufacture and installation of a heat-treating furnace in a specially equipped repair site of the Customer (if necessary);
- isolation disassembly when dealing with steam pipelines and SSS components;
- performance of RHT process, which includes "normalization" and "high tempering" of all elements;
- metal control before, during and after RHT;
- reporting documentation development;
- preparation and issuance of the conclusion.

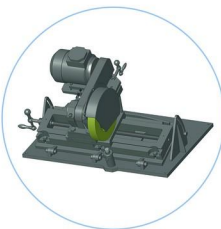


ACCESSORIES AND SPECIALIZED TOOLS

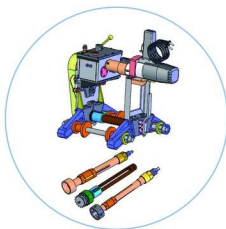
KHARKOVENERGOREMONT is one of the leading companies of Ukraine for the development and manufacture of accessories, original devices and tools for repairs of boiler, turbine and electrical equipment.



Angle drilling device
YCП-3M

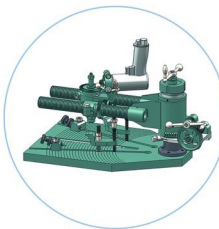


Device for grinding rotor necks T01.86



Device for machining
the coupling holes of the turbines
ГМ.431 and ГМ.436

Initially, this production was based on the need for timely provision with repair equipment of their own staff and maintenance of high quality level of services to energy facilities by the company's repair personnel. For this purpose, a variety of devices and accessories were developed and manufactured in the course of works, and eventually a single-piece production became small-scale, taking into consideration the interest in and the need for accessories by other repair companies.



Device for machining the
shoulders T01.32



K1738
Beveling device with inside
fastening for pipes
Ø26 – 63 mm
(pneumatic, electric
220V & 36V)



K1755
Beveling device with outside
fastening for pipes
Ø28 – 60 mm
(pneumatic, electric
220V & 36V)

This catalogue includes some samples, a complete list can be found in a separate catalogue of tooling and accessories on the company's website www.khaer.com.ua

LLC KHARKOVENERGOREMONT ALSO PROVIDES THE FOLLOWING SERVICES:



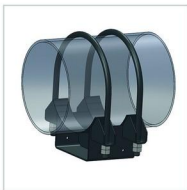
Embedded parts for the construction works

- metal treatment (turning, milling, hobbing, grinding, grooving and assembly operations);
- manufacture of support-suspension system elements of pipelines;
- design and manufacture of rolled metal structures up to 100 tons per month;
- production of spare parts for industrial equipment, specialists' visit to the customer's site, drafting;
- long-length pipe bending up to 101 mm;
- engineering works, conversion of drawings into electronic form;
- gas and plasma cutting, thermal cutting of metal with a thickness up to 100 mm on CNC machines, profile cutting of non-ferrous metals and alloy steels.

ELEMENTS OF SUPPORT AND SUSPENSION SYSTEMS



Spring blocks



Movable and fixed supports



Rings, half-clamps, roller blocks, supporting plates, fixed stops, etc.



Clamp blocks



Sliding supports



Rods, ears, lugs

FACILITIES AND CUSTOMERS

Ukraine

Odessa CHP
Kurakhovo TPP LLC "DTEK Vostokenergo"
Lugansk TPP LLC "DTEK Vostokenergo"
Zuevskaya TPP LLC "DTEK Vostokenergo"
Slavyansk TPP PJSC "Donbassenergo"
Starobeshevo TPP PJSC "Donbassenergo"
Tripoliye TPP PJSC "Centrenergo"
Zmiev TPP PJSC "Centrenergo"
Burshtyn TPP PJSC "DTEK Zapadenergo"
Dobrotvor TPP PJSC "DTEK Zapadenergo"
Zaporozhye TPP PJSC "DTEK Dneprenergo"
Krivoi Rog TPP PJSC "DTEK Dneprenergo"
Darnitskaya CHP LLC "Euro-Reconstruction"
Chernigov CHP LLC "TekhNova"
Kremenchug CHP
"Simferopol CHP LLC"
Krymteploelektrotsentral"
Sumy CHP
Kramatorsk CHP LLC
"Kramatorskteploenergo"
Alexandria CHP
Kharkov CHP-3
Shostka CHP
CHP LLC "Nikolaev Alumina Plant"
SE "CHP -2" Eskhar "
CHP SE "PA" Makarov Southern
Machine-Building Plant"
Kakhovka HPP JSC "Ukrhydroenergo"
Dneprodzerzhinsk HPP JSC
"Ukrhydroenergo"
Dniester HPP JSC "Ukrhydroenergo"
Krasny Oskol HPP
Tashlyk PSP
Factory "Severn" of the farm enterprise
"Organic Systems"
LLC "Trakonta" Dzhankoy MPT
SE NEC "Ukrenergo"
State enterprise "Shostka state factory"
Impulse "
SE plant "Electrotyazhmash"
NTU "KhPI"
JSC "Burynsk Sugar Plant"
OJSC "Poltava Turbomechanical Plant"
Crimean EPS, substation "Dzhankoy"
SE NEC "Ukrenergo"
Substation "Simferopol" 330 kV
JSC "Rubezhnoye Cardboard Mill"
JSC "Kryzhopol sugar factory"
LLC "Karlovski sugar factory"
JSC TM "Zmiev vegetable factory"
LLC "Mega-Azov"
JSC "Azovstal"
OJSC KGМК "Krivorozhstal"
JSC "Mittal Steel Krivoi Rog"
OJSC "Bahleykoks"
Kharkov CHP-5
Severodonetsk CHP

Belarus

JSC "Mogilev Instrument Plant"
JSC "Belenergoemnaladka"
LLC "NPP EnergoNefteKhim"
LLC "Tehsnabkomplekt"
LLC "Grateks Pro"

Russia

OJSC "Power Machines -ZTL, LMZ Electrosila"
Kursk CHP -1
JSC "Experimentalnaya CHP", Krasny Sulin
PA "Gubkin CHP ", Gubkin
Kamyshinskaya CHP, Volgograd
Novocherkassk SDPP
LLC "Stavrolen", Budennovsk
Rostov CHP -2, JSC "Rostovenergo"
Plant JSC "Salavatnefteorgsintez", Salavat
Volgodonsk CHP -2, Volgodonsk
Astrakhan CHP-2
Bratsk CHP, Bratsk
Novatecs LLC

Georgia

Saknahshiri "(GIG Group), Tkibuli
JSC "Sakenergoemont"
JSC "Tbilisi SDPP"
JSC "Energy Invest", Rustavi
JSC "Mtkvari Energy" Gardabani
Khrami-HPP1 JSC «AES Khrami "
Tkibuli TPP
Gardabani TPP

Moldova

JSC "Moldovan SDPP "

Kazakhstan

LLP "AES Ekibastuz"
LLP "AES Shulbinskaya HPP"
JSC "Tsentrkazenergomontazh"
LLP "DMCh Abadan"
LLP "Almaty Remenergomontazh"
JSC "PromInvestAlmaty "

non-CIS countries

TURENTTRADING, INC, British Virgin Islands (for
Energy of Turkmenistan)
TPP "Muzaffargarh", Pakistan
TPP "Fa-lay", Vietnam
TPP "Wong Bi", Vietnam
Pakistan Metallurgical Plant
(Pakstil Co.) Karachi, Pakistan
Iranian company for repairing power stations
Karaj, Iran, TPP "Ramin"
CHP Barentsburg mine, Spitsbergen Archipelago,
Norway
TPP "Orhaneli", Turkey
TPP "Gorazal", Bangladesh, Nirman Power
Generation Ltd
TPP "Shahzi Bazar", Bangladesh
TPP "Dzhamsharo", Pakistan, «GRID TRADING»
Malta Ltd
TPP "Obra", India
TPP "BAR", India
"Ugljevik" TPP, Bosnia-Herzegovina
TPP "Sisak", Croatia
TPP "Al-Hiswa" Yemen
Kavosh Puia Jonooob (KPJ), Iran
Tadzhiz Niru Sanat Berg Puia (TSP-Co), Iran

FEEDBACK FROM OUR CUSTOMERS

Министерство энергетики
та вугільної промисловості України
ПАТ "ОДЕСЬКА ТЕЦ"
код ЄДРПОУ 65471158
65003, м. Одеса, вул. Церковна, 29
телефон (048) 738-62-51, факс (048) 723-12-94
e-mail office@otec.odessa.ua



Министерство энергетики и угольной
промышленности Украины
ПАО "ОДЕССКАЯ ТЭЦ"
код ЕД РПОУ 65471158
65003, г. Одесса, ул. Церковная, 29
телефон (048) 738-62-51, факс (048) 723-12-94
e-mail office@otec.odessa.ua

№
04.02.2016 01/06-204
на № від

Директору
ООО «Харьковэнергомонт»
Пронину А.К.

Отзыв о выполненной работе

В 2014 году специалистами ООО «ХАРЬКОВЭНЕРГОМОНТ» был выполнен капитальный ремонт турбогенератора ТВС-30, ст. №4 Одесской ТЭЦ.
При выполнении работ специалисты ООО «ХАРЬКОВЭНЕРГОМОНТ» показали высокую квалификацию, умение и организованность. Работы выполнялись слаженно, своевременно и технически грамотно, в четком взаимодействии с персоналом ТЭЦ.

С момента пуска в эксплуатацию турбогенератор работает без замечаний до настоящего времени.

Руководство ПАО «Одесская ТЭЦ» выражает благодарность руководителям и специалистам ООО «ХАРЬКОВЭНЕРГОМОНТ» за выполненные работы и рассчитывает на дальнейшее сотрудничество.

Рекомендуем компании ООО «ХАРЬКОВЭНЕРГОМОНТ» как надежного и опытного подрядчика по ремонту сложного энергетического оборудования.



Главный инженер

А.И. Шенгелиев

НАЦИОНАЛЬНАЯ АКЦИОНЕРНАЯ КОМПАНИЯ



ПУБЛИЧНОЕ АКЦИОНЕРНОЕ ТОВАРИЩЕСТВО
«ОДЕСЬКА ТЕЦ»



ОАО «Ситовые машины»
Филиал открытого акционерного общества «Ситовые машины»
ЗТЛ ЛМЗ, Электросила, Энергомашэкспорт-
«Электросила» в Санкт-Петербурге



Московский пр., д. 139, Санкт-Петербург, Россия, 190105, тел. +7 (812) 387-44-77, факс +7 (812) 388-16-14
E-mail: info@silomash.ru, http://www.power-m.ru

27.10.2009 № 55-96-52/104
На № от

Генеральному директору
ООО «Харьковэнергомонт»

С ноября 2007 г. по октябрь 2009 г. исключительно специалистами Вашего предприятия выполняются договорные объемы работ на промышленной площадке филиала ОАО «Ситовые машины» «Электросила» в г. Санкт-Петербург, РФ.

За указанный период были выполнены квалифицированно и в срок работы по монтажу теплообменников статоров, уплотнению лезов, бадажировке лобовых частей, укладке обмотки статоров турбогенераторов для Березовской ГРЭС, Курской АЭС и других энергетических объектов России.

В процессе выполнения работ специалисты показали высокий технический уровень и соответствующее качество работ, продемонстрировали практические навыки, оперативность и производственную дисциплину.

Считаю, что Ваше предприятие на сегодняшний день является надежным партнером во всех отношениях.

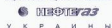
Выражаю искреннюю благодарность ООО «Харьковэнергомонт» за предоставление квалифицированного персонала и считаю, что наши предприятия имеют все предпосылки для дальнейшего сотрудничества.

С уважением,

Директор по персоналу и социальным
вопросам филиала ОАО «Ситовые машины»
«Электросила» в Санкт-Петербурге

Кушненко В.А.

НАЦИОНАЛЬНАЯ АКЦИОНЕРНАЯ КОМПАНИЯ



ПУБЛИЧНОЕ АКЦИОНЕРНОЕ ОБЩЕСТВО
«ОДЕССКАЯ ТЭЦ»

Руководство ООО «Харьковэнергомонт»

Уважаемые Господа!

Выражаем Вам искреннюю благодарность за успешно выполненный капитальный ремонт турбины ВПТ-25-3М ТМЗ ст. №3 ПАО «Одесская ТЭЦ» в 2012-2013гг.

Из выполненных работ хотим отметить грамотную дефектацию оборудования перед выходом в ремонт, составление объема работ и ведомости запасных частей, необходимых для проведения качественного капитального восстановительного ремонта.

поставку в полном объеме запасных частей для выполнения капитального ремонта, выполненную Вашим предприятием;

высокий уровень качества выполнения Вашими специалистами сверхплановых специальных работ по восстановлению наплавляющих лопаток диффузора проточной части, а также по замене наплавляющих уплотнительных колец, рабочих лопаток 10 ступеней ротора турбины, включая проточку и балансировку ротора на месте;

высокий уровень качества организации и выполнения работ, связанных с заменой деталей напорно-регулирующих, наплавляющего аппарата и прочих деталей турбины, организации ремонтных работ на ремонтной площадке, а также координации выполнения работ с нашим персоналом.

После капитального ремонта турбогенератор ВПТ-25-3М, ст. №3 ПАО «Одесская ТЭЦ», прошел все испытания на надежность и введен в эксплуатацию на номинальные параметры. Значительно уменьшился капитальный расход пара и экономичность турбогенератора.

Мы надеемся на дальнейшее сотрудничество с Вашей компанией, и будем рекомендовать Вас нашим партнерам в качестве надежной и высококвалифицированной ремонтной и инженеринговой компании.

С уважением,
Председатель правления



М.Ю. Голово

FEEDBACK FROM OUR CUSTOMERS

ДТЕК

ВИСРОБЛЮВАЛЬНИЙ ПІДРОЗІВ
«ХАРКІВСКА ТЕПЛОВА
ЕЛЕКТРИЧНА СТАНЦІЯ»
ТОВАРИСТВО З ОБМЕЖЕНОЮ
ВІДПОВІДАЛЬНІСТЮ
«ДТЕК СХІДЕНЕРГО»

вул. Героївмайдану, 3/а
м. Харків, Майданський р-н
Почта: 61013, Україна
тел.: +38 062 783 55 59
факс: +38 062 783 55 59

ОСВОЄННЯ
ПОДРАЗДІЛЕННЯ
«ХАРКІВСКА ТЕПЛОВА
ЕЛЕКТРИЧНА СТАНЦІЯ»
ОБ'ЄКТИ С ПОВНІСЬКОЮ
ВІДПОВІДАЛЬНІСТЮ
«ДТЕК СХІДЕНЕРГО»

вул. Зернотристу, 2/а
г. Курськ, Мар'їнський р-н
Донецька обл.
61013, Україна
тел.: +38 062 783 55 59
факс: +38 062 783 55 59

ДТЕК

- модернізація ущільнень вала турбогенератора з заміною торцевих ущільнень на радіальні (кольцеві);
- заміна газохолодильників на нові модернізовані;
- заміна теплообмінників водного охолодження обмотки статора на нові, підвищеної охолоджувальної спроможності;
- заміна щеточного апарату на сучасніший, з використанням щеткодержателів з постійним тиском щеток, для зниження шуму, вібрації та покращення охолодження;
- модернізація виводних і з'єднаних шнурів.

При виконанні робіт по капітальному ремонту та модернізації турбогенератора ТГВ-200М спеціалісти ХЗР показали високу кваліфікацію, вміння та організованість. Роботи виконувалися своєчасно, а технічно грамотні, в чіткому взаємодії з ПП «Електротримаш» (виробник турбогенератора) та АО «МЗА «ЗЛТА» (розробник проекту модернізації та модернізації генератора ТГВ-200М.

Руководство ДТЕК КУРАХОВСЬКОЇ ТЭС ООО «ДТЕК ВОСТОКЕНЕРГО» виражає вдячність керівництву та спеціалістам ООО «Харківенергомент» за виконані роботи та розраховує на подальше співробітництво. Рекомендуємо компанії ООО «Харківенергомент» як надійного та досвідченого підрядника по ремонту складного енергетичного обладнання.

Директор

Боричевський А.М.

Олейников А.П.
+38(050) 470-66-61
OeynikovA@dtek.com

А.П. Олейников



BANGLADESH POWER DEV. BOARD.

Memo No: GPS/5-6 Unit/Maint./Technical-403/2017/167

November 02, 2017



TO WHOM IT MAY CONCERN

Subject: Sub: A letter of feedback on the work as per Contract No Pwr. - 314/2012 (Re.) dt 04.09.2014 for overhauling of Unit No.5 of Ghorashah Power Station, BPDB, Palash, Narail.

Dear Sir,

This is to confirm that the company «Kharkovenergo» LLC, Ukraine performed overhauling works on Turbine K-210-130-8 JM3, Turbogenerator TTB-200M T3 and auxiliary equipment of Turbine Island of Unit No.5, TPS «Ghorashah», PR Bangladesh from October, 2016 to September, 2017. Turbogenerator Unit No.5 has been operated since Autumn, 1994. These were the first overhauling works, which have been performed since the operation began, including replacement of all Turbine and Generator bearings, and complete replacement of shaft-end seals of steam flow path of HP, IP and LP cylinders. Also, during the repair of the generator, 50% of the stator winding cores were replaced.

The overhauling works on Turbine and the Generator, as well as other equipment of the unit, were performed with good quality and on time, specialists of «Kharkovenergo» LLC showed highly professional skills and level of technical competence. After overhauling works the Turbine is operates steady, all operational parameters and values are satisfactory, and the Unit has base load of 210 MW.

Your prompt action in this regard is highly appreciated.

Thanking you

(Eng. Mahbubul Rahman)
D.O. No. 14077
Manager (EE)
Maintenance, 5-6 Unit, GPS
BPDB, Palash, Narail.

(Engineer Mahbubul Rahman)
Manager (SE)
Maintenance 5-6 Unit, GPS
BPDB, Palash, Narail.

PERMISSION:



ДЕРЖАВНА СЛУЖБА ГІРНИЧОГО НАГЛЯДУ ТА ПРОМИСЛОВОЇ БЕЗПЕКИ УКРАЇНИ
ТЕРИТОРІАЛЬНЕ УПРАВЛІННЯ ДЕРЖАВНОЇ СЛУЖБИ ГІРНИЧОГО НАГЛЯДУ
ТА ПРОМИСЛОВОЇ БЕЗПЕКИ УКРАЇНИ У ХАРКІВСЬКІЙ ОБЛАСТІ

ДОЗВІЛ

№ 795.14.63

Дозволяється Товариству з обмеженою відповідальністю
«Харківенергоремонт»

місце державної реєстрації: 61017, м. Харків, вул. Сірківська, 1
код за ЄДРПОУ: 32832085
код виду діяльності згідно з КВЕД: 33.12

виконується:

1. монтаж, демонтаж, налагодження, ремонт, реконструкція, технічне обслуговування машин, механізмів, установок підвищеної небезпеки:
 - технологічне устаткування, діючі частини та їх елементи систем газопостачання природним газом суб'єктів господарювання (крім підземних), а також споживачів об'єктів потужністю понад 100 кВт;
 - експертне устаткування електричних станцій та мереж, технологічне електрообладнання напругою понад 1000 В;
 - парові (з тиском пари до 25,5 МПа і температурою 545 °С) і водогрійні (з температурою нагріву води до 150 °С) котли теплопродуктивністю понад 0,1 МВт;
 - посудини, що працюють під тиском понад 0,05 МПа;
 - трубопроводи пари та гарячої води з робочим тиском понад 0,05 МПа і температурою води вище 110 °С, які підлягають реєстрації в територіальних органах Держгірпромнагляду
2. загальнобезпечні роботи;
3. спорудження систем газопостачання природним газом, крім підземних;
4. збірники балонів із стисненим, зрідженим та інертним газом;
5. роботи в діючих електроустановках напругою понад 1000 В (до 10 кВ);
6. роботи в котельнях, замкнутому просторі (смажках, фритюрницях, тостерах, тостерах);
7. роботи, що виконуються на висоті 5 метрів і більше над поверхню ґрунту, з переривання або робочого настилу;
8. заварювальні, газозахисні, наплавні роботи.

на підставі: заяви вх. № 3/905 від 22.08.2014 р., висновку експертизи ДП «Східний технічний центр Держгірпромнагляду України» № 63.2.01.2 01-1761.14 від 22.08.2014

за умови дотримання вимог законодавства з питань охорони праці та пр безпеки.

Висновок експертизи № 3/905 від 22.08.2014 р. за підписом експерта



Дозвіл діє з 28 серпня 2014 року до 27 серпня 2019 року

В.о. начальника
територіального управління



Ю.С.Олійник

Дата видачі: 28 серпня 2014 року

Строк дії дозволу проваджено до 20 р.
на підставі

« _____ » _____ 20 ____ р.



ДЕРЖАВНА СЛУЖБА ГІРНИЧОГО НАГЛЯДУ
ТА ПРОМИСЛОВОЇ БЕЗПЕКИ УКРАЇНИ

ДОЗВІЛ № 952.14.30

Дозволяється Товариству з обмеженою відповідальністю
«ХАРКІВЕНЕРГОРЕМОНТ» (Група спеціалістів з неруйнівного контролю – ВЛ)

місце державної реєстрації: 61017, м. Харків, вул. Сірківська, 1
код платника податків згідно з ЄДРПОУ: 32832085
код виду діяльності згідно з КВЕД: 33.12

виконувати технічний огляд (крім первинного та позачергового у разі закінчення граничного строку експлуатації, виникнення аварії), випробування (неруйнівний контроль: візуально-оптичний (ВТ), ультразвуковий (УТ), магнітопорошковий (МТ); руйнівний контроль: визначення твердості), експертне обстеження, технічне діагностування машин, механізмів, устаткування підвищеної небезпеки:

- парові і водогрійні котли теплопродуктивністю понад 0,1 МВт;
- посудини, що працюють під тиском понад 0,05 МПа;
- трубопроводи пари та гарячої води з робочим тиском пари понад 0,05 МПа і температурою води вище 110 °С, які підлягають реєстрації в територіальних органах Держгірпромнагляду

на підставі заяви власника від 22.09.2014 вх. № 6691/0/2-14, висновку експертизи ДП «Східний ЕТЦ» від 15.09.2014 № 63.2.01.3 01-1930.14

за умови дотримання вимог законодавства з питань охорони праці та промислової безпеки.

Дозвіл діє з 29 вересня 2014 р. до 28 вересня 2019 р.

Перший заступник Голови



В.А.Шайтан

29 вересня 2014 року



GEOGRAPHY PROJECTS





- more than 15 000 m² of production and storage facilities, courtyard of more than 5 000 m²;
- availability of the bridge crane with a load-carrying ability of 15 tons
- access for long length vehicles under a bridge crane;
- electric loaders with a load-carrying ability of 3.5 tons
- proximity to railway

Contact details:

Address:

61017, Ukraine, Kharkov, Serikovskaya str.,1

Contact telephone numbers:

Reception:

+38 (057) 728 41 51;

fax: +38 (057) 728 41 89

Marketing and Sales Department:

+38 (057) 728 41 56; fax: +38 (057) 728 41 57



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ukr.khaer@gmail.com



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