

Reference letter.

Specialists of PJSC “Turbogaz” and LLC “Remkran” by the concluded contract in September-October 2016 performed work on repairs, commissioning and supervision installation of 2 expander-compressors DTK 24/0,9 manufactured by PJSC “Kriogenmash”, Balashikha city, Russia, operating in the air separation section as a part of the air separation plant AKAp-40/35 No. 2 at PJSC “ArcelorMittal Kryvyi Rih”.

The following scope of work was made in September-October 2016:

1. Diagnostics of the oil film bearings lubrication system;
2. Diagnostics of the automatic control system;
3. Replacement and calibration test of the temperature, pressure and vibration displacement sensors;
4. Disassembly of the air-flow channels of the compressor turbine;
5. Troubleshooting of turbine and compressor parts and assemblies;
6. Balancing of turbine and compressor rotor;
7. Calculation of the operability of radial oil film bearings;
8. Assembly of turbine and compressor with a new rotor, oil film bearings, labyrinth seals;
9. Adjustment of axial clearances by impellers of compressor turbine, labyrinth seals, thrust oil film bearings;
10. Replacement of the operating fluid in the oil supply system of the oil film bearings;
11. Check of the oil supply system operability;
12. Check of the automatic control system operability;
13. Tuning of parameters of the pre-alarm and alarm signaling (automatic control system);
14. Check of readiness for startup of all systems of DTK 24/0,9;
15. Startup;
16. Running;
17. Reaching the operation mode, parameters control;
18. 72-hour testing (acceptance testing).

In the process of startup and running no objections were made to operation of shutoff and control valves, machines technical parameters control sensors and oil system.

During the acceptance testing were checked and confirmed main technical and operation characteristics of DTK 24/0,9 plants No. 1 and No. 2.

Expander-compressors DTK 24/0,9 are fit for service after the repairs.

At the moment all work by the technical assignment for repairs and additional scope of work, which was not the part of the technical assignment were successfully completed.

The performed work showed high scientific-production potential and experience of technical specialists of PJSC “Turbogaz” and LLC “Remkran” on performance of work in repairs and revamping of the expander-compressors operating as a part of air separation plants.

Deputy director
of KP UED department
PJSC “ArcelorMittal Kryvyi Rih”

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Ye.L. Tsyupik