



INDUSTRIAL TEST REPORT · 768 OPERATING HOURS OF REGULAR SERVICE

K-3 compressor: lower current, faster fill, without disassembly

Barnaulsky Instrument JSC · company commission: director, deputy director, mechanic · XADO product supplier — LIDA LLC

Barnaul, Russia · treatment 04.04.2005 · report signed 30.08.2005

PRODUCT	TEST OBJECT	DOCUMENT TYPE
XADO gel for compressors and bearings three-stage treatment per instruction IE No. 005 XADO-2004, without disassembly of the unit	K-3 compressor unit serial No. 222 · head No. 1417 — treated · head No. 1389 — control	Company test report with signatures and seals

UNIT	CONDITION AT START OF TESTS	WHAT WAS MEASURED
Head No. 1417 — treated	The unit had run 2100 operating hours; the head was treated with XADO gel without disassembly, under regular operation	Current draw; time to fill a 0.5 m ³ receiver to 7 atm
Head No. 1389 — control	Failed in service: piston rings stuck, cylinder scoring; repaired by replacing piston, cylinder, pins and rings, 100 operating hours of run-in	The same parameters — for direct comparison with the treated head

Both heads run on the same unit, on the same oil and with equal running time — 768 operating hours after treatment.

Key results

↓ **31.8 %**

current draw of the compressor head, 22 → 15 A

↑ **2.2×**

head output by time to fill a 0.5 m³ receiver to 7 atm,
4:50 → 2:15 min:s

Treated head No. 1417 — as running time accumulates

MEASUREMENT	CURRENT DRAW	RECEIVER FILL TIME
Before treatment	22 A	4 min 50 s
200 operating hours after treatment	21 A	3 min 15 s
768 operating hours after treatment	15 A	2 min 15 s

Receiver 0.5 m³, pressure 7 atm. Measurements taken under regular operation; the head was not disassembled.

After equal running time: treated head and control head

COMPRESSOR HEAD	CURRENT DRAW	RECEIVER FILL TIME
No. 1417 — treated with XADO gel	15 A	2 min 15 s
No. 1389 — control, repaired with parts replacement	18 A	2 min 35 s

Before the tests the treated head was the weaker of the two — 4 min 50 s versus 3 min 45 s; after equal running time it is more economical and faster.

Conclusion of the company commission

K-3 unit with 2100 operating hours: head No. 1417 was treated with XADO gel without disassembly, under regular operation, while the second head was repaired by replacing piston, cylinder, pins and rings and left untreated for comparison of the final figures. After 768 operating hours the commission of Barnaulsky Instrument JSC recorded: the current drawn by the unit decreased by 7 amperes; the receiver is pumped up to the working pressure of 7 atmospheres in 2 min 15 s; an overall increase in compressor output was noted alongside reduced energy consumption. Conclusion of the report: "the results of applying XADO technology under regular operation allow it to be recommended for use instead of conventional repair with parts replacement. These tests demonstrate the effectiveness and economic feasibility of using XADO technology".



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The results refer to the K-3 compressor unit manufactured by Bezhet'sk Plant Avtospetsoborudovanie JSC and to the conditions of its regular operation at Barnaulsky Instrument JSC; on other machines and in other duty cycles the figures may differ. In the original report the product is called XADO repair-and-restoration compound (XADO RVS) — an obsolete designation, zero-generation compounds; the current product generation is revitalizants. XADO products were supplied by LIDA LLC, whose head is a member of the commission that signed the report. The original report with signatures and seals is published in full and available for download.