

TECHNICAL REPORT OF 28.09.2001

Compressor 786 S-416: faster air delivery, lower heat, no teardown

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Almetyevsk, Russia · treatment 11.05.2001 · report 28.09.2001 · 600 engine hours run after treatment

PRODUCT

XADO restoration
technology

XADO gel — early designation
of the revitalizant · treatment in
three stages at 8 h intervals

TREATED UNIT

Compressor 786 S-416

inv. No. 12157 · treated without
dismantling the compressor

DOCUMENT TYPE

Technical report
of the plant QC department

signatures of both parties,
stamps

UNIT

Compressor 786 S-416
inv. No. 12157

CONDITION BEFORE TREATMENT

Elevated oil consumption; oil temperature
rose steadily to 110 °C; vibration and noise;
receiver filled to 8 atm in 6 min 48 s

WHAT WAS MEASURED

Receiver fill time, oil
temperature and consumption,
vibration and noise

Treatment performed on 11.05.2001 in three stages at 8 h intervals, without dismantling the compressor; the "after" readings were taken at 600 engine hours.

Key result

↑ **56.9 %**

output by receiver fill time to 8 atm, 6 min 48 s → 4 min 20 s

Compressor 786 S-416 — before treatment and after 600 engine hours

PARAMETER	BEFORE TREATMENT	AFTER 600 ENGINE HOURS
Receiver fill time to 8 atm	6 min 48 s	4 min 20 s
Oil temperature	steady rise to 110 °C	within the normal range 60-80 °C
Oil consumption	elevated	dipstick level steady, oil light in colour
Vibration and noise	elevated	noticeably quieter, no vibration felt — staff assessment

According to the conclusion of the report, output rose by 35.1%; measured by fill time, with the receiver and the 8 atm working pressure unchanged, the gain is 56.9%.

What the report records

The technical report of the QC department of the Almet'yevsk Transport Department, Almet'yevneft Oil & Gas Production Unit, records the following: before treatment, compressor 786 S-416 had elevated oil consumption, the oil temperature rose steadily to 110 °C, staff noted vibration and noise, and the receiver reached its working pressure of 8 atm in 6 min 48 s. After the three-stage treatment with XADO gel, carried out without dismantling, and a run of 600 engine hours, the same receiver fills to the same 8 atm in 4 min 20 s, the oil temperature stays within the normal range of 60-80 °C, the dipstick oil level remains steady and the oil is light in colour. According to the conclusion of the report, compressor output increased by 35.1%; measured by fill time, with the receiver and the pressure unchanged, the gain is 56.9%. The condition of the internal cylinder surfaces and of the crank-and-connecting-rod assembly, as the report notes, can be assessed once the compressor is dismantled.



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The results refer to compressor 786 S-416 (inv. No. 12157) of the Almet'yevsk Transport Department, Almet'yevneft Oil & Gas Production Unit, and to its operating conditions; figures on other units may differ. "XADO gel" and "surface friction modifier" are early designations of the XADO revitalizant; the current product generation is revitalizants. The original report is published in full and available for download.