



TECHNICAL REPORTS ON THE SMU-46 FLEET · OCTOBER 2001

KamAZ engines: compression up, cylinders evened out

OAo Tatneftgazstroj, SMU-46 · reports signed by the depot mechanic and the drivers; treatment performed by OOO AI-XADO

Republic of Tatarstan, Russia · reports dated 31.10.2001

PRODUCT	TEST OBJECT	DOCUMENT TYPE
Treatment by XADO technology performed by OOO AI-XADO, Almetjevsk	Engines of KamAZ trucks plates V 841 OKh and V 814 EM · compression by cylinder, right bank	SMU-46 technical reports with signatures and stamps

VEHICLE	ODOMETER AT THE "BEFORE" READING	DISTANCE RUN BEFORE THE CHECK READING	WHAT WAS MEASURED
KamAZ, plate No. V 841 OKh	37 951 km	11 014 km	Compression by cylinder, oil pressure
KamAZ, plate No. V 814 EM	49 134 km	15 445 km	Compression by cylinder, oil pressure

The check reading was taken not right after the treatment, but after 11-15 thousand km of the trucks' regular service.

What repeated on both trucks

compression evened out across the cylinders

↑ **9.1-20.6 %**

compression by cylinder on both trucks, 22.2-26.6 → 25.9-30.0

Compression by cylinder, right bank — both trucks side by side

CYLINDER	V 841 OKh, BEFORE	V 841 OKh, AFTER	V 814 EM, BEFORE	V 814 EM, AFTER
1st	23.2	26.1	26.6	29.7
2nd	22.5	26.6	25.7	30.0
3rd	24.1	26.3	26.1	29.6
4th	22.2	25.9	24.8	29.9
Spread between cylinders	1.9	0.7	1.8	0.4

The compression unit is not filled in on the report forms; the values are given as they stand in the documents. The rise occurs in all eight cylinders, with no drop in any of them.

Oil pressure in the lubrication system

MODE	V 841 OKh, BEFORE	V 841 OKh, AFTER	V 814 EM, BEFORE	V 814 EM, AFTER
Idle	1.6	2.0	1.9	2.4
2000 rpm	3.7	3.9	3.8	4.7

Oil pressure in kgf/cm². At idle the "before" reading was taken at 45 °C, the "after" reading at 60 °C.

What the reports state

Both SMU-46 reports record one and the same result. For truck V 841 OKh: "Compression increased by **14 %**, evened out across the cylinders". For truck V 814 EM: "Compression increased by **15.5 %**, evened out across the cylinders. Considerable drop in oil consumption. Noises in engine operation gone. The truck has become more responsive" — and this despite the fact that high oil consumption is recorded in the same report as the condition of the engine before the treatment. The rise was obtained in all eight cylinders of the right bank, and the most worn ones caught up the most: the spread between cylinders narrowed from **1.8-1.9** to **0.4-0.7**. Compression cannot rise above the factory nominal, so bringing the cylinders to a single value is the most that can be achieved. The check readings were taken after **11 014 km** and **15 445 km** of the trucks' regular service.



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The results apply to the engines of the KamAZ trucks of the SMU-46 fleet at the stated mileages; on other equipment and under other operating conditions the figures may differ. The treatment was performed by OOO AI-XADO. The original reports are published in full and available for download.