

TECHNICAL REPORT OF THE PLANT COMMISSION · JULY 2002

KAMAZ-5511: worn cylinders regained metal without engine teardown

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Stavropol Krai, Russia · treatment 01.07.2002 · check measurement 09.07.2002

PRODUCT

XADO RVS
added to a running engine,
without teardown or removal of
the unit

TEST OBJECT

KAMAZ-5511, reg. No.
s832sr26
diesel engine No. 404495 ·
cylinders No. 1 and No. 8
treated

DOCUMENT TYPE

Technical report of the
commission
of OJSC
Stavropolproektstroy

EQUIPMENT

KAMAZ-5511 dump truck
reg. No. s832sr26, diesel
engine No. 404495

**SERVICE BETWEEN
MEASUREMENTS**

230 km over **8 days** of
regular service

WHAT WAS MEASURED

Bore of cylinders No. 1 and No. 8: three sections
along the liner height, two mutually
perpendicular diameters in each (axes A and B)

The before and after measurements were taken by the plant commission with a micrometric bore gauge graduated in 0.01 mm;
the cylinders were treated by a specialist of the XADO distributor.

Key result

↓ **0.04-0.07 mm**

bore of cylinder No. 8, 120.00-120.05 → 119.94-120.01 mm

Bore of the treated cylinders: commission measurements of 01.07 and 09.07.2002

SECTION, AXIS	CYLINDER No. 1, mm	REDUCTION	CYLINDER No. 8, mm	REDUCTION
I, axis A	120.01 → 120.01	—	120.00 → 119.99	0.01 mm
I, axis B	120.10 → 120.07	0.03 mm	120.05 → 120.01	0.04 mm
II, axis A	120.01 → 119.99	0.02 mm	120.01 → 119.96	0.05 mm
II, axis B	120.10 → 120.08	0.02 mm	120.05 → 120.01	0.04 mm
III, axis A	120.01 → 119.99	0.02 mm	120.01 → 119.94	0.07 mm
III, axis B	120.09 → 120.08	0.01 mm	120.05 → 120.01	0.04 mm

A reduction of the inner diameter means metal build-up on the liner wall. Before treatment the wear was uneven around the circumference: the bore along axis B was larger than along axis A.

Commission conclusions

The engine was neither disassembled nor removed: the compound was added to a running engine, and throughout all eight days between the measurements the truck stayed in regular service. The commission of OJSC Stavropolproektstroy recorded the following: I. The experiment carried out proves the build-up effect on worn parts of friction pairs after treatment by the XADO technology. II. The commission recommends applying the XADO technology to the treatment of units of machines and mechanisms of OJSC Stavropolproektstroy in order to restore worn units, protect them against wear, extend service life and save energy carriers, as well as to reduce spare parts costs. III. The commission finds it advisable to include the treatment of the mechanisms and machines of OJSC Stavropolproektstroy in the system of scheduled preventive maintenance.

XADO

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The results refer to the diesel cylinders of a KAMAZ-5511 truck treated without engine teardown; on other engines and at other running hours the figures may differ. RVS is an obsolete XADO designation for the zero-generation compounds; the current product generation is revitalizants. The original technical report of 09.07.2002 is published in full and available for download.