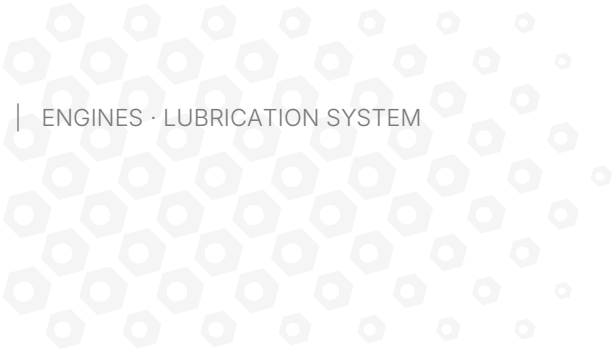




TECHNICAL REPORT DATED 20.12.1999

Engines after overhaul: compression and oil pressure rose with no teardown

Simferopol Mail Processing and Transport Centre (SCOPP), motor transport shop · approved by: Head of SCOPP V. I. Markelova · report prepared by Head of the Motor Transport Shop N. I. Naukhatsky
Simferopol, Ukraine · report on three sheets, laced and sealed, two stamps

PRODUCT	TEST OBJECT	DOCUMENT TYPE
XADO RVS three treatments per engine, with no shutdown and no teardown of the units	Five petrol engines RAF 2203 · GAZ 24-02 · UAZ 330 · IZh 2715 · VAZ 21063	Company technical report with signatures and stamps

VEHICLE	MILEAGE SINCE OVERHAUL AT TEST START	WHAT WAS MEASURED
RAF 2203, no. 97-26 KRV	96 000 km	Compression on all four cylinders; oil pan opened after 1200 km
GAZ 24-02	88 031 km	Compression on all four cylinders
UAZ 330	84 502 km	Compression on all four cylinders
IZh 2715, no. 99-13 KRR	61 000 km	Compression, oil pressure, running without oil
VAZ 21063	131 144 km	Compression on all four cylinders

Engines after a major overhaul, selected with over 50 % of service life worn out; on the VAZ 21063 the mileage exceeded the planned post-overhaul service life of 100 000 km set by RD 200.

Key results

↑ **7.5-26.2 %**

cylinder compression, 6.5-10.5 → 8.0-11.5 kgf/cm²; a gain in 18 of 20 readings; on one cylinder compression fell

↑ **28.6 %**

oil pressure at mid-range rpm on the IZh 2715, 3.5 → 4.5 kgf/cm²

60 km

distance covered by the IZh 2715 with the oil fully drained, city route

Cylinder compression — five engines after overhaul

VEHICLE	BEFORE TREATMENT, kgf/cm ² — cylinders 1-4	AFTER THREE TREATMENTS, kgf/cm ²
RAF 2203	6.6 · 7.6 · 6.5 · 8.0	8.0 · 8.2 · 8.2 · 8.6
GAZ 24-02	7.8 · 8.0 · 8.0 · 8.0	8.5 · 9.5 · 9.0 · 9.0
UAZ 330	8.0 · 8.0 · 8.0 · 8.0	9.0 · 9.0 · 9.0 · 9.0
IZh 2715	7.5 · 7.7 · 8.7 · 8.0	8.5 · 8.5 · 8.2 · 8.0
VAZ 21063	9.5 · 10.0 · 10.5 · 10.5	11.5 · 11.5 · 11.5 · 11.5

Readings taken on every cylinder: before treatment and after the third, final treatment. XADO RVS was applied without stopping or dismantling the engines, in regular service.

Oil pressure — IZh 2715 (no. 99-13 KRR)

ENGINE MODE	BEFORE TREATMENT	AFTER TREATMENT
Idle	1.5 kgf/cm ²	1.8 kgf/cm ²
Mid-range rpm	3.5 kgf/cm ²	4.5 kgf/cm ²

The pump holds pressure again: oil reaches the rubbing surfaces in the required amount in both modes.

Engine running without oil — emergency-mode test

TEST STAGE	DISTANCE WITHOUT OIL	OUTCOME
After full treatment and 1200 km of running	30 km	Oil refilled, route service continued
After the complete treatment cycle, 2500 km	60 km	Oil refilled, route service continued

The oil was drained from the engine of the IZh 2715, and the tests ran on a city route in the shop's normal operation.

Report conclusion

The test subjects were not new machines: all five engines had been through a major overhaul and were selected with over **50 %** of their service life worn out, while the VAZ 21063 had run beyond its planned service life. After three treatments compression rose on all five vehicles, and on the VAZ 21063 all four cylinders came out at the same value of **11.5 kgf/cm²**: compression cannot rise above the factory nominal, so evening out the cylinders is the maximum achievable. On the RAF 2203 the oil pan was opened after **1200 km** — the bearings were in perfect condition. The "Proposal" section of the report, signed by the Head of the Motor Transport Shop N. I. Naukhatsky:

1. Continue treating engines with the RVS technology.
2. Pay particular attention to diesel engines whose service life is approaching 50% — Mazda E 2200.

XADO

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The results refer to the petrol engines of the RAF 2203, GAZ 24-02, UAZ 330, IZh 2715 and VAZ 21063 after a major overhaul; with other engines and operating conditions the figures may differ. RVS is an obsolete XADO designation for zero-generation compounds; the current product generation is revitalizants. The original report with signatures and stamps is published in full and available for download.