



TECHNICAL REPORT OF 26.01.2000

Moskvich 2141: compression evened out, piston-group replacement avoided

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Kharkiv, Ukraine · engine treatment and measurements — 26.01.2000 · stamps of both parties

PRODUCT	TEST OBJECT	DOCUMENT TYPE
XADO RVS compound engine treatment without disassembly	Two Moskvich 2141 cars reg. no. 10-70 KhAB and reg. no. 51-22 KhIA · petrol engine, 4 cylinders	Technical report signed and stamped by both parties

EQUIPMENT	CONDITION BEFORE TREATMENT	WHAT WAS MEASURED
Moskvich 2141, reg. no. 10-70 KhAB	Compression uneven across cylinders, 8.2-10 kgf/cm² ; oil pressure at idle 1.5 kgf/cm²	Compression in all four cylinders, oil pressure at idle
Moskvich 2141, reg. no. 51-22 KhIA	Compression 12.0-12.8 kgf/cm² ; oil pressure at idle 2.5 kgf/cm²	Compression in all four cylinders, oil pressure at idle

Treatment with XADO RVS compound was carried out without disassembling the engines. RVS is an obsolete XADO designation for zero-generation compounds; the current product generation is revitalizants.

Key results

compression evened out across the
cylinders

↑ **1.6-28 %**

average compression across
cylinders, 9.1-12.3 → 10.4-12.9
kgf/cm²

↑ **20-67 %**

oil pressure at idle, 1.5-2.5 →
2.5-3.0 kgf/cm²

Compression by cylinder, kgf/cm²

CYLINDER	10-70 KhAB, BEFORE	10-70 KhAB, AFTER	51-22 KhIA, BEFORE	51-22 KhIA, AFTER
1	9	10	12.0	12.5
2	9	10.5	12.8	13.0
3	8.2	10.5	12.0	13.0
4	10	10.5	12.2	13.0
Spread	1.8	0.5	0.8	0.5
Average	9.05	10.38	12.25	12.88

Compression is capped by the factory rating, so bringing every cylinder to the same value is the limit of what is achievable: on both cars the spread converged to **0.5 kgf/cm²**.

Oil pressure at idle, kgf/cm²

VEHICLE	BEFORE	AFTER	CHANGE
Moskvich 2141, reg. no. 10-70 KhAB	1.5	2.5	+67 %
Moskvich 2141, reg. no. 51-22 KhIA	2.5	3.0	+20 %

Higher pressure in the lubrication system at idle follows from restored clearances: the worn pump holds pressure again.

Conclusion of the report

The technical report of 26.01.2000 records for both engines: "Compression has evened out, the engines run steadily at all speeds and in all modes. The engine is fit for further service and does not need replacement of the cylinder-piston group." Before treatment, car no. 10-70 KhAB ran with uneven compression of **8.2-10 kgf/cm²** and oil pressure of **1.5 kgf/cm²** — a condition for which replacement of the cylinder-piston group is normally prescribed. After treatment with XADO RVS compound, carried out without disassembling the engine, all four cylinders reached **10-10.5 kgf/cm²** and the spread between them converged to **0.5 kgf/cm²**; on the second car — **12.5-13.0 kgf/cm²** at the same spread. Compression cannot rise above the factory rating, so equal values across all cylinders are precisely the limit of what is achievable. Neither car needed cylinder-piston group repair.



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The results refer to the petrol engines of Moskvich 2141 cars in the service fleet of Kharkiv-Pasazhyrskyi station; on other equipment and under other operating conditions the figures may differ. The original report with the signatures and stamps of both parties is published in full and available for download. RVS is an obsolete XADO designation for zero-generation compounds; the current product generation is revitalizants.