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TECHNICAL REPORT ON THE APPLICATION OF XADO TECHNOLOGY

Toyota pickup 22R engine: compression rose with mileage, fuel consumption fell

REDLINE PERFORMANCE, “Complete Car Service” · report signed by office manager Olee Wowk

Edmonton, Alberta, Canada · tests December 2003 — January 2004 · 3 560 km run after treatment

PRODUCT

XADO Gel Revitalizant

for petrol engines — 3 tubes of 9 ml · for gearbox and final drive — 2 tubes and 1 tube of 9 ml

TEST OBJECT

Toyota pickup, 22R engine

4-cylinder carburettor · 5-speed manual gearbox · rear axle final drive · odometer 415 857 km

DOCUMENT TYPE

Technical report by a service company

WHAT WAS TREATED	MILEAGE AT TEST START	DOSAGE AND WHAT WAS MEASURED
22R engine, 4 cyl., carburettor	**415 857 km**	**3 tubes of 9 ml** per 4 l of oil — compression by cylinder, fuel consumption, oil top-up rate, spark plug condition
5-speed manual gearbox and rear axle final drive	**415 857 km**	**2 tubes and 1 tube of 9 ml** per 3 and 1.5 l of oil — top speed in 5th gear, noise and vibration

Before the tests, SAE 0W30 API SL engine oil and SAE 75W90 gear oil were changed; the run is counted from the moment the revitalizant was added.

Key results

↑ 4-10.9 %

compression by cylinder, 1100-1250 → 1220-1350 kPa

↓ 11.5 %

fuel consumption at idle, 700 ml in 29 min 37 s → 33 min 27 s

↑ 19.2 %

top speed in 5th gear, 130 → 155 km/h

Compression by cylinder, kPa

CYLINDER	700 KM	1 940 KM	3 560 KM	CHANGE OVER THE DISTANCE
1st	**1100**	**1050**	**1220**	**+120 kPa · 10.9 %**
2nd	**1225**	**1290**	**1350**	**+125 kPa · 10.2 %**
3rd	**1250**	**1300**	**1300**	**+50 kPa · 4.0 %**
4th	**1180**	**1250**	**1300**	**+120 kPa · 10.2 %**

The count starts from the first measurement taken 700 km after the revitalizant was added: compression kept rising over the whole observation distance, up to 3 560 km.

Fuel, oil and highway performance

PARAMETER	BEFORE	AFTER	CHANGE
Time to burn the reference 700 ml at idle	**29 min 37 s**	**33 min 27 s**	consumption **−11.5 %**
Top speed in 5th gear	**130 km/h**	**155 km/h**	**+25 km/h**
Oil top-up: first 1 000 km → next 940 km	**1.0 l**	**0.5 l**	**−0.5 l**

Fuel consumption was measured by the time taken to burn the reference 700 ml; the report's conclusion states a reduction of **12 %**. Speed — on one and the same stretch of highway.

Condition of the units: before treatment and after 1 940 km

WHAT WAS INSPECTED	BEFORE TREATMENT	AFTER 1 940 KM
Spark plugs of cylinders 1 and 2	Dry	Dry, clean, brown-grey deposit
Spark plugs of cylinders 3 and 4	Oil-fouled	Dry, brown-grey, no traces of oil
Engine running	Rough, crankshaft bearing noise audible	Smoother and quieter, response and acceleration improved

For the treated manual gearbox and rear axle final drive the report records reduced vibration, especially in neutral.

Conclusion of the report

Following the application of XADO technology to a TOYOTA pickup, the service company REDLINE PERFORMANCE confirms:

1. Fuel consumption dropped by **12 %**.
2. The engine runs smoother and quieter.
3. Oil burn-off decreased.
4. Top speed in 5th gear on one and the same stretch of highway rose from **130** to **155 km/h**. Before treatment the engine, with **415 857 km** on the odometer, ran roughly, crankshaft bearing noise was audible and the plugs of two cylinders were oil-fouled — after **1 940 km** the working surface of every plug was dry, with no traces of oil. Compression gained **4-10.9 %** across the cylinders and kept rising to the end of the observation: the restored sealing of the cylinder-piston group is the very reason for both the added performance and the fuel saving. All of it obtained without disassembly, on a vehicle in ordinary service.

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The results relate to the 22R petrol engine of a Toyota pickup with over 415 thousand km on the odometer, its manual gearbox and rear axle final drive; on other units and under other operating conditions the figures may differ. The original report is published in full and available for download.