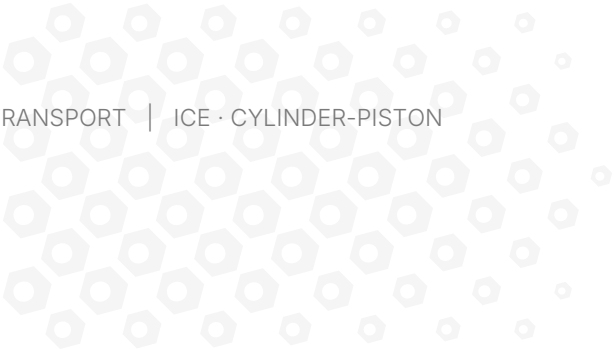




ACT OF OJSC MARIUPOL-AVTO, 27.09.2000

# Gazel engine: cylinder compression rose without teardown

OJSC Mariupol-Avto · act approved by the Chairman of the Board G. V. Kaplan; commission — column head, garage manager, fleet drivers, representative of GEVS & K Ltd.

Mariupol, Ukraine · treatments on 13, 14 and 15.09.2000 · control measurement after 3053 km of running · act 27.09.2000

| PRODUCT                                                                                                      | TEST OBJECT                                                                                 | DOCUMENT TYPE                                         |
|--------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------|
| Formulation based on XADO technology<br>three engine treatments without removing the engine from the vehicle | Gazel van, reg. no. 03257 EV<br>four-cylinder internal combustion engine in routine service | Act of OJSC Mariupol-Avto commission signatures, seal |

| EQUIPMENT                    | MILEAGE AT TEST START     | WHAT WAS MEASURED                                                            |
|------------------------------|---------------------------|------------------------------------------------------------------------------|
| Gazel van, reg. no. 03257 EV | 29 313 km on the odometer | Cylinder-by-cylinder compression before treatment and after three treatments |

The engine was treated in place on the vehicle, without removal or disassembly; the control measurement was taken after 3053 km of ordinary service.

## Key results

↑ **6-7.4 %**

cylinder compression, 0.94 → 1.01 and 1.00 → 1.06

# Cylinder compression — before treatment and after three treatments

| CYLINDER | BEFORE TREATMENT | AFTER THREE TREATMENTS | CHANGE |
|----------|------------------|------------------------|--------|
| No. 1    | 0.94             | 1.01                   | +7.4 % |
| No. 3    | 1.00             | 1.06                   | +6.0 % |

The act does not state the unit of compression measurement, so the change is given as a percentage: a ratio does not depend on the instrument scale.

## Commission conclusion

The commission of OJSC Mariupol-Avto recorded in the act: «After three treatments of the internal combustion engine, compression across the cylinders evened out and oil pressure increased. Use of XADO technology for ICE repair is recommended». Before treatment the engine ran with uneven compression — from **0.85** in the worst cylinder to **1.00** in the best: a spread of **0.15** means loss of sealing in the cylinder-piston group and rough running. The treatments were carried out on the vehicle, without removing or disassembling the engine, and the control measurement was taken after **3053 km** of ordinary service — what was recorded is not an instant effect but a state that persisted. Compression physically cannot rise above the nominal value set by the engine manufacturer, so cylinders reaching a single value is the maximum attainable, not a modest gain.



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The results relate to the engine of the Gazel van, reg. no. 03257 EV, operated by OJSC Mariupol-Avto; on other machines and duty cycles the figures may differ. The original act of 27.09.2000 with the commission signatures and seal is published in full and available for download.