

REPORT OF SE «ZAVOD UB I VT» DATED 11.09.2000

WS-3B compressor: gearbox runs cooler, tooth contact bedded in

SE «Zavod UB i VT» · approved by chief engineer V. S. Korolev; report signed by XADO chief mechanic N. I. Babanskikh and PES lead engineer N. V. Schastlivtsev

Ukraine · report dated 11.09.2000, signatures and seal

PRODUCT

XADO RVS
repair-and-restoration
compound · treatment of the
compressor gearbox

TEST OBJECT

WS-3B compressor
compressor gearbox · rated
load 60 kgf/cm²

DOCUMENT TYPE

Report of SE «Zavod UB i
VT»
dated 11.09.2000, with seal

EQUIPMENT

WS-3B compressor, gearbox

MEASUREMENT MODE

Rated load **60 kgf/cm²**

WHAT WAS MEASURED

Oil temperature in the gearbox

WS-3B compressor, gearbox
gears

Same mode, before and after
treatment

Tooth contact patch area

Measurements before and after treatment were taken at the same compressor operating mode.

Key result

↓ **10.8 %**

oil temperature in the gearbox at rated load, 65 → 58 °C

WS-3B compressor gearbox — before and after treatment

GEARBOX PARAMETER	BEFORE TREATMENT → AFTER TREATMENT
Oil temperature at rated load 60 kgf/cm²	65 °C → 58 °C
Contact patch area of the gear teeth	increased by 10-15 %

The contact patch widened — the load spread over a larger part of the tooth, and friction losses went down.

What the report recorded

The commission of SE «Zavod UB i VT» together with the chief mechanic of the XADO company drew up a report stating that «before treatment of the compressor with the repair-and-restoration compound, at the rated compressor load of **60 kgf/cm²**, the oil temperature in the gearbox was **65°C**, and after treatment — **58°C**. At the same time, the contact patch area of the gearbox gear teeth increased by **10-15%**». The report was approved by the plant's chief engineer and certified with a seal. Both measurements were taken at one and the same load, so the temperature drop relates to the condition of the gear train itself, not to the machine's operating mode. In service this means a milder thermal regime for the oil and less wear of the gear mesh at the same load on the compressor.



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The results relate to the gearbox of a WS-3B compressor at a rated load of 60 kgf/cm²; on other equipment and in other operating modes the figures may differ. The original report dated 11.09.2000 with signatures and seal is published in full and available for download. RVS is an obsolete XADO designation, the zero-generation compounds; the current product generation is revitalizants.