TREATMENT ACT FOR BEARING No. 180604

Bearing 180604: a worn unit restored, not replaced

«Plitochny Zavod» JSC · act signed by the plant's chief power engineer V. M. Korolik and by the technical director of XADO LLC S. N. Aleksandrov

Ukraine · treatment and measurements 17.03.1999

PRODUCT

XADO technology

contract No. 191 of 26.02.1999

TREATED UNIT

Rolling bearing No. 180604

radial and axial clearance measured before and after treatment

DOCUMENT TYPE

Act of the customer and the contractor with signatures and seals

UNIT	CONDITION AT START OF WORK	WHAT WAS MEASURED
Rolling bearing No. 180604	radial clearance **0.25 mm**, axial clearance **0.1 mm**	radial and axial clearance before and after treatment

The before and after measurements were taken on one and the same bearing: the unit was not replaced.

Key results

↓ 8.3×

radial clearance of the bearing, 0.25 → 0.03 mm

↓ 5×

axial clearance of the bearing, 0.1 → 0.02 mm

Bearing clearances before and after treatment

PARAMETER	BEFORE TREATMENT	AFTER TREATMENT	CHANGE
Radial clearance	**0.25 mm**	**0.03 mm**	smaller by **0.22 mm** · **8.3×**
Axial clearance	**0.1 mm**	**0.02 mm**	smaller by **0.08 mm** · **5×**

A reduced clearance means that metal has built up on the raceways — exactly where it had been worn away.

What this means

Bearing No. 180604 came in for treatment with a radial clearance of **0.25 mm** and an axial clearance of **0.1 mm**: for a rolling bearing this is wear, not a factory tolerance. After treatment with XADO technology the act records **0.03 mm** and **0.02 mm** on that same bearing — the clearance was closed not by fitting a new part, but by metal built up on the rolling surfaces where it had been lost. This is how the revitalizant works: the coating is self-regulating under load, it grows in the worn zone and does not grow where there is no wear. For the plant this means that a worn bearing went back into service without replacement. Clearance is the source of impact loads, vibration and noise in a unit, and cutting it several times over pushes back both the overhaul of the mechanism and the downtime that comes with it.

XADO

The results relate to rolling bearing No. 180604 treated with XADO technology at «Plitochny Zavod» JSC in March 1999; on other units and under other operating conditions the figures may differ. The original act of 17.03.1999 with signatures and seals is published in full and available for download.