



INSPECTION REPORT ON THE OVEN MECHANISMS

Waffle oven E-30: mobility restored, shift greasing ended

KRISTAL AD, waffle shop, Plovdiv · signed by: chief mechanic L. Karpov, shop mechanic D. Hristov,
technical director St. Kostov · treatment by XADO technology — MAY OOD, A. Iliev
Plovdiv, Bulgaria · treatments on 16.07 and 18.07.2002 · control inspection on 26.08.2002

PRODUCT	TEST OBJECT	DOCUMENT TYPE
XADO revitalizant gel and XADO-300 grease conveyor drive gearbox — three treatments · bearings, rollers, mould hinge	Waffle oven No. 4, E-30 made in Germany · conveyor drive, 1.5 kW electric motor	Inspection report with signatures and seals

EQUIPMENT AND UNITS	CONDITION BEFORE TREATMENT	WHAT WAS MEASURED
Conveyor drive gearbox, 1.5 kW electric motor	In operation, current 3 A ; noise and vibration while running	Current draw by date, noise and vibration
Mould support rollers	Up to 60 % of the rollers had lost mobility	Share of moving rollers at inspection
Mould latch bearings, hinge	Greased with ordinary grease every shift	Ease of rotation, presence of binding

Operating environment of the units: temperature about 250 °C and high humidity. The first gearbox treatment was carried out without cleaning the old grease off the bearings.

Key results

mould support rollers, up to 60 %
without motion → all moving

↓ **16.7 %**

current draw of the conveyor drive,
3 → 2.5 A

greasing of friction units, every shift
→ 39 days with no greasing

Conveyor drive — current draw by date

MEASUREMENT	DATE	MOTOR CURRENT
Before treatment	before 16.07.2002	3 A
After the first gearbox treatment	18.07.2002	2.5 A
After 20 days of operation	07.08.2002	2.5 A
Control inspection	26.08.2002	2.5 A

Measured on the conveyor drive motor rated **1.5 kW**: the reduced current held for three measurements in a row, with no rollback.

Friction units of the oven — condition at the control inspection on 26.08.2002

UNIT	BEFORE TREATMENT	INSPECTION 26.08.2002
Mould support rollers	Up to 60 % of the rollers had lost mobility	100 % of the rollers are moving
Mould latch bearings	Greased every shift	Rotate easily, without binding
Hinge	Greased every shift	Good mobility
Conveyor drive gearbox	Noise and vibration while running	Noise and vibration reduced considerably

From 18.07 to 26.08.2002 the treated units were not greased; a metal-ceramic layer has formed on the surfaces of the friction parts.

Commission conclusion

The commission of KRISTAL AD — the chief mechanic, the shop mechanic and the technical director — recorded at the control inspection on **26.08.2002**: the current draw of the conveyor drive fell from **3** to **2.5 A** and has held for the third measurement in a row; the noise and vibration of the gearbox decreased considerably; all mould support rollers are moving, whereas before the treatment up to **60 %** of them had lost motion; the hinge and the mould latch bearings rotate easily, without binding; a metal-ceramic layer has formed on the surfaces of the friction parts. All this after **39 days** of operation at a temperature of about **250 °C** and high humidity, during which the treated units were not greased at all, although previously they required greasing every shift. The report states: "We recommend using XADO revitalizants for all units of the waffle shop. Operating under high temperatures and elevated humidity."



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The results apply to the mechanisms of waffle oven No. 4, E-30, in the waffle shop of KRISTAL AD and to its operating conditions — temperature about 250 °C, high humidity; on other equipment and in other duty cycles the figures may differ. The original report with signatures and seals is published in full and available for download.