

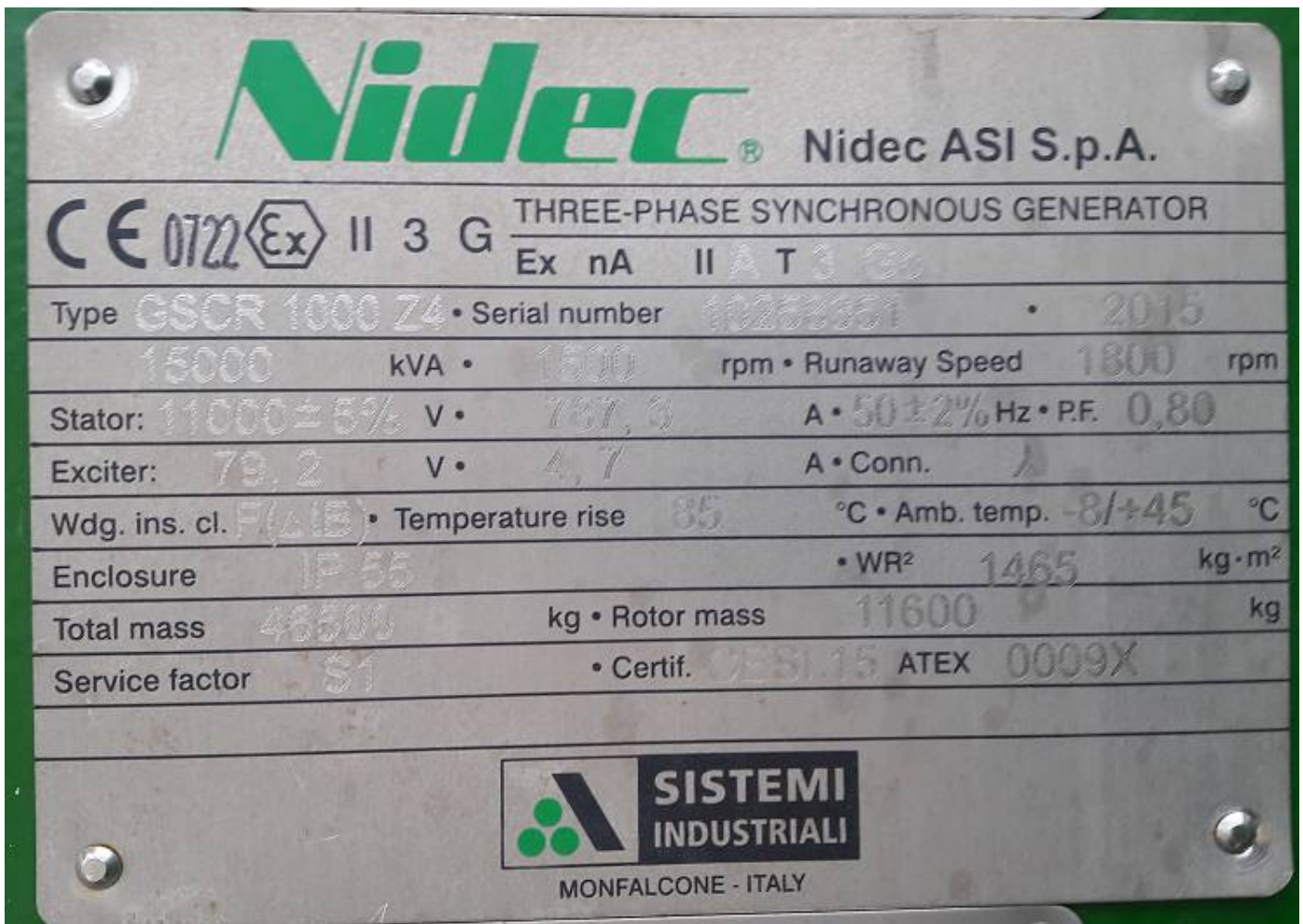
**15000 kVA JES  
AYDIN-TURKEY**



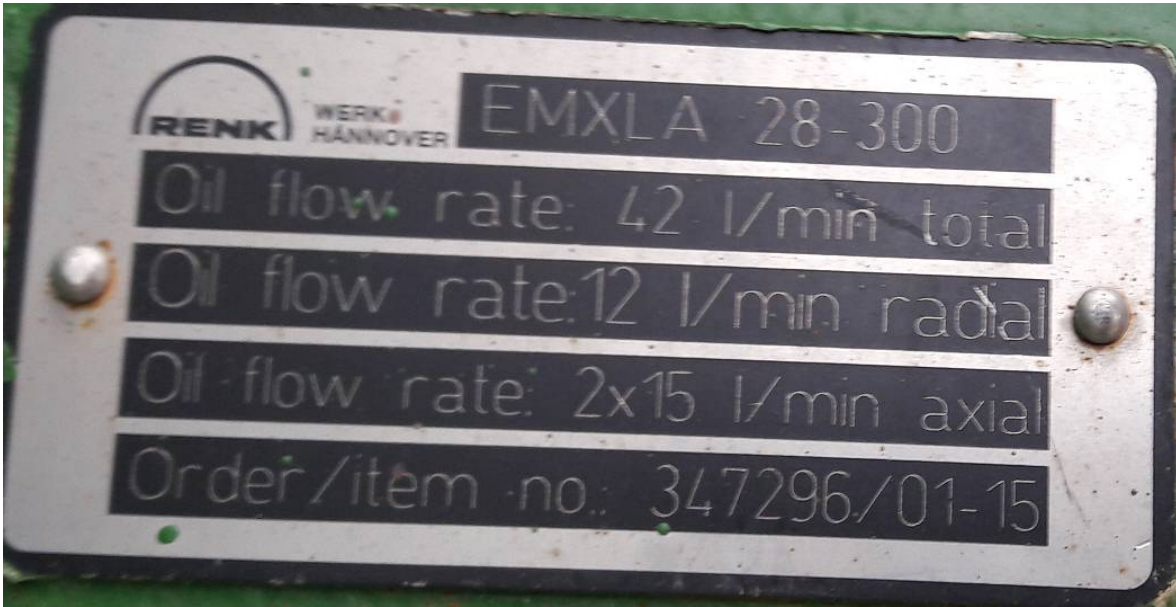
**Caner CANDEMİR  
Service Manager**

**10-11/01/2016**

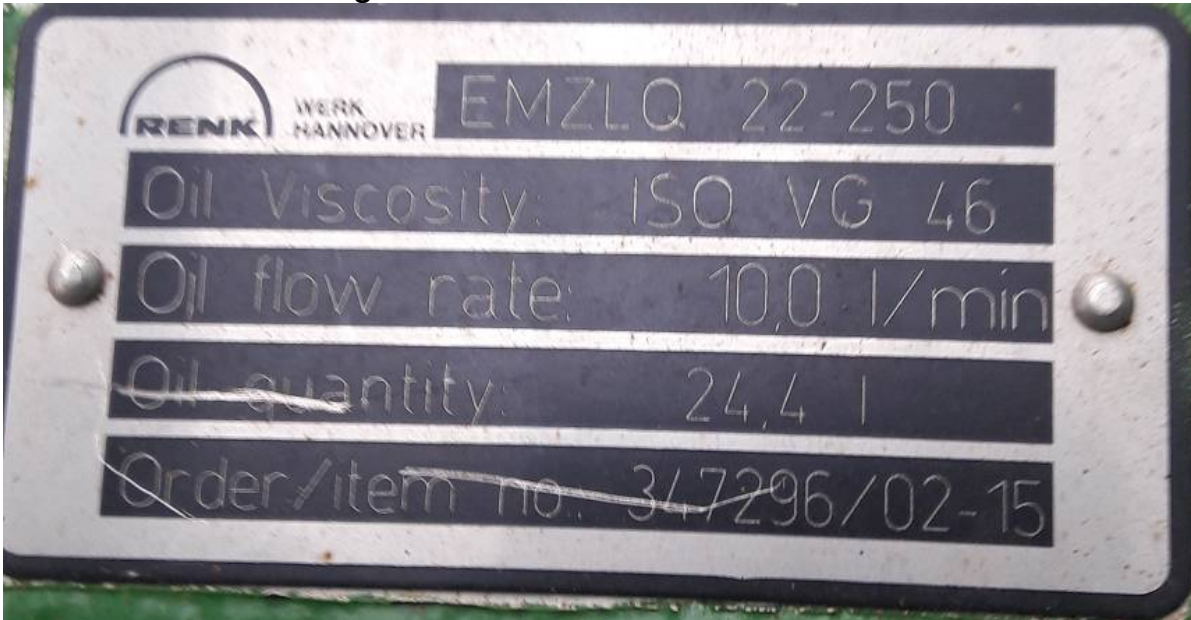
**GENERATOR LABEL**



Type: GSCR 1000 Z4  
Serial number: 10258351  
P: 15000 kVA  
U: 11000 V  
I: 787,3 A.  
Uexciter : 79,2 V.  
Iexciter: 4,7 A.  
N: 1500 rpm

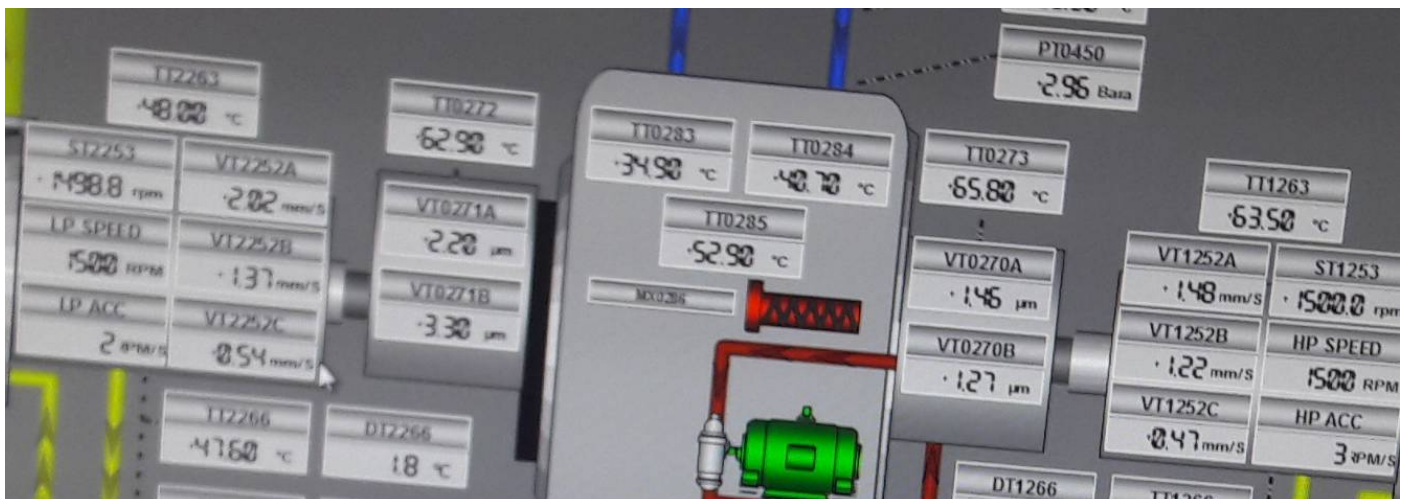


Non insulation bearing



insulation bearing (Exciter side)

## OPERATING PARAMETERS



## RUNNING INSPECTION

### HEADSET LISTENING



We listened to the voice of both bearing. There was not a problem for sound at the bearings.

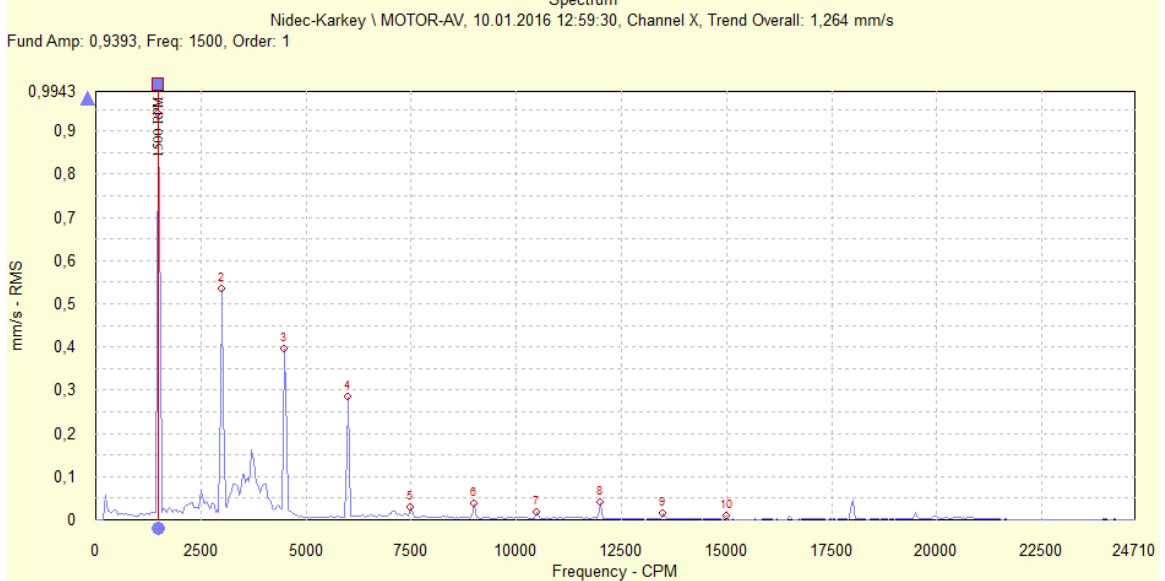
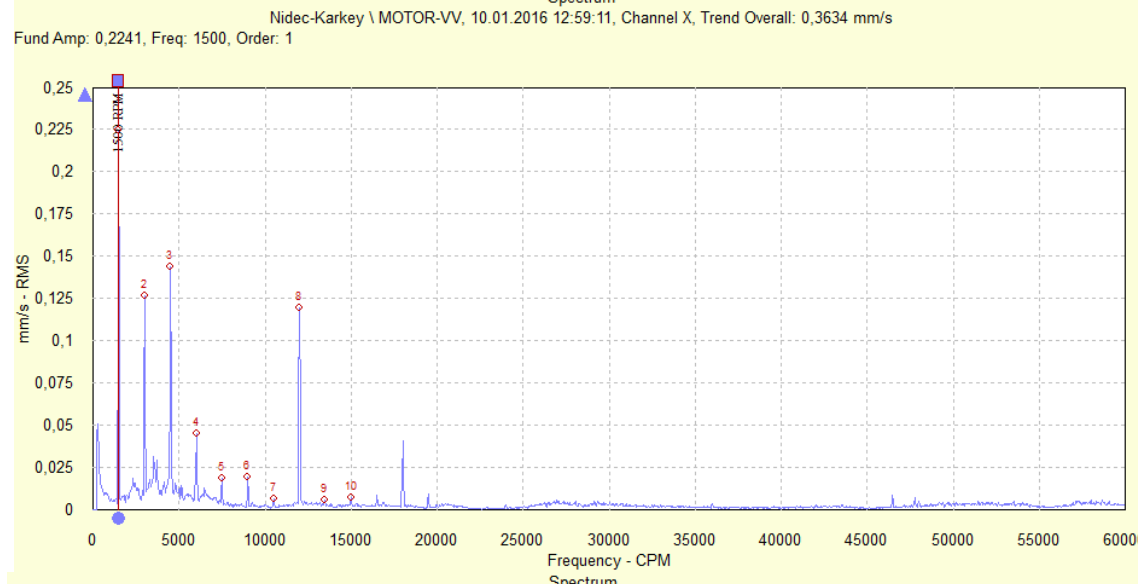
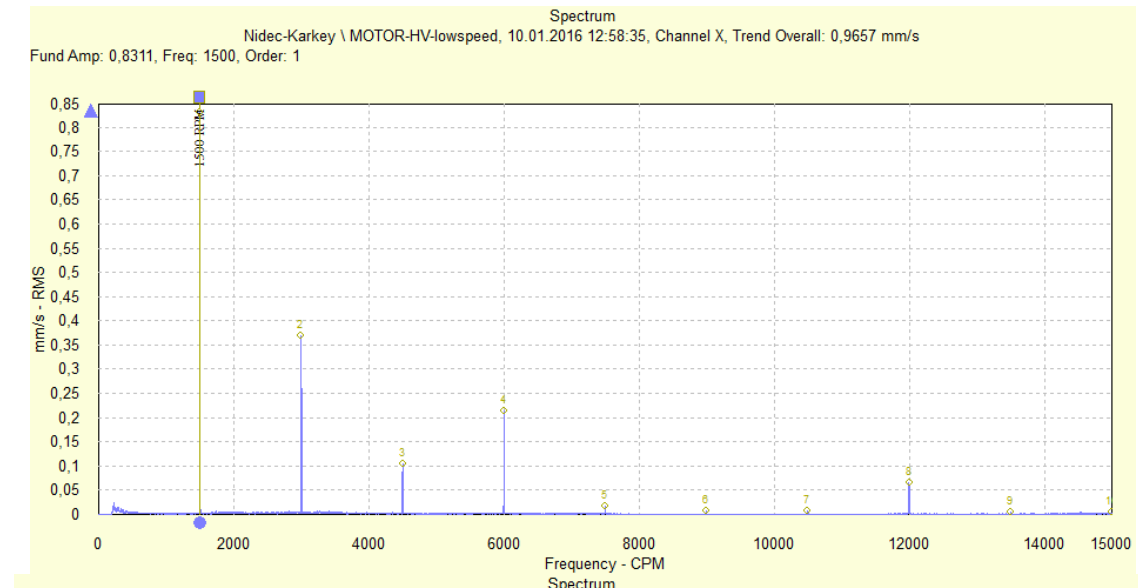
### VIBRATION ANALYSIS



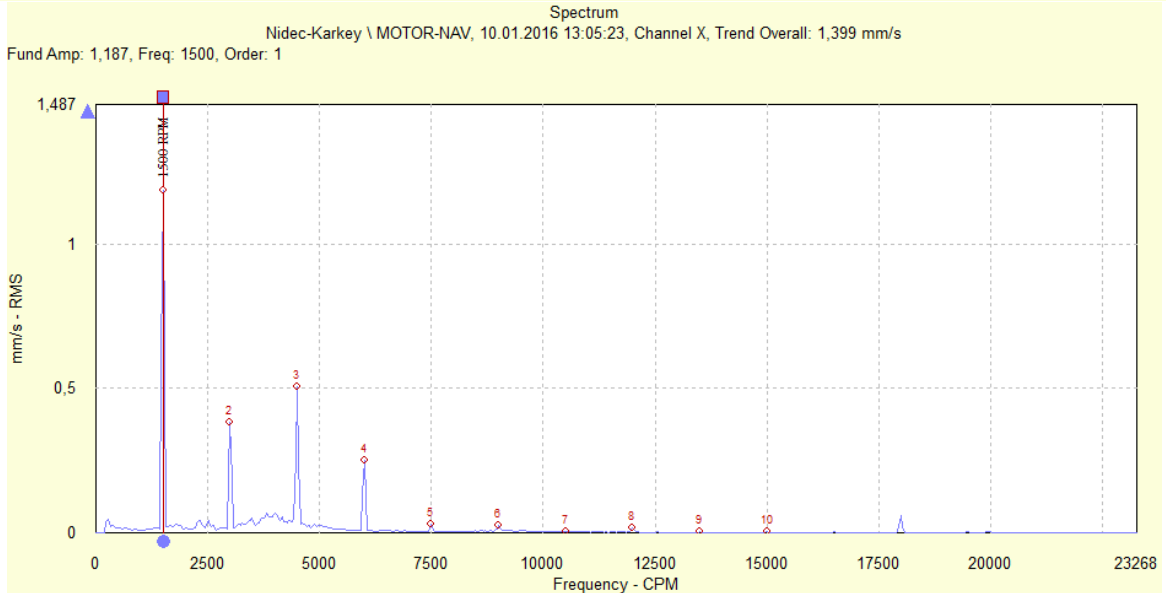
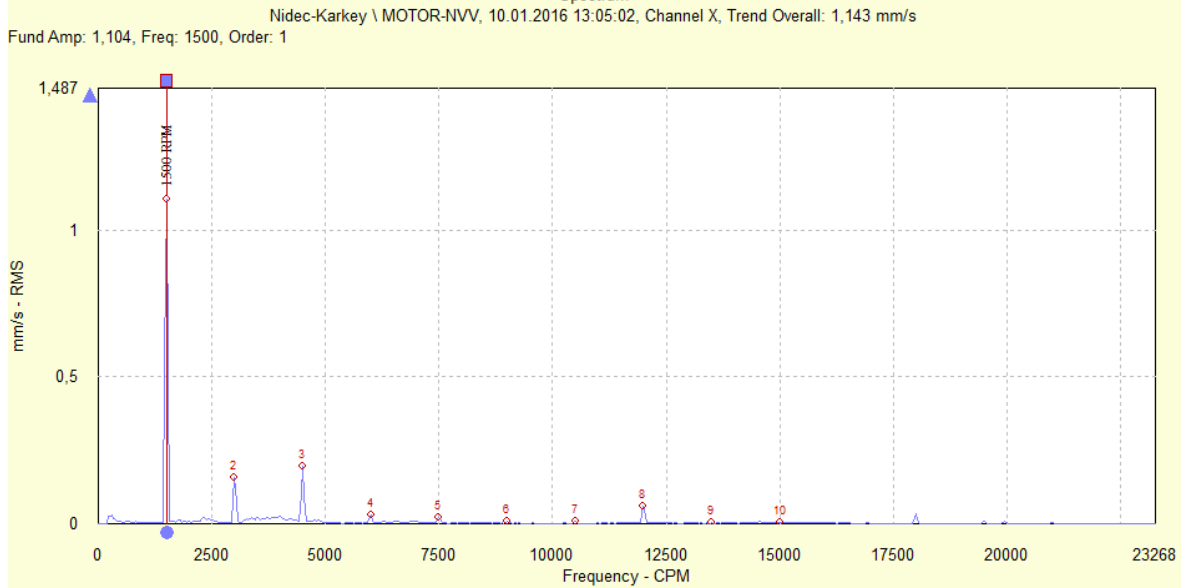
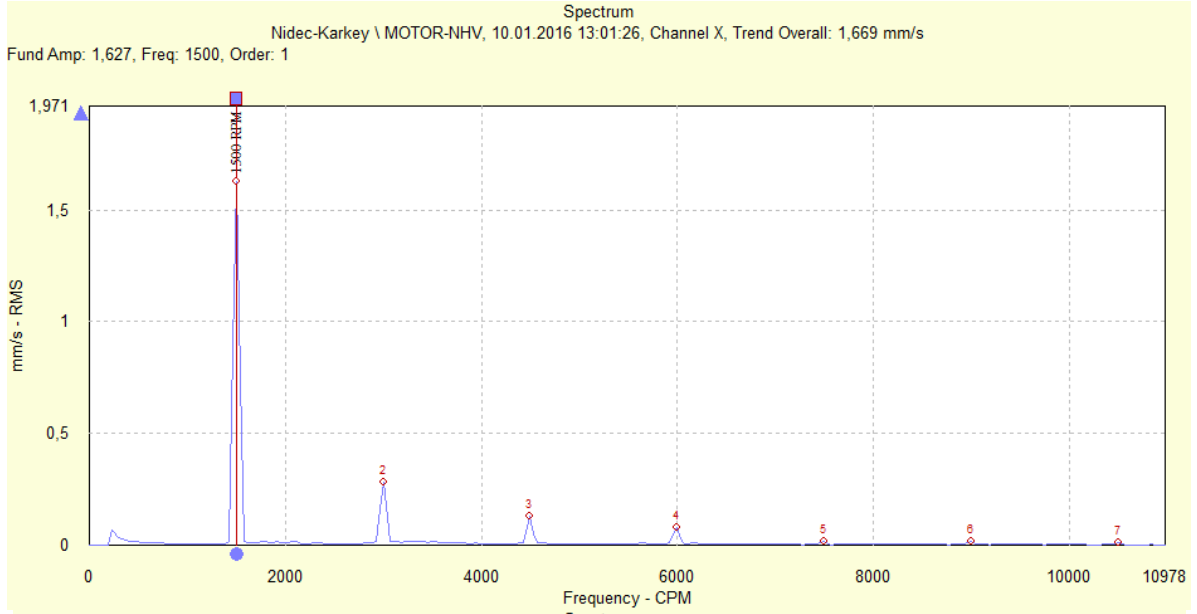
<u>Machine name</u>	<u>POINT name</u>	<u>Date/Time</u>	<u>Last value</u>	<u>Units</u>	<u>POINT description</u>
Nidec-Karkey	MOTOR-HV	10.01.2016 12:57:05	0,967	mm/s	Insulated bearing side horizontal vibration (mm/sn RMS)
Nidec-Karkey	MOTOR-VV	10.01.2016 12:59:11	0,363	mm/s	Insulated bearing side vertical vibration (mm/sn RMS)
Nidec-Karkey	MOTOR-AV	10.01.2016 12:59:30	1,264	mm/s	Insulated bearing side axial vibration (mm/sn RMS)
Nidec-Karkey	MOTOR-NHV	10.01.2016 13:01:26	1,669	mm/s	Non insulated bearing horizontal vibration (mm/sn RMS)
Nidec-Karkey	MOTOR-NVV	10.01.2016 13:05:02	1,143	mm/s	Non insulated bearing vertical vibration (mm/sn RMS)
Nidec-Karkey	MOTOR-NAV	10.01.2016 13:05:23	1,399	mm/s	Non insulated bearing axial vibration (mm/sn RMS)

is not any problems for vibration measurement for bearing

## FFT ANALYSIS



**ÖZCÜR**  
Motor & Generatör



## STROBOSKOP CONTROL

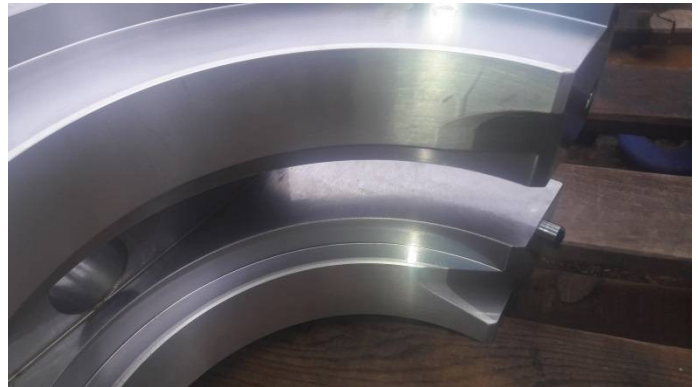
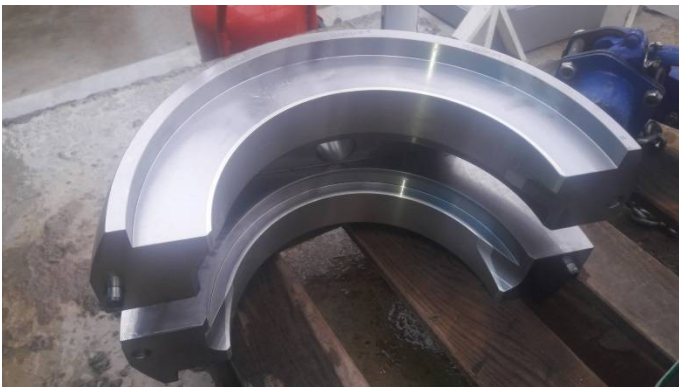
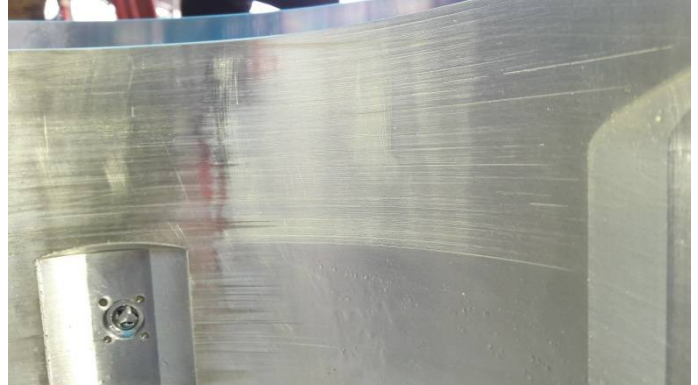
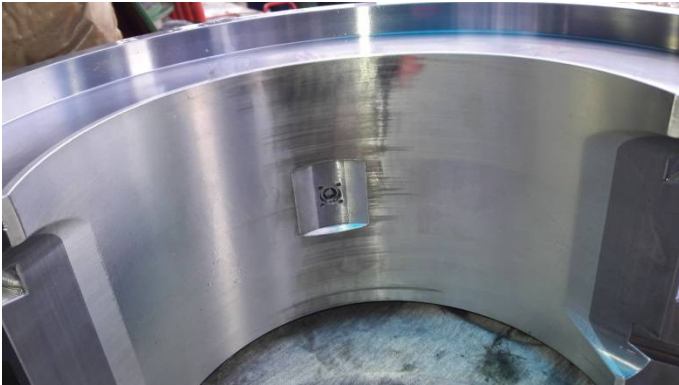


is not any problems for stroboskop control for rotating shaft  
probably sound source as coupling

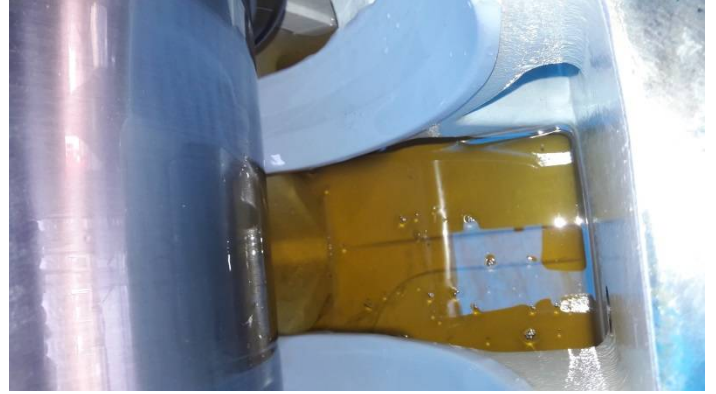


## INSPECTION AFTER STOPPING

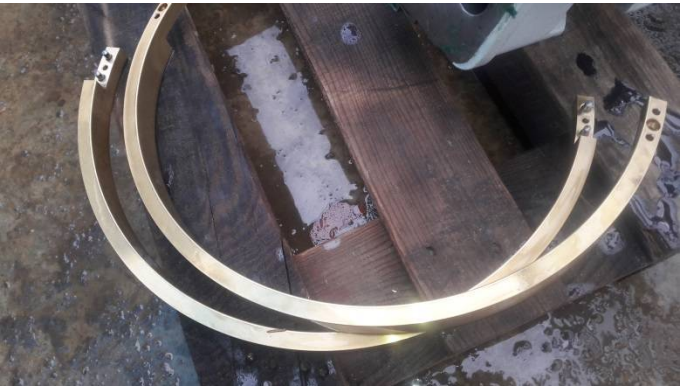
**Generator exciter side bearing was completely disassembled.  
No problems in the generators.**



**There is no problem in the white metals belonging to upper and lower shells  
There are small scratches on the direction of rotation of the lower white metal  
it's may be reasons the oil must be small metal parts**



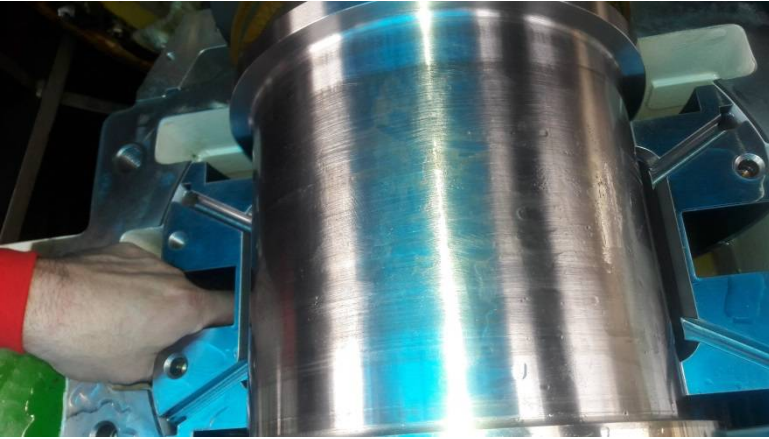
**There is no problem in the upper and lower housing and inulations**



**There is no problem at the oil rings**



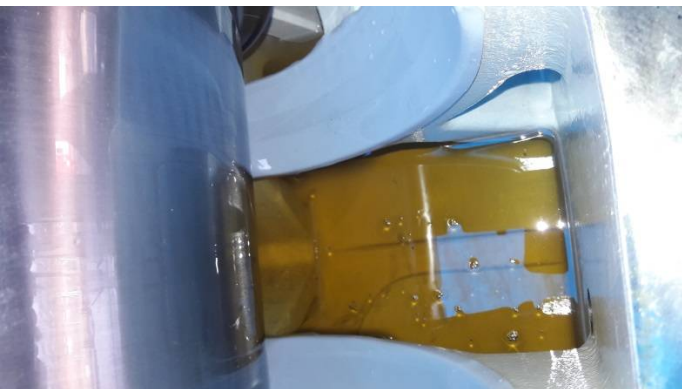
**There is no problem at the labirent seal**



**There is no problem at the bearing journal**

**There are small scratches on the direction of rotation of the surface**

**it's may be reasons the oil must be small metal parts**



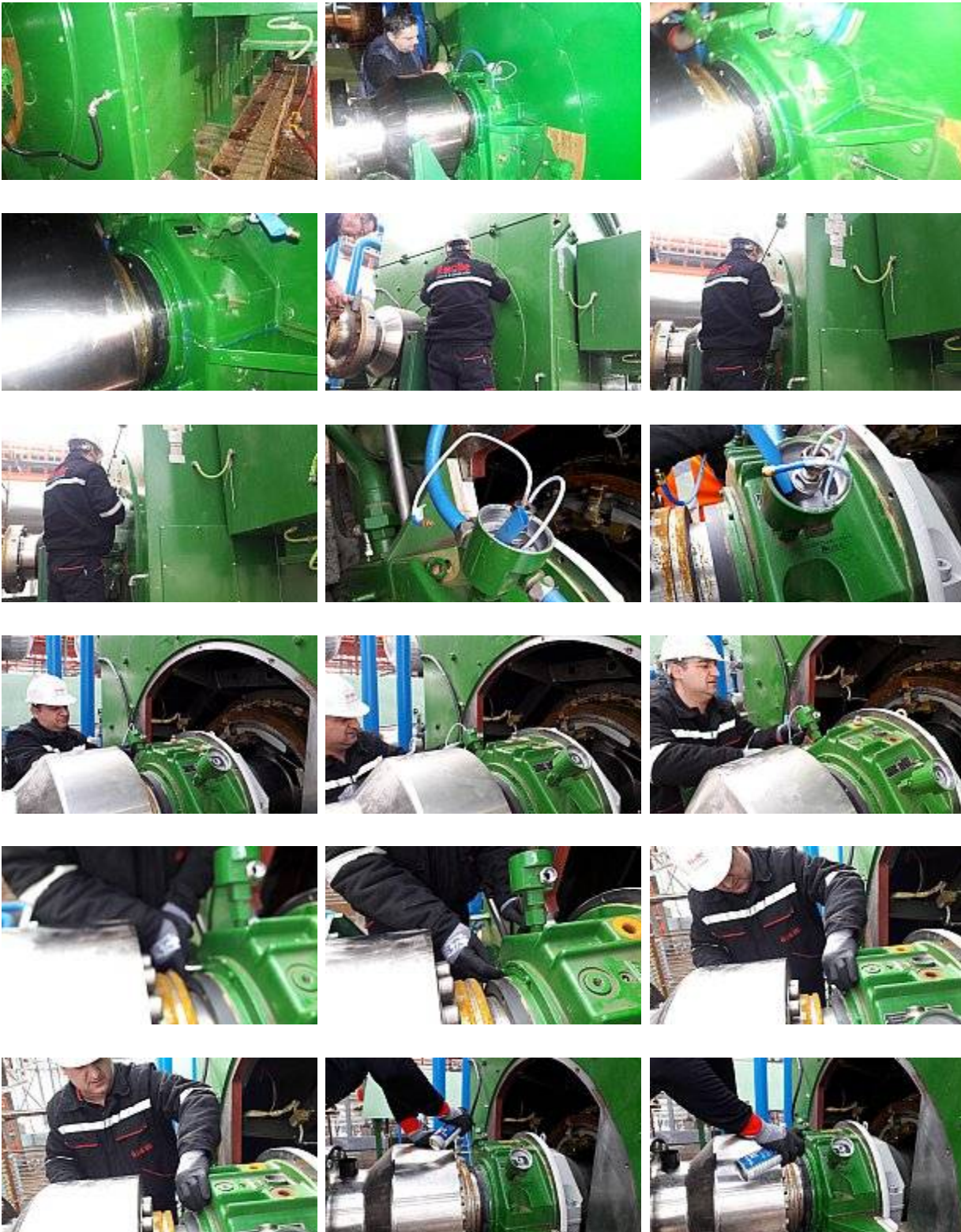
**There is no problem at the oil**

**There are 3-4 pcs small part in to lower housing**

**They are seal part and curil T part**

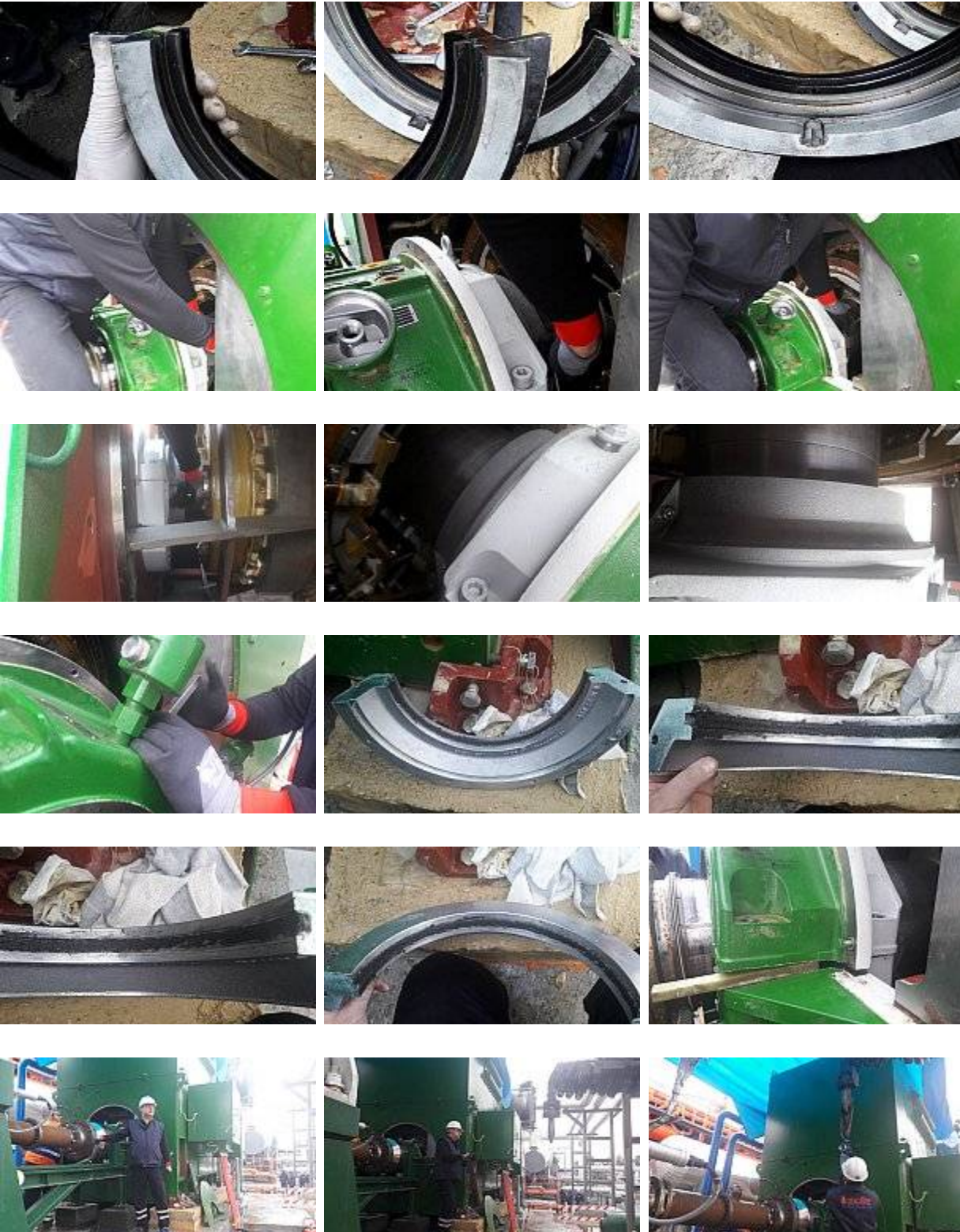
**All were removed**

## BEARING DEMONTAGE (EXCITER SIDE)



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## BEARING MONTAGE (EXCITER SIDE)



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**IMAGES**

