

Main Bearing (MnFr): Outer race fault (BPFO)

Health Indicator	Description	Report Date	Author
80	(040) Component severely affected.	12/07/2015	zha

Recommended Action

Description	Action	Time for reaction
Clear and severe outer race fault on the main bearing. Trend shows further increase. Exchange of component expected.	Visual inspection of bearing and grease	< 14 days

ET01:FTT_62_Tr - Main bearing

Wind farm	Very Windy	Turbine type	StrongWind 2.5
Location	Turbine ET01	Turbine serial	3018826

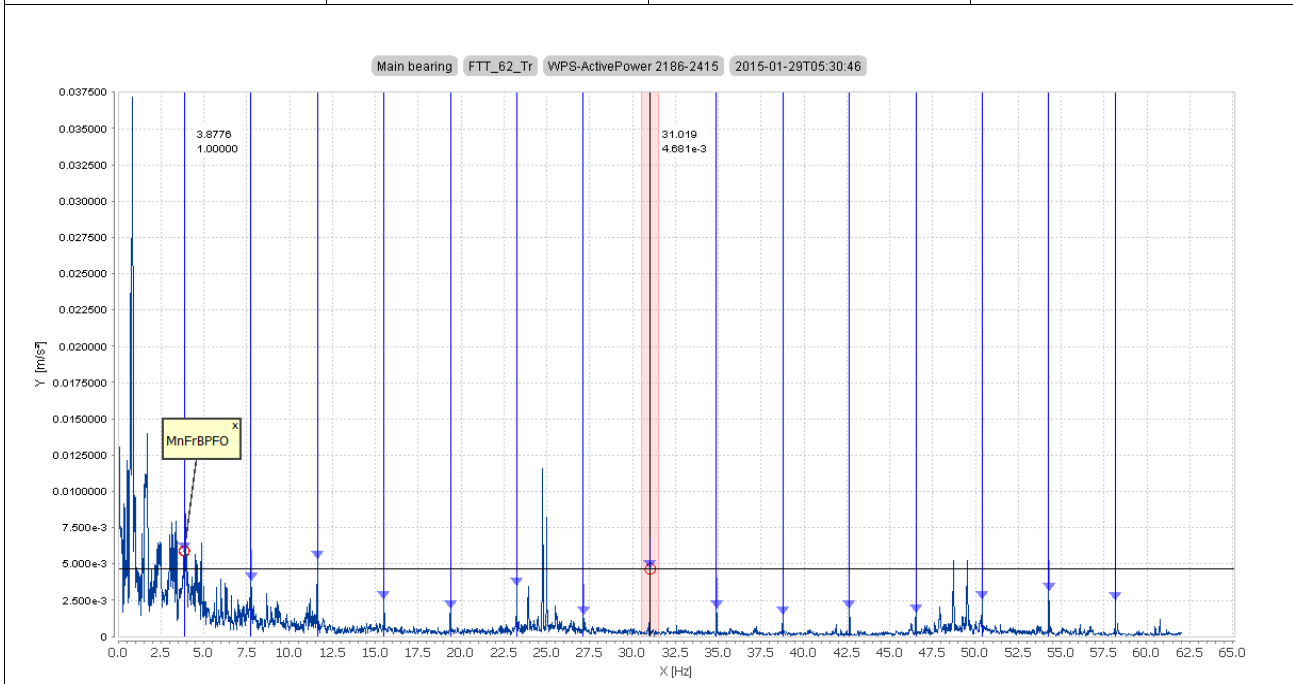


Figure 1

BPFO with distinctive harmonics.

Property List of Measurement			
Condition	WPS-ActivePower 2186-2415	Delta	1.0075
Fundamental	3.8776	Measured RPM	1415.825684
Sideband Gap	1.00000	WPS-ActivePower	2298
X	31.019		

ET01:FTT_62_Tr - Main bearing

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Location	Turbine ET01	Turbine serial	3018826

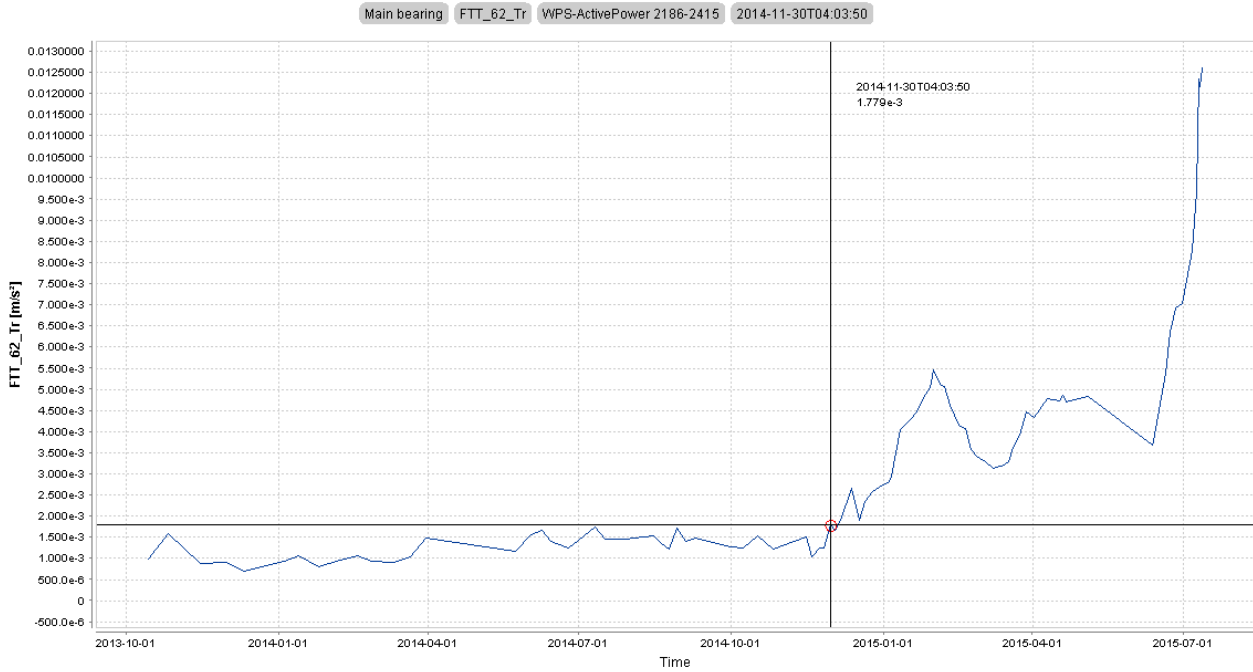


Figure 2

Trend increased since 30/11/2014

Property List of Measurement			
Condition	WPS-ActivePower 2186-2415	ConfigurationName	2.3 MW VS M-sys5 - i=90.842
Data Points	85	First Time Stamp	2013-10-14T12:55:07
Last Time Stamp	2015-07-12T09:50:00	Measured RPM	1441.826294
Trend Bound Lower	30.515625	Trend Bound Upper	31.523125
WPS-ActivePower	2315		

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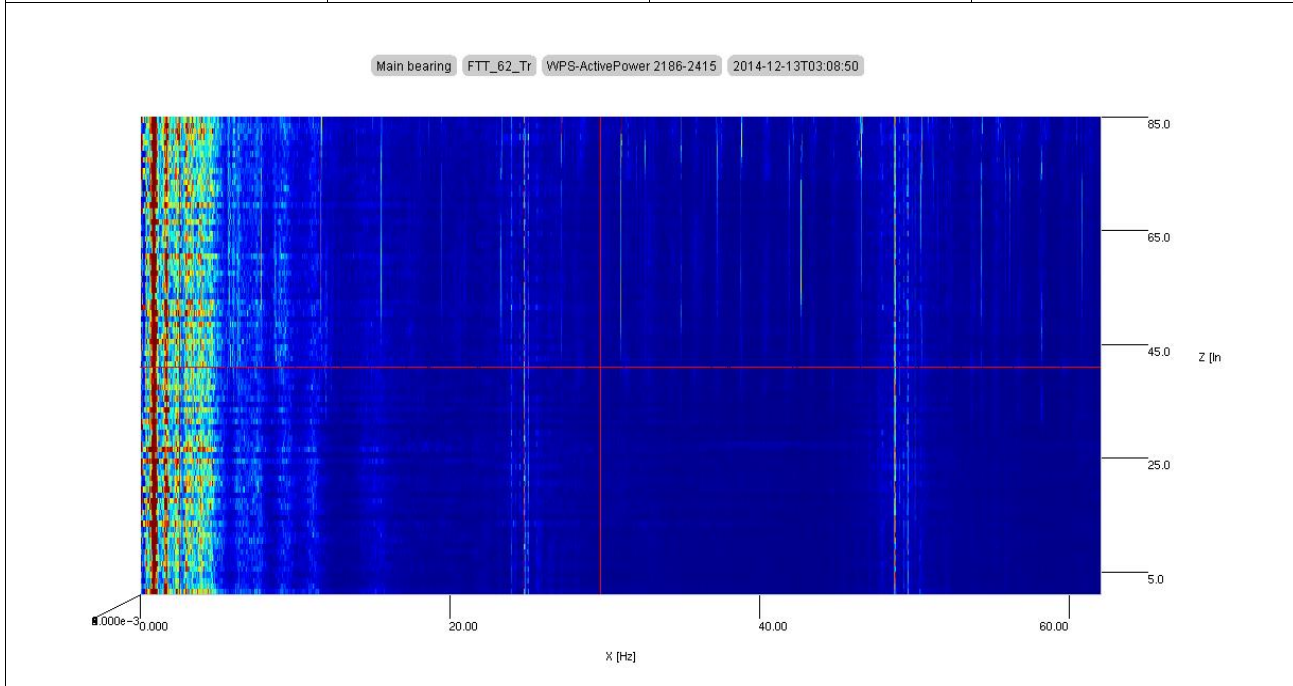


Figure 3

Appearing vertical lines represent increase of BPFO and its harmonics in the whole frequency range.

Property List of Measurement			
Condition	WPS-ActivePower 2186-2415	ConfigurationName	2.3 MW VS M-sys5 - i=90.842
Measured RPM	1452.312134	WPS-ActivePower	2322
X	31.000		

In case of further questions please contact:

GJ monitoring department: monitoring@gramjuhl.com

If you are Pro or Pro+ customer please login for fast response with your TCM® Customer Portal credentials here:

<https://tcmsupport.gramjuhl.com>

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