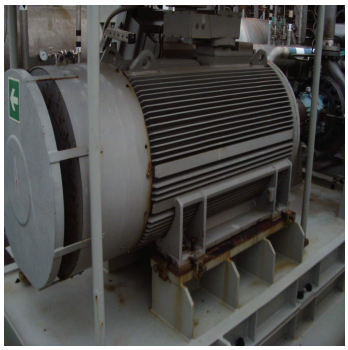
AMPs AS
rds@amps.no
+4791523878



Machine
SRU Feed Pump A

Warning

Company	SFI/TAG	Date
Yinson Production	29PA5002A	05-06-2025
Location	In Operation	Deviation Type
JAK-FPSO		Vibration
IMO Number	Running Hours	Approved By
		Thor-Kenneth
Class	Machine Interval	Analysed By
	3M	Herman Sandvik

Findings	Machine Component	Diagnostic	Severity	Prognostic & RUL	Confidence
No. 1	Motor	Bearing wear S3	S3	RUL = <5% of L10 bearing life [limited]	75% or Higher
No. 2	Motor NDE	Bearing wear S2	S2	RUL = <10% of L10 bearing life [reduced]	75% or Higher
No. 3	Pump	Bearing wear S1	S1	RUL = <20% of L10 bearing life [reduced]	75% or Higher

Recommendation

General

- Perform new measurements to verify that the data is from the correct machine.
- Provide AMPs with bearing information on the new motor and on the pump.
- Machine have a history with false brinelling (See separate report)

Motor DE

1. At this stage we recommend to replace the bearing at next opportunity, even though there are some remaining bearing life.
2. If the machine needs to be kept in operation, close follow-up is needed (temperature, noise, reduce load, lubricate etc.).
3. Measurement interval is set to 2 weeks.
4. Check maintenance history for the machine. If the bearing wear is considered to be premature, make sure you perform a RCFA of the bearing.

Motor NDE

1. If the bearing is grease lubricated, please add 50% of normal amount of grease asap, if not done recently (within the last 3 months).
2. Machine can be operated as normal.
3. Plan the repair, order spares etc.
4. Follow the pre-defined measurement interval, but not more than 1000 hrs.

Pump

1. If the bearing is grease lubricated, make sure the lubrication program is followed.
2. Machine can be operated as normal. Follow the pre-defined measurement interval.

Findings

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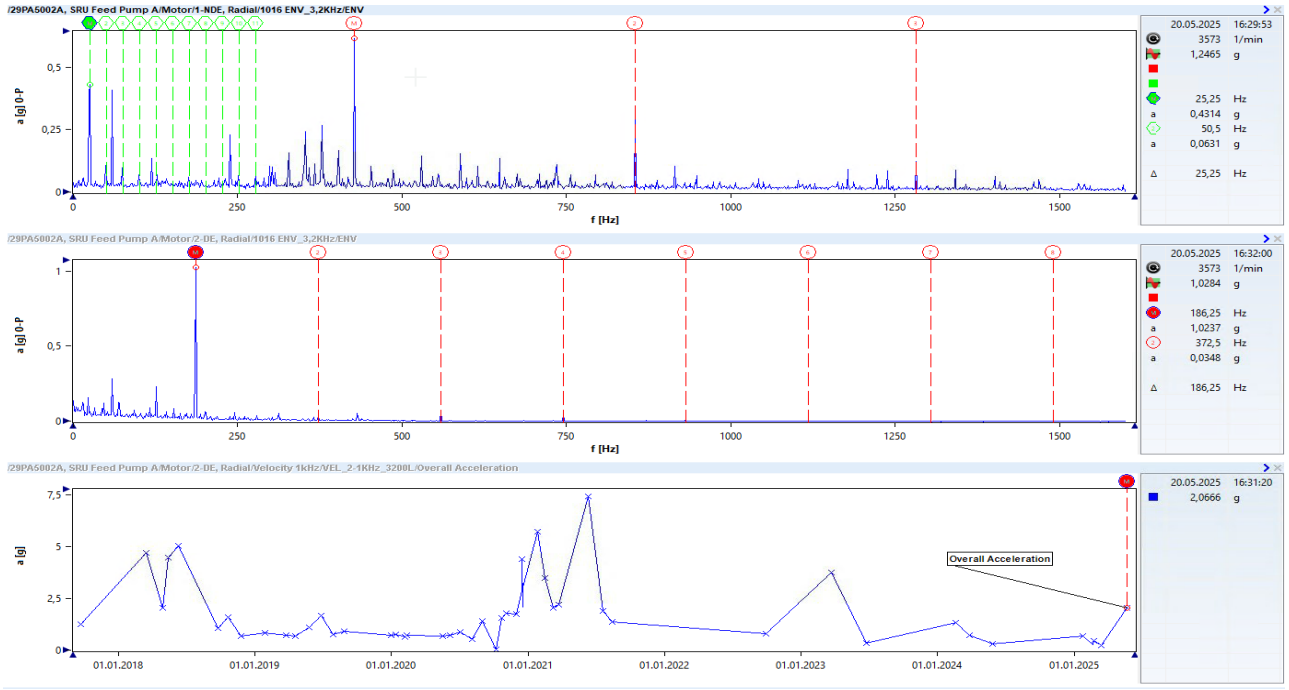

Analysis:

Motor DE

The analysis shows a non-synchronous frequency of 3,1X with very high values and harmonics which can indicate a bearing defect. The frequency is visible in the Velocity FFT with harmonics. Values have increased suddenly since last measurement. This indicates a severe bearing defect.

Motor NDE

The analysis shows a non-synchronous frequency of 7,11X with 1X sidebands with strong harmonics and moderate values. This can indicate a BPFI defect. The analysis also shows a sub-synchronous frequency of 0,42X with harmonics and moderate values which can indicate a FTF defect. Values have suddenly increased since last analysis.

Pump

The Envelope FFT still shows a non-synchronous frequency of 4,9X which match with a defect frequency of 6318 bearing. Our documentation does not confirm that this is the correct bearing. Values are low and stable, but should be monitored.