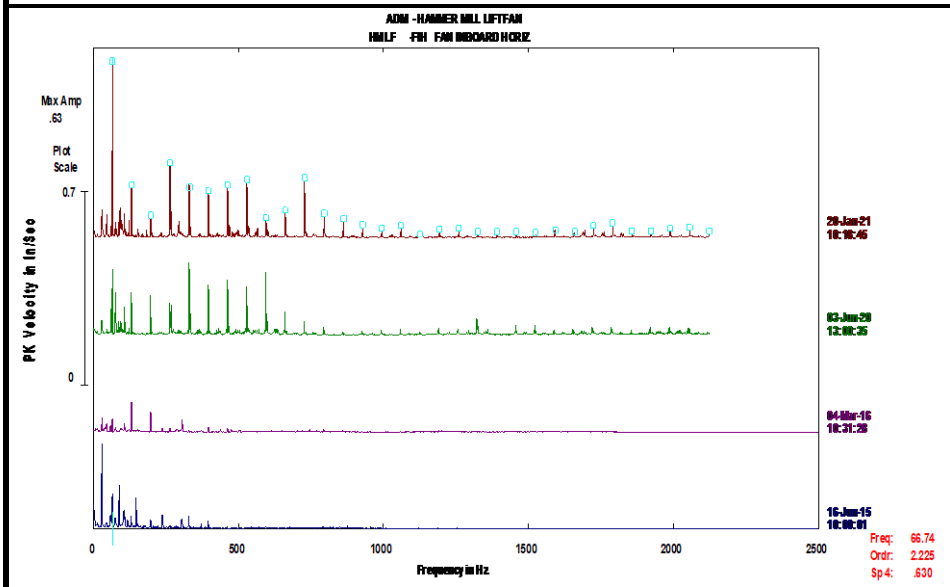
HI-SPEED PREDICTIVE MAINTENANCE

# Machinery Vibration Report

| | | | |
|---|---|---|---|
| **Client** | ADM Flour Milling | **Survey Date** | 1-20-21 |
| **Location** | Jackson, TN | **Report Date** | 1-21-21 |
| **Machine** | Hammer Mill Lift Fan | **QMS No.** | 144290 |
| **Component** | Fan Bearings | **Analyst** | DWS |

| **Defect Rating for this machine** | **CLASS III** |
|---|---|
| **Defect Rating System** | |
| **Class I:** Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring. | **Class III;** Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency. |
| **Class II:** Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor. | **Class IV;** Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. ***Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs.*** |

## Vibration Data



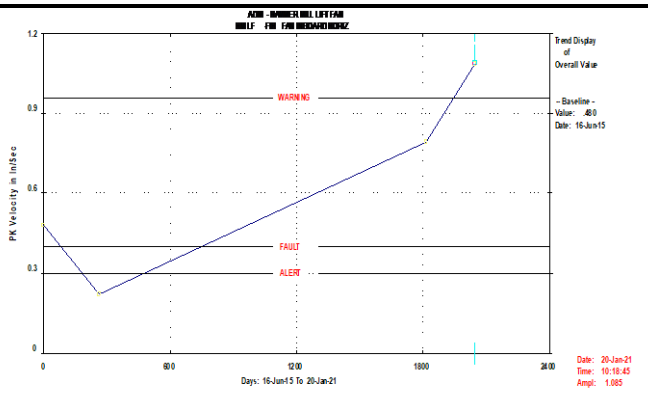

## Analysis

Large peak at 66.3 Hz this survey with large number of harmonics in the fan inboard bearing.

## Discussion / Repair recommendations

This unit was reported the last survey. The fan bearings are in distress. Overall vibrations are over 1"/sec velocity peak and near 4.5G's RMS. Replace the fan bearings. Inspect the shafts, sheaves and belts for wear and alignment. **Rated a Class III Defect.**

## Trend Data



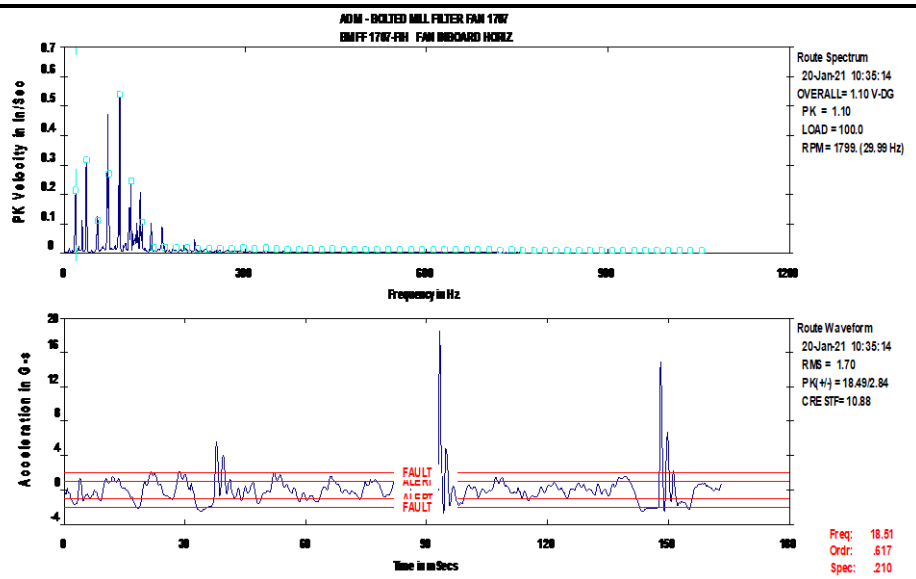
HI-SPEED PREDICTIVE MAINTENANCE

# Machinery Vibration Report

| | | | |
|---|---|---|---|
| **Client** | ADM Flour Milling | **Survey Date** | 1-20-21 |
| **Location** | Jackson, TN | **Report Date** | 1-21-21 |
| **Machine** | 1707 Bolted Mill Fan | **QMS No.** | 144290 |
| **Component** | Fan Bearings | **Analyst** | DWS |

| **Defect Rating for this machine** | **CLASS IV** |
|---|---|
| **Defect Rating System** | |
| **Class I:** Defect is present, but effect on reliability is not clear; no immediate action is required. Continue normal monitoring. | **Class III;** Defect (s) present that may cause failure in short term (less than 2 mos.). Should be addressed as soon as practical, with a high maintenance priority. Increase monitoring frequency. |
| **Class II:** Defect (s) present that may cause problem in long term (2-6 mos.). Repair during normal maintenance scheduling. Continue to monitor. | **Class IV;** Defect (s) present that makes continued reliability unpredictable, and possibility of secondary damage is high. ***Repairs should be made ASAP. An unscheduled shutdown should be considered for repairs.*** |

## Vibration Data




## Analysis

Data shows shaft speed harmonics associated with looseness. Large asymmetrical impacts in the time domain.

## Discussion / Repair recommendations

Data indicates the drive bearing is in very poor shape. The bearings should be replaced soon. Inspect all drive train components during repairs, replace worn components. **Rated a Class IV Defect.**

## Trend Data