Pump Vibration Service Report

Service Date: March 10, 2024
Service Technician: Michael Anderson
Customer Name: DEF Manufacturing Co.
Customer Address: 789 Industrial Avenue, Productionville, USA
Contact Information: (555) 987-6543, michael.anderson@email.com
Pump Information:
- **Pump Type:** Centrifugal Pump v 10
- **Pump Serial Number:** HSCP-345678
- **Pump Location:** Pump Room, DEF Manufacturing Co.

Service Details:

1. Initial Assessment:

Upon arrival at DEF Manufacturing Co., a thorough assessment of the pump experiencing vibration issues was conducted to identify the root cause. Key findings during the initial assessment included:

- The pump, identified as a Horizontal Split Case Pump, was located in the Pump Room and accessible for inspection.
- The pump's serial number HSCP-345678 was verified.
- Visual inspection revealed abnormal vibrations, and preliminary analysis suggested issues within the suction piping system.
- Further investigation pinpointed a concern with the suction piping insulation, potentially causing the vibration problem.

2. Vibration Analysis:

A comprehensive vibration analysis was carried out to quantify and diagnose the pump's vibration issue. Significant findings from the analysis included:

- **Vibration Measurements:** Utilizing advanced vibration sensors, measurements indicated vibration levels exceeding acceptable thresholds.
- **Frequency Analysis:** Detailed frequency analysis identified resonance within the system, primarily attributed to the suction piping insulation.

3. Corrective Actions:

To address the vibration problem originating from the suction piping insulation, the following corrective actions were implemented:

- **Suction Piping Insulation Adjustment:** The inadequately installed insulation was rectified to eliminate resonance issues. Proper insulation techniques were employed to minimize vibrations.

4. Equipment Calibration and Testing:

Post-adjustment, the pump underwent recalibration to ensure proper alignment and functionality. The following tests were performed:

- **Vibration Reassessment:** Subsequent vibration measurements confirmed a reduction in vibration levels within acceptable limits.
- **Functional Test:** The pump was operated to validate that the vibration issue had been successfully resolved, and the pump was functioning optimally.

5. Documentation:

A detailed record of all service and repair activities was documented, encompassing visual documentation, vibration analysis data, calibration records, and maintenance logs. This comprehensive documentation will be furnished to the customer for their records.

6. Customer Feedback and Approval:

The customer was briefed on the outcomes of the service and given the opportunity to inspect the pump. Satisfactory results were communicated, and customer approval was obtained.

7. Recommendations:

In consideration of the assessment and service, the following recommendations were provided to the customer:

- Regular monitoring of vibration levels to detect potential issues proactively.
- Scheduled inspections of the insulation system to ensure ongoing proper installation and prevent vibration-related problems.

8. Conclusion:

The pump's vibration issue, traced back to suction piping insulation concerns, has been successfully addressed. The customer expressed satisfaction with the service, and meticulous documentation was updated to reflect the service details and customer approval.

9. Customer Signature:

Customer Signature: _____
Date: _____

10. Service Technician Signature:

Technician Signature: Michael Anderson
Date: March 10, 2024