**MOVABLE BRIDGE HYDRAULIC INSPECTION REPORT**

Wisconsin Department of Transportation

DT2016 6/2017 s.84.17 Wis. Stats.

|  |  |
| --- | --- |
| Bridge Number      | Overall Rating of Hydraulic System      |
| Bridge Name      | Date Inspected      |
| Lead Hydraulic Inspector      | Weather      |
| Inspection Team Leader      |  |

Notes:

* This form provides specific inspection detail in conjunction with the items provided in the HSI Movable Inspection Tab. While there may be some overlap with the routine inspection, updates to the Elements and Assessments Inspections Tabs are not necessarily required.
* Place comments in each box next to the component inspected.
* For each component rating, enter “(1)” for Good, “(2)” for Fair, “(3)” for Poor, or “(4)” for Severe.
* If the component does not apply to this bridge enter “NA”.
* Include a comment and photo reference documenting any components rated (3) or (4).

**Accumulators** Component Rating:

|  |  |
| --- | --- |
| **Component** | **Finding/Comment** |
| **Accumulators** – The pre-charge should be checked for proper pressure by a technician who is fully trained to properly and safely perform this procedure.Pressure after pre-charge =       |       |

**Valves** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| **Pressure Relief Valves** – Verify that pressure settings are correct and adjust if necessary. Check for leaks. |       |
| **Directional Control Valves** – Verify that spool moves freely. Verify that manual override pushbuttons are working. Check for leaks. |       |
| **Shut-Off Valves** – Check for leaks. Verify that valves are working properly. |       |

**Hydraulic Cylinders** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| **Hydraulic Cylinders** – Check extension and retraction of rods for smooth movement. Check cylinder rod coating for damage. Check for fluid leakage. Check mechanical connections at rod end, blind end, and/or trunnion support. |       |

**Pumps** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| **Pumps** – Check pump suction, pressure lines and drain lines for leaks. Check tightness of bell housing to pump and motor connections. Check tightness of shaft coupling assemblies. Check tightness of pump/motor mountings. |       |

**Rotary Piston Low Speed High Torque Motors** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| **Motors** – Operate motors and check for smooth operation. Check pressure line and case drain line for leaks. Check tightness of motor supports and shaft coupling assemblies. |       |

**Filters** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| **Pressure Filter** – Check for clogging if possible. Record filter replacement date if available or if replaced during the inspection. If filter is replaced during the inspection, check for leaks afterwards. |       |
| **Return Line Filters** – Check for clogging if possible. Record filter replacement date if available or if replaced during the inspection. Enter date that filter was replaced. If filter is replaced during the inspection, check for leaks afterwards. |       |

**Hydraulic Plumbing** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| **Piping, Tubing and Hoses** – Visually inspect all lines for damage or leaks. Check support connections for looseness. |       |

**Hydraulic Fluids** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| **Hydraulic Fluid** – Take sample to be analyzed for acceptance and attach copy of test report when received. |       |

**Span Drive Operating Pressure and Cycle Times** Component Rating:

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| --- | --- |
| **Component** | **Finding/Comment** |
| Operating Pressure =       seconds at normal speedOpening Time =       seconds at normal speedClosing Time =       seconds at normal speed |       |

**Additional Hydraulic Component:**  Component Rating:

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| --- |
|       |

**Recommended Short Term Actions & Repairs for Hydraulic System:**

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|       |

**Recommended Long Term Rehabilitation Needs for Hydraulic System:**

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|       |

**General Remarks – Hydraulic** Overall Rating *(Also enter on page 1)*:

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|       |