



HYDRAULIC BOOM CRANE INSPECTION

Work Order No. 24-0581-A
June 4, 2024

GWIL Crane Service
5337 Regent St, Burnaby
BC, V5C 4H4

Attention: Mr. Rob Magee

Dear Sir,

We have been requested to provide annual certification as Engineer of Record for the following crane/vehicle combination:

Make:	Model:	S/N:	Hours:	Unit No.
Demag	AC200	24086	19794	382

Worksafe BC OHS Regulation 14, requires documentation specific to the safe use of Mobile Cranes to be reviewed and accepted by the Engineer of Record, prior to the unit's safe return to service. An inspection plan has been developed using the manufacturer's recommendations, the requirements of Worksafe BC OHS Regulation 14, and ANSI/ASME B30.5-2004 standard.

Tripac Engineering Ltd. Structural Inspection Report

1. GENERAL ITEMS

		OK	Rep
1.1	<u>General Lubrication</u>	✓	
1.2	<u>General Housekeeping</u>	✓	

2. SUPERSTRUCTURE

		OK	Rep
2.1	<u>Structural Members and Welded Seams for Cracks, Deformation, Deterioration, and Wear</u>	✓	
2.2	<u>Boom Stow Away Bracket</u>	✓	
2.3	<u>General Lubrication</u>	✓	
2.4	<u>Chassis Tie-Down Plates</u>	✓	

3. OUTRIGGERS

		Applicable
<u>Front Outriggers</u>		✓
<u>Rear Outriggers</u>		✓
		OK Rep
3.1	<u>Structural Members and Welded Seams for Cracks, Deformation, Deterioration and Wear</u>	✓
3.2	<u>Outrigger Shoes</u>	✓
3.3	<u>Outrigger Pads</u>	✓
3.4	<u>Stow-Away Hooks/Brackets</u>	✓
3.5	<u>Full Extension Marked</u>	✓

4. ROTATING ASSEMBLY

		OK Rep
4.1	<u>Structural Members and Welded Seams for Cracks, Deformation, Deterioration, and Wear</u>	✓

5. TOWER (TURRET)

		OK Rep
5.1	<u>Structural Members and Welded Seams for Cracks, Deformation, Deterioration, and Wear</u>	X
5.2	<u>Boom Connection Plates</u>	✓
5.3	<u>Boom Stow Away Bracket</u>	✓
5.4	<u>Lift Cylinder(s) Connections</u>	✓

6. BOOM SECTIONS

		Applicable
<u>Telescoping Boom Section(s)</u>	<u>(5 Sections)</u>	✓
<u>1m Offset</u>		✓
<u>Swing Away Jib with Pin on tip</u>		✓
<u>6m Jib Inserts</u>	<u>(2 sections)</u>	✓
<u>6m Large Jib Sections</u>	<u>(2 sections)</u>	✓
		OK Rep
6.1	<u>Structural Members and Welded Seams for Cracks, Deformation, Deterioration, and Wear</u>	✓
6.2	<u>Sweep and Camber</u>	✓
6.3	<u>End to End Twist</u>	✓

6.4	<u>Connection Pins (Visible Wear or Missing Hardware)</u>	✓
6.5	<u>Connection Pin Bearing Clearance(s)</u>	✓
6.6	<u>Boom Articulating Links</u>	N/A
6.7	<u>Winch Condition(s) (Drum and Flanges)</u>	✓
6.8	<u>Winch Mounting Bolts (Visual Check)</u>	✓
6.9	<u>Sheaves (Cracks/Nicks/Gouges/Wear)</u>	✓
6.10	<u>Wire Rope Wear Pads</u>	✓
6.11	<u>Wire Rope Guides</u>	✓
6.12	<u>General Lubrication</u>	✓
6.13	<u>Pins and Pin Safety Devices</u>	✓

7. HOOKS, BLOCKS, WEDGE SOCKETS (WITHOUT DISASSEMBLY)
- ASME B30.10-2014 Standard

	Identification No.	W.L.L.	Installed
Single Sheave Block	Demag -	40 Metric Tonnes	✓
Five Sheave Block	Demag -	125 Metric Tonnes	

		OK	Rep
7.1	<u>Cracks/Nicks/Gouges</u>	✓	
7.2	<u>Load Hook Wear Exceeding 10%</u>	✓	
7.3	<u>Load Hook Bending/Twisting</u>	✓	
7.4	<u>Throat Opening Distortion Less than 5%, Max ¼"</u>	✓	
7.5	<u>Cheek Weights</u>	✓	
7.6	<u>Sheaves (Cracks/Nicks/Gouges/Wear)</u>	✓	
7.7	<u>Safety Latches</u>	✓	
7.8	<u>Swivels, for Freedom of Rotation</u>	✓	

8. INSPECTION RESULTS

Slewing gear measurements were taken as follows:

Rear 0.007

Front left 0.005

Rear right 0.007

Front right 0.004

Rear left 0.006

5.1 A crack (Cr. 1) requiring weld repair was detected on the turret right web gusset on outer side to turret web.

The above noted deficiency was weld repaired.



All final structural inspection results were satisfactory.

9. COMMENTS

1. All mobile cranes shall be inspected, tested, and maintained according to the manufacturer's recommendations, the requirements of Worksafe BC OHS Regulation 14.71, and CSA Z150-1998 or ANSI/ASME B30.5-2004 standards. The scope of the structural inspection was limited to that described in the report.
2. Safety Labels Must Be Attached to The Unit, And They Must Be Legible. Replace all worn, damaged, or missing safety decals, as necessary.
3. The annual mechanical and operational inspection checklist has been provided for our review.
4. Based on a thorough inspection of the machine, and review of the provided mechanical and operational inspection documentation, it is our opinion that the Demag mobile crane, S/N 24086, structurally, mechanically, and operationally meets the requirements of Worksafe BC OHS Regulation 14, and ANSI/ASME B30.5-2004 standards. A decal dated, 21 May 2024 was affixed to the cab interior to reference the inspection documentation. The validity of this inspection is for a 12-month period, based on the equipment use and that the equipment is operated, inspected, and maintained on an ongoing basis by the Equipment Operator in accordance with the applicable regulations in the OHSR. (Failure to do so will invalidate this document).
5. The unit is safe for use.

TRIPAC ENGINEERING LTD.

Permit to Practice No. 1003686

per: Amtinder Badial, P.Eng.

June 4, 2024

Amtinder Badial, P. Eng
CSA W178.2 Weld Inspector, Level 1

