1. **OBJECTIVES**

   This Procedure details the minimum inspection frequencies and responsibilities for the maintenance, inspection and testing of Lifting Equipment.

2. **ROLES AND RESPONSIBILITIES**

   2.1 **The Planner** will be responsible for planning for maintenance and testing of cranes, hoists and crawl beams and the safekeeping of the records of such maintenance and testing.

   2.2 **The Maintenance Controller/Shift Supervisor** is responsible for overseeing planned inspection/maintenance work on Lifting Equipment and Lifting Tackle and signing it off as having been satisfactorily done.

   2.3 **The Maintenance Controller/Shift Supervisor** is responsible for the delivery to the respective Planner of the appropriate documentation on completion of the testing and maintenance.

   2.4 **The Plant Engineer** is responsible to authorise in writing, a competent person/s to undertake the inspection of lifting tackle. (Appendix B)

   2.5 **The Plant Engineer** is responsible to engage the services of an appropriately approved Inspection Agent to undertake periodic routine maintenance and testing of Lifting Machines and Crawl beams.

   2.6 **The Plant Engineer** is accountable for all maintenance, inspection and repairs to lifting equipment and lifting tackle.

   2.7 **The user** of any lifting equipment and lifting tackle is responsible to do a pre-use inspection on the equipment prior to use.

3. **DEFINITIONS**

   3.1 **Competent Person**

      A person who is trained in the proper use of hand signals, rigging techniques and in identifying hazardous or dangerous conditions when performing work with cranes and when utilizing rigging equipment.
3.2 Lifting Equipment

Any equipment, machine or arrangement of equipment or machines intended or used for the lifting, lowering, suspension or moving in suspension of any person or load.

3.3 Lifting Tackle

Means any attachment, including anchoring points, used to secure lifting equipment or a load to lifting equipment.

3.4 Lifting machinery – mobile

Refers to mobile cranes, lifting trucks (forklifts), jib cranes, barge cranes, hydraulic articulated man-lifts and “Cherry Picker” units (mounted on a motorised vehicle).

3.5 Crane

Is a lifting machine equipped with a winder, wire ropes or chains and sheaves that can be used both to lift and lower materials and to move them horizontally. It uses one or more simple machines to create mechanical advantage and thus move loads beyond the normal capability of a human.

3.6 Hoist

It is a device used for lifting or lowering a load by means of a drum or lift-wheel around which rope or chain wraps. It may be manually operated, electrically or pneumatically driven and may use chain, fiber or wire rope as its lifting medium. The load is attached to the hoist by means of a lifting hook.

4. METHOD

4.1 CRAWL BEAMS

Crawl beams are to be load tested when:

- They are first installed or
- They are modified or repaired.

Load tests are to be undertaken by an approved inspection and testing agent. Results of such load tests and certificates are required from the agent and will be kept in the planning office.

Annual inspections of all installed crawl beams are to be undertaken by the Plant Engineer and a PM01 SAP order must be generated for this purpose. Records of these inspections to be entered into the SAP maintenance system.

In addition to the above, a pre – use inspection must be done by the user to ensure that the bogey on the crawl is not able to get past the end stops on a crawl

4.2 LIFTING TACKLE

Lifting tackle is to be inspected at least on a 3 monthly basis by a competent person appointed by the Plant Engineer. Appropriate PMO1’s are to be generated by the responsible Plant Engineer for this purpose. The results of such inspections are to be entered into register kept for the purpose by the appointed competent person and
countersigned by Maintenance Controller/Shift Supervisor. The generic inspection register in Appendix A can be used as a guideline. All lifting tackle that are inspected and approved for further use should be tagged, using a colour coded tag in accordance to the month of inspection. Refer to RBM standard Lifting Equipment Colour Coding Matrix.

The 3 monthly inspections should include an inspection of the Lifting Equipment Storage area. The storage area should be clean, dry, well organised.

4.3 CRANES, ELECTRIC AND HAND OPERATED LEVER/CHAIN HOISTS

Routine maintenance and inspection services will be undertaken on a 3 monthly basis on all cranes and electric and hand operated Lever/ Chain Hoists by a competent person. All hand operated Lever/ Chain Hoists that are inspected and approved for further use should be tagged, using a colour coded tag in accordance to the month of inspection. Refer to RBM standard Lifting Equipment Colour Coding Matrix.

Reports of such services are to be signed by the responsible Maintenance controller and the Plant Engineer and kept by the planning office.

Cranes and electric Chain Hoists are to be load tested on a 12 monthly basis by an approved inspection and testing agent. Hand operated lever / chain hoists are to be load tested after any repairs have been done and thereafter at intervals not exceeding 12 months.

4.4 HYDRAULIC ENGINE AND PALLET HOISTS

Hydraulic engine and pallet hoists shall be inspected at least on a 3 monthly basis by the competent person appointed by the Engineer. Yearly load tests are to be undertaken by an approved inspection and testing agent.

4.5 STACKER ARM RAISING AND LOWERING GEAR

Stacker arm raising and lowering gear shall be inspected at least on at 3 monthly bases by a competent person appointed by the Engineer and results entered into the register provided for the purpose.

Yearly load tests are to be undertaken by an approved inspection and testing agent.

5. REFERENCES

RBM COP 29 Lifting Equipment and Machinery.
OHSA Regulation R.18 (5)

6. APPENDICES

Appendix A – Lifting tackle inspection register
Appendix B – Appointment to inspect lifting tackle

7. REVIEW HISTORY

<table>
<thead>
<tr>
<th>REV NO</th>
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<th>PAGE (S)</th>
<th>DATE</th>
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<td>0</td>
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<td></td>
<td>17 August 2009</td>
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<tr>
<td>1</td>
<td>Paragraph 4.3 Last sentence - Added load test after every repair and thereafter at intervals not exceeding 12 months.</td>
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Added OHSA Regulation R18(5) to references.

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<th>4.2 Lifting Tackle updated to include. “All lifting tackle that are inspected and approved for further use should be tagged, using a colour coded tag in accordance to the month of inspection” and “The 3 monthly inspections should include an inspection of the Lifting Equipment Storage area. The storage area should be clean, dry, well organised”</th>
<th>3</th>
<th>30/11/2015</th>
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### APPROVAL

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<tr>
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<td>B Naicker</td>
<td>30/11/2015</td>
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### LIFTING TACKLE INSPECTION REGISTER

<table>
<thead>
<tr>
<th>AUTHORISED INSPECTOR</th>
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<tbody>
<tr>
<td>SUPERVISOR</td>
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<tr>
<td>DEPARTMENT</td>
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<table>
<thead>
<tr>
<th>DESCRIPTION OF ITEM</th>
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<tr>
<th>DATE OF INSPECTION</th>
<th>SIGNATURE OF INSPECTOR</th>
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</table>

**STANDARD SHEET ENTRIES**

- **PD** – Physical damage
- **SL** – Operation of safety latches
- **DH** – Distortion of lifting hooks
- **SCR** – Equipment scrapped
- **REP** - Equipment being repaired
- **OK** - Equipment in safe & good working order
- **ILM** – Equipment identified/missing
- **ST** – Storage

**HOOKS**

- ➞ Evidence of spreading in the throat opening
- ➞ Are hooks cracked, nicked, chafed
- ➞ Is there any wear on the eye

**SLINGS**

- ➞ Marked with safe working load & equipment number
- ➞ Is there any wear or corrosion
- ➞ Any damage or distortion to thimble

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This printed copy is only valid for 17 April 2018
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<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Is there any wear on the saddle</td>
<td>Any bent strands</td>
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<tr>
<td>Is there any wear on the load pin</td>
<td>Are splice joints sound</td>
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<tr>
<td>Is there any side bending</td>
<td>Are slings at all elongated</td>
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<tr>
<td>Are safety latches in good condition</td>
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<tr>
<td>Is safe working load marked</td>
<td></td>
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<tr>
<td><strong>SHACKLES</strong></td>
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<tr>
<td>Is general condition good</td>
<td></td>
</tr>
<tr>
<td>Is there wear on the pin / threads</td>
<td></td>
</tr>
<tr>
<td>Is the Max mass load (SWL) marked</td>
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</tbody>
</table>
Dear Sir

APPOINTMENT TO INSPECT LIFTING TACKLE

This serves to confirm your appointment in terms of E 29 GP 005 to undertake the inspection of lifting equipment in the _________________________(plant / area) to ensure that it is not damaged or worn and is safe for use.

Should you be unclear on any aspect of the scope of the application of this appointment, please feel free to raise this with myself or your supervisor.

___________________
2.13.3.1 Engineer

I ___________________________ acknowledge receipt of this appointment.

Signed: ______________________ Date: ______________________