



Rethinking safety through
INCLUSION
+
WELLBEING

RAIL

ELEMENT 17B

20/10/2023

MONITORING, MAINTENANCE AND REPAIR OF ROLLING STOCK

PURPOSE AND SCOPE

The purpose of this Procedure is to advise Laing O'Rourke personnel involved in the repair and maintenance of rolling stock of the processes to be applied to ensure, so far as is reasonably practicable, that the item of rolling stock retains the same standards to enable the continued safe use of the item of rolling stock.

This Procedure applies to all items of rolling stock purchased or leased by Laing O'Rourke for the railway operations they will be engaged in throughout Australia.

All repairs and maintenance will be undertaken in compliance with this Procedure. There may also be issues where specific requirements may be set by the relevant rail infrastructure manager (RIM) for the network on whose railway the rolling stock will operate.

1.0 PROCEDURES

All items of plant and equipment, including rolling stock designed specifically for on track railway operations, will be subject to ongoing monitoring to ensure so far as is reasonably practicable (SFAIRP), that the required standards are maintained.

To assist Laing O'Rourke personnel to meet this criterion, the following will be applied:

2.0 MONITORING

The ongoing monitoring of rolling stock needs to take in to account:

- Processes that determine how rolling stock is made available for inspection
- Inspection and testing in accordance with specified safety requirements and manufacturers criteria and included in the Asset Management System
- Assessment of serviceability - A process to prevent defective rolling stock from a change in operational capability
- Identification of safety critical faults and abnormal deterioration rates.
- In –service inspections that include:
 - Pre-mobilisation checklists
 - Mobilisation Checklist Workplace Acceptance completed by site representative
 - Off-hire Checklist
 - Pre-Start Checklists by the operator of the item
 - Scheduled Maintenance documents
 - Braking systems
 - Rail Wheel Inspection
 - Safety Critical Items

The monitoring takes into account the seriousness and urgency of the matter, the need to encourage incident reporting among all workers and the need for reports to indicate whether the rate of deterioration of a faulty item or system is critical.



3.0 MAINTENANCE AND REPAIR

The processes for the maintenance and repair of rolling stock need to incorporate the following:

- Any preventative maintenance or corrective action will be undertaken in accordance with the relevant rolling stock standards
 - Scheduled maintenance in accordance with the Maintenance Management System, legislation compliance and inspections
- Operating, maintenance and spare parts manuals
- Outsourcing of maintenance and repair to Laing O'Rourke approved vendors
- A Pre-Start Checklist is to be completed by the operator. Any defects which are highlighted during the check must be reported to the supervisor who will inform Select. These will be entered into the Maintenance Management System
- Maintenance requests from field personnel
- Incident / damage reports – All incidents involving damage to rolling stock must be reported immediately to the relevant rolling stock owner/ Select. Where the damage has been caused through an incident that is deemed a Notifiable Occurrence the matter must also be advised to the Rail Safety and Compliance Manager immediately. The process defined in **Element 17E Incident Management of Rolling Stock** shall be applied
- Asset Management Program – An Asset Management program will be developed by Select for each item of rolling stock and be aligned to the manufacturer's specifications, legal criteria and relevant rail infrastructure and industry standards
 - planning maintenance work and ensuring that periodicities for attention are controlled by the implementation of the maintenance plan and
 - Implementing an auditable maintenance management system that records last and/or next inspection.

The Asset Management Plan will form part of the overall asset management program implemented by Select in respect of their rolling stock.

Maintenance is planned in hours, calendar, or a combination of both time frames. Advice of the scheduled maintenance will be provided to the project / operations using the item of rolling stock. This advice will be conveyed 42 days in advance for monthly inspections and for the major 6 monthly and annual inspections 42 days' notice will be provided. For any rolling stock that requires certification notice will be 60 days to allow time for arrangements of an Independent Competent person. For rolling stock which is on an hourly regime the maintenance advice parameters will depend on the asset utilisation.

Where an item of rolling stock is taken out of service for a period of time due to insufficient work for that item, the servicing in accordance with the schedule will be discontinued but preservation checks will be undertaken and a detailed inspections will be undertaken prior to the item being returned to service.

The Select information will be inputted into the maintenance management system which highlights when the next maintenance is due.

For the rolling stock coming into the project / operations from third party suppliers It will be the responsibility of the supplier in consultation with the project to advise when the relevant service is due and will arrange to have that service undertaken within the required timeframe.

Measuring devices are to be classified as per the guidance in:

iGMS > PROJECT > 6. CONSTRUCT > INSPECTION AND TESTING EQUIPMENT >

Control and Monitoring of Measuring Devices - Section 4.1 (Access for LOR staff).



A Register is to be maintained by the Select Depot and certificates are to be scanned and saved in the respective Drive. Where measuring devices have been used the serial number is to be added to the relevant inspection or service document.

All sections of the maintenance document must be completed and checked by the line Manager (Select) prior to uploading into maintenance management system.

Annual or special period inspections – will be detailed in the respective item of rolling stock's Maintenance Program and be aligned to the criteria set out in the Australian Standards, legislative requirements, or client Standards. A Rolling Stock Plant specific annual checklist will be used to record all information.

- Job Cards – will be generated by Select and issued to appropriately qualified personnel (internal or external) who hold the relevant competencies for the activities to be undertaken).
- Compliance with standards – this will be contained in the annual or special period inspection documents. Where industry standards (Australian Standards or RISSB) are to be applied to the rolling stock operated by Laing O'Rourke reference to the relevant standard will be contained in the respective maintenance document.
- In-field servicing – will be undertaken by Laing O'Rourke Select Maintenance personnel or agents authorised by Select and recorded in the items of plant, equipment or rolling stock's maintenance records.
- Equipment calibration - Processes will be applied to ensure so far as is reasonably practicable that all relevant items of plant and equipment used for measuring rolling stock are correctly calibrated at all times.

4.0 BODY AND UNDERFRAME:

This section covers the examination and rectification which is to be carried out on all bodies and under frames.

Examine the body for damage which may cause it to exceed the Rolling Stock Outline.

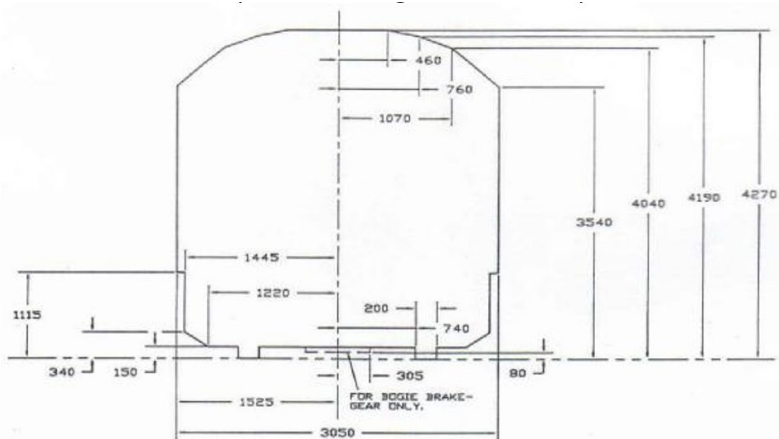


Figure 1 Rolling Stock Outline (example only)

If it appears that part of the body may exceed the appropriate Rolling Stock Outline (Kinematic envelope), it must either be corrected, or removed from site for to enable changes to be made so that the track machine can safely travel on the network.

Visually examine the underframe for structural cracking, paying particular attention to the following locations:

- At centre-sill/bogie bolster connections
- Adjacent to draft gear stops
- Vicinity of centreplates and side-bearers
- At changes in section



5.0 STRUCTURAL DEFECT

If any structural defects of a track machine are identified, it must be tagged out of service and appropriate action taken.

6.0 SAFETY MONITORING AND REPORTING

Select will review any Safety Critical items or any trending in defects.

Priority will be given to any safety related defect with items tagged out of service where the defect can impact on the safety of the operations.

If an incoming report is relevant to hired in Rolling Stock Plant, Select will forward the report to the relevant company and make a decision on the suitability of that Rolling Stock Plant for continued use.

Select will respond, as necessary, to safety related reports, Safety Bulletins issued both internally and from external sources as well as any Rail Regulator's communications relating to rolling stock and its management.

Records will be retained for all repairs, maintenance and modifications undertaken for the item of Rolling Stock Plant, equipment or rolling stock within the Maintenance Management system with advice conveyed to site personnel should the requirement arise e.g. client requirement.

Records of maintenance carried out will be treated as safety documentation and will be retained for the life of the asset as per the **System Requirement Legal Obligations and Records Management**.

7.0 FACILITIES

Maintenance of rolling stock will be conducted at a Select Depot with the facilities listed below or at an approved location. Where a facility becomes available (e.g., from another company) Select will assess the facility against the criteria to determine if it is adequate. Other maintenance of rolling stock can be undertaken in the field.

Select's maintenance facilities include the following:

- Lifting facilities
- Wash down facilities, including interceptors
- Adequate heating and lighting
- Natural ventilation
- Storage areas.

8.0 COMPETENCE OF PERSONNEL

The people assigned responsibility for the repair, maintenance and modification of rolling stock shall be assessed by reference to any qualification or unit of competence recognised under the Australian Qualification Framework or alternative process defined in rail safety legislation where such a unit of competence does not exist.

Competencies required for each rail safety worker engaged in the commissioning, repair, maintenance, modification, operation or decommissioning of rolling stock will be developed in consultation with the personnel who will undertake and oversee the operations.

For maintenance activities sourced externally, Select will ensure the Laing O'Rourke supply chain approval process is applied and (if necessary) via further audit or assessment means this is to check that the required maintenance requirements plans are adhered to and continue to provide safe operation of the rolling stock.

Audits will be carried out on Select in accordance with an Audit Schedule with the issues to be audited determined by the Select and any other people involved with the management of rolling stock where separate issues have been identified.



9.0 MAINTENANCE BY EXTERNAL SERVICES

Maintenance services that are supplied or brought in from a qualified supplier will be done so in accordance with the Select procedure for Qualification of Suppliers.

This includes products and services such as:

- NDT testing of axles
- Bogie and wheelset overhaul
- Maintenance of Rolling Stock Plant

The Select procedure for Qualification of Suppliers requires that all maintenance activities procured externally must be supplied by qualified suppliers.

10.0 REGULATIONS, GUIDES AND STANDARDS

- Rail Safety National Law
- ONRSR Guideline Preparation of a Safety Management System
- RISSB Rolling Stock Safety Assessment Guideline
- RISSB Rolling Stock Standards (contained within the AS7500 series)
- Network owners Train Operations Condition manual or equivalent.
- Select Plant and Equipment Preservation Guidelines
- System Requirement Legal Obligations and Records Management
- **Element 11 Management of Change (MoC)**

11.0 FORMS, TEMPLATES AND RECORDS

- Forms, Templates and Records will be retained for the monitoring, maintenance and repair of rolling stock and will be located in the Maintenance Management System.
- A separate Service Sheet will be developed for each item of rolling stock and will be used by Select to record the services and inspections conducted on the specific item of rolling stock.
- The service technical maintenance plans will be available on the Select server and will be used by Select for all rolling stock operated across Australia.
- Should there be no specific Service Manual for any item of rolling stock alternative commissioning and Annual Inspection checklists will be developed with the relevant data recorded against the particular item.