INCIDENT MANAGEMENT OF ROLLING STOCK

PURPOSE AND SCOPE

The purpose of this Procedure is to advise Laing O'Rourke personnel of the processes to be applied following an incident involving an item of rolling stock operated by Laing O'Rourke or one of their subcontractors.

This Procedure applies to all items of rolling stock purchased, leased or otherwise engaged by Laing O'Rourke for the railway operations they will undertake throughout Australia and incorporates the requirements when items of rolling stock are travelling or working on rail networks throughout Australia under the accreditation of Laing O'Rourke.

Whilst the incident management process itself will be generic throughout Australia, there will be specific requirements set by the relevant Rail Infrastructure Manager (RIM) for the network on whose railway the rolling stock operated at the time of the incident.

Reference must be made to the Access Agreement and the Interface Agreement established between Laing O'Rourke and the respective Rail Transport Operator (RTO) to determine what is to apply. The specific provisions for the recovery of disabled Laing O'Rourke rolling stock will require the implementation of processes as defined in **Appendix C** of this procedure which can be applied through the RTO, an appointed agent or Laing O'Rourke itself.

1.0 PROCEDURES

Laing O'Rourke will ensure that workers who are appropriately trained in incident response take actions in accordance with the:

- Rules and Procedures relevant to the rail infrastructure being operated on at the time of the incident which will include immediate reporting to the Network Control Centre or equivalent.
- The rules and response process applicable including the analysis of fatigue factors and the management of alcohol and drugs testing– see E26 Drug and Alcohol Management
- Laing O'Rourke's Incident Reporting process as well as reporting requirements of the relevant RTO – see E21 Notifiable Occurrence and Railway Incident Investigations
- Laing O'Rourke's Safety Management Systems Procedures relating to Notifiable Occurrences (where applicable) and Railway Safety Investigations for all rolling stock incidents – see E21 Notifiable Occurrence and Railway Incident Investigations
- Site preservation requirements – see **E21 Notifiable Occurrence and Railway Incident Investigations**

The **Project Leader** will ensure that:

- The incident site is managed by an appropriately qualified companyrepresentative
- Select's Plant Operations Manager is promptly advised and provided with available information
- The Select Depot responsible for the maintenance of the rolling stock and the Rail Safety & Compliance Manager are advised at the earliest possible time following advice of the incident.
- Notifiable Occurrences are reported to the Office of the National Rail Safety Regulator immediately (ph.: 1800 430 888 for Category A) and within 72 hours with an initial report and for all Category B occurrences
- The people involved in the incident are to be tested for alcohol and drugs within specified timeframes SFAIRP (e.g. within 3 hours in NSW and as specified by ONRSR for all prescribed incidents outside of NSW)

Upon being informed of the incident, the Project Leader in consultation with Select's Plant Operations Manager and LOR's Rail Operations Plant Manager must determine the necessity to test the vehicle (refer to tests required in **APPENDIX A**).

Where testing is considered necessary, the following must be adhered to:

- Records must be made at the scene, detailing the condition / state of any components / assemblies which could be pertinent to the potential causes of or contributing factors to the incident or accident
- Competent people must be engaged for all actions relating to this action
- Appropriate and correctly calibrated equipment must be used in accordance with specified test procedures
- Where possible, the relevant item of rolling stock must be left in the "as found condition" during any transit move to a safe location. Where this is not possible either for safety or practical difficulties, the "as found condition" must be recorded.
- Where relevant ensure the information recorded on the Event Recorders are obtained and recorded in the rolling stock data base.

An onsite examination and investigation must be conducted as follows:

- **Where there is a derailment or collision**, an examination of the rolling stock involved must be completed by a technically competent person (Select or their nominated agent) prior to any movement of the rolling stock. The examiner must decide what action to take and record his determination.
- **Where a road rail vehicle operating on any network** has been involved in an incident such as derailments, collision or heavy impact to the rail guidance system, the vehicle involved will automatically become de-certified and will remain de-certified until a re-assessment is performed by an Independent Competent Person (ICP) or through Select Asset Manager – Rail.
- All investigations and inspections are to be conducted by the relevant Select Depot Manager or a qualified person assigned to undertake the investigations and inspections (delegations must be recorded).
- Where necessary, these investigations and inspections must be coordinated with any other parties represented on site.
- The rolling stock and site must be examined /investigated prior to any work to facilitate removal of the item of plant from the incident site. This will necessitate a detailed risk assessment.
- The investigation must include examining and recording all applicable fields of **Examination, Inspection and Investigation Checklist.**
- Evidence which may be of value to an investigation must be identified, validated on site and protected.
- After the site examination is complete, the Select representative in conjunction with the relevant Project Leader must arrange for the rolling stock to be removed in a safe manner to a suitable maintenance facility or other suitable location for further inspection, testing and/or repairs.

Where reporting of the incident is required to be implemented, the **Project Leader** must:

- Report the incident to the Rail Infrastructure Manager at the earliest opportunity
- Report the incident internally as per the Laing O'Rourke incident reporting criteria and enter the incident in IMPACT including for plant and property damage
- Advise the Rail Safety and Compliance Manager for such Notifiable Occurrences to be reported to the ONRSR.

Prior to returning the rolling stock to service, the relevant Select Depot Manager or authorised person must:

- Check for any outstanding faults
- Arrange completion of Examination, Inspection and Investigation Checklist
- Identify damaged parts of the item of rolling stock
- Where a brake test as listed on the Special Checks Form cannot be undertaken, arrange for the rolling stock to be removed and inspected at a suitable facility.
- Repair or replace the damaged rolling stock
- Inform Select's Plant Operations Manager of repairs, replacements and investigation results
- Certify that the rolling stock is safe and fit to re-enter normal railway operations

With the advice to the Network Control Centre (or equivalent) having been provided and the recovery process underway it will be necessary to ensure the processes to be applied for that recovery are safe to undertake which will necessitate inspections as advised above to be undertaken.

For rolling stock that is involved in an incident within a possession arrangement will need to be made in consultation with the Rail Infrastructure Manager to have the item recovered, which may necessitate other rolling stock having to connect to the disabled item and tow it to a safe location or it could involve the use of cranes to recover the item.

Where a track machine is involved in an incident outside of a possession when travelling on the network, immediate action must be taken to advise the network control centre to allow safeguards to be assigned to that section of the network. The network controller will consult with the track machine operator and the safeworking person to determine what processes need to be applied to deal with the incident. As a control Laing O'Rourke needs to have processes in place that will allow for the recovery of the machine especially in high risk areas and include the safety controls in operational specific safe work method statements.

APPENDIX B contains details relating to Incident.

Definitions for each of the Rail Infrastructure Managers Laing O'Rourke operate rolling stock on and their respective First Point of Contact.

APPENDIX C sets out the Derailment Recovery Process of Rolling Stock for apart from notifying Network Control of the incident, arrangements must be made to advise other people / organisations of the incident and of the actions being taken to implement the relevant processes to manage the incident.

Where advice is conveyed to the network owner and they initiate their incident response procedure which they may do in terms of the access agreement provisions, records must be retained which shows at what stage the event was passed to the Rail Infrastructure Manager, but Laing O'Rourke must remain as a contributing party to the management of the incident.

For serious incidents involving Laing O'Rourke's rolling stock occurring on an operational railway which are classified as a Category A Notifiable Occurrence, the Project Leader must immediately advise the ONRSR after having checked that network control has been advised and that appropriate controls are in place to safeguard the railway operations.

2.0 LEGISLATION, GUIDES, STANDARDS AND RIM DOCUMENTS

- Rail Safety National Law
- ONRSR Guideline Preparation of a Safety Management System
- RISSB Rolling Stock Standards
- RISSB Code of Practice – Rail Safety Investigations
- Australian Rail Track Corporation
  - Emergency Management Procedure
  - Responding to a Major Incident
  - ARTC Broadmeadow NCCN Contact Numbers
- Metro Melbourne
  - Incident Reporting and Investigation Procedure
- Sydney Trains
  - Incident Management Framework
- V'Line
  - Emergency & Crisis Management Plan
  - V'Line Operating Handbook

3.0 FORMS, TEMPLATES AND MAPS

- Examination, Inspection and Investigation
- Rail Wheel Inspection
- ARTC Network Maps
- East West NSW
  - Incident Management of Rolling Stock
  - East West SA
  - East West Vic
  - Hunter Valley
  - North South North
  - North South South
  - Sydney Freight Network Sydney Trains Network
  - Victorian Railway Network

APPENDIX A - TEST REQUIREMENTS FOR ROLLING STOCK INVOLVED IN INCIDENTS

The type of incident or accident determines the following test requirements for the rolling stock involved.

Where a road rail vehicle operating on any network has been involved in an incident such as derailments, collision or heavy impact to the rail guidance system, the vehicle involved will automatically become de-certified and will remain de-certified until a re-assessment is performed by an Approved Certifying Company or through Select

Any derailment or collision (including those with obstructions or persons on the line)

- General examination of vehicle
- Any check on items/components that may have either been damaged or have been a possible cause to the incident or accident
- Full wheelset examination
- Full bogie examination
- Full axle examination including a visual inspection of the axle bearings
- Full frame examination
- Full machine function test
- Brake testing – as detailed in Maintenance/Manufacturers manual
- Full speedometer test procedure as per manufacturer's instructions
- NDT testing of the axle if:
- The machine speed was greater than 10 km/h
  - or ii) The distance run when derailed was more than 10m
  - or iii) Damage to the wheelset is visible
- Download and analysis of information from the Event Recorders (where applicable).Refer to E-P-8-1917G Event & Distance Recorders
- Examination of couplings (if it was used at the time)
- Examination of dampers and suspension
- Examination of the centre pivot/centre castings
- Check vehicle(s) profile to ensure gauge is unaffected
- Testing of warning and vigilance equipment
- Examination of guarding systems and secondary protection devices

Any striking of the infrastructure (whether through equipment failure or other circumstance)

- General examination of vehicle
- Any check on items/components that may have either been damaged or have been a possible cause of the incident or accident
- Full wheelset examination
- Full bogie examination
- Full axle examination
- Full frame examination
- Full machine function test
- Vigilance test
- Brake testing
- Full speedometer test procedure

When the machine speed was over 10 km/h

- NDT testing if damage to the wheelset is visible
- Download and analysis of information from the data recorder (where applicable) Refer to Event Recorders

Any SPAD – needs to be conducted in consultation with project personnel where the SPAD may have been mechanical related.

This may need to be undertaken verbally by project personnel in consultation with select representatives where it is impracticable for a Select representative to attend site.

- General examination of vehicle
- Any check on items/components that may have either been damaged or have been a possible cause of the incident or accident
- Full machine function test
- Brake testing
- Full speedometer test procedure
- Download and analysis of information from the Event Recorders (where applicable) Refer Event Recorders
- Vigilance test

Any runaway - needs to be conducted in consultation with project personnel where the runaway may have been mechanical related

This may need to be undertaken verbally by project personnel in consultation with Select representatives where it is impracticable for a Select representative to attend site.

- General examination of vehicle
- Any check on items/components that may have either been damaged or have been a possible cause of the incident or accident.
- Full machine function test
- Brake testing
- Download and analysis of information from the data recorder (where applicable)

Any alleged speeding incident - needs to be conducted in consultation with project personnel where the alleged speeding incident may have been mechanical related

This may need to be undertaken verbally by project personnel in consultation with Select representatives where it is impracticable for a Select representative to attend site.

- General examination of vehicle
- Any check on items/components that may have either been damaged or have been a possible cause to the incident or accident
- Brake testing
- Full speedometer test procedure
- Download and analysis of information from the data recorder

Any alleged incident involving vehicle brake malfunction - e.g. dragging brakes

This may need to be undertaken verbally by project personnel in consultation with Select representatives where it is impracticable for a Select representative to attend site.

Testing will be at the discretion of Select's Plant Operations Manager and may include but not be limited to the following.

- General examination of vehicle
- Any check on items/components that may have either been damaged or have been a possible cause to the incident or accident
- Full wheelset examination
- Full bogie examination
- Full axle examination
- Full frame examination
- Full machine function test
- Brake testing
- Full speedometer test procedure
- NDT testing if damage to the wheelset is visible
- Download and analysis of information from the data recorder (where applicable/available)

NOTES ON BRAKE TESTING

Brake testing shall be sufficient to determine whether or not the brakes and or braking system were responsible for or contributory to the incident. They must include test record sheets. Where appropriate, brake testing must include testing of:

- Hand brake or parking brake
- Power brake where key parameters shall be measured and recorded and compared to specific values and tolerances.
- Tests must be performed in relation to:
- The type of incident
- The driving position at the time of incident
- The configuration of the brake system e.g. empty/loaded, coupled/single etc.

APPENDIX B - INCIDENT DEFINITIONS AND FIRST POINT OF CONTACT

Any incident involving rolling stock operating under LORAC Rail Transport Operator (RTO) accreditation must be reported to the LORA Rail Safety & Compliance Manager in accordance with **Element 21 Notifiable Occurrences and Investigation**

ARTC Network (Australia wide)

Level 4 Incident - This will mean an occurrence that has resulted in a small impact on the ARTC Network. These incidents are nominally routine operational incidents and unsafe acts identified during safety observations.

NOTE: With the exception of the provisions for the notification of the relevant organisation by Network Control, ARTC RLS-PR-044 procedure does not apply to Level 4 incidents.

Level 3 Incident - This will mean an occurrence where minor injury, disruption, damage or environmental impact to the Network, has occurred. Level 3 incidents will typically include infrastructure irregularities, such as signalling, track or equipment failures which do not significantly affect train operations. These incidents are to be reported to the Network Controller who will ensure that relevant details are recorded and that a Level 3 response has been implemented and is adequate. These incidents will not require a sustained response from other organisations or outside resources and will be managed and investigated by the line manager of the organisation involved.

NOTE: With the exception of the provisions for the notification of the relevant organisation by Network Control, ARTC RLS-PR-044 procedure does not apply to Level 4 incidents.

Level 2 Incident - This will mean an occurrence, involving or affecting operations on the Network, which has resulted in, or has the potential to result in one or more of the following:

- The death or serious injury of a person, significant damage to property or infrastructure significant disruption to train services.
- Significant environmental impact, external resources and control required on site.
- A sustained co-ordinated response is required.
- The incident may or may not originate on the Network; however, any off site incident which affects or threatens access to the Network will be treated as falling within the scope of this incident level. This will include incidents such as:
- Gas leak, security threat, bush fire or serious injury.

NOTE: Level 2 incidents that require a sustained response from other organisations or outside resources fall within the scope of ARTC RLS-PR-044 procedure.

Level 1 Incident - This will mean an occurrence which has been classified as an emergency, requiring a sustained response, by Police or Fire Services and falls within the scope of this procedure.

NOTE: Level 1 incidents fall within the scope of this procedure

Sydney Trains Network – Refer to Sydney Trains Incident Management Framework

- Level 1 Routine Peak.
- Level 2 Significant Peak.
- Level 3 Major Peak.
- Activation of Emergency Management Team

Victorian Network Victorian Rail Network (MTM/V'Line)

The type of incident determines the following Network Owner Contact requirements for the rolling stock involved.

Level 4 Incident

Injury that results in a **first aid treatment with no credible potential to cause an injury which** would temporarily inconveniences the individual or where an incident causes insignificant damage:

- has the potential to cause insignificant damage to infrastructure, plant/equipment or property, or
- to the environment, or results in remediation costs which are insignificant to the entity responsible for the damage, or
- that results in remediation costs which are insignificant to the entity responsible for the damage

Note. Level 4 incidents do not require a formal investigation report, only a review only function and no Causal Factor analysis is to be completed.

Incident that results in a Category S0 as per the Severity Table of the MTM Enterprise Risk Matrix.

Level 3 Incident

Injury or potential to cause an injury which temporarily inconveniences the individual or where an incident causes a temporary/short term inconvenience:

- or has the potential to cause a temporary inconvenience to infrastructure, plant/equipment or property, or
- to the environment or area of heritage significances as identified by external government authorities, or
- that results in remediation costs which are unfavourable to the entity responsible for the damage.

Incident that results in a Category S1, as per the Severity Table of the MTM Enterprise Risk Matrix

Level 2 Incident

Injury or potential to cause an injury which temporarily alters the future of the individual or where an incident causes temporary/medium term damage:

- has the potential to cause damage which temporarily impacts infrastructure, plant/equipment or property, or
- to the environment or areas of heritage significances as identified by external government authorities, or
- that results in remediation costs which are detrimental to the entity responsible for the damage.

An incident that involves track protection or which have (or had the potential to have) affected passenger safety or the safety of railway operations. (Refer Appendix 4 for High Potential Incident definition).

An incident that results in a Category S2, as per the Severity Table of the MTM Enterprise Risk Matrix.

Level 1 Incident

Injury or potential to cause an injury which permanently alters the future of the individual or where an incident causes permanent damage:

- has the potential to cause damage which permanently impacts infrastructure, plant/equipment or property, or
- to the environment or long term impact to the environment or areas of heritage significance as identified by external government authorities, or
- where remediation costs which are catastrophic to the entity responsible for the damage

Incident that results in a Category S3, and above, as per the Severity Table of the MTM Enterprise Risk Matrix in the Enterprise Risk Management Procedure (L0-SQE-PRO-031) (**Enterprise Risk Matrix**). (Refer Appendix 4 for High Potential Incident definition).

Emergency Contact details in the event of occurrence/incident

ARTC Network

Kalgoorlie-Cootamundra Corridor

5.1.1.1 Emergency Contact (02) 6924 9861 (Broken Hill-Stockinbingal)

5.1.2.1 Emergency Contact (TTM) (08) 8231 4506 (for other areas)

Network Control Centres

EMERGENCY PHONE NUMBERS		
Network Control Centre West	**Mile End, SA**	**08 8217 4540**
Network Control Centre North	**Broadmeadows, NSW**	**02 4902 9410**
Network Control Centre South	**Junee, NSW**	**02 6924 9869**
EMERGENCY SERVICES	**000**	

Sydney Trains

Position Title	Contact Number	Emergency Contact Number
NIM – North	**02.82181304**	**02.82181324**
NIM – South	**02.82181308**	
NIM – Desk	**02.82181382**	

Victorian Rail Network (MTM and V'Line)

The first person to have knowledge of the emergency must contact the following by the most expedient means available (i.e. train to base radio or telephone) to:

1. Train Control by ringing 1800 023 668.
2. Emergency Service Call Centre by ringing 000 (i.e. Police, Fire Brigade, Ambulance).

APPENDIX C – DERAILMENT RECOVERY PROCESS OF ROLLING STOCK

The recovery process detailed in this section specifies applicable recovery process in different scenarios, of a Jackson Tamper, Kershaw Regulator and Nordco Tripp Machine.

In the event where Laing O'Rourke (LORAC) does not have the capability to recover the rolling stock then an external Emergency Recovery Contractor (ERS) will be engaged for the recovery process. This may be instigated by the network owner as described in the respective Access Agreement between the RIM and the RSO.

The criteria to be applied shall be contained in the Rail Safety Management Plan for the respective project.

The type of incident determines the following re-railment process requirements for the rolling stock involved. The investigation, examination and recovery processes must be performed by appropriately trained and competent personnel.

The process to repair or recover rolling stock back on to rail may vary and should consider type of rollingstock, location including access, limitations, obstructions, injuries and damage incurred, whether or not failure or derailment occurred whilst in work or non-work mode. These are but may not be limited to the following:

1. Front bogie derailment – Tamper only (whilst traversing in work or non-work mode or caused by mechanical failure or track non-conformance under or over 10km/hr)
2. Front axle derailment, (whilst traversing in work or non-work mode or caused by mechanical failure or track non-conformance under or over 10km/hr)
3. Rear axle derailment (whilst transferring in work or non-work mode or caused by mechanical failure or track non-conformance under or over 10km/hr)
4. Both axles derailed (whilst transferring in work or non-work mode or caused by mechanical failure or track non-conformance under or over 10km/hr)
5. Minor Engine and/or mechanical (whilst transferring in work or non-work mode or stationary under or over 10km/hr)
6. Catastrophic Engine and/or mechanical failure (whilst transferring in work or non-work mode under or over 10km/hr)
7. Full derailment of track machine, all axles/wheels of track, located near or away from rail track, whilst transferring under or over 10km/hr)
8. Collison with another rollingstock or plant

Figure 1 Track Machine - Kershaw KBR 875 Ballast Regulator (18.5 tonne) / Kershaw KBR 925 Ballast Regulator (20.5 tonne) / Tripp Machine (16.4 tonne)

Figure 2 (Tamper) – Jackson 6700 Tamper (32.5 tonne) / Jackson 6700S HTT (32.5 tonne) Tamper

Figure 3 (Tripp Machine) – Nordco Tripp machine (16.4 tonne)

1. FRONT OR REAR AXLE DERAILMENT OF REGULATOR (UNDER SPEED OF 10KM/HR) – USE OF CENTRE TURNTABLE JACK:

1. Protect the rolling stock in accordance with the Network Rules and Procedures, notify safeworking person, worksite supervisor and client representative.
2. Arrange First Aid treatment and or emergency services if necessary.
3. Record track condition, track machine location and condition, including component assemblies.
4. Track machine operator to perform preliminary examination in attendance with Select and/or assigned representative of rolling stock supplier, including frame and any items or components that may have been damaged or have been a possible cause to the incident including frame. *Refer to Appendix C*
5. Competent person to assess and determine whether track machine can be recovered back on to track using centre turntable jack located underneath main chassis of the rolling stock.
6. Obtain permission from Select and/or assigned representative including client representative to proceed with recovery of rolling stock on to rail track.
7. Direct all other personnel to maintain a safe distance away from the rolling stock, other than people assigned to perform the re-rail recovery.
8. Operator person to operate and lower the centre turntable jack on to rail, lift rolling stock above rail and manoeuvre to align wheels with rail.
9. Operator to lower the Regulator on to rail and return centre turntable jack into its Lockout position.
10. Track machine operator in conjunction with Select/assigned representative to perform examination and required checks of rolling stock to determine whether or not the track machine is fit for use. *Refer to Appendix A*
11. Identify and replace damaged parts of rolling stock and perform necessary pre-start checks
12. Select/Approved Certified Authority to provide track vehicle certification for rolling stock is safe and fit for use ready to re-enter normal operations. *Refer to Appendix C*

    NOTE: if the incident occurred whilst rolling stock travelled at speeds Greater then 10km/hr, a full detailed inspection/check will need to be performed by Select/Approved Certified Authority.
13. N. IF rolling stock is determined to be disabled and unfit for use, arrange for it to be towed or craned away to safe location for further assessment and repair.

2. FRONT OR REAR AXLE DERAILMENT (UNDER SPEED OF 10KM/HR) – USE OF RERAILER PLATES:

1. Carry out actions as contained above but where use of centre jack is to be replaced with portable re-railers apply the following. Also conduct post recovery inspections as described above.
2. Competent person to assess and determine whether track machine can be recovered back on to track using portable re-railers. Perform risk assessment to determine the best methodology to pick up, transport and install re-railers at site.
3. Obtain permission from Select and/or assigned representative including Client representative to proceed with recovery of rolling stock on to the rail track.
4. Direct all other personnel to maintain a safe distance away from rolling stock, other than people assigned to perform the re-rail recovery.
5. Trained personnel to place individual re-railer on to each rail to coincide with direction of rolling stock to be pulled on to rail track. Both re-railers to be placed in nominated location and secured to rail as required.
6. Regulator operator to drive over the re-railer plates on to rail, secure rolling stock in position to safely perform full inspection of the rolling stock.
7. Track machine operator in conjunction with Select/assigned representative to perform examination and required checks of rolling stock to determine whether or not the track machine is fit for use. *Refer to Appendix A*

8. Identify and replace damaged parts of rolling stock and perform necessary pre-start checks
9. Select/Approved Certified Authority to provide track vehicle certification for rolling stock is safe and fit for use ready to re-enter normal operations. *Refer to Appendix C*

   NOTE: if the incident occurred whilst rolling stock travelled at speeds greater than 10km/hr, a full detailed inspection/check will need to be performed by Select/Approved Certified Authority.
10. K. IF rolling stock is determined to be disabled and unfit for use, arrange to be towed or craned away to safe location for further assessment and repair.

3. BOTH AXLE / FULL DERAILMENT OR CATASTROPHIC MECHANICAL FAILURE (UNDER/OVER SPEED OF 10KM/HR) – USE OF CRANE:

1. Carry out actions as contained above but where use of centre jack is to be replaced with portable re-railers apply the following.
2. Competent person to assess and determine whether track machine can be recovered back on to track using centre turntable jack and/or portable Straddle Rerailers or full craneage is required.
3. Obtain necessary approvals from Incident Management team, LORAC Team Lead, Network Owner (Client), Select and/or assigned representative to proceed with recovery of rolling stock on to rail track using crane.
4. Arrange for crane to arrive on site, set up and provide all necessary documentation and approvals from Incident Management team, LORAC representative, Client representative and crane contractor to proceed with crane lift of rolling stock. This will include but may not be limited to Crane Lift permit, Crane Lift study and lift plans, check lists which are set out in section 4 of this appendix.
5. Direct all other personnel to maintain a safe distance away from rolling stock and Crane, other than people assigned to perform the re-rail recovery.
6. Competent crane personnel to conduct lift as required, lifting up and placing rolling stock on to rail. Secure rolling stock in position to safely perform full inspection.
7. Track machine operator in conjunction with Select/assigned representative to perform examination and required checks of rolling stock to determine whether or not the track machine is fit for use. *Refer to Appendix A*
8. Identify and replace damaged parts of rolling stock and perform necessary pre-start checks
9. Select/Approved Certified Authority to provide track vehicle certification for rolling stock is safe and fit for use ready to re-enter normal operations. *Refer to Appendix C*

   NOTE: if the incident occurred whilst rolling stock travelled at speeds greater than 10km/hr, a full detailed inspection/check will need to be performed by Select/Approved Certified Authority.
10. K. IF rolling stock is determined to be disabled and unfit for use, arrange to be towed or craned away to safe location for further assessment and repair.

4. TAMPER, REGULATOR AND TRIPP MACHINE LIFTING PLANS

INTRODUCTION

Prior to Crane arriving on site or commencement of Crane Lift, LORAC representative must complete but not be limited to the following:

- Engage Crane contractor as per LORAC procedures;
- LORAC Critical Lift Study Plan (E-T-9-0525) – Prepared by Appointed person
- LORAC Crane Lift Permit – Prepared by Appointed person, signed by LOR Appointed Person, Supervisor and Crane contractor's competent personnel
- LORAC relevant Safe Work Method Statement
- LORAC Fatal and Severe Risk (FSR) and Primary Standards for Cranes and Lifting
- Crane Contractor to provide reviewed and approved (by Appointed Person):
  - Crane Lift Plan, including rigging weight, hook weight and capacity charts
  - Operator & dogman licences
  - SWMS
  - Crane safe certification
  - Registration and Crane identification (unit number etc)
  - Lifting Chains Register (NATA Accredited)
  - Shackles WLL and Chain Size
  - Pre mobilisation form filled out

NOTE: the use of soft slings is prohibited on all Laing O'Rourke Worksites so will require chains for all lifts

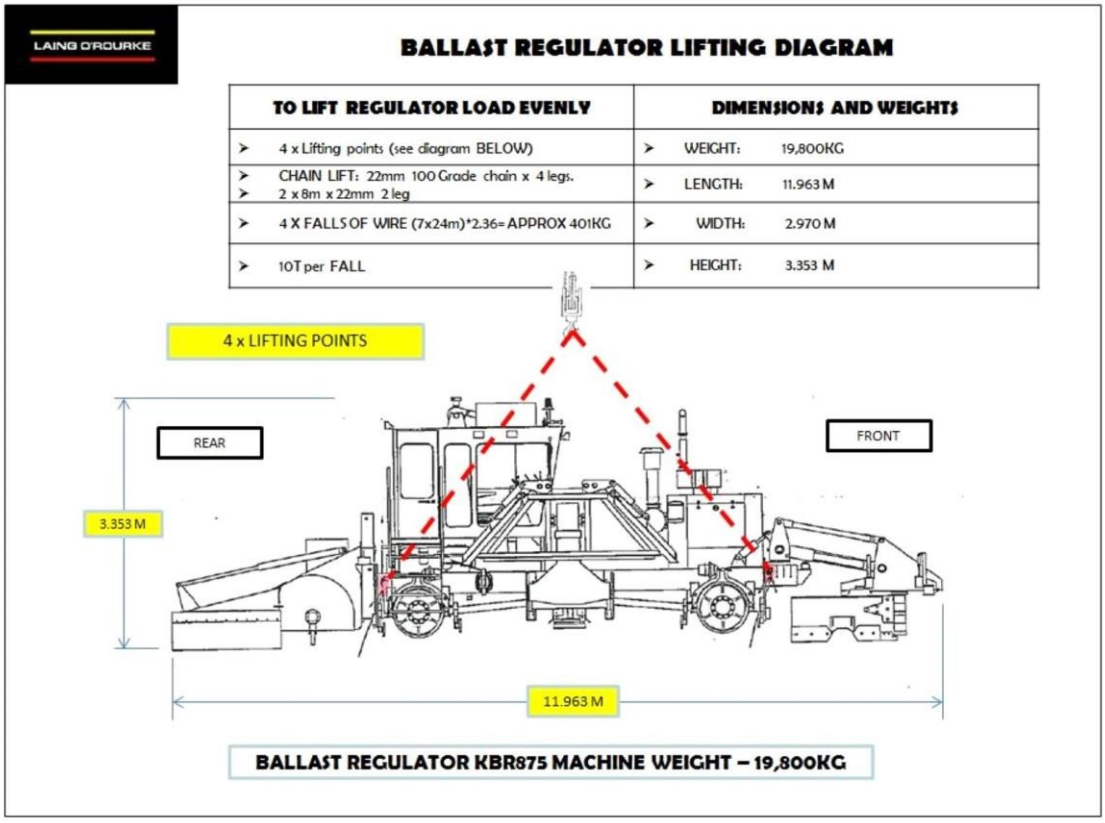

Figure 4 BALLAST REGULATOR LIFTING DIAGRAM

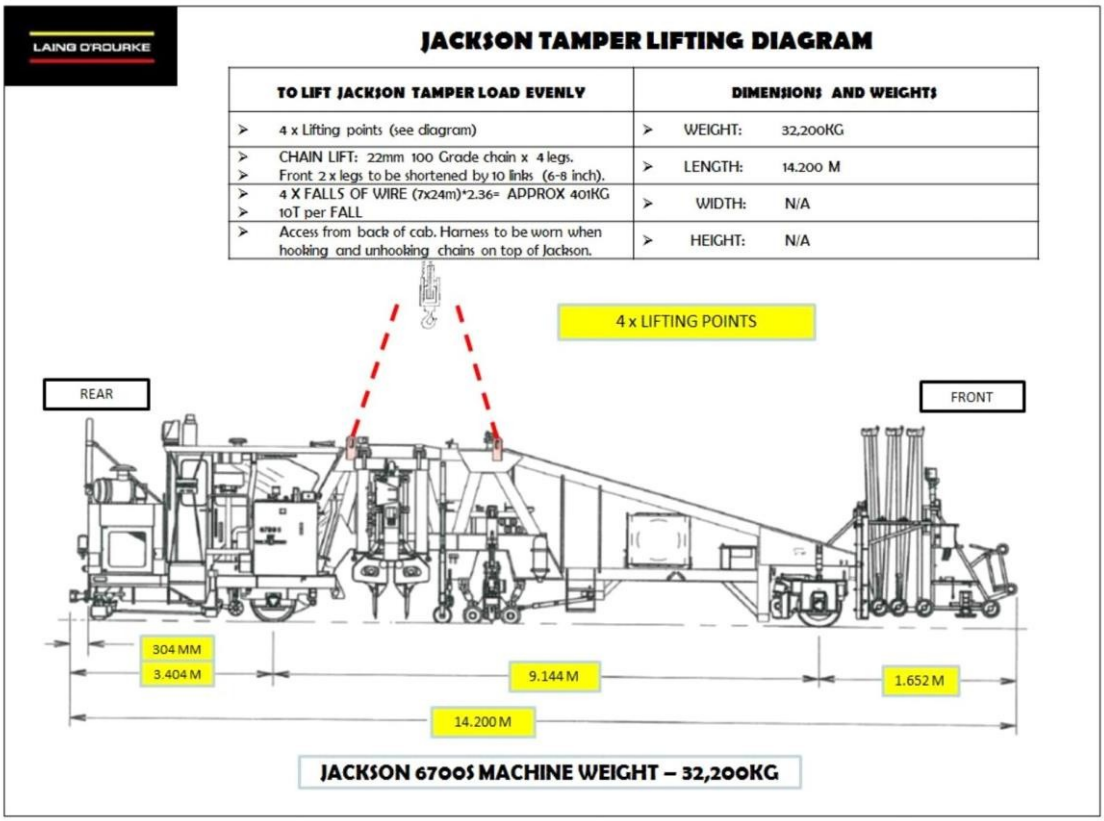

Figure 5 JACKSON TAMPER LIFTING DIAGRAM

LAING O'ROURKE

TRIPP MACHINE LIFTING DIAGRAM

TO LIFT LOAD EVENLY	DIMENSIONS AND WEIGHTS
➢ 3 x Lifting points (see diagram BELOW)	➢ WEIGHT: 16,350KG
➢ CHAIN LIFT: 22mm 100 Grade chain x 4 legs. ➢ 2 x 8m x 22mm 2 leg	➢ LENGTH: 11.000 M
➢ 4 X FALLS OF WIRE (7x24m)*2.36= APPROX 401KG	➢ WIDTH: 3.350 M
➢ 10T per FALL	➢ HEIGHT: 3.500 M

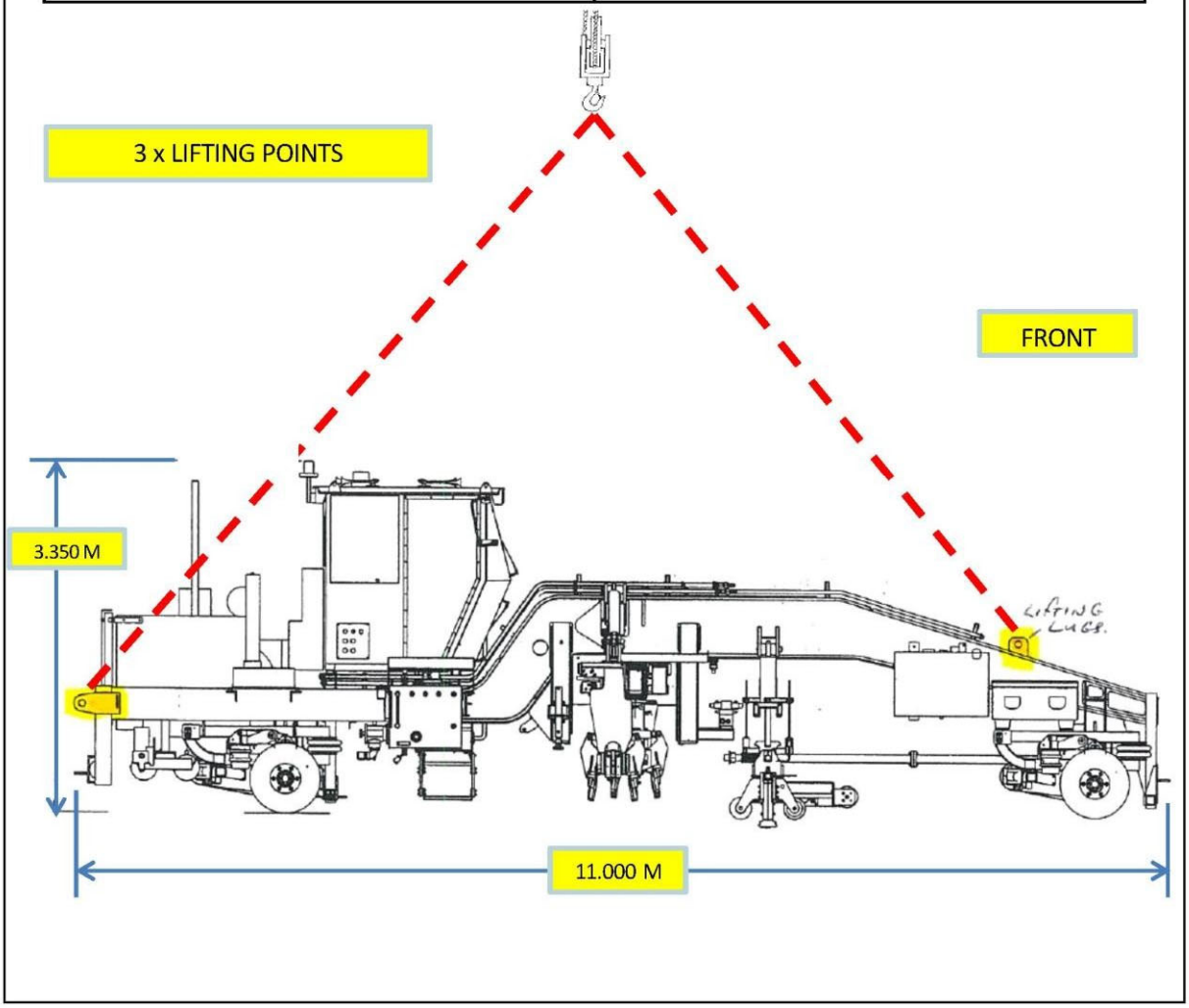

Figure 6 TRIPP MACHINE LIFTING DIAGRAM