OPERATIONAL ARRANGEMENTS FOR THE USE OF KIROW CRANES WITHIN POSSESSIONS, SIDINGS AND DEPOTS PE321

1 PURPOSE

The purpose of this procedure is to specify the management requirements and arrangements necessary to ensure the safe operation of Kirow Rail Mounted Cranes whilst working on Network Rail Controlled Infrastructure. This instruction should also be treated as best practice on non-Network Rail Infrastructure.

2 SCOPE

The scope of this procedure applies to the management arrangements necessary to ensure the safe operation of the KIROW 1200, 810 and 250 Rail Mounted Cranes within possessions, Sidings and Depots.

3 REFERENCES (INPUTS) / RELATED DOCUMENTS

British Standard

- BS7121 – Code of practice for the safe use of cranes

Legislation

- LOLER 1998 – Lifting operations & lifting equipment regulations (including codes of practice and HSE guidance)
- PUWER 1998 – The provision and use of work equipment regulations 1998 (including codes of practice and HSE guidance)

Industry standards

- GE/RT8000 Rule Book
- NR/L2/OHS/019 - Safety of people working on or near the line
- NR/L2/RMVP/0200/P503 – Infrastructure Plant Manual: Lifting Operations
- NR/L2/RMVP/0200/P505 – Infrastructure Plant Manual: Safe Working with Plant
- NR/L2/RMVP/0200/P506 – Infrastructure Plant Manual: On-track Machines

VolkerRail Procedures

- PE326 - Vehicular Plant and Crane Operations
- PE323 - Avoidance of danger from overhead powerlines
- ENG02 - Production and project documentation incl. WPP, CPP, TPS
- SAF19 - Safety of people working on or near the line
- SAF25 - Worksafe Procedure
- SAF30 - Risk Assessment
- SAF89 - Operational Procedure (inc. on/off tracking) for OTM and OTP within Frodingham Depot
- CMS25 - Competence management arrangements for OTM lift planner
- TMP07 - Establishing a safe system of work for undertaking maintenance, servicing and repair of OTM and OTP
- TMP07F01 - DP Record of Arrangement and Briefing Form
- TMP15 - Safety of people working on rail vehicles

4 ABBREVIATIONS AND DEFINITION OF TERMS

Abbreviation / Term	Definition
Client	The organisation that is commissioning the services of the Kirow Crane.
Crane Controller (CC)	A competent and certificated person capable of crane controlling the Kirow Crane operations and supervising personnel in connection with the lifting operation on railway infrastructure sites.
Crane Operator	A competent and certificated person capable of operating the Crane within a

Abbreviation / Term	Definition
	defined Safe System of Work, knowing the limits of the Crane's operation, reporting defects, carrying out daily servicing, inspection and operating the Crane's safety equipment in the event of an emergency
Appointed Person (RMC)	A trained and competent person who holds a **CPCS Appointed Person qualification** and working under the VolkerRail Competency Management System (CMS) to VolkerRail training and assessment procedure TAP701 with sufficient training, practical and theoretical knowledge and experience required to prepare crane plans or check those produced by others.
FOC	Freight Operating Company
Banksman	Must be trained as a Kirow Operator but is only required to act as banksman for machine movements within confines of the depot or on non-network rail sites, no lifting can take place.
Kirow Crane Plan	A specific plan produced by the Appointed Person (RMC), detailing the method statement, risk assessments, any technical information included in the work and any other required supporting evidence for the Kirow Crane planned activity and must be documented in PE321 - Kirow crane plan Issue 1 Draft
Project Manager	The person who holds responsibility for all project matters inclusive of plant requirements and logistics
Contractor's Engineering Manager (CEM)	Person within every design and/or construction organization contracted to Network Rail, (or to a party other than Network Rail where agreed with Network Rail) with overall accountability for all the engineering activities applicable to that specific contract including those undertaken by sub-contracting organisations. The CEM may act as the Contractors Responsible Engineer (CRE) for a single engineering discipline.
Contractor's Responsible Engineer (CRE)	Person within a design/or construction organization contracted to Network Rail, (or to a party other than Network Rail where agreed with Network Rail) with accountability for the day-to-day management and co-ordination of the technical and engineering activities within the specific contract.
Appointed client representative	Person nominated by either the CEM or CRE to act as their representative to carry out site specific duties and planning as required
Operations Manager - POM	Person responsible for the operational arrangements for the use of the Kirow Cranes within possessions and nominating their representatives to carry out operational and site-specific duties and planning as required.
Network Rail Online Logistics (NROL)	The system used for ordering and planning railborne materials
RCI	Rated Capacity Indicator
POMs	Possession Only Machines
RMC	Rail Mounted Crane
Route Availability (RA)	A Network Rail system which classifies all routes and rolling stock with a number, generally between 1 and 10, being a measure of the carrying capability of the route and the loads imposed by the vehicle. The higher RA numbers of routes have greater capability, the higher RA numbers of vehicles mean they impose greater loads. All bridges are assessed as to Route Availability carrying capability and a "weak" bridge may have a lower RA than the route. A vehicle (Kirow Crane) may not travel over a bridge or route that has a lower RA than the RA of the crane without express written consent from the Client's authorised Structures Engineer (& PW Engineer where structures not involved)
Slinger	A trained, competent and certificated person capable of carrying out slinging duties, directing the movement of loads by use of crane, attaching and removing lifting accessories as directed by the Crane Controller.

Abbreviation / Term	Definition
Support Crew	A trained and competent person capable of carrying out duties covered in the Ground Operations training course
Transit	Travel in train formation from departure siding to possession or vice versa.
Train Formation	Specific requirements regarding marshalling of trains relevant to travel on the operational railway, as stated in PE321 Appendix A - Train Consists document
LDC	Local Distribution Centre

5 PROCESS

5.1 Planning Movements / Operations of the KIROW Rail Mounted Cranes

5.1.1 Agreeing KIROW Related Requirements at the Possession Planning Stage

The **Project Manager, Contractors Engineering Manager (CEM), Contractors Responsible Engineer (CRE)** or appointed client representative is responsible for the overall planning and arranging of the work, including other contractor and sub-contractor requirements, also ensuring compliance with Network Rail's requirements for arranging possessions and isolations.

The **Project Manager, CEM, CRE** or appointed client representative is responsible for liaising with the Kirow **Operations Manager - POM** or their nominated representative for the provision of the Kirow crane/s to deliver contracted works.

It is also the responsibility of the **Project Manager, CEM, CRE** or appointed client representative to ensure the necessary risk controls associated with the use of the Kirow Cranes within a possession, siding or Depot are included during the production of the method.

The **Project Manager, CEM, CRE** or their appointed client representative will specify the requirement for all engineering train movements and agree them with Network Rail (or any other Client). Engineering trains will be planned using Network Rail Online Logistics (NROL) system and "ordered" as per contractual timescales specified. It is the responsibility of VR **Logistics Manager** to ensure that the Kirow Crane/s are in the correct Local Distribution Centre (LDC) as instructed by the client.

The Kirow cranes will arrive on site in train formation within the possession as identified in the VR Train Consist Document. It is the responsibility of the **Project Manager, CEM, CRE** or their appointed client representative, to specify jib direction as advised by the Kirow Appointed Person - Rail Mounted Crane (RMC) to NROL when ordering the Kirow Crane/s.

5.1.2 Route Availability (RA) of Cranes in Transit Mode

The quoted RA of all Kirow Cranes is the agreed value with obligatory match wagons in place for transit moves, the jib supported on its jib trestle which must be engaged and pinned (where fitted), the counterweight/s detached (where necessary) and stowed on the relevant match wagon with the counterweight jib also on its jib trestle which must be engaged and pinned (where fitted). The Kirow cranes must be marshalled as specified in Kirow crane train consist document for transit and are to be considered as RA7 in this configuration.

5.2 Planning Meeting/Site Visit Attendance

5.2.1 Where the Kirow crane/s are required for use it is the responsibility of the Kirow Operations Manager, POM's to ensure that prior to the work taking place, they or their nominated Appointed Person (RMC) attends a site meeting to co-ordinate the activities of the Kirow Crane/s with the Project Manager, CEM, CRE or their appointed client representative to ensure that the Kirow crane requirements necessary to deliver the work safely are identified and included within the Kirow Crane Plan.

5.2.2 The **Operations Manager - POM**, or their nominated Appointed Person (RMC) and the **Project Manager, CEM, CRE** or appointed client representative will visit site to establish site specific risks, as documented in PE321F02 - Kirow Crane Planning – Site Survey. This form must be completed by the Appointed Person (RMC), with information also provided by the **Project Manager, CEM, CRE** or appointed client representative. On completion the form must be signed by a client representative to agree each parties' responsibilities, the form can then be published to those producing method statements for inclusion of this information within the Kirow Crane Plan.

5.2.3 See PE321F02 - Kirow Crane Planning – Site Survey for items to be considered during the pre-planning stage for crane working.

5.3 Kirow Crane Plan Production and Communication

5.3.1 The Kirow **Operations Manager - POM** will nominate a qualified Appointed Person (RMC) to produce the Kirow Crane Plan.

5.3.2 The content of the following standards, and any other relevant standard will be used when developing a Kirow Crane Plan to detail the safe system of work and control measures required to safely operate rail mounted cranes on Network Rail controlled infrastructure

- BS7121
- LOLER
- PUWER
- GE/RT8000 Rule Book
- NR/L2/RMVP/0200/Module P503 – Infrastructure Plant Manual: Lifting Operations
- NR/L2/RMVP/0200/P505 – Infrastructure Plant Manual: Safe Working with Plant
- NR/L2/RMVP/0200/P506 – Infrastructure Plant Manual: On-track Machines
- PE326 – Vehicular Plant and Crane Operations
- PE323 – Avoidance of danger from overhead powerlines
- ENG02 – Production and project documentation incl. WPP, CPP and TPS
- SAF30 – Risk Assessment

5.3.3 Once the Kirow Crane Plan has been produced by the Appointed Person (RMC), the Kirow Crane Plan must then be read, understood, and verified internally by another trained and competent Appointed Person (RMC) before being sent to the client. The **Project Manager, CEM, CRE** or appointed client representative must then accept and sign off the document and return it to the Appointed Person (RMC). Once works are completed, all Kirow Crane Plans must be returned to the Depot to be achieved.

5.3.4 It is the responsibility of the Kirow **Operations Manager - POM** or their nominated Appointed Person (RMC) to ensure that any crane plans produced by external clients are reviewed and validated to ensure that operational, safety and engineering standards are identified, addressed and managed and to ensure that all the arrangements that are in place that affect the operations of the Kirow cranes are adequate and that no additional risk is imported.

5.3.5 It is the responsibility of the Appointed Person (RMC) to ensure that the competent **Crane Controller (CC)** - who will manage the crane operation on site for delivery of contracted works – is briefed on the requirements of the overall crane plan including the site-specific risks and requirements contained within the Kirow Crane Plan.

5.3.6 It is the responsibility of the **Project Manager, CEM, CRE** or appointed client representative to ensure that all site supervisory staff receive an adequate / relevant briefing on the contents of the Kirow Crane Plan and how the arrangements contained within affect them collectively and individually.

5.3.7 The **Engineering Supervisor (ES)** OR **Engineering Supervisor Assistant** will be responsible for the site briefing of each COSS on the specific requirements of the Kirow Crane, which is in addition to the movements of other plant that will enable them to establish a safe method of work for the groups of staff they are to protect during the work.

5.3.8 Records of all briefings of staff will be maintained within the COSS Record of Arrangement Forms as detailed within the Rule Book.

5.4 Site Specific Risks

5.4.1 Generic Risks Associated with Crane Working

All generic risk assessments associated with the Kirow Cranes operation will be included in the Kirow Crane Plan and are included in the Kirow crane risk assessment document CRA179.

5.4.2 Site Specific Risks Associated with Crane Working
It is the responsibility of the Kirow Appointed Person (RMC) to ensure that site specific risks are identified and control measures agreed with the **Project Manager, CEM, CRE** or appointed client representative utilising the checklist from the PE321F02 - Kirow Crane Planning – Site Survey. These shall then be included within the Kirow Crane Plan.

5.4.3 Site Specific Risks whilst working around structures.
All under-bridges and culverts on the site of work shall be identified by the **Project Manager, CEM, CRE** or appointed client representative, these locations will then be documented and highlighted in the Kirow Crane Plan.

The Kirow cranes are prohibited from lifting on and carrying loads over structures unless a full assessment of the structure has been completed which indicates that loads are acceptable. Work must be planned according to the above requirements. Structure Request Kirow 250/810/1200 (forms PE321F03, PE321F04 and PE321F05) must be completed and submitted to Network Rail's relevant (Structures) engineering representative. The signed document must then be included in the Kirow Crane Plan. Work must not proceed on site without prior written authorisation from the project Structural Engineer.

5.4.4 If there are no structures on a site, this shall be stated within the PE321F01 Kirow Crane Plan and PE321F02 - Kirow Crane Planning – Site Survey which must be signed by both the nominated Appointed Person (RMC) and **Project Manager, CEM, CRE** or appointed client representative.

5.4.5 Working with Any Lines Open
Where the crane is working adjacent to operational lines, the working arrangements for this are defined in PE326 Module 1 and must be fully detailed in the Kirow Crane Plan. It is the responsibility of the Principle Contractor, **Project Manager, CEM, CRE** or appointed client representative to ensure that the ALO plan has been formulated and briefed to all relevant staff, the **CC** shall verify the control measure and arrangements stated in the ALO Plan are in place before commencing work.

5.4.6 Ground Conditions on site
It is the responsibility of the Appointed Person (RMC) to supply the client with all outrigger loading pressures and the load bearing base configuration/s to support those loads, as documented in Load Bearing Chart within the Kirow Crane Plan. It is then the client's responsibility to ensure ground bearing capabilities for the loading pressure supplied, this may require the client to complete ground investigation to confirm suitability.

5.4.7 Windspeed
It is the responsibility of the Appointed Person (RMC) to ensure they have received all relevant dimensions and weights of the loads to be lifted / carried to ensure the correct maximum windspeed can be calculated. This must then be included in the Kirow Crane Plan. The windspeed calc Version 2.1 is formulated based on the formula given in BS 7121:2016 Annex D and can be found in VR large files with links > Kirow Operational > Windspeed Version 2.1 and on Microsoft Teams in the Grp_POMs_VRSB Plant-PCRN > RMC Planning > FILES > Calculators > Windspeed version 2.1

5.5 Movement of the Kirow Rail Mounted Cranes in transit to / from Possessions

5.5.1 Preparation for Movement in Train Formation (To / From Site)
It is the responsibility of the Kirow Operator or their nominated representative to ensure that the Kirow Cranes and associated match wagons are prepared for transit in train formation and 'Loads Examined' by a competent person in accordance with the arrangements specified within TAP307.The Kirow Cranes will then be transited by the Freight Operating Company (FOC) to the identified possession or destination.

The Kirow Operator responsible for setting down the crane is also responsible for completing the readiness to travel form POM03F02 - Kirow 250,810,1200 Pre- transit safety check

5.5.2 Preparation for Operation on Site
On arrival in an Engineers Possession or worksite it is the responsibility of the Kirow **CC** in conjunction with the **ES** and train crew to reach a clear understanding to uncouple the Kirow Cranes and associated match wagons from the train / locomotive in preparation for operational service in accordance with the Kirow Operations Manual, ensuring that the crane, match wagons and remainder of the train are braked and secure throughout the process.

The **CC** need not be present for this activity, but a clear understanding must be reached by all involved. Kirow Crane/s and their supporting wagons must be stabled as per Crane Stabling Document

Prior to any work commencing, the Kirow **CC** must adequately brief all staff members regarding planned works and the site-specific risks / control measures, this must then be signed for by each member of staff in the Kirow Crane Plan.

5.5.3 The Kirow Crane Operator and support crew will undertake setting up of the crane and the Kirow Crane pre-use checks, which includes the procedures associated with the PAT safety control systems for the operational work required once the crane/s have been set up for use.

5.6 Movement / Operation of the KIROW Rail Mounted Cranes within Possessions, Sidings and Depots

5.6.1 Responsibility for the authorisation of Kirow Crane movements:

- Inside Possessions but outside a worksite, movements of the crane/s are controlled by the PICOP
- Within a Worksite, the ES controls movements of the crane/s.
- Crane movements within the worksite are made under the supervision of the CC as agreed with the ES.
- When working within Sidings and Depots clear understanding between the CC and Designated Person (DP) must be established before work commences.
- Where lifting operations are to be carried out within the Depot, this must be completed with a crane controller working to instruction from a crane plan.
- Where no lifting operations are taking place, but the machine must be moved within the Depot staff must work to SAF89, in this scenario a trained and competent Kirow operator can act as a banksman for machine movements only.
- When working within non-Network Rail infrastructure, this can also be completed using a competent Kirow operator as a banksman for machine movements only.

Communications will be established in accordance with the Rule Book and detailed within the crane plan. The **PICOP, ES** and **CC** will only use authorised hand signals or radio communications for controlling the movement of loads and crane movements. All crane movements must be agreed and communicated by the **CC**. When radio communication is used between site staff and the **CC** and Operator, only ‘back-to-back’ radios / lightweight headsets shall be used.

5.7 Coupling & uncoupling

All coupling and uncoupling of vehicles shall be undertaken by staff specifically trained and competent to do so in Kirow operator training TAP307 and Appendix B - Crane Stabling Conditions. The coupling and uncoupling of a locomotive / engineer’s wagon to the Kirow crane is the responsibility of the haulier. The Kirow operator will ensure that the crane is securely braked before the crane is detached.

5.8 Working of Kirow Cranes on Site.

It is the responsibility of the **CC** and the Kirow Operator to ensure that once the crane preparation is complete the crane is operated in accordance with the Kirow Crane Plan. Where there are any changes on site which effects the lifting operations work must stop immediately and **VRCC** must be informed of the issue. Before work can continue, the **CC** must contact the on-call appointed person who will work from information provided by the **CC** to agree and document the required changes to the Kirow Crane Plan. On completion of the amendment form within the crane plan, the appointed person must sign or send an email as authorisation for the change, this must also be agreed and signed for by the **project CEM, CRE** or their appointed client representative. All changes must then be briefed to all staff involved in the work before commencing with the new lifting operation.

5.8.1 Movements over newly laid track that has not been handed back to traffic.
Any requirement for the Kirow to operate over newly laid track must be identified and planned in advance and included within the Kirow Crane Plan.

The following should be taken into consideration

- The track bed has been well compacted
- Track Gauge is in the range 1428 to 1442mm

- The track is clear of obstructions
- There is even compaction of ballast at the deck ends of skew bridges
  - There is an even compaction on any run ins/outs which are sufficiently ballasted
- Rail joint gap between two panels must not be greater that 25mm +/-2mm

5.8.2 Movements over newly laid Steel Sleeper Track

This is a particularly challenging requirement for safe working of the crane as the sleepers will be less stable than bearers or concrete/wood sleepers due to the unfilled void underneath.

In addition to the requirements of 5.8.2 the following shall apply:

- When working on steel sleepers all loads should be restricted to 75% of the permissible duty other than over end. The stability of the new track will not be sufficient to provide support to allow large angles of slew or swivel of the crane. Working methods shall therefore be such that large angles of slew/swivel are not required/permitted. The use of outriggers may not be sufficient on their own with this reduced track stability as the outriggers do not support the full weight of the crane and work to limit the loads on the track. The outriggers themselves could be overloaded and fail if the track does not adequately support the wheels.
- The crane shall travel only at absolute caution speed to allow the track to settle under the first movement across it.
- The crane shall only travel with a suspended load in front (or behind) the crane at 0 or 180° position for the whole work. No slew or swivel shall be applied whilst travelling.
- As the crane traverses, the ends of the sleepers will “bed in” to the level of the underside edge of the middle of the sleeper, achieving sufficient stability for moving backwards and forwards.
- Track changing from solid sleepers/bearers to steel sleepers is a special risk and occasions of this should be minimised. This interface shall not coincide with the limit of dig which must be at least 2 metres clear of the interface. This detail needs to be established early at the planning stage. Similarly temporary or permanent joints must not occur on the junction of the dig or on the junction of the solid/steel sleepers and must be at least 2m from the junction on the solid side or 5m on the steel side.
- There will be 75mm initial settlement on the steels and no settlement on the solids. This cannot take place over one bay and must be ramped out over at least 5 bays by placing packs of varying size under the sleepers to allow full settlement on unpacked sleepers and little settlement under the first sleeper.

5.8.3 Towing of Vehicles with Kirow Cranes

The towing / braking capability of Kirow Cranes specified on the Engineering Acceptance Certificate must not be exceeded.

5.8.4 Gradients

It is the Client’s responsibility to determine and document all relevant site gradient details. This information must then be documented in the site survey document and the Kirow Crane Plan. When working on gradients it is required all operations are to follow instruction from Operator Manual TAP307.

5.9 Failure/defects of cranes during operational shifts

The requirements of TMP07 - Establishing a Safe System of Work for Undertaking Maintenance, Servicing and Repair of OTM &OTP and TMP15 – Safety of People Working on Rail Vehicles will be enforced (as well as the manufacturer’s instructions) should the Kirow crane fail during an operational shift.

Within the Kirow Crane Crew there will be a trained, assessed competent **Maintainer Operator** and in the event of a Kirow crane breakdown, whilst working on site, will carry out repairs as necessary. Should site repairs not be possible then the Kirow crane controller will liaise with the site **Project Manager** or their appointed client representative to arrange recovery of the Kirow crane back to the nearest stabling point.

6 ASSOCIATED GUIDANCE & INFORMATION

- Appendix A - Train Consists

- Appendix B - Crane Stabling Conditions
- Wind calculation (see 5.4.7 above)

7 DOCUMENTATION (OUTPUTS)

- PE321F01 - Kirow Crane Plan
- PE321F02 - Kirow Crane Planning – Site Survey
- PE321F03 - Structures Request Kirow 250
- PE321F04 - Structures Request Kirow 810
- PE321F05 - Structures Request Kirow 1200
- POM03F02 - Kirow 250,810,1200 Pre- transit safety check
- TMP07F01 - DP Record of Arrangements and Briefing form

8 ISSUE RECORD

Issue	Date	Comments
1	Feb 2006	First Issue in the Engineering Instructions Manual, Supersedes SQE32 which should now be destroyed.
2	Oct 2006	Specific Kirow 250 elements added and Operational and Corus report details added.
3	Feb 2008	Amended to cover working over newly laid, steel sleepered track and enhancements for clearances to obstructions. New Appendix J added. Further updates throughout – highlighted by margin marks.
4	04/04/2024	Complete rewrite of PE321 with additions to appendices to improve how Operational Arrangements for the use of the KIROW Cranes within Possessions, Sidings and Depots are implemented.
5	23/05/2024	Minor amendments (re-wording) following briefing. RACI amended to remove ES's and PICOPs. PE321 – Kirow Crane Plane updated to include Appendix F.

9 WHAT HAS CHANGED IN THIS LATEST ISSUE AND WHY

Minor amendment - re-wording a few things after briefing with the lift planners.

The RACI has been amended because POM Operations / Business Manager are not responsible for briefing ES' or PICOPs.

The PE321 – Kirow Crane Plane has been updated to include Appendix F - POM03F02 - Kirow 250,810,1200 Pre- transit safety check.

10 BRIEFING REQUIREMENTS

All new employees will receive an introduction to the Integrated Management System (IMS) at induction, according to the nature of the role.

All employees with an email address receive the 'Record of Revisions' each month, which details changes to the IMS. All Line Managers retain the responsibility to ensure their staff are briefed on changes as appropriate.

The following table defines how revised issues of this document are briefed to existing employees according to related specific responsibilities.

This is determined using the 'RACI' principle. Those roles identified as 'Responsible' and 'Accountable' should receive a formal awareness briefing facilitated by the Document Owner.

Discipline	Role	RACI	Type of briefing
Delivery	Business Manager	Responsible	Detailed
Delivery	Senior Operations Manger	Responsible	Detailed
Delivery	Operations Manager	Responsible	Detailed
Delivery	Delivery Supervisor	Informed	Detailed
Delivery	Maintainer Operator	Responsible	Detailed
Delivery	Logistics Manager	Responsible	Detailed
Project Management	Project Manager	Responsible	Detailed
HSQES	VRCC Duty Controller / Assistant	Responsible	Detailed

Competence	RACI	Type of briefing
Appointed Person (POM)	Responsible	Detailed
Crane Controller (CC)	Responsible	Detailed
Crane Operator	Informed	Awareness
Slinger	Informed	Awareness
Support Crew	Informed	Awareness
CEM	Responsible	Detailed
CRE	Responsible	Detailed

11 IMS AUTHORISATION

Document owner approval:

Tony Everatt, Business Manager POM, 23/05/2024

Document author:

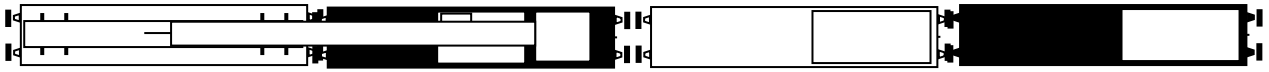
Andrew Graham, Operations Manager (POM), 23/05/2024

Approval for IMS:

Paula Roberts, IMS Coordinator, 23/05/2024

Volker Rails Crane Consists

DB Cargo may change KFA and FCA wagons regularly for Maintenance requirements as required for VIBT & PPM- services



Beam Wagon DRK81613 1200 Crane Counterweight Wagon Caboose Wagon

13 SLU in total RA7 in train formation max train speed 60 mph

Beam Wagon DRK 81601 810 Crane Counterweight Wagon

10 SLU in total RA7 in train formation max train speed 60 mph

Empty Wagon Beam Wagon DRK 81621 250 Crane Salmon Wagon

13 SLU in total RA7 in train formation max train speed 60 mph

Beam Wagon DRK 81622 250 Crane Salmon Wagon

10 SLU in total RA7 in train formation max train speed 60 mph

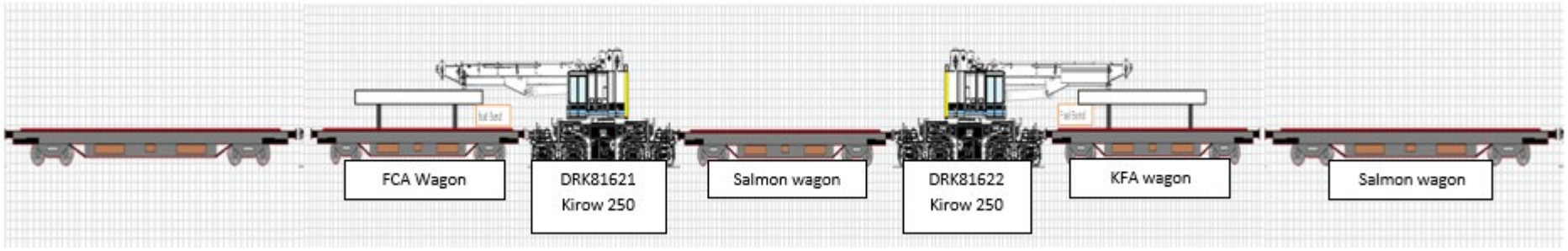
Network Rail's Crane Consist

Empty Wagon Beam Wagon 7093-190137 1200 Crane Counterweight Wagon Caboose Wagon

16 SLU in total RA7 in train formation max train speed 60 mph

Volker Rail's Kirow 250 Crane's in Haulage Tandem Lift Formation

KFA wagons have to be next to the cranes with Beam's Fuel Tank & Rota Head nearest the crane
Buffers have on them (Do Not Split) stickers



Pictured Kirow Crane Consist

FCA - DRK81621 (Kirow 250 Crane) - Salmon wagon – DRK 81622 (Kirow 250 Crane) - KFA wagon - Salmon wagon

Note One salmon wagon can be at any end of the consist but one has to be between the Kirow 250 cranes for tandem Lifting. SLU LENGTH 23

Or if space is limited outer salmon can be left in Departure Yard. SLU LENGTH 20

Detail of different stabling conditions: Frodingham depot, externally owned depots / yards and when on the operational infrastructure.

STABLING CONDITION – EXTERNALLY OWNED YARDS – FOR MAINTENANCE

Fully set down -Drawgear attached to loco / all drawgear connected, all brake pipes connected and all taps down

IN THIS SCENARIO THE YARD OWNER/ CONTROLLER WILL STABLE THE MACHINES AND YOU MUST LEAVE MACHINES AS YOU FOUND THEM, THIS IS DUE TO EACH LOCATIONS METHODS OF STABLING BEING DIFFERENT.

STABLING CONDITION – on site – attached to loco

Fully set down -Drawgear attached to loco / all drawgear connected, all brake pipes connected and all taps down

NO HANDBRAKES , CHOCKS OR STOPBOARDS applied on crane consist

(If no train ground crew present , ensure flashing red aspect light is applied to rear of consist)

STABLING CONDITION – on site – not attached to loco

Fully set down / all drawgear connected, all brake pipes connected and all taps down

First and last handbrake of consist applied –NO STOP BOARDS AND NO CHOCKS

(If no train ground crew present , ensure flashing red aspect light is applied to both ends of consist)

STABLING CONDITION – on site – Shift change over

Machine and wagons split – in various locations

All handbrakes and chocks on wagons and machine

as well as stop boards applied to both ends of each wagon and machine

STABLING CONDITION – on site – wagons (KFA+FCA)

Machine and wagons split – in various locations

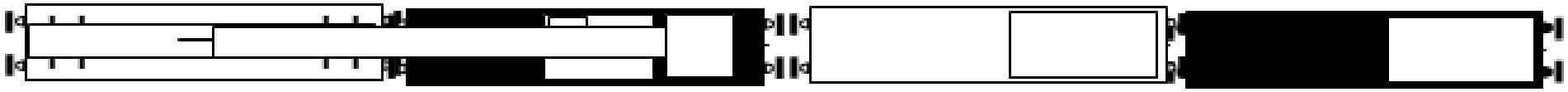
All handbrakes and chocks on wagons

as well as stop boards applied to both ends of each wagon

STABLING CONDITION – Frodingham depot

A Nominated Person will be instructed to oversee the Arrival and Departure of every machine to ensure that the correct protection methods are followed.

STABLING CONDITION – Frodingham depot – in consist for departure



Fully set down:

Drawgear attached to loco / all drawgear connected, all brake pipes connected and all taps down

Front and back wagon handbrakes applied with chocks and stopboards prior to connecting to loco

STABLING CONDITION – Frodingham depot – in consist no departure

All drawgear connected, all brake pipes connected and all taps down

Front and back wagon handbrakes applied, with chocks and stopboards both ends of the consist

STABLING CONDITION – Frodingham depot – split consist

Machine and wagons split – in various locations

All handbrakes/chocks on crane and wagons

as well as stop boards applied to both ends of each crane or