

ISSUE DETAILS

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Title	Safe Use of Ironmen and Other Similar Manually Operated Lifting Devices				
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BRIEFING REQUIREMENTS

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.

Role	RACI	Type of briefing
Planner	Responsible	Detailed
COSS	Responsible	Detailed
Engineering Supervisor	Responsible	Detailed
Safe Work Leader / Manager	Responsible	Detailed

PURPOSE

The purpose of this standard is to specify the requirements for safe use of manual lifting devices, particularly Ironmen.

SCOPE

This standard applies to all VolkerRail activities across all Production Businesses, including VolkerRail working as sub-contractor on sites managed by other Contractors.

WHAT HAS CHANGED IN THIS LATEST ISSUE AND WHY

Minor updates and consolidation of issues communicated on Take Two Alert TTA003 which shall now be withdrawn. Inclusion of Appendix C for GTJV as accepted document to deliver this procedure.

ISSUE RECORD

Issue No.	Date	Summary of changes
1	March 2006	First Issue
2	April 2007	Update to Para 4.2 on Page 4 as a result of a recent incident causing serious injury whilst using an Iron Man
3	Oct 2008	Minor updates and consolidation of issues communicated on Take Two Alert TTA003. Inclusion of Appendix C for GTJV



Safe Use of Ironmen and Similar Manually Operated Lifting Devices


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Issue/Revision Control

This standard will be updated when necessary by distribution of a complete replacement.

Amended or additional pages will be marked by a vertical black line in the adjacent margin.

Revision Details

Issue No.	Revision No.	Issue date	Comments
1	0	March 2006	First Issue
2	0	April 2007	Update to Para 4.2 on Page 4 as a result of a recent incident causing serious injury whilst using an Iron Man
3	0	Oct 2008	Minor updates and consolidation of issues communicated on Take Two Alert TTA003 which shall now be withdrawn. Inclusion of Appendix C for GTJV as accepted document to deliver this procedure.

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**Safe Use of Ironmen and Similar Manually
Operated Lifting Devices**

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Appendices

- A Details of Typical Ironmen Lifting Arrangement. (Harsco)
- B Details of Typical Ironmen Lifting Arrangement. (Rotamag)
- C GTJV – Task Methodology
- D Typical Set of Matching Numbers

Safe Use of Ironmen and Similar Manually Operated Lifting Devices

1. Purpose

The purpose of this standard is to specify the requirements for safe use of manual lifting devices, particularly Ironmen.

2. Scope

Applies to all VolkerRail activities across all Production Businesses, including VolkerRail working as sub contractor on sites managed by other Contractors.

3. Compliance

Compliance with the requirements of this standard is necessary to enable the company to meet its Health & Safety responsibilities under current legislation.

All staff who manage, supervise and /or carry out work activities associated with this standard have a legal obligation to comply with the specified arrangements herein.

4. Definitions

Ironman - A small portal frame structure, manually assembled with trolley like wheels that gives the facility to lift rails and similar, move them laterally and travel along the line on small wheels. A rail clamp is attached to the lifting mechanism. The machines, normally used in pairs may be used in multiple for lifting long strings of rail.

5. References

Legislation:

HASAWA – Health And Safety At Work Act 1974.

LOLER – Lifting Operations and Lifting Equipment Regulations.

PUWER – Provision and Use of Work Equipment Regulations 1992.

RSSB Standards:

RIS-1700-PLT – Rail Industry Standard for Safe Use of Plant for Infrastructure Work.

VR Group Standards:

P&E 338 - Numbering and management of equipment sets that could be split.

6. Performance Monitoring

There are no specific Performance Monitoring arrangements or requirements with this Group Standard. Compliance will be through audit checks (see section 9).

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7. Management Arrangements

7.1 *The Planner* shall:

7.1.1 Identify the nature of loads to be lifted, their weight and distribution (centre of gravity) if not symmetrical.

7.1.2 Calculate the number of ironmen and pull lifts required and the necessary attachments to ensure the load is carried safely and individual units are not overloaded.

7.1.3 Order the necessary items.

7.1.4 Produce an outline plan of work for the lifting activity as defined by the LOLER.

7.2 *The person in charge of site work* shall:

7.2.1 Ensure all elements have a valid test certificate and are in good condition prior to use.

7.2.2 Ensure that all units are of manufacture by the same manufacturer (Rotamag or Harsco) – mixed equipment shall not be used.

7.2.3 Check that the serial numbers of the individual parts of the frame are all matched set.

7.2.4 Check that the frame locking pins are located correctly and locked before movement / use.

7.2.5 Check brake levers are on same side when using in pairs or multiple and assemble so that this side is the safest place to walk.

7.2.6 Identify the capacity of:

- The Ironman frames
- The pull lifts
- The universal or other rail clamp or camlock
- The webbing strap

If these are not all of the same capacity then the lowest capacity shall be used for the carrying / lifting capacity of all units to avoid overloading.

7.2.7 Ensure that all parts of an individual unit are numbered as parts of a matched set! (See Appendix D).

7.2.8 Identify the weight of the load and the clamps being used.

7.2.9 Distribute the units so that none of them are overloaded by their share in the overall load to be lifted.

7.2.10 Ensure all the units are securely attached to the load to be lifted.

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- 7.2.11 Co-ordinate the lifting activity so that all operators lift and lower simultaneously so as not to induce differential loading on the pull lifts or frames.
- 7.2.12 Lower the load onto the side bracket or bottom beam on all units (as applicable) in a simultaneous manner, prior to and throughout any transit moves.
- 7.2.13 Always push, do not pull the Ironmen.
- 7.2.14 Co-ordinate the travel activity so that all operators travel simultaneously and brake together. NB. Lateral bars should be in place as shown in picture 1 Appendix A and load lowered onto bars. Machine must not travel with load suspended on hooks or clamps.
- 7.2.15 Do not use unofficial means to keep brake lever off, this is a fail safe brake and must be held off by constant pressure from the operator.
- 7.2.16 Ensure that all site personnel, including operators stand well clear of the suspended load and do not perform any tasks that would require them to go underneath a suspended load for any reason.
- 7.2.17 During traversing of the load (laterally) turn traversing wheels simultaneously and in small movements, do not spin!
- 7.2.18 Take care when releasing the traversing wheel on canted track.
- 7.2.19 Always use Ironmen with the bottom beam in place and constantly monitor, especially on high cant curves. The beam should only be removed for the minimum time necessary commensurate with picking up rails from the ground and lifting above the level of the beam.
- 7.2.20 Take care when moving Ironmen through S&C.
- 7.2.21 When lifting and carrying S&C units (particularly crossings), webbing straps or chain slings will be necessary to supplement the pull lifts as the camlocks may not clamp onto the crossings. These must be of a similar capacity to the remaining equipment.
- 7.2.22 Check that some light tension remains in the lifting tackle whilst rail or S&C is supported by the bottom beam.

8. Training Competence & Certification

- 8.1 All operators shall possess a valid competency certificate for the use of Ironmen. They shall have been fully briefed in the requirements of this standard. This is particularly important for sub-contract labour and the supervision thereof, which should be undertaken by means of a Tool Box Talk at the start of the shift.
- 8.2 Training can be provided through **VolkerRail Competency Systems Controller**, this lasts half a day.

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9. Maintenance of Records

9.1 The *VolkerRail Competency Systems Controller* shall ensure that up to date records of this competency are maintained on the Coins competency database.

10. Audit Requirements

10.1 Safe Use shall be checked by CAT3 Audits by:

- Safety & Compliance Manager (Projects)
- Safety & Compliance Controller.

10.2 Line Management shall undertake checks of their staff using this equipment.