

Issue Details

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Background /Synopsis

This Instruction applies to the use of mechanical and hydraulic track lifting jacks being used by VolkerRail personnel. It applies to all VolkerRail work sites whether performing as a Main or Sub-Contractor.

Key Changes

Updated since investigation into failure of jack handles at Nuneaton and Scunthorpe.

Compliance Requirements Summary

Mandatory on all VolkerRail Worksites as Main or Sub Contractor to deliver the requirements of PUWER.

Minor changes of significant nature reinforcing single individuals using jack. Jacks not to be hammered into place.

Implementation

Upon receipt. All PW staff, Supervisors & Sub Contractors to be briefed on this standard and the TWI listed below. This is available on VolkerRail Intranet, External Standards, Network Rail (Penultimate Section) 2G001 classified under "Rails"

References

GE/RT8000	RSSB Rule Book
NR/SP/ELP/29987	Working on or about 25Kv AC Electrified Lines
LOLER	Lifting Operations and Lifting Equipment Regulations
TWI 2G001	How to use Track Jacks

Further Information

Any issue of clarification relating to this standard should be addressed to

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Control, Safe Use and Operation of Track Jacks


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(Signatures have been removed from electronic copies)

Control, Safe Use and Operation of Track Jacks**Document Control**

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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	Apr 2008	First Issue. This document was previously issued in Engineering & Safety Manual as 'S & SM 311' (this should be removed and destroyed).
2	N/A	Nov 2008	Updated following investigations into jack handle failures at Nuneaton and Scunthorpe. TTA/011 shall be withdrawn concurrent with issue of this standard.

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Control, Safe Use and Operation of Track Jacks**Contents**

1.	Purpose.....	5
2.	Scope	5
3.	Compliance.....	5
4.	Definitions	5
5.	References.....	6
6.	Performance Monitoring.....	6
7.	Management Arrangements.....	6
7.1.	Classification of Track Lifting Jacks	6
7.1.1.	General	6
7.1.2.	Type 1 Track Lifting Jacks	6
7.1.3.	Type 2 Track Lifting Jacks	7
7.1.4.	Type 3 Track Lifting Jacks	7
7.1.5.	Type 4 Track Jacks.....	7
7.2.	Statutory and Related Requirements	7
7.2.1.	Statutory.....	7
7.2.2.	Identification and Registration of Jacks	7
7.2.3.	Testing and Certification of Track Lifting Jacks Prior to Use	8
7.2.4.	Use of Track Lifting Jacks Supplied by Other Organisations	8
7.2.5.	Planning Work Involving Jacks	8
7.2.6.	Pre Use Inspection by the User	9
7.2.7.	Jack Handles.....	9
7.3.	General Instructions on Use	10
7.3.1.	General	10
7.4.	Work on Electrified Lines.....	11
7.4.1.	Lines Electrified by Third/Fourth Rail System	11
7.4.2.	Lines Electrified by Overhead Line Equipment System	11
7.5.	Sluicing of Track	11
7.6.	Restrictions in Use on Permanent Way on Network Rail Infrastructure	11
7.6.1.	Which Infrastructure?.....	11
7.6.2.	General	11
7.6.3.	Use of Type 1 Track Lifting Jacks	11
7.6.4.	Use of Type 2 Track Lifting Jacks	12
7.6.5.	Use of Type 3 Track Lifting Jacks	12

Control, Safe Use and Operation of Track Jacks

7.7.	Use on Permanent Way on Non Network Rail Infrastructure	13
7.8.	Use of Track Lifting Jacks to Support Rails	13
7.9.	Risks.....	13
7.9.1.	Risk Associated with Rails ‘Toppling’	13
7.9.2.	Risks Associated with Red Zone Working	14
7.9.3.	Safe Method of Work (SMOW)	14
7.10.	Training and Competence of Users/Supervisors	14
7.10.1.	Users	14
7.10.2.	Supervision.....	14
7.10.3.	Misuse of Jacks.....	14
8.	Maintenance of Records	14
9.	Audit Requirements.....	15

Appendices

- A Tool Box Talk
- B Guidance on handle suitability for use
- C Consequences of overloading handle with 2 people
- D Damaged Jacks

Control, Safe Use and Operation of Track Jacks**1. Purpose**

The Purpose of this standard is to lay down the Management and Control arrangements for all mechanical and hydraulic jacks used in Permanent Way Trackwork activities.

2. Scope

The Scope of this Standard applies to:

- All VolkerRail worksites as Main or Subcontractor
- All VolkerRail staff managing/supervising and undertaking jacking work
- All VolkerRail Subcontractors undertaking work on VolkerRail worksites

3. Compliance

Compliance with the requirements of this standard is necessary to enable the Company to meet it's Health & Safety responsibilities under current legislation.

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

4. Definitions

Additional Warning Time	Additional time to remove or lower the Jack when working red zone in addition to the required warning time for stopping work and reaching the place of safety.
ALARP	As low as reasonably practicable
Competent Person	Person or organisation approved by the VolkerRail Professional Head of E&P to carry out examinations, repairs, modifications, and tests on track lifting jacks.
CRE	Contractors Responsible Engineer
Examination and Testing	The annual examination and testing that must be carried out by a Competent Person.
ID	Identification
Method Statement	Includes all types of this documentation including Method Statements, Site Specific Addendums, Works Package Plans Task Briefings and Tool box talks as appropriate for communicating the requirements according to Project specific needs
Red Zone	Work between trains when the line is open to operational traffic

Control, Safe Use and Operation of Track Jacks

Site Supervisor	Any person, supervisor or other grade who is in charge of a lifting operation on a worksite.
SWL	Safe Working Load

5. References

LOLER	Lifting Operations and Lifting Equipment Regulations
BS 3823	Grading of Ash and Hickory Wood Handles for Hand Tools
GE/RT8000	RSSB Rule Book
GM/RT/1403	Use of Plant and Work Equipment

Network Rail

NR/SP/ELP/29987	Working on or about 25Kv AC Electrified Lines
NR/WI/ELP/3091	DC Electrified Lines Working Instruction

Track Work Instructions: (available on VolkerRail Intranet under Standards Management/External/NWR/TWIS)

TWI 2G001	How to use Track Jacks
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6. Performance Monitoring

There are no performance monitoring statistics associated with this standard.

Compliance shall be managed by line management subject to audit checks as in Section 9 of this document.

7. Management Arrangements**7.1. Classification of Track Lifting Jacks****7.1.1. General**

Track lifting jacks are classified under three types as set out below. There are certain restrictions that are placed on the use of the three types when working on different railways, guidance on this is given in Sections 7.3 - 7.5 of this document.

7.1.2. Type 1 Track Lifting Jacks

A type 1 track lifting jack is one that will not protrude above rail height or come within 50mm of the running edge when lifting the rail and can be lowered from full height within 10 seconds under load.

Type 1 track lifting jacks should be used wherever possible on running lines when the line is open to traffic.

'Pan' or toeless (obstruction-less) jacks are classified as type 1 jacks.

Control, Safe Use and Operation of Track Jacks

7.1.3. Type 2 Track Lifting Jacks

A type 2 track lifting jack is one that will cause an obstruction to traffic when placed under the rail, but has a 'quick release' mechanism to permit the jack to be lowered immediately from full height and can be lowered and completely removed from under the track within 10 seconds.

7.1.4. Type 3 Track Lifting Jacks

A type 3 track lifting jack is one that will cause an obstruction to traffic when placed under the rail, and cannot be quickly lowered from full height. Type 3 Jacks shall only be used when the live is blocked to Operational Traffic (green zone).

7.1.5. Type 4 Track Jacks

A type 4 track jack is one that has been specifically designed for track sluing. Type 4 Jacks shall only be used when the line is blocked to Operational Traffic (green zone).

7.2. Statutory and Related Requirements

7.2.1. Statutory

Track lifting jacks are classed as lifting appliances under LOLER and thus must be inspected and tested by a Competent Person on a regular basis, and an appropriate certificate issued to denote that this has been done.

VolkerRail's policy is that all track lifting jacks are to have a statutory inspection on a six-monthly basis and arrangements are in place for such examination. Should a jack be in need of repair, at the time of statutory inspection, it shall not be reissued for use until such time as it has had a satisfactory proof load test and certification has been completed.

Action: *Small Plant Supervisor, VolkerRail Plant*

All jacks are tagged or labelled to confirm their status of test/inspection.

7.2.2. Identification and Registration of Jacks

Each jack must be marked with the following:

- A unique identification number.
- Safe Working Load. In the case of a toe jack, the Safe Working Load on both head and toe is to be the same, i.e. the worst case scenario is adopted therefore the Working Load of the head is to be down-rated to that of the toe in the event of them being different.
- The date on which the jack is due its next examination/test.

New jacks owned by VolkerRail Plant must be registered and tested by a **Competent Person** before being used.

Control, Safe Use and Operation of Track Jacks

7.2.3. Testing and Certification of Track Lifting Jacks Prior to Use

Only track lifting jacks that are marked with VolkerRail identification are to be used.

Track lifting jacks may need approval of the Infrastructure Controller (NWR do).

All VolkerRail track lifting jacks are suitably identified and are marked with a Safe Working Limit and tag to denote that they are within the regular examination period.

Rail lifting jacks that do not bear the correct tag or are out of the test expiry date **MUST NOT** be used, but must be withdrawn, labelled '**NOT TO BE USED**' and returned to VolkerRail Plant for examination and re-certification.

7.2.4. Use of Track Lifting Jacks Supplied by Other Organisations

If a situation occurs when it is necessary to use track lifting jacks supplied by another organisation, eg an approved supplier such as A Plant, a written confirmation must be obtained that such jacks have been tested and examined, and are in date. This should normally be available in the form of a valid test certificate applicable to each specific track jack. It should be noted that many equipment suppliers now attach such information in the form of a tag on their equipment when it is delivered to site.

The *VolkerRail person in charge of the specific work site (Site Manager/Supervisor/Foreman)* will be held responsible for ensuring that this check is carried out.

If there is any doubt as to whether a track jack supplied by another organisation has been examined and has a valid test certificate, then it must not be used until such documentation has been provided. Should it not be possible to obtain this information then the jack must be returned to that organisation with an explanation of the reason for return.

Where jacks are hired from other suppliers (Non VolkerRail Plant) a contractual agreement shall be made as to who is undertaking maintenance of these.

Action: Project Manager

7.2.5. Planning Work Involving Jacks

Work involving jacks shall be planned in outline in accordance with LOLER and not left to the individuals on site to sort out. The planning shall consist of the following:

- Assessment of the load to be lifted, as appropriate, including rails, sleepers, fastenings etc, superimposed ballast, any other additional loads eg due to old rails laying along the sleepers.
- The length to be lifted or supported, including the span from the last jack to the point where the rail and sleepers line in their normal position.
- The maximum SWL of the jacks.

Control, Safe Use and Operation of Track Jacks

- The physical capability of the individuals in the event they are of slight stature. The plan shall supply sufficient operatives, jacks and jack poles (with spares) to lift the total load +25% safety factor assuming 1 operative per jack for this load. Where operatives are of slight build more operatives, each with a separate jack may be required.

Action: ***Appropriate Planner.***

The plan shall be communicated to site via an appropriate safe method of work.

7.2.6. Pre Use Inspection by the User

All **users** shall have been trained in the safe use of jacks.

Before use, **the user** shall undertake an examination of each track jack to ensure it is in a safe and proper condition for use.

The working parts must be clean. Oiling and greasing must be done only in strict accordance with the servicing instructions.

The procedures for checking which must be followed for the hydraulic and mechanical jacks are listed in the tool box talk at Appendix A.

Any signs of damage to jack handles (classed as “consumables”) in the form of splitting, wear on the neck where the handle inserts into the jack socket etc shall render the handle unserviceable and it shall be discarded. The relevant **Local Manager** shall ensure that there is a plentiful supply of new handles in stores and tool lorries conveying jacks. It is recognised that mechanical jacks may exist with previous damage to the body following earlier abuse. This does not in itself render the jacks unsuitable for use but in such circumstances, **the operator** shall take extra care with the visual examination to ensure hidden cracks are not masked by these markings. Any cracking of any parts of the jack shall render it unserviceable.

If any defects are found the jack must be withdrawn from service, labelled ‘DEFECTIVE – NOT TO BE USED’ and returned to VolkerRail Plant or other supplier.

7.2.7. Jack Handles

The legislation surrounding jack handles is unclear. VolkerRail interpret the situation as follows:

- They come under BS 3823, 1990 “Grading of ash and hickory wood handles for hand tools”.
- They would be classed as “non striking” tool handles and should therefore be used for no other purpose than as a jack handle to avoid damage.
- There is no specific load test, rather the BS covers grading due to straightness of grain and closeness of wood rings.
- Providing jack handles are only used by one person and the jack itself is not overloaded, the handle is examined and condemned in the event of damage/significant wear or splitting, the risk of handle failure is ALARP.

Control, Safe Use and Operation of Track Jacks

The **Procurement Manager** shall ensure that all orders placed for jack handles specify the compliance with BS 3823 Cat 'C' at least and that evidence of this is received. Where the supplier offers an alternative certification, the **Procurement Manager** shall seek the agreement of the **Engineering Director** as to the acceptability of such change.

7.3. General Instructions on Use

7.3.1. General

Jacks shall not be hammered or barred into position, as this causes damage to the body of the jack. A hole shall be dug for the jack to be placed under the rail.

The safe system of work for the site shall specify the method for insertion and removal of jacks from their position under the tracks.

The ground conditions where a track jack is to be used must be suitable for the jacking operation.

To ensure that the track returns to a safe position for the passage of trains, the maximum jacking height must be specified in the method statement, and communicated to staff using the jacks. Rails shall not be jacked higher than the design level or out of tolerance of permissible maintenance limits of track position if working under live traffic.

Rails shall not remain suspended or elevated for longer than is necessary for the operation.

No form of extension to the operating bar/handle is permitted.

Jacks must always be used in accordance with the manufacturers instructions.

The operating bar/handle should only ever be worked by one individual. If it is felt that 2 people are necessary to jack the track, then the jack is being overloaded and additional jacks shall be supplied so that only person operates one handle. Similarly, extensions to jacking handles to increase leverage shall not be undertaken as this is unsafe.

Mechanical and hydraulic track lifting jacks, with the exception of the 'pan' or toeless (obstruction-less) type, form an obstruction to traffic when placed under the rail.

Care must be taken when using jacks to ensure that the underneath of an insulated block joint is not 'bridged' thus causing an operation of the track circuit.

Care must be taken when working near to electrical bonds (particularly red bonds) associated with Overhead Line Equipment or the Conductor Rail.

Track lifting jacks should be applied to the rail only and not to sleepers or concrete bearers. Lifting under concrete or wooden sleepers could cause damage to sleepers and sudden failure may lead to injury due to sudden dropping of the load.

Control, Safe Use and Operation of Track Jacks

7.4. Work on Electrified Lines

7.4.1. Lines Electrified by Third/Fourth Rail System

All work using jacks on track electrified by a 3rd/4th rail system shall only be undertaken with traction current isolated.

7.4.2. Lines Electrified by Overhead Line Equipment System

Work may be carried out underneath live Overhead Line Equipment without an isolation of the traction current.

7.5. Sluicing of Track

No jack may be used for sluing when the line is open to Operational Traffic they shall only be used when the line is blocked to Operational Traffic (green zone).

Apart from "Pan Jacks" most type 1, 2 or 3 Track Jacks can be used to slue track provided that they have been "Dug In" and set up to create an angle of 30 to 45 degrees to the rail. The effectiveness of the "Sluicing Operation" will of course depend on the prevailing ground conditions and may require the beds to be opened-out to prevent lifting of the track. Pushing against fixed objects such as Platforms or Bridges etc shall only be undertaken upon agreement of a structural engineer. Type 4 Jacks rely on transferring an upward horizontal thrust from the jack to a lateral shift via a mechanical leverage system built onto the jack. Any slueing operation will always have the added effect of "lifting" the track. Therefore precautions must always be taken to ensure that the vertical geometry of the track is not compromised eg remove ballast from the sleeper ends. Where slueing is to be undertaken using type 1 – 3 Jacks, the detail must be explained in the SSOW.

7.6. Restrictions in Use on Permanent Way on Network Rail Infrastructure

7.6.1. Which Infrastructure?

The following specifically applies to NWR Infrastructure, equivalent good practice should be used on other infrastructures.

7.6.2. General

Green Zone working is VolkerRail Policy and the preferred option when undertaking trackwork involving jacks.

All track lifting jacks may be used without restriction when the line is protected in accordance with the provisions of the Rule Book Section T (Network Rail Infrastructure) or total line blockage on other infrastructures.

7.6.3. Use of Type 1 Track Lifting Jacks

VolkerRail policy is to only use jacks during possessions except in exceptional cases agreed by the **Business Engineering Manager**.

A type 1 jack may be used on any running line which is open to traffic providing that:-

Control, Safe Use and Operation of Track Jacks

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- It is daylight (no fog or falling snow), **and**;
 - Lookout protection is provided, **and**;
 - That the track lifting jack is lowered for the passage of trains, allowing the track to return to a position safe for the speed of traffic, **and**;
 - The requirements regarding the unclipping of the track are in accordance with Client Standards and agreed with the Client, **and**;
 - The site is under the control of a **competent person** for track handback at the current running speed.

These requirements shall be contained within the specific approved method statement and communicated to staff on site. Action: **CRE(PW)**

7.6.4. Use of Type 2 Track Lifting Jacks

VolkerRail policy is to only use jacks during possessions except in exceptional cases agreed by the **Business Engineering Manager**.

A type 2 jack may be used on any running line which is open to traffic providing that: -

- It is daylight (no fog or falling snow), **and**;
- Lookout protection is provided, **and**;
- The speed of trains is restricted to no more than 40 mph, **and**;
- A MINIMUM of 20 seconds additional warning time is available to allow for removal of jack, **and**;
- The requirements regarding the unclipping of the track are in accordance with Client Standards and agreed with the Client, **and**;
- A risk assessment has been undertaken and 'signed-off' for the increased risk compared to a type 1 track lifting jack. (Sign off by CRE P.Way only or Business Engineer).
- The site is under the control of a **competent person** for track handback at the current running speed.

Note: - The additional warning time is to enable the track lifting jacks to be removed prior to the arrival of the train at the work site.

These requirements shall be contained within the specific approved method statement and communicated to staff on site. Action: **CRE(PW)**

7.6.5. Use of Type 3 Track Lifting Jacks

A type 3 jack may only be used on a line which is protected in accordance with the provisions of the RSSB Rule Book Section T (Network Rail Infrastructure) or possession of other Infrastructures according to Client rules. Action: **CRE(PW)**

Control, Safe Use and Operation of Track Jacks

7.7. Use on Permanent Way on Non Network Rail Infrastructure

When track lifting jacks are used on the lines of other Infrastructure Managers, care should be taken to establish any special requirements that may be applied to the use of track lifting jacks on such railways, and appropriate specific method statements agreed.

In the absence of any more strenuous requirements from these Companies, the procedures shown in this Instruction that are applicable to Network Rail shall be used.

7.8. Use of Track Lifting Jacks to Support Rails

It must be clearly understood that track lifting jacks are provided to enable rails in the track to be raised to allow the packing of voids, placing onto blocks etc., or the lifting of sleepers or timbers attached to the rails.

No reliance can be placed on the ability of the track jack to support a track load under any circumstances. Accordingly, staff are **forbidden** to place their hands or feet underneath any section of track that is supported by track lifting jacks. Action: **Site Supervisors, Operatives**

Should it be necessary for any operation to be undertaken that will result in either hands or feet being placed underneath a rail that has been raised by a track jack, then suitable packing must be placed underneath the section of rail (or sleeper/track, etc) concerned. When this is done the track jack must be partly released so that the load is being borne by the timbers or other support. Such work must only be undertaken under the protection arrangements set out in Rule Book section T (Network Rail Infrastructure). Such work would include repadding.

Similar arrangements shall be made if the rail is to be sawn or drilled. Action **Operative, Supervisor**

Only when **the person in charge** is fully satisfied that the section of rail (or track) is stable and will not move can any work requiring the placing of hands or feet under the rail commence.

7.9. Risks

7.9.1. Risk Associated with Rails 'Toppling'

Standard rails, as well as rails with special cross-section designs, may have a centre of gravity which is 'off-centre' when certain designs of track lifting jacks are used. Canted and curved track increases instability when jacking rails. Therefore there may be a risk of the rail toppling if it is released from the rail fastenings and raised off the sleeper or other support.

In such circumstances it is recommended that a number of opposing track lifting jacks (on opposite sides of the rail) are used to raise the rail and arrangements made to prevent the rail from toppling.

No work requiring rails to be released from their fastenings and jacked up shall be undertaken without such a task specific approved Method Statement.

Control, Safe Use and Operation of Track Jacks**7.9.2. Risks Associated with Red Zone Working**

Jacking should be undertaken with blockage of the line as first choice. A risk analysis shall be undertaken if "working under traffic" (red zone) and signed off by the **Safety & Compliance Manager and Business Engineering Manager**.

7.9.3. Safe Method of Work (SMOW)

The user organisation shall prepare a risk assessed safe method statement for use of the jack on the specific site, based on the contents of this standard. A typical sample is attached as Appendix 'A'.

7.10. Training and Competence of Users/Supervisors**7.10.1. Users**

Only trained and competent operatives shall use track jacks. This training is provided during Track Induction Courses and in CEWA Competency 2a. All employers shall maintain evidence of this.

7.10.2. Supervision

All jacking operations shall be under the supervision and control of a competent **supervisor** who is familiar with the requirements of this standard.

Jacking using more than one jack shall be under the control of the **Person in Charge** who shall ensure that jacks are raised and lowered simultaneously and that all persons are clear before the rail is lowered to avoid trapping injuries.

7.10.3. Misuse of Jacks

An analysis has been undertaken following jack handles breaking at Nuneaton and Scunthorpe. This has determined that:

Handles are manufactured to the relevant timber BS, but this concerns grain structure and type of wood. It does not require testing of handles.

The industry does not perceive a risk due to this providing the jacking process is managed and:

- The load is assessed and the correct number of jacks/operatives are provided.
- The handles are examined and discarded in the event of any sign or damage or splitting.
- Only one person uses a jack handle at a time, more will overload the handle.

8. Maintenance of Records

Record	Retained By	Retention Period
Inspection and Testing of Jacks	Business Manger (Plant)	7 Years

Control, Safe Use and Operation of Track Jacks

9. Audit Requirements

Technical Manager, Plant will report to **Safety & Compliance Director** and **Engineering Director** on jacks returned which have been subject to mis-use. He shall also obtain close out reports from Business to demonstrate effective management to prevent recurrence.

Sampling Surveillance shall be undertaken by **Local Managers** recorded and actioned as necessary.

Checks shall be included in the L3 audit check plan by **Business Safety and Compliance Managers and Controller**.

Appendix A Tool Box Talk



TOOL BOX TALK

Issue: 2

Control, Safe Use & Operation of Track Hacks – Generic Talk

Date: Nov 2008

This instruction applies to the use of mechanical and hydraulic track lifting jacks used by VolkerRail personnel. It applies to all VolkerRail worksites.

Summary

Track lifting jacks are classified into three different types:

Type 1 Track Lifting Jacks – Does not protrude above rail height and can be lowered from full height within ten seconds under load. Should be used wherever possible on running lines, when the line is open to traffic.

Type 2 Track Lifting Jacks – Will cause an obstruction to traffic when placed under the rail, but has a 'quick release' mechanism to permit the jack to be lowered and removed within 10 seconds.

Type 3 Track Lifting Jacks – Will cause an obstruction when placed under the rail and cannot be quickly lowered from full height.

Type 4 Jacks are designed for slueing only.

Statutory Requirements

Track lifting jacks are classed as lifting appliances and must be inspected and tested on a regular basis. All jacks are tagged to confirm their status of inspection. Each jack must be marked with the following:

- Unique identification number
- Safe working load
- Date of next examination/test/

Jacks that do not bear the correct tag or are out of test expiry date **MUST NOT** be used, they must be withdrawn, labelled '**NOT TO BE USED**' and returned to VolkerRail Plant or other supplier as appropriate.

General Instructions For Use

There must be sufficient jacks and operatives for the calculated load to be lifted.

Jacks **must not** be hammered or barred into position, a hole must be dug in the bay to permit the jack to be placed correctly.

Consider alternate "opposing" jacks on the opposite side of the rails.

The ground conditions **must be suitable** for the jacking operation.

The operating bar/handle **must only** be worked by **one** individual

Extensions to jack handles to increase leverage **must not** be undertaken.

Track lifting hacks should be applied to the **rail only** (and not to sleepers or concrete bearers which could lead to sudden failure)

Track lifting jacks are not designed to slue track and must not be used. Specialist jacks are available for this purpose.

Appendix A

Tool Box Talk

Staff must never place any part of their body under rail that is supported on jacks. If work is required under the rail (eg on pads), the rail must first be lowered onto suitable timber blocks to provide the necessary security for the task. The **person in charge** will advise when the rail is stable and the next task may proceed

The activity must be undertaken by competent GR staff who possess CEWA competency 2a. Alternatively, where it is only possible to use subcontract staff, they shall be fully briefed on this talk and be supervised by a GR person in possession of competency 2a. Jacks shall be used in green zone conditions, only, unless approved otherwise on a site specific basis by the **Safety & Compliance Manager** and the **Business Engineering Manager (Projects)** or **Engineering Director**.

Pre Use Inspection

The **user** must examine each jack and particularly its handle to ensure it is in a safe and in good condition for use.

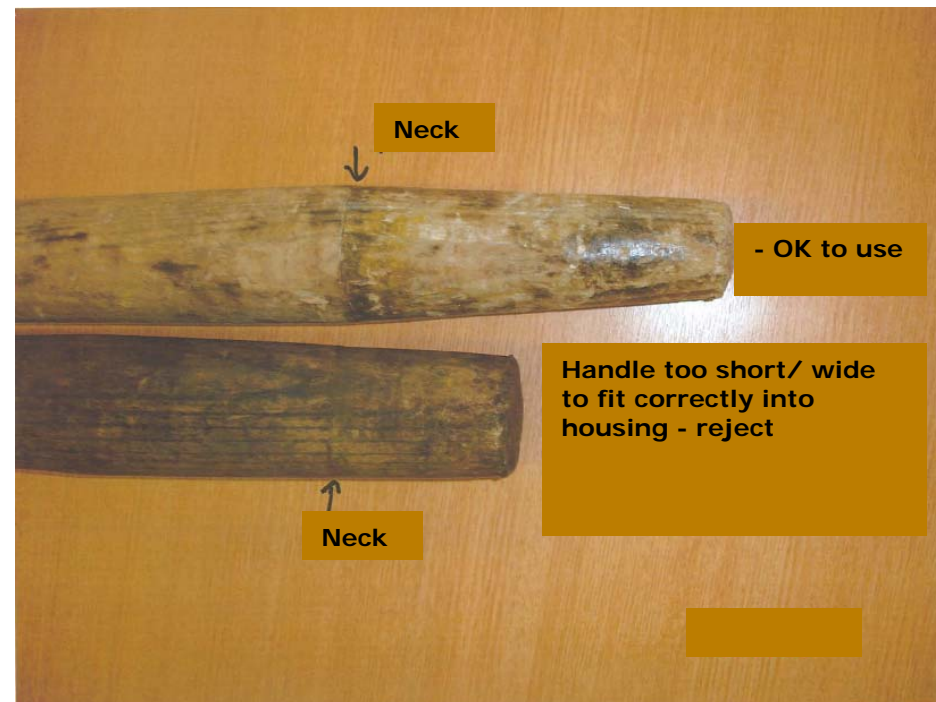
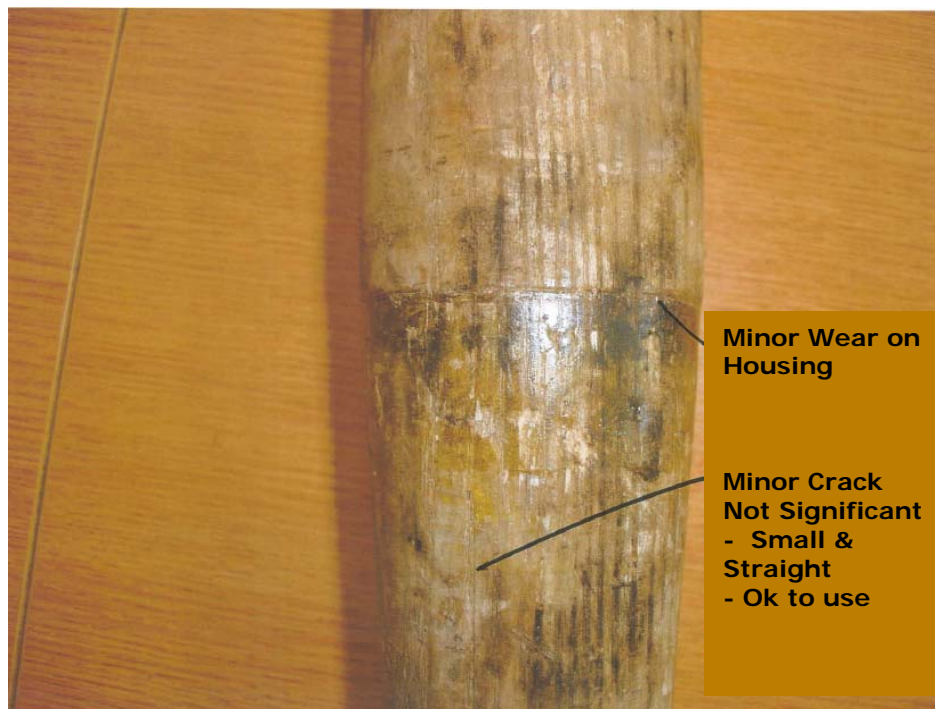
INSPECTION	HYDRAULIC JACKS	MECHANICAL JACKS
Check that the jack is currently certificated for use ie unique ID number, SWL, date of next exam/test	✓	✓
Inspect the jack and carrying handles for damage and wear	✓	✓
Examine the operating handle for damage, deformation, fracture or cracking	✓	✓
Ensure operating handle can be inserted in and removed from jack body location with ease	✓	✓
Visually inspect the jack for damage to the body or ram	✓	
Extend the jack fully with no load and check for leaks from seals	✓	
Ensure that the jack release mechanism functions satisfactorily and releases with light foot pressure	✓	
With no load applied, check the jack fully extends and if type 1 or 2 jack (as defined in Clause 4) that it returns to the lowered position when released		✓
With the stem extended, visually inspect the jack for damage to the stem, ratchet teeth, carrying handle and body		✓

If any defects are found the jack must be withdrawn from service, labelled '**DEFECTIVE – NOT TO BE USED**' and returned to VolkerRail Plant or other supplier. NB: Jack body damage on mechanical jacks (only) that does not cause metal to be missing or cracking to initiate, may be considerable acceptable for use.

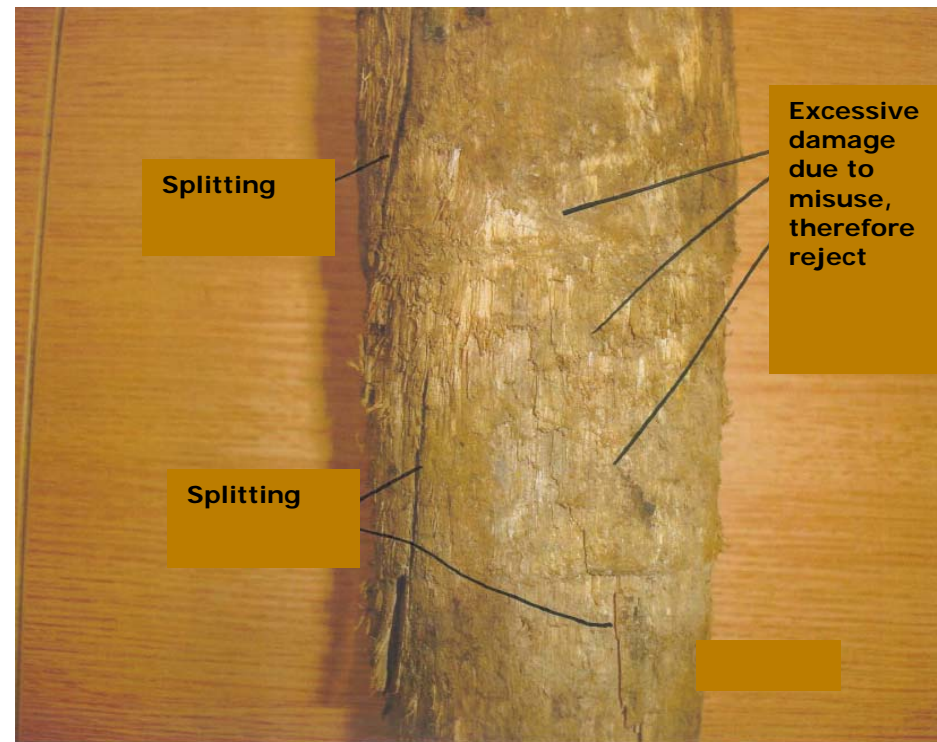
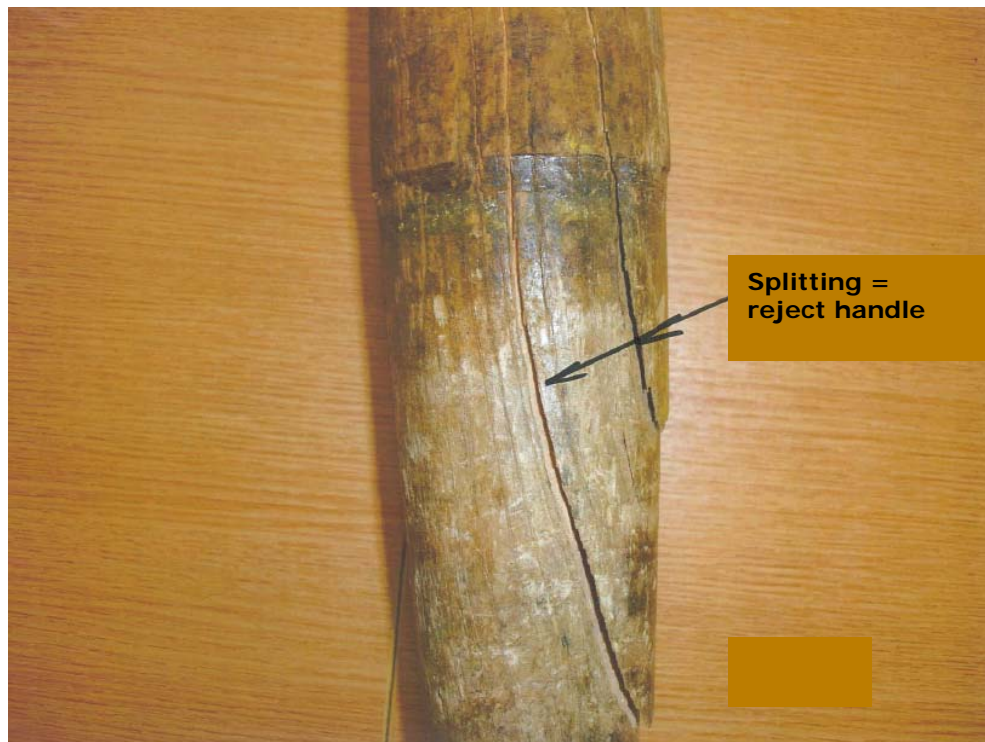
Any signs of damage to jack handles (classed as "consumables") in the form of splitting, wear on the neck where the handle inserts into the jack socket etc shall render the handle unserviceable and it shall be discarded. The relevant **Local Manager** shall ensure that there is a plentiful supply of new handles in stores and tool lorries conveying jacks. It is recognised that mechanical jacks may exist with previous damage to the body following earlier abuse. This does not in itself render the jacks unsuitable for use but in such circumstances, **the operator** shall take extra care with the visual examination to ensure hidden cracks are not masked by these markings. Any cracking of any parts of the jack shall render it unserviceable.

If any defects are found the jack must be withdrawn from service, labelled 'DEFECTIVE – NOT TO BE USED' and returned to VolkerRail Plant or other supplier.

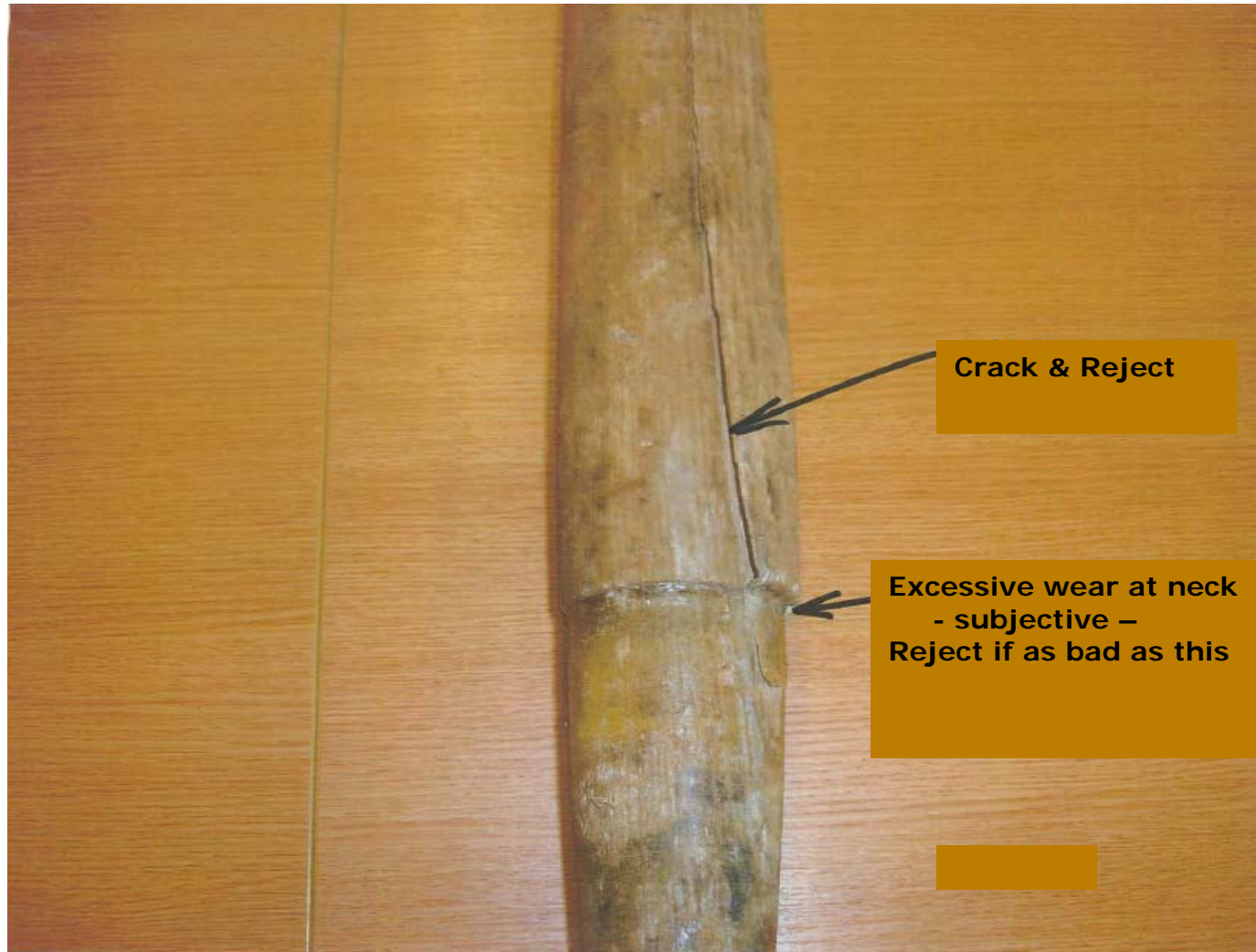
Appendix B
Guidance on handle suitability for use



Appendix B
Guidance on handle suitability for use



Appendix B
Guidance on handle suitability for use



Appendix C
Consequences of Overloading a Jack Handle



Appendix D Damaged Jacks

These jacks show damage due to hammering, which is abuse and incorrect use of this equipment. Whilst not unfit to use due to no cracking, they shall be carefully checked for cracking prior to use. Over time, with good use on site, jacks will be provided without such damage. It is important to record, photographically, jack condition on receipt from supplier (with number) to defend VolkerRail against spurious claims.

