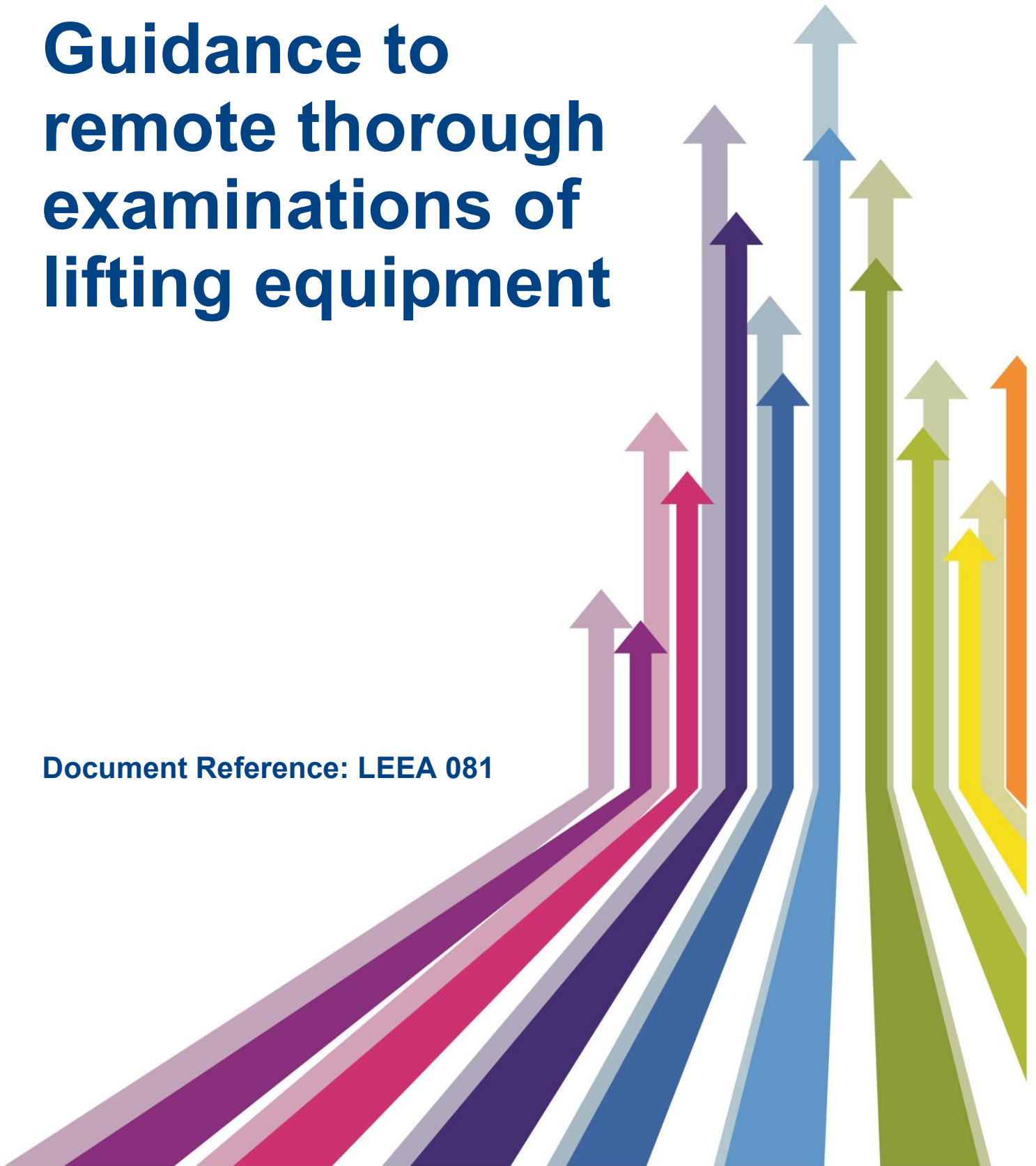


Guidance to remote thorough examinations of lifting equipment

Document Reference: LEEA 081





Guidance to remote thorough examinations of lifting equipment

Document reference: LEEA-081; Version 1, Dated August 2020

Disclaimer

The content of this guidance is provided for general information only. Whilst it is intended to represent a standard of good practice, it has no legal status and compliance with it does not exempt you from compliance with any legal requirements. If you require advice on your specific circumstances, please contact one of our advisors.

Although we make reasonable efforts to update the information in our guidance, we make no representations, warranties or guarantees, whether express or implied, that the content of our guidance is accurate, complete or up-to-date. It is the responsibility of those with specific duties under the legislation to ensure that they fulfil the obligations imposed on them.

**Published by the
LIFTING EQUIPMENT ENGINEERS ASSOCIATION**

**3 Ramsay Court, Kingfisher Way
Hinchingsbrooke Business Park
Huntingdon PE29 6FY
United Kingdom**

**Tel: + 44 (0) 1480 432801 Fax: + 44 (0) 1480 436314
E-mail: mail@leeaint.com Website: www.leeaint.com**

CONTENTS

1.0	Introduction	Page 1
2.0	Technology	Page 1
3.0	Justification and risk assessments	Page 1
3.1	Justification	Page 1
3.1.1	High risk environments	Page 1
3.1.2	Unique/rare skill sets required	Page 1
3.1.3	Availability for critical Equipment	Page 2
3.2	Risk Assessment	Page 2
3.2.1	General Considerations	Page 2
4.0	Skills and attributes	Page 2
4.1	The remote competent person	Page 3
4.1.1	Attributes of the remote competent person responsible for the thorough examination	Page 3
4.1.2	Competencies of the remote competent person responsible for the thorough examination	Page 3
4.1.3	Knowledge base of the remote competent person responsible for the thorough examination	Page 3
4.1.4	Practical skills of the remote competent person responsible for the thorough examination	Page 3
4.2	The competent person accessing the equipment and providing a video and communication link	Page 4
4.2.1	Attributes of the competent person accessing the equipment	Page 4
4.2.2	Competencies of the competent person accessing the equipment	Page 4
4.2.3	knowledge base of the person accessing the equipment	Page 4
4.2.4	Practical skills of the person accessing the equipment	Page 4
5.0	Responsibilities	Page 5

1.0 Introduction

During the COVID-19 pandemic various issues arose with respect to thoroughly examining lifting equipment to ensure that it continue to be operated in service safely.

One possible solution to these problems was to utilise technology and conduct thorough examinations remotely. This possibility was discussed by the LEEA Technical Committee and it was concluded that this would be possible for certain applications, but not necessarily valid for all issues arising from the COVID-19 pandemic.

This guidance document has been approved by the LEEA Technical Committee and offers advice with respect to when it would be acceptable to conduct a thorough examination remotely and the criteria required.

2.0 Technology.

There are numerous software packages and hardware devices that will enable some form of video conferencing. To ensure the accuracy and quality of the examination a strong and stable internet connection is required such that audio and visual remains continuous and clear throughout the examination.

All video images should have a magnification function, be in colour and have high definition to enable the detection of defects that would ordinarily be detectable to the naked eye.

The frequencies and signals associated with the technology must not be a hazard to the environment or other operating equipment, refer to LEEA 046 Guidance to the application of remote controls.

3.0 Justification and risk assessments

Conducting an examination remotely shall be duly justified and properly assessed with suitable measures put in place to mitigate the identified risks. The justification must document the attempts made to have a competent person on site and the reason why it would not be possible. The following sections offer some guidance to justifying a remote examination.

Note: all such examinations should be taken under the written scheme approach for examinations as detailed in LEEA 032 Guidance to written schemes of examination.

3.1 Justification.

It is not possible in a document of this type to identify all possibilities that may justify the use of remote thorough examinations. However, the following scenarios have been selected to focus on particular aspects of typical situations so that the principles can be applied to specific situations.

3.1.1 High Risk Environments.

A high-risk environment in the context of this document is one where the risks to personal are such that exposure to the environment or substances within the environment can result in death or serious injury. The site, in many cases, will be controlled such that a representative of the organisation would need to accompany the examiner to the location of the equipment. An example of such an environment would be a radioactive area of a nuclear decommissioning site.

In such cases the consequences of an incident or the risk of an incident occurring can be reduced by limiting the number of persons operating in the environment. In which case it may be justified to conduct a remote thorough examination, but this must also take into account the risks associated with not doing a thorough examination directly on the equipment by the competent person, refer to section 3.2.

3.1.2 Unique/rare skill sets required.

In some cases, the location of the lifting equipment requires personal with special skills and attributes to access it. The availability of personal possessing the necessary skills and attributes to conduct both the examination and access the equipment is rare such that conducting the examinations on time is not feasible.

In such cases the risk of prolonging the examination to suit availability is too high and therefore it may be justified to conduct the examination remotely by using more than one person who between them possess the necessary skills and attributes.

In this situation the risk assessment must be documented and clearly demonstrate that alternative access for a competent person had been considered along with the reasons for not selecting them.

3.1.3 Availability for critical equipment.

In this situation it is not possible to replace the equipment and that it is vital that the equipment continues to operate. The rate of use and deterioration of the equipment is such that the period of examination cannot be extended under a written scheme, and, for valid reasons it is not possible to find a suitable available competent person to attend and conduct the examination on time.

In this case the duty holder must be able to demonstrate that they have made reasonable attempts to have thorough examination and testing carried out, obtained competent advice to produce a thorough assessment of the increased risk and taken appropriate action to manage it. For further guidance refer to the HSE's guidance to examinations during Covid-19,

<https://www.hse.gov.uk/news/assets/docs/loler-pssr-during-outbreak.pdf>

3.2 Risk assessment.

The specific details of a suitable risk assessment will be dependent on the particular circumstances, refer to section 3.1 and of the equipment that requires thorough examination. However, the following shall be considered and addressed in addition to the specific requirements.

3.2.1 General considerations

The following is a non-exhaustive list of general considerations that should be made in addition to those to be considered in relation to the specific application being assessed.

- Is alternative equipment or some sort of alternative process available?
- Is it possible for a competent person to access the equipment?
- What PPE is required and training for use of such equipment?
- What is the immediate potential degree of harm if the equipment fails – collapse onto people, damage to buildings, major explosion, electrical dangers, exposure to hazardous materials?
- Could failure of the equipment cause wider harm – is there some sort of risk of some form of cascade or domino effect, resulting in a much greater degree of harm?
- A review of the history of past thorough examination and maintenance reports that could indicate the potential to take the equipment under a written scheme to prolong the statutory period till there is availability of the competent person.
- The condition of the equipment
- The remaining working life of the equipment, subassemblies and components.
- The working environment and use of the equipment that can cause deterioration over time.
- The number and nature of lifting operations and the loads lifted
- What is the competency of the people able to undertake the thorough examination, routine checks and maintenance, or any additional checks and maintenance you have identified as being needed?
- Do you have access to competent maintenance engineers or only the operators doing visual checks?
- When do you intend to review this risk assessment to determine if the operation can continue? This should include considering how long it will be before thorough examination and testing likely to restart and when you will review if further additional measures may be needed, for example temporary reduction of maximum operating loads.

4.0 Skills and attributes.

The limitations of the technology mean that there has to be a level of competency not just for the person signing off the thorough examination, but also for the person guiding the examiner. The following sections highlight the competency required.

Note: A competent person is someone who is competent to carry out their respective task. For this guidance document there are two competent persons, one who is responsible for the thorough examination and the other operating the remote technology on site as instructed by the person responsible for the examination. For further guidance on competent refer to section 1.2.1 of the COPSULE (www.leeaint.com/copsule)

4.1 The remote competent person responsible for the thorough examination.

Competent persons should have the necessary attributes, competencies, knowledge, and experience to enable them to carry out effective thorough examinations of lifting equipment. The nature and extent of these will depend on the purpose of the examination to be undertaken, the complexity of the equipment to be examined and the consequences of failure that equipment.

It is essential that such persons have adequate training, information and independence to carry out the work required.

4.1.1 Attributes of the remote competent person responsible for the thorough examination.

Competent persons should:

- have adequate eyesight (with correction if needed);
- have a responsible attitude;
- be able to communicate clearly with other personnel in the location where thorough examination is taking place, including the need to take the equipment out of service if it is unsafe to use;
- be able to demonstrate adequate literacy and numeracy;
- be aware of their own limitations in knowledge and experience

4.1.2 Competencies of the remote competent person responsible for the thorough examination.

Competent persons should be:

- fully conversant with the machinery they are required to examine and its hazards, including operation necessary for thorough examination activities, i.e. working at height, over water, in confined space, etc.
- properly instructed and trained;
- fully conversant with the appropriate sections of the manufacturer's instruction manual;

4.1.3 Knowledge base of the remote competent person responsible for the thorough examination

Competent persons should have:

- an understanding of the applicable lifting equipment design standards and codes of practice for the selection and use of the relevant equipment, together with the applicable examination criteria;
- an understanding of the safety rules and associated codes of practice that are applicable to the relevant equipment;
- an understanding of the inspection and maintenance requirements of the lifting equipment;
- knowledge of appropriate test procedures which may be employed and the interpretation and limitations of those techniques;
- an understanding of drawings and manufacturing literature relevant to the lifting equipment to be examined;
- knowledge of the materials and techniques used in the manufacture and assembly of the type of the lifting equipment to be examined.

4.1.4 Practical skills of the remote competent person responsible for the thorough examination

Competent persons should:

- be capable of detecting defects or weaknesses in lifting equipment which could compromise the safety of the lifting equipment;
- have sufficient knowledge and experience to assess the importance of defects or weaknesses in the lifting equipment and identify what actions need to be taken in order to rectify them. In particular they should be able to:
 - o determine whether the lifting equipment is operating as intended;
 - o specify the appropriate time-scales within which identified defects or weaknesses need to be rectified;
 - o determine whether defects identified in the previous report of thorough examination have received attention;

- determine whether all safety devices are functioning correctly and be confident in describing, detailing troubleshooting information on the safety devices to the accessing competent person;
- check whether warning notices are correctly fixed and legible, and where necessary specify any limitations on the use of the lifting equipment;
- witness any testing required as part of the thorough examination and evaluate the results;
- report on the findings of the thorough examination.

4.2 The competent person accessing the equipment and providing video and communication link.

Competent persons should have the necessary attributes, competencies, knowledge, and experience to enable them to access the equipment and relay critical information back to the competent person to enable an effective thorough examination to be carried out. The nature and extent of these will depend on the purpose of the examination to be undertaken, the complexity of the equipment to be examined and the consequences of failure that equipment.

It is essential that such persons have adequate training and information to carry out the work required.

4.2.1 Attributes of the competent person accessing the equipment.

Competent persons should:

- be physically fit for the tasks they are to undertake;
- have adequate eyesight (with correction if needed);
- have the necessary experience and familiarity for the applicable high risk environment, for example working at height, over water or in a confined space (as required); have a responsible attitude;
- be able to communicate clearly with other personnel in the location where thorough examination is taking place, including the remote competent person;
- be aware of their own limitations in knowledge and experience

4.2.2 Competencies of the competent person accessing the equipment.

Competent persons should be:

- fully conversant with the machinery they are required to access and its hazards, including operation necessary for thorough examination activities, i.e. working at height, over water, in confined space, etc.
- properly instructed and trained;
- familiar with the procedures and precautions required for the applicable high risk environment, for example safe work at height, over water or in a confined space (as required); fully conversant with the appropriate sections of the manufacturer's instruction manual;
- familiar with the use of permit to work systems where they are required by the safe system of work, and able to operate them correctly;
- familiar with site specific safety requirements (e.g. manufacturing, construction, process plant, nuclear, docks, airports, railways);
- trained and competent in the selection, pre-use inspection and correct use of their personal protective equipment.

4.2.3 Knowledge base of the competent person accessing the equipment.

Competent persons should have:

- an understanding of the safety rules and associated codes of practice that are applicable to the relevant lifting equipment;
- an understanding of the inspection and maintenance requirements of the lifting equipment;

4.2.4 Practical skills of the competent person accessing the equipment.

Competent persons should:

- capable of operating video, audio and communications equipment.
- necessary skills to access the equipment
- necessary skills to work in the environment
- ability to conduct supplementary testing as required.

5.0 Responsibilities.

The conclusion of the LEEA Technical Committee is that it is the person who signs off the report of thorough examination that it is responsible in terms of the continued safety of the equipment for the next period. This person would normally be the Competent Person as described in section 4.1.