



# Entertainment Webinar

## 7<sup>th</sup> July 2022



Lifting Equipment Engineers Association

[www.leeaint.com](http://www.leeaint.com)



This webinar forms part of the activities scheduled for Global Lifting Awareness Day (GLAD)

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[#GLAD2022](#)

[globalliftingawarenessday.com](http://globalliftingawarenessday.com)

Lifting Equipment Engineers Association

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5<sup>th</sup> & 6<sup>th</sup> October

Registration now open [liftex.org/liftex-aberdeen](https://liftex.org/liftex-aberdeen)

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Paul Fulcher, Managing Director, Rigging Services

# Post Covid - Rigging training requirements for new recruits working in the Entertainment Sector

Lifting Equipment Engineers Association

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Paul Fulcher - Managing Director

GLAD 2022



**Rigging Services**





# Post-Covid training requirements for new recruits working in the Entertainment Sector



**GLAD 2022**

Code of Practice for the  
Safe Use of Lifting Equipment



**Rigging Services**



# Post-Covid training requirements for new recruits working in the Entertainment Sector

- Covid effect on the entertainment sector
- Always been a training need
- Particular need to train new-comers
- Why?





The entertainment sector is quite unique.



GLAD 2022

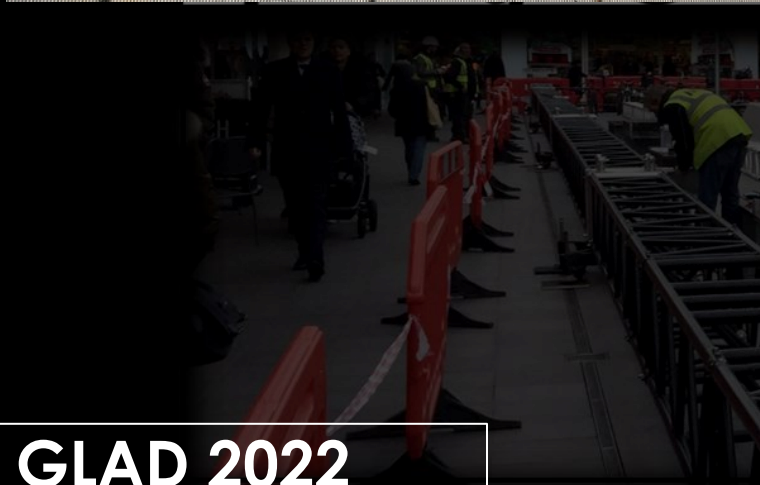


**Rigging Services**





The entertainment sector is quite unique.



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**Rigging Services**





The entertainment sector is quite unique.



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The entertainment sector is quite unique.



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# The need for training



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Formal training can:

- Fill in any gaps in current knowledge
- Inculcate best practice
- Communicate correct information
- Develop a culture unique to the entertainment industry







Post-Covid training requirements for new recruits working in the  
**Entertainment Sector**  
End



**GLAD 2022**



**Rigging Services**





Matthew Wheeler – Rigging Compliance Supervisor, National Theatre, London

# Design Artistic Needs And Lifting equipment

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The background features abstract, overlapping green geometric shapes in various shades of green, creating a modern, layered effect on the right side of the slide.

# **Matthew Wheeler**

Rigging Compliance Supervisor, National Theatre, London

## **Design, Artistic Needs And Lifting equipment**

# Summary of show development

**White card -**

Basic Model demonstrating staging and concepts for scenic elements.

**Feasibility -**

Technical departments cost and analyze information to inform creative team of 'Feasibility of the show'

**Model Showing -**

Development of white card allowing for feasibility and any changes the director and creative require

**Pre-Prod/Fit up -**

Scenic elements are rigged prepared for stage including lighting, sound and AV

**Previews -**

Opening Night/Press Night.



## Spot/Role of the Rigger

Many solutions used within the industry require an in-depth understanding of the equipment and the designer's vision, so that the delivered solution meets their needs whilst maintaining a safe system of work.



Competency not knowing everything but knowing when you need to consult with others

# How?

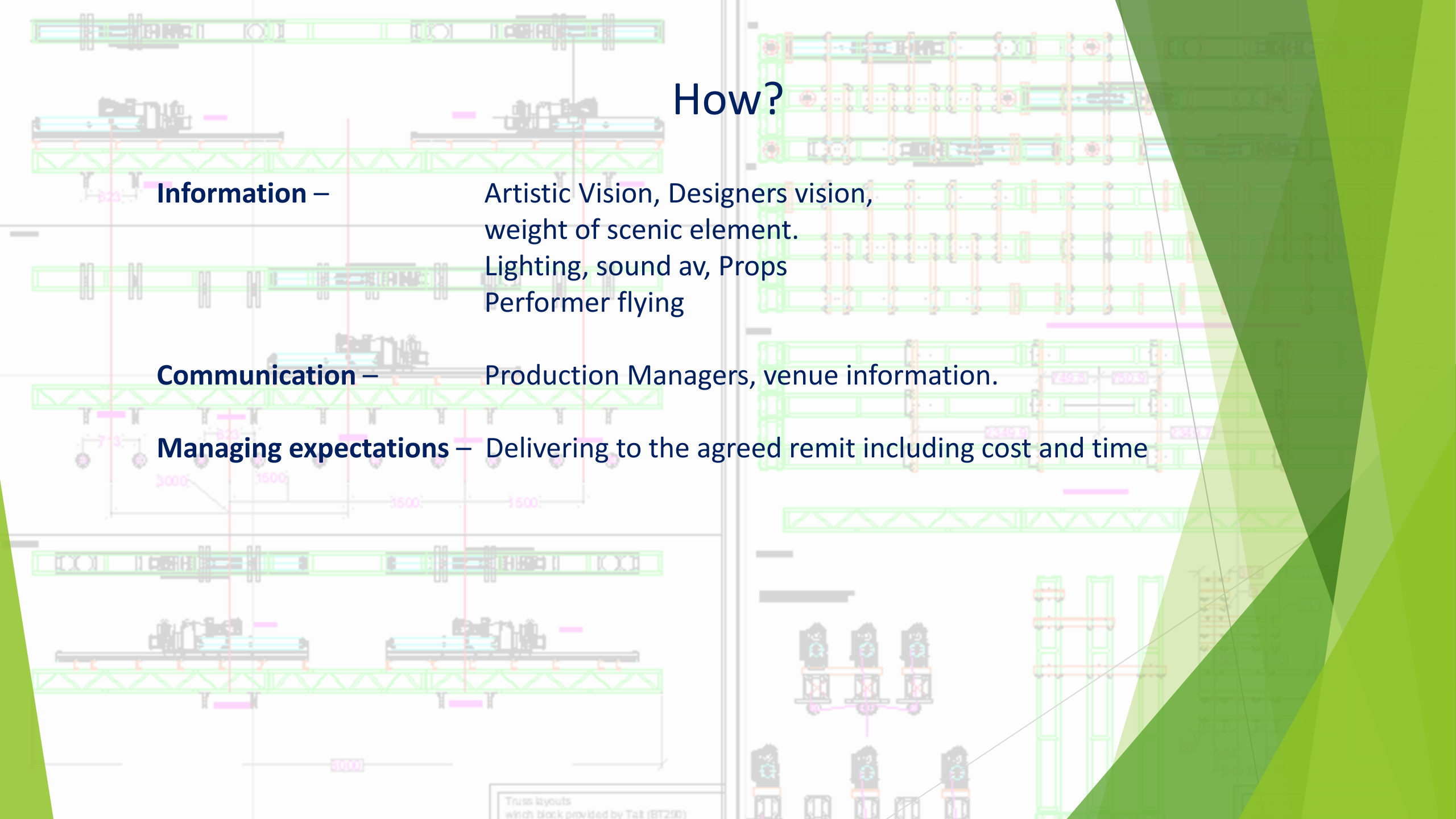
## Information –

Artistic Vision, Designers vision,  
weight of scenic element.  
Lighting, sound av, Props  
Performer flying

## Communication –

Production Managers, venue information.

## Managing expectations – Delivering to the agreed remit including cost and time





# Information

What informs our role in delivering a solutions?

Each scenic element will require its own set of parameters and the factors for each element need consideration.

- Weight
- Speed/method of lift
- Position on stage
- Construction method
- Is it live flown
- How do the cast interact with it.
- Artistic needs/vision
- Additional lighting and sound fixtures

These then enable the correct safety protocols and standards to be applied to rigging and works. Informing cost, time and equipment.



The Riggers biggest problem???

# Communication

If we take on all board all the information  
The rigger needs to be able to communicate with  
everybody involved in the production and this is a two  
way street.

**bsi.**

Typically focused through the production manager but  
there may be a requirement to liaise and work directly  
with the designers/creative team.

Who needs to know what, when and how? The designer  
need for information will be different to that of the  
production manager.

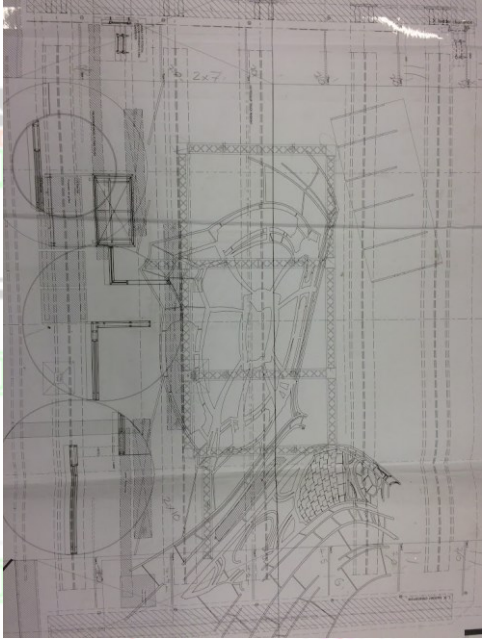


# Managing expectations

As the rigger you need to ensure you meet and deliver the needs of the production, you have gathered the information and been involved with the shows development. Importantly the deliverables need agreement.

You require this flown element to complete the cue in 30 seconds, I can offer a window of 23 to 120 seconds with the proposed equipment.

Delivering to the agreed remit including cost and time





## Problem Solving Rigging the Dark Art

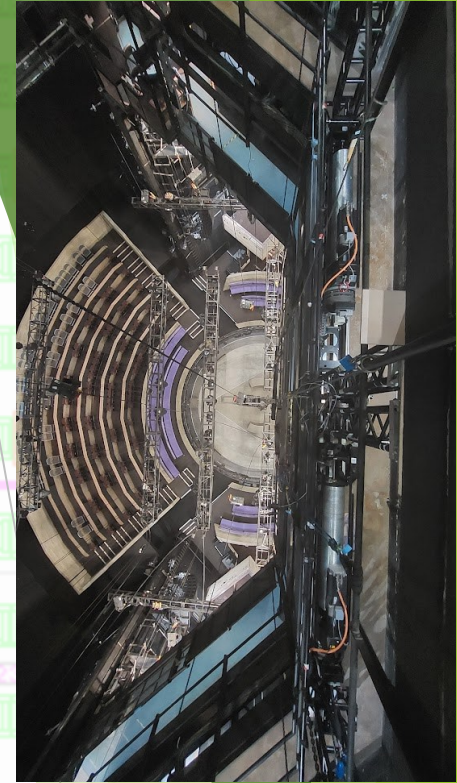
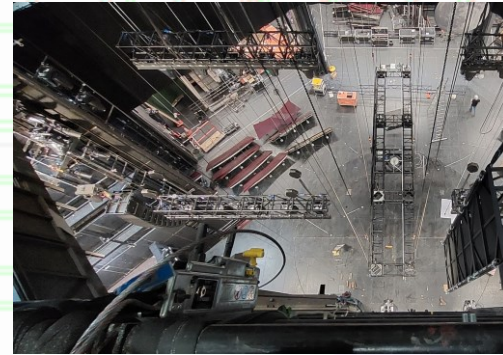


Rigging in theatre is often out of sight so out of mind.

The lifting gear must be operating inline with best practice your safety protocols.

Artistically a faulty speaker or lighting fixture which fails may have an immediate artistic impact.

The lifting gear normally works unseen but does require our full attention, and the very fact its often unseen can mean riggers must also manage the ongoing expectation for maintenance during the shows run not only the immediate during fit up.



The background of the slide features technical drawings of a crane system. On the left, there are side and front views of a crane with a green truss structure and a blue winch block. Dimensions like 3000, 1500, and 323 are visible. On the right, there is a top-down view showing a grid of cranes with dimensions such as 749.9, 750.9, 2349.9, and 2349.7. A green geometric overlay is on the far right.

# Any Questions??

Truss layouts  
winch block provided by Tait (BT290)





Keith Tonge - Technical Services, LEEA

# GLAD 2022 Entertainment Technology Setting the Stage

Lifting Equipment Engineers Association

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# LEEA – Technical Services

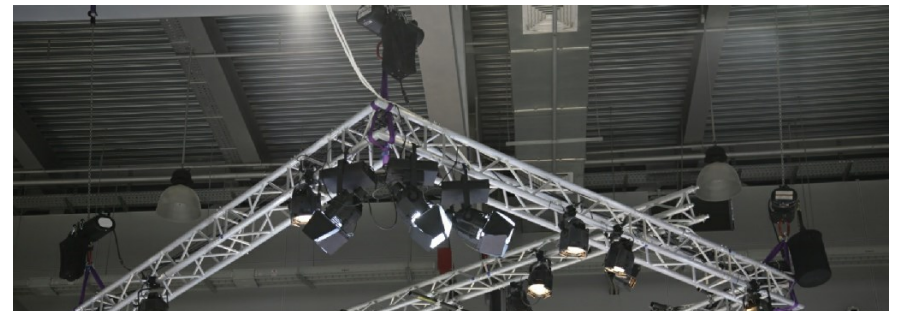


- Provide Advice and Guidance
- Technical Committee, Working Groups
- Publications, Guidance Documents, FAQs, Triage System
- Actively participate in ISO, CEN, BSI & ASME Standards committees



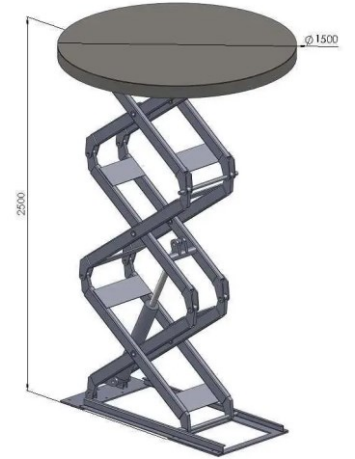
# Entertainment Technology - Setting the Stage

- So why is lifting important to the Entertainment Industry?
- Standards – Help to offer a consistent approach
- Published standards that you should be aware of
- Standards that are in development



# Entertainment Technology Standards

- Globally there are many standards available
- Recently published EN 17206:2020 Entertainment technology — Machinery for stages and other production areas — Safety requirements and inspections
- EN17206:2020 is currently under review to address comments received and to attain harmonised status





# Entertainment Technology Standards

- prEN 17206-2 Entertainment technology — Machinery for stages and other production areas Part 2 — Safety requirements for stands and truss lifts of stands.
- prEN 17795-5 Entertainment Technology - Codes of Practice - Part 5: Lifting and motion Operations in the Event Industry
- prEN 17206-3 - Part 3 – Unmanned aircraft systems (UAS) for stages and other production areas — Safety requirements and inspections



# Entertainment Technology Standards

- EN 17115 Entertainment technology - Specifications for design and manufacture of aluminium and steel trusses





# LEEA Technical Services

- Technical enquiries: [technicaladvice@leeaint.com](mailto:technicaladvice@leeaint.com)
- LEEA COPSULE <https://leeaint.com/copsule>
- LEEA Publications <https://leeaint.com/store/publications>
- LEEA FAQs <https://leeaint.com/faqs>



Thank you

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Dave Tucker – Senior Training Specialist, LEEA

# End User Guidance

Lifting Equipment Engineers Association

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# Duty Holder Responsibilities for Owners of Lifting Equipment

- Usually the employer / self employed person
- Can be delegated to a SME / responsible person or organisation
- Correct selection of lifting equipment
- Regular inspection and maintenance programs
- Suitable instruction and training to all members of staff



# Responsibilities for End Users of Lifting Equipment

- Comply with instruction from employer and the supplier
- Only to use equipment trained to operate and in the manner trained
- Ethical / mature / professional attitudes

# Training and Safe Use







# Inspection – Pre-use

- End user inspection to ensure equipment is still serviceable and safe
- Normally limited to visual / functional inspection
- Maturity to seek advice or report to competent person if unsure



# Inspection - Interim

- Based on risk assessment – duty cycle of equipment and environmental conditions
- Concentrates on safety critical areas – high wear and tear, open to the elements
- May include more in-depth testing / inspection procedures



# Inspection – Thorough Examination

- Carried out by a qualified competent person
- Intervals dependent on equipment type and regional legislative requirements
- Competent person decides on the tests required to come to a decision (Pass / Fail)





# Inspection of Lifting Equipment



Manufacturers  
Information

Standards

LEEA recommendations



# Lifting Operations Supervisor



- Suitably trained, qualified and competent
- Plans, carries out and supervises all lifts
- Reduces workplace accidents

# Disposal of Lifting Equipment



- Owner / end user responsibility
- Disposed in a responsible manner
- All tags / labels should be removed prior to disposal and records amended

**QUARANTINED**

Signed .....

Date .....



**DO NOT USE  
EQUIPMENT**



Questions?



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Thank you for your time

Ross Moloney [ross.moloney@leeaint.com](mailto:ross.moloney@leeaint.com)

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