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Delivering inspection, monitoring and integrity services to the oil & gas industry.

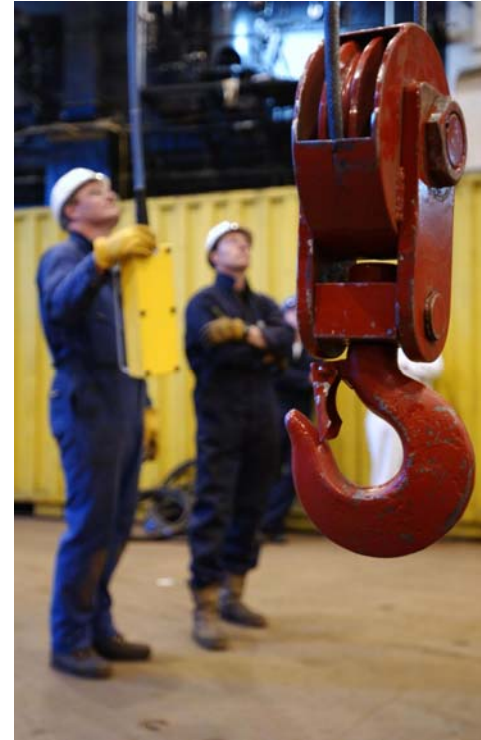
WaterWeights



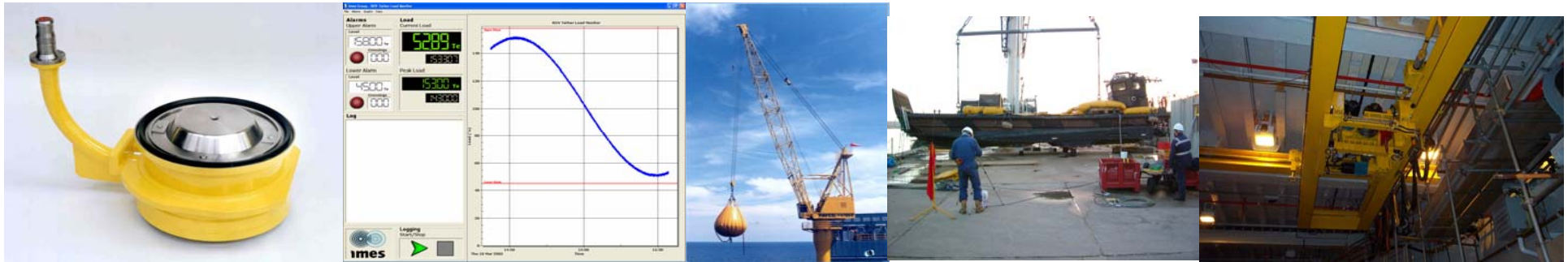
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New legislation - LOLER

- The Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 SI 2184
- Revoked: The Merchant Shipping (Hatches and Lifting Plant) regulations 1988 SI 1988/1639
- Effective 24th November 2006



New legislation - PUWER

- The Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006 SI 2183
- Revoked: Merchant Shipping
 - (Guarding of Machinery and Safety of Electrical Equipment) 1988 SI 1988/1636
 - (Safe Movement on Board Ship) 1988 SI 1988/1641
 - (Safety at Work Regulations) 1988 SI 1988/2274
- Effective 24th November 2006
- The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1977 shall continue to apply.



The Punishments...

- Up to 2 years imprisonment
- Fine up to £5000
- Vessel detainment
- Enforcement costs
- And for the employee... upto £500 fine

Source: <http://www.eversheds.com>



Application #1

- All UK Registered Vessels
- Non UK ships when in “United Kingdom Waters”
 - Defined as the seaward limits of the territorial sea.
 - 12 mile limited per Territorial Sea Act 1987.



Application #2

- Equipment used by employees of an employer (Reg 4 para 3)
- Duties also apply to self employed
- Self employed person “shall be treated as a worker”
- Meaning of worker (Reg 3):
 - Any person employed under a contract of employment



Application #3

- Duties of Employers Reg 5

“Where a person on whom a duty is imposed by any provision of these regulations does not have control of the matter to which the provision relates because he does not have responsibility for the operation of the ship then any duty imposed by that provision shall also extend to any person who has control of that matter”



Similarities

- Record Keeping
- Operations (Lift Plans v Information and Instructions)



Crossover

- SI 2183
- Reg 8 Inspection Para (7)

“This regulation does not apply to work equipment used for lifting loads, including persons.”

So what about.... winches?

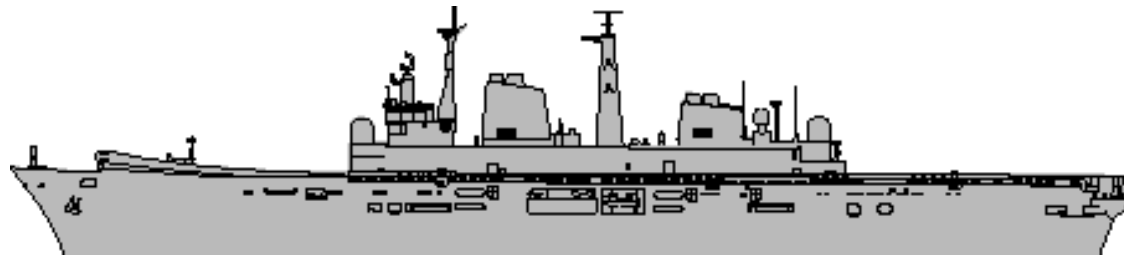


Case Study

Royal Navy working in accordance with
LOLER 1998

Lifting Operations and Lifting Equipment
Regulations 1998

Commercial marine work in accordance with
Merchant Shipping Act – Hatches and Lifting Plant



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Courtesy of Technip



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Top 5 Problems ?

1. Educating Ship's Staff/Lack of understanding
2. Bad onboard Equipment Organisation
3. Lack of correct certification & conformity
4. Amount of Lifting Equipment retained on the Ship/Platform
5. Control of Lifting Equipment i.e. no dedicated Lockable Storage and issuing logs/ no dedicated quarantine area.
6. Addressing Defects or the *ability* to identify defects.



How does Accountability Change?

- A more formal Lifting Equipment Management system needs to be set in place. One person nominated as head.
- A dedicated team has to be nominated to support the implementation and subsequent compliance.
- Formal Training is often non-existent and needs to be addressed.



Are skills and competency an issue?

- Lack of money for training.
- No Competent persons trained onboard
- Limited understanding of Legislation
- Procurement of the right equipment for the right job.



Competency *is* an issue!

Competent Person- definition

“a person possessing the knowledge or experience necessary for the performance of the duties under these regulation”



Competency *is* an issue!

- Reg 11 – Testing
- Reg 12 - Thorough Examination and Inspection
 - 6 monthly
 - Or written scheme of examination



Competency *is* an issue!

- OMHEC www.omhec.org
- Enterprise of Competence

“A person in an enterprise of competence who has sufficient theoretical knowledge and practical experience to understand the lifting equipment design, its function, to perform calculations, examinations and testing as required and to issue a certificate of application and other certificates prescribed by the authorities.”



Enterprise of Competence

How are aims achieved?

- EOC sufficiently independent such that decisions not affected by unrelated factors
- Have demonstrable theoretical and practical competence
- Be regularly monitored and assessed by accreditation body
- Be adequately covered by liability and insurances required and specified by the owner



Capability

- Cranes design, specification, and safety case ✓
- Crane and component procurement ✓
- Electrical, pneumatic and hydraulic systems ✓
- Lifting diagrams and rigging studies ✓
- Verification and control procedures ✓
- Through Examination Check lists ✓
- Technical standards ✓
- Applicable regulations ✓
- Maintenance & Operations manuals ✓
- EMIT procedures ✓
- Crane operational knowledge ✓



Capability

- Relevant technical background ✓
- Knowledge of enforced Acts, regulations and standards ✓
- Lifting equipment decommissioning and handling strategy development ✓
- Knowledge of and experience within the scope of examination and inspections to be conducted ✓
- Required skills to work out documents for completed activities ✓



Training

- Accreditation?
- Practical?
- Mentoring schemes and on-site support?
- Time. It does take time!



Implementing SI 2184/SI 2183:

- A more formal organisation for the control of Equipment/Plant is required.
- Risk/Method Statements are required to be less generic and more comprehensive.
- Better Thorough Examination routines/Systems to be set in place.
- More Regular Thorough Examinations are required i.e. 6 monthly over 12 for LLE. If the six monthly is to be replaced then a Inspection schedule has to be formally created by a competent person and adhered to.
- Certification to be comprehensively filed with a total auditable trail. Database options.



QUESTION	YES	NO	COMMENTS
Is the equipment of a suitable design and intended for the task and location for which it is to be used?	√		
Is there documentary proof of regular maintenance?	√		
Can all required maintenance be carried out?	√		
Is use and maintenance of the equipment restricted only to authorised, trained personnel?		√	Only maintenance is restricted to trained personnel
Are persons who will use the equipment, including standby/watchkeeping personnel, adequately trained?	√		
Has equipment been inspected before use?	√		
Has sufficient, easy to understand information been provided to enable safe use of the equipment?	√		
Have risks of using this equipment been fully identified, assessed, documented and controlled?	√		Toolbox talk plus HIRA Offshore
Is protection provided to protect persons from danger caused by moving, rotating, hot or cold parts?	√		Toolbox talk plus HIRA Offshore
Are controls provided to start, stop and isolate the equipment from power sources, in both normal and emergency situations?	√		
If first supplied after 1/1/95, does it have a CE mark?		√	Integrated components
Are systems in place to ensure no persons are exposed to risk as a result of equipment starting or operating?	√		Toolbox talk plus HIRA Offshore
Where appropriate, have visible or audible warning devices and barriers been out in place?	√		Toolbox talk plus HIRA Offshore
Is there sufficient lighting?	√		Toolbox talk plus HIRA Offshore
Is equipment stable and properly anchored in place?	√		Toolbox talk plus HIRA Offshore



	Audit Subject	Y	N	N/A	Refer ence	Comments	Recommen dations	Priority		
								H	M	L
3a	Is all fixed lifting equipment clearly marked with an identification number traceable to certification?									
3b	Is all fixed lifting equipment clearly marked with the correct Safe Working Load?									
3c	Is the fixed lifting equipment adequately maintained and protected from the environmental conditions?									
3d	Are there records of adequate maintenance being carried out on fixed lifting machines? (brake checks, spline checks etc)									
3e	Are all lifting points suitably designed and manufactured? (not flame cut, fully welded etc)									
3f	Are all runway beams fitted with suitable end stops?									
3g	Is all fixed lifting equipment colour coded where fit for use?									
3h	Is all defective equipment suitably rendered unusable or tagged out?									



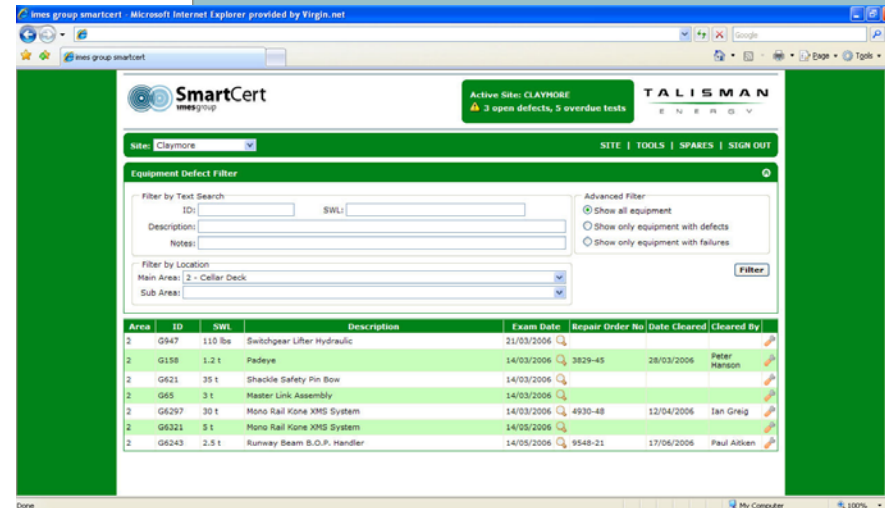
lifting equipment safety management system database

- all details of audited equipment are held onboard on laptop computer
- records are held electronically – no need for printing large amounts of paperwork
- inspection schedules planned & staggered over year
- Ship's Staff training



lifting equipment safety management system database

- monthly work schedule produced
- highlights when items are overdue
- generates secure certification
- retains records for the lifetime of the equipment
- data can be mined to determine any failure trends



benefits

- enhanced safety
- compliance with law
- reduction in amount of equipment
- database informs the user when an item is due test or inspection
- reduced costs



Keep it simple!



Dormant lifting point eyeplates

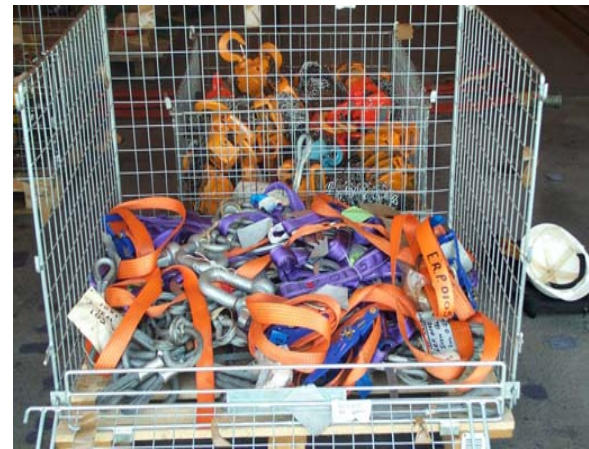


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cost savings

- 80% reduction in eyeplate examination has a proved cost saving of 150,000 man hours over five years
- Estimated cost saving on loose lifting equipment £10M over 10 years
- Reduction in the cost of a ships refit testing of 45%





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Key Questions

- Will you implement the legislation yourself?
- How will you conduct an audit?
- Can you reduce your inventory?
- Does your inventory need re-organised?
- Do you plan to train others (users/managers)?
- How will you measure competency?
- How will you access training?
- Are there cost savings to be attained?
- To whom can you escalate technical problems?



Contact Details



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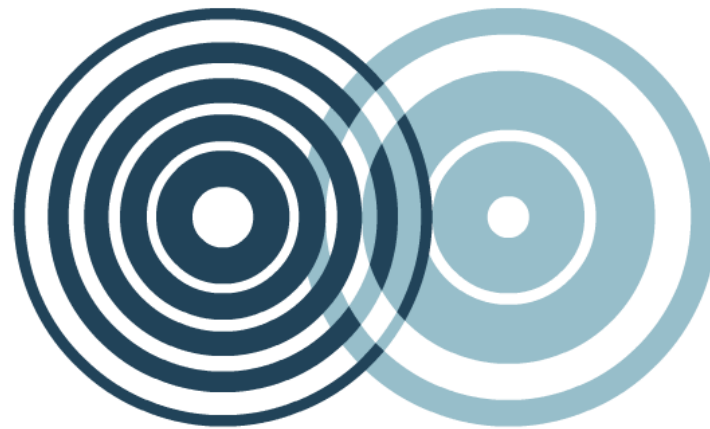
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