



**Strength to get the Job Done !**



**[www.loadmonitoringsystems.com](http://www.loadmonitoringsystems.com)**



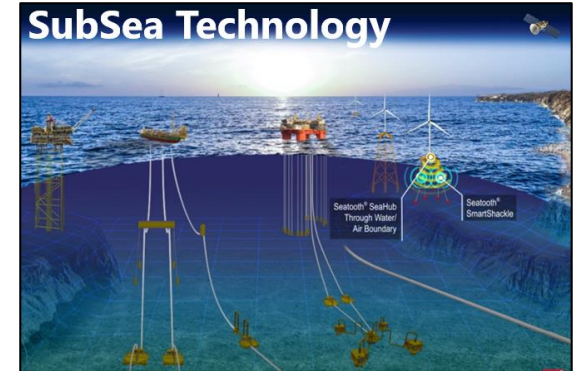
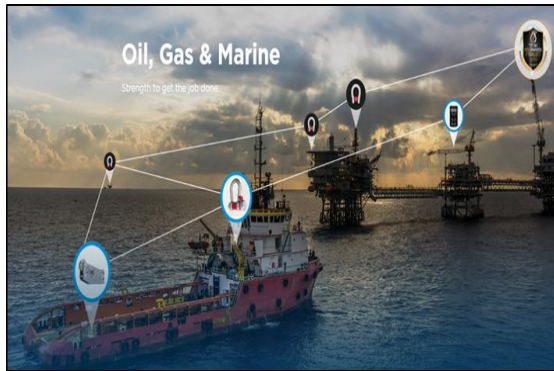
# Company Profile



***Based in Aberdeen, LMS (Load Monitoring Systems) specialise in the design, manufacturing, sales and rental of Intelligent Load Measurement / Monitoring products and Services used in a wide range of industry sectors, globally.***

# Market Sector & Territories

**Market Sectors:** Oil & Gas, Marine, Decommissioning, Subsea, Renewables, Aquaculture, Entertainment, Construction, Heavy Industry, Manufacturing, Transport (Rail, Aerospace) Mining, Nuclear.



## Territories:

Global Sales and Rental support provided to over 40 countries and most continents.

[www.loadsystems.co.uk](http://www.loadsystems.co.uk)

# LMS Team



Kirk Anderson  
Managing Director



Mary Hunter  
Office / QHSE Manager



Millar Kennedy  
Sales Director



Christopher Davidson  
Operations Manager



Richard Legge  
Technical Manager



Hayley Craig  
Office Administrator



Seam Reid  
Trainee Technician



Scott McDougall  
Technician



Kyle Milne  
Technician

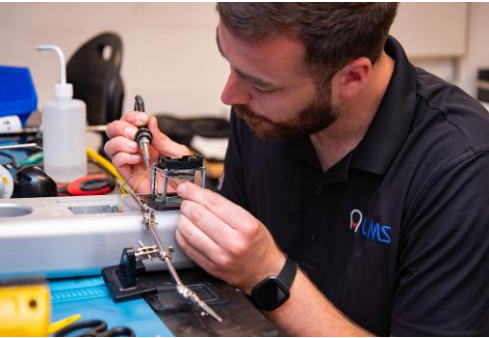


Declan Duncan  
Trainee Technician



Keith Milne  
Technical Assistant

# LMS Production



# Testing & Calibration Facilities



## 100 Tonne Tension and Compression Test Beds



# Core Manufactured Products



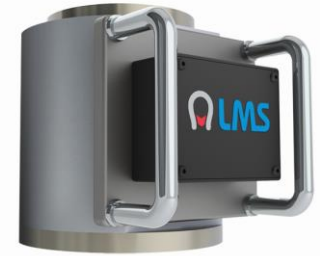
Line Tensiometer



Tension Load Cells



Load Shackles



Compression Cell



Handheld Displays



Data Logging



Crane Safety

# Wireless Technology





# Load Links

## Features & Options

- Range – 1Te – 500Te.
- Lightweight High Tensile Aircraft Aluminum ( 2014 A )
- Cabled or Wireless.
- ATEX Options. (Zone 1 & 2 )
- Factor of Safety: 5:1 or greater.
- 200 % proof load tested.
- Accuracy 0.5 % applied load.
- 12 Month Calibration Certificate issued.
- 800+ meter wireless range
- Battery Life ( 2 x AAA Alkaline ) 3000 hrs continuous.
- IP67



# Load Shackles

## Features & Options

- Range – 3.25Te – 2000Te.
- Wireless & cabled
- Van Beest or GN Safety Bow Shackles
- ATEX Options. (Zone 1 & 2 )
- 5:1 Safety Factor.
- 200 % proof load tested.
- Accuracy 0.5 % applied load.
- 12 Month Calibration Certificate issued.
- 800 Wireless range
- Battery Life ( AAA Alkaline ) 3000 hrs continuous.
- IP67



# Wireless Line Tension Monitoring

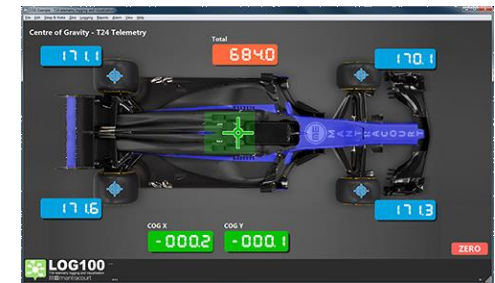
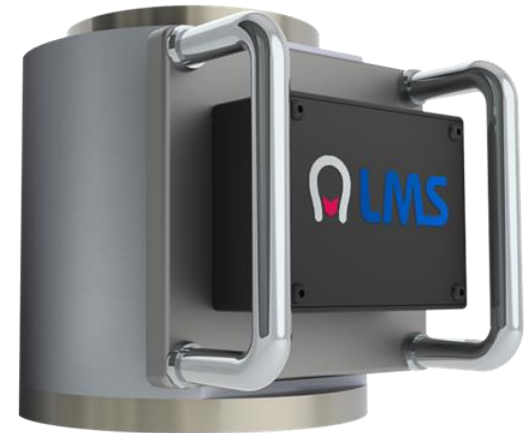
- **Data:** Tension (Load), Pay-out (Meters) & Speed (MPM)
- **Rope types:** Wire Rope, Synthetic, Dyneema, Umbilical & Fibre Optic
- **Standard Range:** 9mm – 104mm Rope Size
- **Model:** Cabled, Wireless, ATEX / IECEx Options. Zone 1, 2
- **Data Logging:** LMS Log 100 Software
- **Accuracy:** 1% Applied Load
- **Calibration:** 12 Months Certificate Issued
- **Power:** AC or Battery Operated ( 500Hrs)
- **Wireless Range:** 500mtrs +



# Compression Monitoring

## Features & Options

- Range - 5 tonne – 1000 tonne.
- Wireless & cabled
- ATEX Options. (Cabled – Zone 1, 2 / Wireless - Zone 2)
- 5:1 Safety Factor
- 200 % proof load tested.
- Accuracy 0.5 % applied load.
- Centre of Gravity Feature.
- 12 Month Calibration Certificate issued.
- 800 meter Wireless range
- IP67



# Crane Safety Instrumentation

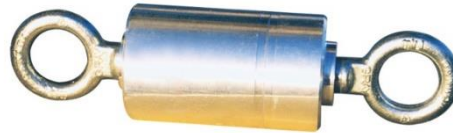
Reeling Drum

Anti-Two Block Switch

Weights and Chain

Wireless Wind Speed Sensor & Display

Camera and Monitor



# Winch Monitoring

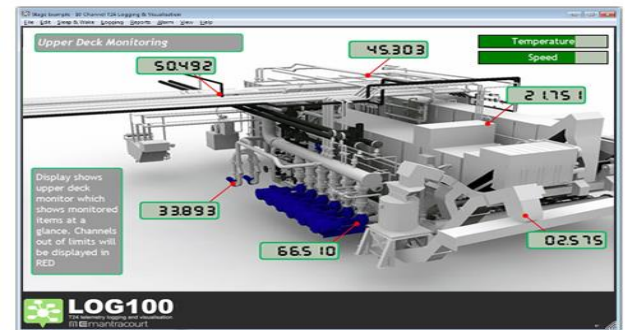
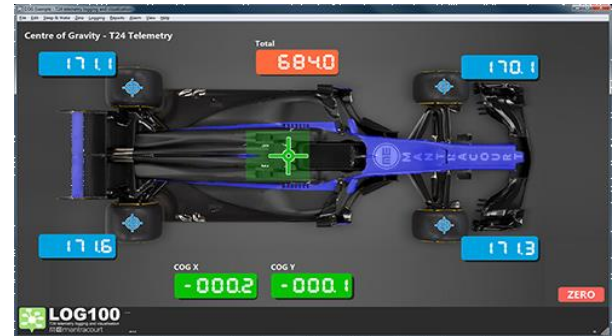
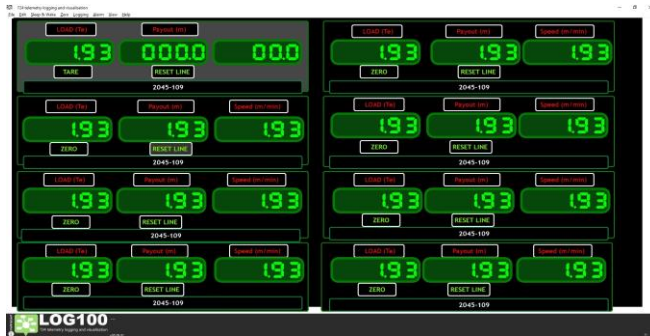


# Test Weights & Air Skates



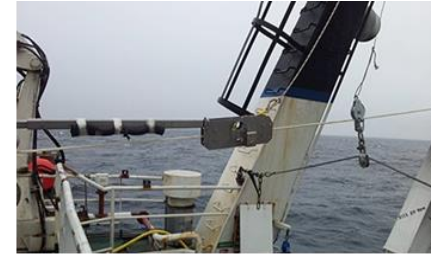
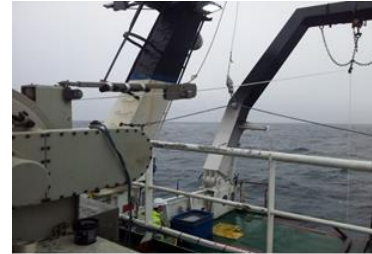
# Data Logging Graphics & Streaming

- Remotely access your data quickly and easily from a computer, tablet, smart phone or via web browser.
- Can be streamed or exported in standard JSON or CSV formats.
- Modbus RTU or ASCII interface (RS232/RS485)
- Industry standard Analogue and Digital outputs available.

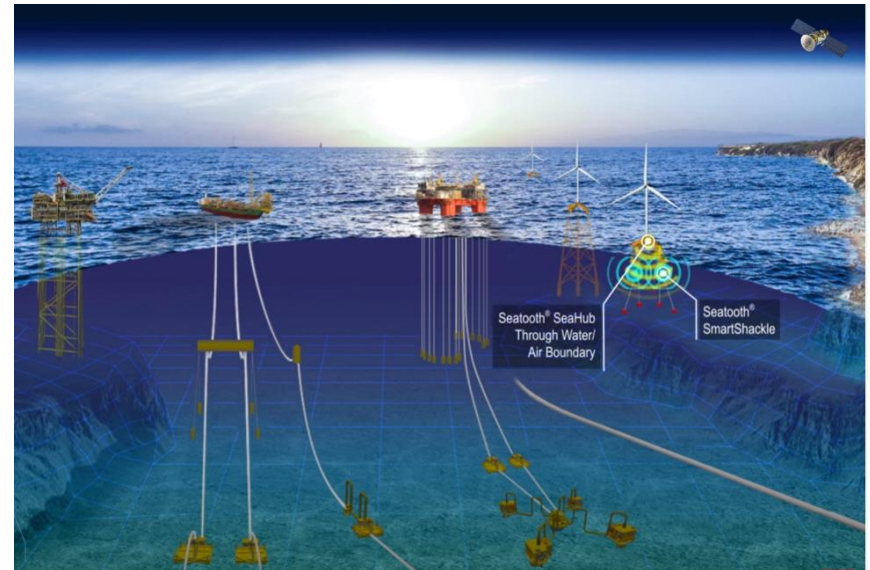
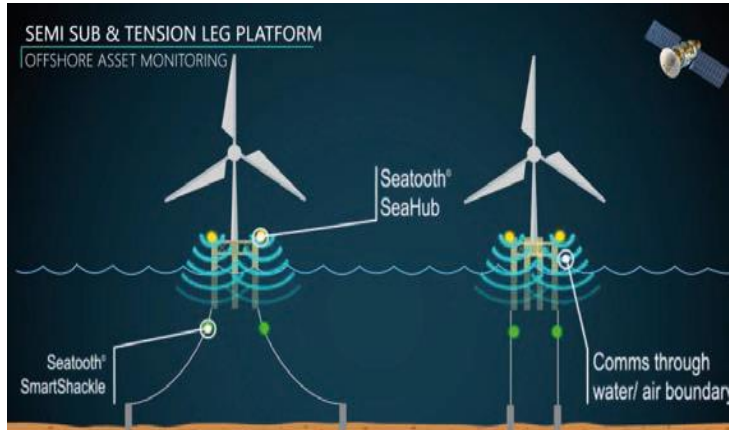




# Subsea Survey & Tool Deployment



# Subsea (Smart Shackle)



# Acoustic Release Systems

## HLR

HEAVY LOAD RELEASE

### FEATURES

- Release load of 48,000 kg
- Lightweight Titanium strong back and hardware
- Easy and simple assembly and disassembly for transport
- Uses our standard 8242XS for acoustic activation
- Transponder for positioning and recovery
- 2 full years on alkaline batteries
- Secure command coding
- Options:  
I/O communication  
Pressure activation  
External On/Off  
Extended battery life



The HLR Heavy Load Release is a field-proven, reliable heavy duty acoustic release. The HLR strong back is made entirely of titanium to keep it light and strong. Titanium is also very corrosion resistant. We also use custom made Delran isolation washers to eliminate any risk of dissimilar metals causing corrosion. The HLR has been designed for easy use in both long term moorings and in lowering applications.

The HLR uses the EdgeTech 8242XS acoustic transponding release for activation. The 8242XS acoustic release is a field-proven, reliable, and versatile mooring instrument. It is made entirely of nickel aluminum bronze alloy with titanium closure hardware for very long deployments with no corrosion. Acoustic status reply includes tilt and release state. The acoustic command structure is dependable in even the toughest acoustic environments.

The HLR can be commanded and controlled by the EdgeTech 8011M deck box. The 8011M is the most versatile acoustic command ranging deck available anywhere. This system can control and range on EdgeTech's (formerly ORE Offshore) full line of acoustic releases as well as other manufacturers' equipment. Features include auto switching between 115 and 230 VAC and an internal self charging battery. The serial and auxiliary ports allow for simple interfacing with other onboard equipment. Includes a dunking transducer with 67 meters of cable.



## HLR

HEAVY LOAD RELEASE

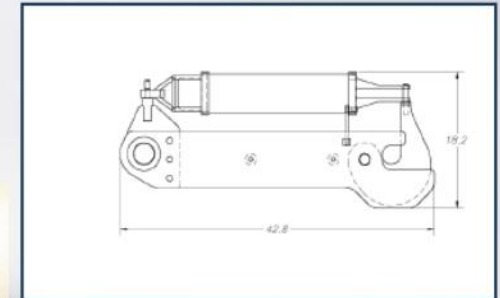
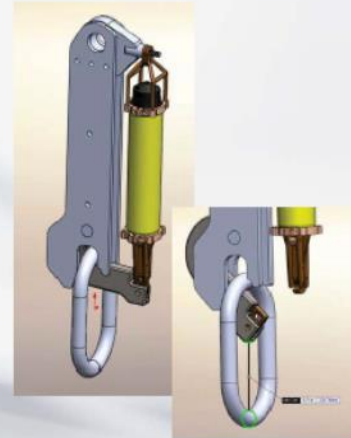
### KEY SPECIFICATIONS

#### MECHANICAL

Release mechanism	Motor driven rotary type with advantage hook
Release load rating	48,000 kg (100,000 lbs)
Depth rating	6000 meters (656 ft)
Length	108.7 cm (42.8 in)
Weight in air	91 kg (201 lbs)
Weight in water	71 kg (157 lbs)
Exposed materials	Acetal (washers etc) NIAIbz (mechanism) Buna-N (O-rings) Titanium

#### ELECTRICAL

Command frequencies	9.3 to 10.7 MHz
Command codes	BACS commands (Edgetech formerly ORE Offshore)
Receiver sensitivity	100 dB re-1uPascal-meter
Battery life	2 years
Battery	Welded alkaline pack



# Large Capacity (1250 Te)



# Small Capacity (1Te)



# Entertainment Sector



# Custom Branding



# Custom Branding (White Labelling)





# Custom Brochures

SERVICE CAPABILITY




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## Load Monitoring Systems

Load Cells | Load Shackles | Line Tension & Monitoring | Calibration & Repair

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**DELIVERY ASSURED**




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### Lifting and rigging equipment rental and sale

We rent and sell a variety of equipment including:

- Load Links
- Load Shackles
- Line Tension & Winch monitoring
- Custom Load PIN manufacturing

 Load Links	 Load Shackles	 Line Tension & Winch monitoring	 Custom Load PIN manufacturing
 Data Logging	 Handset	 Portable Set	

<h4>MONITORING &amp; MEASUREMENT</h4> <ul style="list-style-type: none"> <li>• Cable tension</li> <li>• Towing</li> <li>• Mooring</li> <li>• Crane safe</li> <li>• Anchor line tension</li> <li>• Static wire tension</li> <li>• Winch load</li> <li>• Elevator cable</li> <li>• Speed</li> <li>• Payout distance</li> <li>• Jacking force</li> <li>• Pile force</li> <li>• Sheave/pulley system line tension</li> <li>• Container weighing</li> <li>• Centre of gravity weighing</li> <li>• Overload protection</li> </ul>	<h4>INDUSTRY APPLICATIONS</h4> <ul style="list-style-type: none"> <li>• Wind turbine installations</li> <li>• Warehouse despatch</li> <li>• Subsea vehicle lifting</li> <li>• Subsea cable laying, recovery &amp; repair</li> <li>• Subsea ploughs</li> <li>• Anchor systems</li> <li>• Mooring systems</li> <li>• Under hook crane weighing</li> <li>• Pipe laying ships</li> <li>• Structural joints</li> <li>• Hydraulic presses</li> <li>• Lifting systems</li> <li>• Aerospace development</li> </ul>	<h4>CALIBRATION &amp; TESTING</h4> <ul style="list-style-type: none"> <li>• Water weights &amp; bags</li> <li>• Beam proof load</li> <li>• Crane/hook loads</li> <li>• Bollard pull for vessels</li> <li>• Force calibration</li> <li>• Hydraulic presses</li> <li>• Laboratory weighing &amp; calibration</li> </ul>
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**DELIVERY ASSURED**

**Europe head office**  
 Seton House, Muncar Industrial Estate  
 Denmore Road, Bridge of Don  
 Aberdeen  
 UK, AB23 8W  
 Tel: +44 (0)1224 704868

**www.sparrowsgroup.com**

**40+**

**Experienced specialists**

Decades of knowledge and skill with safety critical equipment

**Committed**

Acknowledgement to ensuring the highest standard of HSEQ globally

**ABOVE ALL ONE STANDARD**

ISO 9001:2015

**100%**

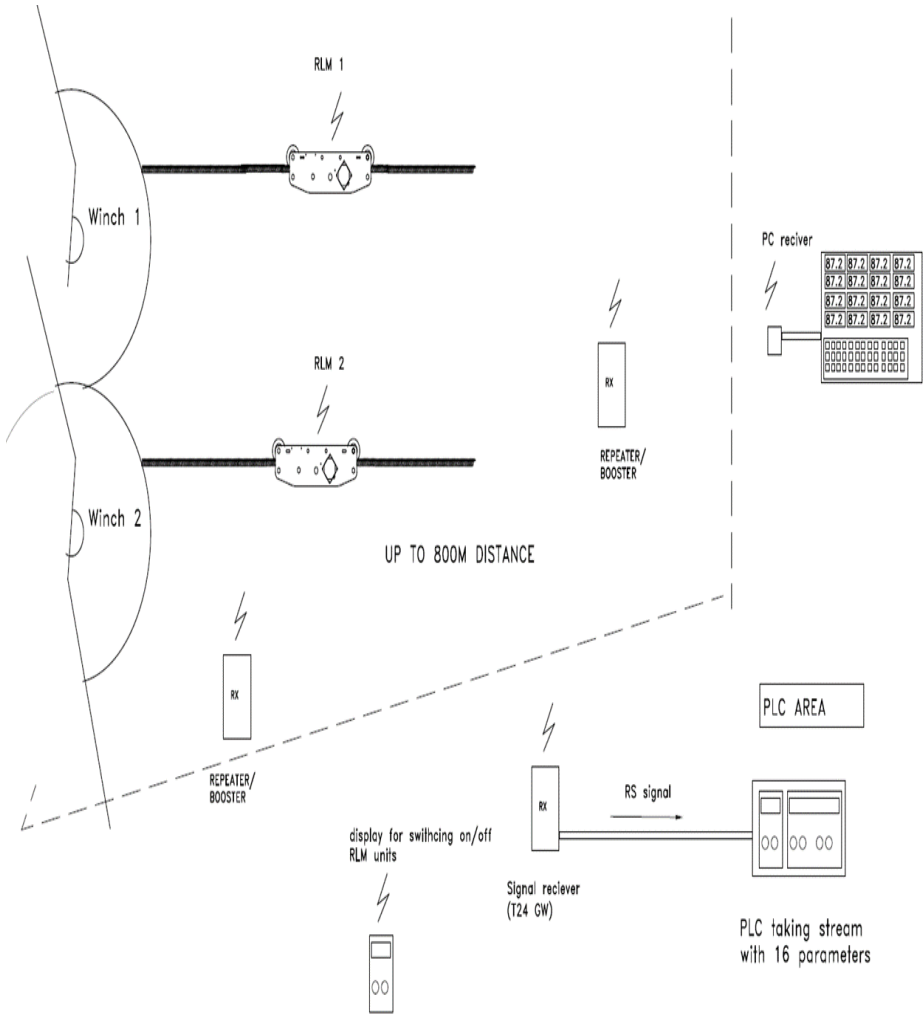
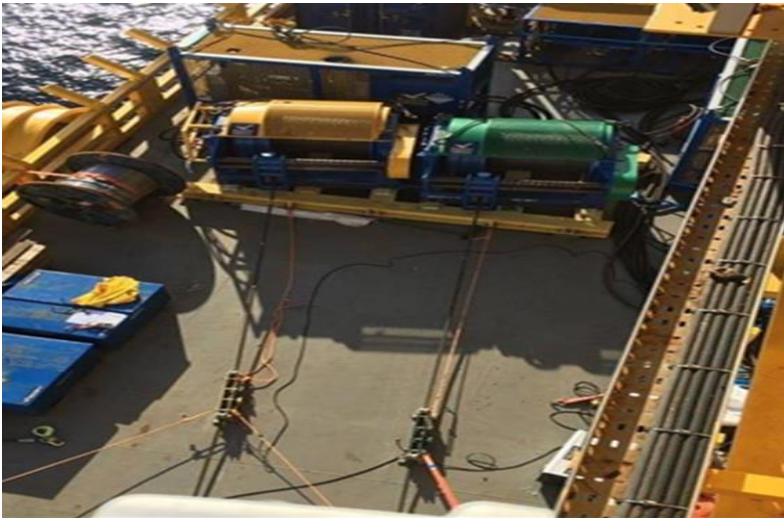
of our people are staff



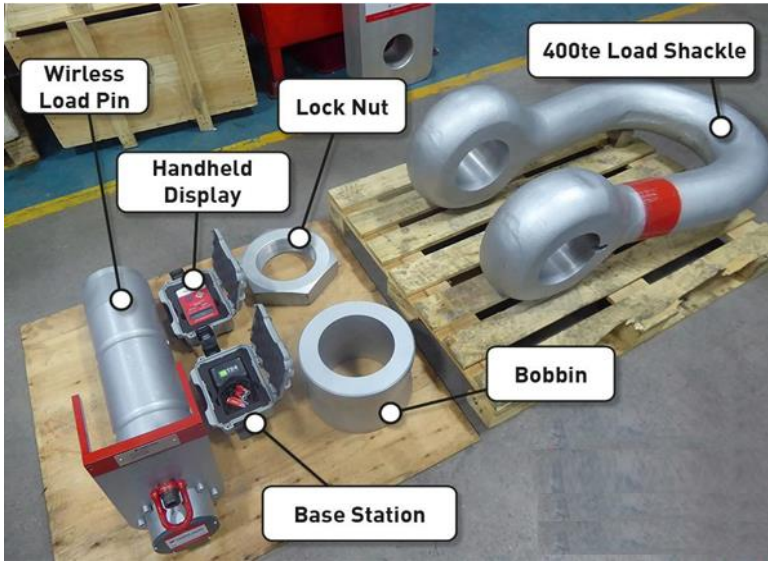
# Proof Load Tests (2000Te)



# Multiple Lifting & Recovery Systems

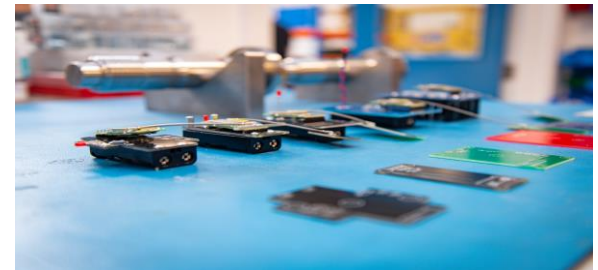


# Specialist Rigging Projects



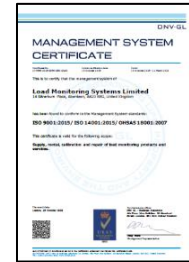
# Repair & Maintenance

- Third party Load cells
- Calibration / Testing
- Repair / Inspection
- Proof Load Certification
- Cabled to wireless conversions
- Analogue and Digital Output Module Upgrades
- Stress Analysis and Measurement.
- Technician On Site Service
- Custom Load Pin Design and Manufacturing



# Accreditation & Certification

**DNVGL Accreditation:** ISO9001:2015 , ISO140012015, OHSAS 18001-2017



**SGS Baseefa:** ATEX & IECEx



## Equipment Certification:

### BSI:

- 1998 Lifting Operations and Lifting Equipment Regulations.
- 2006 EC Machinery Directive.
- 1998 Provisions and Use of Work Equipment regulations.
- 2004 Metallic Materials Testing.
- 2003 Force Measurement and Calibration.



### DNV:

- 2.22/2013 Standard for Lifting Appliances




### MEMBERSHIPS:



**Aberdeen & Grampian Chamber of Commerce**

# Standard Product Certification



**EC DECLARATION OF CONFORMITY**

Manufacturers Name: Load Monitoring Systems

Manufacturers Address: 14 Silverburn Place, Bridge of Don, Aberdeen, AB23 8EG

Product Name: Load Monitoring Systems Load Link

Product Model: LMS-L-25-W Serial Number: LL-0115

Conforms to the following product specifications:

Safety:

S.I. No. 2307:	1990	The Lifting Operations and Lifting Equipment Regulations
S.I. No. 2006/1597:	2006	2006/42/EC Machinery Directive

This Conformity is based upon compliance with the application of harmonized or applicable technical standards and, where applicable or required, a European Union Notified Body certification.

S.I. No. 2306:

1990	The Provisions and Use of Work Equipment Regulations
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85 EN ISO 7500-1

2010	Metallic Materials Testing
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
EMC:

EN 61326-1	2013	Electrical Equipment for Measurement, Control and Laboratory use - EMC requirements
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This Conformity is based upon compliance with the application of harmonized or applicable technical standards and, where applicable or required, a European Union Notified Body certification.

Test & Certification: 85 8422: 2003 Force Measurement & Calibration

Date: 28/06/2019


Signed: 

Name: Chris Davidson

Position: Operations Manager


LOAD MONITORING SYSTEMS LTD,  
14 Silverburn Place,  
Bridge of Don,  
Aberdeen,  
AB23 8EG Scotland (UK)  
Tel: +44 (0) 1224 446100  
Email: lms@loadsystems.co.uk  
Web: www.loadsystems.co.uk

**EC Declaration Of Conformity**



**REPORT OF A THOROUGH EXAMINATION OF LIFTING EQUIPMENT**

Revision		Page
No	Date	1 of 1
0.0	20/04/2019	



Document LMS/003

This conforms to The Lifting Operations & Lifting Equipment Regulations 1998, Statutory Instrument 1998, No 2307 New Equipment is manufactured in accordance with the Machinery Directive 2006/42/EC (SI 2006/1597)


Date of Examination: 28/06/2019	Date of Report: 28/06/2019	Report Number: 11232	
Address of Premises which the examination was made: Load Monitoring Systems Ltd 14 Silverburn Place Bridge of Don Aberdeen AB23 8EG		Name & Address of whom the examination was made: Load Monitoring Systems Ltd 14 Silverburn Place Bridge of Don Aberdeen AB23 8EG	
Serial Number/ Distinguishing Marks	Description of Item(s)	Safe Working Load	Date of Manufacture (if known)
LL-0115	Load Link	25t	28/06/2019


Particulars of any tests carried out as part of the examination

Proof Tested: 50t	Proof load applied: YES
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Equipment:	Was the examination carried out:	
Is this the first examination after installation or assembly at new location?	NO	Within an interval of 6 months YES
If the above answer is YES, then has the equipment been installed correctly?	N/A	Within an interval of 12 months NO
*If the first answer is NO then - Is the equipment supplied as part of equipment designed to fit into existing rigging or Apparatus and under the client's responsibility?	YES	As part of an examination scheme NO
		After occurrence of exceptional circumstance NO
Identification of any part found to have defect(s) which is or could become a danger to persons c/w description of the defect(s):	NONE	
Is the above a defect which is of immediate danger to persons?	N/A	
Is the above a defect which is not yet, but could become a danger to persons?	N/A	
Particulars of any repair/renewal or alteration required to remedy the defect listed above:	NONE	
Is this the first examination after installation or assembly at a site or new location?	NO	
If yes) - Has the equipment been installed correctly?	N/A	
IS THE EQUIPMENT SAFE TO OPERATE?	*YES	


Name & Qualification of person making report: Chris Davidson (Company Appointed Examiner)

Name & Signature of person carrying out test: Keith Milne Signed: 

Name of person authenticating this report: Chris Davidson Signed: 

Latest Date by which next thorough examination is required to be carried out: 28/12/2019

**Report Of Thorough Examination**



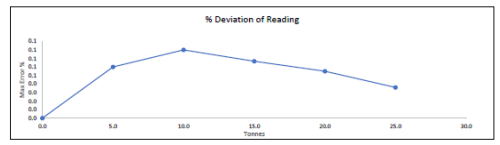
Website: www.loadsystems.co.uk  
Email Address: lms@loadsystems.co.uk  
Contact Number: +44 (0)1224 466 100

**Calibration Certificate: LMS-CAL-19-476**

**Customer: Diamond Offshore**


Description: Load Link	Transmitter ID: T020K
Serial Number: LL-0115	Temperature: Ambient
Capacity / Range: 25t	Job Type: Site
Unit of Measurement: Tonnes	Force Applied: Tension

Equipment: The Accuracy of the Equipment used is traceable to BS EN ISO 376:2011 via UKAS LAB 0478  
Calibration: Standard calibration in accordance with BS EN ISO 7500-1:2010  
Test Bed Reference: 100t Vertical Digital Tensile Test Machine, S/N LMTB-011, Cert # T9049



% Deviation of Reading

Calibration Performance: <1% of Reading							
Applied	Reading #1	Reading #2	Reading #3	Max	Min	Avg Reading	Max Error
tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes	tonnes
0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
5.000	4.997	4.998	4.997	4.998	4.997	4.997	0.003
10.000	9.992	9.993	9.992	9.993	9.992	9.992	0.003
15.000	14.990	14.990	14.991	14.991	14.990	14.990	0.010
20.000	19.990	19.989	19.989	19.990	19.989	19.989	0.011
25.000	24.991	24.992	24.992	24.992	24.991	24.992	0.009

Certified by: Keith Milne Signed:  Date: 28/06/2019

**Calibration Certificate**

# Key Customers







# LMS



**Strength to get the job done !**