Seaflex WaterLoad™ Crane, Lifeboat and Gangway Testing Overview

Helping contractors work more safely, efficiently and profitably since 1987.

www.uniquegroup.com
Depending upon where you are in the world, and who you are speaking to, there are many different philosophies as to how to go about testing critical weight-bearing structures such as cranes, davits and lifeboats.

In those places where HSE is still lax, such load testing is unregulated and therefore often not undertaken. In other parts of the world, such work is undertaken but via the use of bulky and often un-calibrated test weights made of materials such as concrete or steel. However an increasing number of people are now, either through compulsion via local regulation or through a heightened awareness of the safety and insurance implications of not carrying out such work to a recognised standard, insisting upon regular test and certification regimes. And where this is happening, then the quality and flexibility of Seaflex WaterLoad™ range is becoming increasingly in demand.

The Lifting Equipment Engineers Association (LEEA) document 051 is generally seen as the industry standard for such waterbags. Users who are looking to comply with their guidelines should therefore ensure that their waterbag manufacturers have complied with the key elements of these LEEA recommendations, namely:

• Lifting element (ie webbing slings and fittings) to be separate from the bags themselves, to conform to relevant BS norms, and to be documented and traceable as such.

• The safety factor of each type and size of bag to be proven via drop test to at least 6 times the working load limit (WLL).

• Verification of each bag manufactured via either inflation of the bag to a pressure in the range of 0.25 - 0.5 bar and then visual checks of the welded seams for integrity and no leakage, or via a proof (drop) test to at least 2 times the WLL - both being equally valid methods.

As with our range of buoyancy products, Seaflex WaterLoad™ bags are available for hire. The Seaflex WaterLoad™ range is designed, manufactured, tested and certified in 100% compliance with LEEA 051 guidelines and in addition was subject to design audit by ABS which resulted in the award of a certificate of Product Design Assessment – setting the bar for all manufacturers working in this field.
Seaflex WaterLoad™ bags working on typical cluster crane test.
Lift Confidently

With a track record spanning more than 15 years and taking in many of the biggest names in lifting, testing and inspection worldwide, Seaflex WaterLoad™ test weights have proved themselves time and time again to be:

• Safe.
• Reliable.
• Versatile.
• Easy to use and to maintain.
• Excellent value for money.

A range of bag capacities from 1t to 100t allow Seaflex WaterLoad™ test weights to be used singly or in clusters of up to 300t from a single hook. Multiple clusters can be utilised for larger test loads.

Innovation to Improve Operation

While the water filled ballast bag concept is nothing new, Seaflex WaterLoad™ Test Weights incorporate several unique features to make the user’s life easier and to cut down on unproductive time during the test cycle.

Versatile, Reliable Filling

The Seaflex ‘J’ Tube filling system can be positioned anywhere over the hem of the WaterLoad™ bag after attachment to the crane hook / load test point. This neatly avoids the risk of the filling hose finding itself trapped between bags, as can happen to bags with fixed filling points.

Faster Filling Saves Time and Money

We have designed in 2 1/2” full bore ‘fire hose size’ fittings which are terminated by quick release couplings compatible with standard hydrants and hoses.

Faster Draining Saves Even More Time and Money

All WaterLoad™ bags are now fitted with a 4 inch bronze camlock coupling which accepts a 4 inch discharge hose, the largest fitted to any bags in the market today. This arrangement can empty our most popular 35t unit in just 13 minutes, meaning that less unproductive time is spent draining WaterLoad™ bags after a test – which over time will become a major time and cost saving to WaterLoad™ customers.

Easier Handling

WaterLoad™ unit handling is simplified by delivery in its own dedicated ISPM 15 compliant timber storage and transit box. This allows the bag to be hoisted straight out of the box for filling and, when emptied, lowered and flaked back down into the box with minimal onsite handling. This reduces manpower requirements, cuts down on-site time and keeps the bag protected when not in use. Whereas others deliver their bags on pallets and get into arguments about how damage to them may have been caused, we
Key Features and Benefits at a Glance

For Your Peace of Mind

- Fully compliant with LEEA 051 guidelines and also carrying ABS Product Design Approval up to 35t.
- Strops compliant to BS EN 1492 Part 1.
- Manufacturing traceability for each product back to component level.
- 6:1 safety factor up to 35t verified by TÜV NEL Type Test.
- RF welded seams for strength and integrity.
- Webbing harness terminates with single steel lifting ring.
- Rental units inspected and tested between every single job.

For Your Ease of Operation

- User-positioned “swan-neck” filling system.
- Fire-hose inlet and quick-dump outlet.
- Integral handling ladders.
- Can be used in clusters for loads of up to 150 tonnes on a single hook, multiple clusters can be used for higher loads.
- Can be supplied complete with load cells and load shackles.
- Delivered ready for immediate use with universally compliant documentation: WaterLoad™ bag-specific log book containing certification, service records and operating manual.

<table>
<thead>
<tr>
<th>Unit</th>
<th>Kg</th>
<th>L</th>
<th>W</th>
<th>H</th>
<th>Kg</th>
<th>Diameter</th>
<th>Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-WLB</td>
<td>1.00</td>
<td>0.50</td>
<td>0.35</td>
<td>0.25</td>
<td>22</td>
<td>1.60</td>
<td>1.90</td>
</tr>
<tr>
<td>2-WLB</td>
<td>2.00</td>
<td>0.75</td>
<td>0.40</td>
<td>0.25</td>
<td>33</td>
<td>1.80</td>
<td>2.50</td>
</tr>
<tr>
<td>3-WLB</td>
<td>3.00</td>
<td>0.80</td>
<td>0.35</td>
<td>0.30</td>
<td>42</td>
<td>1.80</td>
<td>2.70</td>
</tr>
<tr>
<td>5-WLB</td>
<td>5.00</td>
<td>0.90</td>
<td>0.50</td>
<td>0.35</td>
<td>55</td>
<td>2.10</td>
<td>3.70</td>
</tr>
<tr>
<td>5LH-WLB</td>
<td>5.00</td>
<td>0.90</td>
<td>0.50</td>
<td>0.35</td>
<td>58</td>
<td>2.20</td>
<td>3.10</td>
</tr>
<tr>
<td>10-WLB</td>
<td>10.00</td>
<td>1.10</td>
<td>0.50</td>
<td>0.40</td>
<td>85</td>
<td>2.30</td>
<td>4.80</td>
</tr>
<tr>
<td>12.5-WLB</td>
<td>12.00</td>
<td>1.20</td>
<td>1.00</td>
<td>0.60</td>
<td>120</td>
<td>2.70</td>
<td>5.00</td>
</tr>
<tr>
<td>15-WLB</td>
<td>15.00</td>
<td>1.20</td>
<td>1.00</td>
<td>0.60</td>
<td>145</td>
<td>2.70</td>
<td>5.60</td>
</tr>
<tr>
<td>20-WLB</td>
<td>20.00</td>
<td>1.20</td>
<td>1.00</td>
<td>0.55</td>
<td>160</td>
<td>3.20</td>
<td>5.50</td>
</tr>
<tr>
<td>25-WLB</td>
<td>25.00</td>
<td>1.20</td>
<td>1.10</td>
<td>0.65</td>
<td>225</td>
<td>4.00</td>
<td>6.10</td>
</tr>
<tr>
<td>35-WLB</td>
<td>35.00</td>
<td>1.20</td>
<td>1.10</td>
<td>0.80</td>
<td>295</td>
<td>4.15</td>
<td>6.60</td>
</tr>
<tr>
<td>50-WLB</td>
<td>50.00</td>
<td>2.10</td>
<td>1.20</td>
<td>0.80</td>
<td>416</td>
<td>4.20</td>
<td>8.00</td>
</tr>
<tr>
<td>100-WLB</td>
<td>100.00</td>
<td>3.05</td>
<td>1.55</td>
<td>1.10</td>
<td>880</td>
<td>5.60</td>
<td>10.00</td>
</tr>
</tbody>
</table>
Seaflex Lifeboat Test Systems - Speed and Safety Assured

Test Confidently
Building on the success of the Seaflex WaterLoad™ range of test weights, and making use of the same top-quality design and construction principles, Seaflex has introduced a versatile multi-unit system for testing lighter, enclosed loads with access issues such as lifeboats and elevators.

Outstanding performance, robust fabrics, reliable RF welded seams and general ease of use have made our LTS the first choice for ever-increasing numbers of lifeboat testing and certification houses around the world.

Test Easily
The Seaflex LTS consists of a series of 375 kilogram water bags coupled to a remote filling and discharge manifold. This allows the required load to be safely applied in spaces where traditional solid weights are difficult, and potentially dangerous, to position.

The standard system comprises of a complete kit, supplied in a ISPM 15 compliant timber transit box (fork lift or crane sling) containing all the equipment required to test up to 6t in lifeboats, platforms and other structures.

The kit comprises 16 x 375 kg test bags (sufficient to test an 80 man lifeboat), a calibrated water meter, a 1 x 6 way manifold with quick connectors, 6 x colour coded delivery/ discharge hoses, and an air driven double diaphragm pump with suction tube & delivery hose that can fill up to 7 bags simultaneously and which is rated to work in hazardous environments.

Test Globally
In addition to the standard (5 man equivalent) 375 kg bag, optional single man bags at 75 kg (for free fall lifeboat testing) and their U.S. standard weight equivalents at 412.5 kg and 82.5 kg are available off the shelf for hire or sale in numerous strategic locations around the world. And where we find a cluster of users with a regular demand for the Seaflex LTS but no local availability, then we will look to find a way to put enough sets in their vicinity to satisfy that demand.

Key Features and Benefits at a Glance

For Your Peace of Mind
• Designed and manufactured in general accordance with our LEEA-compliant WaterLoad™ range.
• Constructed from advanced Trevira™ materials for a long life span and reduced risk of in-service damage.
• Six strong strop attachments assist handling when dry or semi-filled, to ensure an evenly spread load.

For Your Ease of Operation
• Reduced handling of the full test weight reduces manpower requirements and increases safety.
• Light dry weight enhances ease of use and reduces down time between tests.
• Multiple bag combinations enable unlimited test weight options.

For Your Peace of Mind
• Designed and manufactured in general accordance with our LEEA-compliant WaterLoad™ range.
• Constructed from advanced Trevira™ materials for a long life span and reduced risk of in-service damage.
• Six strong strop attachments assist handling when dry or semi-filled, to ensure an evenly spread load.

For Your Ease of Operation
• Reduced handling of the full test weight reduces manpower requirements and increases safety.
• Light dry weight enhances ease of use and reduces down time between tests.
• Multiple bag combinations enable unlimited test weight options.
Unique Seaflex Lifeboat Test Kit

A complete kit, supplied in a transit box (fork lift or crane sling) containing all equipment required to test up to 6.0t in lifeboats, platforms and other structures.

An air driven double diaphragm pump with suction tube fills up to 7 bags simultaneously and is capable of working in hazardous environments.

16 x 375kg capacity bags are filled and discharged through the hoses supplied to produce the required test load.

**What’s in the Box?**

- Any number of 375kg capacity test weights.
- 1 x 6:1 gang manifold with quick connectors.
- 6 x 1” delivery/ discharge hose’s.
- Air driven double diaphragm water pump.
- Suction and discharge hoses to suit.
- Extra test bags available upon request.
- Robust transit storage crate.

Pump, hoses and manifold in one side of transit case.

375kg Test Weights in opposite side of transit case.
UNIQUE SEAFLEX STANDARD PRODUCT
375kg Life Boat Testing Bag

- 2255 mm
- One 1" Globe Valve, terminates in 1" male Camlock.
- 25mm Capped Breather Valve
- One of 6 strong strop attachments for handling when dry or semi filled
- Ø485 mm
- 2.5psi A10 Pressure Relief Valve

DIMENSIONS = mm UNLESS OTHERWISE SHOWN

PRODUCT WEIGHT - 9kg App.
PACKED SIZE - 450mm x 450mm x 200mm

www.uniquegroup.com
Freefall Lifeboat Testing Bags

Designed in response to the special demands of testing Freefall Life Boats where each test weight must be secured in a seat and represent the weight of an average person, Seaflex offer a 75kg version of their well proven 375kg life boat test weight.

Manufactured from extra heavy duty PVC coated polyester base cloth with all welded seams, the 75kg LB is fitted with adjustable webbing straps for securing it to a seat if required.

Fittings are compatible with all Seaflex Life Boat Test Kit components so can be used with existing kits as standalone or complimentary ballast.

Each unit is manufactured in accordance with ISO 9001-2000 defined procedures certified by Lloyds Register Quality Assurance. A Certificate of Conformity is issued with each 75kg LB test weight which provides details of its construction and full traceability. A very tough and robust product that fulfils the specialised demands of testing Free Fall Lifeboats.

Usually available from stock, orders of 20+ units are supplied in a strong transit/storage box which provided ideal protection while handling.

Diameter- 360mm, Height–700mm. 1” Camlock filler valve lower front + PRV vent.
Seaflex Gangway Testing Bags

As with our entire range of water-filled test weights, Seaflex Gangway Testing Bags draw upon the top-quality design and construction principles proven in service over many years with our flagship WaterLoad™ range.

Seeing an increasing number of requests from customers looking for mattress-style bags to test gangways and other similarly-enclosed structures, Unique Seaflex now makes these available for customers to hire or purchase in sizes of their choosing. The project pictured here involved the design and supply of bags tailored to the width of this gangway in Ullapool, UK which offered 5t of capacity per bag. During retraction stages of the test, smaller cylindrical 2t units were also used.

Please contact us with your gangway testing requirements, for us to design up your ideal solution for you.

Key Features and Benefits at a Glance

For Your Peace of Mind

• Designed and manufactured in general accordance with our long-established ranges of WaterLoad™ bags and Lifeboat Testing Kits

• Constructed from advanced Trevira™ materials for a long life span and reduced risk of in-service damage.

• Six strong strop attachments assist handling and securing when dry or semi-filled, to ensure an evenly spread load.

For Your Ease of Operation

• Light dry weight enhances ease of use and reduces down time between tests.

• Reduced handling of the full test weight reduces manpower requirements and increases safety.

• High quality all metal colour coded quick connect couplings are both extremely robust and easy to use.

• Multiple bag combinations enable unlimited test weight options.
In 2011 Seaflex was acquired by the Unique Maritime Group, a global provider of integrated support services for the offshore sector. Unique Maritime Group’s expanding network of companies are specialists in ROV, diving, survey, NDT and engineering services. With the benefit of UMG’s global footprint and support structure, Seaflex is these days even better placed than ever to meet the needs of its customers – no matter where in the world they are working, nor how challenging or urgent their requirement may be.

As you would expect of a company working in an industry where the concepts of quality and safety are paramount, all our work is carried out within a system which complies with the ISO 9001-2008 Quality Management Standard for full traceability – and we now have also gained ISO 14001 Environmental accreditation and ISO 18001 Health and Safety accreditation for our manufacturing operation. We have also had independent verification of the compliance of our Seaflex WaterLoad™ bags with LEEA 051 guidelines and of our Buoyancy bags with the requirements of IMCA D-016. ABS have also issued us with full Product Design Assessment (PDA) certification for our main products.

But any company can talk about the vast amounts of testing, certification and accreditation which have been carried on their products – fewer companies can substantiate such claims. Seaflex is one of those which can back up their claims – however, our credibility does not come from bits of paper: it comes from our customers, from the work we have been doing with them for over 25 years, and from the fact that they keep coming back to us time and time again.
Technology, Service and Support

MANUFACTURING TECHNOLOGY

All Seaflex products are designed and manufactured in the UK. Our bag canopies are constructed from High Tensile Trevira® Polyester base cloth (either 2 /2 or 3 /3 fibre panama pattern weave) coated with heavy duty UV stabilised PVC coating or, for special applications, polyurethane. Trevira is incredibly strong; a 50 mm wide 3/3 strip has a break load of approximately 1 tonne.

The panels for our bags are precision cut on our 15 metre long, 3 metre wide advanced automated table for perfect repeatability. Once inspected and approved panels are assembled by skilled personnel to using Radio Frequency welding to strict quality control standards.

CERTIFICATION

All our work is carried out within a system which complies with the ISO 9001-2009 Quality Management Standard as audited by Lloyds Register Quality Assurance for full traceability – and we have now gained ISO 14001 and ISO 18001 accreditation.

SERVICE

Whether for hire or sale, all Seaflex products are sent out fully tested and inspected against their build criteria. And we do also offer on-site support to our clients in the use of our products – this most often happens within the more complex buoyancy applications for our products.

In the event that your Seaflex product should suffer minor damage in service, we can supply an approved, boxed field service kit comprising of patches, a professional quality heat gun and instruction manual to make good minor leaks prior to product refurbishment.

We can also advise on the viability of carrying out more extensive repairs, which would typically be undertaken either at our factory or at one of our approved service centres.

SUPPORT

Our support philosophy is “Wherever, Whenever”. This underlines the Seaflex commitment to not just sending out tested, proven products in proper shipping crates and with the most comprehensive documentation package in the business – but to assisting our customers in every way possible throughout their time using our products, whether the job is a hire project or an equipment sale.

We offer worldwide support to our customers via either email or phone from head office in the UK and via our ever-growing network of offices and partners around the world.

You can put your trust in Seaflex – we won’t let you down.
Our Philosophy

**Whenever, Wherever**

We have a simple philosophy here at Seaflex: we will do everything within our power to deliver what our customers need from us, whenever they need it and wherever they need it.

That simple philosophy is born of several different levels of understanding:

- An expert understanding of how to design, manufacture, prove, deliver and support best-in-class bags for ballast or buoyancy.
- An in-depth understanding of the regulatory environments in which we and our clients operate – both onshore and offshore.
- The desire to understand our clients’ businesses, and to work with them to achieve the best possible technical and financial outcome for them.

We are not complacent: we are only where we are due to our ability to keep our band of loyal customers happy, whilst adding to them by demonstrating to others the value which we can bring to their businesses. If we let that slip then we are nowhere. And that is why we keep investing in our business: to better serve your business. Hence the brand new factory capable of producing 3,500 tons of lift and water load testing capacity each and every month. And hence us holding and managing the largest global rental fleet of buoyancy and ballast bags.

As you continue to invest in us, we’ll continue to invest in you. We are always happy to hear from customers new and old alike as to how we may better serve you. We will travel the world to meet with you at your convenience, and the doors of our factory are always open and the kettle is always on for visits from those who would like to see what we do, and how we do it, for themselves.
Contact us

Unique Seaflex Ltd,
Seaview Road, Cowes,
Isle of Wight, PO31 7US, UK

Tel: +44 (0) 1983 290525
Email: seaflex@uniquegroup.com

www.uniquegroup.com