



INSPECTION & LOAD TESTING



Experience
Matters.



Worldwide Load Testing Specialists

WORLDWIDE LOAD TESTING SPECIALISTS are South Africa's leading Lifting Machinery Entity and the leaders in Sub-Saharan Africa in lifting equipment inspections and load testing.

We offer our clients a world-class inspection and load testing service to the highest standards.

We aim to mitigate risk associated with lifting machinery and accessories' defects or failures.

We are the preferred supplier for Liebherr Pty Ltd. and ZPMC in Sub-Saharan Africa for inspections and load testing. This is as a result of our superior knowledge, training, reporting methods, equipment and thoroughness when conducting inspections and testing on site.

(Documentation provided on the last pages of this document)

Benefits of this service offering.

- The country's leading LME working on site to mitigate risk and achieve safety on site.
- Nationwide support from WWLTS.
- The most experienced Lifting Machinery Entity (LME) & their LMI's working on site.
- Thorough reporting methodology that is fully comprehensive in content that enables the user / owner to ensure the lifting machinery and accessories are compliant with current legislation.
- Aids the user / owner to achieve preventative maintenance and avoids costly breakdowns.
- Strictly third party statutory inspections offered. This means no conflict of interest with maintenance or repairs, ensuring the inspections and load testing remain independent and free from any unethical practices - whereby there would be any commercial, or financial gain or any other influences that could affect the inspectors findings.
- Quality assurance on any work carried out by a maintenance or repair entity on lifting machinery. This gives the customer peace of mind and avoids sub-standard work and potentially unsafe equipment on site.
- WWLTS is the highest ranking LME with the Department of Employment and Labour with approved scopes for all disciplines of lifting equipment.
- WWLTS has an inventory of a variety of water bags (over 1 340 T) and up to 200 T of solid weights, rigging equipment, specialised pumps & load cells to support any test application.
- We are able to facilitate all lifting machinery inspections and testing requirements. Big or small we can do them all.





Legislation and Technical Standards required to be adhered to:

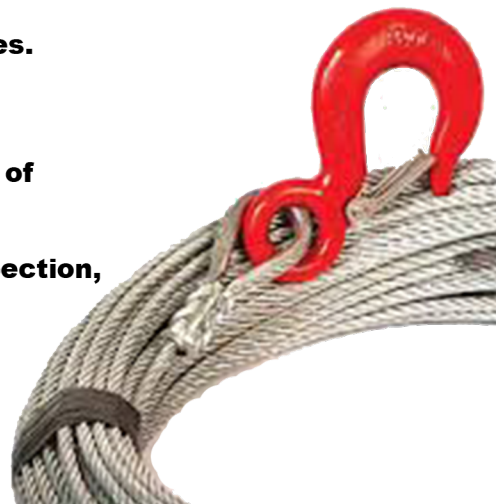
- Occupational Health & Safety Act, Driven Machinery Regulation 18.

DMR 18 Incorporates technical standards.

Technical Standards incorporated

SABS

- **SANS 10375:2018** - The inspection & testing of overhead cranes.
- **SANS 19:2018** - The inspection, testing & examination of mobile cranes.
- **SANS 10388:2019** - The inspection & testing of lift trucks.
- **SANS 500** - The inspection, testing & examination of hand-operated chain blocks & lever hoists in use.
- **SANS 71** - The inspection, testing & examination of vehicle hoists in use.
- **SANS 522** - The inspection, testing & examination of tower cranes.
- **SANS 2972** - The inspection of lifting tackle,
- **SANS 10295** - Parts 1 & 2: The inspection, testing and examination of lifting platforms in use.
- **SANS 18893** - Mobile elevated work-platform safety principles, inspection, maintenance & operation.





WHY INSPECTION AND LOAD TESTING IS IMPORTANT

- Inspection & load testing of lifting machinery is required by law and prescribed by the relevant incorporated standards and The Driven Machinery Regulation 18 of The Occupational Health & Safety Act.
- The law requires a thorough examination and inspection of lifting machinery prior to applying a load as prescribed by the relevant technical standards.
- Narrowing the safety gap for those working on or around the equipment.
- To enhance maintenance planning and preventative maintenance, by achieving effective budgeting.
- To identify performance bottlenecks & breaking points. This means we are able to find functional errors that only occur under load.

INDUSTRIES WE SERVICE

Marine



Sugar Mills



Mining
open & Underground



Construction



Factories



Warehouses



Platform Lifts



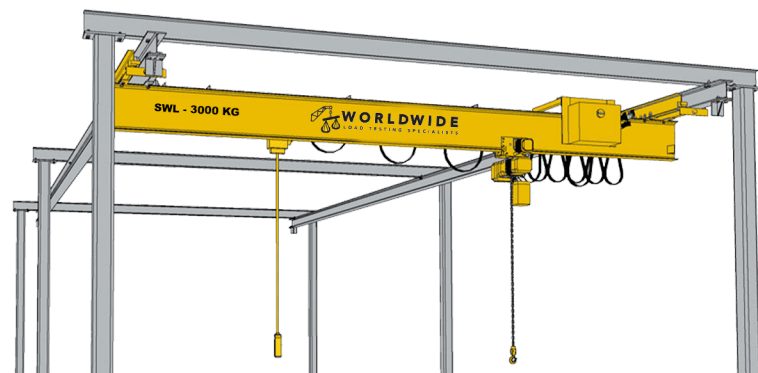
Surface Testing



Smelters



All Other



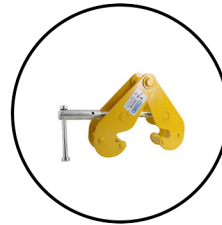
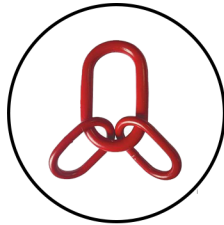


INSPECTION INTERVALS

LIFTING TACKLE & ACCESSORIES

3 MONTHLY STATUTORY INSPECTIONS

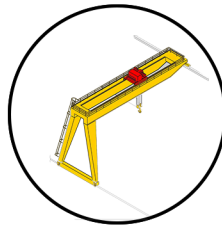
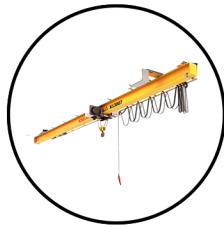
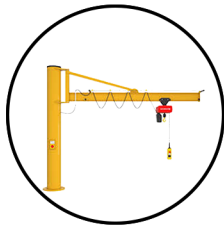
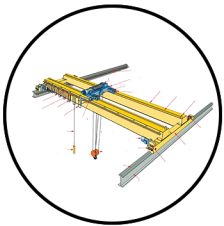
Lifting tackle requires inspections by a person deemed competent in *intervals not exceeding 3 months* in accordance with DMR 18 (10).



Lifting machines or hand powered devices

6 monthly (Inspection only) These are some examples.

Lifting machinery inspections by a Lifting Machine Inspector (LMI) is required by DMR 18 (6) to be inspected in *intervals not exceeding 6 months*.





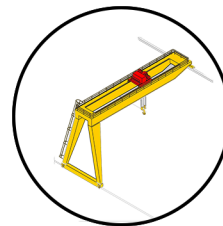
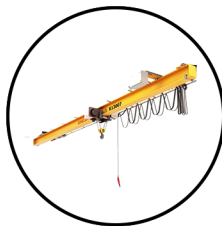
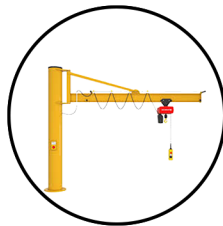
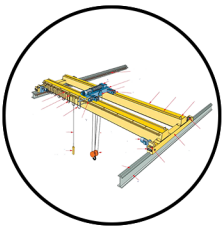
INSPECTION & LOAD TESTING INTERVALS

Lifting machines & hand powered devices.

Annual inspections & load testing

These are some examples.

The Occupational Health & Safety Act, Driven Machinery Regulation 18 (5) - makes it mandatory for the user / owner of the lifting machinery to ensure that equipment is subjected to a thorough inspection and performance test in **intervals not exceeding 12 months**, through the machines full working range as per the prescribed technical standard to ensure the lifting machinery on site is safe to use.



Important to know.

The Occupational Health & Safety Act (OHS Act) of 1993 – Driven Machinery Regulation 18 (DMR18) is used to regulate the inspection & testing criteria for lifting devices, machines and tackle.

It is stipulated in DMR 18 that the owner/user is responsible for lifting machines on site. Therefore the responsible person on site (16.1 & 16.2 appointees) holds legal liability should any incident occur.

This means it is in the best interest of the responsible person to ensure that equipment is inspected and tested properly, in accordance with DMR 18 and the relevant incorporated standards.



Load Testing and inspections

INSPECTION & LOAD TESTING

HAND POWERED DEVICES



The Occupational Health & Safety Act (OHS Act) of 1993 – Driven Machinery Regulation 18 (DMR18) is used to regulate the inspection & testing criteria for lifting devices, machines and tackle.

Important to know.

DMR 18 makes provision for incorporated standards by which inspection and load testing must be conducted in order to ensure the hand-powered device is safe to use and complies with relevant technical standards.

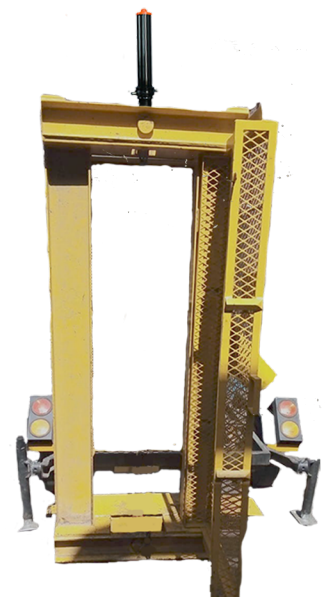
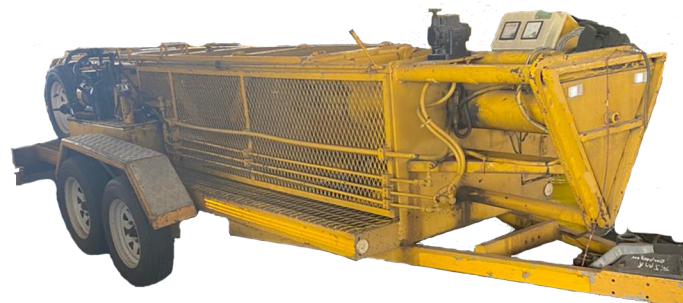
Standards incorporated for hand powered devices are:

SANS 500 - Inspection, examination and testing of manually operated chain blocks and chain lever hoists in use.

The testing standard require a thorough examination of the hand powered device. The testing standard also requires the LMI to undergo a performance test. This test must be a dynamic test and cannot be conducted by static means. This means the testing requires the LMI to take the lifting machine through one stroke on the chain and gears. This can be achieved by utilising test weights or a Hydraulic test rig with an adjustable relief valve. The tester needs to ensure that there is sufficient stroke for the hand powered device on the rig.

MOBILE TEST RIG

USED FOR:



BENEFITS OF THE RIG

- 1 TESTED IN ACCORDANCE TO THE INCORPORATED STANDARD.
- 2 NO DOWN TIME ON SITE OR REMOVAL OF EQUIPMENT FROM SITE.
- 3 ACHIEVES A DYNAMIC TEST.
- 4 ALLOWS THE UNIT TO BE TESTED IN ITS STROKE.



INSPECTION & LOAD TESTING WITH SOLID WEIGHTS

LIFTING MACHINERY

Important to know.

DMR 18 makes provision for incorporated standards by which inspection and load testing must be conducted in order to ensure the lifting machine is safe to use and complies with relevant technical standards.

EQUIPMENT USED TO TEST:



SOLID WEIGHTS BEST SUITED

We can utilise different equipment to accommodate different applications of lifting machinery. The equipment that can be used to achieve test loads. This equipment can be solid weights or water bags.

Some machinery such as forklifts, telehandlers, MEWPS are only able to be tested with solid weights.

The department of Labour and ECSA do not accept any static pull methods on machinery, this is clear in the incorporated standards - a dynamic load must be applied and the load must be taken through the full working range.

SOLID WEIGHTS



The use of solid weights is best suited to machinery such as forklifts, telehandlers & MEWPS.

This machinery does not permit the load to be underslung and the LMI must be able to achieve the testing methodologies as prescribed in the relevant incorporated technical standards.

Cranes or other lifting machinery may require the use of solid weights, in situations whereby there is no access to water or the site requires the use of solid weights.

We have over 160 Tons of solid weights in our inventory to facilitate any application.

BENEFITS OF SOLID WEIGHTS

1 SOLID WEIGHTS MAY BE THE ONLY WAY TO ACHIEVE THE TEST LOAD AS PER STANDARDS.

2 CAN BE FASTER THAN FILLING OF WATER BAGS.

DISADVANTAGES OF SOLID WEIGHTS

1 THE LOGISTICAL COST OF TRANSPORTING WEIGHTS CAN BE HIGH,

2 THE MACHINE IS SHOCKLOADED.



NOT APPROVED

SANS 10388 does not permit a lift truck to be tested using any static means. Such as a static pull between the forks and the mast, static pull between a chemical anchor and the forks or any other static means. A test load must be applied as per the load chart through full working range.



INSPECTION & LOAD TESTING

LIFTING MACHINERY

Important to know.

DMR 18 makes provision for incorporated standards by which inspection and load testing must be conducted in order to ensure the lifting machine is safe to use and complies with relevant technical standards.

USE WATER BAGS TO TEST LIFTING MACHINERY



SOME EXAMPLES WHERE WATER BAGS ARE BEST SUITED.

Water bags can be used for all other lifting applications including but not limited to overhead cranes, mobile cranes, jibs, mono-rail runway beams, mobile harbour cranes, ship to shore cranes.

Water bags are a cost effective solution when it comes to load testing a crane. When utilising water bags the logistical costs decrease. As an example, 70T of solid weights will require multiple super link trucks to transport to site, with water bags 70T is made up of 2 x 35T bags that weigh 340kgs each and can be transported on one of our light delivery vehicles.

We know that water is scarce and we can assist clients with a solution to put the water back into the water treatment system, if the system on site can cater for this.

Water bags have many more advantages such as ensuring the machine is not shock loaded. For example the load with a water bag application can be increased in increments, this allows the LMI to monitor the load as the load is increased and should there be any sign of a problem - the LMI can seize filling the bag and drain as to avoid any accidents or damage to the machinery.

We have over 1340 Tons of water bags in our inventory in a number of different capacities from 1T - 40T. Our water bags are manufactured in the United Kingdom and comply with European standards (EN ISO 1421, DIN 53363, DIN 53357, DIN 53358, DIN EN 17127, DIN EN 1876). The manufacturer is approved by SGS United Kingdom, LEEA and IMCA.

Because our bags are manufactured to the highest quality - we have assurance that no incident should occur when utilising our bags on site.

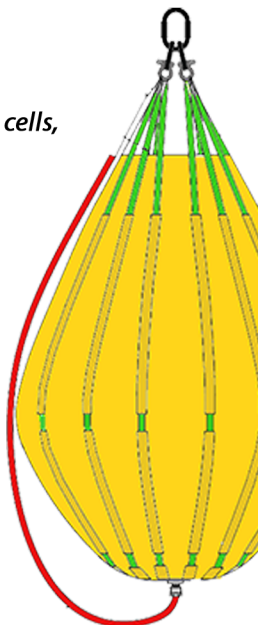
Our pricing is often more competitive as we do not have to hire equipment . We have water bags, solid weights, load cells, rigging equipment and water pumps in house.

BENEFITS OF WATER BAGS

- 1 TRANSPORT COSTS ARE LESS THAN SOLID WEIGHTS.**
- 2 AVOIDS SHOCK LOADING OF THE MACHINE.**
- 3 ALLOWS THE LOAD TO BE INCREASED IN INCREMENTS.**

DISADVANTAGE OF WATER BAGS.

- 1 REQUIRES AN ADEQUATE WATER SOURCE.**





INSPECTION & LOAD TESTING

CERTIFICATION

The Occupational Health & Safety Act (OHS Act) of 1993 – Driven Machinery Regulation 18 (DMR18) is used to regulate the inspection and testing criteria for lifting devices, machines and tackle.

The Occupational Health and Safety Act, Driven Machinery Regulation 18, requires that machinery be tested and inspected according to the act and inline with incorporated standards.

DMR 18 (5) - requires that a thorough inspection be done of the lifting machine prior to applying a load to the machine. This means that a report / certificate must document all of the LMI's findings on the machine. The load must only be applied after the LMI is satisfied that the machine is safe to use. A load test on a lifting machine is required to be done in intervals not exceeding 12 months or after any major repair, including a rope change.

DMR 18 (6) - Requires a periodic thorough inspection be carried out in intervals not exceeding 6 months by a competent person.

BENIFITS OF OUR REPORTING

Our reporting structure is considered fully comprehensive and covers every aspect of the machine from structural, mechanical and electrical.

Our reports are compiled as per what DMR (5) & (6) require. As a result of our reporting being so detailed the user is able to achieve preventative maintenance and avoid break downs which are costly.

We do not offer repairs or maintenance on machines as we are strictly a third party inspectorate registered with the Department of Employment and Labour. Our inspectors are registered with The Engineering Council of South Africa.

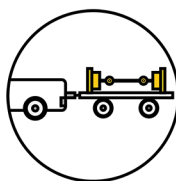
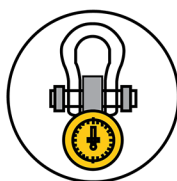
By providing the client with a fully comprehensive report the client is able to consult with repairs and maintenance companies to rectify the faults found. This means that the client will be able to use our report for the maintenance contractor to work off and avoids unnecessary additional expenses being added on.

We are here to ensure quality lifting machinery and work carried out by maintenance contractors.

NOT OFFERING THE FULL SERVICE – MAINTENCE REPAIRS, INSPECTIONS AND LOAD TESTING.

SANS 23814 - Competency requirements for Crane Inspectors states the following requirements - "4 Requirements, 4.1 Independence, impartiality and integrity that, Inspectors shall be free from any commercial, financial and other pressures that could affect their findings. (See also ISO/IEC 17020 and ISO/IEC 17025) "

This means that the inspector or the entity that is conducting the inspection and load testing should not be related and that they should be independent from one another.



LIEBHERR

Liebherr-Africa (Pty) Ltd – Private Bag X69 – Springs 1560 South Africa

Liebherr-Africa (Pty) Ltd

Earthmoving Machinery

Mining Machinery

Construction Machinery

Mobile Cranes

Port Equipment

Domestic & Commercial Appliances

To Whom it may concern

Your Reference:
Liebherr letter

Date of Reference:
11 June 2020

Our Reference:
WWLT Reference

Date:
11 June 2020

Prepared by:
Wolfgang.Wibmer
Telephone: +27 (0) 31 0100 300
Wolfgang.wibmer@liebherr.com

Testimonial Letter – Worldwide Load Testing Group of companies.

This letter is to confirm that **Worldwide Load Testing Group** is the preferred supplier of inspection & load testing of **Liebherr** lifting machines for the region of Sub-Saharan Africa.

Worldwide Load Testing Group was previously known as Water Weights in Sub-Saharan Africa and underwent a name change. The group under both names have a proven record of inspection & testing service with Liebherr Africa (Pty) Ltd.

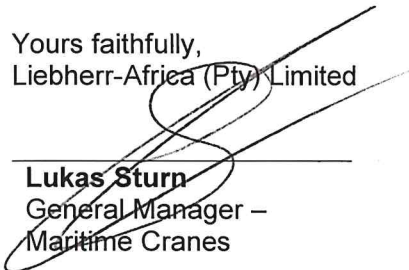
Liebherr Africa (Pty) Ltd. are completely satisfied with the level of service provided by the Worldwide Load Testing Group and commend the group on the work carried out. Worldwide Load Testing attend to the services at hand on a superior level in terms of thoroughness and knowledge of all lifting machines – as well as having premium brands of equipment to ensure further safety on site.

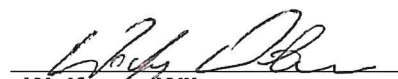
Due to the level of thoroughness of Worldwide Load Testing Group – we are able to attend to preventative maintenance measures as to prevent breakdowns which can be costly.

Our dealings with Worldwide Load Testing Group have been to our complete satisfaction and we would recommend the company to attend to any inspection & load testing of our machines at any time.

Worldwide Load Testing Group are the preferred supplier for inspection & load testing for Liebherr in Sub-Saharan Africa.

Yours faithfully,
Liebherr-Africa (Pty) Limited


Lukas Sturn
General Manager –
Maritime Cranes


Wolfgang Wibmer
Head of Customer Service –
Maritime cranes

Liebherr-Africa (Pty) Ltd
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Fax: +27 11 817-3245 (Mobile Cranes)
www.liebherr.com

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Director:
D. Schmid (German)

Reg. No. 1958/000808/07
Vat. No. 4480102021



Date: 29/06/2020

To whom it may concern

From: P. Hanno

Reference letter for Worldwide Load Testing Group of companies.

This letter is to confirm that Worldwide Load Testing Group is the supplier of inspection & load testing of ZPMC lifting machines for South Africa.

Worldwide Load Testing Group was previously known as Water Weights in Sub-Saharan Africa and underwent a name change. The group under both names have a proven record of inspection & testing service with ZPMC Engineering Africa (Pty) Ltd.

ZPMC Eng. Africa (Pty) Ltd. is completely satisfied with the level of service provided by the Worldwide Load Testing Group and commend the group on the work carried out. Worldwide Load Testing attend to the services at hand on a superior level in terms of thoroughness and knowledge of all lifting machines — as well as having premium brands of equipment to ensure further safety on site.

Our dealings with Worldwide Load Testing Group have been to our complete satisfaction and we would recommend the company to attend to any inspection & load testing of our machines at any time.

For any additional information, please do not hesitate to contact me directly.

P. Hanno.

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: +27 (0)62 910 4314
Email: philippe.hanno@zpmcafrica.co.za
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Ridgeside Office Park
Umhlanga Ridge 4319
Durban, Kwazulu - Natal
South Africa



**DEPARTMENT
OF LABOUR**

Certificate

This is to certify that

**WW LOAD TESTING SPECIALISTS CC
T/A
WORLDWIDE LOAD SPECIALISTS**

**has been approved in terms of
Driven Machinery Regulation 18(5)
of the
Occupational Health and Safety Act, Act 85 of 1993
Examining and testing of lifting machinery and lifting tackle**

Scope of Approval:

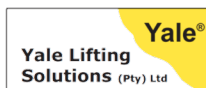
- Lifting Tackle
- Lever hoists
- Chain blocks
- Overhead cranes
- Tower cranes
- Forklifts
- Mobile cranes
- Reach stackers
- Tail lifts
- Crawler cranes
- Jib cranes
- Electric chain hoists
- Truck mounted cranes
- Mobile elevated work platform
- Ship to shore cranes
- Wharf side cranes
- Sugar cane cranes

Signed on: 6 / 11 / 2020

Chief Inspector:

No: LME 054

SOME OF OUR CURRENT CLIENTS



Worldwide Load Testing Specialist Network.

Head Office Kwazulu-Natal

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Regions covered: KZN, Eastern Cape, Swaziland, Zambia, Malawi, Lesotho, Lesotho, Angola.

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Email: ops@wwlts.co.za / admin.dbn@wwlts.co.za

Gauteng Office Johannesburg

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Regions covered: Gauteng, Northern Cape, Free state, Mpumalanga, Botswana, Namibia, Zambia, Zimbabwe.

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Email: admin.jhb@wwlts.co.za

Eastern Cape Operations

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Email: sales.ec@wwlts.co.za

Mozambique Office Maputo

Office: Maputo

Regions covered: Mozambique, Zimbabwe.

Tel: +258 20 030 331/2

Tel: +258 84 911 5301 / +258 84 424 8585

Email: manager.moz@wwlts.co.za / admin.moz@wwlts.co.za

Swaziland Operation Tabankulu

Regions covered: Swaziland, Nelspruit

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Tel: +27 31 572 4940 / +27 76 762 9110

Email: ops@wwlts.co.za / admin.dbn@wwlts.co.za

