



...PORTA-DAVIT[®]

1000



WEBSITE

Assembly & Operation

www.reidlifting.com



No. 1 in lightweight, portable, safe lifting solutions

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INTRODUCTION

All users must read these operating instructions carefully prior to the initial operation. These instructions are intended to acquaint the user with the *PORTA-DAVIT* 1000 and enable him/her to use it to the full extent of its intended capabilities.

The operating instructions contain important information on how to handle the *PORTA-DAVIT* 1000 in a safe, correct and economic manner. Acting in accordance with these instructions helps to avoid dangers, reduce repair costs and down time and to increase reliability and lifetime of the davit.

Anyone involved in doing any of the following work with the *PORTA-DAVIT* 1000 must read the operation instructions and act accordingly:

- operation, including preparation, trouble shooting during operation and cleaning
- maintenance, inspection, repair
- transport

Apart from the operating guide, health & safety and accident prevention act valid for the respective country and area where the equipment is used, the commonly accepted regulations for safe and professional work must be adhered to.

It is incumbent on the user or instigator of work with the equipment that all users have suitable medical and physical capabilities. Likewise the competent person should ensure there is a rescue plan in place in the event of an emergency that could occur during the work.

N.B. This document should form an element of the overriding Risk Assessment and Method Statement required for each lift.

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CORRECT OPERATION

Intended use

The PORTA-DAVIT 1000 is intended to be used for the lifting of goods only.

The capacity indicated on the davit is the #Working Load Limit (WLL), which must not be exceeded. Each lift must be properly planned and the weight of the load to be lifted must be known by the operator.

NOTE:

1. We recommend the use of a load-sensing device on all lifts.
2. The PORTA-DAVIT 1000 radius setting range for use with fixed sockets is a nominal 1000 & 1200mm.

Inspection prior to initial operation

Each PORTA-DAVIT 1000 must be inspected prior to initial operation by a competent person. The inspection is visual and functional and shall establish that the structure is safe and has not been damaged by incorrect assembly, transport or storage. Inspections are instigated by the user.

Inspection before starting work

The inspection procedure requires that a valid inspection/test certificate has been submitted to and checked by the user. Before starting work, inspect the davit tubes and all load bearing components for visual defects. Furthermore, test the free rotation of the pin. This inspection requirement covers only the davit.

Ensure that the overall working load limit (WLL) is adhered to – following the necessary Risk Assessment and Method Statement.

Maximum capacity

The PORTA-DAVIT 1000 is designed to lift and lower loads up to the related capacity. The capacity indicated on the davit is the working load limit (WLL) or safe working load (SWL), which must not be exceeded.

Each lift must be properly planned and the weight of the load to be lifted must be known by the operator.

- We recommend the use of a load-sensing device on all lifts.
- The PORTA-DAVIT 1000 is approved for the lifting of goods only.
- The PORTA-DAVIT 1000 radius setting range for use with fixed sockets is 1000-1200mm.

Notes for correct usage

- Do not throw the davit down or stack items on top of it. Always place it properly on the ground avoiding damage to the tubes.
- Assemble only as instructed.
- Do not assemble davit in non-approved sockets.
- Do not use the davit if the shaft is not seated correctly in the socket.
- Do not use the davit if it does not rotate freely in the bearing, or the bottom flange is fouled in any way, preventing free rotation of the davit.
- Do not knot or shorten the tension strap to reduce operating radius.
- Ensure davit is set at the correct operating radius for the job.
- Do not use the davit with retaining clips removed from radius adjusting pin.
- Attach hoist only to one of the two lifting points.
- Lift only when load chain/rope forms a vertical line between load and lifting shackle used.
- Do not allow load to swing.

Warning

- Do not lift or transport loads while personnel are in the danger zone.
- Do not allow personnel to pass under a suspended load.
- Start raising the load only after it has been attached correctly, and all personnel are clear of the danger zone.
- After lifting, a load must not be left unattended.

Attaching the load

The operator must ensure that the working load limit (WLL) maximum capacity hoist is attached in a manner that does not expose him or other personnel to danger by the hoist, chain[s] or the load.

Temperature range

The *PORTA-DAVIT 1000* davit assembly can be operated in ambient dry temperatures between -20°C and +50°C (-4°F to 122°F). Consult your supplier in case of extreme working conditions.

If used in sub-zero and wet conditions, the performance may be affected.

Regulations

The *PORTA-DAVIT 1000* complies with the following regulations:

The Supply of Machinery (Safety) Regulations (2008) (S.I. 2008/1597), ATEX Directive 2014/34/EU, The Provision and Use of Work Equipment Regulations 1998 (S.I. 1998 No. 2306), The Lifting Operations and Lifting Equipment Regulations 1998 (S.I. 1998 No. 2307), Machinery Directive 2006/42/EC. The safety regulations of the respective country for using manual lifting equipment must be strictly adhered to.

INSPECTION/MAINTENANCE

Regular inspections

To ensure that the davit remains in safe working order, it must be subjected to regular inspections by

a competent person. Inspections are to be every 12 months, unless adverse working conditions or profile of use dictate shorter periods. The components of the davit are to be inspected for damage, wear, corrosion or other irregularities. To check for worn parts, it may be necessary to disassemble the davit.

Repairs should only be carried out by an approved specialist workshop that uses original spare parts.

Inspections are instigated by the user. If detailed information is required on inspection and test criteria, please refer to your supplier's technical department.

If using the davit in explosive atmospheres see additional section titled ATEX.

Maintenance/Repair

In order to ensure correct operation, not only the operating instructions, but also the conditions for inspection and maintenance must be complied with. If defects are found **stop** using the davit immediately.

SOCKETS - Fixed

The *PORTA-DAVIT 1000* structure needs to be anchored to a surface/foundation capable of withstanding the applicable loading. The davit can be supplied with one of the mounts specified below (**only mounts supplied by REID Lifting are approved to be used with the *PORTA-DAVIT 1000***):



Top
Mount



Side
Mount



Cast & Resin
Bonded

- The **top mount** is for use of flat horizontal surfaces. It can be installed onto concrete using resin bonded anchors or into steel work using bolts.
- The **side mount** can be installed using resin bonded anchors or mechanical anchors.
- The **cast & resin** bonded sockets are for installation into concrete.

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Socket installation

Depending upon the socket type there are multiple ways that installation can be achieved. When using bolts they are to be minimum grade 8.8 BZP or, if stainless, grade A4, or equivalent.

When installing the socket, it is important to ensure that the top face is as level as possible, with installation being not more than 3 degrees misaligned from the horizontal.

Socket installation should only be carried out by a competent person. If specifying the anchors, resin, fasteners or any combination of the afore-mentioned, it is essential that the competent person is of ability to specify an installation that is safe for use. If in any doubt about the calculation of loads contact your REID Lifting representative.

Verifying the installation

REID Lifting strongly recommends testing the installation of the socket before initial use; especially when using resin bonded anchors.

When verifying the installation, we recommend testing to

no greater than 125% of the goods WLL at its maximum radius. All tests should be carried out in all anticipated worst case loading directions, sustained for a duration of 3 minutes.

If unable to test the installation as a whole, then each anchor can be isolated and tested individually applying the applicable loading, i.e. tension and/or shear loads. For clarification on the loads contact your equipment supplier.

If an installation differs from the sockets referred to above, or to that specified by your supplier then the competent person must verify by calculation that the installation can withstand the following:

- 150% of the goods WLL at the devices maximum radius in all anticipated worst case loading directions but not test to more than 125% of the goods WLL at the devices maximum radius.

If required a sacrificial anchor may need to be installed to verify the installation has the ultimate capacities required.

Following initial socket installation verification tests we do not recommend overload tests for the socket or davit and suggest thorough visual examination only. If the client feels that as a result of a visual examination that a load test is appropriate, we would recommend a 100% load test and certainly no greater than 125%.

Disclaimer



All REID sockets have been designed, developed and tested for safe use with REID's equipment and form a key part of the integrity of the total system.

- All sockets have a working load limit (WLL) based on the maximum radius setting of the davit.
- All sockets are supplied in galvanised mild steel or stainless steel (316L grade, passivated).
- Sockets can be powder coated upon request e.g. Yellow for trip hazard warning.

Should non-standard third party sockets be used, REID Lifting's Declaration of Conformity & Incorporation on the products is negated. i.e. The system becomes the responsibility of the client.

MARKING

The serial labels indicate:

- The product identification number.
- The products unique serial number.
- The goods working load limit (WLL) of the device.
- The year of manufacture.
- The standards to which the device is approved.
- The ATEX rating of the product (if applicable) - see ATEX section.



Read the Assembly & Operation instructions.



PORTA-DAVIT 1000kg
Assembly & Operation instructions.

ATEX:



This product has been designed for use in explosive atmospheres. If the product is to be used in explosive atmospheres then the following section must be followed. Any different or exceeding use is considered incorrect and REID Lifting Ltd will not accept any responsibility for damages resulting from false application. The risk is solely with the user. If the product has been customised in any way then it may not comply with standards and not be suitable for use in explosive atmospheres. If this is the case then the product will not have any of the below marking. If in doubt contact your REID representative.

ATEX - Classification

As standard, the product meets the requirements of Category 3 equipment for use in Zone 2 explosive atmospheres, providing a normal level of protection where mixtures of air and gases, vapours or mists or by air/dusts mixtures are unlikely to occur or, if they do occur, are likely to do so only infrequently and for a short period only.

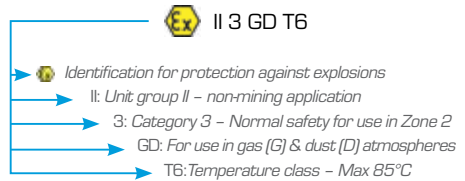
Or;

Available as an upgrade the product can be supplied to meet the requirements of Category 2 equipment for use in Zone 1 explosive atmospheres, providing a high level of protection where mixtures of air and gases, vapours or mists or by air/dusts mixtures are likely to occur.

ATEX - Identification

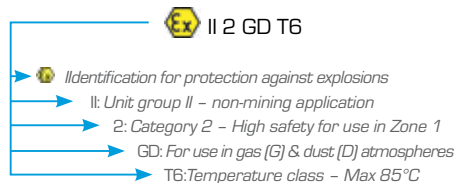
In addition to the previous marking section, if suitable for use in explosive atmospheres, the product will have the following identification on the serial label:

As standard for Zone 2 atmospheres:



or;

As an upgrade for use in Zone 1 environments:



ATEX - Spark formation

Increased danger of ignition may emanate from clashing of special material pairings. These are non corrosion-resistant steel or cast iron against aluminium, magnesium or pertinent alloys. This applies especially in case of rust or surface rust.

When assembling the product and inserting fastening components; they must be clear of rust and debris of any kind. Care must be taken to ensure the product is handled in a suitable manner and is never thrown, and always placed, onto the ground.

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ATEX - Static electricity

For Zone 2 & 1 applications, static electricity has been identified as potential for build-up, leading to an incendive spark. Although the risk of such ignition is unlikely, the structure must have a clear route to earth, which must be considered when installing the sockets for mounting the structure. These sockets should be in direct contact with the ground and there should be no membrane separating the socket from the ground.

If an isolating membrane is to be used, an earthing path must be provided. If the structure is to be used in a larger socket with a nylon sleeve the davit will have to be earthed using a 4mm earthing cable attached to a convenient location on a metallic part of the structure.

ATEX - Inspection, maintenance & repair

If using the davit in explosive atmospheres, in addition to the regular inspection/maintenance information found on page 5, these additional instructions should be followed.

Inspections shall be instigated by the user and occur at least 6 monthly or sooner if adverse operating conditions or profile of use dictate shorter periods. Inspections and maintenance shall be carried out at a safe distance away from an explosive atmosphere.

Special attention should be given to dust deposits on the structure, especially in areas where the profiles come into contact, and should be wiped clean and care taken not to apply materials that could create electrostatic charging. Additionally the kingpin should be checked to ensure it rotates freely.

The structure is predominantly constructed from aluminium which will not rust. However there are steel components used throughout. These are the fasteners, shackles and king pin bearing. Where there is sign of any rust deposits on the aluminium structure it should be wiped clean as above and where there is sign of rust on a steel component, then that component should be removed from use and the structure not used until a replacement is fitted.

Note : the above also applies to steel sockets.

LANGUAGE

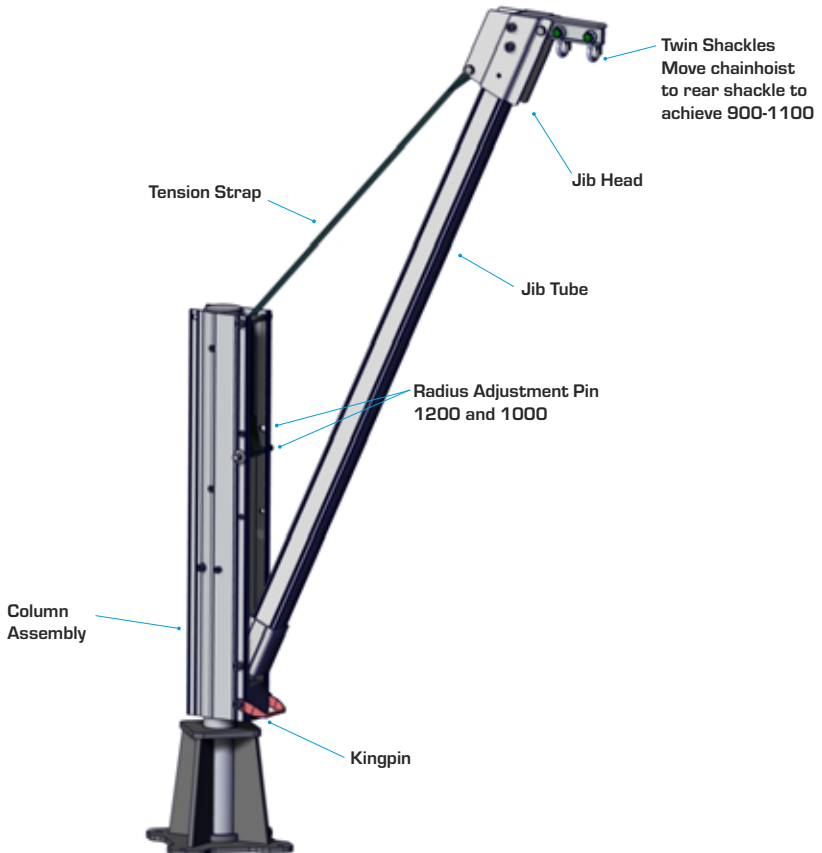
It is essential for the safety of the user that if this product is re-sold outside the original country of destination the reseller shall provide instructions for use, maintenance, for periodic examination and for repair in the language of the country in which the product is to be used.

ASSEMBLY INSTRUCTIONS

The PORTA-DAVIT system is delivered as a “bagged system” for convenient, clean and safe handling, storage and transportation. A competent person should check for any damage to the davit components before assembling.

N.B. No tools are required for assembly.

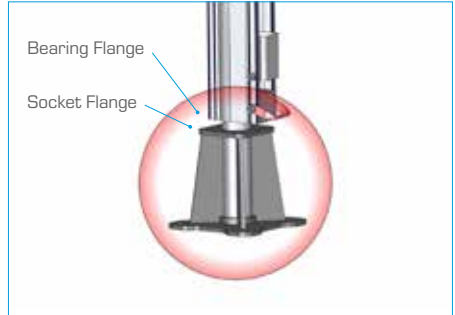
PORTA-DAVIT 1000 - Standard (diagram)



PORTA-DAVIT[®] 1000

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PORTA-DAVIT 1000 - Standard



1. Insert the kingpin of the davit base assembly into the socket.

2. Ensure kingpin is correctly seated in the socket.

N.B. Fits all REID Lifting socket types: flush mount, top mount, side mount, bridge mount and the PORTA-BASE. Demonstrated using a top mount socket.



3. Rotate the jib receiver so that it is inclined to accept the jib.



4. Insert jib into jib head and connect chain block (hoist) to shackle (recommended to mitigate heavy lifting).



5. Insert jib into jib receiver.

N.B. There are fixing holes in the head and base of jib. No fixings are required.



6. Supporting the weight of the jib with shoulder, fit jib adjustment stroop around the roller at the top of the column and insert pin at required radius setting. Insert retaining clip through adjustment pin.

N.B. Ensure the adjustment stroop is threaded around the roller at top of column otherwise a dangerously large operating radius will result.



7. Insert lever into one of the three mounting positions to aid davit rotation - it can be set at 90°, 180°, or 270° to the jib.



8. Check the davit assembly for ease of rotation.

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ACCREDITATIONS

Quality and Safety are key themes throughout this document and the REID Lifting ethos. It is with this in mind that we have undertaken external accreditations to ensure we stay focused on what is important to our clients and users and ahead of market trends and developments in Safety and Quality systems.

REID Lifting has been successfully audited by Lloyds Register (LRQA) for approval of its Integrated Management System combining quality systems management, environmental issues and the Health and Safety practices within the company.

REID Lifting holds the following certifications:

- **ISO 9001** - Specifies requirements for a quality management system for any organisation that needs to demonstrate its ability to consistently provide product that meets customer and applicable regulatory requirements and aims to enhance customer satisfaction.
- **ISO 14001** - Specifies the requirements for implementing environmental management systems throughout all areas of the company.
- **OHSAS 18001** - Occupational Health and Safety Managements Systems.
- **LEEA Membership** - REID Lifting Ltd is a full member of the Lifting Equipment Engineers Association (membership 000897). REID Lifting conforms to the main aims of the association which is to achieve the highest standards of quality and integrity in the operations of members. Their entry qualifications are demanding and strictly enforced through technical audits based on the technical requirements for members.

Conformité Européenne (CE)

REID Lifting's products have been designed, tested and approved (as appropriate) by the Conformité Européenne. This certifies that REID Lifting's products meet the demands of the European Directives regarding health and safety requirements.

The Queen's Award for Enterprise Innovation

REID Lifting has been awarded this prestigious award twice for innovative design and development of lightweight, portable and safe lifting solutions.



TESTING

Testing and Technical File review are integral parts of our design and manufacturing process – to externally verify the products, where appropriate, using government approved Notified Bodies.

All REID Lifting products are type tested at laboratories that are accredited by the United Kingdom Accreditation Service (UKAS). In addition, products are proof load tested either individually (or on a batch sampling basis).

Full product design & development Technical Files are available for inspection.

QUALITY & SAFETY

INTELLECTUAL PROPERTY RIGHTS

Product IPR

Intellectual property rights apply to all REID Lifting Ltd products. There are patents in place, or pending, for:

- *PORTA-GANTRY*
- *PORTA-GANTRY RAPIDE*
- *PORTA-DAVIT QUANTUM*
- *PORTA-DAVIT*
- *T-DAVIT*
- *SNAPPER*

All product names are trade-marks of REID Lifting Ltd:

- *PORTA-GANTRY*
- *PORTA-GANTRY RAPIDE*
- *PORTA-DAVIT QUANTUM*
- *PORTA-DAVIT*
- *PORTA-BASE*
- *T-DAVIT*
- *PORTA-QUAD*
- *SNAPPER*
- *PORTA-LIFTER* Manhole Lifter



INSPECTION



INSPECTION RECORD



* Insert data from serial numbers found on product into table below.

Product number(s)* A			
Serial number(s)* B			
WLL* C			
Year of manufacture* D			
Name of user			
Date of purchase			
Date of first use			
Periodic Examination and Repair History			
Date	Inspected by	Pass/Fail	Comments



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