

REID Lifting

PORTA-BASE 90, 180 & 360

Assembly

&

Operating Instructions

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1. INTRODUCTION

All users must read these operating instructions carefully prior to the initial operation. These instructions should be read in conjunction with the PORTA-DAVIT 500 (+ Variants) Assembly & Operating Instructions. These instructions are intended to acquaint the user with the machine/hoist 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 machine/hoist in a safe, correct and economic way. Acting in accordance with these instructions helps to avoid dangers, reduce repair costs and down time and to increase the reliability and lifetime of the equipment. Anyone involved in doing any of the following work with the *PORTA-BASE* and davit must read the operation instructions for both pieces of equipment and act accordingly:

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

Apart from the operating instructions and the accident prevention act valid for the respective country and area where the davit is used, the commonly accepted regulations for safe and professional work must be adhered to also.

2. OPERATING INSTRUCTIONS

2.1 CORRECT OPERATION

Maximum capacity:

The *PORTA-BASE* 90, 180 and 360 davit socket assemblies have been designed to be integrated with the *PORTA-DAVIT* 500R in order to lift and lower loads up to the related capacity. The capacity indicated on the *PORTA-BASE* is its Working Load Limit (WLL), which must not be exceeded.

The lowest WLL of the component parts comprising *PORTA-BASE*, *PORTA-DAVIT* and hoisting device dictates the maximum WLL of the system.

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. Unless stated otherwise the *PORTA-BASE* 90, 180 and 360 are used in conjunction with the *PORTA-DAVIT* 500R davit (normally for Goods lifting only) or the *PORTA-DAVIT* 120R (normally for Man-ride applications only).
3. The maximum load for goods is 500kg and for Man-ride is 120kg.
4. *PORTA-DAVITs* must only be operated at a maximum radius of 1000mm (within the yellow zone of the davit adjustment channel). Call your supplier if a yellow adjustment channel is not fitted.

Danger zones:

- 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.
- A load must not be left unattended while it is suspended.
- Only use the *PORTA-BASE* 90 within the 90° operating arc and the *PORTA-BASE* 180 within the 180 ° operating arc and with a *PORTA-DAVIT* 500R which has a maximum radius setting of 1000mm. The *PORTA-BASE* 360 can be used within a full 360° operating arc.

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 himself or other personnel to danger by the hoist, chain(s) or the load. The operator must ensure that the lift is in the vertical plane.

Temperature range:

The *PORTA-BASE* 90, 180, 360 and davit assembly can be operated in ambient temperatures between -10°C and +50°. Consult the manufacturer in case of extreme working conditions.

Regulations:

The accident prevention act and/or safety regulations of the respective country for using manually operated lifting equipment must be strictly adhered to.

Maintenance/Repair:

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

2.2 NOTES FOR CORRECT USAGE

- Do not throw the *PORTA-BASE* down or stack items on top of it. Always place it properly on the ground avoiding damage to the component parts.
- Assemble only as instructed.
- Do not use the *PORTA-BASE* with non-approved davits.
- Do not use the davit if the shaft is not seated correctly in the socket of the *PORTA-BASE*.
- 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 within the limits of the stops.
- The *PORTA-DAVIT* radius adjustment channel must be set within the yellow zone on the channel giving a maximum operating radius of 1000mm.
- Do not use the *PORTA-BASE* if all the pins are not correctly seated and held by retaining clips.
- Do not knot or shorten the tension strap (if fitted) to reduce operating radius
- Do not use the davit with retaining clips removed from radius adjusting pin
- Attach hoist only to one of the two shackle lifting points or on the backstay (if fitted).
- Lift only when load chain/rope forms a vertical line between load and lifting shackle used.
- Do not allow load to swing.

2.3 INITIAL ASSEMBLY AND SAFE OPERATION *PORTA*-BASE 90

Inspection prior to initial operation:

The *PORTA*-BASE and davit must be inspected by a competent person prior to initial operation. The inspection is visual and functional and shall establish that the system is safe and has not been damaged by incorrect transport or storage.

Inspection before starting work:

The inspection procedure requires that a valid test certificate has been submitted to and checked by the user for both the *PORTA*-BASE and *PORTA*-DAVIT.

Before use inspect the *PORTA*-BASE and all load bearing components and limit stops every time for visual defects. Furthermore, test the free rotation of the pin on the davit.

Assembly: *PORTA*-BASE 90 standard unit

1. Bolt the yellow boomerang plate to the socket hub, with the davit rotation stops facing upwards, using M16x45 Hex bolts (see Fig 1). (On dis-assembly these do not need to be removed).
2. Insert each leg assembly into the socket hub with levelling foot to the ground (see Fig. 1 + 3) and retain with tow pin. Tow pins should then be secured with lynch pins.
3. Fix the position of each leg by inserting tow pin through boomerang plate end and leg (see Fig 2) and secure tow pins with lynch pins.
4. Position the *PORTA*-BASE assembly in the operating position and adjust levelling feet so that leg members are horizontal (this can be checked using the Bulls-eye bubble on each leg). If the stroke of the adjustment on the levelling feet is insufficient to provide a level operating condition, wooden blocks or boards should be used and further adjustment made.
5. The *PORTA*-BASE is now ready for the *PORTA*-DAVIT to be inserted into the socket.
6. Take the *PORTA*-DAVIT 500R base unit (with yellow colour coded adjustment channel) and insert the kingpin into the socket hub such that the davit base bracket sits within the 90° operating arc and the face of the nylon davit bearing is flush with the hub flange. If a winched version of the *PORTA*-DAVIT is being used (see Fig. 5) ensure the rope is retained on the sheave by the pins and the yellow adjustment channel is correctly set and with R-clip fitted to the adjustment pin.
(Please note: Davit jib must only be operated within the 90° operating arc).
7. Release the davit retaining strap (if fitted) and continue as the Assembly and Operation guidelines of the *PORTA*-DAVIT 500R.

2.4 INSPECTION/MAINTENANCE

Regular inspections:

To ensure that the *PORTA*-BASE remains in safe working order it should be subjected to regular inspections by a competent person. Inspections are to be annual unless adverse working conditions dictate shorter periods. The components of the *PORTA*-BASE are to be inspected for damage, weld cracks, wear, corrosion or other irregularities. To check for worn parts it may be necessary to disassemble the *PORTA*-BASE completely. Repairs may only be carried out by a specialist workshop that uses original spare parts.

Inspections are instigated by the user. E&OE

PORTA-BASE 90 standard unit

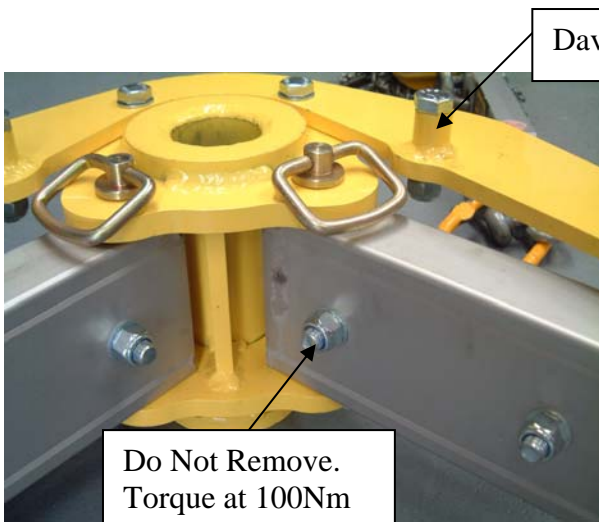


Fig. 1: Hub + Leg assembly

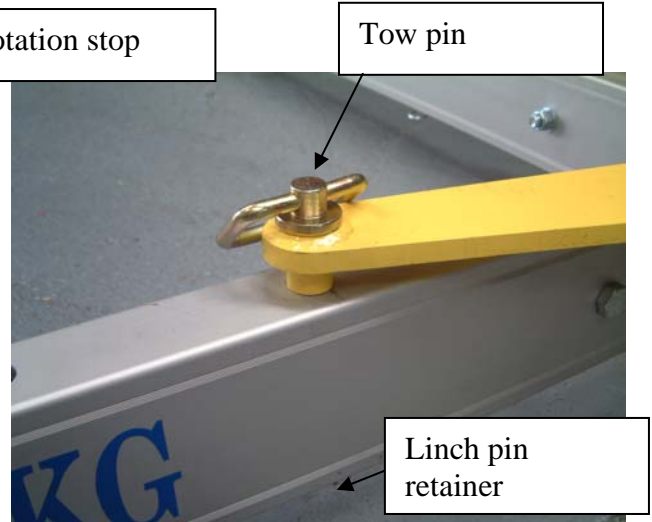


Fig. 2: Boomerang plate to Leg retention

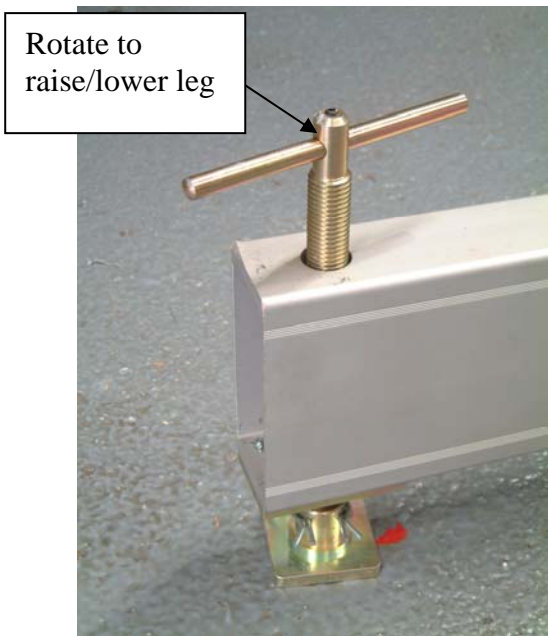


Fig. 3: Levelling foot adjustment



Fig 4: Davit inserted into socket

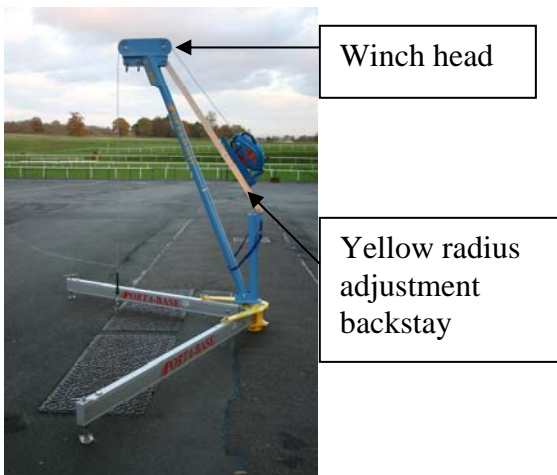


Fig 5: Winched version

2.5 INITIAL ASSEMBLY AND SAFE OPERATION *PORTA-BASE 180*

Inspection prior to initial operation:

The *PORTA-BASE* and davit must be inspected by a competent person prior to initial operation. The inspection is visual and functional and shall establish that the system is safe and has not been damaged by incorrect transport or storage.

Inspection before starting work:

The inspection procedure requires that a valid test certificate has been submitted to and checked by the user for both the *PORTA-BASE* and *PORTA-DAVIT*.

Before use inspect the *PORTA-BASE* and all load bearing components and limit stops every time for visual defects. Furthermore, test the free rotation of the pin on the davit.

Assembly: *PORTA-BASE 180* standard unit

1. Bolt the yellow top fixing plate to the socket hub, with the davit rotation stops facing upwards, using M16x90 socket head bolts (see Fig. 6). (On dis-assembly do not remove rotation stops).
2. Insert each leg assembly into the socket hub with levelling foot to the ground (see Figs. 8 + 10) and retain with 3-off tow pins. Secure tow pins with linch pins.
3. Fix the position of 2-off outer legs by inserting 2-off tow pins through top fixing plate end (see Fig. 9) and secure tow pins with linch pins.
4. Position 1-off Leg Brace by inserting 2-off tow pins (pin position on centre leg as shown in Fig. 9) secure with linch pins.
5. Position the *PORTA-BASE* assembly in the operating position and adjust levelling feet so that leg members are horizontal (this can be checked using the Bulls-eye bubble on each leg) see Fig. 10. If the stroke of the adjustment on the levelling feet is insufficient to provide a level operating condition, wooden blocks or boards should be used and further adjustment made.
6. The *PORTA-BASE* is now ready for the *PORTA-DAVIT* to be inserted into the socket.
7. Take the *PORTA-DAVIT 500R* base unit (with yellow colour coded adjustment channel) and insert the kingpin into the socket hub such that the davit base bracket sits within the 180° operating arc and the face of the nylon davit bearing is flush with the hub flange. If a winched version of the *PORTA-DAVIT* is being used (see Fig. 12) ensure the rope is retained on the sheave by the pins and the yellow adjustment channel is correctly set and with R-clip fitted to the adjustment pin.
(Please note: Davit jib must only be operated within the 180° operating arc).
8. Release the davit retaining strap (if fitted) and continue as the Assembly and Operation guidelines of the *PORTA-DAVIT 500R*.

2.6 INSPECTION/MAINTENANCE *PORTA-BASE 180*

Regular inspections:

To ensure that the *PORTA-BASE* remains in safe working order it should be subjected to regular inspections by a competent person. Inspections are to be annual unless adverse working conditions dictate shorter periods. The components of the *PORTA-BASE* are to be inspected for damage, weld cracks, wear, corrosion or other irregularities. To check for worn parts it may be necessary to disassemble the *PORTA-BASE* completely. Repairs may only be carried out by a specialist workshop that uses original spare parts.

Inspections are instigated by the user. E&OE

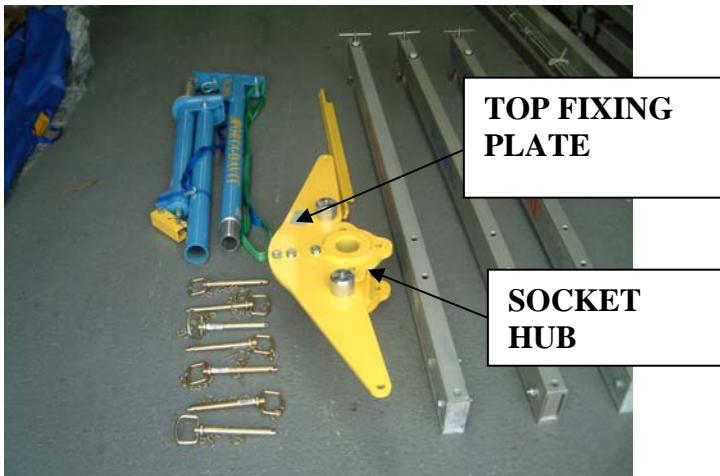


Figure 6 PARTS BEFORE ASSEMBLY



Figure 7

ROTATION STOPS

DO NOT REMOVE 6-OFF TORQUE AT 100Nm. (6-OFF BOLTS)



Figure 8 Hub + Leg Assembly

3-OFF TOW-PINS

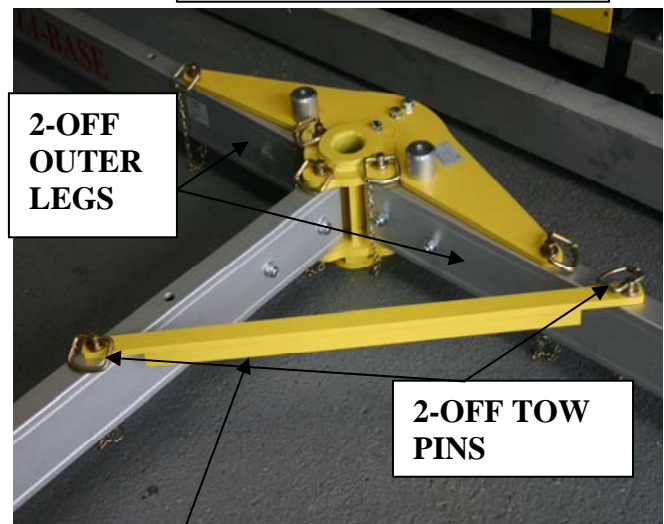


Fig. 9

2-OFF OUTER LEGS

2-OFF TOW PINS

1-OFF LEG BRACE



Figure 10 LEVELLING FOOT ADJUSTMENT



Figure 11 DAVIT INSERTED INTO SOCKET

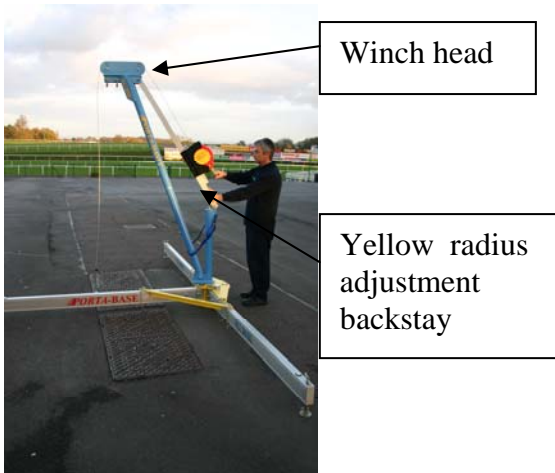


Figure 12 WINCHED VERSION

2.7 INITIAL ASSEMBLY AND SAFE OPERATION *PORTA-BASE 360*

Inspection prior to initial operation:

The *PORTA-BASE* and davit must be inspected by a competent person prior to initial operation. The inspection is visual and functional and shall establish that the system is safe and has not been damaged by incorrect transport or storage.

Inspection before starting work:

The inspection procedure requires that a valid test certificate has been submitted to and checked by the user for both the *PORTA-BASE* and *PORTA-DAVIT*.

Before use inspect the *PORTA-BASE* and all load bearing components and limit stops every time for visual defects. Furthermore, test the free rotation of the pin on the davit.

Assembly: *PORTA-BASE 360* standard unit

1. Insert each leg assembly into the socket hub with levelling foot to the ground (see Figs. 13 & 14) and retain with 4-off tow pins. Secure tow pins with lynch pins.
2. Position 2-off Short Leg Brace and 2-off Long Leg Brace by inserting 8-off tow pins (see Fig. 15) and secure with lynch pins. Ensure that each quadrant is secured to a 90° angle by a tie bar.
3. Position the *PORTA-BASE* assembly in the operating position and adjust levelling feet so that leg members are horizontal (this can be checked using the Bulls-eye bubble on each leg) see Fig. 14.

If the stroke of the adjustment on the levelling feet is insufficient to provide a level operating condition, wooden blocks or boards should be used and further adjustment made.

4. The *PORTA-BASE* is now ready for the *PORTA-DAVIT* to be inserted into the socket. (see Fig. 16)
5. Take the *PORTA-DAVIT 500R* base unit (with yellow colour coded adjustment channel) and insert the kingpin into the socket hub such that the face of the nylon davit bearing is flush with the hub flange.
If a winched version of the *PORTA-DAVIT* is being used ensure the rope is retained on the sheave by the pins and the yellow adjustment channel is correctly set and with R-clip fitted to the adjustment pin.
6. Release the davit retaining strap (if fitted) and continue as the Assembly and Operation guidelines of the *PORTA-DAVIT 500R*.

2.8 INSPECTION/MAINTENANCE *PORTA-BASE 360*

Regular inspections:

To ensure that the *PORTA-BASE* remains in safe working order it should be subjected to regular inspections by a competent person. Inspections are to be annual unless adverse working conditions dictate shorter periods. The components of the *PORTA-BASE* are to be inspected for damage, weld cracks, wear, corrosion or other irregularities. To check for worn parts it may be necessary to disassemble the *PORTA-BASE* completely. Repairs may only be carried out by a specialist workshop that uses original spare parts.

Inspections are instigated by the user. E&OE

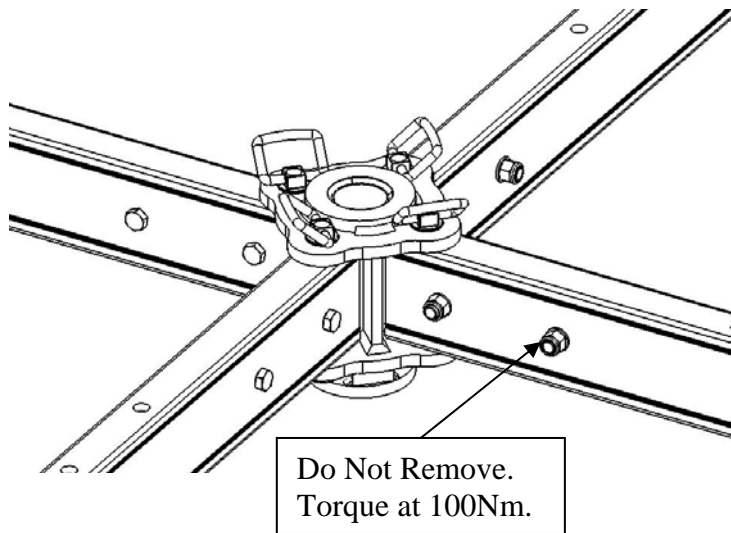


Figure 13 HUB + LEG ASSEMBLY

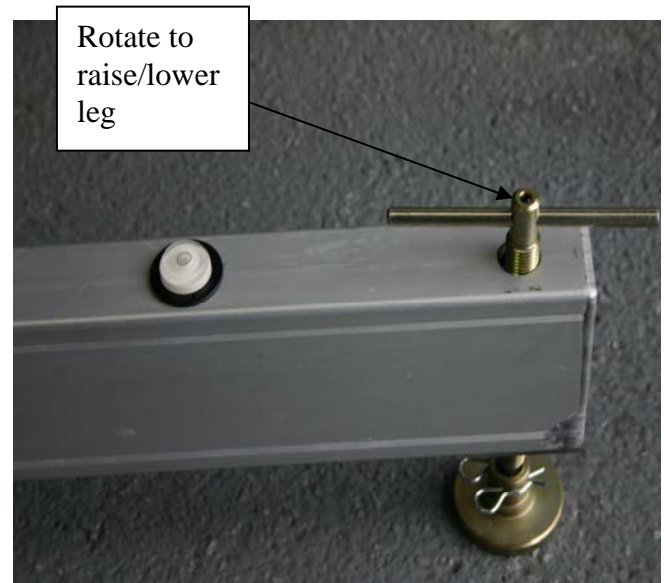


Figure 14 LEVELLING FOOT ASSEMBLY

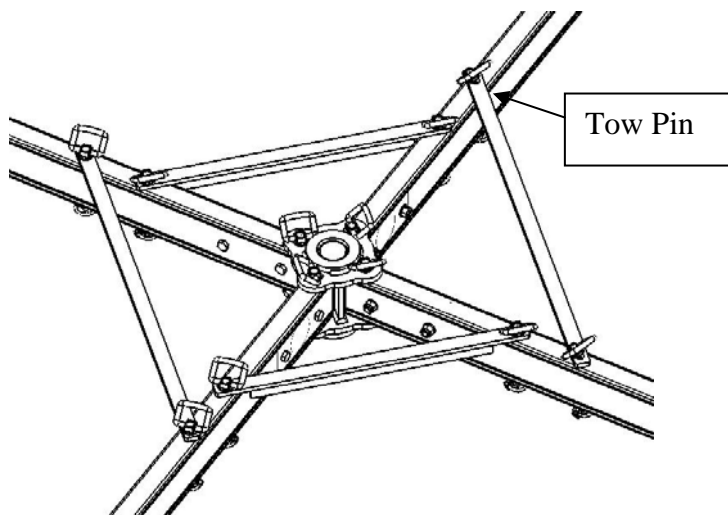


Figure 15 LEG BRACE LAYOUT



Figure 16 DAVIT INSERTED INTO SOCKET