

SwingLift DC range

Operating & maintenance instructions



Welcome

Thank you for purchasing a Penny Hydraulics crane.

All our products are designed, developed and manufactured to stringent quality and safety standards at our purpose built UK facility.

We understand that you need the peace-of-mind of a planned maintenance programme in order to achieve full compliance with European legislation, so we offer a choice of extremely cost-effective service packages which include examination and testing - more details can be found on the inside back cover of this booklet. We can also offer additional support in the form of our specialist training services - please contact us for more details.

Accessories

We supply a wide range of lifting accessories including slings, shackles and special attachments such as kerb grabs, barrel slings and dumpy bag lifters.

You can also buy replacement parts for your crane direct from our website - **<https://shop.pennyhydraulics.com>**

Our online parts shop stocks everything from wire ropes and solenoids to complete boom assemblies, winch motors and remote controls.



Service & Operation Manual for Penny Hydraulics Davit Cranes



Station Road
Clowne
Chesterfield
Derbyshire
S43 4AB
Tel: 01246 811475
Fax: 01246 810403








E-mail: sales@pennyhydraulics.com

Website: www.pennyhydraulics.com

Safety Warning

In the interest of safety, all personnel involved in the lift operation must read the operation manual and comply with the following.



- Do not use the Davit if it is not supported with valid documentation recording a Thorough Examination being carried out by a Competent Person within the last 12 months.
- The Standard Davit is not designed and must not be used for man riding.
- A Man Riding option is available on request.
- Do not use the Davit if there is any sign of structural damage or malfunction. 
- The Davit must not be overloaded. 
- The Davit must only be operated by trained and competent personnel. A training register is included at the back of this manual. Penny Hydraulics Ltd. can provide specialist on site training on request. 
- Whilst a lift is in progress access to the area should be restricted to those personnel essential to the operation. 
- Do not leave loads suspended in between lifting / lowering operations. 
- Safety notices must be adhered to at all times. 
- Never interfere with the unit. It should run smoothly at all times, if in doubt call the HELPLINE telephone number 01246 811475.
- Keep the Penny Hydraulics Davit properly maintained by a competent person.
- Where guards or safety gates are fitted always ensure that they are in place before operating the Davit.
- Never leave an open shaft or pit unguarded.
- Treat ladders with respect and ensure they are secured in position. 

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Introduction



Thank you for purchasing a Penny Hydraulics Aluminium Alloy Davit. This design has unique features and is built in our factory in Chesterfield to Internationally recognized standards. Each one is custom built to specific requirements and we trust that it meets with your approval and will provide you with a safe, efficient and trouble free means of lifting operations for many years.

This manual tells you what you need to know about its operation together with some useful guidance on safety and general care. It also explains the servicing requirements and the availability of a service agreement should you wish to take advantage of it. We have our own engineers around the country lead by our Central Service Department to give an exceptional after-sales service.

We strongly recommend that each operator of the Penny Hydraulics Aluminium Alloy Davit be trained in its use and read all the details set out in this booklet.

All Penny Hydraulics Davits have a common operating procedure and in general terms are designed to be used by two persons to remove and replace heavy or awkward items from and into wells or pits.

Due to the nature of the operation being exposed to a deep open well or pit, extreme care must be taken when operating a Penny Hydraulics Aluminium Alloy Davit and all safety procedures as detailed by the appointed person will need to be strictly adhered to.

Inherent design features such as the hold-to-run control and automatic overload protection are included to ensure the safety of operators and third parties.

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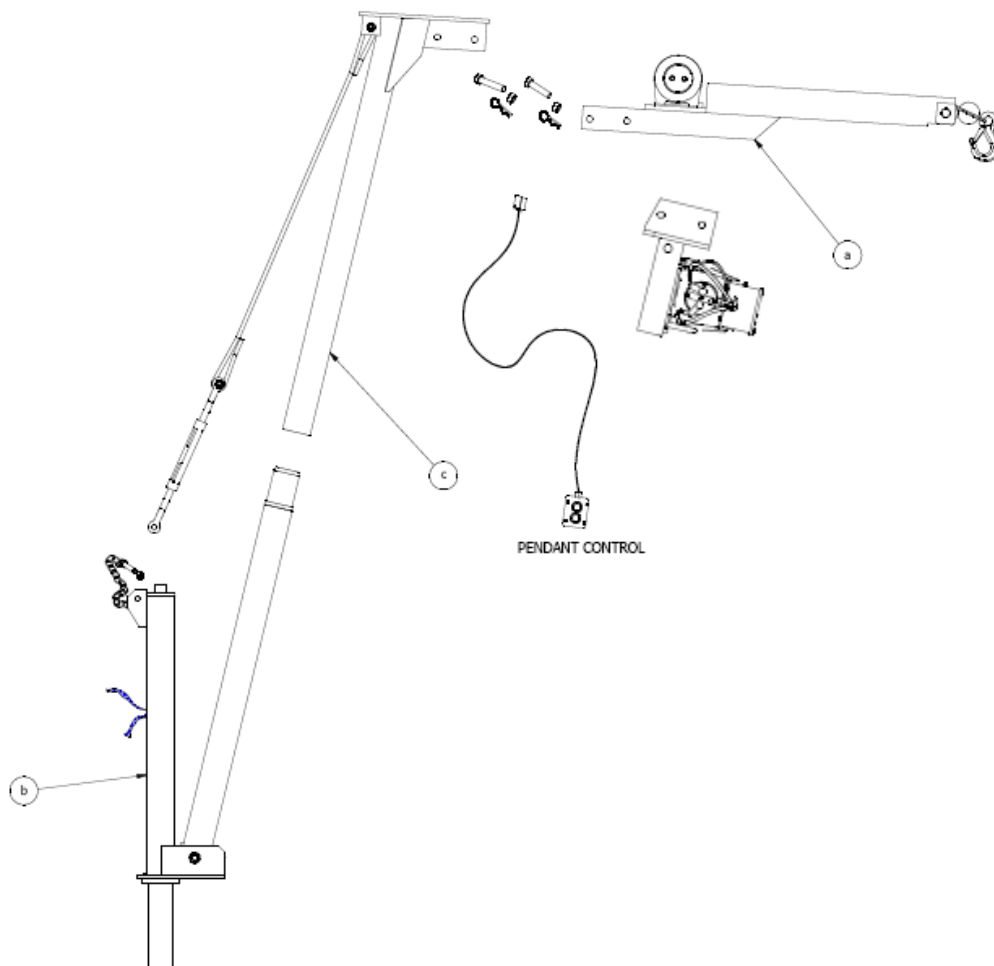
General Description

The Penny Hydraulics Aluminium Alloy Davit is supplied as a fully tested and certified unit ready for use.

On receipt of a new unit, remove all packaging, check that all components are intact and that there is no transit damage.

The Davit is designed to be transported from site to site in manageable size subassemblies as follows:

- a) Winch Assembly – approx. 22kg Standard Winch, 25kg. Extended Boom. (Shown)
- b) Base Assembly – approx. 12kg.
- c) Boom Assembly – approx. 10kg





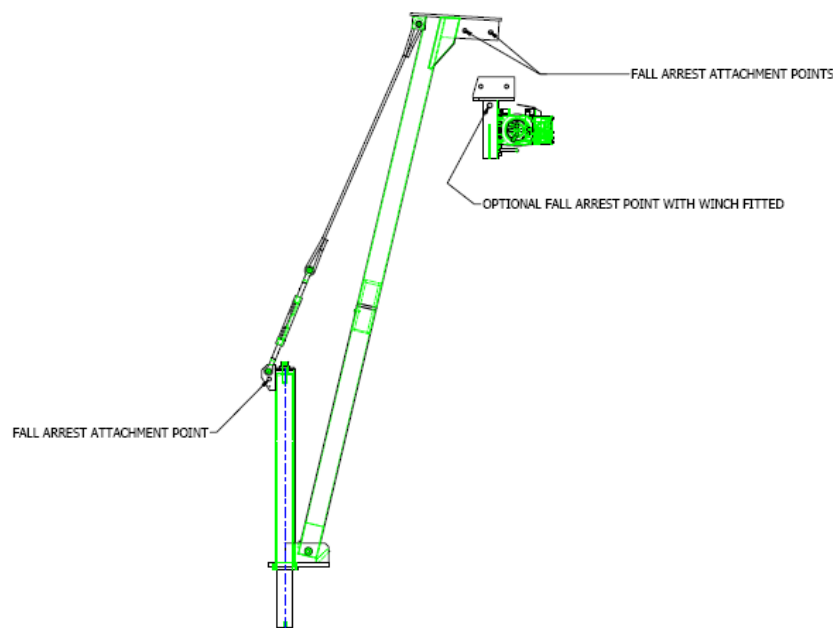
The pendant control should always be disconnected from the winch unit for transport.

To disassemble, remove the bolts and pins and detach as shown.
Refit the bolts and pins securely for transport.

Method of Assembly & Operation



1. Ensure that all site specific safety precautions and guarding of the well or pit have been observed and implemented.
2. Check and ensure the correct documentation is available and current to support LOLER.
3. Clear the working area of unnecessary personnel and obstructions, erect suitable barriers as required.
4. Check the Davit, controls and wiring for any signs of wear or damage.
5. Check that the mounting socket structure is in good condition, clean and suitable for accepting the Davit. 
6. The Davit should be assembled by removing the socket blanking cover from the socket next to the item to be lifted and placing the base assembly spigot (b) into the socket, ensuring it slides fully in. 
7. Locate the boom assembly (c) into the base assembly (b) and allow the assembly to rest on the stop block.
8. Fit the winch unit (a) to the Davit using two M16 bolts, nuts and locking clips.
9. One person should now raise the boom assembly (c) upward while a second person secures the wire lanyard turnbuckle to the base assembly (b) with pin and clip, chained to the upright.
10. Adjust the turnbuckle enough to lift the boom assembly (c) over the centre line of the lift.
11. Plug the pendant control cable into the plug socket on the winch.
12. Connect the power supply cable to the winch unit and the other end to the vehicle or transformer.
13. Before opening the well, ensure that the fall arrest harnesses are secured to one of the fall arrest anchor points indicated below.



14. Standard operation is via a single hold to run pendant control connected to the winch unit with up / down buttons to select direction. The person operating the controls is to remain in a safe position and no one should pass them whilst the hoist is in motion. The Davit should be swung round until the rope is over the centre of the

load, accurate positioning of the slewing radius being determined by adjusting the turnbuckle on the end of the wire lanyard.

15. On completion of the job in hand, replace all covers and make the site safe.

16. Clean the equipment thoroughly, ensure the winch rope is stored evenly and securely on the winch drum by tensioning the bob weight lightly against the rope pulley or drum and dismantle the Davit in the reverse order of assembly.

17. Refit the socket blanking cover.



CAUTION: Do not leave the load suspended in between lifting / lowering operations.



Do not work over an open well without first securing your fall arrest harness.



NOTE: The winch is fitted with an overload device that prevents it lifting in excess of its maximum working load. If excess load is added to a suspended load, the winch is still capable of being lowered.



Fault Finding

Control failure. Check that the pendant is plugged in correctly to the socket on the winch and that the power supply (battery) is fully charged and in good condition.

Winch will not lift. Ensure power connections are plugged in and that any isolators are in the ON position. If the winch will lower but not lift it is overloaded and the load must be put down and a larger crane sought.

Switch on the power supply and nothing happens. Occasionally a surge in mains power may cause a fuse to trip out. Switch off power and check fuses, switch/plug and distribution board.

The winch is operating in the wrong direction. Check that the wire rope is winding onto the winch drum correctly. The rope should feed onto the drum on the side nearest to the mounting plate.

IF IN DOUBT CALL THE HELPLINE ON 01246 811475

Penny Hydraulics Limited Warranty Policy

This Policy is intended to provide our customers with the best possible support to ensure trouble free use of their new Penny Hydraulics lifting equipment.

Products sold by the Company are guaranteed to be free from defective material and workmanship for a period of one year from the date of invoice or from the date of the commissioning certificate.

This warranty applies only under the following conditions:

- a) The unit or part must not have been subject to neglect or abuse, or operated under abnormal conditions or in an unapproved application.
- b) The responsibility of the Company is restricted to what is, in their judgement an adequate repair or replacement of the Company's product.
- c) An authorised engineer must carry out a six monthly inspection.
- d) The warranty is void if examination reveals that the unit or part has been repaired or adjusted other than by an authorised engineer.
- e) Normal service repairs carried out by authorised engineers are supported by their own warranty.
- f) Warranty does not extend to consumable items requiring replacement due to normal wear and tear.

Any claim under warranty must be made in the first instance by contacting Penny Hydraulics Ltd Service Department on 01246 811475 or via email at service@pennyhydraulics.com. The decision will then be made on how best to proceed after consultation with the customer.

UK Mainland

We will normally have one of our own engineers based around the country visit the site to rectify the problem. This policy may be varied at our discretion but it is our aim to give the very best possible response to minimize product downtime and inconvenience.

Other Locations

Warranty is limited to a parts only service but in certain areas we have service partners who may be able to assist. Any defective item should be returned to Penny Hydraulics Ltd for inspection and any valid warranty claim will include reasonable carriage costs both ways. A replacement part will then be sent to the customer.

No variation of the warranty as stated in the Company's Standard Terms and Conditions of Sale is authorised unless agreed in writing by a Director of the Company. This is the only warranty given and the Company accepts no other responsibility.

Maintenance Schedule

Your Aluminium Alloy Davit is subject to the LIFTING OPERATIONS AND LIFTING EQUIPMENT (LOLER) regulations 1998 which is a statutory requirement to record on a formal document, the safe working condition of the Davit, attachments and mounting structure.

Penny Hydraulics Ltd. Support Team offers a service package to meet customer requirements and conform to LOLER certification. Please see Service Contract form enclosed.

Before Each Use.

Inspect the Davit visually for signs of damage, missing or loose fixings and general condition. Report any defects or malfunction and take corrective action before commencing.

Every 6 Months.

Before carrying out the inspection, report to the site supervisor and check that all safety procedures are in place.

Ensure adequate spare parts, lubricants and cleaning materials are available.

- Mountings - Check the socket for cleanliness, security and general condition. Ensure any socket cap is fitted securely.
- Base Assembly – Check the general condition of the base and that the nylon bearing is in place and not worn excessively.
- Boom Assembly – Check the general condition and that the pin and locking clip are fastened to the clevis. Ensure the lanyard and turnbuckle are in good condition.
- Winch Unit - Check for damage to the winch, control box, mounting bracket, mounting bolts and clips.
- Rope – Check general positioning and layout on the drum and check the general condition of the hook and safety catch.
- Cables - Examine all visible cables for broken wires, kinks or miss-shapen areas, cuts and the security of plugs.
- Pendant - Examine for obvious damage.
- Test – Run the rope up and down unloaded. Check for smooth running and that the rope is free from kinks, broken strands and corrosion.
- Attach a 500kg load for the Standard Davit or 100kg for the Extended Boom Davit and repeat the test.
- Add an extra 50kg for the Standard Davit or 10kg for the Extended Boom Davit to the load and check that the overload is set correctly.
- Check that there is an Operation & Service Manual available.
- Check existing guarding and assess the general safety of the installation.
- Check that all signage is in position. Replace signs as necessary.
- Reporting - Record any defects found, remedial action taken or work still required on the test certificate and in the schedule at the back of the handbook. **If the inspection was a Statutory Thorough Examination under LOLER then any defect that is or could become a danger to persons must be notified to the relevant enforcing authority and the lift taken out of use.**
- Leave a copy of the test certificate with the site administrator.
- Inform the site supervisor of any defects.

- Training - Update the training register and carry out additional training as required.

New Site Installation

Before the Davit is used on a newly constructed installation, the mounting socket must be load tested to 1.25% Maximum Working Load as follows:

Load Test – In the nominal operating position, add weights to create a load of 625kg. for the Standard Davit or 125kg for the Extended Boom Davit Slew the Davit through a full 360 degrees and check for structural integrity and any signs of permanent deformation, cracking or paint peeling.

Service Support

We believe that the Penny Hydraulics Davit will make a revolutionary improvement in the handling of your goods, both in terms of safety and efficiency.

The machine is manufactured to the highest quality standards we can achieve to give long and reliable service. To ensure this we have made available an ongoing service contract to provide our customers with a number of benefits.

- A helpline telephone number to put you in touch with trained engineers who can give you expert advice in any aspect of the Lift operation.
- An annual service, through examination and test in accordance with *LOLER Regulation 9(3)a(ii).
- An interim inspection and test at six months in accordance with *LOLER Regulation 9(3)a(iii).
- All genuine replacement parts available generally from stock on the engineer's van.
- High first time fix rate.
- No work sub-contracted.
- All work, parts and labour guaranteed for 12 months. There is no charge for a call out in-between scheduled visits if due to a manufacturing defect or lift fault.

*LOLER is the "Lifting Operations and Lifting Equipment Regulations 1998" which requires a service regime to include inspection by a competent person for all items of lifting equipment. Our regime ensures that the owner complies fully with these regulations.

EC DECLARATION OF CONFORMITY

This declaration relates exclusively to the machinery in the state in which it was supplied, and excludes components, which are added, and/or operations carried out subsequently by the final user.

We Penny Hydraulics Limited

Station Road Industrial Estate, Station Road, Clowne, S43 4AB.


Hereby declare that the product(s) listed below: -

Model:	Davit Crane
Serial No.	Series

Conforms to the essential requirements of 2008 / 1597, The Supply of Machinery (Safety) Regulations 2008 and the following Directives, Standards and other Normative Documents where appropriate.

EU Directives/Regulations	Machinery Directive 2006/42/EC Electrical Equipment (Safety) Regulations 1994 European Council EMC Directive 89/336/EEC
Standard(s)	BS EN 12999 Cranes, Loader Cranes, BS 7121 Parts 1,2 and 4 BS EN 982 Safety of Machinery EN 50081-1: 1997; Electromagnetic Compatibility, General Standard Radiated RF Emissions Class B (30MHz – 300MHz)
Normative Documents	DIN 15018 Steel Structures BS 2573 Rules for design The Lifting Operations and Lifting Equipment Regulations 1998. The Provision and Use of Work Equipment Regulations 1998.

All information is given within a Technical File compiled by: Mr.Terry Brocklehurst
c/o Penny Hydraulics
Ltd.

Place: - Penny Hydraulics Limited	Signature: - 
Date: - 23/07/2010	Full Name: - J. D. Penny
	Position: - M.D.

BS EN ISO 9001: 2008 British Standards Institute Registered Company
Certificate No. FM 20203

Service Contract

Date

Lift location	
Contact	Post code
Telephone	Email

Invoice address	
Contact	Post code
Telephone	Email

Penny Hydraulics Ltd agrees to carry out one annual service and one interim inspection on the lift in any twelve-month period. A test certificate will be left on site and a copy sent with the invoice.

In the event of a problem arising in-between scheduled visits the customer should telephone the Helpline on 01246 811475 as soon as possible so that appropriate action can be taken by us. There will be no charge for the call-out or for labour unless the problem is due to abuse or misuse. Parts may be added to the next invoice due.

The customer will be invoiced following each visit and by signing this document agrees to make full payment within 30 days of the invoice date in accordance with the agreed scale of charges, which may vary from time to time. This service contract will continue until cancelled in writing by either party.

Signed: Print name:

Position: Order number:

More details are available online.

Please fax, post or email this form to the office below.

Penny Hydraulics Ltd
Tel 0044 (0) 1246 811475
Fax 0044 (0) 1246 810403
Email service@pennyhydraulics.com
Web www.pennyhydraulics.com

Data

Power Supply

Standard Davits require a 12volt DC electrical supply. This should be terminated in a 50A SB plug. Any circuit breakers employed in the system must be of a type that can cope with the surge of an electric motor.

A basic Davit without winch and with fall arrestor can be supplied on request.

Electrical Specification

12 volts DC 40A

24 volt optional

240 volt – contact Penny Hydraulics Ltd.

Typical Weights

Standard Davit 47kgs including winch unit.

Extended Boom Davit 52kgs including winch unit.

Maximum Safe Working Load

Each lift is marked individually with its Maximum Working Load.

Noise Levels

A survey sheet giving full details is available on request. Briefly, the results are as follows: -

Winch running	65dB(A)
---------------	---------

These levels are well below those at which hearing can be damaged and below levels at which action is required under the noise at work regulations.

COSHH

Terminal Disposal

Penny Hydraulics will remove and dispose of the entire crane in an environmentally sound manner when required.

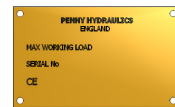
Signs

There is a brass plate carrying the CE mark, Davit serial number, model type and the manufacturer's name and address fixed to the base section. The winch unit has a separate plate fitted to its mounting bracket.

Maximum working load signs bonded to the extended boom.

Up/down indications for the pendant buttons are on the face of each button.

Read the Manual
Refer to the Manual
Caution



Maximum Working Load



FALL ARREST ATTACHMENT POINTS

OPTIONAL FALL ARREST POINT WITH WINCH FITTED

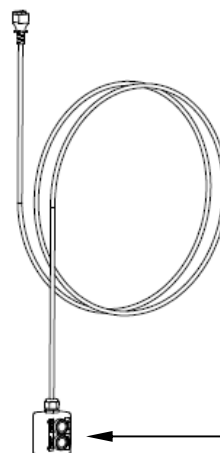
Maximum Working Load



FALL ARREST ATTACHMENT POINT

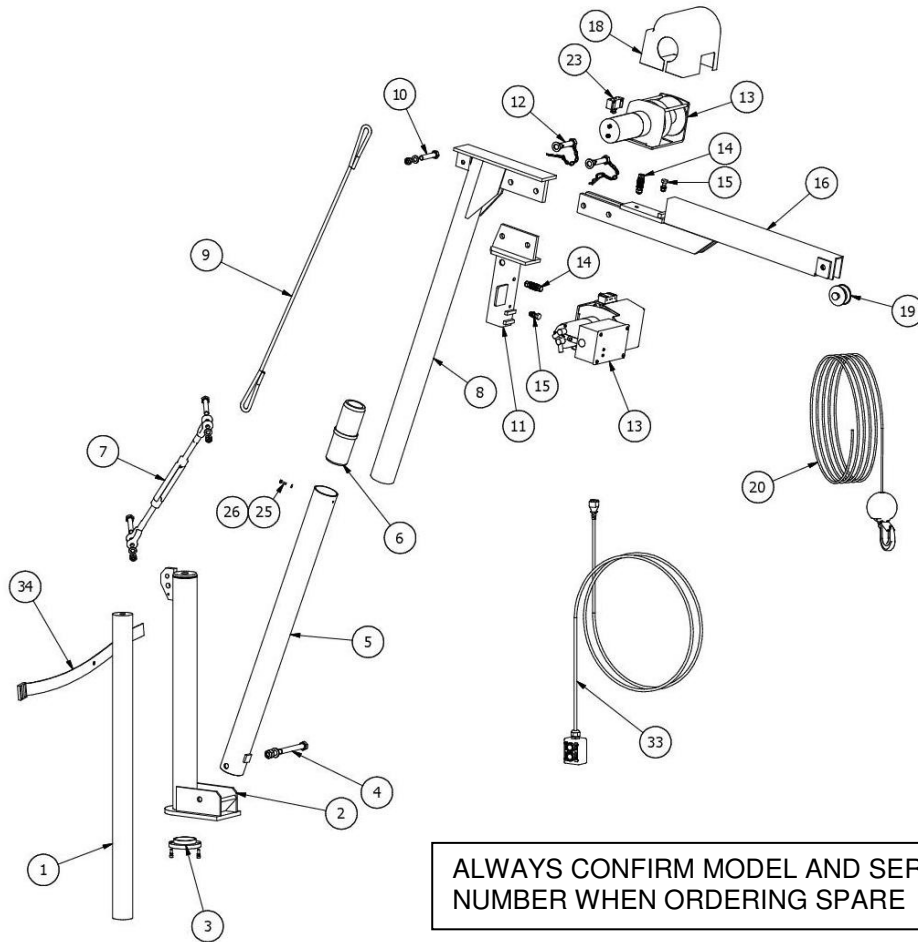


**This Davit Can Be Used For
Either Two Fall Arrest
Points Or One Fall Arrest
Point And A Winch
Application**



UP / DOWN

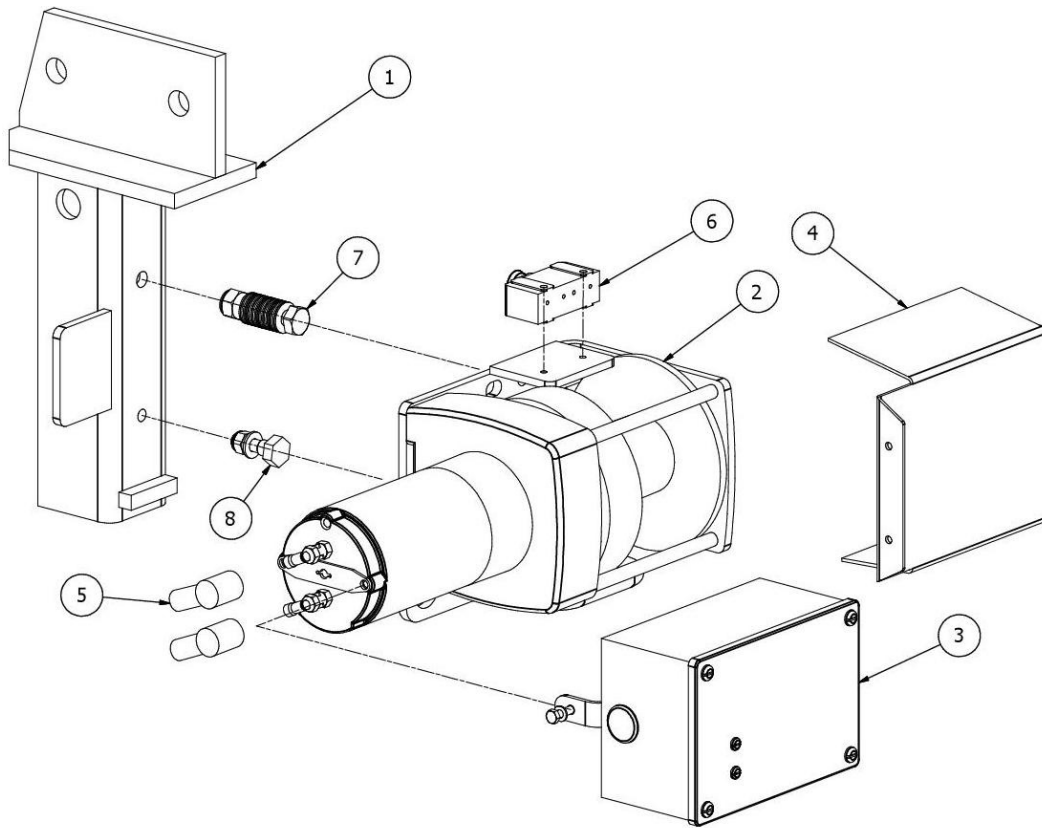
PARTS LIST - 'SwingLift' DAVIT



ITEM	PART NUMBER	DESCRIPTION	QTY
1	017-000017	Pillar Axle	1
2	028-000143	Base Assembly	1
3	035-000079	Pillar Bush Assembly	1
4	539-000173	Base Pin Assembly	1
5	045-000037	Tube Assembly	1
6	108-000003	Connector Tube	1
7	712-000005	Turnbuckle Assembly Inc. Bolts	1
8	056-000020	Upper Assembly	1
9	654-000001	Support Rope	1
10	200-000011	Anchor Bolt Assembly	1
11	011-000034	Winch Support - Standard Boom	1
12	539-000175	Pin Assembly - Winch / Boom Support	2
13	077-000020	Winch Assembly - 12V - Standard Boom	1
13a	077-000050	Winch Assembly - 24V - Standard Boom	1
14	713-200005	Disc Spring Assembly	2
15	200-000009	Shoulder Bolt Assembly	2
16	056-000115	Boom assembly - Extended Boom	1
17	077-000023	Winch Assembly - 12V - Extended Boom	1
17a	077-000025	Winch Assembly - 24V - Extended Boom	1
18	123-000036	Winch Cover	1
19	555-000016	Pulley Assembly	1
20a	654-000006	Winch Rope - 30' (9.0m) x 6mm	1
20b	654-000016	Winch Rope - 15' (4.5m) x 6mm	1
22	560-000001	Remote Control - 2 Button Handset	1
22a	560-000017	Remote Control 3 Button Handset Inc. Emergency Stop	1
23	692-000008	Microswitch	1
24	023-000002	Strap - 620mm Long - Plastic Buckle	1
25	406-050162	M5 x 16 Hex Hd. Screw	1
26	761-05A002	M5 Plain Washer BZP	1

STANDARD WINCH UNIT

ALWAYS CONFIRM MODEL AND SERIAL
NUMBER WHEN ORDERING SPARE

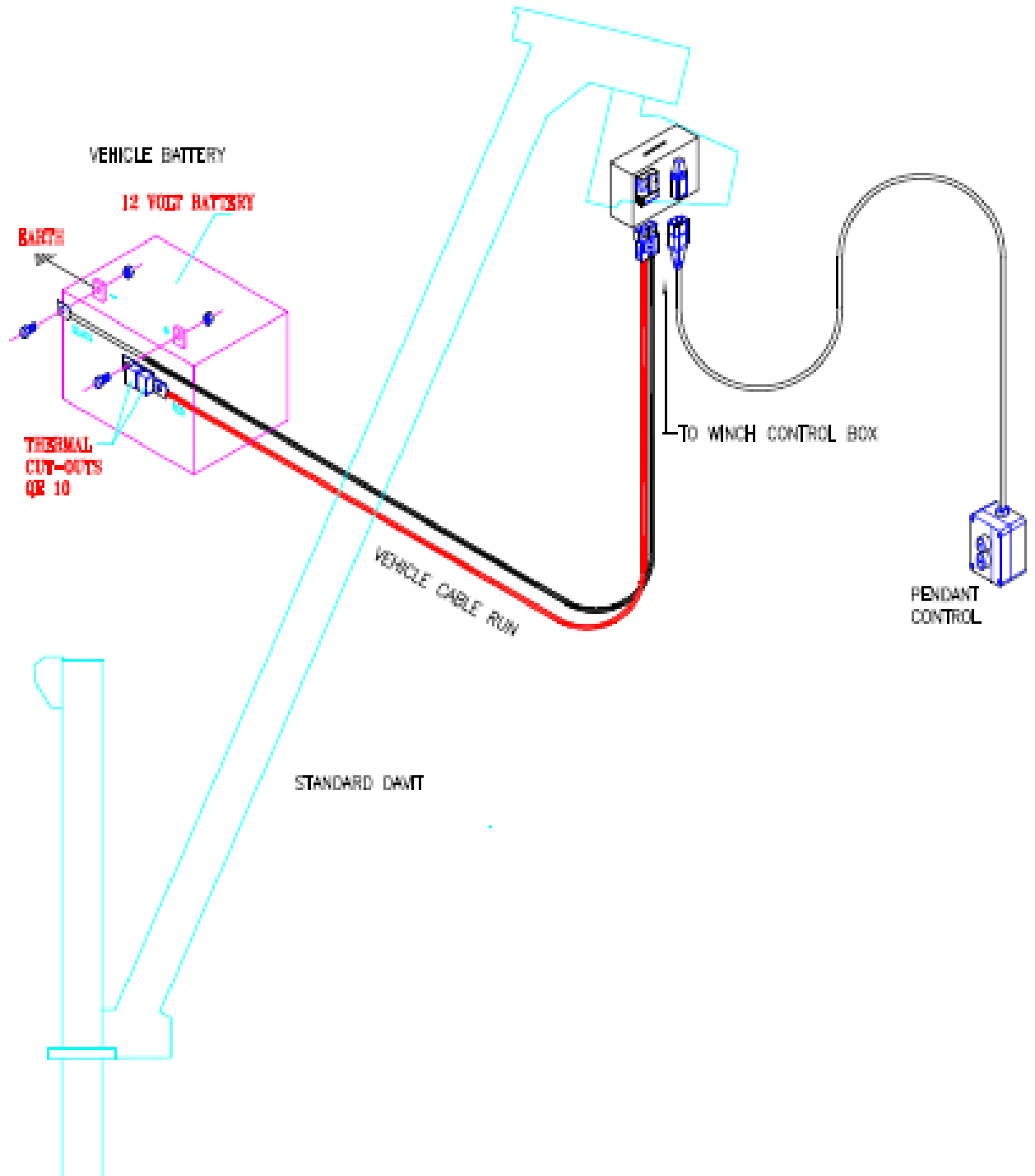


ITEM	PART NUMBER	DESCRIPTION	QTY
1	011-000034	Support Assembly	1
2	077-000005	Winch Assembly - 12V	1
2a	077-000049	Winch Assembly - 24V	1
3	195-000008	Electrical Box Assembly - 12V	1
3a	195-000048	Electrical Box Assembly - 24V	1
4	123-000017	Winch Cover	1
5	042-000001	Terminal Boot	2
6	692-000008	Microswitch	1
7	713-200005	Disc Spring Assembly	1
8	200-000009	Shoulder Bolt Assembly	1

Call or email Penny Hydraulics Ltd for prompt delivery of all spare parts.

Electrical Schematic Diagram

Typical Standard Wiring



Training Register for:

[illegible]

The latest health and safety legislation requires that all employers ensure all people using or supervising the use of work equipment have received adequate training in method, risk and precautions.

Penny Hydraulics offers nationwide training by qualified instructors for the full range of lifting equipment. Training includes practical and theoretical input from the delegates with a certificate of competence issued on successful completion of the course.

Penny Hydraulics Ltd
Tel 0044 (0) 1246 811475
Fax 0044 (0) 1246 810403
Email service@pennyhydraulics.com
Web www.pennyhydraulics.com

Work record for:[illegible]

Service

Current legislation requires that each item of lifting equipment be thoroughly examined at least once in every 12 month period by a competent person.

Our service contract will ensure continued, safe, reliable use of the equipment and full compliance with current legislation.

Key benefits of a Penny Hydraulics service contract include...

- **Combined maintenance and statutory inspection saves time and money**
- **Nationwide coverage**
- **Statutory inspections completed**
- **OEM spares available ex-stock**
- **High first time fix rate**
- **Reduced vehicle downtime**

Training

The latest health & safety legislation requires that all employers ensure all people using or supervising the use of work equipment have received adequate training in method, risk and precautions.

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