TailLift EL range
Operating & maintenance instructions
Welcome

Thank you for purchasing a Penny Hydraulics loading platform.

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

If you also run vehicles with lorry loader cranes, you might be interested to know that we supply a wide range of lifting accessories including slings, shackles and special attachments such as kerb grabs, barrel slings and dumpy bag lifters.

Visit our online parts shop to find out more - https://shop.pennyhydraulics.com
TailLift EL500

Operating and Maintenance Instructions

Station Road
Clowne
Chesterfield
Derbyshire
S43 4AB
Tel: 01246 811474
Fax: 01246 810430

E-mail: sales@pennyhydraulics.com

Website: www.pennyhydraulics.com
Safety Warning

In the interest of safety, all personnel involved in the operation of the TailLift EL500 must read and understand this operation manual. If they do not then they must not operate the equipment.

- As a minimum statutory requirement the TailLift EL500 should be thoroughly examined every six months by a competent person. See “Maintenance” in this manual for full Statutory responsibilities.
- The TailLift EL500 must not be overloaded. Refer to the safe working load signs attached to the equipment.
- The TailLift EL500 must only be operated by trained and competent personnel. Training is offered by Penny Hydraulics and a training register is included at the back of this manual.
- During operation of the TailLift EL500, access to the area should be restricted to those personnel essential to the operation only.
- Do not leave any load suspended between lifting / lowering operations.
- All 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 TailLift EL500 properly maintained by a competent person. See the “Maintenance” section in this manual.
- Do not adjust or interfere with any factory settings.
- Isolate and immobilize the equipment before commencing any maintenance routine.
- Do not modify or re-install this machine without seeking guidance from Penny Hydraulics Ltd.
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Introduction

Thank you for purchasing a Penny Hydraulics Tail Lift EL500.
The Tail Lift EL500 is a vehicle mounted tail lift platform designed and manufactured at our factory in Clowne, Chesterfield to safely lift loads of up to 550kg. It can also be adapted for use in fixed applications.
Operation is by fail safe pushbutton mounted on the side of the unit. All functions are protected by inbuilt overload features.
These operating instructions tell you what you need to know about its operation along with guidance on safety and general care, please study them carefully.

Due to our company’s policy of continuous improvement, the following descriptions and illustrations used in this manual and parts book are without prejudice. We reserve the right to make alterations in order to increase the performance of our product, or for any other reason. We are not obliged to alter these instructions accordingly. These instructions do not assert to be complete

Typical Sub Frame Mounting
TailLift EL500

Method of Operation

1) Before operation, please read the operating instructions and ensure all persons involved in the lift are familiar with the equipment and local requirements.

2) Ensure the vehicle is on firm and level ground with the handbrake applied and wheel chocks deployed where necessary.

3) Switch on the TailLift EL500 isolating switch.

4) Before operating check for potential hazards, in particular around the area where the platform will land.

5) Check the unit visually for signs of defects.

6) Apply hand pressure to the uppermost edge of the platform and release the platform locking latches. Lower the platform manually to its operating position, the platform being spring assisted.

7) Check the area is clear and from a safe position, use the push button control to position the platform at either the top for unloading or bottom for loading operations.

8) Place the load on the platform as centrally as possible.

9) Raise or lower the load using the push button control taking care to observe and monitor the equipment for malfunction or interference. Keep clear of the moving components at all times.

10) On completion of the loading / unloading operations, raise the platform to its full extent by first using the push button control then manually until the platform is fully folded and secured on the platform locking latches.

11) If the optional pendant control has been used, it can at this point be unplugged, coiled and stored in a secure position.

12) Switch off the TailLift EL500 isolating switch at the earliest convenient time, before starting the engine if it is vehicle mounted.

13) Always double check that the platform is securely stored and locked in position with BOTH platform locking latches before driving the vehicle.
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

Your TailLift EL500 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 TailLift EL500, 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.

The following Planned Maintenance Schedule is designed to monitor the safe working order of the TailLift EL500 and includes a Thorough Examination by a Competent Person required by LOLER.

LOLER also requires that a Thorough Examination is carried out following any exceptional circumstance that may affect the safety of the equipment.

Any defects found whilst carrying out the Planned Maintenance Schedule must be reported and recorded and the equipment taken out of operation until action by a Competent Person is undertaken.

The Planned Maintenance Schedule may require the use of parts and consumables.

A list of recommended spares and lubricants is attached.

**Planned Maintenance Schedule**

On receipt of a new machine and before it is put into service, check that there is no transit damage or evidence of mishandling.

Before any work is undertaken, ensure the site supervisor is informed and that all safety precautions are observed and adhered to.

Pay attention to site specific safety and PPE requirements.

Unless dynamic checks, tests or setting up procedures are being carried out, always isolate the machine from the power supply.

Where dynamic checks are being performed, it is advisable to appoint an assistant to be available on request.

Ensure a clean working area and sufficient cleaning materials.

Ensure the work area is cordoned off, paying particular attention to the sweep areas required for dynamic testing.

Daily / Before Use.

1) Check visually for signs of external damage.
2) Check all guards are securely in place.
3) Check for loose or missing nuts, bolts and fasteners.
4) Check for external oil leaks.
5) Check the hydraulic oil level.
6) Check for damage to electrical cables and connectors

Weekly.

1) Check all as for Daily.
2) Thoroughly clean the support structure and check the security of the interface with the vehicle.

Monthly.

1) Check all as for Daily and Weekly.
2) Lubricate the Linkage pins with the recommended grease.

6 Monthly.

1) Check all as for Daily, Weekly and Monthly.
2) Thoroughly examine the main structures and sub frames for soundness and signs of deflection.
3) Thoroughly inspect all welds.
4) Thoroughly check the security of all fixings on the main body and sub frames.
5) Thoroughly examine all pivot points for excessive play. Remove the pivot pins and thoroughly inspect the condition of the pins and linkages and replace where necessary.
6) Thoroughly examine all electrical components, cables and connectors.
7) Replace the hydraulic oil in the power pack.

12 Monthly.

1) Check all as for Daily, Weekly and 6 Monthly.
2) Carry out a full load test as set out in the Load Test Procedure.
3) Carry out a statutory thorough examination as required by LOLER.

Load Test

It is recommended that a load test is carried out as part of the Thorough Examination to assess the integrity of the TailLift EL500 and its supporting structures. Any defects or signs of potential failure must be rectified before the machine is allowed back into service.

Method

1) Prepare the vehicle for operation in a safe working area, with the brakes firmly applied and cordon off with appropriate barriers and work in progress signs.
2) Prepare the maximum prescribed test weights as determined by the TailLift EL500 model number.
3) Clear the site, admit power and connect the pendant control if this option available.
4) Without load, operate the TailLift EL500 through its full extent to ensure correct operation.
5) Place the test load centrally on the platform and raise and lower to full extents as before.
6) Check for signs of excessive flexing, structural deformation, paint flaking and excessive play in the joints.

On completion of the tests, restore the vehicle to its normal driving position, restore the working area and complete the necessary documentation.

Overload Test

An overload test is carried out on all new TailLift EL500 at the factory and forms part of the test certificate requirements.

If the TailLift EL500 is fitted to the vehicle by Penny Hydraulics Ltd. or one of its authorized dealers, the system including the sub structure and vehicle interface will be Overload Tested as part of the test procedure.

An Overload Test must be carried out if:

1) The TailLift EL500 is fitted to a new or modified structure.
2) Any Modifications have been carried out to the TailLift EL500 or support structure.
3) Following any incident which may have caused damage to the TailLift EL500 or its supporting structure.

To carry out an Overload Test, elements of the system protection features have to be overridden and therefore must only be carried out by a competent person.

In severe or extreme conditions, it is recommended that an Overload Test is incorporated into the Annual Load Test of TailLift EL500 and its supporting structure.

Please contact Penny Hydraulics Ltd. for further information.
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
Technical Data

Operating Dimensions

General Description

The TailLift EL500 consist of 4 main assemblies

1) Main Frame to Suit Vehicle Width.
2) Platform Assembly.
3) Hydraulic Power Pack and Control Unit.
4) Sub Frame and Vehicle Interface.
Main Frame:
The Main Frame is secured to a suitable sub frame on the vehicle body. The unit supports the lift mechanism, hydraulic power pack, actuating cylinder and electrical control equipment. The Main Frame can also be secured to a suitable framework for static applications.

Platform Assembly:
The platform carries the load and the deck can be of aluminium, steel or grid decking.

Hydraulic Power Pack:
The 12v DC (24v optional) hydraulic power pack is mounted inside the Main Frame and is filled with mineral oil. Standard operation is by electrical push button control mounted adjacently on the Main Frame.

Sub Frame:
A substantial sub frame manufactured to suit the vehicle configuration is secured to the body chassis rails.

**TAIL LIFT**
**Main Assembly**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>MAIN FRAME</td>
</tr>
<tr>
<td>B</td>
<td>OPERATING LINKAGE</td>
</tr>
<tr>
<td>C</td>
<td>PLATFORM</td>
</tr>
<tr>
<td>D</td>
<td>HYDRAULIC POWER PACK</td>
</tr>
<tr>
<td>E</td>
<td>HYDRAULIC ACTUATOR CYLINDER</td>
</tr>
<tr>
<td>F</td>
<td>STANDARD CONTROL BUTTONS</td>
</tr>
<tr>
<td>G</td>
<td>PLATFORM LOCKING LATCHES</td>
</tr>
<tr>
<td>H</td>
<td>ADJUSTABLE PLATFORM STOPS</td>
</tr>
<tr>
<td>I</td>
<td>SUBFRAME INTERFACE</td>
</tr>
<tr>
<td>J</td>
<td>LINKAGE LUBRICATION POINTS</td>
</tr>
</tbody>
</table>
### Recommended Spares

<table>
<thead>
<tr>
<th>Description</th>
<th>Part No.</th>
<th>Qty.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendant Control Assembly</td>
<td>As Required</td>
<td>1</td>
</tr>
<tr>
<td>Linkage Pin</td>
<td>539-000014</td>
<td>1</td>
</tr>
<tr>
<td>Linkage Pin</td>
<td>539-000013</td>
<td>1</td>
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<tr>
<td>Roll Pin</td>
<td>520-042411</td>
<td>2</td>
</tr>
<tr>
<td>Circlip</td>
<td>089-S025M7</td>
<td>2</td>
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<tr>
<td>Grease Nipple</td>
<td>621-206001</td>
<td>2</td>
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### Recommended Lubricants

<table>
<thead>
<tr>
<th>Duty</th>
<th>Lubricant</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydraulic Power Pack</td>
<td>Mineral Hydraulic Oil</td>
<td>HM32</td>
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<tr>
<td>General Lubrication</td>
<td>Grease</td>
<td>LEP2</td>
</tr>
</tbody>
</table>

### Power Supply

Standard Tail Lift 500s require a 12volt (24V Optional) 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 the electric motor.

### Electrical Specification

- 12 volts DC 40A
- 24 volt optional
- 240 volt – contact Penny Hydraulics Ltd.

### Typical Weights

Standard Tail Lift 500 --kg subject to specification including winch unit.

### Maximum Safe Working Load

Each Tail Lift 500 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:

- Power Pack 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 lift in an environmentally sound manner when required.
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:

<table>
<thead>
<tr>
<th>EL 500 Tail Lift</th>
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<tr>
<td>Serial No.</td>
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</table>

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.

<table>
<thead>
<tr>
<th>EU Directives/Regulations</th>
<th>Machinery Directive 2006/42/EC</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Electrical Equipment (Safety) Regulations 1994</td>
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<tr>
<td></td>
<td>European Council EMC Directive 89/336/EEC</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Standard(s)</th>
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<tbody>
<tr>
<td>BS EN 1756-1, 2001 Tail Lift for Goods</td>
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<tr>
<td>BS 7121 Parts 1, 2 and 4</td>
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<tr>
<td>BS EN 982 Safety of Machinery</td>
</tr>
<tr>
<td>EN 50081-1: 1997; Electromagnetic Compatibility, General Standard</td>
</tr>
<tr>
<td>Radiated RF Emissions Class B (30MHz – 300MHz)</td>
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<tr>
<th>Normative Documents</th>
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<tbody>
<tr>
<td>DIN 15018 Steel Structures</td>
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<tr>
<td>BS 2573 Rules for design</td>
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All information is given within a Technical File compiled by: Mr Terry Brocklehurst
c/o Penny Hydraulics Ltd.

Place: - Penny Hydraulics Limited
Signature: -
Date: -
Full Name: - J. D. Penny
Position: - M.D.

BS EN ISO 9001: 2000 British Standards Institute Registered Company
Certificate No. FM 20203
ALWAYS CONFIRM MODEL AND SERIAL NUMBER WHEN ORDERING SPARE PARTS.
ALWAYS CONFIRM MODEL AND SERIAL NUMBER WHEN ORDERING SPARE PARTS
Schematic Circuit Diagram
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:

<table>
<thead>
<tr>
<th>Date</th>
<th>Work done/remarks</th>
<th>Engineer</th>
<th>Company</th>
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<tr>
<td>FAULT</td>
<td>CAUSE</td>
<td>RECTIFY</td>
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<tr>
<td>------------------------------------------------</td>
<td>--------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>System Will Not Energize When Cab Isolator Is Switched On (No Audible Warning)</td>
<td>Faulty Earth</td>
<td>Check Earth Connections, Clean And Re Make. Check 125A Fuse And Replace If Necessary</td>
<td></td>
</tr>
<tr>
<td>System Energizes But Lift Will Not Operate</td>
<td>Faulty Supply From Control Box</td>
<td>Check 5A Fuses And Replace If Necessary</td>
<td></td>
</tr>
<tr>
<td>Power Pack Energizes But Lift Will Not Raise</td>
<td>Overload On Platform Low Oil Level In Power Pack</td>
<td>Reduce Load Top Up Oil Level</td>
<td></td>
</tr>
</tbody>
</table>
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.

Penny Hydraulics offer nationwide training by qualified instructors for their comprehensive 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.