Penny Hydraulics GROUP

MezzLift range

Operating & maintenance instructions

Welcome

Thank you for purchasing a Penny Hydraulics MezzLift.

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

Service & Operation Manual for the Penny Hydraulics MezzLifts with Push Button Control

Station Road
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Introduction

Thank you for purchasing a Penny Hydraulics MezzLift. This is our own unique design that is built in our factory to your specification. Each one is tailor-made and we trust that it meets with your approval and will provide you with a safe, efficient and trouble free means of moving goods 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.

This MezzLift is designed to be used by trained persons in a workplace to move goods between two levels It has hold to run control buttons with the control circuits remaining live whilst the motor picks in on demand. Any gates or doors will unlock automatically as the lift platform decks at that level and vice versa. Generally any shaft or hoist run is clearly visible by the operator so that they have complete control over the lifting operation. The lift is not suitable for carrying persons.

We strongly recommend that each operator of the MezzLift be trained in its use and read all the details set out in this booklet.

Safety Warning

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

- The lift must not be used for man riding.
- As a minimum requirement the lift should be inspected every six months and serviced annually by a competent person. The lift also requires a thorough examination and certificate of test as determined by the competent person or at least every twelve months. See the Service Requirements section for more details.
- The lift must not be overloaded.
- The lift must only be operated by trained and competent personnel. A training register is included at the back of this manual.
- Whilst the transfer of goods is in progress access to the area should be restricted to those personnel essential to the operation.
- No persons should go near the platform when it is raised.
- 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 lift properly maintained by a competent person.
- Where guards or safety gates are fitted always ensure that they are in place before operating the lift.
- Please note that any control panel may remain live even when the motor is not running.
- Do not modify or re-install this machine without seeking guidance from Penny Hydraulics Ltd.

Method of Operation

This MezzLift has hold to run control buttons at both levels. The main power to the hoist should be left on permanently unless isolated for maintenance. The gates or doors cannot be opened unless the platform is in position at that level and the main power is on. When a gate or door is opened the platform is locked in position by the hydraulic system and so the hoist will not function.

1. Ensure that the working area is clear and that only essential persons are in the vicinity of the hoist.
2. Ensure that any emergency stop buttons are not deployed by turning them gently clockwise.
3. Press and hold the appropriate up/down button to move the platform. Note that there is a delayed start after pressing the button.
4. Keep the button pressed until the hoist stops at the top or bottom. Do not try to judge the landing but let the platform run into the end stops.
5. The landing gate/door can now be opened for loading or unloading. Close the gate/door and press the button to take the platform to the other landing.
6. Repeat until the delivery is complete and close all gates or doors.

Only use emergency stop buttons in an emergency.

The control panel remains live even when the motor is not running.

If the MezzLift does not work check:

- Power is on!
- No stop buttons are activated.
- All gates/doors are shut.

Fault Finding

Power failure. Should the power supply to the MezzLift be cut off for any reason during operation the platform will be held in position by the hydraulic brake on the end of the hydraulic motor.

1. The electric motor has thermal overload protection that may operate after prolonged use. Leave the unit turned off for an hour to cool down if this is suspected before trying for normal operation.

2. Occasionally a surge in power may cause a circuit breaker to trip out. Switch off power and check the appropriate circuit breaker at the distribution board in the building. Reset if possible and then turn on the lift power.

If the problem recurs phone the HELPLINE or have an electrician check the circuit.

Press a button but the platform does not move.

1. A door or gate is not fully closed. The “Gate Open” light should be illuminated on the main control panel. Ensure that all gates are closed and that the “Gate Open” light is not lit. The lift should now work correctly.
2. An emergency stop button has been activated. Check that all emergency stop buttons are out by gently pulling and turning each one anti-clockwise.

Oil appears at the base of the lift. There has been an internal oil leak. It is still safe to continue operating the unit but see below. Phone the HELPLINE to arrange for an engineer to call.

The lift operates slowly and will not go up or down. There has been an oil leak and the tank is empty. Call the HELPLINE. Do not attempt to refill the tank.

Minor oil leaks from hose connections or the power pack. These are not serious but call the helpline for prompt attention.

The operator should only use the normal operator controls and must not interfere with the workings of the lift. 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 and competent engineer must carry out a six monthly inspection and make adjustments as necessary.
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 in negotiation 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

As required by LOLER* a competent person must carry out a thorough examination. In the case of a MezzLift this must be done every six months and will include various tests. In addition to this there are service operations that must be done on an annual basis. These are indicated in bold. Various split pins, oils, greases and sealant are required to complete a full service.

Before starting work on site always inform the manager/site foreman what operation is to be carried out and of any health and safety issues. The manager/site foreman may have additional requirements that must be followed.

Never leave an open shaft unguarded. Treat ladders with respect and fasten them into position. Never work beneath the cradle or platform without setting safety sprags.

Mountings	Check top and bottom mountings for security. These are to be re-examined under full load conditions during the testing procedure and inspected for movement.
Cradle chain type	Visually check chain attachment points on cradle. Check for free movement of cradle. Check rollers for free movement and wear. **Grease all 4 axles via nipples on each side.**
Chain sets	Examine both drive & suspension chains for damage and wear. Visually check coupling points for security. Examine all sprockets & clear any debris from behind the bottom sprocket. **Grease all four chains.** **Grease the motor and two bottom bearings via the grease nipples.** Check suspension chain tensions with the platform near the top. They should be even with only hanging tension in the fall from the cradle to the bottom sprocket but no bunching of the chain when the cradle is lowered. Adjust as necessary using the two adjusters beneath the top sprocket. Check the drive chains for even tension. There should be no bunching of the chain when under load. If they need adjusting loosen the motor mounting plate bolts and use a bottle jack to push the assembly up so tightening the chains. Retighten the plate bolts.

Hydraulic system	Check that power pack is securely mounted. Check power pack and hose ends for leaks. Check oil level and top up as necessary using Tellus 32 hydraulic oil. Check that relief valve is not causing motor to stall by driving the platform into the end stops. Examine visible hose run for leaks and damage. Check and reposition hoses at the top of the column to ensure clearance on cradle rear axle.
Test	Run up and down five times unloaded. It may not always be possible to go to the top. Check for smooth running and correct relief valve operation. Load with the largest full barrel available and run up and down five times. Check that the flow control valve gives correct speed of descent. Check for partial porting of the control valve leading to loss of control over descent. Adjust relief valve to give constant speed of ascent. Examine hoist mountings. Repeat the unloaded test. Check for leaks. Check rope or chain tensions.
General	Check for correct operation of all door locks. Check for correct operation of all proximity switches. Check for correct operation of all control buttons. Check existing guarding and assess the general safety of the installation. Check that all signage is in position. Replace signs as necessary. Check that there is an Operation & Service Handbook available and replace as necessary.
Training	Train staff if requested and complete the training register.
Reporting	Note any defects found, remedial action taken or work still required to be done on the test certificate and in the schedule at the back of the handbook. If the inspection was a statutory thorough examination 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 on site. Inform the Manager of any defects.

Service

We believe that the Penny Hydraulics Lift 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 program 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, thorough 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 in 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 it is a manufacturing defect or lift fault.

*LOLER are the Lifting Operations and Lifting Equipment Regulations 1998 which require an inspection and service regime for all items of lifting equipment. Our regime ensures that the owner complies fully with these regulations.

Service Contract

Date

Lift location	
	Post code
Contact	
Telephone	**Email**

Invoice address	
	Post code
Contact	
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 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 sales@pennyhydraulics.com
Web www.pennyhydraulics.com

Data

Power Supply
The lift requires a 20 Amp/240 Volt 50Hz single-phase electrical supply or 2.2kW, 415V three-phase and neutral. This should be terminated in a switch with a neon live indicator. If circuit breakers are employed in the system then they must be of a type that can cope with the surge of an electric motor.

Electrical Specification

240 Volt	9.5 Amp	1.5 kW	1 Ph IP54
240 Volt	12.6 Amp	1.8 kW	1 Ph IP54
240 Volt	13.0 Amp	2.2 kW	1 Ph IP55
415 Volt	4.8 Amp	2.2 kW	3 Ph IP55

12 volts DC control circuits

Typical Weights

MezzLift each column	222kgs
Power Pack	26kgs

Maximum working loads

MezzLift	80 kgs to 500 kgs depending on model type

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

Hydraulic pump motor running	72dB(A)
Lift operating when loaded	68dB(A)
Lift operating when unloaded	71dB(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
Hydraulic oil is Tellus Type 32 and is not considered hazardous as defined by EC legislation. Any spillage should be wiped up not flushed away. Penny Hydraulics will collect and dispose of rags or sand used to soak up oil in an approved manner. Contact with the oil should be avoided as it may cause transient irritation. Wash the affected areas with soap and water or in the case of eyes just water. If irritation persists then seek medical attention.

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

Survey, Installation and Commissioning

This Penny Hydraulics lift is manufactured to a high standard and can be installed in many diverse situations. Since no two applications are the same the lift is custom made following a site survey and risk assessment.

It is assembled in the factory and delivered on site generally in a single section and cannot be altered. It is therefore essential that when the original survey is carried out that all dimensions and facts that may affect installation are correct. The following section explains the important points at the various stages.

Survey

A trained person must carry out the survey and complete a Site Assessment Form, as it is part of the installation risk assessment and layout evaluation. A quotation may be derived from an architect's drawing but a site survey is essential as the job progresses to take a full account of the special requirements of the task and location.

Installation

All installations must be carried out by qualified engineers trained in the method of installation and approved by Penny Hydraulics. It is important to note that should a non-approved engineer on installation cause damage or fault this could invalidate the warranty.

- Clear the working area.
- Check all dimensions before unloading.
- Manoeuvre the lift into position noting that this will normally require a crane mounted on the delivery vehicle or chain blocks fixed inside the building. Lifts can be made in two or more sections to aid manual handling and then assembled in position.
- Bolt the lift to the floor and back wall or frame work. It is essential that a sound fixing is obtained at the top of the lift. Welding may be required.
- Locate and mount the power pack such that the operator is in a safe position at the bottom but has sight of the lift.
- Erect any guarding necessary as previously agreed. This is sometimes done earlier in the installation process depending on site circumstances and how the lift fits into the structure.
- Couple all electric and hydraulic connections. They must all be fastened securely and neatly back. It is possible to commission lifts on a temporary supply and then an electrician couple into a permanent supply prior to the lift going into service.

Commissioning

- Carry out pre-commissioning checks:
    1. All hose connections are tight and not leaking.
    2. Hoses to be fastened back securely
    3. All nuts and bolts are tight and safety lock pins in place.
- Switch on power and listen to the motor running smoothly.
- Operate handle up and down and check for correct direction.
- Run platform up and down empty five times.
- Run the loaded platform up and down twenty times. Where necessary sling a 25% overload beneath the platform. Check hoist mountings for security.
- Check the speed of descent. Adjust to a maximum of 0.75 metres/sec.
- Remove load and run the platform for a further five times up and down noting the platform should run smoothly at all times and the rollers remain cool.
- Check for any oil leaks on hose connections, around the power pack and at the base of main pillar.
- Check power pack mountings, minimum two M8 bolts.
- Check that the main lift mountings are secure to the floor with a minimum of two M10 bolts or equivalent other fixings.
- Check that the main lift mountings are secure to the back wall with a minimum of two M10 bolts at each side or equivalent other fixings.
- Check for correct operation of all lift features and safety devices particularly gate locks and proximity switches.
- Where applicable check that the platform locks in the folded position and that the safety hook is in place.
- Check that all notices are posted correctly.
- Train an appointed person on site in all operational procedures and safety precautions. Enter their details in the training register at the back of this manual.
- Enter your own details on the work record.
- Make out a test/commissioning certificate.

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.

Penny Hydraulics Limited hereby declares that the product(s) listed below:

Name
MezzLight and MezzPro
Model Number
N/A
Serial Number(s)
0 to 2000000

Conforms to all relevant provisions and essential requirements of 2006/42/EC Machinery Directive of the European Community.

Applied Harmonised Standards & Other Technical Standards and Specifications	
BS EN ISO 12100:2010	Safety of Machinery – General Principles for Design – Risk Assessment and Risk Reduction.
2014/35/EU	Low Voltage Directive
2014/30/EU 2016	Electromagnetic Compatibility Regulations
1998	Lifting Operations and Lifting Equipment Regulations (LOLER)

All information is given within a Technical File compiled by:
Mrs Jocelyn Cole c/o Penny Hydraulics Ltd.

Penny Hydraulics Limited, Station Road, Clowne, Chesterfield, Derbyshire, S43 4AB.

Place	Penny Hydraulics Limited, S43 4AB	**Signature:**	
Date	20/12/2016	**Full Name**	Robin G. Penny
		Position	Managing Director

BS EN ISO 9001:2015 Registered Company
QMS certified by British Standards Institute (BSI), Notified Body No. 0086, Certificate No. FM 20203

Signs

There is a brass plate carrying the CE mark and lift serial number fixed either at the top of the lift on the right hand side of the back plate or in the centre of the lift near the bottom on the motor mounting plate.

Maximum working load signs are to be posted within clear view of the top and bottom loading points of the lift.

An outline of working procedures and safety considerations is to be posted close to the operating position.

Up/down indications for the control buttons or handle movement.

Spare Parts

Chain Drive Lift

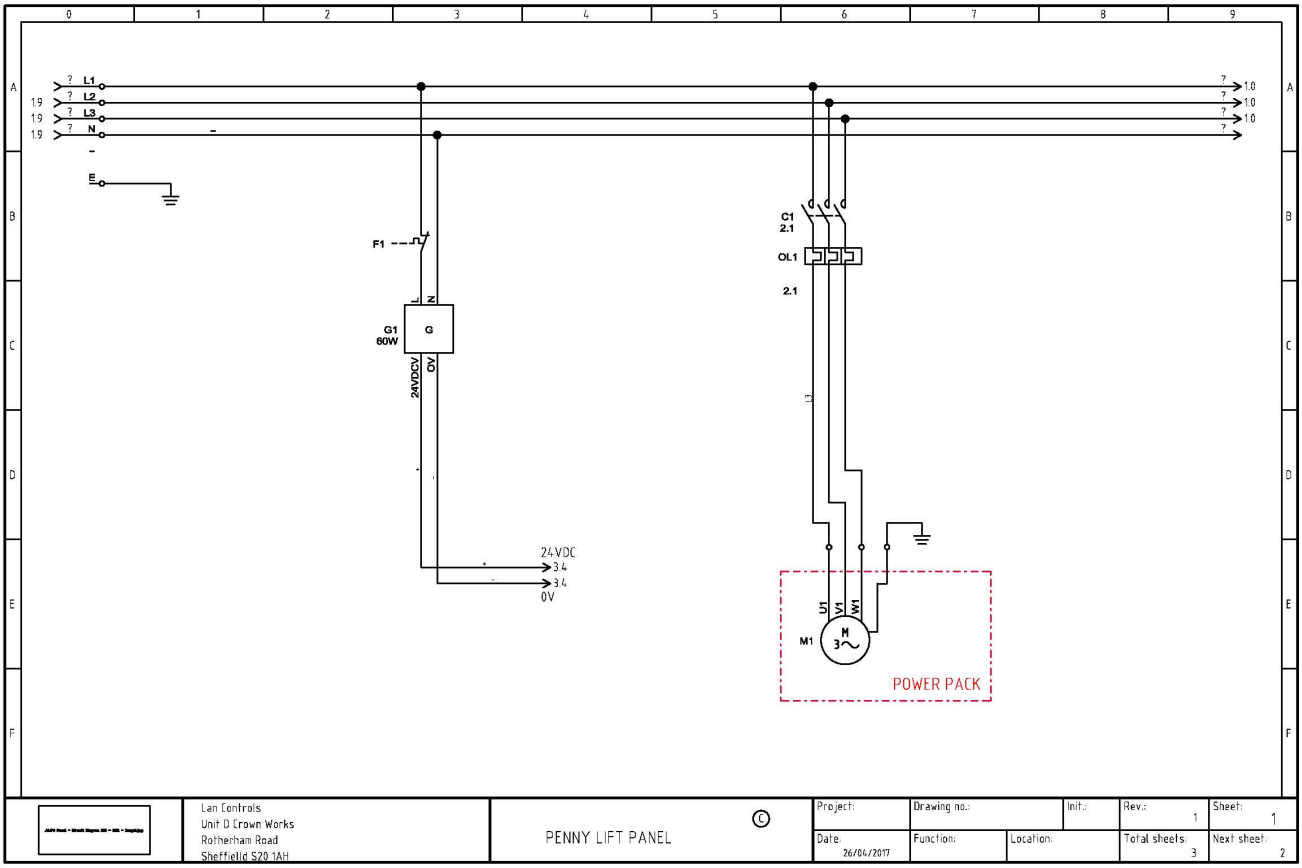
SCL!4	¾'' BS roller chain
SCL15	K-1 coupling link 3/4"
SCL16	K-1 attachment link 3/4"
CLB	Heavy duty ¾"attachment link
SCL52	Extended pin
SCL40	1/2" BS roller chain
SCL44	K-1 coupling link 1/2"
SCL45	K-1 attachment link 1/2"
SCL08	Cradle wheel
SCL18	Drive sprocket
SCL24	Motor bearing
SCL25	Bottom bearing
R71	100 cc hydraulic motor
R72	160 cc hydraulic motor
R73	Brake
MHS40	8" hose assembly
MHS42	Bonded seal
ME45	Proximity switch
ME46	Actuator magnet
ME47	Limit switch
R66	Electric latch
R67	Slam lock
R68	Key cylinder
R80	Combined lock

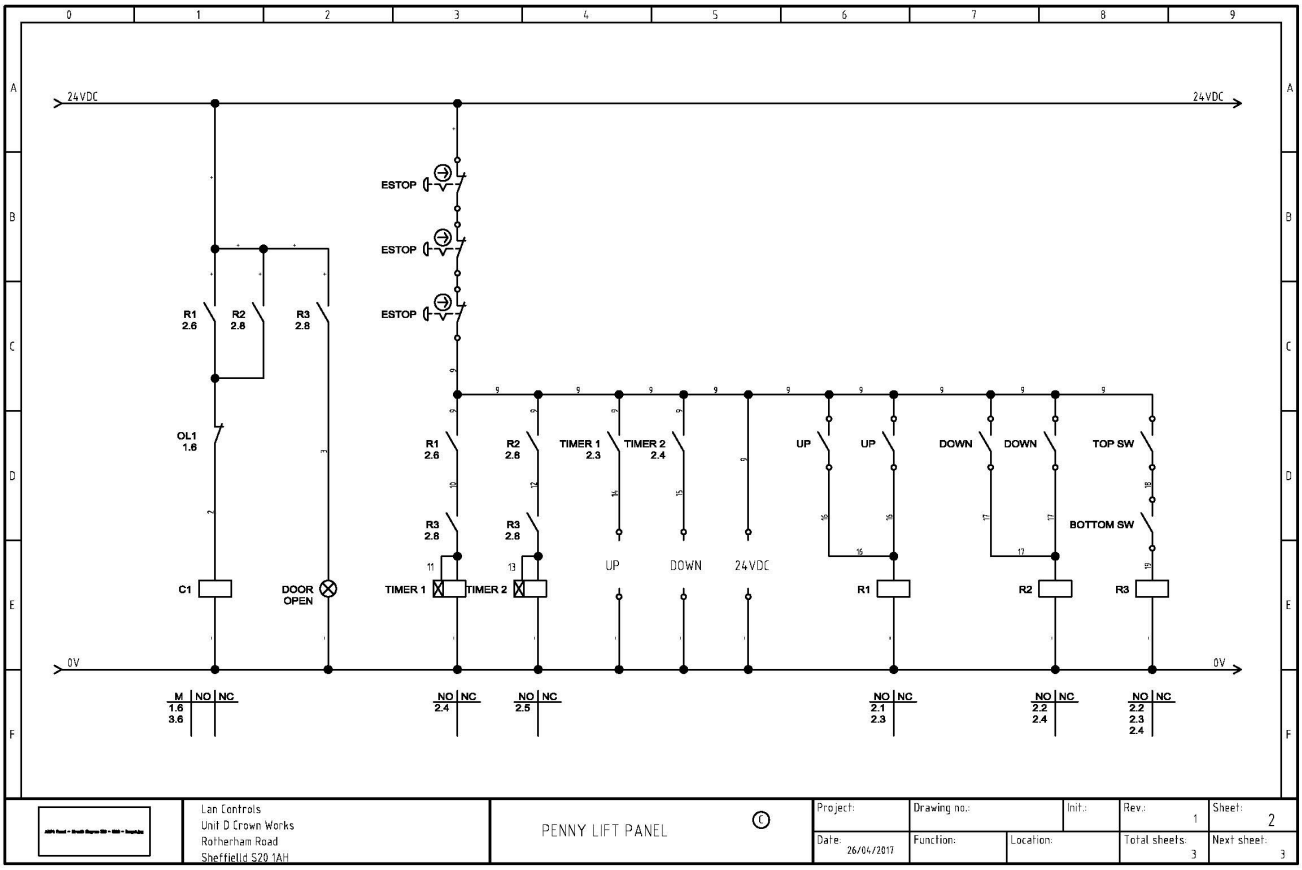
Common Items

P56	Ramp	R39	Power pack 1.8kW
P57	Platform	SCL49	Power pack 2.2kW
QP21	Operation & Service Manual	MHS03	¼" – ¼" Straight connector
QP29	Safety sign	MHS05	¼" 90 degree elbow
	Up/down sign	MHS02	Flow control valve
P29	Drop mat	O-10	Hydraulic oil Tellus 32
P11	Adjusting leg	MHS25	¼" Reusable ends
P31C	Drop Arm	MHS01	Hydraulic hose per metre

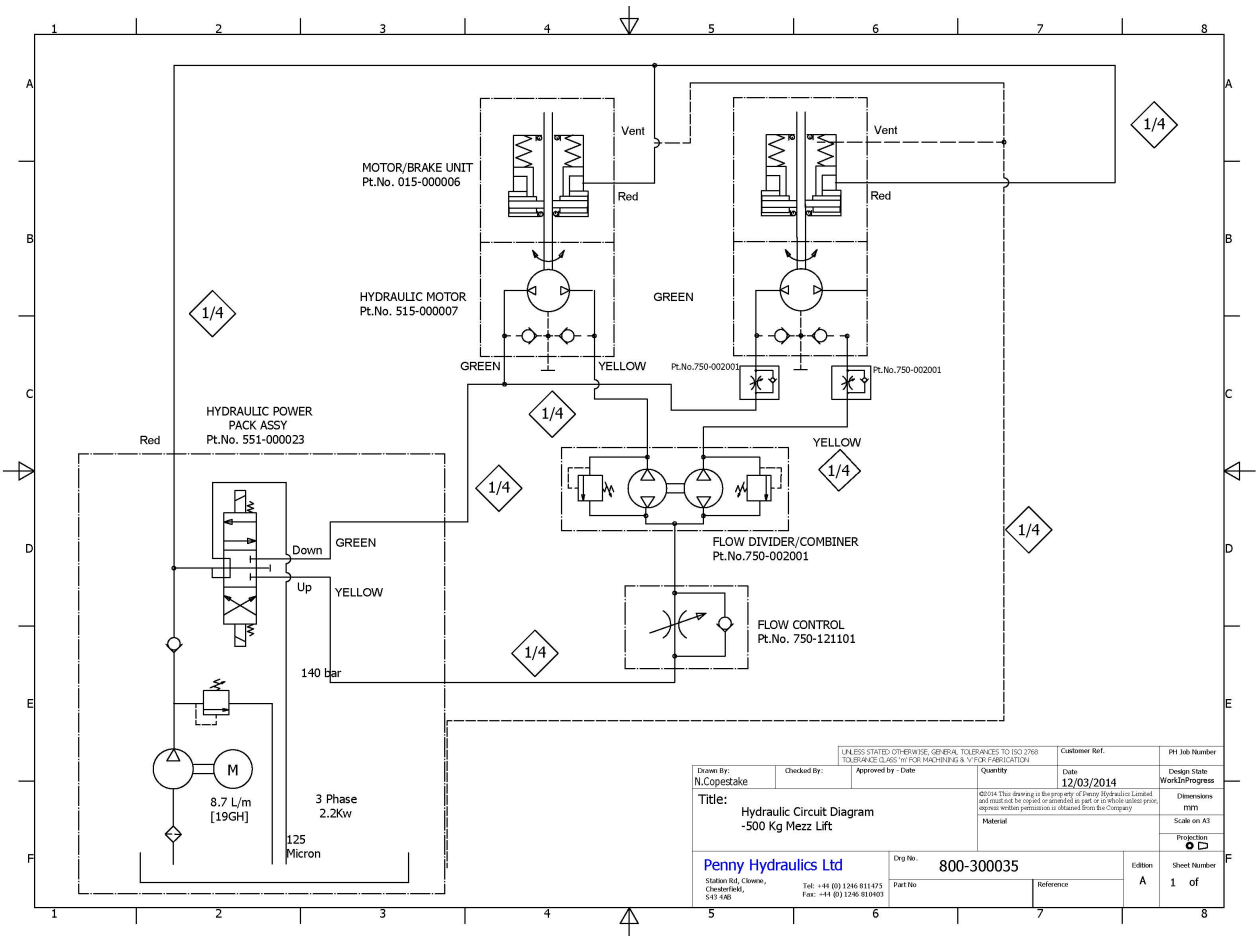
Call or email Penny Hydraulics Ltd for prompt delivery of all spare parts.

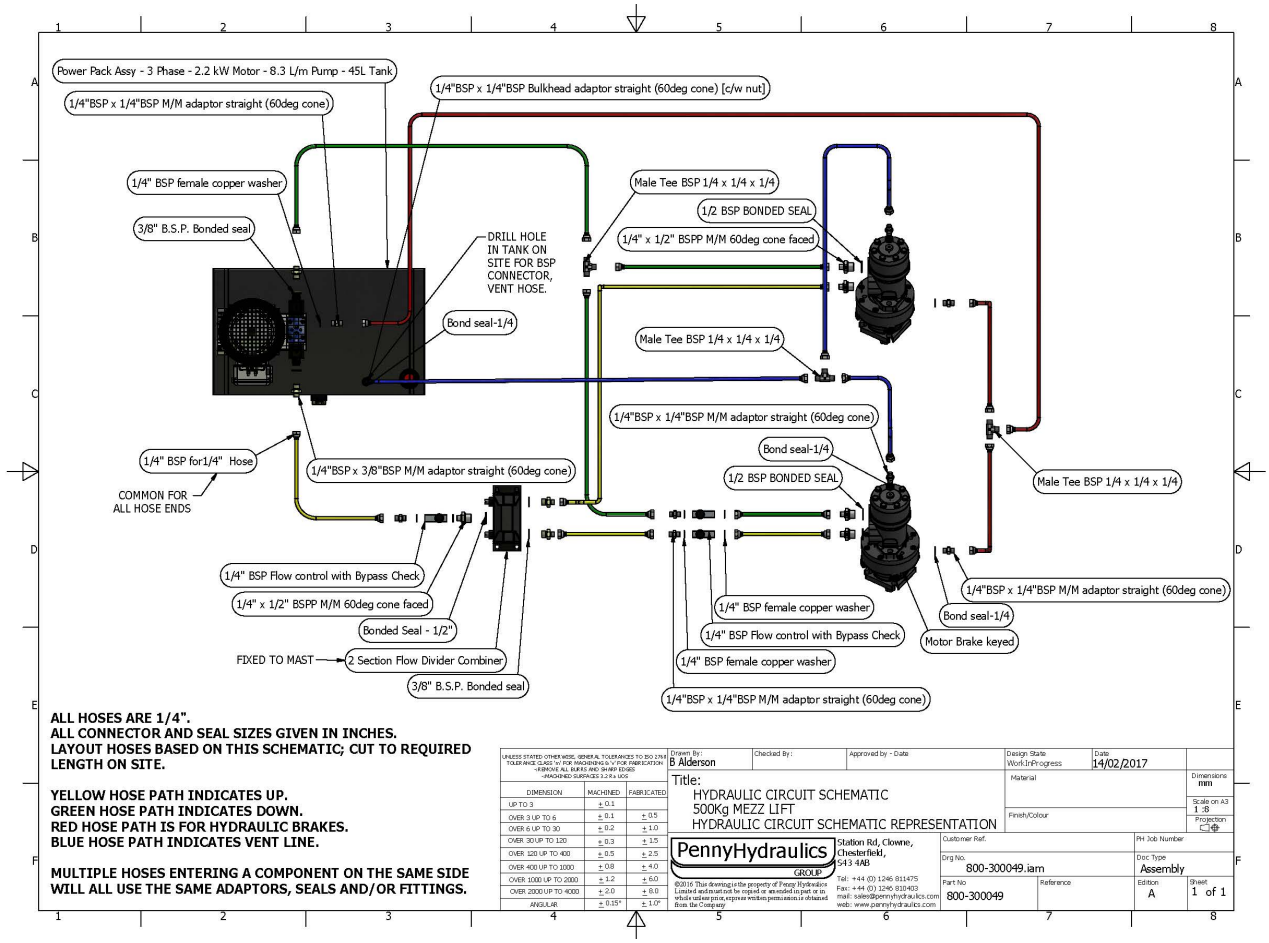
Wiring Diagram





Hydraulic Circuits





Training register for:

Date	Trained operator	Signature	Trained by	Signature

One nominated person will be trained by the installer of the hoist upon completion of that installation. Further training is the responsibility of the owner of the equipment. Penny Hydraulics Ltd is happy to help with this.

Work record for:

Date	Work done/remarks	Engineer	Company

Penny Hydraulics GROUP

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.

Penny Hydraulics Limited
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