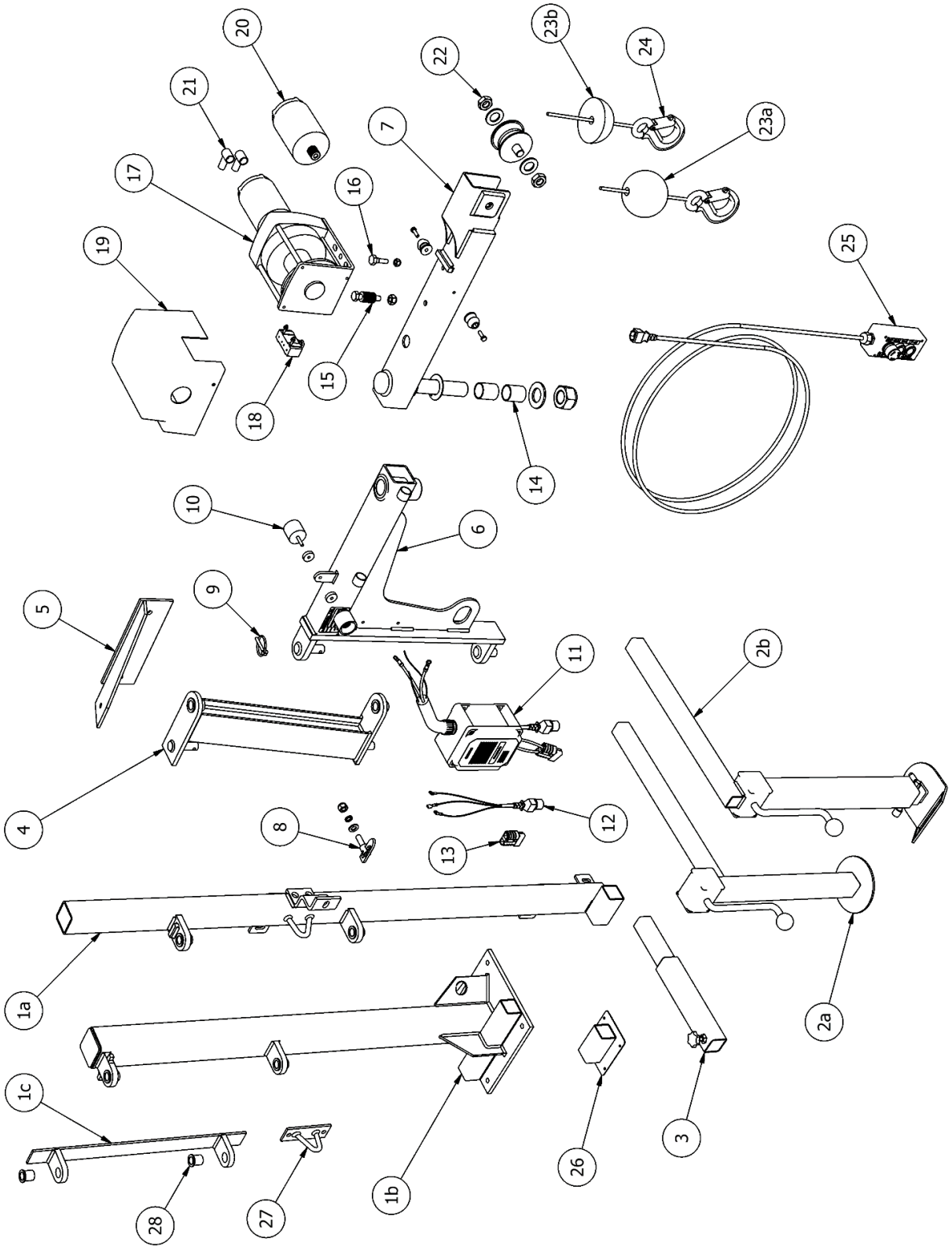
OPERATING & MAINTENANCE MANUAL
VME – SwingLift Cranes – KJ Range
PH_VME_OM_005 Rev 8

Contents

KJ250/1 – Exploded View



Safety Information

For optimum safety and to keep your Penny Engineering SwingLift in good working order, follow these simple Dos and Don'ts.

Do not exceed the Maximum Working Load
Your Penny Engineering lifting equipment is clearly marked with the MWL (Maximum Working Load).

Do not drag or tow
To avoid damage to the SwingLift and mounting points, it must be used only for lifting.

Do not expose the red section of rope
This section is marked to alert the user that they are approaching the full extent of the rope and should not proceed further.

Do not wrap the rope around the load
This will cause excessive chafing and splintering of the rope. Appropriate lifting accessories should be used instead.

Rope must not spool from top of winch
If your wire rope is spooling from the top of your winch, the rope is wound incorrectly on the drum. The SwingLift **must not** be used until this is rectified.

Do not leave a load suspended
Never leave a load suspended or unattended.

Always use the rope hook to stow the crane
The rope hook is one of several methods used to secure the crane for transit.

If supplied, always use the stabiliser leg
Not every Penny Engineering SwingLift is supplied with a support leg but when this is supplied, it **must** be used.

Always stow the crane before driving
To avoid damage to the SwingLift, vehicle and surroundings, the crane **must** be stowed correctly before driving.

- In the interest of safety, all personnel involved in the operation of the crane must read and understand this manual. If they do not then they must not operate the equipment.
- Do not use the KJ250 if it is not supported by valid documentation recording a Thorough Examination being carried out by a Competent Person within the last 12 months.
- The KJ250 must not be used for man riding.
- The KJ250 should be inspected every six months and serviced annually by a competent person. See “Maintenance” in this manual for full Statutory responsibilities.
- The KJ250 must not be overloaded. Refer to the safe working load signs attached to the equipment.
- The KJ250 must only be operated by trained and competent personnel. Training can be arranged by Penny Engineering and a training register is included at the back of this manual.
- Use only correct and certified lifting attachments. Lifting attachments must be formally certified by Thorough Examination every 6 months.
- Use only genuine parts and accessories.
- During operation of the KJ250, 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.
- Keep the KJ250 properly maintained by a competent person. See the “Maintenance” section in this manual.
- Do not adjust or interfere with any factory settings.
- Isolate, immobilize and lock-off the equipment before commencing any maintenance routine.
- Ensure any site-specific barriers, guards and fencing are securely in place before commencing any work.
- Do not modify or re-install this machine without seeking guidance from Penny Engineering Ltd.
- Do not allow any person beneath a suspended or moving load.
- Never interfere with the unit. It should run smoothly at all times, if in doubt call the HELPLINE telephone number 01246 811475.

Improper Usage

It is forbidden:

- To use the loader in different operations from those it has been designed and built for.
- For pulling loads with loader in horizontal position.
- To operate the loader for procedures different from those described in this manual, or using
- components and attachments not approved when the crane was designed.
- Non observance of the established maintenance programs.
- Non observance of safety rules.
- No Man-riding.
- To make modifications involving loader components or parameters related to the working cycle.
- To use unauthorized spare parts and components not specifically approved by the Manufacturer.
- To carry out modifications or structural changes without the approval of the Manufacturer.
- To operate the loader outside the design temperature range: -20¡ C/ +40¡ C (-4 ¡F/ + 104 ¡F).??

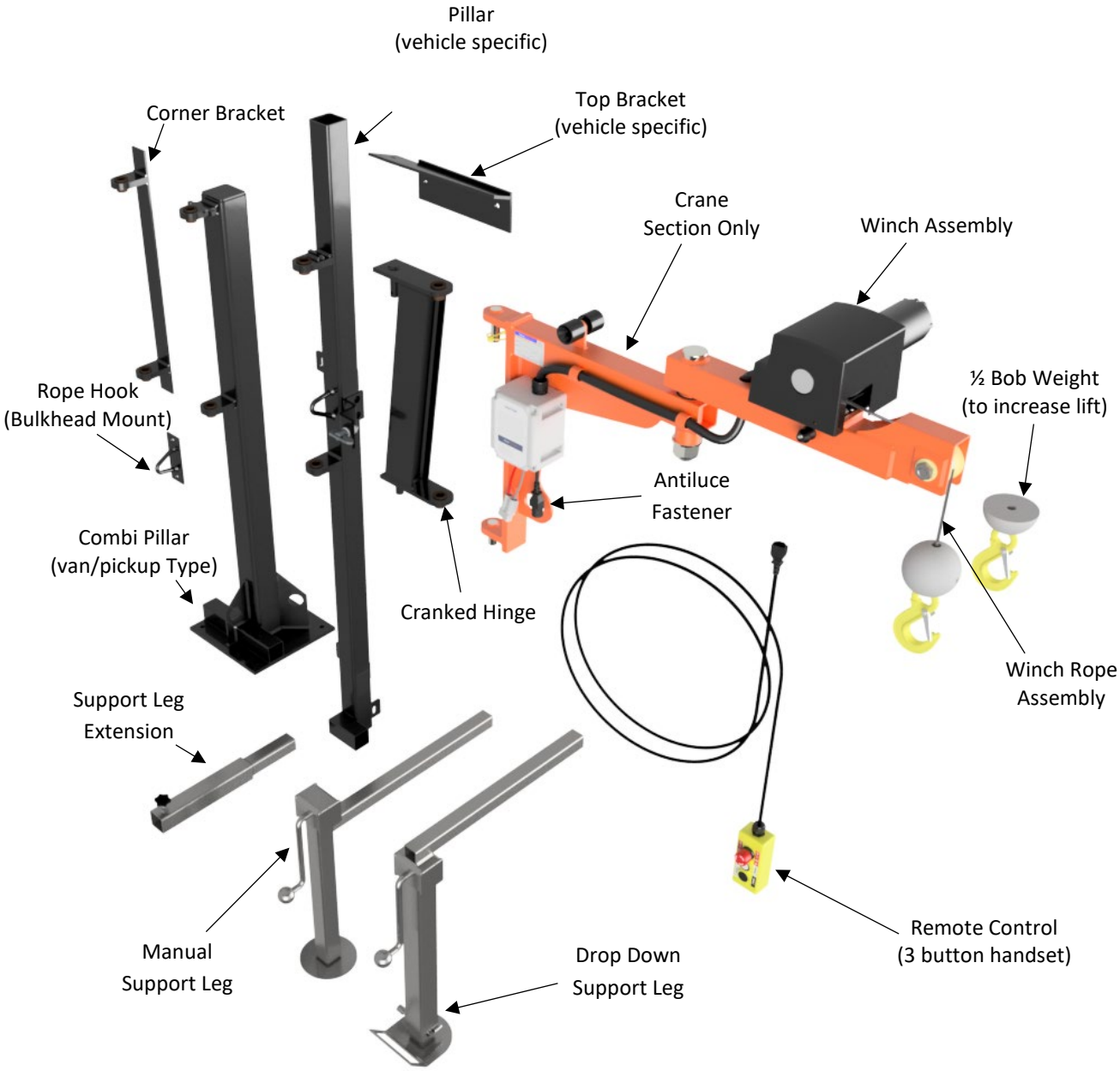
Improper usage or failure to observe these essential safety requirements observance will cause:

- Immediate cancellation of the Manufacturer Warranty
- Cancellation of Manufacturer liability.

Safety Devices:

All the safety devices required by the CE Regulations are installed on Penny Engineering SwingLift Cranes (loaders). These devices are listed and described in the following pages.

Introduction



Thank you for purchasing a Penny Engineering SwingLift Knuckle Joint crane.
The SwingLift KJ250 is a vehicle mounted crane designed and manufactured at our factory in Chesterfield, UK to safely lift and position loads of up to 250kg.
The crane is operated remotely from a handheld pendant control with all functions being protected by inbuilt overload features, powered by the vehicle battery.
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.

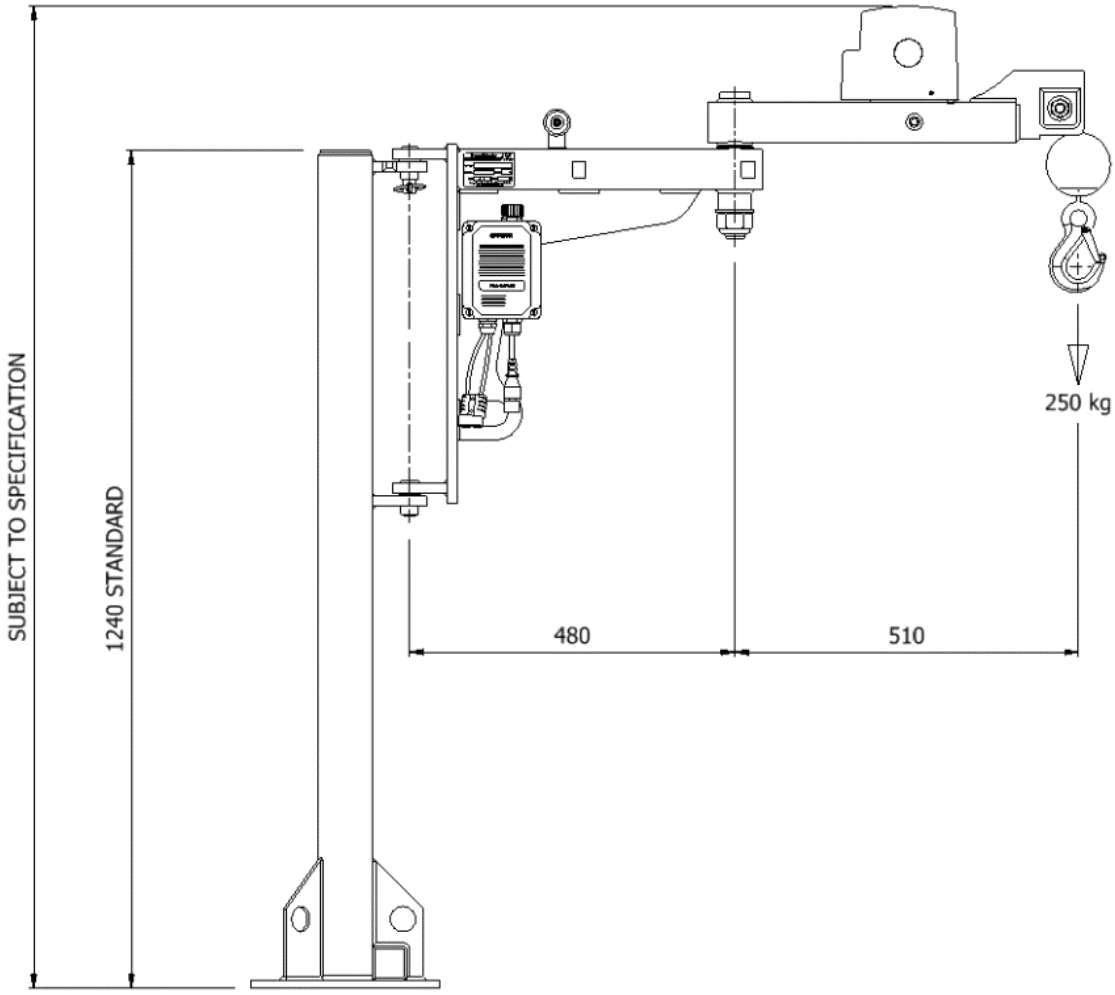
Range Overview

The KJ range of cranes consists of four basic models:

SwingLift KJ250/1

250KG maximum capacity knuckle joint crane with a 1m boom allowing lifts within a 2m arc. Most commonly van or headboard mounted.

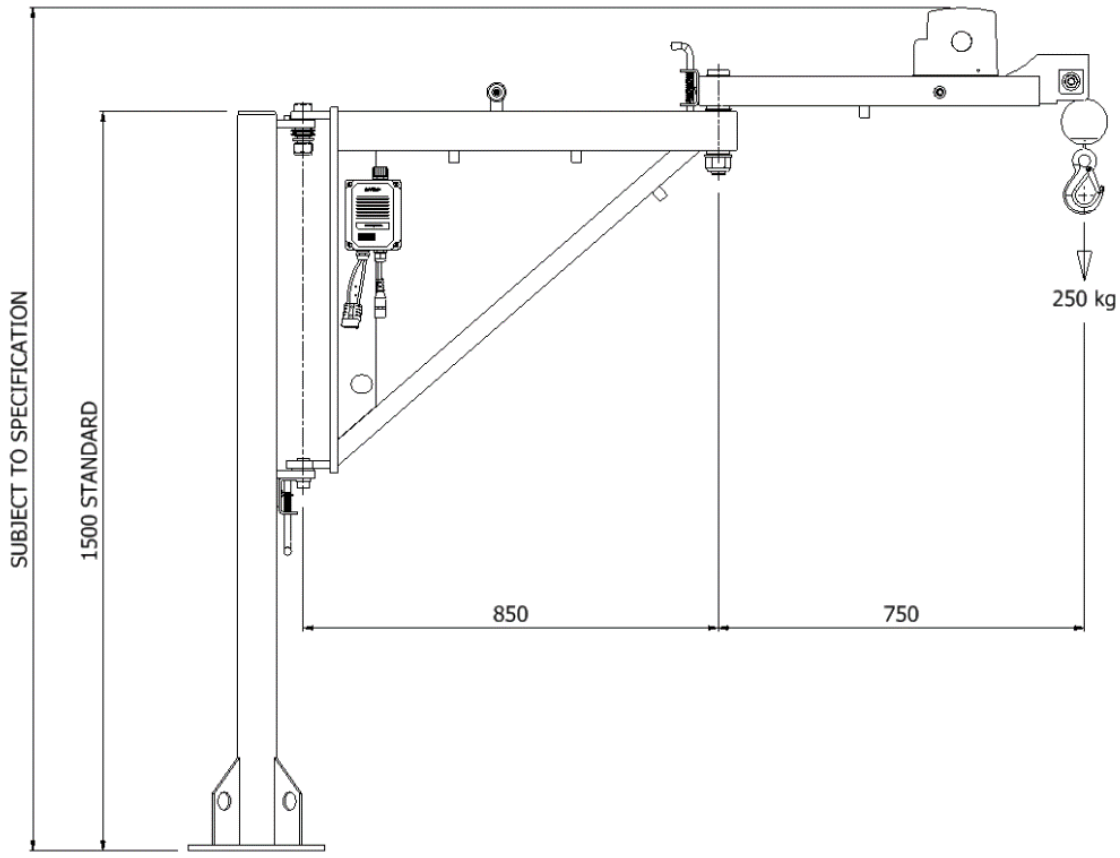
Dimensional Drawing



SwingLift KJ250/1.5

250KG maximum capacity knuckle joint crane with a 1.5m boom allowing lifts within a 3m arc. Most commonly van or headboard mounted.

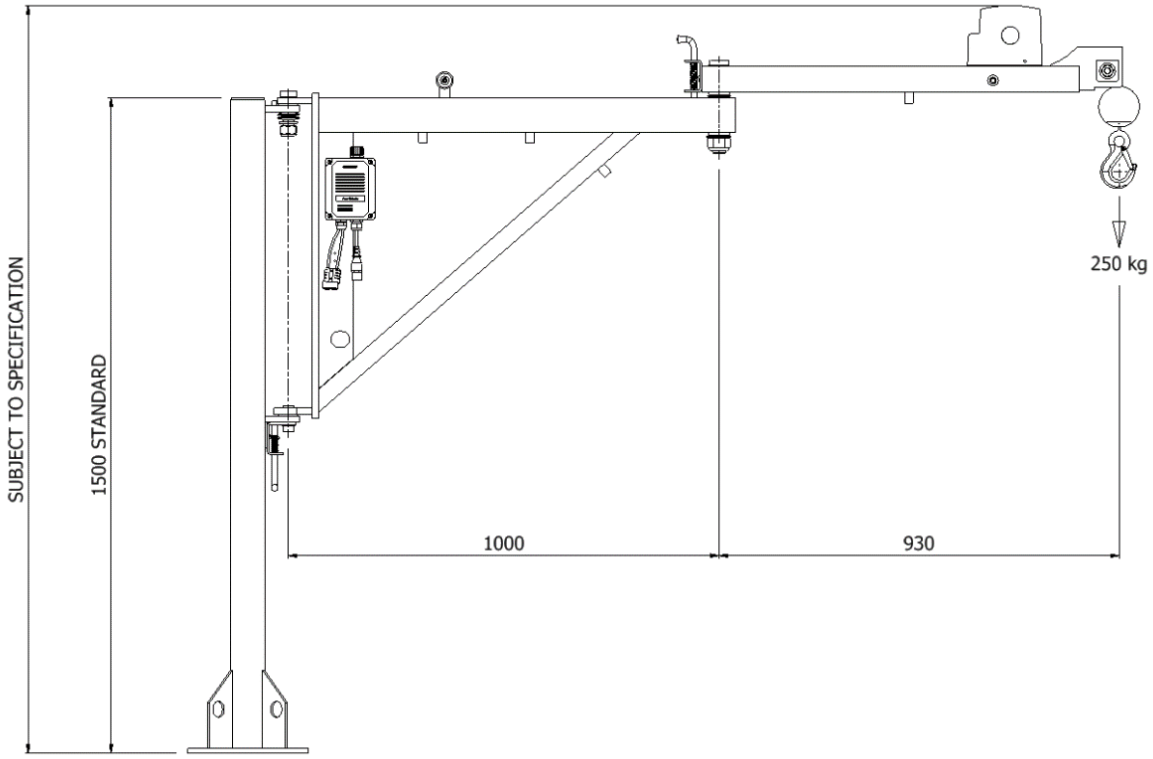
Dimensional Drawing



SwingLift KJ250/2

250KG maximum capacity knuckle joint crane with a 2m boom allowing lifts within a 4m arc. Pick-up, combi-pillar or headboard mounted.

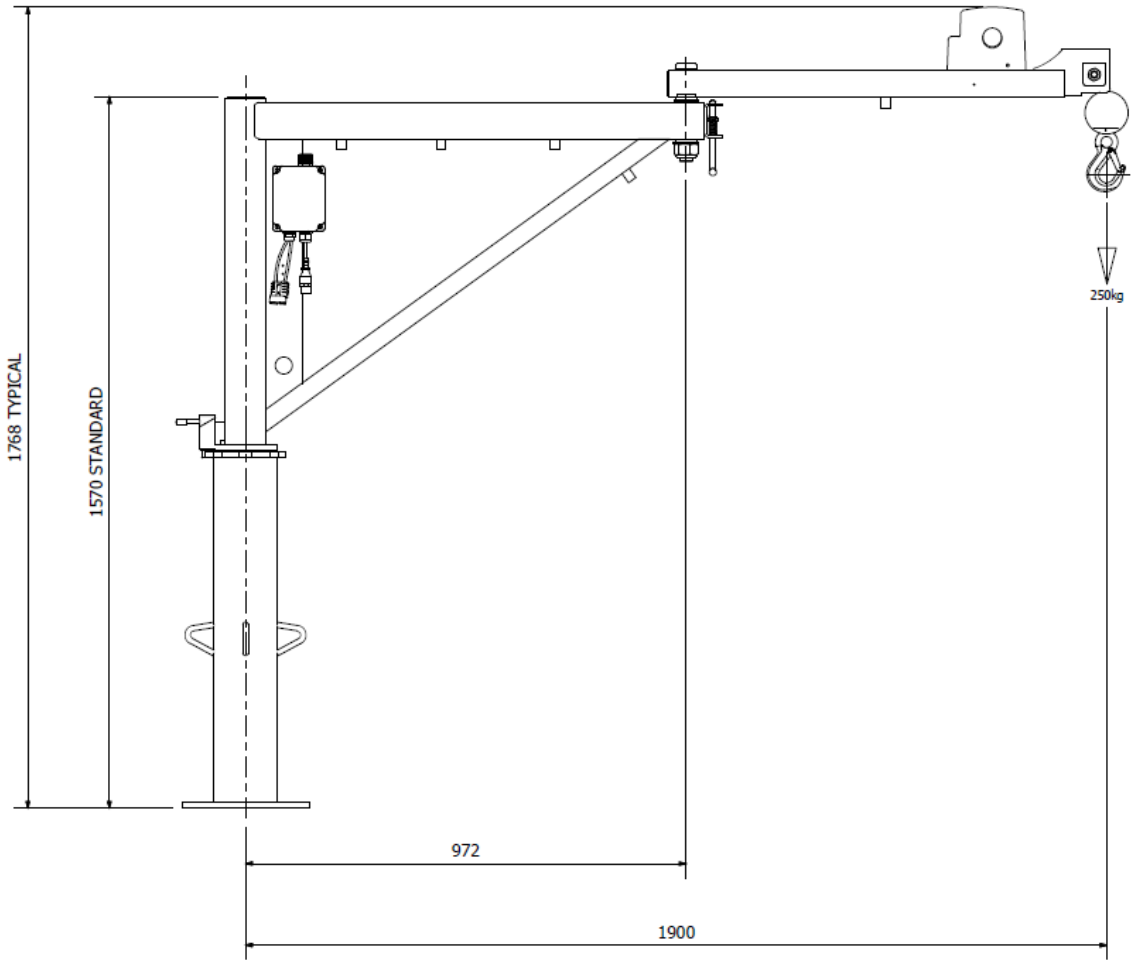
Dimensional Drawing



SwingLift KJ250/2 RPT

250KG maximum capacity knuckle joint crane with a 2m boom allowing lifts within a 4m arc and 350° slew.

Dimensional Drawing



Method of Operation

Prior to Operation

1. Read the Operating and Maintenance manual and ensure all persons involved in the lift are trained and competent to do so.
2. Check and ensure that the necessary documentation for the KJ250 and Lifting attachments is valid and up to date. Ensure that the Report of Thorough Examination does not exceed 12 months for the crane and 6 months for the associated lifting accessories.
3. Ensure you have a risk assessment for the lift to be undertaken.
4. Employ any PPE equipment required or stipulated by your employer or risk assessment.
5. Ensure the crane installation is inspected prior to use for defects (see Planned Maintenance Schedule).
6. Ensure the vehicle is on firm and level ground with the handbrake applied and wheel chocks deployed where necessary.
7. Before operating check for potential hazards such as: overhead electric wires, nearby structures, public roads or paths, railways or rivers. Also pay attention to any underground services; eg gas, electric, drainage etc. Employ barriers or safety guarding required and identified by the risk assessment.
8. Extend the support legs (if supplied) and adjust to ground level using a suitable spreader pad if necessary.
9. Check the power connector from the vehicle is firmly in place.
10. Plug in the pendant control to the control box on the side of the boom support.
11. Using the pendant control button, lower the rope and release it from the rope retaining eye.
12. Release the boom retaining latch (Antiluce fastener) and manually position the rope over the load.
13. The crane is now ready for use.

Operation

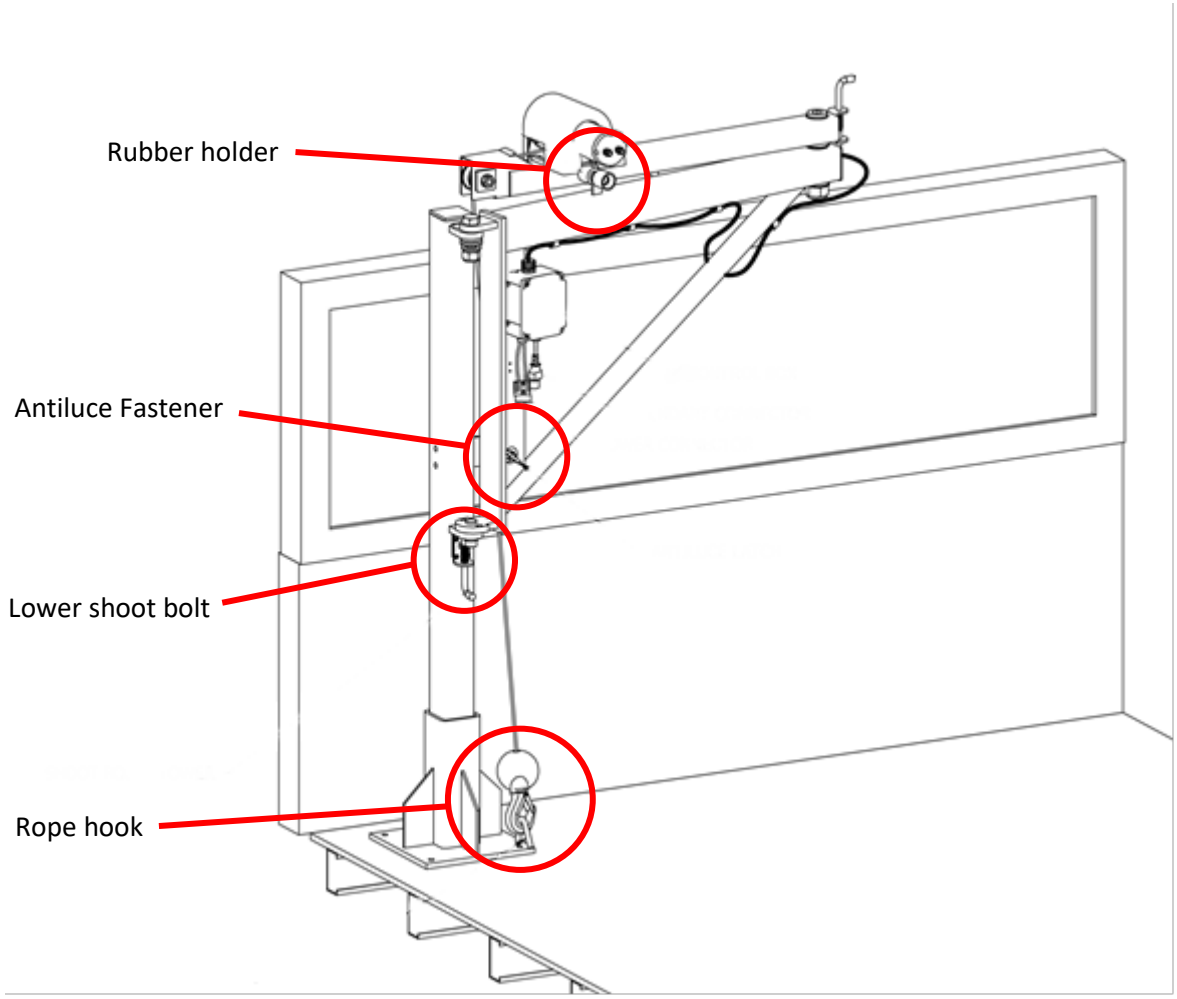
1. The pendant control functions are clearly marked on the hold to run buttons and can now be used as required.
2. Ensure the pendant e-stop is disengaged.
3. Check that the load to be lifted is within the capacity of the crane.
4. Position the load hook directly above the load. The crane should be used for vertical lifting only. No dragging of the load. No man riding.
5. Lower the lifting hook and attach using suitably certified lifting attachments only.
6. Carefully lift the load and manoeuvre to the required position. Do not steer the load by pulling or pushing on the wire rope.
7. Keep clear of the suspended load as far as practically possible and do not try to physically restrain it if the balance suddenly changes. Never stand beneath the suspended or moving load.
8. Do not leave the suspended or attached load unattended.
9. Do not to drive the vehicle with a suspended load or drive with the support legs in the down position.
10. On completion of the operation, ensure the KJ250 is folded into the transport position with the rope attached to the retaining eye and all the locking devices firmly secured.
11. Always level the loader using the support legs (where supplied). The Maximum operating angle is 5°..
12. Detach the pendant control and store securely.

Transportation

Ensure all latches and methods of stowage shown below (*Where applicable*) are fully secured and the winch rope is tensioned before moving the vehicle.

The KJ250 is available with different boom lengths and can be pillar mounted in a van, pillar mounted in a pick up or gantry mounted on the headboard.

Each crane will have **at least two** methods of stowage. The crane **must** be stowed by at least **two** methods of stowage when the vehicle is in transit.



Correct Usage of Boom Shoot Bolt

The below image shows the correct usage of the shoot bolt on the boom. This shoot bolt is used to prevent the crane from “locking out” when load is applied. This is not essential when performing a lift, but can be used to help manoeuvre a load when necessary.

Maintenance

Your SwingLift KJ250 series vehicle mounted crane is subject to the Lifting Operations and Lifting Equipment Regulations 1998 (LOLER) which is a statutory requirement to record on a formal document, the safe working condition of the crane, attachments and mounting structure.

Penny Engineering Ltd Service 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 KJ250 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. Such as structured change or re-fitting the crane to a new vehicle.

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, call 01246 811 475 for further assistance.

Planned Maintenance Schedule

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 recommended that an assistant is designated to be on call if required.
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.
On receipt of a new machine and before it is put into service, check that there is no transit damage or evidence of mishandling.

Interval	Maintenance Task
Daily / Before Use	Check the hoist rope is coming off the bottom of the winch drum.
	Check visually for signs of external damage such as cracks or flaked paint.
	Check all guards are securely in place.
	Check for loose or missing nuts, bolts and fasteners.
	Check the hoist rope for kinks, broken strands and corrosion.
	Check the lifting hook and connection to the rope.
	Check for damage to electrical cables and connectors
Weekly	Check all as for Daily.
	Thoroughly clean the support structure and check the security of the interface with the vehicle.
3 Monthly	Check all as for Daily, Weekly.
	Remove the rope assembly from the winch and check the full length for kinks, broken strands and corrosion. Replace if necessary.
	In severe operating conditions, remove the pin and rope pulley and check for excessive wear. Replace if necessary.
	Re fit the pulley and rope assembly ensuring smooth lapping on the winch drum.
6 Monthly	Check all as for Daily, Weekly, Monthly and 3 Monthly.
	Thoroughly examine the main structures and sub frames for soundness and signs of deflection.
	Thoroughly inspect all welds.
	Thoroughly check the security of all fixings on the main body and sub frames.
	Thoroughly examine all pivot points for excessive play. Remove the pivot pins and thoroughly inspect the condition of the pins and bushes and replace where necessary.
	Thoroughly examine all electrical components, cables and connectors.
12 Monthly	Check all as for Daily, Weekly, 3 Monthly and 6 Monthly.
	Carry out a full load test as set out in the Load Test Procedure.
	Carry out a statutory thorough examination as required by LOLER.

Load Test Procedure

A load test must be carried out periodically to assess the integrity of the KJ250 and its supporting structures.
Any defects or signs of potential failure must be rectified before the machine is allowed back into service.

Warning: This procedure must only be carried out by suitably qualified, experienced and trained personnel.

Method

1. Prepare the vehicle for operation in a safe working area, with the support leg firmly set and cordon off the area with appropriate barriers and work in progress signs.
2. Prepare the maximum prescribed test weights as determined by the KJ250 model number.
3. Clear the site, admit power, connect the pendant control and rotate the KJ250 in line with the axis of the chassis and the boom outboard.
4. Without load, manoeuvre the crane through all extents to ensure correct operation.
5. Lower the rope and attach the hook to the test weight prescribed.
6. Raise the load clear of the ground.
7. Check for signs of excessive flexing, structural deformation, paint flaking and excessive play in the joints.
8. Rotate the KJ250 through its maximum swing and repeat the checks.
9. Return the weight to its starting position and detach.

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 KJ250s at the factory and forms part of the test certificate requirements.
If the KJ250 is fitted to the vehicle by Penny Engineering 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:

- The KJ250 is fitted to a new or modified structure.
- Any Modifications have been carried out to the KJ250 or support structure.
- Following any incident which may have caused damage to the KJ250 or its supporting structure.

Warning:
To carry out an Overload Test, elements of the system protection features must be overridden and therefore must only be carried out by suitably qualified, experienced and trained personnel.
In severe or extreme conditions, it is recommended that an Overload Test is incorporated into the Annual Load Test of KJ250 and its supporting structure
Please contact Penny Engineering Ltd for further information.

Fault Finding

If in doubt, contact our Service Department on: 01246 811 475

Fault	Cause	Remedy
No response when operating Raise / Lower buttons	No power from battery	Check supply fuse and replace if necessary. Check all cable connections are clean and sound
	Faulty earth connection	Check, clean and secure all earth points
	Faulty or discharged vehicle battery	Re charge or replace battery
Crane will not lift but will lower	Crane overloaded	Lower off and remove excessive load
	Rope bunched on pulley or winch	Ensure that rope is free to travel
Crane will not swivel freely	Bushes / pivot bearings seized	Loosen, clean and reset
Clicking noise from gearbox	Solenoid faulty	Check all cable connections. Replace Solenoid
Crane only operates in one direction	Rope coming off the top of the drum	The rope needs to be re-fitted correctly
	Faulty remote control	Replace remote control
	Faulty solenoid	Replace Solenoid
	Faulty brake	Replace winch motor
Winch excessively noisy	Worn gearbox	Replace winch
Winch will not operate in either direction	Broken gearbox	Replace winch
	Faulty motor	Replace motor
	Faulty solenoid	Replace solenoid

Thorough Examination

The Lifting Operations and Lifting Equipment Regulations (LOLER) replaced the legal requirement for the four-yearly Overload Test with the annual Thorough Examination and Inspection, and made it the responsibility of the Competent Person to determine if and when an Overload Test should be carried out, on the grounds that "the design of certain lifting equipment is such that damage may be caused by conventional Overload Tests". Loader cranes do not fall into this category, as witnessed by the fact that BS7121 Part 2 has an entire section devoted to the testing of loader cranes. Load Testing is a requirement of ALLMI and BS7121 Parts 2 and 4.

Inspection of the lorry loader by a competent person to determine if it is safe for continued use until the next thorough examination is due. Thorough Examinations should be conducted at least every 12 months. A thorough examination will also be required:

- If the lorry loader is involved in an accident or dangerous occurrence.
- After a significant change in conditions of use.
- After long periods out of use.
- At shorter intervals as determined by the Competent Person.

Please note that in addition to the above, lifting equipment for lifting persons or an accessory for lifting, must be thoroughly examined at least every six months.

BS7121 Part 2

Occasion	Minimum test and thorough examination
Before being first taken into service	Full test including 25% overload
Annually after being first put into service	Proof load test of rated capacity +10% at full radius and through the full slewing arc, and a Thorough Examination
4 years after first being put into service	Full test including 25% overload
8 years after first being put into service	Non-destructive test of the structure
After each structural repair or component change	Full test including 25% overload
When chassis is changed	Full test including 25% overload
Is removed and refitted	Full test including 25% overload

Lorry Loader Servicing

Penny Engineering has been manufacturing lifting equipment for over 40 years. All of our products are supported by a fleet of dedicated service vans fully stocked with original equipment spares and manned by trained engineers.

Current legislation requires that each item of lifting equipment must be thoroughly examined at least once in every period of twelve months by a competent person. Additionally, the lifting equipment must be inspected at suitable intervals between thorough examinations. Our service contract will ensure continued safe, reliable use of the equipment and full compliance with current legislation.

The operator is required to carry out regular inspections and report any faults found.

The standard contract provides for an annual service and an interim six-monthly inspection or for total piece of mind we offer a Fully Comprehensive option. In all cases a test certificate will be issued with a copy being left on site and a further copy sent together with our invoice. We will also keep a copy for our records that can be forwarded to enforcing authorities on your behalf as necessary.

Our database of all equipment ensures that statutory inspections are kept up to date and can help customers with many items of equipment to predict forthcoming servicing budgets.

A Help Line telephone number is provided with each service contract for the operators to seek assistance directly from our Service Department. There is no call out or labour charge for help required in-between scheduled visits and any parts used will be charged on the next invoice.

Should this be of interest then in the first instance please contact the Service Department on 01246 810403.

Technical Data

Power Supply

Standard **Swing**Lift KJ250s require 12/24V 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 DC 70A
240 volt – contact Penny Engineering Ltd.

Typical Weights

SwingLift KJ250 32.5kg – 100kg subject to specification including winch unit.

Safe Working Load

Each **Swing**Lift KJ250 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: -

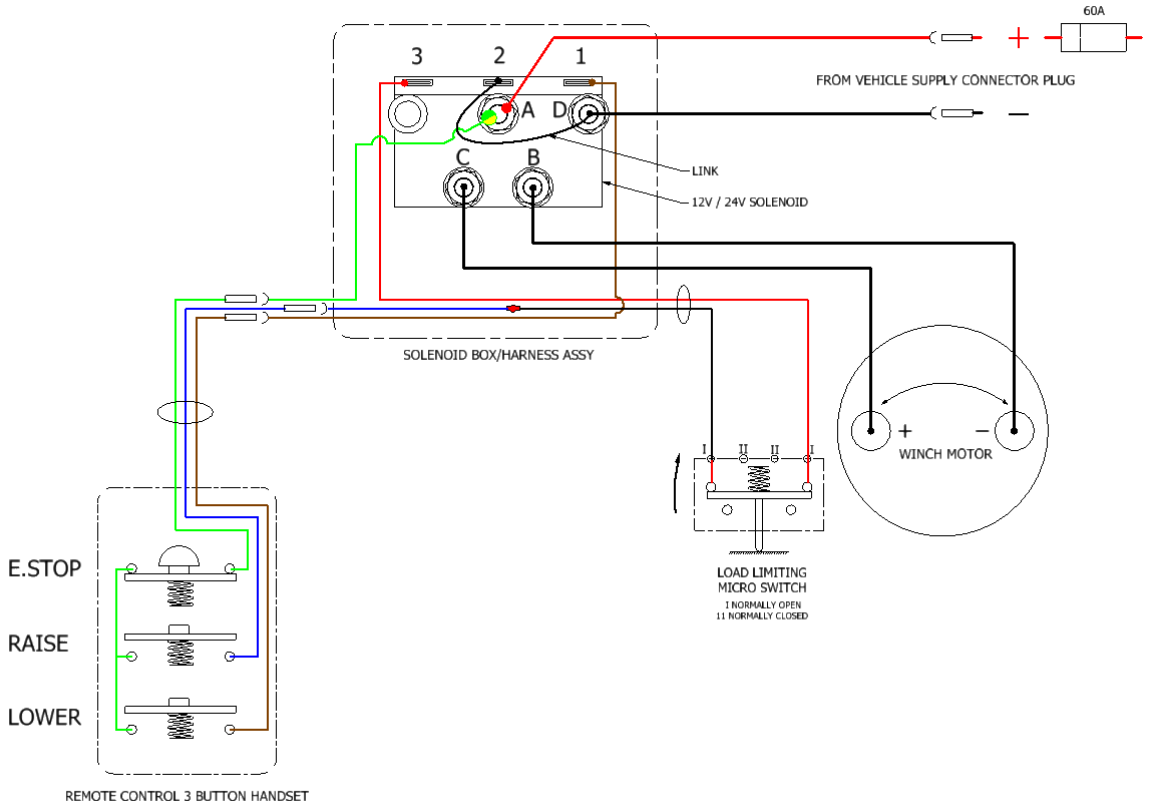
Winch running 65dB(A)

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

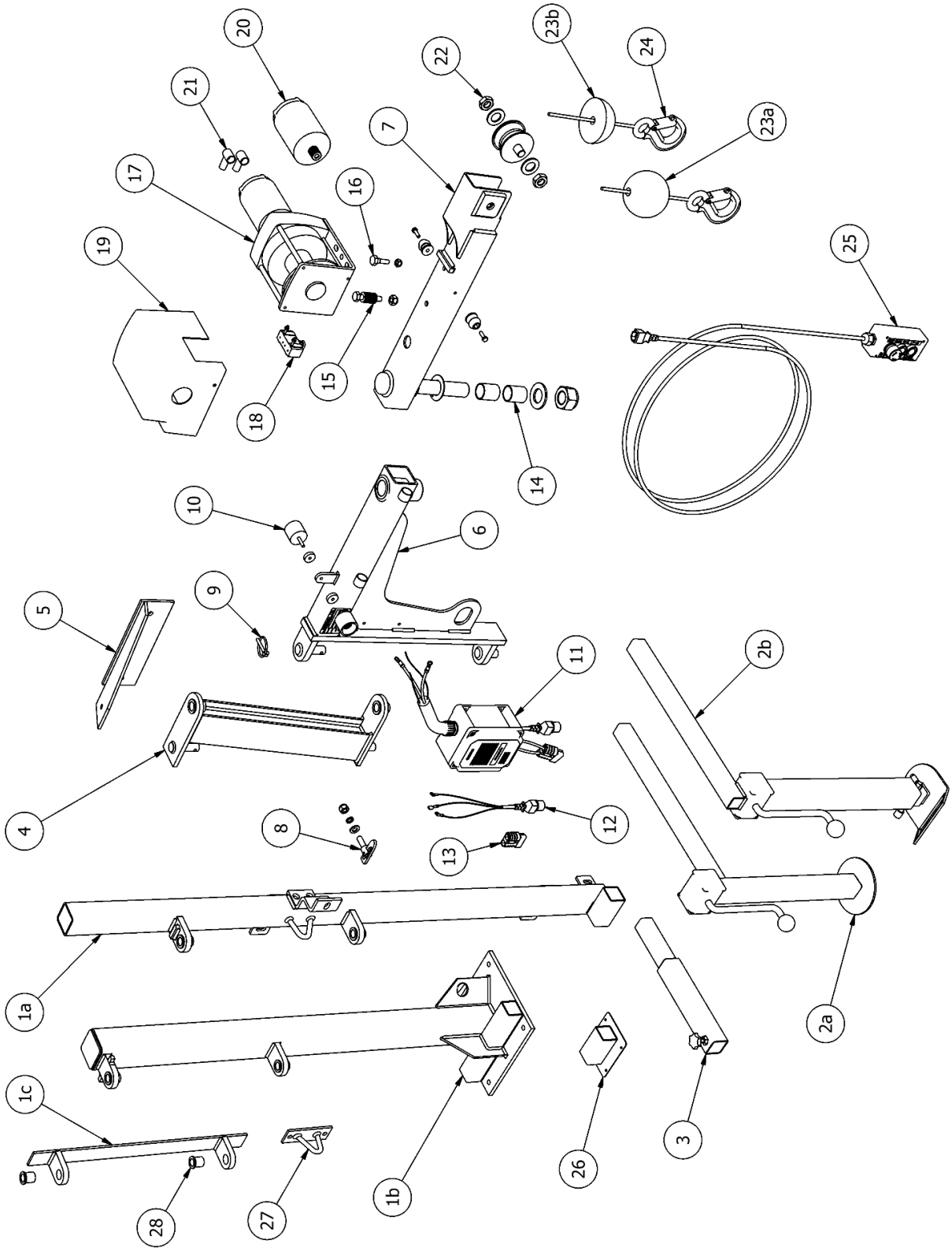
Penny Engineering will remove and dispose of the entire crane in an environmentally sound manner when required.

Typical Wiring Layout



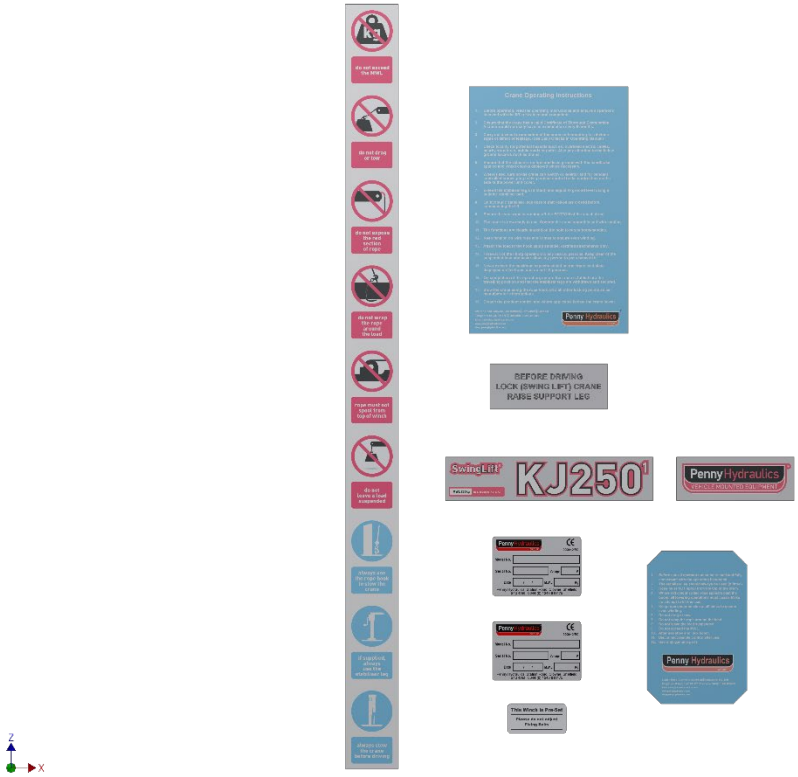
Spare Parts List

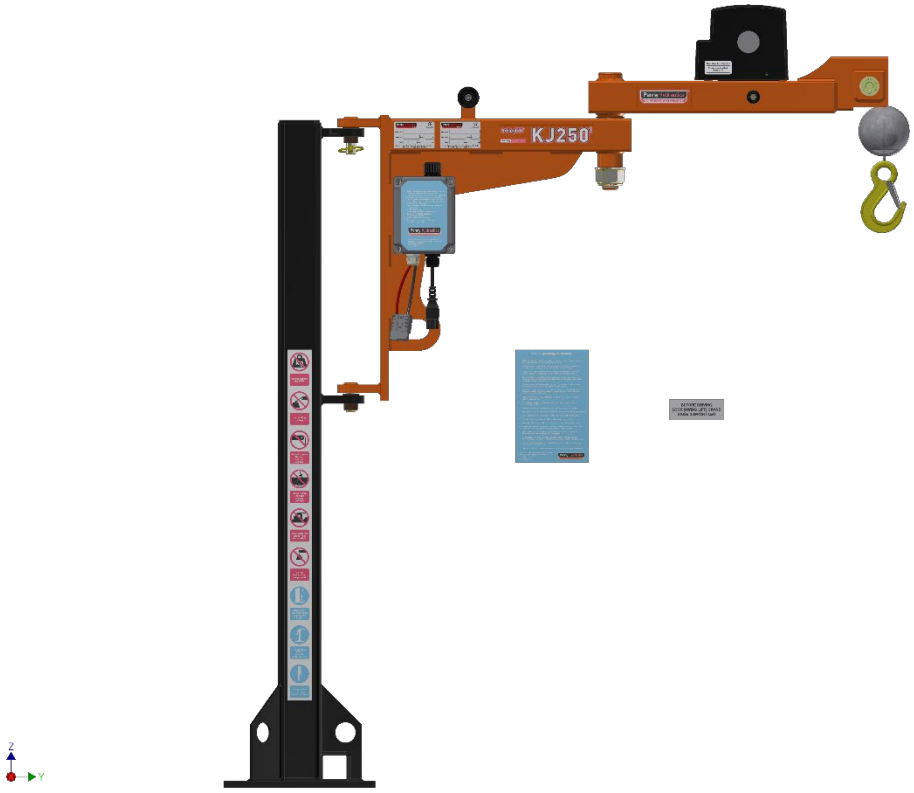
KJ250/1 – Exploded View



KJ250/1 – Parts List

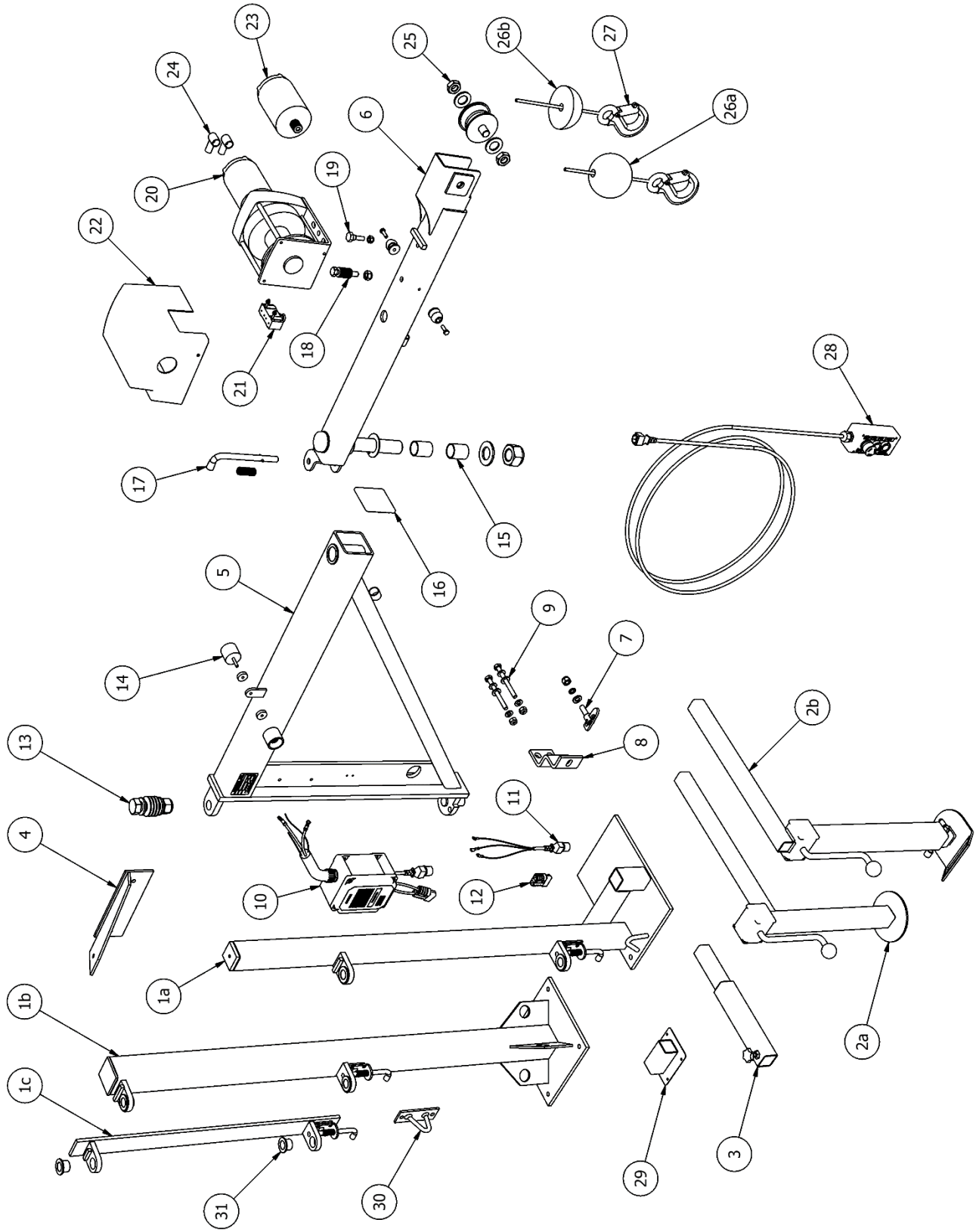
ITEM		PART NUMBER	DESCRIPTION	QTY
1	a	Subject to Specification	Van Pillar - Assembly	1
	b	541-000124	Combi Pillar - Assembly	1
	c	011-000441	Corner Bracket - Assembly	1
2	a	190-000006	Support Leg (2 Tier) - Assembly	1
	b	190-000015	Support Leg (3 Tier) - Assembly	1
3		503-000078	Leg Extension - Assembly	1
4		158-000029	Cranked Hinge - Assembly	1
5		Subject to Specification	Van Top Mounting Bracket - Assembly	1
6		056-000314	Crane Body	1
7		056-000313	2nd Boom	1
8		064-000001	Antiluce Fastener - Assembly	1
9		539-000043	Lynch Pin	1
10		173-000006	Rubber Holder (Male & Female) - Assembly	1
11	a	195-000040	Solenoid Box & Wiring Harness - 12V	1
	b	195-000041	Solenoid Box & Wiring Harness - 24V	1
12		547-000033	Remote Connector & Tail	1
13		108-000001	Anderson Power Connector - 50A	1
14		035-000056	Joint Bearing - Assembly	1
15		713-200005	Disc Spring - Assembly	1
16		200-000009	Shoulder Bolt - Assembly	1
17	a	077-000024	Winch Assembly - 12V - Left Hand (LH)	1
	b	077-000023	Winch Assembly - 12V - Right Hand (RH)	1
	c	077-000026	Winch Assembly - 24V - Left Hand (LH)	1
	d	077-000025	Winch Assembly - 24V - Right Hand (RH)	1
18		692-000008	Microswitch - Assembly	1
19	a	123-000035	Winch Cover - L/H	1
	b	123-000036	Winch Cover - R/H	1
20	a	614-000005	Winch Motor - 12V	1
	b	614-000007	Winch Motor - 24V	1
21		042-000001	Terminal Rubber Boot	2
22		555-000017	Pulley Wheel - Assembly	1
23	a	022-000002	Bob Weight - Assembly	1
	b	022-000004	Half Bob Weight - Assembly	1
24	a	079-000008	Rope 15' (4.5m) & Hook - Assembly	1
	b	079-000009	Rope 20' (6.0m) & Hook - Assembly	1
	c	079-000010	Rope 30' (9.1m) & Hook - Assembly	1
25		560-000016	Remote Control (3 Button Handset)	1
26		Subject to Specification	Support Leg Stowage Bracket - Assembly	1
27		079-000050	Rope Hook (Bulkhead Mounted) - Assembly	1
28		035-000049	Flanged Bush	2


BEFORE DRIVING
LOCK (SWING LIFT) CRANE
RAISE SUPPORT LEG
KJ250
Penny Hydraulics


KJ250

Item	Part Number	Description	Qty
1	500-000193	This winch is preset sticker	1
2	500-000069	KJ250/1 Boom Label Set	1
3	500-000022	Manufacturers CE Plate	1
4	500-000179	Installers CE Plate*	1
5	500-000184	Operating Instructions	1
6	500-000031	Caution Sticker Blue	1
7	500-000182	Vertical Sticker (9 safety warning icons)	1
8	500-000183	Before driving sticker	1

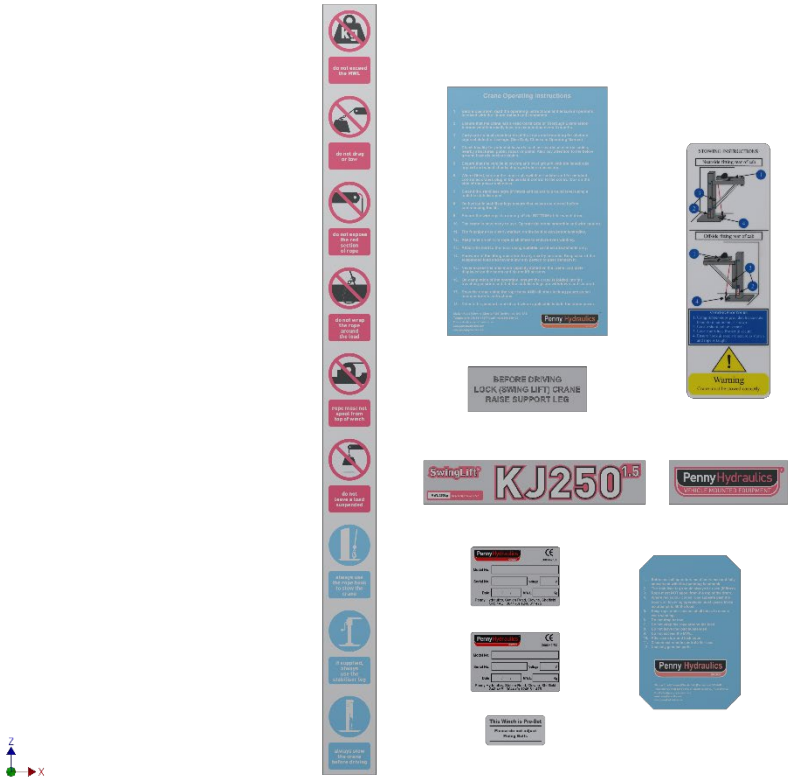
KJ250/1.5 – Exploded View



KJ250/1.5 – Parts List

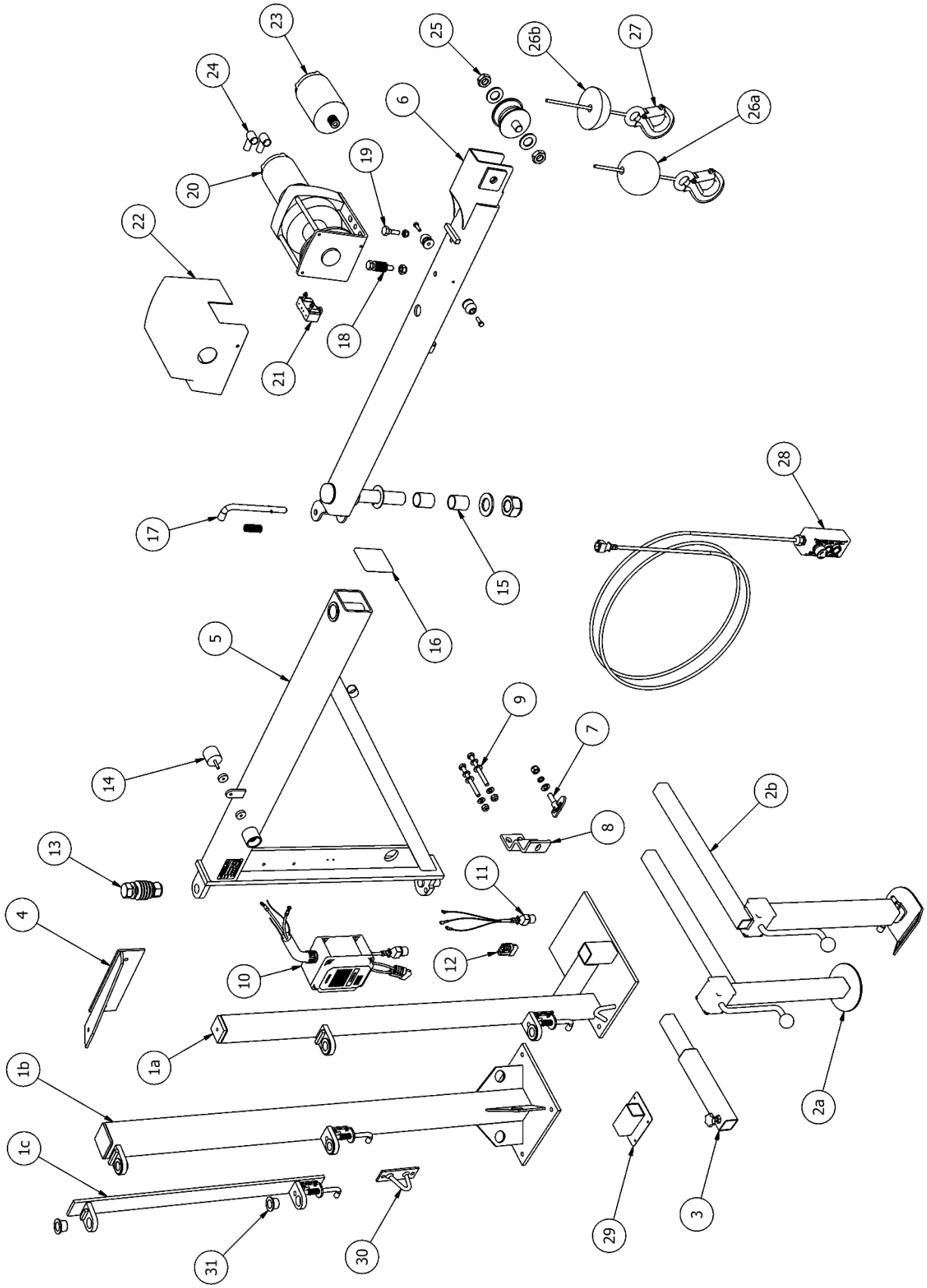
ITEM		PART NUMBER	DESCRIPTION	QTY
1	a	Subject to Specification	Van Pillar - Assembly	1
	b	541-000012	Combi Pillar - Assembly	1
	c	011-000346	Corner Bracket - Assembly	1
2	a	190-000006	Support Leg (2 Tier) - Assembly	1
	b	190-000015	Support Leg (3 Tier) - Assembly	1
3		503-000078	Leg Extension - Assembly	1
4		Subject to Specification	Top Mounting Bracket - Assembly	1
5		056-000318	Crane Body	1
6		056-000319	2nd Boom	1
7		064-000001	Antiluce Fastener - Assembly	1
8		011-000129	Antiluce Bracket	1
9		206-000001	Antiluce Fitting Kit	1
10	a	195-000010	Solenoid Box & Wiring Harness - 12V	1
	b	195-000011	Solenoid Box & Wiring Harness - 24V	1
11		547-000033	Remote Connector & Tail	1
12		108-000001	Anderson Power Connector - 50A	1
13		713-200008	Anti-slew Tensioner - Assembly	1
14		173-000006	Rubber Holder (Male & Female) - Assembly	1
15		035-000056	Joint Bearing - Assembly	1
16		547-000018	End Cap	1
17		079-000025	Shoot Bolt - Assembly	1
18		713-200005	Disc Spring - Assembly	1
19		200-000009	Shoulder Bolt - Assembly	1
20	a	077-000024	Winch Assembly - 12V - Left Hand (LH)	1
	b	077-000023	Winch Assembly - 12V - Right Hand (RH)	1
	c	077-000026	Winch Assembly - 24V - Left Hand (LH)	1
	d	077-000025	Winch Assembly - 24V - Right Hand (RH)	1
21		692-000008	Microswitch - Assembly	1
22	a	123-000035	Winch Cover - L/H	1
	b	123-000036	Winch Cover - R/H	1
23	a	614-000005	Winch Motor - 12V	1
	b	614-000007	Winch Motor - 24V	1
24		042-000001	Terminal Rubber Boot	2
25		555-000017	Pulley Wheel - Assembly	1
26	a	022-000002	Bob Weight - Assembly	1
	b	022-000004	Half Bob Weight - Assembly	1
27	a	079-000008	Rope 15' (4.5m) & Hook - Assembly	1
	b	079-000009	Rope 20' (6.0m) & Hook - Assembly	1
	c	079-000010	Rope 30' (9.1m) & Hook - Assembly	1
28		560-000016	Remote Control (3 Button Handset)	1
29		Subject to Specification	Support Leg Stowage Bracket - Assembly	1
30		079-000050	Rope Hook (Bulkhead Mounted) - Assembly	1
31		039-000002	Flanged Bush	2


KJ250


BEFORE DRIVING
LOCK (SWING LIFT) CRANE
RAISE SUPPORT LEG
KJ250
Penny Hydraulics

Item	Part Number	Description	Qty
1	500-000193	This winch is preset sticker	1
2	500-000087	KJ250/1.5 Boom Label Set	1
3	500-000022	Manufacturers CE Plate	1
4	500-000179	Installers CE Plate*	1
5	500-000184	Operating Instructions	1
6	500-000031	Caution Sticker Blue	1
7	500-000182	Vertical Sticker (9 safety warning icons)	1
8	500-000183	Before driving sticker	1
9	500-000185	Stowing Instruction	1

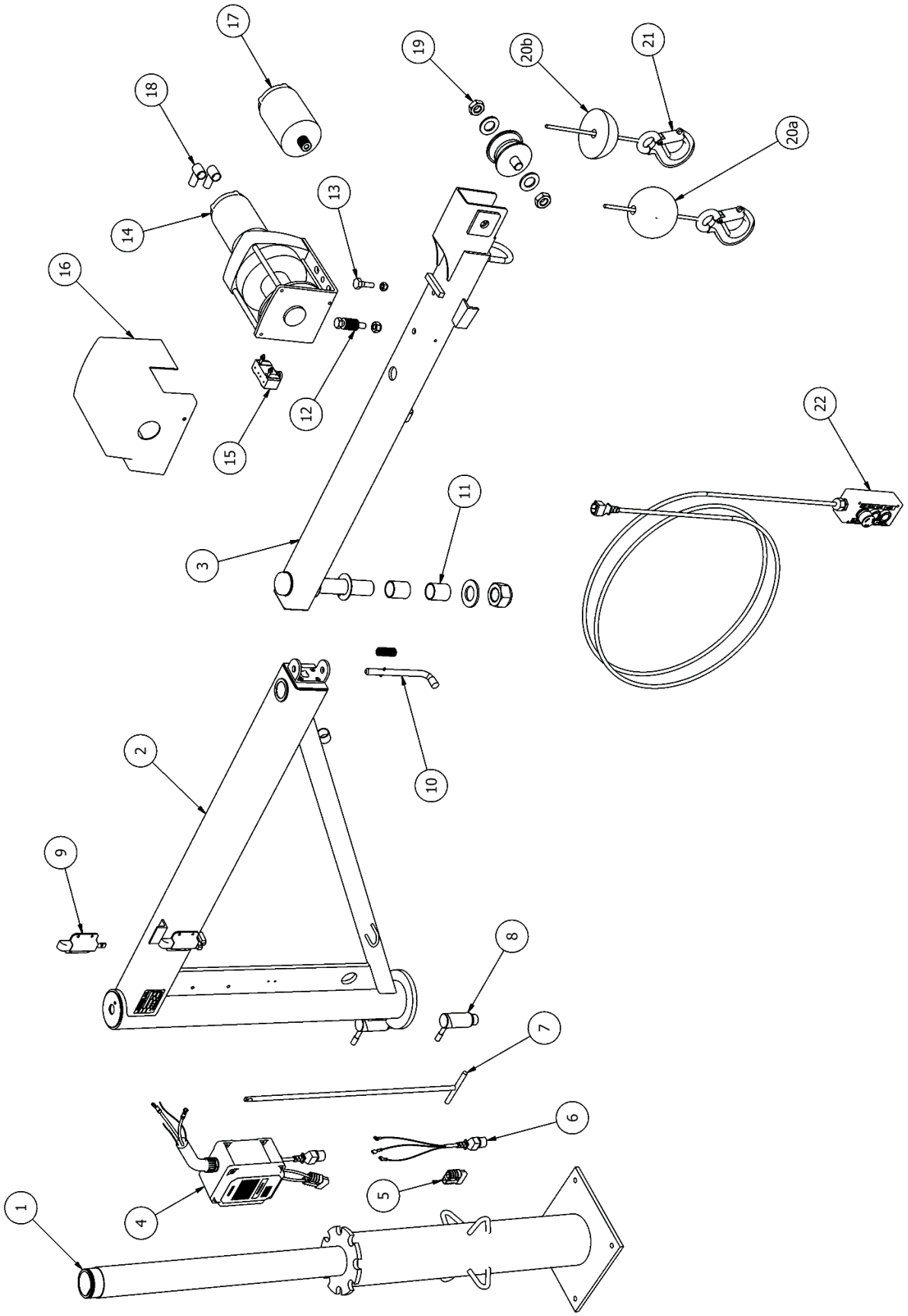
KJ250/2 – Exploded View



KJ250/2 – Parts List

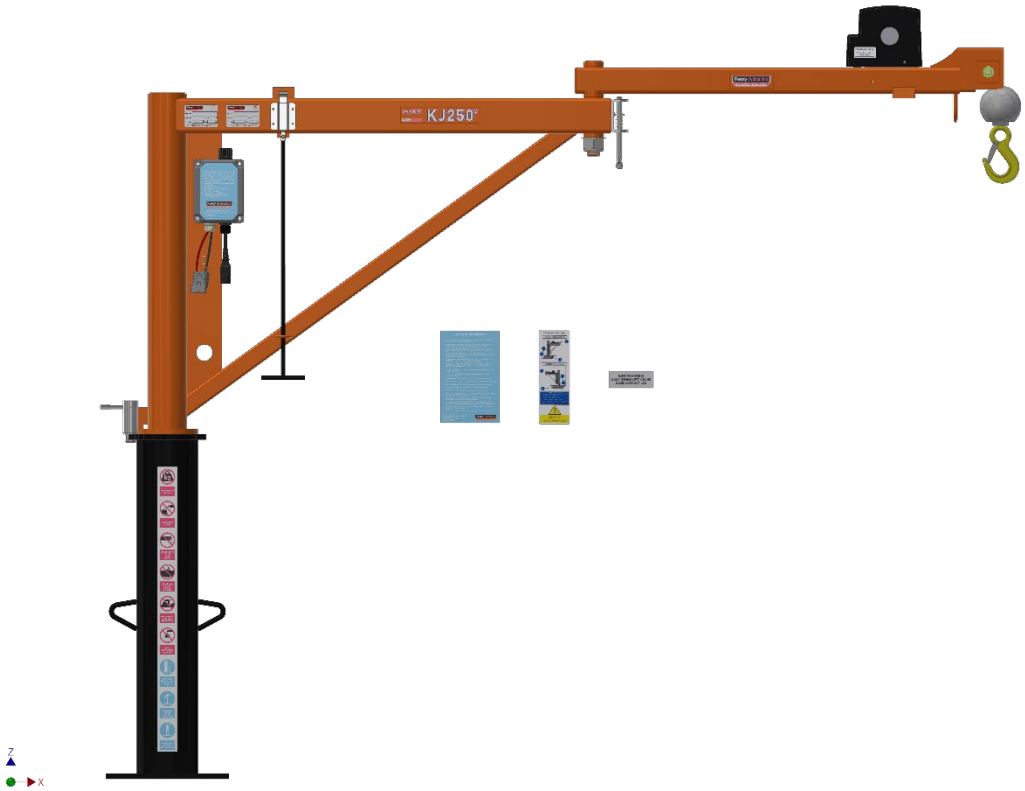
ITEM		PART NUMBER	DESCRIPTION	QTY
1	a	Subject to Specification	Van Pillar - Assembly	1
	b	541-000012	Combi Pillar - Assembly	1
	c	011-000346	Corner Bracket - Assembly	1
2	a	190-000006	Support Leg (2 Tier) - Assembly	1
	b	190-000015	Support Leg (3 Tier) - Assembly	1
3		503-000078	Leg Extension - Assembly	1
4		Subject to Specification	Top Mounting Bracket - Assembly	1
5		056-000317	Crane Body	1
6		056-000320	2nd Boom	1
7		064-000001	Antiluce Fastener - Assembly	1
8		011-000129	Antiluce Bracket	1
9		206-000001	Antiluce Fitting Kit	1
10	a	195-000010	Solenoid Box & Wiring Harness - 12V	1
	b	195-000011	Solenoid Box & Wiring Harness - 24V	1
11		547-000033	Remote Connector & Tail	1
12		108-000001	Anderson Power Connector - 50A	1
13		713-200008	Anti-slew Tensioner - Assembly	1
14		173-000006	Rubber Holder (Male & Female) - Assembly	1
15		035-000056	Joint Bearing - Assembly	1
16		547-000018	End Cap	1
17		079-000025	Shoot Bolt - Assembly	1
18		713-200005	Disc Spring - Assembly	1
19		200-000009	Shoulder Bolt - Assembly	1
20	a	077-000024	Winch Assembly - 12V - Left Hand (LH)	1
	b	077-000023	Winch Assembly - 12V - Right Hand (RH)	1
	c	077-000026	Winch Assembly - 24V - Left Hand (LH)	1
	d	077-000025	Winch Assembly - 24V - Right Hand (RH)	1
21		692-000008	Microswitch - Assembly	1
22	a	123-000035	Winch Cover - L/H	1
	b	123-000036	Winch Cover - R/H	1
23	a	614-000005	Winch Motor - 12V	1
	b	614-000007	Winch Motor - 24V	1
24		042-000001	Terminal Rubber Boot	2
25		555-000017	Pulley Wheel - Assembly	1
26	a	022-000002	Bob Weight - Assembly	1
	b	022-000004	Half Bob Weight - Assembly	1
27	a	079-000008	Rope 15' (4.5m) & Hook - Assembly	1
	b	079-000009	Rope 20' (6.0m) & Hook - Assembly	1
	c	079-000010	Rope 30' (9.1m) & Hook - Assembly	1
28		560-000016	Remote Control (3 Button Handset)	1
29		Subject to Specification	Support Leg Stowage Bracket - Assembly	1
30		079-000050	Rope Hook (Bulkhead Mounted) - Assembly	1
31		039-000002	Flanged Bush	2

KJ250/2 RPT – Exploded View



KJ250/2 RPT – Parts List

ITEM		PART NUMBER	DESCRIPTION	QTY
1		541-000011	Pillar - Assembly	1
2		056-000120	Crane Body	1
3		056-000123	2nd Boom	1
4	A	195-000010	Solenoid Box & Wiring Harness - 12V	1
	B	195-000011	Solenoid Box & Wiring Harness - 24V	1
5		108-000001	Anderson Power Connector - 50A	1
6		547-000033	Remote Connector & Tail	1
7		171-000019	Catch Handle	1
8		539-000045	Cam Lock	1
9		079-000023	Slam Latch	1
10		079-000025	Shoot Bolt - Assembly	1
11		035-000056	Joint Bearing - Assembly	1
12		713-200005	Disc Spring - Assembly	1
13		200-000009	Shoulder Bolt - Assembly	1
14	A	077-000024	Winch Assembly - 12V - Left Hand (LH)	1
	B	077-000023	Winch Assembly - 12V - Right Hand (RH)	1
	C	077-000026	Winch Assembly - 24V - Left Hand (LH)	1
	D	077-000025	Winch Assembly - 24V - Right Hand (RH)	1
15		692-000008	Microswitch - Assembly	1
16	A	123-000035	Winch Cover - L/H	1
	B	123-000036	Winch Cover - R/H	1
17	A	614-000005	Winch Motor - 12V	1
	B	614-000007	Winch Motor - 24V	1
18		042-000001	Terminal Rubber Boot	2
19		555-000017	Pulley Wheel - Assembly	1
20	A	022-000002	Bob Weight - Assembly	1
	B	022-000004	Half Bob Weight - Assembly	1
21	A	079-000008	Rope 15' (4.5m) & Hook - Assembly	1
	B	079-000009	Rope 20' (6.0m) & Hook - Assembly	1
	C	079-000010	Rope 30' (9.1m) & Hook - Assembly	1
22		560-000016	Remote Control (3 Button Handset)	1


KJ250


BEFORE DRIVING
LOCK (SWING LIFT) CRANE
RAISE SUPPORT LEG
KJ250
Penny Hydraulics

KJ250/2 GHT / RPT			
Item	**Part Number**	**Description**	**Qty**
1	500-000193	This winch is preset sticker	1
2	500-000196	KJ250/2 GHT Boom Label Set	1
3	500-000022	Manufacturers CE Plate	1
4	500-000179	Installers CE Plate*	1
5	500-000184	Operating Instructions	1
6	500-000031	Caution Sticker Blue	1
7	500-000182	Vertical Sticker (9 safety warning icons)	1
8	500-000183	Before driving sticker	1
9	500-000185	Stowing Instruction	1

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

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

Model:	**Swing**Lift Knuckle Joint Series
Serial No:	

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 and Regulations	Machinery Directive 2006/42/EC Electrical Equipment (Safety) Regulations 1994 European Council EMC Directive 89/336/EEC
Standard(s)	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 Engineering Ltd.	

Place: Penny Engineering Limited	Signature: 
Date:	Full Name: TJ Penny
	Position: Managing Director

BS EN ISO 9001: 2015 British Standards Institute Registered Company
Certificate No. FM 20203

Training Register

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

Penny Engineering 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.

Date	Trained operator	Signature	Trained by	Signature

Work Record

Date	Work done/remarks	Engineer	Company

Penny Engineering 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 Engineering 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:

- The unit or part must not have been subject to neglect or abuse or operated under abnormal conditions or in an unapproved application.
- The responsibility of the Company is restricted to what is, in their judgement an adequate repair or replacement of the Company's product.
- An authorised engineer must carry out a six-monthly inspection.
- The warranty is void if examination reveals that the unit or part has been repaired or adjusted other than by an authorised engineer.
- Normal service repairs carried out by authorised engineers are supported by their own warranty.
- 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 Engineering Ltd Service Department on 01246 811475 or via email at sales@pennyengineering.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 Engineering 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.