

# 132kV Conductor Crane



## Operating Manual

Rev 1 20/04/2012 SR-H

# CLY 620 0500:

## 132kV Crane Platform

### Data Sheet, Part list and Assembly Guide

# CLYDESDALE

## Powering the Future

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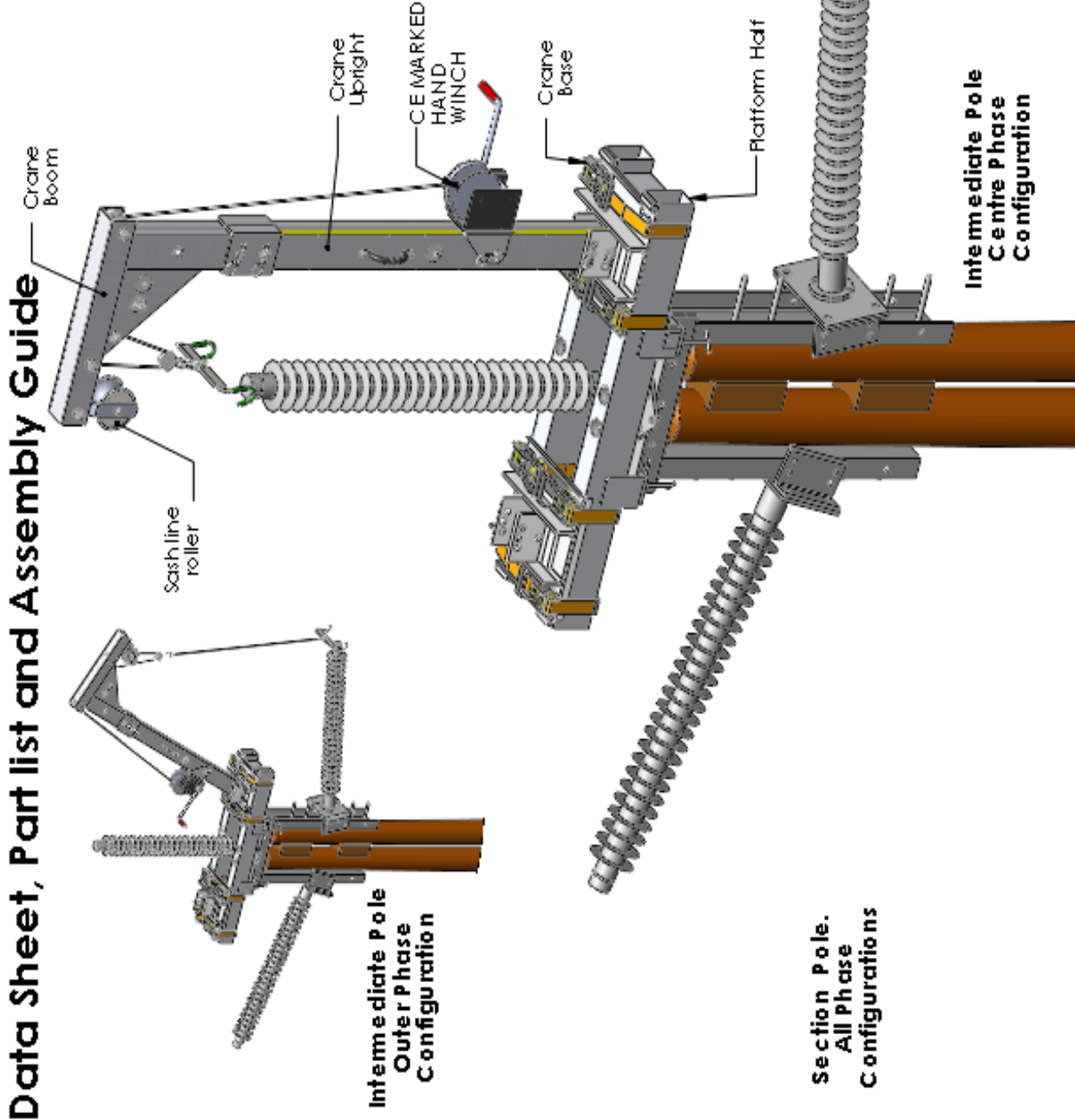
The Clydesdale 132kV Crane Platform has been developed in conjunction with CE Electric UK to facilitate construction and maintenance of 132kV lines on wood poles.

When used on the intermediate poles, the device consists of two platform halves which tighten to the steelwork, two cranes bases which are then fastened in place with ratchet straps, the crane upright is pinned in either centre phase or outer phase position, and finally the crane boom is pinned in place atop the crane upright.

When used on the section H poles, the platform halves are not required and the crane base mounts directly onto the cross arms, and the remaining components fit in place as per the intermediate pole.

The conductor can then be lifted using the ratchet lever hoist connected to the conductor spreader bar. Whilst the crane maintains the conductor in the air, the post insulator can be replaced with the assistance of a sash line through the sash line roller.

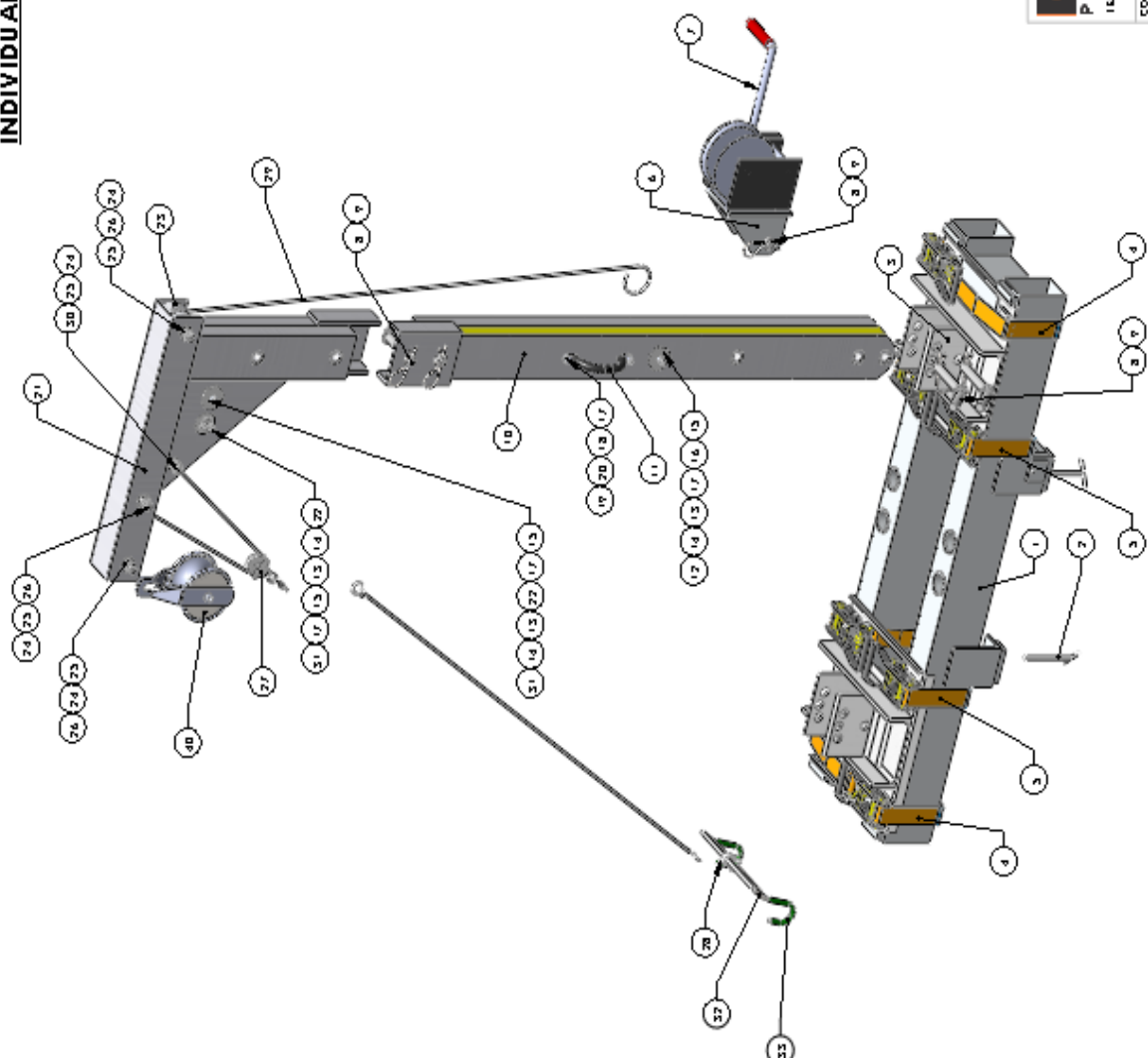
The crane is equipped with three EN 795 Class A1 fall arrest points for added safety. The first is placed half way up the crane upright to allow attachment to the crane whilst still safely attached to the pole. The second two are placed above the workers shoulders in the crane boom gusset, one either side to allow two men to be attached.



**Section Pole.**  
 All Phase  
 Configurations

Part Number	CL Y 620 0500
SWL - Main Hoist	550 kg
SWL - Sash Line Roller	50 kg
Weight of base beam	11kg per half
Weight of base plate	25 kg per side
Weight of crane upright	22 kg
Weight of crane boom	21 kg (without winch)
Weight of winch	10 kg
Weight of Total assembly	125 kg

# INDIVIDUAL PARTS B.O.M.



ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	22 620 001	BEARING	2
2	22 760 016	WHEEL 112	4
3	22 620 003	132kW CRANE AND PLATFORM ASST	2
4	22 103 006	SAFETY WHEELING 300mm X 130mm X 130mm X 130mm	2
5	22 103 007	SAFETY WHEELING 300mm X 130mm X 130mm X 130mm	4
6	22 620 021	132kW CRANE AND PLATFORM WHEEL 340mm	1
7	22 310 9001	1440mm X 1000mm	1
8	22 620 016	132kW CRANE AND PLATFORM 200mm X 1000mm	3
9	22 103 003	SAFETY WHEEL 112	2
10	22 620 019	132kW CRANE AND PLATFORM 200mm X 1000mm	1
11	22 313 2209	SAFETY WHEEL 112	2
12	22 620 009	SAFETY WHEEL 112	1
13	22 103 001	SAFETY WHEEL 112	3
14	22 103 001	SAFETY WHEEL 112	3
15	22 103 001	SAFETY WHEEL 112	3
16	22 103 001	SAFETY WHEEL 112	3
17	22 103 001	SAFETY WHEEL 112	3
18	22 103 001	SAFETY WHEEL 112	3
19	22 103 001	SAFETY WHEEL 112	3
20	22 103 001	SAFETY WHEEL 112	3
21	22 620 020	132kW CRANE AND PLATFORM 200mm X 1000mm	2
22	22 103 001	SAFETY WHEEL 112	3
23	22 620 004	132kW CRANE AND PLATFORM 200mm X 1000mm	2
24	22 103 001	SAFETY WHEEL 112	3
25	22 103 001	SAFETY WHEEL 112	3
26	22 103 001	SAFETY WHEEL 112	3
27	22 103 001	SAFETY WHEEL 112	3
28	22 103 001	SAFETY WHEEL 112	3
29	22 103 001	SAFETY WHEEL 112	3
30	22 103 001	SAFETY WHEEL 112	3
31	22 620 014	SAFETY WHEEL 112	2
32	22 103 001	SAFETY WHEEL 112	3
33	22 103 001	SAFETY WHEEL 112	3
34	22 103 001	SAFETY WHEEL 112	3
35	22 103 001	SAFETY WHEEL 112	3
36	22 620 0001	SAFETY WHEEL 112	1
37	22 620 0002	SAFETY WHEEL 112	1
38	22 103 001	SAFETY WHEEL 112	2
39	22 620 0030	SAFETY WHEEL 112	2
40	22 620 0101	SAFETY WHEEL 112	2

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UNLESS OTHERWISE SPECIFIED:  
 ALL DIMENSIONS ARE IN MM  
 TOLERANCES ARE:  
 FRACTIONS DECIMALS  
 1/16 1.5625 0.03125  
 1/8 3.125 0.0625  
 1/4 7.62 0.125  
 3/8 9.525 0.1875  
 1/2 12.7 0.25  
 3/4 19.05 0.375  
 1 25.4 0.5  
 1 1/4 31.75 0.625  
 1 1/2 38.1 0.75  
 2 50.8 1.0  
 3 76.2 1.5  
 4 101.6 2.0  
 6 152.4 3.0  
 8 203.2 4.0  
 10 254.0 5.0  
 12 304.8 6.0  
 16 406.4 8.0  
 20 508.0 10.0  
 25 635.0 12.5  
 32 812.8 16.0  
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 63 1600.0 32.0  
 80 2032.0 40.0  
 100 2540.0 50.0  
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 200 5080.0 100.0  
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# 132kV Conductor Crane



This manual is design as a guide to the installation and assembly of the crane .

Clydesdale have taken every step to ensure the design of this crane is safe and easy to use. The structure of the crane and it's fall arrest points have been load tested to ensure they are strong enough for their intended use but are not suitable for any other use not described in this manual

Work instructions and guidance about the crane's use at height, safe lifting, electrical safety and determining the security of each installation need to be issued and documented by the purchaser's competent person at each site where it is to be used.

Part Number	CLY 620 0500
SWL - Main Hoist	500 kg
SWL - Sash Line Roller	50 kg
Weight of base beam	11kg per half
Weight of base plate	25 kg per side
Weight of crane upright	22 kg
Weight of crane boom	21 kg (without winch)
Weight of winch	10 kg
Weight of Total assembly	125 kg

Please read the following notes and guidance before installing the crane:

1. Particular note should be taken of the stated Safe Working Loads (SWL) shown above. This must not be exceeded.
2. The weight of each sub-assembly, once joined together, can exceed recommendations made about single person lifting. This must be assessed by a Health & Safety representative. Our guidance is that none of the assembly should be carried out single handed.
3. The winch, shackles and snatch block now used on this design are CE marked and should not be substituted with non CE equipment.
4. The fall arrest points are installed and tested by a certified body. These should be regularly retested and recertified in accordance with fall-arrest guidelines and company policy. Only 1 person should be attached at any time to each eye.
5. The sash line roller is a basic means of lifting post insulators up and down from the work area. It should not be used for lifting other items and the area below it must always be kept clear as there are no failsafe devices fitted on this part of the crane.
6. The winch is fitted with a line brake in accordance with EN 13157. This brake must be periodically maintained to ensure the safe operation of the brake. Always ensure the winch handle is fully engaged on to the winch to operate the brake and that no lubricant is allowed to enter into the winch 's brake assembly. The manual for the winch is provided separately.
7. Always fit the linch pins to all the connecting pins when installing the crane.
8. Ensure snatch block is kept lubricated.
9. Regularly inspect the crane body, winch, wire ropes, snatch block and ratchet straps for wear, damage or corrosion. Replace any items that are ok concern.
10. An orange marker tape is fitted to the winch wire and the winch must not be unwound so this marker comes off the spool. This is to ensure at least 1.5 turns of wire remain on the winch spool.

# 132kV Conductor Crane



Documents to be issued with this manual:

- 1x Copy of engineering drawing DS CLY 620 0500
- 1x Copy of declaration of conformity
- 1x Copy of fall arrest eye installation certificates
- 1x Copy of Certificate of Thorough Examination (LOLER)
- 1x Winch Handbook