

# CLYDESDALE

## Powering the Future

### User Instructions:

### Ratchet Operated Drumstands

#### **INTRODUCTION**

We want you to be satisfied with your Clydesdale Drumstands.

This instruction manual has been written to help you operate and look after them safely. We ask you to read the manual thoroughly before you start using the equipment so that you are aware of the safety measures you need to take when using it.

#### **GENERAL GUIDANCE**

This equipment has been carefully designed and developed to eliminate health and safety risks.

There are certain risks when working with heavy cable or conductor drums and to avoid these it is important that:

Instructions are studied and observed.

Personnel are regularly trained in maintenance and safety.

The appropriate equipment and tools are available.

The owner and work supervisors take responsibility for ensuring that an effective safety programme and regulations are drawn up and followed by all personnel.

Our instructions contain important information which all users must be aware of and understand before they use the equipment. For your sake and the sake of others please take special notice of the items/sections with the following headings.

#### **WARNING.**

*This is important information that warns you of a risk of serious personal injury or threat to life if the instructions are not followed.*

#### **CAUTION.**

*Important information that describes how to prevent damage to the machine and equipment or how to avoid a situation that could cause personal injury.*

#### **NOTE.**

*Advice regarding operation, care and maintenance of the machine and equipment*

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#### **GENERAL SAFETY PRECAUTIONS**

##### **Personnel safety**

1. Read and remember all safety warnings, precautions and directions in the operation and maintenance instructions, and read and learn the meaning of all signs that are on and around the equipment. If you are in any doubt, make sure you get answers to all your questions before starting work.
2. Do not work with this equipment if you are under the influence of alcohol, strong medication, sedatives or other drugs that could make you less alert or affect your judgement.
3. Take the necessary precautions to avoid loose hair or clothes becoming trapped in moving parts.
4. Whenever possible wear safety gloves to protect your hands and fingers from cuts, grazes and burns.
5. Always wear safety goggles whenever there is a risk of flying particles, splinters, dust or other objects that could damage your eyes, and when safety regulations demand it. Look after your eyes!
6. Always wear a safety helmet and safety shoes when work requires it.

##### **Safety in the work place**

7. Keep your working area clean and uncluttered
8. Keep unauthorised personnel away from the working area. Always keep a good check on who is present.
9. Surfaces that you touch with your hands or feet must be kept clean, dry and free from oil or grease.
10. Store parts and tools in a place appointed for that purpose when they are not in use.
11. Do not stand underneath or allow anyone else to stand underneath any raised or suspended equipment or drum.
12. Find out the weight limits of any lifting equipment and the clearance they require when in use.

##### **Equipment safety.**

13. Warning signs, prohibition signs and information signs must not be obscured, changed, damaged or removed.
14. Before setting up these drumstands make sure that the ground is firm and level. Check that support feet are stable and ground securing devices are safely in place. Follow the instructions for securing and setting up the equipment where appropriate.
15. Check that there are no loose parts that could fall off during transport when moving drumstands between sites.
16. Check the components of the equipment each time before use to make sure that no parts are damaged or suspected of being damaged. Repair or replace damaged parts or parts that are suspected of being damaged. Use only original spare parts.
17. Before operating the equipment make sure that no person, animal, tool, part or other foreign object is inside, on, under or near the equipment
18. Do not let untrained personnel start or operate any equipment without supervision by a trained operator.
19. Never leave the equipment unsupervised.
20. When operating the equipment watch out for visible defects, smells or unusual noises that could be a warning of an impending fault. Stop the pull immediately if you suspect a fault.
21. Carry out all inspections, maintenance, lubrication and adjustments very carefully and in accordance with the manufacturer's recommendations. Always stop the pull before carrying out maintenance.

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#### TECHNICAL DATA

Description: Cable drum stand with manually operated band brake and lifting jacks. The drumstands have adjustable lifting arms that can be set-up to suit different cable drum sizes.

Maximum drum size: 1800mm diameter

Minimum drum size: 900mm diameter

Maximum drum weight: 3000kg

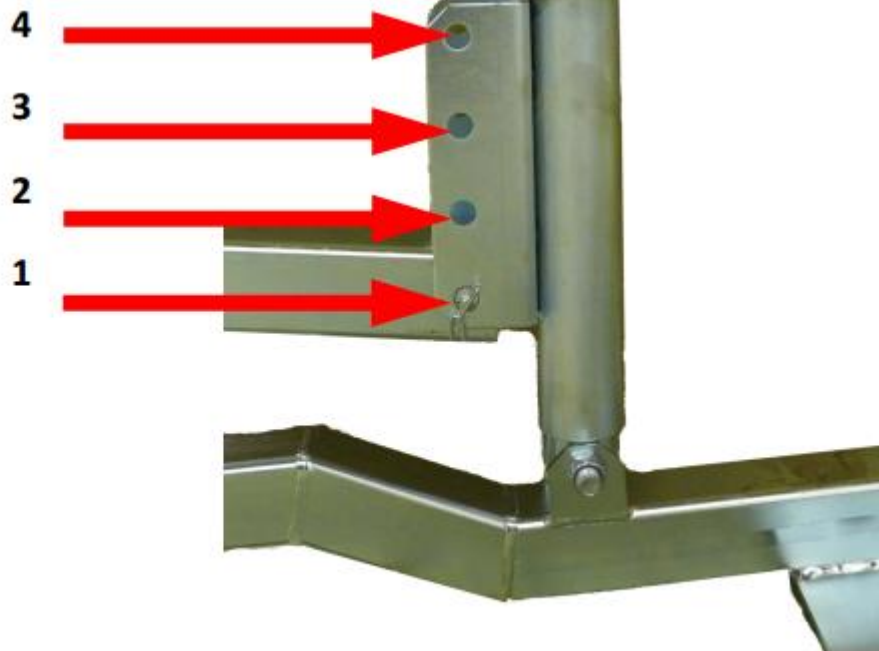
Equipment weight: 113 kg per pair with drum shaft fitted

Overall Length: 1220mm (footprint) Single drumstand

width: 360mm (footprint)

Part Number: CLY 640 150

**FIGURE 1-**  
**JACK PIN POSITIONS**

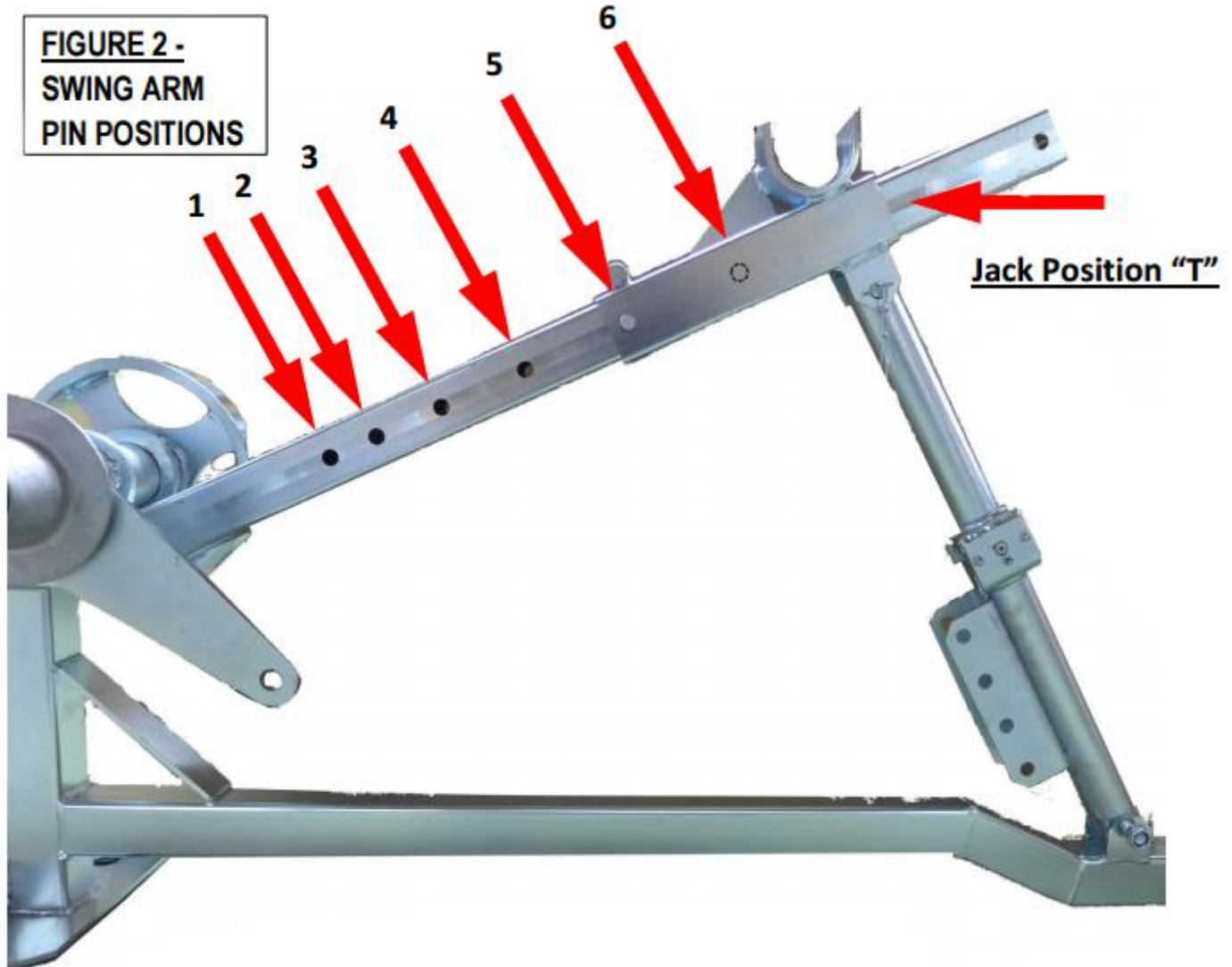


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Drum Diameter (mm)	Swing arm pin position (see fig 2)	Jack pin position (see fig 1&2)
900	4	1
950	4	2
1000	4	3
1100	4	4
1200	1	T
1300	2	T
1400	3	T
1600	4	T
1700	5	T
1800	6	T
<i>Combination not to be used</i>	5 or 6	1 to 4

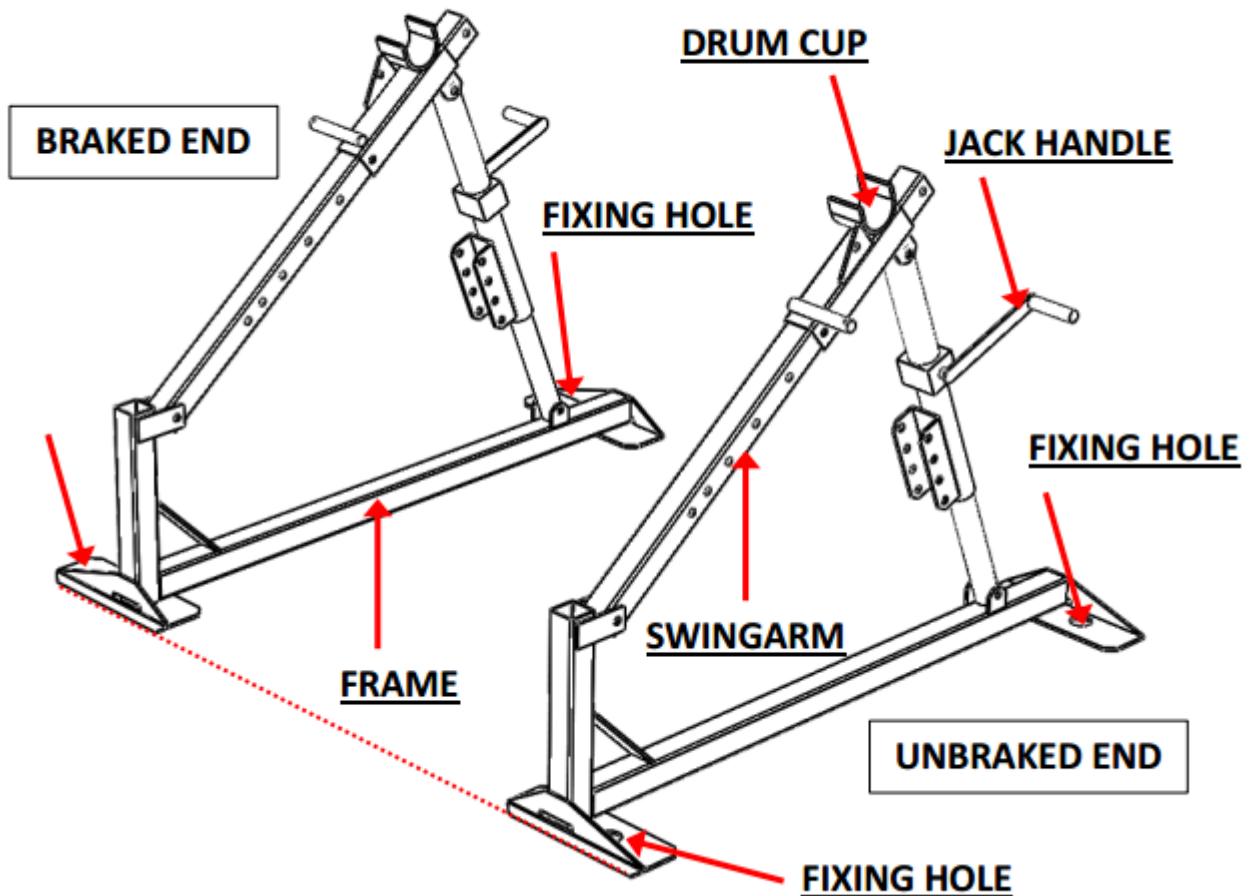
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#### ASSEMBLING AND OPERATING DRUMSTANDS:

**CAUTION:** Assemble drumstands on flat, stable, even surface. Drumstands should not be used for dispensing cable as part of a winching operation unless firmly secured through their feet with either ground spikes or anchor bolts. This is to prevent the stands being lifted in the event of a cable or conductor jam.

**FIGURE 3 – POSITIONING FRAMES**



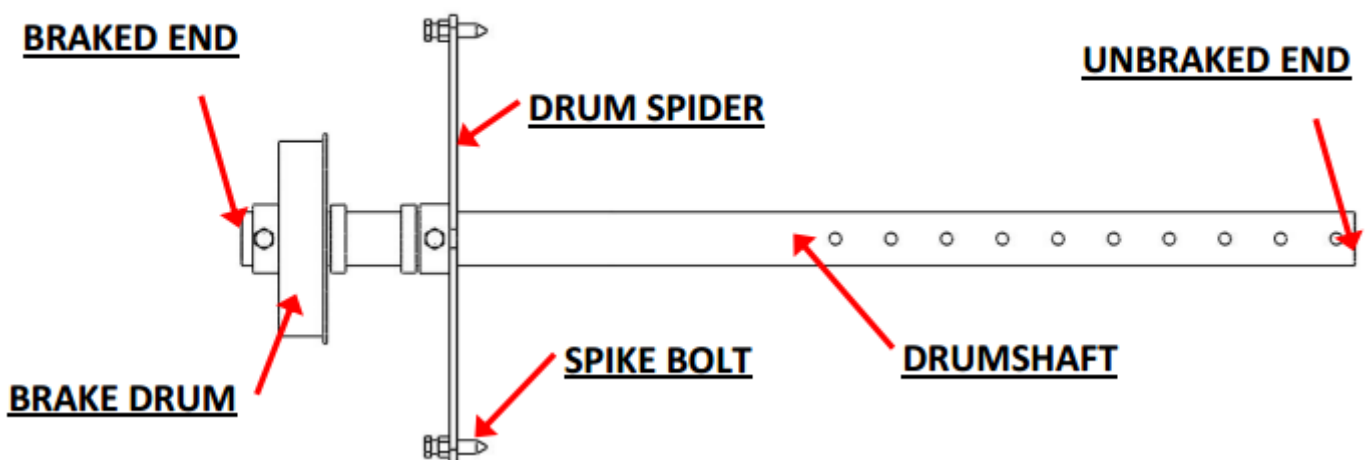
Place both drumstand frames firmly on the ground in the work area as shown in Figure 3. Ensure they are parallel and lined up with one and other. Ensure the frames are facing in the correct direction so that they will dispense the cable / conductor as shown in figure 5 once the drum is installed. The distance between frames only needs to be approximate at this stage. The stand that is to be fitted with the drum brake (leftmost in the image above – braked end) may be fixed down at this stage for stability.

Use the Drum diameter chart on the previous page to select the height settings most appropriate to the drum being lifted. If the exact size required is not shown, use the nearest, smaller size in the table (e.g. if you have 1150 diameter drums, use the settings for 1100mm from the table) Set the drumstands up accordingly using the pin positions given. Always use safety lynch pins provided to retain main pins.



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Ensure the jacks are wound down as far as they will go. Ensure the drum handwheel is in the fully-retracted / shortest position with no screw thread showing. Disassemble and remove the drumshaft unbraked-end components as shown in Figure 4 to remove all the quick-pin on items (hand wheel and drum cones). Leave the drum drive “spider” with its spike bolts bolted in position.

**FIGURE 4 – DRUMSHAFT READY TO BE FITTED TO DRUM**

Insert the drum shaft through the cable drum as far as possible until the spike bolts seat fully against the flange of the drum. Check the drumshaft has been inserted correctly through the drum so that cable / conductor will pay out as shown in figure 5 once the drum is installed.

If the drum has a 100mm through-hole then use a drumshaft cone each end to remove the clearance between drum and drumshaft for guidance on using drum cones. These are not needed when drum is a reasonable fit on drumshaft.

Install the hand wheel. Pin the hand wheel to the closest available through-hole in the drumshaft. Fit safet lynch pin to main pin. Wind the hand wheel “out” to force the drum firmly up against the spike bolts on the drum spider.

- Manoeuvring cable drums manually by rolling should only be carried out when no other mechanised options are available (e.g.. Using “HIAB” or excavator).
- Do not roll cable drums on your own. A minimum of 2 people are required, 1 each end to roll a drum onto drumstands in a controlled way.
- Do not attempt to lift a cable drum into place. HSE guidance is maximum 25kg per person lifting.
- Ensure drum cannot roll in an uncontrolled way. Always carry out on flat ground and ensure chocks are used to keep drum in place when working. Evaluate the path the drum would take if it did roll away and what the effects of the drum rolling off would be (e.g. could harm come to people, roads, vehicles, buildings in the way). Ensure any risks are mitigated before rolling.
- Always wear safety footwear and sturdy gloves.
- Ensure that anyone in the work area is aware of what is happening when drums are being moved.

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Roll the drum and fitted drumshaft in between the drum frames ensuring the cable is going to pay out as shown in figure 5.

Position the drumshaft over the drum frame cups.

Apply grease to the frame cups. Make sure grease does not contaminate brake drum.

Raise the jacks evenly until they are just touching the drumshaft without bearing its weight.

At this point the unbraked-end drum frame can be moved in or out so that it is as close as possible to the hand wheel assembly (typically within 50mm). At this point the unbraked frame can be fixed down securely.

If the optional unbraked-end drumshaft retainer is fitted; it can be latched closed at this point.

Install the brake band as shown in Figure 5 and tension slightly to stop the drum turning under its own weight.

Raise the jacks to lift the drum from the ground, the drum only needs to be lifted high enough to ensure it will not drag on the floor in use. An allowance needs to be made for the wooden drum settling during winching. Guidance is 25-50mm clearance from the ground.

The cable / conductor end should then be connected to the bond / winch rope correctly according to company guidance and policy.

A reliable means of communication between the drum and winch ends of the operation must be in place at all times that the cable / conductor is connected to the remote winch.

Once connected to a winch no one should come near the drum and drumstands until they have had confirmation that the winch is stopped and locked out. This is to ensure they do not become entangled with the drum as it rotates.

Adjustments to back tension with the brake band should not be applied with the drum in motion to ensure there is no risk of entanglement.

The brake drum will become hot in use. Always wear gloves to ensure you do not get burned.

Wooden cable drums can shed splinters and particulate when rotating and, in the extreme, can possible collapse. Wear eye protection when in the area of a rotating drum and do not approach the drum when rotating.

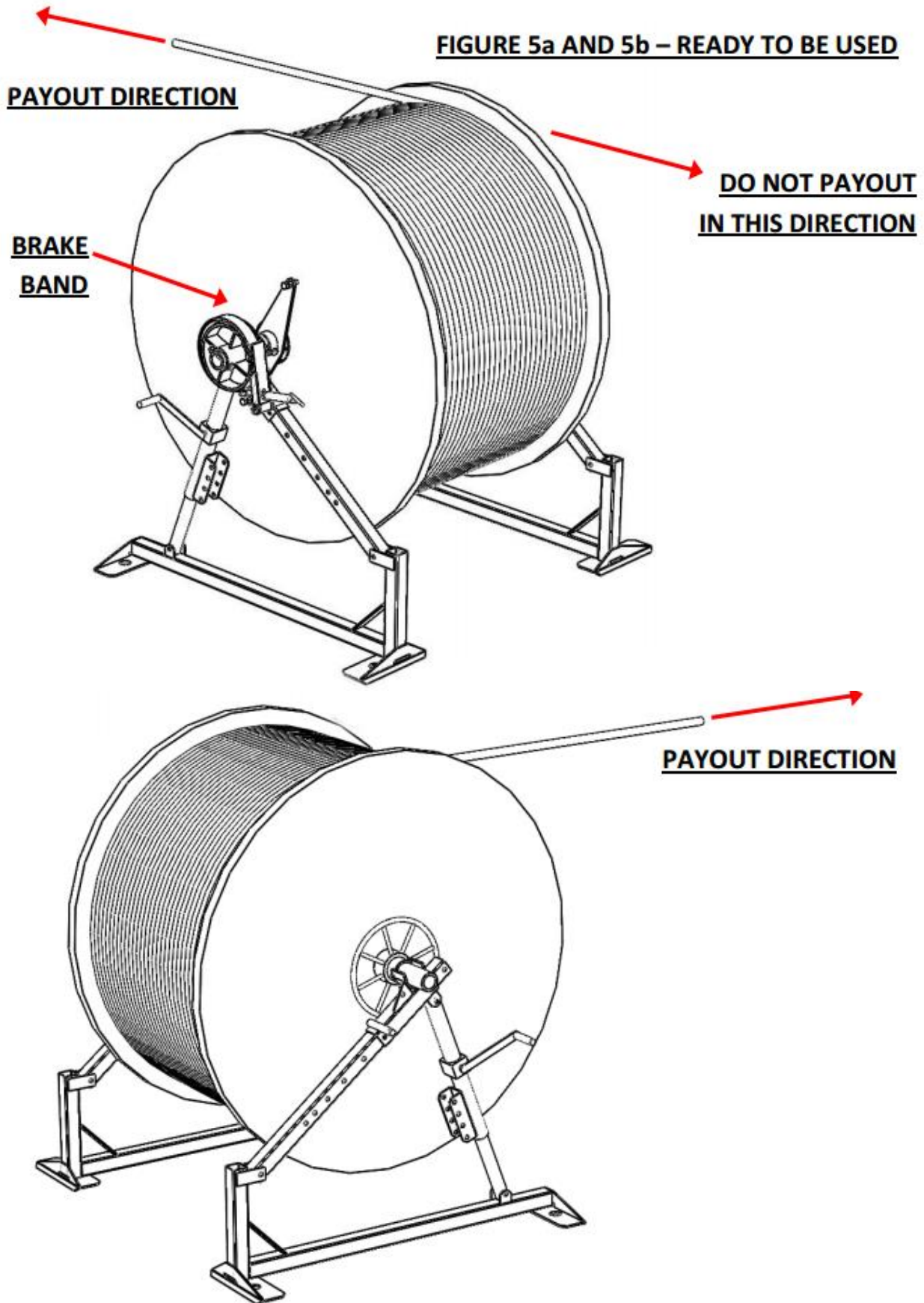
Care should be taken when approaching the end of a cable drum to inform the winching operator to reduce the winch speed and then stop while the cable / conductor is still securely attached so that it can be made off safely

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#### MAINTENANCE

These drumstands are designed to be low-maintenance but a few basic checks and lubrication can extend their working life.

##### **Routine checks**

- Check lubrication has been applied as shown below.
- Check Brake linings when each new cable drum is installed to ensure they have not worn through.
- Check all bolts and pivot pins are present and secure before each use.

##### **Grease**

Grease should be applied to the drum cups to lubricate the shaft as it turns.

##### **Oil**

Light machine oil should be applied to the following:

- Jack screws (inside jacks)
- Jack handle pivots
- Swing arm pivots
- Jack pivots

##### **Corrosion**

If Zinc finish is damaged it may be re-instated using "cold zinc paint". This is available as an aerosol paint from many outlets. Company precautions for using aerosol paints must be observed.

##### **Worn parts / spares**

All parts should be regularly assessed for damage or wear. Any missing items should be replaced. All spares are available from Clydesdale using the contact details provided.