

CLYDESDALE

Powering the Future

User Instructions: CLY 760 3-400 3 x 400kg Cable Drum Trailer

Operating Instructions

The range of Three Drum Trailers manufactured by Clydesdale offer patented, self-loading trailers which facilitate the transport of drums and the dispensing of cable and conductor without the need for transporting many single drum trailers or stands to site. Covered by UK Patent No.2277316

Capacity: 3 drums of 400 kg each, up to 1000mm diameter.

Drum Specifications:

Maximum Drum Diameter: 1000mm nominal.

Maximum Drum Width: 900mm

Maximum Drum Weight: 400kg per drum.

Trailer Specifications:

Length: 3.7m

Width: (Standard): 1 (Wide Wheel): 2.1m

Min Ground Clearance: 400mm

Unladen Weight: 600kg

Max Laden Weight: 1800kg

Nose Weight: 90kg

Main ram: Powered by Briggs & Stratton 6HP engine

Hand Winch: Alko 651 Sure -Load safety hand winch.

Drum Shaft: 50mm Diameter.

Drum Brake: Individual hydraulic disc brake.

Rear Stability Jacks: Square box & pin type.

Wheel/Tyre Size: 185-8ply on 14" rim – 5x140mm PCD (Standard)
225-8 ply on 15" rim – 5x140mm PCD (Wide wheel)

Tyre pressure: 65 psi.

Brakes: Full auto-reverse overrun type.

Mudguards: Steel galvanised.

Coupling: Knott KCB20 80mm square box.

Axle: Avon Full Beam rubber suspension 1800 kg

Lighting: Purpose designed lighting to each mudguard gives front side lights, truss mounted trailerboard gives stop, no. plate, indicator and fog lighting to rear.

Hitch: 30, 40 or 76 mm eye or 50 mm ball.

Breakaway chains: Two galvanised chains with safety hooks.

Clydesdale 3 Drum Trailers are designed for operation by one (trained) Person.

Preparing to load the drums.

Ensure the trailer where possible is on level ground or is as level as possible. It is recommended that it be attached to a suitable vehicle, if however this cannot be achieved then suitable ground anchoring must be employed. Level adjustment can be made using the rear stability legs. Remove these from the storage position and fix with retaining pin into the vertical position at the rear of the trailer. Ensure weight is taken on both legs.

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Important - The following points must be adhered to when using this machine.

- 1) In the "three drum" configuration it is essential that all drums be of approximately the same size and weight.
- 2) When only one drum is to be carried it must be in the middle position.
- 3) When only two drums are to be used we would advise that a third drum be carried to ensure that balance is maintained. Failure to do this will result in the machine becoming out of balance and an illegal road condition may result.
- 4) Conductor must be pulled off the top of the drums in a backward direction (away from the anchoring vehicle).
- 5) Loads must never be lifted more than is sufficient to clear the ground before the drum shaft is mated to the disc brake coupling and securing pin and clip replaced.

Preparing Trailer for Loading Drums.

The trailer is always loaded top drum first. The preparation procedure is as follows:

Remove both main frame cradle pins. Pull throttle control up fully. Press choke bulb on side of engine three times, pull starter cord.

Operate control lever to activate the ram thereby allowing the whole assembly to turn about its axis lowering the rear hanging frame to the ground.

Remove the brake disc drive retaining pin, slide the shaft out of the disc brake coupling sufficient to clear the coupling and no more. The shaft retaining pins can now be removed to remove the shaft from the bearing cups.

Continue pressing lever thereby lowering the main frame until the centre shaft is at its lowest point, remove pins, remove shaft as above.

The final drum shaft can now be lowered by removing the holding pins which secure the top "A" frame to the main frame. Note - the A frame will not move as hand winch has a positive load brake capability.

The handle controlling the hand winch can now be turned anti clockwise to lower the top A frame to a position where it is safe to remove the drum shaft. The suggested safe position is achieved just before the shaft is lowered into a horizontal plane.

With the shaft positively laying in the bearing cups there will not be any load on the retaining pins which can be easily removed having first removed the disc brake retaining pin and slide the shaft out of the disc coupling.

The shaft can be lifted out and the frame lowered the remainder of the distance.

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Fitting of Drum Shafts

Remove the pinned star drive from shaft. Place the shaft through drum ensuring that the direction of cable dispensing is correct i.e.. over top of drum, in relation to position of fixed star drive (disc brake side). Retract the screw studs through the star drive. Ensure star drives are securely fixed as tightly as possible to either side of drum before screwing the studs into the side of the drum. Please note - the disc brake mechanism is only as effective as the connection between drum and star drives.

Operating Instructions

Loading Trailer

DANGER - At no time is the operator or other personnel to stand under or near a load being lifted by the trailer.

The drums can now be loaded following the preparation notes in reverse.

Always ensure that shaft-securing pins are correctly replaced, with locking clips in position before lifting load from the ground. As soon as load is lifted clear of the ground the drum shaft assembly should be slid side ways to connect with the disc brake coupling and securing pin and clip replaced.

Note - Loads must never be lifted more than is sufficient to clear the ground before the drum shaft is mated to the disc brake coupling as this is the means by which the shaft/load is held in the frame.

Operation of Load Braking

Each drum shaft is equipped with a disc brake assembly providing positive control of each drum individually. All three brakes are controlled from the off side front of the trailer via a bank of master cylinders one for each brake assembly.

The brake callipers work the same way as those fitted to a car except that the pressure is initiated not by foot but by screwing the hand knobs clockwise to cause pressure and anti clockwise to decrease pressure thereby controlling the action of the friction pads on the discs.

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Using Trailer to Dispense

In order to ensure safe operation of the trailer unit the following points must be adhered to.

- Keep trailer as level as possible (across axle beam). Use stabiliser legs to assist.
- Trailer to remain hitched to a suitable vehicle at all times.
- Trailer hand brake applied.
- Road wheels must be kept in contact with the ground to provide braking via hand brake.
- Stabiliser legs fitted and wound firmly on the ground.
- Trailer inline with first stringing pole and perpendicular to X-arm to ensure direct feeding of conductor from drum without snagging.
- Trailer should be placed a sufficient distance away from the first stringing pole to reduce the approach angle of the conductor to the cross arm.
- Ensure the drum brakes are off before the pull commences. Adjust brakes to suit as pull continues.

Maintenance

It is essential that your machine receives regular attention to ensure that it remains in peak condition. ALL THE ROAD RUNNING GEAR i.e. brakes, lights, mudguards, tyres etc. are statutory requirements and as such must be maintained in good condition.

Other checks essential to the smooth and safe operation are as follows:-

- General check over for loose nut, bolts and fittings.
- Securing pins should be checked for damage and that spring clips are attached.
- The drum shaft yokes should be regularly greased.
- All grease points should be regularly greased.
- Star drives should be checked for good order and easy operation of screw studs and that all studs and clamping bolts are present.
- Hand Winch mechanism regularly lubricated and checked for correct operation in accordance with manufacturers instructions supplied with trailer.
- Winch rope checked for damage.
- Stabiliser screw legs - correct operation and lubrication.
- Hand pump, cylinder, hoses and valve checked for external leaks and damage.
- Hand pumps - correct and ease of operation. Use hydraulic oil only as recommended.
- Disc brake callipers, hoses and cylinders checked for external leaks and damage.
- Brake mechanism - correct and positive operation. Use only Brake Fluid as recommended.

Recommended Lubricants

For Hydraulic Circuits use ISO 46 rated oil For Drum Braking System use Lockheed Brake Fluid

Clydesdale Servicing Plan

If you wish to ensure that your machine is kept in a reliable good working condition then why not let us, the manufacturers look after it for you. We have as part of our service a fully mobile team of service engineers who travel the country ensuring that our machines out perform any others not only now but into the future. We operate a service contract system whereby we guarantee to repair or replace within 24 hours, for further details please contact us.