DTP08 - (EX)

Short Counterbalance De-palletiser - (ATEX Optional)

Operation and Maintenance Manual

The Counterbalance De-Palletiser is designed for lifting, lowering and transporting drums on and off the corners of pallets.
The instructions stated in this manual should be adhered to at all times, failure to do so can result in serious injury to the operator or other personnel.

Safety Regulations

- Do NOT use the De-Palletiser unless you have read and fully understood this manual.
- The De-Palletiser is built for use on level ground. When parked or not in use the De-Palletiser should be parked in a safe location with the park brakes on, which are situated on the back castors. When releasing the brake the user should be on the topside of the machine. Always park on as flat ground as available.
- This product is to be used by one operator at a time and they MUST be behind the unit at all times.
- Do NOT allow other members of staff to be in front of the unit when in use.
- Do NOT transport the drum at unnecessary heights; the drum should be as close to the floor as possible at all times.
- The Safe Working Load (SWL) for this unit is 250kg and this limit should not be exceeded in any circumstance. To do so may result in serious injury.
- The De-Palletiser should be inspected at regular intervals, decided by the operator's company, for signs of damage or defects.
- Ensure damaged or missing safety signs are replaced. These are available from STS.
- The manual forces related to the use of this de-palletiser are relatively low, any doubts in this should be reported to the STS Technical Support Line.
- Do not attempt to manoeuvre the drum if the lip is damaged.
- If any operator is in any doubt of the correct suitability of the equipment or has any problem understanding the instruction manual then they should contact the STS support line.
- The mounting or installation of additional equipment which affects or enhances the performance of the equipment requires the written permission of the manufacturer.
- The de-palletiser must be inspected at least annually or after any unusual event by a suitably competent person.
- If the de-palletiser is ATEX rated ensure that the earthing chains are in contact with the floor at all times.

The manufacturers shall not be held liable in case of faults or accidents due to negligence, incapacity, installation by unqualified personnel or improper use.

Operating Instructions

Maximum safe working load – 250kg

Operating the Hydraulic Lift

The Hydraulic pump unit fitted to this De-Palletiser is operated by a manual pump lever and a directional control lever. With the control lever in the left position the load can be lifted by pumping the handle, with each stroke increasing the vertical height of the rack. To lower the load the control lever should be moved to the right position. To stop the lowering action, move the control lever back to the left. The unit controls are shown in **Fig 1.**

To manoeuvre the unit a spring loaded handle is located at the rear of the unit which when moved left to right turns a wheel at the base of the unit allowing the unit to be steered.

Connecting a drum to the De-Palletiser

- To set the correct catch height the drum must be placed on the floor.
- Ensure the rack is in the lowest possible position.
- There are 5 levels at which you can pin the catch at, removing the lowest 'R' pin allows you to remove the catch from the rack and relocate so the catch is below the drum lip you wish to connect to, **Fig 2.**
- Manoeuvre the de-palletiser using the pump handle to ensure minimum stresses on the operator's lower back. As you approach the drum ensure that the centreline of the catch lines up with the centre line of the drum as shown in **Fig 3**.
- Lift the rack so the catch rises above the top lip of the drum. Push the unit forward so the upper catch engages the drum. Lower the rack ensuring the top hook engages over the lip of the drum and that the bottom catch secures under the lip. **Fig 4.** For lifting various drum types see the 'drum catch variations' section of this instructions manual.
- The drum is now ready to be lifted. When transporting the drum, keep the drum as low to the ground as is practical.


Fig no 2


Fig no 3

Removing drums from pallets

- To remove a drum from a pallet the drum must be placed close to the edge of the pallet to allow the de-palletiser enough reach to fasten to the drum. When engaging the de-palletiser to the drum ensure that the centreline of the catch is in line with the centreline of the drum as shown in **Fig 5**.
- Use the pump handle to raise the drum to the desired height and remove from the pallet.
- To place the drum down, simply switch the control lever to right. The rate at which the drum lowers is controlled automatically so that the drum will lower at the same rate without being dependent on the weight of the drum.
- Once the drum is placed on the floor or pallet, continue to lower the rack slightly until the catch goes slack, the operator can then manually remove the hook from the drum.


Fig no 4


Fig no 5

Typical Types of Drum That Can Be Handled

Drum catch variations

WARNING – Due to variations in the manufacture of drums it is important that the correct hook position is selected. Failure to do so could result in the catch disconnecting from the drum.

The drum catch has been designed so that there a various number of positions it can be used in to fit different sized drums. By removing the top 'R' clip the top catch can be turned over so that the sticker is upside down. This gives the catch a further 5mm of reach. By changing the hole that the top catch is located on increases the reach by a further 10mm by each hole placement. The top hook must always be placed in the shortest possible position.

The following examples are for guidance only.

Most Drum Types

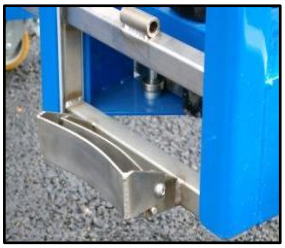
The top hook should be mounted the correct way up and in the bottom hole.

Steel Open Top

The top hook should be mounted with the labels inverted and in the bottom hole.

Mauser Open Top

The top hook should be mounted the correct way up and in the third hole.



The Thrust pad is located at the bottom of the stainless rack and is designed for varying shaped drums. Folding out the pad keeps the drum more vertical.

Decommissioning

If the de-palletiser is to be out of service for more than a month, e.g. for commercial reasons, it must be stored in a frost-free and dry room. All necessary measures must be taken before, during and after decommissioning as described hereafter.

- Thoroughly clean the de-palletiser.
- Test the brakes.
- Check the hydraulic oil and replenish if necessary.
- Apply a thin layer of oil or grease to any non-painted mechanical components.

Final De-commissioning, Disposal

Final de-commissioning or disposal of the de-palletiser must be performed in accordance with the regulations of the country of use, meeting the countries regulations for disposal of hazardous materials. In particular, regulations governing the disposal of batteries, fuels and electronic and electrical systems must be observed.

Maintenance

Any maintenance needs to be carried out by a competent individual. The unit is designed to be maintenance free.

Schedule	Weekly	3 Monthly	Annually
Brakes			
Test brakes and adjust if required	●	●	●
Chassis and Superstructure			
Inspect labels are legible and complete	●	●	●
Inspect all components for wear and damage	●	●	●
Inspect chassis for damage and visually inspect all welds for cracks		●	●
If the unit is ATEX rated ensure that the earthing chains are in contact with the floor	●	●	●
Hydraulic Operations			
Test all hydraulic functions operate fully	●		
Check hydraulic oil levels and top up if necessary		●	
Inspect hydraulic seals for damage and leaks		●	
Replace hydraulic oil			●
Agreed Performance Level			
Carry out a load test with rated load, or if necessary with customer specified load			●
Cleaning			
Steam jets, degreasing agents and high – pressure cleaner should be employed with great caution to avoid degreasing components		●	●

Hydraulics Troubleshooting

Unit does not lift	Unit overloaded
Unit does not lift to full stroke	Pump is short of oil. Ensure rod is at bottom of stroke and fill with Hydraulic oil. Shell Tellus 22 or equivalent
Lift feels spongy or springy	Air in system. Bleed system by pumping to full height, then lowering to the bottom without stopping.
Oil Leaking from top of lift ram	Replace seal in Top screw Nut Assembly
Oil Leaking from Filler port	Filler Bung damaged or unit over filled with oil
Oil Leak From top seal on hydraulic pump	Replace seals in hydraulic pump unit

If you do not understand any part of this manual and/or need assistance, please contact us.

Technical Support Line: +44 (0)1736 851050