SMC Double Beer Clamp

Operators Instructions

This document covers the operations of this clamp, and must be read and understood prior to commencing work.

This document assumes that the attachment has been correctly fitted to the truck and commissioned in accordance with the *'Installation Instructions'* supplied.

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Foreword

This document is wholly produced by SMC Euroclamp. We retain the right to amend this document without notice.

SMC Euroclamp manufacture a wide variety of clamps, that though look different, perform the same basic function. Where possible we use images of the clamp in question though often times if the feature is the same as that of another clamp, then we may use images of that clamp in place of.

In any situation where you are unsure of an operation, feel free to contact SMC Euroclamp on the details below.

Contents

Note!

If in doubt about any of the instructions do not hesitate to contact SMC's Spares and Service Department for advice.

Spares & Service - Tel. No: +44 (0)1625 576300

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General Safety

Warning Note!

The instructions assume a competent operator.

Introduction - Before You Begin

Normal safe working practice must be adhered to whilst following these instructions including the wearing of suitable safety clothing, plus:

Safety Footwear must be worn at all times during all operations.

Safety glasses must be worn at all times.

'SMC Double Beer Clamps' are used in conjunction with a working truck. Instructions/recommendations of your truck must be used in conjunction with the attachment instructions during installation, operation and maintenance, plus any specific site safety requirements.

Where the following symbols occur:

Warning: The instructions must be followed or else an accident can occur that could cause, death, serious injury, or severe component damage.

Caution: The instructions must be followed or else an accident can occur that could cause personal injury or component damage.

Pressure: Residual pressure may be locked into the hydraulic circuit, and care must be taken to remove the pressure safely. Relieve via truck manufacturers methods, slowly and covered with a rag, undo hose connections.

Entrapment: Finger trap decals are fitted to the unit where the risk of occurrence of trapping is conceivable. Always be aware that entrapment could happen in various locations on the attachment, always follow procedure and stand clear when in operation.

Attachment Installation

Follow the standard AID-1 for attachment installation, retain all documents for future reference.

If for any reason this document is not present please contact SMC Euroclamp for a free issue.

Stand Clear When In Operation

Risk assessments identify numerous potential trap points that are improbable and very unlikely but nevertheless the severity should an accident occur could give rise to severe personal injury.

The affixing of the 'Stand Clear When in Operation' decal warns of these risks.

General Parts List

See attachment document for specific parts list. Reference to these parts may be made within this document.

Safety Rules

These safety rules apply at all times:-

1. The operator must be suitably trained in the use of a fork lift truck/attachment combination.
2. Before operating the equipment, pre-operation checks must be carried out to ensure the equipment is fit for use.
3. Always check operation of functions, particularly with regard to their orientation, before every shift and after maintenance.
4. Always ensure if faults are found that they are reported immediately. Do not operate the equipment until all faults are rectified.
5. Always drive carefully, and be fully in-control at all times, avoid hazards.
6. Never allow anyone beneath the load or attachment at any time.
7. Always ensure that persons are clear of the attachment before operating.
8. Never drive with the visibility impaired such that safety is compromised, drive in reverse if necessary.
9. Always try to avoid sudden stops, starting and swerving, which may cause instability of the load or lift truck.
10. Always ensure that the fork/lift attachment combination is within the rated capacity, and dimensional capacity.
11. Always be aware of surroundings, such as overhead clearance, attachment swing and tail swing.
12. Always sound your horn on blind corners or when passing pedestrian aisles.
13. Always drive backwards down inclines whilst carrying loads, this will reduce truck instability.
14. Always limit the height when side-shifting or consolidating the load to an absolute minimum.
15. Always limit truck movement whilst the mast is at height.
16. Never side-shift or consolidate with the truck on a camber.
17. Always ensure there are no obstructions and enough clearance between the attachment and its surroundings. Particularly when opening, sideshifting or consolidating.
18. Never use the attachment for any purpose other than those for which it is intended by the manufacturer.
19. Never use the forks to sweep loads or objects aside, such as pallets.
20. Never carry an unstable load.
21. Always ensure that during operation there is a safe operating envelope around the equipment. If there is a risk of loads spilling out ensure that the operating envelope is increased enough to avoid risk.
22. Never reach through the mast, and always keep within the truck compartment at all times.
23. Always when transporting loads tilt back and raise the load approximately 300mm (12") above ground level.
24. Never attempt to shake a load by continuously side-shifting.
25. Never tamper with the attachment during operation.
26. Never lift loads that are greater than the truck, attachments or the truck attachment combinations rated capacity.
27. Always report any incident however small which could have caused attachment damage immediately to your supervisor.

Do and Do Not

The following *'Do and Do Nots'* should be read along with the previous *'Safety Rules'*.

Do

1. Visually inspect the attachment before the start of your shift. Notify your supervisor if you notice anything untoward. Do not use the attachment if in doubt.
2. Ensure you are familiar with the function(s) of the attachment, also, be sure of the orientation of the cab controls relative to the attachment functions, before working with a load.
3. If the sighting of a load is restricted by the truck mast, clamp assembly or by the surroundings in which you are working, a second individual should be used to sight the load and relay instructions to the driver. This second individual must observe all safety instructions, with respect to staying clear of the load and working area. A clear understanding must exist between driver and spotter, regarding verbal or signalled instructions, to ensure safe operation.
4. Ensure the attachment is lubricated - this will enable smoother operation of the attachment and increase the life of the chassis bearings.
5. If fitted, use the adjustable pressure valve as set-up on loads.
6. Observe overall S.W.L. of fork truck and attachment.
7. Be aware of your surroundings including pedestrians, blind corners, overhead obstructions, uneven surfaces, inclines etc., and drive carefully.
8. Obtain assistance, if your view of the attachment, its load, or the area of operation is restricted.
9. Ensure that the attachment is properly maintained.
10. Report any accidents/collisions with the attachment immediately, and ensure the attachment is inspected and repaired before continuing using it.
11. Put safety before speed.

Do Not

1. Overload the attachment.
2. Pick up or manoeuvre loads when the sighting of the load is restricted. Obtain the services of a second individual to assist.
3. Drive with clamp rubbing against the ground.
4. Use the attachment to nudge or square-up loads, as this can place undue leverage on pivot pins and chassis bearings.
5. Lift loads at the tip of the attachment, as this will not only affect truck stability, but may also overload the attachment.
6. Use any attachment, which is in need of repair.
7. Overload the truck and attachment, ensure that the load being handled is not above that specified on the rating plate for the truck / attachment combination.
8. Drive with the mast raised at height and avoid too much manoeuvring at lift height.
9. Use the attachment for any operations other than those it has been designed for.
10. Allow anyone to stand in front of the fork lift truck whilst in use.
11. Allow anyone to stand in the operating envelope, i.e. underneath, beside or in-front of the attachment.

Safety

It is the responsibility of the operator to perform a visual and operational check of the equipment prior to its use. The purpose of this check is to reduce the risk of the equipment being put into service in an unfit state. Unreported accident damage that may have been caused on a previous shift, or deterioration, may become more apparent when the equipment has been stationary for a period of time.

Note! These checks are envisaged to be carried out by operators untrained in maintenance of the equipment, and it is for this reason that the inspections must be additional to those carried out by qualified service engineers, NOT instead of. In this way failure or deterioration of the attachment has the greatest chance of being spotted early.

If any of the following pointers are negative, immediately report the problem to your supervisor and ensure that the equipment is not used until authorisation is given.

Pre-Operation Checks

- If this is the first time operating the attachment, fully read and understand all instructions (site, truck and attachment)
- *Is the attachment greased?* Neglecting to apply grease when needed will cause larger more costly faults.

Visual Inspection

- Inspect the attachment in general for damage such as cracking of welded areas, loose or missing bolts, pins, etc.
- Visually inspect all visible hydraulic hoses and fittings for any visible leaks or wetting around the hose, pay particular attention to the hose ends, as these are the most likely places to fail.
- Check decals are not damaged or missing
- Check for any debris that may be lodged in the chassis, which would impede safe operation
- Check for any breakage, fatigue or cracking occurring particularly around mounting top hooks
- *Tines* – Check for any collision damage; brick dust for instance and look for any signs of fatigue or cracking
- *Stabiliser* - check for any collision damage, brick dust for instance and look for any signs of fatigue, cracks or twisting, etc. Check the condition of the rubber pads, which should be fully intact.
- Check that the hydraulic controls are labelled correctly. The recommended system is, for the clamp to have its own lever, with a switch or button to select the required clamp slide through a solenoid valve. The stabiliser and sideshift will be on a second lever with a switch or button to select the required operation through a solenoid valve.
    - *IMPORTANT* – When using these dual controls ensure that the lever is in the centre or neutral position before releasing the button otherwise the second operation will be momentarily selected causing either the function to jump.

Operational Inspection

Operate the attachment for two or three minutes, all functions, and look for the following: -

- Over the complete range, look for unsmooth or jerking operation.
- Look for any signs of hydraulic oil leakage, oil spurting from hoses or rams.
- Listen for any sounds (crunching, thumping) indicating interference or damage.

Functions

The attachment comprises of a number of steel fabrications, the largest of which is the main chassis frame. Encompassed within the chassis structure are all the operating cylinders, associated hydraulic components, clamp slides, etc., making the unit extremely compact.

Attached to the chassis at its base is a centrally mounted tine, the tine can be either fixed or removable dependent upon requirements. Built into the chassis on both sides are four hydraulically operated tines at the same level as the centre tine. The five tines are the basic lifting devices of the attachment.

The four hydraulic tines are mounted on two telescopic slide assemblies, the intermediate and outer slide. Either set of which can be operated independently, the intermediate slide operates in the chassis and the outer slide operates within the intermediate slide. The tines lock and cradle the load with a pre-determined pressure.

Incorporated into both intermediate sections are 2 hydraulically operated stabilisers. Similar to the slides they operate independently allowing packs of different heights to safely be transported. This system also has a lock relief setup to ensure safety when driving.

The chassis is attached to a steel backplate which has the forklift carriage attachment points built into it. Having a separate backplate facilitates the addition of the 'sideshift' function within the attachment.

There are other variations available, including special low headroom units for cellar work, or cool store operation. The clamp can also be supplied either as a sideshifting unit or a non-sideshifting unit.

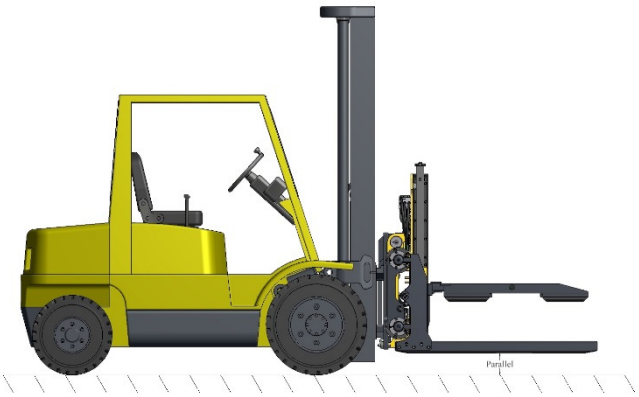
If these instructions are carefully adhered to, as well as other relevant documentation, the unit will give you many years of trouble free work, barring wear and tear.

Usage

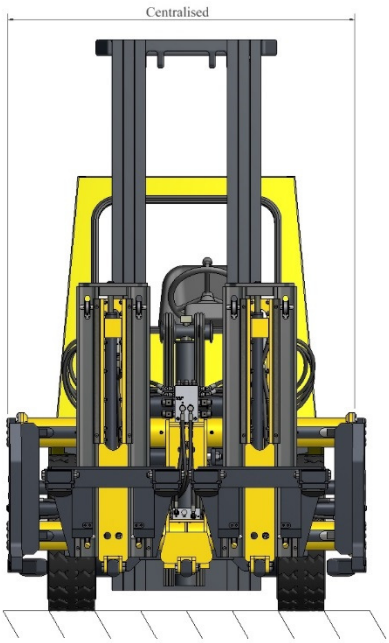
Follow these steps to use the slip sheet handler (following all safety rules that apply).

To Collect a Load

1. Using a tilt indicator, set the mast so the tines are parallel to the ground.

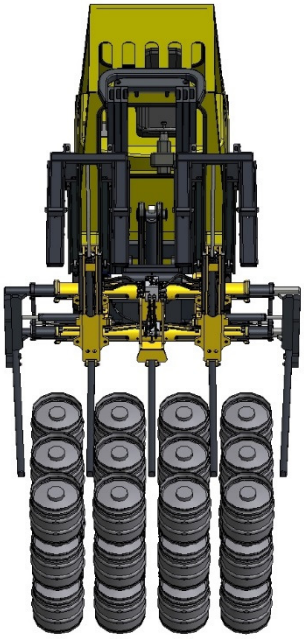


2. Centralise the sideshift.
   a. Operate the sideshift fully to either side to observe the amount of movement available, then stop in the central position.



3. Raise the stabiliser to clear the load.

4. Open the clamp until the both sets of tines nicely clear the load.



5. Drive the truck squarely up to the load so that the centre tine enters cleanly below the bottom rolling ring.

6. Raise the clamp until the tines are just below the rolling ring.

7. Close the clamp lightly onto the containers.

8. Lower the stabiliser onto the load.

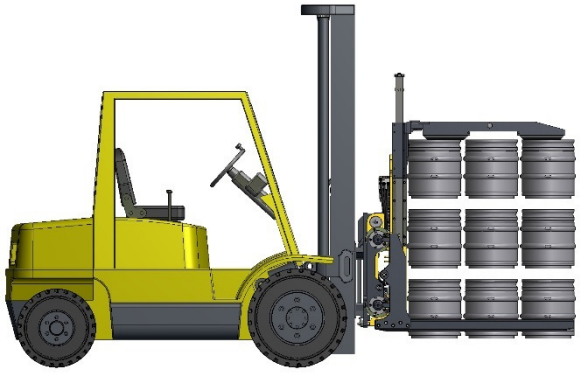
9. Re-clamp the tines.

10. Lift and transport as required.

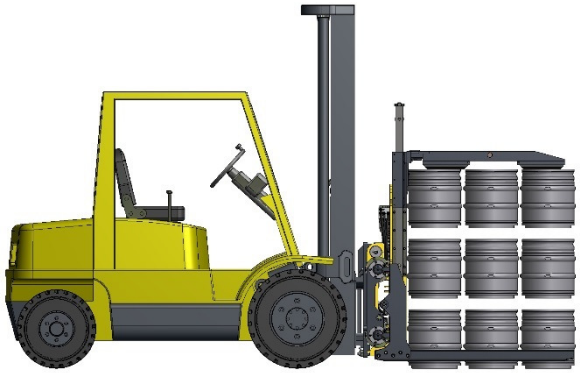
Note - If for any reason the load does not appear to be safe, put it down and re-clamp as above. Badly damaged kegs and casks can cause problems and these should be removed from service and discarded.

To Deposit a Load

1. Ensure that the tilt indicator is in the central position.



2. Lower the load gently to the ground.

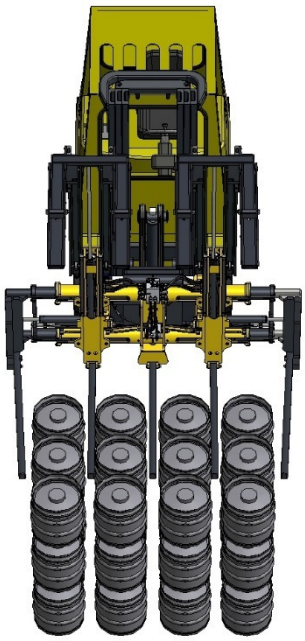


3. Raise the stabiliser clear of the load, observe clearance above it.

4. Open the clamp until the tines clear the containers.

5. Lower the clamp slightly, say about 50mm (2 inches) to clear the rings.

6. Reverse straight out until the tines clear the containers.



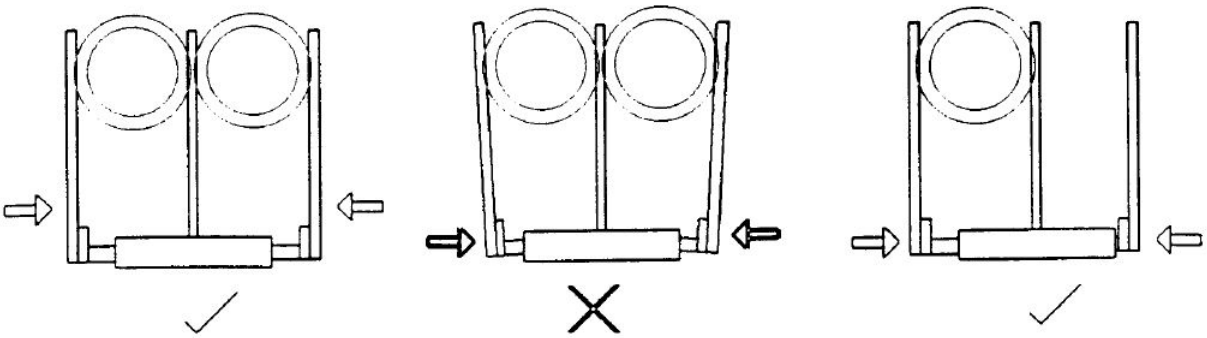
Building a Stack

Building a stack of containers is a straight forward procedure. The most important thing to remember is to place each base pack in line with the previous pack. Each succeeding pack must be placed squarely and accurately over the pack.

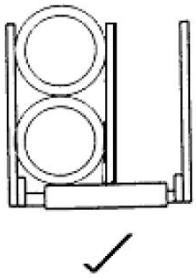
Lorry and Trailer Loading

Loading Lorries and trailers is an essential part of beer clamp operation. The important points are exactly the same as stack building. The loads have to be placed squarely and accurately on the vehicle deck. Due to the very wide range of container sizes, trailer sizes, stacking methods and patterns it is not possible to give full and complete details. These will have to be planned and discussed at each site, and the truck drivers trained accordingly.

If a *'part load'* is required to top off a truck or vehicle, two containers may be carried at the front of the tines, or one may be carried on one side of the tines, at the front of the tines. The driver must have considerable skill and experience, because he will have to apply only part of the normal clamp and stabiliser pressure to carry this light load. Too high a pressure can damage both the clamp and the stabiliser and will certainly damage the containers.



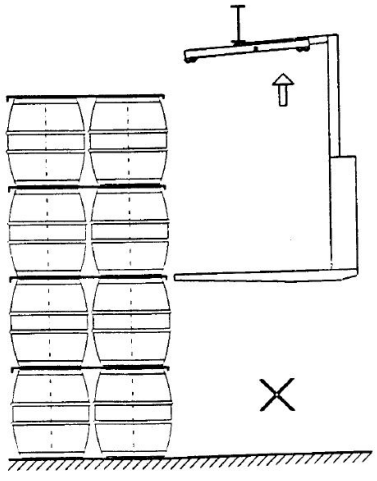
Two or more containers can be carried on one side of the clamp, as the clamp has a dual pressure system, which automatically lowers the operating pressure when one side of the clamp is used. The lower pressure prevents overloading of the centre tine.



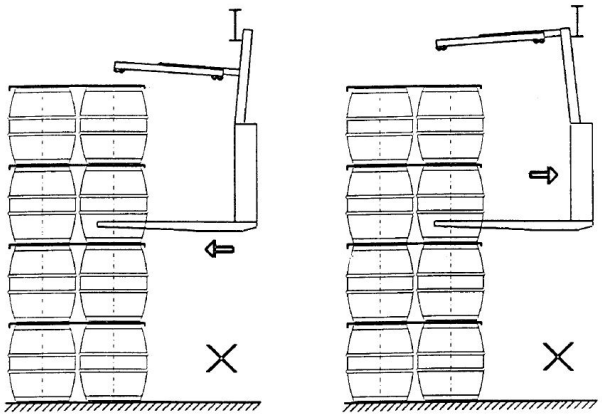
Damage

Over the years we have been developing the Rodman Beer Clamps, we have learnt of a number of ways that a driver can use a truck to damage or destroy a clamp. To assist drivers and managers to keep beer clamps free from damage and in good working order, we now illustrate a few of these problem areas.

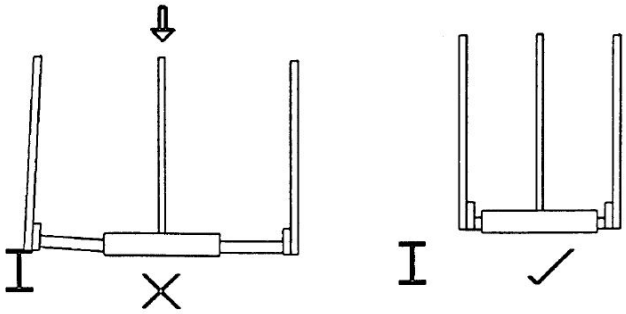
1. *DO NOT* attempt to raise the stabiliser or the mast, if a roof member is causing an obstructing. It will damage the stabiliser arm.



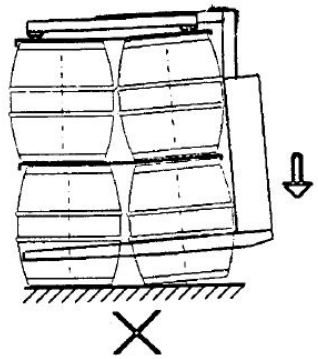
2. *DO NOT* drive forwards or backwards into a roof member. This applies particularly to stabilisers with low arm positions. This will damage the stabiliser uprights and may even bring the roof down.



3. *DO NOT* reverse along gangways with the clamp wide open. Hitting a roof member can damage clamp slides and may damage the clamp mounting blocks, allowing the clamp to fall off the truck.



4. *DO NOT* bang a load onto the ground particularly with forward tilt on. This will damage the stabiliser arm or the stabiliser slides.



5. The lifting tines are designed to lift just below the barrel rolling rings, therefore, there should be no need for the tines to come into contact with the floor. Running the tines on the floor will not only wear the bottom of the tines, but potentially, feed the impact loadings back through the clamp, lead to premature weld and slide bearing failures.

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