AGGA SAFETY FACT SHEET

END CAPS—DESIGN & MANUFACTURE, RE-USE & MODIFICATION

Introduction

End caps are used to cap the end of loose glass for storage and transportation. End caps can be made of timber or metal and will be secured with metal strapping to positively restrain the glass. They are able to be moved via the lifting cleats with slings or chains. They are a lifting device and require appropriate labelling.

This safety fact sheet will cover the requirements of the end caps themselves to be sure that they are capable of performing the job required.

Design and Manufacture

- End caps should be designed by a suitably qualified person.
- The design should consider the lifting cleats and potential loads including the expected life of the end cap.
- The design should include appropriate labelling and instruction of the use of the end cap as well as safe working load.
- The design should specify appropriate material for manufacture of the end cap, ie metal or timber, grade of timber, thickness and type of steel, rubber or packing used, nails, etc.
- Manufacture of the end cap should be to the specified design and substitution of materials should not occur without consultation or appropriate review of the design.

Reuse and Modification

Timber and metal end cap suitability. Do not use lift / sling if:

- There is any concern regarding the condition of the end cap.
- Any timber pieces are broken, split or missing.
- Poor metal welds are evident, or steel is excessively bent.
- End cap is twisted or warped by more than 25mm ie out of square.
- There is any sign of timber decay, insect infestation or rust beyond surface rust.
- Timber end caps have knots occupying more than 40% of the timber width. Lifting cleats have knots or imperfections that will impact on strength.
- SWL or WLL is not stamped on the end cap.
- Upper or middle cleats show signs of separating from the main body of the end cap.
- Glass is below the level of the lifting cleat.
- Timber end caps are wet.

Modifying end caps

Altering the construction of end caps without an engineer or appropriately qualified/competent person approving the alteration is not acceptable.

Handling methods

- The preferred method for handling of standard end caps is by overhead crane and slings/spreader bars.
- Work exclusion zones should be established whenever moving end caps by crane.
- Operators should be aware of the "Danger Zone" associated with crane movements of end caps.

- To maintain load stability the sling lifting point should always be above the centre of gravity.
- All slings/spreader bars must be rated capable of lifting the load, and must be regularly tested, per statutory requirements.
- Under no circumstances are slinging angles to be less than 60° and more than 120° (preferred angles are between 60° and 90°).
- When purpose length slings have not been provided for specific lifting tasks any lifting decisions need to be made by a qualified person, such as a dogman.
- Multiple lifting of end caps using slings is not considered acceptable.
- The slinging point on the end cap must be below the glass height.
- When cutting metal strapping care must be taken due to the whipping effect when the strapping is cut.
- Single end caps should not be left free standing. They should be unitised with other end caps or secured by other means.

Multiple stacking

Multiple stacking of standard end caps is only acceptable in a structurally approved and designed frame.

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