Masonry and Allied Trades Labour-Management Health and Safety Committee

Masonry Trade Safety Advisory

Scaffold Side Brackets

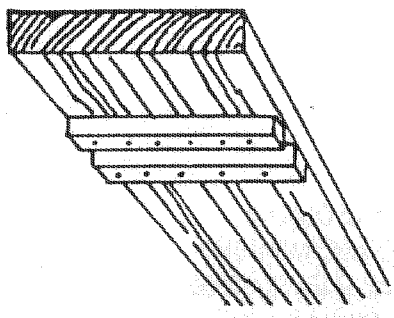
Background

Side brackets are designed to support the planks on which masons work. Side brackets put the worker in line with the working face. They are not to be used for material loading. Instances have been reported of brackets installed on the "wrong" side of the scaffolding—facing the forklift, for example, to provide a landing area for skids of material. This is not acceptable because side brackets are not designed for supporting material. Furthermore, the practice may lead to unbalanced loading of the scaffold, causing tip-over.

Problem Areas

There are some common hazards to look out for with the use of side brackets:

- hooks bent or deformed to the extent that they can roll off the frame under load
- hooks bent back into place, thereby causing cracks in the metal or welds which then break under load
- homemade brackets that are poorly designed and fabricated, too flimsy to bear the load, or not sized properly to hold two planks
- failure to inspect brackets during erection to ensure that they are not damaged
- failure to use planks that have double cleats on one end.



Case History

Two masons on a side bracket platform were manually lifting a copingstone from the deck behind them to finish the wall they were topping off. The hook on one of the side brackets supporting their platform failed, sending both men 25 feet to the ground below. One man was cut and bruised. The other fell on his back and sustained broken ribs when the 200-pound stone landed on his chest. Inspection of the failed bracket showed that the hook broke at a partial crack in the steel. Inspection before installation would have revealed this fault and prevented the accident.

Regulations for Construction Projects

Sections 125-142 of Ontario Regulation 213/91 set out general safety requirements for the erection, use, and dismantling of scaffolds on construction projects. Scaffolding used in masonry construction is normally subjected to heavy loading. Accordingly, a number of the sections specify requirements for scaffolding used in masonry work. These are in addition to the general scaffold requirements. Therefore the contractor and supervisor should require the equipment supplier to provide documentation verifying that all parts of the scaffold system have been properly tested in compliance with Section 127(1) of the regulations.

Guidelines

- Do not drop or roughly handle side brackets during erection or dismantling. This can bend or damage hooks.
- Use planks that are double-cleated at one end to ensure that the cleats are engaged over a bracket to prevent the bracket from pivoting.
- Inspect the brackets as they are being installed on the scaffold to ensure that only sound brackets with no defects are used.

- Tag for repair any brackets that have deformed or cracked hooks, cracked welds, or other defects. Do not use the brackets until repairs are completed by qualified shop personnel.

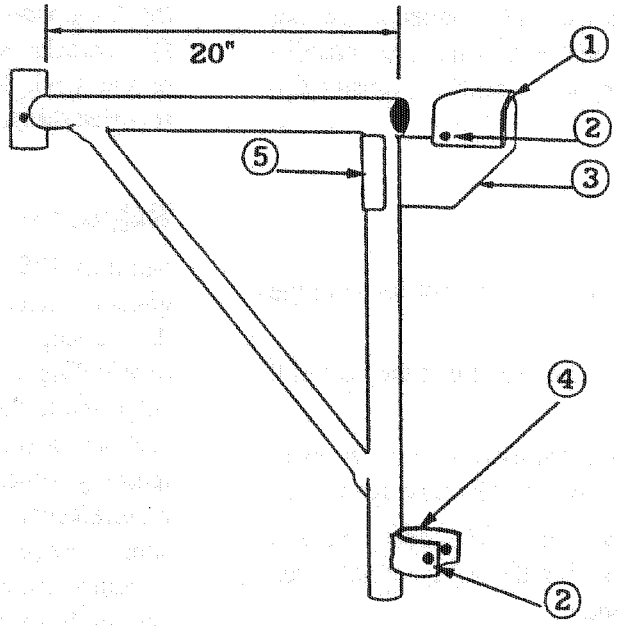
Preferred Design

When purchasing side brackets, look for the following features, numbered to correspond with the diagram on this page:

1) Hook tops out at V-point to sit securely on varying diameters of horizontal frame members.
2) Hook and bottom shoe are prepared to receive pin.
3) Hook is heavy-gauge, fabricated from one piece of steel.
4) Ensure that lower shoe won't interfere with braces, locks, or other features of different manufacturers' frames.
5) Hook plate is wrapped around vertical member and welded on three sides only.

Other features to look for:

- manufacturer's plate showing name and model number
- unit hot dipped galvanized
- manufacturer's literature stating that the bracket has been designed and fabricated to meet loading requirements specified in Ontario Regulation 213/91 and applicable Canadian Standards Association (CSA) standards.



Construction Safety Association of Ontario
21 Voyager Court South, Etobicoke, Ontario M9W 5M7
(416) 674-2726 1-800-781-2726 Fax: (416) 674-8866
info@constructsafety.on.ca www.csao.org