



Safe Work and Return to Work Awards 2019

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Safe Work and Return to Work Awards example entry Category 6 – Best demonstrated healthy and safe work design

1. Describe how your design change has improved the work to achieve safer and healthier work

The work health and safety issue was the risk of a fall from height whilst dismantling hang on platform (hung cantilevered bracket scaffold), specifically when removing posts.

During installation, posts are 'pushed out' by the worker from behind the house frame along the transom. At the dismantle stage, the building's roof cover has been installed and obstructs workers from getting in close enough to safely remove the posts.

We identified that there were limitations to our safe work procedure for removing the posts which involved workers being protected from behind the frame to lower the height of every transom so that the posts could be pulled in towards the workers, unobstructed by the roof and eave. We received feedback from workers that the process was arduous, inefficient and not easy to follow. There was a high likelihood that the workers would take shortcuts and become exposed to a risk of a fall greater than 4 metres.

There are approximately 250 of Buildsafe staff nationally that are exposed to this risk. The issue was identified through Buildsafe's 'safe work audits', where branch managers attended site during the hang on platform installations and dismantles and conducted a safety audit of the installation process. The results of each safe work audits were assessed by the state compliance officer. Through this process it we identified that workers were frequently not following the safe work procedure when dismantling posts and exposing themselves to a risk of fall.

The solution was identified through formal and informal discussions within the business. The hierarchy of control was applied and initially the discussion focussed on a systematic approach, creating an improved design that would eliminate the risk. The Bo Arm was an engineered control measure designed to reduce the risk of fall from height.

Consultation

Consultation, feedback and ideas were sought from the Buildsafe Team at all levels within the company to ensure the solution would be incorporated into work procedures. The process of consultation involved:

- the national safety and compliance manager seeking feedback from workers – specifically, what solutions would they readily accept and actually make use of?
- discussions and brain storming sessions with product experts (Buildsafe's most experienced installers) and Buildsafe hang on platform trainers
- discussions with state managers, branch managers and compliance officers in each state
- meetings with senior management to ensure their support and communicate issues from the field
- design and testing sessions with the engineering team

As a result, the idea of a mechanical reaching aid was suggested by the national compliance and safety manager, which then led to the invention of the Bo Arm.

The Bo Arm, is a mechanical extension grabber tool, an innovative solution completely new to the industry. The Bo Arm allows workers to work safely from behind the frame and to reach the post outside of the frame. The jaws of the Bo Arm are open and close by the handle on the shaft. The jaws grab the post and, in an upward motion the post is lifted from the spigot and transferred into the building.

Implementation

The goal in implementing the solution was to achieve successful integration of the new system into work procedures as well as acceptance and adoption of the new tool by workers.

The plan for implementation included:

1. Defining the risk – identify there was a risk, define the severity, who was exposed and under what circumstances.
2. Consultation period – to seek ideas from all areas of the business and ensure all staff had the opportunity to express their views.
3. Concept drawings and engineering design – develop conceptual designs to communicate the concept to the engineering department so full manufacturing drawings could be created.
4. Prototype testing – six prototypes were created. Each one underwent in house engineering testing as well as field procedural testing.
5. Quantity manufacture and dispatch – to manufacture and provide a new tool to each of the hang on platform crews
6. Training period – to provide full training to ensure the goal of the new tool was well communicated.

The training provided clear instructions for the use of the new tool as well as an instructional video. Each hang on platform truck was assigned a trainer to ensure that all workers installing this product understood the procedure and benefits to this tool. State managers were also involved in this process using their influence to persuade greater acceptance.

7. Monitor and review – to measure the compliance to the new procedure. This included conducting safe work audits and dismantle self audits. Safe work audits are onsite checks of worker compliance to documented work procedures carried out by branch managers. The reports are checked by compliance officers and the results are made available to senior management in the safety and quality standards report.

In the dismantle self audit the workers are required to complete a report which includes photographic evidence of the use of the Bo Arm. This report is reviewed daily by the compliance team and feedback is passed back to branch managers.

8. Feedback – was received from workers using the feedback section of the safe work audit. As well as checking in regularly with branch managers to gauge the general attitude and acceptance of the new procedure.

2. Describe how your business has benefited from the design solution and the impact on industry

The Bo Arm successfully eliminates the risk of a fall by transforming previously complex work into a simple procedure. It has significantly reduced the risk profile of this task by allowing the workers to easily remove posts while remaining safely behind the building frame.

Both the safe work audits and the dismantle self audits have shown excellent results achieving a 100 per cent success rate for the use of the Bo Arm and the new procedure and this has had a very positive impact on Buildsafe's safety culture, reinforcing our safety motto 'Safety – What we do Matters'.

The Bo Arm is a solution that is completely new within the industry and there is nothing like it on the market. It is unique to Buildsafe and an innovative way of controlling a risk within the industry. The return on investment from the new tool is not limited to just eliminating the workplace risk but also has reduced the time taken to complete the task which represents a significant saving in labour costs. The impression on clients has been favourable, with builders expressing that the use of the Bo Arm on their sites contributes greatly to the builder's decision making when choosing a scaffold supplier.

Importantly, the Bo Arm has been well received by workers and has received positive feedback from clients. The consensus is that the Bo Arm is a solution that is not limited to the use of Buildsafe alone, but the greater industry for a risk consistent with dismantling hung cantilevered bracket scaffold.