

WSH ALERT

FATAL ACCIDENT

Worker thrown off overturned forklift

On 23 February 2022, an operator was reversing a forklift on uneven ground within a worksite with an air compressor suspended from its fork by a sling.

The forklift subsequently overturned and threw him onto the ground. There was no seatbelt secured or any form of restraint. The operator was conveyed to the hospital where he succumbed to his injuries.



Air compressor being moved

Overturned forklift

Overview of accident scene.

Recommendations

Unsafe or incorrect use of a forklift can cause it to overturn. To prevent similar accidents, consider the following measures:

- **Operator competency:** Allow only competent and authorised operators to operate forklifts. Ensure each forklift operator has completed certifications such as the Singapore Workforce Skills Qualifications (WSQ) Operate Forklift Course.
- **Seat belt:** Instruct operators to put on their seat belts once within the forklift. The seat belt prevents the operator from being thrown out of the cabin in the event of an accident. Explore the use of technology to enable the forklift to work only if the seat belt is buckled.
- **Safe handling:** In general, forklifts are used for handling loads placed on top of a pallet. Do not use a forklift to hoist or suspend objects, even if within the rated load capacity unless the forklift is designed for it. Slings, cables or chains should not be attached onto the forks to hang objects without manufacturer's approval.
- **Safe loading:** Never exceed the forklift's rated load capacity. Handle all loads according to the height and weight restrictions on its load chart. Always check the load for balance. Use ropes or bindings to secure the load onto the pallet as necessary.
- **Safe movement:** Conduct a route risk assessment to identify site hazards (e.g. uneven ground, slopes) before using the forklift. Travel with the load tilted backwards on the pallet if possible, and keep forks as low as possible to increase forklift stability. Follow the worksite's traffic management plan.

For more information, please refer to SS 573: 2012 Code of Practice for the Safe Use of Powered Counterbalanced Forklifts, [WSH Guidelines on Safe Operation of Forklift Trucks](#) and WSH Council's [Forklift Safety Pack](#).

* Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 2 March 2022. This may be subject to change as investigations are still on-going. Please also note that the recommendations provided here are not exhaustive and they are meant to enhance workplace safety and health so that a recurrence may be prevented. The information and recommendations provided are not to be construed as implying liability on any party nor should it be taken to encapsulate all the responsibilities and obligations under the law.

Worker struck by moving machine parts

On 11 February 2022, a worker was fatally injured when he reached into an automated machine through an open inspection window while it was in operation. The machine was equipped with a safeguard to stop operation once the window was opened, but the safeguard did not function at the time of the incident. The worker's head was struck by the machine's moving parts before his body fell into the machine. The worker was pronounced dead at the scene.

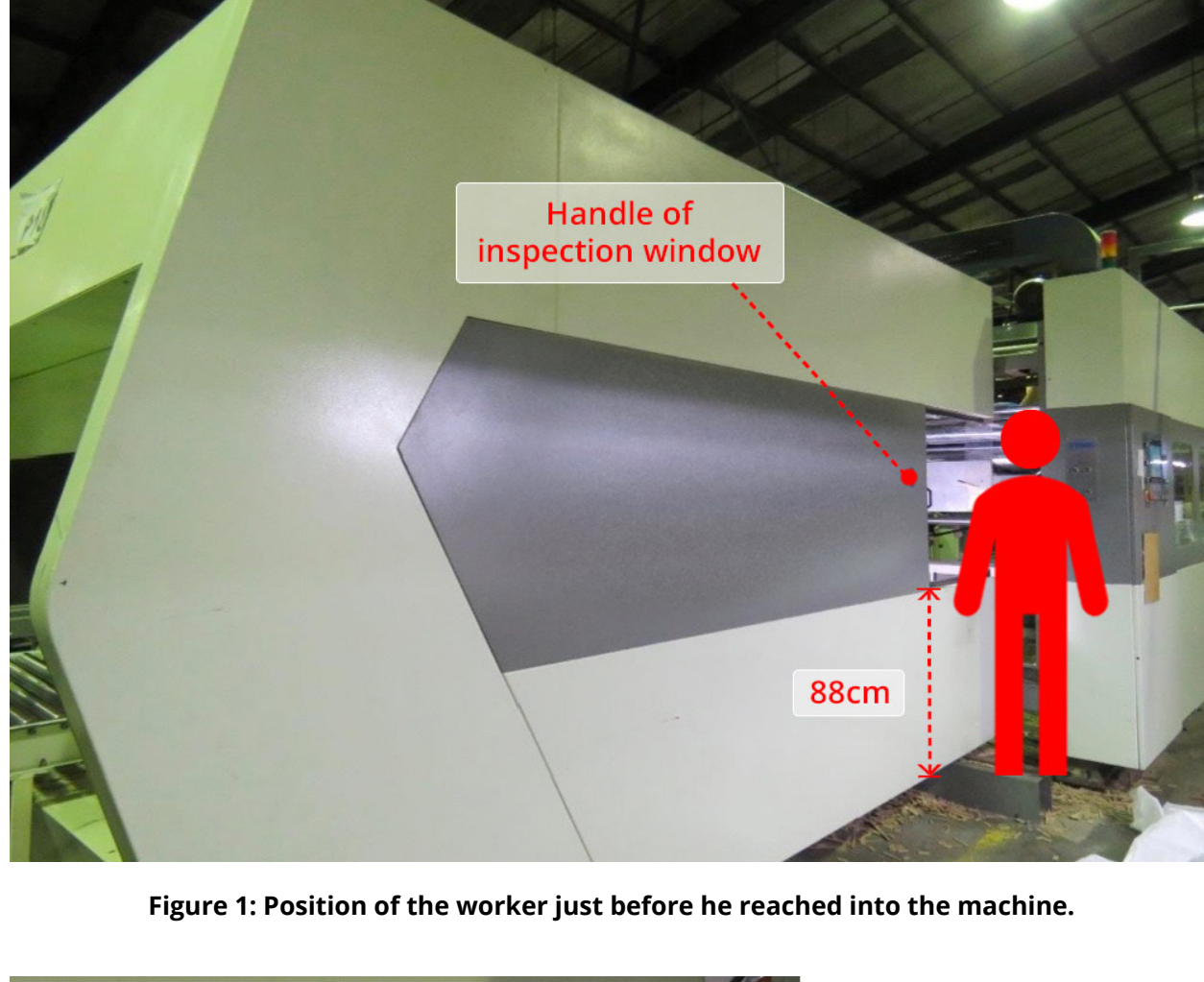
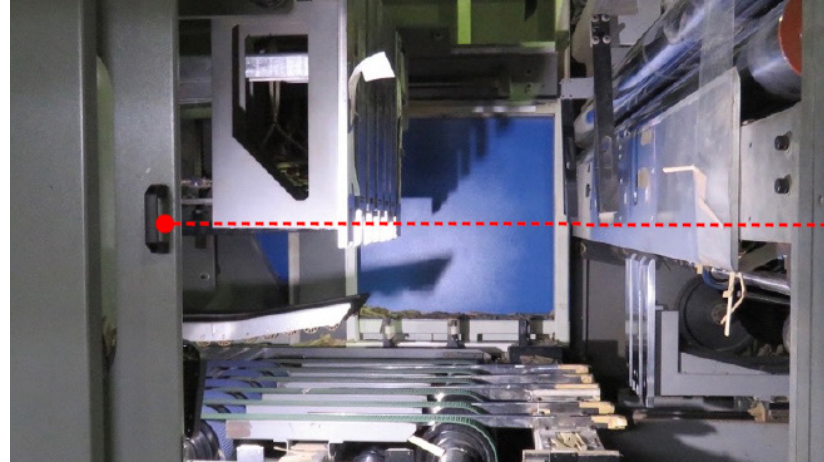


Figure 1: Position of the worker just before he reached into the machine.



Handle of inspection window

Figure 2: View of the machine internals from where the worker was standing.

Recommendations

Any machine with exposed moving machine parts is a danger to workers. To prevent similar accidents, consider the following measures:

- **Machine guarding:** Wherever possible, install machine guards to protect workers from contact with exposed moving machine parts.
- **Safety devices:** Install safety devices such as presence sensors at machine hazard zones and safety interlocks at all machine access points (e.g. doors and windows). Programme these devices to automatically shut down the machine once presence is detected or if any machine door or window is opened while it is in operation. Never bypass these safety interlocks.
- **Safety device inspection and maintenance:** Check and maintain machine safety devices regularly to ensure they are in good working condition. Instruct workers to report any defects found to their supervisors.
- **Worker training and awareness:** Allow only trained and competent workers to operate a machine. Conduct toolbox briefings to remind workers of machine hazards and the risk controls in place. Explain the importance of safety devices and why they should never be bypassed.
- **Energy lock-out tag-out (LOTO):** Include in the safe work procedure the need for the LOTO procedure to be applied before entering or accessing the internals of a machine. LOTO serves to ensure all hazardous energy sources are safely isolated, disconnected or discharged.
- **Warning devices:** Install audio-visual warning devices (e.g. siren with flashing lights) on machines to indicate a hazardous situation (e.g. once a machine door or window is opened).

For more information, please refer to SS 537: 2008 Code of Practice for Safe Use of Machinery - Part 1: General requirements and [WSH Guidelines on the Safe Use of Machinery](#).

* Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 16 February 2022. This may be subject to change as investigations are still on-going. Please also note that the recommendations provided here are not exhaustive and they are meant to enhance workplace safety and health so that a recurrence may be prevented. The information and recommendations provided are not to be construed as implying liability on any party nor should it be taken to encapsulate all the responsibilities and obligations under the law.

Worker pinned by fallen load during lifting operations

On 11 December 2021, a rigger cum signalman (worker) was pinned by a bundle of rebar when the rigging of the rebar bundle failed and fell onto him. The worker had earlier completed his task of rigging the rebar bundle for unloading from a flatbed trailer and had signalled to the crane operator to start the lift. He was conveyed to the hospital where he succumbed to his injuries.



Fallen rebar bundle

Flatbed trailer

Overview of accident scene.

Recommendations

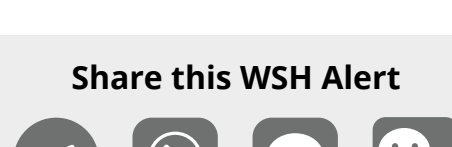
A lifting plan must be established and implemented for all crane lifting operations. Lifting operations can be hazardous without adequate planning and proper execution. To prevent accidents, consider implementing the following measures:

- **Proper rigging method:** Ensure that rigging methods are detailed in the lifting plan for the different types of loads to be lifted. The selected rigging method for the specific lift must be communicated to the lifting team. Use only proper lifting gears (e.g. chain sling, webbing sling) with a safe working load (SWL) greater than the weight of the load to be lifted.
- **Safe work position:** Instruct workers never to stand under a suspended load.
- **Work supervision:** Provide on-site supervision to ensure that the load has been properly rigged, workers are in safe positions, and that lifting operations are carried out according to the lifting plan.

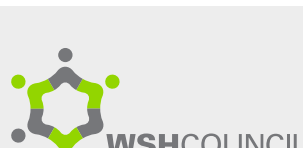
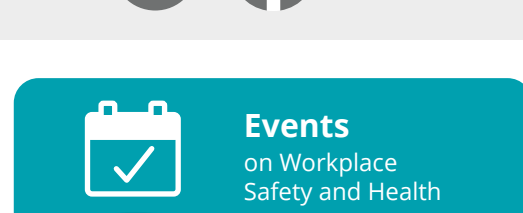
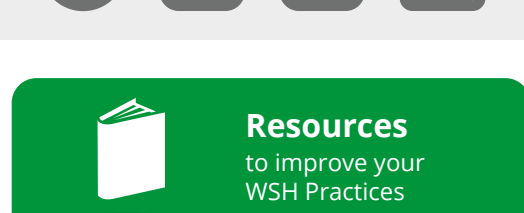
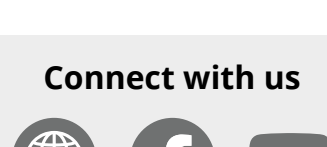
For more information, refer to WSH (Operation of Cranes) Regulations 2011 and WSH Council's [Code of Practice on Safe Lifting Operations in the Workplaces](#).

* Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 13 December 2021. This may be subject to change as investigations are still on-going. Please also note that the recommendations provided here are not exhaustive and they are meant to enhance workplace safety and health so that a recurrence may be prevented. The information and recommendations provided are not to be construed as implying liability on any party nor should it be taken to encapsulate all the responsibilities and obligations under the law.

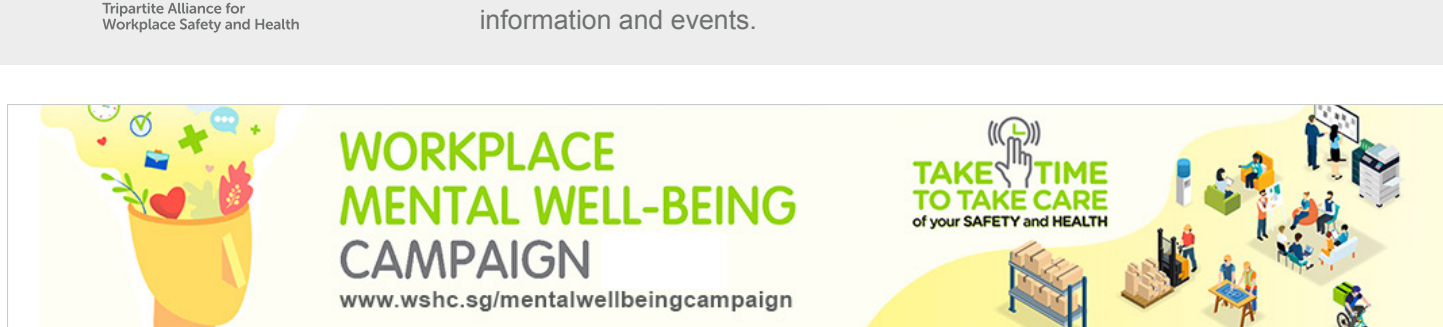
Share this WSH Alert



Connect with us



We regret that we are unable to reply to emails at this email address. For enquiries or feedback, please email us at contact@wshc.sg. Visit the WSH Council's [website](#) now for updates on WSH-related matters, information and events.



This WSH Bulletin is available free of charge, may be printed or downloaded onto electronic, optical or similar storage media provided that such activities are for private research, study, or in-house use only. If such material is to be copied or reproduced, users are asked to ensure that the material is reproduced accurately and not in a misleading context, that the status of the material is identified and to acknowledge Workplace Safety & Health Council, Singapore as the source of the material.