

20
December
2022

WSH ALERT

FATAL ACCIDENT

Worker struck by crane boom

On 13 December 2022, a worker was on the bed of a lorry crane assisting in the unloading of steel bars from the lorry crane when the crane boom suddenly fell and struck him. The worker died at the scene.

Preliminary investigations indicated that the crane boom fell when it was lifting some steel bars. The lifting operation was not carried out by a proper lifting team and there was no lifting plan.



Position of the worker just before the boom failure

Scene of the accident.

Recommendations

Lorry cranes are used extensively in Singapore. Lifting operations involving lorry cranes are high-risk activities, especially if they are not carried out properly. A few other accidents involving lorry cranes have happened this year, with the two most recent ones occurring on [26 August](#) and [7 December](#) 2022. To prevent such accidents, consider the following measures:

- Safe lifting operation:** Ensure that a competent lifting team (typically comprising a crane operator, lifting supervisor, rigger, and signaller) is deployed and a lifting plan is developed, before a lifting operation commences, including those conducted by sub-contractors. The lifting plan must be supported with a site-specific risk assessment, safe lifting procedures, and authorised via a permit-to-work system. Brief the lifting team thoroughly on the lifting plan before each lifting operation.
- Safe work position:** Instruct workers never to stand under a suspended load and the crane's boom. Crane operators should not proceed with the lifting operation if there are workers located under the load or boom.
- Test and examination:** Ensure that lorry cranes are tested and examined by an Authorised Examiner (AE) according to MOM's requirements. More frequent checks may be necessary for lorry cranes with high usage or used in harsh conditions. An example of a standard checklist for mobile crane examination is given in Annex I of the SS 536: 2008. Do not allow cranes with an expired AE certificate to be used.
- Regular maintenance:** Place lorry cranes on a planned maintenance schedule according to the manufacturer's recommendation, and additional attention is to be given to critical parts of the lorry crane. Ensure that maintenance works are carried out by competent persons.
- Pre-use inspection:** Require and ensure lorry crane operators conduct daily pre-use checks before each work day/shift. Daily checks include operating the crane through all its motions without loads and verifying that safety devices are in proper working condition. Any problem areas or defects spotted must be raised and the use of the crane suspended until all issues are addressed. A sample pre-use checklist for lorry cranes can be found in Annex 2 of WSH Guidelines on Safe Use of Lorry Cranes.

Weekly inspection is also recommended so that a more detailed inspection can be carried out.

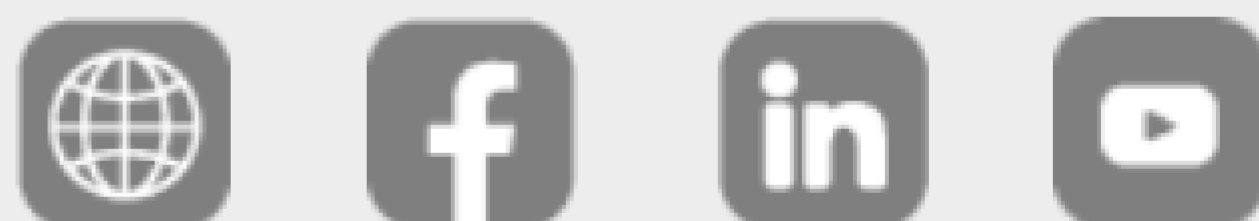
For more information, please refer to WSH (Operation of Cranes) Regulations 2011, Ministry of Manpower's [Examination and Testing Requirements for Statutory Lifting Equipment](#) as well as WSH Council's [Code of Practice on Safe Lifting Operations in the Workplaces](#), and [WSH Guidelines on Safe Use of Lorry Cranes](#).

* Information on the accident is based on preliminary investigations by the Ministry of Manpower as at 16 December 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.

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