



## WORKPLACE SAFETY NOTICE (WSN)

TOPIC <b>SAFETY AND CONTROL MEASURES DURING LIFTING OPERATIONS INVOLVING PERSONS WORKING AT HEIGHT</b>			Reference Number 2021/WSN/08
Approved by: Chief Inspector (Industry)	Issue date: 01 November 2021	Expiry date: None	Revision No: 1

**Purpose:** This Workplace Safety Notice (WSN) provides relevant information concerning additional safeguards that must be considered when using lifting equipment such as mobile crane to lift people for working at height.

This WSN also serves as a reminder for all principals, employers, occupiers, self-employed persons, and persons at work of their legal duty under Workplace Safety and Health (Risk Management) Regulations, 2014 that requires a risk assessment to be carried out before starting any work at height to determine if elimination as per the hierarchy of control is applicable. If the assessment confirms that there is no alternative to working at height, then the work must be properly planned and organized in advance by a competent person to ensure that the most suitable work equipment such as Mobile Elevated Work Platforms (MEWPs) is chosen.

Following photographs (Figure 1) being circulated on social media and public complaints received by SHENA involving a worker being suspended at height by use of a rope sling (without man basket) attached to a Hiab crane hook; all responsible persons are hereby reminded to always comply to the Workplace Safety and Health Order, 2009 and the regulations thereunder, whereby all Lifting and Work at Height operations must be conducted in a safe manner in order to avoid any injury to persons. Regulation 138 of the Workplace Safety and Health (Construction) Regulations, 2014 specifically **prohibits any persons from riding on the slings or hooks of any crane.**



Fig. 1 Photograph received by SHENA showing dangerous occurrence of a man being suspended at height using sling attached to a Hiab Crane.

## **INTRODUCTION**

Mobile cranes are designed and intended for handling materials and not personnel. Personnel are only permitted to ride in a personnel platform (suspended work basket) supported by the crane load line attachment or boom-mounted platform when used in accordance with the requirements of international standard such as ASME B30.23 (or equivalent) and the crane manufacturer's instructions. Furthermore, lifting of persons in suspended work basket from the load lines of cranes and the use of such platforms as workplaces are not permitted under normal circumstances. Such practices are not recommended but are only deployed if there are no other practical alternatives or if other means are more hazardous.

## **ADDITIONAL SAFETY PRECAUTIONS AND RECOMMENDATIONS WHEN USING MOBILE CRANE FOR WORKING AT HEIGHT**

Working at Height activities which involve the use of mobile crane to suspend work basket must be planned, risk assessed, based on voluntary participation, and must be strictly adhered to with appropriate control measures and management approval, such as but not limited to:

1. The mobile crane shall have confirmation from the crane's manufacturer and valid test certificate from an approved Authorised Examiner which clearly states that the intended crane is designed and certified for man-riding and fully complies with international standards such as ASME B30.23/ BS 7121/API or equivalent.
2. The crane to be used for man-riding shall have additional safety features such as but not limited to emergency lowering system; double brake system; positive locking mechanism for the hook; rated capacity at least 2 times of gross weight of the man-riding basket; disabled free-fall if fitted and specific hoist speed.
3. The suspended work basket shall be issued with certificate from an approved Authorised Examiner which indicates it fully complies with international standards, i.e. BS EN 14502-1/ AS 1418 /ASME B30. 23 or equivalent.
4. The suspended work basket lifting gear shall have a safety factor of 10:1, be equipped with double safety load line assembly composed of a main wire rope sling and secondary shock absorbing safety line, and the shackle type to be used is the safety anchor type fitted with split pins. These are to be certified by an Authorised Examiner.
5. Adequate safe work procedure shall be in place which shall include, but is not limited to, defining cases whereby the use of man-riding basket is required and justified in exceptional circumstances, suitability of crane and man-riding basket, rescue plan for lifted personnel in case of emergency, limitation of weather criteria, Permit to Work and management approval in place, toolbox talk, specific lift plan and risk assessment, effective lines of communication as well as clear roles and responsibilities.
6. All personnel involved in lifting equipment (e.g. crane operator, banksman, and rigger) shall have competency certificates from an Approved Training Provider (ATP).

## MOBILE ELEVATED WORK PLATFORM (MEWP)

Mobile Elevated Work Platforms (MEWPs) are designed to provide a safe work platform for temporary Work at Height activities. In relation to the fall protection hierarchy, they are considered to be work equipment that can prevent a fall; however, MEWPs can still topple if they are overloaded or poorly maintained. Therefore, lifting operations are to be planned by a competent person and that any equipment used for lifting or lowering loads or people (including MEWPs) should be of adequate strength and stability with regular thorough examinations conducted by an Authorised Examiner.

Particular attention shall also be given to the type of ground conditions in which the MEWP will travel across before reaching its work position e.g. hard, firm, soft, sloping, uneven terrain, soft spots. The operator of MEWP shall have read and understood the manufacturer's operating instructions and have undergone relevant training from an Approved Training Provider (ATP). Examples of MEWPs are scissor lifts, boom lifts and vertical personnel platforms (Figure 2).

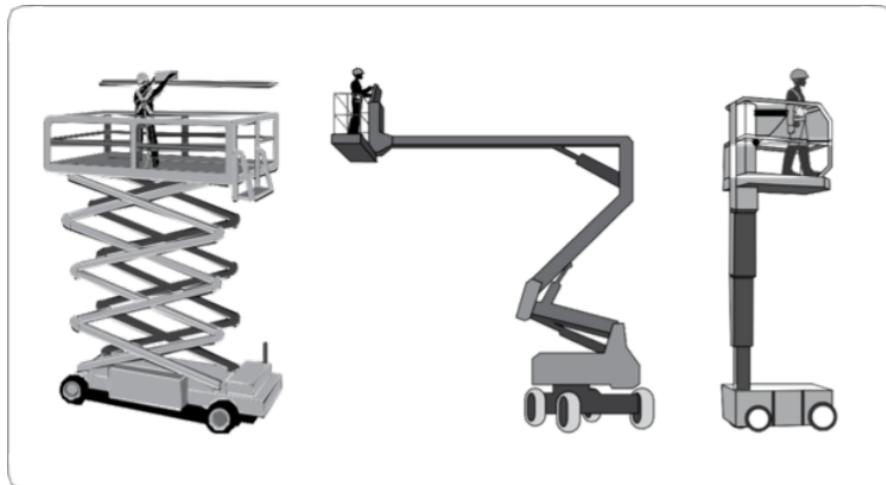


Fig. 2 Examples of MEWPs: Scissor lift (L), boom lift (M) and vertical personnel platform (R).

## LEGAL DUTIES

All principals, employers, occupiers, self-employed persons, and persons at work are reminded to review their work practices to ensure compliance and adhere to the Workplace Safety and Health Order, 2009 and should peruse and familiarize themselves with the applicable regulations related to lifting operations and work at height namely:

- Workplace Safety and Health (Risk Management) Regulations, 2014
- Workplace Safety and Health (General Provisions) Regulations, 2014
- Workplace Safety and Health (Construction) Regulations, 2014

All principals, employers, occupiers, self-employed persons and persons at work are also asked to adhere to the the guidance provided in various Industrial Guidance Notes published by SHENA that address issues pertaining to Lifting Operations and Work at Height namely:

- 2019/IGN/01 - Lifting Operation
- 2021/IGN/07 - Guidance to Work at Height and Working at Height Rescue Plan

## **CONCLUSION**

SHENA will continue to raise awareness on the matter through our Outreach Programmes and provide guidance to Industry while also paying due attention to Lifting Operations and Work at Height activities during our regulatory inspection and monitoring visits and will take all necessary action including legal action if required, such as the imposition of Remedial and Stop Work Orders. Referral to the Public Prosecutor for prosecution will also be considered in extreme cases of repeat offending and cases of a serious nature.

Complaints and reports of unsafe acts may be directed to SHENA via email [info@shena.gov.bn](mailto:info@shena.gov.bn) and where safe to do so, members of the public and registered Workplace Safety and Health (WSH) Officers and Co-ordinators are encouraged to intervene any unsafe acts in order to prevent any injuries and fatalities as well as help improve the workplace safety and health standards within the country.

Should there be any questions concerning this Workplace Safety Notice please contact SHENA at **+673 238 2000** or email [info@shena.gov.bn](mailto:info@shena.gov.bn). SHENA would like to thank all stakeholders for their cooperation in ensuring Brunei Darussalam is a safe place to work and live.

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