



Revision No:
Revision date:
Authorised by:

PROCEDURE

SAFE OPERATION OF MOBILE CRANES ON SUSPENDED SURFACES

1.0 SAFE OPERATION OF MOBILE CRANES ON SUSPENDED SURFACES

1.1 Purpose

The purpose of this procedure is for the safe operation of mobile cranes on supporting surfaces (i.e. suspended slabs, wharfs, or any instance where the surface integrity or rating is unknown).

1.2 Scope

This guideline will apply to all crane hirers/operators where there is a requirement for a crane to drive on, set up on and/or carry out its operation on a suspended surface.

1.3 Application

All concerned must recognise that prior to a crane driving to the set up location on a structure (i.e. suspended surface) the following considerations need to be taken into account.

- 1.3.1 An assessment should be done by a structural engineer prior to the crane being deployed to site.
- 1.3.2 The assessment should ensure that the supporting surface is capable of supporting the crane and the loadings it would apply to the supporting surface during its proposed operation.
- 1.3.3 In assessing the capacity of the structure, there is a need to consider loading during the various stages of the job, including driving to the set up location on the structure, set up, use and, if different or the structure is changed during the job, dismantling and removal of the crane.
- 1.3.4 If there is a requirement for the supporting surface to use a propping system, it is necessary that the propping system is designed and located in the correct area as advised by the structural engineer. The positioning of any propping system is to be confirmed by a surveyor or a competent site representative of the Principal Contractor, (PC).

- 1.3.5 If there is a requirement for any subsequent planned travel or set up location/s, ensure that the new location has had the same assessment as above prior to the relocation of the crane.
- 1.3.6 If the crane cannot set up in the planned location, abort its operation until a full assessment of the proposed new set up location or travel route has been carried out.
- 1.3.7 This assessment should be in the form of a certificate or written statement and match the details of the crane and lift to be undertaken and set up and operation of the crane in accordance with any travel, outrigger location, packing or propping, and use restrictions given in the certificate or statement. Some items to be addressed; (not limited to)
 - (a) Crane Model
 - (b) Crane Configuration
 - (c) Maximum Outrigger loadings
 - (d) Type of dunnage or other to be placed under outriggers
 - (e) Principal Contractor (and PC contact) and site address
 - (f) Structural Engineer
- 1.3.8 Unless the above certificate/statement has been issued and a copy of the assessment is on site, the crane operator is to refuse to move the crane onto the suspended surface.

1.4 Responsibilities

1.4.1 Hirer / Customer / Principal Contractor

- 1.4.1.1 Under the OH&S legislation, requires plant and systems of work to be safe and not pose a risk of the health and safety of employees and others at the workplace.
 - 1.4.1.2 If there is a requirement for the locating or travelling of a mobile crane on a suspended surface, that there is adequate assessment in advance by a structural engineer prior to the crane being located.
 - 1.4.1.3 This assessment must be located on site and a copy issued to the supervisor and crane operator prior to commencement of the crane set up (with a copy to be available in crane's operating cabin).
 - 1.4.1.4 This certificate has to match the details of the crane and the lift to be undertaken in the exact location on the suspended surface.
 - 1.4.1.5 PC to provide full disclosure of any suspended surfaces on site.
- 1.4.2 **All Crane Personnel** shall consult and formulate S.W.M.S
- 1.4.2.1 Conduct toolbox talk with the customer and PC representative to gain a complete understanding of the requirements on proposed location and

setting up of crane prior to any movement onto a suspended surface. (Record of Toolbox Talk must be in writing)

1.4.2.2 Complete JSA (Job Safety Analysis) and ensure that crane, loads and proposed location match engineer's certificate prior to crane siting.

1.4.2.3 Carry out all routine checks for the safe use of mobile crane as sited on normal hard surfaces.

1.4.3 Crane Company / Supervisor

1.4.3.1 Under the OH&S legislation, requires plant and systems of work to be safe and not pose a risk of the health and safety of employees and others at the workplace.

1.4.3.2 Ensure that a structural engineer's certificate is on site, (and in crane's operating cabin), matching the proposed crane lifting requirements, (inclusive of any propping arrangements or alike), prior to deployment to site.

1.4.3.3 Ensure a comprehensive lift study is formulated in consultation, taking into account the Structural engineers recommendations and specifications

1.5 Documentation

- Refer to OHS legislation
- Australian Standards AS2550 Cranes – Part 1 Safe Use
- Structural Engineer's certificate of assessment for the safe operation and/or travel of a mobile crane on a suspended surface
- Comprehensive lift study matching crane location and loadings for proposed lifts.
- Toolbox talk documentation
- JSA
- Confirmation from the PC that any propping arrangement or alike is correctly installed and located.
- This document is to be read as a procedure only!
- The safety checklist also must be referred to

Note: The OH&S Regulation states that a competent person for any task means a person who has acquired through training, qualification or experience, or a combination of them, the knowledge and skills to carry out that task.



CHECKLIST

SAFE OPERATION OF MOBILE CRANES ON SUSPENDED SURFACES

Revision No:
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Crane Supplier Company	
Subcontractor (if other than Principal Contractor)	
Principal Contractor	
Site Address	
Area/s nominated as suspended surface/s by Principal Contractor	

CRANE CREW TO COMPLETE AND ACKNOWLEDGE

Y/N

Crane's Make and Model		
No. of Outriggers to be on suspended area/s Highest expected outrigger load/s (As Supplied by Crane supervisor) Control measures required (As prescribed by Principal Contractor, Structural Engineer, Crane Supervisor or other e.g. propping, plating, markings, outrigger support packing etc)		
Does it appear that the control measures suggested by the structural engineer have been undertaken or are in place?		
Structural engineer's name: Confirm you have a copy of the Engineer's certificate in your possession		
Does the Crane Crew have any other concerns or suggested control measures?		
The Suspended Slab Procedure has been followed. Crane supervisor (name & Sign)		
Crane Crew (names & signatures)		

Job No.

Date: / /