

TIN 015 Risk Assessment – General Access to Tower Cranes (including for maintenance)**1.0 Introduction**

This document identifies and specifies control measures for most hazards associated with the general access to tower cranes, including the carrying out of maintenance. The list of hazards is, however, not exhaustive; tower crane owners and users should assess each crane in its specific location to identify any additional hazards. Any such hazards should be assessed to quantify the risk they present and appropriate control measures to adopt.

2.0 References

This document references the following Technical Information Notes and Good Practice Guidance published by the Construction Plant-hire Association.

TIN001	Access to Tower Cranes After Commissioning
TIN002	Raising and Lowering of Small Material
TIN003	Tower Crane Access Procedures
TIN005	Housekeeping on Tower Cranes
TIN006	Tower Crane Access Ladders
TIN008	Tower Crane Edge Protection
TIN016	Fall Protection Equipment for Tower Crane Operators
TCIG2101	Emergency Action Planning and Rescue from Height on Tower cranes (Formerly TIN013)

OPERATION	ACTIVITY	HAZARD	SEVERITY (1-low, 3-high)	PROBA- BILITY (1-low, 5-high)	RISK (1-low, 15- high)	PERSONNEL AFFECTED	CONTROLS	RESIDUAL RISK (Low, Med. High)	
Access to cabs and other Zone 1 areas. (TIN003)	Climbing inclined access ladders with platforms limiting falls to 6m.	Fall from height	2	1	2	Operator, Maintenance & Examination Personnel, Visitors	Controlled access to crane (TIN001)	Low	
	Climbing vertical ladders with platforms limiting falls to 6m.	Fall from height	2	1	2		Controlled access to crane (TIN001)	Low	
	Climbing vertical access ladders without platforms limiting falls to 6m	Fall from height	3	2	6		Use additional means of fall protection (TIN006)	Low	
	Climbing access ladders with uneven rung spacing	Fall form height	3	2	6		Ensure that uneven rung spacing is rectified before use.	Low	
	Standing and moving on rest platforms with top guardrails only	Fall from height	3	2	6		Improve edge protection (TIN008)	Low	
	Standing and moving on rest platforms with top and mid guardrails	Fall from height	3	1	3		Controlled access to crane (TIN008)	Low	
	Passing through slewing section of top slew tower cranes	Crushing	Fall from height	2	1		2	Controlled access to crane (TIN001)	Low
			Crushing	3	2		6	Controlled access to crane (TIN001)	Low

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Access to cabs and other Zone 1 areas. (TIN003)	Displacement of loose material	Falling objects	3	2	6	Operator, Maintenance & Examination Personnel, Visitors	Ensure all non-essential material is removed before crane is taken into use. Provide storage for small items. Secure essential large items. (TIN005)	Low
		Slips and trips	1	2	2		Keep all accessible areas clean and free of loose material at all times. (TIN005)	Low
Access to counter jibs and other Zone 2 areas (TIN003)	Standing and moving on platform areas with top guard rails only	Fall from height	3	2	6		Improve edge protection (TIN008)	Low
	Standing and moving on platform areas with missing guardrails and apertures in floor	Fall from height	3	2	6		Install missing edge/floor protection (TIN008)	Low
	Standing and moving on platforms with top and mid guardrails	Fall from height	3	1	3		Controlled access to crane (TIN001)	Low
	Moving in vicinity of equipment such as winches and running ropes	Entangle- ment, Drawing in, Crushing, Shearing	2	3	6		Controlled access to crane (TIN001).	Low

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Access to counter jibs and other Zone 2 areas (TIN003)	Displacement of loose material	Falling objects	3	2	6	Operator, Maintenance & Examination Personnel, Visitors	Ensure all non-essential material is removed before crane is taken into use. Provide storage for small items. Secure essential large items. (TIN 005)	Low
	Loose material	Slips and trips	1	2	2		Keep all accessible areas clean and free of loose material at all times. TIN005)	Low
Access to jibs and other Zone 3 areas. (TIN003)	Climbing access ladders with uneven rung spacing	Fall from height	3	2	6	Maintenance & Examination Personnel	Ensure that uneven rung spacing is rectified before use. (TIN006)	Low
	Climbing access ladders	Fall from height	3	2	6		Use additional means of fall protection	Low
	Standing and moving on rest platforms without edge protection.	Fall from height	3	2	6		Provide suitable fall protection with rescue arrangements. TCIG2101	Low
	Walking along jib	Fall from height	3	2	6		Provide suitable fall protection with rescue arrangements. TCIG2101	Low

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Carrying out maintenance in Zone 1, Zone 2, and Zone 3 areas	Raising and lowering tools and materials	Falling object	3	2	6	Maintenance & Examination Personnel	Use correct procedures for raising and lowering small materials. (TIN002)	Low
	Displacement of loose material	Falling objects	3	2	6		Ensure all non-essential material is removed before crane is taken into use. Provide storage for small items. Secure essential large items, TIN(005)	Low
Carrying out maintenance in Zone 2, and Zone 3 areas	Moving into the vicinity of equipment such as winches and running ropes	Entangle-ment, Drawing in, Crushing, Shearing	2	3	6		Controlled access to crane. (TIN001) Use of trained, assessed and authorised personnel.	Low
Carrying out maintenance in Zone 3 areas	Working on platforms and other areas without edge protection	Fall from height	3	2	6		Provide suitable fall protection with rescue arrangements. TCIG2101	Low