

LIEBHERR LTM1040-2.1

40T ALL TERRAIN CRANE

Plant Risk Assessment



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40T ALL-TERRAIN MOBILE CRANE

Plant Risk Assessment

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INFORMATION

ISSUE DATE	01 January 2026
CRANE SAFE SERIAL NUMBER	VIC197013
CONDUCTED BY	K. Dunn
DATE OF REASSESSMENT	31 December 2026
CRANE SERIAL NUMBER	082903

METCALF
CRANE SERVICES



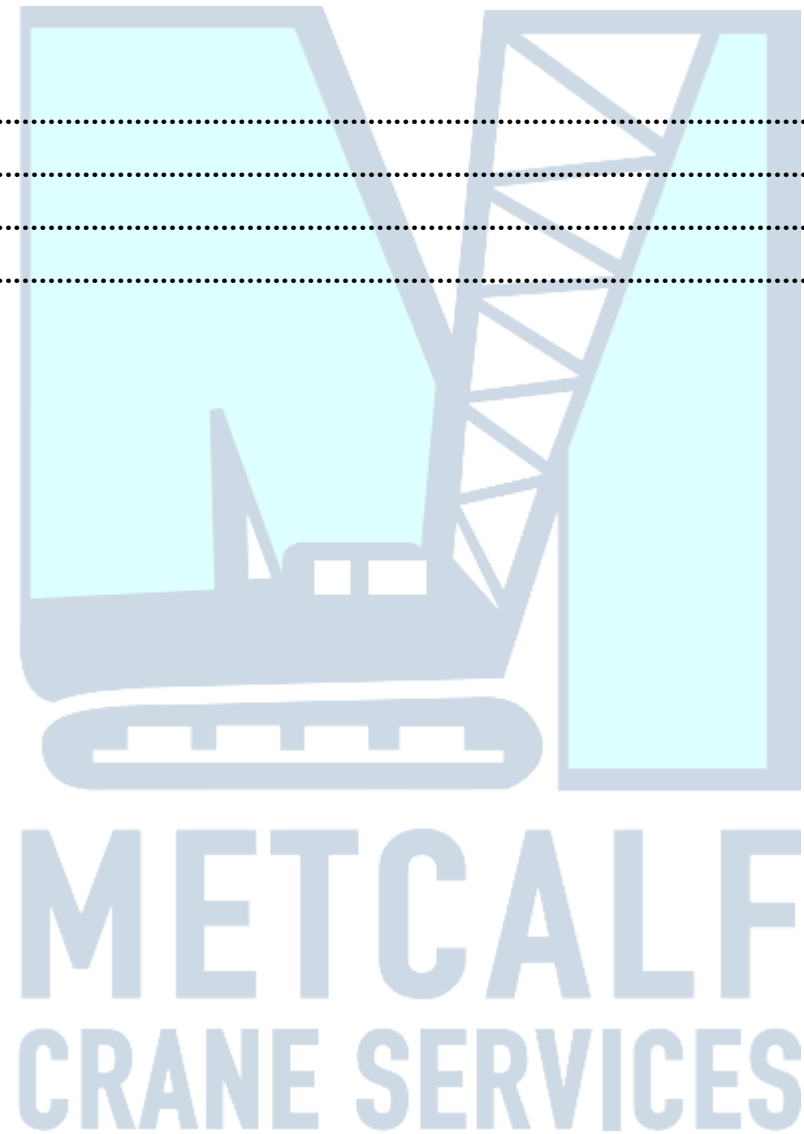
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LIEBHERR LTM1040-2.1 CRANE

40T ALL-TERRAIN MOBILE CRANE

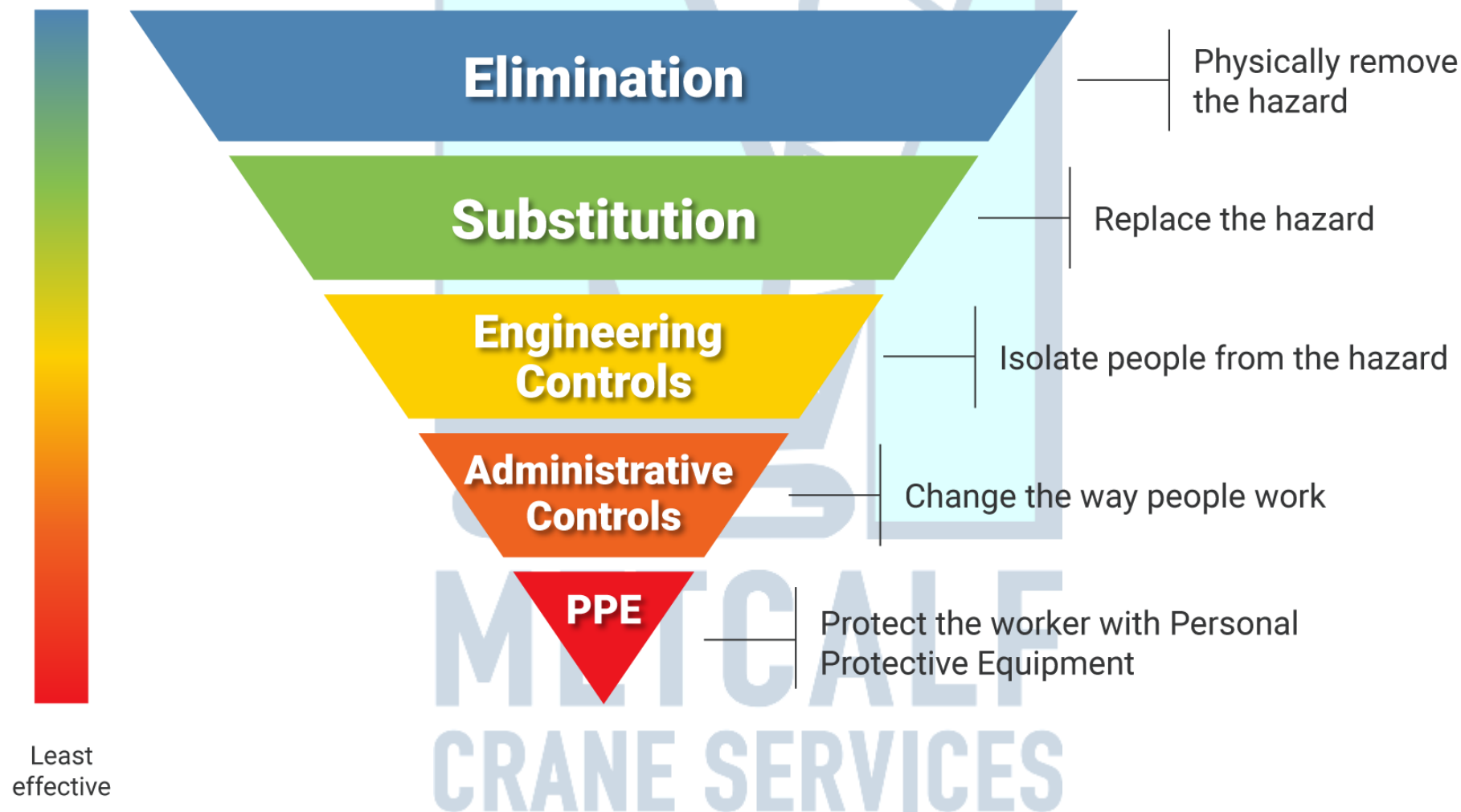
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Most
effective

HIERARCHY OF CONTROLS



Risk Matrix							
Consequence	Probability (Likelihood)						
	Severity		A	B	C	D	E
			<1% probability of occurring Never Heard of in Industry	>1% probability of occurring Heard of in Industry	>10% probability of occurring Happened in Company or More than Once per Year in Industry	>50% probability of occurring Happened at the Location Multiple Times	99% probability of occurring Occurs Frequently
			Remote	Highly Unlikely	Unlikely	Likely	Almost Certain
	1	Zero	Low	Low	Low	Low	Low
	2	Insignificant	Low	Low	Low	Low	Medium
	3	Minor	Low	Low	Low	Medium	Medium
	4	Serious	Low	Low	Medium	Medium	High
	5	Critical	Medium	Medium	Medium	High	High
	6	Catastrophic	Medium	Medium	High	High	High

Consequence Categories							
		Health and Safety of People	Damage to Assets (financial impact)	Damage to Environment	Damage to Metcalf Reputation	Law (Compliance with regulations)	Community and Social Damage and Impact
1	Zero	No injury or health effect	Zero	Zero effect	Zero impact	Zero Legal impact	Zero community/social impact Nil damage to
2	Insignificant	Slight injury (First Aid) or health effect or the potential for either	Slight damage or potential to cause slight damage up to \$5000	Slight effect or potential to have a slight effect Contained by Engineered means	Slight impact or potential to have a slight impact Public concern restricted to local complaints	Local investigation, minor breach of regulation or technical non-compliance – Prosecution not likely	Inconsequential short-term impact. Public concern restricted to local complaints Negative local media reports
3	Minor	Minor injury (recordable) or health effect or the potential for either	Minor damage or potential to cause minor damage \$5,000 up to \$50,000	Minor effect or potential to have a minor effect Short term effect on location	Limited impact or potential to have a limited impact Negative local media	Breach of law/regulation or non-compliance. Minor legal issues, minor litigation possible	Repairable damage to objects of cultural/heritage
4	Serious	Severe Injury (lost time) or multiple minor injuries or potential for either	Local damage or potential to cause local damage From \$50,000 up to \$500,000	Local effect off location or potential to have a local off location effect Moderate-term effect off location	Considerable impact or potential to have a considerable impact Negative state media	Major breach of regulation and significant prosecution Performance Infringement Notice (PIN)	Permanent damage to objects of cultural/heritage significance Major disruption to community wellbeing and social networks for a period of months
5	Critical	Permanent Disability, Fatality or Severe Injury or potential for any	Major damage or potential to cause major damage From \$500,000 up to \$5m	Major effect or potential to have a major effect Widespread impacts to sensitive public or private areas ground water or water bodies	Major national impact or potential to have a major national impact Negative National Media	Very significant fines and prosecutions, Multiple prosecution and fines	Reduced quality of life within community Significant loss or damage to objects of cultural/heritage significance Severe disruption to community wellbeing and social networks for up to two years
6	Catastrophic	Multiple Fatalities or Multiple Permanent Disabilities or potential for either	Extensive damage or potential to cause extensive damage More than \$5m	Massive effect or potential to have a massive effect Widespread impact to sensitive public or private areas, ground water or water bodies	Major international impact or potential to have a major national impact Negative International Media	Potential jail terms and/or very high fines for company and individuals. Prolonged multiple litigations	Community ability to support itself severely impaired Widespread loss of objects of cultural/heritage significance Severe disruption to community wellbeing and social networks for a period of many years

Set Up

Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
1	Persons could be injured installing the fly jib to the main boom from its stowed position	D	4	M	Installation of the fly jib assembly shall be completed as per guidelines set out in the operator's manual.	C	4	M	Prior to use
2	Persons could be injured installing the fly jib to the main boom from its stowed position	D	4	M	Only staff with appropriate qualifications and experience on this plant may be involved in the process.	C	4	M	Prior to use
3	Persons could be injured installing the fly jib to the main boom from its stowed position	D	4	M	Competency training modules are to be followed for all staff required to be involved in this process	C	4	M	Prior to use
4	Persons could be injured installing the fly jib to the main boom from its stowed position	D	4	M	Toolbox meeting is to be convened and run by management to describe procedural and training requirements	C	4	M	Prior to use
5	The operator could be injured by the machine being set up in close proximity to high-power electromagnetic wave emitters e.g. radio television transmitters.	E	6	H	Instruct the operator to ensure that his supervisor contacts the relevant authority or company and established safety before commencing work.	B	6	M	Prior to use by the hirer.



General Operations

Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
1	Persons could be injured or injure others when operating the unit without sufficient instruction, training and information.	E	6	H	Crane operators should hold an appropriately endorsed Certificate of Competency.	B	6	M	Prior to use.
2	Persons could be injured when following a poor system of work in relation to the operation of this machine.	D	5	H	A system of work based on the crane manufacturers operating instructions should be prepared and adhered to.	B	5	M	Prior to use by the hirer.
3	Persons could be injured by the unit operating in poor condition	D	5	H	Instruct the operator to check the machine for faults prior to commencing work each day and if they are serious report them immediately otherwise record them in the maintenance records and log book.	B	5	M	Prior to use by the hirer.
4	Persons could be injured if a machine that is known to be faulty is operated.	E	6	H	A "Danger-Don't Use" tag should be attached if the machine is faulty and the operator instructed that when such tags are attached the machine must not be used.	B	6	M	Prior to use by the hirer.
5	Persons could be crushed by the failure of the crane to sustain loads.	D	6	H	Routine inspections with maintenance records kept and log books maintained.	B	6	M	Prior to supply. Prior to use by the hirer.
6	Persons could be injured by an overloaded machine. The load may exceed the rated load at a specific working radius.	D	4	M	A load meter is installed with an alarm system attached. Instruct the operator to ensure that the load chart is legible and train him to understand its meaning. He must never exceed the rated load and the relative working radius.	B	4	L	Prior to supply. Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
7	Persons could be injured if the machine is not operated in accordance with the rated load chart and instructions there-on.	E	6	H	A load meter is installed in the crane with an alarm system attached. Instruct the operator regarding all types of work that may be performed with this machine. Advise him/her not to attempt to exceed the capacity or ability of the machine.	B	6	M	Prior to supply. Prior to use
8	Persons could be injured if the boom is not restricted in its backward motion.	D	4	M	Boom stops have been provided by manufacturer	B	4	L	Prior to supply.
9	Persons could be injured if the crane hoist rope is overloaded.	D	4	M	A rated load indicator and limiter has been provided by manufacturer	B	4	L	Prior to supply.
10	Persons could be injured if the load upon the crane was unknown and excessive.	E	6	H	A load indicator has been provided by manufacturer	B	6	M	Prior to supply.
11	Persons could be injured if the operator was unaware of the angle of the boom and jib.	D	4	M	An automatic and a mechanical gravity type angle indicator have been provided.	B	4	L	Prior to supply.
12	Persons could be injured if the operator was unaware that the machine was not set level.	D	4	M	A sight level indicator has been provided.	B	4	L	Prior to supply.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
13	Persons could be injured if the crane is used to lift objects that have been driven into the ground.	E	6	H	A load meter is installed in the crane with an alarm system attached.	B	6	M	Prior to supply
14	Persons could be injured if the crane is used to break off to loosen objects that have been driven into the ground.	E	6	H	A load meter is installed in the crane with an alarm system attached. Instruct the operator to operate within the capacity and safe functions of the crane.	B	6	M	Prior to supply Prior to use by the hirer.
15	Persons could be injured if rope became dislodged from a sheave.	D	4	M	Rope retainers have been installed on all sheaves and will be properly maintained.	B	4	L	Prior to supply
16	Persons could be injured if the auxiliary lifting hook fouled the head sheave at the boom head.	D	4	M	An operative anti -two blocking device has been provided with a warning indicator	B	4	L	Prior to supply.
17	Persons could be injured if the main lifting hook fouled the head sheaves in the boom head.	D	4	M	An operative anti -two blocking device has been provided with a warning indicator	B	4	L	Prior to supply.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
18	Persons could be injured if the crane is put into service while the hook hoisting switch in the Release switch Panel is manually or mechanically held to bypass its relative safety device.	D	4	M	Instruct the operator that this switch is for rigging and emergency purposes only.	B	4	L	Prior to use by the hirer.
19	Persons could be injured if the crane boom hoisting or lowering switches in the Release Switch Panel are manually or mechanically held to bypass their relative safety device.	D	4	M	Instruct the operator that this switch is for rigging and emergency purposes only.	B	4	L	Prior to use by the hirer.
20	Persons could be injured if the crane is used while the fuse in the Release Switch Panel is blown, damaged or removed.	D	4	M	Instruct the operator that unless this fuse is in good condition and is in place the crane must not be put into service.	B	4	L	Prior to use by the hirer.
21	Persons could be injured if a load was dropped due to a failed lifting hook.	D	4	M	The hooks have been examined by a NATA Non Destructive Testing Authority and a Certificate of Examination has been issued.	B	4	L	Prior to supply.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
22	Persons could be injured if the crane becomes unstable or tips while lifting a load in accordance with the rated load chart.	E	6	H	Appropriate testing to be witnessed confirming the cranes stability to local Statutory requirements. A Certificate of Test indicating that tests were carried out to 75% of tipping load must be provided.	B	6	M	Prior to supply.
23	Persons could be injured if a load was dropped due to a failed main hoist rope	D	4	M	Certificate provided. Annual inspections required to ensure ropes is still in good working order, if it is not, replacement and recertification is required.	B	4	L	Prior to supply.
24	Persons could be injured if a load was dropped due to a failed auxiliary hoist rope.	D	4	M	Certificate provided. Annual inspections required to ensure ropes is still in good working order, if it is not, replacement and recertification is required.	B	4	L	Prior to supply.
25	Person could be injured if incompatible and unsafe lifting attachments are fitted to the crane hooks.	D	4	M	Instruct the operator to only attach company approved attachments and tested lifting gear that has its W.L.L. and method of use displayed there-on. Lifting beams should have Certificates of Test provided.	B	4	L	Prior to use by the hirer.
26	Persons could be injured if a load is dropped due to failure of lifting slings.	D	4	M	All lifting slings should be certificated by a NATA Non Destructive Testing Authority and the certificates retained.	B	4	L	Prior to use by the hirer.
27	Persons could be injured if the brakes on the hoisting motions are inadequate.	D	4	M	Testing to be witnessed confirming the line pull braking ability to local Statutory requirements. A Certificate of Test confirming tests were carried out to 110% of the W.L.L. must be provided.	B	4	L	Prior to supply.
28	Persons could be injured if the operator's foot slipped off the pedal.	D	4	M	Foot plates are non-skid.	B	4	L	Prior to supply



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
29	Persons could be injured by slipping during access and egress from the unit.	D	4	M	Foot plates are non-skid and suitable hand holds are provided.	B	4	L	Prior to supply
30	Persons could be injured if the controls were inadvertently moved due to being caught by the operator's loose clothing.	D	4	M	Instruct the operator to wear clothing appropriate to his duties, ie. close fitting.	B	4	L	Prior to supply Prior to use by the hirer.
31	Persons may be injured while working upon or being close to moving mechanical parts while wearing loose fitting clothing.	C	4	M	Guarding has been provided Instruct the person working upon the moving of mechanical parts to wear close fitting clothing.	A	4	L	Prior to supply Prior to use by the hirer.
32	Persons may be injured while working or being close to mechanical or moving parts having long hair.	C	4	M	Guarding has been provided.	A	4	L	Prior to supply
33	Persons could be injured if the operator hands slipped off the controls.	C	4	M	Instruct the driver to ensure that his hands are dry at all times.	A	4	L	Prior to use by the hirer.
34	Persons could be injured if the operator does not understand the machine he/she is operating.	D	6	H	Train the operator to fully understand the machine and its load charts and instructions. Ensure that he/she reads and thoroughly understands the operation and instruction manual.	B	6	M	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
35	Persons could be injured if the machine was operating in an unlit or poorly lit area.	D	6	H	Instruct the operator that he/she must ensure that he/she has absolute clear vision in a properly lit workplace at all times.	B	6	M	Prior to use by the hirer.
36	Persons could be injured if the operator is under the influence of alcohol or drugs.	D	6	H	Instruct the operator that he must report to his supervisor if he is under the influence of alcohol or drugs.	B	6	M	Prior to use by the hirer.
37	Persons could be injured if the operator's performance is inhibited by poor health or medication with side effects.	C	4	M	Instruct the operator that he must report to his supervisor if he is suffering poor health and his safe operating performance could be affected.	A	4	L	Prior to use by the hirer.
38	Persons could be injured if the operator's performance was inhibited by excessive fatigue.	C	4	M	Instruct the operator that he must report to his supervisor if he is suffering excessive fatigue and his safe operating performance could be affected.	A	4	L	Prior to use by the hirer.
39	Persons could be injured if the operator does not understand the instruction and warning plates and stickers mounted on the machine.	D	6	H	Ensure that all instructions, warning plates and stickers are clearly legible and in English. International Danger signs are acceptable.	B	6	M	Prior to supply
40	The operator could be injured due to the leakage of diesel.	C	4	M	The operator shall make regular inspections and have any fuel leaks repaired before continuing operation.	B	4	L	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
41	The operator may be affected by exhaust fumes when working in confined spaces.	C	4	M	A totally enclosed cabin is provided for the operator. Instruct operators not to overstay while working in confined spaces unless a special supply of filtered air is provided.	B	4	L	Prior to use by the hirer. Prior to supply
42	The operator may be injured due to breathing exhaust fumes during normal operation.	C	4	M	A totally enclosed cabin is provided for the operator. Exhaust is directed away from the cabin. The exhaust system will be properly maintained.	B	4	L	Prior to supply.
43	Persons could be injured by stepping into the path of the moving machine.	C	4	M	A horn has been installed.	B	4	L	Prior to supply.
44	Persons could be injured by stunt driving and horseplay.	C	4	M	The operator must be instructed to behave responsibly and not to indulge in any unwarranted actions.	B	4	L	Prior to use by the hirer.
45	Persons could be injured by a machine with a daydreaming operator who is not concentrating.	C	4	M	The operator must be instructed to stay alert and concentrate on his driving at all times.	B	4	L	Prior to use by the hirer
46	Persons could be injured by a machine skidding in wet or slippery conditions.	C	4	M	The driver must be instructed to drive slowly and exercise caution.	B	4	L	Prior to use by the hirer
47	Persons could be injured as the result of the counterweight end of the machine swinging out wide while slewing.	D	6	H	Instruct the operator regarding slewing the machine and how to take care while doing so. Barricades should be set up. A notice to be placed upon the counterweight warning that it may slew at any time.	B	6	M	Prior to use by the hirer. Prior to supply.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
48	Persons could be injured if the operator cannot see ahead.	D	6	H	Instruct the driver to have a dogman direct him when he cannot see ahead.	B	6	M	Prior to use by the hirer.
49	Persons could be injured if the machine is operated on a surface which may not sustain its weight.	D	6	H	Instruct the driver to check the ground or structure loadings with a supervisor before operating there-on.	B	6	M	Prior to use by the hirer.
50	Persons could be injured by falling loads.	D	6	H	Instruct the dogman to ensure that all loads are slung safely and correctly. The dogman working with a mobile crane must be the holder of a Certificate of Competency.	B	6	M	Prior to use by the hirer
51	Persons could be injured if more than one crane lifts one load.	D	6	H	Instruct the operator that dual lifts must be supervised by an engineer or a competent person. Refer to AS 2550-1 SECTION 7.19 1993	B	6	M	Prior to use by the hirer.
52	Persons could be injured if two or more cranes are working together on a site.	D	6	H	Instruct the operators to determine signals for joint operations in advance and to be constantly aware of each other's presence.	B	6	M	Prior to use by the hirer.
53	Persons could be injured when the machine starts moving.	D	6	H	A beacon flashing device has been installed on the machine The operator must be trained to look carefully about before moving.	B	6	M	Prior to use by the hirer. Prior to supply.
54	Persons could be injured by the machine colliding with another vehicle.	D	6	H	The operator must be instructed to drive at a safe distance from other vehicles and always remain in constant control.	B	6	M	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
55	Persons could be injured if the machine is driven up or down a ramp on an angle.	D	6	H	Instruct the operator that driving up or down a ramp on a angle is prohibited	B	6	M	Prior to use by the hirer.
56	While operating on an incline, a load could tip the machine over and injure persons.	D	6	H	The operator must be instructed to check the surface and use caution particularly prior to elevating a load. The machine is not designed to operate on an incline-only upon solid level ground.	B	6	M	Prior to use by the hirer. Prior to supply.
57	Persons could be injured while travelling as a passenger on the machine.	B	4	L	Instruct the operator to refuse admission to passengers on any part of the machine.	A	4	L	Prior to use by the hirer.
58	Persons could be injured by the parked machine.	B	4	L	Instruct the operator to park the machine without any load upon the hook and its boom lowered (if possible) with the slew and hoist brakes applied. Turn the engine off. Remove the keys from the ignition and leave the controls in neutral. Lock the cabin	A	4	L	Prior to use by the hirer.
59	The operator could be injured due to falling objects.	B	4	L	A totally enclosed cabin with a roof window made of safety glass is provided.	A	4	L	Prior to supply.
60	The operator may be injured while having part of his body outside the confines of the cabin.	B	4	L	Window bars have been fitted	A	4	L	Prior to supply.
61	Persons could be injured if a truck that is being loaded or unloaded by the crane rolls away.	B	4	L	Instruct the operator to ensure that the trucks brakes are applied and that wheel blocks are in place.	A	4	L	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
62	Persons could be injured by circumstances developed when the driver needs to slew or reverse in areas of restricted visibility.	D	6	H	Instruct the operator to use a dogman when visibility is restricted.	B	6	M	Prior to use by the hirer.
63	Persons could be injured by circumstances developed when the driver cannot see ahead when travelling up a ramp.	D	6	H	Instruct the operator to use a dogman when travelling up and down a ramp or hill.	B	6	M	Prior to use by the hirer.
64	Persons could be injured if the operator's visibility is impaired due to dirty windows.	D	6	H	Windscreen wipers have been provided. Instruct the operator to keep the windows and mirrors clean and service the windscreen wipers as required.	B	6	M	Prior to supply Prior to use by the hirer.
65	Persons could be injured by the machine when it is operating on a public road.	D	6	H	Instruct the operator to ensure that the barricades and/ or a flagman is present.	B	6	M	Prior to use by the hirer.
66	Persons could be injured if tools or other items are left in the cabin and foul access to the action of specific controls.	D	6	H	Instruct the operator to ensure that the cabin is clean and tidy and any tools or other items are properly stored.	B	6	M	Prior to use by the hirer.
67	Persons could be injured if the operator cannot reach or has no access to all controls.	D	6	H	Instruct the operator to correctly adjust the seat prior to commencing work.	B	6	M	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
68	The operator could be ergonomically injured if the seat provided is unsatisfactory.	B	4	L	The operator's seat has been inspected and is satisfactory	A	4	L	Prior to supply.
69	Persons could be injured while departing the cabin of the machine while it is in motion.	C	4	M	Instruct the operator not to jump from the cabin and to use the stepping facilities provided. Steps and hand holds must be kept clear of oil, mud, etc.	B	4	L	Prior to use by the hirer.
70	Persons could be injured while departing the cabin of the machine while it is in motion.	C	4	M	Instruct the driver not to permit passengers and to ensure the machine is stationary before departing the cabin.	B	4	L	Prior to use by the hirer.
71	Persons could be injured if the operator is unfamiliar with the area where he is working.	C	4	M	Instruct the operator regarding the surroundings where the machine is set up for operation.	B	4	L	Prior to use by the hirer.
72	Persons could be injured if unauthorised persons, equipment or vehicles move into the working area.	D	6	H	Instruct the operator to ensure that the machines working area is either barricaded or some method of control is provided to prevent the entry of unauthorised persons or objects.	B	6	M	Prior to use by the hirer.
73	Persons could be injured if the machine is operating in close proximity to overhead power lines.	D	6	H	Instruct the operator to request his supervisor to establish the voltage and arrange for protective devices such as, tubular coverings and warning signs to be provided/alternatively have the power disconnected.	B	6	M	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
74	Persons could be injured if the load or the jib or the boom fouls overhead installations.	D	6	H	Instruct the operator to familiarise himself with overhead installations in the workplace and to travel with the boom as low as possible when necessary.	B	6	M	Prior to use by the hirer.
75	Persons could be injured by a lightning strike.	D	6	H	The operator must be instructed to get out of the machine and keep away from it if thunder/lightning clouds approach the work area.	B	6	M	Prior to use by the hirer.
76	Persons could be injured in a work box.	D	6	H	A properly designed work box should be used and all guidelines set out for its safe in AS 1418-17 1996 should be implemented.	B	6	M	Prior to use by the hirer.
77	Persons could be injured if the machine makes contact with live electrical conductors.	D	6	H	Warning Notices should be provided in the operator's cabin. The operator should be instructed not to operate near "live" wires.	B	6	M	Prior to supply.
78	Persons could be injured if the crane is used to drag a load by raising the boom.	D	6	H	Instruct the operator to ensure that the hoist rope remains vertical at all times	B	6	M	Prior to use by the hirer.
79	Persons could be injured if the crane is used to move or drag a load by slewing the crane.	C	4	M	Instruct the operator to ensure that the hoist rope remains vertical at all times.	B	4	L	Prior to use by the hirer.
80	Persons could be injured if the operator's vision is impaired by sunlight or bright lights in close proximity.	C	4	M	Instruct the operator to wear sunglasses or other form of suitable eye protection	B	4	L	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
81	Persons could be injured if the operator is distracted from noise.	C	4	M	Instruct the operator to wear ear muffs or some other form of suitable ear protection.	B	4	L	Prior to use by the hirer.
82	The crane operator and dogman may be injured by not being visible whilst out of the crane cabin.	C	4	M	Instruct the operator and the dogman to wear a bright hazard designed vest or some other form of suitable garment.	B	4	L	Prior to use by the hirer.
83	Personnel could have their hands injured while carrying out tasks upon the crane e.g. reeving. Personnel could fall from heights whilst reeving	D	6	H	Instruct these personnel to obtain and wear suitable gloves. Crane crew are to ensure that Aux winch is fitted with a nylon rope that will allow the winch rope to be pulled over the head sheave and have the hand-bone fitted at ground level.	B	6	M	Prior to use by the hirer.
84	The crane driver or dogman may be struck on the head while out of the crane cabin.	D	6	H	Instruct the operator and the dogman to wear a safety helmet while absent from the crane cabin.	B	6	M	Prior to use by the hirer.
85	Persons could be injured if the crane travelled over unsubstantial ground or near the edge of a ditch or some other form of hollow, a gap or excavation.	D	6	H	Instruct the operator to be guided by a dogman while travelling. Enquires should be made to a supervisor or engineer regarding the condition of the machines supporting surface.	B	6	M	Prior to use by the hirer.



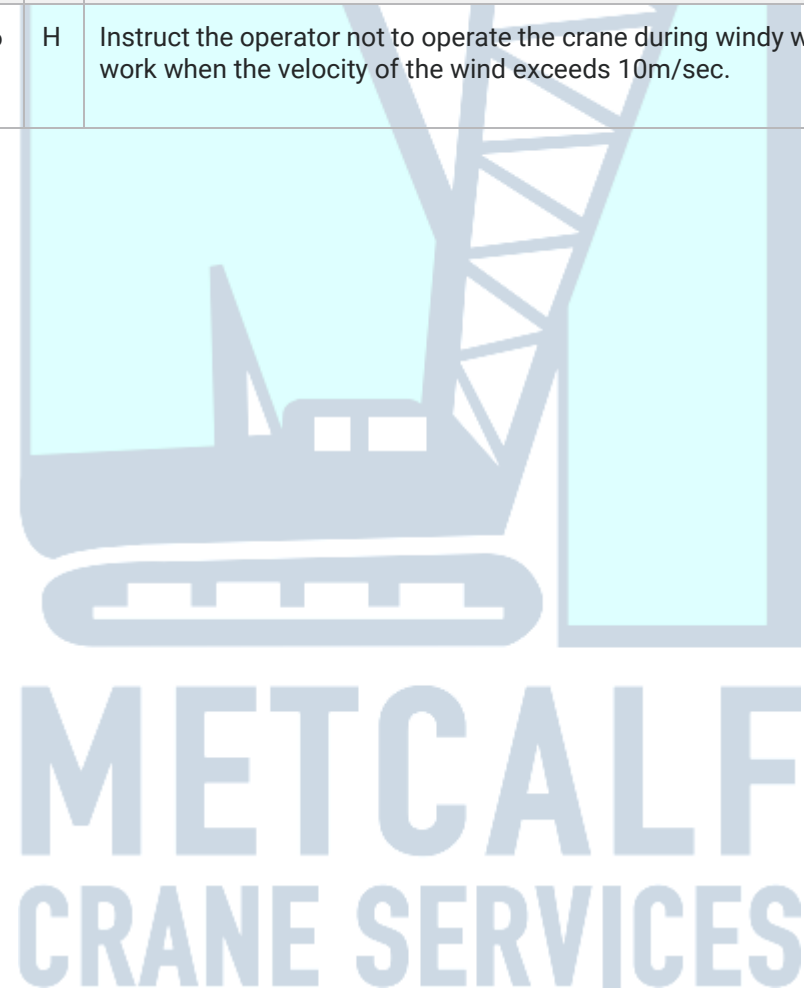
Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
86	Persons could be injured if the crane is travelled in areas where space is limited on rough ground and slopes.	D	6	H	Instruct the operator to be guided by a dogman and to travel carefully and slowly.	B	6	M	Prior to use by the hirer
87	Persons could be injured if the machine exceeds working radius.	D	6	H	Instruct the operator to never exceed working radius. All work must be carried out within the range of the rated load chart supplied with the machine regardless of the length of boom installed.	B	6	M	Prior to use by the hirer.
88	Persons could be injured if the operator disturbs adjustments of any hydraulic component.	D	6	H	Instruct the operator that only trained and skilled mechanical personnel with an understanding of the machine may carry out adjustments to the hydraulic components of the unit.	B	6	M	Prior to use by the hirer.
89	Persons could be injured while being under the crane boom while work is being carried out on the machine.	D	6	H	Instruct the operator to ensure that no persons go under the crane boom or jib while work is being carried out to the crane.	B	6	M	Prior to use by the hirer.
90	Persons could be injured if the machine becomes unstable due to supporting surface collapsing or being washed away.	D	6	H	Instruct the operator to park the machine in a safe location and if there is any doubt to seek advice from his supervisor or an engineer.	B	6	M	Prior to use by the hirer.
91	Persons could be injured if the safety devices on the crane are not in proper working order.	D	6	H	Instruct the operator that prior to operation each day he/she should check all the safety devices.	B	6	M	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
92	Persons could be injured if a load was permitted to free fall.	D	6	H	Means have been provided to eliminate "free fall". Instruct the operator that while operating the machine as a mobile crane the use of free fall is prohibited.	B	6	M	Prior to use by the hirer. Prior to supply.
93	Persons could be injured if a rope failed due to wear.	D	6	H	Instruct the operator to inspect all wire ropes on the machine on a daily basis.	B	6	M	Prior to use by the hirer.
94	Persons could be injured if the operator fails to apply the slew brakes if the engine stalls during operation.	D	6	H	Instruct the operator to apply the slew brake if the engine fails during operation.	B	6	M	Prior to use by the hirer.
95	Persons could be injured if additional counterweights are added to the machine.	D	6	H	Instruct the operator not to operate the machine if counterweight in excess of the crane maker's specifications has been added to the rear of the machine.	B	6	M	Prior to use by the hirer.
96	Persons could be injured if sudden applications are made to the control.	D	6	H	Instruct the operator not to apply the controls in a sudden or uncontrollable manner.	B	6	M	Prior to use by the hirer.
97	Persons could be injured if the slew brake is not applied to the machine while it is being transported.	D	6	H	Instruct the operator to apply the slew brake before the machine is transported on a float, trailer or truck.	B	6	M	Prior to use by the hirer.
98	Persons could be injured if the parked machine was started and/or operated by an unauthorised person/s.	D	6	H	Instruct the operator that upon leaving the cabin he/she should take the ignition and door key with him.	B	6	M	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
99	Persons could be injured if the machine is subjected to excessive wind loads.	D	6	H	Instruct the operator not to operate the crane during windy weather. Stop work when the velocity of the wind exceeds 10m/sec.	B	6	M	Prior to use by the hirer.





Maintenance

Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
1	Persons could be injured if the maintenance and service personnel do not understand the workings of the machine.	D	6	H	Only qualified personnel maintain and service the machine.	B	6	M	Prior to use by the hirer.
2	Persons could be injured if somebody is smoking while re-fuelling or checking the battery.	D	6	H	"No Smoking" signs should be installed at all re-fuelling areas which must be well ventilated. Instruct the operator to refrain from smoking while attending to the machines requirements and switch off the engine.	B	6	M	Prior to use by the hirer.
3	Persons could be injured in the event of a fire.	D	6	H	A fire extinguisher has been provided	B	6	M	Prior to supply.
4	Persons could be injured by contacting the exhaust system.	D	6	H	Exposed sections of the exhaust system have been fitted with thermal guards.	B	6	M	Prior to supply.
5	Persons could be injured and made unwell if the machine is started in an unventilated area.	D	6	H	Instruct the operator to start the machine in a ventilated area.	B	6	M	Prior to use by the hirer.
6	Persons could be injured due to acid splash or fumes from batteries.	D	6	H	Batteries are enclosed under cover.	B	6	M	Prior to supply.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
7	Persons could be entangled in unguarded drives.	D	6	H	Open drives are adequately guarded within the machinery house	B	6	M	Prior to supply.
8	Persons could be injured if a part of the machinery becomes disassembled.	D	6	H	The machinery house has lockable doors. Instruct the driver to ensure that all machine guards are in place and the machinery house doors are closed and locked before starting the engine.	B	6	M	Prior to use by the hirer. Prior to supply.
9	Persons could be crushed by the boom and or jib dropping during maintenance	D	6	H	Means to be provided to safely prop up the boom and/or jib while repairs or maintenance is being carried out. See the manual for the manufacturer's recommendations.	B	6	M	Prior to use by the hirer.
10	Persons could be injured if the machine is being repaired, maintained or serviced on an incline.	D	6	H	Instruct the driver that the machine should be set up on firm level ground for service and general maintenance. Should this not be practical as in the case of a repair the crane must be adequately chocked.	B	6	M	Prior to use by the hirer.
11	Persons could be injured if repairs, maintenance or service is carried out on the machine while the engine is running.	D	6	H	Instruct the operator to stop the engine prior to any work being commenced on the machine. A notice should be put in place advising that the crane is under repair or service.	B	6	M	Prior to use by the hirer.
12	Persons could be injured if wedge type rope fittings separated.	D	6	H	Wire rope clips have been installed upon all ropes above wedge type fittings.	B	6	M	Prior to supply.
13	Persons could be injured if the electrical wiring has been modified.	D	6	H	Instruct the operator not to modify or permit any other person to modify the electrical wiring within the crane.	B	6	M	Prior to use by the hirer.



Item#	Hazard	Risk Rating			Control Measures	Residual Risk Rating			Time of Implementation
		P	C	R		P	C	R	
14	Persons could be injured if the instrument readings in the cabin are not correct.	D	6	H	All load and indicator devices must have frequent inspections testing and calibration by a competent person at frequent intervals not exceeding twelve months apart. Records must be kept in the crane. Instruct the operator to immediately request confirmation of accuracy should any doubt arise.	B	6	M	Prior to supply. Prior to use by the hirer.
15	Persons could be injured if the load meter becomes inaccurate due to a worn rope.	D	6	H	Instruct the operator to inspect the hoist rope and when they are worn in excess of 7% of the original diameter the matter to receive attention.	B	6	M	Prior to use by the hirer.
16	Persons could be injured if unauthorised heat is applied to the crane boom.	D	6	H	Instruct the operator to ensure that any damage to the crane boom or jib must be reported forthwith. Only repairs carried out that are supervised by an engineer are permitted.	B	6	M	Prior to use by the hirer.
17	Persons could be injured if somebody is checking the coolant level of radiator.	D	6	H	Instruct the operator that while operating the machine to check all coolant sensors in the crane cabin only. Instruct the operator that all work carried out that only trained and skilled personnel with an understanding of the machine may carry out any radiator coolant adjustments. Allow the engine to cool before opening cap. Wear gloves and protective eyewear.	B	6	M	Prior to use.

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Sign Off

We the undersigned, confirm that the PRA nominated above has been explained and its contents are clearly understood and accepted. We also confirm that our required qualifications to undertake this activity are current. We also clearly understand the controls in this PRA must be applied as documented; otherwise, work is to cease immediately.

Name	Qualification Required for this Activity	Signature	Date



Name	Qualification Required for this Activity	Signature	Date

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