

Plant information

Plant item:	Genie S45XC	Plant identification details (asset/plant no.):	Asset Number – 008BL	
Project:				
Competency required to operate the plant:	HRW – EWP (over 11m / 36 ft)			
List all legislation, codes of practice and Australian Standards applicable to this item of plant:	Plant Code of Practice 2021 Managing risk of falls at workplaces Code of Practice 2021 Mobile Crane Code of Practice 2024 AS 1418.1 Cranes Hoists and Winches Part 1 – General requirement. AS 1418.5 Cranes Hoists and Winches – Mobile Cranes. AS 2550.1. 2004 Cranes Hoists and Winches Part 1 – Safe Use – General requirements. AS 2550.5. 2002 Cranes Hoists and Winches – Safe use – Mobile Cranes AS 4024 Safety of Machinery AS 60204.1 Safety of Machines – Electrical equipment			
List other documentation relevant to this plant reviewed during this assessment? ie SWMS, SOPs, Manufacturer's Handbook.	Genie S45XC operations and maintenance manual.			
Assessment conducted by: Names and positions	Chris Rice Rowan Duncan	Project Administrator	Date:	27/01/2026

The following risk ranking criteria are used to assess the level of risk for the various aspects involved in a design. Higher risks require increased levels of control.

Consequence		Safety	Risk	Probability	
Substantial	Cannot achieve key team or major program milestone, > x days	Class 1 (Fatal Incident)		Almost Certain	Threat can be expected to occur. 75%-99%
				Likely	Threat will quite commonly occur. 50%-75%
Major	Major slip in key milestone or critical path impacted; X-X Days Slip	Class 1 (Permanent Injury)		Possible	Threat may occur occasionally. 25%-50%
				Unlikely	Threat could infrequently occur. 10%-25%
Moderate	Major slip in key milestone; not able to meet needed date, X-X Days Slip	Class 2 (Lost Injury Time)		Rare	Threat may occur in exceptional circumstance. 0%-10%
Minor	Additional resources/re-planning required to meet need/key date, X-X Days Slip	Class 3 (Minor injury, medical treatment required)			
Negligible	Minimal or no key impact on dates, X-X Days Slip	Class 3 (Slight injury First Aid)			

Extreme Threat	Do not proceed
Very High Threat	Do not proceed
High Threat	Proceed with strict controls
Moderate Threat	Proceed with strict controls
Low Threat	Proceed

5	10	18	23	25
4	9	17	20	24
3	8	13	19	22
2	7	12	15	21
1	6	11	14	16

Negligible	Minor	Moderate	Major	Substantial
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Note: Existing SH&EWMS etc are to be reviewed along with other control measures relating to the plant. If the assessment identifies that a SH&EWMS is not fit for the purpose, note this as a corrective action required in the **Additional Controls** section.

Maintenance and repair assessment (Complete this section for assessment of **Major Maintenance and repair** activities only – Minor maintenance, inspection and casual access by the operator to included in operational assessment)

Maintenance/repair being assessed:	Yes, records available.		
No. of employees working on (or likely to be working on) plant:	Depending on type of work – minimum 1	Estimate of duration of activity:	2 YEARS.
Type of activity:	Scheduled frequency.	By whom	Location of maintenance:
☒ Scheduled. Inspections to be carried out per Genie Manufacturer's Operational and Maintenance Manual	• Daily	Operator	☒ On site - ☐ Off site.
	• 50hrs	Service Technician	☐ On site - ☒ Off site.
	• 100hrs	Service Technician	☐ On site - ☒ Off site.
	• 250hrs	Service Technician	☐ On site - ☒ Off site.
	• 500hrs	Service Technician	☐ On site - ☒ Off site.
	• 1000hrs	Service Technician	☐ On site - ☒ Off site.
	• 1500hrs	Service Technician	☐ On site - ☒ Off site.
	• 2000hrs	Service Technician	☐ On site - ☒ Off site.
	• 10 Yearly	Service Technician	☐ On site - ☒ Off site.
☒ Unscheduled.	When and if it malfunctions	Service Technician	☒ On site - ☐ Off site.

Competency requirements for maintenance: <i>(eg electrical, welding, etc)</i>	All inspections maintenance and repairs shall be carried out by a competent person. QLD Plant Code of Practice 2021 (a) A competent person inspecting welding on an EWP should have suitable knowledge and experience in the inspection and testing of welds, including knowledge of non-destructive testing methods, and AS/NZS 1554: Structural steel welding. (b) A competent person inspecting hydraulic systems and circuitry on the crane should have suitable knowledge and experience in the inspection and testing of hydraulic systems. (c) A competent person inspecting electrical systems, including the ability to read circuit diagrams and understand relevant technical standards. This person must be a qualified and licensed electrician where the voltage of the electrical system is greater than 50 volts alternating current or 115 volts direct current.		
References <i>(Australian Standards, maintenance manuals etc):</i>	Mobile Crane Code of Practice 2024, Plant Code of Practice 2021, Managing risk of falls at workplaces Code of Practice 2021, AS 1418.1 Cranes Hoists and Winches Part 1 – General requirements, AS 1418.2.1997 Serial Hoists and Winches, AS 2550.1. 2004 Cranes Hoists and Winches Part 1 – Safe Use – General requirements, AS 2759 Steel wire rope – Use operation and maintenance, AS 4024 Safety of Machinery. AS 60204.1 Safety of Machines – Electrical equipment, AS 2550.5. 2002 Cranes Hoists and Winches – Safe use – Mobile Cranes		
Identified energy sources:	Diesel	State method of isolation:	Isolation Tag Procedure
Other permit to work required?	☐ Yes ☒ No	If Yes, which permits:	N/A

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Hazard identification and risk assessment during operations and/or maintenance activities

Section 1	Put an X if the hazard does apply to the plant. Leave blank if the hazard does not apply to the plant.	Section 4	Then indicate the Consequence , Likelihood and Risk Rating .
Section 2	Write where on the plant the hazard exists.	Section 5	Write the existing Controls and relevant Comments relating to additional controls required
Section 3	Indicate when the exposure is likely to occur? During Operations (O), Maintenance (M) or Both (B).	Section 6	Indicate the residual risk taking into account controls being implemented after considering applicable legislation, Codes, Standards, etc.

SECTION 1 Hazard category and examples	SECTION 2 Where on this plant does this hazard exist?	SECTION 3 Exposure during O M or B?	Section 4			SECTION 5 Controls and comments	SECTION 6 Residual Risk		
			Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
Entanglement ☒ Arms, hands, fingers, or upper body ☐ Legs, feet, or lower body ☒ Hair, clothing, or jewellery ☐ Cleaning brushes, rags etc ☒ Isolation of energy sources ☐ Other (please specify)	Engine	B	Major	Unlikely	High Threat 15	Ensure hands, fingers, loose clothing, jewellery and other limbs are not exposed to crush/pinch points when conducting maintenance works or pre-start checks.	Major	Rare	High Threat 14
						Ensure lockout at main oscillation before maintenance works commence	Major	Rare	High Threat 14
Inadequate Access ☐ Falling ☐ Hitting crane objects with part of body ☐ Tools falling causing injury	NA								

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Crushing/ Draw in/ Nip points ☒ Material falling or being ejected from working area ☒ Uncontrolled or unexpected movement ☒ Nip points ☐ Inability to slow, stop, or immobilise plant ☐ Isolation of energy sources ☐ In-running rollers/gear sets ☒ Plant tipping or rolling over ☐ Parts of plant closing or collapsing ☒ Trapping between plant and materials or fixed structures ☒ Failure resulting in loss of contents or load ☒ Falling objects ☐ Basket falling/moving due to power loss or plant failure	While Working on Platform	B	Major	Possible	Very High Threat 19	Only certified Operator (EWP) to operate machine in accordance with operators manual. Operator and Service Technician to read manual before operating or working on crane	Major	Rare	High Threat 14
	Complete Machine	B	Major	Possible	Very High Threat 19	Unsure machine safety labels are correctly positioned as per operators manual Keep fingers, hands and other body parts away from nip points Barricade and sign work area – no unauthorised personnel entry	Major	Rare	High Threat 14
	Wheel Position	O	Major	Possible	Very High Threat 19	Ensure machine stability by operating EWP in accordance with the operator's manual. Ensure ground conditions suitable for machine operations. – firm ground conditions. DO NOT use machine near soft ground, roadside or drilled holes etc	Major	Rare	High Threat 14
	Complete EWP	B	Substantial	Unlikely	Very High Threat 21	Barricade off and sign work area – No unauthorised personnel entry Before moving machine operator to physically check around EWP to ensure a clear zone to manoeuvre	Substantial	Rare	High Threat 16

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☐ Other (please specify)	Basket	O	Major	Unlikely	Very High Threat 21	Machine maintained in accordance with operators manual. Only certified dogman to sling and direct loads All equipment to be inspected and maintained in accordance with AS	Major	Rare	High Threat 14
Cutting/ Stabbing/ Puncturing ☐ Contact with sharp parts ☐ Contact with flying parts or work pieces ☒ Parts or work pieces breaking (disintegrating) ☐ Work pieces ejected ☒ Movement of plant or components ☒ Isolation of energy sources ☒ Body or body parts caught between moving components ☐ Other (please specify) _____	Burrs and metal parts	B	Major	Unlikely	High Threat 15	All equipment to be inspected prior to use by competent person.	Major	Rare	High Threat 14
	Load	O	Moderate	Unlikely	High Threat 12	Only nominated Spotter to direct EWP operator.	Moderate	Rare	Moderate Threat 11
	Complete EWP	B	Moderate	Possible	High Threat 13	Access to EWP area restricted to operator and authorised maintenance personnel.	Moderate	Rare	Moderate Threat 11
	Engine	M	Major	Unlikely	High Threat 15	Ensure lockout of main isolation switch before works commence.	Major	Rare	High Threat 14
	Complete EWP	B	Major	Unlikely	High Threat 15	All nip points are to be highlighted by stickers or signage Personnel not to place hands, fingers or other body parts in nip zones	Major	Rare	High Threat 14

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Shearing ☒ Body or body parts caught between moving components ☒ Isolation of energy sources ☐ Body or body parts shear when passing structure.	Between Basket and Solid object	O	Major	Unlikely	High Threat 15	Ensure positive communication between operator and spotter via line of sight and/or radio communication. Ensure lockout of main oscillation switch before works commence.	Major	Rare	High Threat 14
	Engine	M	Major	Unlikely	High Threat 15	Ensure lockout of main isolation switch before maintenance works commence.	Major	Rare	High Threat 14
Friction ☒ Contact with moving parts or surfaces ☒ Contact with moving material ☐ Isolation of energy sources ☐ Other (please specify)	Contact solid objects.	O	Moderate	Possible	High Threat 13	Operator only to control EWP and also spotter to ensure no personnel encroaches the operating area.	Moderate	Unlikely	High Threat 12
Striking / Impact ☒ Uncontrolled or unexpected movement of plant (<i>warning sirens req'd?</i>) ☒ Uncontrolled or unexpected movement of components or material (<i>warning sirens req'd?</i>) ☐ Moving objects due to parts or work pieces breaking (disintegrating) ☐ Work materials protruding into travel path of EWP ☒ Normal movement of plant ☐ Isolation of energy sources ☐ Other (please specify)	Complete EWP	O	Major	Likely	Very High Threat 20	Audible alarm to indicate all crane movements. Spotter to direct Movements.	Major	Rare	High Threat 14

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			Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
						Ensure a clear path of travel before any EWP movements are undertaken.			High Threat 14
Pressure ☐ Contact with fluids or gas under pressure as part of normal operation ☒ Contact with fluids or gas under pressure due to failure ☐ Contact with fluids or gas under pressure due to misuse ☐ Striking due to severed high pressure hoses/couplings ☐ Stored energy in machine systems/accumulators counterweights ☐ Isolation and bleeding of pressure energy sources ☐ Other (please specify)	Hydraulic hoses	B	Moderate	Possible	High Threat 13	Qualified service personnel to maintain as per Genie service manual	Moderate	Rare	Moderate 11

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			Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
Slips/ Trips/ Falls ☒ Uneven or slippery work or access surfaces entering or exiting the plant ☐ Housekeeping hazards produced by the plant ☐ Material ejected or falling from the plant ☐ Inadequate work platforms (size, location, fall protection) ☐ Access (ladders, stairs, walkways) to and from the plant ☐ Lack of guardrails or fall protection ☐ Collapse of the supporting structure ☐ Other (please specify)	EWP work area	B	Moderate	Unlikely	Moderate 12	Ensure access to EWP is free of any debris, grease, oil etc before entering.	Moderate	Rare	Moderate 11

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			Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
Loss of Stability ☒ Uneven or slippery work or access surfaces on the plant ☐ Housekeeping hazards produced by the plant ☐ Material ejected or falling from the plant ☐ Inadequate work platforms (size, location, fall protection) ☐ Access ladders from the plant ☐ Lack of guardrails or fall protection ☐ Collapse of the supporting structure ☐ Other (please specify)	Access to EWP	B	Major	Possible	Very High Threat 19	Ensure access is clean of oil and debris Maintain 3 points of contact when climbing onto EWP	Major	Unlikely	High Threat
Uncontrolled movement ☒ Potential for unknown workers to operate plant whilst being serviced causing safety concerns ☐ Plant fails to respond to controls when needed ☒ Plant operated when "Out of Service" ☐ Other (please specify)	Main isolation switch	B	Substantial	Possible	Very high Threat 22	Isolate controls to machine before doing any works. Place "Out of Service" tag at main isolation switch	Substantial	Rare	High Threat 16

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			Consequence	Likelihood	Risk Rating		Consequence	Likelihood	Risk Rating
Plant rolling over/ through limits ☒ Tip over hazard. ☐ Correct qualifications of operator.	Complete EWP	B	Substantial	Possible	Very high Threat 22	Spotter to direct Operator House Keeping and debris in work area to be maintained Travel path to be level and clear and with in machine limits.	Substantial	Rare	High Threat 16
Ejection of Parts ☐ Contact with sharp parts ☒ Contact with flying parts or work pieces ☐ Parts or work pieces breaking (disintegrating) ☒ Work pieces ejected ☐ Movement of plant or components ☐ Isolation of energy sources ☐ Body or body parts caught between moving components ☐ Other (please specify)	Work Tools	O	Major	Possible	Very High threat 19	Maintain exclusion Zones around work area. Use lanyards on tooling if required.	Major	Rare	High Threat 14
Electrical Hazards									

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Electricity (Shock or burns) Contact ☐ Contact via damaged or poorly maintained electrical leads and cables ☐ Overloading of electrical circuits ☐ Isolation of electrical energy sources ☐ Contact with or proximity to live electrical conductors ☐ Contact via damaged electrical control devices ☐ Contact via water entry ☐ Other (please specify) _____									
Fire Hazards									
Explosion / Fire ☐ Ignition of flammable atmosphere initiated by the plant ☐ Ignition of flammable atmosphere initiated by material ☐ Ignition of flammable material by the plant ☐ Ignition of flammable material by the process ☒ Other (please specify) Explosion of battery	Battery	B	Major	Possible	Very High Threat 19	Battery produces flammable gas – no smoking or ignition sources to be placed near battery. When changing battery ensure tools do not contact positive battery post as sparks may ignite flammable gases. When disconnecting battery always disconnect negative cable first.	Major	Rare	High Threat 14

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Ergonomics Hazards									
Working environment and ergonomics ☒ Inadequate lighting levels ☐ Glare from artificial light ☐ Glare from natural light ☐ Placement and identification of controls ☐ Seating design or seating location ☐ Human error or behaviour aspects (Human factors) ☐ Manual handling tasks associated with the plant ☐ Cramped or restricted work spaces (particularly for maintenance) ☒ Noise levels ☐ Vibration	Complete EWP	B	Major	Possible	Very high Threat 19	Ensure adequate lighting provided.	Major	Unlikely	High Threat 15
						Hearing protection to be worn	Major	Unlikely	High Threat 15
Atmospheric contamination ☒ Exhaust fumes ☐ Lack of oxygen ☐ Dust, fibres, vapours ☐ Thermally generated fumes ☒ Restricted spaces associated with the plant ☐ Other (please specify)	Engine	B	Major	Likely	Very High Threat 20	Air monitoring to be conducted and results recorded. Industrial exhaust extraction fans to be installed in working in enclosed areas	Major	Unlikely	High Threat 15

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Temperature extremes ☐ Open flame, steam or heated air ☐ Exposure to high or low temperature extremes (thermal comfort) ☐ Contact with hot or cold plant components ☐ Contact with hot or cold material ☐ Other (please specify)	N/A								
Condition and suitability of plant ☐ Age and condition ☒ Service and maintenance history ☐ Frequency of use (high or low use or inappropriate duty cycle) ☐ Not fit for purpose ☐ Unsuitable accessories/fittings ☐ Inability to apply isolation/lock out devices ☐ Accessories in unsafe condition ☐ Use in arduous environment ☒ Modification from original design ☐ Other (please specify) n	All EWP	B	Major	Possible	Very High Threat 19	EWP not serviced and maintained as per scheduled frequency. Ensure maintenance timeframes are adhered to as per manufacturer's requirements.	Major	Unlikely	High Threat 15
						Possible modifications to original design could cause further hazards or reduce structural integrity. Any modifications must be approved by crane manufacturer.	Major	Unlikely	High Threat 15

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System of work relating to the plant ☐ Emergency procedures relating to the plant ☐ Communication systems associated with plant operation ☒ Communication methods with plant operation ☐ Use of Permit to Work system ☒ Start up and shut down procedures ☐ Secure against unauthorised use/access ☐ Storage or restoration to service requirements ☐ Other (please specify)	EWP start up - Limit Switches - Wire Ropes - Control Switches - Chains EWP shut down - Control unit - Energy supply	B	Major	Possible	Very High Threat 19	Ensure start up procedures are in accordance with manufacturers instructions. Ensure EWP has movement alarm and visual light when in operation	Major	Unlikely	High Threat 15

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Misc Hazards									
Missing or incorrectly positioned safety related systems ☐ Guards missing ☒ Lack of signage ☒ Lack of communication systems ☐ Failure of emergency systems ☐ Other (please specify)	EWP area of works	B	Moderate	Possible	High Threat 13	Ensure area of works is clearly defined with signage or delineation as required. Ensure communications between operator and Spotter are established	Moderate	Rare	Moderate Threat 11
Failure to ensure competent personnel operate plant ☒ Lack of training ☐ lack of maintenance ☐ No signage on floors indicating location ☒ No communication systems functioning ☐ Out of Service requirements ☐ Shutdown ☐ Overloading ☐ Other (please specify)	EWP Operation	O	Major	Possible	Very High Threat 19	Ensure ticketed competent operators only operate EWP. Ensure operators manual is communicated before works commence.	Major	Unlikely	High Threat 15
Environmental Concerns									
Environmental issues causes failure ☐ Inclement weather causes issues ☐ Wind fowls cables and snags or breaks cable ☐ Water impairs operation	N/A								

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☒ Wind speed exceeds recommended limit ☐ Other (please specify) _____

☒ Wind speed exceeds recommended limit	☐ Other (please specify) _____	Contact details:	
☒ Wind speed exceeds recommended limit	☐ Other (please specify) _____	Contact details:	

I have reviewed the Genie S45 Risk Assessment and have had the opportunity to comment and make changes as I thought necessary.

Name:	Position description:	Signature:	Date:	Company:

For each additional control, identify appropriate corrective actions, including priority, timeframes and responsibilities, communicate the requirements to the person responsible and then input the information into the Corrective Action Register.

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