RISK ASSESSMENT OF PLANT

Applicable to the following models:

MODEL	SERIAL RANGE	MODEL	SERIAL RANGE
SJIII-3215	10 000 839 & Above	**SJIII-3219**	22 037 437 & Above
SJIII-3220	60 003 131 & Above	**SJIII-3226**	27 010 423 & Above
SJIII-4620, 4626 & 4632	70 010 916 & Above		

DATE OF ASSESSMENT : January 22, 2019	**PLANT DESCRIPTION: SCISSOR LIFT – SKYJACK MODEL SJ III DC ELECTRIC**	**ORGANISATION: SKYJACK AUSTRALIA.**
Preliminary Assessment for Review	**RISK ASSESSMENT METHOD USED: SAFETY REVIEW**	**ADDRESS: 1/35 Honeycomb Drive Eastern Creek NSW 2766**

This Hazard Identification and Risk Assessment has been prepared based on information available at the date of publication. The assessment must be reviewed by all stakeholders and revised:

(a) Having regard to the options and general arrangement of miscellaneous equipment/facilities that may be provided on the plant according to the end users requirements or specification.

(b) According to the particular circumstances under which the plant is used and maintained.

(c) As new hazards are identified or as risks are reassessed.

(d) As new or revised control measures are implemented.

(e) As and when work procedures are altered

Although every attempt has been made to identify reasonably foreseeable circumstances no guarantee as to the completeness of this assessment is implied or provided.

A	B	C	D	E	F	X	Y	Z
Hazard No.	**Hazard Description -** **(the situation or parts of plant which could cause injury or illness)**	**Is there any risk?** Describe the risk control measures ALREADY implemented	**Risk** L = Low M = Med. H = High E=Extreme	**Proposed SUPPLEMENTARY risk control measure**	**Are the control measures practicable?** Yes/No	**For Action by whom**	**Confirmation that the necessary action has been completed**	**Notes**
1	**General**							
1.1	Persons could be injured when following a poor system of work in relation to the operation of this device	Operating manual [part number 158002AB-A] provided detailing specifications, limitations and residual hazards associated with the operation of the machine.	H	Prepare a documented system of work having regard to the operating specification and limitations as detailed in the owners operating manual. AND Verify that the procedure (including maintenance) covers all modes of operation of the Unit and is a practicable solution. AND Instruct and train the operator in its use.	Yes Yes Yes	MGMT MGMT MGMT		
1.2	Persons could be injured if the device is not suitable for the required task	Machine specifications are included in the operator's manual [Pages 61 – 63].	H	Ensure that the unit is adequately rated in terms of capacity, height and reach, rated inclination and mass; having regard to the required task, the site conditions and the environment AND Source another machine if the specifications do not match the requirements for the task	Yes Yes	MGMT MGMT		
1.3	Persons could be injured or injure others when operating the unit without sufficient information, instruction, training and supervision.	Manufacturers —Operation Manualll provided [part number 158002AB]. Safety Decal fitted Warning in manual [Page 5].	H	Ensure that all standard work procedures (SWP's) are effectively implemented AND Ensure that the operator(s) have read and understand the training and instructions (which must include Manufacturer's and local information).	Yes Yes	MGMT MGMT		
1.4	Injury as a result of site specific hazards.	Warning in manual regarding performing site check prior to machine operation [Pages 6,7,8, 41, 43 & 52].	H	Ensure operators are able to identify particular hazards that may be encountered at the site and implement actions to ensure that they are	Yes	MGMT		

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		List of site specific hazards provided in the manual [Page 43].		addressed by appropriate means. AND Ensure operators conduct a site hazard assessment before use AND Ensure operators implement appropriate systems to eliminate the hazards or adequately control the risks associated with the hazards identified. AND Ensure operators feedback information relating to new hazards identified so they may be reviewed and measures implemented in a training package. AND Ensure that if operators are uncertain how to address a particular site hazard that they seek advice from a competent person.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
1.5	Persons could be injured if the unit is operated by persons under the influence of drugs and/or alcohol.	Warning in manual [page 9]	H	Ensure that operators do not use the unit while under the influence of alcohol or drugs.	Yes	MGMT		
1.6	Persons could be injured if the operator's performance is inhibited by poor health or medication with side effects.		H	Instruct the operator that he/she must report to the supervisor if suffering poor health and safe operating performance could be affected.	Yes	MGMT		
1.7	Persons could be injured if the operator's performance was inhibited by excessive fatigue.		H	Implement a system to ensure that operators do not work excessive or continuous shifts and manage peak demands.	Yes	MGMT		
1.8	Persons could be injured if the operator's vision is impaired by sunlight or bright lights in close proximity.		M	Instruct the operator to in relation to the sighting of lights. AND Ensure that operator wears appropriate PPE should the risk of	Yes Yes	MGMT MGMT		

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				bright lights be present.				
1.9	Persons could be injured if the unit is operated during storms.	Warning in manual [page 6]	H	Ensure that the unit is not operated during storms or if storms may arise when carrying out the required task AND Monitor local weather warnings and weather conditions during operation of machine.	Yes Yes	MGMT MGMT		
1.10	Persons could be injured if equipment is operated while not wearing appropriate PPE.	Warning in manual regarding the use of PPE whilst operating EWP [Page 7]. Marked travel restraint anchor points fitted to platform. Safety Decal fitted indicating harness anchor points.	H	Provide specification for appropriate PPE including gloves, safety glasses, hard hat and safety footwear as appropriate. AND Instruct operators on the requirements for its use. AND Ensure PPE is inspected and certified on a routine basis. Ensure that operators understand that the anchorages are restraint anchorages and not fall arrest.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
1.11	Persons could be injured due to exposure to UV.		M	Develop and provide specification for appropriate UV protection and its use. AND Provide UV protective equipment AND Instruct operators on the requirements for its use.	Yes Yes Yes	MGMT MGMT MGMT		
1.12	Injury due to —horse play‖ or inappropriate use	Warning in manual stating that —stunt driving & horseplay‖ are prohibited [page 9].	H	Ensure operators do not engage in —horse play‖ or stunt driving. AND Ensure that only properly trained personnel use EWP	Yes Yes	MGMT MGMT		

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1.13	Injury due to unauthorised use.	Unit provided with key, preventing operation if key is not present. Instructions in manual regarding not leaving the MEWP unattended with the key in the switch [page 9].	M	Ensure that the unit is locked before leaving unattended AND Ensure that the machine is not lent or sub-hired to any unauthorised person AND Ensure that only authorised personnel use the EWP	Yes Yes Yes	MGMT MGMT MGMT		
1.14	Personnel injured due to missing or illegible safety signs.	A check of safety decals is included in the pre-operational inspections. A comprehensive list of safety decals is included in manual [section 5].	M	Conduct pre-operational checks as described in manual AND Maintain signs and replace as necessary	Yes Yes	MGMT MGMT		
2	**Structural Failure**							
2.1	EWP could collapse as a result of design or manufacturing fault.	Designed, manufactured and tested by SKYJACK to the requirements of the design standards and directives in the country where the EWP is sold. Specifications provided in operators manual [Section 4].	M	Ensure that the unit is registered with SKYJACK AUSTRALIA PTY LTD. AND Periodically check for the existence of routine Safety Alerts that may be issued by the manufacturer or the representative. AND Routinely inspect the EWP by a competent organization external to operator. AND Monitor local Hazard Alerts and Incident Safety Notices and examine these to determine if they are or could be relevant to the EWP.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		

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2.2	Structural failure due to influences from load combinations not taken fully into account	Specifications provided on nameplate. Load sensing system fitted which aids in the prevention of overloading of the MEWP. Safety placard on the platform detailing load combinations which are acceptable. Specifications provided in operators manual [section 4]. Slope sensor fitted which prevents operation on slopes which exceed the limits of the MEWP. Wind load ratings given in operators manual [page 63].	M	Ensure that the machine is only operated within the specification detailed in the operating manual and in accordance with industry standards and AS2550.10; AND Ensure each person required to operate the machine has been trained in the operation of the unit and assessed in accordance with a system equivalent to that for the High Risk Work (WP) assessment instrument. AND Ensure the machine is isolated to prevent unauthorised use at the end of each work shift. AND Verify expected loading and confirm it is less than Rated Capacity AND Verify operating slopes AND Verify wind loads anticipated in service. AND Ensure that the limits for the number of personnel permitted in the platform outdoors are adhered to.	Yes Yes Yes Yes Yes Yes Yes	MGMT MGMT MGMT MGMT MGMT MGMT MGMT		
2.3	Structural failure due to dynamic loading	Lift & drive speeds provided in manual [section 4].	M	Ensure that the system speeds are set to the specifications provided in the manual. AND Ensure that the EWP is maintained in a manner to minimize the excessive backlash between components	Yes Yes	MGMT MGMT		

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2.4	Structural failure due to operation on a slope greater than the design slope	Slope limitations provided in manual [page 2-10]. Warning provided in manual prohibiting operation on slopes [page 7]. Tilt alarm and interlock fitted which provides an audible warning that the slope is excessive and prevents movements (other than lowering) on slopes which exceed the design limits.	H	Ensure the EWP is operated within the rated slope limitations listed in the manual	Yes	MGMT		
2.5	EWP could collapse as a result of poor structural/mechanical condition due to fatigue/wear	Machine design extensively tested and validated for the effects of fatigue. Preoperational checks in manual [table 4.6, page 66]. Note included in manual that checks of the SKYJACK website should be undertaken for service bulletins prior to performing quarterly or annual inspections [page 66].	H	Conduct pre-operational inspection in accordance with procedures outlined in operator's manual before use AND Inspect the machine in accordance with the instructions outlined in the service manual. AND That the Skyjack website is consulted for latest updates in relation to the unit. AND Undertake major inspection per AS2550.10 at end of design life.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
2.6	Persons could be injured by the unit if operating in poor mechanical or hydraulic condition.	Preoperational checks in manual [table 4.6, page 66]. Service and inspection log provided with machine and in manual. Service & parts manuals prepared by manufacturer.	H	Ensure that the unit is checked, repaired and maintained by appropriately trained/qualified and experienced personnel in accordance with the checklists contained in the operation manual AND Modify maintenance program according to use AND	Yes Yes	MGMT MGMT		

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				Instruct the operator/competent person to report all faults to management. AND Ensure all inspections, servicing, replacement of parts and modifications are entered into logbook. AND Use equivalent replacement parts AND Log replacement.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
2.7	Due to accidental impact – unintentional activation of controls	Safety control (constant pressure switch) provided which must be held for any EWP movement via joystick control. Controls more than 50mm below top guard rail and provided with a guard. Emergency stop switch located at both platform and ground controls. Control switches automatically return to neutral when released. Instruction in manual to press emergency stop button after the desired location is reached [page 40].	M	Implement system to ensure adequate reporting of all incidents in relation to machine AND Ensure that all incidents in relation to the machine are reported and acted on. AND Ensure that Emergency Stop switch is depressed when the platform stationary	Yes Yes Yes	MGMT MGMT MGMT		
2.7.1	Unintentional activation due to entanglement with joystick	Instruction in manual to press emergency stop button when stopped. [3.8.4] Note in manual to avoid entanglement with hoses or cords [P7]		Ensure that the guard is maintained in proper condition and is not damaged and does not interfere with the joystick.	Yes	MGMT		

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		Guard provided that is designed to limit risk of entanglement of the joystick with external cords, clothing or hoses.						
2.8	Failure due to unauthorised alteration or interference.	Warning in manual that if any unauthorised modifications have been performed on MEWP that it should not be used [page 43]. Warning in manual that written permission must be sought from SKYJACK before modifying the MEWP [page 6].	H	Ensure no structural components of machine are removed without written consent from SKYJACK's engineering department. AND Seek advice for all modifications/repairs considered during life of machine. AND Ensure that no additions or alterations are performed on the platform without written approval from SKYJACK's engineering department.	Yes Yes Yes	MGMT MGMT MGMT		
2.9	Structural failure because of loose or missing fasteners.	Checks for loose or missing fasteners included in manual [section 3] as part of daily inspection.	H	Ensure that the unit is checked, repaired and maintained in accordance with the checklist contained in the operation manual, by a competent person AND Ensure results are entered into the logbook.	Yes Yes	MGMT MGMT		
2.10	Structural failure due to loose or missing pivot pins	Checks of pins in scissor stack [page 22] and folding railing [page 46] are included in pre-operational inspection list. Checks of pivot joint bushes in service manual including acceptance criteria for wear [P25[		Ensure that pre-operational inspections are performed and the results documented AND Perform regular maintenance checks as listed in the operator's and maintenance manuals	Yes Yes	MGMT MGMT		
2.11	Persons could be injured as a result of	Inspection procedures provided.	H	Inspect the machine in accordance	Yes	MGMT		

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	fatigue failure – Road Transport.	And included in pre-operational inspection list. Periodic inspection program established as per AS2550.10 Tie-down points provided on MEWP chassis.		with the procedures specified in manual [Section 3]. AND Ensure the operators are instructed to properly stow unit prior to transportation. AND Ensure the platform is restrained during transportation.	 Yes Yes	 MGMT MGMT		
2.12	Injury as a result of excess water/debris in platform	Open platform provided. Pre-operational inspections included in manual regarding condition of MEWP.	L	Ensure that MEWP is properly stored and protected against the environment.	Yes	MGMT		
2.13	Injury as a result of collision with other vehicular traffic.		L	Ensure a traffic management system is enforced, should the EWP be exposed to vehicular traffic.	Yes	MGMT		
3	**Overturning**							
3.1	Persons could be injured as a result of instability or overturning – on excessive slope	Tilt alarm and interlock installed on MEWP. Instructions included in operations manual regarding site checks prior to deploying MEWP [page 7]. Slope limits listed in table 4.5.	H	Ensure that the EWP is operated within the rated slope limitations specified on the name plate AND Train operators in respect of proper siting and precautions necessary to ensure stability. AND Audit work practices accordingly AND Ensure machine is stability tested after modifications to the body or unit have been performed.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
3.2	Persons could be injured as a result of instability or overturning	Stability Tests in accordance with AS1418.10.	H	Train operators in respect of proper siting and precautions necessary to ensure stability.	Yes	MGMT		

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		Tilt alarm and interlock fitted to machine.		AND Audit work practices accordingly AND Ensure machine is stability tested after modifications to the body or unit have been performed.	Yes Yes	MGMT MGMT		
3.3	Overturning due to collapse of support surface	Additional notes in AS2550.10 Maximum wheel loads identified on MEWP serial plate. Site checks included in operators manual [page 43]. Floor loading pressure for MEWP's included in table 4.4. Safety decal on platform which lists hazards which have been identified.	H	Ensure the unit is not set up on rough, soft or otherwise hazardous surfaces AND Seek advice regarding ground/surface capacities as necessary	Yes Yes	MGMT MGMT		
3.4	Overturning as a result of setting up on uneven surfaces	Site checks included in operators manual [page 43]. Safety decal on platform which lists hazards which have been identified. Tilt alarm & interlock fitted.	H	Ensure that operators are trained relating to proper setup, including the necessity to set up on flat surfaces within the limits specified both fore and aft and sideways on the nameplate. AND Ensure operators follow these requirements	Yes Yes	MGMT MGMT		
3.5	Overturning due to overloading the platform	Unit stability tested in accordance with the requirements of AS1418.10. Load sensing system fitted to platform in accordance with AS1418.10	M	Ensure that the rated capacity is not exceeded and personnel observe the load sensing system alarms and understand their meaning. AND Conduct a weight audit on a periodic basis	Yes Yes	MGMT MGMT		

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		Specifications provided in manual Rated load indicated on platform and data plate.						
3.6	Overturning due to high wind loads	Unit designed and stability tested for a maximum wind speed of 12.5 m/s. Maximum wind speed stated in operators manual, warnings in manual regarding the fitting of bluff bodies which may increase loads due to wind [Page 7]. Wind speed rating provided on MEWP. Specifications in operator's manual regarding the restrictions on the number of persons permitted in the platform during outdoor operations.	H	Ensure that bluff bodies are not carried or fitted to the platform AND Ensure that the EWP is not operated in high wind gusting above the rated speed. AND Monitor wind forecasts on a regular basis AND Ensure that operators observe the restrictions on the number of persons permitted in the platform during outdoor operations.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
3.7	Pushing or Pulling objects with platform.	Warning provided in manual [Page 8] outlining the EWP is not to be used as a crane. Warning in manual not to exceed the rated side load [P8] Maximum horizontal load rating specified in manual [T4.5] and decals fitted to machine.	M	Ensure that operators do not exert lateral force greater than that specified AND Ensure that operators do not push or pull objects with platform	Yes Yes	MGMT MGMT		
3.8	Due to tyre failure	Solid tyres fitted on MEWP.	L	Check tyre condition as per manual	Yes	MGMT		

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		Warning in manual to inspect tyres prior to use [page 8]. Inspection instructions included in operators manual [page 19].						
3.9	Due to incorrect tyre specification	Specification and warning provided in manual [page 19].	M	Ensure that only the correct specification tyres are used and that they are not intermixed.	Yes	MGMT		
3.10	Due to operation on a truck or similar device	Warning in manual [page 8] prohibiting the use of the device on the back of a truck, forklift or other similar device.	M	Ensure that the unit is only operated on firm ground capable of adequate capacity and never on vehicle or similar	Yes	MGMT		
3.11	Due to loss of wheel	Pre-operational inspections include checking wheel nuts [page 19] Warning in manual regarding checking wheel nuts [page 8].	M	Ensure that pre-operational inspections are conducted as per manufacturer's checklist.	Yes	MGMT		
4	**Control malfunction & uncontrolled motions**							
4.1	As a result of control malfunction.	Pre-operation checks included in manual [Section 2]. Emergency stop switches fitted at upper and lower control stations.	M	Ensure prestart inspection is performed in accordance with the manual. AND Ensure that control cubicle is clear and free of tools and equipment that could jam controls AND Verify condition and operation of controls before each shift AND Check operation of Emergency-stop switches every day before use	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
4.2	Due to contamination of hydraulic system.	Simple robust system with electric powered pump actuated on demand directly by controls.	M	Ensure the hydraulic system is maintained by competent persons employing proper practice.	Yes	MGMT		

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		Suction strainer provided.						
4.3	Accidental knocking of controls	Constant pressure switch provided which must be pressed for controls to be activated. Emergency stop provided. Instruction in manual to press emergency stop button when the desired work location is achieved.	M	Maintain control console. AND Ensure that the enable switch is tested per the manual pre-operational instructions. AND The emergency stop is pressed when the platform is stationary.	Yes Yes Yes	MGMT MGMT MGMT		
4.4	Control conflict using emergency power system	Manual lowering does not rely on a power source.	L	Ensure operators are familiar with the emergency lowering procedures prior to operating the MEWP AND Ensure that ground personnel are always available to perform emergency operations if required.	Yes Yes	MGMT MGMT		
4.5	Due to safety switches being overridden	Warning in manual [page 43] that an operator should not use a machine which has had the safety switches altered or disabled. Safety label fitted to MEWP stating ―do not alter or disable limit switches or other safety devices‖.	H	Ensure that safety devices are not tampered with	Yes	MGMT		
4.6	Unintentional activation of controls due to entanglement of hoses or cables with joystick	See 2.7, 2.8 above			Yes	MGMT		

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					Yes	MGMT		
5	**Hydraulic**							
5.1	Failure of cylinder or hose resulting in platform movement	Checks in manual regarding cylinder inspection [pages 16 & 22] prior to use. Cylinders fitted with load holding valves, maintenance and inspection procedures for yearly intervals detailed in manuals of load holding valves and hydraulic cylinders.	E	Ensure that the machine is withdrawn from service and repaired if the platform position is not maintained or there are signs of hydraulic leaks.	Yes	MGMT		
5.2	Injury as a result of a high pressure hydraulic leak	Hydraulic components sourced from reputable suppliers.	M	Ensure that personnel are properly trained and aware of the hazard.	Yes	MGMT		
6	**Crushing/Trapping Hazards**							
6.1	Crush injury as a result of operation – either travelling or raising.	Pictorial label fitted to machine indicating the potential of crush injury. Warning in manual regarding the avoidance of overhead obstructions [page 8]. Movement is limited to either vertical motion or drive motion.	H	Ensure that operators, observe the surroundings and travel at appropriate speeds AND Ensure that personnel keep all body parts inside platform AND Ensure that ground personnel are available to observe and take corrective action if necessary. AND Ensure they are familiar with emergency operation procedures	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
6.1.1	Crush & trapping injury due to raising/travelling into fixed obstruction triggering load sensing system.		M	Ensure that personnel familiar with the retrieval system are available to effect retrieval is necessary.	Yes	MGMT		
6.2	Crush injury due to inadvertent operation.	See section 4.						

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6.3	Ground personnel crushed whilst machine is operating	Ground controls only provided for emergency use. Warning in manual to be aware of blind spots when operating the aerial device [page 8]. Lowering alarm fitted and described in manual [2.2.3]	M	Ensure that personnel remain clear of the platform when in use. AND Ensure that operators remain aware of the location of all personnel and obstacles on the job site while operating the aerial device.	Yes Yes	MGMT MGMT		
6.4	Persons crushed using emergency retrieval.	Instructions provided in manual.[P32] Tools provided where required. Pre-operation inspection listed in manual [2.3.7]	M	Ensure that the instructions in the manual are followed AND That all tools necessary to effect emergency retrieval are stored and maintained on the unit.	Yes Yes	MGMT MGMT		
6.5	Persons exposed to vehicular traffic.	See 2.13 above.	H	Implement a traffic management system	Yes	MGMT		
6.6	Persons crushed whilst performing maintenance.	Safety prop fitted. Warning decal fitted of danger of being crushed by scissor mechanism during maintenance.	H	Train operators to be aware of these hazards AND Ensure maintenance personnel always use the safety prop when performing maintenance on an elevated scissor mechanism.	Yes Yes	MGMT MGMT		
7	**Slips, trips, falls**							
7.1	Falling from the platform	Lanyard attachment points provided. Guard rails fitted in accordance with AS1418.10 requirements. Warning in manual for operators to stay within the guard rails [page 7]. Non-slip floor surface provided.	M	Ensure that personnel do not climb on the guardrails AND Instruct operators to wear =when in the platform and to attach the lanyard to the anchor point provided. AND Audit use. AND Ensure that the guard rails are properly	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		

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		Guard rails provided. Instructions in manual regarding the proper installation of the folding rails and checks for the locking pins for the guard rails.		installed as per instructions provided in manual.				
7.2	Stepping out of elevated platform	Warning in the manual regarding risk of exiting the platform at height [Page 7] Refer to requirements per AS2550.10, see clause 5.9 and figure 5.9(B).	H	Ensure that operators egress at heights is prohibited unless in an emergency and there is a safe means to do so. AND Ensure that the operator does not egress from the basket at height unless secured via a twin lanyard assembly to a secure anchor point on a fixed structure AND Refer to requirements per AS2550.10, see clause 5.9 and figure 5.9(B)	Yes Yes Yes	MGMT MGMT MGMT/OP		
7.3	Use of step ladders or stools in platform	Warnings provided in manual [Page 8].	H	Ensure that operators do not use any means to gain additional height AND Ensure the correct machine is used for the particular task at hand	Yes Yes	MGMT MGMT		
7.4	Falling whilst performing maintenance checks.	Maintenance checks able to be performed at ground level.	M	Ensure that appropriate equipment is used during maintenance where access at height is required.	Yes	MGMT		
7.5	Fall whilst accessing the platform.	Ladder provided. Warning in manual regarding the use of three points of contact while accessing and egress from the platform [page 9].	L	Ensure area is clear of slick surfaces	Yes	MGMT		
8	**Falling Objects**							
8.1	Ground crew or passerby being struck	See AS2550.10	M	Barricade area from public access	Yes	MGMT		

A	B	C	D	E	F	X	Y	Z
Hazard No.	**Hazard Description -** **(the situation or parts of plant which could cause injury or illness)**	**Is there any risk?** Describe the risk control measures ALREADY implemented	**Risk** L = Low M = Med. H = High E=Extreme	**Proposed SUPPLEMENTARY risk control measure**	**Are the control measures practicable?** Yes/No	**For Action by whom**	**Confirmation that the necessary action has been completed**	**Notes**
	by falling tools or objects	100mm high kick plates provided on platform. Platform floor does not have large openings.		AND Ensure that materials are not supported on the guardrails or exceed the confines of the platform.	Yes	MGMT		
9	**Electrical Hazards**							
9.1	Persons could be injured due to contact or approach to live electrical apparatus.	Warning in manual [page 6] and minimum approach distances as per AS2550.10 requirements Electrical Clearance decal fitted to uniand in manual.	H	Ensure operators are familiar with this hazard. AND Ensure operators conduct a site inspection & identify overhead conductors prior to commencing work.	Yes Yes	MGMT MGMT		
10	**Fire or Burns**							
10.1	Work in an explosive atmosphere.	Warning in manual regarding operating machine in explosive or dangerous environments.	H	Ensure unit is not used in a hazardous environment.	Yes	MGMT		
10.2	During refueling	No IC engine fitted, no flammable fuel required.	L					
10.3	During battery maintenance	Note in manual regarding the danger of explosion near batteries [page 18].	M	Ensure that battery maintenance is performed by competent persons in accordance with established SWP's.	Yes	MGMT		
10.4	Carrying fuel or other explosive substances in platform		H	Ensure no explosive materials or fuel is stored on platform during operation.	Yes	MGMT		
11	**Driving Transport & Handling**							
11.1	Injury as a result of accumulated deterioration during long term storage.		H	Ensure that the requirements listed in the manual are performed before returning the unit to service.	Yes	MGMT		
11.2	Injury from unsecured vehicle	Instructions in manual regarding transportation of EWP [Page 51]. Tie-down points provided on MEWP chassis.	M	Ensure that the unit is secured in accordance with the requirements in the manual.	Yes	MGMT		
11.3	Injury loading/unloading from vehicle	Warnings and instructions provided in manual [Page 51].	H	Ensure that the loading ramps are adequate to support the machine and the gradient is less than the maximum	Yes	MGMT		

A	B	C	D	E	F	X	Y	Z
Hazard No.	**Hazard Description -** **(the situation or parts of plant which could cause injury or illness)**	**Is there any risk?** Describe the risk control measures ALREADY implemented	**Risk** L = Low M = Med. H = High E=Extreme	**Proposed SUPPLEMENTARY risk control measure**	**Are the control measures practicable?** Yes/No	**For Action by whom**	**Confirmation that the necessary action has been completed**	**Notes**
				gradeability AND Ensure that the transport vehicle and ramps are secured to prevent rolling/shifting AND Ensure that personnel who are responsible for loading & unloading the MEWP from vehicles are properly trained for the task.	Yes Yes	MGMT MGMT		
11.4	Lifting the unit	Machine mass provided on nameplate. Machine mass listed in specifications. Lifting points provided and identified on MEWP chassis.	M	Ensure that only the designated lift points are used during lifting and that all rigging is appropriate for the task. AND Ensure that the MEWP is fully lowered and any extendible platforms are fully retracted.	Yes Yes	MGMT MGMT		
12	**Maintenance**							
12.1	Injury during hydraulic maintenance from pressurized sources	See 5.2 above.	M	Instruct persons to follow all precautions stated in manual. AND To follow established SWP's relating to hydraulic maintenance.	Yes Yes	MGMT MGMT		
12.2	Strains/sprains when removing or performing certain maintenance aspects of the Unit.		M	Establish appropriate work procedures for all anticipated maintenance issues arising AND Periodically review these SWP's.	Yes Yes	MGMT MGMT		
12.3	Persons may be injured as the result of poor maintenance and/or adjustment procedures.		M	Supplement the manuals with concise criteria in respect of : Hazard warnings as detailed herein and as identified during periodic safety assessments and updates as suggested in manual reviews	Yes	MGMT		

A	B	C	D	E	F	X	Y	Z
Hazard No.	**Hazard Description -** **(the situation or parts of plant which could cause injury or illness)**	**Is there any risk?** Describe the risk control measures ALREADY implemented	**Risk** L = Low M = Med. H = High E=Extreme	**Proposed SUPPLEMENTARY risk control measure**	**Are the control measures practicable?** Yes/No	**For Action by whom**	**Confirmation that the necessary action has been completed**	**Notes**
				AND Ensure that the unit is tested by a competent person prior to being returned to normal service after repairs and/or adjustment of critical components or systems.	Yes	MGMT		
12.4	Persons injured handling heavy or unsupported items		M	Instruct personnel in respect of proper maintenance procedures including the necessity to support items during maintenance.	Yes	MGMT		
12.5	Persons injured due to exposure to pinch points/shear points	Safety labels fitted to MEWP	H	Instruct personnel in respect of proper maintenance procedures.	Yes	MGMT		
12.6	Repair personnel crushed by falling platform during maintenance	Safety prop fitted. Warning decal fitted of danger of being crushed by scissor mechanism during maintenance.	H	Ensure personnel are trained in correct repair procedures	Yes	MGMT		
13	**Emergency Procedures**							
13.1	Injuries exacerbated as a result of incorrect emergency retrieval procedures	Instruction in manual [section 2.6]. Instruction decal fitted EWP. Simple manual lowering system.	H	Ensure that persons are available at ground level and are familiar with the operation of the controls to effect retrieval.	Yes	MGMT		
13.2	Injuries exacerbated as a result of insufficient communication procedures or equipment.		M	Establish and audit routine emergency procedures AND Ensure that all operators are equipped with portable communications equipment where necessary. AND Establish protocols and procedures to ensure a timely and appropriate response in emergencies. AND Ensure all operators report in when	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		

A	B	C	D	E	F	X	Y	Z
Hazard No.	**Hazard Description -** **(the situation or parts of plant which could cause injury or illness)**	**Is there any risk?** Describe the risk control measures ALREADY implemented	**Risk** L = Low M = Med. H = High E=Extreme	**Proposed SUPPLEMENTARY risk control measure**	**Are the control measures practicable?** Yes/No	**For Action by whom**	**Confirmation that the necessary action has been completed**	**Notes**
				attending site and on a routine basis thereafter.				
13.3	Injuries exacerbated as a result of working solo.		E	Ensure that workers do not work solo AND Establish protocols and procedures to ensure a timely and appropriate response in emergencies AND Ensure all operators report in when attending site and on a routine basis thereafter.	Yes Yes Yes	MGMT MGMT MGMT		
14	**Other**							
14.1	Persons injured using toxic chemicals or flammable materials in platform	See 10.4 above.						
14.2	Due to failure to observe or rectify safety upgrades from manufacturer	Note included in manual that checks of the SKYJACK website should be undertaken for service bulletins prior to performing quarterly or annual inspections [page 66].	H	Ensure that the owner of each machine is registered with the manufacturer. AND Periodically check the status in respect of safety bulletins or upgrades applying to the machine. AND Ensure that safety upgrades provided by the manufacturer are implemented. AND Ensure the manufacturer is advised when the machine is disposed of.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT		
14.3	Noise	Sound pressure level does not exceed 70 dBA	L	Ensure that if noise exceeds acceptable levels that either ear protection is worn and/or the operators are removed from the noisy environment.	Yes	MGMT		
14.4	Persons injured due to unrecognized hazard.	Preliminary Hazard ID prepared provided.	M	Update hazard ID as necessary or no later than required by governing	Yes	MGMT		

A	B	C	D	E	F	X	Y	Z
Hazard No.	**Hazard Description -** **(the situation or parts of plant which could cause injury or illness)**	**Is there any risk?** Describe the risk control measures ALREADY implemented	**Risk** L = Low M = Med. H = High E=Extreme	**Proposed SUPPLEMENTARY risk control measure**	**Are the control measures practicable?** Yes/No	**For Action by whom**	**Confirmation that the necessary action has been completed**	**Notes**
				legislation AND Implement Risk control measures as necessary having regard to the hierarchy of control measures available.	Yes	MGMT		

[i] The risk is considered higher on this model platform as the unit has a load sensing system; the emergency retrieval is manual and only available at ground level.

NOTES:

1. SKJ: Refers to SKYJACK Australia PTY LTD.
2. MGMT: Refers to the person legally responsible for the use of the unit; it generally means the employer, the company or the legal entity that has responsibility under the Health and Safety legislation in the State or Territory in which the unit is being used.
3. OP: Is the operator, authorised by management and responsible for the operation and preoperational inspection and use of the unit.
4. OWNER: Is the person or organisation that owns the unit and is responsible for its condition and state of repair.

GENERAL NOTES:

1. *This Risk Assessment has been prepared for SKYJACK Australia for the subject plant and is not transferable to other plant or parties.*

2. *Item Numbers refer to hazards, which can exist if the unit is not adequately maintained – e.g. Guards not fitted, gauges fail to correctly display readings etc. The measures listed to control risks arising from this type of hazard can include reference to operating procedures. Operating Procedures cannot make the operator responsible for inadequate maintenance/repairs etc but is only intended to ensure that the procedures include the need for the operator to report any faults detected.*

3. *This Hazard Identification and Risk Assessment document has been prepared based on information available at the date of publication. In order to ensure this Hazard Identification, Risk Assessment, Risk Control document is* ***both accurate and complete;*** *—Management of the Unit‖ must review it:*

(a) According to the particular circumstances under which the plant and/or process is used and maintained,

(b) As new hazards are identified or as risks are re-assessed,

(c) As new or revised control measures are implemented,

(d) As and when work procedures are altered.

Although every attempt has been made to identify reasonably foreseeable circumstances, no guarantee as to the completeness of this assessment is implied or provided.

4. *-Preliminary‖ is placed in this document to indicate that the Controls listed in* ***Columns C and E*** *are a practicable way of controlling the risks arising out of the Hazards listed in* ***Column B****. -Preliminary‖ status remains in place until the -Management of the Unit" agrees that the assessment is complete and that the controls proposed are practicable.*

5. ***Column Y has*** *been provided on the document to allow the —Management of the Unit‖ to record that their Hazard Identification, Risk Assessment, and Risk Control process has been completed and that all controls are in place and operating. When* ***Column Y*** *is completed, the document becomes a record of the completeness of the process and the documentation (subject to any changes which need to be further reviewed in accordance with Item 3 above).*

6. *The use of the word —AND‖ or —&‖ in the supplementary risk control measure column is intended to mean that the combination of risk control measures are to be implemented on the whole not in part.*

7. *The determination of risk, column D, is a subjective assessment based on the following factors: exposure – the number of times humans are exposed to the risk, the probability of the hazard arising, and the consequence of the hazard – death or serious injury.*

Risk Management

Risk management is a five-step process for controlling exposure to health and safety risks associated with hazards in the workplace.
To properly manage exposure to risks, a person must:

(a) Identify hazards;
(b) Assess risks that may result because of the hazards;
(c) Decide on appropriate control measures to prevent or min
(d) imise the level of the risks;
(e) Implement control measures; and
(f) Monitor and review the effectiveness of the measures.

Hazards and risks are NOT the same thing.
*A **hazard** is something with the potential to cause harm. This can include substances, plant, work processes or other aspects of the work environment.*
***Risk** is the likelihood that death, injury or illness might result because of the hazard.*

As examples:

• The hazard is electricity—the risk is the likelihood that a worker might be electrocuted because of exposure to electrical wires that are inadequately insulated.
• The hazard is a 40 kg bag—the risk is the likelihood that a worker might suffer back strain from manually lifting 40 kg bags.
• The hazard is carbon monoxide—the risk is the likelihood that a worker might suffer carbon monoxide poisoning because they are using a petrol-operated pump in a well.

When undertaking risk management:

(a) Involve workers in the process; (it is legal requirement that all stakeholders are consulted)
(b) Don't use it to justify a decision that has already been made;
(c) Consider good industry practice; and be aware of the current State of Knowledge in relation to the hazard
(d) Record any risk management activities undertaken.

Under the relevant Workplace Health and Safety Acts, to properly manage exposure to risks, a person should consider the appropriateness of control measures in the following order (sometimes referred to as the 'Hierarchy of Control'):

(a) Eliminating the hazard or preventing the risk; or
(b) If eliminating the hazard or preventing the risk is not possible, minimising the risk by measures that must be considered n the following order:

(i) Substituting the hazard giving rise to the risk with a hazard giving rise to a lesser risk;
(ii) Isolating the hazard giving rise to the risk from anyone who may be at risk;
(iii) Minimising the risk by engineering means;
(iv) Applying administrative measures; and
(v) Using personal protective equipment.

Examples of subparagraph (iii)—redesigning work, plant, equipment, components or premises.
Examples of subparagraph (iv)—training, reasonable hours of work.

The higher in the hierarchy of control, the better and more reliable the control is. In practice, several control options are often used in combination. Personal protective equipment is usually used in conjunction with other control measures.
Control measures must be implemented before work commences.

Risk Ranking Matrix

CONSEQUENCES TABLE

Level	Descriptor	Examples
1	Insignificant	No injuries, low financial loss
2	Minor	First aid treatment, on-site release immediately contained, medium financial loss
3	Moderate	Medical treatment required, on-site release contained without assistance, high financial loss
4	Major	Extensive injuries, loss of production capability, off-site release with no detrimental effects, major financial loss
5	Catastrophic	Death, toxic release off-site with detrimental effect, huge financial loss

NOTE: Measures used should reflect the needs and nature of the organisation & activity under study, e.g.in high risk industries multiple fatalities and fatalities may be separated into several levels.

LIKELIHOOD TABLE

Level	Descriptor	Examples
A	Very likely	Is expected to occur in most circumstances
B	Likely	Will probably occur in most circumstances
C	Moderate	Might occur at some time
D	Unlikely	Could occur at some time
E	Rare	May occur only in exceptional circumstances

NOTE: Measures used should reflect the needs and nature of the organisation and activity under study.

MATRIX TABLE

	Consequence				
Likelihood	Insignificant (1)	Minor (2)	Moderate (3)	Major (4)	Catastrophic (5)
Almost certain (A)	H	H	E	E	E
Likely (B)	M	H	H	E	E
Moderate (C)	L	M	H	E	E
Unlikely (D)	L	L	M	H	E
Rare (E)	L	L	M	H	H

The risk level read from the matrix defines the priority for action or the importance for review. Again the actions required for a particular risk level should be customized to the particular circumstances.
Possible actions are:
E= Extreme risk—consider stopping work (who decides which boxes contain E?)
H= High risk—should be reduced as soon as possible.
M= Moderate risk—management responsibility and action dates must be specified
L= Low risk—manage by routine procedures
The matrix suggests four different action levels but could equally be divided into a larger number of priority levels. There is merit in assigning all events that have the potential for a fatality priority 1 unless they are so unlikely that they are not expected ever to occur. This ensures that controls for preventing fatalities receive priority attention even where they are believed to be good.

Notes on using the matrix method
The strengths of this method are:
• The analysis provides a ranking of risk.
• The method encourages the risk analyst or team to understand the hazard in order to rank the significance of the risk.

The major problems involved in applying such a method are:
• People guess levels of likelihood and consequence without sufficient analysis of the hazard or existing controls.
• The analysis methodology is applied to a risk where the circumstances of occurrence are rare. For example, suppose a person was exposed to a hazard for a short period of time, once every 10 years. Suppose also that that hazard was almost certain to cause fatality upon each exposure. It would be incorrect to use a simple methodology whereby the likelihood of the consequences was ranked relatively lowly at once in 10 years. In that particular example the likelihood of fatality is certain once exposure occurs. An amended methodology will be required to deal with those circumstances such as the fine risk score calculator described in B10, below.
• Since judgements of consequences and likelihood are highly subjective the matrix does not work well as a decision tool, particularly concerning the need for action on high consequence low probability risks.

WARNING

The risk ratings used in this document are intended to stimulate discussion from the parties affected by the use of the subject machine; they shall not be adopted as the most appropriate risk rating without sufficient consideration by the designer, manufacturer, management or user of the plant.