



RISK ASSESSMENT OF PLANT

DATE OF ASSESSMENT: 13-04-17	PLANT MODEL: SJ86T	ORGANISATION: SKYJACK AUSTRALIA
PRELIMINARY ASSESSMENT FOR REVIEW	RISK ASSESSMENT METHOD USED: SAFETY REVIEW	ADDRESS: 4 COATES PL, WETHERILL PARK, NSW

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.

This document is not to be interpreted as a compliance assessment; a separate verification should be undertaken on items of plant to determine if they comply with all relevant Australian Standards.

Please consult the relevant Work Health Safety Regulations for information regarding obligations of parties to conduct their own risk assessment. This risk assessment has been prepared on behalf of the organisation listed above and cannot be used by other parties to discharge any duties they may have under relevant law.

Documentation

Operators manual: 169370AA-A July 2016
Service manual: 170454AC March 2016

Description

Type 3 Group B Self-propelled Non-insulated
Sound power level 112 dB

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.

LIKLIHOOD 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

Likelihood	Consequence				
	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.

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
- 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 MEWP; they shall not be adopted as the most appropriate risk rating without sufficient consideration by the designer, manufacturer, management or user of the plant.

NOTES:

- | | | |
|---|---------|---|
| 1 | SKYJACK | 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, authorized by management and responsible for the operation and preoperational inspection and use of the unit. |
| 4 | MGMT/OP | Is a combination of both management and operators. |
| 5 | MEWP | The term MEWP refers to the Mobile Elevating Work Platform. |

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
- 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 H 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 H 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 minimise the level of the risks;*
- (d) Implement control measures; and*
- (e) 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 in 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 ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
0	General – Device selection and use								
0.1	Persons could be injured when following a poor system of work in relation to the operation of this device.	Operating and service manuals provided, part number 169370AA-A July 2016 & 170454AC March 2016 which includes maintenance instructions, detailing specifications, limitations and residual hazards associated with the operation of the machine. Provision for operators manual storage included on the platform.	D	3	M	Prepare a documented system of work having regard to the operating specification and limitations as detailed in the owners operating manual. Verify that the procedure (including maintenance) covers all modes of operation of the MEWP and is a practicable solution. Instruct and train the operator in its use. Ensure operator's manual is with the MEWP at all times.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT	
0.2	Persons could be injured if the device is not suitable for the required task.	Standard machine specifications included in the operators manual [page number(s) 64 - 66].	D	3	M	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. Source another MEWP if the specifications do not match the requirements for the task.	Yes Yes	MGMT/OP MGMT/OP	
0.3	Persons could be injured or injure others when operating the unit without sufficient information, instruction, training and supervision.	Operating and service manuals provided, part number 169370AA-A July 2016 & 170454AC March 2016 which includes maintenance instructions, detailing specifications, limitations and residual hazards associated with the operation of the machine. Warning in manuals [page number 11] that the MEWP is only to be used by authorised personnel who have been trained with respect to the operation of this model. Warning in operator's manual [page number 6] that only personnel who have read and understand the operating instructions contained within the operator's manual are permitted to use the MEWP.	D	3	M	Ensure that all Standard Work Procedures (SWP's) are effectively implemented. Ensure that the operator(s) have read and understand the training and instructions (which must include Manufacturer's and local information). Ensure that the MEWP is only operated by personnel who possess the necessary high risk plant license.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
0.4	Injury as a result of site specific hazards.	List of typical site specific hazards to be checked is included in the operator's manual [page number(s) 7-9]. Typical site specific hazards which include: support surface conditions, holes or drop-offs, soft ground, hidden underground pipes, slippery surfaces, overhead obstructions, overhead electrical wires, trees, pedestrian traffic, motor vehicle traffic, other machinery operating in the vicinity, external noise. AS2550.10 – 2006 section 4 includes a list of site checks to be undertaken by the operator. Warning in operator's manual [page number 10] that a survey of the work area should be performed for hazards such as bumps, holes, drop-offs or debris prior to operation.	C	4	E	Implement appropriate training to enable operators to identify particular hazards that may be encountered at the site and implement actions to ensure that they are addressed by appropriate means. Ensure that operators are aware of the requirements of AS2550.10. Ensure a site hazard assessment is conducted before use on each site. Ensure appropriate systems are implemented to eliminate the hazards or adequately control the risks associated with the hazards identified. Ensure operators feedback information relating to new hazards they have identified so they may be reviewed and implemented in a training package. 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 Yes Yes	MGMT MGMT/OP MGMT/OP MGMT OP OP	
0.5	Injuries exacerbated as a result of working solo.	Instructions provided in AS2550.10 – 2006 clause 5.14 regarding the assistance that shall be available from ground support personnel prior to operation. Instructions in operator's manual [page number 46] regarding the dangers of working solo and recommendations that ground personnel who are trained in the emergency retrieval procedures are present.	D	4	H	Ensure that workers do not work solo. If not practicable ensure that all operators working solo are equipped with portable communications equipment. Establish protocols and procedures to ensure a timely and appropriate response in emergencies in accordance with AS2550.10 requirements. Ensure all operators report in when attending site and on a routine basis thereafter.	Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP OP	
0.6	Due to failure to observe or rectify safety upgrades from manufacturer.	Manufacturer maintains a database of who owns which model MEWP.				Ensure that the MEWP is registered with the manufacturer.	Yes	MGMT	

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	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		Instructions included in operators manual [page number 5] regarding transfer of ownership procedures.	C	3	H	Periodically check the status in respect of safety bulletins or upgrades applying to the MEWP. Ensure that safety upgrades provided by the manufacturer are implemented. Ensure the manufacturer is advised when the MEWP is disposed of or sold.	Yes Yes Yes	MGMT MGMT MGMT	
0.7	Persons injured due to unrecognized hazard.	Preliminary Hazard ID prepared and provided for review.	C	3	H	Update hazard ID as necessary (see notes on page 1). Implement risk control measures having regard to the hierarchy of control measures available. Regularly review Hazard ID and update as required.	Yes Yes Yes	MGMT MGMT MGMT	
0.8	Personnel are injured due to unauthorised use.	Key switch provided in accordance with AS1418.10 – 2011 clause 2.2.14. Instructions provided in operator's manual [page number 7] to secure the MEWP when not in use against unauthorised use. Battery cut-out switch provided. Warning in operator's manual not to leave the MEWP unattended with the key in the key switch [page number 9].	E	3	M	Ensure that workplace procedures are established regarding securing the MEWP at the end of each day. Ensure that the MEWP is secured against unauthorised use at the end of each shift or when it is left unattended.	Yes Yes	MGMT/OP OP	
0.9	Injuries exacerbated as a result of incorrect emergency retrieval procedures.	Emergency retrieval procedures are detailed in the operator's manual [page number 45]. Decal fitted adjacent to the emergency controls explaining the operation [part number 170575AAZZ]. Instructions in the operator's manual [page number 34] to check the operation of the emergency controls on a daily basis.	D	3	M	Ensure operators are trained in emergency retrieval and operation. Ensure that refresher training is undertaken by operators on a regular basis. Ensure that ground personnel are present who are trained in the emergency lowering procedures.	Yes Yes Yes	MGMT/OP MGMT MGMT/OP	
1	Mechanical hazards (due to events that may arise during normal operation)								
1.1	Crushing hazard								
1.1.1	Operator is crushed or suffers impact injury as a result of operation – either travelling or raising.	Operator's positions located away from mechanical hazards in accordance with AS1418.10 – 2011 clause[s] 2.6.2 & 2.6.4. Both control positions affords the operator visual contact with all resulting movements of the lifting mechanism, platform and chassis. Platform controls are arranged so that the operator must be standing in front of the control panel to actuate travel control functions. Warning in operator's manual [page number 8] to avoid overhead obstructions or other possible hazards around MEWP when lifting or driving.	D	3	M	Ensure that operators, observe the surroundings and move at appropriate speeds. Ensure that ground personnel are available to observe and take corrective action if necessary. Ensure they are familiar with emergency operation procedures detailed in the operators manual. Ensure traffic management system is imposed on job site whilst MEWP is travelling. Ensure ground personnel are present to warn operator against potential obstructions.	Yes Yes Yes Yes Yes	OP MGMT/OP MGMT/OP MGMT/OP MGMT/OP	
1.1.2	Operators crush injury due to inadvertent operation.	Function enable switch provided which must be pressed and held for controls to be activated (two separate actions required for movement to take place). All controls are of the hold to run type and return to neutral on being released. Upper & Lower controls require two deliberate and simultaneous actions by the operator before they function. The platform controls are positioned within the platform guard rails at least 50mm below the top guard rail. The direction of movement resulting from each control is clearly marked beside the control and controls are arranged for logical operation as far as possible. Comprehensive instructions are provided in the operator's manual [page number(s) 15-20] regarding the control functions. Illustrations of decals for controls in operator's manual [page number(s) 70 - 92]. All instructions are given in English.	E	3	M	Ensure that operators, observe the surroundings. Ensure that operators check to see if the area beneath the platform is clear before lowering. Ensure the operator checks above before raising and/or driving the platform.	Yes Yes Yes	OP OP OP	

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	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
1.1.3	Operator crushed between platform and overhead obstruction while raising the platform.	Controls are fitted in the platform to provide the operator with a clear line of sight of the intended path of the platform. Mechanical guard fitted to protect operator from collisions with overhead obstructions. Warning in operator's manual [page number 8] to avoid overhead obstructions or other possible hazards around MEWP when lifting or driving.	E	3	M	Ensure that personnel are trained with respect to this hazard. Ensure that personnel are trained to look in the direction of travel. Ensure that only trained personnel are permitted to operate the MEWP. If necessary ensure additional ground personnel are present to observe and warn operators against potential obstructions. Ensure a safe work method statement is prepared if the MEWP is to be engaged in operations where overhead hazards exist.	Yes Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP MGMT/OP MGMT/OP	
1.1.4	Operator's hands crushed between the platform and obstructions while operating the lifting mechanism or travelling.	Platform controls positioned within the confines of the platform. Proportional controls used to enable precise platform movement when controls are activated. Platform is fitted with hand holds within the platform. Warning in the operator's manual that personnel are to keep all body parts within the confines of the platform [page number 8].	D	3	M	Ensure that personnel are trained with respect to this hazard. Ensure additional ground personnel are present to observe and warn operators against potential obstructions. Ensure that personnel are trained to look in the direction of travel.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
1.1.5	Operator crushed as a result of uncontrolled motion while moving MEWP on slope.	Brakes fitted to two wheels, which complies with the requirements of AS1418.10 – 2011 clause 2.2.12. Brakes designed and tested to achieve the stopping distances in accordance with AS1418.10 – 2011 clause 2.2.16. Theoretical gradeability limits in the operator's manual [page number 64]. Operation of the tilt alarm is included in the operators manual [page number 18]. Warning in the operators manual [page number 7] not to drive elevated on a slope. Theoretical gradeability limits listed on the serial plate. Instructions provided in operator's manual [page number 60] on how to recover from an inclined position.	E	4	H	Ensure that the MEWP is not operated on slopes which exceed the limits listed in the manual and on the data plate. Ensure that the gradeability limits are not exceeded when operating the MEWP.	Yes Yes	OP OP	
1.1.6	Operator crushed as a result of MEWP sliding down a ramp or other slippery surface.	Instructions and precautions included in operator's manual for loading onto trucks [page number 58]. Warning in the operators manual [page number 7] not to drive elevated on a slope. Warning in operator's manual [page number 9] not to operate on slippery surfaces not capable of providing traction to stop, drive or steer the MEWP.	D	4	H	Ensure operators are well trained in regards to the potential hazard. Ensure MEWP is not set up on ramps or other slippery surfaces.	Yes Yes	MGMT/OP OP	
1.1.7	Ground personnel crushed whilst machine is operating during normal use.	Rotating/strobe lights are fitted to increase the visibility of the MEWP. Motion alarm (beeper) is fitted which sounds when the MEWP is in motion. MEWP painted bright colour to increase visibility. Platform floor has perforations which allow vision of the area below. Control positions provide the operator with visual contact with the resulting platform movements. Warning in operator's manual [page number 8] not to lower the platform unless the area below is clear of personnel and obstructions. Warning in operator's manual [page number 8] to ensure there are no personnel or obstructions in the path of travel, including blind spots.	D	3	M	Ensure that the area around the MEWP is controlled and barricaded. Ensure that ground personnel keep clear of the MEWP while it is in operation. Ensure that personnel are trained with respect to this hazard. Ensure that personnel do not enter the area underneath the platform.	Yes Yes Yes Yes	MGMT/OP OP MGMT OP	
1.1.9	Operator located on the ground crushed while operating the travel controls – type 2 or 3 MEWP.	Travel controls only provided at platform controls (type 3 MEWP). Travel controls are variable speed and can be switched to turtle speed.	D	3	M	Ensure that travel controls are switched to slow speed before operation. Ensure that operators follow all instructions and precautions offered in the operator's manual regarding the use of the travel controls.	Yes Yes	OP MGMT/OP	

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	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
1.1.10	Persons injured whilst performing maintenance.	Routine maintenance is able to be performed at ground level without the need to raise the elevating structure and platform. Instructions are provided in the maintenance manual for changing tyres. Detailed instructions provided in maintenance manual which covers all anticipated repairs and maintenance items. Warning in maintenance manual to ensure personnel are clear from under unsupported components/systems that are at risk of movement during maintenance.	D	3	M	Ensure personnel are trained in correct repair procedures. Ensure that personnel are trained with respect to the residual hazard. Ensure that personnel do not enter the area under the platform if it is not adequately supported. Provide equipment to prevent platform falling such as overhead crane. Ensure that all appropriate equipment is supplied and used when performing maintenance.	Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT MGMT/OP	
1.1.11	Persons injured whilst handling heavy or unsupported items.		D	3	M	Train operators to be aware of these hazards. Provide necessary equipment to handle heavy items. Ensure that only trained personnel are permitted to perform maintenance on the MEWP.	Yes Yes Yes	MGMT MGMT MGMT	
1.2	Shearing hazard								
1.2.1	Personnel injured due to shear hazard at elevating mechanism (booms, mast, articulating arms etc.).	Joint member clearances as per AS1418.10 clause 2.3.4. Warning decals fitted at shear hazard locations [decal part number 137988AC]. Operator located away from hazard during normal operation. Guards fitted at various high risk locations on the machine. Audible alarm fitted which sounds whenever the platform is lowering.	D	3	M	Ensure personnel are trained and aware of this hazard. Ensure that all guards are in place before operation. Ensure that personnel keep clear of moving parts whilst the MEWP is in motion.	Yes Yes Yes	MGMT/OP OP OP	
1.2.2	Personnel injured due to shear hazard around platform rotation mechanism.	Warning decals fitted at shear hazard locations [decal part number 137988AC]. Clearance distance provided as per AS1418.10 clause 2.3.4. Operators in work platform are located away from the hazard area.	E	3	M	Ensure that personnel keep clear of the platform whilst it is being rotated. Ensure that personnel are trained with respect to this residual hazard.	Yes Yes	MGMT/OP MGMT/OP	
1.2.4	Shear hazard to personnel closing guards or engine covers or battery doors.	Warning decals fitted at shear hazard locations [decal part number 137988AC]. Gas strut provided to assist in supporting the mass of the cover. Handles provided on the guard/cover.	D	3	M	Ensure that operators are aware of the residual risks.	Yes	MGMT/OP	
1.3	Cutting or severing hazard								
1.4	Entanglement hazard								
1.4.1	Ground personnel become entangled in slew drive mechanism.	Warning decals fitted at shear hazard locations [decal part number 137988AC]. Slew drive mechanism located away from normal operator access.	E	3	M	Ensure that personnel keep clear of the turret area whilst the MEWP is in operation.	Yes	OP	
1.5	Drawing-in or trapping hazard								
1.6	Impact hazard								
1.6.1	Impact injury to personnel from MEWP collision with vehicular traffic.	Rotating/strobe light fitted to increase the visibility of the MEWP to other machines and vehicles on site. MEWP painted in bright colours to increase its visibility. An audible alarm sounds whenever the MEWP is in motion. Warning in operator's manual [page number 10] to be aware of moving equipment in the area and to take appropriate action to avoid collisions. Warning in operator's manual [page number 5] that operator's are required to conform to national, state or territorial/provincial and local health and safety regulations applicable to the operation of the MEWP.	E	3	M	Implement a traffic management system. Ensure that the rotating light is used whenever the machine is in motion. Ensure a traffic management system is enforced, should the MEWP be exposed to vehicular traffic.	Yes Yes Yes	MGMT OP MGMT/OP	

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Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
1.6.2	Impact injury to operator caused by uncontrolled movement of booms due to failure of slew drive/mechanism.	Slew drive/mechanism is designed to prevent inadvertent motion, slew brake is fitted. Turret lock retaining pin fitted to secure turret when transporting. Instructions provided in operator's manual [page number 59] for use of locking pin.	E	3	M	Ensure that platform is not overloaded. Ensure that MEWP is maintained in accordance with the manufacturer's instructions. Ensure turret is locked for transport.	Yes Yes Yes	OP MGMT/OP OP	
1.6.3	Impact injury to operator as result of incorrect travel direction.	Direction labels fitted to platform controls and chassis. Explanation of system operation in operators manual [page number 54]. Warning in operators manual [page number 54] that direction of travel is reversed when turret is rotated more than 90°.	D	3	M	Train operators to be aware of these hazards. Ensure operators are familiar with the system and to follow/observe the direction arrows on the MEWP.	Yes Yes	MGMT/OP OP	
1.7	Stabbing or puncture hazard								
1.8	Friction or abrasion hazard								
1.8.1	Operator is dragged along the ground while operating the travel controls.	Lower controls only control the extending mechanism of MEWP (type 3 MEWP).	E	1	L	Ensure operators are clear from ground controls when travel operation is to occur.	Yes	MGMT/OP	
1.9	High pressure fluid injection hazard								
1.9.1	Injury as a result of a high pressure hydraulic leak while operating or maintaining the MEWP.	Operator is located away from hydraulic components. A pressure relief valve is installed which limits the maximum system pressure. Pipes and connections designed for twice maximum pressure. Burst pressure of hoses at least three times the maximum pressure. All other components are designed to withstand the pressures they are likely to experience including, during set-up, testing, inspection and normal maintenance. A pressure gauge connection port is provided on the manifold block allowing maintenance personnel check and set the pressure relief valve correctly. Warning in service manual regarding the danger of injury from injection of high pressure hydraulic fluid [page number 8]. Warning in service manual [page number 7] that only trained personnel are permitted to service MEWP.	D	3	M	Ensure that personnel are properly trained and aware of the hazard. Ensure that hoses and pipes are replaced with suitably rated items when required. Ensure that the correct pressure setting is maintained as per the operation manual instructions. Ensure that personnel are trained with respect of this hazard and do not place hands or other body parts in front of escaping hydraulic fluid. Ensure that SWP's for maintenance include first aid requirements for such injuries.	Yes Yes Yes Yes Yes	MGMT MGMT/OP MGMT/OP MGMT/OP MGMT/OP	
1.10	Ejection of parts								
1.11	Loss of stability (of machinery and machine parts)								
1.11.1	Load bearing cylinder collapses due to inelastic stability (buckling) due to overload.	Cylinders are assessed in accordance with AS1418.10 – 2011 clause 2.9.1.2.1. MEWP fitted with load sensing system designed to prevent overloading due to vertical loads. Details of load sensing system provided in operator's manual [page number(s) 14]. The maximum rated capacity is listed in the operator's manual [page number 66]. The maximum rated capacity is displayed on the platform [decal part number 169748ABZZ]. Warning in operator's manual [page number 9] not to exceed the rated capacity of the MEWP.	E	3	M	Ensure preoperational checks are performed in accordance with those outlined in operators manual. Ensure that any faults are reported directly to management and machine is withdrawn from service. Ensure MEWP is not overloaded during operation.	Yes Yes Yes	MGMT OP OP	
1.12	Slip, trip and fall hazards								
1.12.1	Operator falls whilst accessing the platform.	Access ladder providing access to the platform is provided in accordance with AS1418.10 – 2011 clause 2.5.8. Note in manual to use care when accessing and egressing from the platform and to use three points of contact [page number 10]. Warning in manual stating that operator should only enter or exit platform from the ground only [page number 10].	C	2	M	Ensure operators maintain 3 points of contact when accessing the platform. Ensure that the platform is only entered or exited when it is fully lowered. Ensure operators a physically capable of operating the MEWP, including being able to enter and exit the work platform, without endangering themselves or others.	Yes Yes Yes	OP OP MGMT/OP	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
						Ensure that the steps and/or access ladder is maintained as per the manufacturer's instructions.	Yes	MGMT/OP	
1.12.3	Operator falls through the platform access opening.	Platform gate designed in accordance with AS1418.10 – 2011 clause 2.5.6 and is self-closing and latches in the closed position. Notes in manual [page number (various)] that gate is to be securely latched when not in use. Gate opens inwards. Inspection schedule includes regular checks of proper gate operation [page number 27]. Harness anchorage points installed in platform. Instructions for use of fall restraint harness and lanyard provided in operator's manual [page number 10]. Warning in operators manual [page number 7] to stay within the boundaries of the guardrails.	E	4	H	Instruct operators to wear fall restraint/arrest harness' at all times when in the platform and to attach the fall restraint/arrest lanyard to the anchor point provided. Ensure harness and lanyards are in proper condition. Ensure that personnel do not exit the platform except at ground level. Audit use. Ensure gate is maintained in accordance with manufacturers instructions. Ensure MEWP is not used if gate is faulty.	Yes Yes Yes Yes Yes Yes	MGMT MGMT/OP MGMT/OP MGMT MGMT/OP MGMT/OP	
1.12.4	Operator falls through the guard rails on the work platform.	Guardrail system designed in accordance with AS1418.10 – 2011 clause 2.5.4. Pre-operation inspections listed in the operator's manual [page number 27] include checks of the guard rails. Warning in operators manual [page number 7] to stay within the boundaries of the guardrails.	D	4	H	Ensure that operator egress at heights is prohibited unless in an emergency and there is a safe means to do so. Ensure that the operator does not egress from the platform at height unless secured via a twin lanyard assembly to a secure anchor point on a fixed structure. Refer to requirements per AS2550.10, see clause 5.9 and figure 5.9[B].	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
1.12.5	Operator falls from platform because of the use of step ladders or stools in the work platform.	Warning in the operator's manual [page number 8] that ladders and/or stools are not permitted to be used in the work platform. Warning in operator's manual [page number 8] not to sit, stand or climb on guard rails. Requirements per AS2550.10.	E	4	H	Ensure that operators do not use any means to gain additional height. Ensure the correct MEWP in terms of rated capacity, height and reach is used for the particular task at hand.	Yes Yes	MGMT/OP MGMT/OP	
1.12.7	Personnel fall whilst performing maintenance checks.	Pre-operational checks able to be performed at ground level. Maintenance manual provided which details all checks and the residual hazards.	E	3	M	Ensure that appropriate equipment is used during maintenance where access at height is required.	Yes	MGMT	
1.12.10	Personnel slip on platform floor.	Platform floor has a non-slip surface.	D	2	L	Ensure the work platform floor is clear of debris and clean. Ensure that any damage is repaired immediately.	Yes Yes	MGMT/OP MGMT	
2	Electrical hazards								
2.1	Electrical contact (direct or indirect)								
2.1.1	Persons could be injured due to contact or approach to live overhead electrical apparatus.	Warning sign fitted at platform in accordance with AS1418.10 – 2011 clause 4.2.2 (f), that MEWP is uninsulated. Safe approach distances are listed in the operator's manual [page number 6] which are consistent with AS2550.10 requirements. Warning in operators manual [page number 6] not to operate near power lines and to maintain minimum safe approach distances. Legislative requirements to maintain clearances. Warnings and instructions in AS2550.10 – 2006 clause 5.8. Clearance distance decals [part number 161631] are fitted at both control stations.	D	4	H	Ensure that No-go zones and/or clearances and conditions permitted according to local regulation are observed. Ensure that safety decals and warnings are maintained as per requirements listed in the operating instructions. Ensure that operators are trained with respect to the hazard posed by overhead electrical conductors and equipment. Ensure spotters are present to warn operator of getting too close to overhead conductors.	Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP MGMT/OP	
2.1.3	Persons could be injured if the unit is operated while in a confined space forcing reduced clearances.	Safe approach distances are listed in the operator's manual [page number 6] which are consistent with AS2550.10 requirements. Warning in operators manual [page number 6] not to operate near power lines and to maintain minimum safe approach distances.	D	4	H	Establish operating procedures to minimize risk when using machine in confined space. Review operating procedures routinely to ensure they can be maintained and followed. Instruct personnel in respect to the revisions made.	Yes Yes	MGMT/OP MGMT/OP	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		Clearance distance decals [part number 161631] are fitted at both control stations.				Revise procedures if necessary.	Yes	MGMT/OP	
						Instruct personnel in respect of revisions.	Yes	MGMT/OP	
2.1.4	Operator electrocuted as a result of conductive materials carried in basket/platform.	Warning in operators manual [page number 6] not to operate near power lines and to maintain minimum safe approach distances.	D	4	H	Ensure operators are trained with respect to the hazard.	Yes	MGMT	
						Ensure minimum safe approach distances are maintained.	Yes	OP	
						Ensure ground crew is presence to spot potential electrical hazards.	Yes	MGMT/OP	
						Ensure that conductive materials are not carried in the platform where overhead electrical hazards are located.	Yes	MGMT/OP	
2.2	Electrostatic phenomena								
2.3	Thermal radiation								
2.4	External influences on electrical equipment								
2.4.1	Control malfunction as a result of external influences.		E	3	M	Ensure that the MEWP is not used in environments which include strong electro-magnetic fields unless written approval is obtained from the manufacturer.	Yes	MGMT/OP	
3	Thermal hazards								
3.1	Burns and scalds by possible contact of persons with flames or explosions and also with radiation from heat sources								
3.1.1	While working in an explosive atmosphere.	Warning in operator's manual [page number 10] not to use in hazardous locations.	E	4	H	Ensure unit is not used in a hazardous environment unless it has been suitably modified by the manufacturer or a competent organisation.	Yes	MGMT/OP	
3.1.2	Personnel injured whilst refuelling MEWP.	Engine and fuel safety precautions included in operators manual [page number(s) 23 & 25]. Refuelling instructions provided in the operator's manual [page number(s) 57]. Fuel filler point is located away from heat sources in accordance with AS1418.10 – 2011 clause 2.2.20.	E	3	M	Ensure refuelling procedures listed in manual are followed when refuelling.	Yes	MGMT/OP	
3.1.3	Personnel suffer burns due to contact with hot engine components.	Engine is covered. Exhaust pipe is out of reach of the operator's position. Warning included in operators manual [page number 23] to take care around hot components.	E	2	L	Ensure that personnel are trained with respect to the residual hazard.	Yes	MGMT	
						Ensure the correct PPE is worn when handling hot components.	Yes	OP	
3.1.4	Personnel suffer burns due to contact with hot exhaust components.	Exhaust system is fitted out of reach of the operator in the normal operating positions.	E	2	L	Ensure that personnel are trained with respect to the residual hazard.	Yes	MGMT	
						Ensure the correct PPE is worn when handling hot components.	Yes	OP	
3.1.5	Operators suffer burns because of fire or explosion whilst carrying fuel or other explosive substances in platform.		E	3	M	Ensure no explosive materials or fuel is stored on platform during operation.	Yes	OP	
3.1.6	Personnel injured by fire or explosion while smoking in platform or around flammable liquids at worksite.	Warning provided in manual [page number 57] do not smoke in an area where MEWP's are stored or refueled.	E	4	H	Prohibit smoking on the jobsite.	Yes	MGMT	
						Ensure that personnel are trained and familiar with firefighting procedures.	Yes	MGMT/OP	
						Identify potential sources of fuel/hazard during site-specific hazard ID.	Yes	MGMT/OP	
3.2	Health-damaging effects from hot or cold work environment								
3.2.1	Operator injured due to extreme cold or hot temperatures.		C	2	M	Ensure operators are provided the appropriate PPE for the working environment.	Yes	MGMT	
						Ensure that the period of exposure is kept within acceptable levels.	Yes	MGMT/OP	
4	Hazards generated by noise								
4.1	Hearing loss (deafness), other physiological disorders (e.g. loss of balance, loss of awareness, etc.)								
4.1.1	Noise generated by machine causes hearing loss to operators.	The maximum guaranteed sound power level is [sound power level is less than 112 dB] and complies with the essential health and safety requirements of European Directives 2006/42/EC and 2004/108/EC. Warning in operator's manual [page number 6] regarding the use of PPE including ear protection.	C	2	M	Ensure that if noise exposure exceeds acceptable levels that either ear protection is worn and/or the operators are removed from the noisy environment.	Yes	MGMT/OP	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
4.1.2	Noise generated by machine causes hearing loss to bystanders.	The maximum guaranteed sound power level is [sound power level is less than 112 dB] and complies with the essential health and safety requirements of European Directives 2006/42/EC and 2004/108/EC.	C	2	M	Competent person to assess the noise impact on bystanders taking into consideration the environment and other machines operating nearby.	Yes	MGMT	
4.2	Interference with speech communication, acoustic signals, etc.								
4.2.1	Injuries exacerbated as a result of insufficient communication procedures or equipment on job sites where noise can affect communication.	The maximum guaranteed sound power level is [sound power level is less than 112 dB] and complies with the essential health and safety requirements of European Directives 2006/42/EC and 2004/108/EC.	C	2	M	Establish protocols and procedures to ensure a timely and appropriate response in emergencies.	Yes	MGMT	
						Ensure all operators report in when attending site and on a routine basis thereafter.	Yes	MGMT/OP	
4.2.2	Injuries occur due to poor or absent communication equipment.		C	2	M	Ensure that effective communication can be maintained in all instances where the unit is used.	Yes	MGMT/OP	
5	Hazards generated by vibration								
5.1	Vibration caused by machinery								
5.1.1	Vibration caused by MEWP.	The vibration measured at the upper limbs does not exceed 2.5 m/s ² (RMS) and the vibration exerted on the operator's body does not exceed 0.5 m/s ² (RMS).	C	2	M	Ensure that use of the machine in continuous shifts is limited to prevent operator fatigue which may result from exposure to machine vibration.	Yes	MGMT/OP	
6	Hazards generated by radiation								
6.1	Electrical arcs								
6.1.1	Operators suffer radiation burns caused by welding either from the platform or to the MEWP.	Warning in the manual [page number 6] forbidding the use of the MEWP as a grounds for welding.	C	2	M	Ensure that SWP's are developed and followed when using the MEWP for welding operations.	Yes	MGMT	
						Ensure that only trained personnel perform welding tasks.	Yes	MGMT/OP	
						Ensure that the correct PPE is worn by personnel performing welding tasks.	Yes	OP	
6.2	Lasers								
6.3	Ionizing radiation sources								
6.4	Machines using high-frequency electromagnetic fields								
6.4.1	Uncontrolled motions due to interference with control signal inputs or false input commands in high-frequency electromagnetic fields.		E	3	M	Ensure that the MEWP is not used in environments which include strong electro-magnetic fields unless written approval is obtained from the manufacturer.	Yes	MGMT/OP	
7	Hazards generated by materials and substances processed, used or exhausted by machinery								
7.1	Hazards resulting from contact with or inhalation of harmful fluids, gases, mists, dusts and fumes								
7.1.1	Persons could be injured if the unit is operated indoors without adequate ventilation.	Warning in operator's manual [page number 52] do not operate MEWP under engine power in an enclosed space. Use only in an open or well ventilated area.	D	4	H	Ensure that the unit is operated only in well-ventilated areas.	Yes	MGMT/OP	
7.1.2	Operator suffers injuries caused by inhalation of hydrogen gas from batteries.	Battery located away from operating positions. Instructions provided in operator's manual [page number 22] regarding the PPE which should be worn when working near batteries.	E	2	L	Ensure operators are made aware of the potential hazard.	Yes	MGMT	
						Ensure MEWP batteries are charged in well ventilated areas.	Yes	MGMT/OP	
						Ensure that only trained personnel conduct maintenance on or near batteries.	Yes	MGMT/OP	
						Ensure that proper maintenance procedures are implemented when working near batteries.	Yes	MGMT/OP	
						Ensure the correct PPE is worn by all personnel performing maintenance on batteries.	Yes	MGMT/OP	
						Ensure that personnel who are trained in first aid are readily available to render assistance if required.	Yes	MGMT/OP	
7.1.3	Personnel suffer skin irritations due to contact with operating fluids or materials used in the MEWP.	Instructions provided in operator's manual [page number 22] regarding the PPE which should be worn when working near batteries. List of suggested minimum PPE requirements listed in operator's manual [page number 7] for normal use of the MEWP.	D	2	L	Ensure operators are made aware of the potential hazard.	Yes	MGMT	
						Ensure appropriate PPE is worn by personnel.	Yes	OP	
7.2	Fire or explosion hazard								

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Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
7.2.1	Personnel injured while working in an explosive environment.	Warning in operator's manual [page number 10] not to use in hazardous locations.	E	4	H	Ensure operators do not work in an explosive environment unless MEWP has been modified for such work. Ensure operators are made aware of the potential hazard. Ensure appropriate PPE is worn by personnel.	Yes Yes Yes	MGMT/OP MGMT OP	
7.3	Biological and microbiological (viral or bacterial) hazards								
8	Hazards generated by neglecting ergonomic principles in machine design (mismatch of machinery with human characteristics and abilities)								
8.1	Unhealthy postures or excessive efforts.								
8.1.1	The position of the platform controls causes the operator to adopt an unhealthy posture.	Controls placed in an ergonomic location allowing ease of use by operator.	C	2	M	If the position of the controls causes discomfort to the operator ensure that they are moved to an appropriate position. Limit the length of shifts to a reasonable time.	Yes Yes	MGMT/OP MGMT/OP	
8.1.2	Excessive effort required to climb into work platform.	Platform can be lowered to within 400mm of the ground. Note in manual to use care when accessing and egressing from the platform and to use three points of contact [page number 10].	B	1	M	Ensure that operators always use 3 points of contact when entering and egress of the work platform. Ensure that access steps are maintained in good condition and repaired when necessary.	Yes Yes	MGMT/OP MGMT/OP	
8.2	Inadequate consideration of human hand-arm or foot-leg anatomy.								
8.2.1	Excessive effort required to activate control functions.	Effort required to activate controls is reasonable.	D	1	L	Ensure that undue force is not required to activate control functions. Limit the length of shifts to a reasonable time.	Yes Yes	MGMT/OP MGMT/OP	
8.3	Neglected use of personal protection equipment								
8.3.1	Persons could be injured due to exposure to UV.	List of suggested minimum PPE requirements listed in operator's manual [page number 7] for normal use of the MEWP.	C	1	L	Develop and provide specification for appropriate UV protection and its use. Provide UV protective equipment including hat, sunglasses and sunscreen. Instruct operators on the requirements for its use.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
8.3.2	Persons could be injured if equipment is operated while not wearing appropriate PPE.	List of suggested minimum PPE requirements listed in operator's manual [page number 7] for normal use of the MEWP. Requirement specified in AS2550.10 – 2006 clause 5.2.	C	2	M	Provide specification for appropriate PPE including gloves, safety glasses, hard hat and safety footwear as appropriate for the workplace. Instruct operators on the requirements for its use. Ensure appropriate PPE is worn.	Yes Yes Yes	MGMT MGMT OP	
8.3.3	Operator sustains damage to hearing due to not wearing ear protection in noisy environment.		C	2	M	Ensure that if noise exposure exceeds acceptable levels that either ear protection is worn and/or the operators are removed from the noisy environment.	Yes	MGMT/OP	
8.3.4	Operator could be injured if working in proximity to bright lights without sunglasses or equivalent.		C	2	M	Identify bright lights located on job sight and react accordingly with setting up of MEWP or wearing appropriate PPE. Ensure operators are provided with suitable PPE.	Yes Yes	OP MGMT/OP	
8.3.5	Operator or ground personnel injured because they are not wearing high visibility clothing.	List of suggested minimum PPE requirements listed in operator's manual [page number 7] for normal use of the MEWP. Requirement specified in AS2550.10 – 2006 clause 5.2.	C	2	M	Ensure operators are provided with appropriate PPE suitable for the given task. Ensure operators are wearing appropriate PPE suitable for the given task.	Yes Yes	MGMT/OP MGMT/OP	
8.4	Inadequate area lighting								
8.4.1	Persons could be injured if the light on the job site is inadequate.		C	2	M	Ensure lighting in job area is assessed by trained personnel prior to undertaking further machine operation. Monitor lighting levels throughout the operation of the MEWP, as lighting is prone to change relative to time of day.	Yes Yes	MGMT/OP OP	
8.5	Mental overload or under load, stress, etc.								
8.5.1	Persons could be injured if the operator's performance was inhibited by excessive fatigue.	Warning in operator's manual [page number 9] that MEWP is not to be operated if the operator's performance was inhibited by excessive fatigue.	C	2	M	Implement a system to ensure that operators do not work excessive or continuous shifts and manage peak demands. Ensure that operators do not continue use of the MEWP if they feel tired or are suffering from fatigue.	Yes Yes	MGMT/OP MGMT/OP	
8.5.2	Operator injured because they do not possess sufficient mental capabilities to operate the MEWP.		C	2	M	Ensure all personnel are trained with respect to machine operation.	Yes	MGMT	

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Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
	capacity to operate the MEWP.		C	2	M	Ensure only trained personnel are permitted to operate MEWP.	Yes	MGMT/OP	
8.5.3	Operator injured due to inattention from boredom.		C	2	M	Limit shift hours.	Yes	MGMT	
						Ensure rotation of operators during shift.	Yes	MGMT/OP	
8.6	Human error								
8.6.1	Operator or ground personnel injured due to "horse play" or inappropriate use.	Warning in the operator's manual [page number 8] stating MEWP should not engage in horseplay. Warning in manuals [page number 11] that the MEWP is only to be used by authorised personnel who have been trained with respect to the operation of this model. Instructions provided in operator's manual [page number 7] to secure the MEWP when not in use against unauthorised use. Warning in operator's manual [page number 6] that only personnel who have read and understand the operating instructions contained within the operator's manual are permitted to use the MEWP. Battery cut-out switch provided. Warning in operator's manual not to leave the MEWP unattended with the key in the key switch [page number 9].	C	2	M	Ensure operators do not engage in horse play or stunt driving.	Yes	MGMT/OP	
						Ensure that only properly trained and licensed personnel use MEWP.	Yes	MGMT/OP	
						Ensure that when not in use, the platform is secured against unauthorised use.	Yes	OP	
8.6.2	Persons could be injured if the unit is operated by persons under the influence of drugs and/or alcohol.	Warning in the operator's manual [page number 9] that the unit is not to be operated by persons under the influence of drugs and/or alcohol.	D	4	H	Ensure that operators do not use the MEWP while under the influence of alcohol or drugs.	Yes	MGMT/OP	
						Instruct the operator that operation while under the influence of alcohol or drugs are prohibited.	Yes	MGMT	
8.6.3	Persons could be injured if the operator's performance is inhibited by poor health or medication with side effects.	Warning in the operator's manual [page number 9] that the unit is not to be operated by persons whose performance is inhibited by poor health or medication with side effects.	C	2	M	Instruct the operator that he/she must report to the supervisor if suffering poor health and safe operating performance could be affected.	Yes	MGMT	
8.6.5	Personnel accidentally activate free-wheeling mode which causes MEWP to roll.	Freewheeling valve located under covers and not susceptible to inadvertent activation. Freewheeling requires pumping to release brakes. Instructions provided in operator's manual [page number 44] for brake release which includes all safety precautions.	E	3	M	Ensure that operators are trained to perform brake release.	Yes	MGMT/OP	
						Ensure operators follow the instructions provided in the manual.	Yes	OP	
9	Hazard combinations								
9.1	Injuries exacerbated as a result of insufficient procedures or equipment.	Emergency retrieval procedures are detailed in the operator's manual [page number 45]. Decal fitted adjacent to the emergency controls explaining the operation [part number 170575AAZZ].	E	4	H	Establish and audit routine emergency procedures.	Yes	MGMT	
						Display emergency phone numbers and contact procedures at the site in ready display to the appropriate personnel.	Yes	MGMT	
						Periodically verify emergency equipment and supplies.	Yes	MGMT	
9.2	Injuries caused due to improper procedures following contact with live conductors.	See AS2550.10 – 2006 clause 5.8.4 for correct procedures following contact.	E	4	H	Ensure that all personnel are trained and aware of the necessary procedures required following the accidental contact with live overhead conductors.	Yes	MGMT	
						Ensure that the unit is withdrawn from service and appropriately assessed by a competent person.	Yes	MGMT/OP	
						Immediately isolate the unit for 24 hours.	Yes	MGMT/OP	
10	Hazards caused by failure of energy supply, breakdown of machinery parts, and other functional disorders								
10.1	Failure of energy supply (of energy and/or control circuits)								
10.1.1	Operator trapped in an elevated position due to failure of main energy supply.	MEWP is fitted with an emergency system which does not rely on the primary power source to enable rescue if the operator becomes trapped in an elevated position due to failure of main energy supply. Emergency retrieval procedures are detailed in the operator's manual [page number 45]. Decal fitted adjacent to the emergency controls explaining the operation [part number 170575AAZZ].	E	2	L	Ensure operators are trained in the use of the emergency lowering systems.	Yes	MGMT/OP	
						Ensure that the emergency system is checked on a periodic basis.	Yes	MGMT/OP	
10.1.2	Personnel injured due to uncontrolled travel movement in case of failure of energy supply, e.g. brake failure.	Parking brake is spring applied hydraulic release in case of energy failure.				Ensure that the machine is maintained in accordance with the manufacturer's instructions.	Yes	MGMT/OP	

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	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		All solenoid valves return to the neutral position if power is lost. Maintenance manuals [part number 170454AC March 2016] prepared which cover all aspects of maintenance of the control and braking systems.	E	3	M	Ensure that the MEWP undergoes a pre-operational inspection prior to every use in accordance with the manufacturer's instructions. Ensure that the MEWP is not operated if any faults are detected during the pre-operational inspections.	Yes Yes	MGMT/OP OP	
10.2	Unexpected ejection of machine parts or fluids								
10.3	Failure/malfunction of control system								
10.3.1	Uncontrolled motions due to control system failure.	Emergency stop switches fitted at the control positions. Control systems designed in accordance with AS1418.10 – 2011 clause 2.6. Solenoid control valves stop movement on power failure. Pre-operational inspection includes functional test of controls.	E	3	M	Ensure that all pre-operational inspections are performed in accordance with the manufacturer's instructions prior to use. Ensure that all control system faults are logged and reported to service personnel. Ensure that the machine is not operated if any faults exist.	Yes Yes	MGMT/OP OP	
10.3.3	Personnel exposed to hazards because Load Sensing System has been disabled or is incorrectly adjusted.	Warning in operator's manual [page number 8] not to disable any safety device. System designed so that it cannot be easily disabled. Warning in operator's manual [page number 8] not to disable any safety device. Explanation of the load sensing system function is provided in the operator's manual [page number 14]. Decal fitted [part number 156613] which states do not alter limit switches.	E	3	M	Ensure load sensing system is not tampered with or disabled. Ensure load sensing system is checked at the regular intervals as detailed by manufacturer.	Yes Yes	MGMT/OP MGMT/OP	
10.4	Errors of fitting								
10.4.1	Personnel exposed to hazards due to incorrect fitting of components during manufacture.	Manufacturer has a quality assurance system in place which involves multiple checks of critical components during the manufacturing process. Production tests are conducted in accordance with AS1418.10 – 2011 clause 3.3 upon completion of manufacture.	D	3	M	Ensure that only qualified service personnel are charged with the maintenance of the MEWP. Ensure they follow the instructions provided in the repair manual.	Yes Yes	MGMT MGMT	
10.4.2	Personnel exposed to hazards due to incorrect fitting of components during repair.	Maintenance instructions provided which covers all anticipated aspects of maintenance required for MEWP. Hoses are cut to lengths which promote the correct fitting. Detailed instructions are provided in the maintenance section which covers correct hose fitting procedures.	E	2	L	Ensure that only qualified service personnel are charged with the maintenance of the MEWP. Ensure they follow the instructions provided in the repair manual.	Yes Yes	MGMT MGMT	
10.5	Overturn, unexpected loss of machine stability								
11	Hazards caused by (temporary) missing and/or incorrectly positioned safety- related measures/means								
11.1	All kinds of guards								
11.1.1	Personnel exposed to hazards within the engine area because guard on engine is missing.	Cover fitted over engine.	E	3	M	Ensure that guards are not removed, or altered without the written approval of the manufacturer. Ensure that covers are always in place prior to operation. Ensure that personnel keep clear of the turret area whilst the MEWP is in operation.	Yes Yes	MGMT/OP OP	
11.2	All kinds of safety-related (protection) devices								
11.2.1	Personnel exposed to hazards due to safety switches being overridden.	Warning in operator's manual [page number 8] not to disable any safety device. Decal fitted [part number 156613AA] which states do not alter limit switches. Safety devices are positioned to prevent easy access. Preoperational inspection includes a check that safety switches are properly secured with no signs of visible damage [page number 21].	D	3	M	Ensure that safety devices are not tampered with and are in good condition before use of machine. If any faults are discovered do not use machine until all faults are rectified.	Yes Yes	MGMT MGMT/OP	
11.2.2	Personnel exposed to hazards due to unauthorised alteration or interference.	Warning in operator's manual [page number 10] that the machine is not to be used if it has been modified or altered in any way without the written approval of the manufacturer.	F	3	M	Seek advice from the manufacturer or a competent person for all modifications/repairs considered during life of MEWP.	Yes	MGMT	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
						Ensure that no additions or alterations are performed on the platform without written approval from the manufacturer or their authorised agent in Australia.	Yes	MGMT	
11.3	Starting and stopping devices								
11.3.1	Emergency stop switches malfunction or missing components.	Emergency stop switches comply with AS1418.10 – 2011 clause 2.6.6. Check of emergency stop operation included in pre-start inspection. Emergency stop switches located at both control stations.	E	3	M	Ensure that the inspection checks are performed as per instructions in manual. Ensure that any malfunctioning components or systems are repaired prior to use. Ensure that emergency stop switches are present and function correctly before use of MEWP as per pre-start inspection.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
11.4	Safety signs and signals								
11.4.1	Personnel injured due to missing or illegible safety signs.	A list and description of all decals fitted to the MEWP is included in the operator's manual [page number(s) 70-92]. Warning in the operator's manual [page number 21] that all safety decals are to be in place prior to use of MEWP. Pre-operational checks include a check of all the safety decals.	E	2	L	Conduct pre-operational checks as described in manual. Maintain signs and replace as necessary. Ensure all decals are present and legible before using MEWP.	Yes Yes Yes	OP OP OP	
11.5	All kinds of information or warning devices								
11.5.1	Personnel are not provided with sufficient instruction because operations manual missing from MEWP.	Storage compartment fitted on the platform for manual. Manuals available from manufacturer's website.	E	2	L	Ensure the MEWP is supplied with all of the relevant operating manuals. Ensure that the operators check that the operations manual is present before operating MEWP.	Yes Yes	MGMT OP	
11.6	Energy supply disconnecting devices								
11.7	Emergency devices								
11.7.1	Emergency pump does not operate.	Instructions for use of the emergency pump included in the operator's manual [page number 32]. The function of the emergency pump is included in the periodic inspection requirements.	D	3	M	Ensure that operators are trained in the correct use of the emergency retrieval system. Ensure that the emergency pump is checked on a periodic basis in accordance with the manufacturer's instructions. Ensure that MEWP is stood down from service if the emergency system is not working properly.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
11.7.2	Keys have been removed from selector switch whilst personnel are elevated in platform.	Key can only be removed in the "off" or "ground controls" position.	E	2	L	Ensure that personnel do not remove the selector switch key unless the switch is in the "off" position and the platform is fully lowered.	Yes	OP	
11.8	Feeding/removal means of work pieces								
11.9	Essential equipment and accessories for safe adjusting and/or maintaining								
11.9.1	Strains/sprains when removing components or performing certain maintenance aspects of the MEWP.		E	3	M	Establish appropriate work procedures for all anticipated maintenance issues arising. Periodically review these safe work procedures (SWP's).	Yes Yes	MGMT MGMT	
11.9.2	Persons may be injured as the result of poor maintenance and/or adjustment procedures.	Maintenance procedures provided by manufacturer detailing all critical maintenance requirements.	E	3	M	Ensure that the MEWP 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	
11.10	Equipment evacuating gases, etc.								
11.10.1	Exhaust system has been removed or is damaged.	Exhaust system protected by engine covers.	E	2	L	Ensure that exhaust system is maintained in accordance with manufacturer's instructions.	Yes	MGMT/OP	
12	Inadequate lighting of moving/working area								
12.1	Collision with structures or objects due to inadequate lighting of work site								
12.1.1	Persons could be injured if the light on the job site is inadequate.		C	2	M	Ensure lighting in job area is assessed by trained personnel prior to undertaking further machine operation. Monitor lighting levels throughout the operation of the MEWP, as lighting is prone to change relative to time of day.	Yes Yes	MGMT/OP MGMT/OP	
13	Hazards due to sudden movement/instability during handling								
13.1	While personnel are moving MEWP around job site.	Instructions in operator's manual [page number(s) 58] regarding transporting MEWP as required by AS1418.10 – 2011 clause 4.1.3 (a). Travel speeds are fixed.	C	2	M	Ensure that MEWP is not driven on excessive slopes or rough terrain at speed. Ensure that turtle or ramp speed is selected for travel on slopes and rough terrain.	Yes Yes	OP OP	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		Ramp speed provided which is slower than travel speed. Travel speeds given in operator's manual [page number 64].							
13.2	While personnel are loading/unloading MEWP from trucks.	Stowing and transportation procedures provide in the operators manual [page number(s) 58 - 59]. Instructions and precautions included in operator's manual for loading onto trucks [page number 58].	C	2	M	Ensure that operators are aware of the precautions and operational requirements specified in the manual. Ensure persons abide by the instructions.	Yes Yes	MGMT OP	
13.3	While personnel are lifting MEWP from transportation.	Instructions are provided in the operator's manual [page number(s) 59] for lifting the MEWP, which includes warnings regarding the proper selection of lifting hardware and use of the correct lifting points. Lift points fitted and identified on the MEWP [decal part number 157528AA]. The unladen mass of the MEWP is listed on the data plate fitted to the MEWP. Standard machine specifications included in the operators manual [page number(s) 64 - 66]. Lift points have been designed to support the intended loads over the life of the MEWP.	C	2	M	Ensure that only trained personnel are permitted to load the machine onto trucks. Ensure that only trained personnel are permitted to lift the MEWP. Ensure that the proper lifting points are used. Ensure that suitably rated chains & slings are used.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
14	Inadequate/non-ergonomic design of driving/operating position								
14.1	Hazards due to dangerous environments (contact with moving parts exhaust gases, etc.)								
14.1.1	Operator is exposed to contact with exhaust gases.	Exhaust gases are directed away from the operator in the normal operating positions.	D	2	L	Ensure that exhaust system is maintained in accordance with manufacturer's instructions.	Yes	MGMT/OP	
14.2	Inadequate visibility from driver's/operator's position								
14.2.1	Personnel injured due to operator having limited visibility from operating position.	Operator's position in platform offers a good position to see all parts of the MEWP structure. Platform floor has perforations which allow vision of the area below.	C	2	M	Ensure a spotter is used if required. Ensure operators survey the area within which they are to be working in order to familiarise themselves with possible obstructions.	Yes Yes	MGMT/OP OP	
14.3	Inadequate seat/seating (seat index point)								
14.4	Inadequate/non-ergonomic design/positioning of controls								
14.4.1	Operator suffers injury as a result of the position of the controls.	Controls positioned so that a comfortable stance can be achieved.	C	2	M	Implement a system to ensure that operators do not work excessive or continuous shifts and manage peak demands. Ensure that operators do not continue use of the MEWP if they feel tired or are suffering from fatigue.	Yes Yes	MGMT MGMT/OP	
14.5	Starting/moving of self-propelled machinery								
14.5.1	MEWP overturns while manoeuvring around job site.	The lowered travel position is limited by the control system. The gradeability is listed on the ID plate fitted to the MEWP. Standard machine specifications included in the operators manual [page number(s) 64 - 66], which includes the gradeability. Warning in operator's manual [page number 7] not to drive elevated near depressions, or holes, loading docks, debris, drop-offs or surfaces that may affect stability.	D	3	M	Ensure the MEWP is driven at reasonable speed around the job site. Ensure the gradeability limits are not exceeded whilst travelling. Ensure the work platform is not raised while travelling at speeds above the permitted elevated drive speed. Ensure that operators, observe the surroundings and move at appropriate speeds. Ensure that ground personnel are available to observe and take corrective action if necessary. Ensure they are familiar with emergency operation procedures detailed in the operators manual.	Yes Yes Yes Yes Yes	OP OP OP OP MGMT/OP MGMT/OP	
14.6	Road traffic of self-propelled machinery								
14.6.1	MEWP collision with vehicular traffic on job site.	Rotating/strobe light fitted to increase the visibility of the MEWP to other machines and vehicles on site. MEWP painted in bright colours to increase its visibility. An audible alarm sounds whenever the MEWP is in motion.	C	2	M	Implement a traffic management system. Ensure that the rotating/strobe light is used whenever the machine is in motion. Ensure a traffic management system is enforced, should the MEWP be exposed to vehicular traffic.	Yes Yes Yes	MGMT/OP OP MGMT/OP	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		Warning in operator's manual [page number 10] to be aware of moving equipment in the area and to take care to avoid collision.							
14.7	Movement of pedestrian-controlled machinery								
15	Mechanical hazards (due to failure of systems or devices)								
15.1	Hazards to exposed persons due to uncontrolled movement								
15.1.1	Failure of cylinder or hose resulting in uncontrolled movement of the work platform and extending structure.	Cylinders have been assessed in accordance with AS1418.10 – 2011 clause 2.9.1.2.1. Cylinders are fitted with load holding check valves to prevent movement in case of hose failure.	D	3	M	Ensure cylinders are inspected in accordance with procedures outlined in manual. If any defects are detected ensure that the MEWP is withdrawn from service until the defects are rectified.	Yes Yes	MGMT/OP OP	
15.2	Hazards due to break-up and/or ejection of parts								
15.2.1	MEWP could collapse or break up as a result of poor design or manufacture.	Designed & manufactured to comply with the requirements of the design standards and directives in the country where the unit is sold. Warning in manual not to operate an aerial platform that is malfunctioning or damaged [page number 9]. MEWP is load tested as part of pre-delivery checks by manufacturer before delivery to customer.	D	3	M	Ensure that the unit is registered with manufacturer. Periodically check for the existence of routine safety alerts that may be issued by the manufacturer or the representative. Routinely inspect the MEWP by a competent organisation external to operator. Monitor local Hazard Alerts and Incident Safety Notices and examine these to determine if they are or could be relevant to the MEWP. Ensure preoperational inspections are conducted as per the manufacturers instructions.	Yes Yes Yes Yes	MGMT MGMT MGMT MGMT/OP	
15.3	Hazards due to rolling over (roll over protection – ROP)								
15.4	Hazard due to falling objects (falling object protection – FOP)								
15.4.1	Ground crew or passer-by being struck by falling tools or objects.	Kick panel provided on platform in accordance with AS1418.10 – 2011 clause 2.5.4. See AS2550.10 – 2006 clause[s] 5.10 & 5.16.	C	2	M	Barricade area from public access. Ensure that materials are not supported on the guardrails or exceed the confines of the platform.	Yes Yes	OP OP	
15.5	Inadequate means of access								
15.6	Hazards caused due to towing, coupling, connecting, and transmission								
15.6.1	Injury from unsecured vehicle whilst transporting.	Tie-down points fitted to MEWP and identified with decals [decals part number 157528AA]. Instructions in operator's manual [page number(s) 58] regarding transporting MEWP as required by AS1418.10 – 2011 clause 4.1.3 (a).	E	4	H	Ensure that the instructions provided in the operator's manual are followed. Ensure that only trained personnel are permitted to transport the MEWP. Ensure the MEWP is properly secured when transporting on vehicles.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
15.6.2	Injury due to tray or float of inadequate size.	Standard machine specifications included in the operators manual [page number(s) 64 - 66].	E	4	H	Ensure that the vehicle is of adequate size to carry the MEWP.	Yes	MGMT/OP	
15.6.3	Injury sustained whilst towing.	Towing/winch points are fitted and identified on the MEWP. Instructions are included in the operator's manual regarding the correct procedures for towing and/or winching the MEWP including residual risks that may exist [page number(s) 43]. Instruction decal [part number 101139ABZZ] fitted which explains towing procedure.	E	4	H	Ensure that the instructions provided in the operator's manual are followed. Ensure that only trained personnel are permitted to tow the MEWP. Ensure MEWP is parked on flat level ground before releasing brakes. Ensure that personnel do not release the brakes unless the MEWP is properly chocked in accordance with the instructions provided in the operator's manual.	Yes Yes Yes Yes	MGMT/OP MGMT/OP OP OP	
15.7	Hazards due to batteries, fire, emissions, etc.								
15.7.1	During battery maintenance	Batteries are well ventilated in accordance with AS1418.10 – 2011 clause 2.2.21. Warning in the operator's manual [page number 22] that the batteries emit dangerous gases and to be careful and take appropriate precautions. Batteries encased within battery box.	E	3	M	Ensure the battery isolation switch is used whenever battery maintenance is performed. Ensure that the appropriate PPE is worn when working on or near the batteries. Ensure safe work procedures are established in regards to working with batteries.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	

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A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		Battery isolation switch fitted. Battery maintenance instructions provided in operator's manual [page number 22]. Warning decal [part number 124362AD] which states do not wear jewelry.				Ensure operators follow established safe work procedures. Ensure that only trained personnel conduct maintenance on or near batteries. Ensure that personnel who are trained in first aid are readily available to render assistance if required.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
16	Hazards due to lifting operation								
16.1	Lack of stability								
16.2	Derailment of machinery								
16.3	Loss of mechanical strength of machinery and lifting accessories								
16.3.1	Failure of lifting points.	Instructions are provided in the operator's manual [page number(s) 52] for lifting the MEWP, which includes warnings regarding the proper selection of lifting hardware and use of the correct lifting points. Lift points are designed for loads as anticipated during normal lifting for the life of the MEWP. Lift points fitted and identified on the MEWP [decal part number 157528AA].	E	3	M	Ensure that lift points are inspected as per the criteria detailed in the maintenance manuals. Ensure instructions are followed as per the instructions provided in the operator's manual for lifting.	Yes Yes	MGMT/OP MGMT/OP	
16.4	Uncontrolled movements								
17	Inadequate view of trajectories of the moving parts								
17.1	Due to collision with obstructions because operator in the platform cannot see from operating position.	Controls positioned in accordance with AS1418.10 clause 2.6.1 so that the operator has visual contact with the resulting travel and extending structure movements. Platform has perforated floor to allow greater vision. Warning in operator's manual [page number 8] to avoid overhead obstructions or other possible hazards around MEWP when lifting or driving.	C	2	M	Ensure operators are trained with respect to this hazard. Ensure the MEWP is operated at reduced speeds when clearance between the platform and other objects is reduced. Ensure that the rotating/flashing light is used whenever the machine is in motion. Ensure a traffic management system is enforced, should the MEWP be exposed to vehicular traffic.	Yes Yes Yes Yes	MGMT/OP OP OP MGMT/OP	
18	Hazards caused by lightning								
18.1	Persons could be injured if the unit is operated during storms.	Warning in operator's manual [page number 6] that MEWP is not to be operated during storms.	E	3	M	Ensure MEWP is not used outdoors during storms or if it is likely that storm may arise during performance of the task.	Yes	MGMT/OP	
19	Hazards due to loading/overloading								
19.1	Maximum rated capacity is exceeded.	The maximum rated capacity is displayed on the platform [decal part number 169748ABZZ]. The maximum rated capacity is listed in the operator's manual [page number 66]. The maximum rated capacity is displayed on the manufacturers ID plate. Load sensing system fitted to platform which prevents platform overload from vertical loads. Warning in operator's manual [page number 9] not to overload the work platform.	D	2	L	Verify expected loading and confirm it is less than rated capacity. Audit the rated capacity of the anticipated load on a regular basis.	Yes Yes	MGMT/OP MGMT/OP	
19.2	Maximum manual force is exceeded.	Maximum manual force specified in the operator's manual [page number 66]. Maximum permitted manual force displayed on platform [decal part number 169748ABZZ]. Maximum permitted manual force included on ID plate. Warning in operator's manual [page number 8] not to exert side forces on MEWP while it is elevated.	C	2	M	Ensure that the operators are trained with respect to this risk and do not exceed the limits listed on the platform and in the manual.	Yes	MGMT/OP	
19.3	Maximum wind speed is exceeded.	MEWP is designed and rated for wind speed of 12.5 m/s for the maximum number of platform occupants in accordance with AS1418.10. Wind speed rating decal [part number 169748ABZZ] fitted on work platform. ID plate includes maximum wind speed rating.	C	3	H	Train operators of the dangers of carrying or fitting bluff bodies to the platform. Ensure that the EWP is not operated in high winds above the rated speed. Monitor wind forecasts on a regular basis.	Yes Yes Yes	MGMT MGMT/OP OP	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		Maximum wind speed rating listed in operator's manual [page number 66]. Additional advice in AS2550.10 – 2006 clause 4.10.							
19.4	Structural failure due to influences from load combinations not taken fully into account.	Structural analysis accounts for normally encountered load combinations; wind + dynamic + static, wind + manual force + static. The maximum rated capacity is displayed on the platform [decal part number 169748ABZZ]. Wind speed rating decal [part number 169748ABZZ] fitted on work platform. Maximum permitted manual force displayed on platform [decal part number 169748ABZZ]. Standard machine specifications included in the operators manual [page number(s) 64 - 66]. detail the load combinations which are acceptable. Load sensing system provided on platform which prevents the vertical load exceeding the permitted limits.	C	2	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. Ensure each person required to operate the machine has been trained and assessed in accordance with the recognised assessment instruments and in accordance with the requirements specific to this MEWP. Verify expected loading and confirm it is less than rated capacity. Verify operating slopes are less than the maximum permitted chassis inclination of the MEWP. Verify wind conditions experienced in service are less than the maximum wind speed rating of the MEWP. Ensure the machine is isolated to prevent unauthorised use at the end of each work shift.	Yes Yes Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP MGMT/OP MGMT/OP	
19.6	Due to operator in platform lifting loads with ropes.	Warning in operator's manual [page number 8] not to use MEWP as a lifting tool or crane.	D	3	M	Ensure operators do not cause platform overload by lifting additional equipment from elevated platform using ropes.	Yes	MGMT/OP	
20	Hazards due to lifting persons								
20.1	Mechanical strength								
20.1.1	Mechanical strength of lifting mechanism is insufficient to support platform loads.	Platform load sensing system fitted in accordance with AS1418.10 – 2011 clause 2.3.1.2. Load holding valves fitted to all load bearing hydraulic cylinders in accordance with AS1418.10 – 2011 clause 2.9.2. Pre-start inspection criteria included in the operator's manual. Mechanical strength has been assessed in accordance with AS1418.10 – 2011.	D	3	M	Verify expected loading and confirm it is less than Rated Capacity. Audit the rated capacity of the anticipated load on a regular basis.	Yes Yes	MGMT/OP MGMT/OP	
20.1.2	Structural failure due to dynamic loading.	Dynamic loads are accounted for in the design standard against which the MEWP is assessed. The load cases used for the structural analysis includes the dynamic load case. Function speeds are listed in the operator's manual [page number 64].	D	3	M	Ensure that the system function speeds are set and maintained to the specifications listed in the manual. Ensure the MEWP is maintained in a manner to minimise the excessive backlash between components.	Yes Yes	MGMT MGMT	
20.1.4	Injury from using the MEWP in an unsuitable condition due to poor maintenance or inspections.	Pre-start inspection procedures specified in manual to cover all normal maintenance requirements of MEWP. Logbook provided on MEWP to record usage and faults. Maintenance instructions provided which includes maintenance instructions for all anticipated maintenance requirements over the life of the MEWP. Pre-operational check includes checks of pin and pin keepers.	D	3	M	Instruct and train operator in inspection requirements having regard to the environment and manufacturer's instructions. Ensure routine inspection procedures are formalised and adequately completed. 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. Instruct the operator/competent person to report all faults to management. Use equivalent replacement parts. Log replacement. Ensure that pre-start inspections are completed prior to use of MEWP. Ensure that MEWP is not used if any defects are found. Ensure that any damage or accidents that involve the MEWP are reported to the relevant manager/authorities.	Yes Yes Yes Yes Yes Yes Yes	MGMT MGMT MGMT MGMT/OP MGMT/OP OP OP OP	
20.1.5	Persons could be injured as a result of structural fatigue failure – Road Transport.	Tie down points provided and labelled on MEWP. Instructions and precautions included in operator's manual for loading onto trucks [page number 58].	D	3	M	Ensure the operators are instructed to properly stow unit prior to transportation. Ensure the boom & platform is restrained during transportation.	Yes Yes	MGMT/OP MGMT/OP	

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A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
		Pre-operational inspection includes checks of the structure for cracks.							
20.1.7	Injury as a result of excess water/debris in platform.	The work platform floor is self-draining as per the requirements of AS1418.10 – 2011 clause 2.5.7.	D	2	L	Ensure that the platform is cleaned regularly to prevent a build-up of debris. Ensure the platform is stored in a location which prevents the build-up of debris.	Yes Yes	MGMT/OP MGMT/OP	
20.2	Loading control								
21	Controls								
21.1	Loading control								
21.1.1	Due to accidental impact – unintentional activation of controls.	Emergency stop switch located at both platform and ground controls. Controls are mounted at least 50mm below the control guard. Control switches automatically return to neutral when released. Extending structure controls are positioned so that if the operator leans over the control panel they are not activated. Foot switch fitted which must be depressed for motion controls to be active.	E	3	M	Implement system to ensure adequate reporting of all incidents in relation to machine. Ensure that all incidents in relation to the machine are reported and acted on.	Yes Yes	MGMT MGMT/OP	
21.1.2	Due to contamination of hydraulic system.	Hydraulic filters fitted.	D	3	M	Ensure that hydraulic system is maintained as per manufacturer's instructions.	Yes	MGMT	
21.1.3	Control conflict using emergency power system.	Overriding emergency system designed in accordance with AS1418.10 – 2011 clause 2.6.10.	E	2	L	Ensure operators are familiar with the emergency lowering procedures prior to operating the MEWP.	Yes	MGMT/OP	
21.1.4	Unintentional activation of controls due to entanglement of hoses or cables with joystick.	Guarding around platform controls minimises the risk of entanglement. Foot activated dead-man switch fitted. Warning in operator's manual [page number 7] to avoid entanglement with ropes, cords or hoses.	E	2	L	Ensure that all guards are kept in good condition and replaced if removed for maintenance. Ensure operators are aware of the residual risk. Ensure that operators engage the emergency stop when they have reached the desired work location.	Yes Yes Yes	MGMT/OP MGMT/OP OP	
21.2	Safe travel control								
21.2.1	Excessive travel speed leads to machine instability.	MEWP travel speed is automatically reduced when the platform is elevated out of the transport position. Travel speeds given in operator's manual [page number 64]. System speeds are fixed and cannot be altered by the operator.	D	3	M	Ensure that maximum travel speeds are maintained in accordance with manufacturer's specifications.	Yes	MGMT/OP	
21.3	Safe speed control								
21.3.1	Excessive platform movement speed leads to structural failure or instability.	Extending structure speeds comply with AS1418.10 – 2011 clause 2.3.6. Extending structure speeds are listed in the operator's manual [page number 64]. System speeds are fixed and cannot be altered by the operator.	D	3	M	Ensure that machine is maintained in accordance with manufacturer's instructions and all settings are maintained.	Yes	MGMT/OP	
22	Falling of persons								
22.1	Personal protective equipment								
22.1.1	Operator falls from elevated platform.	Platform guard rails fitted which comply with AS1418.10 – 2011 clause 2.5.4. Platform gate is self-closing and fastening in the closed position as per the requirements of AS1418.10 – 2011 clause 2.5.6. Instructions provided in the operator's manual [page number 10] as to what type of lanyard and harness is to be worn whilst in the platform.	D	3	M	Ensure harness and lanyards are in good condition. Ensure that personnel do not exit the platform except at ground level. Audit use of fall restraint/arrest devices.	Yes Yes Yes	MGMT/OP MGMT/OP MGMT/OP	
22.1.2	Stepping out of elevated platform onto structures.	Refer to requirements per AS2550.10, see clause 5.9 and figure 5.9(B). Warning in operator's manual [page number 10] specifically prohibiting exit from the platform in an elevated position.	D	4	H	Ensure that operator egress at heights is prohibited unless in an emergency and there is a safe means to do so. Ensure that the operator does not egress from the platform at height unless secured via a twin lanyard assembly to a secure anchor point on a fixed structure.	Yes Yes	MGMT/OP MGMT/OP	

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Hazard No.	Hazard Description -	Is there any risk?							
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
						Refer to requirements per AS2550.10, see clause 5.9 and figure 5.9[B].	Yes	MGMT/OP	
22.1.3	Operator ejected from the platform due to failure of the levelling system.	Hydraulic cylinders used in levelling system are designed to AS1418.10 – 2011 clause 2.9. Levelling system components designed to withstand twice the imposed load as per AS1418.10 – 2011 clause 2.5.1. Pre-operational inspection includes checks of structural components and cylinders. Safety Harness anchorages provided which are tested and labelled as per AS1418.10 – 2011 clauses 2.5.5 & 4.2.2(j).	E	3	M	Instruct operators to wear fall restraint/arrest harness' at all times when in the platform and to attach the fall restraint/arrest lanyard to the anchor point provided. Ensure harness and lanyards are in good condition. Ensure that personnel do not exit the platform except at ground level. Audit use of fall restraint/arrest devices. Ensure that gate self-closes and latches in the closed position. Ensure that pre-operational inspections are conducted as per the manufacturer's instructions. Ensure the MEWP is maintained as per the manufacturer's instructions.	Yes Yes Yes Yes Yes Yes Yes	MGMT MGMT/OP MGMT/OP MGMT OP OP MGMT/OP	
22.1.4	Operator ejected from platform whilst loading onto trucks.	Instructions and precautions included in operator's manual for loading onto trucks [page number 58]. PPE list includes the fall restraint equipment required to be worn by personnel loading and unloading the MEWP. Instructions in operator's manual [page number(s) 58] regarding transporting MEWP as required by AS1418.10 – 2011 clause 4.1.3 (a).	E	3	M	Ensure that only suitably trained personnel are permitted to load MEWPs onto trucks. Ensure that personnel wear the correct fall restraint harness whilst loading the MEWP onto trucks.	Yes Yes	MGMT/OP MGMT/OP	
22.2	Trapdoors								
22.3	Work platform tilt control								
22.3.1	Operator falls from platform as a result of activation of platform tilt control.	Platform level controls only provided at platform.	E	3	M	Ensure adjustment of the platform level is only performed when it is at ground level.	Yes	OP	
23	Work platform falling/overturning								
23.1	Falling/overturning								
23.1.1	Persons could be injured as a result of instability or overturning.	MEWP stability is calculated and tested in accordance with AS1418.10 – 2011 clause 3.6.3.	C	3	H	Train operators in respect of proper siting and precautions necessary to ensure stability. Ensure that operators read and understand the instructions and precautions listed in the operator's manual prior to use. Ensure that thorough site checks are performed prior to operation. Audit work practices on a regular basis to ensure safe work procedures are being followed.	Yes Yes Yes Yes	MGMT MGMT/OP OP MGMT	
23.1.2	Persons could be injured as a result of instability or overturning due to operation on excessive slope.	The chassis inclination limits are listed on the data plate. Chassis inclination limitations are provided in the operator's manual [page number 66]. AS2550.10 – 2006 includes additional advice regarding operation on slopes. Chassis inclination indicator system provided which warns the operator if the lateral and longitudinal slope limits of the chassis are exceeded.	C	3	H	Ensure that the MEWP is operated within the rated slope limitations specified. Ensure that the unit is always levelled in accordance with the instruction provided. Select the correct MEWP for the anticipated slopes at the job site.	Yes Yes Yes	OP OP MGMT/OP	
23.1.3	Overturning due to collapse of support surface.	Maximum wheel/stabiliser loads displayed on MEWP as required by AS1418.10 – 2011 clause 4.2.10. Warning in operator's manual [page number 7] do not drive elevated on a soft or uneven surface. Maximum wheel/stabiliser load displayed on MEWP next to wheel/stabilisers [decal part number 172271AAZZ]. Warning in operator's manual [page number 7] do not drive elevated on a soft or uneven surface. Additional notes in AS2550.10.	D	4	H	Ensure the unit is not set up on rough, soft or otherwise hazardous surfaces. Seek advice regarding ground/surface capacities as necessary from a competent person. Ensure that thorough site checks are performed prior to operation. Document procedures.	Yes Yes Yes Yes	OP OP OP MGMT/OP	
23.1.4	Overturning as a result of setting up on uneven surfaces.	Warning in operator's manual [page number 7] that a survey of the work area should be performed for hazards such as bumps, holes, drop-offs or debris prior to operation.				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.	Yes	MGMT	

RISK ASSESSMENT: SKYJACK SJ86T			PRELIMINARY (Refer to "Notes" section)						
A	B	C	D1	D2	D	E	F	G	H
Hazard No.	Hazard Description -	Is there any risk?	Likelihood	Consequence	Risk Level	Proposed SUPPLEMENTARY risk control measure	Are the control measures practicable? Yes/No	For Action by Whom	Confirmation that the necessary action has been completed
	(the situation or parts of plant which could cause injury or illness)	Describe the risk control measures ALREADY implemented							
			C	2	M	Ensure operators follow these requirements.	Yes	MGMT/OP	
						Ensure that operators follow the instructions given in the operators & service manuals regarding site checks, special limitations and service information.	Yes	MGMT/OP	
23.1.5	Pushing or Pulling objects with platform.	Warning in operators manual [page number 8] that the work platform is not to be used for pushing or pulling objects.	D	3	M	Ensure that operators do not exert lateral force greater than that specified.	Yes	MGMT/OP	
						Ensure that operators do not push or pull objects with platform.	Yes	OP	
23.1.6	Due to tyre/wheel failure.	Daily preventative maintenance checklist includes a check of the condition of the wheels and tyres. Warning in operator's manual [page number 8] not to use MEWP with damaged tyres or rims.	E	3	M	Ensure operators perform checks of wheels/tyres before using MEWP.	Yes	OP	
						Ensure that tyres are replaced as necessary with original specification.	Yes	MGMT/OP	
23.1.7	MEWP overturns because incorrect wheels/tyres have been fitted.	Warning in operator's manual [page number(s) 26] that intermixing of tyres is prohibited and that only wheels/tyres approved by the manufacturer may be fitted. Spare parts manual includes part number for replacement wheels.	E	3	M	Ensure that only approved wheels/tyres are fitted.	Yes	MGMT	
23.1.8	Due to operation on a truck or similar device.	Warning in the operator's manual [page number 8] not to operate MEWP while parked on the back of a truck or similar.	C	2	M	Ensure that the MEWP is not operated whilst on a truck or similar.	Yes	MGMT/OP	
23.1.9	Overturning due to operator falling out of platform while attached to the harness & lanyard.	Instructions provided in the operator's manual [page number 10] as to what type of lanyard and harness is to be worn whilst in the platform.	C	2	M	Ensure that operators wear the correct harness and lanyard.	Yes	MGMT/OP	
23.2	Acceleration/braking								
24	Markings								
24.1	Personnel injured due to missing or illegible safety signs.	A list and description of all decals fitted to the MEWP is included in the operator's manual [page number(s) 70-92]. Warning in the operator's manual [page number 21] that all safety decals are to be in place prior to use of MEWP. Pre-operational checks include a check of all the safety decals.	C	2	M	Train operators in relation to the meaning of the markers.	Yes	MGMT/OP	
						Ensure that pre-operational check of safety decals is performed before use.	Yes	OP	
24.2	Unclear instructions on safety signs.	All instructions are given in English. All numerical values are given in SI units. Symbols used for marking comply with ISO20381.	C	2	M	Ensure that operators are familiar with the meaning of all safety signs and warnings.	Yes	MGMT/OP	