plant assessor

RISK MANAGEMENT REPORT

Report Number	AHS 20140220-1003
Date Created	20-February-2014
Date Completed	20-February-2014
Assessor	Paul Rozier
Company	Australian Hammer Supplies Pty Ltd
Make	Kubota
Model	U25-3SS
Type	Excavator
Serial Number	50153
Engine Number	1DL1560
Location	North Ryde
Lot Number	
Assessment Purpose	Sale
State	NSW
Assistant Assessor(s)	

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Section 1 - Important Information

Contains information outlining the scope and any limitations applicable to this Risk Management Report

Section 2 - Unit Details

Contains standard unit specifications and details of any extras fitted

Section 3 - Risk Analysis, Risk Evaluation & Risk Treatment

Contains details of the technique used to calculate risk ratings, time frame and risk treatments. Please refer to this information when reviewing and interpreting the information in section 4

Section 4 part 1 - Risk Treatments Required

Contains detailed information regarding the risk treatments to be implemented including hazard, risk rating, time frame, relevant standards & legislative references

Section 4 part 2 - Risk Treatments in Place

Contains detailed information regarding the risk treatments in place including hazard, risk rating, relevant standards & legislative references

Section 5 - Images & Documents

Contains images & any relevant information entered by the assessor

SECTION 1 IMPORTANT INFORMATION

This Risk Management Report has been prepared for -

_____

(insert recipient name/company name)

This document has been prepared to cover the sale or transfer of this item of plant between the Company identified on the front cover and their named recipient. This report must not be used for any subsequent sale or transfer.

This document is provided to meet duty of care obligations as set out in OH&S regulations for the supply of plant and the sale and transfer of plant.

The safety hazards associated with the operating and maintaining of this item of plant have been identified as far as practical by visual inspection. This item of plant is being sold in an "as-is" condition with known and unknown safety hazards. No physical testing has been conducted (eg. Wire rope tests, stress tests, structural/non-destructive tests, noise tests, vibration tests, brake tests, insulation tests etc.) unless stated otherwise in the notes.

This document is not intended to provide information on, nor warrant the mechanical, electrical or structural condition of this item of plant. Any information on standard features have been supplied through the manufacturer and should be used as a guide only until otherwise verified.

This item of plant should be further assessed, tested and inspected or dismantled as necessary to gauge any further hazards and /or risks relating to SPECIFIC WORKPLACE USE, which are currently unknown, in accordance with relevant standards, regulations and acts.

Under common law and OH&S acts, regulations and code of practice, there is a requirement for the plant owner, employer and operator to exercise a duty of care in the safe operation and maintenance of plant. Accordingly before this item of plant is supplied to, or used at any workplace it must be inspected to ensure it is in a fully operational , safe and serviceable condition and that operators and maintenance personnel are appropriately trained in the use & maintenance of this item of plant.

For further information regarding this report contact Online Safety Systems on 1300 72 88 52

SECTION 2 UNIT DETAILS

STANDARD SPECS

- Noise Test Results	
1. Manufacturers specified noise level dBA	
2. Ambient noise level dBA	
3. Noise level - Operator position (high idle) dBA	
4. Noise level - Operator position (low idle) dBA	
5. Noise level LHS dBA @ m (high idle)	
6. Noise level Front dBA @ m (high idle)	
7. Noise level RHS dBA @ m (high idle)	
8. Noise level Rear dBA @ m (high idle)	
Bucket	
Standard bucket capacity, SAE rated (m3)	
Standard bucket width (mm)	
Dimensions/Weights	
Dump height (mm)	3210
Ground clearance (mm)	285
Max depth of vertical wall (mm)	1960
Operating weight (kg)	2550
Reach @ ground level (mm)	4670
Tailswing radius (mm)	760

UNIT DETAILS

Make	Kubota	**Serial Number**	50153
Model	U25-3SS	**Assessor**	Paul Rozier
Type	Excavator	**Date**	20-February-2014

Transport height (mm)	2420
Transport length (mm)	4150
Width (mm)	1500
Engine	
Engine displacement (lit)	1123cc
Engine Hours	2
Engine make & model	Kubota D1105-E3
Engine number	1DL1560
Engine power (kW@rpm)	15.6kW@2400rpm
Number of cylinders	3
Extras	
Spare spool for attachments? Yes/No	Yes
Hitch	
Quick Hitch Serial No.	N/A
Hydraulics	
Flow of main pumps (lit/min)	28.8x2 / 19.2x1
Pump types	Piston and Gear
Relief valve pressure, main pumps (bar)	
Plant Classifications	
Class	2
Year	2014
Safety Structures	
FOPS Serial No.	1371267
ROPS Serial No.	1371267
Tracks	
Track length on ground (mm)	1560
Track pad width (mm)	300
Transmission	
Speed (km/h)	4.5
Work Capabilities	
Arm breakout (kgf)	1245
Bucket breakout (kgf)	2320
Dig depth (mm)	2810
Dig depth to cut 244 m level bottom (mm)	
Gradeability (%)	

EXTRAS

DETAILS

1200mm Mud Bucket
300mm Bucket
450mm Bucket
600mm Bucket
FOPS
Front grader blade
Hammer piping
Quick Hitch
Ripper

SECTION 3

Risk Analysis

Consequence

Likelihood	1 Insignificant Dealt with by in house first aid	2 Minor Treated by medical professionals, hospital out patients	3 Moderate Significant non permanent injury, overnight hospital stay	4 Major Extensive permanent injury, e.g. Loss of fingers, extended hospital stay	5 Catastrophic Death, permanent disabling injury e.g. Loss of hand, quadriplegia
A Almost certain to occur in most circumstances	MEDIUM 8	HIGH 16	HIGH 18	CRITICAL 23	CRITICAL 25
B Likely to occur frequently	MEDIUM 7	MEDIUM 10	HIGH 17	HIGH 20	CRITICAL 24
C Possible and likely to occur at sometime	LOW 3	MEDIUM 9	MEDIUM 12	HIGH 19	HIGH 22
D Unlikely to occur but could happen	LOW 2	LOW 5	MEDIUM 11	MEDIUM 14	HIGH 21
E May occur but only in rare circumstances	LOW 1	LOW 4	LOW 6	MEDIUM 13	MEDIUM 15

Risk Evaluation

CRITICAL	Act immediately to mitigate risk. Implement risk treatment(s) in accordance with the risk treatment table below.
HIGH	Act immediately to mitigate risk. Implement risk treatment(s) in accordance with the risk treatment table below. If the appropriate permanent risk treatments are not immediately accessible establish interim risk treatment strategies. Permanent risk treatments must be implemented within one week.
MEDIUM	Take reasonable steps to mitigate and monitor the risk. Implement risk treatment(s) in accordance with the risk treatment table below. Permanent risk treatments must be implemented within one month
LOW	Take reasonable steps to mitigate and monitor the risk. Implement risk treatment(s) in accordance with the risk treatment table below. Permanent risk treatments must be implemented within three months.

Risk Treatment

Selecting the most appropriate risk treatment option involves balancing the costs and efforts of implementation against the benefits derived, with regard to legal, regulatory and other requirements. (source AS/NZS ISO 31000:2009)

Eliminate	Eliminate the risk source.
Substitute	Provide an alternative that is capable of performing the same task which is safer.
Engineering	Provide or construct a physical barrier or guard.
Administrative	Develop policies, procedures, practices and guidelines in consultation with employees to mitigate the risk. Provide training, instruction and supervision about the risk source.
Personal protective	Provide personal protective equipment to protect the individual from the risk source

SECTION 4 PART 1 RISK TREATMENTS REQUIRED

This section of the report pertains to hazards created by use of this item of plant which currently do not have risk treatments in place. The risk treatments recommended in this section have been developed based on relevant Australian Standards, legislation, the hierarchy of risk treatment in accordance with the guidelines set forth in AS/NZS ISO 31000 – Risk Management and various other sources. The recommended risk treatment measures must be developed, implemented and validated as effective prior to the operation, maintenance or testing of this item of plant. Treatments applied must be dated and initialled adjacent the recommendations. All operators must read and understand the entire contents of this section prior to operating this item of plant.

There are no risk treatments required

SECTION 4 PART 2 RISK TREATMENTS IN PLACE

This section of the report pertains to risk treatments currently in place on this item of plant. This section must be read in conjunction with the safety section of the manufacturers handbook. All operators must read and understand the entire contents of this section prior to operating this item of plant. These treatments or equivalent must remain in place at all times whilst this item of plant is in operation.

Delivery

Hazard(s): Crushing
Preliminary Risk Rating: HIGH 22
Risk Treatment: SWMS Loading/Unloading
Relevant References:
Residual Risk Rating: MEDIUM 15

Ensure that all operators follow these steps when loading and unloading this machine to and from a flat top truck or trailer, low loader or tilt tray -

Step 1

• Vehicle choice
- Vehicle load carrying capacity must be equal or greater than the sum of machine, attachments and any ancillary equipment
- Vehicle must have adequate space for the load
- Load carrying deck must be clean

Step 2

• Site selection
- Site for loading and unloading must meet the following criteria -
i. Be level in camber (to achieve this direction of carrier unit may need to be adjusted several times)
ii. Longitudinally the combined grade of site and loading ramps/elevated tilt tray must NEVER exceed the gradeability of machine being loaded
iii. Be stable enough to withstand combined weight of machine and carrier unit
iv. Be isolated from traffic movements via its location, barriers or administrative traffic controls
v. Be clear of overhead power lines

Step 3

• Loading
- FLAT TOP/LOW LOADER
i. Engage creep gear
ii. Clear bystanders from each side of the carrier unit and loading ramps
iii. Drive machine on slowly
iv. Place machine in transport/park configuration, apply brakes & shut off engine
v. Use extreme caution when egressing machine

- TILT TRAY
i. Manoeuver machine to adjacent tilt tray, NEVER drive machine onto a tilt tray
ii. Place machine in park configuration, apply brakes & shut off engine
iii. Attach winch cable to machine tow point
iv. Clear bystanders from each side of the carrier unit and loading ramps
v. Take up slack so that winch has weight of unit
vi. Place machine in towing configuration (release brake, select neutral gear/disengage hydrostatic drive)
vii. Egress machine, NEVER ride in or on machine whilst being winched onto a tilt tray
viii. Winch machine on slowly
ix. Place machine in transport/park configuration, apply brakes & shut off engine
x. Use extreme caution when egressing machine

xi. Engage any transit locks

Step 4

• Restraint
- See transport restraint guidelines

Hazard(s): Crushing **Relevant References:**
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: SWMS Load Restraint
Ensure that all operators follow these steps when restraining this machine for transport -

Step 1

• Loading
- Load machine as per loading guidelines

Step 2

• Load placement
- Loads must be placed so that the centre of it's mass is in front of the centre of the rear axle/axle group

Step 3

• Lashing choice
- Always select lashings whose combined lashing capacity is –
i. In the forward direction equal to or greater than 2 x the weight of the load
ii. In the sideways direction equal to or greater than the weight of the load
iii. In the rearward direction equal to or greater than the weight of the load
- Always select tensioning devices whose capacity is equal to or greater than the chain/webbing lashing capacity

Step 4

• Lashing technique
- Lashing must be from tie down point on machine to dedicated attachment point on carrier truck or trailer (if no tie down points fitted machine must be tied down by axles or chassis)
- Lashing point on truck or trailer must have sufficient strength to hold machine weight
i. Minimum one chain per tie down point
ii. One tensioning device per chain
iii. Ratio of horizontal to vertical as close to 2:1 as possible
iv. Chains must not at right angles to the machine in any plane (unless two chains used per tie down point)

• Tips
- NEVER USE FAULTY OR DAMAGED RESTRAINING EQUIPMENT
- All machines must be restrained including any attachments and ancillary equipment
- Chains may need to be tied forwards/backwards or across the truck/trailer to achieve the 2:1 ratio or angle less than 90 degrees to machine
- More than one chain may be necessary per tie down point to achieve restraining capacity
- Attach lashings to tie rail at rail support intersection

Operation

Hazard(s): Crushing, Incorrect Operation **Relevant References:** AS1418.8
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** HIGH 21
Risk Treatment: Boom Rated Capacity Label
This item of plant has a rated capacity label fitted to each side of the boom. Ensure that these labels are clear and legible at all times whilst this item of plant is in operation. Operators must not exceed this rated capacity at any time during operation.

Hazard(s): Incorrect Operation **Relevant References:** AS1470, AS2153, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Operation Handbook
The manufacturer's operation handbook has been supplied for this item of plant.

This handbook must be available at all times to all potential operators and supervisory staff. All potential operators must read and be familiar with this handbook prior to operating.

A complete risk assessment/Job Safety Analysis must be undertaken covering all operating processes and environments associated with this item of plant. SWMS should be produced for specific tasks associated with use of this item of plant.

Hazard(s): Incorrect Operation **Relevant References:** ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Pre-op Checklist Excavator
A pre-operation checklist is available for this Excavator. This checklist must be completed by all operators prior to operating this Excavator.

Hazard(s): Incorrect Operation **Relevant References:** ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: SOP Excavator
Safe Operation Procedures are available for this Excavator. The information in the Safe Operation Procedures must be followed at all times whilst operating this Excavator.

Hazard(s): Incorrect Operation **Relevant References:** AS1064, AS1470, AS4024, HB59, ISO31000-2009 Ri Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Control Labels
All controls including all levers, buttons, pedals, switches etc. are clearly labelled as to their purpose and method of operation. These labels must be maintained in a clean and serviceable condition at all times.

Hazard(s): Crushing, Falling **Relevant References:** AS1470, AS1636, AS2294, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Passenger Seat Label
This item of plant is fitted with a clear hazard warning label re: Operator only, No passengers. Passengers must not be carried at anytime. This label must be clear and legible at all times whilst this item of plant is in operation.

Legislation: State Health & Safety Legislation & Regulation

Hazard(s): Crushing, Incorrect Operation **Relevant References:** AS4772-2008
Preliminary Risk Rating: HIGH 21 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Quick Hitch Information
This hydraulic quick hitch has the following information marked upon it -

1. A unique identification mark (serial number)
2. The manufacturer's name and model clearly and durably marked upon it
3. The maximum rated capacity clearly and durably marked upon it
4. The mass of the hitch clearly and durably marked upon it
5. The lift point capacity (kg) clearly and durably marked upon it

This information must be considered by all operators when assessing the suitability of the hitch for any task. Failure to consider and or comply with this information could lead to serious injury or death.

Hazard(s): Crushing **Relevant References:** AS1470, AS1636, AS2294, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: ROPS Label
The warning label stating that the ROPS must not be damaged at any time (including cuts, drill holes and welds) must be present, clean and legible at all times.

Hazard(s): Crushing **Relevant References:** ISO31000-2009 Risk Management, ISO3471-2008
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: ROPS seat belt label
The advisory label stating that a "ROPS is fitted seatbelts must be worn" must be followed at all times whilst operating this item of plant. This label must be present, clean and legible at all times.

Hazard(s): Electrocution **Relevant References:** AS1470, AS2550, AS3017, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Electrical Approach Distances
This item of plant has a hazard warning label re: overhead electrical hazards and minimum approach distances fitted. These distances must be adhered to strictly. These labels and tables must be present, clear and legible at all times.

Spotters are required when working within 5 metres of the minimum approach distance of any live electrical apparatus.

Any encroach within the minimum approach distances must only occur if the following provisions have been met -
1. The machine is designed to work within the minimum approach distances
2. Permission has been granted by the electricity company and

3. Safe systems of work have been documented and approved.

Hazard(s): Electrocution, Explosion
Relevant References: AS1470, AS3017
Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15
Risk Treatment: Dial Before You Dig (AUS)

This item of plant is fitted with a clear hazard warning label re: underground services and advice to "Dial 1100 Before You Dig"to the operator work area. This advice must be adhered to strictly. Digging into an electricity cable or gas pipe can cause serious injury or death. Damaging a pipe or cable may also lead to isolating a community from emergency services such as fire, police or ambulance. This label must be present, clear and legible at all times.

Hazard(s): Collision
Relevant References: ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15
Risk Treatment: Phone Use label

This item of plant is fitted with an instruction label advising that mobile phones must not be used whilst operating this machine. Accordingly all operators must not use a mobile phone at any time whilst operating machine. If phone use is necessary then operator must place machine in park configuration in a safe position prior to phone use. Operators MUST adhere to this advice at all times.

This label must be clear and legible at all times whilst this item of plant is in operation.

Hazard(s): Burns, Explosion, Poisoning
Relevant References: AS1470, AS2153, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15
Risk Treatment: Tank ID Label

The tank(s) on this item of plant have clear, legible label(s) identifying their contents, and if appropriate any necessary controls re: the contents. These must be present, clear and legible at all times. (this includes radiator, hydraulic and petrol/diesel tanks)

Hazard(s): Collision
Relevant References: AS1470, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15
Risk Treatment: Left Hand Drive Label

This item of plant has a hazard warning label re: left hand drive, at the rear. It must be present, clear and legible at all times.

Hazard(s): Hearing Loss
Relevant References: AS1269-2005 Occupational noise management, AS1470, AS2012, AS3781, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 19
Residual Risk Rating: MEDIUM 14
Risk Treatment: Hearing Protection Label

The hazard warning labels re: wearing of hearing protection attached to this item of plant refer to the level of noise produced. Permanent hearing damage will result if hearing protection is not worn. These labels must be present, clear and legible at all times whilst this item of plant is in operation.

Hazard(s): Crushing, Pinching
Relevant References: AS1470, AS4024, ISO31000-2009 Risk Management
Preliminary Risk Rating: MEDIUM 14
Residual Risk Rating: MEDIUM 13
Risk Treatment: Swing Boom Crush Label

This item of plant has clear hazard warning labels re: pinch point/crush zone, keep clear, that are attached to each side of the boom swing/pivot point. These must be present, clear and legible at all times whilst this item of plant is in operation.

Hazard(s): Burns, Entanglement, Shearing
Relevant References: AS1470, AS2153
Preliminary Risk Rating: HIGH 19
Residual Risk Rating: MEDIUM 13
Risk Treatment: Engine Guard Label

The engine fan and alternator belts, pulleys and gears are guarded. These guards have clear legible hazard warning labels re do not open or remove guards while engine is running. These labels must be present, legible and easily seen at all times whilst this item of plant is in operation.

Hazard(s): Crushing, Poor Signage
Relevant References: AS1418.8, AS1470, AS4024, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 19
Residual Risk Rating: MEDIUM 13
Risk Treatment: Boom Lifting Point Table

This item of plant has a lifting point fitted to the boom, accordingly a load/distance table is present at the operator work area. This must be clear and legible at all times. This item of plant must comply with the relevant parts of AS 1418 at all times. All operators must be appropriately trained to use this item of plant and licenced where necessary.

Hazard(s): Burns
Relevant References: AS1470, ISO31000-2009 Risk Management
Preliminary Risk Rating: MEDIUM 12
Residual Risk Rating: MEDIUM 12
Risk Treatment: Open Cabin

Dust, exhaust fumes, chemical fumes, sunstroke and sunburn pose serious risk to the operator both short and long term. The appropriate controls for all of these hazards must always be available whilst this item of plant is in operation. If these controls e.g. hats, sunscreen, dust masks etc are not available then operation of this item of plant must cease until these are made available to all operators.

Hazard(s): Collision, Crushing
Relevant References: AS1470, AS2153, AS2359, ISO31000-2009 Risk Management

Preliminary Risk Rating: MEDIUM 12 **Residual Risk Rating:** LOW 6

Risk Treatment: Warning Device (horn)

This item of plant is fitted with a fully functional audible warning device such as a horn. This must be easily accessed by the operator, and easily identifiable by nearby pedestrians.

All operators should ensure the warning devices are functional at the start of each shift, by completing pre-start checklists. Warning devices should operate automatically where appropriate (eg reversing)

Hazard(s): Crushing **Relevant References:** AS1470, AS2153.7, ISO31000-2009 Risk Manageme

Preliminary Risk Rating: MEDIUM 12 **Residual Risk Rating:** LOW 6

Risk Treatment: Front Grader Blade Label

The front blade on this item of plant is fitted with a hazard warning label re: crush zone, keep clear. This label must be present and fully functional and serviceable at all times.

Hazard(s): Collision, Crushing, Striking **Relevant References:** AS1470, AS2153, AS4024, ISO31000-2009 Risk Management

Preliminary Risk Rating: MEDIUM 12 **Residual Risk Rating:** LOW 6

Risk Treatment: Tail Swing Label

The rear of this item of plant has a hazard warning label re: general plant movement, tail swing, keep clear. It must be present and fully functional and serviceable at all times.

Hazard(s): Fire **Relevant References:** AS1470, AS1841, AS1851, AS2153.7, ISO31000-200 Risk Management

Preliminary Risk Rating: MEDIUM 13 **Residual Risk Rating:** LOW 4

Risk Treatment: Fire Extinguisher

This item of plant is fitted with an approved and maintained fire extinguisher. Fire extinguisher(s) must be present and fully functional at all times. They must be readily accessible to the operator. Regular inspections must also be carried out in accordance with the manufacturer's requirements and AS 1851 – 1995

Hazard(s): Incorrect Operation **Relevant References:** AS1470, ISO31000-2009 Risk Management

Preliminary Risk Rating: CRITICAL 24 **Residual Risk Rating:** LOW 2

Risk Treatment: Operator Competency

Only persons who are qualified, trained and experienced and/or hold the relevant certification/license can operate this item of plant. If there is not a competent/licensed person available for operation of this item of plant then only persons who are supervised by a competent/licensed person can operate this item of plant.

Design Compliance

Hazard(s): Collision **Relevant References:** AS1470, ISO31000-2009 Risk Management

Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** HIGH 21

Risk Treatment: Beacon

This item of plant is fitted with a safety beacon. This beacon must meet the following criteria at all times whilst this item of plant fitted is in operation -

-is visible up to 200m in all directions (allowing for intermittent obstruction from the plant structure whilst the plant is in operation)
-is fitted in the most appropriate location on machine to maximise visibility without risking continual damage

NOTE: more than one beacon may be fitted to meet these criteria.

Hazard(s): Crushing **Relevant References:** AS4772-2008

Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15

Risk Treatment: Quick Hitch Controls

The quick hitch operation control fitted with a device/method to prevent accidental operation. This device must be fully functional at all times whilst this item of plant is in operation.

Hazard(s): Crushing **Relevant References:** ISO24135.1-2006, ISO3776.1-2006, ISO6683-2005

Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15

Risk Treatment: Seat Belt

This item of plant is fitted with an operator seat belt. This seat belt must be free from damage, and permanently and sturdily attached at all times whilst this item of plant is in operation. Operators must use this seat belt at all times during operation.

Hazard(s): Crushing **Relevant References:** AS4772-2008

Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15

Risk Treatment: Quick Hitch Operation Alarm

This item of plant is fitted with a quick hitch with a fully functional audible alarm fitted to the operator work area to alert the operator that the host machine is in the mode that allows for the controls to be operated to engage or disengage attachments.

This alarm must be fully functional at all times whilst this item of plant is in operation.

Hazard(s): Crushing
Relevant References: AS1470, ISO31000-2009 Risk Management, ISO7731-2003, ISO9533-2010

Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15

Risk Treatment: Movement Awareness Alarm

An automatic movement awareness alarm is fitted to this item of plant. This alarm is automatically activated when travel in any direction occurs. It must be fully functional and serviceable at all times whilst this item of plant is in operation.

Hazard(s): Crushing
Relevant References: AS2294, AS4987-2002, ISO31000-2009 Risk Management, ISO3471-2008

Preliminary Risk Rating: HIGH 21
Residual Risk Rating: MEDIUM 15

Risk Treatment: ROPS Excavators

A Roll Over Protective Structure (ROPS) to ISO 3471, ISO 12117.1 or 2, AS 2294 or AS 4987 is fitted to this item of plant. A permanent label stating this standard must be attached to the structure at all times. This structure provides a safety envelope during a rollover. A warning label re: wearing of seat belts at all times whilst this item of plant is in operation and accordingly seat belts must be worn at all times during operation.

Hazard(s): Burns, Striking
Relevant References: AS2671-2002, ISO4413-1998

Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15

Risk Treatment: Hydraulic Hoses

This item of plant has hydraulic hoses. These hoses must be inspected each day or before each use for wear and tear. If there are visible signs of wear immediate action must be taken to control the risk arising from this wear. These inspections must be documented.

Hydraulic fluid at high pressure can penetrate the skin, never use any part of your body to check for leaks. If oil penetrates the skin seek medical advice immediately. Always use a piece of cardboard or similar to check for suspected leaks.

Hydraulic pressure can be stored and is a hazard. Before disconnection or connection of hydraulic hoses complete the following steps -

1. Stop engine
2. Keep all bystanders clear of the work area
3. Refer to operators manual as to methods to release pressure
4. Wait 5 minutes

Hazard(s): Entanglement
Relevant References: AS2153.1-1997, AS4024

Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15

Risk Treatment: Engine Guards

The engine fan and alternator belts, pulleys and gears are guarded. These guards must be present and fully functional and serviceable at all times whilst this item of plant is in operation.

Hazard(s): Incorrect Operation
Relevant References: AS4024.1906-2006, ISO31000-2009 Risk Manageme

Preliminary Risk Rating: HIGH 20
Residual Risk Rating: MEDIUM 14

Risk Treatment: Intuitive Controls

The controls fitted to this item of plant are orientated so that the movement of the control is consistent with the action of the machine e.g. moving a control lever to the left results in the machine turning to the left. This design feature must be maintained at all times whilst this item of plant is in operation.

Hazard(s): Slipping
Relevant References: AS1470, AS1657-1992, AS2153.1, AS2153.3, AS2153.7, AS3868-1991, ISO31000-2009 Risk Management

Preliminary Risk Rating: MEDIUM 12
Residual Risk Rating: LOW 6

Risk Treatment: Operator Work Area Access/Egress

Safe access and egress to the cabin/work area(s) must be maintained at all times whilst this item of plant is in operation. It must be non slip, free from damage, located at a height so as to not cause undue body stresses and strains with three points of contact available to personnel at all times.

All personnel must -
1. Always face the item of plant during access and egress.
2. Always maintain three points of contact during access and egress.
3. Never carry an object(s) in his/her hand(s) during access and egress.
4. Never jump off machine.

Hazard(s): Incorrect Operation, Slipping
Relevant References: AS1470, AS2153.3, AS2153.6, AS2153.7, AS4024, ISO31000-2009 Risk Management

Preliminary Risk Rating: HIGH 17
Residual Risk Rating: LOW 6

Risk Treatment: Control Levers/Pedals/Buttons

The control levers and foot controls must be kept non-slip and free from damage at all times.

Hazard(s): Falling, Slipping, Tripping
Relevant References: AS1470, AS2153.7, AS3868-1991, ISO31000-2009 Risk Management

Preliminary Risk Rating: MEDIUM 12 **Residual Risk Rating:** LOW 6

Risk Treatment: Engine Bay Access

Safe access and egress to the engine bay/work area(s) must be maintained at all times whilst this item of plant is in operation. It must be non slip, free from damage, located at a height so as to not cause undue body stresses and strains with three points of contact available to personnel at all times.

All personnel must -
1. Always face the item of plant during access and egress.
2. Always maintain three points of contact during access and egress.
3. Never carry an object(s) in his/her hand(s) during access and egress.
4. Never jump off machine.

Hazard(s): Burns, Electric Shock **Relevant References:** AS1470, AS4024, ISO31000-2009 Risk Management

Preliminary Risk Rating: MEDIUM 12 **Residual Risk Rating:** LOW 6

Risk Treatment: Battery Cover

All batteries fitted to this item of plant are constrained to prevent displacement & fitted with a permanent sturdy cover which allows for ventilation. The constraint and cover must be present and fully functional and serviceable at all times whilst this item of plant is in operation.

Hazard(s): Strains **Relevant References:** AS1064, AS1246, AS1470, AS2153.3, AS4024, HB59

Preliminary Risk Rating: HIGH 19 **Residual Risk Rating:** LOW 5

Risk Treatment: Controls Ergonomics

All controls including all levers, buttons, pedals, switches etc, are placed near the operator work position and are easy to reach and operate during the execution of the operator's normal duties. This applies for all persons within the 95th percentile of the normal population distribution.

Hazard(s): Crushing **Relevant References:** ISO10262-1998, ISO31000-2009 Risk Management, ISO3449-2005

Preliminary Risk Rating: HIGH 21 **Residual Risk Rating:** LOW 5

Risk Treatment: FOPS General

This item of plant is fitted with a Level I Falling Objects Protective Structure (FOPS). This structure is designed to protect the operator from small falling objects (e.g. bricks, small concrete blocks, hand tools)

Before operating this item of plant a risk assessment must be conducted to determine the level of FOPS required.
Level I - withstands 1,365 joules (e.g. 20kgs @ 7m drop, 70kgs @ 2m drop)
- operations such as highway maintenance, landscaping and other construction site services
Level II - withstands 11,600 joules (e.g. 200kgs @ 6m drop, 394kgs @ 3m drop)
- operations such as site clearing, overhead demolition or forestry

This risk assessment must be undertaken before each operation, in particular when the item of plant is moved to a new location, even if it is within the same site.

Hazard(s): Burns, Striking **Relevant References:** AS1418.1-2002 Cranes - General requirements, AS2671-2002, AS4024, ISO31000-2009 Risk Management, ISO4413-1998

Preliminary Risk Rating: MEDIUM 14 **Residual Risk Rating:** LOW 5

Risk Treatment: Hydraulics 500mm

This item of plant is fitted with a sturdy, permanent guard(s) between the hydraulic hoses and any body parts of the operator to provide protection during a hose failure. This guard(s) must be in place at all times whilst this item of plant is in operation.

Hazard(s): Collision, Poor Visibility **Relevant References:** AS1470, AS2153, AS4024, ISO31000-2009 Risk Management

Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** LOW 5

Risk Treatment: Machine Lights

This item of plant is fitted with self contained lighting. All of these lights must be fully functional and serviceable whilst this item of plant is in operation in areas of reduced light. If any of these lights stop working the operation must cease immediately and the faulty light be repaired before operation can continue in the areas of reduced light.

Hazard(s): Burns **Relevant References:** AS1019, AS1470, AS2153, AS4024, ISO31000-2009 Risk Management

Preliminary Risk Rating: MEDIUM 9 **Residual Risk Rating:** LOW 5

Risk Treatment: Exhaust

The engine exhaust on this item of plant is fitted with a guard to prevent injury to any person and control the risk of initiating a fire. It must be present and fully functional and serviceable at all times whilst this item of plant is in operation.

Hazard(s): Incorrect Operation, Slipping **Relevant References:** AS1470, AS2153.1, AS2153.6, AS2153.7, ISO31000-2009 Risk Management

Preliminary Risk Rating: MEDIUM 9 **Residual Risk Rating:** LOW 4
Risk Treatment: Operator Floor
All work area floors are non-slip and free from damage & debris.

Floor area must be remain non-slip and free from damage & debris, including rubbish, tools and other items, at all times whilst this item of plant is in use.

Hazard(s): Collision, Crushing **Relevant References:** AS1470, AS2153, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** LOW 2
Risk Treatment: Neutral Start
This item of plant has neutral start control in place. It must be fully functional and serviceable at all times whilst this item of plant is in operation.

Hazard(s): Crushing **Relevant References:**
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** LOW 2
Risk Treatment: Quick Hitch - Fully Automatic
This item of plant is fitted with a fully automatic hydraulic (quick) hitch (i.e. has hydraulically operated latch as primary retention device and remotely controlled safety device as back up) between the excavator arm and attachments.

This safety device must meet all of the following criteria at all times prior and during operation -

1. Is a mechanical device i.e. not just an indicating system/device
2. Must be intentionally disengaged to remove attachments
3. Is not the primary source of retention of attachments
4. Has means of verifying engagement of the primary retention device from the operator position and
5. Has means of verifying engagement of safety system from operator position

If any of these criteria are not met at any time then operation must cease.

Hazard(s): Operational Malfunction **Relevant References:** AS1470, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** LOW 2
Risk Treatment: Plant Modification
The plant is in original condition.

Hazard(s): Strains **Relevant References:** AS1470, AS2153.1, AS2153.2, AS2153.6, AS2153.7, AS2953, ISO31000-2009 Risk Management, ISO3691-1980
Preliminary Risk Rating: MEDIUM 9 **Residual Risk Rating:** LOW 1
Risk Treatment: Operator Seat
The operator seat fitted to this item of plant must remain free from damage and tears, and be permanently and securely fitted at all times.

Hazard(s): Crushing **Relevant References:** AS1418.8
Preliminary Risk Rating: CRITICAL 24 **Residual Risk Rating:** LOW 1
Risk Treatment: Closed Eye Lifting Point
The lifting point fitted to this item of plant is the closed eye type. Hooks with or with out latching devices must not be used as a lifting point at any time.

Maintenance

Hazard(s): Incorrect Operation **Relevant References:** AS1470, AS2153, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Maintenance Manual
The manufacturer's maintenance manual(s) has been supplied for this item of plant

These manual(s) must be available at all times to all users and maintenance staff of this item of plant. All users and maintenance staff must read and be familiar with these handbook(s) prior to maintaining or repairing this item of plant.

A complete risk assessment/JSEA must be undertaken covering all inspection, maintenance, servicing and transportation requirements of this piece of plant prior to use.

A full assessment of the competence of people using the book(s) must also be undertaken

Hazard(s): Operational Malfunction **Relevant References:** AS1470, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 21 **Residual Risk Rating:** MEDIUM 15
Risk Treatment: Service Records
Service and maintenance records are available for this item of plant.

These records must continue to be maintained and stored in a secure area as part of your plant safety management programme. This programme includes the undertaking of regular inspections concerning the general condition of the item of plant including (but not limited to) tyre condition, oil levels and wear and tear on critical items such as brakes and steering, etc. All OEM prescribed, scheduled and non scheduled maintenance must also be documented as part of these records and attended to within a risk management framework.

Hazard(s): Crushing
Relevant References: AS1470, AS1636, AS2294, ISO31000-2009 Risk Management
Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15
Risk Treatment: ROPS Damage

The Roll Over Protective Structure (ROPS) fitted to this item of plant must remain free from damage at all times whilst this item of plant is in operation.

Hazard(s): Burns, Striking
Relevant References: AS2550, AS2671-2002, ISO31000-2009 Risk Management, ISO4413-1998
Preliminary Risk Rating: HIGH 22
Residual Risk Rating: MEDIUM 15
Risk Treatment: Hydraulic Damage

The hydraulic hoses to this item of plant are free from damage and protected against damage arising from contact with the plant structure. Ensure that hoses are free from damage and that protection is in place at all times whilst this item of plant is in operation. Inspection of the hydraulic hoses and protection system should be conducted regularly and documented as part of your plant safety programme.

Hazard(s): Current or previous structural damage
Relevant References: AS1470, ISO31000-2009 Risk Management
Preliminary Risk Rating: CRITICAL 25
Residual Risk Rating: MEDIUM 15
Risk Treatment: Structural Integrity

Regular checks for structural damage must be undertaken. Look for cracks in frames/chassis (current or repaired), bends or damage to structural components, etc.

Hazard(s): Collision, Instability
Relevant References: AS1470, ISO31000-2009 Risk Management
Preliminary Risk Rating: MEDIUM 9
Residual Risk Rating: LOW 4
Risk Treatment: Tracks

The tracks and track components must be inspected as part of a "pre start" checklist. These inspections must be documented as part of your plant safety programme.

Hazard(s): Operational Malfunction
Relevant References:
Preliminary Risk Rating: HIGH 22
Residual Risk Rating: LOW 2
Risk Treatment: Major Fluid Leaks

This item of plant must remain free from major and minor leaks at all times whilst in operation (this includes engine, transmission, cooling system, air, fuel, drive line, wheel hubs, steering and hydraulics). Development of a major leak will require this item of plant to be stood-down until repaired. Minor leaks detected must be repaired within 1-14 days.

SECTION 5 IMAGES AND DOCUMENTS

NOTES

IMAGES

There are no images

<END OF RISK ASSESSMENT REPORT>

plant assessor

RISK MANAGEMENT REPORT

Report Number	AHS 20140220-1003
Date Created	20-February-2014
Date Completed	20-February-2014
Assessor	Paul Rozier
Company	Australian Hammer Supplies Pty Ltd
Make	Kubota
Model	U25-3SS
Type	Excavator
Serial Number	50153
Engine Number	1DL1560
Location	North Ryde
Lot Number	
Assessment Purpose	Sale
State	NSW
Assistant Assessor(s)	

PURCHASER ACKNOWLEDGEMENT

I the undersigned acknowledge that I have read and understand the risk management report described above.

I also acknowledge that I have received a copy of this risk management report.

I also acknowledge that I am authorised to sign on behalf of the purchaser.

Company Name _____

First Name _____ Surname _____

Address _____

Suburb/Town _____ State _____ Postcode _____

Phone _____ Fax _____ Mobile _____

Email Address _____

Signature _____ Date _____

Can Online Safety Systems contact the purchaser with important OH&S information ? (please tick one) Yes ☐ No ☐

The manufacturers' operational & maintenance handbooks have been supplied, _____ (initial) (please tick one) Yes ☐ No ☐

Please transfer this assessment to my Plant Assessor membership as a Hire / Plant in Use assessment (circle either)

My Plant Assessor username is _____