RISK MANAGEMENT REPORT

TYPE	Concrete Pump - No Boom (trailing/mounted)
MAKE	Jacon
MODEL	S63
FLEET NUMBER	CPQ008
UNIT NUMBER	CPQ008

Report Number	17472 20210329-1200
Date	29-Mar-2021
Created By	Dwayne NIXON
Assessor	Dwayne NIXON
Assist. Assessor(s)	Stephen Randall
Completed By	Dwayne NIXON
Owner	THE CONCRETE PUMPING QUEENSLAND TRUST
Assessment Purpose	Plant in use
State	QLD

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SECTION 1 IMPORTANT INFORMATION

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All operators of this item of plant must read and understand this report prior to operating this item of plant. This report pertains to this item of plant as it appeared on the day of inspection.

The safety hazards associated with the operating and maintaining of this item of plant have been identified as far as practical by visual inspection.The condition of this item of plant will change with use. 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.

Controls outlined in both section 4 & 5 of this report must be maintained at all times whilst this item of plant is in operation. Any information contained in the notes section of this report shall be read in conjunction with section 3. Any information relating to the standard features have been supplied via the manufacturer and shall be used as a guide only until verified.

Additional Risk Assessment may be required, specific to the operating environment, for this item of plant.
All operators and maintenance personnel must be 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 MACHINE DETAILS

MACHINE DETAILS

- NOISE TEST RESULTS	1. Manufacturers specified noise level dBA	80
	2. Ambient noise level dBA	65
	3. Noise level - Operator position (high idle) dBA	80
	4. Noise level - Operator position (low idle) dBA	60
	5. Noise level LHS dBA @ m (high idle)	80
	6. Noise level Front dBA @ m (high idle)	80
	7. Noise level RHS dBA @ m (high idle)	80
	8. Noise level Rear dBA @ m (high idle)	82
CAPACITIES	Fuel Tank Capacity (Litres)	200
	Lift Height (mm/feet)	1500
DIMENSIONS/WEIGHTS	Dry Weight (kg)	2000
	Height (mm)	1700
	Length (mm)	3000
	Max Operating Weight (kg)	2000
	Width (mm)	1800
ENGINE	Engine Displacement (Litres)	4L
	Engine Hours	401
	Engine Make & Model	DEUTZ
	Engine Number	A150627
	Engine Petrol/Diesel	Diesel
	Engine Power (kW@rpm)	90
	Number of Cylinders	4
PUMP	Pump Make & Model	JAYCON S63
	Pump Maximum Pressure (Bar)	
TYRES	Number of Tyres	
	Tyre Size (Trailed Models)	
EXTRAS	Spare Tyre	FITTED
	Stabiliser Legs	HYD OPERATED
	Storage/Tool boxes	ON TOWING TRUCK
	Wheel Chocks	FITTED

SECTION 3 RISK ANALYSIS / RISK EVALUATION

RISK ANALYSIS

LIKELIHOOD \ CONSEQUENCE	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 eg. Loss of fingers, extended hospital stay	5. CATASTROPHIC Death, permanent disabling injury eg. 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. Possibly 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 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.
Administration	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 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, health & safety 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.

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating	Time Frame	Due Date	Date Rectified	Initial

SECTION 5 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.

COMMISSIONING

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
INCORRECT OPERATION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Pre-start checklist**
The operational "pre start" checklist must be completed before the start of each operation. If any faults are detected, these must be rectified prior to commencement of operation. These inspections must be documented as part of your plant safety management programme.

References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
INCORRECT OPERATION, COLLISION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Tow Coupling Label**
The aggregrate mass of this trailer is less than 3500kg and a ball type towing coupling fitted. Accordingly the tow ball coupling is marked with the following information in characters in English not less than 5 mm high -

(a) Factory mark, trade name or manufacturer's name (if appropriate).
(b) The mark '50' to indicate the size of the towball for which it is intended.
(c) The manufacturer's approved maximum coupling body rating (e.g. '750 kg', or '2000 kg', or '3500 kg'), in kilograms.
(d) A code to indicate the serial number, batch, production date, or similar.
(e) The words 'DO NOT WELD' if the coupling is manufactured from non-weldable materials.
(f) The words 'WELD ONLY' if coupling body is specifically designed to be attached by welding only?

This information must be marked upon the coupling and followed at all times whilst this item of plant is in operation.

References: AS4177.3

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
NON COMPLIANCE	HIGH 21	MEDIUM 15

Risk Treatments in Place: **Concrete Pump Marking**

Concrete pump marked with the folloing information -
1. Name of manufacturer or distributor
2. Make, model, serial number & year of manufacture of the pump
3. Maximum hydraulic pressure (kPa)
4. Maximum outlet pressure (kPa)
5. Pump capacity in cubic metres per hour

And for boom if fitted -
6. Rated length & height in metres
7. Pipe line diameter & thickness
8. maximum pressure (kPa)
9. Max length of deliver hose (m) and diameter (mm) &
10. Maximum loading for each stabiliser leg (marked on leg) in kg.

This information must be present & legible at all times whilst this item of plant is in operation.

References: AS1418.15

OPERATION

COLLISION	CRITICAL 25	HIGH 21

Risk Treatments in Place: **Electric Brake Controller**

This trailer is fitted with electric type brakes and the tow vehicle is fitted with a device (brake controller) that allows the braking force to be controlled at the normal driving position.
This device must be fully functional at all times whilst this item of plant is in operation.

References: Australian Design Rules-

INCORRECT OPERATION	CRITICAL 24	MEDIUM 15

Risk Treatments in Place: **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.

References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations

INCORRECT OPERATION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **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.

References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations

INCORRECT OPERATION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **SOP**

Safe Operation Procedures are available for this item of plant. The information in the Safe Operation Procedures must be followed at all times whilst operating this item of plant.

References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations

INCORRECT OPERATION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **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.

References: AS/NZS4024.1905

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
POISONING, EXPLOSION, BURNS	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Engine**

Review Safe Operation Procedures to ensure the existence of the following:

FUEL COMBUSTION ENGINES SAFE OPERATION PROCEDURES

1. Switch off the engine before refueling.
2. NEVER smoke in the vicinity of, and keep sources of sparks away from, any flammable liquid or fuel.
3. Let the engine cool down before refueling.
4. Fuels can contain substances similar to solvents. Eyes and skin should not come in contact with mineral oil products. Always wear protective gloves when refueling (not regular work gloves!). Frequently clean and change protective clothes. Do not breathe in fuel vapours. Inhalation of fuel vapours can be hazardous to your respiratory health.
5. Use extreme care when filling fuel tanks.
6. Exercise care not to spill fuel. If a spill over the engine occurs, clean and dry the engine immediately. Fuel should not come in contact with clothes. If your clothes have become contaminated with fuel, change out of them at once. Undertake refilling operations over a non porous surface such as concrete or preferably within a bunded area to avoid spilling fuel on the ground (environmental protection).
7. Do not refuel any fuel tank or container in a closed unventilated area. Without effective ventilation, fuel vapours will accumulate near the floor creating a risk of explosion and/or causing dizziness and possible unconsciousness in nearby persons.
8. Ensure to correctly fit and firmly tighten the screw cap of the fuel tank.
9. Before starting the engine, move to a location at least 3 metres from where you fuelled the engine.
10. Fuel cannot be stored for an unlimited period of time. Buy only as much as will be consumed in the short term.
11. When making up the fuel/oil mixture (2-stroke engines only), always put the oil in the mixing container first, and then the fuel.
12. Use only approved and appropriately marked containers for the transport and storage of fuel.
13. Keep children away from fuel, fuel storage and operating machinery!
14. Where possible, keep an appropriate fire extinguisher nearby during operations utilising flammable liquids.
15. Never operate an internal combustion engine inside your home, basement, garage or any other enclosed area. The engine needs a minimum of 1 to 2 metres of spacing on all sides (including the top). An engine needs an unlimited supply of fresh air for proper cooling during operation.
16. Properly locate the engine outdoors away from doors and windows. An open door or window will allow dangerous exhaust fumes to enter the building. Since combustion engines create carbon monoxide, which can be lethal, good ventilation is critical. Keep the engine dry and always operate it on a level surface.

References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations

INCORRECT OPERATION, NON COMPLIANCE	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Emergency Stop Labelling**

The emergency stop(s) fitted to this item of plant are clearly labelled as to the purpose and method of operation.
These labels must be maintained in a clean and serviceable condition at all times.

References: AS/NZS4024.1604

CRUSHING, FALLING	HIGH 22	MEDIUM 15

Risk Treatments in Place: **No Riding On Machine Label**

This item of plant has a hazard warning label re: "No Riding on Machine". It must be present, clear and legible at all times whilst this item of plant is in operation.

References: AS1319

POISONING, EXPLOSION, BURNS	HIGH 22	MEDIUM 15

Risk Treatments in Place: **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)

References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations

FIRE	HIGH 21	MEDIUM 15

Risk Treatments in Place: **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)	Prelim. Risk Rating	Residual Risk Rating
NON COMPLIANCE, OPERATIONAL MALFUNCTION	HIGH 21	MEDIUM 15
Risk Treatments in Place: **Log Book - Concrete Placing Equipment** The plant log book is available for this item of plant, ensure that all inspections, maintenance, assessments and repairs carried out on this item of plant are recorded in the log book. This log book must be kept with this item of plant at all times whilst in operation.		
References: AS2550.15		
STRIKING	HIGH 21	MEDIUM 15
Risk Treatments in Place: **Hose Whip Prevention Device** This item of plant is fitted with a device which will prevent hose whip in event of an unintended separation of the hose coupling(s) or the hose to coupling(s) which meet the following requirements - 1) Has a capacity rating greater than the burst pressure of the hose 2) Is designed for the diameter hose it is fitted to 3) Is installed without any slack to prevent as much movement as possible in the event of a failure & 4) Is adjusted to grip the hose firmly. This device must be present and fully functional at all times whilst this item of plant is in operation.		
References: AS4024, ISO31000		
HEARING LOSS	HIGH 19	MEDIUM 14
Risk Treatments in Place: **Hearing Protection Label - Bystanders** The hazard warning labels re: wearing of hearing protection for bystanders 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.		
References: AS3781- , AS/NZS1269		
HEARING LOSS	HIGH 19	MEDIUM 14
Risk Treatments in Place: **Hearing Protection Label - Operator** The hazard warning label(s) 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.		
References: AS3781- , AS/NZS1269		
EYE DAMAGE	HIGH 19	MEDIUM 14
Risk Treatments in Place: **Eye Protection Label** The hazard warning labels re: wearing eye protection attached to this item of plant refer to the potential for score from the drilled product becoming lodged in the eye and causing serious injury. Permanent eye damage may result if eye protection is not worn. These labels must be present, clear and legible at all times.		
References: AS/NZS4024.1201, AS1319-		
ENTANGLEMENT, SHEARING, PINCHING	HIGH 19	MEDIUM 13
Risk Treatments in Place: **Guarding Label** All the belts, pulleys and gears are guarded. These guards must be present, fully functional and serviceable at all times whilst this item of plant is in operation and the labels re: do not open or remove while engine is runninig must be in place and easily seen at all times.		
References: AS/NZS4024.1201		
CRUSHING	MEDIUM 14	MEDIUM 13
Risk Treatments in Place: **Stabiliser Legs** This item of plant has a hazard warning label re: crushing, adjacent the stabiliser legs. These labels must be present, clear and legible at all times.		
References: AS/NZS4024.1201, AS1319-		

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
ENTANGLEMENT, SHEARING, BURNS	MEDIUM 14	MEDIUM 13

Risk Treatments in Place: **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.

References: AS/NZS4024.1201, AS1319-

DESIGN COMPLIANCE

NON COMPLIANCE, COLLISION	CRITICAL 24	MEDIUM 15

Risk Treatments in Place: **Trailer Brakes (GTM 750-2000kg)**
This item of plant has fully functional brakes fitted to at least one axle.

These brakes must be fully functional at all times whilst this item of plant is in operation. The brakes must be regularly inspected and tested. These inspections and tests must be documented as part of your plant safety programme.

References: Australian Design Rules-

NON COMPLIANCE, COLLISION	CRITICAL 24	MEDIUM 15

Risk Treatments in Place: **Trailer Brakes (GTM 2000kg +)**
This item of plant has fully functional brakes fitted to all wheels.

These brakes must be fully functional at all times whilst this item of plant is in operation. The brakes must be regularly inspected and tested. These inspections and tests must be documented as part of your plant safety programme.

References: Australian Design Rules-

CRUSHING, COLLISION	CRITICAL 24	MEDIUM 15

Risk Treatments in Place: **Park Brake**
This item of plant is fitted with a fully functional park (hand) brake which meets the following requirements –
1. Is separate to the service brakes
2. Has a device which maintains the brake in the on position until intentionally disengaged &
3. Requires at least two separate and distinct movements to disengage the park brake.

The park brake must be regularly inspected and tested. These inspections and tests must be documented as part of your plant safety programme.

CRUSHING, COLLISION	CRITICAL 24	MEDIUM 15

Risk Treatments in Place: **Trailer Safety Chain**
This item of plant is fitted with a safety chain which will keep this item of plant attached to the towing unit in the event of failure to the primary tow coupling. Use of this device is mandatory on public roads and use at all other times is highly recommended.

The size and capacity of all components of this device must be proportional to the mass of this item of plant and conditions under which this item of plant is towed.

The condition of this device must be monitored as part of your operational "pre start" checklist. If any faults are detected towing of this item of plant must not occur until repair or replacement by a competent person occurs.

References: Australian Design Rules-

ENTANGLEMENT	CRITICAL 24	MEDIUM 15

Risk Treatments in Place: **Hopper Auger Guard - Concrete Pump**
The hopper auger guard meets the following requirements -
1. Bars are not more than 75 mm apart
2. Bars not closer than 100 mm to any moving part &
3. Guard is interlocked to prevent motion of auger unless guard is fully closed.

Ensure that these requiements are met at all times whilst this item of oplant is in operation.

References: AS1418.15

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
CRUSHING, ENTANGLEMENT, OPERATIONAL MALFUNCTION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Radio Control Cut Out Device**

This remote controlled item of plant is fitted with a device which cuts power to the unit and prevents further movement in the event of a loss of signal from the remote, i.e. out of range, signal interference, loss of power to the remote or inactivity for greater than 5 minutes.

This safety device must be present and functional at all times whilst this item of plant is in operation.

References: ISO31000, AS1418.1

NON COMPLIANCE	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Trailer Compliance Plate**

This trailer is fitted with a manufacture's compliance plate that has the following information permanently marked upon it as a minimum -

1. Name of the manufacturer or importer
2. Trailer model
3. VIN (Vehicle identification number)
4. Date of manufacture
5. ATM (Aggregate trailer mass)
6. A certification statement complying with the Standards Act 1989?

Ensure that this plate is present and legible at all times whilst this item of plant is in operation.

References: Australian Design Rules-

STRIKING, BURNS	HIGH 22	MEDIUM 15

Risk Treatments in Place: **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

References: AS4024, AS2671

CRUSHING	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Hydraulic Locking Devices for Stabilisers**

This item of plant is fitted with hydraulic cylinder locking devices to the stabiliser legs to prevent movement in the event of hydraulic failure. These devices must be fully functional at all times whilst this item of plant is in operation.

References: AS/NZS4024.1201, AS1418.1

CRUSHING, ENTANGLEMENT, STRIKING, COLLISION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **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.

References: AS4024.1603

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
COLLISION	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Tow Couplings (ball type)**

The aggregrate mass of this trailer is less than 3500kg and a ball type towing coupling fitted. Accordingly a self-locking mechanism together with a separate means of automatically retaining this device in the locked position is also fitted. This device must meet the fllowing criteria at all times whilst this item of plant is in use -

(a) the coupling body is not prone to failure or undue deterioration with use
(b) the coupling body is placed so that the likelihood of inadvertent damage to any component while in use is minimised
(c) self-locking occurs when the coupling body is coupled to the towball and is verifiable by visual inspection
(d) the self-locking device is constructed so as to prevent accidental disengagement while in operation
(e) the self-locking device can easily be manually released to permit disengagement of the coupling body from the towball

If at any stage any of these criteria are not met operation must cease until the appropriate remedial actions are completed by a competent person.

References: AS4177.3

ENTANGLEMENT, CUTTING, SHEARING	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Emergency Stop Device**

This item of plant is fitted with an emergency stop device.

The emergency stop must meet all of the following criteria whilst this item of plant is in operation:

1. Is operational
2. Is coloured red with yellow background
3. Is easily accessible to the operator(s) at all times whilst operating this item of plant
4. Resetting of emergency stop does not automatically restart machine
5. Is located at each operator control station.

Note: All operators must be familiar with the use and effects of actuation of the emergency stop device.

References: AS/NZS4024.1604

INSTABILITY, CRUSHING	HIGH 22	MEDIUM 15

Risk Treatments in Place: **Stabiliser Leg Requirements**

This item of plant fitted with stabiliser legs which meet the following criteria -

1. Means provided to securely locate each stabiliser in the retracted position
2. Means is provided to indicate that the stabiliser is in the correct position horizontally to provide adequate support.

All of these criteria must be met at all times whilst this item of plant is in operation.

References: AS/NZS4024.1201

ENTANGLEMENT	HIGH 22	MEDIUM 15

Risk Treatments in Place: **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.

References: AS/NZS4024.1601

COLLISION	HIGH 22	MEDIUM 11

Risk Treatments in Place: **Turning, Braking & Presence Lights**

This item of plant is fitted with lighting to indicate presence, turning and braking. All of these lights must be fully functional 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.

References: AS/NZS4024.1201

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
OPERATIONAL MALFUNCTION	HIGH 22	LOW 2
Risk Treatments in Place: **Plant Modification** The plant is in original condition.		
INCORRECT OPERATION	HIGH 20	MEDIUM 14
Risk Treatments in Place: **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.		
References: AS/NZS4024.1906		
STRAINS	HIGH 19	LOW 5
Risk Treatments in Place: **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.		
References: AS/NZS4024.1901		
STRIKING, BURNS	HIGH 19	LOW 5
Risk Treatments in Place: **Hydraulic Hose Failure Shield** This item of plant is fitted with a sturdy, permanent shield(s) between the hydraulic hoses and any body parts of the operator to provide protection during a hose or component failure. This shield(s) must be present and fully functional at all times whilst this item of plant is in operation.		
References: AS4024, ISO4413, AS2671		
CRUSHING	HIGH 19	MEDIUM 13
Risk Treatments in Place: **Pipes & Coupling Requirements** Each pipe segment and each coupling meets the following requirements - 1. The minimum outside diameter of the pipe at the end fittings is not less than the actual pipe outside diameter 2. Quick acting couplings have a safety fitting to prevent inadvertent disengagement. These requirements must be met at all times whilst this item of plant is in operation.		
References: AS1418.15		
CRUSHING	HIGH 19	MEDIUM 14
Risk Treatments in Place: **Concrete Pumping Pipe Requirements** Each segment of pipe line have the following clearly and legibly marked upon it - 1. A unique id number 2. The pipe line diameter (mm) & 3. The year & month that this marking was applied. This marking must be clearly legible at all times whilst this item of plant is in operation.		
References: AS1418.15		
INCORRECT OPERATION, SLIPPING	HIGH 17	LOW 6
Risk Treatments in Place: **Control Levers/Pedals/Buttons** All controls including all levers, buttons, pedals, switches etc. must be kept non-slip and free from damage at all times.		
References: AS/NZS4024.1901		
ELECTRIC SHOCK, BURNS	MEDIUM 12	LOW 6
Risk Treatments in Place: **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.		
References: AS/NZS4024.1201		

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
BURNS	MEDIUM 9	LOW 5
Risk Treatments in Place: **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.		
References: AS/NZS4024.1201		

MAINTENANCE

CURRENT OR PREVIOUS STRUCTURAL DAMAGE	CRITICAL 25	MEDIUM 15
Risk Treatments in Place: **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.		
INCORRECT OPERATION	HIGH 22	MEDIUM 15
Risk Treatments in Place: **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		
References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations		
INSTABILITY, COLLISION	HIGH 22	MEDIUM 15
Risk Treatments in Place: **Tyres** The tyres and wheel components must be inspected as part of a "pre start" checklist. These inspections must be documented as part of your plant safety programme.		
References: ISO31000		
STRIKING, BURNS	HIGH 22	MEDIUM 15
Risk Treatments in Place: **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.		
References: AS4024, ISO4413, AS2671		
NON COMPLIANCE	HIGH 22	MEDIUM 15
Risk Treatments in Place: **Monthly Routine Inspection - Concrete Placing** Monthly routine inspection has been carried out within the last month. Ensure that this occurs every month and is recorded in the log book.		
References: AS2550.15		
OPERATIONAL MALFUNCTION	HIGH 22	LOW 2
Risk Treatments in Place: **Major Fluid Leaks** This item of plant must remain free from 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.		
References: ISO31000		

HAZARD(S)	Prelim. Risk Rating	Residual Risk Rating
☑ **OPERATIONAL MALFUNCTION**	HIGH 21	MEDIUM 15

Risk Treatments in Place: **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.

References: Work Health & Safety Act & Regulations- , Occupational Health & Safety Act & Regulations

SECTION 6 IMAGES AND NOTES

IMAGES

- No Images Available -

NOTES

- No Notes Available -

RISK MANAGEMENT REPORT

TYPE	Concrete Pump - No Boom (trailing/mounted)	**Report Number**	17472 20210329-1200
MAKE	Jacon	**Date**	29-Mar-2021
MODEL	S63	**Created By**	Dwayne NIXON
FLEET NUMBER	CPQ008	**Assessor**	Dwayne NIXON
UNIT NUMBER	CPQ008	**Assist. Assessor(s)**	Stephen Randall
		Owner	THE CONCRETE PUMPING QUEENSLAND TRUST
		Assessment Purpose	Plant in use
		State	QLD

OPERATOR 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.

DATE	NAME	COMPANY/POSITION	SIGNATURE