

5 RISK ASSESSMENT GUIDE

The following RISK CLASSIFICATION table should be used to assess the degree of risk presented by hazardous situations identified when carrying out the assessment.

Consider:

Electrical Thermal Noise Mechanical Gravity
 Pressure Chemical Radiant Biochemical

The numbers indicate how important it is to do something.

1 = Top priority – do something immediately

25 = Low priority – do something when possible

The table does not provide for control actions to be taken to minimise the risk and it is very important that these are documented, along with time frame and responsibilities.

		PROBABILITY				
		A	B	C	D	E
CONSEQUENCES	1	1	2	4	7	11
	2	3	5	8	12	16
	3	6	9	13	17	20
	4	10	14	18	21	23
	5	15	19	22	24	25

Number & Colour	Risk
1 to 3 - Red	Critical
4 to 10 - Yellow	High
11 to 15 - Blue	Medium
16 to 25 - Green	Low

Probability	
A	Almost Certain
B	Likely
C	Occasional
D	Unlikely
E	Rare

	Injury	Environmental
5	Could cause injury	No detrimental effect
4	Could cause 1 st Aid Injury	Temporary or minor damage e.g. minor oil spill
3	Could cause typical MTC/LTI	Substantial temporary or minor permanent damage e.g Minor water discharge
2	Could cause serious injury (major LTI)	Substantial and permanent damage which would result in prosecution, adverse local publicity and complaints
1	Could kill, permanently disable	Major event creating loss of company creditability with key audiences, national publicity & complaints & which could close the operation permanently.

6 RISK ASSESSMENT – HH160i

Activity	Hazard	Initial Risk		Current Control Measures & Action Required - New Press	Residual Risk		
		P	C		P	C	
Lifting of Pumpset by single point lifting frame	Excessive lateral movement of unit – crushing	C	1	<ul style="list-style-type: none"> Only qualified personnel to use lifting equipment Hoisting acceleration should not exceed 0.4m/sec² Ensure lifting equipment is in good condition Keep all personnel away from Pumpset when it is suspended Do not lift Pumpset by any other method than the central lifting eye Do not lift in extreme weather conditions Stop & think Correct PPE 	E	4	21
Setting up the Pumpset	Slips, trips, strain, sprains and pinch points	B	3	<ul style="list-style-type: none"> Wear correct PPE Stop and think Inspect area to ensure safe working conditions Set up on level ground Communicate with personnel located/working in vicinity of Pumpset Clean up any spillages causing trip hazards Do not operate Pumpset in known unsafe conditions Do not use Pumpset in any classification of hazardous environment unless it has been specifically designed to do so Do not operate within a confined space 	C	3	13
Operation of Pumpset	Excessive Noise – hearing loss	B	2	<ul style="list-style-type: none"> Wear correctly fitting hearing protection at all times when working or operating around the Pumpset Stop & think 	E	2	16

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Activity	Hazard	Initial Risk	Current Control Measures	Residual Risk
Operation of Pumpset	Boom movement (Suction Hose Boom) – pinch points & crushing	C 2 8	<ul style="list-style-type: none"> • Wear correct PPE • Stop & think • Do not operate Pumpset in known unsafe conditions • Do not use Pumpset in any classification of hazardous environment unless it has been specifically designed to do so • Do not operate within a confined space • Keep all personnel away from Pumpset when boom is tilted, raised or lowered • Do not move Pumpset whilst operating the boom • Ensure boom lifting equipment is in good condition • Do not operate Boom in known unsafe conditions • Communicate with personnel located/working in vicinity of Pumpset 	D 2 12
Operation of Pumpset	Running engine & Pump Unit – moving parts, hot pump parts, hot exhaust and manifolds on engine – possible burns, pinch points, cuts and abrasions	B 2 5	<ul style="list-style-type: none"> • Wear correct PPE • Stop & think • Educate employees of burn hazards on engines • Keep access door on enclosures closed and locked when not required to be open • Ensure that the engine is operated only from the control panel or from the operator's position by one person only • Keep hands, arms, long hair, loose clothing and jewellery away from pulleys, belts and other moving parts • Do not remove any safety guards or panel 	D 2 12
Operation of Pumpset	Hydraulic, fuel, grease, oil, radiator coolant, water pressure, movement of pump water hose and battery electrolyte leaks – environmental pollution, poisoning, burns & skin irritation	C 2 8	<ul style="list-style-type: none"> • Stop & think • Wear correct PPE • Check all hoses for cracks and leaks • Check that all covers and caps are secure on alternator, cooling fan/radiator, engine & fuel tank • Ensure spillages are contained • MSDS available for all items used in Pumpset • Educate employees of burn hazards 	D 3 17

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Activity	Hazard	Initial Risk	Current Control Measures	Residual Risk
Operation of Pumpset (Diesel Driven)	Possible electrocution – electric shock and burns	C 3 13	<ul style="list-style-type: none"> • Wear correct PPE • Stop & think • Only Authorised Personnel to work on electrical equipment • Check all conduits for splits, bare wires or unsecured conduit fitting prior to operation of Pumpset • Check all circuit breaker boards are secure and sealed • Check all guards covering electrical section are secured correctly • Do not attempt to connect or disconnect load while standing in water or on wet or soggy ground • Ensure all electrical power is isolated from electrical equipment being serviced • Keep all electrical equipment clean and dry • Keep terminals clean and tight • Test earth leakage equipment regularly • Ensure correct fire extinguisher is available 	D 4 21
Operation of Pumpset	Possible electrocution – electric shock and burns	B 2 5	<ul style="list-style-type: none"> • Wear correct PPE • Stop & think • Only Authorised Personnel to work on electrical equipment • Check all conduits for splits, bare wires or unsecured conduit fitting prior to operation of Pumpset • Check all circuit breaker boards are secure and sealed • Check all guards covering electrical section are secured correctly • Do not attempt to connect or disconnect load while standing in water or on wet or soggy ground • Ensure all electrical power is isolated from electrical equipment being serviced • Keep all electrical equipment clean and dry • Keep terminals clean and tight • Test earth leakage equipment regularly • Ensure correct fire extinguisher is available 	D 3 17

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Activity	Hazard	Initial Risk	Current Control Measures	Residual Risk
Maintenance – Electrical Battery charging	Possible explosion – burns and bodily injuries	B 1 2	<ul style="list-style-type: none"> • Wear correct PPE • Stop & think • Correctly isolate equipment • Do not smoke or allow sparks, flames or other sources of ignition around batteries • To avoid arcing keep grounded conductive objects, such as tools, away from exposed live electrical parts, such as terminals • When disconnecting battery disconnect the negative battery terminal first • When reconnecting battery connect the negative battery terminal last • Ensure adequate ventilation • Turn off power or disconnect the power to the battery charger before making or breaking connections with the battery 	D 3 17
Maintenance - Electrical	Possible electrocution – electric shock and burns	B 3 9	<ul style="list-style-type: none"> • Wear correct PPE • Stop & think • Correctly isolate equipment • Only Authorised Personnel to work on electrical equipment • Do not attempt to connect or disconnect load while standing in water or on wet or soggy ground • Ensure all electrical power is isolated from electrical equipment being serviced • Keep all electrical equipment clean and dry • Keep terminals clean and tight • Test earth leakage equipment regularly • Ensure correct fire extinguisher is available 	D 4 21
Maintenance – refilling fuel tank	Fuel leaks – environmental pollution, poisoning, burns & skin irritation	B 3 9	<ul style="list-style-type: none"> • Stop & think • Wear correct PPE • Correctly isolate equipment • Check all hoses and fittings for cracks and leaks • Ensure spillages are contained • MSDS available for fuel used in lighting tower • Educate employees of burn hazards 	D 4 21

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Activity	Hazard	Initial Risk	Current Control Measures	Residual Risk
Maintenance - mechanical	Engine, hydraulic pump and centrifugal pumpend maintenance – explosion, burns, pinch points, skin irritation	C 4 18	<ul style="list-style-type: none"> • Stop & think • Wear correct PPE • Correctly isolate equipment • MSDS available for items used in Pumpset • Ensure spillages are contained • Check all hoses and fittings for cracks and leaks • Correctly de-energise hydraulic system • Ensure guarding is in place and secure after maintenance is finished • Do not remove the radiator filler cap until the coolant has cooled. Then loosen the cap slowly to relieve any excess pressure before removing the cap completely • Educate employees on hazards of hot coolant and oil under pressure • Bleed Hydraulic Pressure before carrying out maintenance. • Allow Hydraulic Oil to cool before maintenance. • Educate employees of burn hazards • Ensure correct fire extinguisher is available 	D 4 21