

RISK ASSESSMENT

Pre-Start Hazard Assessment (PHA) – Water Truck Operation (Dino / ORWC 2)

Form Reference:	ISO-BMS-RA-025
Plant/Vehicle/Machine Type:	JCB 8250 Water Truck - Asset ORWC 2
Project/Location:	

Purpose & Scope: This Pre-Start Hazard Assessment (PHA) identifies the tasks, hazards, and required control measures for the safe operation of this vehicle across Consolidated Group of Companies (CG/CTS/JG) sites, including Pilbara mining and civil construction environments. It must be read, understood, and signed by every operator prior to first use, and reviewed whenever conditions, plant, or the system of work change.

ALL OPERATORS MUST SIGN BELOW TO ACKNOWLEDGE THEY HAVE READ AND UNDERSTOOD THIS PHA, AT LEAST ONCE, PRIOR TO THE OPERATION OF THIS MACHINE.

Name	Date	Time	Signature

Approval & Sign-Off

Supervisor/s Responsible for this Document:	
Full Name:	
Location/Project ID:	
Date:	
Signature:	

Follow-Up Review Triggers

Follow-up trigger – review this PHA on change to: use of plant, system of work, plant environment, new information, or plant modification.	Y	N
Is the plant designed to perform the task?	☐	☐
Has the plant been modified from the original condition?	☐	☐

Follow-up trigger – review this PHA on change to: use of plant, system of work, plant environment, new information, or plant modification.	Y	N
Is the plant in good working condition and free of leaks, damage, mud and vegetation build-up?	☐	☐
All identified action items closed out/addressed (plant checks)?	☐	☐
Is the plant safe to operate? (on completion of PHA and any action closures)	☐	☐

Task, Hazard & Control Assessment

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
PRE-START					
Operator competency & fitness for work	Unqualified, unlicensed, unfit, or fatigued operator	H17	- Operator holds current VOC (Verification of Competency) for this specific plant item and has completed site induction. - Fit for Work declaration completed; zero tolerance for alcohol and non-prescription drugs. - No operation while affected by fatigue, medication, drugs or alcohol - report to supervisor immediately if unfit.	L4	Operator
Pre-start inspection	Undetected plant defect leading to failure during operation	H17	- Complete documented pre-start/prestart book covering the items specific to this plant (see below), guards, isolators, e-stops, reversing alarm, beacon, fire extinguisher, first aid kit and spill kit. - Regular scheduled servicing/maintenance per manufacturer's schedule; defects tagged out and reported - do not operate a tagged/defective item. - Registration/inspection current where applicable.	M8	Operator
FILLING & WATER SOURCE					
Filling at hydrant, dam, or bore connection	Overfilling, hose failure, or slip/trip hazard at the fill point	H14	- Fill point/hydrant connection inspected before use; hoses and camlock fittings checked for wear or damage. - Tank level monitored during filling to prevent overfilling/overflow; operator remains at the vehicle during filling. - Fill area kept clear of trip hazards; spill kit available.	M9	Operator
TRAVEL & SPRAYING OPERATION					
Travel with a full/partial load (water surge)	Loss of control from water surge inside the tank affecting vehicle stability, particularly when braking, cornering, or on uneven ground	H17	Baffled tank design relied upon where fitted; speed reduced on corners, uneven ground, and when braking with a partial load.	M8	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
			Obey site speed limits and haul road rules; seatbelt worn at all times.		
Spray bar / cannon operation for dust suppression	Struck-by or slip hazard from spray discharge, or reduced visibility for other road users from dust/spray	M8	- Spray bar/cannon directed away from personnel, other vehicles, and the roadway edge. - Spray rate adjusted to conditions to avoid creating standing water or additional dust from overspray.	L4	Operator
Reversing and blind spots	Struck-by injury given the vehicle's size and reduced rear visibility	H14	- Reversing alarm, camera and beacon operational and checked at pre-start. - Spotter used when reversing near other plant, personnel, or in congested work areas.	M9	Operator
Rollover on haul roads / uneven ground	Rollover given the raised centre of gravity of a filled water tank on uneven or sloped ground	H17	- Machine operated within manufacturer's rated slope limits; reduced speed on rutted, uneven, or sloped haul roads. - Report any haul road defects (potholes, washouts) to supervisor.	M8	Operator
Electrical systems	Electric shock from pump motor, wiring or control systems given the vehicle's electrical spray/pump equipment	H14	- Electrical systems isolated and tagged before any work on the pump, wiring or spray controls. - Only authorised personnel to work on electrical systems; warning decals maintained.	M9	Operator / Electrician
BREAKDOWN & MAINTENANCE					
Roadside breakdown	Struck-by from passing traffic while stopped on the traffic side of the vehicle	H14	- Position the vehicle as far off the road as possible; hazard lights on; reflective vest worn and triangles placed at correct distance. - Stay with the vehicle and contact supervisor for assistance.	M9	Operator
Maintenance and servicing	Injury during servicing, or unit returned to service with an unresolved defect	M8	- Vehicle isolated (keys removed/tagged) and stationary before any maintenance task begins. - Tank, pump, spray bar and hoses inspected per service schedule and manufacturer's handbook; defects tagged and reported immediately. - Maintenance/repair records kept and reviewed at each scheduled service.	L4	Operator / Mechanical Team

Post-Task Activities

Post-Task Activities	Y	N
Ensure all tools are collected & returned to store/workshop.	☐	☐

Post-Task Activities	Y	N
Remove all waste materials from the area & place in the appropriate bins.	☐	☐
Report any damaged equipment.	☐	☐
Remove any barricades erected if no longer required.	☐	☐
Leave area clear of hazards.	☐	☐
Check area for hydrocarbon spillages.	☐	☐
Remove isolations and complete any permits/certificates if applicable.	☐	☐
Clean the cabin for the next person on shift to ensure a healthy work environment.	☐	☐

Additional Notes

Important: Every person on site must read this document and be familiarised with the underlying risks associated with operating this vehicle. It is the site supervisor's responsibility to check every team member has been briefed and has signed to acknowledge. Please add a note for any new risk identified during operation.

Risk Matrix

Likelihood \ Consequence	1 Insignificant No injury / near miss	2 Minor First aid / medical treatment	3 Significant LTI or restricted work duties	4 Major Fatality or serious permanent injury	5 Catastrophic Multiple fatalities – 50 or more health effects
Almost certain – Expected to happen	H11	H16	E20	E24	E25
Likely – Could happen frequently	M7	H12	H17	E22	E23
Possible – Could happen occasionally	L4	M8	H13	H18	E21
Unlikely – May occur sometime	L2	L5	M9	H14	E19
Rare – May only occur in exceptional circumstances	L1	L3	M6	H10	H15

Risk Rating – Actions Required After Ranking Risk

E STOP	H REVIEW	M PROCEED	L PROCEED
Eliminate or reduce the hazard to acceptable level (e.g. Medium or Low) in order to proceed	Controls to reduce hazard as far as reasonably practicable	With stated controls and supervision	And monitor for changes in conditions

Control the Risk – Hierarchy of Controls

Hierarchy of Controls	Examples of Controls
Elimination	• Design change, change of construction methodology
Substitution	• Use safer substance/chemical

Hierarchy of Controls	Examples of Controls
	• Environmental catchments/sedimentation pools
Isolation	• Guards on power tools; effective screens, barriers and edge protection • Enclose noisy machinery; environmental swales, booms or barriers, paint washout station
Engineering	• Earth leakage device (safety switch) on electrical sources • Use a machine to lift heavy objects; use scaffold rather than a ladder as a working platform
Administration	• Change work practices and safe work method procedures • Tagging and testing procedures or waste sorting
PPE	• Hard hats, glasses, hearing protection, hi-vis vests, safety boots/shoes • (Note: PPE should be the last option to protect people)