

RISK ASSESSMENT

Pre-Start Hazard Assessment (PHA) – General Mobile Plant Operation

Form Reference:	ISO-BMS-RA-004
Plant/Vehicle/Machine Type:	Various Small Mobile Plant (generic - use only where no asset-specific RA exists)
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
PLANT DESIGN COMPLIANCE					
Lighting for night/low-light operation	Collision or loss of visibility - OEM-fitted lighting on compact excavators is often limited to front working lights only	H14	- Confirm the fitted lighting package before any night or reduced-light operation; where the machine only has front working lights, additional self-contained lighting (head, reversing, rear, control/work area) must be fitted and confirmed serviceable before use in those conditions. - Do not operate in low light/night conditions until compliant lighting is fitted and tested.	M9	Operator / Management
Beacon / strobe visibility	Struck-by injury due to the machine not being visible to other plant/vehicles on site	H14	A minimum 55-watt amber rotating beacon or strobe fitted, visible up to 200m in all directions in normal daylight, positioned to maximise	M9	Operator / Management

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
			visibility while minimising damage risk (more than one beacon may be needed depending on machine profile). • Beacon confirmed operating at pre-start; machine not to be operated with a non-functional beacon.		
GENERAL OPERATION					
Accessing and exiting the plant	Slips, trips, falls, or fall from height accessing/exiting the cab or platform	H14	• Use correct designated access points only; maintain 3 points of contact when accessing or exiting. • Always face the plant when accessing or egressing steps/ladders; ensure boots are fastened and free from mud/debris. • Never jump from the cab - use the steps or ladders provided; ladders, steps, railings and hand grips confirmed in good condition at pre-start.	L4	Operator
Entanglement in moving parts	Entanglement of hair, clothing, or limbs in moving parts of the plant	M8	• Guards fitted and in place at all times during operation. • Plant isolated before any inspection or work near moving parts. • No loose clothing, hair, or jewellery worn while operating.	L4	Operator
Crush or entrapment injury	Personnel crushed or trapped by the plant, between moving parts, or by unexpected movement/tip-over	H17	• Only qualified, competent operators to operate the plant; operator's manual supplied and reviewed. • E-stops, isolators, reversing alarm, flashing beacon and seatbelt fitted and used. • Crush-zone decals in place; JSEA completed for the specific task before work commences.	M8	Operator
Electrical hazards	Electric shock from wiring, switches, or conductors due to lack of insulation, poor earthing, or lack of isolation	H14	• Battery isolator fitted; plant isolated and tagged out of service while being worked on. • Warning decals in place; only an authorised auto-electrician to work on the plant's electrical system.	M9	Operator / Electrician
Hydraulic system failure	Burns or injury from burst hydraulic hoses, or radiator/A/C pressure release	H14	• Daily pre-start check of all hoses and radiator for wear, damage, or leaks. • Immediate reporting of any hose or radiator defect; maintenance and servicing per manufacturer's schedule.	M9	Operator
Fire	Fire from fuel, electrical fault, friction, or escaping fluids	M8	• Fire extinguisher carried on all plant; operator trained in its use.	L4	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
			Isolators available to cut electrical circuits in an emergency.		
Collision with traffic, plant, or personnel	Struck-by or collision injury on site	M8	- Reversing alarm fitted; two-way communication maintained with people on the ground (spotters). - Operator maintains awareness of surroundings and other plant movements on site.	L4	Operator
Noise exposure	Hearing damage from sustained high noise levels	M8	- Appropriate hearing protection PPE worn where required. - Noise emissions monitored; kept within site limits (typically 85dB).	L4	Operator
Fatigue	Incorrect operation due to operator fatigue	H14	- Operator fatigue awareness maintained at all times; minimum night driving/operation. - Fitness for Work policy followed; report fatigue to supervisor immediately.	L4	Operator
Manual handling / ergonomics	Musculoskeletal injury from poor posture or strained movement	L3	- Seating position adjusted and locked in place; steering wheel adjusted where applicable. - Mirrors adjusted for correct vision around the plant before operating.	L1	Operator
Brake/steering failure	Loss of control from brake or steering system failure	H14	- Daily pre-start check of brake components, tyres and tracks (as applicable). - Maintenance and servicing per manufacturer's schedule; immediate reporting of any defect.	M9	Operator / Mechanic
Theft / vandalism when left unattended	Loss of plant, or unauthorised/unsafe use by others	H10	- Plant parked in designated/secure areas only; keys removed from ignition and stored securely. - All doors, windows and compartments locked; items of value (radios, extinguishers) removed.	L2	Operator
Refuelling	Fire or injury during refuelling	H14	- Refuelling carried out in designated areas only; spill kit in the immediate area. - Engine off and operator out of the plant while refuelling; no naked flames or smoking nearby; correct fuel used.	M9	Operator
Operating in poor weather / low light	Reduced visibility increasing collision or loss-of-control risk	M8	- All exterior lighting confirmed working at daily pre-start. - Only qualified operators to operate in these conditions; JSEA reviewed.	L4	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
Environmental - oil spills / emissions	Environmental contamination from oil spills or excessive emissions	M8	- Servicing carried out in designated areas; waste oil decanted into drums on bunded pallets. - Spill kits available in service areas; daily pre-start check for excessive emissions.	L4	Operator / Mechanic

Post-Task Activities

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

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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 LT1 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 • 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)