

RISK ASSESSMENT

Pre-Start Hazard Assessment (PHA) – 2022 Anaconda J12 Tracked Jaw Crusher

Form Reference:	ISO-BMS-RA-030
Plant/Vehicle/Machine Type:	Anaconda J12 Tracked Jaw Crusher
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
SET-UP & RELOCATION					
Track relocation between sites/positions	Rollover or loss of control moving the tracked unit on uneven, sloped, or unstable ground	H18	- Ground assessed for stability and slope before track relocation; avoid soft or uneven ground where practicable. - Radio remote or umbilical control used from a safe position clear of the track path where fitted. - Spotter used near excavations, drop-offs, or other plant/personnel; exclusion zone maintained while tracking.	M8	Operator
Set-up on site (levelling, hopper extensions)	Instability during deployment of hopper extensions and feeder components	H17	- Unit set up on level, compacted ground. - Hopper extension deployment sequence followed per operator's manual; exclusion zone maintained during deployment.	M8	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
			• Pins, locks and hydraulic rams visually confirmed engaged before feed commences.		
JAW CRUSHING OPERATION					
Feed hopper access and blockage clearing at the jaw	Crush or entanglement injury clearing bridged material at the crushing jaw or feeder	H18	• Unit shut down, isolated (lock-out/tag-out) and jaw confirmed fully stationary before any manual clearing of blockages. • Never enter the hopper or stand on the feed grid while the plant is running or energised - the jaw retains stored energy even when stopped, confirm zero energy state before approach. • Designated clearing tools/procedures used per manufacturer's guidance; JSEA completed for blockage-clearing tasks.	M9	Operator
Jaw setting adjustment (CSS - closed side setting)	Crush injury adjusting the crusher's closed-side setting under hydraulic pressure	H17	• Jaw adjustment carried out only by trained personnel following the operator's manual sequence. • Hydraulic pressure released and jaw confirmed stationary before any manual adjustment or inspection. • Exclusion zone maintained around the jaw during adjustment.	M8	Operator
Conveyor belt operation	Entanglement or crush injury at conveyor nip points and return idlers	H17	• Nip-point guards and belt guards fitted and confirmed in place at pre-start. • No loose clothing, hair, or jewellery near moving conveyors; exclusion zone maintained along the conveyor run. • E-stops positioned and tested along conveyor lines before shift start.	M8	Operator
Dust generation (jaw crushing)	Respirable and silica dust exposure during crushing operation	H17	• Dust suppression (water spray) operating and checked at pre-start where fitted. • P2 respiratory protection worn in the immediate dust zone; air monitoring per site HSE requirements. • Avoid standing downwind of the crusher discharge.	M8	Operator
Noise	Hearing damage from sustained exposure to crushing noise	M8	• Hearing protection worn in accordance with site noise management plan. • Noise levels monitored; operator kept clear of the immediate crushing zone where practicable.	L4	Operator
MAINTENANCE & ISOLATION					

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
Maintenance and servicing	Injury during servicing, or unit returned to service with an unresolved defect	H17	• Full isolation (lock-out/tag-out) of hydraulic, electrical, and mechanical systems before any maintenance task. • Maintenance carried out by accredited personnel only, following the operator's/maintenance manual. • Jaw plates, toggle plate and drive belts inspected per service schedule; defects tagged and reported immediately.	L4	Operator / Mechanical Team

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 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

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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)