

RISK ASSESSMENT

Pre-Start Hazard Assessment (PHA) – 6x4 End Tipper Operations

Form Reference:	ISO-BMS-RA-015
Plant/Vehicle/Machine Type:	6x4 End Tipper (Rigid Tipper Truck)
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 a current HR/HC licence appropriate to the vehicle class and site-specific VOC (Verification of Competency) for the End Tipper. - Operator has completed site induction, Fit for Work declaration, and fatigue management requirements (rostered hours, journey management plan for long transits). - 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 tyres, tailgate latch/pins, hydraulic hoses and rams, chassis, lights, reversing camera/alarm, mirrors, UHF radio, seatbelt, 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 vehicle. - RMS/registration and third-party inspection (where applicable) current.	M8	Operator
LOADING					
Positioning under loader / excavator	Struck by falling material, bucket contact, or crush between machines	H17	- Vehicle positioned in designated loading bay only on instruction from loader/excavator operator; park brake applied and remain in cab with seatbelt on during loading unless a ground-level task requires otherwise. - Positive radio communication established with loading unit operator before loading	M8	Operator / Loader Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
			- commences; horn/hand signal confirmation where radio fails. • Exclusion zone maintained – no personnel within the loading unit's swing/bucket radius. • Loader/excavator operator to load evenly across the tray to maintain vehicle stability and prevent overloading of one side/axle group.		
Overload / payload non-compliance	Exceeding GVM and axle load limits, causing instability, tyre failure, or non-compliance with Main Roads WA requirements	H18	• Load ticket/weighbridge check completed per site requirement; payload matched to registered GVM and axle group limits for this configuration. • Load kept within tray capacity and evenly spread to avoid overloading the rear axle group. • Overloaded or unevenly loaded vehicles are not to leave the loading area – report to supervisor for correction.	M8	Operator
HAULAGE / TRAVEL					
Travel on haul roads and site roads	Collision with other mobile plant, light vehicles, or fixed infrastructure	H18	• Obey site speed limits, signage and give-way rules; give way to loaded plant travelling downhill/uphill as per site traffic management plan. • IVMS/journey management system fitted and monitored where required by client (BHP/FMG); flashing beacon operating at all times on site. • Maintain safe following distance; be aware of blind spots particularly to the rear and passenger side • No handheld mobile phone use while driving. Seatbelt worn at all times. Personnel not to ride in the tipper body under any circumstances. • UHF radio channel discipline maintained – call up at blind corners, ramps and designated call points.	M8	Operator
Fatigue on extended hauls	Driver fatigue leading to loss of control	H14	• Rest breaks taken in line with fatigue management plan/heavy vehicle standards; rotate or stand down if signs of fatigue present. • Journey management plan completed for long-distance or remote transits. • Cabin air-conditioning maintained and hydration encouraged, particularly during Pilbara heat.	L5	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
Overhead and underground services	Contact with overhead powerlines or damage to buried services while travelling or tipping near infrastructure	H18	• Dial Before You Dig / site services plan checked prior to entering new work areas. • Spotter used and safe approach distances maintained near overhead powerlines – body must remain lowered until clear of all overhead hazards. • No tipping or raising of the body within the exclusion zone of overhead electrical infrastructure.	M9	Operator / Supervisor
Wildlife and fauna strike	Collision with fauna on Pilbara access roads, particularly dawn/dusk	M8	• Reduced speed during low-light periods and in known fauna corridors. • Report fauna strikes to supervisor; do not swerve harshly – maintain control of the vehicle.	L4	Operator
TIPPING / UNLOADING					
Rollover / tip-over while unloading	Vehicle instability or rollover while the tipper body is raised, especially on unstable, sloped, or uneven ground	H18	• Select a level, stable, compacted tipping location; ground assessed for soft spots, table drains and windrow edge stability before reversing in. • Handbrake applied and wheels chocked where required before raising the body. • Body only raised once the vehicle is fully stopped and level. • Do not raise or tip in high wind conditions that could affect body stability. • No travelling with the body raised.	M9	Operator
Reversing to tip edge / windrow	Vehicle over-travel past the tip edge, or collision with ground crew	H17	• Spotter/ground crew used for all reversing near tip edges, windrows, stockpiles or excavations, positioned in the operator's clear line of sight. • Reversing alarm and camera operational and checked at pre-start. • Wheel stops/windrows established and maintained at all tip edges where practicable. • No ground personnel behind or beside the vehicle during the reversing manoeuvre unless acting as the designated spotter.	M8	Operator / Spotter
Entrapment / crush at tailgate and hydraulics	Crush injury from tailgate release, hydraulic ram, or material bridging in the tray	H17	• Stand clear of the tailgate swing area when releasing latches. • Never enter under or climb into a raised tipper body for any reason – lower the body and isolate before any manual clearing of bridged/blocked material.	M8	Operator

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			Guards in place on hydraulic components; machine shut down and isolated for maintenance with no unauthorised persons in the area.		
Load covering / sheeting (working at height)	Fall from height while tarping or securing the load	H14	- Use of ground-level or mechanical sheeting systems preferred where available at site. - Where manual tarping from height is unavoidable, 3-points of contact maintained and task-specific fall risk controls followed per site requirements. - Loads must be adequately secured/covered before leaving the loading or tipping area, particularly on public roads.	M6	Operator
BREAKDOWN & EMERGENCY					
Roadside breakdown	Struck-by from passing traffic while stopped on the traffic side of the vehicle	H18	- Position the vehicle as far off the road as possible; hazard lights on. - Reflective vest worn; reflective triangles placed at correct distance front and rear of the vehicle. - Exercise extreme care on the traffic side; warn oncoming traffic if safe to do so. - Stay with the vehicle and contact supervisor for assistance.	M9	Operator
Heat stress (Pilbara conditions)	Heat-related illness during breakdown, outside inspections or manual tasks	M8	- Adequate drinking water carried at all times; hydration breaks taken. - Heat stress awareness training completed; report symptoms to supervisor immediately. - Avoid prolonged outside exposure during peak heat – seek shade/cabin air-conditioning where safe to do so.	L5	Operator
REFUELLING					
Refuelling – fire/static ignition	Fire or explosion from static discharge or ignition source at the fuel point	M6	- Remain with the vehicle while refuelling. - Follow directions and warnings at fuel outlets; no use of electronic equipment (including mobile phones) during refuelling. - Only appropriate fuel used; discharge static electricity before touching the fuel pump/nozzle.	L1	Operator
EQUIPMENT MAINTENANCE					

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
Inspection & maintenance	Injury during servicing, or vehicle returned to service with an unresolved defect	M6	• Equipment maintained as per operational and manufacturer's specification; maintenance carried out by accredited personnel only. • Vehicle isolated (keys removed/tagged) and stationary before any maintenance task begins. • Pre-start book, operator's manual, maintenance manual, first aid kit, flashing beacon, fire extinguisher and spill kit confirmed on board. • Inspections carried out in an area excluded from other plant and vehicle interaction.	L1	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

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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)