

RISK ASSESSMENT

Pre-Start Hazard Assessment (PHA) – Semi Tipper Truck & Trailer Operation

Form Reference:	ISO-BMS-RA-024
Plant/Vehicle/Machine Type:	Prime Mover + Side Tipper Trailer(s) Combination
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
COUPLING & COMBINATION					
Coupling/uncoupling prime mover and side tipper trailer(s)	Crush injury coupling/uncoupling, or trailer runaway if not correctly secured - including dolly coupling for multi-trailer combinations	H17	- Trailer(s) parked on level ground with park brake applied and wheels chocked before uncoupling. - Fifth wheel/coupling and dolly drawbar connections visually confirmed locked, and air/electrical lines connected, before moving off; pre-trip coupling check completed every time. - No personnel between units during coupling manoeuvres.	M8	Operator
LOADING & LOAD RESTRAINT					

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
Loading the side tipper	Struck by falling material, or overload/uneven loading affecting combination stability	H17	- Vehicle positioned in the designated loading area only on instruction from the loading unit operator; exclusion zone maintained within the loading unit's swing/bucket radius. - Load ticket/weighbridge check completed; payload matched to registered combination mass limits and evenly distributed across all trailers.	M8	Operator
Load restraint and sheeting	Load loss in transit from inadequate restraint or sheeting	H17	- Load restrained/sheeted per load restraint guide requirements before departing the loading area, particularly on public roads. - Restraint checked at the first opportunity after departure and at rest stops on longer transits.	M8	Operator
TIPPING / UNLOADING					
Rollover / tip-over while side-tipping	Combination instability or rollover while the side tipper body is raised, given the sideways tipping action and raised centre of gravity	H18	- Select a level, stable, compacted tipping location; ground assessed for soft spots and edge stability before positioning. - Combination fully stopped and level before raising the body; do not tip on a cross-slope or with the combination angled. - No travelling with the body raised; do not tip in high wind conditions that could affect body stability.	M9	Operator
Exclusion zone during tipping	Struck-by injury from the raised body or discharging load	H17	- Exclusion zone maintained on the discharge side and around the full combination while the body is raised. - Spotter used where ground crew or other plant are working nearby.	M8	Operator
TRAVEL & ROAD TRAIN CONSIDERATIONS					
Travel on haul roads and public roads	Collision, jack-knife, or rollover given the combination's length and mass	H18	- Obey site speed limits, signage and give-way rules; IVMS/journey management followed where required by client. - Combination mass and dimensions kept within permit/PBS conditions for the route travelled; escort/pilot arranged where required. - Seatbelt worn at all times; no handheld mobile phone use while driving.	M9	Operator

Task	Hazard	Initial Risk	Current Control Measures	Residual Risk	Responsible
Reversing the combination	Struck-by or jack-knife injury reversing a multi-trailer combination	H17	- Spotter used for all reversing manoeuvres; reversing alarm and camera (where fitted) operational. - Reversing carried out slowly with awareness of each trailer's swing path.	M8	Operator
BREAKDOWN & MAINTENANCE					
Roadside breakdown	Struck-by from passing traffic while stopped on the traffic side of the combination	H14	- Position the combination as far off the road as possible; hazard lights on; reflective vest worn and triangles placed at correct distance front and rear. - Stay with the vehicle and contact supervisor for assistance.	M9	Operator
Refuelling	Fire or explosion from static discharge or ignition source at the fuel point	M6	- Remain with the vehicle while refuelling; no electronic equipment (including mobile phones) used during refuelling. - Discharge static electricity before touching the fuel pump/nozzle.	L1	Operator
Maintenance and servicing	Injury during servicing, or unit returned to service with an unresolved defect	M8	- Combination isolated (keys removed/tagged) and stationary, trailers chocked, before any maintenance task begins. - Tipping mechanism, coupling, and running gear 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

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 - 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)