

Vehicle Loading Crane – Safe Operation

Review date: 11/02/11

Document no. SMS-06-SW-0944	Work description		
	This SWI describes the safe work practices for the operation of a Vehicle Loading Crane		
	Scope		
	This SWI applies to the safe operation of a 300Kg capacity Vehicle Loading Crane, fitted to RETRU vehicles used to remove heavy plant and equipment		
Review date 11/02/11	References <ul style="list-style-type: none"> • OHS Act 2000 • OHS Regulations 2001 • Rail Safety Act 2008 • AS2550.1 Cranes, hoists and winches (Safe use - general requirements) • AS2550.11 Cranes hoists and winches (Vehicle Loading Cranes) • AS1418.1 Cranes, hoists and winches (general requirements) • AS1418.11 Crane hoists and winches – Vehicle Loading Cranes • SMS-06-GD-0306 Plant Risk Assessment • SMS-16-FM-0717 Overhead Travelling Crane Daily Pre-start-Daily Checklist • SMS-06-PR-0173 Plant and Equipment Lock-out Tag-out • SMS-16-FM-0089 Lifting Equipment Inspection • SMS-05-SR-0027 Records Management • SMS-06-SW-0839 Compressed Air - Safe Use • SMS-06-GD-1292 Mobile Cranes 		
Responsible supervisor Line Manager	PPE and precautions <ul style="list-style-type: none"> • High visibility vest or clothing • Safety Footwear • Hearing Protection • Protective Gloves 	Competencies or qualifications <ul style="list-style-type: none"> • Rail Industry Safety Induction (RISI) • Competent in the use of this SWI 	Licences or permits required
Tools and equipment required			
<p>IF CONTROL MEASURES ARE NOT SUITABLE AND MAJOR CHANGES ARE NEEDED, CONDUCT A RISK ASSESSMENT AND DEVELOP NEW CONTROLS ACCORDING TO SMS-06-PR-0104 WORKPLACE RISK MANAGEMENT.</p>			
Periodic Inspections	<p>An engineered certified provider must inspect all lifting gear annually.</p> <p>Line managers must carry out periodic inspections on all lifting gear every 3 months using the SMS-16-FM-0089 Lifting Equipment Inspection form. The record of this inspection is to be provided to line management and retained in accordance with SMS-05-SR-0027 Records management</p> <p>Equipment that is certified as fit for use is to display a prominent tag indicating its fitness</p>		
	<p>Warning</p> <ul style="list-style-type: none"> • <i>To prevent equipment failure before using any type of lifting gear, always ensure that the lifting gear has had a visual inspection and has been certified as fit for use and is within its inspection date</i> 		
	<p>Note</p> <ul style="list-style-type: none"> • <i>All slings require three monthly inspections by an engineered certified provider for any signs of wear or damage. Each inspection is to be recorded by the line manager in the relevant database (e.g. Ellipse).</i> 		
Positioning the RETRU Vehicle	Park the truck on suitable level ground whenever possible and ensure the handbrake is applied fully before any operation of the crane is attempted		
Pre-Operational Checks	<p>Before the first lift of the day the equipment must be checked as follows:</p> <ul style="list-style-type: none"> • Confirm that the crane and lifting gear is within its inspection date by sighting the inspection log book • Prior to every lift, a visual inspection is to be carried out of the lifting gear to assess it is fit for use • Before turning on the air compressor, visually inspect the compressor for any signs of damage or leaks • Put on hearing protection • Start the air compressor and check for any leaks or other mechanical malfunctions such as motor, compressor and air line failures. Check to be carried out in accordance with SMS-06-SW-0839 Compressed Air - Safe Use • Conduct a pre-use inspection using SMS-16-FM-0717 Overhead Travelling Crane Daily Pre-Start-Daily Checklist. The record of this inspection is to be provided to Line Management and retained in accordance with SMS-05-SR-0027 Records Management • Ensure that the travel path is clear of obstruction and personnel. 		

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	<p>Note</p> <ul style="list-style-type: none"> Any lifting gear found to be worn, damaged or outside its periodic inspection date during is to be fitted with an out-of service tag, in accordance with <u>SMS-06-PR-0173 Plant and Equipment Lock-out Tag-out</u>. Such tagged gear is not to be re-used until certified as fit for use by an approved provider
	<p>Warning</p> <ul style="list-style-type: none"> Never use lifting gear that appears to be faulty, damaged or is outside its periodic inspection date. Doing so could result in serious injury or death should the load fall or equipment otherwise fail
Safe Operation of Vehicle Loading Crane	<p>Before any lifting or travelling ensure loads are securely held by the crane. This is to be confirmed through visual checking and, as required, test lifts</p> <p>The use of the crane is a three person operation:</p> <ul style="list-style-type: none"> The crane operator controls the vertical and horizontal movement of the crane The assistants attach and release the load at ground level, an assistant steadies the suspended load within the truck to ensure that it does not swing or strike anything <p>When raising and lowering loads, no one is to handle the crane cable and hands must always be kept clear of the pulley</p> <p>The crane travels on a monorail. All persons must keep their hands clear of the rail and rollers at all times</p> <p>Keep the suspended load as low as possible to the truck floor, before moving it horizontally slowly and steadily along the rail under the control of the assistants to the end of the truck</p> <p>Once the suspended load is clear of the truck, the assistants are to stand clear of the suspended load and ensure others are clear. Then the crane controller is to lower the load in a slow and controlled manner. No person is to climb into or out of the rear of the truck during this process</p> <p>Once the load is lowered to the ground, the assistants are to ensure the load is stable before releasing it from the crane</p>
	<p>Note</p> <ul style="list-style-type: none"> Parking the truck on a sloping surface may affect how the crane travels along the beam. Where possible always park on flat ground and, where necessary, use the assistant to steady the load at arms length and keeping their lower limbs clear of the load at all times

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	<p>Warning</p> <ul style="list-style-type: none"> Failure to ensure that the load is secure before lifting, could result in serious injury should it fall during the lift or travel. As a secondary control, keep your lower limbs clear of the suspended load and never carry out this task unless wearing safety footwear Use gloves to protect your hands and assist in gripping the load. Ensure hands are kept clear of the cable, pulley and rail at all times. Failure to adhere to this requirement could result in serious hand or finger injuries During loading and unloading, all persons are to stand clear as an unexpected dropped load could result in serious injury or death
Shut Down	<p>Once loading / unloading is complete:</p> <ul style="list-style-type: none"> Ensure walkway is clear before walking within the truck Retract cable and stow hook securely Position crane at drivers end of the truck Turn off the air compressor Visually check crane, lifting gear and air compressor for any signs of damage Ensure other tools and equipment are stowed correctly
Additional controls	