

Safe Operating Procedure #15 – Franna Crane

Note: Personnel carrying out this operation must not use their mobile phone whilst carrying out these activities. Personnel must have the correct high risk work license based on the capabilities of the crane being used. The person slinging/dogging must be trained and qualified.

	Activities	Procedures	Hazards/Risks	Controls
1	Assess working conditions	Conduct pre-operational checks on the Franna Crane. Observe the surrounding area for potential hazards that may pose danger while Franna is being used. Implement appropriate controls where possible.	Crane is faulty, causing tipping, breakdowns or other issues during operations that could lead to death or serious injury. Slippery, uneven, soft surfaces or potholes, leading to loss of traction and stability, resulting in tipping or uncontrolled movement of boom and load. This can lead to death, serious injury or significant damage to nearby structures and objects.	Perform a full check on all parts of the Franna Crane to ensure that there is no structural damage or other faults to it. This includes, but is not limited to, tyres, hydraulics, crane boom, wire rope and lifting equipment, fluid levels, hook, lights, mirrors and any other applicable parts of the crane. If there are any faults to the crane, do not operate it. Remove the key, tag out the crane, and inform the supervisor. The supervisor must confer with the Managing Director if the crane appears to be faulty. Fault must be documented in the Works Diary. Workers are not to perform makeshift repairs themselves on the crane. The crane is not to be put back in use without being repaired and deemed suitable for use by a competent technician. The operator is to assess any hazards that may cause danger when operating the Franna Crane. Appropriate measures are to be taken accordingly depending on the nature of the hazards in the workplace. In some cases, operation of the crane may be too dangerous and work is to be either postponed or carried out through alternate, safer methods.

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			Weather hazards, including strong winds, rain, storms and extreme temperatures. These can cause stability issues, reduced visibility, overheating of machine, frying of the electronic control systems, structural issues to the crane or other issues, resulting in harm to others or damage to Franna. Overhead powerlines, resulting in electrocution to those nearby. Boom or lifting equipment could get tangled, resulting in significant damage and structural failure of the powerlines. This could lead to death or significant injury of those on the ground. Other potential hazards include people, buildings, trestles, stacked steel, trees, fences, trucks, other machinery, dangerous goods and other obstructions. These may contribute to an accident.	
2	Check crane controls and lifting gear	Operate crane controls to ensure that they work correctly.	Crane is not functioning properly.	Ensure you are adequately licensed and experienced in the operation of the machine. Check and test all controls including basic movements, reverse beeper and revolving light to ensure that they operate properly and check tyre condition to ensure they are adequately inflated, have even wear, have no

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				chunks missing and are securely fitted. Check lifting gear i.e. ropes, sheaves, chains, and shackles to ensure those chosen have been inspected and tagged, and (in the case of webbing slings) have not been stored near chemicals. Any defective or damaged lifting gear must NOT be used. Inspect wire rope slings and look for broken or worn wires, loose or corroded or distorted wires or abuse such as kinks. Faulty gear should be rendered inoperable and disposed of by the Supervisor. Check that cable is not damaged on reel of crane. Complete logbook daily checks and ensure that Franna has been serviced at intervals required by supplier/manufacture. Should the crane not operate properly, do not proceed until Supervisor instructs you to. Remove the key and tag out the crane. Supervisor must confer with Managing Director if crane appears to be faulty and to document fault in Works Diary. Workers are not to perform makeshift repairs themselves on the crane. The crane is not to be put back in use without being repaired and deemed suitable for use by a competent technician. The crane is never to be used without a secure seatbelt that is in good condition being worn.
3	Getting on and off the crane	Use the assistance inbuilt on the crane to get on and off safely.	Operator at risk of movement from the seat while the crane is in operation. Slips, trips and falls resulting in injury. Strain on the body due to awkward movements.	Always maintain three points of contact when entering/leaving the crane. Only use steps and hand holds provided on the plant. Be wary of potentially slippery ground surfaces when leaving the crane.

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				Do not jump off the crane. Wear non-slip boots.
4	Confirm SWL of crane and destination	Estimate weight to be loaded and ensure that this is within Safe Working Load (SWL) of Franna crane's capability and other factors. Ensure the destination is clear and safe and is not sloping severely.	Crane failure or tip-over, sling damage or loss of load. Destination is not clear of obstacles or other workers. Ground surface may not be strong enough to hold the weight of the crane. Sinking or ground splitting may result in tipping of the crane or swaying of the load, resulting in death or serious injury to nearby workers or crane operator. Gradient of destination area can cause tipping of crane.	After estimating weight of load, only proceed if load is within capability of the crane's safe working load (SWL). Lifting capacities of the slings, radius of the crane boom, load dimensions, wind speed, and other factors are also to be considered. The crane data plate and operations manual will have the capabilities of the specific crane make and model listed based on such factors. These capabilities are not to be exceeded. Do not operate the crane on a slope. Clear destination area and warn others to stay clear. Check the surface that will be driven on to ensure that the surface will not crack, break up or sink underneath the weight of the crane. Consult with Supervisor if destination area is sloping severely. Franna Crane may not be suitable for use in this situation.
5	Team up with Dogman	Determine which person will dog the load.	Dogman not trained or not available.	Trained dogman must be available to communicate with operator. A walkie talkie or other communication system may be required if communication would

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				otherwise be too difficult. The crane is not to be used if there is not a qualified and competent dogman available.
6	Sling load	Insert sling “around load”.	Load moves or rolls during slinging causing manual handling strain or injury, pinching of body parts or head injuries. Damage to slings, resulting in collapse of load. Manual handling injury from the dogman trying to move too much weight	Ensure adequate clearance between body and load being slung, wear leather gloves, hard hat and keep hands clear. Avoid trying to move the load manually. Place hook over the load’s centre of gravity and position the hook at a suitable height to connect the lifting gear safely. Ensure eye of sling fits freely over the hook and that sling is not twisted. Keep all hands clear before releasing tension from the crane and lifting gear. When load has stabilised, assess if there is any possibility of the load slipping, tipping or falling. Particularly with webbing slings - ensure that there is padding between slings and load to protect sling against wear Heavy lifting should be conducted by the crane and not the dogman. Dogman is to assess their own lifting capabilities and to not exceed them. Dogman to consider ergonomics – e.g. not rotating, bending, twisting or lifting in a way that may cause harm.
7	Clearing the	Check that path of load	Obstructive hazards are in the way.	Remove hazards from the area if possible and create a plan for working around

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	pathway	travel is clear and safe.	Trips or slips on uneven or slippery surfaces.	obstructions if it is safe to do so. Ensure any grease or oil is removed from the intended path of travel, no obstacles are present, and lighting is adequate.
8	Ensure persons assisting are safe and there are no other people in the working area	Check with eye/verbal contact with person assisting and ensure there is no one in the nearby working vicinity that may be at risk of collision.	Load or vehicle strikes person or other materials.	Ensure operator is not distracted and anyone assisting is in clear sight of the operator, wearing high visibility clothing and hard hat. Ensure that no one is working directly under the load and that the load is not swinging over others. Gain the attention of the receiver before moving the load. Ensure both parties are communicating. All assisting individuals and other nearby personnel are to position themselves clear of any moving parts while the crane is in use. Operator and Dogman to watch for other individuals coming too close to the working area of the Franna. Always work within site speed limits. Dogman and other nearby individuals to be aware of locations of emergency stop buttons on the crane and to use them if required.
9	Move and transfer load	Operate crane to transfer the load.	Load slips away out of sling or chains become damaged. Damage to crane from tipping or collisions.	Ensure sling is balanced and load is centrally placed. Tighten chains before lifting. When handling loads that are approaching maximum capacity, test the brake by lifting the load just off the ground. As a general rule, the boom should be kept low and the load should be carried close to the ground to ensure stability.

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			Wear and tear on the body and repetitive strain injury due to repetitive driving actions. Electrocution from overhead powerlines.	If the weight of the load and angle of the lift is approaching the limit of the crane's capabilities, a warning siren may sound. If this sound is heard, spool the winch out to lower the load, pull the load closer by retracting the boom, or move the boom angle up to stabilise the load if safe to do so. Do not angle the boom further down and do not drive if the warning siren is going off. Do not leave loads suspended without supervision. Stretch at the beginning of a shift to relieve muscle tension. Take breaks whenever possible to give your body a rest. Use both arms for steering whenever possible. If one arm must be used for steering the wheel, swapping arms used on the wheel sometimes to give the other arm and shoulder a break. Take turns driving the vehicle with other competently licensed and trained individuals. If boom or load gets entangled in powerlines, try to break free if safe to do so, call for help, and exit the vehicle as soon as it is safe to do so. Tag out the machine, record the event in the logbook, inform the supervisor, and do not use the crane again until it has been inspected and deemed suitable for use by a competent individual. The following is the minimum distance required to stay away from powerlines based on voltage. Contact the relevant electricity network operator to find out the voltage of any powerlines that are near the work area. Up to 132,000V = 3m Between 132,000V and 330,000V = 6m Above 330,000V = 8m
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10	Place load	Lower and place load.	Obstructions at unloading point. Unstable stack. Hook and pendant hanging down. Jamming or crushing injuries. Damage to sling, load, other objects or structures. Noise from collisions of the load during placement or general noise from use of the crane.	Make sure placement area is clear. Stack load level, ensure the stack is secure and make sure that it cannot roll. Trestles, timbers, SHS or other methods may be used to as a stable location for the load. Dogman and crane driver are to assess what is most appropriate in any given circumstance. Make sure hook and pendant are clear of the assisting person's height. Ensure all body parts are clear before releasing tension from the crane and lifting gear. While the dogman is assisting in the rotation and placement of the beam, they are to keep their fingers and other body parts away from any pinch points – e.g. between a steel load and the trestle that will be holding the steel. Communication with the driver is imperative so that the movements of the crane are known to the dogman at all times. Ensure the load is not slammed against other surfaces by keeping it clear from other objects and structures at all times, and by not making any sudden or sharp movements with the boom. Load to be placed carefully onto the trestle or other platform to avoid loud bang noises. Class 5 hearing protection to be worn. Workers are to ensure that communication with others around is still possible through verbal or other means.
11	Unslung load	Undo sling to release load.	Load moves or rolls during unslinging, causing manual	Ensure adequate clearance between body and load being released from sling.

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			handling strain or injury or crushing of body parts.	Assisting individual is to wear leather gloves. Avoid trying to move the load manually. All body parts to be kept clear from any pinch points.
12	Leaving Franna	When no longer operating Franna.	Franna can be moved by unauthorised personnel or Franna can move without operator. Damage done to the machine, resulting in issues on next startup.	Never leave keys in ignition while Franna is unattended. Always ensure brakes are engaged to stop Franna from moving without the operator present. Do not leave load on vehicle when crane is not in operation. Do not park on a slope. Conduct post-operational checks to verify the crane is still in good condition and that no damage was done to it during operation.
13	Refuelling Franna Crane	Use the diesel pump and insert it into the Franna crane to refuel it.	Fires or explosions resulting in burns or other serious injury. Fuel getting on floor, causing risk of harm from slipping. Fuel flowing into drains resulting in water contamination, damage to plumbing or environmental damage. Fumes from the fuel resulting in the inhalation of dangerous chemicals.	Keep away from all sources of ignition, heat and sparks. No smoking while refuelling or at other times when near other flammable or explosive chemicals. Ensure that there is a fire extinguisher nearby, and that nearby individuals understand what types of fires it is suitable for and know how to use it. Ensure spill kit is nearby and ready for use in the event of a spill. Do not refuel next to drains if possible. Wear non-slip safety boots. Ensure the area is well ventilated. Wear a mask if the area is not well ventilated to avoid breathing in fumes.

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- Personal Protective Equipment that must be used: High visibility clothing, hearing protection and non-slip boots for driver. High visibility clothing, leather gloves, protective footwear, hearing protection and hard hat for anyone assisting. Respiratory protection may be required for refuelling.

This SOP has been developed in consultation with me and I agree to follow it and carry out tasks in a safe manner, reporting any problems to my immediate Supervisor.

Bundy No.	Name	Signature	Date



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