

## Job Hazards Analysis

Project Name:		AHA No		Date:	Scheduled:
Location:		Contractor:			Revised:
Required Personal Protective Equipment: <b>Fall protection, Hard Hats, Safety Glasses, Vest, Gloves</b>				Analysis by:	Date:
<b>Description</b>  <b>Hoist Assembly</b>		A/D Director: Controlling Entity: Site Supervisor: Lift Director: Crane User:		Reviewed by:	Date:
Work Operation: Tower Crane Assembly				Approved by: Harry Wagner	Date:
Date	Execution Process	Potential Hazards	Preventive or Corrective Measures	Inspection Requirements	
	<ol style="list-style-type: none"> <li>Mobilization and setup of assist crane.</li> <li>Begin the delivery of tower sections.</li> <li>Start erecting Hoist</li> </ol>	<p>Ground conditions for crane set up is proper compaction and there is room for setup, tractor-trailer access is appropriate for crane setup, struck by hazards, pinch points while setting counterweights and fitting luffing jib sections together, overexertion hazards while placing mats, slips and trips on trailer and crane decks, wind/weather restrictions, co-occupation of active worksite, work-zone intrusion, Maintenance of Public traffic and site traffic</p>	<p>Preplan crane set up area and visit site prior to setup day to verify, use taglines to avoid hand manipulation, use crane and jobsite equipment to limit manual exertion of mats and cribbing for crane, use ladders for trailer deck access, keep mud and dirt out of cleats of shoes and immediately clean up spills from refueling and preventative maintenance. Clear decks of equipment of viscous material and mud, contractor to set-up barricades to keep non-essential personnel out of exclusion zone, Monitor the wind and adjust operations when wind prohibits operations.</p>	<p><b>Operator</b> shall; Keep equipment clean and free of slip/trip hazards. Use equipment to move materials in lieu of manual handling. All personnel stay away from pinch points, rigging integrity, and suspended loads. Monitor wind and weather restrictions</p> <p><b>Site supervision</b> shall ensure; Access roads for loads are appropriately compacted and have adequate space to move equipment. Ground conditions for assist crane to mobilize and setup as well and build out for crane attachments when necessary. Monitor wind and weather restrictions. Coordinate co-occupation work tasks to ensure other crafts are not in harms way or create hazardous conditions for the tower erection.</p>	

Tower Crane Erection \*Note this hazard analysis is only a guide of the sequence of steps and hazards and should not be used to replace the manufactures specifications and operator guidelines

	<ol style="list-style-type: none"> <li>1. Set base and anchor@8000 LBS</li> <li>2. Install cars @ 5300 LBS each</li> <li>3. Install drive unites @ 1900LBS each</li> <li>4. Install 20' of tower@ 800LBS and torque bolts</li> <li>5. Wire up electrical</li> <li>6. Build enclosure</li> </ol>	<p>Rigging failures, struck by load, pinch points, movement of equipment on site, under a suspended load, working from elevated work positions, assist crane hazards, ground conditions, and crane signal challenges, wind/weather restrictions</p>	<p>Inspection of rigging prior to use for defects and proper capacity, ensure proper rigging practices and appropriate rigging protection, use of tag lines at all times when a greater safety hazard is not created, barricade and/or utilize road closures in area where crane erection is underway, ensure tractor-trailer access roads are of appropriate compaction and space for vehicle movement, ensure fall is used and inspected for all appropriate uses, ensure adequate space and ground conditions are prepared for assist crane, designation on ONE crane signal person for visual crane signals and radio signals are used when visual signal are limited., Monitor the wind and adjust operations when wind prohibits operations.</p>	<p><b>Crane erection supervisor</b> shall ensure; Rigging inspection and practices/ Fall protection is inspected and used during all fall potentials 6' and higher/ Erection plan is exactly followed and when deviations are required then job shall stop and new requirements effectively communicated with all personnel. Ensure working surfaces are kept free of slippery conditions and mud, ice, snow is removed.</p> <p><b>Site supervision</b> shall ensure; Access roads for loads are appropriately compacted and have adequate space to move equipment. Ground conditions for assist crane to mobilize and setup as well and build out for crane attachments when necessary. Coordinate co-occupation work tasks to ensure other crafts are not in harms way or create hazardous conditions for the tower erection.</p>
	<ol style="list-style-type: none"> <li>1. Install 20, of tower and tie inn @800 LBS and torque bolts</li> <li>2. Install wire trolley and wind loops</li> <li>3. Repeat this step until desired height is reached</li> </ol>	<p>Work at heights, pinch points, manual rigging and movement of materials, climbing on lattice works, slips and trips, weather and wind restrictions,</p>	<p>Same as previously mentioned in addition to the following; Ground work will require the use of ladders for elevated work position and tie-off when working higher then 6', careful consideration shall be given to tie off points that do not exceed rip and elongation distance requirements of 11.5 feet with personal fall protection, plywood or other suitable material will be placed under ladder feet when dirt conditions exist, work from platforms while assembly to turntable is taking place on tower top. Remove snow, mud and ice from working surfaces.</p>	<p><b>Crane erection supervisor</b> shall ensure; Rigging inspection and practices/ Fall protection is inspected and used during all fall potentials 6' and higher/ Erection plan is exactly followed and when deviations are required then job shall stop and new requirements effectively communicated with all personnel. Ensure working surfaces are kept free of slippery conditions and mud, ice, snow is removed.</p> <p><b>Site supervision</b> shall ensure; Access roads for loads are appropriately compacted and have adequate space to move equipment. Coordinate co-occupation work tasks to ensure other crafts are not in harms way or create hazardous conditions for the tower erection.</p>

<ol style="list-style-type: none"> <li>1. After final height is reached set limits</li> <li>2. Perform load test and over speed governor</li> <li>3. Re-inspect machine and limits and final limits</li> </ol>		<p>Work at heights, pinch points, manual rigging and movement of materials, working blow cars, climbing on lattice works of jib, slips and trips, weather and wind restrictions.</p>	<p>Same as previously mentioned in addition to the following; Ground work will require the use of ladders for elevated work position and tie-off when working higher than 6', careful consideration shall be given to tie off points that do not exceed rip and elongation distance requirements of 11.5 feet with personal fall protection, plywood or other suitable material will be placed under ladder feet when dirt conditions exist, work from platforms while assembly to turntable is taking place on tower top. Remove snow, mud and ice from working surfaces</p>	<p>Hoist erection supervisor shall ensure; Rigging inspection and practices/ Fall protection is inspected and used during all fall potentials 6' and higher/ Erection plan is exactly followed and when deviations are required then job shall stop and new requirements effectively communicated with all personnel. Ensure working surfaces are kept free of slippery conditions and mud, ice, snow is removed. Site supervision shall ensure; Access roads for loads are appropriately compacted and have adequate space to move equipment. Coordinate co-occupation work tasks to ensure other crafts are not in harm's way or create hazardous conditions for the tower erection.</p>
<ol style="list-style-type: none"> <li>1. Demobilize assist crane and depart for home portal.</li> </ol>		<p>Ground conditions for crane demobilization is proper compaction and there is room for setup, tractor-trailer access is appropriate for crane setup, co-occupation of area by other crafts, struck by hazards, pinch points while setting counterweights, overexertion hazards while removing mats, slips and trips on trailer and crane decks, wind/weather restrictions.</p>	<p>Keep area housekeeping and materials out of area, keep fingers out of pinch point areas use taglines and pry bars to manipulate materials. Control work zone and demobilization area.</p>	<p><b>Crane erection supervisor</b> shall ensure; Rigging inspection and practices/ Ensure working surfaces are kept free of slippery conditions and mud, ice, snow is removed. <b>Site supervision</b> shall ensure; Access roads for loads are appropriately compacted and have adequate space to move equipment. Coordinate co-occupation work tasks so other crafts aren't in harm's way</p>

**Additional Comments (include any additional observations or comments on this job task below)**

**All personnel shall review the job safety analysis prior to work activity and sign below. Perimeter of work area shall have yellow caution or red warning tape installed to prevent any unnecessary jobsite personnel being exposed to these hazards.**

PRINT	SIGNATURE

**Assembly/Disassembly Director:**