Job Safety Analysis

Use These Forms Before You Begin Any Job to Alert You of Any Hazards That May Exist

GR1300 RT Dismantle

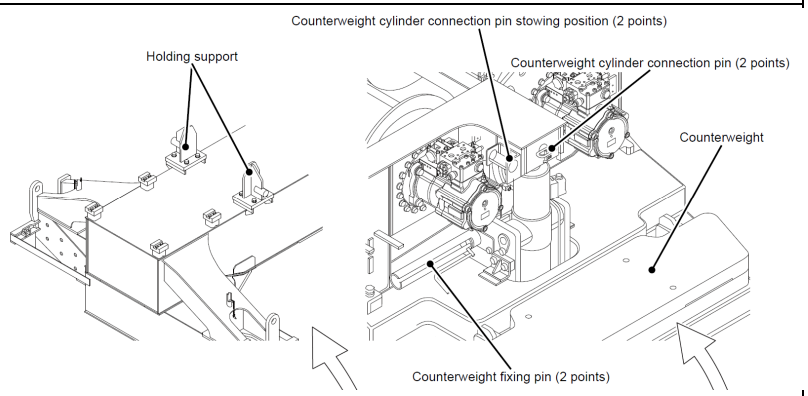
Customer Name:	**Job Location:**	**Unit #:**	**Job#:**

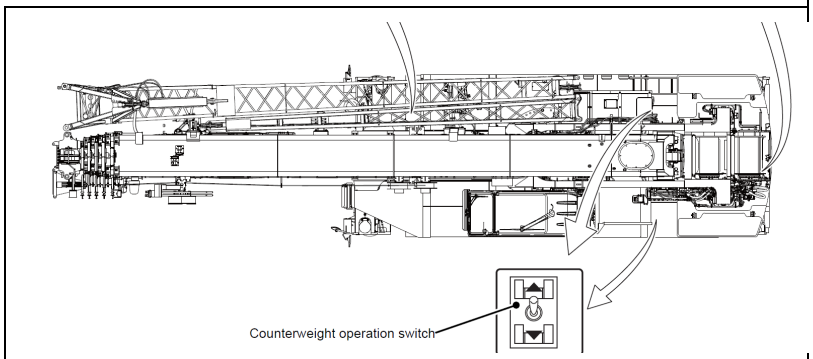
REQUIRED PERSONAL PROTECTION EQUIPMENT:	***MSDS(s) ASSOCIATED WITH THE JOB:***
Hard hat, ear plugs (as needed), safety glasses with side shields, gloves, Safety boots (lace-up), fall protection & and all other required site-specific personal protective equipment.	Chemicals are generally used on the crane or stored on service trucks, and the mobile app is used on the technician and A/D mobile device.

To improve the readability and comprehension of this field document, we have detailed all common hazards and the recommendations for safe work at the beginning of this JSA. It is understood and assumed that any or all these hazards may become relevant at any time during the assembly of this crane. This JSA is to be used in conjunction with the operator's manual. If there is a discrepancy between the two, the operator's manual takes precedence.

Common Hazards	Safe Job Practices
• **Slips, Trips, and Falls**	• A personal fall protection system is mandated when employees are exposed to falls greater than 6 feet. • Fall protection will be assessed per task if working in or around rotating equipment or the draw works. • Walkways and platforms can be slippery when wet and oil or grease spilled on them. ***Keep walkways and platforms clean and dry to prevent slipping on them.*** When non-skid material wears out, reapply it. • Clean any mud or debris from shoes before entering the crane cab or climbing onto the crane. • Please do not use the top of the mast, boom, or jib as walkways (unless they have optional catwalks). • Use ***both hands*** and handrails, steps, and ladders provided to climb onto and off the crane. • Lift tools and other equipment that cannot be carried in pockets or tool belts onto and off cranes with hand lines or hoists. • Boom and gantry are not intended as ladders. **DO NOT** attempt to climb the latticework of the boom or gantry to get to maintenance points.
• **Crushing Injury Hazard**	• Post Signage on all accessible areas to crane so personnel cannot be struck or crushed when upperworks is swung. • Do not access the crane while the upperworks is being swung or the crane is being traveled. • Signal operator that you need to access the crane. Confirm acknowledgment from the operator. • Operator: do not swing or travel while personnel are on crane. Stop swing and travel motions. Apply the swing brake and turn on the Travel Brake. • Use dedicated spotters (To be identified during the JHA) and signal persons when flying objects with cranes. • Use of tag lines for all crane picks.
• **Struck By/ Caught Between/Pinch Point Hazards**	• Hard Hats and Safety Glasses shall always be worn during the assembly/disassembly of this crane. • Always wear gloves to prevent being cut by broken wires. • Do not attempt to maintain or repair any part of the crane while the engine is running unless necessary. • If the engine must be run, keep your clothing and all parts of your body away from moving parts. ***Maintain constant verbal communication between the person in control and the person performing maintenance or repair procedures.*** • Do not use your hands to check for air and hydraulic oil leaks • Relieve pressure before disconnecting air, coolant, and hydraulic lines and fittings. • Do not attempt to lift anything heavier than 50 lbs, which isn't easy in configuration or placement. Use a hoist, jacks, team lifts, or blocking to lift components.

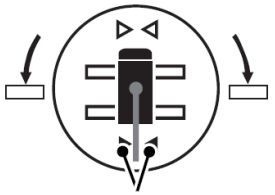
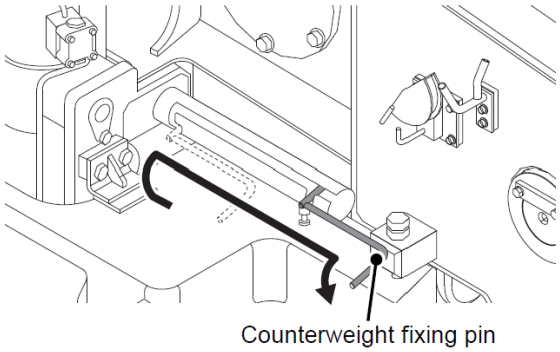
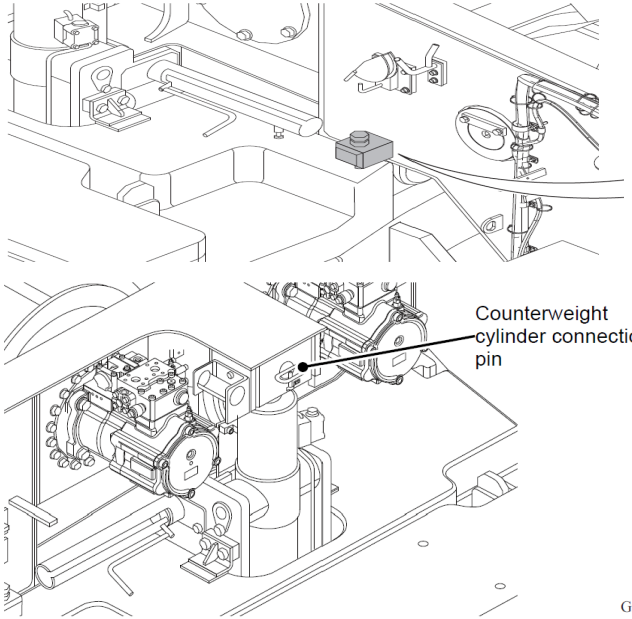
	• All pin connections are pinch points. • A&D director to Store tools, oil cans, spare parts, and other necessary equipment in toolboxes. Do not allow these items to lie loose in the operator's cab or on walkways and stairs. • Use of dedicated spotters to direct and signal all vehicle traffic. • Before a crew member goes to a location that is out of view of the operator and is either in, on, or under the equipment or near the equipment (or load) where the crew member could be injured by the movement of the equipment (or load), another crew member will be designated as a "watch" to inform the operator that they are going to that location. Where the operator knows that a crew member went to an area covered by the above sentence, the operator must not move any part of the equipment (or load) until the operator is informed by the "watch" that the crew member is in a safe position.
• **Tip over hazard**	• The A&D director will select a suitable location for disassembly. It must be firm, level, and free of obstructions. It should have enough open space to accommodate the crane. • After deploying outrigger jacks, ensure the safety pins are installed correctly, securing the jack to the frame. • When booming up, do not exceed 60 degrees. This could cause an imbalance and cause the crane to tip. • Do not exceed the manufacturer's radius when picking the counterweights or tracks during assembly. • Always refer to the manual during the assembly procedure.





• **Designate Assembly Area**	• Ensure ground conditions are firm, level, and uniformly supportive. • Select an area large enough and free of any underground or overhead obstructions or hazards to accommodate the crane, assist the crane, select boom and jib length, and the movement of trailers. • The erection area should not interfere with or pose a hazard to other onsite personnel. Erection area to be marked and barricaded. • There should be at least 2 feet of clearance between the counterweights and the nearest obstacle. • A&D to confirm the quantities of solid timber blocking to support the boom when assembled. • Ground support, as specified in the erection drawings, is complete and in compliance with the stated requirements.
• **Assist Crane Requirements (if required)**	• Applicable lift plans shall size the assist crane. _WHEN NEEDED • Site conditions and matting must be suitable for maximum loading of the assist crane. • The assist crane will be assembled according to the manufacturer's instructions.
• **Rigging Failure**	• Rigging shall be inspected per applicable OSHA/ASME standards, at a minimum, daily, and before use. Examples of unserviceable rigging would be bird caging, kinks, and broken wires.
• **Electrical Shock Hazard**	• Ensure adequate clearance from power lines is continuously maintained per OSHA 1926.1408
• **Operational Test Loads (if required)**	• Test loads shall not exceed 100% of the manufacturer's load rating. • Test loads must be freely suspended using an approved load. • All rigging must be inspected and approved prior to load testing. • The weight and radius of the load test shall be determined by: - Manufacturers' load chart. -Site Conditions. -Winch line pull, (i.e., the test load must be lifted while staying within the line pull capacity of the drum being utilized).

Note: At no time will a trainee, apprentice, or an oiler operate any crane during the assembly, reconfiguration, and/or disassembly process or while the crane is in bypass.

BASIC JOB STEPS	POTENTIAL HAZARDS	SAFE JOB PRACTICES
• Fully extend outriggers and set up the crane horizontally. • Push the "OFF" side of the slewing lock pin switch and slew the crane 180 degrees. • Set the slewing brake switch to "ON" • Set boom angle to 70 degrees.	**See Common Hazards Above** **Tipping Hazard!** **Pinch Points!**	***See Safe Job Practices Above*** ***Refer to the operator's manual for detailed procedures.***  Rear position symbol
• Loosen the counterweight anti-oscillation bolts until they are 1/5 in (5 mm) away from the upper surface of the counterweight and fix them with nuts. • Check that the Counterweight cylinder connection pins are inserted. • Set the counterweight operation switch to the "UP" side to fully retract cylinder. • Pull out the left and right counterweight fixing pins *The engine overrun warning on the MFD will light up and tachometer will flash	**See Common Hazards Above** **Tipping Hazard!** **Pinch Points!**  Counterweight fixing pin	***See Safe Job Practices Above*** ***Refer to the operator's manual for detailed procedures.***  Counterweight cylinder connection pin GJ11

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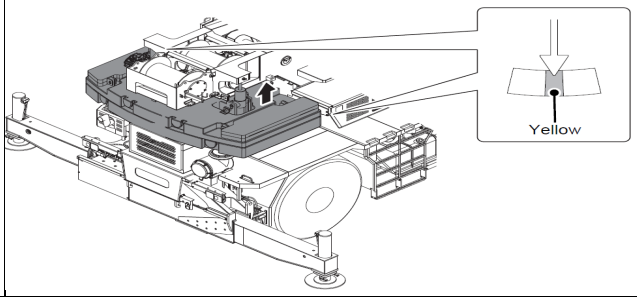
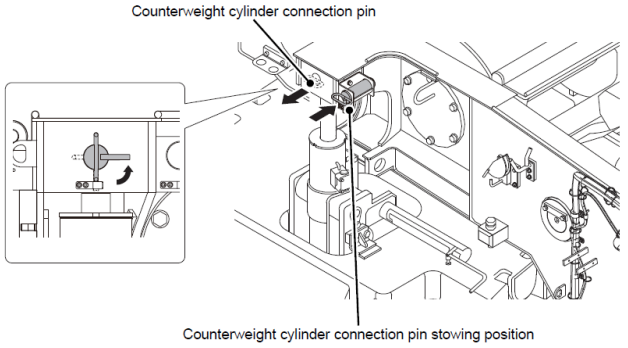
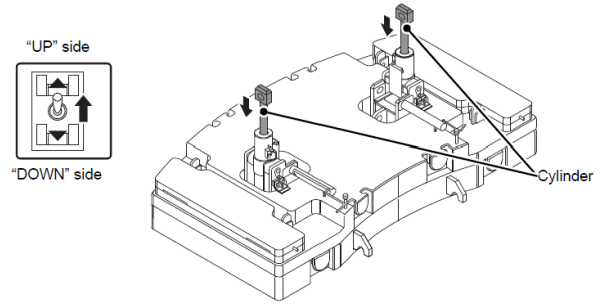
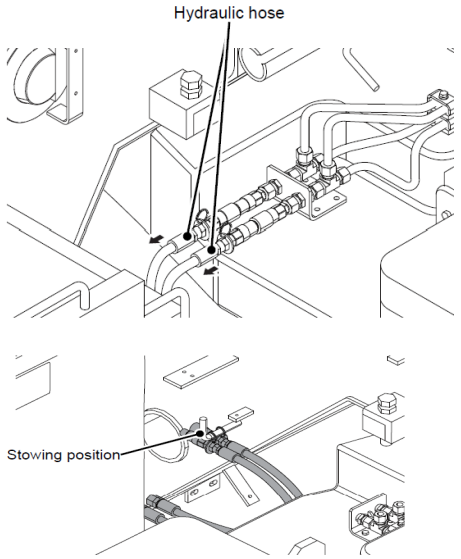
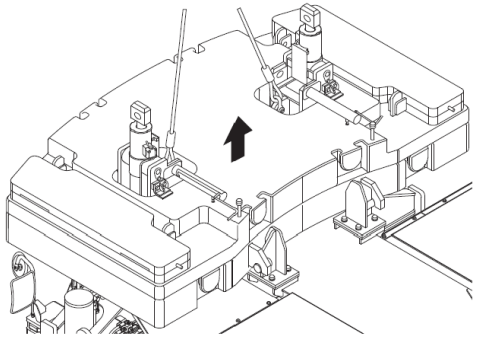
BASIC JOB STEPS	*POTENTIAL HAZARDS*	*SAFE JOB PRACTICES*
• Make sure that the arrow on the front side of the counterweight is in the yellow area, and set the counterweight operation switch to the "DOWN" side to extend the cylinder. *The counterweight will lower.	Damage to Crane! **See Common Hazards Above** **Tipping Hazard!** **Pinch Points!**	***See Safe Job Practices Above*** ***Refer to the operator's manual for detailed procedures.*** 
• Turn the left and right counterweight cylinder connection pins. • Remove them. • Stow them in the stowing position HOLD POINT: Check Pins_____ • Turn the counterweight operation switch to the "UP" side and retract the cylinder fully. • Turn the switch to the "DOWN" side and extend the cylinders.	Damage to Crane! **See Common Hazards Above** **Tipping Hazard!** **Pinch Points!**	***See Safe Job Practices Above*** ***Refer to the operator's manual for detailed procedures.***  

• Disconnect the hydraulic hosses for the counterweight. • Stow the disconnected hydraulic hoses into the stowing position • Start the engine. • Register the counterweight status with the LMI. *Check that the value of the ounterweight is "0.0klbs" HOLD POINT: Check Hoses_____	Damage to Crane! **See Common Hazards Above** **Tipping Hazard!** **Pinch Points!**	***See Safe Job Practices Above*** ***Refer to the operator's manual for detailed procedures.*** 
• Attach the lifting attachments to the counterweight and hoist up the winch until rope is tensioned slightly. • Lift the counterweight and load it on to the truck for transportation • Load the crane onto trailer for transportation •	Damage to Crane! **See Common Hazards Above** **Tipping Hazard!** **Pinch Points!**	***See Safe Job Practices Above*** ***Refer to the operator's manual for detailed procedures.*** 

Additional Comments (include any other observations or comments on this job task below)
All personnel shall review the job safety analysis before work activity and sign below. The perimeter of the work area shall have yellow caution or red warning tape installed to prevent any unnecessary jobsite personnel from being exposed to these hazards.

PRINT	**SIGNATURE**

Assembly/Disassembly Director: _____ **Date:** _____