

TERMS, CONDITIONS AND NOTICES FOR USE OF ARTICULATING BOOM CRANE INSPECTION CHECKLIST

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Inspection Checklist ARTICULATING BOOM CRANES

1

REV:
Nov.
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OWNER/COMPANY
CONTACT PERSON
CRANE MAKE & MODEL
CRANE SERIAL NUMBER
UNIT I.D. NUMBER
LOCATION OF UNIT

TYPE OF INSPECTION (check one)	
<input type="checkbox"/> DAILY (if deficiency found)	<input type="checkbox"/> QUARTERLY
<input type="checkbox"/> MONTHLY	<input type="checkbox"/> ANNUAL
DATE INSPECTED	
HOUR METER READING (if applicable)	
INSPECTED BY (print)	
SIGNATURE OF INSPECTOR	

TYPE OF INSPECTION

NOTES:

Daily and monthly inspections are to be performed by a "competent person", who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

Quarterly and annual inspections are to be performed by a "qualified person" who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training and experience, successfully demonstrated the ability to solve/resolve problems relating to the subject matter, the work, or the project.

One hour of normal crane operation assumes 20 complete cycles per hour. If operation exceeds 20 cycles per hour, inspection frequency should be increased accordingly.

Consult Operator / Service Manual for additional inspection items, service bulletins and other information.

Before inspecting and operating crane, crane must be set up away from power lines and leveled with stabilizers deployed according to the crane manufacturer's directions.

DAILY (D): Before each shift of operation, those items designated with a (D) must be inspected.

MONTHLY (M): Monthly inspections or 100 hours of normal operation (which ever comes first) includes all daily inspections plus items designated with an (M). This inspection must be recorded and retained for a minimum of 3 months.

QUARTERLY (Q): Every three months or 300 hours of normal operation (which ever comes first) includes all daily and monthly inspection items plus items designated with a (Q). This inspection must be documented, maintained, and retained for a minimum of 12 months, by the employer that conducts the inspection.

ANNUAL (A): Each year or 1200 hours of normal operation (which ever comes first) includes all items on this form which encompasses daily, monthly and quarterly inspections plus those items designated by (A). This inspection must be documented, maintained, and retained for a minimum of 12 months, by the employer that conducts the inspection.

FREQUENCY	ITEM	KEY	✓ = SATISFACTORY ✗ = DEFICIENCY (an immediate determination must be made as to whether the deficiency constitutes a safety hazard and must be corrected prior to operation)	R = RECOMMENDATION (should be considered for corrective action) NA = NOT APPLICABLE	STATUS ✓, ✗ R, NA
			INSPECTION DESCRIPTION		
D	1	Labels	All load charts, safety & warning labels, & control labels are present and legible.		
D	2		Check all safety devices for proper operation.		
D	3	Controls	Control mechanisms for proper operation of all functions, leaks & cracks.		
D	4	Station	Control and operator's station for dirt, contamination by lubricants, & foreign materials.		
D	5	Hyd System	Hydraulic system (hoses, tubes & fittings) for leakage & proper oil level.		
D	6	Hook	Presence & proper operation of hook safety latches.		
D	7	Wire Rope	Inspect for apparent deficiencies per applicable requirements and manufacturer's specifications		
D	8	Pins	Proper engagement of all connecting pins & pin retaining devices.		
D	9	General	Overall observation of crane for damaged or missing parts, cracked welds & presence of safety covers.		
D	10	Operation	During operation, observe crane for abnormal performance, unusual wear (loose pins, wire rope damage, etc.). If observed, discontinue use & determine cause & severity of hazard.		
D	11	Remote Ctrls	Operate remote control devices to check for proper operation.		
D	12	Electrical	Operate all lights, alarms, etc. to check for proper operation.		
D	13	Anti Two-Blocking or Two Block Damage Prevention	Operate anti Two-blocking device or Two Block Damage Prevention to check for proper operation.		
D	14	Tires	Check tires (when in use) for proper inflation and condition.		
D	15	Ground Conditions	Ground conditions around the equipment for proper support, including ground settling under and around stabilizers and supporting foundations, ground water accumulation, or similar conditions		
D	16	Level Position	The equipment for level position within the tolerances specified by the equipment manufacturer's recommendations, both before each shift and after each move and setup.		
D	17	Operator cab windows	significant cracks, breaks, or other deficiencies that would hamper the operator's view.		
D	18	Rails, rail stops, rail clamps and supporting surfaces	Rails, rail stops, rail clamps and supporting surfaces when the equipment has rail traveling.		
D	19	Safety devices	Safety devices and operational aids for proper operation.		
D	20	Electrical	Electrical apparatus for malfunctioning, signs of apparent excessive deterioration, dirt or moisture accumulation.		
D	21		Other		
D	22		Other		
M	23	Daily	All daily inspection items.		
	24	Cylinders	M Visual inspection of cylinders for leakage at rod, fittings & welds. Damage to rod & case.		
M	25	Valves	Holding valves for proper operation.		
M	26	Valves	Control valve for leaks at fittings & between sections.		
M	27	Valves	Control valve linkages for wear, smoothness of operation & tightness of fasteners. Relief valve for proper pressure settings.		
M	28	General	Bent, broken or significantly rusted/corroded parts.		
M	29	Electrical	Electrical apparatus for malfunctioning, signs of apparent excessive deterioration, dirt or moisture accumulation. Electrical systems for presence of dirt, moisture & frayed wires.		
M	30	Structure	All structural members for damage.		
M	31	Welds	All welds for breaks & cracks.		
M	32	Pins	All pins for proper installation & condition.		
M	33	Hardware	All bolts, fasteners & retaining rings for tightness, wear & corrosion		
M	34	Wear	Pads Condition of wear pads.		
M	35	Pump & Motor	Hydraulic pumps & motors for leakage at fittings, seals & between sections. Check tightness of mounting bolts.		
M	36	PTO	Transmission/PTO for leakage, abnormal vibration & noise, alignment & mounting bolt torque.		
M	37	Hyd Fluid	Quality of hydraulic fluid and for presence of water.		
M	38	Hyd Lines	Hoses & tubes for leakage, abrasion damage, blistering, cracking, deterioration, fitting leakage & secured properly.		
M	39	Hook	Load hook for abnormal throat distance, twist, wear & cracks.		
M	40	Wire Rope	Condition of load line.		
M	41	Manual	Presence of operator's manuals with unit.		
M	42		Other		
M	43		Other		

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FREQUENCY	ITEM	KEY	INSPECTION DESCRIPTION		
Q	44	Daily	All daily inspection items.		
Q	45	Monthly	All monthly inspection items.		
Q	46	Rotation Sys	Rotation bearing for proper torque of all mounting bolts.		
Q	47	Hardware	Base mounting bolts for proper torque.		
Q	48	Structure	All structural members for deformation, cracks & corrosion.		
	49		I Base		
	50		I Stabilizer beams & legs		
	51		I Mast		
	52		I Inner boom		
	53		I Outer boom		
	54		I Extension(s)		
	55		I Jib boom		
	56		I Jib extension(s)		
	57		I Other		
Q	58	Hardware	Pins, bearings, shafts, gears, rollers, & locking devices for wear, cracks, corrosion & distortion.		
	59		I Rotation bearing(s)		
	60		I Inner boom pivot pin(s) & retainer(s)		
	61		I Outer boom pivot pin(s) & retainer(s)		
	62		I Inner boom cylinder pin(s) & retainer(s)		
	63		I Outer boom cylinder pin(s) & retainer(s)		
	64		I Extension cylinder pin(s) & retainer(s)		
	65		I Jib boom pin(s) & retainer(s)		
	66		I Jib cylinder pin(s) & retainer(s)		
	67		I Jib extension cylinder pin(s) & retainer(s)		
	68		I Boom tip attachments		
	69		I Other		
Q	70	Hyd Lines	Hoses, fittings & tubing for proper routing, leakage, blistering, deformation & excessive abrasion.		
	71		I Pressure line(s) from pump to control valve		
	72		I Return line(s) from control valve to reservoir		
	73		I Suction line(s) from reservoir to pump		
	74		I Pressure line(s) from control valve to each function		
	75		I Load holding valve pipe(s) and hose(s)		
	76		I Other		
Q	77	Pumps & motors	Pumps & Motors for loose bolts/fasteners, leaks, noise, vibration, loss of performance, heating & excess pressure.		
	78		I Winch motor(s)		
	79		I Rotation motor(s)		
	80		I Other		
Q	81	Valves	Hydraulic valves for cracks, spool return to neutral, sticking spools, relief valve failure.		
	82		I Main control valve		
	83		I Load holding valve(s)		
	84		I Stabilizer or auxiliary control valve(s)		
	85		I Other		
	86		I Other		
Q	87	Cylinders	Hydraulic cylinders for drifting, rod seal leakage & leakage at welds. Rods for nicks, scores & dents. Case for damage. Case & rod ends for damage & abnormal wear.		
	88		I Stabilizer cylinder(s)		
	89		I Inner boom cylinder(s)		
	90		I Outer boom cylinder(s)		
	91		I Extension cylinder(s)		
	92		I Rotation cylinder(s)		
	93		I Jib lift cylinder(s)		
	94		I Jib extension cylinder(s)		
	95		I Other		
Q	96	Winch	Winch, sheaves & drums for damage, abnormal wear, abrasions & other irregularities.		
Q	97	Hyd Filters	Hydraulic filters for replacement per maintenance schedule.		

