

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
	<b>LR Preventive Maintenance &amp; Inspection Checklist</b>		

<b>Vehicle #:</b>	<b>Model:</b>	<b>Serial #:</b>
<b>Odometer</b>	<b>Hours:</b>	<b>Date:</b>
<b>Inspector:</b>		<b>Supervisor:</b>
Perform all inspections, adjustments, repairs, and lubrication according to the specifications in all unit maintenance and/or service manuals. If tracking PTO hours using an approved method or device, follow the recommended hourly maintenance intervals. If performing maintenance based upon a calendar based schedule, follow the recommended monthly intervals. The required items apply to both tracking methods.		
<b>Inspection Interval</b>		
Prior to placing the unit into service	Required maintenance	Major structural inspection
85 PTO hours / 1 month	500 PTO hours / 6 months	1000 PTO hours / 1 year
2000 PTO hours / 2 years		
<b>Acceptable symbols for inspection</b>		
✓ - Ok or Completed	C – Corrected by Inspector	U – Unsafe to Operate
R – Repair or replacement needed	N / A – Not Applicable of this unit	
<b>Prior to Placing the Unit Into Service</b>		
<b>Components</b>	<b>Symbol</b>	<b>Notes</b>
Perform Pre-Operational Inspection (LLCF-093)		
<b>Rotation bearing</b>		
Turntable tilt measurement =		
<b>Hydraulic Reservoir System</b>		
Check oil and collect oil sample for analysis if needed		
<b>85 PTO Hours / 1 Month (Manuals must be with unit)</b>		
Perform Pre-Operational Inspection (LLCF-093)		
<b>Hydraulic System</b>		
Check oil and collect oil sample for analysis if needed		
Check for leaks at pedestal		
Check for leaks at turntable		
Check for leaks at platform		
Check for leaks at hose connections in lower boom		
<b>Fiberglass</b>		
Upper boom cleanliness		
Upper boom surface damage		
Lower boom insulator cleanliness		
Lower boom insulator surface damage		
<b>Lubrication</b>		
Rotation bearing ball race		
Rotation pinion and rotation bearing gear teeth		
<b>General Condition</b>		
Clean debris from around upper boom cylinders		
Clean debris from around platform leveling sprockets		
Clean debris and obstructions from around elevator		

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
	<b>LR Preventive Maintenance &amp; Inspection Checklist</b>		

  

<b>500 PTO Hours / 6 Months (Perform Checklist for -85 PTO Hrs. first)</b>		
<b><i>PTO</i></b>		
Operation		
Noise level		
No leaks		
Mounting bolts tight		
<b><i>Supplemental Brake Lock</i></b>		
Operation (holding, bleed-off)		
<b><i>All Electrical</i></b>		
Components and wiring (clearances, tightness, support, no insulation damage)		
Connections (secure, no corrosion)		
Battery condition if equipped with lanyard detection system		
<b><i>Battery</i></b>		
Mounting (vertically and horizontally secure)		
Electrical connection (secure, no corrosion)		
Routing (cables do not cross, fuses secure)		
<b><i>Unit Mounting</i></b>		
Visual inspection of mounting fasteners		
Subbase mounting (fasteners secure, welds intact, no cracks)		
Subbase structure (welds intact, no cracks)		
Pedestal mounting (welds intact, no cracks, bolts tight)		
Pedestal structure (welds intact, no cracks)		
Boom rest (welds intact, no deformation or cracks)		
Body mounting (welds intact, no cracks, bolts tight)		
<b><i>Hydraulic Reservoir</i></b>		
Mounting (cap screws tight, welds intact, no cracks)		
No leaks		
Shutoff valve fully open		
Drain water from bottom		
<b><i>Filters</i></b>		
Change return line filter		
<b><i>Chassis Winch</i></b>		
Mounting secure		
Drive line		
Gearbox oil level		
Brake oil level		
Operation		
No leaks		
Winch line		
Winch line anchor point		

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
	<b>LR Preventive Maintenance &amp; Inspection Checklist</b>		

  

<b><i>Outriggers</i></b>		
Mounting (welds intact, no deformation or cracks)		
Outrigger motion alarm operation		
Aerial device/outriggers selector valve (operation, no leaks)		
Outrigger interlock system (operation holding w/o drift)		
Check cylinder for signs of rubbing		
Structures (welds intact, no deformation or cracks}		
Pins and retainers secure, retaining cap screws tight		
No leaks		
Holding valves (operation, no leaks)		
Chromed rod condition		
<b><i>Pump</i></b>		
Noise level		
No leaks		
Mounting bolts tight		
Four bolt flange bolts tight		
Drive line		
Hoses and tubes (routing, condition)		
Placards (condition, readable)		
Control valves (operation, no leaks)		
<b><i>Hydraulic System Pressure</i></b>		
Main system pressure		
Maximum tool system pressure		
Standby pressure		
<b><i>Lower Control Station</i></b>		
Placards (condition, readable)		
Lower control valve (operation, no leaks)		
Secondary stowage DC pump (operation, no leaks)		
Station selector valve (operation, no leaks)		
<b><i>Pedestal</i></b>		
Structure (welds intact, no deformation or cracks}		
Hoses and tubes (routing, condition)		
No leaks		
Rotary joint drive pin (condition, cotter pin in place)		
Rotary joint mounting bolts tight		
<b><i>Turntable</i></b>		
Structure (welds intact, no deformation or cracks)		
Lower boom pin (forged pin retainer condition, bolt tight and retaining rings in place)		
Lower boom cylinder pivot pin (retainer condition, bolt tight and retaining rings in place)		
Hoses and tubes (routing, condition) no leaks		
Leveling chain anchor weldment (cap screws and nuts tight}		
Rotary joint (loose mounting bolts)		
Slip ring (loose mounting bolts)		

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
	<b>LR Preventive Maintenance &amp; Inspection Checklist</b>		

<b><i>Rotation Bearing and Gearbox</i></b>		
Rotation bearing cap screws visual inspection		
No leaks		
Pinion gear teeth condition		
Rotation bearing gear teeth condition		
Gearbox mounting bolts visual inspection		
Rotation motor mounting bolts tight		
Operation (smoothness and noise level)		
Check eccentric ring lock bar bolt tightness		
Gearbox internal lost motion		
Rotation bearing inspection and measurement [after 0.050" (127 mm) increased wear from initial measurement]		
<b><i>Lower Boom</i></b>		
Structure (welds intact, no deformation or cracks)		
Lower cylinder pivot pin (retainer condition, bolt tight and retaining rings in place)		
Visually inspect leveling chains/rods		
Visually inspect jam nuts on leveling chain turnbuckles (in place, tight)		
Remove any debris from inside lower boom		
Covers in place		
Insulator fasteners tight		
Lower boom cylinder pivot pins		
Slide pad bearings (loose cap screws)		
Lower boom pin		
Extension cylinder mounting (loose cap screws)		
Lower platform leveling cylinder mounting pins)		
Boom slide blocks (cap screws tight, wear)		
<b><i>Lower Boom Cylinder</i></b>		
Bearings secure within cylinder eyes		
Operation		
Hydraulic leveling cylinder (operation, mounting)		
Boom tip weldment (welds intact, no deformation or cracks)		
<b><i>Elbow</i></b>		
Elbow cover (in place, condition)		
Upper boom drive mechanism link pins (retaining rings in place, bolts tight, welds intact on flanges)		
Elbow bearing visual inspection		
Measure upper boom drive link bearing wear		
Elbow leveling chain sprocket (retaining ring and key in place, socket head cap screws tight)		
Leveling system pivot tube (cap screws tight)		
Elbow pivot pin (retainer condition, cap screw secure)		
<b><i>Parallel Links and Elevator Arms (LR860E70 units)</i></b>		
Structure (welds intact, no deformation or cracks)		
Pivot pins (retainer condition, no deformation)		

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
	LR Preventive Maintenance & Inspection Checklist		

<b><i>Elevator Pedestals</i></b>		
Wear pads (condition, mounting)		
<b><i>Upper Boom</i></b>		
Structure (welds intact, no deformation or cracks)		
Fiberglass condition (clean, undamaged)		
Visually inspect jam nuts on leveling chain turnbuckle for tightness		
Visually inspect leveling chains/rods		
Hose assembly (routings, condition)		
No leaks		
All covers in place		
Upper boom stow lock down strap (condition, all parts in place, lock works)		
Upper boom stow pad (condition, in place)		
Boom tip weldment (welds intact, no deformation or cracks)		
Visually inspect the boom tip fasteners for tightness		
Lanyard attachment welds		
Loose boom tip sprocket		
<b><i>Upper Boom Cylinders</i></b>		
Cylinder attachment pins (retainer condition, bolts tight with retaining rings in place)		
Bearings secure within cylinder eyes (base end)		
Operation		
No leaks		
Holding valves (operation, no leaks)		
Chromed rod condition		
Pin retainers secure		
<b><i>Boom Tip</i></b>		
Platform pin		
Tilt bracket (welds intact, deformation or cracks)		
Tilt bracket covers		
<b><i>Platform</i></b>		
Mounting bracket (welds intact, no deformation or cracks)		
Mounting bracket covers (condition, mounting)		
Platform mounting bolts tight		
Lanyard attachment welds		
Platform (condition, cleanliness)		
Platform angle (leveling system tension correct)		
Liner {condition, cleanliness}		
Platform liner retention system (condition, in place)		
Placards (condition, in place, readable)		
Platform cover (condition, mounting)		
Platform control cover {condition, mounting}		
Valve cover (condition, mounting)		
Hoses (no leaks, routing, not pinched or pulled)		
Fall protection system {condition, in place}		

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
<b>LR Preventive Maintenance &amp; Inspection Checklist</b>			

  

Platform accessory mounting brackets, i.e. saw or pruner (condition, mounting)		
<b>Platform Rotator</b>		
Operation		
No leaks		
Fasteners tight		
Rotary actuator (inner/outer cap screws in place and tight)		
<b>Platform Tilt System</b>		
No leaks		
Operation		
<b>Upper Controls Station</b>		
Operation (metering, proper direction)		
Operation placard (condition, readable)		
No leaks		
Mechanical linkage (operation, lubrication)		
Hydraulic emergency stop operation		
Interlock linkage adjustment		
Rubber boot		
<b>Tool Circuits</b>		
Quick disconnects (condition, operation, no leaks)		
Quick disconnect dust caps (condition, in place)		
Hoses (condition, routing, no leaks)		
Operation		
Hose reel operation		
<b>Lubrication</b>		
Outrigger inner leg outer surface		
Control handle linkage		
Leveling chains		
Rotation gearbox output shaft upper bearing		
<b>Required Maintenance (Regardless of Hours)</b>		
<b>Annual Testing</b>		
Vehicle inspection is up to date		
Dielectric test unit		
Dielectric test platform liner(s)		
Confirmation test of single hand control(s)		
<b>Atmospheric Vents (visually inspect all, verify operation)</b>		
Test hydraulic temperature indicator system functionality (if equipped) by activating test switch located in cab, with the chassis running and the PTO engaged; visually inspect temperature sensors and lead wires for damage.		

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
	LR Preventive Maintenance & Inspection Checklist		

1000 PTO Hours / 1 yr. (Perform Checklist for - 500 PTO Hrs. first)		
<b>Chassis Underside</b>		
Hoses (routing, condition, no leaks)		
Exhaust shields		
<b>Hydraulic Reservoir and System</b>		
Drain water from bottom of reservoir		
Collect oil sample for analysis		
Clean suction filter element		
Reservoir cover gasket condition		
Change filler breather cap		
Clean or change filler hole strainer		
<b>Rotation Bearing</b>		
Cap screw annual torque inspection		
Rotation bearing inspection and measurement [before 0.050" (127 mm) increased wear from initial measurement] <sup>2</sup>		
<b>Upper Controls</b>		
Hoses and tubes (routing, condition)		
Placards (condition, readable)		
Single handle controls (condition, functionality)		
<b>Upper Boom Tip</b>		
Mounting to upper boom secure		
Pedestal		
Rotary joint mounting bolts tight		
<b>Lower Boom</b>		
Insulator fasteners tight		
<b>Gearbox</b>		
Rotation gearbox mounting cap screw annual torque inspection		
<b>Elbow</b>		
Upper boom drive link bearings (use link gauge or with pin-to-pin measurement)		
<b>Fiberglass</b>		
Seal between insert and steel tubes		
Insert is clean and waxed		
Insert bond		
Seal between upper boom and steel tube		
<b>Structures</b>		
All structures and welds included on 500 hour/6 month checklist (no significant corrosion)		

Form Number LLCF-094	Issue Date 08/04/23	Revision Date 08/04/23	Form Number LLCF-094
<b>LR Preventive Maintenance &amp; Inspection Checklist</b>			

  

<b>2000 PTO Hours / 2 yr. (Perform Checklist for - 1000 PTO Hrs. first)</b>		
<b><i>Hydraulic Reservoir and System</i></b>		
Change hydraulic oil		
Flush hydraulic system		
Clean inside of reservoir		
<b><i>Rotation Bearing and Gearbox</i></b>		
Pinion to rotation bearing gear backlash		
<b><i>Lubrication</i></b>		
Pump input shaft splines		
<b><i>Clean suction filter</i></b>		
<b>Major Structural Inspection</b> (Perform this inspection after the first 15 yrs. of service and ever 10 yrs. thereafter)		
<b><i>Load Test</i></b>		
Perform major structural load test		
<b><i>Cycle Times</i></b>		
Check all aerial functions for any operation faster than specified cycle times		
<b><i>Upper Boom</i></b>		
Self-lubricating bearings in upper boom, drive link, and idler link		
<b><i>Upper Boom Lift Cylinder</i></b>		
Rod eye structure (welds intact, no deformation or cracks)		
Cylinder eye structure (welds intact, no deformation or cracks)		
Spherical bearing at rod eye and cylinder eye <sup>3</sup>		
<b><i>Boom Elbow</i></b>		
Self-lubricating bearings self-lubricating sprocket		
<b><i>Platform Leveling Cylinders</i></b>		
Rod eye structure (welds intact, no deformation or cracks)		
Cylinder eye structure (welds intact, no deformation or cracks)		
Bushing bearings located at the rod eye and cylinder eye'		
<b><i>Lower Boom</i></b>		
Self-lubricating bearings in lower boom for boom pivot pin		
<b><i>Lower Boom Lift Cylinder</i></b>		
Rod eye structure (welds intact, no deformation or cracks)		
Cylinder eye structure (welds intact, no deformation or cracks)		
Spherical bearing at rod eye and cylinder eye <sup>3</sup>		
<b><i>Upper Boom Tip</i></b>		
Self-lubricating bearings for platform leveling sprocket <sup>3</sup>		
<b><i>Outrigger Cylinder</i></b>		
Rod eye structure (welds intact, no deformation or cracks)		
<b><i>Parallel Links and Elevator Arms (LR860E70 Units)</i></b>		
Self-lubricating bearings in links and arms for each elevator pivot pin <sup>3</sup>		



