

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Unit # _____	Serial # _____
Date: _____	PTO Hours: _____
Intervals: 340 PTO hours / 4 months <input type="checkbox"/>	5000 PTO hours / 5 years <input type="checkbox"/>
1000 PTO hours / 1 year <input type="checkbox"/>	Other: _____
Location: _____	Work order: _____

Visual check of the unit (Clean if necessary)

General condition: Excellent Fair Good Poor

Check for weld cracks

Check for oil leaks

Check for damaged or missing parts

Check structural for wear or deformations

Operational check

Engine High RPM: _____

From the lower control station, cycle the aerial device functions through the complete range of motion

Check holding valves

Operate all functions from upper controls

Notes:

Oil temperature at end of operational check: _____°F or _____°C

Maximum main pressure, holding outrigger function on "retract" : _____ PSI

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Detailed inspection as per attached check list

<u>Item#</u>	<u>Corrective actions</u>	<u>Done (√)</u>
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Repeat operational test when repairs are done

Comments:

Mechanic: _____ Inspection certificate installed

Supervisor: _____ Inspection completed date: _____

340 Hours/4 Months and 1,000 Hours/1 Year

√ -Ok or completed X -Repairs to be arranged O -Repairs and adjustments made

1. In cab		6 Return filter, check indicator and change if necessary	<input type="checkbox"/>
1 Parking brake-PTO interlock and buzzer	<input type="checkbox"/>	7 Oil condition (cleanliness, color, appearance)	<input type="checkbox"/>
2 Travel height decal (condition, no change on height)	<input type="checkbox"/>	(1 year) Collect oil sample for analysis	<input type="checkbox"/>
3 Boom and outriggers stow lights working	<input type="checkbox"/>		
2. PTO		7. Pedestal	
1 Operation, noise level	<input type="checkbox"/>	1 Structure (welds intact, no deformation or cracks)	<input type="checkbox"/>
2 Hoses, wires, solenoid condition	<input type="checkbox"/>	2 Hydraulic rotation (no leaks, bolts tight)	<input type="checkbox"/>
3 Mounting bolts tight	<input type="checkbox"/>	3 Pneumatic rotation (no leaks, bolts tight)	<input type="checkbox"/>
4 No leaks	<input type="checkbox"/>	4 Electric rotation (set screw tight, wiring condition)	<input type="checkbox"/>
3. Pump		5 Hoses and manifolds (routing, condition, no leaks)	<input type="checkbox"/>
1 Noise level	<input type="checkbox"/>	6 Rotation bearing inside row, mounting bolts tight	<input type="checkbox"/>
2 Mounting bolts tight	<input type="checkbox"/>	(1 year) Check torque= 315 ft-lb	<input type="checkbox"/>
3 No leaks	<input type="checkbox"/>	8. Turntable	
4 <i>Lubricate shaft splines (1 point)</i>	<input type="checkbox"/>	1 Structure (welds intact, no deformation or cracks)	<input type="checkbox"/>
4. Chassis underside		2 Hoses and manifolds (routing, condition, no leaks)	<input type="checkbox"/>
1 Hoses (routing, condition, no leaks, exhaust shields)	<input type="checkbox"/>	3 Rotation bearing wiper seals (condition, in place)	<input type="checkbox"/>
2 Utility body mounting (bolts tight, no cracks)	<input type="checkbox"/>	4 Rotation bearing outside row, mounting bolts tight	<input type="checkbox"/>
3 Subframe and mounting plates (welds intact, no cracks, no rust)	<input type="checkbox"/>	(1 year) Check torque = 280 ft-lb	<input type="checkbox"/>
4 HP filter, change if necessary (if equipped)	<input type="checkbox"/>	9. Boom rotation	
5 Subframe mounting bolts tight	<input type="checkbox"/>	1 Rotation motor (mounting bolts tight, no leak)	<input type="checkbox"/>
(1 year) Check torque, 210 ft-lb x 90% = 190 ft-lb		2 Gearbox oil level	<input type="checkbox"/>
5. Lower controls (boom, outriggers, tools)		3 Gearbox breather cleanliness	<input type="checkbox"/>
1 Placards, decals, inclinometer (condition, readable)	<input type="checkbox"/>	4 Pinion gear teeth condition	<input type="checkbox"/>
2 Control valves (no leaks, rubber boots condition) operation of each spool, <i>lubricate if necessary (spray)</i>	<input type="checkbox"/>	5 Rotation bearing gear teeth condition	<input type="checkbox"/>
3 Hoses (routing, condition, no leaks)	<input type="checkbox"/>	6 Pinion to rotation gear backlash	<input type="checkbox"/>
4 Emergency stop-dump operation	<input type="checkbox"/>	7 Rotation bearing (tilt, smoothness and noise level)	<input type="checkbox"/>
5 Emergency DC pump switch operation (if equipped)	<input type="checkbox"/>	8 <i>Lubricate rotation bearing (1 point)</i>	<input type="checkbox"/>
6 Engine start-stop operation (if equipped)	<input type="checkbox"/>	9 <i>Lubricate pinion and bearing gear teeth (spray)</i>	<input type="checkbox"/>
7 Engine two speed throttle operation (if equipped)	<input type="checkbox"/>	10 Gearbox mounting bolts tight	<input type="checkbox"/>
8 Upper winch up-down operation	<input type="checkbox"/>	(1 year) Check torque 80 ft-lb x 90% = 72 ft-lb	<input type="checkbox"/>
9 Tool outlet quick couplers (condition, dust caps)	<input type="checkbox"/>	10. Lower boom	
10 Tool outlet pressure (2000 PSI) reading: _____	<input type="checkbox"/>	1 Structure (welds intact, no deformation or cracks)	<input type="checkbox"/>
6. Hydraulic reservoir and filter		2 Fibreglass insert (clean, no cracks, scratches, chips)	<input type="checkbox"/>
1 Cover bolts tight, welds intact, no cracks, no leaks	<input type="checkbox"/>	3 All covers in place (remove for inspection)	<input type="checkbox"/>
2 Shutoff valves fully open and secured	<input type="checkbox"/>	4 Remove any debris from inside boom	<input type="checkbox"/>
3 Drain water from bottom	<input type="checkbox"/>	5 Hoses assembly (routing, properly attached, no leaks)	<input type="checkbox"/>
4 Oil level	<input type="checkbox"/>	6 Turret and knuckle pivot pins (retaining bolts tight)	<input type="checkbox"/>
5 Breather air filter, change if dirty	<input type="checkbox"/>	7 <i>Lubricate pivot pins bearings (2 points)</i>	<input type="checkbox"/>
		8 Pivot pins-bearings clearance	<input type="checkbox"/>
		9 Fibreglass insert's fasteners tight	<input type="checkbox"/>
		(1 year) Check torque, 250 ft-lb x 90% = 225 ft-lb	<input type="checkbox"/>

340 Hours/4 Months and 1,000 Hours/1 Year

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11. Leveling arms

- 1 Structure (welds intact, no deformation or cracks)
- 2 Fibreglass inserts (clean, no cracks, scratches, chips)
- 3 Mounting pins (retaining rings in place)
- 4 Arms' pivot pins (retaining bolts tight)
- 5 *Lubricate pivot pins' bearings (4 points)*
- 6 Bearings-pins clearance

12. Lower boom lift cylinder

- 1 Tube (no leaks, piping condition, welds intact)
- 2 Chromed rod condition (no rust, scratches, pin holes)
- 3 Pivot bearings secure within cylinder eyes
- 4 *Lubricate rod and tube eye bearings (2 zerks)*
- 5 Bearings-pins clearance, retaining bolts tight
- 6 Holding valve manifold (no leaks, bolts tight)
- (1 year) Check torque, 13 ft-lb x 90% = 12 ft-lb

13. Upper boom lift cylinders (2)

- 1 Tubes (no leaks, piping condition, welds intact)
- 2 Chromed rods condition (no rust, scratches, pin holes)
- 3 Pivot bearings secure within cylinder eyes
- 4 *Lubricate rod and tube eye bearings (4 points)*
- 5 Bearings-pins clearance, retaining bolts tight
- 6 Holding valves manifolds (no leaks, bolts tight)
- (1 year) Check torque, 13 ft-lb x 90% = 12 ft-lb

14. Knuckle

- 1 Structure (welds intact, no deformation or cracks)
- 2 Hoses (no leak, routing, not pinched or pulled,)
- 3 Hoses retaining brackets (in place, tight)

15. Upper boom

- 1 Structure (welds intact, no deformation or cracks)
- 2 Boom stow pad condition
- 3 Boom stow lock down system (operation, tight)
- 4 *Lubricate lock down plunger (1 point)*
- 5 *Lubricate pivot pin's bearing (1 point)*
- 6 Boom and knuckle pivot pin (retaining bolt tight)
- 7 Pivot pin-bearing clearance
- 8 Upper end (bearings & rollers condition, bolts tight)
- 9 Hose carrier guard condition (remove for inspection)
- 10 Hose carrier (no wear, flexible, mounting bolts tight)
- 11 Hoses assembly (routing, properly attached, no leaks)

16. Master leveling cylinder

- 1 Tube (no leaks, piping condition, welds intact)
- 2 Chromed rod condition (no rust, scratches, pin holes)
- 3 Pivot bearings secure within cylinder eyes
- 4 Bearings-pins clearance, retaining bolts tight
- 5 Holding valves manifold (no leaks, bolts tight)
- (1 year) Check torque, 13 ft-lb x 90% = 12 ft-lb

17. Slave leveling cylinder

- 1 Tube (no leaks, piping condition, welds intact)
- 2 Chromed rod condition (no rust, scratch, pin holes)
- 3 Pivot bearings secure within cylinder eyes
- 4 Bearings-pins clearance, retaining bolts tight
- 5 Holding valves manifold (no leaks, bolts tight)
- (1 year) Check torque, 13 ft-lb x 90% = 12 ft-lb

18. Telescopic boom cylinder

- 1 Tube (no leaks, piping condition, welds intact)
- 2 Chromed rod condition (no rust, scratch, pin holes)
- 3 Tube end's retaining plate (bolts tight)
- 4 Rod end pin (retaining rings in place)
- 5 Trunion bolts tight
- (1 year) Check torque, 100 ft-lb x 90% = 90 ft-lb
- 6 Holding valves manifold (no leaks, bolts tight)
- (1 year) Check torque, 13 ft-lb x 90% = 12 ft-lb

19. Telescopic boom

- 1 Structure (welds intact, no deformation or cracks)
- 2 Lower end (wear pads condition, bolts tight)
- 3 Lower end (bearings & rollers condition, bolts tight)
- 4 Fibreglass boom (clean, no cracks, scratch, chips)
- 5 Cover in place (remove for inspection)
- 6 Remove any debris from inside boom
- 7 Hoses assembly (routing, properly attached, no leaks)

20. Telescopic boom tip

- 1 Structure (welds intact, no deformation or cracks)
- 2 Plastic guards condition (remove for inspection)
- 3 *Lubricate platform shaft bearing (1 point)*
- 4 Boom tip mounting bolts tight
- (1 year) Check torque, 50 ft-lb x 90% = 45 ft-lb
- 5 Platform mounting bracket (welds intact, bolts tight)
- (1 year) Check torque, 60 ft-lb x 90% = 55 ft-lb

340 Hours/4 Months and 1,000 Hours/1 Year

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21. Platform

- 1 Mounting frame (welds intact, no deformation, cracks)
- 2 Mounting frame and cover (condition, mounting)
- 3 Platform (condition, no cracks, no holes)
- 4 Liner (condition, cleanliness)
- 5 Placards and decals (in place, readable)
- 6 Platform cover (condition, mounting)
- 7 "D" ring (bolt tight, no deformation or cracks)
- 8 Hoses (no leak, routing, not pinched or pulled)
- 9 Platform rotation cylinder (no leak, holding, piping)
- 10 Bearings-pins clearance, retaining bolts tight
- 11 *Lubricate platform rotation bearing (1 point)*
- 12 Platform leveled, not rocking
- 13 Platform mounting bolts tight
(1 year) Check torque, 50 ft-lb x 90% = **45 ft-lb**

22. Platform elevator (option)

- 1 Structure (welds intact, no deformation or cracks)
- 2 Motor, control (no leaks, rubber boots condition)
- 3 *Lubricate drive screw (spray) & slide bearings (4 points)*
- 4 (1 year) Check torque, 33 ft-lb x 90% = **30 ft-lb**
- 5 (1 year) Check torque, 18 ft-lb x 90% = **16 ft-lb**

23. Upper controls station

- 1 Placards and decals (condition, readable)
- 2 Controls (no leaks, rubber boots condition)
- 3 Spools operation, *lubricate if necessary (spray)*
- 4 Joystick (rubber boot condition, trigger stroke)
- 5 *Lubricate joystick linkages (spray)*
- 6 Hoses (routing, condition, no leaks)
- 7 Emergency stop-dump operation
- 8 Emergency DC pump switch operation (if equipped)
- 9 Engine start-stop operation (if equipped)
- 10 Engine two speed throttle operation (if equipped)
- 11 Tool outlet(s) quick couplers (condition, dust caps)
- 12 Tool outlet(s) pressure (2000 PSI) reading: _____

24. Upper boom jib

- 1 Material handling placards (condition, readable)
- 2 Boom angle indicators (condition, rotate freely)
- 3 Jibboom condition (no crack, scratch, cleanliness)
- 4 Jib support wear pads condition
- 5 Rotation cylinder (no leaks, pins retaining bolts tight)
- or Rotation gear box & motor (no leaks, bolts tight)
- 6 Jib extension cylinder (no leaks, retaining bolts tight)
- 7 Jib attachments condition (bushings, sheaves, no cracks, welds intact)
- 8 Winch motor and gear box (no leaks, bolts tight)
(1 year) Check oil level, fill up if necessary
- 9 Jib covers (condition, cleanliness)
- 10 Winch rope (wear, thimble, eye, anchoring bolt tight)
(1 year) Check torque, 15 ft-lb x 90% = **13 ft-lb**
- 11 Jibboom mounting bracket bolts tight
(1 year) Check torque, 60 ft-lb x 90% = **55 ft-lb**

25. Outriggers

- 1 Structure (welds intact, no deformation or cracks)
- 2 Stability marks readable
- 3 Cylinder pins retaining rings in place
- 4 Cylinder tube (no leaks, piping condition, welds intact)
- 5 Chromed rod condition (no rust, scratches, pin holes)
- 6 Pivot bearings secure within cylinder eyes
- 7 *Lubricate tube eye bearing (4 points)*
- 8 *Lubricate outriggers inner legs (brush)*
- 9 Holding valves manifold (no leaks, bolts tight)
(1 year) Check torque, 13 ft-lb x 90% = **12 ft-lb**

26. General (1Year)

- 1 Dielectric test of the insulating booms
- 2 Rotation bearing tilt measurement
- 3 Check monitoring system (if equipped)
- 4 Check anti-vacuum system (if equipped)
- 5 Dielectric test on non-conductive joystick (if equipped)

5,000 Hours / 5 Years (Additional maintenance)

27. Boom rotation system

- 1 Change gear box oil