POSI+

Aerial device model 500

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Unit # Serial #

Date: PTO Hours:

Intervals: 340 PTO hours / 4 months ☐ 5000 PTO hours / 5 years ☐

1000 PTO hours / 1 year ☐ Other:

Location: Work order:

Visual check of the unit (Clean unit if necessary)

General condition: Excellent ☐ Fair ☐ Good ☐ Poor ☐

Check for weld cracks ☐ Check for damaged or missing parts ☐

Check for oil leaks ☐ 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

POSI+

Aerial device model **500**

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Detailed inspection as per attached check list ☐

Item#	**Corrective actions**	Done (√)
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
		☐
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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

1	Parking brake-PTO interlock and buzzer	☐
2	Travel height decal (condition, no change on height)	☐
3	Boom and outriggers stow lights working	☐

2. PTO

1	Operation, noise level	☐
2	Hoses, wires, solenoid condition	☐
3	Mounting bolts tight	☐
4	No leaks	☐

3. Pump

1	Noise level	☐
2	Mounting bolts tight	☐
3	No leaks	☐

4. Chassis underside

1	Hoses (routing, condition, no leaks, exhaust shields)	☐
2	Utility body mounting (bolts tight, no cracks)	☐
3	Subframe and mounting plates (welds intact, no cracks, no rust)	☐
4	HP filter, change if necessary (if equipped)	☐
5	Subframe mounting bolts tight	☐

5. Lower controls (boom, outriggers, tools)

1	Placards, decals, inclinometer (condition, readable)	☐
2	Control valves (no leaks, rubber boots condition) free return of each spool	☐
3	Hoses (routing, condition, no leaks)	☐
4	Emergency stop-dump operation	☐
5	Emergency DC pump switch operation (if equipped)	☐
6	Engine start-stop operation (if equipped)	☐
7	Engine two speed throttle operation (if equipped)	☐
8	Upper winch up-down operation	☐
9	Tool outlet quick couplers (condition, dust caps)	☐
10	Tool outlet pressure (2000 PSI) reading:_____	☐

6. Hydraulic reservoir and filter

1	Cover bolts tight, welds intact, no cracks, no leaks	☐
2	Shutoff valves fully open and secured	☐
3	Drain water from bottom	☐
4	Oil level	☐
5	Breather air filter, change if dirty	☐
6	Return filter, check indicator and change if necessary	☐
7	Oil condition (cleanliness, color, appearance)	☐

7. Pedestal

1	Structure (welds intact, no deformation or cracks)	☐
2	Hydraulic rotation (no leaks, bolts tight)	☐
3	Pneumatic rotation (no leaks, bolts tight)	☐
4	Electric rotation (set screw tight, wiring condition)	☐
5	Hoses and manifolds (routing, condition, no leaks)	☐
6	Rotation bearing inside row, mounting bolts tight	☐

8. Turntable

1	Structure (welds intact, no deformation or cracks)	☐
2	Hoses and manifolds (routing, condition, no leaks)	☐
3	Rotation bearing wiper seals (condition, in place)	☐
4	Rotation bearing outside row, mounting bolts tight	☐
5	Main boom pivot pin (Condition, socket head bolt tight)	☐
6	Boom cylinder pivot pin (pin retainer condition, bolt tight)	☐
7	Tilt cylinder (No leak, holding, pins, wiper condition)	☐

9. Boom rotation

1	Rotation motor (mounting bolts tight, no leak)	☐
2	Gearbox mounting bolts tight	☐
3	Gearbox breather cleanliness	☐
4	Gearbox oil level	☐
5	Pinion gear teeth condition	☐
6	Rotation bearing gear teeth condition	☐
7	Pinion to rotation gear backlash	☐
8	Rotation bearing (tilt, smoothness and noise level)	☐

10. Lower boom lift cylinder

1	Tube (no leaks, piping condition, welds intact)	☐
2	Chromed rod condition (no rust, scratches, pin holes)	☐
3	Pivot bearing secure within cylinder eye	☐
4	Bearing-pin clearance, retaining bolt tight	☐
5	Holding valve manifold (no leaks, bolts tight)	☐

11. Lower boom

1	Structure (welds intact, no deformation or cracks)	☐
2	Fibreglass insert (clean, no cracks, scratches, chips)	☐
3	All covers in place (remove for inspection)	☐
4	Remove any debris from inside boom	☐
5	Hoses assembly (routing, properly attached, no leaks)	☐
6	Turret boom pivot pin (retaining bolt tight)	☐
7	Pivot pins-bearings clearance	☐
8	Fiberglass insert's fasteners tight	☐
9	Leveling chain, rods and sprocket condition	☐

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

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

12. Boom rest

1	Boom stow pads condition	☐
2	Structure (welds intact, no deformation or cracks)	☐
3	Boom tie down system (tightness, air line, no leak)	☐

13. Upper boom lift cylinders

1	Tubes (no leaks, piping condition, welds intact)	☐
2	Chromed rods condition (no rust, scratches, pin holes)	☐
3	Rod wiper condition	☐
4	Pivot bearing secure within cylinders eye	☐
5	Pivot pins (Condition, socket head bolt tight)	☐
6	Holding valves manifold (no leaks, bolts tight)	☐

14. Knuckle and lower steel boom

1	Structure (welds intact, no deformation or cracks)	☐
2	Hoses assembly (routing, properly attached, no leaks)	☐
3	Pivot pins (Condition, socket head bolts tight)	☐
4	Chains, rods, idlers and sprockets condition	☐
5	All covers in place (remove for inspection)	☐
6	Vinyl cover (condition, rubber bands)	☐

15. Upper boom

1	Steel boom (welds intact, no deformation or cracks)	☐
2	Fibreglass boom (clean, no cracks, scratches, chips)	☐
3	Fiberglass boom bolts tight	☐
4	Boom stow pad condition	☐
5	Boom stow lock down system (operation, tight)	☐
6	Boom tip weldment (no craks, deformation)	☐
7	Boom tip sprocket (condition, looseness)	☐
8	Leveling chain condition, no rust	☐
9	Boom tip cover (condition, in place)	☐
10	Remove any debris from inside upper boom	☐

16. Upper controls station

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

17. 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	Platform leveled, not rocking	☐
12	Platform mounting bolts tight	☐

18. 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)	☐
9	Jib covers (condition, cleanliness)	☐
10	Winch rope (wear, thimble, eye, anchoring bolt tight)	☐
11	Jibboom mounting bracket bolts tight	☐

19. 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	Holding valves manifold (no leaks, bolts tight)	☐

20. Lubrication

1	Refer to Lubrication chart Page 4-3	☐

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

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

21.	Parallelogram or pedestal elevator	
1	Structure (welds intact, no deformation or cracks)	☐
2	Pivot pins (Condition, bolt tight, retainer condition)	☐
3	Cylinder tube (no leaks, piping condition, welds intact)	☐
4	Chromed rod condition (no rust, scratches, pin holes)	☐
5	Pivot bearing secure within cylinder eye	☐
6	Bearing-pin clearance, retaining bolt tight	☐
7	Holding valve manifold (no leaks, bolts tight)	☐
8	Hoses (routing, condition, no leaks)	☐

1,000 Hours / 1 Year (Additional maintenance)

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	Critical bolts torque check (refer to Page 5-7)	☐
6	Collect oil sample for analysis (Change oil if necessary)	☐

5,000 Hours / 5 Years (Additional maintenance)

1	Change rotation gear box oil	☐
	Leveling system	
2	Inspect the complete leveling system	☐
3	Leveling chains, clean and inspect each link	☐
	No rust, jammed rollers or cracks	
4	Leveling rods (wear, cracks, end joint)	☐
5	Leveling sprockets and idlers, clean and inspect for wear	☐

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Aerial device model **500**

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Unit # Serial #

Date: PTO Hours:

Intervals: 340 PTO hours / 4 months ☐ 5000 PTO hours / 5 years ☐

1000 PTO hours / 1 year ☐ Other:

Location: Work order:

Visual check of the unit (Clean unit if necessary)

General condition: Excellent ☐ Fair ☐ Good ☐ Poor ☐

Check for weld cracks ☐ Check for damaged or missing parts ☐

Check for oil leaks ☐ 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

POSI+

Aerial device model **500**

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Detailed inspection as per attached check list ☐

Item#	**Corrective actions**	Done (√)
		☐
		☐
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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

1	Parking brake-PTO interlock and buzzer	☐
2	Travel height decal (condition, no change on height)	☐
3	Control display, no messages, alerts or warnings	☐

2. PTO

1	Operation, noise level	☐
2	Hoses, wires, solenoid condition	☐
3	Mounting bolts tight	☐
4	No leak	☐

3. Pump and flow control valve

1	Pump noise level, mounting bolts tight, no leak	☐
2	Valve solenoid and wiring condition	☐
3	Temperature and pressure sensors wiring condition	☐

4. Chassis underside

1	Hoses (routing, condition, no leak, exhaust shields)	☐
2	Utility body mounting (bolts tight, no cracks)	☐
3	Subframe and mounting plates (welds intact, no cracks, no rust)	☐
4	HP filter, change if necessary (if equipped)	☐
5	Subframe mounting bolts tight	☐

5. Lower controls (boom, outriggers, tools)

1	Placards, decals, inclinometer (condition, readable)	☐
2	Control valves (no leak, rubber boots condition) free return of each spool	☐
3	Hoses (routing, condition, no leak)	☐
4	Emergency stop-dump operation	☐
5	Emergency DC pump switch operation (if equipped)	☐
6	Engine start-stop operation (if equipped)	☐
7	Engine two speed throttle operation (if equipped)	☐
8	Upper winch up-down operation and lock switch	☐
9	Tool outlet quick couplers (condition, dust caps)	☐
10	Tool outlet pressure (2000 PSI) reading:_____	☐

6. Hydraulic reservoir and filter

1	Cover bolts tight, welds intact, no cracks, no leak	☐
2	Shutoff valves fully open and secured	☐
3	Drain water from bottom	☐
4	Oil level	☐
5	Breather air filter, change if dirty	☐
6	Return filter, check indicator and change if necessary	☐
7	Oil condition (cleanliness, color, appearance)	☐

7. Pedestal

1	Structure (welds intact, no deformation or cracks)	☐
2	Hydraulic rotation (no leak, bolts tight)	☐
3	Pneumatic rotation (no leak, bolts tight)	☐
4	Electric rotation (set screw tight, wiring condition)	☐
5	Hoses and manifolds (routing, condition, no leak)	☐
6	Rotation bearing inside row, mounting bolts tight	☐
7	Elevator pivot pin (Condition, bolts tight, flange weld)	☐
8	Level arm pivot pin (Condition, retaining bolt tight)	☐

8. Turntable

1	Structure (welds intact, no deformation or cracks)	☐
2	Hoses and manifolds (routing, condition, no leak)	☐
3	Rotation bearing wiper seals (condition, in place)	☐
4	Rotation bearing outside row, mounting bolts tight	☐
5	Main boom pivot pin (Condition, socket head bolt tight)	☐
6	Boom cylinder pivot pin (pin retainer condition, bolt tight)	☐
7	Tilt cylinder (No leak, holding, pins, wiper condition)	☐

9. Boom rotation

1	Rotation motor (mounting bolts tight, no leak)	☐
2	Gearbox mounting bolts tight	☐
3	Gearbox breather cleanliness	☐
4	Gearbox oil level	☐
5	Pinion gear teeth condition	☐
6	Rotation bearing gear teeth condition	☐
7	Pinion to rotation gear backlash	☐
8	Rotation bearing (tilt, smoothness and noise level)	☐

10. Lower boom lift cylinder

1	Tube (no leaks, piping condition, welds intact)	☐
2	Chromed rod condition (no rust, scratches, pin holes)	☐
3	Pivot bearing secure within cylinder eye	☐
4	Bearing-pin clearance, retaining bolt tight	☐
5	Holding valve manifold (no leak, bolts tight)	☐

11. Lower boom

1	Structure (welds intact, no deformation or cracks)	☐
2	Fibreglass insert (clean, no cracks, scratches, chips)	☐
3	All covers in place (remove for inspection)	☐
4	Remove any debris from inside boom	☐
5	Hoses assembly (routing, properly attached, no leak)	☐
6	Turret boom pivot pin (retaining bolt tight)	☐
7	Pivot pins-bearings clearance	☐
8	Fiberglass insert's fasteners tight	☐
9	Leveling chain, rods and sprocket condition	☐

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

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

12. Boom rest

1	Boom stow pads condition	☐
2	Structure (welds intact, no deformation or cracks)	☐
3	Boom tie down system (tightness, air line, no leak)	☐

13. Upper boom lift cylinders

1	Tubes (no leak, piping condition, welds intact)	☐
2	Chromed rods condition (no rust, scratches, pin holes)	☐
3	Rod wiper condition	☐
4	Pivot bearing secure within cylinders eye	☐
5	Pivot pins (Condition, socket head bolt tight)	☐
6	Holding valves manifold (no leak, bolts tight)	☐

14. Knuckle and lower steel boom

1	Structure (welds intact, no deformation or cracks)	☐
2	Hoses assembly (routing, properly attached, no leak)	☐
3	Pivot pins (Condition, socket head bolts tight)	☐
4	Chains, rods, idlers and sprockets condition	☐
5	All covers in place (remove for inspection)	☐
6	Vinyl cover (condition, rubber bands)	☐

15. Upper boom

1	Steel boom (welds intact, no deformation or cracks)	☐
2	Fibreglass boom (clean, no cracks, scratches, chips)	☐
3	Fiberglass boom bolts tight	☐
4	Boom stow pad condition	☐
5	Boom stow lock down system (operation, tight)	☐
6	Boom tip weldment (no craks, deformation)	☐
7	Boom tip sprocket (condition, looseness)	☐
8	Leveling chain condition, no rust	☐
9	Boom tip cover (condition, in place)	☐
10	Remove any debris from inside upper boom	☐

16. Upper controls station

1	Placards and decals (condition, readable)	☐
2	Hydraulic controls (no leak, rubber boots, operation)	☐
3	Joysticks (rubber boot condition, operation)	☐
4	Battery and charger condition	☐
5	Switches, push buttons (Condition, operation)	☐
6	Hoses (routing, condition, no leak)	☐
7	Emergency stop 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:_____	☐

17. Platform(s)

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	Platform leveled, not rocking	☐
12	Platform mounting bolts tight	☐
13	Platform rest (Condition, rubber pad, adjustment)	☐

18. 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 leak, pins retaining bolts tight)	☐
or	Rotation gear box & motor (no leak, 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 leak, bolts tight)	☐
9	Jib covers (condition, cleanliness)	☐
10	Winch rope (wear, thimble, eye, anchoring bolt tight)	☐
11	Jibboom mounting bracket bolts tight	☐

19. Outriggers

1	Structure (welds intact, no deformation or cracks)	☐
2	Proximity switches (Wiring condition, bolts tight)	☐
3	Cylinder pins retaining rings in place	☐
4	Cylinder tube (no leak, piping condition, welds intact)	☐
5	Chromed rod condition (no rust, scratches, pin holes)	☐
6	Pivot bearings secure within cylinder eyes	☐
7	Holding valves manifold (no leak, bolts tight)	☐

20. Lubrication

1	Refer to Lubrication chart Page 4-2	☐

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

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

21.	Pedestal elevator(s)	
1	Structure (welds intact, no deformation or cracks)	☐
2	Pivot pins (Condition, bolt tight, retainer condition)	☐
3	Cylinder tube (no leak, piping condition, welds intact)	☐
4	Chromed rod condition (no rust, scratches, pin holes)	☐
5	Pivot bearing secure within cylinder eye	☐
6	Bearing-pin clearance, retaining bolt tight	☐
7	Holding valve manifold (no leak, bolts tight)	☐
8	Hoses (routing, condition, no leak)	☐

1,000 Hours / 1 Year (Additional maintenance)

1	Dielectric test of the insulating booms	☐
2	Rotation bearing tilt measurement	☐
3	Check monitoring system	☐
4	Check anti-vacuum system	☐
5	Critical bolts torque check (refer to Page 5-7)	☐
6	Collect oil sample for analysis (Change oil if necessary)	☐

5,000 Hours / 5 Years (Additional maintenance)

1	Change rotation gear box oil	☐
	Leveling system	
2	Inspect the complete leveling system	☐
3	Leveling chains, clean and inspect each link	☐
	No rust, jammed rollers or cracks	
4	Leveling rods (wear, cracks, end joint)	☐
5	Leveling sprockets and idlers, clean and inspect for wear	☐