POSI+ Digger derrick 900

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Unit # Serial #

Date: PTO Hours:

Intervals: 340 PTO hours / 4 months ☐ Other:

1000 PTO hours / 1 year ☐

Location: Work order:

Visual check of the unit (Clean unit before inspection 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 boom 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+ Digger derrick **900**

PREVENTIVE MAINTENANCE AND INSPECTION REPORT

Detailed inspection as per attached check list ☐

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

Repeat operational test on components repaired ☐

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 cartridge when indicated (display in cab	☐
5	Subframe mounting bolts tight	☐

5. Lower controls

1	Placards, decals, inclinometer (condition, readable)	☐
2	Control valves (no leaks, rubber boots condition) operation of each spool	☐
3	Hoses (routing, condition, no leaks)	☐
4	Emergency stop operation	☐
5	Emergency DC pump switch operation	☐
6	Engine start-stop operation	☐
7	Engine speed throttle operation	☐
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	Electric rotation (retainer tight, wiring condition)	☐
4	Hoses and manifolds (routing, condition, no leaks)	☐
5	Rotation bearing inside row, mounting bolts tight	☐
6	Control valve (no leaks, connector tight)	☐
7	Junction box (connections tight, no corrosion, cover tight	☐

8. Turntable

1	Structure (welds intact, no deformation or cracks)	☐
2	Hoses and manifolds (routing, condition, no leaks)	☐
3	Rotation bearing wiper seal (condition, in place)	☐
4	Rotation bearing outside row, mounting bolts tight	☐

9. Boom rotation

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

10. Lower boom

1	Structure (welds intact, no deformation or cracks)	☐
2	Hoses assembly (routing, properly attached, no leaks)	☐
3	Turret pivot pin (retaining bolts tight)	☐
4	Boom tip wear pads (condition, bolts tight)	☐
5	Telescopic tubes (fittings tight, no leaks, retainers tight)	☐
6	Hoses carrier (condition, hoses routing, no leaks)	☐

11. Lower boom lift cylinders

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 valve manifold (no leaks, bolts tight)	☐

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12. Intermediate boom

1	Structure (welds intact, no deformation or cracks)	☐
2	Boom end wear pads (condition, bolts tight)	☐
3	Boom tip rollers (condition, adjustment tight)	☐

13. Upper boom

1	Boom end wear pads (condition, bolts tight)	☐
2	Boom tip sheave holders (condition, bolts tight)	☐
3	Boom tip sheave (condition, shaft retainer bolts tight)	☐
4	Boomt tip idler (condition, shaft retainers in place)	☐
5	Boom tip stoppers (condition, tight)	☐

14. Intermediate boom winch

1	Gear box oil level	☐
2	Hoses and tubes (condition, fittings tight, no leaks)	☐
3	Gear box retaining bolts tight	☐
4	Winch line and splice, thimble (condition, wear)	☐
5	Winch line end attachment to drum, bolt tight	☐
6	Shaft and bearing condition	☐

15. Telescopic booms' cylinders

1	Tube (no leaks, welds intact)	☐
2	Chromed rod condition (no rust, scratch, pin holes)	☐
3	Tube end's retaining plates (bolts tight)	☐
4	Rod end pin (condition, retaining rings in place)	☐
5	Trunion holders (retaining bolts tight)	☐
6	Holding valves manifold (no leaks, bolts tight)	☐

16. Pole guide

1	Structure (welds intact, no deformation or cracks)	☐
2	Arms head (tilt bearings and pins condition, bolts tight)	☐
3	Idler condition, shaft's spring retainers in place	☐
4	All bolts tigth	☐

17. Pole guide arms and tilt cylinders

1	Tube (no leaks, piping condition, welds intact)	☐
2	Chromed rod condition (no rust, scratches, pin holes)	☐
3	Pivot bearings condition	☐
4	Bearings-pins clearance, retaining bolts tight	☐
5	Holding valve manifold (no leaks, bolts tight)	☐
6	Hoses (condition, fittings tight, no leaks)	☐

18. Digger hanger

1	Digger hanger bracket (welds intact, no cracks)	☐
2	Digger lock (condition, bolt tight, shaft retainers in place)	☐
3	Digger latch (condition, bolts tight, shaft retainers in place	☐
4	Digger latch cylinder (rod, tube condition, no leak)	☐
5	Rollup cable (condition, wear, splices)	☐
6	Swing arm pin and lock spring (condition, bolts tight)	☐

19. Digger drive

1	Swing arm (condition, welds, bearings)	☐
2	Digger pin (condition, retaining bolts tight)	☐
3	Gear box oil level	☐
4	Motor (condition, no leaks)	☐
5	Hoses (Condition, routing, wear, no leaks)	☐
6	Output shaft condition	☐

20. 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)	☐

21. Platform (if equipped)

1	Mounting frame (welds intact, no deformation, cracks)	☐
2	Platform (condition, no cracks, no holes)	☐
3	Liner (condition, cleanliness)	☐
4	Placards and decals (in place, readable)	☐
5	"D" ring (bolt tight, no deformation or cracks)	☐
6	Hoses (no leak, routing, not pinched or pulled)	☐
7	Platform mounting bolts tight	☐

22. Upper controls station (if equipped)

1	Placards and decals (condition, readable)	☐
2	Controls (no leaks, rubber boots condition)	☐
3	Emergency stop operation	☐
4	Emergency DC pump switch operation (if equipped)	☐
5	Engine start-stop operation (if equipped)	☐
6	Engine two speed throttle operation (if equipped)	☐

23. General

1	Lubricate the unit (refer to lubrication listing and diagram	☐

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1,000 Hours / 1 Year (Additional maintenance)

24 General

1	Dielectric test of the insulating boom	☐	5	Change digger gear box oil	☐
2	Rotation bearing tilt measurement	☐	6	Change winch gear box oil	☐
3	Hydraulic oil analysis (change if necessary)	☐	7	Change rotation gear box oil	☐
4	Check torque of critical bolts (refer to listing)	☐			

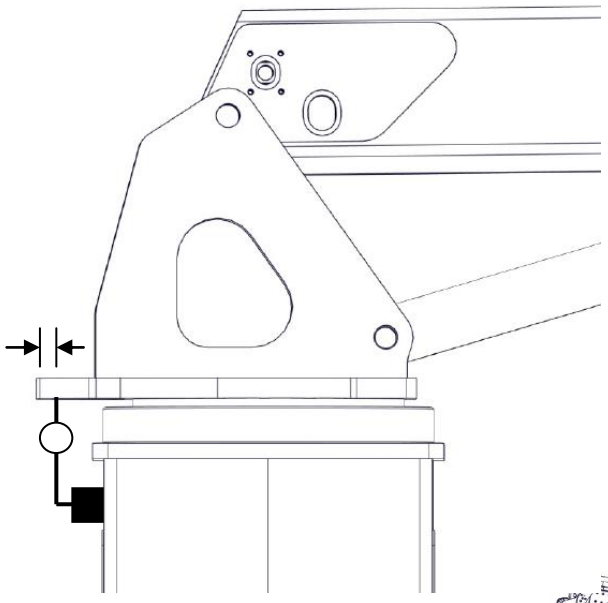
Digger derrick 900-50

Rotation bearing tilt measurement

S/N: _____ **PTO Hours:** _____

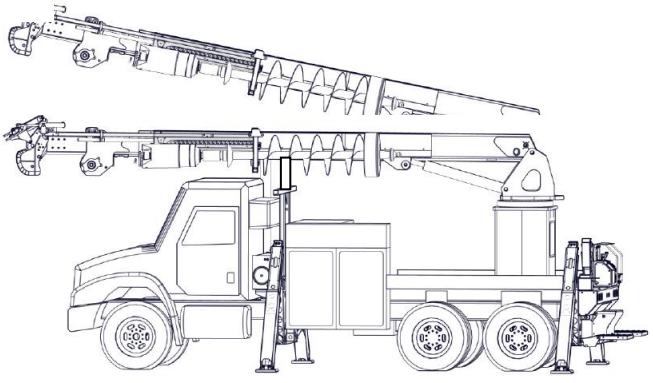
By: _____ **Date:** _____

	Position 1	Position 2
Reading 1	0,000 ‘’	
Reading 2	0,000 ‘’	
Reading 3	0,000 ‘’	



POSITION 2

POSITION 1



Refer to Section 4-7 of this manual for complete tilt measurement procedure.