



PREVENTATIVE MAINTENANCE CHECKLIST ELECTRIC MANIPULATOR SERIES

The service intervals for the Preventative Maintenance Checklist are base on normal operating conditions. The normal operating conditions include eight hours a day, or forty hours a week. If operating conditions or duty cycles are more severe, servicing of trucks should be preformed more frequently.

DATE _____ SERIAL # _____ MODEL _____ HOUR METER READING _____

Certain jobs to be preformed during this Preventative Maintenance should be done with the battery disconnected /removed and the machine turned off. The scope of the Preventative Maintenance Checklist is to inspect and then repair any items not meeting acceptable standards.

TOPIC	DAILY OR 8 HOURS	MONTHLY OR 200 HOURS	6 MONTHS OR 1200 HOURS	ANNUALLY
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Pre-Operation Checklist (To be Completed by Operator Prior to Operating Truck)				
Inspect & clean I.D. tags for readability. Replace if no longer readable or are missing from truck.	X			
Inspect chassis & cab structures for physical damage. Report to Supervisor if damage is found.	X			
Inspect mirrors and windows (if equipped).	X			
Push horn button on steering wheel to see if horn is in working condition.	X			
Inspect siren for proper working condition.	X			
Inspect all strobe light(s) for proper working condition.	X			
Inspect all headlights (front/rear) for proper working condition.	X			
Inspect back-up alarm(s) for proper working condition.	X			
Inspect seat for wear and adjust to proper operating position.	X			
Inspect seat belt for wear and proper operating condition.	X			
Test seat switch (deadman) for proper operation.	X			
Inspect all gauges for proper working functions.	X			
Inspect all switches for proper working order. (Keyswitch, Lights, Fan, Etc...)	X			
Inspect all hydraulic levers for proper working condition (Lift, Lower, Side Shift, Fork Position, Etc...)	X			
Inspect all foot pedals for proper working order (Accelerator & Brake).	X			
Inspect battery disconnect switch for proper operation.	X			
Inspect handrails (if equipped).	X			
Inspect steps and floor of cab for cleanliness.	X			
DRIVE & STEER WHEELS:				
Inspect for any physical wear or damage of tires or wheels. Check torque of lug nuts on hubs of wheels.	X			
HYDRAULICS:				
Check hydraulic fluid level. Maintain level of hydraulic fluid to specified "FULL" mark.	X			
Inspect hoses and piping for leaks at all connections. Check also for cracked hoses, loose fittings, and chafing of pipes.	X			
Inspect all hydraulic cylinders for mounting, leakage, and operation.	X			



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MAST ASSEMBLY:				
Check all mast mounting hardware.	X			
Inspect for missing or broken pins and links.	X			
BRAKES:				
Check for leaks.	X			
PARKING BRAKE:				
Manually adjust the brake lever / cable for proper actuation.	X			
SAFETY:				
Report any other dangerous or hazardous conditions found prior to operation to your foreman / supervisor / manager immediately.	X			

Below is the Preventative Maintenance Checklist that needs to be conducted by either the Maintenance Department of your company or a Maintenance Technician from the dealer that this truck was purchased from. The scope of this checklist is to inspect and then repair any items not meeting acceptable standards.

TOPIC	DAILY OR 8 HOURS	MONTHLY OR 200 HOURS	6 MONTHS OR 1200 HOURS	ANNUALLY
Drive Axle				
Visually inspect daily.				
Check mounting bolts / lug nuts.			X	
Maintain oil levels in differential and planetary hubs.		X		
maintenance and type of lubrication. (Section B).				X
Drive Shaft				
Lubricate drive shafts, universal joints, slip joints.		X		
Check attaching bolts.			X	
Steer Axle				
Visually inspect daily.				
Lubricate all grease fittings.		X		
Lubricate wheel bearings and spindles.				X
Check mounting bolts.			X	
Inspect steer rings / stops.			X	
Check axle caps for tightness and if any are missing.		X		
Check cylinder for proper operation and leaks.		X		
Lubricate central lube block.		X		



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Brakes				
Check fluid level in wet disc type brakes.		X		
Check for wear in mechanical brakes.		X		
Refer to brake maintenance section. (Section B)				X
Accumulator - Precharge to be 800-1000 psi. Operation cycle should get 4 to 6 brake pedal compressions before pump recharges accumulator. (See Hyd. Section).			X	
Parking Brake				
Brake pads (replace when required).			X	
Actuator adjustment. (initial adjustment required when parking brake pads are replaced.)			X	
Mast Assembly				
Visually inspect daily.				
Lubricate tilt cylinder bushings, grease fittings.		X		
Check all mast mounting hardware.		X		
Carriage Assembly				
Visually inspect daily.				
Lubricate cylinder mountings, grease fittings, special attachments.		X		
Hydraulic System				
Inspect hydraulic pump(s) for leakage and operation.		X		
Drain and clean inside of tank. After flushing the entire hydraulic system, refill tank.				X
Hydraulic Filters				
Clean / replace tank strainer(s).			X	
Clean breathers.			X	
Change hydraulic oil filter(s) / element(s)..			X	
For further maintenance of hydraulic valve refer to Section H.				X
Misc.				
Lubricate all grease fittings not listed elsewhere in manual. Use oil on linkages not having greaseable fittings.			X	



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Electrical System				
Blow out drive motor(s).			X	
Blow out pump motor(s). (Lift & Power Steering)			X	
Inspect all motors for proper operation.			X	
Inspect motor commutators / armatures. Replace as required.			X	
Check motor mounting and electrical connectors.			X	
Inspect all motor brushes and brush spring tension.			X	
Check for excessive battery leakage to chassis.			X	
Inspect battery connectors.		X		
Inspect battery(s) for damage, corrosion, and leaks.		X		
Inspect battery electrolyte level and specific gravity. (add water as required.)		X		
Inspect battery tray for physical damage / corrosion.			X	
Inspect cables and connections for tightness.			X	
Inspect battery cables for corrosion.		X		
Refer to Battery Requirements in manual for further maintenance on battery.			X	
Inspect F/R switch assembly for proper operation.		X		
Check wiring and terminals (keep clean and bright).			X	
Inspect tips of contactors for overheating or burning. Replace tips as needed. (F/R, Main, Lift, Power Steering, Field Weakening, Etc...).			X	
Check hourmeter for proper operation. (If applicable).		X		

*****ATTENTION*****

Before performing any of the procedures on the Preventative Maintenance Checklist, Safety should be your primary concern. Remember to abide by all safety practices established by your company. If you notice any unsafe or hazardous conditions before starting any procedure, report it to your foreman / supervisor / manager immediately.