Aptella
AUTOMATION + POSITIONING TECH

KENNARDS HIRE

Motor Grader

Preventative Maintenance Inspection Checklist

Inspectors Name	Date		
Machine Make/Model	**Serial Number**	**PlantNumber**	**SMR**

Item	Service Interval				Comment
Machine Inspection	Daily	Weekly	Monthly	Quarterly	
• Machine Wear Points					
o Check for wear/movement in circle (Rotation)	☐	☐	☐		
o Check for wear/movement in hose tray (hose tray rods bent/damaged)	☐	☐	☐		
o Check for wear/movement in slides & rails	☐	☐	☐		
o Check Knuckles, Pins, A-Frame Ball (wear/damaged/loose)	☐	☐	☐		
o Check blade cutting edge wear (is it wearing uneven in the middle? Need replacing?)	☐	☐			

Hydraulics – for automatic operation					
• Check hydraulic hoses are dry & free of oil leaks	☐	☐	☐		
• Check hydraulic hoses for wear/tear	☐	☐	☐		
• Inspect valve bank & hoses for oil leaks(if fitted)	☐	☐	☐		
• Check hydraulic response operation andtune if required (adjusting gains tosuit)	☐	☐	☐		

MountingBrackets					
• Check L-Bar mounting brackets are secured and in good condition	☐	☐			
• Check L-Bar is not bent/damaged	☐	☐			
• Check vibe pole is not bent or damaged	☐	☐			
• Check vibe pole mounting bushes for excessive wear/movement	☐	☐	☐		
• Check slope sensor mounting bracket for cracks, bent, clean of debris	☐	☐			
• Check Control Box bracket is not loose, and handle is secure	☐	☐			

• Check twin antenna mounting bracket bushes for wear (if fitted)	☐	☐			
• Check tightness of ram ball mount? Willit support a control box when tracking around?	☐	☐			

Cables					
• Check GPS Coil Cable for wear/secured with strain relief (connector pins not too far out/in)	☐	☐			
• Check MMGPS Coil Cable for wear/tear/secured with strain relief (if fitted)	☐	☐			
• Inspect sensor cables for wear/tear/clean of debris/rub marks at pivot points	☐	☐			
• Inspect strain relief anchor points are secured and not damaged	☐	☐			
• Check that all connectors are clean and tight	☐	☐			
• Check fuse holder is secure and no corrosion			☐	☐	
• Check earth wire is secure and no corrosion			☐	☐	

3D Components					
• Inspect GPS antennas/prism for damage/corrosion	☐	☐			

• Check UHF & Network connectors into rover box & T-link (clean & tight)	☐	☐			
• Inspect control box & screen protector		☐	☐	☐	
• Check UHF, Network antenna and Mag bases (corrosion, loose fittings, cable frayed)			☐	☐	
• Inspect MC-R3 mounting rubbers and magnets (loose/missing/torn)		☐	☐	☐	
• Inspect T-Link & MC-i4 magnets are secure (if fitted)		☐	☐	☐	

2D Operation • 2D Sensor's operation checked (all sensors online)					
o Mainfall Sensor operation	☐	☐	☐	☐	
o Rotation Sensor operation	☐	☐	☐	☐	
o Slope Sensor operation	☐	☐	☐	☐	
• MC^2 Sensor operation (if fitted)					
o Inspect MC^2 Sensor (clean of debris)	☐	☐	☐	☐	
o Check MC^2 Sensor alignment	☐	☐	☐	☐	

o Calibrate MC^2 Sensor	☐	☐	☐	☐	
• Check if auto switch is operational (auto lights appear on screen)	☐	☐	☐	☐	

3D Operation • 3D operation checked (system initialised and all sensors online)					
o Check if correct machine file has been selected	☐	☐	☐	☐	
o Check if Base Station correction is configured correctly (UHF/Network)	☐	☐	☐	☐	
o Check if correct project file & design surface has been selected	☐	☐	☐	☐	

MachineAccuracy					
• 2D calibration check (perform sensor calibration)	☐	☐			
• 3D position check (Benchmarking/referencing machine to point on jobsite)	☐	☐			
• Check/remeasure vibe pole position on blade in machine file (Above, Inside, Behind, Width)	☐	☐			
• Machine capable of final trim operations	☐	☐			

Operator Familiarisation					
• Adjusting customised views for operator preference			☐	☐	
• Adjusting text display on the screen for operator preference			☐	☐	
• Adjusting background colour for operator preference			☐	☐	
• Familiarise operator on elevation increment buttons on the joysticks (adjusting set points on screen)			☐	☐	
• Discuss/demonstrate existing features the operator is not currently using or unaware of			☐	☐	
• Familiarising operator on new features of software			☐	☐	

Software/Firmware Updated (Contact your local Position Partners Dealer for the latest updates)					
• GPS Firmware				☐	
• Radio Firmware				☐	
• Controller Board Firmware				☐	
• 3DMC Version Updated				☐	

• Geoid & Projection files updated (MGA2020 capable)				☐	
• Tokara Agent Version (If applicable)				☐	