KNIGHT Global
ISO9001-2008 / ISO14001-2004 Certified
Ergonomic Handling Solutions

SERVO INSPECTION CHECKLIST

Date

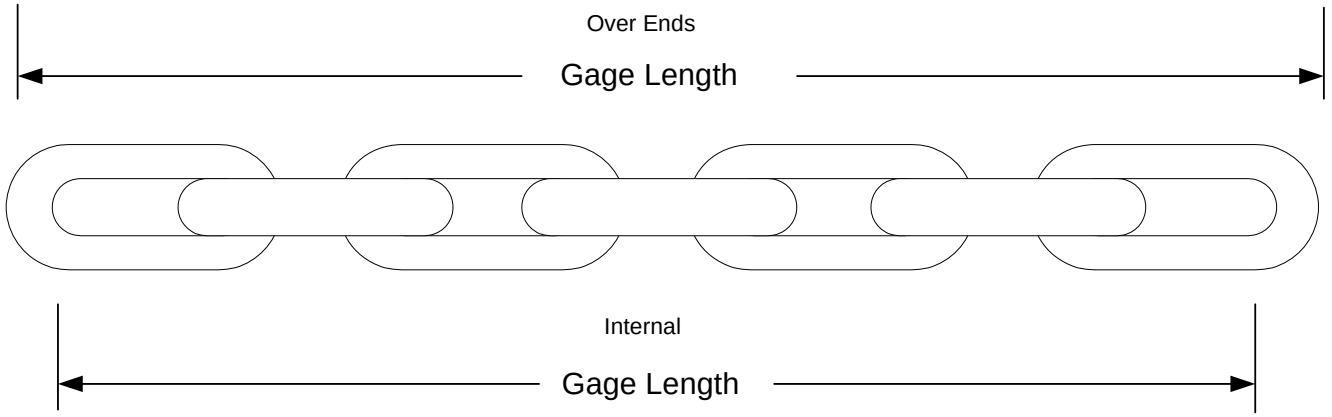
Customer/Plant:			
Work Cell Identification/Location:			
Servo Type:			
Rail-Type/Size: Aluminum Steel 2" 4" 6" 8"			
What type of hangers?		How many hangers?	
Bridge? Yes No Single Dual	Notes:		
What type of load? Direct Cantilevered	Notes:		
Application:		Cycle time:	

Item to be Checked	Date Checked	Checked by	Discrepancies
General			
Create a back-up of current KSH unit.			
Inspect and review mechanical components for wear or damage			
Load Trolley or Hanging Point			
Visually inspect for wear, damage or missing components and safety cable			
Controls			
Inspect and review control components such as power cable, motor cable connections, termination points and inspect control cables for wear and missing cable clamps.			
Incoming Power Cable			
Visually inspect for wear, damage or missing components			
Power Contactor			
Visually inspect for wear, damage or missing components			
24 VDC Power Supply			
Visually inspect for wear, damage or missing components			

Servo Drive Unit Visually inspect for wear, damage or missing components			
Cables, Power, Encoder & Brake Visually inspect for wear, damage or missing components			
Shunt Visually inspect for wear, damage or missing components			
Control Relays Visually inspect for wear, damage or missing components			
Power & Control Terminals & Wiring Visually inspect for wear, damage or missing components			
M12 I/O Cables Visually inspect for wear, damage or missing components			
Coil & Str 19-Pin Cables Visually inspect for wear, damage or missing components			
Operator Control Interface Visually inspect for wear, damage or missing components			
In-Line, Fixture Handle or Up/Dn Pendant Visually inspect for wear, damage or missing components			
Lift & Float L/C's Test components Balance components Adjust components			
Confirm the Operation of the KSH Unit Visually inspect for wear, damage or missing components			
Motor-Keyway Remove and inspect for damage, re-lube shaft Replace if needed			
Chain			
Clean chain before inspection to permit full length inspection.			
Attach load and operate unit. Observe chain. If load chain jumps, binds or is noisy, inspect chain and mating parts for wear, distortion or other damage			
With load on the hook, check load chain for wear and elongation by measuring a specified length (see figure 1) of chain as follows:			
Select an unworn and unstretched length of chain. The number of links selected must be an odd number of links and should be 12 to 24 inches in length.			
Measure the gage length of the unworn and unstretched length of chain using a caliper type device.			
Measure the gage length of the same number of links in a used section of load chain.			

Conduct a link by link inspection for visible gouges, nicks, weld splatter, corrosion, and distorted links.			
Slacken the load chain and move adjacent links to one side and inspect for inter-link wear at link contact points. If inter-link wear is observed, measure the thickness of the link at the contact point.			

Figure 1



- ***Replace the load chain if the used gage length is 1½% longer than the unused gage length.***
- ***If wear is greater than 5% of the original wire diameter of the chain, the load chain must be replaced.***
- ***Nominal wire diameter for large chain is 5.0mm (.197") and nominal pitch is 15.1mm (.594").***
- ***Nominal wire diameter for small chain is 4.0mm (.157") and nominal pitch is 12.0mm (.472).***

Load Hooks			
Bent or distorted components; more than 5% wear in hook throat, wear greater than 5% of the original diameter on bolts or pins, loose or damaged locking gates, any visible twisting of the hook or eye			
Optional Method			
Using "Quick Check" gage, place chain under tension and check *each* link			