MTS Routine Maintenance

Servohydraulic Load Frame

Eligible Servohydraulic Load Frame Models

- Series 300
- Series 311 (High-Force)
- Series 315
- Series 316
- Series 318 (Model 810)
- Series 319
- Series 322
- Model 358.02
- Series 359
- Series 370 [MTS Bionix®]
- Series 370 [MTS Landmark®]

Productivity is important. Testing is critical. On-time, accurate results are paramount. None of these things is achievable if your test system is down. Even the most well-designed systems will experience wear that may lead to failure. Regular, scheduled maintenance by experienced field service engineers mitigates the risk of downtime by addressing issues and keeping equipment in peak operating condition.

Your test results are only as accurate as the equipment you use to get those results. Load frames that are well-maintained produce more accurate and repeatable test results, giving you the peace of mind that comes with knowing that you can trust your data. Rely on MTS to perform the checks and adjustments necessary to get the best results possible from your load frame tests.

MTS field service engineers know what to do to keep your load frame running as it should. We check the crosshead, frame, actuator, hydraulic service manifold, hoses, cables and grips to make sure there isn't excessive wear or leakage. We bleed the crosshead lift cylinders, charge accumulators, and verify performance parameters.

At the end of each routine maintenance visit, we'll provide a report of all services performed, current equipment condition and any recommendations, if necessary. You'll have the information you need to make decisions about your test equipment and confidence in knowing that you are able to address issues before they become problems. You'll also know that you are enhancing the productivity, reliability and longevity of your test equipment.

MTS Servohydraulic Load Frame

Recommended service to be performed at each running time interval noted

Calendar Time Using 8 Hour Run Time Rate Per Day	Daily	Weekly	Biweekly	Annually			
Running Time - Hours	**8**	**40**	**80**	**500**	**1,000**	**1,500**	**2,000**
Check Actuator Platen Area Cleanliness	√						
Monitor Filter Indicators	√						
Check Hoses / Cables / Connectors		√					
Check Crosshead / Lifts / Supports		√					
Check Actuator Area Dryness		√					
Check Hydraulic Service Manifold		√					
Check Lift Seal Dryness		√					
Check Lock Seal Dryness		√					
Lubricate Axial/Torsional Spline (Bionix® Frame at 75-100 hrs)			√				
Check Actuator			√				
Crosshead / Load Frame							
Check Crosshead / Lifts / Supports				MTS	MTS	MTS	MTS
Lift Seal Condition is Dry				MTS	MTS	MTS	MTS
Lock Seal Condition is Dry				MTS	MTS	MTS	MTS
Crosshead Columns are Clean				MTS	MTS	MTS	MTS
Column Abrasions are Acceptable				MTS	MTS	MTS	MTS
Crosshead Speed is Appropriate				MTS	MTS	MTS	MTS
Crosshead Unlock Causes Program Interlock				MTS	MTS	MTS	MTS
Load Frame Support Airbags / Pads				MTS	MTS	MTS	MTS
Crosshead Movement is Smooth				MTS	MTS	MTS	MTS
Hydraulic Crosshead Locks are Functioning Properly					MTS		MTS
Bleed Crosshead Lift Cylinders					MTS		MTS
Lubricate Manual Crosshead Lock Bolts							MTS
Actuators							
Overall Check of Actuator				MTS	MTS	MTS	MTS
Actuator Area is Dry				MTS	MTS	MTS	MTS
Actuator Platen Area is Clean				MTS	MTS	MTS	MTS
Piston Rod Wear is Acceptable				MTS	MTS	MTS	MTS
Lubricate Axial/Torsional Spline (Bionix Frame at 75-100 hrs)				MTS	MTS	MTS	MTS
Verify Performance, Low Velocity, Up Direction (1)				MTS	MTS	MTS	MTS
Verify Performance, Low Velocity, Down Direction (1)				MTS	MTS	MTS	MTS
Hydraulic Service manifold							
Overall Check of Hydraulic Service Manifold				MTS	MTS	MTS	MTS
Monitor Filter Indicators				MTS	MTS	MTS	MTS
Manifold Hose Connections are Tight				MTS	MTS	MTS	MTS
Accumulator Connections are Dry				MTS	MTS	MTS	MTS
Accumulator Connections are Tight				MTS	MTS	MTS	MTS
Accumulator Caps / Guards are Present				MTS	MTS	MTS	MTS
Oil on the Gas Side of the Piston				MTS	MTS	MTS	MTS
Check and Adjust Pressure in Accumulator				MTS	MTS	MTS	MTS
Change Filters							MTS
Low Pressure Adjustment (Model 294)							MTS

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Running Time - Hours	**8**	**40**	**80**	**500**	**1,000**	**1,500**	**2,000**
Overall Check of Hoses / Cables / Connectors				MTS	MTS	MTS	MTS
Absence of Hose Abrasions, Blisters, Vulcanizing				MTS	MTS	MTS	MTS
Cable Condition and Routing is Acceptable				MTS	MTS	MTS	MTS
Check Transducer Connections				MTS	MTS	MTS	MTS
Hose Connections and Crimps are Dry				MTS	MTS	MTS	MTS
Complete System							
Overall System Condition is Acceptable to Use				MTS	MTS	MTS	MTS
Tuning Parameters are Appropriate / System Stable				MTS	MTS	MTS	MTS
E-Stop is Working if Applicable				MTS	MTS	MTS	MTS
Response to Full Stroke Waveform, Visual and Audible				MTS	MTS	MTS	MTS
Valve Balance Check Displacement Control				MTS	MTS	MTS	MTS
Valve Dither Response				MTS	MTS	MTS	MTS
Verify High / Low Velocity Switch Light on High (1)				MTS	MTS	MTS	MTS
Verify Low Velocity Indicates Program Interlock (1)				MTS	MTS	MTS	MTS
Grips							
Cursory Check of Grips / Grip Control				MTS	MTS	MTS	MTS
Grip Supply Connections are Dry				MTS	MTS	MTS	MTS
Grip Seals are Dry				MTS	MTS	MTS	MTS
Grip Action is Acceptable				MTS	MTS	MTS	MTS
Lubricate Grip Inserts				MTS	MTS	MTS	MTS

Note: MTS
Symbol denotes service performed by trained field service engineers as part of an MTS Routine Maintenance plan. Some of these procedures require special service tools and/or specific service training to complete.

Note: √
Symbol denotes services performed by equipment operators. Most of these procedures involve visual checks that should not interfere with test system operation. These checks are also completed by trained field service engineers on each Routine Maintenance visit

Note: (1)
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