

# Annual Test Report

Your Fire District

Elevating Platform

Truck # 1-2-3

January 01, 20XX

Report # XX - XX



***Testing Unlimited Corporation***

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**Report Issue Date: 01/01/20XX**

**Next Inspection Date: 01/01/20XX**

**These tests determine the integrity of the apparatus at the time of testing. Testing Unlimited Corporation assumes no liability for any apparatus abused, overloaded, or misused after the inspection was performed. Furthermore, any abuse or overload or misuse will render these test results invalid.**

**This document shall be stored with the maintenance repair and inspection logs. It should be made available to perform a year-to-year comparison of measurements and to determine items that need to be closely monitored.**

Fire District: Your District

Model: Your Aerial

Vehicle: 1-2-3

Test Date: 01/01/20XX

Report: XX-XX

## Inspection Summary

Your Fire District  
5 Main Street  
Anywhere, USA 12345

To the Fire District,

In Accordance with NFPA Code 1911, Testing Unlimited performed an annual inspection on your Aerial Device listed in table 1. *The primary focus of the annual inspection is the structural safety of the aerial apparatus and the functioning of all operator controls and safety devices.* This is accomplished by a visual inspection of the entire vehicle and the measurement of the manufacturers' mechanical-tolerances and time-requirements specific to your apparatus.

A list of inspection discrepancies is provided in Table 2. Although Testing Unlimited applies a rating code to the defects found during the inspection, *it is the responsibility of the fire district to rate, prioritize, repair and return to service these defects found during the inspection.*

The time & tolerance measurements are listed in Table 3 while the "Aerial Device" inspection items are listed in Table 4.

As a friendly reminder NFPA requires *Aerial and Ground Ladders To Be Inspected Annually.*

If you have any questions regarding this inspection please don't hesitate to call.

Michael Dukich  
President  
Testing Unlimited Corporation

Fire District: Your District

Test Date: 01/01/20XX

Model: Your Aerial

Vehicle: 1-2-3

Report: XX-XX

**Table 1 - Vehicle Information**

Your Fire District 5 Main Street Anywhere, USA 12345		<b>Date:</b>		Inspection Date
		<b>Truck #</b>		1-2-3
		<b>Report #</b>		XX-XX
	<b>Aerial Device</b>		<b>Chassis</b>	
<b>Unit</b>	Stratospear		E - One	
<b>Mfg. Date</b>	9/91		9/91	
<b>Serial / VIN #</b>	458354		46JDJZA85M113259632	
<b>Length</b>	110 feet		---	
<b>Hours / Mileage</b>	452.2		2,665	
<b>Tests Performed</b>				
<b>Visual</b>	✓	<b>Liquid Penetrant</b>	✓	
<b>Operational</b>	✓	<b>Magnetic Particle</b>		
<b>Load</b>	✓	<b>Eddy Current</b>	✓	
<b>Other</b>	<b>Thickness</b>	<b>Ultrasonic</b>	✓	
<b>Conditions</b>				
<b>Test Location</b>	Your Fire District • 5 Main Street • Anywhere, USA 12345			
<b>Wind Velocity</b>	Calm	<b>Temperature</b>	71°	
<b>Inspectors / Technicians</b>				
Michael A Dukich		Edward P Dukich		
Inspector		ASNT Level III		
				

### Table 2 - Discrepancy Items

These ratings are only a recommendation of Testing Unlimited. It is the responsibility of the fire district to **RATE, PRIORITIZE AND REPAIR**, the defects found during the inspection in order to return the equipment back to reliable service.

1. UNSAFE, Remove from Service Until Repaired or Replaced.
2. Repair Immediately.
3. Item Noted & Repaired on Date of Inspection.
4. Item Noted.

Item	Discrepancy	Rating
1	Basket Collins spot light has 1 beam inoperative	2
2	Left headlight high beam is inoperative	2
3	Breathing air bottles are due for hydrostatic testing	2
4	Check and adjust all Section cable tensions in accordance with manufacturer’s maintenance manual procedures	4
5	Check and adjust all Section guide pads in accordance with manufacturer’s maintenance manual procedures	4
6	All tires do not meet current NFPA 2211 specification, chapter 8 (tires out of date)	4

**Table 3 - Operational Measurements**

Inspection Item	Specification	Actual	Comments	Result
<b>Stabilizer Operation</b>				
Right Forward	---	8 Sec		Pass
Right Rear	---	8 Sec		Pass
Left Forward	---	8 Sec		Pass
Left Rear	---	8 Sec		Pass
<b>Operation from Lower Controls</b>		<b>Hyd Pressure</b>		
Boom Up	60 Sec	57 Sec	1500 psi	Pass
Boom Down	65 Sec	62 Sec	1600 psi	Pass
Boom Extension	35 Sec	37 Sec	2150 psi	Pass
Boom Retraction	43 Sec	47 Sec	1400psi	Pass
Boom Rotation (CW)	120 Sec	122 Sec	2300 psi	Pass
Boom Rotation (CCW)	120 Sec	126 Sec	2000 psi	Pass
NFPA 3 Control Test	150 Sec	81 Sec		Pass
<b>Operation from Upper Controls</b>		<b>Hyd Pressure</b>		
Boom Up	60 Sec	64 Sec	1300 psi	Pass
Boom Down	65 Sec	69 Sec	2000 psi	Pass
Boom Extension	35 Sec	37 Sec	2700 psi	Pass
Boom Retraction	43 Sec	45 Sec	1500psi	Pass
Boom Rotation (CW)	120 Sec	125 Sec	2200 psi	Pass
Boom Rotation (CCW)	120 Sec	125 Sec	2300 psi	Pass
<b>Stabilizer Cylinder Drift</b>				
Right Forward	.250 in/hr	0 in/hr		Pass
Right Rear	.250 in/hr	0 in/hr		Pass
Left Forward	.250 in/hr	0 in/hr		Pass
Left Rear	.250 in/hr	0 in/hr		Pass
<b>Extension Cylinder Drift</b>				
Left	1.0 in/hr	.250 in/hr		Pass
Right	1.0 in/hr	.250 in/hr		Pass
<b>Elevation Cylinder Drift</b>				
Left	.500 in/hr	.250 in/hr		Pass
Right	.500 in/hr	.250 in/hr		Pass

**Table 3 - Operational Measurements (Cont'd)**

Inspection Item	Specification	Actual	Comments	Result
<b>Hydraulic Relief Valves</b>				
Hydraulic / Bedded	900 psi	900 psi		Pass
Hydraulic / System	3000 psi	3000 psi		Pass
Hydraulic / Emergency	2500 psi	2500 psi		Pass
<b>Load Test</b>				
Live Tip Load	1000 lbs.	1000 lbs.		Pass
<b>Rotation Bearing</b>				
Backlash	.015 - .030 in	.021 in		Pass
Race Clearance	.080 in	.028 in		Pass
<b>Ladder Twist</b>				
Base	.250 in	0 in		Pass
Mid 1	.250 in	.125 in		Pass
Mid 2	.250 in	.125 in		Pass
Fly	.250 in	.250 in		Pass
<b>Waterway Relief Valve Setting</b>				
Main	250 psi	225 psi		Pass
Platform	165 psi	150 psi		Pass
<b>Breathing Air Bottle</b>				
	Date Complied With	Date Due		
Hydrostatic Test Date	01/XX	01/XX	5-year hydrostatic test	See table 2
<b>Tire Inspection</b>				
Left	Week/Year Mfg	Right	Week/Year Mfg	
Front Left	0708	Front Right	0808	See table 2
Forward Rear Outer	0508	Forward Rear Outer	0508	See table 2
Forward Rear Inner	0608	Forward Rear Inner	0608	See table 2
Tandem Rear Outer	0508	Tandem Rear Outer	0508	See table 2
Tandem Rear Inner	0608	Tandem Rear Inner	0608	See table 2

\* Backlash measurement Location Drive gear Interface

\*\* Bearing Clearance Measurement Location Bearing Outer Race

(---) Indicates No MFG Specification

### Table 4 - Inspection Items

✓ = Performed

X = Not Performed

N/A = Not Applicable

NFPA CODE 1911 TESTING METAL AERIAL LADDERS	CHAPTER	
Manufacturers Recommendations, NDT and Hydraulic Leak Testing	22.8.1	✓
Inspection of Service Records That Could Indicate Defective Conditions	22.8.2	✓
Hydraulic Components	22.8.3	✓
Turntable, Torque Box, Suspension and Tractor Drawn Component Inspection and Test	22.8.4	✓
Rotation-Bearing Mounting Bolts	22.8.4.1	✓
Torque Box Mounting to Frame	22.8.4.2	✓
Tractor Drawn Components Mounting to Frame	22.8.4.3	N/A
Suspension System	22.8.4.4	✓
Rotation Gear and Bearing	22.8.4.5	✓
Rotation Gear Reduction Box Mounting	22.8.4.6	✓
Structural Components	22.8.4.7	✓
Rotation Hydraulic Swivel.	22.8.4.8	✓
Hydraulic Lines and Hose in Turntable	22.8.4.9	✓
Elevation, Extension, And Rotation Lock	22.8.4.10	N/A
Power Takeoff	22.8.4.11	✓
Hydraulic Pump	22.8.4.12	✓
Collector Rings	22.8.4.13	✓
Elevation Cylinder Anchor Ears and Plates	22.8.4.14	✓
Elevation Cylinder Pins	22.8.4.15	✓
Elevation Cylinders	22.8.4.16	✓
Holding Valves on Elevation Cylinders	22.8.4.17	✓
Operating Controls	22.8.4.18	✓
Load Limit Indicators	22.8.4.19	✓
Emergency Hand Crank Controls	22.8.4.20	N/A
Auxiliary Hydraulic Power	22.8.4.21	✓
Turntable Alignment Indicator	22.8.4.22	✓
Throttle Control	22.8.4.23	✓
Communication System	22.8.4.24	✓
Relief Hydraulic Pressure	22.8.4.25	✓
Unit Main Frame	22.8.4.26	✓
Transmission / Aerial Device Interlocks	22.8.4.27	✓



### Table 4 - Inspection Items

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NFPA CODE 1911 TESTING METAL AERIAL LADDERS	CHAPTER	
Engine Speed Interlocks	22.8.4.28	✓
Breathing Air Systems	22.8.4.29	N/A
<b>Stabilizer Inspection and Test</b>	<b>22.8.5</b>	✓
Stabilizer Structural Components	22.8.5.1	✓
Stabilizer Pads	22.8.5.2	✓
Stabilizer Mounting to Frame or Torque Box	22.8.5.3	✓
Hydraulic Lines and Hoses in Stabilizer System	22.8.5.4	✓
Stabilizer Interlock System	22.8.5.5	✓
Stabilizer Warning Device	22.8.5.6	✓
Stabilizer Extension Cylinder Pins and Hinge Pins	22.8.5.7	✓
Stabilizer Extension Cylinder	22.8.5.8	✓
Holding Valves on Extension Cylinders	22.8.5.9	✓
Operating Controls	22.8.5.10	✓
Leveling Indicator	22.8.5.11	✓
Diverter Valve	22.8.5.12	✓
Positive Stops	22.8.5.13	N/A
Stabilizer Deployment	22.8.5.14	✓
Manual Spring Locks	22.8.5.15	N/A
Tractor Spring Lockout Device	22.8.5.16	N/A
<b>Aerial Ladder Inspection and Test</b>	<b>22.8.6</b>	✓
Structural Modifications, Improper Repairs or Added Weight	22.8.6.1	✓
Aerial Ladder Weldments	22.8.6.2	✓
Aerial Ladder Fasteners	22.8.6.3	✓
Ladder Section Alignment	22.8.6.4	✓
Hydraulic, Pneumatic, And Electrical Lines in Ladder Sections	22.8.6.5	✓
Top Rails	22.8.6.6	✓
Vertical and Diagonal Braces	22.8.6.7	✓
Base Rails	22.8.6.8	✓
Rungs	22.8.6.9	✓
Folding Steps	22.8.6.10	✓
Rollers	22.8.6.11	✓

**Table 4 - Inspection Items**

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NFPA CODE 1911 TESTING METAL AERIAL LADDERS	CHAPTER	
Guides, Babbitt, Wear Strips, Pads, And Slide Blocks	22.8.6.12	✓
Extension Sheaves	22.8.6.13	✓
Extensions Cables	22.8.6.14	✓
Extension and Retraction Motor	22.8.6.15	N/A
Cable Separation Guide	22.8.6.16	✓
Winch Holding Capacity	22.8.6.17	N/A
Brake Holding Capacity	22.8.6.18	N/A
Extension, Elevation and Rung Alignment Indicators	22.8.6.22	✓
Ladder Locks	22.8.6.20	N/A
Ladder Cradle	22.8.6.21	✓
Ladder Bed Lock	22.8.6.22	N/A
Stop Mechanism	22.8.6.23	N/A
Maximum Extension Warning Device	22.8.6.24	N/A
Ladder Illumination	22.8.6.25	✓
Extension Cylinder Anchor Ears and Plates	22.8.6.26	✓
Extension Cylinder Pins	22.8.6.27	✓
Extension Cylinder	22.8.6.28	✓
Holding Valves on Extension Cylinder	22.8.6.29	✓
Tip Controls	22.8.6.30	N/A
<b>Load Testing</b>	<b>22.8.7</b>	✓
Wind Velocity Requirements	22.8.7.1	✓
Load Test Personnel	22.8.7.2	✓
Excessive-Twist Test Termination	22.8.7.3	✓
Horizontal Load Test	22.8.7.4	✓
Maximum Elevation Load Test	22.8.7.5	✓
<b>Operating Test</b>	<b>22.8.8</b>	✓
Complete Cycle of Aerial Ladder Operation	22.8.8.1	✓
Smoothness of Operation	22.8.8.2	✓
Return Ladder to Its Bed	22.8.8.3	✓
Verify Ladder Control Operation	22.8.8.4	✓

### Table 4 - Inspection Items

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NFPA CODE 1911 TESTING METAL AERIAL LADDERS	CHAPTER	
Inspection of All Moving Parts	22.8.8.5	✓
Cable, Chain Tensions	22.8.8.6	✓
<b>Water System Test</b>	<b>22.8.9</b>	✓
Permanently Piped Aerial Requirements	22.8.9.1	✓
Proper Operation, Free from Rust, Blockage and Defects	22.8.9.2	✓
Waterway Bracket Inspection	22.8.9.3	✓
Pressure Test	22.8.9.4	✓
Flow Meter Accuracy	22.8.9.5	X
Pressure Meter Accuracy	22.8.9.6	✓
Relief Valve Operational Check	22.8.9.7	✓
<b>Signs in Place and Legible</b>	<b>22.8.10</b>	✓
<b>Hydraulic Fluid</b>	<b>22.8.11</b>	✓
<b>Records of Torque Verification &amp; NDT Methods</b>	<b>22.8.12</b>	✓