



# Fire Apparatus Inspection Services

Our Center of Excellence (COE) for Transportation Services combines the experience of MISTRAS Services to form an elite team of expert Fire Apparatus and Aerial Lift Device Inspection.

The MISTRAS Services Transportation COE can provide you with a comprehensive inspection program utilizing state-of-the-art test equipment for your aerial trucks, ground ladders and fire equipment.

## ***Our Fire Apparatus Inspection Includes:*** **Ground Ladder Inspection**

An annual inspection helps you meet the requirements of NFPA 1932. According to NFPA 1932, all ground ladders are service tested:

- ✓ At any time a ladder is suspected of being unsafe
- ✓ After heat exposure
- ✓ At least annually
- ✓ After the ladder has been subjected to over-loading
- ✓ After the ladder has been subjected to impact loading or unusual conditions of use
- ✓ After any deficiencies have been repaired unless the only repair was replacing the halyard



## **Pump Testing**

Our Pump testing program offers a comprehensive certification pump test at manufacturers in compliance with the latest edition of NFPA 1901. Existing in-service pump tests are performed in compliance with the latest edition of NFPA 1911.



## **Aerial Lift Device Inspection**

Comprehensive Aerial Device Inspection programs were initiated by several users and manufactures about 25 years ago. The purpose was to ensure that the vehicle was safe to operate, both from a mechanical integrity standpoint, as well as the electrical safety. While manufacturing techniques and operator usage of the vehicles have improved tremendously since then, today's owner/operator still faces other problems with regard to safe operation.

## **General Fire Apparatus Aerial Inspection Practices:**

- ✓ Perform drift test on all hydraulic cylinders
- ✓ Perform Ultrasonics on all accessible bolts and pins
- ✓ Check torque on all accessible bolts
- ✓ Perform operational and functional tests & record the hydraulic system's relief valves settings
- ✓ Inspect breathing air systems and pressure regulators (if equipped)
- ✓ Inspect all chassis, stabilizers & turntable components and welds
- ✓ Measure turntable bearing and backlash
- ✓ Test winch or brake for holding capacity
- ✓ Measure aerial lateral twist
- ✓ Take hardness or thickness readings on all aerial sections
- ✓ Inspect all aerial sections & platform if equipped and welds
- ✓ Perform all waterway tests
- ✓ Perform weight test

### Line Voltage Electrical System Testing

Operational Tests of Fixed Power Source can be performed at manufacturers in compliance with the latest edition of NFPA 1901 and in-service tests in compliance with the latest edition of NFPA 1911.



### Foam Systems Testing

Performance Testing of Foam Proportioning Systems and Compressed Air Foam Systems (CAFS) are performed in accordance with the latest edition of NFPA 1911.

### Aircraft Rescue Fire Fighting (ARFF) Vehicle Testing

These tests can be performed at the manufacturers in accordance with the latest editions of NFPA 412, 414 and Federal Aviation Administration (FAA) AC 150/5220-10C. In-service safety inspections can also be performed at any facility or location the customer requests.



### Non-destructive Testing (NDT)

We offer field service inspections for fire departments in-house quality control and NDT Services.

We apply the most sophisticated NDT techniques for consistent and confident results.

#### Our NDT Inspection Includes:

- ✓ Visual and operational tests
- ✓ Ultrasonic's on all critical bolts and pins
- ✓ Magnetic particle on steel welds
- ✓ Dye penetrant on aluminum welds
- ✓ Digital thickness readings on all steel aerial sections
- ✓ Hardness readings on all aluminum aerial sections
- ✓ Acoustic Emission
- ✓ AC/DC Dielectric



Our highly qualified technicians are certified in accordance with SNT-TC-1A and CP-189 and utilize state-of-the-art test/inspection equipment to provide unbiased evaluations that extend the safe operating life of your aerial lift and fire apparatus.

To learn more about our inspection solutions or to schedule an inspection, contact our Transportation COE or one of the regional headquarters below.

**Transportation COE: 1 800-333-8629**

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#### Regional Hqts:

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