# TIER 1 ANNUAL AERIAL INSPECTION

# **OVER 160 TECHNICAL CHECK & INSPECTIONS**

#### Visual Inspection

- · Walk Around Visual Inspection
- Chassis & Under Carriage
- · Check Pump Operations
- Pump Shifting, Primer, Pressure Control Device, Valves, Instruments
- · Check "Basic" Aerial Operation
- · Check Aerial Components
- · Check Aerial Hydraulics
- · Check Monitor & Waterway
- Electrical Check
- · Cab & Body Lighting
- · Cab & Pump Instruments
- Water Tank Check
- Body & Compartment Check
- · Safety & Equipment Check

# Engine

- Check Engine Mounts
- · Check Pulleys & Tighten Belts

#### Cooling

- · Check Hoses & Clamps
- · Check for Fluid Leaks

#### Frame

- · Frame Rail Visual Inspection
- · Cross Member Visual Inspection

#### **Cab Interior**

- · Cab Seats & Seat Belts
- · Instruments & Tachometer
- · Air & Electric Horns
- · Heater/Defroster/A-C

### Cab Exterior

- Glass, Windows & Wiper Blades
- Cab Doors & Latches
- Mirrors & Controls
- Cab Tilting System

#### Axles

- Wheel Bearings Check
- King Pins Check

# Steering

Visual Check Power Steering

#### **Brakes**

· Check Lines for Wear & Leaks

#### Tires

- · Check Tire Tread Depth
- · Check & Fill Air Pressure

#### Fluid Levels · Check & Refill

- Engine Oil Level & Leaks
- Transmission Fluid
- Power Steering Fluid
- Rear Axle Oil
- Pump Gear Box Oil
- · Windshield Wiper Fluid

- · Coolant & Battery Fluid Levels
- · Pump Primer Oil tank Level
- · Cab Tilt Hydraulic System
- · Lube Universal U-Joints
- · Lube All Points on Chassis
- · Check for Leaks
- · Brake Fluid-Check & Refill

#### **Drivelines**

- · Check Bolts on all U-Joints/Yokes
- · Drive Line Carrier Bearing

### **Under Carriage**

· Check for Corrosion & Cleanliness

#### Cab Electrical

- Battery Condition & Mountings
- Starter & Master Switch Check
- · Cables & Terminals
- Headlights & High Beams
- Rear Stop/Tail/Turn Signal
- · Marker & ICC Lights
- · Front Turn-signals
- Cab Dome & Step Lights
- Cab Warning Lights
- · Siren & Speaker
- · Compartment 'Door Open' Light
- Cab Instruments & Tachometer

#### **Body Electrical**

- · Step & Ground Lights
- Body Warning Lights & Air Horns
- · Back-Up Lights & Alarm
- · Compartment Lights
- Flood & Scene Lights
- · Pump Panel Lights
- Hose Bed & Crosslay Bed Lighting
- Check Aerial Electrical Equipment

## Body

- Compartment Doors & Hinges
- Compartment Door Latches
- · Body & Paint Condition
- Rust or Corrosion Damage
- Check for Accident Damage
- Check Equipment Mounting
- Hose Cover & Ladder Mountings

### Generator (if applicable)

- Check Fluid Levels
- Start & Operate Generator
- · Check Generator Instruments
- Operate All Flood Lights

#### **Aerial Hydraulics**

- Hydraulic Elevation Cylinders
- Hydraulic Extension CylindersElevation Hydraulic Hose Lines & Piping
- Hydraulic Tip Controls
- Perform & Check Aerial Operations

· Inspect All Cables & Pulleys

#### Water & Foam Tank

- · Visually Inspect Water/Foam Tanks
- · Overflow, Fill & Vent Tower
- · Drain Valves & Tank Level Indicators

#### **Stabilizers**

- · Hydraulic System Stabilizers
- · Stabilizer Hyd Cylinders
- · Hyd Control Valves & Operation
- Inspect Hyd Hose Lines & Piping
- · Diverter Valve & Controls
- Mountings & Bolts, Frame or Torque Box
- Paint or Corrosion: Check
- Reflective Tape On Stabilizers
- Stabilizer Pads Condition & Mntgs
- Stabilizer Pads Movement
- Safety Pin Provisions & Stage
- Overall Stabilizer Condition
- Check Stabilizer Interlocks

# **Hydraulics**

- Hydraulic Tank & Mountings
- Test Hydraulic Oil Condition
- · Inspect for Hydraulic Oil Leaks
- Inspect Hydraulic Lines & PipingPTO & Hydraulic Pump Operation

# Aerial Structure

- Aerial Handrails
- Check All Rung Covers
- Inspection Slide Wear Pads
- Turntable Mounting Bolts
- Check Ladder for Cracks & Damage

# Safetv

- Reflective & Rear Chevron Stripping
- Hose Bed Covers
- Traffic Cones & Vests

# Emergency Hydraulic Pump

- Operate 12V Hydraulic Pump
- Check Emergency Override ControlsCheck Hydraulic Hoses
- Check Electrical Wiring

# Turntable

- Rotation Gear & Reduction Box
- Rotation Hydraulic Swivel
- Turntable Hyd Hose Lines & Piping
- Turntable Hyd Hose Lines
   Communications Systems

# Turntable & Aerial Electrical

- Emergency 12V Power Controls
- Electrical Wiring & Panels
- Non-slip Working SurfacesInterlocks & Controls
- Control Panel LightsTurntable Step Lighting

- Spotlights Base & Tip
- · Rung Lighting System
- Warning Lights on Stabilizers
- · Stabilizer Ground Lighting
- Inspection Aero-Track

#### Pumn

- Pump Quick Check (Non-Draft)
- · Pump Shift, Lock-Up, OK Lights
- Primer Test & Vacuum Test
- Lube Grease Pump Fittings
- $\bullet \ \ \mathsf{Tank} \ \mathsf{to} \ \mathsf{Pump} \mathsf{Controls}$
- · Pump to Tank Fill Control
- Pump Packing or Seal CheckPressure Relief Valve Check/Lube
- Pressure Governor Check
- Operate & Lube Discharge Valves
- · Operate & Lube Intake Valves
- Check All Pump InstrumentsCheck Heat Exchanger
- Check Pump Counter
- (If Provided)

   Check Pump Intake/Discharge Gauges
- Check Hose Reel
- Check Pump Plumbing,
- Flex-Hose, Fittings

   Check Pump Drain Valves

# Waterway

- Inspection & Scoring
- Waterway Piping at Turntable Area
- Waterway in ping at ra
   Waterway to Monitor
- Piping: Check for Leaks
- Waterway DrainsCheck 'Pined' Waterway Provisions
- Exterior Waterway Intake Valve

# Aerial Safety

- Safety Signs, Labels, Placards
- Grab Handles & Steps Tip Painting and/or Reflective Tape
- Access Ladder to Turntable

# • Check Condition of Safety Belts

- Monitor
- Monitor Operations
- Check 'Remote' Monitor Controls
  Monitor Valve Control · Base & Tip
- Nozzle Operations

# Hose Line Connections & Valves Control Panel Indicators

- · Rung Alignment Indicator
- PTO Engagement LightsAerial Alignment
- Turntable AlignmentElevation & Extension
- Turntable LevelControl Panel Condition

Please contact Robert Dunbar, Annual Truck Services Representative for more information · 251-929-9532 · rdunbar@sunbeltfire.com



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# TIER 2 PUMPER INSPECTION

# **OVER 210 TECHNICAL CHECK & INSPECTIONS**

NFPA 1911 Annex C Figure C.3(b) - Includes all of the inspections and checks in the Tier 1 Aerial Inspection Package, plus:

#### Cooling

- · Radiators & Intercooler
- Fan & Clutch Visual Inspection
- · Fan Shroud & Clearances
- · Check Radiator

#### Fuel System

- Check Fuel Line & Leaks
- · Fuel Tank & Mounting

· Adjustments & Checks

- · Wheel Bearings Check
- · King Pins Check

#### **Engine**

- Check Hoses & Oil Leaks
- Alternator Mounting & Terminals
- · Adjust & Tighten Belts
- · Test Alternator Output

- · Throttle Linkage Adjustment
- · Test Fan Clutch
- · Test Coolant & Degrees
- · Check Air Filter Condition

#### **Transmission**

- Check Mounts
- · Check Hydraulic Hoses
- · Check Transmission Cooler
- · Check Shift Controls

#### Air Intake/Filter

- · Air Intake Piping
- · Air Filter Gauge Check

#### **Under Carriage**

- Check for Under Body Corrosion & Paint
- · Check Body & Cab Mountings
- · Check Wiring, Air Lines, Etc.

### Exhaust System

• Turbo Charger—Check Area

- Exhaust Pipes & Clearances
- · Muffler & Outlet
- · DPF & Emissions Equipment

#### Fluid Levels & Lubrication: Check & Refill

- · Pump Transfer Case Oil
- · Check for Leaks of any type
- · Visually Inspect Power Steering

#### Steering

- Check Linkage & Tie Rods
- Power Steering Box
- Power Steering Pump & Hoses

#### **Driveline, Wheels & Brakes**

- · Driveline Carrier Bearings
- · Check Wheel Lugs for Tightness
- · Check Brake Pad/Disc Condition
- · Air Pressure & Build-up Time
- · Parking Brake Operation

#### **Electrical**

- Check +/- Battery Cables
- · Check Starting cables
- · Test Condition of Batteries
- · Cab Tilt Flectrical Test
- · Electric Panel Checks
- · Siren, Primer, Reel Solenoids
- · Amp & Voltmeter Test
- Electrical System (7) Checks
- · Ladder/Equipment Rack Operation

- RPM Counter Check
- Check Heat Exchanger & Lines

#### Aerial

- Torque Box Mounting Bolts
- · Torque Turntable Bolts

#### **Road & Condition Test**

# **OPTIONAL AERIAL INSPECTIONS & TESTING**

#### **Elevated Platforms**

- · Hydraulic Control Valves: Base & Platform
- · Leveling Cylinder
- · Hydraulic Hose Lines & Piping
- 12V Floodlights
- · Platform Swing Gates
- · Platform Floor, Handrails, & Structure
- · Platform Hydraulic Control Panel
- · Under Platform Water Spray
- · Insulation Curtains
- · Equipment Mounting in Platform
- Safety Belts

# **Aerial Road Tests**

- · Drive Unit 10 Miles Loaded
- · Brake Operations
- · Secondary Braking Devices
- · Parking Brake
- · Instrument Readings
- · Tire & Drive Line Vibration
- · Alignment & Steering · Cooling & Fan Clutch
- · Weigh Vehicle

### **Breathing Air System**

- · Check DOT Air Cylinders
- Air Hose & Piping to Tip
- Check Air Outlet and Controls at Tip Location
- Pressure Gauge Operation
- · Pressure Regulator Operation
- · Air Sample at Tip: 3rd Party

#### **Tractor Drawn Aerials**

- Trailer to Chassis 5th Wheel · Air Brakes Lines & Connections
- Tilter Cab, Doors, Glass, Seat
- Tilter Steering & Controls
- · Hyd. Lines from Chassis to Trailer
- · Hyd. Turntable & Controls
- · Rotation Gear Box & Mounting
- Aerial & Cradle Support Assembly · Cab to Tiller Communications
- · Electrical: Cab to Tiller

# **Water Towers**

- · Hydraulic Lifting Cylinders
- · Hydraulic Control Valves, Hose Lines & Piping
- Escape Ladder

# Foam System Testing

- · Operation & Calibration
- Foam Flow: 5 minute/1 Line
- · Flush System
- · Re-Fill Foam Tank

### **Aerial Lubrication**

- · Sheaves & Extension Cables
- · Base Rails: Ladder Section
- · Ladder Heel Pin
- · Rotational Gear & Bearing
- · Rotational Gear Reduction Box
- · Elevation Cylinder Pins
- · Extension Cylinder Pins
- · Aerial Waterway Pipe Sections • Turntable Gear Box: Gear Oil

- Line Voltage Testing Generator Run · 30 Minutes Under Full Load
- · Test all Outlets
- · Instruments & Floodlight Operation • Electric Cable Reel Operation
- · Check Generator Engine · Check Hydraulic Installation

# Braking System

- · Third Party Brake Inspection
- · Check Pads & Drums (2 or 3 Axle)
- · Air Compressor
- · Brake Performance Testing
- · Slack Adjusters
- · Parking Brake: All Axles
- · Brake Adjustment
- · Check Air Dryer
- · Air Reservoirs & Drains · Check General Brake System

- · Replace Hyd. Filters & Strainers · Clean Magnetic Strainer
- · Lubricate Stabilizers
- · Clean & Lube Slide Pads
- · Clean Base Gears

#### NFPA Fire Pump Testing

- NFPA #1911 Pump Test
- · Pressure Governor Test Primer & Vacuum Test

· Relief Valve Test

# **Our Commitment to Service**

Annual Inspections and Preventive Maintenance of your fire apparatus can find potential problems and head them off before they develop into a major issue. We focus on saving you money for costly repairs and unwanted "Out-Of-Service" time!

# NFPA #1911 Requirements

NFPA 1911 - 4.3.1.1 Any person performing diagnostic checks, inspections, testing, or maintenance of the fire apparatus shall meet the qualifications of NFPA 1071, Standard for Emergency Vehicle Technician Professional Qualifications, or the equivalent.

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