

## Skill 16-2

# Evaluation Checklist

**Objective 20:** Visually inspect a fire apparatus aerial device. [NFPA® 1002, 4.2.1, 4.2.2, 6.1.1]

**Student Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### Directions

For this skills evaluation checklist, students will perform an inspection of a fire apparatus aerial device. This skill requires a minimum of two firefighters: one to inspect and one to assist. Always follow manufacturer's recommendations and local standard operating procedures (SOPs) when performing all procedures.

### Resources

- Appropriate PPE
- Fire service elevating platform aerial apparatus
- Manufacturer's operator's manual
- Service records for apparatus being inspected/tested
- Appropriate documentation forms
- Writing utensil

### Criteria & Evaluation Comments

Criteria (determined by the AHJ)

*After the candidate has completed the skill sheet, write comments below.*

Evaluator/Candidate Comments

Pass

Fail

\_\_\_\_\_  
Evaluator Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Student Signature

\_\_\_\_\_  
Date

### Skills Evaluation Checklist

**Objective 20:** Visually inspect a fire apparatus aerial device. [NFPA® 1002, 4.2.1, 4.2.2, 6.1.1]

Task Steps		Yes	No
1.	Park the apparatus in a suitable location for inspection.		
2.	Set up the inspection area per local SOPs.		
3.	Chock the apparatus wheels.		
4.	Check the level of the hydraulic fluid in the aerial device hydraulic system. Add fluid to fill the system to the appropriate level, if required. <b>Note:</b> It is important that the fluid level be checked and additional fluid added only when stabilizers and aerial device are all in their stowed positions.		
5.	Inspect the stabilizers. a. Check for signs of damage, evidence of leakage, damaged hoses or scoring on the sliding beams or hydraulic pistons. b. Check that stabilizer warning lights are clean and not damaged. c. Check that manual lockpins are present and sufficiently secured (if equipped). Note any elongation or cracks in the lockpin holes on the stabilizers. d. Check that stabilizer pads are in place and in good condition.		
6.	Inspect the turntable assembly. a. Visually inspect the drive pinion and turntable gear teeth for damage, proper meshing and alignment, evidence of wear, and adequate lubrication. b. Check that all turntable bolts are in place.		
7.	Inspect the lower control pedestal. a. Inspect all components for signs of wear and damage. b. Ensure that all controls move freely and automatically return to their "Neutral" position. c. Check that electrical connections are tight and free of wear. <b>Note:</b> An operation test of these controls will be conducted during the operational test portion of this inspection.		

8.	Inspect the platform control console. Make a visual inspection of the aerial device controls on the platform console.		
9.	Inspect the aerial device communications system. Check all system components for damage and proper hands-free operation. It may be necessary to position a second firefighter at the tip of the device in order to fully check both ends of the system.  <b>Note:</b> This test may be conducted at this stage of the inspection or during the operational test portion of this inspection.		
10.	Check the status/operation of the breathing air supply system (if so equipped). <ol style="list-style-type: none"> <li>a. Check that there is adequate air in the storage cylinders.</li> <li>b. Check that all components are operating correctly.</li> <li>c. Inspect cylinders, gauges, regulator, hoses and tubing, and air connections for damage or excessive wear.</li> <li>d. Confirm all cylinders are within current hydrostatic compliance dates and parameters.</li> <li>e. If possible, check the operation of the low-air warning devices to make sure they work correctly.</li> </ol>		
11.	Inspect the aerial device extension/retraction system. <ol style="list-style-type: none"> <li>a. Check the extension and retraction system for signs of damage and wear; this system can include any combination of hydraulic cylinders, cable systems, rollers, slide pads, and chain drive systems.</li> <li>b. If hydraulic cylinders are present, check them for signs of damage, fluid leakage, and secure connections.</li> <li>c. Inspect cables for signs of corrosion, broken strands, excessive wear, stretching (reduction in diameter), or damaged end connections.</li> <li>d. Inspect sheaves (pulleys), guards, guides, and any other surfaces that come in contact with the cable for damage and ensure they do not have any rough edges that might damage the cable.</li> <li>e. If the device has a chain drive, check for proper lubrication and signs of damaged chain links or gear drive sprockets.</li> </ol>		
12.	Inspect the elevation/lifting cylinders located between the turntable and the base section of the aerial device. <ol style="list-style-type: none"> <li>a. Check for signs of damage, fluid leakage, and security of connections.</li> <li>b. Check the end caps to make sure that they are secure and that no other hardware is missing.</li> </ol>		

13.	<p>Inspect the various sections of the aerial device</p> <ul style="list-style-type: none"> <li>a. Check all beams, base rails and hand rails, locks, alignment systems, and truss work for signs of wear, cracks in welds, loose or missing parts, physical damage, or improper alignment.</li> <li>b. Check for signs of rust on steel ladders; chipped paint, or signs of oxidation (white powder) corrosion on aluminum ladders.</li> <li>c. Check heat sensors for discoloration (indicating heat exposure) and expiration date.</li> </ul> <p><b>Note:</b> This check may be done while the device is in the stowed position, but it is preferred to extend the ladder so that a more thorough inspection can be done.</p>		
14.	<p>Inspect the elevating platform assembly (if so equipped).</p> <ul style="list-style-type: none"> <li>a. Check the railings, kickplates, deck, heat shields, control pedestal, nozzles, standpipe connections, floodlights, and any other components for operation and readiness. Check anchor points as indicated by the manufacturer.</li> <li>b. Check that gates/doors open, close, and lock properly.</li> <li>c. Check for defects in the elevating platform leveling system hydraulic cylinders.</li> </ul>		
15.	<p>Inspect the ladder rungs for looseness, weld cracks, quality of traction material or rung covers, or other potential problems.</p>		
16.	<p>Inspect the piped waterway system (if so equipped).</p> <ul style="list-style-type: none"> <li>a. Check for damage to the piping connections and seals, signs of leakage, and other system components.</li> <li>b. Ensure all sections of the piping system are properly aligned and lubricated to manufacturer's recommendations.</li> <li>c. If equipped with a pinnable waterway, ensure that the cam locking device or pin system is securing the master stream appliance and telescopic waterway in the desired position.</li> </ul> <p><b>Note:</b> A preliminary check may be made during the visual inspection. A more detailed inspection will be made when the aerial device is deployed.</p>		
17.	<p>Inspect any equipment that is attached to the end of the aerial device fly section. Check for the presence, damage, and security of items such as axes, pike poles, handlights, roof ladders, air masks, and master stream appliances that may be located on the aerial device.</p>		