STATE OF KANSAS

ANNUAL FIRE APPARATUS INSPECTION REPORT GUIDANCE

Since 1993, each fire department in Kansas has been required by K.A.R. 22-22-1 to inspect every fire department vehicle at least annually (and after a vehicle is involved in an accident) to identify and correct unsafe or non-working conditions.

Each fire department has been required to establish a preventive maintenance program. All maintenance, inspections and repairs to fire department vehicles must be performed in accordance with the manufacturer's guidelines.

Prior to January 1st each year, fire departments must submit an annual inspection report, completed by a mechanic to the state fire marshal on the form developed for this purpose by KSFM.

KANSAS STATE FIRE MARSHAL

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(785) 296-3401

https://firemarshal.ks.gov/

2026 Form 701- Version 2

Updated 2026 Form 701- Version 2

Based on feedback from Fire Chiefs, maintenance officers, and fire equipment companies across the state, we have redesigned the inspection form to break it into two parts.

Part A encompasses all the items that a mechanic inspects during an annual fire apparatus inspection.

Part B encompasses apparatus mounted fire equipment and is certified by the Fire Chief.

Upon completion, the form should be submitted to the State Fire Marshal via mail or email at prevention@ks.gov.

Frequently Asked Questions (FAQs)

Q: Who is responsible for ensuring that fire apparatus are inspected each year?

A: The Fire Chief is responsible for ensuring that all fire apparatus operated by their department follow a preventative maintenance program, are mechanically inspected, and report the results of the inspection for each apparatus to the KSFM by January 1 each year.

Q: What are the training requirements for mechanics conducting annual fire apparatus inspections?

A: KSFM has not created any specific training requirements a mechanic must meet in order to conduct and complete these inspections. It is the responsibility of the Fire Chief to designate a mechanic to conduct the inspection and certify their findings.

Q: What if our department is unable to correct or repair the apparatus before the report is submitted to KSFM?

A: If there are items on your apparatus inspection that need repair, but you are unable to complete prior to the report being due, please attach a letter to the state fire marshal to your inspection report:

- Specifying the types of equipment that the mechanic found to be defective,
- Your agency's plan to repair or replace the item(s),
- The timeline to bring the apparatus into compliance, and
- Measures that you have put in place to mitigate any safety issues involving the defective equipment until it can be repaired (e.g. placing the unit out of service or in reserve status, limiting the speed of the apparatus, etc)

PART A: TO BE COMPLETED BY MECHANIC

1) Brake System

a. Service Brakes
- Every motor vehicle and every combination of vehicles shall have a service braking system which will stop such vehicle or combination within forty (40) feet from an initial speed of twenty (20) miles per hour on a level, dry, smooth, hard surface. (KSA 8-1734(a))
- Brakes must act on all wheels of the vehicle.

b. Parking Brake System
- Every motor vehicle and combination of vehicles shall have a parking brake system adequate to hold such vehicle or combination on any grade on which it is operated under all conditions of loading, on a surface free from snow, ice or loose material. (KSA 8-1734(b))

c. Brake Drums or Rotors
- Brake linings and pads must be visually inspected for cracks, breaks, missing segments, and any other damage.
- Drum brake linings must be securely attached to brake shoes, and disc brake pads must be securely attached to shoe plates.
- Backing plates, brake spiders, and caliper assemblies must not be deformed or cracked.
- System parts must not be broken, misaligned, missing, binding, or show evidence of severe wear.
- For vehicles with air brakes: brake lining/pad thickness must be at least 6.4 mm (1/4 inch) at the shoe center for drum brakes, or 3.2 mm (1/8 inch) for disc brakes, according to a legal information site. If the lining is marked with a wear indicator, it must not be worn to that indicator.
- For vehicles with hydraulic or electric brakes: brake lining/pad thickness must be at least 1.6 mm (1/16 inch) at the shoe center for both drum and disc brakes

d. Brake Hose
- Hoses must be installed in a manner that ensures proper functioning and prevents damage from chafing, kinking, or other mechanical damage.
- Hoses must be long and flexible enough to accommodate all normal motions of the parts to which they are attached without causing damage.

- Hoses must be protected against chafing, kinking, and other mechanical damage.
- Hoses should not contact exhaust pipes or other sources of excessive heat.

e. Brake Tubing
    - Tubing must be installed in a manner that ensures proper functioning and prevents damage from chafing, kinking, or other mechanical damage.
    - Tubing must be long and flexible enough to accommodate all normal motions of the parts to which they are attached without causing damage.
    - Tubing must be protected against chafing, kinking, and other mechanical damage.
    - Tubing should not contact exhaust pipes or other sources of excessive heat.

f. Low Pressure Warning Device
    - The warning device must activate when the air pressure in any reservoir system is below 60 psi (414 kPa).
    - The warning signal must be visible to the driver or, if not directly in front of the driver, must be both visible and audible.
    - The warning signal must provide a continuous warning to the driver while the air pressure is below the specified threshold.

g. Air Compressor
    - Air pressure should not drop more than 3 psi in one minute for a single vehicle, or more than 4 psi for a combination vehicle, when the engine is off and the service brakes are fully applied.
    - The air brake system must be able to maintain sufficient air pressure for at least one full service brake application after the engine is stopped.
    - The compressor must be able to recharge the air reservoirs to the initial pressure within a reasonable time after a full brake application.

h. Electric Brakes
    - Trailers equipped with brakes must have brakes that apply automatically and immediately upon breakaway from the towing vehicle.
    - The trailer braking system shall be capable of remaining in the applied position for at least 15 minutes following breakaway from the towing vehicle.

i. Hydraulic Brakes
    - The hydraulic brake system failure indicator lamp, if part of a vehicle's original equipment, shall be operable.
    - The hydraulic brake system shall demonstrate integrity as indicated by no perceptible decrease in pedal height under a 125-pound force applied to the brake pedal and by no illumination of the brake system failure indicator lamp. The brake system shall withstand the application of force to the pedal without failure of any tube, hose or other part.
    - When the brake pedal is depressed with a force of 50 pounds, the distance that the pedal has traveled from its free position shall be not greater than 80 percent of the total distance from its free position to the floorboard or other object that restricts pedal travel. The brake pedal reserve test is not required for vehicles with brake systems designed by the original vehicle, manufacturer to operate with greater than 80 percent pedal travel.
    - Hydraulic brake hoses shall not be mounted so as to contact the vehicle body or chassis. Hoses shall not be cracked, chafed, or flattened. Brake tubes shall not be flattened or restricted. Brake hoses and tubes shall be attached or supported to prevent damage by vibration or abrasion. Master cylinder shall not show signs of leakage. Hose or tube protective rings or devices shall not be considered part of the hose or tubing.

j. Vacuum Systems
    - The vacuum brake assist unit shall demonstrate integrity as indicated by a decrease in pedal height when the engine is started and a constant 50-pound force is maintained on the pedal.
    - If the vehicle has a low-vacuum indicator, the indicator activation level shall not be less than 8 inches of mercury.
    - The vacuum brake system shall provide vacuum reserve to permit one service brake application with a brake pedal force of 50 pounds after the engine is turned off without actuating the low vacuum indicator.
    - Vacuum hoses, tubes and connections shall be in place and properly supported. Vacuum hoses shall not be collapsed, cracked or abraded.

2) Suspension

a. Any U-bolts(s), spring hanger(s), or other axle positioning part(s) cracked, broken, loose or missing.
    - No axle positioning part shall be cracked, broken, loose or missing.
    - All axles must be in proper alignment.

b. Spring Assembly
    - No leaf spring shall be cracked, broken, or missing nor shifted out of position.
    - No coil spring shall be cracked or broken.
    - No torsion bar or torsion bar suspension shall be cracked or broken.

c. Torque, Radius, or Tracking Components
    - Any part of these components, including those used to attach them to the vehicle's frame or axle, must be free from cracks, loose connections, broken parts, or missing pieces.
    - The mounting points and fasteners for these components must also be inspected and ensured to be in good condition.

3) Exhaust System

a. Exhaust System Leaking
    - An exhaust system leaking at a point forward of or directly below the driver / passenger compartment.

b. No part of the exhaust system shall be so located as would be likely to result in burning, charring, or damaging the electrical wiring, the fuel supply, or any combustible part of the fire apparatus.

4) Steering Mechanism

a. Steering Wheel Free Play
    - Free play in manual steering systems limited to 3 inches for wheels up to 18 inches in diameter and 4 inches for wheels larger than 18 inches.
    - Free play in power steering systems limited to 2 inches, regardless of wheel size.
    - Free play in the steering linkage (the components connecting the steering wheel to the wheels) should not exceed 1/4 inch.

b. Steering Column
    - The steering column must be mounted securely to the vehicle frame, preventing it from moving excessively during operation or in a crash.

c. Front Axle Beam and All Steering Components Other Than Steering Column
    - The front axle beam should not have any cracks.
    - Any obvious welded repairs should be inspected to ensure they are structurally sound.
    - The front axle beam, along with all steering components, must be in good condition and not be loose or broken.

d. Steering Gear Box
    - The steering gear box must be securely attached to the vehicle frame with all necessary bolts in place.
    - No cracks in the gear box or mounting brackets
    - The steering wheel should turn freely through the full range of motion in both directions without binding or jamming.
    - Power steering systems must be leak-free:
    - For vehicles with power steering, any leaks in the power steering fluid system are a violation of DOT regulations.
    - Power steering belts and hoses must be in good condition:
    - Cracked, frayed, or slipping belts, or chafed or abraded hoses are not allowed.
    - Reservoir must be filled:
    - The power steering fluid reservoir should be adequately filled with fluid.

e. Pitman Arm
    - The pitman arm, which connects the steering gear box to the steering linkage, must be securely attached and free of play.
    - The pitman arm should not be worn cannot be repaired by welding.
    - Any movement, other than rotational, in ball and socket joints should be addressed promptly. This includes checking for side-to-side movement at the pitman arm to center link connection.

f. Power Steering
    - The power steering system must not leak. This includes hoses, the gearbox, and other connections.
    - The power steering fluid reservoir should be at the correct level.
    - Any power steering pump belts should be checked for cracks, fraying, or slippage.

g. Ball and Socket Joints
    - Ball joints inspected for wear, loose or missing hardware, and any visible damage.
    - Any motion between linkage components and their attachment points, other than rotational, that exceeds ¼ inch.
    - No perceptible movement of the stud nut under steering load.
    - Sealing boots are not damaged or missing

h. Tie Rods and Drag Links
    - Clamps and clamp bolts securely tightened.
    - No looseness should be present in any threaded joint

- The threaded portion of the tie-rod end assembly must be fully engaged in the cross-tube split for adequate clamping.
- End play in the tie rods cannot exceed 1/8 inch

i. Nuts
- No missing nuts, bolts, cotter keys, or other parts within the steering system.

j. Steering System
- Steering wheels must be secure, with no cracked or missing spokes.
- The steering wheel should turn freely and smoothly through its entire range of motion.

5) Wheels and Rims

a. Lock or Slide Ring
- Lock or slide rings should not be damaged, worn, or corroded.

b. Wheels and Rims
- No cracks or breaks in the wheel or rim.
- Stud or bolt holes should not be elongated.
- Pitting from corrosion on the wheel or rim should be minimal or absent.
- The wheels and rims should not be damaged or bent.

c. Fasteners
- All wheel nuts must be present and properly tightened.

d. Welds
- No welding permitted of cracks or other damage to wheels and rims.

6) Tires

a. Properly maintained
- Steering tires must have at least 4/32 of an inch of tread depth, while all other tires require at least 2/32 of an inch.
- Tires have not exceeded the manufacturer's suggested service life.
- Tires should be inflated to the manufacturer's recommended pressure.
- The load on the tire or tires should not exceed the tire weight rating printed on the sidewall.
- Check that valve stems are accessible and in good condition, especially for inner tires on dual-wheel configurations.

- Tires on the same axle should be of the same type and size, but may be from different manufacturers.
- Any spare tire carried is properly inflated and properly secured to the vehicle.

b. Defective Tires
   - Any visible fabric, ply, or belt material requires immediate replacement of the tire.
   - No cuts, bulges, or other deformities on the tire indicating structural deficiency require replacement.

7) Vehicle Lighting

a. Headlamps & High Beams Operable (see K.S.A. 8-1705)

b. Turn signals operable / visible (see K.SA. 8-1708)

c. Brake lamps operable / visible (see K.S.A. 8-1708)

d. Tail lamps operable / visible (see K.S.A. 8-1706)

e. Clearance lamps / marker lights (see K.S.A. 8-1710 and 8-1712)
   - Front clearance lamps and identification lamps on the front of the vehicle must be amber.
   - Rear clearance lamps and identification lamps must be red.
   - Side marker lamps toward the front or at the midpoint of the vehicle must be amber. Side marker lamps at the rear side of the vehicle must be red.

f. Required reflectors (see K.S.A. 8-1710 and 8-1712)

g. Rear view mirrors
   - Located on both sides of the vehicle reflecting a view of the highway to the rear of the vehicle to the driver.
   - Required mirrors are not cracked, broken, or otherwise defective.

8) Frame

a. Frame Members
   - No cracks in the metal of the frame.
   - No bending, warping, or other changes to the frame's shape.
   - Inspect for rust or other signs of corrosion that could weaken the structure.

- Examine the frame and its components to ensure all bolts are present and securely tightened.
- Inspect the fasteners that secure the truck body to the chassis to prevent movement or detachment.

b. Tire and Wheel Clearance
   - Check for any signs that tires are rubbing on the frame or body.
   - Check the wheel wells and fenders for any damage or interference with the tire.
   - Ensure the mud flaps are present, in good condition, and securely fastened.
   - Look for any loose equipment, hoses, or other components near the wheels that could shift and rub on the tires or wheels.

9) Fuel System

a. Visible Leak
   - Inspect for any leaking fuel. If fuel is leaking, the leak must be repaired before the vehicle is placed back into service.
   - Any build up of leaked or overfilled fuel residue must be cleaned.

b. Fuel tank filler cap missing

c. Fuel tank securely attached

10) Windshield / Windows

a. Broken, cracked, or defective windshield or windows

b. Inoperative windshield wiper(s)

11) Emergency Equipment

a. Emergency warning lights (K.S.A. 8-1720)
   - At least one red flashing, oscillating, or rotating warning light(s) must be mounted as high as practicable on the vehicle.
   - Blue flashing and white / clear flashing lights are permitted to be used in concert with the required red flashing lights.
   - Amber flashing warning lights are permitted to be mounted to the rear of the fire apparatus.
   - Any white / clear flashing lights should be disabled when the vehicle transmission is in park or the parking brake is set.
   - Green flashing lights should only be used to indicate the location of an incident commander or incident command post.
   - All emergency warning lights on the vehicle function properly.

- An emergency warning light or lights must be visible to drivers approaching the fire apparatus from any direction.

b. Siren (K.S.A. 8-1738 / K.A.R. 36-2-14)
    - Must be audible for 500 feet.
    - Siren system must be approved by the American Association of Motor Vehicle Administration (AAMVA) / SAE J1849 compliant.

c. Equipment securement
    - All equipment stored on the exterior of the fire apparatus must be securely fastened to the vehicle to prevent it from becoming loose, detached or in any manner a hazard to others.
    - All equipment in the passenger compartment of the fire apparatus must be properly secured so that it is not a hazard to the passengers during a sudden stop or collision.
    - All equipment stored in compartments should be secured to prevent shifting or damage.

d. Safety belts and webbing
    - Each seating position on the fire apparatus must be equipped with a properly operating passenger restraint system.
    - Inspect all safety belts and webbing for tears, burns, or other damage or deterioration.
    - Inspect all latches and buckles to ensure that they are properly operating.

PART B- TO BE COMPLETED BY THE FIRE CHIEF

Inspection of items in Part B is completed by the Fire Chief or their designee.

a. Booster tank and piping
    - Inspect tank and piping for leaks, damage, and deterioration.
    - Leakage noted of more than 10 gallons in 24 hours.

b. Annual hose testing completed
    - All hose inspected and tested in last 12 months
    - KSFM recommends that departments follow the nationally recognized testing and maintenance procedures established by NFPA

c. Fire extinguishers
    - Properly secured in an extinguisher mount. Should not be mounted in the passenger compartment.
    - Extinguishers bear a tag or other marking indicating professional service and testing by a KSFM licensed fire extinguisher provider in last 12 months.

d. Self-contained breathing apparatus
    - SCBA systems must undergo annual maintenance and testing by a qualified technician.
    - KSFM recommends that agencies follow the inspection and maintenance guidelines provided by their SCBA manufacturer.

e. Ground ladders
    - All ground ladders have been tested in last 12 months, or after heat exposure, overloading, or any unusual use. KSFM recommends that departments follow the nationally recognized procedures established in NFPA 1932.
    - Ground ladders have been inspected monthly or after each use to check for damage to rungs, rails, halyards, and heat sensors.

f. Aerial Device (if equipped)
    - Operational and load (Level 1) completed in last 12 months.
    - Non-Destructive (Level 2) testing completed within 5 years.
    - KSFM recommends that departments follow the nationally recognized testing and maintenance standards in NFPA 1910.

g. Gasoline powered devices / storage
    - Gasoline powered devices on apparatus have no detectable leaks of gasoline or lubricants. No buildup of oil or other lubricants on the fire apparatus.
    - Gasoline and other flammable liquids are stored and secured in proper containers so that they cannot tip, be punctured, or otherwise leak their contents.

h. Emergency medical supplies
    - Every fire apparatus must be, at the minimum, equipped with a first aid kit that should include supplies for basic wound care (such as bandages, gauze, antiseptic wipes, and adhesive tape), bleeding control (such as a tourniquet and trauma shears), and burns (such as burn gel, cold packs, and a sterile burn blanket).
    - All items in kit must be in good repair, and perishable supplies must not be expired.
    - Every fire apparatus must be equipped with sufficient bloodborne pathogen personal protective equipment for the crew, including disposable examination gloves, eye protection, disposable gowns or coveralls, and NIOSH-approved N95 or higher-level respirators.

i. Mobile Radio Equipment
    - Ensure the radio is programmed with state and national mutual aid frequencies for each band (e.g. UHF, VHF) that the radio is designed to transmit on. Mutual aid radio channel information is available in the Kansas Interoperability Communication Field Operations Guide (KS-FOG).
    - If the radio is programmed to access the 800 MHz Kansas State Interoperability Communication System (KSICS), ensure that the radio contains the most recent version of the state interoperability template.
    - Check for damaged, loose, or corroded cables, antennas, and mounting hardware. Ensure that microphone cords are not frayed and that remote heads are securely mounted.
    - Inspect antenna connectors for tight, corrosion-free connections, using a pencil eraser to remove oxidation if needed.
    - Check for damage to the coax cables and antenna.

j. Fire pump
    - Fire pumps with a manufacturer's rating of 750 GPM or more have been tested in the last 12 months. KSFM recommends that departments follow the nationally recognized procedures established in NFPA 1911.
    - All valves and controls working freely with only minor leakage.