

# North American Standard Roadside Inspection Vehicle Cheat Sheet

## **BRAKES**

Check for missing, non-functioning, loose, contaminated or cracked parts. Check for S-cam flipover. Listen for audible air leaks around brake components and lines. Check that slack adjusters are the same length (from center of S-cam to center of clevis pin) and the air chambers on each axle are the same size. Ensure the air system maintains air pressure between 90-100 psi (620-690 kPa). Inspect for non-manufactured holes (e.g., rust holes, holes created by rubbing or friction, etc.) and broken springs in the spring brake housing section of the parking brake. Measure pushrod travel. Inspect required brake system warning devices, such as anti-lock braking system (ABS) malfunction lamp(s) and low air-pressure warning devices. Inspect the tractor protection system, including the bleedback system on the trailer. Ensure the breakaway system is operable on the trailer.

## **COUPLING DEVICES**

On trailers/converter dolly(s), check safety devices (chains/wire rope) for insufficient strength, missing components, improper repairs and devices that are incapable of secure attachment. On the lower fifth wheel, check for unsecured mounting to the frame, missing or damaged parts, or any visible space between the upper and lower fifth-wheel plates. Verify the locking jaws are around the shank, not the head. Ensure the kingpin and release lever are seated properly and the safety latch is engaged. Check the upper fifth wheel for damage to the weight-bearing plate (and its supports), such as cracks, or loose or missing bolts on the trailer. On the sliding fifth wheel, check for proper engagement of locking mechanism (teeth fully engaged on rail), and check for worn or missing parts. Ensure the position does not allow the tractor frame rails to contact the landing gear during turns. Check for damaged or missing fore and aft stops.

## **FUEL AND EXHAUST SYSTEMS**

Check your fuel tanks for loose mounting, leaks, and loose or missing caps. For exhaust systems, check for unsecured mounting, leaks beneath the cab, and excessive carbon deposits around seams and clamps. Make sure exhaust system components are not in contact with electrical wiring, brake lines or hoses.

## **FRAME, VAN AND OPEN-TOP TRAILERS**

Inspect for corrosion fatigue, cracks in the frame, missing or defective parts, and cracked, loose or missing crossmembers. Look at the condition of the hoses and check the suspension of air hoses on vehicles with sliding tandems. On the frame and frame assembly, check for cracks, bends, sagging, corrosion, fatigue, cracked or missing crossmembers, cracks in the frame, loose fasteners, missing or defective parts, or any defect that may lead to the collapse of the frame. Inspect all axle(s). For vans and open-top trailer bodies, look at the upper rail and check roof bows and side posts for buckling, cracks or ineffective fasteners. On the lower rail, check for breaks accompanied by a sagging floor, rail or cross members, or loose or missing fasteners at the side post adjacent to the break.

## **LIGHTING**

Inspect all required lamps for proper color, operation, mounting and visibility.

## **SECUREMENT OF CARGO**

Check tail board security. Verify end gates are secured in stake pockets. Check both sides of the trailer to ensure cargo is protected from shifting or falling. Verify rear doors are securely closed. Where load is visible, check for proper blocking and bracing. It may be necessary to examine inside the trailer to ensure large objects are properly secured. Check cargo securement devices for proper number, size and condition. Check tiedown anchor points for deformation and cracking.

## **STEERING**

Ensure the steering wheel is secured and telescoping, and tilt functions lock into place. Check for welds or cracks on steering components. Check all components for unsecure mounting, loose fasteners and excessive movement. Check the steering lash by turning the steering wheel in one direction until the tires begin to pivot. Then, place a mark on the steering wheel at a fixed reference point and turn the wheel in the opposite direction until the tires start to move again. Mark the steering wheel at the same fixed reference point and measure the distance between the two marks. The amount of allowable lash varies with the diameter of the steering wheel.

## **SUSPENSION**

Inspect the suspension for indications of misaligned, shifted, cracked or missing springs, loose shackles, missing bolts, unsecured spring hangers, and cracked or loose U-bolts. Check any unsecured axle positioning parts and look for signs of axle misalignment. On the front axle, check for cracks, welds and obvious misalignment.

## **TIRES, WHEELS, RIMS AND HUBS**

Check tires for insufficient inflation, cuts and bulges, regrooved tires on steering axle, tread wear and major tread groove depth. Inspect sidewalls for improper repairs, exposed fabric or cord, contact with any part of the vehicle, and tire markings excluding it from use on a steering axle. Inspect wheels and rims for cracks, unseated locking rings, and broken or missing lugs, studs or clamps. Check rims for cracks or bends, loose or damaged lug nuts, elongated stud holes, cracks across spokes or in the web area, and evidence of slippage in the clamp areas. Check the hubs for lubricant leaks, missing caps or plugs, misalignment or improper positioning, and damaged, worn or missing parts.