Part 396

Inspection, Repair, and Maintenance

Part 396
Inspection, Repair, and Maintenance

Every motor carrier, its officers, drivers, agents, representatives, and employees directly concerned with inspection or maintenance of commercial motor vehicles must comply and be conversant with these rules.

General Requirements

Every carrier shall systematically inspect, repair, and maintain all commercial motor vehicles under its control.

Record Keeping Requirements

Motor carriers must maintain the following information for every vehicle that they have controlled for 30 days or more:

- Identifying information, including company number, make, serial number, year, and tire size
- A schedule of inspections to be performed, including type and due date
- Inspection, repair, and maintenance records
- Records of tests conducted on buses with push out windows, emergency doors, and marking lights

These records must be retained for one year at the location where the vehicle is garaged, and maintained for six months after the vehicle leaves the carrier's control (via sale, trade-in, or scrap).

Roadside Inspection Reports

Any driver who receives a roadside inspection report must deliver it to the motor carrier.

Certification of Roadside Inspection Reports

An official of the motor carrier is to examine the roadside inspection report and ensure that any violations or defects noted on the report are corrected. Within 15 days after the inspection, the carrier must sign the completed roadside inspection report to certify that all violations have been corrected, and then return it to the indicated address. A copy must be retained for 12 months from the date of inspection.

Inspection and Maintenance Record

Make_____Year_____ Model_____ Serial No._____

No. of Tires_____Sizes_____Co. Unit No._____

If Leased, Name of Lessor _____

Example of what repair may consist of is lights and reflectors, wheels and tires, running gear and undercarriage, brake system, hoses, tubing, body, etc.

X – O.K., A – Adjustment Made; R – Repairs Made; RP – Replacement Made

Date (MM/DD/YYYY)	Milage	Lube	Oil	Repair Type	Location	Invoice#	Cost

Nature and Dute date of Inspections/Maintenance Operations to Be Performed

Date	Next Inspection And Maintenance Operation

No commercial motor vehicle shall be driven unless the driver is satisfied that the following parts and accessories are in good working order, nor shall any driver fail to use or make use of such parts and accessories when and as needed §392.7:

- Service brakes (including trailer brake connections)
- Parking (hand) brake
- Steering mechanism
- Lighting devices and reflectors
- Tires
- Horn
- Windshield wiper or wipers
- Rear-vision mirror or mirrors
- Coupling devices

Post-Trip Inspection Report

Every carrier must require its drivers to prepare a daily written post-trip inspection report at the end of each driving day. Every driver is responsible for preparing such a report for each vehicle driven. This report must cover at least the following parts and accessories:

- Service brakes (including trailer brake connections)
- Parking (hand) brake
- Steering mechanism
- Lighting devices and reflectors
- Tires
- Horn
- Windshield wipers
- Rearview mirrors
- Coupling devices
- Wheels and rims
- Emergency equipment

The report must list any condition that the driver either found or had reported to him/her that would affect safety of operation or cause a breakdown. If no defect or deficiency is reported or found, the report should state this. The driver must sign the report in all cases.

Before dispatching the vehicle again, a carrier shall ensure that a certification has been made as to any defect or deficiency that they have been corrected, or state those deficiencies that do not require immediate correction. Carriers must keep the original post-trip inspection report and the certification of repairs for at least three months from the date of preparation.

Before starting out, the driver must be satisfied that the motor vehicle is in safe operating condition. If the last vehicle inspection report notes any deficiencies, the driver must review and sign to acknowledge that necessary repairs have been completed. The report does not have to be carried on the vehicle.

EXCEPTIONS: The Post-Trip Inspection Report shall not apply to a private motor carrier of passengers (nonbusiness), a driveaway-towaway operation, or any motor carrier operating only one commercial motor vehicle.

Driver's Vehicle Inspection Report

Beginning Mileage _____

Tractor _____ Date _____ Ending Mileage _____

√	**Check Any Defects Noted Below**		
	Parking (Hand) Brake		Wheels And Rims
	Steering Mechanism		Emergency Equipment
	Lights And Reflectors		Engine
	Tires		Transmission
	Horn		Clutch
	Windshield Wipers		Exhaust
	Rear View Mirrors		Brakes
	Coupling Devices		Cooling And Oil Pressure

Explain In Detail Any Defects Checked (Tractor Only)

If No Defects – Write "None"

Explain In Detail Any Trailer Defects

Trailer No. _____	Trailer No. _____

I have inspected the above unit and reported all defects known to me.

I have reviewed the previous report and needed repairs of safety defects on this tractor have been made.

I have made all needed repairs of the defects reported on this unit.

Driver's Signature Date

Next Trip Driver's Signature Date

Repairman's Signature Date

Driver's Vehicle Inspection Report

DRIVER _____ TOTAL HOURS _____
TIME OUT _____ TIME RETURNED _____ DATE _____
TRACTOR _____ BEGINNING MILEAGE _____ ENDING MILEAGE _____

√ CHECK ANY DEFECTS NOTED BELOW

	PARKING (HAND) BRAKE		WHEELS AND RIMS
	STEERING MECHANISM		EMERGENCY EQUIPMENT
	LIGHTS AND REFLECTORS		ENGINE
	TIRES		TRANSMISSION
	HORN		CLUTCH
	WINDSHIELD WIPERS		EXHAUST
	REAR VIEW MIRRORS		BRAKES
	COUPLING DEVICES		COOLING AND OIL PRESSURE

EXPLAIN IN DETAIL ANY DEFECTS CHECKED (TRACTOR ONLY)

IF NO DEFECTS – WRITE "NONE"

EXPLAIN IN DETAIL ANY TRAILER DEFECTS

TRAILER NO. _____	TRAILER NO. _____

I HAVE INSPECTED THE ABOVE UNIT AND REPORTED ALL DEFECTS KNOWN TO ME.	DRIVER'S SIGNATURE	DATE
I HAVE REVIEWED THE PREVIOUS REPORT AND NEEDED REPAIRS OF SAFETY DEFECTS ON THIS TRACTOR HAVE BEEN MADE.	NEXT TRIP DRIVER'S SIGNATURE	DATE
I HAVE MADE ALL NEEDED REPAIRS OF THE DEFECTS REPORTED ON THIS UNIT.	REPAIRMAN'S SIGNATURE	DATE

DRIVER _____ TOTAL HOURS _____
TIME OUT _____ TIME RETURNED _____ DATE _____
TRACTOR _____ BEGINNING MILEAGE _____ ENDING MILEAGE _____

√ CHECK ANY DEFECTS NOTED BELOW

	PARKING (HAND) BRAKE		WHEELS AND RIMS
	STEERING MECHANISM		EMERGENCY EQUIPMENT
	LIGHTS AND REFLECTORS		ENGINE
	TIRES		TRANSMISSION
	HORN		CLUTCH
	WINDSHIELD WIPERS		EXHAUST
	REAR VIEW MIRRORS		BRAKES
	COUPLING DEVICES		COOLING AND OIL PRESSURE

EXPLAIN IN DETAIL ANY DEFECTS CHECKED (TRACTOR ONLY)

IF NO DEFECTS – WRITE "NONE"

EXPLAIN IN DETAIL ANY TRAILER DEFECTS

TRAILER NO. _____	TRAILER NO. _____

I HAVE INSPECTED THE ABOVE UNIT AND REPORTED ALL DEFECTS KNOWN TO ME.	DRIVER'S SIGNATURE	DATE
I HAVE REVIEWED THE PREVIOUS REPORT AND NEEDED REPAIRS OF SAFETY DEFECTS ON THIS TRACTOR HAVE BEEN MADE.	NEXT TRIP DRIVER'S SIGNATURE	DATE
I HAVE MADE ALL NEEDED REPAIRS OF THE DEFECTS REPORTED ON THIS UNIT.	REPAIRMAN'S SIGNATURE	DATE

DRIVER _____ TOTAL HOURS _____
TIME OUT _____ TIME RETURNED _____ DATE _____
TRACTOR _____ BEGINNING MILEAGE _____ ENDING MILEAGE _____

√ CHECK ANY DEFECTS NOTED BELOW

	PARKING (HAND) BRAKE		WHEELS AND RIMS
	STEERING MECHANISM		EMERGENCY EQUIPMENT
	LIGHTS AND REFLECTORS		ENGINE
	TIRES		TRANSMISSION
	HORN		CLUTCH
	WINDSHIELD WIPERS		EXHAUST
	REAR VIEW MIRRORS		BRAKES
	COUPLING DEVICES		COOLING AND OIL PRESSURE

EXPLAIN IN DETAIL ANY DEFECTS CHECKED (TRACTOR ONLY)

IF NO DEFECTS – WRITE "NONE"

EXPLAIN IN DETAIL ANY TRAILER DEFECTS

TRAILER NO. _____	TRAILER NO. _____

I HAVE INSPECTED THE ABOVE UNIT AND REPORTED ALL DEFECTS KNOWN TO ME.	DRIVER'S SIGNATURE	DATE
I HAVE REVIEWED THE PREVIOUS REPORT AND NEEDED REPAIRS OF SAFETY DEFECTS ON THIS TRACTOR HAVE BEEN MADE.	NEXT TRIP DRIVER'S SIGNATURE	DATE
I HAVE MADE ALL NEEDED REPAIRS OF THE DEFECTS REPORTED ON THIS UNIT.	REPAIRMAN'S SIGNATURE	DATE

DRIVER _____ TOTAL HOURS _____
TIME OUT _____ TIME RETURNED _____ DATE _____
TRACTOR _____ BEGINNING MILEAGE _____ ENDING MILEAGE _____

√ CHECK ANY DEFECTS NOTED BELOW

	PARKING (HAND) BRAKE		WHEELS AND RIMS
	STEERING MECHANISM		EMERGENCY EQUIPMENT
	LIGHTS AND REFLECTORS		ENGINE
	TIRES		TRANSMISSION
	HORN		CLUTCH
	WINDSHIELD WIPERS		EXHAUST
	REAR VIEW MIRRORS		BRAKES
	COUPLING DEVICES		COOLING AND OIL PRESSURE

EXPLAIN IN DETAIL ANY DEFECTS CHECKED (TRACTOR ONLY)

IF NO DEFECTS – WRITE "NONE"

EXPLAIN IN DETAIL ANY TRAILER DEFECTS

TRAILER NO. _____	TRAILER NO. _____

I HAVE INSPECTED THE ABOVE UNIT AND REPORTED ALL DEFECTS KNOWN TO ME.	DRIVER'S SIGNATURE	DATE
I HAVE REVIEWED THE PREVIOUS REPORT AND NEEDED REPAIRS OF SAFETY DEFECTS ON THIS TRACTOR HAVE BEEN MADE.	NEXT TRIP DRIVER'S SIGNATURE	DATE
I HAVE MADE ALL NEEDED REPAIRS OF THE DEFECTS REPORTED ON THIS UNIT.	REPAIRMAN'S SIGNATURE	DATE

Periodic Inspection

Every commercial vehicle, including each segment of a combination vehicle, requires a periodic inspection and must be performed at least once every 12 months. At a minimum, inspections must include all items enumerated in the Minimum Periodic Inspection Standards, Appendix G to Subchapter B. Carriers may perform required annual inspections themselves. The motor carrier must retain the original or a copy of the periodic inspection report for 14 months from the report date.

Equivalent to Periodic Inspection

The motor carrier may meet periodic inspection requirements through:

- State or other jurisdiction's roadside inspection program
- Self-inspection by qualified employee or
- Third party inspection by qualified individual

Documentation of Inspection

Documentation (report, sticker, or decal) of the most recent periodic inspection must be kept on the vehicle.

Inspector Qualification

Motor carriers must ensure that persons performing annual inspections are qualified.
Inspectors must:

- Understand the inspection standards of Part 393 and Appendix G
- Be able to identify defective components
- Have knowledge and proficiency in methods, procedures, and tools

Inspector Training or Experience

Inspectors may have gained experience or training by:

- Completing a state or federal training program, or earning a state or Canadian province qualifying certificate in commercial motor vehicle safety inspections
- A combination of other training or experience totaling at least a year

Evidence of Qualifications

Motor carriers must retain evidence of an inspector's qualifications until one year after the inspector ceases to perform inspections for the carrier.

Brake Inspector Qualification

The motor carrier is responsible for ensuring that all inspections, maintenance, repairs, and service to brakes of commercial motor vehicles comply with these regulations. The carrier must ensure that the employees responsible for brake inspection, maintenance, service, or repairs meet minimum brake inspector qualifications.

Qualifications for Brake Inspectors

The brake inspector must:

- Understand and be able to perform the brake service and inspection
- Know the methods, procedures, tools and equipment needed and
- Be qualified to perform brake service or inspection by training and/or experience

Qualifying Brake Training or Experience

Qualifying brake training or experience includes successful completion of:

- A state, Canadian province, federal agency, or union training program
- A state-approved training program
- Training that led to attainment of a state or Canadian province qualifying certificate to perform assigned brake service or inspection tasks, including passage of CDL air brake test in the case of a brake inspection or
- One year of brake-related training, experience, or combination of both

Maintaining Evidence of Brake Inspector Qualifications

Motor carriers must maintain evidence of brake inspector qualification at the principal place of business or the location where the inspector works. Evidence must be retained for the period during which the brake inspector is employed in that capacity and for one year thereafter.

Annual Vehicle Inspection Report

VEHICLE HISTORY RECORD	
REPORT NUMBER	FLEET UNIT NUMBER
DATE	

MOTOR CARRIER OPERATOR	INSPECTOR'S NAME (PRINT OR TYPE)
ADDRESS	THIS INSPECTOR MEETS THE QUALIFICATION REQUIREMENTS IN SECTION 396.19. ☐ YES
CITY, STATE, ZIP CODE	VEHICLE IDENTIFICATION (✓) AND COMPLETE ☐ LIC. PLATE NO. ☐ VIN ☐ OTHER
VEHICLE TYPE ☐ TRACTOR ☐ TRAILER ☐ TRUCK ☐ (OTHER)	INSPECTION AGENCY/LOCATION (OPTIONAL)

VEHICLE COMPONENTS INSPECTED

OK	NEEDS REPAIR	REPAIRED DATE	ITEM
			1. BRAKE SYSTEM
			a. Service Brakes
			b. Parking Brake System
			c. Brake Drums or Rotors
			d. Brake Hose
			e. Brake Tubing
			f. Low Pressure Warning Device
			g. Tractor Protection Valve
			h. Air Compressor
			i. Electric Brakes
			j. Hydraulic Brakes
			k. Vacuum Systems
			2. COUPLING DEVICES
			a. Fifth Wheels
			b. Pintle Hooks
			c. Drawbar/Towbar Eye
			d. Drawbar/Towbar Tongue
			e. Safety Devices
			f. Saddle-Mounts
			3. EXHAUST SYSTEM
			a. Any exhaust system determined to be leaking at a point forward of or directly below the driver/sleeper compartment.
			b. A bus exhaust system leaking or discharging to the atmosphere in violation of standards (1), (2) or (3).
			c. No part of the exhaust system of any motor vehicle 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 motor vehicle.
			4. FUEL SYSTEM
			a. Visible leak
			b. Fuel tank filler cap missing
			c. Fuel tank securely attached
			5. LIGHTING DEVICES All lighting devices and reflectors required by Section 393 shall be operable.
			6. SAFE LOADING
			a. Part(s) of vehicle or condition of loading such that the spare tire or any part of the load or dunnage can fall onto the roadway.
			b. Protection against shifting cargo
			7. STEERING MECHANISM
			a. Steering Wheel Free Play
			b. Steering Column
			c. Front Axle Beam and All Steering Components Other Than Steering Column
			d. Steering Gear Box
			e. Pitman Arm
			f. Power Steering
			g. Ball and Socket Joints
			h. Tie Rods and Drag Links
			i. Nuts
			j. Steering System
			8. SUSPENSION
			a. Any U-bolt(s), spring hanger(s), or other axle positioning part(s) cracked, broken, loose or missing resulting in shifting of an axle from its normal position.
			b. Spring Assembly
			c. Torque, Radius or Tracking Components.
			9. FRAME
			a. Frame Members
			b. Tire and Wheel Clearance
			c. Adjustable Axle Assemblies (Sliding Subframes)
			10. TIRES
			a. Tires on any steering axle of a power unit.
			b. All other tires.
			11. WHEELS AND RIMS
			a. Lock or Side Ring
			b. Wheels and Rims
			c. Fasteners
			d. Welds
			12. WINDSHIELD GLAZING Requirements and exceptions as stated pertaining to any crack, discoloration or vision reducing matter (reference 393.60 for exceptions)
			13. WINDSHIELD WIPERS Any power unit that has an inoperative wiper, or missing or damaged parts that render it ineffective.
			List any other condition which may prevent safe operation of this vehicle.

INSTRUCTIONS: MARK COLUMN ENTRIES TO VERIFY INSPECTION: __X__ OK, __X__ NEEDS REPAIR, __NA__ IF ITEMS DO NOT APPLY, _____ REPAIRED DATE

CERTIFICATION: THIS VEHICLE HAS PASSED ALL THE INSPECTION ITEMS FOR THE ANNUAL VEHICLE INSPECTION REPORT IN ACCORDANCE WITH 49 CFR 396.

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ORIGINAL

A vehicle does not pass an inspection if it has one of the following defects or deficiencies:
1. Brake System.
a. Service Brakes.
(1) Absence of braking action on any axle required to have brakes upon application of the service brakes (such as missing brakes or brake shoe(s) failing to move upon application of a wedge. S cam, cam, or disc brake).
(2) Missing or broken mechanical components including: shoes, lining pads, springs, anchor pins, spiders, cam rollers, push rods, and air chamber mounting bolts.
(3) Loose brake components including air chambers, spiders, and cam shaft support brackets.
(4) Audible air leak at brake chamber (Example ruptured diaphragm, loose chamber clamp, etc.).
(5) Readjustment limits. The maximum stroke at which brakes should be readjusted is given below. Any brake 14, or more past the readjustment limit or any two brakes less than 14, beyond the readjustment limit shall be cause for rejection. Stroke shall be measured with engine off and reservoir pressure of 80 to 90 psi with brakes fully applied.

BOLT TYPE BRAKE CHAMBER DATA

Type	Effective area (sq. in.)	Outside diameter (in.)	Maximum stroke at which brakes should be readjusted
A	12	6 15/16	1 3/8
B	24	9 3/16	1¾
C	16	8 1/16	1¾
D	6	5¼	1¼
E	9	6 3/16	1 3/8
F	36	11	2¼
G	30	9 7/8	2

ROTOCHAMBER DATA

Type	Effective area (sq. in.)	Outside diameter (in.)	Maximum stroke at which brakes should be readjusted
9	9	4 9/32	1½
12	12	4 13/16	1½
16	16	5 13/32	2
20	20	5 15/16	2
24	24	6 13/32	2
30	30	7 1/16	2¼
36	36	7 5/8	2¾
50	50	8 7/8	3

CLAMP TYPE BRAKE CHAMBER DATA

Type	Effective area (sq. in.)	Outside diameter (in.)	Maximum stroke at which brakes should be readjusted
6	6	4½	1¼
9	9	5¼	1 3/8
12	12	5 11/16	1 3/8
16	16	6 3/8	1¾
20	20	6 25/32	1¾
24	24	7 7/32	1¾1
30	30	8 3/32	2
36	36	9	2¼

*(2" for long stroke design).
WEDGE BRAKE DATA. --Movement of the scribe mark on the lining shall not exceed 116 inch.
(6) Brake linings or pads.
(a) Lining or pad is not firmly attached to the shoe;
(b) Saturated with oil, grease, or brake fluid; or
(c) Non steering axles: Lining with a thickness less than 14 inch at the shoe center for air drum brakes, 116 inch or less at the shoe center for hydraulic and electric drum brakes, and less than 18 inch for air disc brakes.
(d) Steering axles: Lining with a thickness less than 14 inch at the shoe center for drum brakes, less than 18 inch for air disc brakes and 116 inch or less for hydraulic disc and electric brakes.
(7) Missing brake on any axle required to have brakes.
(8) Mismatch across any power unit steering axle of:
(a) Air chamber sizes.
(b) Slack adjuster length.
b. Parking Brake System. No brakes on the vehicle or combination are applied upon actuation of the parking brake control, including driveline hand controlled parking brakes.
c. Brake Drum or Rotors.
(1) With any external crack or cracks that open upon brake application (do not confuse short hairline heat check cracks with flexural cracks).
(2) Any portion of the drum or rotor missing or in danger of falling away.
d. Brake Hose.
(1) Hose with any damage extending through the outer reinforcement ply. (Rubber impregnated fabric cover is not a reinforcement ply). (Thermoplastic nylon may have braid reinforcement or color difference between cover and inner tube. Exposure of second color is cause for rejection.
(2) Bulge or swelling when air pressure is applied.
(3) Any audible leaks.
(4) Two hoses improperly joined (such as a splice made by sliding the hose ends over a piece of tubing and clamping the hose to the tube).
(5) Air hose cracked, broken or crimped.
e. Brake Tubing
(1) Any audible leak.
(2) Tubing cracked, damaged by heat, broken or crimped
f. Low Pressure Warning Device missing, inoperative, or does not operate at 55 psi and below, or 12 the governor cut out pressure, whichever is less.
g. Tractor Protection Valve. Inoperable or missing tractor protection valve(s) on power unit.
h. Air Compressor.
(1) Compressor drive belts in condition of impending or probable failure.
(2) Loose compressor mounting bolts.
(3) Cracked, broken or loose pulley.
(4) Cracked or broken mounting brackets, braces or adapters.
i. Electric Brakes.
(1) Absence of braking action on any wheel required to have brakes.
(2) Missing or inoperable breakaway braking device.
j. Hydraulic Brakes. (Including Power Assist Over Hydraulic and Engine Drive Hydraulic Booster).
(1) Master cylinder less than 14 full.
(2) No pedal reserve with engine running except by pumping pedal.
(3) Power assist unit fails to operate.
(4) Seeping or swelling brake hose(s) under application of pressure.
(5) Missing or inoperative check valve.
(6) Has any visually observed leaking hydraulic fluid in the brake system.
(7) Has hydraulic hose(s) abraded (chafed) through outer cover to fabric layer.
(8) Fluid lines or connections leaking restricted, crimped, cracked or broken.
(9) Brake failure or low fluid warning light on and/or inoperative.
k. Vacuum Systems. Any vacuum system which:
(1) Has insufficient vacuum reserve to permit one full brake application after engine is shut off.
(2) Has vacuum hose(s) or line(s) restricted, abraded (chafed) through outer cover to cord ply, crimped, cracked, broken or has collapse of vacuum hose(s) when vacuum is applied.
(3) Lacks an operative low vacuum warning device as required.
2. Coupling Devices.
a. Fifth Wheels.
(1) Mounting to frame.
(a) Any fasteners missing or ineffective.
(b) Any movement between mounting components.
(c) Any mounting angle iron cracked or broken.
(2) Mounting plates and pivot brackets.
(a) Any fasteners missing or ineffective.
(b) Any welds or parent metal cracked.
(c) More than 38 inch horizontal movement between pivot bracket pin and bracket.
(d) Pivot bracket pin missing or not secured.
(3) Sliders.
(a) Any latching fasteners missing or ineffective.
(b) Any fore or aft stop missing or not securely attached.
(c) Movement more than 38 inch between slider bracket and slider base.
(d) Any slider component cracked in parent metal or weld.
(4) Lower coupler.
(a) Horizontal movement between the upper and lower fifth wheel halves exceeds 12 inch.
(b) Operating handle not in closed or locked position.
(c) Kingpin not properly engaged.
(d) Separation between upper and lower coupler allowing light to show through from side to side.
(e) Cracks in the fifth wheel plate. Exceptions: Cracks in fifth wheel approach ramps and casting shrinkage cracks in the ribs of the body of a cast fifth wheel.
(f) Locking mechanism parts missing, broken, or deformed to the extent the kingpin is not securely held.
b. Pintle Hooks.
(1) Mounting to frame.
(a) Any missing or ineffective fasteners (a fastener is not considered missing if there is an empty hole in the device but no corresponding hole in the frame or vise versa).
(b) Mounting surface cracks extending from point of attachment (e.g., cracks in the frame at mounting bolt holes).
(c) Loose mounting.
(d) Frame crossmember providing pintle hook attachment cracked.
(2) Integrity.
(a) Cracks anywhere in pintle hook assembly.
(b) Any welded repairs to the pintle hook.
(c) Any part of the horn section reduced by more than 20%.
(d) Latch insecure.
c. Drawbar/Towbar Eye.
(1) Mounting.
(a) Any cracks in attachment welds.
(b) Any missing or ineffective fasteners.
(2) Integrity.
(a) Any cracks.
(b) Any part of the eye reduced by more than 20%.
d. Drawbar/Towbar Tongue.
(1) Slider (power or manual).
(a) Ineffective latching mechanism.
(b) Missing or ineffective stop.
(c) Movement of more than 14 inch between slider and housing.
(d) Any leaking, air or hydraulic cylinders, hoses, or chambers (other than slight oil weeping normal with hydraulic seals).
(2) Integrity.
(a) Any cracks.
(b) Movement of 14 inch between subframe and drawbar at point of attachment.
e. Safety Devices.
(1) Safety devices missing.
(2) Unattached or incapable of secure attachment.
(3) Chains and hooks.
(a) Worn to the extent of a measurable reduction in link cross section.
(b) Improper repairs including welding, wire, small bolts, rope and tape.
(4) Cable.
(a) Kinked or broken cable strands.
(b) Improper clamps or clamping.
f. Saddle Mounts.
(1) Method of attachment.
(a) Any missing or ineffective fasteners.
(b) Loose mountings.
(c) Any cracks or breaks in a stress or load bearing member.
(d) Horizontal movement between upper and lower saddle mount halves exceeds 14 inch.
3. Exhaust System.
a. Any exhaust system determined to be leaking at a point forward of or directly below the driver/sleeper compartment.
b. A bus exhaust system leaking or discharging to the atmosphere:
(1) Gasoline powered -- excess of 6 inches forward of the rearmost part of the bus.
(2) Other than gasoline powered -- in excess of 15 inches forward of the rearmost part of the bus.
(3) Other than gasoline powered -- forward of a door or window designed to be opened. (Exception: emergency exits).
c. No part of the exhaust system of any motor vehicle 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 motor vehicle.
4. Fuel System.
a. A fuel system with a visible leak at any point.
b. A fuel tank filler cap missing.
c. A fuel tank not securely attached to the motor vehicle by reason of loose, broken or missing mounting bolts or brackets (some fuel tanks use springs or rubber bushings to permit movement).
5. Lighting Devices.
All lighting devices and reflectors required by **Section 393** shall be operable.
6. Safe loading.
a. Part(s) of vehicle or condition of loading such that the spare tire or any part of the load or dunnage can fall onto the roadway.
b. Protection Against Shifting Cargo --Any vehicle without a front end structure or equivalent device as required.
7. Steering Mechanism.
a. Steering Wheel Free Play (on vehicles equipped with power steering the engine must be running)
STEERING WHEEL FREE PLAY
(on vehicles equipped with power steering the engine must be running).

Steering wheel diameter	Manual steering system	Power steering system
16"	2"	4½"
18"	2¼"	4¾"
20"	2½"	5¼"
22"	2¾"	5¾"

b. Steering Column.
(1) Any absence or looseness of U bolt(s) or positioning part(s).
(2) Worn, faulty or obviously repair welded universal joint(s).
(3) Steering wheel not properly secured.
c. Front Axle Beam and All Steering Components Other Than Steering Column.
(1) Any crack(s).
(2) Any obvious welded repair(s).
d. Steering Gear Box.
(1) Any mounting bolt(s) loose or missing.
(2) Any crack(s) in gear box or mounting brackets.
e. Pitman Arm. Any looseness of the pitman arm on the steering gear output shaft.
f. Power Steering. Auxiliary power assist cylinder loose.
g. Ball and Socket Joints.
(1) Any movement under steering load of a stud nut.
(2) Any motion, other than rotational, between any linkage member and it's attachment point of more than ¼ inch.
h. Tie Rods and Drag Links.
(1) Loose clamp(s) or clamp bolt(s) on tie rods or drag links.
(2) Any looseness in any threaded joint.
i. Nuts. Nut(s) loose or missing on tie rods pitman arm, drag link, steering arm or tie rod arm.
j. Steering System. Any modification or other condition that interferes with free movement of any steering component.
8. Suspension.
a. Any U bolt(s), spring hanger(s), or other axle positioning part(s) cracked, broken, loose or missing resulting in shifting of an axle from its normal position. (After a turn, lateral axle displacement is normal with some suspensions. Forward or rearward operation in a straight line will cause the axle to return to alignment).
b. Spring Assembly.
(1) Any leaves in a leaf spring assembly broken or missing.
(2) Any broken main leaf in a leaf spring assembly. (Includes assembly with more than one main spring).
(3) Coil spring broken.
(4) Rubber spring missing.
(5) One or more leaves displaced in a manner that could result in contact with a tire, rim, brake drum or frame.
(6) Broken torsion bar spring in a torsion bar suspension.
(7) Deflated air suspension, i.e., system failure, leak, etc.
c. Torque, Radius or Tracking Components. Any part of a torque, radius or tracking component assembly or any part used for attaching the same to the vehicle frame or axle that is cracked, loose, broken or missing. (Does not apply to loose bushings in torque or track rods.)
9. Frame
a. Frame Members.
(1) Any cracked, broken, loose, or sagging frame member.
(2) Any loose or missing fasteners including fasteners attaching functional component such as engine, transmission, steering gear, suspension, body parts, and fifth wheel.
b. Tire and Wheel Clearance. Any condition, including loading, that causes the body or frame to be in contact with a tire or any part of the wheel assemblies
c. (1) Adjustable Axle Assemblies (Sliding Subframes). Adjustable axle assembly with locking pins missing or not engaged.
10. Tires.
a. Any tire on any steering axle of a power unit.
(1) With less than 432 inch tread when measured at any point on a major tread groove.
(2) Has body ply or belt material exposed through the tread or sidewall.
(3) Has any tread or sidewall separation.
(4) Has a cut where the ply or belt material is exposed.
(5) Labeled "Not for Highway Use" or displaying other marking which would exclude use on steering axle.
(6) A tube type radial tire without radial tube stem markings. These markings include a red band around the tube stem, the word "radial" embossed in metal stems, or the word "radial" molded in rubber stems.
(7) Mixing bias and radial tires on the same axle.
(8) Tire flap protrudes through valve slot in rim and touches stem.
(9) Regrooved tire except motor vehicles used solely in urban or suburban service (see exception in §393.75(e).
(10) Boot, blowout patch or other ply repair.
(11) Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.
(12) Tire is flat or has noticeable (e.g., can be heard or felt) leak.
(13) Any bus equipped with recapped or retreaded tire(s).
(14) So mounted or inflated that it comes in contact with any part of the vehicle.
b. All tires other than those found on the steering axle of a power unit:
(1) Weight carried exceeds tire load limit. This includes overloaded tire resulting from low air pressure.
(2) Tire is flat or has noticeable (e.g., can be heard or felt) leak.
(3) Has body ply or belt material exposed through the tread or sidewall.
(4) Has any tread or sidewall separation.
(5) Has a cut where ply or belt material is exposed.
(6) So mounted or inflated that it comes in contact with any part of the vehicle. (This includes a tire that contacts its mate.)
(7) Is marked "Not for highway use" or otherwise marked and having like meaning.
(8) With less than 232 inch tread when measured at any point on a major tread groove.
11. Wheels and Rims.
a. Lock or Side Ring. Bent, broken, cracked, improperly seated, sprung or mismatched ring(s).
b. Wheels and Rims. Cracked or broken or has elongated bolt holes.
c. Fasteners (both spoke and disc wheels). Any loose, missing, broken, cracked, stripped or otherwise ineffective fasteners.
d. Welds.
(1) Any cracks in welds attaching disc wheel disc to rim.
(2) Any crack in welds attaching tubeless demountable rim to adapter.
(3) Any welded repair on aluminum wheel(s) on a steering axle.
(4) Any welded repair other than disc to rim attachment on steel disc wheel(s) mounted on the steering axle.
12. Windshield Glazing.
(Not including a 2 inch border at the top, a 1 inch border at each side and the area below the topmost portion of the steering wheel.) Any crack, discoloration or vision reducing matter except: (1) coloring or tinting applied at time of manufacture; (2) any crack not over 14 inch wide, if not intersected by any other crack; (3) any damaged area not more than 34 inch in diameter, if not closer than 3 inches to any other such damaged area; (4) labels, stickers, decalcomania, etc. (see §393.60 for exceptions).
13. Windshield Wipers.
Any power unit that has an inoperative wiper, or missing or damaged parts that render it ineffective.

Comparison of Appendix G, and the new North American Uniform Driver Vehicle Inspection Procedure (North American Commercial Vehicle Critical Safety Inspection Items and Out Of Service Criteria)

The vehicle portion of the FHWA's North American Uniform Driver Vehicle Inspection Procedure (NAUD VIP) requirements, CVSA's North American Commercial Vehicle Critical Safety Inspection Items and Out Of Service Criteria and Appendix G of subchapter B are similar documents and follow the same inspection procedures. The same items are required to be inspected by each document. FHWA's and CVSA's out of service criteria are intended to be used in random roadside inspections to identify critical vehicle inspection items and provide criteria for placing a vehicle(s) out of service. A vehicle(s) is placed out of service only when by reason of its mechanical condition or loading it is determined to be so imminently hazardous as to likely cause an accident or breakdown, or when such condition(s) would likely contribute to loss of control of the vehicle(s) by the driver. A certain amount of flexibility is given to the inspecting official whether to place the vehicle out of service at the inspection site or if it would be less hazardous to allow the vehicle to proceed to a repair facility for repair. The distance to the repair facility must not exceed 25 miles. The roadside type of inspection, however, does not necessarily mean that a vehicle has to be defect free in order to continue in service.
In contrast, the Appendix G inspection procedure requires that all items required to be inspected are in proper adjustment, are not defective and function properly prior to the vehicle being placed in service.

Differences Between the Out Of Service Criteria & FHWA's Annual Inspection

1. Brake System.
The Appendix G criteria rejects vehicles with any defective brakes, any air leaks, etc. The out of service criteria allows 20% defective brakes on non steering axles and a certain latitude on air leaks before placing a vehicle out of service.
2. Coupling Devices.
Appendix G rejects vehicles with any fifth wheel mounting fastener missing or ineffective. The out of service criteria allows up to 20% missing or ineffective fasteners on frame mountings and pivot bracket mountings and 25% on sliderlatching fasteners. The out of service criteria also allows some latitude on cracked welds.
3. Exhaust System.
Appendix G follows Section **393.83** verbatim. The CVSA out of service criteria allows vehicles to exhaust forward of the dimensions given in Section **393.83** as long as the exhaust does not leak or exhaust under the chassis.
4. Fuel System.
Same for Appendix G and the out of service criteria.
5. Lighting Devices.
Appendix G requires all lighting devices required by section **393** to be operative at all times. The out of service criteria only requires one stop light and functioning turn signals on the rear most vehicle of a combination vehicle to be operative at all times. In addtion one operative head lamp and tail lamp are required during the hours of darkness.
6. Safe Loading.
Same for both Appendix G and the out of service criteria.
7. Steering Mechanism.
Steering lash requirements of Appendix G follows the new requirements of **§393.209** .
8. Suspension.
Appendix G follows the new requirements of **§393.207** which does not allow any broken leaves in a leaf spring assembly. The out of service criteria allows up to 25% broken or missing leaves before being placed out of service.
9. Frame.
The out of service criteria allows a certain latitude in frame cracks before placing a vehicle out of service. Appendix G follows the new requirements of **§393.201** which does not allow any frame cracks.
10. Tires.
Appendix G follows the requirements of **§393.75** which requires a tire tread depth of 432 inch on power unit steering axles and 232 inch on all other axles. The out of service criteria only requires 232 inch tire tread depth on power unit steering axles and 132 inch on all other axles.
11. Wheel and Rims.
The out of service criteria allows a certain amount latitude for wheel and rim cracks and missing or defective fasteners. Appendix G meets the requirements of the new **§393.205** which does not allow defective wheels and rims non effective nuts and bolts.
12. Windshield Glazing.
The out of service criteria places in a restricted service condition any vehicle that has a crack or discoloration in the windshield area lying within the sweep of the wiper on the drivers side and does not address the remaining area of the windshield. Appendix G addresses requirements for the whole windshield as specified in **§393.60**
13. Windshield Wipers.
Appendix G requires windshield wipers to be operative at all times. The out of service criteria only requires that the windshield wiper on the driver's side to be inspected during inclement weather.

Periodic Inspector Qualification
Certification

I,_____, hereby certify that I am knowledgeable in the requirements for performing an annual vehicle inspection and I can identify defective components in compliance with the regulations of the U.S. Department of Transportation for annual vehicle inspections contained in 49 CFR Part 396 Appendix G. I hereby agree to comply with all such regulations governing annual vehicle inspections.

A qualified inspector must meet one or more of the following requirements. Please check those applicable.

_____Successfully completed a state or federal sponsored training program, which qualifies me to perform a commercial vehicle safety inspection.

_____One year of training and/or experience in truck manufacturer of similar commercially sponsored training designed to train in truck operation and maintenance.

_____One year experience as a mechanic or inspector in a motor carrier maintenance program.

_____One year experience as a mechanic or inspector in truck maintenance at a commercial garage, fleet leasing company, or similar facility.

_____One year experience as a commercial vehicle inspector for a state, provincial or federal government.

_____
Signature of Mechanic/Inspector

I, _____, hereby certify that_____has met the requirements for a qualified inspector to perform the annual vehicle inspection in compliance with the regulations of the U.S. Department of Transportation for qualified inspectors contained in 49 CFR Section 396.19.

Dated this_____day of_____, 20_____.

_____
Signature of Owner/Supervisor

Brake Inspector Qualification
Certification

I, _____, hereby certify that I am knowledgeable and understand the requirements for performing the brake service or inspection task and I can identify the defective components in compliance with the regulations of the U.S. Department of Transportation for brake service or inspection tasks contained in 49 CFR Part 396 Appendix G. I hereby agree to comply with all such regulations governing the annual brake service and inspection tasks.

A qualified inspector must meet one or more of the following requirements. Please check those applicable.

_____Has successfully completed an apprenticeship program sponsored by a State, Canadian province, Federal Agency or a labor union.
_____Has successfully completed a training program approved by a state, federal agency.
_____Has a certificate from a State or Canadian province qualifying me to perform the assigned brake service or inspection task.
_____Has brake related training or experience or a combination totaling at least one year.

Such training may consist of:
_____Participation in a training program sponsored by a brake or vehicle manufacturer or similar commercial training program designed to train students in brake maintenance or inspection similar to the assigned brake service or inspection tasks.
_____Experience performing brake maintenance or inspection similar to the assigned brake service or inspection task in a motor carrier maintenance program.
_____Experience performing brake maintenance or inspection similar to the assigned brake service or inspection task at a commercial garage, fleet leasing company or similar facility.
_____Has passed the air brake knowledge and skills test for a Commercial Driver's License.

_____
Signature of Brake Inspector

I,_____, hereby certify that_____ has met the requirements for a qualified inspector to perform the brake service or inspection task in compliance with the regulations of the U.S. Department of Transportation for qualified inspectors contained in 49 CFR Section 396.25

Dated this_____ day of_____, 20_____.

_____
Signature of Owner/Supervisor