U.S. Department
of Transportation

**Federal Railroad
Administration**

Motive Power
and
Equipment Inspection Report

General Information on Reporting For:

Freight Car Safety Standards

Safety Glazing Standards — Locomotives, Passenger Cars and Cabooses

Locomotive Safety Standards

Safety Appliances

Power Brakes

Distributed by:
The Railway Educational Bureau
1809 Capitol Ave., Omaha, Nebraska 68102

Each equipment inspection performed by an inspector, inspecting under 49 CFR parts 215, 223, 229, 231 and 232 regulations of the Federal Railroad Administration will be recorded on Motive Power and Equipment Inspection Form FRA F 6180.59. The report will be promptly submitted (within 48 hours) to a representative of the carrier.

Report Form FRA F 6180.59 is designed to be used by a computer storage and retrival system. This design requires that codes be used to describe the information being recorded. The following codes are provided for that purpose. These codes will differ from the rule section designation in some areas.

The Form FRA F 6180.59 is for the most part self explanatory, however, some areas of interest may need some interpretation.

Space "FRA USE ONLY" will identify the type or types of inspections being reported and the number of units inspected for each type. The first number inside the parenthesis will indicate the CFR section, followed by a dash (-) and the number of units inspected under that section, ie: (215-35) would indicate an inspection for Freight Car Safety Standards had been made on 35 cars. When no inspection has been made for a section, the identifying number will be followed by a zero.

Multi-Reporting of Motive Power and Equipment Conditions

The inspection of equipment at one location, of one railroad for one day may be reported as one report having one report number and will cover those items reportable under 49 CFR Parts 215, 223, 229, 231 and 232. There is no requirement for keeping cars and locomotives segregated and conditions may be placed on the report in any order that is convenient.

The top portion of Form FRA F 6180.59 will be prepared as before with this exception. The spaces marked "FRA use only," "7. Source," "Code," and "8. Complaint Number" will be used to record type of inspection — Number of units inspected.

Example:

FRA USE ONLY	7. SOURCE	CODE	8. COMPLAINT NUMBER
(215-85)	(223-0)	(229-0)	(231/232-85)

This example indicates that the inspection was of 85 cars for Freight Car Safety Standards, Safety Appliances, and Power Brakes, with no inspection of glazing or locomotives.

You will note that Safety Appliance and Power Brake inspections are indicated together. This does not include train brake test, COT&S or IDT observations. If no inspection is made of safety appliance and power brake equipment other than train brake test, COT&S, or in-date test, a zero will be placed after each CFR part number at the top portion of the report and the pertinent information in the body of the report.

CAUTION

Codes are used for reporting inspections and observations. Codes may not be used on violation reports. The violation report should be referenced to the rules as written in the Safety Appliance Standards and Power Brake Requirements, Railroad Freight Car Safety Standards, and Railroad Locomotive Safety Standards.

When a train brake test is reported, Spaces 10B, 10C and 10D will be left blank. Space 11G will be filled in to indicate the train being observed. If the test observed is improper, and not corrected, and a violation is filed, the Form F 6180-29A will, in most cases, be filled in with all pertinent information.

When reporting the observation of a single car test, the number of the car tested shall be used. One item entry will be made for each test observed.

There is no change in the method of reporting car and locomotive inspections except that they may all be combined into one report for a location, except at terminals or locations where there are different operating and maintenance responsibilities. You will notice, however, that changes in some codes have been made.

Section 10 of the report identifies the unit being inspected in spaces "B and C". The kind, or type, of equipment will be entered in space "D". The kind can be identified by the codes in Appendix A.

Space "E" will identify the type of inspection for each line entry "Item". Codes are also found in Appendix A.

Section 11 Space "A and B" will identify the defect or observation. The code used will be from this code book.

Space "F" will identify the action being taken by the inspector, and the location of the unit at the time of inspection. This space will tell if a violation is being filed. The codes for this information are also located in Appendix A.

Space "G" will give the identification symbol of the train where applicable and in the case of a records inspection will advise the number of records inspected.

Codes for Reporting Defects of Freight Car Safety Standards

CFR-Part Rule	Sub-Rule	Defect Description
215.009	A.	1. Failure to Meet conditions for Movement of Defective Cars for Repairs
	B.	1. Records Inspection for Movement of Defective Cars
	C.	1. Improper or No Record for Movement of Defective Car for Repairs
	D.	1. Records Inspection for Repairs Made to Defective Cars
215.011	A.	1. Railroad Fails to Designate Qualified Persons to Inspect Freight Cars 2. Persons Designated Don't Have Knowledge/ Ability to Inspect Cars for Compliance with Requirement
	B.	1. Railroad Fails to Maintain Written Record of Each Designation in Effect 2. Railroad Fails to Maintain Written Record of the Basis for This Designation
Inspection		
215.013	A.	1. Failure to Perform Pre-Departure Inspection
215.015	A.	1 Railroad Fails to Perform Required Periodic Inspection By June 30, 1980 2. Periodic Inspection Not Performed on HU Car Built Prior to December 31, 1977 3. Periodic Inspection Not Performed on Car Built Prior to December 31, 1971
	B.	1. A Freight Car Improperly Stenciled for Periodic Inspection
Wheel Conditions		
215.103	A.	1. Wheel Flange Thickness 7/8" or Less at 3/8" Above the Tread 2. Wheel Flange Thickness 13/16" or Less at 3/8" Above the Tread 3. Wheel Flange Thickness 3/4" or Less at 3/8" Above the Tread

B. 1. Wheel Flange is 1½" or More From the Tread to Top of Flange
2. Wheel Flange is 1⅝" or More From the Tread to Top of Flange
3. Wheel Flange is 1¾" or More From the Tread to Top of Flange

C. 1. Wheel Rim Thickness is 11/16" or Less
2. Wheel Rim Thickness is ⅝" or Less
Wheel Rim Thickness is 9/16" or Less

D. 1. Wheel Rim Cracked/Broken
2. Wheel Flange Cracked/Broken
3. Wheel Plate Cracked/Broken
4. Wheel Hub Cracked/Broken

E. 1. Wheel has Chip/Gouge in Flange 1½" Length and ½" or More in Width
2. Wheel has Chip/Gouge in Flange 1⅝" Length and ⅝" or More in Width
3. Wheel has Chip/Gouge in Flange 1¾" Length and ¾" or More in Width

F. 1. Wheel has Flat/Shelled Spot 2½" or More in Length
2. Wheel has Two Adjoining Flat/Shelled Spots Each of Which is 2" Long or Longer
3. Wheel has a Single Flat or Shelled Spot 3" or More in Length
4. Wheel has 2 Adjoining Flat/Shelled Spots 1 At Least 2" Long; Other 2½" or Longer

G. 1. Wheel is Loose

H. 1. Wheel Overheated Discoloration More Than 4"
2. Wheel Overheated Discoloration More Than 4½"

I. 1. Wheel Welded on Car That is Not Moving for Repairs.

Axle and Journal Conditions

215.105 A. 1. Axle Cracked 1" or Less
2. Axle Cracked Greater Than 1"
3. Axle Broken or Cracked with Visible Separation of Metal

B. 1. Axle With Gouge Between Wheel Seats More Than ⅛" Deep

C. 1. Axle With Broken or Cracked End Collar

D. 1. Overheated Journal

E. 1. Plain Bearing Journal/Fillet Has a Ridge
2. Plain Bearing Journal/Fillet Has a Depression
3. Plain Bearing Journal/Fillet Has a Circumferential Score
4. Plain Bearing Journal/Fillet Has Corrugation
5. Plain Bearing Journal/Fillet Has a Scratch
6. Plain Bearing Journal/Fillet Has a Continuous Streak
7. Plain Bearing Journal/Fillet is Pitted
8. Plain Bearing Journal/Fillet is Rusted
9. Plain Bearing Journal/Fillet Has Etching

Plain Bearing Lubrication

215.107 A. 1. One Plain Bearing Box Does Not Contain Visible Free Oil
2. Two Plain Bearing Boxes Do Not Contain Visible Free Oil
3. Three Plain Bearing Boxes Do Not Contain Visible Free Oil
4. Four Plain Bearing Boxes Do Not Contain Visible Free Oil
5. Five Plain Bearing Boxes Do Not Contain Visible Free Oil
6. Six Plain Bearing Boxes Do Not Contain Visible Free Oil
7. Seven Plain Bearing Boxes Do Not Contain Visible Free Oil
8. Eight Plain Bearing Boxes Do Not Contain Visible Free Oil
9. More Than Eight Plain Bearing Boxes Do Not Contain Visible Free Oil

B. 1. Plain Bearing Box Lid is Missing, Broken or Open Except to Receive Service

C. 1. Plain Bearing Box has Foreign Matter That Will Damage Bearing or Prevent Lube

D. 1. One Plain Bearing Box With Dry Lubricating Pad
2. Two Plain Bearing Boxes With Dry Lubricating Pads
3. Three Plain Bearing Boxes With Dry Lubricating Pads

4. Four Plain Bearing Boxes With Dry Lubricating Pads
5. Five Plain Bearing Boxes With Dry Lubricating Pads
6. Six Plain Bearing Boxes With Dry Lubricating Pads
7. Seven Plain Bearing Boxes With Dry Lubricating Pads
8. Eight Plain Bearing Boxes With Dry Lubricating Pads
9. More Than Eight Plain Bearing Boxes With Dry Lubricating Pads

Lubrication Pads

215.109

A. 1. Plain Bearing Box Lube Pad Torn Half the Length or Width

B. 1. Plain Bearing Box Lube Pad Scorched, Burned or Glazed

C. 1. Plain Bearing Box Lube Pad with Decaying/ Deteriorated Fabric

D. 1. Lube Pad has Exposed Core/Metal Parts in Contact with Journal Except by Design

E. 1. Plain Bearing Box Lube Pad Missing
2. Plain Bearing Box Lube Pad Not in Contact with Journal

Plain Bearing

215.111

A. 1. Plain Bearing Missing, Cracked or Broken

B. 1. Plain Bearing with Lining Loose
2. Plain Bearing with Piece Broken Out

C. 1. Plain Bearing Overheated as Evidenced by Babbit Melted
2. Plain Bearing Overheated as Evidenced by Smoke From Hot Oil
3. Plain Bearing Overheated as Evidenced by Journal Surface Damage

Bearing Wedges

215.113

A. 1. Plain Bearing Wedge Missing

B. 1. Plain Bearing Wedge Cracked

C. 1. Plain Bearing Wedge Broken

D. 1. Plain Bearing Wedge Not Located in Designated Position

Roller Bearing Conditions

215.115 A.
1. Roller Bearing Overheated
2. Roller Bearing Having Loose or Missing Cap Screw
3. Roller Bearing Seal Loose/Damaged Permitting Loss of Lubricant
4. Roller Bearing Having Two or More Missing Cap Screws

B.
1. Roller Bearing-Failure to Inspect If Involved in Derailment
2. Roller Bearing-Failure to Disassemble If Required Due to Derailment
3. Roller Bearing-Failure to Repair/Replace when Defective Due to Derailment

Bearing Adapter

215.117 A.
1. Roller Bearing Adapter Cracked or Broken

B.
1. Roller Bearing Adapter Not in Designed Position

C.
1. Roller Bearing Adapter Worn Excessively in Relief Portion

Truck Conditions

215.119 A.
1. Freight Car Trucks Side Frame or Bolster Broken
2. Truck Side Frame/Bolster Cracked ¼" or More in Transverse Direction on Tension Member
3. Truck Side Frame/Bolster Cracked 1" or More in Transverse Direction on Tension Member

B.
1. Freight Car Trucks having Ineffective Snubbing Devices

C.
1. Freight Car Trucks having Missing or Broken Side Bearing
2. Freight Car Trucks Side Bearing in Contact Except by Design
3. Freight Car Trucks Excessive Side Bearing Clearance at One End of Car

D.
1. Truck Springs That Will Not Maintain Travel or Load
2. Truck Springs That Are Compressed Solid
3. Truck Springs-Two or More Broken in a Cluster

4. Truck Spring-Three or More Springs Broken

E. 1. Truck Bolster and Center Plate Interference Preventing Rotation + Car off center

F. 1. Brake Beam Shelf Supports Worn — Shelf Will Not Support Beam

Car Body Conditions

215.121

A. 1. Car Body Clearance Improper — Less Than 2½" From Top of Rail

B. 1. Center Sill Broken
2. Center Sill Cracked More Than 6"
3. Center Sill Bent or Buckled More Than 2½" in Any 6-Foot Length

C. 1. Coupler Carrier Broken
2. Coupler Carrier Missing
3. Coupler Carrier Non-Resilient When Used with Coupler with F Head

D. 1. Car Door Not Equipped with Operative Safety Hangers After ~~July 1, 1982~~ 12-1-83

E. 1. Car Body Center Plate Not Properly Secured
2. Car Body Center Plate Any Portion Missing
3. Car Body Center Plate Broken or Cracked as Defined in This Part
4. Car Body CP with Two or More Cracks Through Cross Section of Visible Portion

F. 1. Car Body Side Sills, Crossbars or Body Bolster Broken

Coupler Conditions

215.123

A. 1. Coupler Shank Bent

B. 1. Coupler Cracked in Highly Stressed Area of Head and Shank

C. 1. Coupler Knuckle Broken

D. 1. Coupler Knuckle Pin/Knuckle Thrower Missing
2. Coupler Knuckle Pin/Knuckle Thrower Inoperative

E. 1. Coupler Retainer Pin Lock Missing
2. Coupler Retainer Pin Lock Broken

F. 1. Coupler Locklift Inoperative

2. Coupler With No Anti-Creep Protection
3. Coupler Lock Missing
4. Coupler Lock Inoperative
5. Coupler Lock Bent
6. Coupler Lock Cracked
7. Coupler Lock Broken

Uncoupling Levers

215.125 A. 1. Uncoupling Device Fouling on Curve

B. 1. Uncoupling Device Unintentional Uncoupling

Draft Conditions

215.127 A. 1. Draft Gear Inoperative

B. 1. Coupler Yoke Broken

C. 1. End of Car Cushioning Unit Leaking
2. End of Car Cushioning Unit Inoperative

D. 1. Vertical Coupler Pin Retainer Plate Missing
2. Vertical Coupler Pin Retainer Fastener Missing

E. 1 Draft Key/Key Retainer Inoperative
2. Draft Key/Key Retainer Missing

F. 1. Follower Plate Missing/Broken

215.129 A. 1. Cushioning Device Broken and Not Effectively Immobilized

B. 1. Cushioning Device Inoperative and Not Effectively Immobilized

C. 1. Cushioning Device Missing Parts and Not Effectively Immobilized

Restrictions and Stenciling

215.203 A. 1. Operating Restricted Car, Except Under FRA Approved Conditions

215.301 A. 1. Failure to Stencil Car Number and Date Built on Freight Car as Required (One or Both Sides)

215.303 A. 1. Failure to Stencil Restricted Car as Required

215.305 A. 1. Failure to Stencil Maintenance-of-Way Equipment as Required

Safety Glazing Standards
Locomotives — Passenger Cars and Cabooses

223.007	A.	1. Glazing fails to meet requirements of Appendix A.
	B.	1. Not in compliance with waiver petition.

Requirements for New or Rebuilt Equipment after (June 30, 1980)

223.009	A.	1. Locomotive glazing improper
	B.	1. Caboose glazing improper
	C.	1. Passenger car glazing improper (includes self-propelled passenger car)

Requirements for Existing Locomotives Prior to (July 1, 1980)

223.011	A.	1. Forward and rearward end facing improper
	B.	1. Side facing improper
	C.	1. Not equipped with certified glazing by (June 30, 1983)
	D.	1. Not placed in designated service within (48 hrs.) 2. Not removed from service properly

Requirements for Existing Cabooses Prior to (July 1, 1980)

223.013	A.	1. Forward and rearward end facing improper
	B.	1. Side facing improper
	C.	1. Not equipped with certified glazing by (June 30, 1983)
	D.	1. Forward and rearward windows not replaced with certified glazing within 30 days 2. Side facing windows not replaced with certified glazing within 30 days

Requirements for Existing Passenger Cars Prior to (July 1, 1980)

223.015	A.	1. Forward and rearward end facing improper
	B.	1. Side facing improper
	C.	1. Not equipped with certified glazing by (June 30, 1983)
	D.	1. Forward and rearward windows not replaced with certified glazing within 30 days

2. Side facing windows not replaced with certified glazing within 30 days

Identifications of Equipped Locomotives, Passenger Cars and Cabooses

223.017 A. 1. Equipment improperly stenciled

B. 1. Glazing material not marked or improperly marked

Codes for Reporting Defects of Locomotive Safety Standards

229.007 A. 1. Locomotive Not in Proper Condition and Safe to Operate

229.009 A. 1. Move Non-Complying Loco. Failure to Meet Conditions for Movement to Repair

229.011 A. 1. Letter "F" Missing

B. 1. Locomotive Number Missing

229.013 A. 1. Failure to Respond to Controlling Locomotive

229.015 A. 1. Failure to File Final Report Locomotive Retirement

B. 1. Failure to File Final Report Steam Generator Retirement

229.017 A. 1. Failure to Report Accident
2. Failure to Preserve Defective Locomotive or Part(s)

B. 1. Written Confirmation of Accident Report Not Made to FRA

229.019 A. 1. Failure to File for Prior Waiver

Inspecting and Testing

229.021 A. 1. Daily Locomotive Inspection Overdue
2. Failure to Make Written Report of Daily Inspection
3. Daily Inspection Report Not Properly Made Out

4. Defects Not Reported on Daily Inspection
5. Defects Reported and Not Repaired
6. Daily Inspection Report Not Retained for One Year
7. Records Inspection of Daily Inspection Reports

B. 1. MU Locomotive Overdue Daily Inspection
2. Failure to Make Written Report of MU Daily Inspection
3. MU Daily Inspection Report Not Properly Made Out
4. MU Daily Inspection Defects Not Reported
5. MU Daily Inspection Defects Not Repaired
6. MU Daily Inspection Report Not Retained for One Year

C. 1. Failure to Use Qualified Person to Make Daily Inspection

229.023 A. 1. Periodic Inspection Not Made to Locomotive Within 92 Days
2. Periodic Inspection Not Made to Steam Generator Within 92 Days
3. Entire Bottom Side of Locomotive Cannot Be Safely Inspected During Periodic Inspection
4. Periodic Inspection Made with No Facilities Available
5. Records Inspection of Periodic Inspection Reports

B. 1. Periodic Inspection Postponed, Steam Generator Not Properly Rendered Inoperative

D. 1. Form F 6180-49A Missing
2. Form F 6180-49A Improperly Made Out
3. Form F 6180-49A Not Displaying Under Transparent Cover
4. Transparent Cover Missing or Broken

E. 1. Form F 6180-49A Not Filed By May 1 Each Year With FRA

F. 1. Secondary Form F 6180-49A Missing
2. Secondary Form F 6180-49A Not Retained for Two Years

229.025 A. 1. Gauges Not Inspected At Time of Periodic Inspection

B.
1. Electrical Inspection Not Made At Time of Periodic Inspection
2. Electric Devices Defective At Time of Periodic Inspection
3. Electric Insulation Defective At Time of Periodic Inspection

C.
1. 600 Volt Cable Connection or Jumper Cables Not Inspected At Periodic Inspection

D.
1. Steam Generator Automatic Controls, Alarms/Protect Devices Not Inspected/ Tested/Defective
2. Steam Pressure Gauge Not Tested At Time of Periodic Inspection
3. Safety Valves Not Properly Set and Tested At Periodic Inspection

229.027 A.
1. Fail to Clean, Repair/Replace Main Air Reservoir Filter/Collect Devices on Annual Test
2. Failure Properly to Clean, Repair or Replace Air System as Required Annual Test
3. Failure Properly to Clean, Repair or Replace Brake Cylinder Relay Valve Portions
4. Failure Properly to Clean, Repair or Replace Main Air Reservoir Safety Valves
5. Failure Properly to Clean, Repair or Replace Feed and Reducing Valve Portion
6. Failure Properly to Clean, Repair or Replace Related Dirt Collectors and Filters
7. Failure to Perform All Annual Tests Listed in CFR 229.027A2
8. Failure to Record Air Brake Inspection Information on F 6180-49A At Annual Test
9. Failure to Properly Record Air Brake Inspection Information on Air Record

B.
1. Load Meters Not Tested At Annual Test
2. Load Meters In Error in Excess 5% Not Corrected AT Annual Test
3. Load Meter Test Data Not on Form F 6180-49A

C.
1 Hydrostatic Test of Steam Generator Not Made Properly At Annual Test
2. Visual Return Water-Flow Indicator Not Removed/Inspected or Is Defective

229.029 A. 1. Failure to Clean/Repair/Test Air System As Required at Biennial Test
2. Failure to Properly Record Air Brake Inspection Information
3. Failure to Properly Record Biennial Air Tests Inspection on FRA Form F 6180-49A
4. Failure to Properly Record Biennial Air Test Inspection on Carriers Maintenance Files

229.031 A. 1. Main Reservoir Hydrostatic Test Not Made
2. Main Reservoir Hydrostatic Test Improper
3. Main Reservoir Hydrostatic Test Improperly Recorded on FRA Form F 6180-49A

B. 1. Main Reservoir Hammer Test Not Made
2. Main Reservoir Hammer Test Improper
3. Main Reservoir Hammer Test Improperly Recorded on FRA Form F 6180-49A

C. 1. Main Reservoir Not Drilled
2. Main Reservoir Improperly Drilled
3. Main Reservoir Telltale Hole Penetrated

D. 1. Aluminum Main Reservoir Defective

229.033 A. 1. Out-Of-Use Credit Not Valid

B. 1. Out-Of-Use Credit Improperly Recorded

Personal Injury Protection

229.041 A. 1 Personal Injury Protection Defective/Not Provided, Fan Openings

B. 1. Personal Injury Protection Defective/Not Provided, Exposed Gears and Pinions

C. 1. Personal Injury Protection Defective/Not Provided, Exposed Moving Parts of Mech

D. 1. Personal Injury Protection Defective/Not Provided, High-Voltage Equipment

E. 1. Personal Injury Protection Defective/Not Provided, Switches, Crct Bkrs, Cntcts, Etc.

Gases Escaping

229.043 A. 1. Exhaust Stacks Improper Height Causing Gases To Be Improperly Disposed Of
2. Exhaust Manifold Defective Allowing Gases to Escape

3. Exhaust Gases Entering Cab or Other Compartments

B. 1. Batteries Defective Allowing Gases to Escape

Defective, Insecure, Improper

229.045

A.
1. Defective/Insecure Third Rail Shoes or Beams
2. Defective/Insecure Traction Motors and Motor Gear Cases
3. Defective/Insecure Fuel Tanks
4. Defective/Insecure Other

B.
1. Hazardous Leaks Fuel
2. Hazardous Leaks Oil
3. Hazardous Leaks Water
4. Hazardous Leaks Steam
5. Hazardous Leaks-Other

C. 1. Excessive Accumulation of Oil on Electrical Equipment

D.
1. Improper Functioning Slack Adjusters
2. Improper Functioning Pantograph Operating Cylinders
3. Improper Functioning Circuit Breakers
4. Improper Functioning Contactors
5. Improper Functioning Relays
6. Improper Functioning Switches
7. Improper Functioning Fuses
8. Improper Functioning Other

Fl. Safety Appl. Beat
2 Safety Appl. Broke or loose

E.
1. Quill Drives Cracked/Broken/Worn, Etc.
2. Axles Cracked/Broken/Worn, Etc.
3. Gears Cracked/Broken/Worn, Etc.
4. Pinions Cracked/Broken/Worn, Etc.
5. Pantograph Shoes and Horns Cracked/Broken/Worn, Etc.
6. Third Rail Beams Cracked/Broken/Worn, Etc.
7. Traction Motor Gear Cases Cracked/Broken/Worn, Etc.
8. Fuel Oil Tanks Cracked/Broken/Worn, Etc.
9. Other Cracked/Broken/Worn, Etc.

Brake System

229.046

A. 1. Brakes Inoperative

B 1 Automatic Brake Value Defective

C. 1. Independent Brake Valve Defective

D. 1. Devices for Regulating Brake Pressure Defective

E. 1. Water and Oil Not Drained From Air Brake System

F. 1. Other Brake Defects

229.047

A.
1. Emergency Brake Valve Missing on Road Locomotive
2. Emergency Brake Valve Defective on Road Locomotive
3. Emergency Brake Valve Improperly Positioned on Road Locomotive
4. Emergency Brake Valve Improperly Stenciled or Marked on Road Locomotive

B.
1. Emergency Brake Valve Missing on MU Equipment
2. Emergency Brake Valve Defective on MU Equipment
3. Emergency Brake Valve Improperly Positioned on MU Equipment
4. Emergency Brake Valve Improperly Stenciled or Marked on MU Equipment

Air System

229.049

A.
1. Main Reservoir Safety Valve Missing
2. Main Reservoir Safety Valve Defective
3. Control Air System Missing or Defective
4. Control Air System Improperly Applied

B.
1. Air Compressor Governor Defective
2. Air Compressor Governor-Other

Aluminum Reservoirs

229.051

A.
1. Aluminum Main Reservoirs Improperly Designed
2. Aluminum Main Reservoirs Defective

Brake Gauges

229.053

A. 1. Brake Gauges Improperly Located

B 1. Brake Gauges Inoperative

C 1. Brake Gauges Defective

D. 1. Brake Gauges-Other

Foundation Brakes

229.055 A. 1. Brake Shoe Will Not Clear Wheel When Released
2. Piston Travel Excessive
3. Brake Cylinder Pressure Improper

229.057 A. 1. Foundation Brake Gear Cracked

B. 1. Foundation Brake Gear Broken

C. 1. Foundation Brake Gear Missing

D. 1. Foundation Brake Gear Worn More Than 30 Percent

E. 1. Foundation Brake Gear Insecure

F. 1. Foundation Brake Gear Improperly Applied

G. 1. Foundation Brake Gear-Other + not allisned

Air Brake System

229.059 A 1 Air Brake System Leakage Main Air Reservoir and Related Piping

B. 1 Air Brake System Leakage Brake Pipe

C. 1. Air Brake System Leakage Brake Cylinders

D. 1. Air Brake System Leakage Control Air Reservoir

E. 1. Air Brake System Leakage-Other

Draft System

229.061 A. 1. Defective Coupler + inoperative
2. Contour Exceeds 5⅛" on Standard Couplers
3. Contour Exceeds 5-5/16" on D and E Couplers
4. Coupler Cracked
5. Coupler Broken
6. Coupler With No Anti-Creep Protection

B. 1. Draft System Slack
2. Broken or Cracked Coupler Carrier
3. Broken or Cracked Yoke
4. Broken Draft Gear
5. Draft Gear Pin Retainer Broken/Missing
6. Device Under Draw Gear Pin Missing or Broken
7. Device Under Articulated-Connection Pin Missing or Broken

Axles

229.063 A.
1. Lateral Motion Non-Powered Axles 1" or More
2. Lateral Motion Powered Axles ¾" or More
3. Lateral Motion MU Locomotives 1" or More
4. Lateral Motion Friction Bearing Axles 1" or More

B.
1. Lateral Motion Center Axles 1¼" or More

Plain Bearing

229.064 A.
1. Plain Bearings No Oil

B.
1. Plain Bearings Box Cracked

C.
1. Plain Bearings-Other

Spring System

229.065 A
1. Safety Hangers Loose
2. Safety Hangers Cracked
3. Safety Hangers Broken
4. Safety Hangers Missing

B.
1. Elliptical Spring Defective
2. Ellipitcal Spring Broken
3. Elliptical Spring Missing
4. Coil Spring Defective
5. Coil Spring Broken
6. Coil Spring Missing
7. Coil Spring Fully Compressed
8. Cracked/Broken Equalizer, Hanger, Bolt, Gib or Pin

C.
1. Shock Absorber Broken
2. Shock Absorber Loose
3. Shock Absorber Leaking
4. Shock Absorber Inoperative

Trucks

229.067 A.
1. Truck Center Plate Lost Motion

B.
1. Truck Safety Securement Not Satisfactory

C.
1. Truck Components Loose
2. Truck Components Cracked
3. Truck Components Broken
4. Truck Components Missing

Side Bearings

229.069 A.
1. Broken Side Bearings Springs

DEPARTMENT OF TRANSPORTATION
FEDERAL RAILROAD ADMINISTRATION

MOTIVE POWER AND EQUIPMENT INSPECTION REPORT

PAGE ______ OF ______

OMB APPROVAL NO.

1. INSPECTOR *(Signature)*	PAYROLL ID NO	2. REPORT NUMBER	3. REGION	4. RAILROAD REPRESENTATIVE *(Print name and title)* *(Receipt Acknowledged)*

5. RAILROAD	CODE	6. REPORT DATE YEAR	MONTH	DAY	*FRA USE ONLY*	7. SOURCE	CODE	8. COMPLAINT NUMBER

9. INSPECTION POINT AND LOCATION	RAILROAD DIVISION	LOCATION STATE	CITY	*REGIONAL USE ONLY*

10. UNITS INSPECTED					11. EQUIPMENT DEFECTS									RAILROAD FOLLOW-UP			
A. ITEM	B. INITIALS	C. NUMBER	D. KIND	E. 49 CFR PART	A. * RULE	B. SUB RULE	C. A B F R	D. BEARINGS	E. COUPLERS	F. FRA ACTION LOCATION	G. TRAIN NUMBER	H. DESCRIPTION	I. ACTION	DATE YEAR	MO.	DAY

Form FRA F 6180-59 (5-75) (TEST FORM)

* DIGITAL ADJUSTMENT FOR DATA PROCESSING (FINST. 215.11 adjust to 215.011)

FOR ADDITIONAL SPACE USE FORM FRA F 6180-59A, CONTINUATION SHEET

B. 1. Side Bearings in Contact
2. Side Bearings Clearance Excessive
3. Side Bearings Otherwise Defective

Top Rail Clearance

229.071 A. 1. Clearance Above Top of Rail Less Than 2½ Inches

Wheel Sets

229.073 A. 1. Wheel Sets Circumference Variation Improper

B. 1. Wheel Sets Diameter Over ¾" Variation Between Any 2 Wheels of 3 Axle Truck
2. Wheel Sets Diameter Over 1¼" Variation Between Any 2 Wheels of 3 Axle Truck
3. Wheel Sets Otherwise Defective

C. 1. Wheel Sets Gauge Improper

D. 1. Wheel Sets Gauge Between Flanges on Same Axle Vary More Than ¼"

Wheels

229.075 A. 1. Wheel Slid Flat Spot 2½" or More in Length
2. Wheel Has Two Adjoining Flat Spots Each Being 2" or Greater in Length
3. Wheel Has a Single Flat Spot 3" or More in Length
4. Wheel Has 2 Adjoining Flat Spots One at Least 2" Long, and Other is 2½" or Longer

B. 1. Wheel Has Chip/Gouge in Flange 1½" in Length and ½" or More in Width
2. Wheel Has Chip/Gouge in Flange 1⅝" in Length and ⅝" or More in Width
3. Wheel Has Chip/Gouge in Flange 1¾" in Length and ¾" or More in Width

C. 1. Wheel Has Broken Rim with Tread Less Than 3 ¾" Wide
2. Wheel Has Broken Rim with Tread Less Than 3½" Wide

D. 1. Wheel Has Shelled-Out Spot 2½" or More in Length
2. Wheel Has 2 Adjoining Shelled-Out Spots Each is 2" or More in Length

3. Wheel Has Single Shelled-Out Spot 3" or More in Length
4. Wheel Has 2 Adjoining Shelled-Out Spots One At Least 2" Long Other is 2½" or Longer

E. 1. Wheel Has Seam in Tread

F. 1. Wheel Flange 7/8" or Less At 3/8" Above the Tread
2. Wheel Flange 13/16" or Less at 3/4" Above the Tread
3. Wheel Flange 3/4" or Less at 3/8" Above the Tread

G. 1 Road Locomotive With Tread Worn Hollow Wheel
2. Switching Locomotive With Tread Worn Hollow Wheel

H. 1. Flange is 1½" or More From the Tread to Top of Flange
2. Flange is 1 5/8" or More From the Tread To Top of Flange
3. Flange is Greater Than 1¾" From Tread To Top of Flange

I. 1. Tire Less than 1½" Thick

J. 1. Rim Thickness Less Than 1" in Road Service
2. Rim Thickness Less Than 15/16" in Road Service
3. Rim Thickness Less Than 3/4" in Road Service
4. Rim Thickness Less Than 3/4" in Yard Service
5. Rim Thickness Less Than 11/16" in Yard Service
6. Rim Thickness Less Than 5/8" in Yard Service

K. 1. Wheel Flange With Crack or Break
2. Wheel Tread With Crack or Break
3. Wheel Rim With Crack or Break
4. Wheel Plate With Crack or Break
5. Wheel Hub Area With Crack or Break

L. 1. Loose Wheel or Tire

M. 1. Welded Wheel or Tire
2. Welded Wheel or Tire on Locomotive That Is Not Moving For Repairs
3. Improperly Welding of Wheel or Tire

Pantograph

229.077 A.
1. Pantograph Not Operating Properly From Engineer's Position
2. Pantograph Not Locked in Down Position Automatically

B.
1. Pantograph Not Grounded or Properly Locked
2. Pantograph Not Where Operator Can See Operation

Third Rail

229.079 A.
1. Third Rail Shoes Improperly De-energized

B.
1. Overhead Collectors Improperly De-energized

High-Voltage

229.081 A.
1. Emergency Pole Missing or Defective
2. Emergency Pole Safe Handling Zone Not Properly Marked
3. Emergency Pole Not Protected From Moisture

B.
1. Third-Rail Shoe Insulating Device Missing or Defective

229.083 A.
1. Unguarded Noncurrent-Carrying Metal Parts Improperly Grounded or Insulated

229.085 A.
1. High-Voltage Equipment Door and Cover Plates Not Properly Marked "Danger"

229.087 A.
1. Hand-Operated Switches Improperly Covered

B.
1. Hand-Operated Switches Improperly Designated

C.
1. Hand-Operated Switches Improperly Marked

229.089 A.
1. Jumpers and Cables Improperly Located or Guarded

B.
1. Cable Broken or Has Badly Chafed Insulation
2. Broken Plugs, Receptacles or Terminals on Cable or Jumper
3. Broken or Protruding Strands of Wire on Cable or Jumper

Motors/Generators

229.091
- A. 1. Motors/Generators Shorted or Grounded
- B. 1. Motors/Generators Throwing Solder Excessively
- C. 1. Motors/Generators Show Evidence of Coming Apart
- D. 1. Motors/Generators Overheated Support Bearing
- E. 1. Motors/Generators Have An Accumulation of Oil

Fuel System

229.093
- A. 1. Fuel Line Safety Cut-Off Device Improperly Located
- B. 1. Fuel Line Safety Cut-Off Device Does Not Close Automatically
  2. Fuel Line Safety Cut-Off Device Cannot Be Reset Without Hazard
- C. 1. Fuel Line Safety Cut-Off Device Improperly Marked
  2. Fuel Line Safety Cut-Off Device Inoperative

229.095
- A. 1 Fuel Tank Vent Pipes Not Properly Venting

229.097
- A. 1. Fuel Tank Not Properly Grounded

Drive Shaft

229.099
- A. 1. Drive Shaft Safety Hanger Missing
- B. 1. Drive Shaft Safety Hanger Loose
- C. 1. Drive Shaft Safety Hanger Defective

Alarms

229.101
- A. 1. Engine Alarms Gages/Switches/Controls Inoperative
  2. Engine Alarms Gages/Switches/Controls Defective
  3. Engine Alarms Gages/Switches/Controls Missing
- B. 1. Engine Warning Notice Missing/Improperly Made Out
- C. 1. Engine Wheel Slip/Slide Improper When Required

Steam Generator

229.103 A. 1. Minimum Safety Factor Improper for Steam Generator

B. 1. Safe Working Pressure Improperly Designated on Form F 6180-49A

229.105 A. 1. Steam Generator Identification Number Improperly Marked
2. Steam Generator Separator Improperly Marked
3. Steam Generator Form F 6180-49A Improperly Marked

229.107 A. 1. Steam Pressure Gauge Improperly Illuminated
2. Steam Pressure Gauge Missing
3. Steam Pressure Gauge Improper
4. Steam Pressure Gauge Defective

B. 1. Steam Gauge Siphon Improper
2. Steam Gauge Pipe Connection Improperly Applied
3. Steam Gauge Siphon Leaking or Defective

229.109 A. 1. Steam Generator Safety Valves Missing

B. 1. Steam Generator Safety Valves Improperly Set

C. 1. Steam Generator Safety Valves Improperly Located

D. 1. Steam Generator Safety Valves Discharging Inside Compartment

E. 1. Steam Generator Safety Valves Discharging Lines Improperly Located/Protected

229.111 A. 1. Water-Flow Indicator Improperly Illuminated
2. Water-Flow Indicator Defective

B. 1. Water-Flow Indicator Valve Missing
2. Water-Flow Indicator Inoperative
3. Water-Flow Indicator Defective

229.113 A. 1. Steam Generator Shutdown Because of Defects Has Warning Notice Missing

B. 1. Steam Generator Shutdown Because of Defects Has Warning Notice Improperly Made Out

C. 1. Steam Generator Shutdown Because of Defects Has Warning Notice Improperly Located

Wheel Slip

229.115 A.
1. Wheel Slip/Slide Alarm Non-Equipped
2. Wheel Slip/Slide Alarm Inoperative
3. Wheel Slip/Slide Alarm Improper

B.
1. Wheel Slip/Slide Device Non-Equipped
2. Wheel Slip/Slide Device Inoperative
3. Wheel Slip/Slide Device Improper

Speed Indicator

229.117 A.
1. Not Equipped with Speed Indicator as Required for Operation
2. Speed Indicators Inoperative/Otherwise Defective
3. Speed Indicators Not Readable From Engineers Normal Position

B. 1. Speed Indicator Not Tested After Departure as Required

Cab and Passageways

229.119 A.
1. Cab Seat Missing or Defective
2. Door Latch Missing or Defective

B. 1. Cab Windows Defective

C. 1. Passageways and Compartments, Floors Hazardous

D.
1. Cab Ventilation Improper
2. Cab Temperature Improper

E. 1. Continuous Barrier Missing/Improper

F. 1. Fusee/Torpedo Container Missing/Improper

Cab Noise

229.121 A.
1. Cab Noise Exceeds 87 DB
2. Cab Noise Exceeds 90 DB
3. Cab Noise Exceeds 92 DB
4. Cab Noise Exceeds 115 DB

Pilots and Snowplows

229.123

A. 1. Locomotive Not Equipped With Pilot When Required

B. 1. Locomotive Not Equipped With Snowplow When Required

C. 1. Locomotive Not Equipped With End Plate When Required

D. 1. Pilot, Snowplow, End Plate Having Less Than 3" or More Than 6" Clearance ATR

E. 1. Pilot, Snowplow, End Plate Insecure

Headlight

229.125

A.
1. Road Locomotive Headlight Inoperative
2. Road Locomotive Headlight Missing
3. Road Locomotive Headlight Inadequate

B.
1. Yard Locomotive Headlight Inoperative
2. Yard Locomotive Headlight Missing
3. Yard Locomotive Headlight Inadequate

C. 1. Yard Locomotive Headlight Dimmer Device Is Non-Functional

Cab Lights

229.127

A.
1. Cab Lights Inoperative
2. Cab Lights Missing
3. Cab Lights Inadequate
4. Cab Lights Improperly Positioned
5. Cab Lights Defective

B.
1. Passageways/Compartments Lights Inoperative
2. Passageways/Compartments Lights Missing
3. Passageways/Compartments Lights Inadequate

Audible Warning Device

229.129

A.
1. Audible Warning Device Missing
2. Audible Warning Device Inoperative
3. Audible Warning Device Inadequate

Sanders

229.131

A. 1. Sanders Missing

B. 1. Sanders Inoperative

C. 1. Sanders Not Lined to Deliver Sand to Rail

D. 1. Sanders Create A Personal Injury Hazard

E. 1. Sanders Insecure

MU Body Structure

229.141 A.
1. MU Body Structure Can't Resist Static End Load of 800,000# Where Required
2. MU Body Structure Anti-Climber Can't Resist Vertical Load of 100,000# Where Required
3. MU Body Structure Coupler Carrier Can't Resist Vertical Down Thrust of 100,000# Where Required
4. MU Body Structure Dphm Members Don't Have Maximum Shear of 300,000# Where Required
5. MU Body Structure Lckg Trk to Car Body Can't Resist Maximum Shear of 250,000# Where Required

B.
1. MU Body Structure Can't Resist Static End Load of 400,000# Where Required
2. MU Body Structure Anti-Climber Can't Resist Vertical Load of 75,000# Where Required
3. MU Body Structure Coupler Carrier Can't Resist Vertical Down Thrust of 75,000# Where Required
4. MU Body Structure Diaphragm Members Don't Have Maximum Shear of 200,000# Where Required
5. MU Body Structure Locking Truck to Car Body Can't Resist Maximum Shear of 250,000# Where Required

Codes for Reporting Conditions and Observations of Safety Appliances

Hand Brake

231.110 A.
1. Hand Brake or Hand Brake Part Missing
2. Hand Brake or Hand Brake Part Broken
3. Hand Brake or Hand Brake Part Loose

B.
1. Hand Brake Inoperative
2. Hand Brake Ineffective
3. Hand Brake Improperly Applied
4. Hand Brake Incorrectly Located

5. Hand Brake Shaft Welded or Wrong Dimension
6. Hand Brake Shaft Not Retained in Operating Position
7. Hand Brake Shaft Retainer Missing

C.
1. Hand Brake Chain Improperly Applied, Wrong Dimension or Worn
2. Hand Brake Chain Disconnected, Broken or Missing
3. Hand Brake Bell Crank Defective

Hand Brake Wheel

231.114 A.
1. Hand Brake Wheel or Lever Missing
2. Hand Brake Wheel or Lever Broken
3. Hand Brake Wheel or Lever Loose (Securement)

B.
1. Hand Brake Wheel or Lever Improperly Applied
2. Hand Brake Wheel or Lever has Insufficient Clearance Around Rim or Handle
3. Hand Brake Wheel or Lever Having Insufficient Clearance to a Vertical Plane Passing Through the Inside Face of the Knuckle
4. Hand Brake Wheel or Lever Wrong Dimensions

Hand Brake Gears and Retainers

231.118 A.
1. Ratchet or Pawl Missing
2. Ratchet or Pawl Broken
3. Ratchet or Pawl Loose To The Extent It May Not Hold As Intended

B.
1. Ratchet or Pawl Bent to Extent It May Not Hold As Intended
2. Ratchet or Pawl Wrong Dimensions

C.
1. Ratchet or Pawl Improperly Applied
2. Ratchet or Pawl Inoperative

Brake Step

231.120 A.
1. Brake Step Missing Except By Design
2. Brake Step or Brace Broken or Decayed
3. Brake Step or Brace Loose

B.
1. Brake Step or Brace Bent
2. Brake Step Wrong Dimensions

C.
1. Brake Step Improperly Applied
2. Brake Step Improperly Located
3. Brake Step Having Less Than Four (4) inches Clearance From a Vertical Plane Through The Inside Face of Knuckle
4. Brake Step Obstructed or Otherwise Unsafe

Running Board

231.124 A.
1. Running Board Missing or Part Missing Except By Design
2. Running Board Broken or Decayed
3. Running Board Loose to The Extent That It Presents a Tripping Hazard Or Other Unsafe Condition

B.
1. Running Board Bent To The Extent That It is Unsafe
2. Running Board Less Than Required Dimensions

C.
1. Running Board Improperly Applied or Repaired
2. Running Board Obstructed

End Platform

231.126 A.
1. End Platform Missing or Part Missing Except By Design
2. End Platform Broken or Decayed
3. End Platform Loose

B.
1. End Platform or Brace Bent
2. End Platform Having Wrong Dimensions

C.
1. End Platform Improperly Applied or Repaired
2. End Platform Having Less Than The Required Distance From Vertical Plane Through The Inside Face of Knuckle
3. End Platform Improperly Located
4. End Platform Obstructed

Platforms and Switching Steps

231.128 A.
1. Platform or Switching Step Missing
2. Platform or Switching Step Broken or Decayed
3. Platform or Switching Step Loose

B.
1. Platform or Switching Step Bent
2. Platform or Switching Step Does Not Meet The Required Location or Dimensions

C. 1. Platform or Switching Step Improperly Applied or Repaired
2. Platform or Switching Step Obstructed

D. 1. Switching Step Back Stop or Kick Plate Missing
2. Switching Step Not Illuminated When Required
3. outer edge of SW step not painted a contrast. was called it is built before 3-31-77

(These Codes Will Be Used For Footboards and Pilot Steps Where Used)

Sill Steps

231.130 A. 1. Sill Step or Additional Tread, Missing
2. Sill Step or Additional Tread, Broken
3. Sill Step or Additional Tread, Loose

B. 1. Sill Step or Additional Tread, Bent
2. Sill Step or Additional Tread, Having Wrong Dimensions or Improperly Located or applied

Side Door Steps (Passenger Cars)

231.132 A. 1. Side Door Step Missing
2. Side Door Step Broken
3. Side Door Step Loose

B. 1. Side Door Step Bent
2. Side Door Step Having Wrong Dimensions

Ladders

231.134 A. 1. Ladder Missing
2. Ladder Broken
3. Ladder Loose

B. 1. Ladder Bent
2. Ladder Having Wrong Dimensions

C. 1. Ladder Improperly Applied or Repaired
2. Ladder Having Insufficient Clearance or Improperly Located

D 1. End ladder clearance insufficient

Ladder Treads and Handholds

231.136 A. 1. Ladder Tread or Handholds Missing
2. Ladder Tread or Handhold Broken
3. Ladder Tread or Handhold Loose Except By Design

B. 1. Ladder Tread or Handhold Bent To The Extent That It May Be Unsafe

2. Ladder Tread or Handhold Less Than The Required Dimensions

C. 1. Ladder Tread or Handhold Improperly Applied or Repaired
2. Ladder Tread or Handhold Having Less Than The Required Clearance
3. Ladder Tread or Handhold Improperly Located
4. Ladder Tread or Handhold Obstructed
5. Bottom Ladder Tread Without Footguards

Hand Rail or Safety Railing

231.138 A. 1. Hand or Safety Railing Missing
2. Hand or Safety Railing Broken
3. Hand or Safety Railing Loose Except By Design

B. 1. Hand or Safety Railing Bent
2. Hand or Safety Railing Less Than Required Dimensions

C. 1. Hand or Safety Railing Improperly Applied or Repaired
2. Hand or Safety Railing Having Less Than The Required Clearance
3. Hand or Safety Railing Improperly Located
4. Hand or Safety Railing Obstructed

Uncoupling Lever

231.140 A. 1. Uncoupling Lever Missing
2. Uncoupling Lever Broken or Disconnected

B. 1. Uncoupling Lever Bent To The Extent That It Will Not Safely And Reasonably Function As Intended

C. 1. Uncoupling Lever Bracket Bent To The Extent That Lever Will Not Function Properly
2. Uncoupling Lever Bracket Broken or Missing

D. 1. Uncoupling Lever Wrong Dimension
2. Uncoupling Lever With Improper Handle Clearance

Draft Attachments

231.144 A. 1. Coupler Missing

B. 1. Coupler Height Incorrect

Codes for Reporting Conditions and Observations of Power Brakes

232.110

A.
1. Passenger Equipment Communicating Signal System Not Tested And Known to Be In Suitable Condition

B.
1. Train Operated With Less Than Required Minimum Percentage of Air Brakes Operational

Train Brake Test

232.120

A.
1. No exception taken to Initial Terminal Freight Train Air Brake Test Observed
2. No exception taken to Initial Terminal Passenger Train Air Brake Test Observed
3. No exception taken to ~~500~~ 1000-Mile Freight Train Air Brake Test Observed
4. No exception taken to ~~500~~ 1000-Mile Passenger Train Air Brake Test Observed
5. No exception taken to Transfer Train Air Brake Test Observed
6. No exception taken to Intermediate Train Air Brake Test Observed

B.
1. Failure to Make Initial Terminal Freight Train Air Brake Test
2. Failure to Make Initial Terminal Passenger Train Air Brake Test
3. Failure to Make ~~500~~ 1000-Mile Freight Train Air Brake Test
4. Failure to Make ~~500~~ 1000-Mile Passenger Train Air Brake Test
5. Failure to Make Transfer Train Air Brake Test
6. Failure to Make Intermediate Train Air Brake Test

C.
1. Failure to Make Air Brake Inspection of Each Car Where Required for Initial Terminal Test
2. Failure to Make Air Brake Inspection of Each Car Where Required for ~~500~~ 1000-Mile Test
3. Failure to Make Proper Transfer Test as Required
4. Failure to Make Proper Intermediate Test as Required
5. Failure to determine if Brakes on the Rear Car of Train Properly Apply and Release as Required (State Type of Test)

6. Failure to Make Leakage Test Where Required (State Type of Test)
7. Air Test Improper (Describe)
8. Failure to provide written notification

D. 1. Air Brake Test Observed and Train Operated With Leakage in Excess of Five Pounds Per Minute
2. AB Type Air Brake Did Not Apply in Response to a required Application
3. ABD/ABDW Type Air Brake Did Not Apply In Response to a required Application
4. AB Type Air Brake Cut Out
5. ABD/ABDW Type Air Brake Cut Out
6. Other Type Cut Out/Did Not Apply or release

E. 1. Excessive Piston Travel on Body Mounted 10 Inch Brake Cylinder (State Measurement)
2. Excessive Piston Travel on Body Mounted 12 Inch Brake Cylinder (State Measurement)
3. Improper Piston Travel on Other Brakes (State Measurement and Describe)

F. 1. Required Vent Valve Plugged (Outbound From Train Brake Test)

Run Through Certification

232.130 A. 1. Operating a Train Through Interchange as a Run-Through Train without Proper Authority from Federal Railroad Administration

B. 1. Operating a Certificated Run-Through Train where Consist has been Changed without Proper Testing and Recertification

C. 1. Failure to Make Initial Terminal Inspection at Designated Inspection Point for Unit Run-Through Train with Round-Trip Cycle of Less than 500 Miles

D. 1. Operating a Train Through Interchange as a Run-Through Train without a Properly Completed Form F-6180-48 in the Cab of the Locomotive
2. Failure to Retain Run Through Train Certification Form on File at Initial Terminal

Retaining Feature

232.140 A. 1. Retaining Valve or Pipe Missing

2. Retaining Valve or Pipe Broken or Non-functional
3. Retaining Valve or Pipe Insecure

Release Feature

232.142 A.
1. Release Valve or Rod Missing
2. Release Valve or Rod Broken or Non-functional
3. Release Valve Loose

Foundation Brake Rigging

232.144 A.
1. Brake Connecting Pin Missing
2. Brake Connecting Pin Broken
3. Brake Connecting Pin Retainer Missing Or Broken to the Extent that it Does Not Serve its Intended Purpose

B.
1. Brake Lever Missing
2. Brake Lever Broken
3. Brake Lever Improper, Out of Place, or Bent to the Extent that it Fouls or Will Not Move Freely as Intended

C.
1. Brake Rod Missing
2. Brake Rod Broken
3. Brake Rod Out of Place or Bent to the Extent that it Fouls or Will Not Move Freely as Intended
4. Brake Rod Worn to Less than One Half its Original Strength

D.
1. Brake Shoe Missing
2. Brake Shoe Broken
3. Brake Shoe Not Properly Secured to the Brake Head
4. Brake Shoe Worn to the Extent that the Backing Plate Will Come in Contact with the Wheel

E.
1. Brake Beam Missing
2. Brake Beam Broken
3. Brake Beam Out of Place or Not Properly Retained in Operating Position
4. Brake Beam Head Burned or Worn to Extent that Brake Shoe Cannot Be Satisfactorily Held in Place

F.
1. Brake Rigging Down or Dragging
2. " " improperly Secured/
Other defects

Air Hose

232.149 A.

1. Air Hose Missing
2. Air Hose Broken, Blown Out, Worn or Torn Through One Layer of Fabric
3. Air Hose With Loose or Defective Fitting At Either End of Hose
4. Air Hose Leaking

Angle Cock

232.153 A.

1. Angle Cock Missing
2. Angle Cock Broken
3. Angle Cock Not Secured as Intended by Design

B.

1. Angle Cock Handle Missing
2. Angle Cock Handle Broken

Cut Out Cock

232.157 A.

1. Cut Out Cock Missing
2. Cut Out Cock Broken
3. Cut Out Cock Insecure

B.

1. Cut Out Cock Handle Missing
2. Cut Out Cock Handle Broken
3. Cut Out Cock Handle Bent To Extent It Is Unable To Operate

Hydraulic Brake

232.160 A.

1. Hydraulic Brake Hose Burst or Disconnected

Test

232.170 A.

1. Properly Performed COT&S Observed
2. Air Brake Past Due for COT&S
3. Car Released from Shop or Repair Track where COT&S Can Be Performed Without having Mandatory COT&S Properly Performed

B.

1. Properly Performed ~~In-Date~~ single car Test Observed
2. Improper In-Date Test Observed and Handled for Correction
3. Car Released From Shop or Repair Track Without having Mandatory In-Date Testing Performed
4. IDT Not Properly Performed Because of Out of Date. Defective or Improperly Tested Device

5. IDT Not Properly Performed Because Standard Procedures Were Not Followed
6. IDT Not Properly Performed Because Empty Load Test Was Not Performed Where Required.
7. IDT Not Properly Performed Because Conductor's Emergency — Brake Valve Test Was Not Performed Where Required
8. IDT Not Properly Performed Because Automatic Slack Adjuster Test Was Not Performed Where Required
9. IDT Not Properly Performed Because Vent Valve Test Not Performed As Required

C. 1. Satisfactory Test of Single Car Test Device
2. Unsatisfactory Test of Single Car Test Device Handled for Correction

D 1. Failure to determine if air brakes release & apply / have proper piston travel on repair track.

Appendix A

D. **Kind.**
For each locomotive:

Code	Denotation
EMF	Electro-Motive Division Freight
EMP	Electro-Motive Division Passenger
EMS	Electro-Motive Division Switcher
ALF	ALCO Freight
ALP	ALCO Passenger
ALS	ALCO Switcher
BLF	Baldwin Freight
BLP	Baldwin Passenger
BLS	Baldwin Switcher
GEF	General Electric Freight
GEP	General Electric Passenger
GES	General Electric Switcher
FMF	Fairbanks-Morse Freight
FMP	Fairbanks-Morse Passenger
FMS	Fairbanks-Morse Switcher
RDC	BUDD RDC
MU	Multiple Unit
STM	Steam
OT	Other
EPG	Electric Passenger Locomotive - GE
EFG	Electric Freight Locomotive - GE

EPE	Electric Passenger Locomotive - EMD
EFE	Electric Freight Locomotive - EMD
TUB	Turbine Locomotive

For each defective car:

Code	Denotation
AR	Auto Carrier
B	Box, Refrig., Stock
C	Caboose
CG	Covered Gondola
CH	Covered Hopper
CR	Crane
D	Air Dump
F	Flat
FB	Flat with Bulkheads
FC	Flat Equipment for Hauling Trailers
G	Gondola
H	Hopper
P	Passenger, Coach Sleeper, Parlor, Diner, etc.
T	Tank
O	Other

Note: If any of the reported cars are work equipment, the letter code should be preceded by "W".

E. **49 CFR Part.** The applicable 49 CFR Part Numbers:

Code	Denotation
215	Freight Car Safety Standards
223	Safety Glazing Standards
229	Locomotive Safety Standards
230	Steam Locomotives
231	Safety Appliance Standards
232	Power Brake Regulations

Note: On units of equipment having multiple defects, the initials, number, kind, and 49 CFR Part must be entered on each item numbered line (may be dittoed).

11. Equipment Defects.

A. **FRA Action, Location.** For all equipment, the following action codes are used:

Code	Denotation
1	No violation report filed.
2	Violation report filed
3	Removed from service (Special Notice for Repairs).
4	Violation Report filed and unit removed from service (Special Notice for Repairs).

Note: This data refers to the action taken by the FRA Safety Inspector, and will be used to tabulate the number of violation reports filed and number of units removed from service.

The location where the unit was inspected, is shown by the location code as follows:

Code	Denotation
S	Shop
Y	Yard
I	Inbound train
O	Outbound train-500 Mile Inspection Point
F	Fueling station

For instance, a locomotive inspected in a yard and removed from service, would be 3Y.

B. **Train Number.** For all equipment inspected in a train, inbound or outbound, and train brake test observations the train number will be entered. Symbol designations may be used. If the train is an Extra train, as an example, "X5234E"; this will designate an Extra train, the controlling locomotive number and the direction. If the train is a transfer train, "Trans" will be entered. For records inspection, the number of records checked will be shown.

Motive Power & Equipment Inspection Report General Info. on Reporting for: Freight Car Safety Std, Safety Glazing Stds-Locomotives, Passenger Cars & Cabooses, Locomotive Safety Stds, Appliances, Power Brakes -US

DOT, FRA