

7. APTA PR-IM-S-007-98, Rev. 1 Standard for Passenger Car Exterior Periodic Inspection and Maintenance

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Abstract: This standard covers the basic procedures for the periodic inspection and maintenance of the carbody exteriors of passenger cars, with emphasis on maintenance of safety appliances and other safety critical systems.

Keywords: carbody, carbody exterior, carbody exterior maintenance, carbody exterior periodic inspection and maintenance, passenger car exterior, passenger car exterior maintenance

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Introduction

(This introduction is not a part of APTA PR-IM-S-007-98, Rev. 1 Standard for Passenger Car Exterior Periodic Inspection and Maintenance.)

This introduction provides some background on the rationale used to develop this standard. It is meant to aid in the understanding and application of this standard.

This standard describes the basic inspection and maintenance functions for carbody exteriors on passenger rail equipment. It is intended for the following:

- a) Individuals or organizations that maintain passenger car exteriors;
- b) Individuals or organizations that contract with others for the maintenance of passenger car exteriors;
- c) Individuals or organizations that influence how passenger car exteriors are maintained.

This standard is designed to help organizations incorporate safety considerations during the maintenance process.

This standard is intended to satisfy the following objectives:

- Incorporate safety considerations during the inspection and maintenance process;
- Identify those maintenance standards and inspection criteria that provide a high level of passenger safety;
- Identify those maintenance standards and inspection criteria that provide a high level of crew safety;
- Identify the skills and training requirements necessary for maintenance personnel to apply these standards.

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APTA PR-IM-S-007-98, Rev. 1

Standard for Passenger Car Exterior Periodic Inspection and Maintenance

1. Overview

This document establishes a standard for carbody exterior inspection and maintenance.

1.1 Scope

This standard for carbody exterior inspection and maintenance applies to all passenger cars

1.2 Purpose

This standard is intended for operating properties and their contractors in order to apply basic procedures for the periodic inspection and maintenance of the carbody exteriors of passenger cars, with emphasis on the maintenance of safety appliances and other safety critical systems.

These systems (if applicable) are essential in the safe operation of passenger cars.

2. References

This standard shall be used in conjunction with the following publications. When the following references are superseded by an approved revision, the revision shall apply.

APTA PR-IM-S-013-99, Rev 1, Standard for Passenger Car Periodic Inspection and Maintenance.

APTA PR-PS-S-002-98, Rev. 2, Standard for Emergency Signage for Egress/Access of Rail Passenger Equipment

49 CFR, Part 229, Railroad Locomotive Safety Standards.

49 CFR, Part 238, Passenger Equipment Safety Standards.

49 CFR, Part 239, Passenger Train Emergency Preparedness.

3. Definitions, abbreviations, and acronyms

3.1 Definitions

For the purpose of this standard, the following terms and definitions apply:

3.1.1 periodic maintenance: The performance of selected inspection and maintenance actions on systems or sub-systems. Regulatory agencies or the operating property may set the frequency of these actions. The frequency may be expressed as a function of time (i.e. days, weeks, or

months) or of utilization (i.e., mileage, cycles, etc.).

The scope of these inspection and maintenance actions must be in full compliance with all applicable federal, state, and local regulations.

3.2 Abbreviations and acronyms

APTA	American Public Transportation Association
CFR	Code of Federal Regulations
PRESS	Passenger Rail Equipment Safety Standards

4. Frequency of conduct

The frequency of conduct of this task shall be as specified in and in compliance with the requirements of Section 4 of *APTA PR-IM-S-013-99, Rev. 1, Standard for Passenger Car Periodic Inspection and Maintenance*¹.

5. Inspection and maintenance-requirements

5.1 Tools/materials

Standard tools carried by maintenance personnel are sufficient for this inspection task. No specific materials required.

5.2 Safety/personal protective equipment

Personal protective equipment, as required by the operating property, shall be worn at all times in the performance of this maintenance task.

5.3 Training requirement

Operating properties and their contractors shall develop and execute training programs that equip employees with the knowledge and skills necessary to safely and effectively perform the tasks outlined in this standard.

6. Inspection and maintenance procedures

CAUTION--Safety hazard
Verify that equipment is secured against uncontrolled movement before commencing inspection and maintenance procedures.

6.1 Carbody exterior

The inspection and maintenance procedure for the carbody exterior consists of the following steps.

¹ For references in Italics see, Section 2

- a) Verify that all number signs, authority logos, emergency markings/signage etc. are in place and legible.
- b) Check for damage that may have resulted from vandalism and/or striking (being struck by an object) en-route.
- c) Inspect under car securements for loose mountings, worn or damaged mounts, or missing hardware. Verify that equipment boxes are closed securely.
- d) Visually inspect air grills. Verify that they are free of obstructions and properly secured.
- e) Inspect train line hoses, piping, angle cocks, and cut out cocks for damage and proper operation.
- f) Inspect end gates for condition and proper operation.

6.2 Safety appliances

6.2.1 Handholds

The inspection and maintenance procedure for handholds consists of the following steps.

- a) Verify that all handholds are secure with proper clearances and that there is no indication of loose bolts or fasteners.
- b) Verify that the handholds are not bent.
- c) Verify that there are no obstructions to the handholds.

6.2.2 End gates and safety chains

The inspection and maintenance procedures for end gates and safety chains (if applicable) consist of the following steps:

- a) Inspect end gates and verify that they are in proper working condition.
- b) Inspect safety chains for any spread or broken links.
- c) Verify that all end-of-car and between car safety appliances are in serviceable condition.

6.2.3 Emergency door pull covers (if applicable)

The inspection and maintenance procedure for emergency door pull covers (if applicable) consists of the following steps:

NOTE--There are emergency box assemblies mounted on the exterior side wall adjacent to each side door.

- a) Verify that the plastic or glass emergency door pull covers are in good condition and that they are not cracked or broken.

- b) Verify that the cover frames are securely held in place.

6.3 Diaphragms, walk plates, and curtains

6.3.1 Diaphragms and walk plates (both ends of car)

The inspection and maintenance procedure for diaphragms and walk plates consists of the following steps.

- a) Visually inspect the diaphragms for defects per operating properties and their contractors criteria. Verify that they are properly mounted.
- b) If inspecting car in consist; verify that the wear surfaces of each diaphragm meet evenly with the diaphragm of the adjoining car.
- c) Inspect top and side wear plates where possible for signs of deterioration.
- d) Inspect walk plates for bends or buckling. Verify that anti-slip material is in serviceable condition.
- e) Inspect buffer assemblies and verify that they are free of visible defects.

6.3.2 Diaphragm curtains (if applicable)

The inspection and maintenance procedure for diaphragm curtains (if applicable) consists of the following steps.

- a) Inspect diaphragm curtains and verify that the handle assembly firmly grips the adjacent car stationary bracket.
- b) Inspect curtains for tears and cuts.
- c) Verify that the fabric is taut and that curtain spring tension is adequate.
- d) Verify that the handle end support rod is straight.

6.4 Steps

6.4.1 Exterior sill steps

The inspection and maintenance procedure for exterior sill steps consists of the following steps.

- a) Verify sill steps are clear of ice and snow.
- b) Check for damage, which may have resulted from vandalism and/or striking/being, struck by an object en route.
- c) Verify step grates are properly secured.
- d) Verify anti slip edge material, if applicable, is in place and is not worn.

6.4.2 Side steps

The inspection and maintenance procedure for side steps consists of the following steps.

- a) Verify that all side steps are secure with no indication of loose bolts or fasteners.
- b) Verify that the side steps are not bent or cracked.
- c) Verify that the step wells are not bent and that the foot holds are not obstructed.
- d) Verify that all side steps are not obstructed from having safe footholds.

7. Exterior emergency signage

Verify that all exterior emergency signage is properly applied and legible as per *49 CFR, Part 238, Passenger Equipment Safety Standards*, *49 CFR, Part 239, Passenger Train Emergency Preparedness* and *APTA PR-PS-S-002-98, Rev. 2, Standard for Emergency Signage for Egress/Access of Rail Passenger Equipment*².

² For references in Italics, see Section 2.

Annex A

(informative)

Bibliography

[B1] 49 CFR, Part 231, Railroad Safety Appliance Standards.

[B2] 49 CFR Part 229, Railroad Locomotive Safety Standards