

3rd edition, March 2003

Translation

OR

Wagons - Periodic overhaul - Methods for establishing its frequency and nature

Wagons - Révision périodique - Méthodologies pour en déterminer la périodicité et la consistance
Güterwagen - Periodische Revision - Methodologien zur Bestimmung ihrer Häufigkeit und ihres Umfangs



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Important: the articles (points) in this leaflet have been renumbered in the new edition. The first digit of each point has been increased by one (i.e. 0 becomes 1, 1 becomes 2, and so on). Please take account of this when using cross-references from other leaflets.

The person responsible for this leaflet is named in the UIC Code

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Summary

Wagons must undergo preventive maintenance in the form of periodic overhauls. These overhauls are designed to give the wagons a major new technical potential enabling them to run without heavy maintenance between overhauls. This leaflet looks at two maintenance systems (time-based and performance-based) and describes a method for calculating the overhaul cycle for each wagon.

◦ 1 - General

1.1 - Purpose of this leaflet

Wagons must undergo preventive maintenance in the form of periodic overhauls. These overhauls are designed to give the wagons a major new technical potential enabling them to run without heavy maintenance between overhauls.

This leaflet looks at two maintenance systems (time-based and performance-based) and describes a method for calculating the overhaul cycle for each wagon.

1.2 - Nature and features of the methods

The methods are essentially experience-based and rely on observation of wagon behaviour in service.

The approach uses the national and international rules in force (frequency and nature of the overhauls) as its starting point and aims to help railways make progress in stages on the basis of actual observation of the in-service behaviour of the various wagon series. The choice of performing maintenance on a wagon series according to one of the two systems described is discretionary.

R 2 - Principles

2.1 - Aim

The frequency and nature of the overhauls must enable the required quality of service to be ensured (safety, minimum wagon standstill as a result of accidents) under optimum economic conditions (minimum overall maintenance cost).

2.2 - Conditions under which the "time-based" and "performance-based" systems are suitable for defining overhaul rules

In both time-based and performance-based systems, a set overhaul rule is only valid for a given wagon series and for technological features, construction materials and working conditions that are sufficiently uniform (annual distance covered, type of traffic, etc.). Application of one of these methods implies that conditions imposed are all met simultaneously.

2.3 - Investigation methods

2.3.1 - Performance-based maintenance

Maintaining a wagon fleet on a performance basis will require access to at least the following information sources in order to determine how a wagon series is affected by wear and tear:

- a feedback system enabling the in-service behaviour of wagons to be monitored (for example: reason for withdrawal, accidental damage, wear, cause of damage, etc.);
- a representative sampling system for the wagon series;
- a data bank that can provide information on wagon utilisation.

2.3.2 - Time-based maintenance

Maintaining a wagon fleet on a time basis will require access to at least the following information sources in order to determine how a wagon series is affected by wear and tear:

- examination of a representative sample of the wagon series after a known period of use;
- access to a data bank for individual components, established in various ways.