



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 34590.7-2022

**Road vehicles - Functional safety - Part 7: Production,
operation, service and decommissioning**

Issued on: December 30, 2022

Implemented on: July 1, 2023

Issued by: SAMR; SAC

Table of Contents

Foreword...	3
Introduction...	7
1 Scope...	11
2 Normative references...	12
3 Terms and definitions...	13
4 Requirements...	13
4.1 Purpose...	13
4.2 General requirements...	13
4.3 Interpretations of tables...	14
4.4 ASIL-dependent requirements and recommendations...	14
4.5 Adaptation for motorcycles...	15
4.6 Adaptation for trucks, buses, special-purpose vehicles and trailers...	15
5 Planning for production, operation, service and decommissioning...	15
5.1 Objectives...	15
5.2 General...	15
5.3 Inputs to this clause...	16
5.4 Requirements and recommendations...	16
5.5 Work products...	21
6 Production...	21
6.1 Objectives...	21
6.2 General...	22
6.3 Inputs to this clause...	22
6.4 Requirements and recommendations...	22
6.5 Work products...	23
7 Operation, service and decommissioning...	24
7.1 Objectives...	24
7.2 General...	24
7.3 Inputs to this clause...	24
7.4 Requirements and recommendations...	25
7.5 Work products...	25

Foreword

This document was drafted in accordance with the rules provided in GB/T 1.1-2020 Directives

for Standardization - Part 1.Rules for the Structure and Drafting of Standardizing Documents.

This document is Part 7 of GB/T 34590 Road Vehicles - Functional Safety. GB/T 34590 has issued the following parts.

- Part 1.Vocabulary;
- Part 2.Management of Functional Safety;
- Part 3.Concept Phase;
- Part 4.Product Development at the System Level;
- Part 5.Product Development at the Hardware Level;
- Part 6.Product Development at the Software Level;
- Part 7.Production, Operation, Service and Decommissioning;
- Part 8.Supporting Processes;
- Part 9.Automotive Safety Integrity Level (ASIL)-oriented and Safety-oriented Analyses;
- Part 10.Guideline;
- Part 11.Guidelines on Applications to Semiconductors;
- Part 12.Adaptation for Motorcycles.

This document serves as a replacement of GB/T 34590.7-2017 Road vehicles - Functional safety - Part 7.Production and operation. In comparison with GB/T 34590.7-2017, apart from

structural adjustments and editorial modifications, the main technical changes are as follows.

- Modify the Scope of the standard from "series production passenger cars" into "series production road vehicles, excluding mopeds" (see Clause 1; Clause 1 of Version 2017);
- Add requirements for adaptation for motorcycles (see 4.5);
- Add requirements for adaptation for trucks, buses, special-purpose vehicles and trailers (see 4.6);

- Modify the objectives of planning for production, operation, service and decommissioning (see 5.1; 5.1 of Version 2017);
- Modify the general of planning for production, operation, service and decommissioning (see 5.2; 5.2 of Version 2017);
- Modify the prerequisites of planning for production, operation, service and decommissioning (see 5.3.1; 5.3.1 of Version 2017);
- Modify the supporting information of planning for production, operation, service and decommissioning (see 5.3.2; 5.3.2 of Version 2017);
- Modify the content to be considered in planning the production process of the item and its elements (see 5.4.1.1; 5.4.1.1 of Version 2017);
- Modify "Series pre-production" to "Pre-production" (see 5.4.2; 5.4.2 of Version 2017);
- Modify the purpose of the difference between the pre-production process and the target series production process (see 5.4.2.2; 5.4.2.2 of Version 2017);
- Add the requirements for decommissioning and the requirements for emergency rescue services [see items c) and d) in 5.4.3.1];
- Modify "warning and degradation concept" to "warning and degradation strategy" (see 5.3.1, 5.4.3.1, and 5.4.3.4; 6.4.1.1 and 6.4.1.4 of Version 2017);
- Modify "tools and means of maintenance" to "tools and equipment" (see 5.4.3.3; 6.4.1.3 of Version 2017);
- Add the information for rescue services (see 5.4.3.7 and 5.5.10);
- Modify production-related prerequisites (see 6.3; 5.3.1 of Version 2017);
- Modify the requirement that the test equipment shall be controlled in accordance with the applied quality management system (see 6.4.1.4; 5.4.3.4 of Version 2017);
- Modify the objectives of operation, service and decommissioning (see 7.1; 6.1 of Version 2017);
- Modify the general of operation, service and decommissioning (see 7.2; 6.2 of Version 2017);
- Modify the prerequisites of operation, service and decommissioning (see 7.3.1; 6.3.1 of

Version 2017).

This document has been modified using ISO 26262-7:2018 Road Vehicles - Functional Safety

- Part 7: Production, operation, service and decommissioning.

The technical differences between this document and ISO 26262-7:2018, and the causes for

these differences are as follows.

- Use the normatively-referenced GB/T 34590.1-2022 to replace ISO 26262-1 (see Clause 3; Clause 3 of ISO 26262-7), to adapt to China's national conditions;
- Modify the description of T&B vehicles from "trucks, buses, trailers and semi-trailers" to "trucks, buses, special-purpose vehicles and trailers" (see 4.6; 4.6 of ISO 26262-7:2018); to be consistent with the vehicle types specified in GB/T 3730.1-2022 Terms and definitions of motor vehicles, trailers and combination vehicle - Part 1: Types.

This document also makes the following editorial modifications.

- Adjust the sequence of paragraphs in the Scope;
- List the normatively-referenced GB/T 34590.12-2022 in the list in Clause 2;
- Delete the terminological database websites maintained by ISO and IEC for standardization in Clause 3 of ISO 26262-7:2018;
- Change the last paragraph of 5.2 in ISO 26262-7:2018 to a list of items;
- Correct 5.4.3.1j) of ISO 26262-7:2018 to 5.4.3.1i);
- Delete subclause numbers 6.3.1 and 7.5.1 in ISO 26262-7:2018.

Please be noted that certain content of this document may involve patents. The institution issuing this document does not undertake the responsibility of identifying these patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document shall be under the jurisdiction of National Technical Committee 114 on Auto of

Standardization Administration of China (SAC/TC 114).

The drafting organizations of this document. China Automotive Technology and Research