

Information folder

MINIMUM REQUIREMENTS
FOR MANUFACTURER DOCUMENTATION
AND THE PREPARATION OF TEST
SPECIMENS

FOREWORD

WE ACCOMPANY YOU AS A MANUFACTURER OF VEHICLES OR VEHICLE COMPONENTS IN ALL ASPECTS FROM THE BEGINNING OF THE PREPARATION OF MANUFACTURER'S DOCUMENTATION UP TO THE RECEIPT OF THE APPROVAL DOCUMENTS FOR EUROPE AND MANY OTHER MARKETS.

The aim of this leaflet is to optimise the procedure of cooperation between you as manufacturer, SGS-TÜV Saar as the technical service provider, and the approval authority you choose. An optimisation of the testing procedures helps to reduce your efforts and costs.

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SGS – WHEN YOU NEED TO BE SURE

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1

REQUIRED DOCUMENTATION FOR TYPE-APPROVAL PROCEDURE



IN THE CASE OF TYPE-APPROVAL PROCEDURES, THE COMPLETE DOCUMENTATION SUBMITTED BY YOU (APPLICANT) IS REFERRED TO AS THE INFORMATION FOLDER. THE INFORMATION FOLDER CONTAINS THE INFORMATION DOCUMENT AND ITS APPENDICES (E.G. DRAWINGS, CALCULATIONS, DATA, PHOTOGRAPHS, ETC.) AND DOCUMENTS THE CHARACTERISTICS OF THE FACT TO BE APPROVED. IN ORDER TO ASSIST THE INVOLVED PARTIES, YOU AS MANUFACTURER (APPLICANT), TECHNICAL SERVICE, AND THE APPROVAL AUTHORITY, WITH THE TYPE-APPROVAL PROCEDURE AND ENSURE A QUICK AND EASY REVIEW OF THE INFORMATION FOLDER, THE FOLLOWING REQUIREMENTS SHOULD BE MET.

1.1 EXAMPLE OF INFORMATION DOCUMENT

1.1.1 VEHICLE SYSTEMS, COMPONENTS, SEPARATE TECHNICAL UNITS

Typically, EC directives and regulations include a sample of the required information document. If the directive can apply to both the vehicle (system) as well as to parts or separate technical units, then usually these samples will differ. The list of the single characteristics specified in the sample must not be changed.

If in some cases the scope and content information is not applicable, then these are to be entered and marked as “not applicable”; and not simply omitted.

In the case of sub-items of non-applicable points, these need no longer be listed (e.g. if item 4 is not applicable – item 4.1 has not to be included).

Previous directives often do not include a sample of the information document. In these cases, the necessary information included in the complete list of features for EC type approval for vehicles according to Annex I of directive 2007/46/EG should be used.

1.1.2 WHOLE VEHICLE TYPE APPROVAL (WVTA)

In granting whole vehicle type approvals, the example of the information document from the respective frame directive, e.g. 2007/46/EC must be used. In the case of directive 2007/46/EC, a distinction will be made between information documents according to Annex I and Annex III:

In the case of a “single-step type approval”, where the whole vehicle is to be approved in only one procedure and system approvals are not submitted, the information document is to be prepared according to Annex I of the directive 2007/46/EC (complete list of information for the purpose of EC type approval of vehicles).

In the case of a “step-by-step type approval”, for example when the vehicle requires approval according to each separate regulation as well as a system approval, it is necessary to prepare the information document in accordance with Annex III of directive 2007/46/EC (information document for the purpose of EC type approval of vehicles).

If the system approval does not cover all aspects of the separate regulatory acts for vehicles, then a “mixed type approval” would be appropriate. In this case, the information document must include the necessary details for the whole vehicle for the unapproved systems according to Annex I of directive 2007/46/EC.

1.1.3

UN REGULATIONS

Typically, UN regulations do not include a sample of the information document. The necessary scope of information arises from the information found in the approval certificate. This offers the possibility to use an example of the information document from an equivalent EC directive. It is important to note that the location of the UN regulation approval mark should be added as a sub-item, for example as sub-item 0.10.

1.2

DOCUMENTS FOR SUBMISSION

In order for the authority to grant the approval, you as manufacturer must typically submit only two documents to the technical service in an electronic form:

- The information folder (information document and appendices)
- An informal application to the authority for the granting of approval

In the case of a whole-vehicle type approval, the following must be submitted in addition:

- List of specimens of the signatures of the persons authorised to sign certificates of conformity (CoC) and a statement of their position in the company (it appeared to be more convenient to add this document as appendix to the information document)

Usually the legislation states that the applicant must submit the documents in triplicate. Since most documents are currently sent electronically, this stipulation no longer applies.

To facilitate an easy exchange of documents between manufacturer, technical service and the approval authority, the approval authority typically offers an Internet-based platform (e. g. www.e-typ.eu from the German Kraftfahrt-Bundesamt) free of charge.

1.3

TYPES, VARIANTS, VERSIONS

The so-called type-defining characteristics vary according to the directive or regulation being applied and determine which of the different characteristics can be summarised. For example, the number of axles is a typical type-defining criterion for complete trailer-vehicle type approvals according to 2007/46/EC. The type-defining criterion is described in each of the individual regulatory acts. Typically, variants and versions are only defined in the framework directives, for example Annex II of 2007/46/EC. When the system possesses particular characteristics that can be differentiated or are optional, then in an effort to facilitate transparency, it is sensible to define the system variants in the information folder. This may arise in the case of a brake approval where several optional wheel brakes or permissible axle loads should be included.

Therefore, it is sensible and transparent when the construction of the variant key is explained at the beginning of the information folder, for example under paragraph 0 "Type":

VARIANTS

- A-?: PERMISSIBLE TOTAL WEIGHT 10 T
- B-?: PERMISSIBLE TOTAL WEIGHT 20 T
- ?-1: WHEEL BRAKE TYPE 1
- ?-2: WHEEL BRAKE TYPE 2

The designation of the type is completely free and not prescribed in any way. Therefore, it is not necessary that the type designation corresponds in any way with the trade name of the vehicle. Individual system approvals can also be unrelated to the type designation of the whole vehicle type approval.

If not all combinations of features are planned or possible, a combined matrix has to be created (see 1.5.9.2).

1.4

FORMAL REQUIREMENTS FOR THE INFORMATION FOLDER (FORMAT OF FILES)

In order to assist in an efficient and simple review of the information folder, and facilitate quick granting of the approval, the following requirements should be met.

1.4.1

INFORMATION DOCUMENT

It is preferable to have the information document available as a Word file. This would allow us to make quick corrections, should we find any mistakes while processing the document, and then have the corrected document sent to you.

1.4.2

APPENDICES TO THE INFORMATION DOCUMENT

The appendix to the information document must be combined into one single PDF file and the instructions regarding identification, sequences and page numbering must be observed accordingly.

Often, files that are to be used as appendices are only available as a protected PDF document. This has the disadvantage that these files are not compatible with conventional PDF editing programs and therefore the files cannot be combined.

1.4.3

APPLICATION FOR THE APPROVAL AUTHORITY

The application for the granting of the approval can be sent as a PDF document or as a simple e-mail. When you send us an e-mail, we then just forward it to the approval authority. An example of this application is available further down in this document.

1.4.4

SIGNATURE SPECIMENS (ONLY FOR WHOLE VEHICLE TYPE-APPROVAL APPLICATIONS)

The list with names and specimens of the signatures of the persons authorised to sign certificates of conformity and a statement of their position in the company should be appropriately submitted as a PDF document. An example of this document is available further down in this document.

1.4.5 LANGUAGE

The entire information document must be in the German and/or English language. This also applies to the information on drawings which is relevant for the respective approval.

1.4.6

HEADER, NUMBER, DATE OF CREATION

The information document must have a header or footer on each page which shows the company name or logo, an identification number, and if possible, the date the document was created.

1.4.7

DECLARATION OF THE REGULATORY ACT AND AMENDMENT STATUS

The corresponding regulatory act must be indicated on at least the first page of the information document. If possible, it should also include a statement regarding the applied level of amendment.

1.4.8

PAGE NUMBERING AND INFORMATION ON TOTAL NUMBER OF PAGES

The information document must include numbered pages and a statement of the total number of pages (Page x of y). This is not only valid for the information document itself but also for the appendix when it comprises several pages.

1.4.9

APPENDIX INDEX

Each appendix to the information document must be clearly identified. Therefore, in the information document, a numbered appendix directory should appear in tabular form where the identifying features of the appendix are listed. These can be, for example, the number of a drawing or report number. If an appendix is not uniquely identifiable throughout, then the appendix must state the number which corresponds to the appendix index in which it is listed, for example "appendix 1.4".

It has proven useful to employ a table column from which the most recent modifications to the document due to number of extensions can be seen. This allows for better tracking of changes.

1.4.9.1

THE ORDER OF APPENDICES ACCORDING TO THE APPENDIX INDEX

All appendices must be combined into one single PDF file. The order of the single appendices must correspond to the appendix index of the information document.

1.4.9.2

MATRIX WITH A COMBINATION OF FEATURES

In the case of any restrictions in the combination of particular characteristics, these must be clearly marked.

For example, in the approval of brake systems, a matrix must be created in which the combination of all relevant data of the individual components can be seen directly.

In the case of air brake systems, the calculations of the corresponding wheel brakes, the tyres and the permitted axle load, must be visibly allocated in the matrix. Ultimately, it must be evident in this matrix that for every possible combination a corresponding calculation exists. Naturally, at the same time, this applies to the combination of various inertia brake devices and wheel brakes.

1.5

SPECIAL FEATURES OF AMENDMENTS

With an amendment, the reasons for the amendment must be listed. For this purpose, at the beginning of the information document (before the paragraph 0), there is the possibility to create a list of changes. Here, the description should be limited to purely technical or approval-relevant formal changes. For example, "steering wheel changes", "new wheel brakes" or "adjustments according to regulation revisions", and not "changes according to paragraph 3.4 and change of Appendix 2".

All information that does not change as a result of the amendment must continue to be listed in the information document. The addition of new information or modifications needs to be visibly highlighted (for example using bold letters). This also applies to the appendix index. If the appendix index includes the words "only modified or added – bold – appendices included", then only these must be attached. In the interest of clarity, it makes sense at regular intervals, for example with every third amendment, to add all appendices.

Reifengröße, min. Tragfähigkeit u. min. Geschwindigkeit	R _{dyn} in mm	Varianten						
		B.01	B.02	S.04	S.05	S.06	S.07	S.08
R-22,5 180/--- J	451	X	X	X	-	X	X	X
R-22,5 180/--- J	474-480	X	X	X	X	X	X	X
R-22,5 180/--- J	481	-	X	X	X	X	X	X
R-22,5 180/--- J	481	-	X	X	X	X	X	X



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EXAMPLE OF THE INFORMATION DOCUMENT

INFORMATION DOCUMENT NO. A-01

Special Sample Vehicles Inc.

Date: DD/MM/YYYY

ECE REGULATION 79 – STEERING

Reason for amendment:

- Addition of a new steering wheel
- Update on the status change of the test specification

0 General

0.1 Make:

SSV

0.2 Type:

RI-79

Variant:

A: Steering wheel X
B: STEERING WHEEL Y

0.3 Means of identification of type, if marked on the vehicle:

None

0.3.1 Location of that marking:

Not applicable

0.4 Category of vehicle:

N1

0.5 Name and address of the manufacturer:

Special Vehicles Inc.
12345 Sample City

0.6 Location and method of attachment of statutory plates and information:

Near the nameplate

0.8 Name(s) and address(es) of assembly plant(s):

See 0.5

...

...

7 Steering

7.1 Schematic diagram of steered axle(s) showing steering geometry:

See appendix

7.2 Transmission and control

7.2.1 Type of steering transmission (specify for front and rear, if applicable):

Mechanical

7.2.2 Linkage to wheels (including other than mechanical means; specify for front and rear, if applicable)

Steering wheel on steering column over the recirculating ball steering gear over tie rods with relay levers on steering stub axles.

7.2.3 Method of steering assistance (if any):

None

Point 7.2.3.1 may be omitted here as it is a sub-item of 7.2.3

7.2.4 Diagram of the steering equipment showing the position on the vehicle of influencing its steering behaviour:

See appendix for the various devices

7.2.5 Schematic diagram(s) of the steering control(s):

A: See Annex 2

B: SEE ANNEX 3

7.3 Maximum steering angle of the wheels

7.3.1 To the right

A: 2.5 Steering wheel turns

B: 3 STEERING WHEEL TURNS

7.3.2 To the left

See 7.3.1

LIST OF ANNEXES

(Only new or modified added and marked in bold)

NO.	NAME	DRAWING NUMBER	NUMBER OF PAGES	DOCUMENT LAST CHANGED AT APPROVAL EXTENSION
1	Outline drawing of a representative vehicle	00.323.30	2	0
2	Schematic diagram of steered axle	0002.303.202.00	1	0
3	Drawing of steering wheel variant A	0023.305.394.00	1	0
4	DRAWING OF STEERING WHEEL VARIANT B	2024.505	1	1
5	Drawing of steering gear	ZV.223.f	2	0

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EXAMPLE OF AN APPENDIX INDEX WITH DETAILED INFORMATION ON BRAKE CALCULATIONS

APPENDIX INDEX DESCRIPTION	PROPERTY OR DRAWING NUMBER	DATE	LAST CHANGE IN EXTENSION
1 VEHICLE DRAWING EXAMPLE	ER 554	---	0
2 EBS LABEL	Label 1	15 February 2012	0
3 AXLE			
3.1 Overview of the axles	---	---	2
4 TEST RECORDS FOR WHEEL BRAKES			
4.1 Axle BEW D115-2/Brake BE TSB3709 Variant A.2	TDB 0008	21 December 2011	1
4.2 Axle BEW D125/Brake BEW TVB4309 Variant A.3	F0540001 -12	5 May 2011	1
...			
5 TRAILER – EBS INSTALLATION PLAN			
5.1 Trailer EBS E	Plan 2	---	0
6 ABV TEST REPORTS			
6.1 EBS test report (function ABV)	1054.25	5 June 2011	0
6.2 EBS test report (functional safety)	1088.25	5 June 2011	0
6.3 EBS test report (ESC)	1026.25	5 June 2011	0
7 BRAKE CALCULATIONS			

	VARIANT	TEST REPORT OF THE AXLE	TECHNICAL TOTAL MASS PERMISSIBLE IN KG	TECHNICAL AXLE LOAD PERMISSIBLE IN KG	IMPOSED LOAD IN KG	WHEEL BASE IN MM	TIRE RADIUS IN MM	NUMBER OF CALCULATIONS	DATE	LAST CHANGE
7.1	A.2	TDB0324	34,000	12,000	10,000	6,500-16,000	387	d 10404S	02.09.2010	1
7.2	A.3	TDB0054	49,000	10,000	19,000	6,400-9,000	373-397	df 10361s	14.11.2008	1

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EXAMPLE DEMONSTRATING THE COMBINATION OF TYRES AND BRAKES

COMBINATION OF TYRES AND BRAKES WITH A TOTAL MASS OF 18 TONS

TYRE SIZE, MINIMUM, MAXIMUM LOAD AND MINIMUM SPEED	R _{DYN} IN MM	VARIANTS						
		B.01._	B.02._	S.04._	S.05._	S.06._	S.07._	S.08._
455/40 R-22,5 160/--- J	451	X	X	X	---	X	X	X
455/45 R-22,5 160/--- J	474-480	X	X	X	---	X	X	X
385/55 R-22,5 160/--- J	481	---	X	X	X	X	---	X
385/65 R-22,5 160/--- J	517-518	---	X	X	X	X	---	X
425/65 R-22,5 165/--- J	542	---	X*	X	X*)	X*)	---	X
445/65 R-22,5 169/--- J	555	X	X*	X	X*)	X*)	---	X
275/70 R-22,5 ---/145 J	465	X	X	---	X	X	X	X
315/80 R-22,5 ---/150 J	522	X	X	---	X	X	X	X

* Excluding wheelbase range: m1.

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EXAMPLE FOR GRANTING AN APPROVAL PER E-MAIL

SUBJECT: SPECIAL VEHICLES INC. – TYPE: RI-79 – ECE-R79

Special Vehicles Inc.
Sample Street 1
12345 Sample City

Kraftfahrt-Bundesamt
Abteilung 4
Fördestraße 16
24932 Flensburg-Mürwik

SENDER

Name: John Doe
Department: Homologation
Telephone: +49 89 787475

Date of application: 6 January 2017

Dear Sir or Madam,

We hereby apply for a

- Type approval vehicle
- Type approval system
- General operating approval
- EC approval
- UN approval
- Amendment (with exponents)
- Extension (without exponents)
- Revision according to Article 15 Paragraph 1 of the 2007/46/EC and/or approval of change without exponents
- New application

according to UN Regulation No. 79, series of amendment 01

In this case we confirm that in no other member state of the European Community has an EC type approval been applied for nor granted.

The extension/amendment retains the current approval number:

The desired date of approval until:

Please note:

Publication of the type approval in the data sheet database for periodical inspection should not be before DD/MM/YYYY.
Please send the granted approval per e-mail to the following address: hom@sgs.com

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EXAMPLE OF THE LIST OF LEGALLY AUTHORISED SIGNATORIES (COC)

NAMES AND SPECIMENS OF THE SIGNATURES OF THE PERSONS AUTHORISED TO SIGN CERTIFICATES OF CONFORMITY AND A STATEMENT OF THEIR POSITION IN THE COMPANY.

These persons are authorised to sign the certificates of conformity:

Mr John Doe Owner	XXX
Mr Clark Sample Head of Department	XXX
Mr Fritz Template Quality Management	XXX

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GLOSSARY

The directives and regulations referred to in this guide are available at the following links:

EU directives and regulations: https://ec.europa.eu/growth/sectors/automotive/legislation_en

UN regulations: www.unece.org/trans/main/welcwp29.html

Framework directive 2007/46/EC	Directive of the European Parliament and of the Council of September 5, 2007 establishing a framework for the approval of motor vehicles and their trailers, and of systems, components and separate technical units intended for such vehicles. Vehicle categories M (passenger cars and busses), N (trucks), O (trailers for categories M and N).
Regulation (EU) No. 167/2013	Regulation of the European Parliament and of the Council of 5 February 2013 on the approval and market surveillance of agricultural and forestry vehicles. Vehicle categories T (wheeled tractors), C (track-laying tractors), R (trailers), S (interchangeable towed equipment).
Regulation (EU) No. 168/2013	Regulation of the European Parliament and of the Council of 5 February 2013 on the approval and market surveillance of two or three-wheel vehicles and quadricycles. Vehicle categories L (light two-wheel powered vehicles, three-wheel mopeds, two-wheel motorcycles, two-wheel motorcycles with sidecar, powered tricycles, light quadricycles, heavy quadricycles).
Type approval	The procedure whereby a type approval authority certifies that a type of vehicle, system, component or separate technical unit satisfies the relevant administrative provisions and technical requirements.
National type approval	A type-approval procedure laid down by the national law of a member state, the validity of such approval being restricted to the territory of that member state.
Information document	The document set out as sample in the relevant annex of a framework directive or single directive or regulation, that prescribes the information to be supplied by an applicant. The information document is part of the information folder.
Information folder	The complete folder, including the information document, file, data, drawings, photographs, and so on, supplied by the applicant. Nowadays the information folder is submitted nearly exclusively in form of an electronic file.
Regulatory act	A separate directive or regulation or a UNECE regulation annexed to the Revised Agreement of 1958. For example the UNECE Regulation No. 13 "UNIFORM PROVISIONS CONCERNING THE APPROVAL OF VEHICLES OF CATEGORIES M, N AND O WITH REGARD TO BRAKING"
Component	A device subject to the requirements of a regulatory act and intended to be part of a vehicle, which may be type-approved independently of a vehicle where the regulatory act makes express provisions for so doing. For example: lamps, safety glass, tyres, mechanical coupling components, rear view mirrors.
Separate technical unit	A device subject to the requirements of a regulatory act and intended to be part of a vehicle, which may be type-approved separately, but only in relation to one or more specified types of vehicle where the regulatory act makes express provisions for so doing. For example: a rear underrun protection device, fuel tank, headlamp cleaning device.
Single-step type approval	A type approval procedure consisting in the approval of a vehicle as a whole by means of a single operation. Within this procedure no system type approvals are used. In practice this procedure is often chosen for small trailers due to the relatively low number of applicable regulatory acts. This procedure is also reasonable in case a manufacturer only produces one single vehicle type.
Step-by-step type approval	A vehicle approval procedure consisting of the step-by-step collection of the whole set of type-approval certificates for the systems, components and separate technical units relating to the vehicle, and which leads, at the final stage, to the approval of the whole vehicle. In this approval procedure system type approvals are available for each regulatory act.
Mixed type approval	"Mixed type approval" means a step-by-step type-approval procedure for which one or more system approvals are achieved during the final stage of the approval of the whole vehicle, without it being necessary to issue the EC type approval certificates for those systems
Multistage type approval	The procedure whereby one or more type approval authorities certify that, depending on the state of completion, an incomplete or completed type of vehicle satisfies the relevant administrative provisions and technical requirements of one of the framework directives/regulations. This procedure is used by many bodybuilders and motor caravan manufacturers to bring completed vehicles into traffic with a certificate of conformity on the basis of type approved incomplete base vehicles.
Certificate of Conformity (CoC)	The document set out in the relevant annex of the framework directive 2007/46/EC or the framework regulation 167/2003 or 168/2013, issued by the manufacturer and certifying that a vehicle corresponds to the whole vehicle type-approval reference therein.

Type/variants/versions

Vehicles of a particular category which do not differ in at least the essential respects specified in:

- 2007/46/EC Section B of Annex II
- Regulation (EU) No. 167/2013 Article 3
- Regulation (EU) No. 168/2013 Article 3

A vehicle type can have variants and versions. Therefore the type-approval procedure makes it possible to approve different vehicles as one single vehicle type.

Individual approval

The procedure whereby a member state certifies that a particular vehicle, whether unique or not, satisfies the relevant administrative provisions and technical requirements. For vehicles of categories M, N, O the individual approval is regulated by article 24 of the framework directive 2007/46/EC.

Manufacturer

The person or body who is responsible to the approval authority for all aspects of the type-approval or authorisation process and for ensuring conformity of production. It is not essential that the person or body be directly involved in all stages of the construction of the vehicle, system, component or separate technical unit which is the subject of the approval process.

Assembly plant

The person or body who carries out the final approval-relevant assembly step of the vehicle, system, component or separate technical unit which is the subject of the approval process. An assembly plant, in contrast to the manufacturer, is not responsible for all aspects of the type-approval or authorisation process and for ensuring conformity of production.

Technical service

An organisation or body designated by the approval authority of a member state as a testing laboratory to carry out tests, or as a conformity assessment body to carry out the initial assessment and other tests or inspections, on behalf of the approval authority.

Approval authority

The authority of a member state with competence for all aspects of the approval of a type of vehicle, system, component or separate technical unit or of the individual approval of a vehicle; for the authorisation process, for issuing and, if appropriate, withdrawing approval certificates; for acting as the contact point for the approval authorities of other member states; for designating the technical services and for ensuring that the manufacturer meets his obligations regarding the conformity of production.

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