

Technical drawings — Railway applications

Part 4: Data exchange

ICS 01.100.01; 45.020

National foreword

This British Standard is the UK implementation of EN 15016-4:2006.

The UK participation in its preparation was entrusted to Technical Committee RAE/1, Railway applications.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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This European Standard was approved by CEN on 21 December 2005.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

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Foreword

This European Standard (EN 15016-4:2006) has been prepared by Technical Committee CEN/TC 256 "Railway applications", the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2006, and conflicting national standards shall be withdrawn at the latest by August 2006.

This European Standard has been prepared under a mandate M/024 given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

This European Standard has been prepared under Mode 4 co-operation with CENELEC/TC9X. In the event of an amendment being required to this European Standard, the co-op TC shall be consulted before proceeding to amend this European Standard.

Particular considerations were made to standardize the computerised transfer of the content of the documents, its output on conventional information carrier and its reproduction without loss of quality. Remarks in International Standards with regard to document handling are respected and supported by this European Standard and if necessary adopted or completed to the well-established procedures in the European railway business.

This standard "Technical drawings — Railway applications" consists of the following parts:

- EN 15016-1: General principles
- EN 15016-2: Parts lists
- EN 15016-3: Handling of modifications of technical documents
- EN 15016-4: Data exchange

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

Introduction

In railway business, the customer very often requires, as part of a contract, technical documents in a certain form. In order to support co-operation and effective exchange of information between customers, suppliers and partners, it is necessary to have the document requirements precisely defined.

This European Standard refers to EN, ISO or IEC standards dealing with data fields. In cases where ISO or IEC standards are not sufficiently precise, this European Standard gives specific details. These additions to EN, ISO and IEC standards facilitate the exploitation and the administration of the data exchange.

These requirements have been drawn up in order to accommodate:

- the large variety of users;
- ease of transfer of documents;
- any specific series of documentation related to the railway material they define.

Special consideration has been given to those producing drawings by computer or micro-copying and their reproduction without loss of quality.

NOTE The range of documents covers documents such as specifications, conditions for acceptance or further technical specifications that may not be graphically represented. This is meant to highlight the difference between "graphical representation" and "verbal description".

1 Scope

This European Standard specifies the basis of an administrative process for exchange of data such as technical drawings, design parts lists (see EN 15016-2) and other related technical documents for railway applications.

This European Standard applies to all railway organisations and parties concerned with the exchange of technical documents like drawings, parts lists and related technical documents that are officially numbered. Furthermore, it applies to suppliers preparing these documents on behalf of the railway companies or railway network users.

The basic requirements apply to all drawings, parts lists and related technical documents independently of the type of data e.g. graphical information (images), database types or types of data carriers.

These rules are applied by all railway companies and railway industry in the countries of the European Union (EU). Alternatively, the application of these rules can be agreed between contract partners who are settled in the EU and partners who are not settled in the EU by means of a contract and/or mutual agreement.

2 Normative references

The following referenced documents are indispensable for the application of this European Standard. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15016-2, *Technical drawings — Railway applications — Part 2: Parts lists*

EN 15016-3, *Technical drawings — Railway applications — Part 3: Handling of modifications of technical documents*

EN 61346-1:1996, *Industrial systems, installations and equipment and industrial products — Structuring principles and reference designations — Part 1: Basic rules (IEC 61346-1:1996)*

EN 61346-2:2000, *Industrial systems, installations and equipment and industrial products — Structuring principles and reference designations — Part 2: Classification of objects and codes for classes (IEC 61346-2:2000)*

EN 61355:1997, *Classification and designation of documents for plants, systems and equipment (IEC 61355:1997)*

EN 82045-2:2005, *Document management — Part 2: Metadata elements and information reference model (IEC 82045-2:2004)*

EN ISO 5457:1999, *Technical product documentation — Sizes and layout of drawing sheets (ISO 5457:1999)*

ISO 639-1, *Codes for the representation of names of languages — Part 1: Alpha-2 code*

ISO/IEC 6523-1:1998, *Information technology — Structure for the identification of organizations and organization parts — Part 1: Identification of organization identification schemes*

ISO/IEC 8859-1:1998, *Information technology — 8-bit single-byte coded graphic character sets — Part 1: Latin alphabet No. 1*

ISO 8601:2004, *Data elements and interchange formats — Information interchange — Representation of dates and times*

3 Terms and definitions

For the purposes of this European Standard, the following terms and definitions apply.

3.1 document

information on a data medium. Normally a document is designated in accordance with the type of information and the form of presentation, for example overview diagram, connection table, function chart

[EN 61082-1:1993]

3.2 drawing list

list of drawings in no particular order. Possible structural correlations are neither visible nor comprehensible

3.3 table of drawings

list of drawings to which parts lists are referred to in particular order. The structural correlations among the documents are visible and comprehensible

3.4 technical document (general)

necessary information, which is as complete as possible, gathered to form a unit for technical purposes. The information is stored on an information medium in a non-volatile memory and is legible directly or by means of optical or electronic aids.

NOTE Technical documents are part of the complete documentation and are necessary e.g. for manufacturing, maintenance, procurement and application of products

3.5 technical document (specific)

document that contains important and main data of the technical product, which are not included in drawings and parts lists

NOTE 1 This definition is applied in clause 6

NOTE 2 Technical documents are, inter alia, data sheets, descriptions, instructions/directions and manuals.

4 Administration of distributed information

Documents and information in a general sense can be sent in a variety of physical and electronic forms. It shall be indicated in the administrating system in what form the information was sent.

When information is dispatched electronically it shall also be indicated in which format the files are written and which version of the application is used.

To avoid misunderstanding between contract partners, non-contract partners and customers, administrative procedures shall be set in force to keep track of information distributed. Therefore, the following points are to be considered important for storage and maintenance in a company's database or administrative system.

NOTE Documents can be sent for a variety of reasons and purposes e.g. just for information, to get a feedback of the status, to get an approval, to inform the client/customer etc.

The status of the information sent shall be administrated to ensure that in case of a disagreement or evaluation of the data etc., both partners shall discuss the same issues and subject(s). It shall be clearly indicated, e.g. by a contract, if data may be modified, changed or distributed to third parties by the receiver (not owner of the intellectual property rights).

5 Exchange of parts lists data

5.1 General

To exchange (electronic) parts list data between various companies, partners, clients and customers, it shall be ensured that the data sent are also received by the other party. All data should be structured in a form agreed by both parties without being bound to computer system related formats. Therefore, it is recommended to send the data in a standardised ASCII format. Tables 1 to 6 describe the parts list database fields accordingly to the fields defined in the Parts 1, 2 and 3 of this standard.

Table 1 — Shipment statistic

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^d	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent	Importance ^c	Remark
1	OrganizationIdISO6523Owner	[29]		Organization identification according to ISO/IEC 6523 of legal owner ^a	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No	C	The 2 elements ICD and OI with together 40 characters are obligatory.
2	DistributionDate	113		Shipment date	D	17	YYYYMMDD Thhmmss	ISO 8601	No	C	
3			NUPLIT	Number of structural items	N	6			No	C	
4			NUPLH	Number of structure headings	N	6			No	C	
5			NUMOD	Number of main object data	N	6			No	C	
6			NUDOC	Number of documents	N	6			No	C	
7			NUTXT	Number of text records	N	6			No	C	
8	RepresentationCharacterSet	102		Character set	C	25		IEC 82045-2	No	C	concerns Tables 1 to 6 Example: "ISO/IEC 8859-1"

^a primary key of the table
^b C=alphanumerical, D=date and/or time, N=numerical
^c C=compulsory, R=recommended, I=informative
^d [xx] means that the metadata identifier was composed of the basic element with the number xx in Clause 8 and applying the formation rule in subclause 4.4 of EN 82045-2

Table 2 — Parts list structural items

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^d	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent ^c	Importance ^c	Remark
1	OrganizationIdISO6523Owner	[29]		Organization identification acc. ISO/IEC 6523 of legal owner ^a	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No	C	The 2 elements ICD and OI with together 40 characters are obligatory.
2	Document Id Parts List Manufacturer	[2]		Identification number parts list ^a	C	20			No	C	
3			ITNO	parts list item number ^a	C	6			No	C	
4			QNOP	Quantity, number of pieces	N	10	6 "." 3		No	C	
5	LanguageCode1	[5]		Language code 1	C	2	"aa"- "zu"	ISO 639-1	No	C	
6			UNIT1	unit quantity of item language 1	C	3		ISO 2955	Yes	C	basic quantity unit in language 1
7	LanguageCode2	[5]		Language code 2	C	2	"aa"- "zu"	ISO 639-1	No	I	
8			UNIT2	unit quantity of item language 2	C	3		ISO 2955	Yes	I	basic quantity unit in language 2
9			INPLC_OrganizationalISO6523Owner	Organization identification acc. ISO/IEC 6523 of legal owner for identification number parts list component	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No	C	The 2 elements ICD and OI with together 40 characters are obligatory.
10			INPLC	identification number parts list component	C	20			No	C	

^a primary compound key of the table
^b C=alphanumeric, D=date and/or time, N=numerical
^c C=compulsory, R=recommended, I=informative
^d [xx] means that the metadata identifier was composed of the basic element with the number xx in Clause 8 and applying the formation rule in subclause 4.4 of EN 82045-2

Table 3 — Parts list headings

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^d	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent ^c	Importance ^c	Remark
1	OrganizationIdISO 6523Owner	[29]		Organization identification acc. ISO/IEC 6523 of legal owner ^a	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No	C	The 2 elements ICD and OI with together 40 characters are obligatory.
2	Document Id Parts List Manufacturer	[2]		Identification number parts list ^a	C	20			No	C	
3	Document Version Id Parts List Manufacturer	[3]		Revision index parts list	C	3	A-"Z", "0"- "9" w/o "I", "O"	EN 15016-3	No	C	
4			RNON	Revision notification number parts list	C	20		EN 15016-3	No	R	of the legal owner
5	Document Version Id Drawing Manufacturer	[3]		Revision index drawing	C	3	A-"Z", "0"- "9" w/o "I", "O"	EN 15016-3	No	C	

^a primary compound key of the table
^b C=alphanumeric, D=date and/or time, N=numerical
^c C=compulsory, R=recommended, I=informative
^d [xx] means that the metadata identifier was composed of the basic element with the number xx in Clause 8 and applying the formation rule in subclause 4.4 of EN 82045-2

Table 4 — Main subject data

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^d	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent	Importance ^c	Remark
1	OrganizationIdISO6523Owner	[29]		Organization identification acc. ISO/IEC 6523 of legal owner ^a	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No	C	The 2 elements ICD and OI with together 40 characters are obligatory.
2			IDCON	Identification no. Legal owner ^a	C	20			No	C	
3			IDCUS	Identification no. Customer	C	20			No	R	material no. Customer's; material no. and standard
4			MATYP	material type	C	1	"1" - "7"	EN 15016-2	No	C	Master data cases acc. EN 15016-2 for parts list printing
5	LanguageCode1	[5]		Language code 1	C	2	"aa"-"zu"	ISO 639-1	No	C	
6	PartsTitle1	[12]		Designation of the part in language 1	C	2 * 25			Yes	C	
7	LanguageCode2	[5]		Language code 2	C	2	"aa"-"zu"	ISO 639-1	No	I	
8	PartsTitle2	[12]		Designation of the part in language 2	C	2 * 25			Yes	I	
9			ARTSTD	Standard number block	C	25			No	I*	standard of type or design; * obligatory if required by material type
10			MHAAB	Semi-finished part designation with size	C	25			Yes	I*	* obligatory if required by material type
11			MASS	Mass (weight)	N	11	"0,001" - "9999999"		No	R	
12			MAUN	Mass unit	C	3			No	R	
13			MATST	Standard number block Material	C	25			No	I*	* obligatory if required by material type
14			MATAB	Material code designation	C	25			No	I*	acc. material standard no.; * obligatory if required by material type
15			MATNO	Material number	C	25			No	I*	acc. material standard no.; * obligatory if required by material type
16			MATSC	surface protection	C	25			No	I*	colour /pattern; * obligatory if required by material type
17			MATTD	Technical delivery condition	C	25			No	I*	* obligatory if required by material type
18			MATQU	Quality details	C	25			No	I*	* obligatory if required by material type
19			ARTNO	Identification no. Supplier	C	25			No	I*	* obligatory if required by material type
20			REMA1	Remark language 1	C	2 * 18			Yes	I	Supplier of Identification no. Supplier
21			REMA2	Remark language 2	C	2 * 18			Yes	I	Supplier of Identification no. Supplier

^a primary compound key of the table
^b C=alphanumeric, D=date and/or time, N=numerical
^c C=compulsory, R=recommended, I=informative
^d [xx] means that the metadata identifier was composed of the basic element with the number xx in Clause 8 and applying the formation rule in subclause 4.4 of EN 82045-2

Table 5 — Documents

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^d	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent	Importance ^c	Remark
1			IDREF_OrganizationalISO6523Owner	Organization identification acc. ISO/IEC 6523 of legal owner for identification number ^a	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No		The 2 elements ICD and OI with together 40 characters are obligatory.
2			IDREF	contractor's subject number; contractor's parts list number; Revision notification number ^a	C	20			No	C	Object number according to text key: G,P,I = subject no. contractor K,T = parts list no. contractor A = last revision notification number
3			ITNO	parts list item number ^a	C	6			No	C*	* obligatory with text key="T" only
4			TXTYP	text assignment ^a	C	1	"G"; "P"; "K"; "T"; "A"; "I"		No	C	G = Text regarding main subject data P = Text regarding main subject data K = Text regarding the parts list headline T = Text regarding the parts list item A = Modification note I = Other text concerning subject data
5	OrganizationIdISO6523Owner	[29]		Organization identification acc. ISO/IEC 6523 of legal owner ^a	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No	O	The 2 elements ICD and OI with together 40 characters are obligatory.
6	Document Id	2		Identification number document ^a	C	20			No	C	
7	Document Part Id	11		Sheet number ^a	N	4	"1"- "9999"		No	C*	* obligatory only if single pages are stored separately in files
8	Language Code	5		Language codes ^a	C	2	"aa"- "zu"	ISO 639-1	No	C	Enumeration for all languages in the document separated by blanks
9	Representation File Name	101		file name	C*	64			No	C	Computer file name of the document
10	Document Version Id	3		Revision index	C	3	A-"Z", "0"- "9" w/o "I", "O"	EN 15016-3	No	C	
11		40	DOCRD	Revision date	D	10	YYYY-MM-DD	ISO 8601	No	I	
12	Representation Number Of Pages	106		number of sheets	N	4	"1"- "9999"		No	C	
13	Organization Owner	86		legal owner (name)	C	30			No	C	
14	Creation Date	35		Creation date	D	10	YYYY-MM-DD	ISO 8601	No	C	
15	Creator Name	36		Creator	C	10			No	C	
16	Review Date	40		Review date	D	10	YYYY-MM-DD	ISO 8601	No	C	
17	Reviewed By Person	41		Reviewer	C	10			No	C	

Table 5 (continued)

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^a	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent	Importance ^c	Remark
18	Release Date	[58]		Release date	D	10	YYYY-MM-DD	ISO 8601	No	C	
19	Released By Person	54		Releaser	C	10			No	C	
20	LanguageCode1	[5]		Language code 1	C	2	"aa"- "zu"	ISO 639-1	No	C	
21	Title1	[12]		Title, description in language 1	C	2 * 25			Yes	O	
22			REMARK 1	Remark language 1	C	2 * 17			Yes	I	
23	LanguageCode2	[5]		Language code 2	C	2	"aa"- "zu"	ISO 639-1	No	I	
24	Title2	[12]		Title, description in language 2	C	2 * 25			Yes	I	
25			REMARK 2	Remark language 2	C	2 * 17			Yes	I	
26	DocumentClassId EC61355	19		Document classification code (DCC)	C	3		EN 61355	No	R	
27	DocumentClassName EC61355	20		Document class designation	C	40		EN 61355	Yes	I	Language acc. LanguageCode1
28	OccurrenceId EC61346	77		Reference designation	C	3 * 8		EN 61346-1; EN 61346-2	No	R	
29	Superseding DocumentId	81		Replacing	C	20			No	R	
30	Superseded By Document Id	82		Replaced by	C	20			No	R	
31	Organization Customer	95		Customer's name	C	30			No	R	
32	Document Id Customer	7		Customer's document reference number	C	20			No	R	
33	Document Version Id Customer	[3]		Customer's document revision index	C	3	A-"Z", "0"- "9" w/o "I", "O"	EN 15016-3	No	R	
34			DOCCRD	Customer's revision date	D	10	YYYY-MM-DD	ISO 8601	No	I	
35			RNON	Revision notification number document	C	20		EN 15016-3	No	I	of the legal owner
36	Based On Document Id	79		Based on document id	C	20			No	I	Origin
37			APPL	Application	C	24			No	I	for additional information
38	Approval Date Customer	[47]		Approval date customer	D	10	YYYY-MM-DD	ISO 8601	No	I	
39	Approval By Person Customer	48		Approver at the customer's	C	10			No	I	

Table 5 (continued)

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^d	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent	Importance ^c	Remark
40	DocumentClassIdISO5457	21		Sheet size	C	5		EN ISO 5457	No	I	
41			HASPL	Parts list (yes or no)	C	1	"N"; "Y"		No	R*	* only for drawings: information whether a separate parts list for the drawing exists
42			MASS	Mass (weight)	N	8			No	R*	* only if no separate parts list to the drawing exists
43			MAUN	Mass unit	C	3			No	R*	* only if no separate parts list to the drawing exists
44			MATSG	Material, semi-finished goods	C	20			Yes	R*	* only if no separate parts list to the drawing exists

^a primary compound key of the table
^b C=alphanumeric, D=date and/or time, N=numerical
^c C=compulsory, R=recommended, I=informative
^d [xx] means that the metadata identifier was composed of the basic element with the number xx in Clause 8 and applying the formation rule in subclause 4.4 of EN 82045-2

Table 6 — Text

Field no.	Metadata identifier according to EN 82045-2	EN 82045-2 No ^d	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent	Importance ^c	Remark
1	OrganizationIdISO6523Owner	[29]		Organization identification acc. ISO/IEC 6523 of legal owner	C	78	4 "/" 35 ["/" 35 "/" 1]	ISO/IEC 6523-1	No	C	The 2 elements ICD and OI with together 40 characters are obligatory.
2			IDREF	contractor's subject number; contractor's parts list number; Revision notification number	C	20			No	C	Object number according to text key: G,P,I = subject no. contractor K,T = parts list no. contractor A = last revision notification number
3			ITNO	parts list item number	C	6			No	C*	* obligatory with text key="T" only
4			TXTYP	text assignment	C	1	"G"; "P"; "K"; "T"; "A"; "I"		No	C	G = Text regarding main subject data P = Text regarding main subject data K = Text regarding the parts list headline T = Text regarding the parts list item A = Modification note I = Other text concerning subject data
5	LanguageCode	5		Language codes	C	2	"aa"- "zu"	ISO 639-1	No	C	
6			TXTZN	line number	N	6			No	C	Text is transferred line by line

Table 6 (continued)

Field no.	Metadata identifier acc. IEC 82045-2	IEC 82045-2 No ^a	Field identifier	Field name	Data type ^b	Data length	Value space / pattern	Value source	Language dependent ^c	Importance ^c	Remark
7			TXTTX	text	C	72			No	C	
^a primary compound key of the table ^b C=alphanumeric, D=date and/or time, N=numerical ^c C=compulsory, R=recommended, I=informative ^d [xx] means that the metadata identifier was composed of the basic element with the number xx in Clause 8 and applying the formation rule in subclause 4.4 of EN 82045-2.											

5.2 Transfer structure

The data of each of the Tables 1 to 6 shall be transferred in separate data files. The data files should be named with the table title.

In each data file the first line shall contain the identifier of the fields as a headline (see the example below). The identifier is taken either from the column "metadata identifier" (according EN 82045-2) or from the column "field identifier" (defined in EN 15016-4).

Each record in the data files shall be unique relating to the marked primary key fields in the Tables 1 to 6. Therefore, it shall be ensured that when this data is transferred to other parties it stays unique.

Since a lot of parts list data can be transferred, the type of record and the contents of the fields shall be clearly indicated. It is recommended to separate the records with a line break (values 13 and 10 in ISO/IEC 8859-1) and to separate the fields with tabulators (value 09 in ISO/IEC 8859-1) and send the data in the character set specified in the field "character set" in the shipment statistic. Empty fields are specified as empty character strings. A special indicator for empty fields shall be agreed between parties.

EXAMPLE For Table 2 (the tabulator is symbolised by "<t>")

```
OrganizationIdISO6523Owner<t>DocumentIdPartsListManufacturer<t>ITNO<t>QNOP<t>LanguageCode1<t>UNIT1<t>LanguageCode2<t>UNIT2<t>INPLC
9999/Rolling Stock Company/LCR53<t>400 M2110 0002<t>1<t>3<t>en<t>pcs<t>de<t>Stk<t>300 M2123 0002
9999/Rolling Stock Company/LCR53<t>400 M2110 0002<t>2<t>1<t>en<t>pcs<t>de<t>Stk<t>400 M2118 0001.
```

This procedure is also valid for the other defined tables that will be transferred.

5.3 Data security

To protect the data to be transferred data against misuse by parties not involved, the data shall be encrypted, which means that the involved parties shall define the used encryption via contract.

6 Exchange of technical documents

6.1 List of technical documents

To administrate the various shipments of documents sent to clients /customers it is advisable to use a list of technical documents. It shall be made clear by the distributor via such a list which drawings, parts lists, and other related documentation (and other information) the recipient gets.

As a minimum, this list shall indicate the following points:

- number of the item;
- name of the item (product);
- revision index of the item.

6.2 Table of technical documents

Tables to identify the links between e.g. design documents, which enables the reader to identify the status of each item, shall prove the relationship between single parts, subassemblies and assemblies.

Documents, which may be a topic of dispatch, are:

- drawings and parts lists;
- production information;
- maintenance information;
- ratifying/homologation demands;
- product specifications;
- technical calculations.

The data transfer is based on EN 15016-2. The transfer list contains additional fields for version indices, number of sheets and customer data. For the transfer structure the requirements of Clause 5 of this European Standard apply.

Annex A (informative)

Example for layout of a table of documents

A.1 General

There is no standard or technical report that offers a proposal for a layout for a table of documents. This annex provides a solution for placing all relevant information in an overseeable manner. This form sheet can also be used for preparing a list of documents.

The revision index pattern on the cover sheet is applicable to A4-format paper size only.

A.2 Front page

Legal owner: 5)	Responsible unit: 5)	Document type: 27)	26)	A)		
Prepared Date: 14)	Prepared Name: 15)	21(24))	Document state: B)			
Checked Date: 16)	Checked Name: 17)		21(24))	6)		
Approved Date: 18)	Approved Name: 19)	File name: 9)	Revision: 10)	Rev. Date: 11)	Language: 20(23))	7) 12)
Customer: 31)	Ident-No.: 32)	Date/customer: 38)	Approver/customer: 39)	Index: 33)	Date: 34)	
Application for/customer: 37)			Replaces: 29)			

C)

Functional assembly :
28)

D)

E)

Classifier: F)

A.3 Following pages

26)	Language : 20(23))	Revision : 10)	Rev. Date: 11)	Page : 7)	6)
------------	------------------------	-------------------	-------------------	--------------	-----------

No.	Document number	Contractor ----- Customer	ISO A	Drawing Index	PL Revision	TD	Draw. Pages	PL Pages	TD Pages	Content from F.Assy Item
BG	Title	-----		Remarks	-----		Original at			

G)	6) 32)	40)	33)	10)	10)	10)	11)	11)	11)	H)	J)
28)	21(24)) 21(24) / 27)	22(25)) 22(25))					5)				

A.4 Description of data fields and entering rules

Table A.1 —Title (front) page

Field reference to field no. in Table 5 (numbers only) and to A.2 (numbers and letters)	Number of print characters ^a	Font size	Size within frame (mm)	Remarks
A	-	-	26 × 18	<u>Not transferred as a data field, information only in the document.</u> Details and sizes for the logo to be defined by legal owner
B	20	10	32 × 9	<u>Not transferred as a data field, information only in the document.</u> States in accordance in preparation/released /confidential
C	-	8	110 × 15	<u>Not transferred as a data field, information only in the document.</u> <u>Usage right</u> text to be defined in contracts between customer and contractor
D	-	6	-	<u>Not transferred as a data field, information only in the document.</u> Clear text e.g. "Network print out at 1999-10-11" "No registration", optional
F	20	6	-	<u>Not transferred as a data field, information only in the document.</u> Article classification

Table A.1 (continued)

Field reference to field no. in Table 5 (numbers only) and to A.2 (numbers and letters)	Number of print characters ^a	Font size	Size within frame (mm)	Remarks
E	-	6	-	Not transferred as a data field, information only in the document: Copyright clause defined by lawyer Optional local decision
5	2 * 14	6	23 × 9	Code of responsible company, industrial automation systems and integration - Parts library ISO 13584-26
5	10	10	35 × 9	Responsible department (<u>Organisation part identifier OPI of ISO/IEC 6523-1</u>)
6		14	58 × 9	Identity number document list Contractor
7		10	13 × 4,5	Page/sheet number Document list
9	25	10	66 × 9	Computer file name of the document Additional data field according to local requirements
10	3	10	11 × 9	This shall include adaptation and intermediate revision index when applicable Revisions index document list
11		10	19 × 9	Current revision date
12		10	13 × 4,5	Number of pages/sheets Total number of pages/sheets to be shown at least on first page Document list
13		10	19 × 9	Comprises of the creation date for the current revision
14	10	10	39 × 9	Comprises of the creators name for the current revision
16		10	19 × 9	Comprises of the checked date for the current revision
17	10	10	39 × 9	Comprises of the checkers name for the current revision.
18		10	19 × 9	Comprises of the approval date for the current revision
19	10	10	39 × 9	Comprises of the approvers name for the current revision.
20 (23) ^b		10	15 × 9	Language code creator
21 (24) ^b	1 * 25	10	66 × 9	Title description (Line 1), language creator
21 (24) ^b	1 * 25	10	66 × 9	Title description (Line 2), language creator
26		10	32 × 9	Document classification code (DCC)
27		10	66 × 9	Document class designation
28	3	10	30 × 15	Functional assembly number <u>as part of field 28 in Table 5</u>
29	20	8	-	Compensation for

Table A.1 (continued)

Field reference to field no. in Table 5 (numbers only) and to A.2 (numbers and letters)	Number of print characters ^a	Font size	Size within frame (mm)	Remarks
31	20	8	58 × 5,5	The Customer Company name and company logo
32		8	58 × 5,5	External identity number Document list, Customer
33	3	8	30 × 11	External revision index Document list, Customer
34		8	28 × 11	External revision date, Customer
37	24	8	-	Application
38		8	33 × 11	External approved date Document list, Customer
39	10	8	33 × 11	External approver Document list, Customer
a if defers from column "Data length" in Table 5				
b depending on the language chosen for the table of documents				

A.5 Description of data fields and entering rules

Table A.2 — Continuation pages, header

Field reference to field no. in Table 5 (numbers only) and to A.3 (numbers and letters)	Number of print characters ^a	Font size	Size within frame (mm)	Remarks
6		14	58 × 9	<u>Identity number document list</u> Contractor
7		10	31 × 9	<u>Individual page/sheet number to be shown on following pages/sheets</u> Document list
10	3	10	11 × 9	<u>This shall include adaptation and intermediate revision index when applicable</u> Revisions index document list
11		10	19 × 9	Current revision date
20 (23) ^b		10	32 × 9	Language code creator Continuation pages
26		10	31 × 9	Document classification code (DCC)
a if defers from column "Data length" in Table 5				
b depending on the language chosen for the table of documents				

Table A.3 Continuation pages, list

Field reference to field no. in Table 5 (numbers only) and to A.3 (numbers and letters)	Number of print characters ^a	Font size	Size within frame (mm)	Remarks
G	4	10	12,5 × 9	<u>Only needed in printout</u> Number continuously Counter only
H	3	10	10 × 9	This reference information is only in the document, not transferred as a data field, but inherent information in the electronic parts list: The number comes from functional assembly The number shows the parts list structure reference
J	3	10	10 × 9	This reference information is only in the document, not transferred as a data field, but inherent information in the electronic parts list: Item number



Field reference to field no. in Table 5 (numbers only) and to A.3 (numbers and letters)	Number of print characters ^a	Font size	Size within frame (mm)	Remarks
				Item from parts list The number comes from functional assembly. The number shows the item number in parts list structure reference
5	2 * 25	10	50 × 9	Code of the storing company ISO 13584-26 Originator from the document
6	20	10	66 × 4,5	Contractor's document number Depending on drawing, parts list or technical document
10		10	10 × 9	Contractor's revision index from drawing
10		10	10 × 9	Revision index parts list Contractor's revision index from parts list
10		10	10 × 9	Technical document revision Contractor's revision index from other technical documents
12		10	10 × 9	Drawing pages; total number of pages
12		10	10 × 9	Parts list; total number of pages
12		10	10 × 9	Technical document; total number of pages
21 (24) ^b	1 * 25	10	66 × 4,5	Title description (Line 1), language creator Identical name from title block of document parts list
21 (24) ^b / 27	1 * 25	10	66 × 4,5	Title description (Line 2), language creator Identical name from title block of document or document class designation field 27 in Table 5
22 (25) ^b	1 * 17	10	45 × 9	Document <u>remarks (Line 1), language creator</u>
22 (25) ^b	1 * 17	10	45 × 9	Document <u>remarks (Line 2), language creator</u>
26		10	31 × 9	<u>Document classification code (DCC)</u>
28	2	10	12,5 × 9	Functional assembly <u>number as part of field 28 in Table 5</u>
32	20	10	66 × 4,5	External document number Depending on drawing, parts list or technical document
33		10	10 × 9	<u>Customer's</u> revision index from drawing
40	2	10	7,5 × 9	Sheet size of document
a if defers from column "Data length" in Table 5				
b depending on the language chosen for the table of documents				

Annex B
(informative)

Example for entries in a table of documents

This annex contains an example for entries in a table of documents.

B.1 Front page

Legal owner 9999/Rolling Stock Company	Responsible unit: LCR53	Document type: Document list	AB		
Prepared Date: 1998-09-07	Prepared Name: Plonker	Converter	Document state: Released		
Checked Date: 1998-10-01	Checked Name: Boss		3EGH123456-1234		
Approved Date: 1998-10-11	Approved Name: Bigboss	File name: N 139v11	Revision: B	Rev. Date: 1999-09-09	Language: en
Customer: Deutsche Bahn München		Date: 1999-01-25	Approver: FGT 34 gez. Röhrl	Index: 02	Date: 1999-10-12
Ident-No.: 4FTE401.0.64.040.031					

Application for:
ET401, HBU9.1

Replaces:
3EGH123456-1233

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Functional assembly :

64

Netzausdruck vom
1999-10-07! Kein
registriertes Exemplar

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Classifier:
4453

B.2 Following pages

AB	Language : en	Revision : B-	Rev. Date: 1999-09-09	Page : 21	3EGH123456-1234
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No.	Document number Contractor Customer	ISO A	Drawing Index	PL Revision	PL	TD	Draw. Pages	PL Pages	TD Pages	Content from	
										F.Assy	Item
BG	Title	Remarks				Original at					
1	3EGH110421-7389 2FTE.401.0.64.040.003	2	01	C			3				
64	Converter Assembly Drawing					9999/00182					
2	3EGH110433-0000 4FTE401.0.64.040.005	4	01		D			24			
64	Converter Parts List					9999/00182					
3	3EGH110589-0020 3FTE401.0.64.034.005	3	01	F			56				
64	Converter Circuit Diagram					9999/00182					
4	3EGH471108-1500 4FTE401.0.64.040.028	4	01			K			5		
64	Converter Technical Data Sheet	All relevant technical Data are shown				9999/00182					

5											
										
6											
										
7											
										
8											
										
9											
										
10											
										
11											
										
12											
										

Bibliography

- [1] EN 61082-1:1993, *Preparation of documents used in electrotechnology — Part 1: General requirements (IEC 61082-1:1991)*
- [2] ISO 13584-26:2000, *Industrial automation systems and integration — Parts library — Part 26: Logical resource: Information supplier identification*

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