# SLOVENSKI STANDARD
# SIST EN 15969-2:2011

**01-november-2011**

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**Posode za prevoz nevarnih snovi - Digitalni vmesnik za prenos podatkov med vozilom s posodo in stacionarnimi napravami - 2. del: Komercialni in logistični podatki**

Tanks for transport of dangerous goods - Digital interface for the data transfer between tank vehicle and with stationary facilities - Part 2: Commercial and logistic data

Tanks für die Beförderung gefährlicher Güter - Digitale Schnittstelle für den Datenaustausch zwischen Tankfahrzeugen und stationären Einrichtungen - Teil 2: Kommerzielle und logistische Daten



Citernes destinées au transport de matières dangereuses - Interface numérique pour le transfert de données entre des véhicules-citernes et des installations fixes - Partie 2 : Données commerciales et logistiques

**Ta slovenski standard je istoveten z:** **EN 15969-2:2011**

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**ICS:**

| | | |
|---|---|---|
| 13.300 | Varstvo pred nevarnimi izdelki | Protection against dangerous goods |
| 23.020.20 | Posode in vsebniki, montirani na vozila | Vessels and containers mounted on vehicles |
| 35.240.60 | Uporabniške rešitve IT v transportu in trgovini | IT applications in transport and trade |

**SIST EN 15969-2:2011** **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

# EN 15969-2

September 2011

ICS 35.240.60

English Version

# Tanks for transport of dangerous goods - Digital interface for the data transfer between tank vehicle and with stationary facilities - Part 2: Commercial and logistic data

Citernes destinées au transport de matières dangereuses - Interface numérique pour le transfert de données sur des véhicules citernes et avec des installations fixes - Partie 2 : Données commerciales et logistiques

Tanks für die Beförderung gefährlicher Güter - Digitale Schnittstelle für den Datenaustausch zwischen Tankfahrzeugen und stationären Einrichtungen - Teil 2: Kommerzielle und logistische Daten

This European Standard was approved by CEN on 18 June 2011.

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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, 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.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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# Contents

Page

# Foreword

This document (EN 15969-2:2011) has been prepared by Technical Committee CEN/TC 296 “Tanks for transport of dangerous goods”, the secretariat of which is held by AFNOR.

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 March 2012, and conflicting national standards shall be withdrawn at the latest by March 2012.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This European Standard EN 15969, *Tanks for transport of dangerous goods – Digital interface for the data transfer between tank vehicle and with stationary vehicles*, is divided into the following parts:

*Part 1 — Protocol Specification – Control, measurement and event data*

*Part 2 — Commercial and logistic data*

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, 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 the United Kingdom.

# Introduction

FTL is an acronym for **F**uel **T**ruck **L**ink, the interface between electronic system(s) on board of a tank truck (Tank-Vehicle-Equipment) and any external computer, Part 2 mainly for a host installed in the office and connected via Internet (TCP/IP); for illustration, see Figure 1.

This European Standard specifies data format for all interconnecting communication paths for commercial issues.

This European Standard offers the user following features:

— Multiple orders (batch processing);

— Pricing;

— Master data (e.g. products, customers, drivers, taxes);

— Additional texts for the printout;

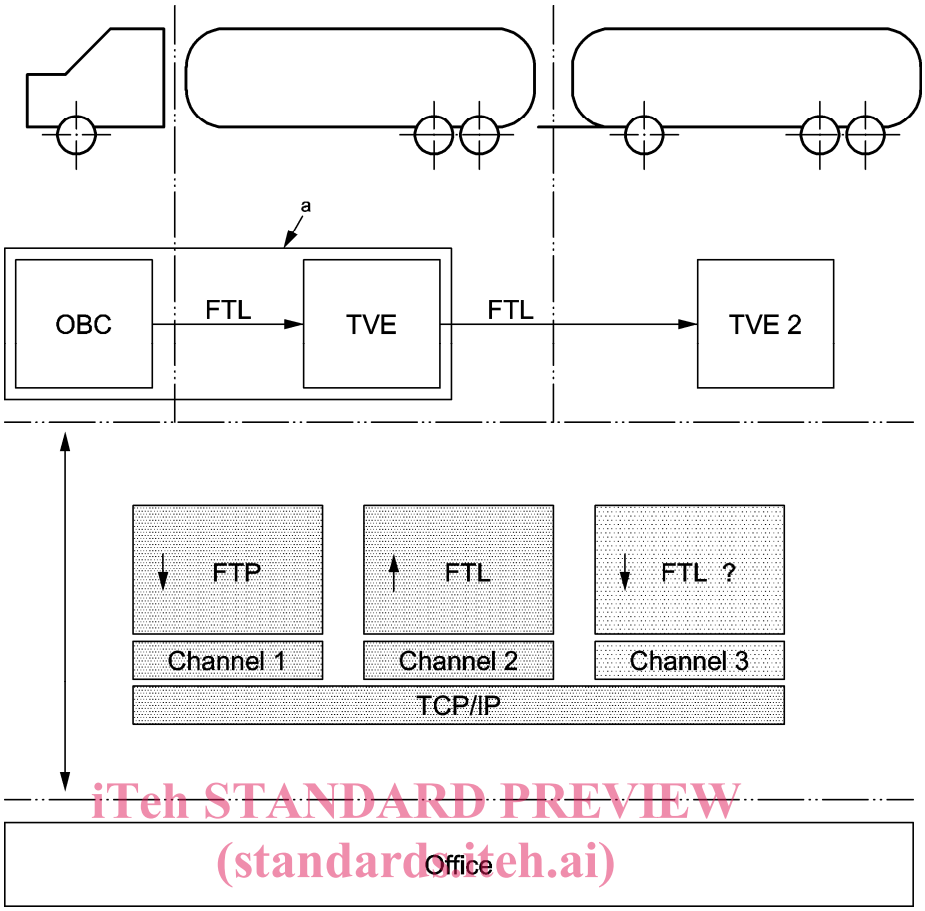
— Information for the drivers;

— Trip management;

— Data for invoicing with surcharge;

— Data for delivery packaged goods;

— Handle planned and unplanned deliveries.






**Key**

→ direction of communication (client → server)

a may be either two independent units or one single unit which incorporates both functions OBC and TVE

**Figure 1 — Communication structure**

## 1 Scope

This European Standard specifies the data structure needed for tour management, scheduling orders of measured and unmeasured products online to the truck. Processed orders are transferred back to the host in the office at once or later every time the truck is online.

It specifies the transfer of commercial and logistic data between transport vehicle equipment, on board computer of the tank vehicle and stationary facilities for all communication channels between these parties.

## 2 Normative references

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

EN 14116, *Tanks for transport of dangerous goods — Digital interface for the product recognition device*

EN 15969-1:2011, *Tanks for transport of dangerous goods — Digital interface for the data transfer between tank vehicle and with stationary facilities — Part 1: Protocol specification — Control, measurement and event data*

EN ISO 3166-1; *Codes for the representation of names of countries and their subdivisions — Part 1: Country codes (ISO 3166-1:2006)*



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



ISO 4217, *Codes for the representation of currencies and funds*



ISO/IEC 10646-1, *Information technology — Universal Multiple-Octet Coded Character Set (UCS) — Part 1: Architecture and Basic Multilingual Plane*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in EN 15969-1:2011 and the following apply.

**3.1**
**dispatcher**
person who planes tour at the host system

**3.2**
**operator (driver)**
person who operates the truck and the truck management computer

**3.3**
**tour**
set of at least one 'Order Record' and related records, which describes a collection of stops at different customers and the ordered products, so that the driver knows where to go and what to deliver

**3.4**
**article**
goods and/or services provided

# 4 General

This document shall only be used in conjunction with EN 15969-1 and shall not modify or override any of the requirements of EN 15969-1.

# 5 Files

## 5.1 Format identifiers

According to EN 15969-1.

**Table 1 — Record identifier and file type**

| Record identifier | Short description | Description of file contents and possible destinations of the file | Primary Key | Deletion Identifier |
|---|---|---|---|---|
| A | Article | List of all goods and/or services provided | a_art_id | a_deleted |
| C | Customer | Customer database | c_cus_id | c_deleted |
| FB | FTL batch | Record type used to mark batch commands inside RC_file; see Table 11. | - | - |

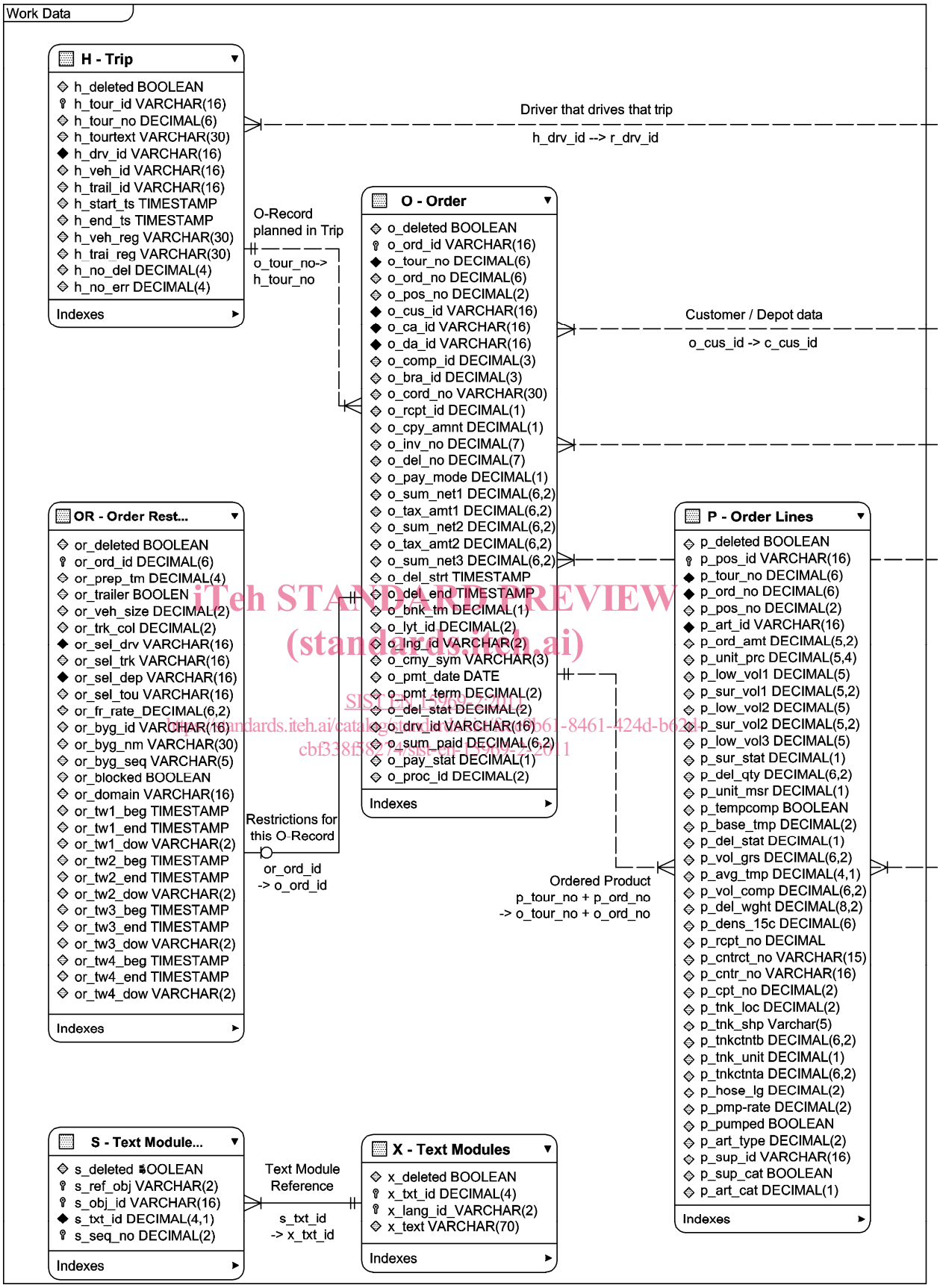
**Table 1 (*continued*)**

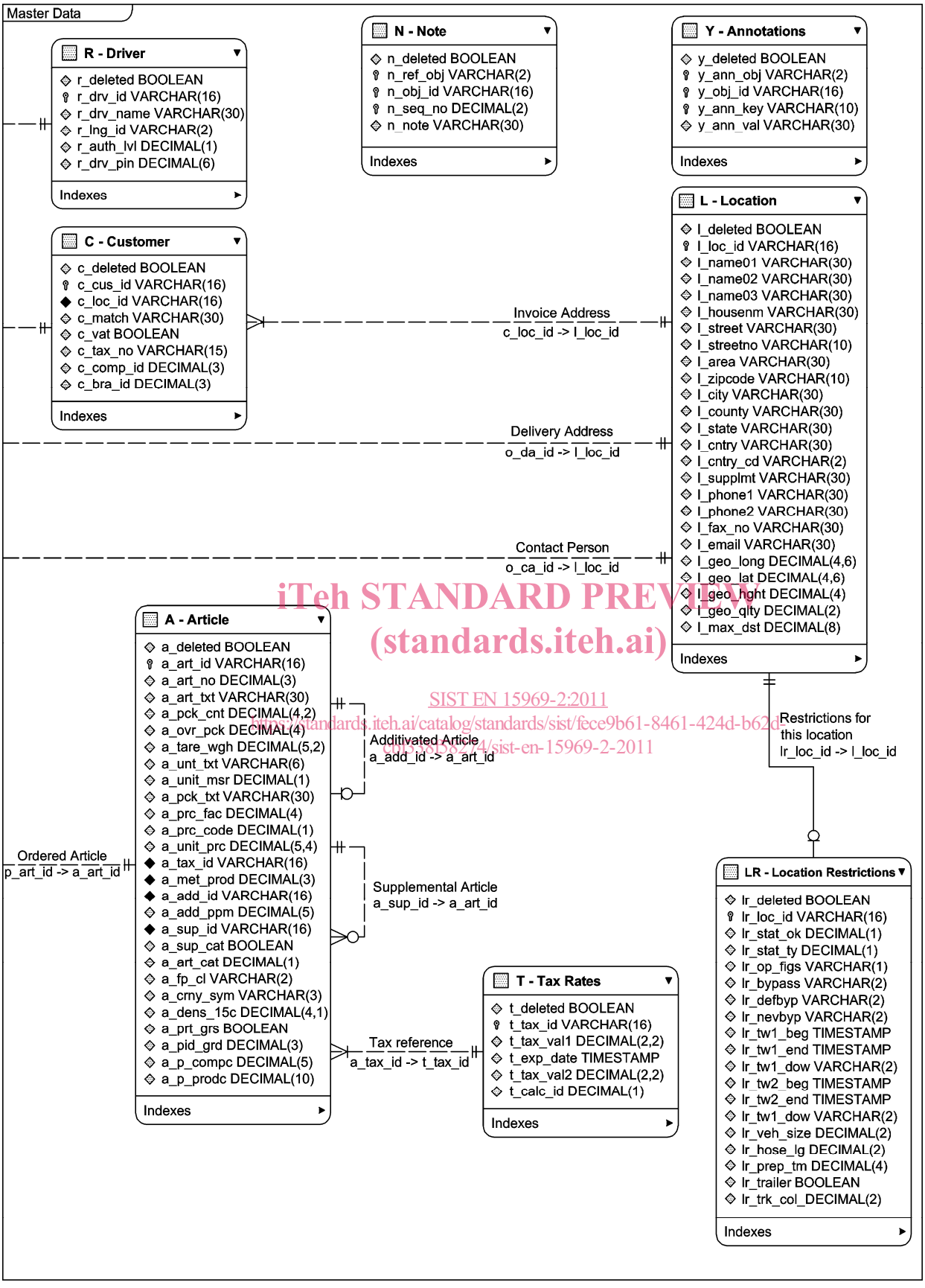
| Record identifier | Short description | Description of file contents and possible destinations of the file | Primary Key | Deletion Identifier |
|---|---|---|---|---|
| H | Trip | A trip consists of a list of trip stops, which could be stops at customers (typ. unloading) or depots (typ. loading). | h_tour_no | h_deleted |
| L | Location | All locations (depots, customers, etc) | l_loc_id | l_deleted |
| LR | Location restriction | Restrictions for a location (time windows, vehicle accessibility, permitted actions) | lr_loc_id | lr_deleted |
| N | Notes | Notes that can be specified for any object. | n_ref_obj<br>n_obj_id<br>n_seq_no | n_deleted |
| O | Order | Represents a stop in a trip. This could be both a loadstop and an orderstop. per stop, several actions can be performed. These are specified in the p-records of this o-record.<br>If field o_ord_id is 0, the order is unplanned | o_tour_no<br>o_ord_no | o_deleted |
| OR | Order restrictions | Order restrictions, used for scheduling and routing. | or_ord_id | or_deleted |
| P | Order lines | Specifies the goods and services to be delivered at this stop (o-record). | p_tour_no<br>p_ord_no<br>p_pos_no | p_deleted |
| R | Driver | List of all drivers | r_drv_id | r_deleted |
| S | Text-module reference | Static texts for any object. provides text module references, to add a variable number of static texts to an object for printout. | s_ref_obj<br>s_obj_id<br>s_seq_no | s_deleted |
| T | Tax | Different applicable VAT rates, used for invoice calculation. | t_tax_id | t_deleted |
| X | Text modules | Texts which are repetitively used, may be stored in this database and referred to by a three-digit numeric code in the S-record. | x_blk_id<br>x_lang_id | x_deleted |
| Y | Annotations | Optional annotations to any other type, this annotations are used to add manufacturer specific fields to any record, which trigger an action on the truck and are not only used for printout. It is not allowed to define fields of type y within this standard. | y_ann_obj<br>y_obj_id<br>y_ann_key | y_deleted |



## 5.2 Relations

Figure 2 shows the relations between the different record types and contains only the fields relevant for these relations.





**Key**

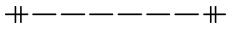
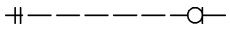
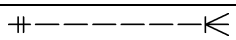
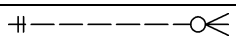
| *Symbol* | *Meaning* |
|---|---|
|  | Primary key, shall be unique |
|  | Foreign key, this attribute is referencing/reference |
|  | Attribute |
|  | One-to-one relationship, both objects shall exist |
|  | One-to-one relationship, the object on the right side is optional (zero or one) |
|  | One-to-many relationship, both objects shall exist |
|  | One-to-many relationship, the object on the right side is optional (zero, one or many) |

**Figure 2 — Work data and master data**

### 5.3 File naming conventions

When files are being transferred using FTP connection, the file(s) shall be named RC_CCYYMMDDhhmmss.FTL. CCYYMMDDhhmmss is the timestamp according to Table 3 of EN 15969-1:2011.



If more than one file is transferred, they shall be processed in ascending order of file names.



## 6 Fields of special types

### 6.1 Text module reference

**Table 2 — Text module reference**

| **Type** | **Size** | **Explanation** |
|---|---|---|
| R | N4.1 | Text module reference |

Text module fields according to Table 2 have the special functionality described below.

The text module selection will be done by a key number. Each record of type X can be used as a single line or as a set of lines. To differentiate between single line and set, the pointer has a special structure.

The text module reference s_txt_id is defined as a numeric value with the size: 4.1.

The text module reference s_txt_id, is defined as a numeric value with the size: 4.1. The leading 4 digit number is the key-field of the record of type X (field x_txt_id). The 1 digit number behind the decimal point counts the number of records following the first record, i.e. this number is used to increment the pointer.