

NORSOK STANDARD

COMMON REQUIREMENTS

COMPONENT IDENTIFICATION SYSTEM

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1 FOREWORD

NORSOK (The competitive standing of the Norwegian offshore sector) is the industry initiative to add value, reduce cost and lead time and remove unnecessary activities in offshore field developments and operations.

The NORSOK standards are developed by the Norwegian petroleum industry as a part of the NORSOK initiative and are jointly issued by OLF (The Norwegian Oil Industry Association) and TBL (The Federation of Norwegian Engineering Industries). NORSOK standards are administered by NTS (Norwegian Technology Standards Institution).

The purpose of this industry standard is to replace the individual oil company specifications for use in existing and future petroleum industry developments, subject to the individual company's review and application.

The NORSOK standards make extensive references to international standards. Where relevant, the contents of this standard will be used to provide input to the international standardisation process. Subject to implementation into international standards, this NORSOK standard will be withdrawn.

2 SCOPE

The document outlines the main requirements for development of flexible system for component identification. This system shall be used for identification of components by several users (Companies) and give full access to information pertaining to all components registered in the system. Identification of components from existing material coding systems can be done by using the manufacturer's model type and/or part number and technical specification.

The system shall provide for co-ordination, standardisation and limit variations in relation to common technical specifications using international, national or industry standards.

The purpose of the standard is to make it possible to retrieve component and spares within its technical information by searching on standardised and logical relation of information.

3 NORMATIVE REFERENCES

N/A

4 DEFINITIONS AND ABBREVIATIONS

4.1 Definitions

Normative references	Shall mean normative in the application of NORSOK standards.
Informative references	Shall mean informative in the application of NORSOK standards.
Shall	Shall is an absolute requirement which shall be followed strictly in order to conform with the standard.
Should	Should is a recommendation. Alternative solutions having the same functionality and quality are acceptable.

May	May indicates a course of action that is permissible within the limits of the standard (a permission).
Can	Requirements are conditional and indicates a possibility open to the user of the standard.
Data Sheet	A document containing summary information of the properties and features of a product or service.
Model no.	Manufacturer's model number for a component.
Type no.	Manufacturer's type number for a component.
Part no.	Manufacturer's part number for a component.
Functional Standard	As defined in ISO WD 13879 and 13880
Nomenclature	Standard description of components and spares

4.2 Abbreviations

p/n	part number
ID	Identification Number
ISO	International Organisation for Standardisation
NS	Norsk Standard
API	American Petroleum Standard
ASME	American Society for Mechanical Engineers

5 ELEMENTS OF IDENTIFICATION

5.1 General

Component registration will be based on identifiers for type, part, model and specification and a descriptive text giving additional information. In addition a standard text for each component shall be established and used as one of the search criteria.

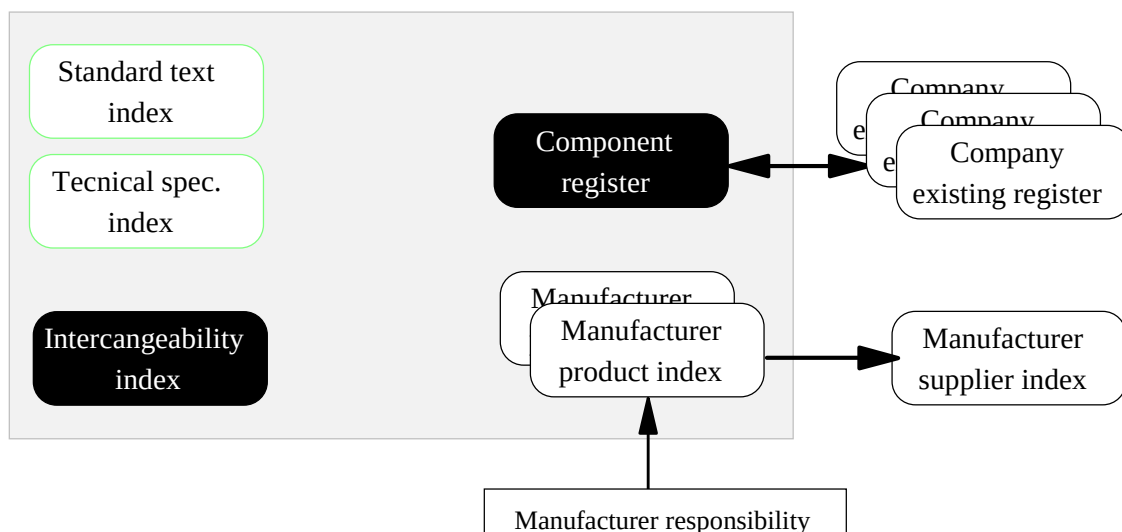
Components that meet the criteria for interchangeability will be registered in an interchangeability register.

All registered components will be connected to manufacturer, specification (spec.), data sheets, existing article number and owner.

The system shall provide for implementation of systems for maintenance, stock control and purchasing routines.

The elements that will be used for component identification and search are described further on in this document. The main elements and their interrelationship is illustrated in the figure 5.1.

Fig 5.1 Identification system



5.2 Principles and use of nomenclature and technical specification index.

The nomenclature shall be used for identification, registration and search of components in the system. The Nomenclature will comprise component information on maximum three levels:

Name	Sub-Name	Sub-Sub-Name
Motor	Electrical	Industrial

A field called Noun is compound by Name, Sub-Name and Sub-Sub-Name. This field will be used for reporting and description.

Name	Sub-Name	Sub-Sub-Name	Noun
Motor	Electrical	Industrial	Motor, Electric, Industrial

The Nomenclature to be used for registration (and search) will be based on this standard.

Attributes for the components change from component to component and will not in this document be standardised.

Noun: Motor, Electric, Ex

Attributes: Power
Voltage
Ex class
IP class
Gas group
Temperature class

Frame size
Frame type
.....
.....

Noun: Valve, Ball

Attributes: Inlet size
Bore size
Outlet size
Inlet connection
Inlet rating
Outlet connection
Outlet rating
Body material
Specification
Valve data sheet
Material data sheet
.....
.....

5.3 Interchangability index

If a component is not identified with a complete technical specification according to the Technical Specification Index, it shall also be registered in the Interchangability Index with Model/type and/or Part number and true Manufacturer and related to the component it is interchangeable with.

Registration in the Interchangability Index shall require a special qualification procedure and shall only be registered after being authorised by one of the companies using the component for which it is interchangeable with. An example of a typical interchangability listing based on a particular search input is given in table below.

NOMENCLATURE	MODEL/TYPE/PART	SPECIFICATION	MANUFACTURER	CODE
Transmitter				
	BHL 4262 100 amb		Rosemount	
	1151 DP4E22MI		Foxboro	
	LD301D11I BD01-A10		SMAR	
		1410	Norsk Standard	
Regulator				
	1320212		Andersen A/S	
	2182		Blogg Ltd. John	
Valve				
	28 A2244 X012		Fisher	
	17B 3344			
	16A 2244 RGAS/EI		Valtek	

5.4 Manufacturer's product index

All components shall be registered in the Manufacturer's Product Index. Information requirement for each component shall be supplied by the manufacturer. The responsibility for correct registration shall be with the manufacturer. The registration shall consist of the following elements:

Standard text	Interchangability reference, ref. 5.3	Model / Type / Part number	Data sheet	Manufacturer
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Where the technical specification is missing or where the component is interchangeable with a component not having a technical specification, the component shall be registered in the Interchangability Index.

5.5 Manufacturer/Suppliers identification index

Information of manufacturers will contain information about each manufacturer according to the following:

Manufacturer name	Addr.	Tel. no.	Fax no.	Telex	Contact	Supplier
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Components are always registered with real manufacturers name. Supplier information is found in the same index but by searching on suppliers name.

5.6 Components index

A component index is created based on the actual installed components based on the following information which can be generated from the plant system index.

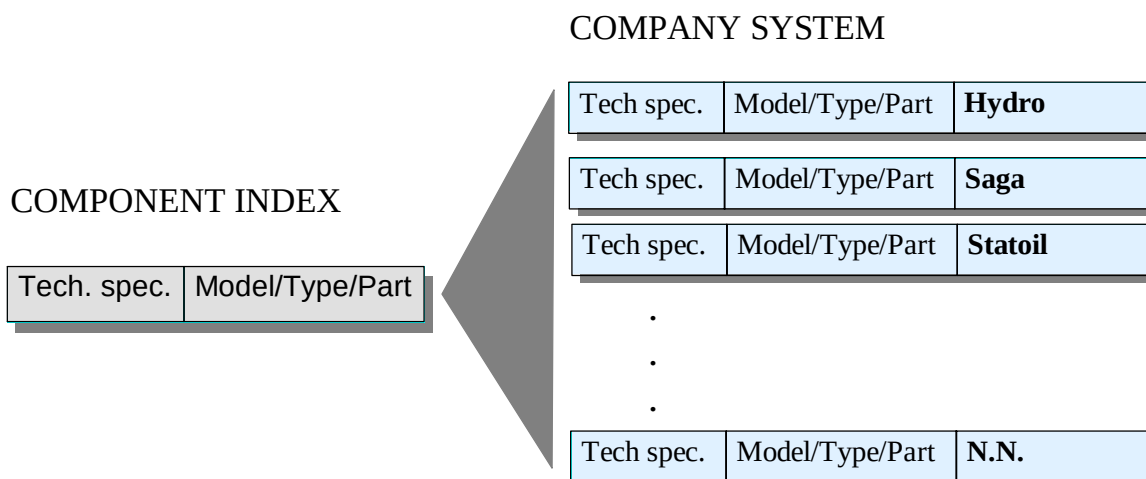
Model / Type	Part number	Data sheet	Manufacturer	Company 1		Company N
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6 APPLICATIONS OF DATABASES

1. Company register
2. Technical specifications
3. Interchanges
4. Standard text
5. Manufacturer product index

7 RELATIONS TO EXCISTING COMPANY CODING SYSTEMS

The existing operators article coding system may be used/interfaced with the new article identification system by linking through the component index.



8 STANDARD NOMENCLATURE

This standard covers the most common used names in the oil industries. Technical analysis show that 20% of the names covers 95% of the equipment in use.

To cover the need for further specification of nouns, and to avoid that each new occurrence of a component will lead to a new Sub-Name certain restrictions are needed:

Name, Sub-Name and Sub-Sub-Name should not consist of MATERIAL or FUNCTION.

Systems that uses the Nomenclature should contain a free-text field in addition to Noun. This field should be first field after Noun, and can contain any information that is needed to fully describe the component (i.e. function).

Example:

Name	:	Transmitter
Sub-Name	:	Pressure
Sub-Sub-Name	:	Electric
Free-text	:	Indicating
Noun + Free-text	:	Transmitter, Pressure, Electric, Indicating

Example:

Name	:	Gasket
Free-text	:	Body
Noun + Free-text	:	Gasket, Body

Name is in all occasions a substantive and the most significant part of the description which is able to stand alone.