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

GB/T 25742.1-2010

**Condition monitoring and diagnostics of machines -- Data
processing, communication and presentation -- Part 1: General
guidelines**

机器状态监测与诊断 数据处理、通信与表示 第1部分：一般指南

(English Translation)

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Foreword

GB/T 25742 "machine condition monitoring and diagnostic data processing, communication and said," consists of four parts.

--- Part 1. General guidelines;

--- Part 2. Data processing requirements;

--- Part 3. Communication requirements;

--- Part 4. indicates requirements.

This section GB/T 25742-2010 Part 1.

This part identical with ISO 13374-1:2003 "machine condition monitoring and diagnostic data processing, communication and representation - Part 1. a General guidelines "(in English).

For ease of use, this part of ISO 13374-1:2003, made the following editorial changes.

a) with "this Part" instead of "International Standard ISO 13374-1:2003 to the present section";

b) use a decimal point instead of a decimal comma " , " . " , " ;

c) Remove the preface to the international standards;

d) References in the part of the international standards to national standards equivalent thereto.

Appendix A of this section is informative appendix.

This part of the National mechanical vibration, shock and condition monitoring Standardization Technical Committee (SAC/TC53) centralized.

This section drafted by. Zhejiang University, China Petroleum & Chemical Corp. Jiujiang Branch.

Introduction

Software machine condition monitoring and diagnosis currently in use is not easy to exchange data, or in the absence of an integrated expansion interface case Plug and Play mode, which makes integrated systems and provide users with a unified evaluation of machine condition is very difficult. GB/T 25742 Head the software is an open specification provides a basic requirement that allows various software packages in the absence of a specific hardware platform and protocol state machine State monitoring data and information processing, exchange and display.

Extensible Markup Language (XML) is a Web Consortium (W3C) is a project whose specification developed by the W3C XML Working Group management. XML is a public format, the Standard Generalized Markup Language (SGML) prepared (see GB/T 14814-1993 [1]), for a given Description meaning different electronic document structure. Specification version 1.0 has been accepted as a W3C recommended specification 1998. W3C Recommendation indicates the specification is stable, contributes Internet interoperability, and has been under review by the entire membership by the W3C, W3C hopes that all Member Regulation Fan can be employed academic, industrial and research institutions. The specification by providing more flexibility and usability to enhance the network identification information Net.

Machine condition monitoring and diagnostic data processing, Communication and representation - Part 1. General guidelines

1 Scope

This section GB/T 25742 requirements for data-processing machine condition monitoring and diagnostic information, to communicate with the system software specifications indicated General guidance given.

Note: This portion of the future will present data processing, communication and specific software requirements specification indicated.

2.1 Overview

In order to resolve the condition monitoring data, the need for relevant data processing and analysis. Synergistic combination of technology should be able to identify possible Causes and severity, and in a proactive manner to provide the basis for machine operation and maintenance.

In order to successfully perform monitoring, manual or automatic recommend data processing and information flow diagram shown. Data stream starts at the top, that is, Specifies the monitor configuration data from a variety of detector monitoring equipment until the equipment operators and maintenance data for the measures taken. When the

information Stream by the data acquisition to the recommendations generated when the previous data processing module needs to be transmitted to the next processing module, and an additional letter Information needs to be transmitted to an external device or from an external device to come. Similarly, as data into information to a standard display technology and Jane Single graphic description. Data streams from data acquisition to complex forecasting task start until a recommendation and recommend measures (one of which may be Monitoring process itself amended).

1 data processing and information flow module

2.2.1 Machine state evaluation processing module

Evaluation of machine state can be divided into six different hierarchical processing module, the first three are technical modules for a particular technology