ICS 23.080
CCS J71

NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 13007-2011

Replacing GB/T 13007-1991

Centrifugal pump - Effeciency

离心泵 效率

Issued on: December 30, 2011 **Implemented on: October 1, 2012**

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Standardization Administration of China

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 13007-1991 "centrifugal pump efficiency." This standard compared with GB/T 13007-1991, the main technical changes are as follows:

--- Added "Normative references" (see Chapter 2);

--- Added "Terms and definitions" (see Chapter 3);

--- Modify the content of the provisions of the test medium (see 4.1,1991 version 2.1);

--- Deleted the word "set point," a number of terms used (see 4.2, 4.3, Example 1, Example 2,1991 version 2.2, 2.3, shows Example 1, Example 2);

--- B line modified to allow the pump efficiency in the working range of the lowest point (see 4.3,1991 version 2.3);

--- Increasing the calculation example ns = 210 to 300 range of the pump efficiency (see Example 3);

--- "Centrifugal pumps and centrifugal corrosion resistant pumps" to "Petrochemical centrifugal pump" (see Chapter 1, Chapter 4, Chapter 5, Figure 3, Table 3, 1991 version of Chapter 1, Chapter 2, Chapter 3, Figure 3, Table 3). The standard proposed by China Machinery Industry Federation. This standard by the National Standardization Technical Committee pump (SAC/TC211) centralized. This standard was drafted. Shenyang Institute of pumps, Shanghai East Pump (Group) Co., Ltd., Guangdong Foshan Pump Factory Co., Ltd., Shanghai KSB Pumps Ltd., Shenyang corrosion resistant alloy pump Ltd., Zhejiang New Territories Pump Co., Ltd., Hai Kai-chuen, on the pump (set Group) Co., Ltd., Hefei Great Yuan Pump Co., Ltd., Hangzhou Alkali Pump Co., Ltd, Harbin Lin celebration Pump Co., Ltd., Guangzhou Bai Cloud Pump Group Limited. The main drafters of this standard. Bao Han Zhong, Liu Weiwei, Yu Shi Mo, then Pan Bing, Han Jie, Xu Mintian, Xiao Gonghuai, Hanyuan Ping, Chen Jianmin, Zhaohui Bin, Zhou Xianming, Liu Qi. This standard replaces the standards previously issued as follows:

--- GB/T 13007-1991. Centrifugal Pump Efficiency

1 Scope

GB/T 13007-2011 is the Chinese national standard on centrifugal pump - effeciency, in the field of fluid systems and general-purpose components. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 30 December 2011 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 October 2012. Classification: ICS 23.080, CCS J71. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies a single-stage centrifugal pumps, multistage centrifugal pumps, petroleum chemical centrifugal pump efficiency. This standard applies to.

a) single-stage centrifugal pump. Flow Q>=5m3/h, specific speed ns = 20 ~ 300 (or type the number of K = 0.103 ~ 1.55);

b) multi-stage centrifugal pump. Flow Q>=5m3/h ~ 3000m3/h, specific speed ns = 20 ~ 300 (or type the number of K = 0.103 ~ 1.55);

c) Petrochemical centrifugal pump. Flow Q>=5m3/h ~ 3000m3/h, specific speed ns = 20 ~ 300 (or type the number of K = 0.103 ~ 1.55).

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 3216 rotary power pump hydraulic performance acceptance tests - Grades 1 and 2 (ISO 9906)

GB/T 7021 centrifugal Terminology

3 Terms and Definitions

GB/T 7021 defined the terms and definitions apply to this document.

4 Efficiency

Efficiency value of

4.1 standard is based on water (0 °C ~ 40 °C) value for the centrifugal pump efficiency test

medium, the test should be consistent with GB/T 3216 Provisions.

4.2 maximum efficiency point of efficiency according to the following provisions. When

a) single-stage and single-stage single-suction double suction centrifugal pump flow rate of 5m3/h ~ 10000m3/h, not less than the curve A in Figure 1 or Table 1 A provision in the column, the flow is greater than 10000m3/h, the not less than 90%;

b) multi-stage centrifugal pump curve in Figure 2 is not less than specified in Table A or 2 A column;

c) Petrochemical centrifugal pump curve in Figure 3 is not less than specified in Table A or 3 A column.

4.3 within the allowable working range of the pump efficiency lowest point of the following shall apply. When

a) single-stage and single-stage single-suction double suction centrifugal pump flow rate of 5m3/h ~ 10000m3/h, not less than the curve B in Figure 1 or Table

1 Provisions in Column B, the flow is greater than 10000m3/h, the not less than 80%;

b) multi-stage centrifugal pump is not less than a predetermined curve B or Table 2 column B in Figure 2;

c) Petrochemical centrifugal pump curve in Figure 3 is not less than specified in Table 3, B or B column.

4.4 is not specific speed of 120 to 210 (or type number is not 0.621 - 1.086) efficiency within the range of values according to the following provisions.

a) specific speed from 20 to 120 (or type the number of efficiency values within 0.103 ~ 0.621) should be in the range of 4 curve or table

b) provision of more than 5 or speed curve at 210 to 300 (the number or type of the efficiency values within