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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 12222-2023

Replacing GB/T 12222-2005

Multi-turn valve actuator attachments

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foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents"

drafting:

This document replaces GB/T 12222-2005 "Connection of Multi-turn Valve Actuators": Compared with GB/T 12222-2005, except

In addition to structural adjustments and editorial changes, the main technical changes are as follows:

a) Changed the range and added a schematic diagram of the connection surface between the multi-turn/linear drive and the valve (see Chapter 1,:2005 edition

Chapter 1);

b) Added the term and definition of "linear drive device" (see 3:3);

c) The flange codes and related dimensions of F05, F48 and F60 have been added (see Table 1 to Table 5);

d) Added the expression method of the flange code (see Chapter 6);

e) Increased the size of components that only transmit torque: Group C (see 7:4);

f) Increased the size of components that only transmit torque: Group D (see 7:5);

g) Increased the size of components that only transmit thrust: linear drive (group E) (see 7:6):

This document is modified to adopt ISO 5210:2017 "Connection of multi-turn valve actuators for industrial valves":

The technical differences between this document and ISO 5210:2017 and their reasons are as follows:

--- ISO 273 (see 5:1) is replaced by GB/T 196 with normative references: The degree of consistency between the two documents is modified to suit

It should meet the technical conditions of our country and meet the application needs of our country;

--- Added the term and definition of "flange code" (see 3:6) to meet the needs of our country in practical applications;

---Change "Materials whose yield strength Re is less than or equal to:200MPa should be agreed upon by both parties" to "Yield strength Re less than

The material of:200MPa should be negotiated by both the supplier and the buyer" (see 5:4) to meet the needs of practical applications in our country:

The following editorial changes have been made to this document:

---Change the file name to "Connection of Multi-turn Valve Actuator";

--- Deleted references that did not appear in the text:

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

1 Scope

This document specifies the relevant requirements for the connection of multi-turn or linear actuators connected to valves:

--- Flanges necessary for multi-turn drives connected to industrial valves [see Figure 1a)] or intermediate supports [see Figure 1b)]

size;

---The structural form and size of the driving part of the multi-turn drive device necessary to connect with the driven part;

--- The reference value of the size of the flange connecting surface directly connected with the industrial valve and the torque and thrust of the connecting flange:

This document applies to the connection dimensions of multi-turn valve actuators and valves:

Note 1: "Valve" in this document includes "valve with intermediate support" [see Figure 1b)]:

Note 2: When the multi-turn driving device is composed of a multi-turn driving device and an integrated multi-turn gearbox or linear travel assembly, the connection is in accordance

with this document

Provisions, see Figure 1a) and Figure 1b): When the multi-turn drive is composed of a multi-turn drive with a separate multi-turn gearbox or linear

When the assembly is composed, the connection of the multi-turn drive connected to the gearbox is in accordance with the provisions of this document, see Figure 1c) and Figure 1d):

a) direct connection b) intermediate support connection c) combined direct connection d) combined intermediate support connection

Description of index number:

1---Multi-rotary or linear driving device; 5---Gear box;

2---connection surface; 6---connection surface;

3---valve; 7---multi-turn drive device:

4--- There is a support connection in the middle;

Figure 1 The connection surface between the multi-turn/linear drive device and the valve

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document:

GB/T 196 Common thread basic dimensions (GB/T 196-2003, ISO 724:1993, MOD)