



I-TORK CONTROLS CO., LTD.
12-13 GILJU-RO 411BEON-GIL, BUCHEON-SI
GYEONGGI-DO, KOREA

Reference No.: HDL4/khk/T1662925
Project No.: 3890549
Date: 22 August 2017

ATTN : Mr. Min-Sung Yang / Manager

Review Activity : **Type Approval Design Assessment (PDA)**
“Electric Actuator”
Model : See the attached table
Your Ref.: PDA Application

Gentlemen:

We have received your declaration stating that the materials in the requested assessment are free from Asbestos and your application for ABS Type Approval dated 29 June 2017 together with the enclosures listed below. Having reviewed the enclosures in accordance with the following Standards/Codes/Rules:

- 2017 Steel Vessels Rules 1-1-4/7.7, 1-1-A3 & A4, 4-1-1/Table 6, 4-6-7/3.5.5

We are pleased to advise that we have completed the Product Design Assessment (PDA) phase of the type approval process. Enclosed is your original copy of the PDA. Your details are published on our web site at www.typeapproval.org and can also be downloaded therefrom.

Please be sure that you understand the scope and conditions of the validity of the certificate. An assessment is not an approval. As applicable, the PDA is a generic assessment of materials, components, products or systems for a specific use in compliance with the Rules, Guides and recognized standards. In essence the final approval is given when an Engineer or Surveyor accepts it for a specific user and installation. Therefore, the PDAs are written assuming that the end user and installation of the product is unknown, and that the manufacturer may not apply for Manufacturing Assessment.

In particular we draw your attention to the pages attached to the PDA and the restrictions that may affect its use.

Unit Certification is not required for this product. If you or your purchaser requests an ABS Certificate for compliance with a specification or standard; the specification or standard, including inspection standards and tolerances, you must clearly define the conformity criteria.

This Product Design Assessment (PDA) is intended for products to be used on ABS classed vessels, MODUs or facilities which are in existence or under contract for construction on the date of the ABS Rules used to evaluate the Product. The use of the product in a non-ABS classed vessel, MODU or facility is to be mutually agreed between your company and your client

We recommend that you monitor the ABS Rules, Guides and other standards used in the approval. These Rules, Guides and standards often change on an annual basis, and you must comply with the new Rules, Guides and standards in order for the product to be used on an ABS classed vessel or facility contracted under the new Rules, Guides or specifications.

- To be continued in the next page.



- Continued from 1 page.

We do caution you that the use of the ABS logo is copyrighted. However, our "Design Assessed" logo may be used as long as your PDA remains valid.

Our "Product Type Approval" Logo may be used as long as you have an ISO9001 Certified Quality System (or equivalent) and you are conducting regular ABS Manufacturing Assessment audits of your manufacturing process. Should you desire to continue with Product Type Approval, please contact the ABS Office at Busan, Tel: 82-51-463-4600, Fax: 82-51-463-4610. The office will arrange for the production testing as may be necessary and audit of your quality assurance and control arrangements. To find another office, please use the directory of ABS offices on the ABS Web Site at www.eagle.org. You may also ask the ABS Program staff at Tel. (281) 877-6107, Fax (281) 877-6591, or e-mail absta-programs@eagle.org.

A copy of the artwork for the Design Assessed and Type Approved logos may be requested from our email address absta-programs@eagle.org. Please be aware that both logos are not to be used at the same time. For a copy of the art work and detailed guidance on their use, please contact absta-programs@eagle.org


An electronic copy of each of the subject drawings, appropriately stamped to indicate our review, are available through the ABS Eagle Construct Engineering Manager (O2E), Web Portal.

Our invoice to cover the cost of the subject review will be sent separately.

We appreciate your confidence in ABS type Approval. If you should have any comments relative to the scope and conditions of the assessment of your product, or if we can be of any further assistance, please do not hesitate to contact Mr. Hyun-Dae Lee at 82-51-460-4131(1st contact) or the undersigned at 82-51-460-4159(2nd contact). In all communications with ABS regarding this approval please quote the Reference and the date of this letter.

Very truly yours,

Jang-Ho Yoon
Director, Engineering
ABS Busan Engineering

By: 

Ku-Ho Ki,
Principal Engineer
Ship/Offshore Engineering System Dept.

Encl: As stated.
cc: ABS Busan - O2E



Enclosures

Drawing No	Revision No	Drawing Title
-	-	ITQ SERIES 1. ITQ 0100 2. ITQ 0160 3. ITQ 0240 4. ITQ 0350 5. ITQ 0500 6. ITQ 0800 7. ITQ 1100 8. ITQ 2000 9. ITQ 3000 10. ITQ 6000 11. ITQ 9000



CERTIFICATE NUMBER
17-BK1662925-PDA

DATE
18 Aug 2017

ABS TECHNICAL OFFICE
Busan Engineering Services

CERTIFICATE OF DESIGN ASSESSMENT

This is to certify that a representative of this Bureau did, at the request of
I-TORK CONTROLS CO., LTD.

assess design plans and data for the below listed product. This assessment is a representation by the Bureau as to the degree of compliance the design exhibits with applicable sections of the Rules. This assessment does not waive unit certification or classification procedures required by ABS Rules for products to be installed in ABS classed vessels or facilities. This certificate, by itself, does not reflect that the product is Type Approved. The scope and limitations of this assessment are detailed on the pages attached to this certificate.

Product: **Actuator, Electric for Valves**

Model: **ITQ SERIES 1. ITQ 0100 2. ITQ 0160 3. ITQ 0240 4. ITQ 0350 5. ITQ 0500 6.
ITQ 0800 7. ITQ 1100 8. ITQ 2000 9. ITQ 3000 10. ITQ 6000 11. ITQ 9000**

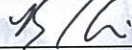
This Product Design Assessment (PDA) Certificate 17-BK1662925-PDA, dated 18/Aug/2017 remains valid until 17/Aug/2022 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

This PDA is intended for a product to be installed on an ABS classed vessel, MODU or facility which is in existence or under contract for construction on the date of the ABS Rules or specifications used to evaluate the Product.

Use of the Product on an ABS classed vessel, MODU or facility which is contracted after the validity date of the ABS Rules and specifications used to evaluate the Product, will require re-evaluation of the PDA.

Use of the Product for non ABS classed vessels, MODUs or facilities is to be to an agreement between the manufacturer and intended client.

AMERICAN BUREAU OF SHIPPING


Yun-Sung Kim
Engineer/Consultant

NOTE: This certificate evidences compliance with one or more of the Rules, Guides, standards or other criteria of ABS or a statutory, industrial or manufacturer's standards. It is issued solely for the use of ABS, its committees, its clients or other authorized entities. Any significant changes to the aforementioned product without approval from ABS will result in this certificate becoming null and void. This certificate is governed by the terms and conditions as contained in ABS Rules 1-1-A3/5.9 Terms and Conditions of the Request for Product Type Approval and Agreement (2010).

I-TORK CONTROLS CO.

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BUCHEON-SI GYEONGGI-DO

Korea, Republic of

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Email: msyang@i-tork.com

Web: www.i-tork.com

Tier: 2 - PDA Issued

Product: Actuator, Electric for Valves**Model:** ITQ SERIES

1. ITQ 0100

2. ITQ 0160

3. ITQ 0240

4. ITQ 0350

5. ITQ 0500

6. ITQ 0800

7. ITQ 1100

8. ITQ 2000

9. ITQ 3000

10. ITQ 6000

11. ITQ 9000

Intended Service:

Lubricating oil, Fuel Oil, Fresh Water, Bilge, Sanitary system

Description:

1. Body : AC2B

2. Top cover : AC2B / ALDC12

3. Handle : AC2B / ALDC12

Rating:

1. Output Torque From 100Nm to 9000Nm (885 lbf-in to 79656 lbf-in)

2. Design Temperature : -18°C to 70°C

3. Weatherproof(IP67) Optional(IP68)

4. Explosion Proof(IICG Ex d IIB T4)

Service Restriction:

Unit Certification is not required for this product. If the manufacturer or purchaser's request an ABS Certificate for compliance with a specification or standard, the specification or standard, including inspection standards and tolerances, must be clearly defined.

Comments:

1. The Manufacturer has provided a declaration about the control of, or the lack of Asbestos in this product.
2. Materials are to be tested by the manufacturers and, upon request, the test results are to be submitted to ABS.
3. Each cylinder is to be affixed with a permanent nameplate or marking bearing the manufacturer's name or trademark and the maximum allowable working pressure and temperature in accordance with 4-6-7/3.5.5 (b) iii) of the 2017 Steel Vessels Rules.
4. Each individual unit is to be hydrostatically tested to 1.5 times the maximum allowable working pressure (2 times, for cast iron and nodular iron cylinders) by the manufacturer. A test certificate is to be submitted in accordance with 4-6-7/3.5.5 (b) ii) of the 2017 Steel Vessels Rules.
5. Copies of certified mill test reports are to be made available to the Surveyor upon request in accordance with 4-6-7/3.5.5 (c) iii) of the 2017 Steel Vessels Rules.

Notes/Drawing/Documentation:

Drawing No. ITQ0100-50010-A

Drawing No. ITQ0160-50010-A

Drawing No. ITQ0350-50010-A

Drawing No. ITQ0800-50010-A

Drawing No. ITQ3000-50010-A

Drawing No. ITQ9000-50010-A

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Web: www.i-tork.com

Tier: 2 - PDA Issued

Terms of Validity:

This Product Design Assessment (PDA) Certificate 17-BK1662925-PDA, dated 18/Aug/2017 remains valid until 17/Aug/2022 or until the Rules or specifications used in the assessment are revised (whichever occurs first).

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STANDARDS

ABS Rules:

2017 Steel Vessels Rules 1-1-4/7.7, 1-1-A3 & A4, 4-1-1/Table 6, 4-6-7/3.5.5

National:

NA

International:

NA

Government:

NA

EUMED:

NA

OTHERS:

NA