



## LR Type Approval Certificate Extension

*This is to certify* that Certificate No. 93/60111(E3) for the undernoted products is extended and renumbered as shown.

PRODUCER	Valve Automation, Emerson Process Management
PLACE OF PRODUCTION	18703 GH Circle PO Box 508 Waller, Texas 77484 United States of America
Alternate Place of Production	Emerson Process Management Valve Automation (Tianjin) Co.,Ltd. No.15, Xing Wang Road, Wuqing Development Area, Tianjin, 301700 People's Republic of China
DESCRIPTION	Quarter turn, scotch yoke, pneumatic actuators, double acting or spring return.
TYPE	CBA 315, CBA415, CBA420, CBA520, CBA525 & CBA 725 (DA, -SR40, -SR-60, SR80 & -SR100) CBA 730, CBA830, CBA930 & CBA 1030 (DA, -SR40, -SR-60, SR80 & -SR100) CBB315, CBB415, CBB420, CBB520, CBB525, CBB725 (DA, -SR40, -SR-60, SR80 & -SR100)
STANDARDS	Emerson Process Management Standard EDOP 2.1 IEC60529 SI 1996 No. 825 SI 1996 No. 913
RATINGS	Moment Arm (inches): 1.5, 2, 2.5 or 3 Operating pressure (psi) : 48 to 166 psi Torque- double acting (lb.in) 380 to 20846 Torque- spring return (lb.in) 148 to 22055 IP 66 & IP 67M
Certificate No.	93/60111 (E4)
Issue Date	20 June 2008
Expiry Date	19 June 2013
Sheet	1 of 2

  
Gopalakrishnan. P



Lloyd's Register North America Inc.  
1505, Highway 6 South, Houston - Texas 77077

APPLICATION

Fixed or mobile offshore use. To drive quarter turn valves to open or closed position using air in both directions ( double acting) or air in one direction ( spring return)

OTHER CONDITIONS

1. For applications on ESD valves the following are the limitations:-

- (i) The actuators are to be fire proofed to the same rating of the valves and are to be protected against explosion or impact.
  - (ii) The actuators are to be spring return self closing type.
  - (iii) Suitable local controls are to be provided at the installation to release the pneumatic supply air inlet for local closing of the spring return actuators.
  - (iv) The manual over rides are not to be provided.
  - (v) The evaluation of the leakage rate of the valve is not part of the actuator approval and is to be verified by the owner/operator.
2. This type approval may contribute to the requirement of a Verification Scheme established by a Duty Holder SI 1996 No. 825 and SI 1996 No. 913

*"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have varied from the specimen tested. The manufacturer should notify Lloyd's Register North America, Inc. of any modification or changes to the equipment in order to obtain a valid certificate."*

*The attached Design Appraisal Document No. 93/60111 (E4) and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 93/60111(E3) to which this extension should be attached.

Certificate No. 93/60111 (E4)  
Issue Date 20 June 2008  
Expiry Date 19 June 2013  
Sheet 2 of 2

  
Gopalakrishnan. P



# Marine Design Appraisal Document

Lloyd's Register North America, Inc.  
Oil and Gas Americas  
Suite 100  
1505 Highway 6 South  
Houston, Texas 77077  
USA

Date  
**28 May 2009**

Quote this reference on all future communications  
**93/60111(E4)**

LLOYD'S REGISTER'S TYPE APPROVAL SYSTEM, 2002.  
Issued to: Valve Automation, Emerson Process Management  
For: CBA,CBB series quarter turn actuators  
TYPE APPROVAL CERTIFICATE No. 93/60111 (E4)

The undernoted documents have been reviewed for compliance with the requirements of Lloyd's Register's Type Approval System, 2002 and this Design Appraisal Document is a supplement to the Certificate.

## APPROVAL DOCUMENTATION

Request form 6606NA	14 Jan 2009
Inspection and Surveillance of Production Facilities	9 Feb 2009
LRQA certificate of approval for Tianjin facility	29 April 2008

## Test Reports

2000 cycles cold temperature test on CBA 725-SR40 - for Chinese substitute materials	T209006
Wyle laboratories Test Report No. 15647-01	19 Feb 2009

## Drawings Reviewed

Torque Shaft CBB 315/415 - Drg. No. 152014 Rev A  
Housing CBBX25/SR - Part No. 151550 Rev A  
Torque Shaft CBBX25 - Drg. No. 151551 Rev. A  
Housing CBB 420/520 - Part No. 152011 Rev A  
Housing CBB 315/415 - Part No. 152012 Rev A  
Torque Shaft CBB 420/520 - Drg. No. 152013 Rev A

FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

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Lloyd's Register, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as the 'Lloyd's Register Group'. The Lloyd's Register Group assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register Group entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.

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Oil and Gas Americas  
Suite 100  
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USA

Date  
28 May 2009

Quote this reference on all future communications:  
93/60111(E4)

Supplementary Type Approval Terms and Conditions

Type Approval certifies that a representative sample of the product(s) referred to herein have been found to meet the applicable design criteria for the use specified herein. It does not mean or imply approval for any other use, nor approval of any product(s) designed or manufactured otherwise than in strict conformity with the said representative sample.

Type Approval is based on the understanding that the manufacturer's recommendations and instructions and any relevant requirements of the Rules and Regulations are complied with. Type Approval does not eliminate the need for normal inspection and survey procedures required by the Rules and Regulations.

Lloyd's Register North America, Inc. reserves the right to cancel or withdraw this Type Approval Certificate in accordance with the Lloyd's Register Type Approval System Procedure.



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FINAL ACCEPTANCE OF ACTUAL ITEM(S) DEPEND(S) ON SATISFACTORY SURVEY AND TESTING

Lloyd's Register North America, Inc.  
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Part 1A  
 Subject: Hydraulic/Pneumatic Systems  
 Product: Actuator

Producer/Licence No.		Description of Product			Cert. No.
Type	Details of Approval	Application	Remarks		
Valve Automation Emerson Process Management 18703 GH Circle PO Box 508 Weller, Texas 77484 USA  Alternate Place of Production Emerson Process Management Valve Automation (Tianjin) Co., Ltd. No.15, Xing Wang Road, Wuqing Development Area, Tianjin, 301700 People's Republic of China	Quarter turn, scotch yoke, pneumatic actuators: double acting or spring return Moment Arm (inches): 1.5, 2, 2.5 or 3 Operating pressure (psi): 48 to 166 psi Torque-double acting (lb.in) 380 to 20846 Torque-spring return (lb.in) 148 to 22055	Fixed or mobile offshore use. To drive quarter turn valves to open or closed position using air in both directions (double acting) or air in one direction (spring return)	Expires: 19 June 2013 Refer to certificate for conditions of approval.		93/60111 (E4)

*Completed*