

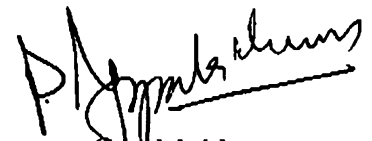


## LR Type Approval Certificate Extension

This is to certify that Certificate No. 93/00111(E2) for the undernoted products is extended and renumbered as shown.

<b>PRODUCER</b>	Bettis Actuators & Controls
<b>PLACE OF PRODUCTION</b>	18703 GH Circle PO Box 508 Waller, Texas 77484 United States of America
<b>DESCRIPTION</b>	Quarter turn, scotch yoke, pneumatic actuators, double acting or spring return.
<b>TYPE</b>	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)
<b>STANDARDS</b>	Bettis Internal Company Standard EDOP 2.1 IEC60529 SI 1996 No. 825 SI 1996 No. 913
<b>RATINGS</b>	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
<b>APPLICATION</b>	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)

Certificate No.	93/60111 (E3)
Issue Date	20 June 2003
Expiry Date	19 June 2008
Sheet	1 of 2

  
Gopalakrishnan. P



Lloyd's Register North America Inc.  
1401, Enclave Parkway, Suite 200, Houston - Texas 77077

## 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 been 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(E3) and its supplementary Type Approval Terms and Conditions form part of this Certificate.*

All other details remain as the previous Certificate No. 93/00111(E2) to which this extension should be attached.

Certificate No.	93/60111 (E3)
Issue Date	20 June 2003
Expiry Date	19 June 2008
Sheet	2 of 2

  
Gopalakrishnan. P



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**DESIGN APPRAISAL DOCUMENT**

Date 20 June 2003	Quote this reference on all future communications NAO/0302517/GP
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**THE LR TYPE APPROVAL SYSTEM, 2002**

**Issued to: Bettis Actuators & Controls**

**for: Quarter turn, scotch yoke, pneumatic actuators, double acting or spring return  
TYPE APPROVAL CERTIFICATE No. 93/60111(E3)**

The undernoted documents have been reviewed for compliance with the requirements of LR Type Approval System, 2002 and this Design Appraisal Document forms part of the certificate.

**APPROVAL DOCUMENTATION**

Request form	12 Sept 2002
Part No. 129738 Rev. D CBAXXX – Assembly drawing & bill of materials	19 June 03
Part No. 129739 Rev. D CBAXXX- SRX – Assembly drawing & Bill of materials	19 June 03
Part No. 129740 Rev. E CBAXXX –M3HW Assembly drawing & Bill of materials	19 June 03
Part No. 129741 Rev. E CBAXXX – SRX –M3HW Assembly drawing & Bill of materials	19 June 03
Design Files 75 for CBA 15, 20 & 25 dated 10 March 03	19 June 03
Design File # 92 for CBA 30 dated 2 November 02	19 June 03

**TEST REPORTS**

LR Houston – test reports TP 20301, TP 20302, TP 20303 TO 20304 Rev. B	04 June 03
Wyle Laboratories Test report 47221-01	09 Aug 02

**Supplementary Type Approval Terms and Conditions**

*Type Approval certifies that a representative sample of the product(s) referred to herein has/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 LR Type Approval System Procedure.*

Gopalakrishnan, P

Senior Surveyor

LRNA - Operations - Houston

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Part 1A

Subject: Hydraulic/ Pneumatic Systems

Product: Actuator

Description of Product		Type	Details of Approval	Application	Remarks	Cert. No.
Producer/Licence No.						
Bettis Actuators & Controls 18703 GH Circle PO Box 508 Waller, Texas 77484 USA	CBA315, CBA415, CBA420, CBA520, CBA525 & CBA 725 CBA 730, CBA830, CBA930 & CBA 1030	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 2008 Refer to certificate for conditions of approval.	93/60111(E3)	

*Completed*