



## ABS GROUP LIMITED THE PRESSURE EQUIPMENT DIRECTIVE EC TYPE-EXAMINATION CERTIFICATE

CERTIFICATE NUMBER: 0528-2002-001-PED-T

OFFICE: LONDON

This is to certify that ABS Group Ltd, a Notified Body appointed under the requirements of the Pressure Equipment Directive 97/23/EC and The Pressure Equipment Regulations 1999 of the United Kingdom, did undertake an EC Type Examination of the subject equipment in accordance with the requirements of the said Directive and Regulations. The equipment was found to be in compliance.

This certificate is issued to: Circle Seals Controls, Inc.

Address: 2301 Wardlow Circle  
Corona  
CA 92880  
United States

Description of the equipment: 500 and D500 Relief Valves

Type: Safety Relief Valves

Standard: ASME/ANSI B31.1

Maximum allowable pressure: 200 psi (13.79 bar)

Maximum allowable temperature: 400°F (204.4°C) (Stainless Steel)  
200°F (93.3°C) (Aluminium)  
100.4°F (38°C) (Brass)

Minimum allowable temperature: -320°F (-196°C)

Capacity / Nominal Diameter: 500-D, -DB, -DJ & D500-D Series:  
500-4, 500-5, 500-6, 500-8, 500-12, 500-16, 500-24

500-S & D500-S Series:  
500-1, 500-2, 500-3, 500-4, 500-6, 500-8

500-SX Series:  
500-2, 500-3, 500-4, 500-6, 500-8, 500-10

500-M, D500-M & MD500-M Series:  
500-1, 500-2, 500-3, 500-4, 500-6, 500-8, 500-12

500-1M2P



**ABS GROUP LIMITED**  
**THE PRESSURE EQUIPMENT DIRECTIVE**  
**EC TYPE-EXAMINATION CERTIFICATE**

Capacity / Nominal Diameter (cont.): 500-MP Series:  
500-2, 500-3, 500-4, 500-6, 500-8, 500-10

500-1M-B Series:  
500-1M4B, 500-1M8B

500-1P2M

500-KL Series:  
500-2, 500-3, 500-6

500-T, -TB & TJ Series:  
500-4, 500-6, 500-8, 500-12, 500-16, 500-24

Category under the Regulations: IV

**Prototype Examined:**

Equipment: Relief Valve

Type: PED559B-6M-F

Serial Number: 2

ABS Group Ltd. report numbers: 2002-6260-H

Maximum allowable pressure: 200 psi

Maximum allowable temperature: 100°F

Minimum allowable temperature: -20°F

Capacity / Nominal Diameter: ¾" Inlet

**Technical Documents Reviewed:**

Refer to Attached Schedule

Name of representative: Michael Cooper

Date of Issue: 17 December 2002

Date of Expiry: 16 December 2012

Signature:



## ABS GROUP LIMITED THE PRESSURE EQUIPMENT DIRECTIVE SCHEDULE TO TYPE EXAMINATION CERTIFICATE

REFERENCE NUMBER: 11112069

DATE: 17 December 2002

**Technical Documents Reviewed:**

Technical Documentation Check Sheet  
500 series Relief valves Summary Page  
Catalogue Pages  
Stress Calculations  
PED rating  
Operating & Installation Instructions  
Hazard Analysis No. 500

TSZ-105-99-P02 Check Sheet A

500-*D	Rev A 2/1/88
500-4D	Rev C
500-5D	Rev B
500-6D	Rev C
500-8D	2/1/88
500-12D	2/1/88
500-16D	96-06-26
500-24D	3-15-83
500-16DB	2/1/88
500-12DB	3/28/88
500-8DB	2/1/88
500-6DB	Rev C
500-4DB	Rev C
500-*DB	2/1/88
500-*DJ	6/2/88
500-4DJ	4/4/91
500-6DJ	Rev C
500-8DJ	2/17/88
500-*K	1/9/92
500-2K	1/9/92
500-3K	7/28/93
500-4K	1/9/92
500-6K	1/9/92
500-*KL	1/9/92
500-2KL	1/9/92
500-3KL	1/9/92
500-4KL	1/9/92
500-6KL	1/9/92
500-*M Sheet 1	95/09/14
500-*M Sheet 2	95/09/14
500-1M	Rev C
500-2M Sheet 1	Rev C
500-2M Sheet 2	Rev A
500-3M	Rev A
500-4M	Rev A
500-6M	Rev A
500-8M	96/06/26
500-*MP	2/23/88
500-2MP	Rev C
500-3MP	Rev B
500-4MP	Rev A



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**THE PRESSURE EQUIPMENT DIRECTIVE**  
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500-6MP	2/1/88
500-8MP	2/1/88
500-10MP	Rev A
500-*S	2/9/93
500-1S	10/31/91
500-2S	10/31/91
500-3S	10/31/91
500-4S	10/31/91
500-6S	10/31/91
500-8S	9/29/93
500-*SX	97/03/19
500-2SX	10/31/91
500-3SX	10/31/91
500-4SX	10/31/91
500-6SX	10/31/91
500-8SX	97/03/18
500-10SX	9/19/94
500-*T	2/1/88
500-4T	Rev B
500-6T	Rev B
500-8T	2/1/88
500-12T	2/1/88
500-16T	96/06/26
500-24T	3/15/83
500-*TB	2/1/88
500-4TB	Rev C
500-6TB	Rev D
500-8TB	Rev A
500-12TB	2/1/88
500-16TB	2/1/88
500-*TJ	99/10/28
500-8TJ	6/30/87
500-12TJ	99/10/28
500-*U	5/18/87
500-4U	Rev A
500-6U	Rev B
500-PM	2/6/87
500-IP2M	Rev B
D500-*D	99/01/05
D500-*M	5/9/89
10126 Body	1/28/88
10173 Body	Rev B
10180 Body	Rev B
10181 Poppet	7/31/92
10186 Poppet	9/13/90
10207 Body	Rev B
10208 Body	Rev B
10224 Body	Rev B
10260 Body	Rev B
10261 Poppet	11/22/91
10271 Body	Rev C
10272 Body	Rev B
10280 Body	Rev B





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**THE PRESSURE EQUIPMENT DIRECTIVE**  
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10300 Poppet	98/09/04
10361 Poppet	7/22/88
10376 Body	11/30/88
10380 Body	Rev B
10382 Body	7/25/88
10384 Body	98/09/04
10387 Body	Rev A
10454 Body	99/05/04
10460 Body	1/28/88
10461 Poppet	5/16/90
10480 Body	1/28/88
10487 Poppet	98/08/28
10488 Poppet	98/08/28
10489 Poppet	98/08/28
10657 Body	Rev B
10659 Body	Rev B
10660 Body	1/28/88
10661 Poppet	8/25/92
10668 Body	1/28/88
10670 Body	1/28/88
10671 Body	1/28/88
10672 Body	1/28/88
10842 Body	Rev A
10843 Poppet	98/08/28
10846 Body	1/28/88
10860 Body	1/28/88
12196 Body	Rev B
12200 Body	98/08/27
12203 Poppet Head	9/15/69
12216 Body	Rev C
12229 Body	Rev B
13050 Poppet	98/08/28
22330 Body	Rev C
26846 Body	1/9/92
26847 Body	1/9/92
26848 Body	1/9/92
26849 Body	1/9/92
26850 Body	1/9/92
26851 Body	1/9/92
26852 Body	1/9/92
26853 Body	1/9/92
30340 Poppet	96/04/30
32166 Body	98/08/27
32167 Poppet	98/09/04
32780 Body	7/14/87
34453 Body	8/29/84
36928 Body	10/31/91
36929 Body	10/31/91
36930 Body	10/31/91
36931 Body	10/31/91
36932 Body	10/31/91
36938 Body	10/31/91
36939 Body	10/31/91



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36940 Body	10/31/91
36941 Body	10/31/91
37804 Body	9/29/93
38188 Body	9/16/94
39498 Body	97/03/18
40562 Body	99/10/28
National Board Test Result 16316A	13 December 2002
National Board Test Result 16311A	12 December 2002
Particular Material Appraisal: ASTM B16	16 October 2002
Particular Material Appraisal: ASTM B211	16 October 2002
Particular Material Appraisal: ASTM A479 316	16 October 2002

M. H. Cooper  
For ABS Group Ltd.



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REFERENCE NUMBER: 11112069

DATE: 17 December 2002

### Technical Documents Reviewed:

Technical Documentation Check Sheet  
D500 series Relief valves Summary Page  
Catalogue Pages  
Stress Calculations  
PED rating  
Operating & Installation Instructions  
Hazard Analysis No. 500  
D500-2M  
MD500-2M  
22314 Poppet  
22315 Poppet  
22316 Poppet  
22329 Poppet  
22327 Poppet  
22328 Poppet  
26054 Body  
26461 Body  
National Board Report 16316A  
National Board Report 16311A  
Particular Material Appraisal: ASTM B16  
Particular Material Appraisal: ASTM B211  
Particular Material Appraisal: ASTM A479 316

TSZ-105-99-P02 Check Sheet A

Rev A  
Rev A  
Rev A  
7/31/87  
7/31/87  
7/31/87  
1/29/85  
99/05/26  
12/19/85  
1/10/91  
8/02/70  
13 December 2002  
12 December 2002  
16 October 2002  
16 October 2002  
16 October 2002

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For ABS Group Ltd.