

Catalina Cylinders

12452 Monarch Street
Garden Grove, CA 92841

Declaration of Conformity according to the European Pressure Equipment Directive 2010/35/EU and conforms with the requirements of the ADR/RID 2011 (PED)

For pressure equipment

The manufacturer herewith declares that the pressure equipment described below complies with the requirements of the Pressure Equipment Directive.

Description:

Aluminum Cylinder for Compressed Breathing Gas

For Application in Breathing Apparatus

Model: S80.3

Volume [L]: 11.1

Test pressure P_H [bar]: 311

Service pressure P_s [bar]: 207

Serial numbers: GV0002842 - GV0002850

Year/month of Manufacture: 2014/02

Applied conformity assessment procedures: Modules B + C1

Applied Standards: ISO 7866; 1999

EC Type Examination Certificate: USA 11-02-189-005

Notified body in charge for monitoring of the final assessment: TUV SUD Industrie
Service GmbH, Westendstr. 199 D-80686 Munchen, NB No: 0036

Date: 2/24/2014

Manufacturer's Stamp: **Catalina**

Name: Bob Lance

Position: Quality Manager

Signature Bob Lance

DATE: 02-24-14

MODEL: S80.3

CERTIFICATE OF CONFORMANCE
Application of ISO 7866:1999

Seamless Aluminum Cylinders Model No. S80.3

MANUFACTURED FOR: STOCK

MANUFACTURED BY: CATALINA CYLINDERS,
7300 ANACONDA AVENUE, GARDEN GROVE, CALIFORNIA 92841

QUANTITY: 9

SERIAL NUMBERS: GV0002842 TO GV0002850

BATCH NUMBER(S): AB358 **HEAT NUMBER(S):** OP2

TECHNICAL DATA:

Service Pressure: 207 Bar

Test Pressure: 311 Bar

Nominal Size 184.2 mm OD

Minimum Wall: 12.1 mm

657.9 mm Long (without cap and without valve)

Nominal Volumetric Capacity: 11.1 Liters

CONSTRUCTION: Backward Extrusion to Form a Seamless Shell, the open end is closed by swaging.

MATERIAL AND HEAT TREATMENT: AA Alloy Designation 6061A. Solution Treatment and Artificial Aging to the 6061 T6 Condition

STAMP MARKING: Markings as noted on layout attached to this certificate.

I hereby certify that I have determined the cylinders covered by this Certificate of Conformance have been manufactured in accordance with the requirements of ISO Standard 7866:1999, and have passed all the inspections and tests required by this ISO Standard.

Remarks:

CATALINA CYLINDERS
Garden Grove, CA

Signed: 

Inspector

Date: 02-24-14

PRODUCTION TEST DATA

Measurement of Cylinders

Batch No.	Serial Numbers	Water Capacity	Minimum measured thickness	
AB358	GV0002842- GV0002850	100% Inspected all capacities 11.1L or greater	100% Wall Thickness Inspected all above 12.1 mm minimum	100% Base Thickness Inspected all above 18.7 mm minimum

Mechanical Testing.

Batch No.	Serial Numbers	Cast No.				Flattening Test	Burst Test Serial No.	Burst Test (Bar)	Hardness
			Yield Stress (Mpa)	Tensile Stress (Mpa)	Elongation %				
AB358	GV0002842 to GV0002850	OP2	302.5 306.6	359.3 355.5	18.7 17.9	OK	GV0000680	581.9	OK

Record of Chemical Analysis of Material for Cylinders

HEAT NO. (HEAT CODE)	TYPE OF ANALYSIS (LADLE OR CHECK)	CHEMICAL ANALYSIS									
		Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi
OP2	LADLE	.60	.16	.31	.03	.88	.073	.00	.01	.000	.000

Date: 02-24-14

Place: GARDEN GROVE, CALIFORNIA USA

Signature: 
On behalf of Catalina Cylinders

CYLINDER 100% HARDNESS TEST

Cylinder type: S80.3

Lot number: AB358

Highest reading: 70.4

Lowest reading: 60

Sample readings:

67.8	65.3	68.2	62.3	60	69.3	66.5	68.8	70.4
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Hardness range		
52	to	75

Catalina Cylinders certifies that all cylinders in the above lot number manufactured by Catalina cylinder was 100% hardness tested per the ISO 8766 (11.3) standard

Comments:

Date: 05.15.12

Inspected by: M.A. & M.G.

Burst Test Form

Specification Information

Specification(s): ISO 7866

Minimum Burst Pressure (B/P): **497bar / 7,200psi**

Specification Section(s): 10.4

1. Rate of pressurization may not exceed 200psi per second throughout entire pressurization.
2. Burst fracture must initiate in the longitudinal direction in the cylindrical portion of the cylinder. The cylinder must not fragment.

Cylinder Information

Cylinder Name: **S80.3**

Size; capacity: 678 cu.in diameter: 184.15mm length: 658.81mm

Pressure; Service: 207bar / 3000psi Test: 311bar / 4500psi

Serial Number (1): GV0000680 Cast #: OP2 Lot #: AB358

Serial Number (2): Cast #: Lot #:

Serial Number (3): Cast #: Lot #:

Test Information

Test Date:

Cylinder		Burst Test Results		
Serial Number	State of Manf.	Pressure (psi)	Location	Fragmentation/ Pieces
GV0000680	Hydroed	8,439	lower sidewall	none

Notes:

Inspector:  M.A.

Date: 05-07-12

Record Of Hydrostatic Testing

In accordance CGA Pamphlet C-1

Manufacturer: Catalina Cylinders / Garden Grove
Independent Inspector: T. H. Cochrane Labs

Test Date: 21-Feb-14
Day: Friday
Time: 2:00 PM

Cylinder Type: **S80.3**

Test Station: **# 4 Hydro**

Test Pressure (T/P): **4500**

Cylinder Serial Number	Cylinder Lot Number	Hydro Jkt Num	Actual T/P (psi)	Total Expan (cc)	Perm Expan (cc)	Ratio Perm/Tot (%)	Empty Weight (lbs)	Full Weight (lbs)	Volume Capacity (cu in)	Pass or Fail
GV0002842	AB358	1	4520	64.7	0.4	0.6	31.25	55.95	685.18	PASS
GV0002843	AB358	2	4520	64.6	0.3	0.5	31.20	55.95	686.57	PASS
GV0002844	AB358	3	4520	64.8	0.4	0.6	31.20	55.95	686.57	PASS
GV0002845	AB358	4	4520	64.7	0.4	0.6	31.20	55.90	685.18	PASS
GV0002846	AB358	5	4520	65.2	0.5	0.8	31.25	55.95	685.18	PASS
GV0002847	AB358	1	4520	64.4	0.1	0.2	31.25	55.95	685.18	PASS
GV0002848	AB358	2	4520	64.2	0.0	0.0	31.20	55.85	683.79	PASS
GV0002849	AB358	3	4520	64.2	0.0	0.0	31.30	56.00	685.18	PASS
GV0002850	AB358	4	4520	64.4	0.0	0.0	31.20	55.85	683.79	PASS

THC


ISO

Record Of Mechanical Property Testing

Independent Inspection Agency: T.H. Cochrane Laboratory, Ltd(IA03)
 Manufacturer: Catalina Cylinders / Garden Grove, CA Facility (M4002)

HT Lot # AB358

Friday, March 30, 2012 8:08 AM

Cylinder Type S80

Cast # OP2

Crosshead Speed 0.11 in/min

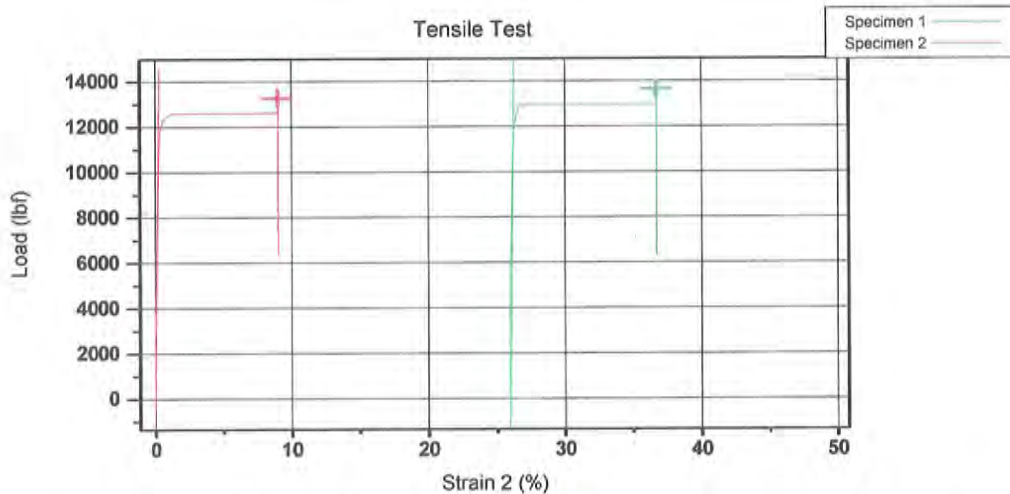
0 degree Pass ☒ Fail ☐
 180 degree Pass ☒ Fail ☐
 Crush Test Pass ☒ Fail ☐

Material: 6061-T6

Specimens tested: 2

Hardness 68

	Thickness (in)	Width (in)	Area (in ²)	YTS-Load (lbf)	YTS (psi)	UTS-load (lbf)	UTS (psi)	%e (%)
1	0.524	0.499	0.2615	11471.1	43870.6	13625.0	52108.1	18.7
2	0.514	0.500	0.2570	11426.9	44462.7	13250.9	51559.8	17.9



INSPECTOR: Cesar Camacho

DATE: 3-30-12

LOT# AB358
AB358

M
✓

MADE IN USA
P. 210
P. 207BAR
2011/14/02
BATALIA
GV0002842
PIB11BAR
BREATHING

LOT# AB358
AB358
02-21-14
CYL TYPE: S80-E2-33
J.V.

changes of
2/2/14 S-80-E2-33
JH CYL
TYPE

Vol.
685.18 (U.M.)
⑫ JMC