Declaration of Conformity

According to Directive 2014/68/EU (PED)

For Pressure Equipment

Catalina Cylinders Inc.

Herewith declares, that the Pressure Equipment

Seamless Extruded Aluminum Cylinders

(Model S80.3, 77.4 cuft, PT 311bar)

Serial Numbers: GV0010861– GV0011120
Year of Manufacturing: 2019

Volume: 77.4 cuft
Test Pressure: 311 bar
Test Medium: Water

Conform to the Pressure Equipment Directive 2014/68/EU

Type Approval No: USA-11-02-189-002
EC Certificate of Conformity Number: CAT-1266-007-19010
Applied standard: ISO 7866:1999

Notified body engaged for monitoring of the quality system:
Arrowhead Industrial Services Bourne, Lincolnshire UK
Notified Body Number 1266
Certificate Number ACS-20170607-PED

Catalina Cylinders Inc. Garden Grove, California, USA

Miguel Garay
Quality Assurance Manager
March, 2019

arrowhead
Industrial Services Ltd

Certificate of Conformity

Certificate №
CAT-1266-007-19010

Manufacturer	Catalina Cylinders	**Manufacturer's Mark**
Address	12452 Monarch / 7300 Anaconda Ave. Garden Grove CA. 92841	**CATALINA**
Country	USA	

Regulation[s]:	PED 2014/68/EU
Applied Module:	Module D
Design Specification:	ISO 7866:1999

Inspection Body:	Arrowhead Industrial Services Limited		
Address:	Meadow Drove Business Centre, Meadow Drove, Bourne, Lincolnshire, PE10 0BP, UK		
Identification Number:	1266	**Inspector's Mark**	
Type Approval №:	USA-11-02-189-002		
Cylinder Type:	Seamless Aluminium Alloy		
Drawing №:	S80.3-GV		
Manufacturing Serial №:	**From:** GV0010861	**To:** GV0011120	
	Excluding:		
Total Tested:	260	**Total Accepted:**	260

Customer	Stock
Address	
Country	

The undersigned hereby declare that the Conformity Assessment Requirements of the above referenced Regulations have been carried out satisfactorily and that the cylinders accepted conform to the Design Specification. Test reports are supplied separately.

General Remarks:

Date of Inspection:	March, 2019	
Inspector:	Miguel Garay	**Signature**
Certificate of Authorisation №:	ACS-20170607-PED	

Approved by:	**Signature**	Digitally signed by Simon Davies DN: cn=Simon Davies, o, ou=Arrowhead Industrial Services Ltd, email=simon.davies@arrowheadis.com, c=GB Date: 2019.03.14 12:50:10 Z
Simon Davies Certifying Inspector Arrowhead Industrial Services Limited		

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www.arrowheadis.com

DATE: 03-11-19 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: **260**

SERIAL NUMBERS: **GV0010861** TO **GV0011120**

BATCH NUMBER(S): **AW890, AW891** HEAT NUMBER(S): **WD1, WD3**

TECHNICAL DATA:

Service Pressure: 207Bar **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 ISO 7866:1999, and have passed all the inspections and tests required by this ISO Standard.

Remarks:

CATALINA CYLINDERS
Garden Grove, CA

Signed: _____
Inspector

Date: 03-11-19

PRODUCTION TEST DATA

Measurement of Cylinders

Batch No.	Serial Numbers	Water Capacity	Minimum measured thickness	
AW890,AW891	GV0010861-GV0011120	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.	Yield Stress (Mpa)	Tensile Stress (Mpa)	Elongation %	Flattening Test	Burst Test Serial No.	Burst Test (Bar)	Hardness
AW890	GV0010861-GV0011055	WD1	295.0 299.5	357.8 365.8	19.3 27.2	OK	N/A	567.9	OK
AW891	GV0011056-GV0011120	WD3	282.2 297.8	354.3 359.5	23.0 27.5	OK	N/A	562.5	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
WD1	LADLE	.61	.16	.30	.00	.90	.073	.00	.01	.001	.000
WD3		.60	.16	.30	<.01	.89	.075	<.01	.01	.001	<.001

Date: 03-11-19

Place: GARDEN GROVE, CALIFORNIA USA

Signature:
On behalf of Catalina Cylinders

RECORD OF RESIDUAL HYDROCARBON TESTING
(In Accordance with Fed Spec. RR-C-901D)

Lot No.	Serial Number	Total Hydrocarbons (mg)	Regulatory Level Allowed (mg)
AW890	GV0010861	3.8	9.00
AW891	GV0011056	3.5	9.00

Certificate of Residual Hydrocarbon Testing are on file at Manufacturer.

Certifying Entity: **South Coast Pollution Control**

This record of Residual Hydrocarbon Testing is provided for informational purposes only, it is not to be considered a part of the Certificate of Compliance and Test Report to which it is attached, and has not been certified or verified by T.H. Cochrane Laboratories, Ltd.

Record Of Hydrostatic Testing

In accordance with CGA Pamphlet C-1

3/4/2019

Manufacturer: Catalina Cylinders/Garden Grove

Independent Inspector: T.H. Cochrane Labs

4:31:40PM

Cylinder Type: S80-E2

Test Station: Hydro 4

Test Pressure: 4500

Serial Number	Lot No.	Jacket No.	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	Test Date
GV0010861	AW890	1	4500	64.20	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010862	AW890	2	4500	64.80	0.00	00.0	31.14	55.90	686.84	Pass	3/4/2019
GV0010863	AW890	3	4500	64.70	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010864	AW890	4	4500	64.40	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010865	AW890	5	4500	63.60	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010866	AW890	6	4500	63.90	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010867	AW890	1	4520	64.80	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010868	AW890	2	4520	65.10	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010869	AW890	3	4520	65.30	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010870	AW890	4	4520	64.70	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010871	AW890	5	4520	63.90	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010872	AW890	6	4520	64.20	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010873	AW890	1	4500	64.60	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010874	AW890	2	4500	64.80	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010875	AW890	3	4500	65.00	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010876	AW890	4	4500	64.60	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010877	AW890	5	4500	63.80	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010878	AW890	6	4500	64.10	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010879	AW890	1	4500	64.40	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010880	AW890	2	4500	64.80	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010881	AW890	3	4500	65.00	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0010882	AW890	4	4500	64.50	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0010883	AW890	5	4500	63.70	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0010884	AW890	6	4500	64.40	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0010885	AW890	1	4500	64.60	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010886	AW890	2	4500	65.20	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010887	AW890	3	4500	65.00	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010888	AW890	4	4500	64.70	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010889	AW890	5	4500	63.80	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010890	AW890	6	4500	64.50	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010891	AW890	1	4500	64.80	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010892	AW890	2	4500	64.90	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010893	AW890	3	4500	65.00	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010894	AW890	4	4500	64.40	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010895	AW890	5	4500	64.00	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010896	AW890	6	4500	64.10	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0010897	AW890	1	4520	64.60	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010898	AW890	2	4520	65.00	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0010899	AW890	3	4520	65.10	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010900	AW890	4	4520	64.80	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010901	AW890	5	4520	64.10	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010902	AW890	6	4520	64.40	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019

JP

Record Of Hydrostatic Testing

In accordance with CGA Pamphlet C-1

3/4/2019

Manufacturer: Catalina Cylinders/Garden Grove

Independent Inspector: T.H. Cochrane Labs

4:31:40PM

Cylinder Type: S80-E2

Test Station: Hydro 4

Test Pressure: 4500

Serial Number	Lot No.	Jacket No.	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	Test Date
GV0010903	AW890	1	4500	64.60	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010904	AW890	2	4500	64.80	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010905	AW890	3	4500	64.90	0.00	00.0	31.24	55.95	685.46	Pass	3/4/2019
GV0010906	AW890	4	4500	64.80	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010907	AW890	5	4500	63.80	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010908	AW890	6	4500	64.20	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0010909	AW890	1	4520	64.30	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010910	AW890	2	4520	64.80	0.00	00.0	31.20	56.00	687.95	Pass	3/4/2019
GV0010911	AW890	3	4520	64.90	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010912	AW890	4	4520	64.50	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010913	AW890	5	4520	63.80	0.00	00.0	31.22	56.00	687.40	Pass	3/4/2019
GV0010914	AW890	6	4520	64.10	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010915	AW890	1	4500	64.70	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010916	AW890	2	4500	64.90	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010917	AW890	3	4500	65.00	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010918	AW890	4	4500	64.70	0.00	00.0	31.26	55.95	684.90	Pass	3/4/2019
GV0010919	AW890	5	4500	63.90	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0010920	AW890	6	4500	63.90	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0010921	AW890	1	4500	64.60	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019
GV0010922	AW890	2	4500	65.00	0.10	00.2	31.26	55.90	683.51	Pass	3/4/2019
GV0010923	AW890	3	4500	65.10	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010924	AW890	4	4500	64.70	0.00	00.0	31.24	55.95	685.46	Pass	3/4/2019
GV0010925	AW890	5	4500	63.80	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0010926	AW890	6	4500	64.10	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019
GV0010927	AW890	1	4500	64.70	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0010928	AW890	2	4500	65.10	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010929	AW890	3	4500	65.10	0.00	00.0	31.20	56.00	687.95	Pass	3/4/2019
GV0010930	AW890	4	4500	64.70	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0010931	AW890	5	4500	63.90	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010932	AW890	6	4500	64.10	0.00	00.0	31.20	56.00	687.95	Pass	3/4/2019
GV0010933	AW890	1	4500	64.60	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0010934	AW890	2	4500	65.20	0.20	00.3	31.18	55.95	687.12	Pass	3/4/2019
GV0010935	AW890	3	4500	65.00	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0010936	AW890	4	4500	64.50	0.00	00.0	31.22	56.00	687.40	Pass	3/4/2019
GV0010937	AW890	5	4500	64.20	0.40	00.6	31.28	56.00	685.73	Pass	3/4/2019
GV0010938	AW890	6	4500	64.10	0.00	00.0	31.24	55.95	685.46	Pass	3/4/2019
GV0010939	AW890	1	4500	64.50	0.00	00.0	31.30	55.95	683.79	Pass	3/4/2019
GV0010940	AW890	2	4500	65.00	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0010941	AW890	3	4500	65.10	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010942	AW890	4	4500	64.70	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010943	AW890	5	4500	63.90	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010944	AW890	6	4500	64.10	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019

JP

Record Of Hydrostatic Testing

In accordance with CGA Pamphlet C-1

3/4/2019

Manufacturer: Catalina Cylinders/Garden Grove

Independent Inspector: T.H. Cochrane Labs

4:31:40PM

Cylinder Type: S80-E2

Test Station: Hydro 4

Test Pressure: 4500

Serial Number	Lot No.	Jacket No.	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	Test Date
GV0010945	AW890	1	4500	64.60	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010946	AW890	2	4500	64.90	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010947	AW890	3	4500	64.90	0.00	00.0	31.18	55.80	682.96	Pass	3/4/2019
GV0010948	AW890	4	4500	65.10	0.90	01.4	31.20	55.85	683.79	Pass	3/4/2019
GV0010949	AW890	5	4500	64.00	0.30	00.5	31.24	55.90	684.07	Pass	3/4/2019
GV0010950	AW890	6	4500	64.40	0.30	00.5	31.20	55.90	685.18	Pass	3/4/2019
GV0010951	AW890	1	4500	64.50	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010952	AW890	2	4500	64.50	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0010953	AW890	3	4500	64.60	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010954	AW890	4	4500	64.30	0.00	00.0	31.14	55.85	685.46	Pass	3/4/2019
GV0010955	AW890	5	4500	63.80	0.20	00.3	31.18	55.80	682.96	Pass	3/4/2019
GV0010956	AW890	6	4500	63.90	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0010957	AW890	1	4500	64.70	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0010958	AW890	2	4500	65.00	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010959	AW890	3	4500	65.20	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010960	AW890	4	4500	64.60	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010961	AW890	5	4500	63.90	0.00	00.0	31.14	55.90	686.84	Pass	3/4/2019
GV0010962	AW890	6	4500	64.20	0.10	00.2	31.20	55.90	685.18	Pass	3/4/2019
GV0010963	AW890	1	4500	64.70	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010964	AW890	2	4500	64.90	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010965	AW890	3	4500	65.00	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010966	AW890	4	4500	64.60	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010967	AW890	5	4500	64.30	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010968	AW890	6	4500	64.60	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010969	AW890	1	4500	64.80	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0010970	AW890	2	4500	64.90	0.00	00.0	31.14	55.90	686.84	Pass	3/4/2019
GV0010971	AW890	3	4500	65.00	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010972	AW890	4	4500	64.50	0.00	00.0	31.20	55.85	683.79	Pass	3/4/2019
GV0010973	AW890	5	4500	63.80	0.00	00.0	31.14	55.85	685.46	Pass	3/4/2019
GV0010974	AW890	6	4500	64.20	0.00	00.0	31.12	55.80	684.62	Pass	3/4/2019
GV0010975	AW890	1	4500	64.60	0.00	00.0	31.14	55.90	686.84	Pass	3/4/2019
GV0010976	AW890	2	4500	64.80	0.00	00.0	31.14	55.90	686.84	Pass	3/4/2019
GV0010977	AW890	3	4500	65.30	0.00	00.0	31.14	55.80	684.07	Pass	3/4/2019
GV0010978	AW890	4	4500	64.60	0.00	00.0	31.16	55.80	683.51	Pass	3/4/2019
GV0010979	AW890	5	4500	63.80	0.00	00.0	31.14	55.80	684.07	Pass	3/4/2019
GV0010980	AW890	6	4500	64.20	0.00	00.0	31.18	55.75	681.57	Pass	3/4/2019
GV0010981	AW890	1	4520	64.80	0.00	00.0	31.20	55.85	683.79	Pass	3/4/2019
GV0010982	AW890	2	4520	65.10	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010983	AW890	3	4520	65.20	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0010984	AW890	4	4520	64.80	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010985	AW890	5	4520	63.40	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010986	AW890	6	4520	64.10	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019

JP

Record Of Hydrostatic Testing

In accordance with CGA Pamphlet C-1

Manufacturer: Catalina Cylinders/Garden Grove

3/4/2019

Independent Inspector: T.H. Cochrane Labs

4:31:40PM

Cylinder Type: S80-E2

Test Station: Hydro 4

Test Pressure: 4500

Serial Number	Lot No.	Jacket No.	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	Test Date
GV0010987	AW890	1	4500	64.60	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0010988	AW890	2	4500	64.60	0.00	00.0	31.30	55.95	683.79	Pass	3/4/2019
GV0010989	AW890	3	4500	64.90	0.00	00.0	31.20	55.85	683.79	Pass	3/4/2019
GV0010990	AW890	4	4500	64.30	0.00	00.0	31.30	55.90	682.40	Pass	3/4/2019
GV0010991	AW890	5	4500	63.40	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0010992	AW890	6	4500	63.90	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0010993	AW890	1	4500	64.70	0.10	00.2	31.16	56.00	689.06	Pass	3/4/2019
GV0010994	AW890	2	4500	64.90	0.10	00.2	31.20	55.95	686.57	Pass	3/4/2019
GV0010995	AW890	3	4500	64.80	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0010996	AW890	4	4500	64.40	0.00	00.0	31.20	55.85	683.79	Pass	3/4/2019
GV0010997	AW890	5	4500	63.60	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0010998	AW890	6	4500	64.20	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0010999	AW890	1	4500	64.40	0.00	00.0	31.22	56.00	687.40	Pass	3/4/2019
GV0011000	AW890	2	4500	64.50	0.00	00.0	31.28	56.05	687.12	Pass	3/4/2019
GV0011001	AW890	3	4500	64.90	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0011002	AW890	4	4500	64.40	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0011003	AW890	5	4500	63.80	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0011004	AW890	6	4500	64.40	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0011005	AW890	1	4500	64.70	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0011006	AW890	2	4500	64.90	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0011007	AW890	3	4500	64.60	0.00	00.0	31.30	55.85	681.02	Pass	3/4/2019
GV0011008	AW890	4	4500	64.10	0.00	00.0	31.24	55.85	682.68	Pass	3/4/2019
GV0011009	AW890	5	4500	63.80	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0011010	AW890	6	4500	64.20	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0011011	AW890	1	4500	64.60	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0011012	AW890	2	4500	64.90	0.00	00.0	31.16	55.95	687.67	Pass	3/4/2019
GV0011013	AW890	3	4500	65.00	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0011014	AW890	4	4500	64.30	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0011015	AW890	5	4500	64.00	0.20	00.3	31.20	55.90	685.18	Pass	3/4/2019
GV0011016	AW890	6	4500	64.10	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0011017	AW890	1	4500	64.70	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0011018	AW890	2	4500	64.80	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0011019	AW890	3	4500	65.10	0.00	00.0	31.20	55.85	683.79	Pass	3/4/2019
GV0011020	AW890	4	4500	64.50	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0011021	AW890	5	4500	63.80	0.10	00.2	31.28	55.95	684.35	Pass	3/4/2019
GV0011022	AW890	6	4500	64.00	0.00	00.0	31.28	56.00	685.73	Pass	3/4/2019
GV0011023	AW890	1	4500	64.60	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0011024	AW890	2	4500	65.00	0.00	00.0	31.22	55.85	683.24	Pass	3/4/2019
GV0011025	AW890	3	4500	64.50	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0011026	AW890	4	4500	64.30	0.00	00.0	31.30	55.90	682.40	Pass	3/4/2019
GV0011027	AW890	5	4500	64.10	0.00	00.0	31.22	55.85	683.24	Pass	3/4/2019
GV0011028	AW890	6	4500	64.20	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019

JP

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In accordance with CGA Pamphlet C-1

3/4/2019

Manufacturer: Catalina Cylinders/Garden Grove

Independent Inspector: T.H. Cochrane Labs

4:31:40PM

Cylinder Type: S80-E2

Test Station: Hydro 4

Test Pressure: 4500

Serial Number	Lot No.	Jacket No.	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	Test Date
GV0011029	AW890	1	4500	64.60	0.00	00.0	31.22	56.00	687.40	Pass	3/4/2019
GV0011030	AW890	2	4500	64.90	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0011031	AW890	3	4500	65.00	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0011032	AW890	4	4500	64.60	0.00	00.0	31.18	55.95	687.12	Pass	3/4/2019
GV0011033	AW890	5	4500	63.80	0.00	00.0	31.30	55.95	683.79	Pass	3/4/2019
GV0011034	AW890	6	4500	64.20	0.00	00.0	31.24	55.85	682.68	Pass	3/4/2019
GV0011035	AW890	1	4500	64.80	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0011036	AW890	2	4500	64.60	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019
GV0011037	AW890	3	4500	64.90	0.00	00.0	31.26	55.85	682.13	Pass	3/4/2019
GV0011038	AW890	4	4500	64.70	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0011039	AW890	5	4500	63.80	0.00	00.0	31.16	55.90	686.29	Pass	3/4/2019
GV0011040	AW890	6	4500	64.20	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0011041	AW890	1	4500	64.70	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0011042	AW890	2	4500	65.10	0.00	00.0	31.18	55.90	685.73	Pass	3/4/2019
GV0011043	AW890	3	4500	64.90	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0011044	AW890	4	4500	64.50	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0011045	AW890	5	4500	63.90	0.00	00.0	31.20	55.85	683.79	Pass	3/4/2019
GV0011046	AW890	6	4500	64.40	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019
GV0011047	AW890	1	4500	64.50	0.00	00.0	31.22	55.90	684.62	Pass	3/4/2019
GV0011048	AW890	2	4500	65.00	0.00	00.0	31.16	55.85	684.90	Pass	3/4/2019
GV0011049	AW890	3	4500	64.90	0.00	00.0	31.20	55.90	685.18	Pass	3/4/2019
GV0011050	AW890	4	4500	64.50	0.00	00.0	31.22	55.95	686.01	Pass	3/4/2019
GV0011051	AW890	5	4500	63.90	0.00	00.0	31.20	55.95	686.57	Pass	3/4/2019
GV0011052	AW890	1	4500	64.50	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0011053	AW890	2	4500	65.00	0.10	00.2	31.22	56.00	687.40	Pass	3/4/2019
GV0011054	AW890	3	4500	64.90	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0011055	AW890	4	4500	64.70	0.00	00.0	31.18	55.85	684.35	Pass	3/4/2019

J.P

Record Of Hydrostatic Testing

In accordance with CGA Pamphlet C-1

3/4/2019

Manufacturer: Catalina Cylinders/Garden Grove

Independent Inspector: T.H. Cochrane Labs

6:20:07PM

Cylinder Type: S80-E2

Test Station: Hydro 4

Test Pressure: 4500

Serial Number	Lot No.	Jacket No.	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	Test Date
GV0011056	AW891	1	4500	64.20	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0011057	AW891	2	4500	64.20	0.00	00.0	31.38	56.00	682.96	Pass	3/4/2019
GV0011058	AW891	3	4500	64.60	0.00	00.0	31.26	55.95	684.90	Pass	3/4/2019
GV0011059	AW891	4	4500	64.00	0.00	00.0	31.32	55.90	681.85	Pass	3/4/2019
GV0011060	AW891	5	4500	63.70	0.00	00.0	31.26	56.00	686.29	Pass	3/4/2019
GV0011061	AW891	6	4500	63.70	0.00	00.0	31.30	55.90	682.40	Pass	3/4/2019
GV0011062	AW891	1	4520	64.20	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0011063	AW891	2	4520	64.60	0.00	00.0	31.28	56.00	685.73	Pass	3/4/2019
GV0011064	AW891	3	4520	64.70	0.00	00.0	31.32	56.00	684.62	Pass	3/4/2019
GV0011065	AW891	4	4520	64.30	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011066	AW891	5	4520	63.70	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019
GV0011067	AW891	6	4520	63.90	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019
GV0011068	AW891	1	4500	64.10	0.00	00.0	31.30	55.85	681.02	Pass	3/4/2019
GV0011069	AW891	2	4500	64.50	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011070	AW891	3	4500	64.70	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0011071	AW891	4	4500	64.00	0.00	00.0	31.28	55.85	681.57	Pass	3/4/2019
GV0011072	AW891	5	4500	63.40	0.00	00.0	31.28	55.85	681.57	Pass	3/4/2019
GV0011073	AW891	6	4500	63.90	0.00	00.0	31.26	55.95	684.90	Pass	3/4/2019
GV0011074	AW891	1	4520	64.80	0.00	00.0	31.26	55.95	684.90	Pass	3/4/2019
GV0011075	AW891	2	4520	64.50	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0011076	AW891	3	4520	64.50	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011077	AW891	4	4520	64.60	0.00	00.0	31.26	55.85	682.13	Pass	3/4/2019
GV0011078	AW891	5	4520	63.90	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011079	AW891	6	4520	64.20	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011080	AW891	1	4500	64.30	0.00	00.0	31.24	55.85	682.68	Pass	3/4/2019
GV0011081	AW891	2	4500	64.60	0.00	00.0	31.30	55.90	682.40	Pass	3/4/2019
GV0011082	AW891	3	4500	64.90	0.00	00.0	31.30	55.90	682.40	Pass	3/4/2019
GV0011083	AW891	4	4500	64.20	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011084	AW891	5	4500	63.80	0.00	00.0	31.28	55.85	681.57	Pass	3/4/2019
GV0011085	AW891	6	4500	63.90	0.00	00.0	31.26	55.85	682.13	Pass	3/4/2019
GV0011086	AW891	1	4500	64.20	0.00	00.0	31.28	56.00	685.73	Pass	3/4/2019
GV0011087	AW891	2	4500	64.40	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0011088	AW891	3	4500	64.30	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011089	AW891	4	4500	64.10	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011090	AW891	5	4500	63.40	0.00	00.0	31.24	55.95	685.46	Pass	3/4/2019
GV0011091	AW891	6	4500	63.80	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019
GV0011092	AW891	1	4500	64.30	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019
GV0011093	AW891	2	4500	64.70	0.00	00.0	31.28	56.05	687.12	Pass	3/4/2019
GV0011094	AW891	3	4500	64.60	0.00	00.0	31.28	55.85	681.57	Pass	3/4/2019
GV0011095	AW891	4	4500	63.90	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011096	AW891	5	4500	63.60	0.00	00.0	31.28	56.00	685.73	Pass	3/4/2019
GV0011097	AW891	6	4500	63.80	0.00	00.0	31.30	55.85	681.02	Pass	3/4/2019

JP TB

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In accordance with CGA Pamphlet C-1

3/4/2019

Manufacturer: Catalina Cylinders/Garden Grove

Independent Inspector: T.H. Cochrane Labs

6:20:07PM

Cylinder Type: S80-E2

Test Station: Hydro 4

Test Pressure: 4500

Serial Number	Lot No.	Jacket No.	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	Test Date
GV0011098	AW891	1	4500	64.50	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0011099	AW891	2	4500	64.70	0.10	00.2	31.30	56.00	685.18	Pass	3/4/2019
GV0011100	AW891	3	4500	64.70	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011101	AW891	4	4500	64.10	0.00	00.0	31.24	55.90	684.07	Pass	3/4/2019
GV0011102	AW891	5	4500	63.80	0.10	00.2	31.24	56.00	686.84	Pass	3/4/2019
GV0011103	AW891	6	4500	63.90	0.00	00.0	31.30	55.90	682.40	Pass	3/4/2019
GV0011104	AW891	1	4500	64.50	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011105	AW891	2	4500	64.80	0.00	00.0	31.24	55.95	685.46	Pass	3/4/2019
GV0011106	AW891	3	4500	64.80	0.00	00.0	31.26	56.00	686.29	Pass	3/4/2019
GV0011107	AW891	4	4500	64.20	0.00	00.0	31.26	55.90	683.51	Pass	3/4/2019
GV0011108	AW891	5	4500	63.80	0.00	00.0	31.24	55.85	682.68	Pass	3/4/2019
GV0011109	AW891	6	4500	64.00	0.00	00.0	31.24	55.85	682.68	Pass	3/4/2019
GV0011110	AW891	1	4500	64.20	0.00	00.0	31.24	55.95	685.46	Pass	3/4/2019
GV0011111	AW891	2	4500	64.60	0.00	00.0	31.26	56.00	686.29	Pass	3/4/2019
GV0011112	AW891	3	4500	64.50	0.00	00.0	31.24	56.00	686.84	Pass	3/4/2019
GV0011113	AW891	4	4500	63.80	0.00	00.0	31.28	56.00	685.73	Pass	3/4/2019
GV0011114	AW891	5	4500	63.60	0.00	00.0	31.26	56.00	686.29	Pass	3/4/2019
GV0011115	AW891	6	4500	64.20	0.00	00.0	31.28	55.90	682.96	Pass	3/4/2019
GV0011116	AW891	1	4500	64.40	0.00	00.0	31.16	56.00	689.06	Pass	3/4/2019
GV0011117	AW891	2	4500	64.70	0.00	00.0	31.24	56.05	688.23	Pass	3/4/2019
GV0011118	AW891	3	4500	64.60	0.00	00.0	31.26	56.00	686.29	Pass	3/4/2019
GV0011119	AW891	4	4500	64.50	0.00	00.0	31.26	56.00	686.29	Pass	3/4/2019
GV0011120	AW891	5	4500	63.70	0.00	00.0	31.28	55.95	684.35	Pass	3/4/2019

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