

# Batch Test Certificate

for  
Transportable Pressure Equipment

Certificate No.: EN27.2L-2021-03

Issuer/Manufacturer:  
Manufacturing Plant  
Address:  
Manufacturer Mark

**GSBF Tank Inc.**

No.11, Chaoguang Zhong Road, Ronggui, Shunde District, Foshan  
City 528306, P. R. China.

**MC GSBF**

TEL: +86-757-29211305

FAX: +86-757-29211320

Customer:  
Address:  
Order No.:

MASTERCOOL, INC

1 ASPEN DRIVE, RANDOLPH, NJ 07869-1103 USA

42769

TEL: 973-252-9119

FAX: 973-598-6700

## Characteristics of pressure Equipment :

Description of pressure  
equipment/assembly:

Transportable refillable welded steel cylinders

Application of CEN Standard

EN 13322-1:2003+A1:2006

CEN production testing No

EN 13322-1:2003+A1:2006

Drawing No.:

EN 27.2-0

Type / model:

Capacity 27.2 l, DN 298.45 mm, test pressure 48 bar max.  
working pressure 32 bar, type EN27.2

Fluid Content

pressure gases

## Conformity assessment procedure:

Inhouse Inspection Service Certificate

Cert. No:

01 202 TWN/IS-12 0185-T

Respective EC Design-Examination

Cert. No:

01 202 322/B-140075-T

Certificate

Manufacturing Batch No.:

EN27.2L-2021-03

Manufacturing Serial No.(S/N):

010004~ 010654

We, **GSBF Tank Inc.**, hereby certify that the manufacturing, inspection and testing of the transportable pressure equipment described above is in conformity with the provisions of the standard EN13322-1, the Directive 2010/35/EU, referred to as the EC Transportable Pressure Equipment Directive.

Shunde, Guandong/China, 2021/10/25

  
Tony Pan/Company Representative

**AUTHORIZED TESTING, INC.**

RIVERSIDE, CA.

**REPORT OF MANUFACTURE OF STEEL COMPRESSED GAS CYLINDERS**

Manufactured by: GSBF Tank Inc.

Location at: No.11, Chaoguang Zhong Road Xiaohuangpu High-Tech Industrial Zone  
Ronggui, Shunde District, Foshan, Guangdong Province 528306 China

Quantity: 532 Size: 12.03 inches/305.5 mm outside diameter by 31.81 inches/808 mm long.

Marks stamped into the cylinder valve collar are:

Specification: DOT-4BW / TC-4BWM

Serial Numbers: 21J001001 through 21J003137, inclusive. Except: samples for tests

Identifying Symbol (Registered): M0805

Inspectors Mark: A

Markings:	DOT-4BW400 M0805	TC-4BWM27 M0805
x	TW-XX.X LB	M- XX.XKG
	WC-92.5 LB	WC-41.9L
x	MCI GSBF	XX A XX
x	RETEST WITHIN 5 YEARS	RETEST BY MM -YY
x	OF MFG DATE AND EVERY	UP I
x	5 YEARS THEREAFTER	

Each cylinder was made by circumferentially SAW two press formed domes (one with a GMAW boss) onto a longitudinally electric-arc seam welded cylindrical section, with a SMAW valve collar and foot ring.

The material used was Type Grade 3 authorized in Table I of Specification 4BW and per CAN/CSA-B339-08 table 15.

The material used was identified by the following heat numbers: 1039938

The material used was verified as to chemical analysis and record thereof is attached hereto. The heat numbers were not marked on the material.

All material was inspected and all that was accepted was found free from seams, cracks, laminations and other injurious defects. Radiography: Spot x-ray inspection.

The compliance of cylinders with specification requirements was verified including markings, condition of inside, tests, threads, etc. All cylinders with defects which might prove injurious were rejected. The processes of manufacture and heat treatment were supervised and found to be efficient and satisfactory. Heat treated at 1256~1328 °F/680~720°C.

The cylinder walls were measured and the minimum thickness noted was 0.130 inch/3.3 mm. The outside diameter was determined by close approximation to be 12.03 inches/305.5 mm. The wall stress was calculated to be 34907 psi/241 N/mm<sup>2</sup> at the test pressure of 800 psi/55 bar.

Hydrostatic tests, tensile tests of material, and other tests as prescribed in U.S. Specification No. DOT-4BW and Transport Canada Specification No. TC 4BWM were made in the presence of or verified by the inspector and all cylinders accepted were found to be in compliance with the requirements of that Specification. Records thereof are attached hereto.

I hereby certify that all of these cylinders proved satisfactory in every way and comply with the requirements of U.S. Department of Transportation/Transport Canada Specifications No. DOT 4BW/TC 4BWM.

Remarks: Carbon content of steel attachments does not exceed 0.25 %

Signed:



Tommy Hin, President



Derek Gaytan, QC Manager



Li De Qing

Date:

Oct. 25, 2021

**AUTHORIZED TESTING, INC.**  
RIVERSIDE, CA.

**RECORD OF CHEMICAL ANALYSIS OF STEEL FOR COMPRESSED GAS CYLINDERS**

**Manufactured by:** GSBF Tank Inc.  
**Date:** 10-21

**Numbered:** 21J001001 through 21J003137, inclusive Except: SAMPLES FOR TESTS

**Size:** 12.03 inches/ 305.5 mm outside diameter by 31.81 inches/808 mm long.

Mill Heat Code	Check Analysis No.	Cylinders Represented Serial No.	C	Si	Mn	P	S	Al	Cr	Ni	Mo	Cu	V
1039938	Ladle	21J001001 to	0.156	0.234	1.290	0.014	0.0055	--	--	--	--	--	--
	Check	21J003137	0.154	0.228	1.260	0.0132	0.0051	--	--	--	--	--	--


**Steel was manufactured and mill analysis made by:** SHOUGANG QIAN' AN IRON&STEEL GOMPANY

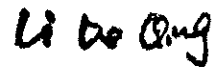
The originals of the certified mill analysis reports are in the files of the manufacturers.

**Check analysis made by:** GSBF Tank Inc.

**Signed:**

  
Tommy Hin, President

  
Derek Gaytan, QC Manager

  
Li De Qing

**Date:**

Oct. 25, 2021

**RECORD OF PHYSICAL TESTS FOR COMPLETED CYLINDERS**

Lot Code	Cylinders Represented Serial Nos.	Serial Number	Yield Strength At 0.2 offset		Tensile Strength		Elongation Percent In 24t	Reduction of Area (percent)	Weld Tensile Test**		Weld Bend Test**
			psi	N/mm <sup>2</sup>	psi	N/mm <sup>2</sup>			psi	N/mm <sup>2</sup>	
21J001	001 through 200	21J001193	54824	378	76434	527	26.0	56	77595	535	Passed
			50908	351	77305	533	29.0	59			
21J002	001 through 200	21J002138	50763	350	77305	533	28.5	57	77305	533	Passed
			49893	344	76434	527	29.5	57			
21J003	001 through 137	21J003043	48007	331	75564	521	28.0	55	77015	531	Passed
			52938	365	75564	521	26.5	57			

**Hydrostatic Testing**

Lot No.	Serial Number Range	S/N	Net Weight* (lbs/kg)	Full Weight* (lbs/kg)	Water Capacity (lbs/L)	Total Exp.(cc)	Perm Exp. (cc)	Perm %
21J001	001 through 200	21J001037	49.39/22.40	142.88/64.80	93.49/42.40	103.6	1.6	1.5
21J002	001 through 200	21J002074	49.61/22.50	143.32/65.00	93.71/42.50	104.5	1.9	1.8
21J003	001 through 137	21J003105	49.50/22.45	142.88/64.85	93.49/42.40	103.9	1.0	1.0
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Lot No.	Serial Number	Range of Serial No.	Burst Pressure (psi/Mpa)		Lot No.	Serial Number	Range of Serial No.	Burst Pressure (psi/Mpa)
21J001	21J001126	21J001001 to 21J003100	1740 / 12.0		21J003	21J003126	21J003101 to 21J003137	1653 / 11.4
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**RADIOGRAPHIC EXAMINATION**

Method: X-ray

Lot No.	Range of Serial No.	Sample Cylinder No.				Result
21J001	21J001001 through 21J001200	21J001004	21J001074	21J001109	21J001173	Acceptable
21J002	21J002001 through 21J002200	21J002049	21J002081	21J002104	21J002127	Acceptable
21J003	21J003001 through 21J003137	21J003008	21J003058	21J003127	---	Acceptable
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\* Cylinders weighed without valves.

Test pressure was 800 psi/55 bar.

\*\* Failure occurred in parent material

The above results represent sample cylinders selected from each lot. All other cylinders in the lot were subjected to a proof pressure of 800 psi/55 bar and showed no defects.

All completed cylinders (valves installed) were subjected to a leak test pressure of 400 psi/27 bar and showed no leakage.

Signed:



Tommy Hin, President



Derek Gaylan, QC Manager



Li De Qing

Date:

Oct. 25, 2021

# DECLARATION OF CONFORMITY

according to Directive 2010/35/EU  
Transportable Pressure Equipment

**Manufacturer:****GSBF Tank Inc.****Manufacturing Plant:**

No.11, Chaoguang Zhong Road, Ronggui, Shunde District, Foshan  
City 528306, P. R. China.  
TEL: +86-757-29211305 FAX: +86-757-29211320

**Characteristics of pressure Equipment :**

Description of pressure  
equipment/assembly:

**Transportable refillable welded steel cylinders**

Type / model:

**Capacity 12,5 l, DN 228,6 mm, test pressure 48 bar  
max. working pressure 32 bar, type EN12.5**

Fluid Content

**Pressure gases**

Serial Number, S/N

**019233~ 019973****Conformity assessment procedure:****Surveillance Inhouse Inspection  
Service****Inhouse Inspection Service Certificate****Cert. No: 01 202 TWN/IS-12 0185-T****Respective EC Design-Examination Certificate****Cert. No: 01 202 322/B-140076-01-T****Notified Body :**

TÜV Rheinland Industrie Service GmbH  
Am Grauen Stein, D-51105 Köln  
Identification No.: 0035

**Harmonized Standards****EN 13322-1:2003+A1:2006****other technical Standards & Specifications applied****EN 10120****Other European Directives applied:****ADR/RID 2021**

We, **GSBF Tank Inc.**, declare that the manufacturing and inspection of the transportable pressure equipment described above is in conformity with the provisions of the Directive 2010/35/EU referred to as the EC Transportable Pressure Equipment Directive. This declaration of conformity is issued under the sole responsibility of the manufacturer.

Shunde, Guandong/China 2021/10/25

  
Tony Pan/Company Representative

# DECLARATION OF CONFORMITY

according to Directive 2010/35/EU  
Transportable Pressure Equipment

**Manufacturer:****GSBF Tank Inc.****Manufacturing Plant:**

No.11, Chaoguang Zhong Road, Ronggui, Shunde District, Foshan  
City 528306, P. R. China.  
TEL: +86-757-29211305 FAX: +86-757-29211320

**Characteristics of pressure Equipment :**

Description of pressure  
equipment/assembly:

**Transportable refillable welded steel cylinders**

Type / model:

**Capacity 27.2 l, DN 298.5 mm, test pressure 48 bar  
max. working pressure 32 bar, type EN27.2**

Fluid Content

**Pressure gases**

Serial Number, S/N

**010004~ 010654****Conformity assessment procedure:****Surveillance Inhouse Inspection  
Service****Inhouse Inspection Service Certificate****Cert. No: 01 202 TWN/IS-12 0185-T****Respective EC Design-Examination Certificate****Cert. No: 01 202 322/B-140075-T****Notified Body :**

TÜV Rheinland Industrie Service GmbH  
Am Grauen Stein, D-51105 Köln  
Identification No.: 0035

**Harmonized Standards****EN 13322-1:2003+A1:2006****other technical Standards & Specifications applied****EN 10120****Other European Directives applied:****ADR/RID 2021**

We, **GSBF Tank Inc.**, declare that the manufacturing and inspection of the transportable pressure equipment described above is in conformity with the provisions of the Directive 2010/35/EU referred to as the EC Transportable Pressure Equipment Directive. This declaration of conformity is issued under the sole responsibility of the manufacturer.

Shunde, Guandong/China 2021/10/25

  
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**Tony Pan/Company Representative**

# Batch Test Certificate

for  
Transportable Pressure Equipment

Certificate No.:EN12.5L-2021-04

Issuer/Manufacturer:	<b>GSBF Tank Inc.</b>
Manufacturing Plant	No.11, Chaoguang Zhong Road, Ronggui, Shunde District, Foshan
Address:	City 528306, P. R. China.
Manufacturer Mark	<b>MC GSBF</b>
	TEL: +86-757-29211320 FAX: +86-757-23616820
Customer:	MASTERCOOL, INC
Address:	1 ASPEN DRIVE, RANDOLPH, NJ 07869-1103 USA
Order No.:	42769
	TEL: 973-252-9119 FAX:973-598-6700

## Characteristics of pressure Equipment :

Description of pressure equipment/assembly:	Transportable refillable welded steel cylinders
Application of CEN Standard	EN 13322-1:2003+A1:2006
CEN production testing No	EN 13322-1:2003+A1:2006
Drawing No.:	EN 12.5-0
Type / model:	Capacity 12,5 l, DN 228,6 mm, test pressure 48 bar max. working pressure 32 bar, type EN12.5
Fluid Content	pressure gases

## Conformity assessment procedure:


Inhouse Inspection Service Certificate	Cert. No:	01 202 TWN/IS-12 0185-T
Respective EC Design-Examination	Cert. No:	01 202 322/B-140076-01-T

## Certificate

Manufacturing Batch No.:	<b>EN12.5L-2021-04</b>
Manufacturing Serial No.(S/N):	<b>019233 ~ 019973</b>

We, **GSBF Tank Inc.**, hereby certify that the manufacturing, inspection and testing of the transportable pressure equipment described above is in conformity with the provisions of the standard EN13322-1, the Directive 2010/35/EU, referred to as the EC Transportable Pressure Equipment Directive.

Shunde, Guandong/China, 2021/10/25

  
Tony Pan/Company Representative