

# PNEUMATIC FENDER

## Inspection Report

Product Name: Pneumatic fender  $\Phi$ 2500x5500L

Purchase order: PNE-STOCK ORDER 001-P.O. NO.90670

Initial Internal Pressure: 50kPa

Date: 22<sup>nd</sup>, Jun 2021



## **Trelleborg Marine Engineering (Qingdao) Co., Ltd**

No.35, Ronghai 4 Road, Chengyang District, Qingdao 266111, China

The following pneumatic rubber fenders were examined, tested in accordance with ISO17357-1:2014 as follows and considered satisfactory.

- 1) Dimensional Inspection
- 2) Air Leakage Test
- 3) Calibration certificates
- 4) Certificate of conformity

1-1 Dimension inspection

## DIMENSIONAL INSPECTION

ITEM	Pneumatic Fender	DATE	2021.05.24~06.11
SIZE	PF25555BNTSAU2000	SERIAL NO.	TB I 2555-5-2106-059,060,061,062

Picture:



Item	Specification	Dimensional	Judgement
Length	5500+10%/-5% (6050~5225)	5580,5578,5580,5576	good
Diameter	2500+10%/-5% (2750~2375)	2460,2460,2462,2460	good
Inspected by	Reviewed by	Approved by	
QiuChengkai	Cherry	Andy	

2-1 air-leakage test

## AIR-LEAKAGE TEST

ITEM	Pneumatic Fender	DATE	2021.05.24~06.11
SIZE	PF25555BNTSAU2000	SERIAL NO.	TB I 2555-5-2106-059,060,061,062

Picture:



Item	Specification	Result	Judgement
Pneumatic Fender Internal Pressure 50kPa after 30 minutes	No air-leakage	No air-leakage	good
Inspected by	Reviewed by	Approved by	
QiuChengkai	Cherry	Andy	



苏州朗博校准检测有限公司  
Suzhou Lonbo Calibration and Testing Co.,LTD



中国认可  
国际互认  
校准  
CALIBRATION  
CNAS L4466

# 校准证书

## Calibration Certificate

证书编号: 32XJ21000822-0003  
Cer.No.

委托单位: Customer	特瑞堡海洋工程(青岛)有限公司		
委托单位地址: Customer Addr.	青岛市城阳区荣海四路 35 号		
仪器名称: Description	塑料卷尺		
型号规格: Model/Type	20m		
制造厂商: Manufacturer	YAMAYO		
机身编号: Serial No.	/		
管理编号: Asset No.	GJCQ-003		
接收日期: Acce. Date	2021-03-11	校准日期: Cal. Date	2021-03-11
校准人: Calibrated by	李重扬	签发日期: App. Date	2021-03-12
核验人: Inspected by	周琪	印章: Chop	
签发人: Approved by	李重扬		

地址/ADDR: 苏州市高新区鹿山路 369 号  
No.369 Lushan Road, New District,Suzhou  
邮编/Post: 215100

电话/Tel: 0512-6802 0717  
传真/Fax: 0512-6802 0712

网址/website: <http://www.lonbocal.com>  
邮箱/Email: [cal\\_services@lonbocal.com](mailto:cal_services@lonbocal.com)

# 校准证书

## Calibration Certificate

证书编号: 32XJ21000022-0001

Cer.No.

委托单位: Customer	特瑞堡海洋工程(青岛)有限公司		
委托单位地址: Customer Addr.	青岛市城阳区荣海四路 35 号		
仪器名称: Description	压力表		
型号规格: Model/Type	(0~0.1) MPa		
制造厂商: Manufacturer	青岛华青自动化仪表有限公司		
机身编号: Serial No.	TL059953		
管理编号: Asset No.	/		
接收日期: Acce. Date	2021-01-04	校准日期: Cal. Date	2021-01-04
校准人: Calibrated by	李重扬	签发日期: App. Date	2021-01-06
核验人: Inspected by	周琪		
签发人: Approved by	余帆	印章: Chop	

地址/ADDR: 苏州市高新区鹿山路 369 号  
No.369 Lushan Road, New District, Suzhou  
邮编/Post: 215100

电话/Tel: 0512-6802 0717  
传真/Fax: 0512-6802 0712

网址/website: <http://www.lonbocal.com>  
邮箱/Email: [cal\\_services@lonbocal.com](mailto:cal_services@lonbocal.com)

**CERTIFICATE OF CONFORMANCE**

Client: TRELLEBORG MARINE SYSTEMS DUBIA FZE

Certificate No: TCQ/016fp/21

Product: PF25555BNTSAU2000(4PCE)

S/C No.: 20007775

We hereby confirm that the above products have been produced using rubber compounds, which meet the specification when tested using the test methods given in the table below.

Test Item	Test method	Outer rubber		Inner rubber	
		Required value	Results	Required value	Results
1	Before ageing				
1.1	Tensile strength (MPa)	ISO37:2011	18MPa or more	20.1	10MPa or more 18.5
1.2	Elongation (%)	ISO37:2011	400% or more	576.4	400% or more 615.3
1.3	Hardness (Shore A)	ISO7619-1:2010	60±10 ( Durometer hardness test type A)	59	50±10 ( Durometer hardness test type A) 58
2	After ageing	ISO 188:2011	Air oven ageing, 70°C±1 °C, 96h		Air oven ageing, 70°C±1 °C, 96h
2.1	Tensile strength (MPa)	ISO37:2011	Not less than 80% of the original property	19.3	Not less than 80% of the original property 18.1
2.2	Elongation (%)	ISO37:2011	Not less than 80% of the original property	473.2	Not less than 80% of the original property 561.2
2.3	Hardness (Shore A)	ISO7619-1:2010	Not to exceed the original property by more than 8	+2	Not to exceed the original property by more than 8 +3
3	Tear (N/cm)	ISO 34-1:2010	400N/cm or more	756	No requirement ---
4	Compression set (%)	ISO 815-1:2008	30% (70°C±1 °C for 22h) or less	17.12	No requirement ---
5	Static ozone ageing test	ISO 1431-1:2012	No cracks after elongation by 20% and exposure to 50 pphm at 40°C for 96h	No cracks	No requirement ---
Conclusion:			Pass		Pass

Note: if the colour of the outer rubber is not black, the material requirements will differ from those in this table.

pphm: parts of ozone per hundred million of air by volume.

The tests were carried out under strict laboratory conditions using specimens taken from batches of unvulcanised rubber compound.

**Prepared:** Martin

**Authorized:** Michael

# Logbook of Trelleborg Pneumatic Fender

## Identification Information

Fender Size	2.5Dx5.5L
Initial Internal Pressure	50KPa
Fender Serial No.	TB I 2555-5- 2106-059
Safety Valve Serial No.	A20060015
Fender Type	Type I
Fender Color	Black
Receive Date	

## Special Terms

Submarine Usage	Yes	NO
Non Marking Fender	Yes	NO



### Application History

Location	Installation Date	Transfer Date	Transfer Method	Transfer Purpose

### Visual Inspection Record

Inspection Date	Inspected by	Results and Comments

### Maintenance and Repair Record

Description	Action Date	Acted by	Purpose of action

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Fender Type	Type I
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Non Marking Fender	Yes	NO

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Location	Installation Date	Transfer Date	Transfer Method	Transfer Purpose

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Initial Internal Pressure	50KPa
Fender Serial No.	TB I 2555-5- 2106-062
Safety Valve Serial No.	A20060013
Fender Type	Type I
Fender Color	Black
Receive Date	

## Special Terms

Submarine Usage	Yes	NO
Non Marking Fender	Yes	NO

### Application History

Location	Installation Date	Transfer Date	Transfer Method	Transfer Purpose

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