

PNEUMATIC FENDER

Inspection Report

Product Name: Pneumatic fender Φ 2000x3500L

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

Initial Internal Pressure: 50kPa

Date: 29th, 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	2021.06.15~06.25
SIZE	PF20355BNTHAU2000	SERIAL NO.	TB I 2035-5-2106-055,056,057,058

Picture:



Item	Specification	Dimensional	Judgement
Length	3500+10%/-5% (3850~3325)	3684,3684,3682,3684	good
Diameter	2000+10%/-5% (2200~1900)	2032,2035,2034,2030	good
Inspected by	Reviewed by	Approved by	
QiuChengkai	Cherry	Andy	

2-1 air-leakage test

AIR-LEAKAGE TEST

ITEM	Pneumatic Fender	DATE	2021.06.15~06.25
SIZE	PF20355BNTHAU2000	SERIAL NO.	TB I 2035-5-2106-055,056,057,058

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	



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		
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



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	印章: Chop	
签发人: Approved by	余帆		

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

CERTIFICATE OF CONFORMANCE

Client: TRELLEBORG MARINE SYSTEMS DUBIA FZE
 Certificate No: TCQ/015fp/21
 Product: PF20355BNTHAU2000(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	19.4	10MPa or more 19.1
1.2	Elongation (%)	ISO37:2011	400% or more	587.3	400% or more 622.4
1.3	Hardness (Shore A)	ISO7619-1:2010	60±10 (Durometer hardness test type A)	58	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	18.9	Not less than 80% of the original property 18.3
2.2	Elongation (%)	ISO37:2011	Not less than 80% of the original property	487.4	Not less than 80% of the original property 556.3
2.3	Hardness (Shore A)	ISO7619-1:2010	Not to exceed the original property by more than 8	+3	Not to exceed the original property by more than 8 +2
3	Tear (N/cm)	ISO 34-1:2010	400N/cm or more	723	No requirement ---
4	Compression set (%)	ISO 815-1:2008	30% (70°C±1 °C for 22h) or less	16.98	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	2.0Dx3.5L
Initial Internal Pressure	50KPa
Fender Serial No.	TB I 2035-5- 2106-055
Safety Valve Serial No.	N/A
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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Safety Valve Serial No.	N/A
Fender Type	Type I
Fender Color	Black
Receive Date	

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Logbook of Trelleborg Pneumatic Fender

Identification Information

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Initial Internal Pressure	50KPa
Fender Serial No.	TB I 2035-5- 2106-058
Safety Valve Serial No.	N/A
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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