

## SKÝRSLA

### ÞYKKTARMÆLING Á OLÍUGEYMI 2 Á ÞÓRSHÖFN

#### ULTRASONIC THICKNESS MEASUREMENT



**JANÚAR 2024**

**FASTANÚMÉR: T2208/T2008**

**UTM SKÝRSLA NR: TM-241652-T2008-T2208-27-MAY-24**

**MÆLINGAR FRAMKVÆMDAR, STAÐUR: ÞÓRSHÖFN**

**EIGANDANÚMÉR: 680.02.00**



### **Framkvæmd mælinga**

Þykktarmælingu framkvæmdi Andre Sandö hjá HD ehf í Kópavogi. Upplýsingar varðandi aðstæður, notkun geyma o.fl. veitti Jón Haraldsson stöðvarstjóri hjá Olíudreifingu ehf og Loftur Jónsson hjá Mars ehf.

Framkvæmd þykktarmælingar og sjónskoðunar á geyminum fóru fram í maí mánuði 2024. Geymirinn er liggjand stálgeymir og var belgur hans mældur ásamt endalokum.

### **Þykktarmælingar**

Varðandi staðsetningu mælistaða og niðurstöður þykktarmælinga á geyminum er hér vísað á meðfylgjandi teikningar (1 stk.). Allar plötur eru mældar á svipaðan hátt þ.e.a.s. miðast er við að hafa mælingar við enda plötu, teknir voru 10 punktar í plötu. Mælt var c.a. frá miðju belgs hvoru megin og undir. ( sjá teikn )

### **Sjónskoðun**

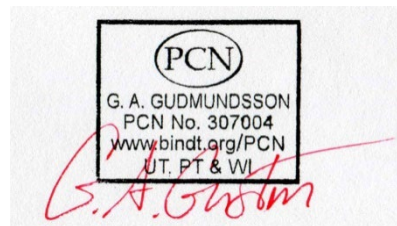
Farið er um allan geyminn með sterkt ljós ef birta er ekki nægileg og því haldið rétt við yfirborðið svo pyttir og misfellur sjáist betur. Samsuður geymis er skoðaðar sérstaklega vel ásamt öðrum suðum utanvert á geymi.

### **Niðurstöður**

Geymir lítur vel út að utan. Geymir er málaður að utan. Blettir í gólfi mælast 0,5 – 1,5 mm djúpir. Breidd svæðis er u.þ.b 400 mm breitt og nær eftir allri lengd tank T2008. Sjá teikningar og ljósmyndir. Eigandi geymis var látin vita. Sjá meðf. niðurstöður mælingar. Öll uppgefin mál á teikningum eru í mm.

Akureyri, 06 júní 2024

Virðingarfyllst.



Gísli Arnar Guðmundsson



## STAÐFESTING ÞYKKTARMÆLINGA

**SKÝRSLA/REPORT NO:** TM-241652-T2008/T2208-27-MAY-24  
**DAGS.PRÓF./DATE OF TEST:** 27/05/2024  
**DAGS SKÝRSLU/Date Report:** 06/06/2024  
**EIGANDI/CLIENT:** Olíudreifing  
**HLUTUR/STRUCTURE:** Olíugeymir T2208/T2008. Smíðaður 2015. Tvískiptur.  
**STADS./LOCATION OF TEST:** Þórshöfn  
**TÆKI/EQUIPMENT:** Þykktarmælir, Gel, Málband/ *UT meter Gel, Meas.tape.*  
**TÆKNIM./TECHNICIAN:** Andre Sandö

**SKÍRTEINI/CERTIFICATION:**

**Ultrasound Inspection – Level II**  
PCN: E012S3320978. 01/04/2022 - 31/03/2027  
Course held at LAVENDER. Penistone, West Yorkshire. UK

**Magnetic Particle Inspection – Level II**  
PCN: V019S22121689. 19/09/2019 – 18/09/2024  
Course held at TALON. Aberdeen. Scotland

**Dye Penetrant Inspection – Level II**  
PCN: F013S5523747. 19/09/2019 – 20/11/2023  
Course held at TALON. Blackpool UK

**Weld Inspector – Level II**  
PCN: E016S3228258. 05/02/2016 - 04/02/2021  
Course held at LAVENDER. Penistone. UK

**Vibration Analyser – CAT II**  
PCN: SCM94300 28/02/2017 - 27/02/2022  
Course held at RMS RELIABILITY. Colchester.

**Airborne Ultrasound – Level I**  
SNT-TC-1A ( 2006 ) 05/10/2015  
Course held at SDT Ultrasound Solutions. Brussel. Belgium.

**Magnetic Flux Leakage**  
API 653 ANNEX G & SNT TC – 1A. 12/08/2017  
Course held at MFE Enterprises, Inc. Texas. USA

Surname

PCN Number

**CERT. VERIFIC:** <https://www.bindt.org/Certification/pcn-certificate-verification/>



## MYNDIR FRÁ GEYMI T2208/T2008



### T2208

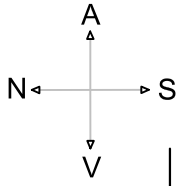




T2008



Blettir í gólfi mælast 0,5 - 1,5 mm djúpir. Breidd svæðis er u.þ.b 400 mm breitt og nær eftir allri lengd tank T2008

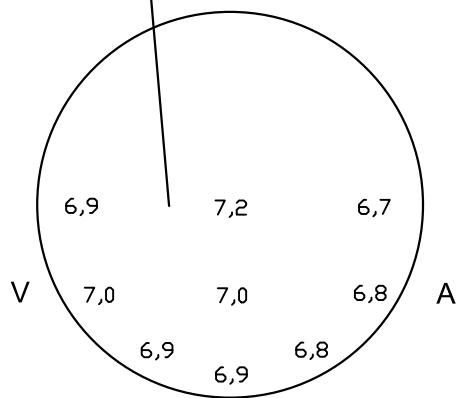
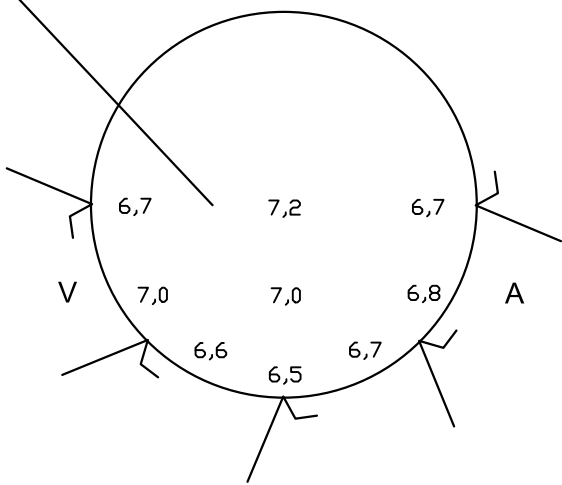
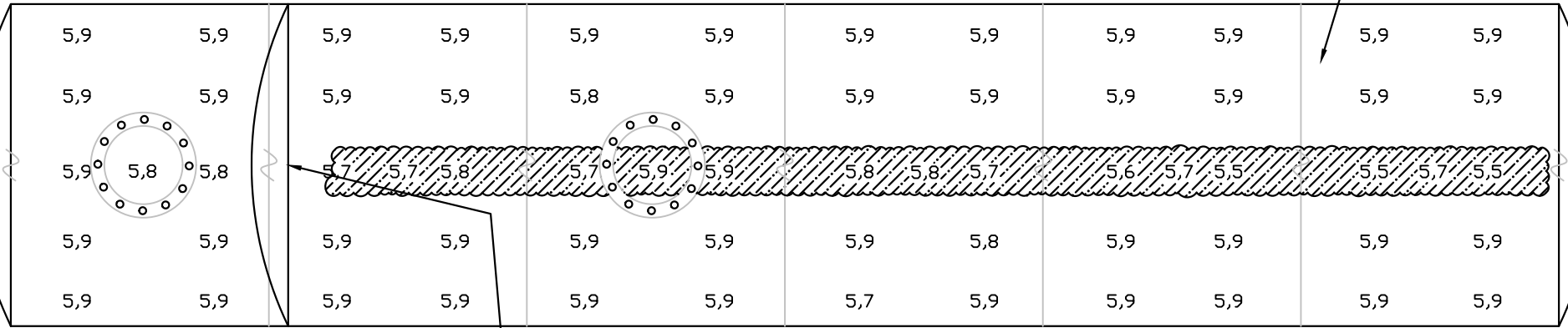


Geymir mældur að innan neðst og upp að miðjum belg. Séð ofan á tank.

0,5-1,5 mm dúpír pyttir

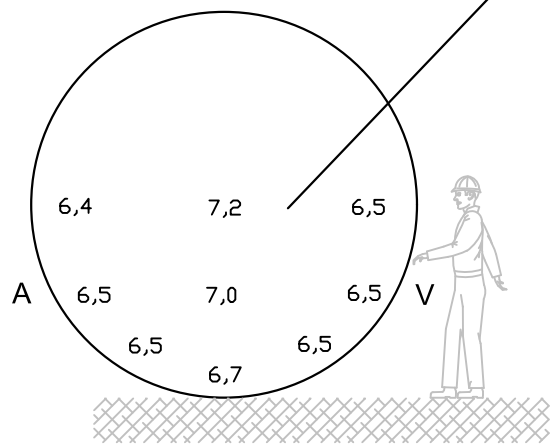
T2008

T2208



ÞYKKTARMÆLINGAR (UTM)  
 REKSTRARAÐILI: OLÍUDREIFING EHF  
 TILVÍSUN ÖKKAR: 241652  
 MÆLINGAR FRAMKV. 27-05-2024  
 STAÐUR: ÞÓRSHÄFN  
 HLUTUR MÆLDUR: LIGGJANDI OLÍUGEYMIR  
 FASTANUMER: T2208 & T2008

TEIKNING ER EKKI Í MÆLIKVARÐA



Staðsetning mælipunkta.



**PART 1 - HOLDER'S DETAILS**

PCN NUMBER:  
347274



ISSUE DATE:  
08/02/2023

ISSUE NUMBER:  
1

NAME & ADDRESS:  
Andre Sando  
Hamarstigur 37  
600 Akureyri  
600  
Iceland

**RECORD OF PCN CERTIFICATION**

Further information on the scope of certification available may be obtained from The Certification Services Department, British Institute of NDT, Midsummer House, Riverside Way, Bedford Road, Northampton NN1 5NX, United Kingdom.  
E-mail: [pcn@bindt.org](mailto:pcn@bindt.org)  
Tel: +44 01604 438300 Fax: +44 01604 438301

Valid only when signed on behalf of BINDT and incorporating stamp below:



This document may be withdrawn or revoked in part or in total at any time.

NORMAL SIGNATURE: *Andre Sando*

This part may be used by the employer to signify that the certificate holder is authorised to carry out NDT on behalf of the employing company.

COMPANY STAMP	SIGNATURE & NAME OF PERSON AUTHORISING	DATE
<p><b>PRESSURE EQUIPMENT (SAFETY) REGULATIONS (PESR)</b></p> <p>The Pressure Equipment (Safety) Regulations 2016 implemented Directive 2014/68/EU on pressure equipment and assemblies. The British Institute of Non-Destructive Testing is a Recognised Third-Party Organisation accredited by UKAS, under Pressure Equipment (Safety) Regulations 2016; Guidance (GB) which implement the provisions of Directive 2014/68/EU concerning pressure equipment. The scope of the appointment is for the approval of personnel to carry out Non-Destructive tests on permanent joints for pressure equipment in categories III and IV in accordance with section 22 of Schedule 2 to the Regulations. All PCN certification valid for the welding and pre &amp; in-service inspection sectors satisfies the Pressure Equipment (Safety) Regulations 2016; Guidance (GB).</p>		

**FOR NOTIFICATION OF PERMANENT CHANGE OF HOLDER'S ADDRESS PLEASE REFER TO FORM PSL 18 AVAILABLE TO DOWNLOAD AT [BINDT.ORG/CERTIFICATION](http://BINDT.ORG/CERTIFICATION)**

**PART 2 - CERTIFICATION HELD** (All certificates comply with EN ISO:9712 unless otherwise stated) **D= Distinction** (80% or above average)

CERTIFICATE NUMBER	ISSUE	LEVEL	SECTOR	METHOD	SCOPE OF CERTIFICATE (see over for key to codes)	ISSUES DATE	EXPIRY
E022S62428731	1	2	6	24	Butt Welds in Plate, NDT Instruction Writing, Plate	01/12/2022	30/11/2027

PCN Record of Certification issue 1 dated 08/02/2023

Verification of current certification status is strongly encouraged and is available at [www.bindt.org/PCN](http://www.bindt.org/PCN) or by post, telephone, fax or e-mail quoting the unique PCN Number or full name shown in Part 1

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**EU CERTIFICATE OF APPROVAL OF NDT PERSONNEL In accordance with the requirements of the Pressure Equipment Directive 2014/68/EU**

TO WHOM IT MAY CONCERN:

LRQA Certification and Assurance Services Limited, a Recognised Third-party Organisation as described in the European Pressure Equipment Directive 2014/68/EU, Article 20, has approved the following NDT personnel to carry out the specified non-destructive tests of permanent joints for pressure equipment in categories III and IV (2014/68/EU, Annex I, section 3.1.3 refers)

The approval is granted in accordance with the LRQA-CASL PD CEN / TR 15589 Route B Certification Scheme.

**Recognised Certification Body:** BINDT/PCN

**Certification Body Address:** Midsummer House Riverside Way Bedford Road Northampton, NN1 5NX  
(Accredited to ISO/IEC 17024:2012 to provide certification of persons against EN ISO 9712:2012)

Signed for and on behalf of LRQA-CASL

PCN Number 347274

NAME OF APPROVED PERSON	PCN NUMBER	METHOD	SECTOR	LEVEL	CERTIFICATE NUMBER	ISSUES DATE	EXPIRY
Andre Sando	347274	Ultrasonic Testing	Weldments	2	E022S62428731	01/12/2022	30/11/2027

PCN Record of Certification issue 1 dated 08/02/2023

Verification of current certification status is strongly encouraged and is available at [www.bindt.org/PCN](http://www.bindt.org/PCN) or by post, telephone, fax or e-mail quoting the unique PCN Number or full name shown in Part 1

Licensed to [andre.sando@icloud.com](mailto:andre.sando@icloud.com)



Baugh & Weedon NDE Ltd.  
 11-16 Burcott Business Park,  
 Burcott Road, Hereford, HR4 9JQ.  
 Tel: +44 (0)1432 267671  
 Email: [sales@bw-nde.com](mailto:sales@bw-nde.com)  
 Web: [www.bw-nde.com](http://www.bw-nde.com)



<b>Calibration Certificate No.</b>	PS7923-1
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<b>Customer</b>	<b>Acceptance</b>	Pass
Gisli Gudmundsson	<b>Date of Calibration</b>	07.09.23
<b>Customer Purchase Order No.</b>	<b>Date of Expiry</b>	07.09.24
N/A	<b>Adjustment</b>	No

Item	Description of Customer Equipment Under Test	Serial No. & Reference No.
1	Olympus 45MG Ultrasonic Thickness Gauge	8440313
1a	Olympus D7910 5MHz Ultrasonic Thickness Probe	1394385
<b>Remarks</b>	The readings obtained by the equipment under test, are within tolerance, of those given by the traceable test equipment.	

**Conclusion & Specification**

It is hereby certified that the whole of the equipment specified has been calibrated and conforms to an accuracy of +/- 0.1mm.

The calibration has been completed by using; equipment traceable to National Standards (NPL), the general principles of BS EN ISO 16809:2019 and our latest work instruction and procedure documents.

In accordance with ISO 9001:2015 - The quality management system applies to; the service, repair, and calibration of non-destructive test equipment. (Certificate No. AVQ5007104 which expires on 31<sup>st</sup> May 2025)

<b>Test Conditions</b>	Temperature (20 +/- 2 °C) & Humidity (50 +/- 20%)
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Reference Test Equipment Used	Serial No.	Certificate No.
B&W Thickness Test Block 200mm	B18	51156 - UKAS
B&W Thickness Test Block 50-75mm	B29	51157 - UKAS
B&W Thickness Test Block 1.5-20mm	B202	51159 - UKAS

The above equipment is traceable to NPL and was calibrated by a UKAS accredited Calibration Laboratory.

<b>Test Equipment Uncertainty</b>	The uncertainties are based on a probability of a 95% level of confidence.
<b>Measurement Uncertainty</b>	B18 +/-0.014, B29 +/- 0.014, B202 +/- 0.021

<b>Calibrated By</b>	P. Stimson Calibration Manager	<b>Approved Signatory</b>	
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Baugh & Weedon NDE Ltd.  
 11-16 Burcott Business Park,  
 Burcott Road, Hereford, HR4 9JQ.  
 Tel: +44 (0)1432 267671  
 Email: [sales@bw-nde.com](mailto:sales@bw-nde.com)  
 Web: [www.bw-nde.com](http://www.bw-nde.com)



<b>Calibration Certificate No.</b>	PS7923-1
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<b>Customer Requirements</b>
None supplied.

<b>Results</b>
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<b>Note</b>	Any acceptances indicated as 'OOS' are outside of specification.
	Any acceptances indicated as 'OOCR' are outside of customer requirements.

<b>Work Instruction No.</b>	CAL-WI032 Issue 1	<b>Procedure</b>	CAL-WI014 Issue 1
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Test Block	Nominal Thickness (mm)	Ref. Test Equipment	Customer Equipment	
		Actual Thickness (mm)	Measured Thickness (mm)	Acceptance
B202	1.5	1.5	1.46	Pass
B202	2.5	2.5	2.45	Pass
B202	5	5.0	4.99	Pass
B202	10	10.0	9.98	Pass
B202	15	15.0	14.96	Pass
B202	20	20.0	19.94	Pass
B29	50	50.0	49.96	Pass
B29	75	75.0	74.92	Pass
B18	100	100.0	99.97	Pass
B18	200	200.0	199.97	Pass

<b>Calibrated By</b>	P. Stimson Calibration Manager	<b>Approved Signatory</b>	
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**Starfsleyfi  
til þykktarmælinga á skipum**

**Starfsleyfið er veitt samkvæmt heimild í lögum um Samgöngustofu,  
stjórnsýslustofnun samgöngumála, nr. 119/2012 og Skipalögum nr. 66/2021**

Nafn:	Heimili:	Sveitarfélag:	Kt.:
<b>HD ehf.</b>	<b>Vesturvör 36</b>	<b>200 Kópavogi</b>	<b>431298-2799</b>
- Gísli Arnar Guðmundsson	Sómatúni 18	600 Akureyri	251172-4639

Með starfsleyfi þessu er ofanrituðum veitt heimild til að annast þykktarmælingar á skipum og bátum, skýrslugerð og innfærslu í skipaskrá vegna þeirra.

Um framkvæmd þykktarmælingar, skýrslugerðar og innfærslu í skipaskrá skal hafa samráð við starfsmenn Samgöngustofu. Fylgja skal ákvæðum í lögum, reglugerðum og verklagsreglum um þykktarmælingar, sjá VIN – 2142 *Þykktarmæling á skipum sem smíðuð eru úr stáli og áli.*

Gildi starfsleyfis er m.a. bundið því skilyrði að HD ehf. og starfsmenn fyrirtækisins sé samþykkt af viðurkenndu flokkunarfélagi til að framkvæma þykktarmælingar á flokkuðum skipum.

Starfsleyfið gildir til: **4. nóvember 2027**

Fella má starfsleyfið úr gildi ef ekki er farið í einu og öllu eftir settum reglum og leiðbeiningum þar um.

**F.h. Samgöngustofu**

Reykjavík  
Staður

4.11.2022  
Dagsetning

  
Undirskrift og stimpill