საქართველოს სტანდარტი

სსკ: 25.160.40

შედუღების არადესტრუქციული ტესტირება - ულტრაბგერითი ტესტირება ავტომატური მთლიანი ფოკუსირების ტექნიკის (TFM) და მასთან დაკავშირებული ტექნოლოგიების გამოყენება

საინფორმაციო მონაცემები

- 1 **მიღებულია და დაშვებულია სამოქმედოდ:** სსიპ-საქართველოს სტანდარტებისა და მეტროლოგიის ეროვნული სააგენტოს გენერალური დირექტორის 12/04/2022 წლის № 20 განკარგულებით
- 2 მიღებულია "თავფურცლის" თარგმნის მეთოდით: სტანდარტიზაციის საერთაშორისო ორგანიზაციის (ისო) სტანდარტი ისო 23864:2021 "შედუღების არადესტრუქციული ტესტირება ულტრაბგერითი ტესტირება ავტომატური მთლიანი ფოკუსირების ტექნიკის (TFM) და მასთან დაკავშირებული ტექნოლოგიების გამოყენება"

3 პირველად

4 რეგისტრირებულია: სსიპ-საქართველოს სტანდარტეზისა და მეტროლოგიის ეროვნული სააგენტოს რეესტრში: 12/04/2022 წლის №268-1.3-023500

წინამდებარე სტანდარტის ნებისმიერი ფორმით გავრცელება სააგენტოს ნებართვის გარეშე აკრძალულია

INTERNATIONAL STANDARD

ISO 23864

First edition 2021-01

Non-destructive testing of welds — Ultrasonic testing — Use of automated total focusing technique (TFM) and related technologies

Essais non destructifs des assemblages soudés — Contrôle par ultrasons — Utilisation de la technique d'acquisition automatisée de focalisation en tout point (FTP) et de techniques associées





COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office CP 401 • Ch. de Blandonnet 8 CH-1214 Vernier, Geneva Phone: +41 22 749 01 11 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

COI	ontents Pa		
Fore	word		v
1	Scope	e	1
2	Norm	native references	2
3		is and definitions	
4		ng levels	
5	Infor 5.1	mation required before testing Items to be defined before procedure development	
	5.2	Specific information required by the operator before testing	4
	5.3	Written test procedure	
6	Requ	5	
	6.1	Personnel qualifications	5
	6.2	Test equipment	
		6.2.1 General 6.2.2 Instrument	
		6.2.3 Probes	
		6.2.4 Scanning mechanisms	
7	Drone	aration for testing	
,	7.1	Volume to be tested	
	7.2	Imaging typical weld discontinuities	
		7.2.1 Discontinuity orientation	
		7.2.2 Discontinuity location	
		7.2.3 Suitable imaging paths for specific discontinuity types	
	7.3	Verification of test setup	
	7.4 7.5	Scan increment setting	
	7.6	Preparation of scanning surfaces	
	7.7	Temperature	
	7.8	Couplant	11
8	Testi	ng of parent material	11
9	Rang	e and sensitivity	11
		General	
	9.2	Range and sensitivity settings	
		9.2.1 General 9.2.2 Setting range and sensitivity on the test object itself	
		9.2.3 Gain corrections	
	9.3	Checking of the settings	
10	Refer	rence blocks and test blocks	13
	10.1	General	
	10.2	Material	13
	10.3	Dimensions and shape	
	10.4	Reference reflectors	13
11		pment checks	
12	Proce	edure verification	14
13		testing	
14		storage	
15		pretation and analysis of TFM images	
	15.1 15.2	General Assessing the quality of TFM images	
	10.4	rissessing the quality of Trivi illiages	13

	15.3		15
	15.4	Classification of relevant indications	15
	15.5	Determination of location and length of an indication	15
		15.5.1 Location	15
		15.5.2 Length	15
	15.6	Determination of amplitude or height of an indication	15
		15.6.1 General	15
		15.6.2 Based on amplitude	16
		15.6.3 Based on height	16
	15.7	Evaluation against acceptance criteria	16
16	Test re	eport	16
17	Auste	nitic welds	18
Annex A (informative) Typical reference blocks and reference reflectors			19
Annex B (informative) TFM images of typical discontinuities			24
Bibliography			32

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by the IIW, *International Institute of Welding*, Commission V, *NDT and Quality Assurance of Welded Products*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 121, *Welding and allied processes*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.