Finnish Institute of Occupational Health

FIOH
notified by the Ministry of Social Affairs and Health
and identified under 0403 grants

EC TYPE EXAMINATION CERTIFICATE

12213RDS01rev10

for protective clothing against heat and flame
and thermal effects of electric arc
as defined in EN ISO 11612:2015,
A1+A2 B2 C2 F2,
and IEC 61482-2:2009 class 1 (4 kA)
Multi-Layer Non-Anti-Static Protective Clothing
Coveralls 602, 604, 605
Parkas 622, 624, 684, 686
Jacket 623, 629
Bib'n braces 641, 642, 644
Red Wing Shoe Company Inc.
Minnesota, USA

These products comply with Directive 89/686/EEC,
as amended

Helsinki, 16 October 2017
Expiry date: 15 October 2022

Minna Torenius
Specialist

Erja Tammela
Senior Specialist

FINAS
Finnish Accreditation Service
S039 (EN 45011)
(ISO/IEC Guide 65)

This certificate comprises 3 pages and two appendices.
This certificate replaces certificate 12213RDS01rev9, 2017-09-15

Finnish Institute of Occupational Health, Notified Body No. 0403,
Topeliuksenkatu 41 b, FI-00250 Helsinki, Finland

1. Applicant

Red Wing Shoe Company Inc.
314 Main Street
Red Wing
55066 Minnesota
USA

2. Description and identification of the product

Type: Protective clothing against heat and flame, and thermal effects of electric arc as defined in EN ISO 11612:2015 and IEC 61482-2:2009

EN ISO 11612: Performance levels A1+A2 B2 C2 F2
IEC 61482-2: Class 1 (4 kA)

Name: Multi-Layer Non-Anti-Static Protective Clothing
Coveralls 602, 604, 605
Parkas 622, 624, 684, 686
Jackets 623, 629
Bib'n braces 641, 642, 644

Description: Garments can be made of the following alternative outer materials:

- Quality 20: Art# 802536, 100% CO, Twill, 250 g/m² (Daletec AS, Norway) or Art# 802538, 100% CO, Twill, coated backside, 325 g/m² (Daletec AS, Norway)
- Quality 25: Art# Ultra soft style 301, 88% CO/12% Nylon, 235 g/m² (Westex Inc., USA)
- Quality 28: Art# 142831, 75% CO, 25% PES, 290 g/m² (Daletec AS, Norway).

Garments are insulated with a quilted lining and optionally with PU membrane, 90 g/m².

Optional wadding materials:

- Meida, 100% PES, 150 g and 200 g with scrim
- 3M Thinsulate, 150 g and 200 g with scrim (3M, Minnesota, USA)

Optional inner lining materials:

- Art# 101731, 100% CO, 170 g/m² (Daletec AS, Norway)
- Art# ZAE001, 100% CO, 170 g/m² (Shenzhen Tecron Safety Co. Ltd., China)
- Art# F.R21*21*108*58*57"/58", 100% CO, 205 g/m² (Xinxiang Xinxing Special Fabric Co. Ltd., China)

Cuffing material is Miraflex knitted cuffing material, PES/WO (Miraflex, UK) or Modastatic knit single jersey, 60% MAC/38% CO/2% antistatic fiber, 200 g/m². Elastic bands are supplied by Alge Elastic GmbH., Austria. Zippers used are YKK Polyester Coil Zippers.

Garments can be provided with the following alternative retroreflective materials:

- Loxy art. 9801 Silver (Loxy AS, Norway)
- Loxy art. 9808 Trim yellow/silver/yellow (Loxy AS, Norway)
- 3M Scotchlite 9687 Trim yellow/silver/yellow (3M, Minnesota, USA).

Representative in Europe: Red Wing Shoe BV, Van Diemenstraat 272, NL-1013 CR Amsterdam, the Netherlands

Pictures of the standard patterns and specific styles are shown in Appendix 2. The style number comprises of 5 digits including the pattern number followed by the quality number.

3. Adequacy and validity of the technical documentation

The documentation supplied by the applicant is listed in Appendix 1. The technical documentation is considered adequate and valid. Materials of the products have been tested in accordance with harmonized European standards EN ISO 11612:2015 and IEC 61482-1-2:2007 by accredited testing laboratories. The models of the products supplied by the applicant conform to the technical documentation.

4. Compliance with basic health and safety requirements

The products and the technical documentation relating to them comply with the relevant basic health and safety requirements stated in Directive 89/686/EEC Annex II as amended, last amended by 96/58/EC.

Note: Any modification in design, materials, or in the technical documentation, carried out on these type examined products must be brought to the attention of FIOH.

Appendix 1. Technical documentation

Appendix 2. Pictures of the different standard patterns and specific styles

End of EC type examination certificate 12213RDS01rev10.

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Technical documentation regarding EC type examination certificate 12213RDS01rev10

Product name: Multi-Layer Non-Anti-Static Protective Clothing
Applicant: Red Wing Shoe Company Inc., 314 Main Street, Red Wing, 55066 Minnesota, USA

Item of technical documentation	*Document identification*	*Assessment*
1. Application for the EC type examination	2012-02-12 2013-05-24 2013-07-16 (Pattern 629) 2014-07-08 (Quality 16) 2014-10-07 (Quality 28) 2014-11-21 (Quality 20) 2016-12-15 2017-07-12 (ZAE001) 2017-08-18 2017-09-13 (Quality 20, #802538 Revision request, 2017-10-02	
2. Product drawing, construction, and material list	Garment specifications	Products are identified and described, materials are specified
3. Compliance with Directive 89/686/EEC relevant basic requirements	The compliance assessment is based on reports mentioned below items 3.1-3.27	
3.1 FIOH assessment of relevant Directive basic requirements	2017-10-16	The applied harmonised standards EN ISO 13688:2013 and EN ISO 11612:2015 support the relevant requirements
3.2 West Yorkshire Materials Testing Service test report	No. 67494, 2014-11-14 Quality 20: Art# 802536	Material meets the requirements of EN ISO 11612:2015, A1 A2 B1 C1
3.3 West Yorkshire Materials Testing Service test report	No. 67563, 2014-11-28 Quality 20: Art# 802536	Material meets the requirements of IEC 61482-1-2:2007 class 1 (4 kA)
3.4 West Yorkshire Materials Testing Service test report	No. 83694 (Amended), 2017-04-27 Quality 20: Art# 802538	Material meets the requirements of EN ISO 11612:2015, A1 A2 B1 C1
3.5 Kinetrics test report	No. K-419929-1705B01 R01, 2017-09-12 Quality 20: Art# 802538	Material meets the requirements of IEC 61482-1-2:2007 class 1 (4 kA)
3.6 FIOH test report	No. 163631T01rev1, 2011-06-30 Assemblies of Quality 15 and Quality 20 with wadding G150 with scrim and inner lining 170 g/m²	Material assemblies meet the requirements of EN ISO 11612:2015, A2 B2 C2 F3
3.7 BTTG test report	Ref: 30/02830/2, 2006-09-25 Quality 25: Art# Indura Ultra Soft s/301	Material meets the requirements of EN ISO 11612:2015, A1 B1 C1
3.8 STFI test report	Test Certificate No. Z 3708/08-4785/08, 2008-06-20 Quality 25: Art# Indura Ultra Soft S/301	Material meets the requirements of of IEC 61482-1-2:2007 class 1 (4 kA)
3.9 FIOH test report	No. 163634T01, 2011-04-29 Assembly of Quality 25, Art# Ultrasoft 301, with wadding G150 with scrim and inner lining 170 g/m²	Material assembly meets the requirements of EN ISO 11612:2015, A2 B2 C2 F2
3.10 West Yorkshire Materials Testing Service test report	No. 38652-01, 2009-07-03 Quality 28: Art# 142831	Material meets the requirements of EN ISO 11612:2015, A1 B1 C1
3.11 FIOH test report	No. 364104T01, 2017-10-02 Quality 28: Art# 142831	Material meets the requirements of EN ISO 11612:2015 for limited flame spread A2
3.12 STFI test report	No. 0415/08, 2009-04-25 Quality 28: Art# 142831	Material meets the requirements of IEC 61482-1-2:2007 class 1 (4 kA)

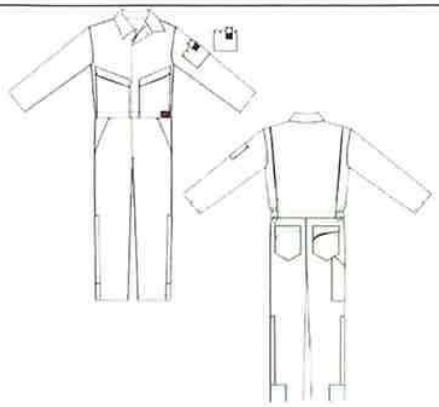
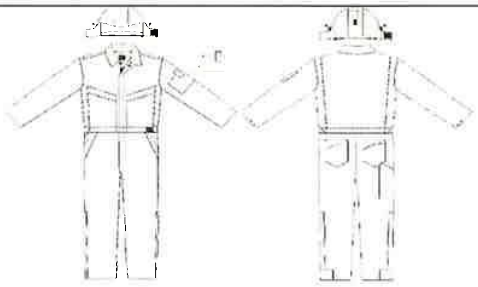
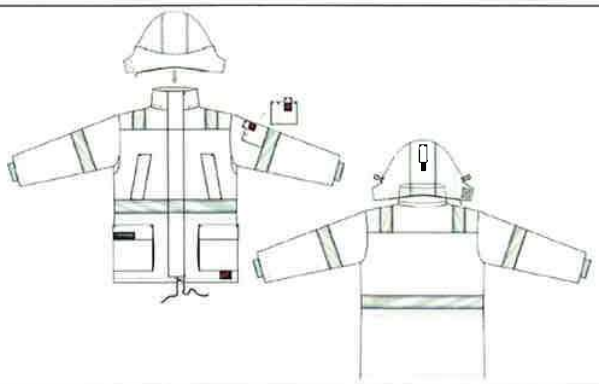
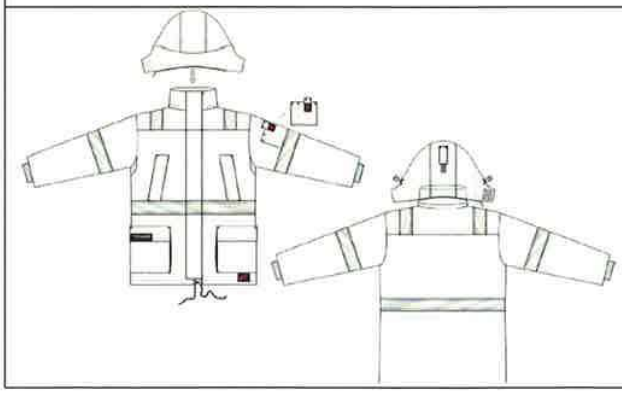
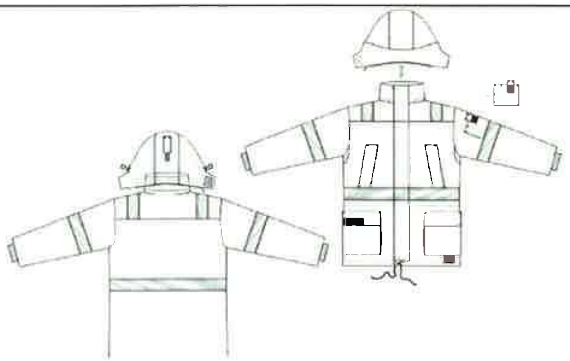
3.13 FIOH test report	No. 163634T01, 2011-04-29 Assembly of Quality 25, Art# Ultrasoft 301, with wadding G150 with scrim and inner lining 170 g/m²	Material assembly meets the requirements of EN ISO 11612:2015, A2 B2 C2 F2
3.14 West Yorkshire Materials Testing Service test report	No. 36291, 2008-08-22 Art# 101731	Inner lining material meets the requirement of EN ISO 14116:2015 index 3 for limited flame spread
3.15 Intertek test report	No. GZHT01797896, 2017-07-12 No. GZHT01786926, 2017-06-28 100% cotton, Plain weave woven fabric, 170 g/m² Art# ZAE001	Inner lining material meets the requirement of EN ISO 14116:2015, limited flame spread index 3
3.16 SGS test report	No. QD1104529-1/TX, 2011-04-19 Woven 100% cotton F.R21*21*108*58*57"/58"	Inner lining material meets the requirement of EN ISO 14116:2015 index 3 for limited flame spread
3.17 Aitex test report	No. 2011EP0535, 2011-06-22 Coverall 604 in quality 15, Art# 112241	Garments meet the requirements of IEC 61482-2:2009 class 1 (4 kA)
3.18 FIOH test report	No. 176124T01, 2011-09-27 FR Antistatic Modacrylic Cotton Knit	Ventilation opening material meets the requirements of EN ISO 11612:2015, A1 B1 C1
3.19 Intertek test report	No. 397264/07, 2007-04-16 Miraflex black knitted cuffing fabric	Material meets the requirements of EN ISO 14116:2015 index 3
3.20 ÖTI test report	No. 65519, 2011-03-21 Elastic tapes	Elastic tapes meet the requirements of EN ISO 11612:2015 for limited flame spread and heat resistance 260°C
3.21 FIOH test certificate	No. 325539T01rev1, 2016-11-11 LOXY 9801	Retroreflective material meets the requirements of EN ISO 20471:2013, EN ISO 11612:2015 for limited flame spread A1 and heat resistance, and EN 1149-5:2008
3.22 Swerea IVF test report	Test Certificate, 2004-11-26 Stonor art. 9808	Retroreflective materials meet the requirements of EN 471:2003 and and EN ISO 14116:2015 index 3 for limited flame spread
3.23 MTL test report	Certificate of Test, 2005-06-03 3M Scotchlite 9687 Fluorescent lime-yellow fire coat trim	Retroreflective material meets the requirements of EN ISO 20471:2013 for retroreflection (silver part) and for chromaticity (yellow part), and EN 469:2005 for heat resistance and for retroreflection after exposures to heat and radiant heat
3.24 FIOH test report	No. 163633T01rev1, 2011-06-30 Seam, chain stitch with overlocking and two stitchings	Seam meets the requirements of EN ISO 11612:2015 for limited flame spread A1+A2 and for seam strength
3.25 FIOH test report	No. 362772T01, 2017-09-04 YKK Polyester Coil Zipper on fabrics Q11 & 21 and Q15	Zipper meets the requirements of EN ISO 11612:2015 for limited flame spread A1 and heat resistance
3.26 Draft information sheet	User information	Document meets the requirements of the Directive, EN ISO 13688:2013, EN ISO 11612:2015 and IEC 61482-2:2009
3.27 Product markings	Drafts of markings in the garment specifications	Markings meet the requirements of EN ISO 13688:2013, EN ISO 11612:2015 and IEC 61482-2:2009
4. Description of the production quality system and related product control and test facilities	ISO 9001:2008 Certificate No. 43276, 2012-05-21	Agreement with FIOH on the EC quality control system for the final product (PPE category III product)

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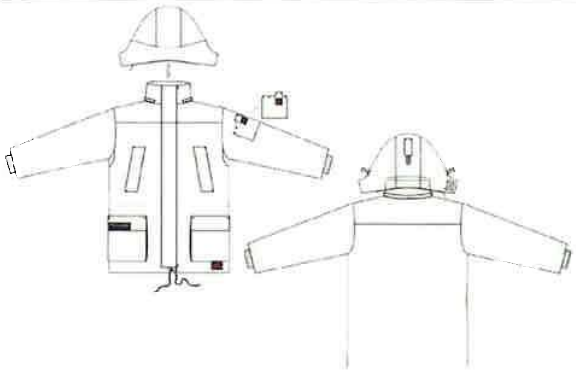
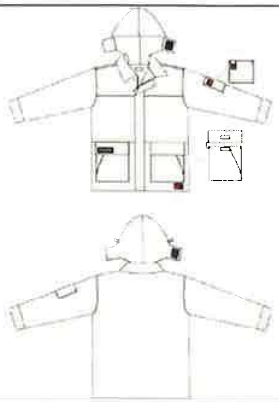
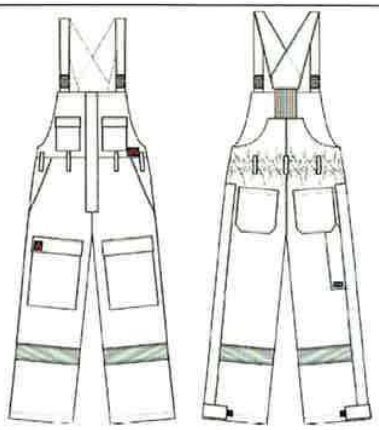
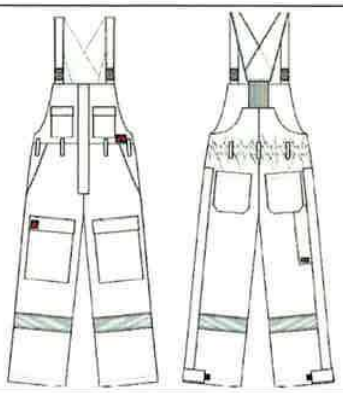
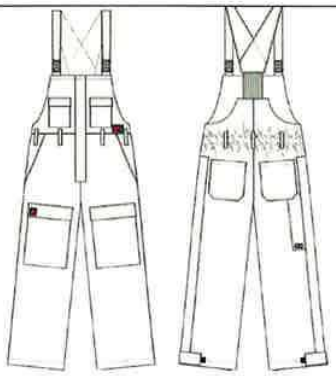
Pictures of the different basic styles

Style RW 602 FR Lined Coverall	Style RW 604 FR Lined Coverall
	
Style RW 605 FR Lined Coverall	**Style RW 622 FR Parka**
	
Style RW 624 FR Parka	**Style RW 684 FR Parka**
	

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Style RW 686 FR Parka	Style RW 623 FR Jacket
	
Style RW 629 FR Jacket	**Style RW 641 FR Winter Bib'n Brace**
	
Style RW 642 FR Winter Bib'n Brace	**Style RW 644 FR Winter Bib'n Brace**
	

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