ISO 16653-2:2021-10 (E)

Mobile elevating work platforms - Design, calculations, safety requirements and test methods relative to special features - Part 2: MEWPs with non-conductive (insulating) components

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 2

4 Safety requirements and/or protective/risk reduction measures 2
4.1 General 2
4.2 Structural requirements 2
4.3 Hydraulic liquid 3
4.4 Non-conductive hydraulic and pneumatic hoses 3
4.5 Work platforms 3
4.5.1 Work platform materials 3
4.5.2 Work platforms designed for use without an insulating liner 3
4.5.3 Work platforms designed for use with an insulating liner 3
4.5.4 Non-conductive (insulating) work platforms 3
4.6 Electrical requirements 3
4.6.1 Non-conductive (insulating) components 3
4.6.2 Hydraulic and pneumatic hose 3
4.6.3 Lower test electrode system for MEWPs with non-conductive (insulating) components 3
4.6.4 Chassis insulating system 4

5 Verificationofthesafetyrequirementsand/orprotective/riskreductionmeasures 4
5.1 Examinations and tests 4
5.2 Design check 4
5.3 Manufacturing check 5
5.4 Tests 5
5.4.1 Dielectric tests 5
5.4.2 Test criteria for MEWPs with a chassis insulating system 6
5.5 Electrical tests 6
5.5.1 General 6
5.5.2 Test criteria for MEWPs with non-conductive (insulating) boom including lower test electrode system 6
5.5.3 Test criteria for MEWPs having non-conductive (insulating) components without lower test electrode system 7
5.5.4 Test criteria for aerial ladder and vertical tower MEWPs with non- conductive (insulating) components (sections) 10
5.5.5 Test criteria for chassis insulating systems 11
5.5.6 Test criteria for insulating platform liners 12
5.5.7 Verification of tests in 5.5 12
5.6 Initial inspection and test 12

6 Information for use 12
6.1 General 12
6.2 Operator's manual 13

6.3 Markings 13
6.3.1 General 13
6.3.2 Responsible entity's plate 13
6.3.3 Work platform 13

7 Safety principles, inspection, maintenance, and operation 14
7.1 General 14
7.2 Maintenance 14
7.2.1 Pre-start inspection 14
7.2.2 Annual mechanical inspection/testing 14
7.2.3 Annual confirmation electrical test 15
7.2.4 Electrical tests 15
7.2.5 Electrical test equipment 18
7.2.6 Electrical certification 18
7.3 Modifications or alterations 18

Annex A (informative)Listofsignificanthazards 19

Bibliography 20