ISO 16338:2013-01 (E)

Welding for aerospace applications - Resistance spot and seam welding

Contents

Page

Foreword v

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Symbols and abbreviated terms 4

5 Specificengineeringrequirements 4

6 Classificationofthejoint 4

7 Productionrequirements 4

8 Weldingpersonnelrequirements 5

9 Personresponsibleforweldingprocedurequalificationandweldingmachine qualificationtests 5

10 Materialgroups 5

11 Preparation of parts to be welded 5
11.1 General 5
11.2 Cleaning requirements 5
11.3 Surface coatings 6
11.4 Assembly 6

12 Equipmentrequirements 6
12.1 Welding machines 6
12.2 Electrodes 6
12.3 Shear testing machines 6
12.4 Jigs and fixtures 6

13 Weldingmachines 6
13.1 Qualification requirements 6
13.2 Test piece configuration and examination requirements 8

14 Weldingprocedure(pWPS) 9
14.1 Qualification requirements 9
14.2 Test piece configuration and examination requirements 11

15 Qualityrequirementsforproduction 12
15.1 General 12
15.2 Production witness testing 12
15.3 Production parts 15

16 Test pieces 16
16.1 Standard test pieces 16
16.2 Test pieces for specific purposes 19

17 Examination, testing and acceptance criteria 19
17.1 General 19
17.2 Visual examination 19
17.3 Radiographic examination 21
17.4 Metallographic examination 22
17.5 Mechanical testing 26

18 Weldingprocedurequalificationrecord(WPQR) 30

Annex A (informative)Machinequalificationtestreportform 31

Annex B (informative) WPS form 33

Annex C (informative)Formsforweldingprocedurequalificationrecord(WPQR)--Examples 34

Annex D (informative)Commentaryonmachinequalification 36

Bibliography 40