|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name of Inspector:** |  | **Organisation:** |  | **Inspector Signature:** |  |
| **Technical Expert Name:** |  | **Technical Expert Signature:** |  | **Date:** |  |

|   |   | **Material** |  | **Technical Expert Review** |
| --- | --- | --- | --- | --- |
| **Category** | **Sub category** | Al, Cu, Fe, Mg, Ni, SS, Zn, Ti, Other | **Inspector***(Refer to Note 1)* | **TE Review**Agree / DisagreeY/N | Witness / InterviewW/I | Comments |
| **4.75 Welder Qualification Tests** |
| (g) Weld Tests | Tensile |  |  |  |  |  |
| Bend |  |  |  |  |  |
| Nick Breaks |  |  |  |  |  |
| Macroexamination |  |  |  |  |  |
| **4.76 Metals and Metal Products** **(to specified Standards to support inspection activities)** |
| (a) Tension Tests |  |  |  |  |  |
| (b) Compression Tests |  |  |  |  |  |
| (c) Bend Tests |  |  |  |  |  |
| (d) Deflection Tests |  |  |  |  |  |
| (e) Hardness Tests | Vickers |  |  |  |  |  |
|   | Rockwell |  |  |  |  |  |
|   | Brinell |  |  |  |  |  |
| (f) Impact tests | Charpy |  |  |  |  |  |
| (g) Weld Tests  | Tensile |  |  |  |  |  |
|   | Bend |  |  |  |  |  |
|   | Nick Breaks |  |  |  |  |  |
|   | Macroexamination |  |  |  |  |  |
| (h) Others Tests (specify) |  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
| **4.81 NDT by Radiography** |
| (a) Radiographic examination of metals |
|  | (i) Single wall, rolled or wrought |  |  |  |  |  |
|  |  - Thickness Measurements |  |  |  |  |  |
|  |  - Corrosion Pitting |  |  |  |  |  |
|  | (ii) Welded Joints |  |  |  |  |  |
|  | (iii) Castings |  |  |  |  |  |
|  | (iv) Forgings |  |  |  |  |  |
|  | (v) Other specified metallic products |  |  |  |  |  |
| (b) Radiographic exam of bonded metals |
|   | (i) Soldered and brazed joints |  |  |  |  |  |
|   | (ii) Hard faced components |  |  |  |  |  |
| (c) Radiographic exam of metal inserts in non metals |
|   | (i) Concrete |  |  |  |  |  |
|   | (ii) Reinforcing in belts, hoses etc |  |  |  |  |  |
| (d) Radiographic exam of non metals |
|   | (i) Rubber and plastics |  |  |  |  |  |
|   | (ii) Timber |  |  |  |  |  |
|   | (iii) Bonded non-metallic components |  |  |  |  |  |
|   | (iv) Other specified non metals |  |  |  |  |  |
| (e) Digital Radiography |  |  |  |  |  |
| **4.82 NDT by Ultrasonics** |
| (a) Ultrasonic exam of metals |
|  | (i) Single wall, rolled or wrought |  |  |  |  |  |
|  |  - Thickness Measurements |  |  |  |  |  |
|  |  - Corrosion Pitting |  |  |  |  |  |
|  | (ii) Welded Joints |  |  |  |  |  |
|  | (iii) Castings |  |  |  |  |  |
|  | (iv) Forgings |  |  |  |  |  |
|  | (v) Extruded products |  |  |  |  |  |
|  | (vi) Other specified metallic products & machined components |  |  |  |  |  |
|  | (vii) Nozzle and node welds |  |  |  |  |  |
| (b) Ultrasonic exam of bonded metals |
|  | (i) Soldered and brazed joints |  |  |  |  |  |
|  | (ii) Hard faced components |  |  |  |  |  |
|  | (iii) Machine bearings |  |  |  |  |  |
|  | (iv) Friction welded components |  |  |  |  |  |
|  | (v) Other specified components |  |  |  |  |  |
| (c) Ultrasonic examination of Components and Assemblies |
|  | (i) Aircraft Structures |  |  |  |  |  |
|  | (ii) Bonded Assemblies |  |  |  |  |  |
|  | (iii) Components & Assemblies |  |  |  |  |  |
|  | (iv) Thickness Measurements |  |  |  |  |  |
| (d) Ultrasonic exam of non-metals |
|  | (i) Rubber and plastics |  |  |  |  |  |
|  | (ii) Timber and plywood |  |  |  |  |  |
|  | (iii) Bonded non-metallic components |  |  |  |  |  |
|  | (iv) Ceramics and refractories |  |  |  |  |  |
|  | (v) Other specified non-metals |  |  |  |  |  |
| (e) Manual Phased Array |  |  |  |  |  |
|  | (i) Single wall, rolled or wrought |  |  |  |  |  |
|  |  - Thickness Measurements |  |  |  |  |  |
|  |  - Corrosion Pitting |  |  |  |  |  |
|  | (ii) Welded Joints |  |  |  |  |  |
|  | (iii) Castings |  |  |  |  |  |
|  | (iv) Forgings |  |  |  |  |  |
|  | (v) Extruded products |  |  |  |  |  |
|  | (vi) Other specified metallic products & machined components |  |  |  |  |  |
| **4.83 NDT by Visual Inspection** |
| (a) Visual inspection of metals |
|  | (i) Flat or rolled products |  |  |  |  |  |
|  | (ii) Welded joints |  |  |  |  |  |
|  | (iii) Castings |  |  |  |  |  |
|  | (iv) Forgings |  |  |  |  |  |
|  | (v) Metallic coatings |  |  |  |  |  |
| **4.84 NDT by Dye Penetrant Methods** |
| (a) Visible dye |  |  |  |  |  |
|  | (i) Water washable method |  |  |  |  |  |
|  | (ii) Solvent removable method |  |  |  |  |  |
|  | (iii) Post emulsifiable method |  |  |  |  |  |
| (b) Fluorescent dye method |
|  | (i) Water washable method |  |  |  |  |  |
|  | (ii) Solvent removable method |  |  |  |  |  |
|  | (iii) Post emulsifiable method |  |  |  |  |  |
| **4.85 NDT by Magnetic Particle Methods**  | **Power Capability** Amps - AC or DC |
| (a) Magnetic flow method |
|  | (i) Welded joints |  |  |  |  |  |
|  | (ii) Forgings |  |  |  |  |  |
|  | (iii) Castings |  |  |  |  |  |
|  | (iv) Machined parts |  |  |  |  |  |
| (b) Current flow method |
|  | (i) Welded joints |  |  |  |  |  |
|  | (ii) Forgings |  |  |  |  |  |
|  | (iii) Castings |  |  |  |  |  |
|  | (iv) Machined parts |  |  |  |  |  |
| (c) Coil method |
|  | (i) Welded joints |  |  |  |  |  |
|  | (ii) Forgings |  |  |  |  |  |
|  | (iii) Castings |  |  |  |  |  |
|  | (iv) Machined parts |  |  |  |  |  |
| **4.86 NDT by Eddy Current** |
| (a) Surface flaw detection  |  |  |  |  |  |
| (b) Metallic coating (Thickness) |  |  |  |  |  |
| (c) Sorting of materials / components |  |  |  |  |  |
| (d) Sub-surface flaw detection  |  |  |  |  |  |
| (e) Weld testing |  |  |  |  |  |
| **4.87 NDT by Specialised Techniques** |
| (a) Ultrasonic examination by Time of Flight Diffraction  |  |  |  |  |  |
| (b) Acoustic emission testing |  |  |  |  |  |
| (c) Flaw detection in coatings by electrical continuity |  |  |  |  |  |
| (d) Automatic Phased array  |  |  |  |  |  |
| (e) IRIS (Internal Rotation Inspection System) - UT method |  |  |  |  |  |
| (f) Alternating Current Field Measurement (ACFM) |  |  |  |  |  |
| (g) Magnetic Flux Leakage |  |  |  |  |  |

**Please Complete shaded sections only and submit to IANZ**

**Note 1: Competence Model inspectors:** indicate which categories the inspector has been authorised for, either as a trainee (T), inspector (I) or a signatory (S)

 **Signatory Model signatories:** indicate if this is an initial assessment (IA) or a re-assessment (R) for each of the relevant categories