



REVISION STATUS

Issue	Revision	Prepared	Reviewed	Approved
01	A	2017-01-01 JR Thompson	2017-01-01 V S Pathy	2017-01-01 V S Pathy

AMENDMENT RECORD

Revision	Date	Pages	Reason for amendment



Weldments

Courses leading to certification examinations in NDT of welds shall include specimens exhibiting the following discontinuities in varying degrees of severity:

- A6.1.1. Excessive root penetration
- A6.1.2. Incomplete root penetration
- A6.1.3. Heat affected zone cracking
- A6.1.4. Sidewall slag inclusion
- A6.1.5. Lack of sidewall fusion
- A6.1.6. Central crack in weld
- A6.1.7. Transverse crack in weld
- A6.1.8. Porosity (localised and uniform)
- A6.1.9. Lack of root fusion
- A6.1.10. Solidification cracking
- A6.1.11. Lamellar tearing
- A6.1.12. Worm holes
- A6.1.13. Tungsten/Copper inclusions

Castings

Courses leading to certification examinations in casting inspection are required to have, as a minimum, samples showing the following features in varying degrees of severity:

- A6.1.14. Gas porosity
- A6.1.15. Dross inclusion/porosity
- A6.1.16. Core blows
- A6.1.17. Misruns
- A6.1.18. Cold shuts
- A6.1.19. Shrink porosity
- A6.1.20. Hot tears
- A6.1.21. Core shifts
- A6.1.22. Segregation
- A6.1.23. Inclusions



A6.1.24. Cracking

A6.1.25. Sponginess

A6.1.26. Air Locks

A6.1.27. Shrinkage defects (Cavities/Filamentary/Dendritic etc.)

A6.1.28. Diffraction mottling

Wrought Products

Courses leading to certification examinations in inspecting wrought products are required to have, as a minimum, samples showing the following features in varying degrees of severity:

A6.1.29. Rolled products:

A6.1.29.1. Rolling laps

A6.1.29.2. Broken or burst corners

A6.1.29.3. Inclusions

A6.1.29.4. Piping

A6.1.30. Forgings:

A6.1.30.1. Forging burst

A6.1.30.2. Forging laps

A6.1.30.3. Forging flash

A6.1.30.4. Hydrogen cracking

A6.1.30.5. Voids

A6.1.31. Incorrect heat treatment:

A6.1.31.1. Reheating cracks

A6.1.31.2. Cooling cracks

A6.1.31.3. Machining defects

A6.1.31.4. Grinding cracks

A6.1.31.5. Surface tearing