

Welding

Most offshore metallic structures, vessels, equipment packages, and pipework involve welding during fabrication and construction onshore or offshore.

Welding involves the following steps:

- Weld type specification.
- Welding Procedure Specification (WPS).
- Welding procedure qualification.
- Welder coding.
- Weld type specification

The engineer/designer specifies the type of weld on the fabrication drawing.

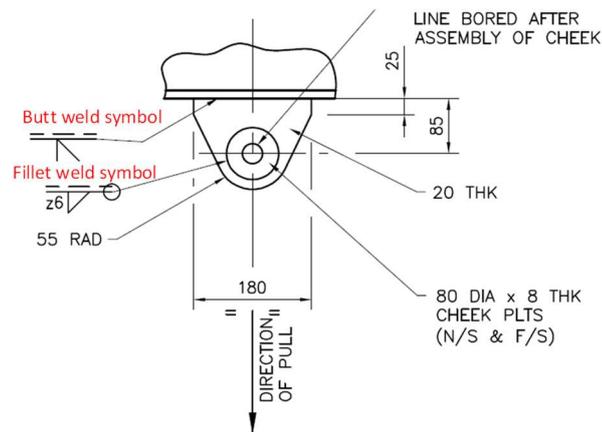


Fig Padeye fabrication drawing showing welding symbols.

Welding Procedure Specification (WPS)

The fabricator reviews the fabrication drawing and determines if suitable welding procedure specifications are available. A welding procedure specification is a document describing welding parameters with direction for the welder or welding equipment operators in making sound and quality production welds per code requirements. The document contains weld preparation details, filler material to be used,

Welder coding

Finally, the welders carrying out the qualified weld will be examined to demonstrate that they can perform this particular weld.

Once the procedure is completed, the fabrication weld can be carried out. Welders will be monitored to ensure the welding parameters stated on the previously qualified weld procedure are observed, ensuring that satisfactory mechanical properties are achieved in production welds.

Production welds are inspected by various techniques to confirm integrity and is used to the extent needed for the application and criticality.