

Pontoon Pre-Assembly Build Procedure

1. Purpose

The purpose of this build procedure within Gael Force Fusion is to provide information to allow assembly of the pontoon sections.

2. Scope

The Scope of this build procedure is to ensure that the pontoon sections is built in accordance with relevant drawings and procedures.

3. References

3.1. Internal Documents and Forms

Document Reference Number	Document Title
QF 3200	Production Form
QP 7122	Butt Welding Polyethylene Pipe Procedure.
QP 7124	Electrofusion Welding Polyethylene Pipe Procedure.
As per project assigned	Pen Assembly Drawings

3.2. External Documents

Document Reference Number	Document Title
ISO 9001:2015	Quality Management System
Welda operating instructions EDO16806	Welding standard WIS 4-32-08 issue 4 June 2016 standards

4. Definitions and Acronyms

Word or Acronym	Definition
N/A	

5. Responsibilities

- 5.1. It is the responsibility of the Technician to ensure that this build procedure is fit for purpose and the information contained within is accurate.
- 5.2. All relevant staff are trained to follow this build procedure and as such it is their responsibility to ensure that all associated build procedures and forms are utilised.
- 5.3. It is the responsibility of the operative to ensure the correct PPE and relevant inspection checks of tools and equipment are carried out before assembly commences.

6. Safety

- 6.1. Gael Force Group has a responsibility to comply with the Health and Safety at Work Act 1974 and Management of Health and Safety Regulations 1999.
- 6.2. The main health and safety risks are with the manual handling of the components and the operation and use of associated equipment for the operation. Risk assessments for all equipment should be read and understood. All manual handling should follow HSE Guidelines, including wearing appropriate PPE for this work.

7. Equipment Used

- 7.1. Butt Welding machine, capability as per contract requirements.
- 7.2. Extrusion gun.
- 7.3. Hot air gun.
- 7.4. Ground sheet.
- 7.5. Pipe rollers.
- 7.6. External de-bader suitable for OD of welded pipes.
- 7.7. BDI unit.
- 7.8. Ratchet straps.
- 7.9. Samsung tablet or phone device with Control point ap.
- 7.10. Bin for PE waste /1T tote bag.
- 7.11. Blue roll.
- 7.12. Forklift.
- 7.13. Snips for cutting metal.
- 7.14. Pallet to store wooden pipe beams.
- 7.15. Yellow pencil.
- 7.16. Lifting slings.
- 7.17. Hand scraper.
- 7.18. Electrofusion control box.
- 7.19. Suitable power supply or generator.
- 7.20. Extension leads.
- 7.21. Hand tools.
- 7.22. Cable ties.
- 7.23. Cordless circular saw.
- 7.24. Cordless drill.
- 7.25. Cordless impact drive.
- 7.26. Cordless reciprocating saw.
- 7.27. Measuring tape.
- 7.28. Drill bits 5mm.
- 7.29. Countersink drill bits 5mm /pozi screw ends.
- 7.30. Decking space template.

8. Process

- 8.1. Stock handler or Stock Controller to identify material specification in yard stock according to the Production Form **QP 3200**.
- 8.2. Stock handler or Stock Controller to move the required from stock to production line, in this case the designated assembly area in the workshop or yard.
- 8.3. The equipment required to perform the task should be set up according to manufacturers' instructions and only used by a trained operator.
- 8.4. Perform butt welding of the bulkheads or end caps if required following the instructions on **QP 7122**.
- 8.5. Set up pipes according to requirements, use wooden battens under the pipe.

- 8.6. Measure and mark required spaces for base units as per drawings. The spaces between the base units have to be measured equally to accommodate the pontoon beams. Mark positions using yellow pencil on top of outer pipes.
- 8.7. Load back to back bases and spread to positions marked on the pipe.
- 8.8. Make sure the base units are in position prior to fitting the electrofusion stops.
- 8.9. Prepare pipes for fitment of the electrofusion stops following good guide for EF welding.
- 8.10. Make sure the position of the EF stops are as per drawings.
- 8.11. Weld the EF stops using procedure **QP 7124**.
- 8.12. Place the required number of pontoon beams in between base units.
- 8.13. Feed 6m lengths of 50mm sdr 11 pipe through the pontoon beam holes and the base unit holes.
- 8.14. Join the 50mm pipe sections using 50 mm EF couplers and following EF welding procedure **QP 7124**.
- 8.15. Make sure the 50mm couplers are placed so as to allow movement of the pontoon beams into required positions.
- 8.16. Move pontoon beams into position previously marked by yellow pencil.
- 8.17. Make sure pontoon beams are in position prior to decking.
- 8.18. Place 10 decking profiles at the section where you are about to start decking, as per drawing.
- 8.19. Draw a centre line down the middle of back to back pontoon beams
- 8.20. Spread the decking boards to accommodate 3 jig templates on the ends and middle of decking boards.
- 8.21. Make sure jig is sit in place prior to further operations
- 8.22. Make sure the yellow line marked previously on centre of pontoon beams is visible through gap in between decking boards and is in centre position.
- 8.23. Prior to drilling decking boards make sure required position of the screw is marked as per drawing.
- 8.24. Once marked drill a pilot hole and place screw into pilot hole.
- 8.25. Make sure all swarf created during drilling and cutting process is controlled and placed in bins provided.
- 8.26. Screw screws down.
- 8.27. Fit stainless-steel cleats into sockets on base unit if required, the position of cleats will be marked on the drawing assigned to the project.
- 8.28. Once all screws are in place cut the excess off the decking boards.
- 8.29. Make sure the position of the cut is straight on centre of pontoon beam.
- 8.30. Place another section of deck unit on top of the beams.
- 8.31. Make sure a 5mm gap is provided in between deck ends.
- 8.32. Repeat process of screw fitment.
- 8.33. When section is ready prepare for further transportation.
- 8.34. Fit lifting slings minimum 1.5mtr from the ends of the pontoon.
- 8.35. Make sure all lifting equipment has relevant certification and was checked prior to lift.
- 8.36. Move pontoon section out of the factory or yard manufacturing area into storage area designated to this project.

- 8.37.** Make sure final inspection of the pontoon sections is performed and relevant QP 3200 form completed.
- 8.38.** Inform Stock Handler /Stock Controller or Senior Engineer when task is completed.
- 8.39.** Move goods to designated dispatch area which will be either a project bay in the workshop or a project bay in the yard.

9. Packaging and dispatch

N/A

10. Training

- 10.1.** Training, where identified as required will be provided by the relevant Design/Manufacturing Engineer or Line Manager. The person who conducts the training is responsible for allocating the training in within Mango.
- 10.2.** Employees must complete the e-assessment within the Skill module in Mango to verify that they have read and understood the contents and requirements of the procedure.