

Fabrication

After a quiet first week back after the New Year, the main workforce was back in action w/c 09th January 2017, including sub-contractors. However, there has been little progress compared to previous weeks. The yard is very congested with fabricated units that are waiting to either be surveyed or moved to a new location. It should be noted, however, that the weather conditions have been poor (i.e. high winds, heavy regular showers and snow fall) which has affected work progress on the berth as well as any work on units that are located outside. FMEL are targeting to achieve the 75% fabrication milestone for 801 in Week 6. To achieve this requires an output of over 100 tonnes per week over the next 4 weeks. Due to the lack of space and poor winter weather conditions, it will be a challenge for FMEL to achieve this. This also means that work on 802 will have to be delayed until the 75% fabrication milestone is met for 801.

Milestones

50% Fabrication milestone achieved for Vessel 802 on Thursday 12th January.

Programme

CMAL received the cardinal dates programme from FMEL for both ships 801 and 802 on 11th January 2017. The programme details the high level project milestones, equipment deliveries and installation, and start and finish dates for outfitting etc. CMAL have reviewed the programme and provided comments to FMEL; the programme will be updated by FMEL and re-issued.

Resources

FMEL advise that they are looking to recruit:

- QA/QC (Steelwork)
- Project Manager
- Ship Manager (one for each ship)
- Production Manager
- Steelwork Manager (to replace the current steelwork manager with 30 years' experience working at Ferguson Shipyard, who is leaving the company).

An experienced mechanical engineer has now been employed on a contract basis, to work on the pipe system drawings.

An experienced outfit draughtsman has now been employed on a contract basis, to work on the General Arrangement drawing.

Agenda Item 3 – Project Updates

Project New Vessels 1 & 2 – Progress update

Passenger Accommodation Layout

Wk. 04/17 – Detail preferred arrangement to seek approval from CMAL/CFL

Wk. 06/17 – Mood boards + floors & ceilings

End March – Detail drawings

Manoeuvring Simulation

First visit to simulator (Ardrossan and Tarbert) planned for 23rd Jan 2017; FMEL, CMAL and CFL will attend. Date for Troon to be confirmed, hopefully around w/c 13th Feb 2017.

Launch

Ship names and launch arrangements.

LNG Bunkering

Visit to Uig arranged for 16th January 2017.

Agenda Item 3 – Project Updates

Project New Vessels 1 & 2 – Progress update

- Kevin Hobbs and Jim Anderson met with FMEL Chairman Keith Mitchell and Managing Director Liam Campbell on the 09th December 2016 to discuss the projects.
- The gap between the contract delivery dates for Vessels 1 and 2 is 9 weeks. In CMAL's professional opinion and experience of similar sized Ro-Pax vessel projects; with the current progress and strategy, it will take something extraordinary to deliver the vessels 9 weeks apart. European shipyards, such as Flensburg would require a 3 to 4 month gap between deliveries for bespoke type vessel designs.
- The original aim of FMEL was to advance outfit and fit equipment early in the programme, deliver Vessel 1 early, to leave a bigger gap between delivery of Vessels 1 and 2. This is no longer possible with current strategy. The shipyard will require additional time to deliver Vessel 2 and very possibly for Vessel 1 also unless there is change in strategy. **With current strategy and target delivery dates, lessons learned from Vessel 1 will not be picked up in time for Vessel 2.**
- Fabrication milestones are behind schedule.
- Fabrication milestones cannot be taken in isolation as an indication of progress. The yard redevelopment, pre-outfitting of blocks, equipment deliveries and installation, design and issue of drawings is several months behind schedule.
- The delay in all of these parts has severely impacted on the original strategy and as such the overall progress for both vessel is several months behind schedule.
- FMEL resources: FMEL have had difficulties in recruiting people with necessary skills. FMEL Design Manager is managing on his own many aspects of the design and technical requirements; Naval Architecture, Machinery, Mechanical, Drawing office and often Electrical.
- Quality of Welding is excellent.

Vessel 1 - Production milestones - Actual progress compared with schedule

YARD NO. 801					
Milestone	Original Scheduled Date See Note 1	Revised Scheduled Date See Note 2	Revised Scheduled Date See Note 3	Actual Date	Comments
Cutting of Steel	15 Dec 2015	15 Dec 2015	-	15 Dec 2015	Achieved on original scheduled date Rev 01
10% Fabrication	18 Apr 2016	13 Jun 2016	-	10 Jun 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule Rev 03
25% Fabrication	14 Jun 2016	26 Jul 2016	-	04 Aug 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule date rev 03
35% Fabrication	15 Aug 2016	12 Sep 2016	-	06 Oct 2016	Achieved 8 weeks later than original schedule Rev 01 Achieved 4 weeks later than revised schedule Rev 03
50% Fabrication	14 Oct 2016	14 Oct 2016		09 Dec 2016	Achieved 2 months later than original and revised schedules
Major Equipment and Lock Out Items Installations	14 Nov 2016	13 Mar 2017 to 18 Jan 2018	-		Delivery dates of all major equipment are awaited from FMEL. "Installation" of all the "Major Equipment" has not been commenced on the 14 th November 2016 as per original plan. Major items of Main Propulsion were delivered (not installed) on the 19 th December 2016; these are the Main Engines, Auxiliary Engines and Shaft Alternators. The original plan from FMEL was to install the major equipment early and advance outfit. This has not happened and is the biggest risk to achieving the contract delivery date.
75% Fabrication	15 Dec 2016	15 Dec 2016	10 Feb 2017		Now scheduled 2 months later than original plan
100% Fabrication	16 Jan 2017	16 Jan 2017	16 June 2017		Now scheduled 5 months later than original plan
Berth Join Up	14 Mar 2017	28 Apr 2017	14 Jul 2017		Now scheduled 4 months later than original plan
Hull Inspection Prior to Paint	17 Apr 2017	26 May 2017	21 Apr 2017		Latest date given by FMEL is back in line with original programme.
Launch	14 Aug 2017	24 Aug 2017	24 Aug 2017		We expect that the vessel will be ready to launch by this date. However the status of the drawings, outfitting and installation will be several months behind schedule.
Delivery	25 May 2018	29 Jun 2018	25 May 2018		Latest date given by FMEL is back in line with original programme.

Note 1: From Cardinal Programme Rev 01 dated 14 Dec 2015

Note 2: From Cardinal Programme Rev 03 dated 16 May 2016

Note 3: Email from FMEL 09 Dec 2016

Vessel 2 - Production milestones - Actual progress compared with schedule

YARD NO. 802					
Milestone	Original Scheduled Date See Note 1	Revised Scheduled Date See Note 2	Revised Scheduled Date See Note 3	Actual Date	Comments
Cutting of Steel	15 Dec 2015	15 Dec 2015	-	15 Dec 2015	Achieved on original scheduled date Rev 01
10% Fabrication	18 Apr 2016	13 Jun 2016	-	10 Jun 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule Rev 03
25% Fabrication	14 Jun 2016	02 Aug 2016	-	04 Aug 2016	Achieved 2 months later than original schedule Rev 01 Achieved in line with revised schedule date rev 03
35% Fabrication	15 Aug 2016	26 Sep 2016	-	06 Oct 2016	Achieved 8 weeks later than original schedule Rev 01 Achieved 2 weeks later than revised schedule Rev 03
50% Fabrication	14 Oct 2016	18 Nov 2016	20 Jan 2017	13 Jan 2017	Achieved 3 months later than original schedule Rev 01
Major Equipment and Lock Out Items Installations	14 Nov 2016		TBA		Delivery dates of all major equipment are awaited from FMEL. “Installation” of all the “Major Equipment” has not been commenced on the 14 th November 2016 as per original plan. Major items of Main Propulsion were delivered (not installed) on the 19 th December 2016; these are the Main Engines, Auxiliary Engines and Shaft Alternators. The original plan from FMEL was to install the major equipment early and advance outfit. This has not happened and is the biggest risk to achieving the contract delivery date. That and the gap between delivery dates between Vessels 1 and 2.
75% Fabrication	15 Dec 2016	19 Jan 2017	05 May 2017		Now scheduled 6 months later than original plan
100% Fabrication	16 Jan 2017	20 Feb 2017	20 Oct 2017		Now scheduled 9 months later than original plan
Berth Join Up	14 Mar 2017	05 Jan 2018	14 Dec 2017		Now scheduled 9 months later than original plan
Hull Inspection Prior to Paint	17 Apr 2017	02 Feb 2018	24 Nov 2017		Now scheduled 7 months later than original plan
Launch	12 Oct 2017	20 Mar 2018	12 Jan 2018		No space to have 2 vessels at outfit berth at the same time. Outfitting and installation will be several months behind schedule.
Delivery	26 Jul 2018	29 Aug 2018	26 Jul; 2018		Date given by FMEL is back in line with original programme.

Note 1: From Cardinal Programme Rev 01 dated 14 Dec 2015

Note 2: From Cardinal Programme Rev 03 dated 16 May 2016

Note 3: Email from FMEL 09 Dec 2016