

Planning/Programme

- Launch of Vessel 1, rescheduled. Date to be confirmed; 20th/21st/22nd September 2017. With this the launch of Vessel 2 will move, date tba.
- Shipyard focus is on Vessel 1, work on Vessel 2 at a standstill for the last 4 months. The efforts over the last 4 to 5 months on Vessel 1 by FMEL are recognised.
- Based on our experience and current situation, it is to be expected that the delivery dates for Vessels 1 and 2 will move.
- Major achievement with the successful shipping of the LNG tank from the fitting out berth to the tanks position on-board Vessel 1 on the 16th July 2017. This was complex and challenging operation carried out with great expertise by FMEL workers.
- The Shipyard's focus at this stage is on the fabrication and erection of units for Vessel 1 and the required works to be carried out before launch.
- Vessel 1: As of 14th July 2017 - 91.4% fabrication achieved
- Vessel 2: As of 14th July 2017 - 60% fabricated achieved
- Steelwork 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 yard's original strategy and as such the overall progress is several months behind schedule.

Steelwork

- Vessel 1 – 91.4% Fabricated. Original date for 100% fabrication 16 January 2017. Currently 6 months (and 8.6% in terms of fabrication) behind schedule.
- Vessel 2 – 60% Fabricated. Fabrication almost at a standstill. Less than 5% achieved in the last 4 months. Original date for 75% fabrication 16 December 2016. Currently 7 months (and 15% in terms of fabrication) behind schedule.
- Vessel 1 - Berth Join Up, i.e. Vessel completed in terms of steelwork/aluminium, originally planned for 14th March 2017. Target date: 06th October 2017.
- Vessel 2 - Berth Join Up, i.e. Vessel completed in terms of steelwork/aluminium, originally planned for 14th March 2017. Target date from FMEL tba.
- Vessel 1: Aluminium Works: ongoing
- Vessel 2: Aluminium Works: 4 months ago, on the 24th March 2017, FMEL advised that aluminium accommodation block for Vessel 2 would be constructed at Inchgreen (starting in May 2017) and the ship would be towed to Inchgreen after Launch, where the accommodation block would be lifted on and the vessel completed at Inchgreen. Work on the aluminium superstructure for Vessel 2 has not commenced. The new plan is to prepare the aluminium panels for the accommodation blocks for both vessels at Westway Renfrew, deliver the aluminium panels and aluminium blocks from Westway to FMEL for Vessel 1 and 2 and consolidate the panels/blocks at FMEL. FMEL are looking at options to use other outfit quays (not at FMEL) where Vessel 2 could be completed following the launch.

Equipment Deliveries

- Vessel 1: The LNG storage was shipped on-board the vessel on the 16th July 2017.
- Vessel 1 and 2: The gearboxes have been delivered to FMEL with incorrect direction of rotation. The gearboxes have been transported to Wartsila Inchinnan to be corrected. This is an unforeseen event, resulting in a significant negative impact of the programme of works towards launch of Vessel 1. The propeller A-Brackets were delivered in flat pack, causing unforeseen delays to the propeller/shaft line installation.

Vessel 1: Towards Launch (date tba, either 20th or 21st or 22nd September 2017)

- Launch date moved 4 weeks, previously 24th Aug 2017. The delays associated with the Gearboxes and propeller brackets having a significant impact on FMEL's programme towards launch.
- The vessel at this stage is not far enough ahead with the completion of the structure, structural surveys, installation of underwater equipment/fittings, coatings, outfitting and shaft line installation.

Vessel 2: Towards Launch (date tba)

- Target date to be advised by FMEL.

Delivery Dates

Contract dates for Vessel 1 and 2 are 25th May 2018 and 26th July 2018 respectively. The Contract allows the dates to be exceeded by 120 days, giving a delivery date of 22nd September 2018 for Vessel 1 and 23rd November 2018 for Vessel 2, and can be further extended for specific events.

Manoeuvring and Berthing Simulation Tests

Further Simulation trials were carried out at the simulator suite at the City of Glasgow College on the 12th and 15th July 2017. The simulator is still not set up with the dynamic responses that would be expected with the new vessels or for that matter with any of the large vessels in fleet. Further detailed analysis of the model to be carried out.

Crew Attendance at Shipyard

Requirements for crew attendance at shipyard pre-delivery of vessels to be determined and budgets agreed.

Photographs

Vessel 1 – LNG Tank in Position



Vessel 1 – LNG Tank Lift/Shipping



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	Revised Scheduled Date See Note 4	Revised Scheduled Date See Note 5	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	-	14 th June 2017	16 th July 2017	16 th July 2017	Not all major equipment has been delivered/installed: Electrical Switchboards, Propellers/Shaft lines/, RoRo Equipment still to be installed.
75% Fabrication	15 Dec 2016	15 Dec 2016	10 Feb 2017			31 st March 2017	Achieved 3 and a half months later than originally scheduled.
100% Fabrication	16 Jan 2017	16 Jan 2017	16 June 2017	10 th July 2017	15 th Sep 2017		91.4% Fabricated. Original date for 100% fabrication was: 16 January 2017. Currently 6 months (and 8.6% in terms of fabrication) behind schedule.
Berth Join Up	14 Mar 2017	28 Apr 2017	14 Jul 2017	15 th Aug 2017	06 th Oct 2017		
Hull Inspection Prior to Paint	17 Apr 2017	26 May 2017	21 Apr 2017	24 th July 2017	tba		.
Launch	14 Aug 2017	24 Aug 2017	24 Aug 2017	24 Aug 2017	Tbc, 20 th /21 st / 22 nd Sep 2017		The status of the drawings, outfitting and installation several months behind schedule.
Delivery	25 May 2018	29 Jun 2018	25 May 2018	25 May 2018	25 th May 2018		The Contract allows for a delivery date of 22nd September and can be extended for specific events.

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

Note 4: 12th May 2017

Note 5: Emails Week 28/2017

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	Revised Scheduled Date See Note 4		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	16 Oct 2017			"Installation" of all the "Major Equipment" has not been commenced on the 14th November 2016 as per original plan.
75% Fabrication	15 Dec 2016	19 Jan 2017	05 May 2017	22 Sep 2017			60% Fabricated. Fabrication almost at a standstill. Less than 5% achieved in the last 4 months. Original date for 75% fabrication was: 16 December 2016. Currently 7 months (and 15% in terms of fabrication) behind schedule.
100% Fabrication	16 Jan 2017	20 Feb 2017	20 Oct 2017	13 Oct 2017			FMEL to advise new date.
Berth Join Up	14 Mar 2017	05 Jan 2018	14 Dec 2017	10 Nov 2017			FMEL to advise new date.
Hull Inspection Prior to Paint	17 Apr 2017	02 Feb 2018	24 Nov 2017	31 Oct 2017			FMEL to advise new date.
Launch	12 Oct 2017	20 Mar 2018	12 Jan 2018	17 Nov 2017			FMEL to advise new date.
Delivery	26 Jul 2018	29 Aug 2018	26 Jul 2018	26 Jul 2018			The Contract allows for a delivery date of 23rd November 2018 and can be extended for specific events.

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

Note 4: 12 May 2017