

Mo Rooney
Strategic Industrial Assets Division
31 August 2021

Cabinet Secretary for Finance and the Economy
Minister for Transport

Ferguson Marine (ferries 801 and 802) Progress Update: July 2021

Purpose: To update Ministers on progress towards the delivery of ferries 801 and 802, challenges, and next steps.

Headline: Objective information on progress towards delivery of the vessels is limited. Advice from CMAL, supported by feedback from Ferguson Marine, is that progress is currently too slow to complete 801 in line with the current published cardinal date; it **may** be possible to deliver the vessel within the published delivery window, but this will require execution of a recovery plan (para 18 below) to realise both improvement and acceleration in build efficiency to recover the delivery schedule. Delivery of 802 within the published delivery window remains expected.

Background

1. The Turnaround Director of Ferguson Marine wrote to the Net Zero, Energy and Transport Committee on 24 June to provide a quarterly update as requested in the Rural Economy and Connectivity Committee's report of 9 December 2020. The Turnaround Director's update provided a new schedule for delivery of the vessels with delivery of 801 now scheduled for July-Sept 2022 (previously Apr-Jun 2022) and 802 scheduled for April-July 2023 (previously Dec 2022-Feb 2023).
2. The next formal update to the Committee is due in late September.
3. The Chair of the Board of Directors of Ferguson Marine is aware of the content of this monthly performance update to you and is in agreement with the position presented.

Quality of reporting

4. As noted in the last monthly update to Ministers on 6 August 2021 (which reported on the June 2021 progress report from Ferguson Marine on delivery of the vessels), the new Ferguson Marine Programme Director intended to change the approach to monthly reporting in July. This has not happened and the information in the July performance report from the yard is incomplete. Key gaps in the reporting include the risk register and an industry standard measure of progress.
5. The Ferguson Marine Board of Directors share our concerns re quality of performance reporting and the underpinning build execution planning. An intensive improvement exercise is currently underway, being led by the new Programme Director. This will implement improved planning systems which will in turn facilitate improved build productivity and progress reporting.

6. In parallel, we have asked CMAL to identify key elements of work to deliver the vessels on which a detailed understanding of the underpinning planning is of particular priority.

Overview

7. Progress in July remains slow and behind expectations. Given the limited level of progress, CMAL are of the view that it is difficult to see how Ferguson Marine can achieve the delivery dates set out in the Turnaround Director's June quarterly update to Committee.

8. Due to the absence of detailed reporting it is difficult to be certain but there appears to be slippage in a number of areas:

- Installation of Pipe Spools in Zone 2 (Main and Auxiliary Machinery Spaces) - slippage of 31 calendar days
- Fabrication of the Forward Mast Structure - slippage of 39 calendar days
- Erection of Forward Mast - slippage of 39 calendar days.

9. Weaknesses in the planning of the build remain a key issue and the issuing of work packages remains a problem. This leads to inefficiency and out of sequence working which contributes to the high level of reworking that is required.

10. Ministers previously asked Ferguson Marine to explore all possible options to accelerate delivery of the vessels. A number of possible opportunities to accelerate were implemented. Against the backdrop of current slippages and pressure on the programme, it is not anticipated that these measures will translate into a schedule saving.

Successes

11. The sub contracted labour from [redacted] continue to make good progress on the steel work for 802.

12. The business has agreed new processes with [redacted] and the [redacted] to speed up the sign off of the ship design and build by these agencies.

Difficulties

13. Ferguson Marine management has, in engagement with SG and CMAL, and in a deep dive session with the Board of Directors which took place on 26th Aug, identified the following concerns as directly impacting on the current performance of the shipyard:

- Planning and project management is poor with limited analytical data making it difficult to assess on-board build.
- Defined processes for work packaging have not been implemented.
- Disconnects between planning team and operations
- Insufficient project engineering to control detail leading to a high number of detailed design changes affecting progress
- Change management system not sufficiently robust

- Bill of materials processing, inventory control and allocation weak and unable to deliver the right materials at the right time

14. Progress on rectifying the Owners Observation Reports (notifications to Ferguson Marine of errors in the build made by CMAL) is slow.

15. The weight of the vessel remains an issue. The vessel is around 44 tonnes overweight, the level of contingency remaining in the build is 90 tonnes. While we expect the level of overweight to reduce it is likely the vessel will be heavier than envisaged. Related to weight there is an issue around vessel stability, which the yard are investigating. Ferguson Marine and CMAL have agreed to undertake a joint workshop to focus on the weight of the vessels and opportunities to reduce weight.

Stakeholder relationships and engagement

16. In follow up to an email from Kevin Hobbs of CMAL to DG Economy, a meeting took place on Mon 23rd Aug to explore CMAL's concerns, establish a shared understanding of the challenges which exist, and to identify any appropriate next steps. This meeting brought together Ferguson Marine management, CMAL, Transport Scotland and Strategic Industrial Assets Division representatives. The discussion focused on pace of progress, quality of planning, and vessel weight. Vessel stability was also raised as an issue. The meeting agreed on the urgency with which all these matters required to be addressed.

17. A note of the meeting is at Annex A.

Board commentary on progress, challenges and next steps

18. Following a 'deep dive' review, the Board of Ferguson Marine has directed the Executive Team to progress a time-lined recovery programme: this has already commenced. To monitor progress, an update report will be received by the Board on a two weekly basis, the first update being due on 9th Sept.

19. Noting the expectation on Ferguson Marine to provide a further quarterly update to the Net Zero, Energy and Transport Committee at end Sept, we would suggest that the Cabinet Secretary bring forward her regular meeting with the Chair and Turnaround Director from end Sept to mid Sept. This would provide her with an opportunity to discuss the progress being made on the recovery programme, the emerging understanding of the impact on expected timeframes for delivery of the vessels, and options for action ahead of any public messaging.

Next steps

20. From now, next steps for the Ferguson Marine Board will be to monitor progress of the recovery programme. Officials will stay close to this.

21. Following satisfactory remedial completion of stock/inventory management, work pack compilation and issue, support systems implementation (and ability to systematically monitor, control and report), the Board will review shift patterns and supplement resource capacity through their resourcing partner ^[redacted].

22. Ferguson Marine management expect the improvements being made to planning systems to result in productivity improvements, with the ability to drive forward progress at a greater pace. The planning improvement process is expected to conclude at end Sept, with implementation through Oct, and benefits realised in November.

23. A workshop will take place involving Ferguson Marine and CMAL to identify options to address the weight of the vessels.

24. Ministers may wish to be aware that, on a confidential basis, a recruitment process for a permanent Chief Executive for Ferguson Marine is underway, being led by the Chair of the Board of Directors.

Recommendation

25. Ministers are asked to note the content of this update, the slow pace of progress, and planned next steps (paras 20-24).

26. The Cabinet Secretary for Finance and Economy is asked to confirm whether she would wish to bring forward her scheduled meeting with the Chair and Turnaround Director from end Sept to mid Sept (para 19).

Mo Rooney
Strategic Industrial Assets Division

Copy List:	For Action	For Comments	For Information		
			Portfolio Interest	Constit Interest	General Awareness
Cabinet Secretary for Finance			X		
Minister for Transport			X		
Minister for Business, Trade, Tourism and Enterprise					X

- DG Economy
- Chief Executive Transport Scotland
- Reuben Aitken
- Mo Rooney
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- Frances Pacitti
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]
- [redacted]

ANNEX A

Officials from CMAL, Ferguson Marine, Strategic Industrial Assets Division (within DG Economy) and Transport Scotland's Ferries Unit met on 23 Aug 2021, in follow-up to an email from CMAL to DG Economy expressing a number of concerns in respect of the delivery of ferries 801 and 802.

The meeting allowed a discussion of the points raised in CMAL's letter, regarding delivery timescales, programme details/procedures and governance in a collaborative and collective manner.

Attendees

Kevin Hobbs – CMAL

[redacted]

Frances Pacitti – Transport Scotland

[redacted]

[redacted]

[redacted]

Tim Hair – Ferguson Marine

[redacted]

Mo Rooney – Strategic Industrial Assets

[redacted]

[redacted]

The background to this meeting was CMAL's email to DG Economy (30 Jun 2021) setting out their concerns in relation to delivery in line with project schedule for vessels 801 and 802.

Progress update presented by Ferguson Marine

Fergusons recognised the main concerns raised by CMAL were:

- The delay between baselines in August 2020 and June 2021
- Weight
- Credibility of current schedule

Fergusons briefed the meeting on the reasons for the previous delays. (Covid-19 production suspensions amounting to 7 weeks and resource availability).

This has meant that Fergusons have outsourced pipe fitting and testing scopes to [redacted] – 37 direct heads and 8 on nightshift. Fabrication works sub-contracted to [redacted] – currently 60 heads and 25 extra planned. Fergusons expect labour costs to rise due to competition for workers across the sector.

In relation to weight of the vessels, Fergusons explained the contracted weight tolerance is 10 tonnes. Fergusons have significant contingency in their weight calculations, up to 90 tonnes. Fergusons are of the view the vessels will likely be overweight, however unlikely to be over the contracted excess.

Fergusons relayed concerns in relation to the schedule:

- Planning and project management not being as robust as required

- Defined processes for work packaging have been implemented by contract planners
- Disconnects between planning team and operations
- Insufficient project engineering to control detail.
- Change management system not sufficiently robust.
- Bill of materials (BOM) processing, inventory control and allocation weak.

Various new members of staff have joined the team. These include:

- Programme Director replaced 24 May.
- Permanent project manager for 802 starting on 30 August.
- Full time contract pipe work Project Engineer started 26 July.
- Permanent Head of Planning joined on 26 July.
- Consultant support for MRP (inventory management) re-implementation.
- Change manager appointed internally.

Fergusons summarised the main concerns as follows:

- Delay caused by availability of skilled labour.
 - Mitigated by sub-contracting
- Weight has been long term concern
 - Vessel is likely to be overweight
 - Highly unlikely to be above 60 tonne contract break point.
 - Final weight is likely to be less than the current calculation of 44 tonnes over.
- Expect delivery of both vessels to be in the delivery windows currently published.
 - 801 cardinal date under pressure but delivery in window expected.
 - 802 launch will need to be scheduled to fit with tides, but schedule not currently under pressure.

Weight

Fergusons said they expected to know final weight of 801 by October 2021 and highlighted that each month the yard will update their current understanding. Fergusons committed to providing a more definitive position on vessel weight by the end of October 2021.

CMAL reiterated their concerns about some of the material going on the ship being overweight and asked if this is already included within the Fergusons margins. They also asked if some of these margins may need to be revisited and asked why Fergusons are using material they know is overweight.

Fergusons explained that where sections appear heavy is because it is a maintenance landing area that is used for heavy works.

CMAL suggested that sections of the vessels may need reworked even if we don't want to, and even if there may be a schedule impact. They also asked for an update on the stability of the vessels, as this has been on the agenda for a long period of time.

Fergusons indicated the weight of vessel is firmly on their agenda and suggested a brainstorming session on weight, to involve CMAL and Fergusons colleagues. The stability work has been subcontracted out as Fergusons had concerns around the work carried out to date and wanted a fresh perspective. The base data is currently being analysed and an update will be forthcoming.

Progress

CMAL stated that we all want the same thing, the ships delivered. The reason for the letter to DG Economy was CMAL's significant experience of shipyards across the world informing their concern that delivery of the ferries is not on track. They are of the view that progress has been, and is, extremely slow. CMAL don't think the current level of activity will allow delivery in line with the project schedule.

Transport Scotland asked what the yard's confidence levels on meeting the delivery in line with the project schedule were. Transport Scotland need to start work on crewing the vessels, which carries financial and reputational risk.

Fergusons said for 802, confidence was that the vessel will be delivered within the delivery window. 801 is more difficult, with an above 50%, but below 80% chance of delivery within the delivery window. He agreed with CMAL's points about progress, which are all a result of failing at planning.

Transport Scotland asked for a move towards programme reporting which was based on objective milestones rather than subject assessments of progress. Fergusons confirmed that this is being prepared.

CMAL emphasised the need to be able to measure progress against plans. They noted that high level progress milestones detailed in the rebaselined programme had already been missed. They queried how performance of management and workforce might be improved to allow confidence that deadlines can be met.

Fergusons was of the view that confidence levels would increase over the next couple of months as the measures the yard have implemented take hold. The measures will accelerate the rate of progress on the vessels. With planning under control, the yard can also recruit more workers to speed things up.

CMAL made the point that FMEL went into administration just over 2 years ago and that this typically would be the full construction period for this type of vessel (excluding design). The progress made has not resulted in physical progress towards delivery.

Transport Scotland agreed that the key thing is confidence levels. They are engaging with communities and there is a scepticism on the delivery of the vessels. If schedule is in danger of slipping, then we all need to know as soon as possible.

Fergusons know what has gone wrong in the past and have fixed the issues. They will accelerate construction within the next 60 days. CMAL thought that 60 days is a lot of time and it will be difficult to claw back the time. Fergusons would have liked to work through the issues at the yard more quickly, however constraints were there

that slowed this down. At the end of 60 days Fergusons will have robust data on progress.

CMAL suggested drawing upon the experience of the subcontracted staff, this could drive the speed of construction.

All parties agreed to schedule another meeting to take place in mid-October.