

Glen Sannox & 802 Monthly Report – [June 2021]

1.0 General

Executive Summary

Vessel 802, the partly assembled hull, remains positioned at Ferguson Marine's No 1 berth, Newark Works, Port Glasgow, since steel cutting in June 2015.

Vessel 801, Glen Sannox remains alongside the outfitting berth at Ferguson Marine, Newark Quay, since her return from Dry Dock in August 2020.

It is the opinion of this group that the overall rate of production achievement measured over this reporting period continues to be insufficient to service the programme of remaining works for either vessel. However, it is acknowledged that the re baselined schedule extends the build period by 15 weeks, the progress of the build will be recalibrated against the updated dates.

Despite the risks identified within the FMPG project evaluation, ref 9th December 2019 and subsequent updates, issued 21st August 2020 and 24th June 2021, many risks still have no tangible solution in place after 19 months. Early adoption of the P6 enterprise project management tool does not provide the expected levels of industry-standard visibility as to the overall health of either project. It is understood that the yard is reviewing the standard of monthly reporting that will be shared in support of the monthly progress meeting.

The re-baselined scheduling document is now released, issued 28th June 2021, the level of detail provided at level 1 offers little insight into the overall planning philosophy supporting further delays.

Work to close out Owner Comment Reports (OCR's) detailing building deficiencies covering statutory safety and build quality issues has largely stalled, some issues are aged by 24 months. Two hundred issues remain open, and none have been closed this period. General housekeeping has been performed together with the Yard to maintain the current status of the archive. Further joint meetings are scheduled to accelerate this work.

Non-compliance with the contractual deadweight for Hull 801 remains an issue. A proactive weight management program needs to be put in place and micromanaged for the remainder of the build. All steps must be taken to eliminate the possibility of a reduced cargo-carrying capacity for either vessel.

The issue of insufficient manning resources identified by the Yard back on 9th December 2019 is well publicised. However, what is not clear is the justification behind the very late instruction to bring nonlocal workers to the site once local recruitment limitations had been identified. Additional manning resources have now been sourced from Europe, the first 15 of which were available for work starting week 22 (1st June 2021). The number on site now totals 60 persons equating to 14,000 hours per month of additional resources.

1.01 Planning

The need to implement enterprise project control was identified in the 9th of December 2019 evaluation report. The decision to adopt the industry standard [redacted] P6 application puts the onus on the Yard to develop, issue and report production actuals against detailed work packages. It is understood that much of the project work is still performed and managed outside of this requirement.

The Yard has formally issued the revised baseline schedule on 28th June 2021. Our initial review of the limited information provided at level 1 does not allow objective comment on the credibility of the level 4 production philosophy or subsequent justification supporting the revised delivery dates.

1.02 Out of Sequence Works

Delays caused by poor planning invariably serve as the precursor driving out of sequence works. Despite concerns raised by non-completion of the work scope defining the 'Structural Work Complete' milestone, claimed 7th May 2021, incomplete works for the funnel installation, shell belting completion and remaining 17 vehicle deck recesses are still incomplete, continuing the need to draw down working hours that should now be spent on other planned works, that presumably now have had to be put on hold (delayed).

The Yard continues to pursue illogical sequenced works in the early fitment of machinery space floor plating support structure (zone 2). This dramatically complicates and reduces the efficiency to install the remaining system pipe spools, currently standing at 60% complete. Pressure testing and final system routing verification surveys will also be arduous to conclude. In cases where Class verification is needed, support structure will have to be removed, which will be hugely time-consuming. Installation of the main engine and auxiliary engine fuel oil booster and transfer pumps on their foundations is also delayed due to the floor plating subframe installation.

At this stage of the project, where task float is non-existent, the Yard must strive to service the completion philosophy set out within the project plan if current delays are to remain manageable. Without the benefit of reviewing the level 4 schedule detail, it is impossible to fully predict the risks associated with the current levels of 'out of sequence work'.

There are many other areas to complete to achieve 'full' Steel/Aluminium Structural Completeness. Examples are, Installation of all remaining internal bulkheads, aluminium bulkheads within the accommodation areas, installation of all stairwells, completion of welding of all Panama fairleads, completion of lift shafts, Installation of all windows, Installation of Forward Mast and the cutting / opening of bow doors and associated major structural works.

1.03 Milestone Status 801

Aft Mast: As of week 21, 2021, milestone completion claimed 7th May 2012. However, final acceptance by CMAL inspection was not possible as the build quality of vent pipe supports and poor standard of internal structure coating was insufficient to satisfy normal industry build standards, or the requirements set out in the contractual specification.

Milestone 'Structural Work Complete' originally due 9th April 2021 and is now claimed as complete 7th May 2021. However, the context of actual production achievement remains somewhat less. The balance of work needed to complete 17 vehicle deck structural recesses

remains to be started. What is key in this discussion is the retention of 32 structural workers on board 801 that should have been released to pursue other works elsewhere in line with the schedule.

Belting: Milestone completion claimed 7th May 2021; As of week 26, 2021, work remains incomplete, minimal work has been progressed this period, fit-up work stated at the beginning of June on the ports side aft is now abandoned.

17 Remaining Vehicle Deck Recesses to complete: Milestone completion claimed 7th May 2021. As of week 26, 2021, the situation remains unchanged over this reporting period.

Complete install pipework in subzone 0303: Scheduled Completion Date March 2021. Work not complete, current delay 122 days.

Commence Installation in Zone 9: Scheduled for Completion May 2021, was arguably achieved back in 2019 upon placement of the toilet modules. What is not clear is why no further work has been pursued since 2019 despite maintaining the milestone date. It is further confusing why the already achieved milestone is now reported in the re baselined planning document as commencing 13th January 2022. The philosophy to work this area is further confused under the subordinate task heading that states background works will commence 5th October 2021.

Completion of Wheelhouse Windows: Scheduled completion date June 2021, work not started at the time of writing. Revised schedule now presents a completion date of 23rd March 2022, this revised date needs further discussion as it again presents the likely scenario of out of sequence working.

1.04 Milestone Status Hull 802

Erect Unit 82 at Berth – Scheduled for completion November 2020: Block 82 was lifted week 15, 2021, 19 weeks later than planned. At the time of reporting the block is now erected, full welding of erection joints has still to be completed. Event can be claimed by Yard.

Complete Preparation Unit 3/5 – Scheduled for completion November 2020: Survey work is not complete as of week 16, 2021, 200 days overdue.

Complete Preparation Unit 48 – Scheduled for completion December 2020: Block Fabrication has yet to start. The current delay stands at 170 days.

Commence Tank Testing: Scheduled to start January 2021: No testing has yet to begin. The current delay stands at 150 days.

Commence Zone 2 Pipework Manufacturing: Scheduled to start February 2021, Event can be claimed by shipyard.

Commence Zonal Hot Work Programme - Zone 2: Scheduled to start April 2021, status on board is under survey.

1.05 Ongoing Works 801

At the time of writing background outfitting above deck 3 is largely on hold. Installation of fire class insulation on deck 5 & 6 has been delayed for much of this period awaiting MCA approval

of the structural fire protection plan. Work has finally started to fit structural transits, late start of this is out of sequence and will cause further delays to the installation of fire insulation.

Fabrication of rotating equipment foundations, casing uptake gratings and electrical equipment supports continues, despite concerns the additional consolidated weight element will further exasperate the already identified deadweight issues. This issue has been flagged to the yard design team back in week 16, 2021, who have still to confirm that the current weight log truly reflects the current overengineered design weights.

Navigation Bridge - No work has progressed over this reporting period. The sensibility of opening this work interface during the summer is not capitalised upon. Installation of navigation consoles (already in the Yard since 2019) is now rescheduled to December 2021, which arguably makes little sense given the likelihood of poor weather conditions that will complicate the works necessary to cut a transit opening in the bridge structure.

Pipefitting

Shipyards Responsible Systems - Installation continues to install pipe spools in zone 0303, focusing on the port & starboard stabiliser rooms, frames 68 – 81. Circa 110 out of 284 pipe spools are now fitted (38% complete). Progress is currently insufficient to service the project schedule.

External Contractor Responsible Systems - Isometric pipe spool installation continues; progress stands at circa 60% complete in zone 2. Work is focussed on the auxiliary engine and main engine rooms, zones 0202 & 0203. Progress continues to be insufficient to service the project schedule, work is scheduled to complete 30th June 2021, ref revised baseline issued 28th June 2021.

The short-term focus from the Yard must centre upon the recovery of the schedule if mechanical completion is to coincide with the planned start of commissioning activities in September 2021.

Electrical Installation

[redacted] No new work interfaces have been released to the contractor over this reporting period. If this contractor was given free and easy access to work interfaces, the expectation is that 10 months would be needed to complete their contracted work scope. It is imperative that if further delays are to be avoided that suitable priority is given to release and work parallel interfaces. The focus of the external contractor at this stage in the project should be the completion of the principal cable distribution. At the time of writing, 9km of cable remains to be pulled. Work is on hold because of uncertainty in cable routing design together with delays to finalise 3rd party system routings and installation of structural cable penetration. Contractor on-site manning levels remain low at 8 technicians. It is expected numbers we need to expand upwardly of 80 to manage unavoidable bottleneck. Progress continues to be insufficient to service the project schedule. The revised baseline schedule indicates cable reeving will be complete in zone 3 by August 2021 (main switchboards, STP room, Hydraulic Room and LNG bunker tank space), this event is unlikely to be achieved with four weeks to run.

Accommodation Outfitting

[redacted] have a team of four technicians on-site supported by a single Project Manager to install accommodation outfitting works. Their original contracted work scope has been increased to include fire insulation installation in passenger and crew areas. Work is currently on hold (3 weeks) as statutory approval for both the insulation plan and structural penetration is not in place. It is imperative that if further delays are to be avoided, suitable priority is given to release and work parallel interfaces.

HVAC Installation

[redacted] have two technicians on-site, supported by a Site Manager, work has virtually stalled in the absence of statutory sign off the structural fire protection insulation. It is imperative if further delays are to be avoided that suitable priority be given to release and work parallel interfaces.

[redacted] twenty-two pipefitters are on site supported by a dedicated Project Manager. Work to install isometric pipe spools in the machinery spaces stands at circa 60% complete. [redacted]

The reality in this situation is that both contractors are fighting for access to the same work area, [redacted] The expectation is that remaining work will take significantly longer to conclude.

[redacted] 9x Steelworkers now onboard split between fitting floor plate foundations in machinery spaces and installing structural plenums forward of the mezzanine deck.

Blasting and Coating.

Portside Funnel internal and inboard areas continue to be worked

Painting of Aft Mast base structure is ongoing

Coating of the Pipe and Transformer space has been started despite hot work not being complete. Significant and costly rework will now be unavoidable.

1.06 Ongoing Works 802

Structural Steelwork and Welding

Stern Unit 82 sets continues to make slow progress even with the advantage of 3Di mapping. Work continues to progress the Port side unit butts/seams with good progress being made this period.

Units 73/4 in the Module Hall have now been surveyed by Lloyds and CMAL. Both are lifted into position on deck 3.

Good progress on 03/04dk Car deck recesses is reported.

Work to complete Unit 48 Sub-assemblies in continues

Unit 48 Upper section continues to make good progress

Construction of aluminium Unit A5/5 all but complete but survey in Wk26 was cancelled

Construction of aluminium Unit A4/5 continues to progress in the bottom shed also (see photographs)

Fabrication of Steel Unit A3/5 continues to progress

Fabrication of Steel Unit 94 continued

Blasting and Coating

Blasting is now complete in the tented blasting area for Unit 84.

1.08 Deadweight

Identification of further weight increases this period by the Yard. It is taken the yard a long period of time to close out this risk item. [redacted]

The current position taken by the Yard is the expectation that weight figures will naturally return to be within the contracted value as the build proceeds. [redacted]

The risk is again referenced in the FMPG Project Update Report, issued 24th June 2021, page 8 entitled Risks, states that contingencies are in place for areas not yet reviewed, it remains to be seen if such contingencies (presumably based on the known incomplete 3D model detail) are suitably restorative.

It is worth pointing out that despite our advice that the Yard pursue a procedure to weigh all materials being lifted on board for installation (normal industry practice) this procedure has yet to be adopted.

1.09 Quality Control

The yards approach remains reactive as opposed to proactive in the early identification of building deficiencies. The resulting out of sequence corrective action invariably presents additional loading on available manpower as the work is essentially performed twice. Examples are to cut pipe penetrations beneath the freeboard deck and the poor standard of pre-inspection of the LNG vent mast.

1.10 Design Concerns

The length of time taken to conclude technical discussions is far too long, considering the time-constrained nature of each project. The over engineered equipment supports, and machinery space floor plate support frames are a case where the excessive material weight is known to exacerbate the vessel deadweight computation.

At this point in the project, the MCA has still to approve the HVAC structural penetrations, this very late design issue will be the precursor of further project delay.

1.11 3D Model Accuracy

The number of clashes between unrelated systems remains a concern despite the remodelling work performed by [redacted]. The expectation is that this problem will escalate when [redacted] ramp up production. The outcome of which will be further unplanned production delays.

1.12 Changes to Site Supervision Team

Site Team core head count remains unchanged with x 4 inspectors on site. The team is expected to increase in the short term. However, this is based on production achievement.

2.0 Design Changes Approved

There have been no requests for design changes.

A small number of small changes were requested by the builder and buyer, which the builder has still to finalise, most of which were identified during the extensive 3D model review last year.

3.0 Agreed Changes to Delivery Date

The builder has provided formal submission of level one detail of their revised building schedule. Proposed changes to the project delivery dates can only be agreed after verified review of further scheduling detail currently under discussion.

4.0 Agreed Changes to Price

There are a small number of small changes requested by builder and buyer which the builder has still to finalise, most which were identified during the extensive 3D model review last year.

5.0 Changes Awaiting the Owner's Approval

(Note of changes outstanding for approval by the Owner in excess of Buyer's Representative authority as stated in Consultancy Agreement Cl. 3.4)

6.0 Surveys / Inspections 801/802

Official survey work has yet to build any momentum given current delays, two surveys were presented over the reporting period.

801 Pre-Insulation survey of underside of deck 08 officer's accommodation deckhead areas performed.

802 L11 Port and Starboard frame 26-38 surveyed together with by Lloyds, minor repairs to be completed.

CMAL inspectors continue daily patrolling surveys to monitor standards and project progress outside of the yard QC system.

7.0 Progress Against Programme

The Yard has still to declare a percentage level of project completion or sufficiently report detailed key production metrics for either project, preventing objective comment.

Based on our own records of Yard reported actuals up to week 24, 2021, Yard production outfitting production progress reported 155-line items scheduled to complete by 18th June, only 26 were reported as such. Of the remaining 129-line items, a total of 90 were reported as late to start against 0% achievement. The Yard has been requested to qualify our concerns.

8.0 Next Stage Payment Due

CMAL are not party to Stage payments between the builder and the buyer.

9.0 Forthcoming Period Events

(Note of events, visits, holidays or other yard commitments)

Tests & Trials Due

There are no planned test and trials for the next reporting period.

10.0 Risk Register Update

There are several risks identified by FMPG as high risk, with a risk score of 250. Most are relating to programme. The most concerning technical risk is that the vessel cannot meet contract deadweight. We have stressed to FMPG since the new team were in place, the importance of this, and there requires to be certainty and appropriate action.

11.0 Safety & Environmental

Suitable controls are in place by the Yard to address all significant safety hazards which are reported monthly through authoritative good practice. A total of X12 First Aid Cases, X0 Fatalities, X3 Medical Case and RIDDORS Ratio of 0 and X9 lost working days are reported this period.

Print Name: Jim Anderson

Signature:

Date: 23 July 2021.