

MOBILE CRANE PURCHASE AND LIGHTERAGE

As reported to the Extra Ordinary Meeting of Council on 1 February 2019:

The Kato NK 250E-V mobile crane, purchased in the year 2000 is no longer serviceable without major inspection and overhaul, which cannot be economically carried out on Norfolk Island.

In February 2017, assessors advised that subject to replacing components, including outrigger boxes and jack rams and subject to annual inspections, crane safe certificates could be issued and the crane's life could be extended by five years. This has proven not to be the case and the crane is no longer in service.

At that meeting Council resolved 2019/2:

That Council

- 1. Notes Officers' feedback on the requirements for a new mobile crane.*
- 2. Unless an alternative workable solution can be found, approves the importation by cargo ship a (dismantled) 25-tonne Kato, rough-terrain, crane with the indicative prices of \$12,000 freight and \$5,000 per week in lease fees until a suitable replacement is purchased.*
- 3. Approves a budget allocation of \$1.3 million for the supply and delivery of a new mobile crane.*
- 4. Approaches the Administrator and the Department of Defence requesting their assistance with transporting the new crane to the Island as they generously did with the new electricity generators.*
- 5. In view of the extenuating and emergency circumstances surrounding the need to urgently purchase a new crane, that the provisions of paragraph 55(3)(i) of the New South Wales Local Government Act be invoked and Council not go to tender; instead Council seeks quotations based on specifications from at least three (3) providers of such cranes.*

As a result of Resolution 2019/2, actions were taken to address points 2 to 5 in consultation with those who operate the crane, lighterage and the pier, and engineering experts.

Resolution Point 2.

Options considered included:

- Use of Council's 35-year-old Kato 16 tonne crane was not seriously considered as a consequence of its last inspection, when it was recommended 'do not use'. It has been parked-up for more than four years.
- The on-island Franna 'pick and carry' crane was assessed. It had been used to lift lighters and launches from the water, but as it did not slew, it could not 'follow' the lighter. The Franna has to reverse and drive forwards each time it brings cargo onto the pier. It was initially considered to be

unsuitable to efficiently and safely discharge lighterage cargo over the coming months in conditions in which a slew crane could work.

As no alternative workable solution could be found, a 20-tonne slewing crane was sourced from New Zealand, at very short notice, at the prices indicated in Resolution 2019/2. The crane was dismantled into three major components to enable unloading using the Cascade dock crane. Hiring costs commenced on 8 February 2019. The crane arrived at Norfolk Island on board the *Captaine Wallis* V015 on 15 February 2019. Due to sea conditions, including swells of up to 4.7 metres, the *Captaine Wallis* was unable to commence discharging cargo until 25 February. Sea conditions were not favourable for the unloading of the 20-tonne crane, and forecasts indicated that the poor weather would continue for some weeks.

A methodology was developed and tested to allow use of the Franna crane at Kingston. *Captaine Wallis* discharged cargo on 6 March, completing discharge on the morning of 7 March. As the weather was not predicted to be favourable for unloading the 20-tonne crane for at least two weeks the *Captaine Wallis* sailed for New Zealand. The cost of the aborted exercise to hire the 20-tonne mobile crane was approximately \$47,000 (five weeks' hire, disassembly, shipping, and reassembly).

Southern Tiare V005, which arrived at Norfolk Island on 25 February, discharged cargo at Kingston on 6, 7 and 8 March. The on-board Hiab crane experienced issues that restricted unloading during this time and, in fact, became worse over time. As the issues could not be rectified, the *Southern Tiare* sailed for New Zealand on 10 March with the cargo of foodstuffs, building materials, and alcohol still on board.

Resolution Points 3 and 5.

In addition to the advice from those on-island who use and operate the mobile crane, it became apparent in early February that professional expertise was also required to prepare specifications for a new mobile crane for Norfolk Island.

Professional advice was sourced, and final advice was received on 6 March, with clarifications completed 11 March. In addition to locally identified criteria, the following are included in the selection criteria for the crane:

- Lighterage operations have very unique and specific crantage requirements, combined with a high level of risk to worker safety. For the sake of our lighterage workers' safety and well-being there should be no compromise made with respect to the crane's fitness for purpose for this specific operation.
- Rather than make compromises that may adversely affect the island's lighterage workers' safety, it is recommended that two appliances be considered, which specifically meet user requirements for each purpose (i.e. lighterage and heavy lift). [Council's requirement is for a crane to service lighterage, a heavy lift crane is the responsibility of other parties].
- A rough-terrain type crane is reasonably well-suited to Norfolk Island owing to its relative ruggedness and simplicity. They are also quite compact and surprisingly manoeuvrable. A down side to the appliance is high axle loads. These effects could largely be addressed through managing tyre pressures and vehicle speeds, and by upgrading the strength of cattle grids where required. Another down side is the single cab arrangement. This means there is the potential for loss of visibility and function during crane operation, owing to the vehicle controls being 'in the way'. This could be investigated during current renting of a rough-terrain type crane (i.e. the 20-tonne Kato City Crane).
- For reliability, a full power boom should be investigated instead of a pin-and-latch type boom.

- Marine spec paint could be applied at the factory, or under license in either Australia or Norfolk Island. Factory application is likely to yield the best result, but a compromise may need to be made in order to assure the timely procurement of the crane.
- Compatibility with the existing local diesel fuel should be confirmed between the fuel supplier and crane supplier.
- Cranes supplied with 'Tier 4' engines will be fitted with a diesel particulate filter (DPF) and will require ultra-low sulphur diesel fuel. They are not likely to be compatible with the diesel fuel that is currently available on Norfolk Island.
- If 'Tier 3' emission packages are lawful in Norfolk Island, it is recommended that a 'Tier 3' engine is specified, for the sake of reliability under local conditions.
- Short-listed cranes should be 'test-driven' and assessed by lighterage staff prior to purchasing to confirm their suitability for the intended task. This may require a number of flights in order to test the *exact* machine being considered for purchase (and not an older version, nor a similar version in a different size).

Specifications will be finalised, and quotations requested from at least three suppliers, in the week-ending 22 March, 2019.

Once provisional selection is complete, crane operators will be sent to test-drive the shortlisted models.

Resolution Point 4

The Administrator advised on 31 January he had spoken to the Minister for Defence, who was receptive to the request to fly the new crane to Norfolk Island in a manner similar to the recent arrival of the three powerhouse generators. Initial contact from the Department of Defence was received the same day. On Thursday 14 March, the Department of Defence supplied paperwork for the application to transport the mobile crane under the Defence Assistance to the Civil Community (DACC). This paperwork will be finalised in the week ending 22 March. The DACC application form advises a minimum of three months is required before the planned date of the activity in order for authorisations and approvals to be obtained. Therefore, the delivery of a new crane is some months away.

To keep the community informed further media releases will be made as this project progresses.

Bruce Taylor

GROUP MANAGER SERVICES

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