

941/2/1.C.

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FILE NO. 941 / 2 / 1 C.

CONTRACT NO. 1737

CONSTRUCTION OF 16 CUTTER SUCTION DREDGE

WHANGAREI ENGINEERING HOLDINGS LTD.

*Correspondence from May 1970*

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CONTRACT NO. 1737.

CONSTRUCTION OF 16" CUTTER SUCTION DREDGE

WHANGAREI ENGINEERING HOLDINGS LTD.

*Correspondence from May 1970*

Auckland Harbour Board ~~draft~~ *File 100*  
re. Cutter Suction Dredge  
*double-spaced draft please*

① Is the contract relating to spares directly between English Electric and AHB or are English Electric subcontractors to W.E.H.?

The weight of the evidence points to their being subcontractors to Whangarei Engineering Holdings.

Further, the general conditions of contract make it clear that electrical spares and machinery spares will be included in the tender of the principle contractor, reserving to the Board only the right to decide whether or not to order them from the contractor. It is obvious that the contract contemplates that where they are obtained from a subcontractor will provide the goods and matter for the contractor to arrange. The next point is that the tender itself includes the lists of spares and notes that reserves to the Harbour Board the right to determine the quantities of spares to be ordered. There is no power reserved for the Board to choose the suppliers of the spares, and the Board accepted the tender <sup>in whole</sup> ~~in whole~~ <sup>thus</sup> including its intention to subcontract to E.E. W.E.H.'s intention

# Against this it is alleged that the  
certain correspondence ~~is~~ between Auckland  
Harbour Board and English Electric  
particularly letter dated ~~19th~~ 19/10/66  
and 17/11/66, <sup>shows</sup> that the contract was between  
AHB and EENZ. However the latter letter  
makes it clear that this correspondence  
is merely the exercise of the Board's right  
to decide quantities involved and shows that  
payment for these ~~will~~ be made as part of  
the total price payable to W.E.H. Later correspondence  
by the Board to W.E.H. ~~states~~ states clearly that  
the contract is between AHB and W.E.H. with  
E.E.N.Z. as subcontractors to W.E.H.

Apart from this, there is the clear  
admission on the part of E.E. that they  
are subcontractors to W.E.H. by sending  
their invoice no. 6044 and 6037 to W.E.H.  
Both dated 27/6/67, for ~~parts~~ spare  
parts supplied under Variation Order NO.6.

② Are the terms of W.E.H. and <sup>U.H.</sup> James Wright Ltd  
~~still valid - valid, or if originally valid,~~  
~~still valid?~~  
In deciding this the completion  
of the contract ~~and~~ <sup>your work</sup>  
dates <sup>is</sup> of prime relevance.

~~we are informed that the~~

(2) Is the Harbour Board still liable to hold the <sup>retention</sup> money because of the lien notice served by E.C.N.Z. and Fairwork Ltd?

It is clear from the general conditions of contract that the date of completion of the contract is ~~the date of completion of~~ <sup>the signing + issue</sup> of the maintenance certificate (Art. 32. p. 17) which is to be done within 14 days of expiry of the Period of Maintenance or as soon thereafter as any works ordered to be made good are completed. This has not yet been done, and although it might be possible to argue that the parties have waived this term by more or less completing the contract without ever issuing the certificate i.e. by default, because the specific term has never been waived in writing, it would be safer to assume that the contract is not yet completed, particularly since final payments apart from the retention moneys relating to the liens, have not yet been organized. However for the purposes of the Wages Protection and Contractors Lien Act 1939 the ~~relevant~~ date <sup>is</sup> ~~is~~ that of the <sup>to be done</sup> completion of the works under the contract.

• The definition of works under a contract is set out ~~and~~ ~~fairly~~ extensively by the Act in Section 20(2).

"For the purposes of this part of the Act the work specified in any contract or subcontract shall be deemed to be completed when, with such variations, omissions, or deductions as have been duly authorized or agreed upon, it has been performed in accordance with the contract or subcontract, notwithstanding that the contractor or subcontractor may then or subsequently be employed in doing additional or extra work which is connected with or related to the work but is not specified in the contract or subcontract, or that he may be liable to rectify defects in the work discovered since the performance thereof and during any period of maintenance provided by the contract or subcontract."

This has been succinctly ~~explained~~ <sup>put</sup> in Hoening v Isaacs [1952] 2 All E.R. 176; where it was said that work may be completed so as to entitle a contractor to be paid, notwithstanding that some part of it has been done insufficiently or badly.

What then are the relevant dates on the facts before us? ~~later~~

(a) When the contract was signed

on 25 May 1965 the work was <sup>stated</sup> to be ~~due for~~ completed completion eighteen months later. This was later extended to 20 December 1966 when possession of the dredge was taken. <sup>(b)</sup> Following this was a maintenance period of one year but it seems

that all authorized works may not have been finished in this time. <sup>(c)</sup> The spares to be provided by the subcontractor English Electric W.2. were delivered by ~~this~~ ~~not~~ ~~at~~ However variation order No. 6

provided that extra spares - namely How Run meters - be provided and this was done by June 1968. No time extension was given by that variation order but it may be that it can be implied in the order even though the general conditions of contract provide that stipulations as to time should be made. ~~Contract~~

(d) ~~Contract~~ Drawings relating to the contract were submitted to the Board in October 1967 but were rejected as being insufficient and these were finally accepted in October 1968. However, under S. 20 (2) the rejection of these in 1967 as being defective does not mean that the Board authorized an extra year. As they be added on for their completion - they are defective works to be rectified.

(C) Variation Orders No. 7, 8, 9, and 10 cover works which were completed during the contract period of 1965 to 1966, or in the maintenance period of 1967 and were made out to finalize the prices involved upon purchase - the prices being subject to change. In all cases the work was done during, or before, 1967.

(D) Some argument has been waged that certain spares amounting to a value of \$250.00 were not supplied with the bulk of the spares in 1967. E.E.N.Z. insisted that they had ~~not~~ been supplied and A.H.B. argued that they had ~~not~~. This would probably come within the deficiency or ~~deficiency~~ in contract clause in s. 20(2) and would not therefore attend the time for completion of <sup>work on the</sup> ~~the~~ contract. Even if it did <sup>not</sup> ~~attend~~ the Board compromised with W.E.H., the primary contractor, by deciding to deduct the \$250.00 from the sum payable to the primary contractor and by forgetting the contested spares (as was done in Jeffrey v Isaac (supra)).

The last ascertainable date on which work was completed is June 1968, although it may be possible that it is October 1968 when the drawings were last accepted although it is the writer's opinion that the drawings at that date



have clearly come within the latter part of s. 20 (2). But even if we were unduly cautious and took October as being the date when works finished what then is the position in regard to the liens? So far as the disputed spares are concerned, although they were part of the contract, they are spares alleged to be missing from the main supply - <sup>as a</sup> supply which was defective, and so by <sup>virtue of</sup> s. 20 and by <sup>virtue of</sup> Hoenig v Isaacs it would be likely that a court would hold that these outstanding spares do not extend the time for completion of work. The previously mentioned compromise seems to finally settle that question.

Even if we were unduly cautious and took October 1968 as being the date when works finished, what then is the position in regard to the liens?

A lien must be served during the work period of the contract or within 31 days after that period (s. 30 1939 Act; s. 2 1961 Amendment Act). to be effective. Clearly the liens of V.H. Farnsworth <sup>and</sup> and E.G.N.2. would be

in time. This binds the board to hold back the amount they claim "until the claim is satisfied or otherwise disposed of" (s. 31). Here then we come to the crux of the matter. Section 34 as amended by the 1961 Act requires that an action must be commenced to enforce the lien or charge within sixty days after the date of completion or abandonment of the work specified in the contract between the employer and lead contractor. The effect of this on our facts is that if the completion date is October 1968 then the sixty day enforcement period passed by the end of December 1968. It is now March 1969 and no actions have been brought. Section 34 (6) of the Act provides that if an action has not been duly commenced to enforce the lien or charge, then the lien or charge is deemed to be extinguished. There is a proviso to this in subsection 5 of s. 34. which ~~part~~ provides that an ~~action~~ action to enforce a lien or charge which is out of time may be

joined to another action to enforce  
a lien or charge relating to the  
same contract which is in time.  
On our information, that there have been  
no actions brought against the Harbour  
Board as yet to enforce any lien or  
charge relating to this contract, it  
~~would be safe to say that~~ could be said  
that the time for enforcement has run  
out and that the liens ~~and~~ charges are  
now extinguished. ~~this being so, the matter~~

This appears to  
be R. C. V. Draft  
for letter to Board.

J.

Mr. Peabody

I understand that we have  
two cutter heads - one for  
'soft' + one for 'hard'.

Should we not have  
one spare for each?

Please advise



21.1.71

Mr Smith, yes, we should have a spare  
cutter of each type but we were short  
of funds when Horanui was ordered so  
cut our coat accordingly.

A spare cutter of each type will cost  
some \$20,000 for the two, plus the cost of teeth  
etc.

Meek Eng's intention to try to get locally  
available teeth is sensible. These should  
then be hard-faced.

RA 25 Jan 71

Auckland Harbour Board

MEMORANDUM

21st. January, 1971

FROM

MECHANICAL ENGINEER

TO

THE CHIEF ENGINEER.

S.D. "HORANUI" - ROCK CUTTER.

The "Horanui" was delivered and equipped with standard cutterhead with a set of spare blades and one rock cutter with 3 sets of spare teeth and points. The rock cutter had been in use previously and was well worn so, in preparation for the Half Moon Bay project, was reconditioned by welding on 18 new tips, 6 complete new teeth, and by building up worn areas on teeth and blading. The rock cutter teeth, made of a special cast steel designed to shatter hard rock, had not stood up at all well to the abrasive content of the local materials so various selected areas on both teeth and cutter were hard faced with a high chromium alloy in an endeavour to find an abrasive resistant coating.

On removal from the Half Moon Bay project the cutter teeth were found to be heavily worn, necessitating replacement of the complete set. In contrast, the hard faced areas showed virtually no wear. The replacement teeth are therefore all to be coated with hard facing and welded in place. All leading edges on the cutter are also to be hard faced. This involves a considerable amount of welding and even with the semi automatic welder will take until next week to complete. These measures provide a short term solution only.

For the long term there are two courses open:-

- 1.) Follow the standard dredging contractors procedure and have three spare cutters and change at regular intervals (from a few hours to several weeks according to type of material being dredged) and have a team of welders building up the worn cutters.
- 2.) Find a N.Z. source of supply of suitable cutter teeth to stand up to local materials and if possible convert to the changeable type of tooth which could be replaced in situ.

Cost has prevented us in the past building up our stock of cutters (present estimates run out at 40,000 D.M. per cutter - \$9,000). We are therefore investigating the possibility of using "ESCO" replaceable teeth tips attached to locally cast teeth bases which could be welded to the existing cutter blades, through Cookes Wire Ropes Ltd. who handle this product.

*Rock cutter price was DM 24,000 in 1964 @ 4.5 DM per \$  
Stock section have added 75% to bring up to date. RD*

*E. L. Swabs*

MECHANICAL ENGINEER.

CJO:AF.

Airmail.

18th November 1970

Messrs. Verolme Shipyard Heusden Ltd.,  
Dredging Material Department  
P.O. Box 54  
Weesp  
Holland.

Dear Sir,

RUBBER SUCTION SLEEVES.

We are operators of a 16" cutter suction dredge working mainly on coarse sand and shell.

Consistant trouble has been experienced with the wearing through of the suction hose, situated between the cutter ladder and the dredge hull.

The hose used is of a German design and appears to crease at the lower edge near the upper flange connection when the ladder is working at maximum dredging depth. This fold in the rubber casing is thus eroded away causing a hole to be cut in the sleeve.

I am in possession of information concerning the suction hoses manufactured by your firm and Type "E" appears to be designed in a manner that would overcome this problem.

I request that you forward to the Board's Purchasing & Stores Officer at the above address, a quotation giving a price landed in New Zealand for a suction hose of the following particulars:-

Type	"E"
D	449 mm.
TL	1350 mm.
DF	620 mm.
DS	570 mm.
S	27 mm.
Max. Angle	29°
No. of holes per Flange	20.

Yours faithfully,

Copy to:

Chief Engineer  
for Information.

*for the*

*JWB*  
MECHANICAL ENGINEER.

*Copy also sent to Store Officer.*

*Please file  
RCF*

NN:AF.

Our

942/3/1/NN/AF.

Airmail

29th October, 1970

Messrs. Orenstein-Koppel & Luebecker  
Maschinenbau A.G.

Postfach 1601  
Luebeck,  
West Germany.

Dear Sirs,

CUTTER SUCTION DREDGE "HORANUI" - YARD No. 627.  
PNEUMATIC WINCH COUPLING.

Due to the seizure and subsequent overhaul of the pneumatic coupling on the aft centre winch some of our spare seals carried in stock have been used and require replacing.

Although adequate information is available for the clutch (Spare part No. 16; Yard 627) we have no information for the air collector which varies from the side rope winches in as much the shaft passes through the centre.

This collector contains two grove rings (150 x 180 x 15) and three rubber sealing rings.

Two sets of these parts are required, also two sealing rings from Ortlinghaus-Werke, drawing No. 40-005-73-300, Item 12.

To assist me with ordering any further parts, could you please supply appropriate information for this air collector.

Yours faithfully,

Copy to:

CHIEF ENGINEER TO THE BOARD.

Mr. J.R. Sutton,  
Auckland.

Purchasing & Stores Officer  
for Information.

Mechanical Engineer  
for Information.

94112/2651/2 B

Date Stamp *planned*

ZND136 OMV072X DP2611D817 NZAK HL DPLK 025

LUEBECK/TLX 25 23 1015  
AUCKLAND HARBOUR BOARD  
LT HABOARD BOX 1 259  
AUCKLAND  
AUCKLAND/NEW/ZEALAND

HABOARD



D. 74610

Sent N. 7805516

To GENERAL MESSAGE 889394

By SEC/CHAIRMAN

Serial No.

Checked

9/101  
**INTERNATIONAL**



23 OCT 1970  
**TELEGRAM**

Tel. 139 26,500/8/70-83500D

627 HORANUI CUTTERHEAD REPAIRS ELECTRODES ACCORDING  
AWS - SPECIFICATIONS ITEM 1 AND 4 AWS-E 6012 ITEM 3  
AWS-E 7018 LETTER FOLLOWS

ORENKOP

COL 627 1 4 6012 3 7018

*Noted*



AUCKLAND HARBOUR BOARD  
MECHANICAL SECTION  
RECEIVED 27 OCT 1970

Our

942/3/1/NN/AB.

Airmail

Messrs. Orenstein-Koppel & Luebecker  
Maschinenbau A.G.

9th September 1970

Postfach 1601  
Luebeck  
West Germany

Dear Sirs,

YARD No. 627 - 16" CUTTER SUCTION DREDGE "HORANUI".

Due to deterioration of the internal pipe lines on our cutter suction dredge it is intended to replace all internal suction and discharge lines.

It is proposed that we import enough straight length and 90° bends so that the required runs of internal suction and discharge lines can be manufactured in our own workshops using the existing flanges (Refers LMG drawings No. 8.015134 E and 8.011574 E).

A quotation and delivery time is requested for the supply of this piping and bends, consisting of the following:-

Bends:

2 off	90° x 3 D	Bends - size	419 x 10
4 "	90° x 5 D	" - "	419 x 10
2 "	90° x 5 D	" - "	470 x 10.5
1 "	90° x 3 D	" - "	490 x 10.5
1 "	90° x 1000 R for swivel bend as in drawing		No. 8.011574 E.

Straight lengths:

70 feet of 419 x 10  
50 " of 470 x 10.5

To assist me in my estimates of further piping requirements, I would appreciate if you could send me a copy of an English translation of the German DIN Standards covering the dimensions of the above pipe and bends.

I look forward to hearing from you in the near future.

Yours faithfully,

Copy to:

Mr. J.R.Sutton,  
Auckland

CHIEF ENGINEER TO THE BOARD.

Purchasing & Stores Officer  
for Information.

Mechanical Engineer  
for Information.

11 August, 1970

A & G Price Ltd.,  
C.P.O. Box 3126,  
AUCKLAND

ATTENTION : MR.R.BEUMELBURG

Dear Sir,

SUCTION DREDGE "HORANUI" DISCHARGE PIPES

In regard to your verbal quotation of \$640 for three sections of 16" O.D. piping I wish to inform you that this has been found acceptable and request that you proceed.

The three sections are as follows:

- 1 only 12ft. length
- 1 only 11ft. length
- 1 only 6ft. length

Rolled to 16" O.D. out of  $\frac{3}{8}$ " mild steel plate with a single longitudinal weld.

Yours faithfully,

CHIEF ENGINEER TO THE BOARD.

JB:JARP

O/W 6337P  
11/8/70 Refers.

Auckland Harbour Board.

JMB

Mr. Pennington

Please consider this  
along with the others

As already discussed  
I want to so more than  
merely express disappointment

★

Please File ROP

11 June 70

Auckland Harbour Board.

Chief Engineer,

copy for information.

RJ

23/7.

22nd July 1970

Cranstein & Koppel Aktiengesellschaft,  
2330 LUBECK  
WESTPHAL 1601

*Auction Daily Horanville*

Dear Sirs,

ORDER NO.4726 SPARES FOR YARD NO.627  
YOUR CON.362/0327

I enclose bank draft No. 107551 in the sum of DM928-00 in payment of the above goods.

I note that you did not avail yourselves of the letter of credit which was established for this amount at the Dresdner Bank A.G; Lubeck on the 30th May 1970 in accordance with our Mr Strickland's previous letter to you.

I also note that the letter of credit which I established in respect of our order 540 (your Con.362/0217 covering spare parts for yard 573) has also lapsed despite my cable of 22nd June requesting you to draw immediately. I am now unable to remit this amount until the U.S. Government issues a fresh import licence; the previous licence expired on 30th June 1970.

On future occasions I would be happy to arrange payment by -

- (1) Letter of credit to your bank - in this case you would draw for the amount of the invoice at your bank by presenting to your bank all shipping documents, namely: Commercial Invoice, (C.I.F. Auckland); New Zealand Customs Invoice certified as to value and origin, (at least in triplicate); a complete set of 'On Board' ocean freight paid Bills of Lading of any Shipping Company.
- (2) Or by Bank Draft for the amount of the Invoice (C.I.F.) on receipt of all the documents specified in (1) above.

In order to avoid further confusion, would you please acknowledge this letter and advise me which of these two methods you prefer for payment of future accounts.

Yours faithfully,

J.M. Dempsey  
ACCOUNTANT

J.M.D.

PURCHASING & STORES OFFICER

Copy for information.

*21*  
ACCOUNTANT



*Wted J. 24/7/70*

*Paid ✓ 8443  
230-81  
B.H. 2-8 238-03 NZ*

4 June, 1970.

THE CHIEF ENGINEER

THE GENERAL MANAGER

SUCTION DREDGE "HORANUI"  
WATER HEATER

Revised Programme of Works, Appendix "B", Item 9  
Priority 2 A.

On Suction Dredge "Horanui" an electric kettle has been used for heating drinking and washing-up water. Boiling water in such small quantities has proved inadequate and frustrating to the crew who do not stop dredging for meals and tea breaks.

A 3 gallon sink type heater is required to provide a small storage of hot water.

The estimated cost for purchase and installation is \$70 and I request that authority be given to complete the installation.

CHIEF ENGINEER TO THE BOARD.

RCP:NKR

26 May, 1970

THE CHIEF ENGINEER

THE SECRETARY.

MR.H.JOHANSEN - SITE EE8 DEVONPORT  
ALLEGED LOSS OF MOORING.

Ref. your memo 17 Feb. 1970 and 22 May 1970.

- (a) Precautions taken by crew of Suction Dredge?  
The dredge had a plan of the boat moorings and kept clear of them as far as possible.
- (b) Has the crew been questioned?  
Yes, the crew have been questioned but have no knowledge as to whether or not the dredge moorings may have fouled Mr. Johansen's mooring. Every care was taken by the crew but some moorings are known to have been disturbed.
- (c) Date loss of mooring was noticed
- (i) Your advice of 22 May 1970 now answers this as about Christmas 1968. I presume this should read Christmas 1969.
- (ii) Prior to this time and just after it, Dredge Horanui worked in the area during the following periods:

<u>Week ending</u>		<u>Week ending</u>
13-2-68	to	9-4-68
30-4-68	to	18-6-68
2-7-68	to	10-9-68
5-11-68	to	3-12-68
7-1-69	to	11-2-69
11-3-69	to	18-3-69
7-10-69	to	18-11-69
9-12-69	to	23-12-69
6-1-70	to	27-1-70

- (d) What possible dredge operating factor could cause the loss of Mr. Johansen's mooring?

The dredge has anchors attached to heavy steel wire ropes and, pivoting on its spuds, hauls in and pays out the wires to move the dredge over the area being dug by the cutter. Much of the dredging was done in rough weather when the crew were fully occupied controlling the dredge and the hopper barges towed to and from it by towboats. Under such circumstances it is possible that the dredge moorings fouled a boat mooring without this being noticed.

... ..



Several boat moorings were indeed disturbed and, whenever this happened and was noticed by the crew, the matter was reported to the Boatharbours Manager and the boat mooring was reinstated. It is quite possible that "Horanui's" anchor wires could have disturbed Mr. Johansen's mooring and the incident be not noticed either by the operator or other members of the crew.

The Boatharbours Manager in his memo to the Chief Engineer dated 12 February 1970 wrote as follows:-

"I have made enquiries regarding the mooring belonging to Mr Johansen and consider his claim is justified.

When the Mooring Section dragged for his mooring after it was lost they brought up the Suction Dredge's anchor wire, which was right over the spot. Mr Johansen also engaged divers at his own expense to try and locate the mooring, with no success.

I suggest we supply him with a equivalent mooring to the one lost.

The original letter from Mr Johansen is attached, for your perusal."

Under the circumstances I agree with the suggestion made by Mr Duncan and recommend that authority be granted to replace Mr Johansen's mooring free of charge to him by an equivalent mooring to the one lost.

The cost will be about \$50.

CHIEF ENGINEER TO THE BOARD.

RCP:JARP

22/3/460

Auckland Harbour Board

MEMORANDUM

22nd May 1970

FROM

TO

THE SECRETARY

THE CHIEF ENGINEER

Mr H. Johansen - Site E.E.8 Devonport

Alleged loss of mooring

I refer to my memorandum of 17th February concerning a claim received from the above named person for loss of his mooring at the Devonport mooring area. Subsequent to the forwarding of the memorandum, it was agreed with Mr Pemberton to defer your reply until more definite information had been received from Mr Johansen as to the date on which he first noticed the mooring was missing.

Mr Johansen now advises that it was about Christmas 1968 that he first missed his mooring, as his boat had been hauled out at Bayswater until then.

Will you please let me have the information asked for in regard to the Suction Dredge 'Horanui' and list the periods the vessel worked at Devonport, say between 1st April and 31st December 1968. In view of the elapse of time since 1968 I think we can now disregard question (b).

  
SECRETARY



21 May, 1970

THE CHIEF ENGINEER

THE GENERAL MANAGER.

S.D"HORANUI" - ALTERNATOR ENGINE CONVERSION.

Works and Traffic Committee Item No.17.

The reasons for the modifications proposed have been discussed with Captain Forbes who is satisfied, and agrees with the recommendations.

CHIEF ENGINEER TO THE BOARD.

RCP:JARP

Mr Pemberton

(HAM)

Proposed alterations to "Horseshoe" —  
current report to WOT Committee 11.5.40.

At Works Committee meeting on May 19th  
the following comments were made on  
the above report:

Nathan I provided for  
 (1) why was this situation not foreseen &  
 when the dredge was built?  
 (2) Can we not instal an "ordinary"  
 engine (in addition to the existing "supercharged"  
 one) in the existing engine room?

*Was foreseen  
but to some extent  
ignored  
Expensive!  
Not enough room.*

Forbes

H/A.

(1) why not provide a simple "sand  
pump" on the deck to cope with  
the sort of work being done at  
Devonport sand spit?

NB

(Smith's remarks re sand spit were not correct)

The Engineer is required to consider  
these matters & report back.

In conjunction with the Engineer  
please consider as above & consult with  
Capt Forbes as soon as possible.

If our recommendation is supported  
by him our report will go forward  
to Board.

If not, our report will be referred  
back for reconsideration.

19.5.70

Memo CE to GM

informing <sup>him</sup> of the situation having talked to Capt Forbes

- ① Forbes satisfied  
or ② Forbes Not satisfied & we will report further.

EXTRACT FROM MINUTES  
PURCHASING & STORES COMMITTEE

19 MAY 1970

3. ALUMINIUM GANGWAY - SUCTION DREDGE "HORANUI"

The five tenders received for the above gangway were listed in the Purchasing and Stores Officer's report. The tender of Truscotts N.Z. Ltd complied with the specification and was the lowest suitable offer. He recommended that the tender be accepted for the sum of \$471.00. The General Manager stated that financial provision had been made as stated by the Purchasing and Stores Officer and endorsed the recommendation.

Recommended -  
That the reports be adopted.

*Mechanical Engineer  
Please arrange for completion.*

ADOPTED BY BOARD  
26 MAY 1970

EXTRACT FROM MINUTES  
WORKS & TRAFFIC COMMITTEE  
19 MAY 1970

16. S.D. "HORANUI" - ALTERNATOR ENGINE CONVERSION.

The Committee gave consideration to the report of the Chief Engineer which advised that the "Horanui" was designed to be a general purpose dredge capable of suction dredging all the normal material encountered in the Waitemata Harbour and to be capable of discharging spoil up to a distance of 5,000 feet. To cope with the maximum conditions, engines of 500 horsepower had to be provided for the dredge pumps and the alternator. As a result of jobs requiring low electrical loads, carboning-up of the alternator diesel engine had necessitated the dredge being taken out of service for de-carbonizing this particular engine. The Chief Engineer advised the remedial measures proposed, estimated the cost involved and recommended that authority be granted to purchase the necessary parts for the conversion of the "Horanui's" alternator engine. The General Manager endorsed the recommendation advising that the estimated expenditure would be incurred in the next financial year.

Recommended -

That the reports be adopted.

During discussion on this item, Members inquired as to the possibility of engine room modifications to enable the present system to be left in tact and would allow the proposed conversion to also be provided. Members further inquired as to the possibility of retaining the present equipment and installing further equipment on the deck suitable for the dredging of lighter material, such as sand. The Chief Engineer was asked to further consider these suggestions and inform the Board accordingly the following week.

*Mechanical Engineer  
Steve Power*

ADOPTED BY BOARD  
26 MAY 1970

*Eng*

ITEM 16

REPORT OF WORKS AND TRAFFIC COMMITTEE

19th MAY 1970

S.D. HORANUI - ALTERNATOR ENGINE CONVERSION

Reference was made to discussion on this item at the meeting of the Works and Traffic Committee when it was agreed that the Chief Engineer investigate the proposal to provide a special pump for use in the dredging of sand and light materials. The Chief Engineer advised the meeting that this was not practicable as there was no available space to accommodate a second engine and the adaption previously recommended was to be preferred.

Captain Forbes stated that following inspection of the vessel he agreed with the Chief Engineer.

ACCEPTED BY BOARD  
~~26 MAY 1970~~

*Chief Engineer  
Supplementary to N.W. resolution  
on this item.*

*C. Pemberton*  
*File Please*  
*111*



81/25

Engr's file 941/2/1.C.  
11 May, 1970.

The General Manager,  
AUCKLAND HARBOUR BOARD.

ITEM 17.

S.D. "HORANUI" - ALTERNATOR ENGINE CONVERSION.

The "Horanui" was designed to be a general purpose dredge capable of suction dredging all the normal material encountered in the Waitemata Harbour and to be capable of discharging spoil up to a distance of 5,000 feet.

To cope with the maximum conditions, engines of 500 horse-power had to be provided for the dredge pumps and the alternator. To date the dredge "Horanui" has worked on sand and other jobs requiring very low electrical loads with the result that the alternator diesel is running light for most of the time. This continual running on low loads has resulted in carboning-up of the engine and the dredge has had to be quite often taken out of service for de-carbonizing of the alternator engine.

This unsatisfactory state of affairs can be improved by converting this supercharged engine to a naturally aspirated one. It is therefore proposed to purchase the appropriate parts for the conversion for an approximate total delivered cost of \$6,250 and to fit these parts when the engine is opened up for routine maintenance at the next annual survey. However, should the dredge ever be placed on duties requiring full electrical power, the engine can be reconverted to a supercharged state again by refitting the original parts.

I recommend that authority be granted to purchase the necessary parts for the conversion of the "Horanui's" Alternator Engine for a quoted cost of \$5,848.00 F.O.B. U.K. Port.

  
CHIEF ENGINEER TO THE BOARD.

The Chairman,  
Works & Traffic Committee,  
AUCKLAND HARBOUR BOARD.

I endorse the Chief Engineer's recommendation. The periodic laying up of the "Horanui" for alternator engine de-carbonizing is detrimental to the Board's dredging programme. Delivery of the required parts is approximately 6 months from date of order and provision has been made in the Revised Programme of Works Appendix "B" Item 9 (g) priority 2A. The total estimated expenditure \$6,250 will be incurred next financial year.

  
GENERAL MANAGER

14th May 1970

# Auckland Harbour Board

29

81/25

The General Manager,  
AUCKLAND HARBOUR BOARD.

Engr's file 941/2/1.C.  
11 May, 1970.

## ITEM 17.

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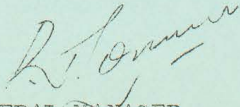
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GENERAL MANAGER

14th May 1970

FILE 79/15

8TH MAY, 1970.

MR. JOHN R. SUTTON,  
16 AWATEA ROAD,  
PARNELL,  
AUCKLAND.

SPARE PARTS BOOK NO. 1A  
YARD NO. 627 - SUCTION DREDGER 'HORANUI'  
ORDER No. 4726 - 13TH MARCH, 1970

DEAR SIR,

IN RESPONSE TO MY CABLE TO ORENSTEIN & KOPPEL REQUESTING  
DELIVERY ADVICE ON THE SPARE PARTS CALLED FOR IN THE BOARD'S  
ORDER No. 4726, THE FOLLOWING CABLED REPLY, DATED 7TH MAY, HAS BEEN  
RECEIVED.

*Dredger Delayed  
partly blocked*

*A - C weed*

*Must July - end ship*

*Horanui*

*Held up 4 weeks*

*Lost time against lack of parts*

JUNE 70.

R CABLE, DATED  
THE REVISED  
'NUI' REFIT.

L BE WRITING  
AT NOT BEING  
ERY.

ULLY,

ND STORES OFFICER.

R INFORMATION

FILE 79/15

8TH MAY, 1970.

MR. JOHN R. SUTTON,  
16 AWATEA ROAD,  
PARNELL,  
AUCKLAND.

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ORDER No. 4726 - 13TH MARCH, 1970

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ORDER 4726 CANNOT DELIVER BEFORE MID JUNE 70.

THIS INFORMATION IS A CONTRADICTION OF THEIR CABLE, DATED 18TH APRIL, WHICH PROMISED DELIVERY IN ONE WEEK AND THE REVISED FORWARDING TIME HAS COMPLETELY DISORGANISED THE 'HORANUI' REFIT.

I UNDERSTAND THE BOARD'S CHIEF ENGINEER WILL BE WRITING DIRECT TO O & K EXPRESSING THE BOARD'S DISAPPOINTMENT AT NOT BEING KEPT INFORMED IN REGARD TO THE AMENDED DATE FOR DELIVERY.

YOURS FAITHFULLY,

PURCHASING AND STORES OFFICER.

PLS:MM

C.C. CHIEF ENGINEER

THE CHIEF ENGINEER - COPY FOR YOUR INFORMATION

FILE 79/15



MR. JOHN R. SUTTON,  
16 AWATEA ROAD,  
PARNELL,  
AUCKLAND.

SPARE PARTS BOOK NO. 1A  
YARD NO. 627 - SUCTION DREDGER 'HORANUI'  
ORDER No. 4726 - 13TH MARCH, 1970

DEAR SIR,

I ADVISED YOU IN MY LETTER OF THE 15TH APRIL OF THE URGENT MEASURES TAKEN TO EXPEDITE DELIVERY OF MINOR PARTS REQUIRED FOR THE 'HORANUI' SURVEY AND, AT THE SAME TIME, SUPPLIED YOU WITH THE CABLED INSTRUCTIONS SENT TO ORENSTEIN & KOPPEL TWO DAYS PREVIOUSLY.

YOUR PRINCIPALS, IN A CABLE DATED 18TH APRIL, REPLIED AS FOLLOWS:

YOUR TEL 15/4 OUR 362/0327 YOUR 4726 DELIVERY  
EFFECTING NEXT WEEK.

ORENKOP

TO DATE NO ADVICE HAS BEEN RECEIVED IN REGARD TO COST, WHICH WAS REQUESTED BY 1ST. CLASS AIR MAIL ON 13TH MARCH IN ORDER TO PROCESS THE NECESSARY IMPORT LICENCE APPLICATION, OR HAVE THE PARTS, DUE FOR DESPATCH BY AIR FREIGHT DURING WEEK ENDING 25TH APRIL, BEEN SIGHTED.

THE 'HORANUI' SURVEY IS NOW ALMOST COMPLETE AND IT IS IMPERATIVE THAT THE PARTS ON ORDER BE INSTALLED AT THIS TIME. IN VIEW OF THE PRESENT INDEFINITE DELIVERY POSITION I HAVE THIS DAY SENT A CABLE TO O & K AS FOLLOWS:

YOUR CABLE 18/4 BOARDS ORDER 4726 PARTS URGENTLY  
AWAITED STOP DREDGER OVERHAUL DELAYED CABLE CIF  
COST IN ADVANCE FOR IMPORT LICENCE CLEARANCE STOP  
ADVISE DAY PARTS DESPATCHED.

HABOARD

WOULD YOU PLEASE BRING TO YOUR PRINCIPALS' NOTICE THE BOARD'S CONCERN AT THE LACK OF INFORMATION BEING RECEIVED ON PRICES FOR SPARE PARTS AND I SUGGEST THAT THE DETAIL REQUESTED IN OUR LETTER OF 10TH SEPTEMBER BE AGAIN DRAWN TO THEIR ATTENTION.

YOURS FAITHFULLY,

PLS:MM

PURCHASING AND STORES OFFICER

THE CHIEF ENGINEER - COPY FOR YOUR INFORMATION

Auckland Harbour Board

MEMORANDUM

4th May 1970

FROM

MECHANICAL ENGINEER

TO

CHIEF ENGINEER.

QUOTATIONS FOR ALUMINIUM GANGWAY FOR "HORANUI".

The Purchasing and Stores Officer has received 5 quotations as follows:

1)	Steel Tanks	\$523.00	4 weeks
2)	Ulrich	\$495.50	1 week
3)	Hale	\$240.00	2 weeks
4)	Truscotts	\$471.00	6 weeks
5)	Sheetmetals	\$678.15	8 weeks.

Hale's price was too low to be realistic and his method of construction is not suitable.

Sheetmetals price was too high.

Ulrich's delivery was suspiciously short and they seem to be better known as a supplier of aluminium than a builder.

This left Steel Tanks, who had built "Te Awhina's" gangway and Truscotts in Hamilton who are well known in the stainless steel and aluminium field.

A fairly confused situation arose concerning the type of materials offered, so I undertook to investigate the matter and report to the Purchasing Officer (copy attached.)

As the material offered is the same I have no objection to either, Steel Tanks or Truscotts quotes being accepted and have advised the Purchasing Officer accordingly.

This memo is for your information only.

*E. L. Swales*

MECHANICAL ENGINEER.

 CJO:AF.

Auckland Harbour Board

MEMORANDUM

4th May 1970

FROM  
MECHANICAL ENGINEER

TO  
PURCHASING & STORES OFFICER.

ALUMINIUM GANGWAY FOR "HORANUI".

Comments on the quotations:

Truscotts original quotation stated "commercially pure aluminium", however, upon you querying this they telegraphed

" All materials B 50 S - B 51 S Marine Quality".

As these numbers were a makers identification and could not be related to either, B.S.S. or Lloyds, I checked with Ward of Truscotts who referred me to Cory Wright & Salmon, the suppliers. They confirmed that B 50 S was equivalent to B.S.S. HE 9 W which is not a recommended material for marine work, however, the B 51 S was equivalent to B.S.S. HE 30 WP which is marine quality to B.S.S. 1476 (Aluminium Alloy - Sections for Marine purposes.)

Steel Tanks had quoted N S 4 as being their material and gave the B.S.S. equivalent as being H E 30 WP.

Therefore, as both these quotes offer a satisfactory marine quality aluminium of the same standard, from a technical viewpoint they are equally acceptable.

The only detail which may not be apparent on the drawing is that the wheels are intended to rotate on the axle not the axle in the gangway and I would be grateful if you would point this out to the successful tenderer.



MECHANICAL ENGINEER.

CJO:AF.

Copy to F

Chief Engineer for Information.



