

Fog Signal

T

File 757
Fog Signals

To Sept 83

460



160

FILE NO. 460.

FOG SIGNALS.

-See Seperate Group for "TANGENT" Fog Bells and Syrens.

460

EXTRACT FROM MINUTES
WORKS & TRAFFIC COMMITTEE
"2" JUN 1978

7. RENEW FOG SIGNALS

The Chief Engineer reported several of the inner harbour fog signals consisting of the motor driven clapper operated bells at Kings and Queens Wharves and the compressor operated whistles at Jellicoe Wharf and Calliope Dock were over forty-eight years of age while others had reached the 30 year mark. An experimental "Elekon" electronic sound signal with a bell mode had been installed at Devonport Wharf and had proved to be successful and trouble free. Accordingly he recommended that approval be given to replace the signals in two stages at a total cost of \$4,550.00 but that the second stage be deferred until finance was allocated subsequent to 30 September 1978. The General Manager endorsed the Chief Engineer's recommendation to undertake Stage I - replacement of the inner harbour sector. Financial provision of \$2,000 existed in the Revised Programme of Works 1977/78 Item C.21.5, Priority 2A ex Works Reserve.

Recommended That the reports be adopted.

Gelmal by mee.

FINANCIAL PROVISION

EXPTED BY BOARD



12 June 1978 Engr's file 460

The General Manager AUCKLAND HARBOUR BOARD

ITEM 7

RENEW FOG SIGNALS

Several of the inner harbour fog signals consisting of the motor driven clapper operated bells at Kings and Queens Wharves and the compressor operated whistles at Jellicoe Wharf and Calliope Dock are over forty-eight years of age while others have reached the 30 year mark.

Many have reached the stage where their reliability is failing and consequently maintenance costs are high.

An experimental "Elekon" electronic sound signal with a bell mode has been installed at Devonport Wharf and has proved to be successful and trouble free.

Accordingly I recommend that approval be given to replace Westhaven and all shore based fog signals in the inner harbour with "Elekon" electronic sound signals at an estimated cost of \$4,550 inclusive of essential spare parts. However, due to the current need to restrict expenditure to a minimum I would further recommend that this work be undertaken in two stages with the second stage deferred until finance is allocated subsequent to 30 September 1978.

Stage 1 - Queens, Kings and Jellicoe Wharves \$2,000

Stage 2 - Calliope Dock, Westhaven, Wynyard and Princes Wharves and Eastern Tide Deflector

\$2,550

CHIEF ENGINEER TO THE BOARD

The Chairman Works and Traffic Committee AUCKLAND HARBOUR BOARD

I endorse the Chief Engineer's recommendation to undertake Stage I - replacement of the inner harbour sector. Financial provision of \$2,000 exists in the Revised Programme of Works 1977/78 Item C.21.5, Priority 2A ex Works Reserve.

R.T. LOWIMER GENERAL MANAGER

13 June 1978

Log Signalo 27 August 1975 The Regional Engineer N.Z. Post Office C.P.O. AUCKLAND ATTENTION: MR L. MASON Dear Sir: LEASED DIRECT CIRCUITS. I am pleased to acknowledge receipt of your summary of the Board's Leased Direct Circuits for my records. This summary includes however an LDC No. 1433 which cannot be traced to Board's equipment and I understand you have no cable termination records to enable further identification. I would therefore ask you to cancel this L.D.C. and con-gider in conjunction with your accounts section, whether a credit is appropriate. Yours faithfully, ELECTRICAL ENGINEER SJC: GRA CHIEF ENCINEER: for information of Ble

12 June 1975

Auckland Harbour Board

MEMORANDUM

FROM ELECTRICAL ENGINEER

THE CHIEF ENGINEER

FOG SIGNALS.

My comments on the memo from the Harbourmaster to you dated 20th May 1975 re: fog signal defects are as follows:-

1) BEAN ROCKS FOG SIGNAL - NOT WORKING

This signal was not working because of a fault on the Post Office line control relay at the shore end at Mission Bay.

Also, the replacement syren referred to in the memo burnt out soon after installation with the result that the original horns were reinstated and are still in service. The syren has been repaired and has been awaiting installation for some time. I will now give this job a high priority.

2) RANGITOTO BEACON FOG SIGNAL - NOT WORKING

This is still out owing to cable repair problems, due to an acute staff shortage. I have given instructions that this job is to take precedence over other work. Repairs have commenced but I must point out that owing to the poor condition of the cables due to age and recent damage in the case of the fog signal cable and the recent severe damage in the case of the dredge in the case of the light cable; power supplied to the beacon will not be reliable. Future proposals for this beacon are being considered.

KINGS WHARF FOG BELL - NOT WORKING

The bell mounting had shifted which prevented the clapper striking the bell correctly.

HARBOUR BRIDGE FOG SIGNALS - IRREGULAR

Although these horns had been serviced not long previously, one of the horns was found to be faulty.

These horns are a poor type and require too frequent servicing. I will be soon submitting a draft letter asking the AHBA to replace these signals with a more reliable type.

With reference to replacement electronic equipment, we have got a trial electronic bell on test at Devonport Wharf. This is an improvement over the mechanical bell but there have been teething troubles with components and as soon as satisfaction is achieved I will be arranging tenders for the purchase of several equipments as allowed for in the P of W's.

ELECTRICAL ENG

IWS:gra

Allow and oblam Saling action. \$1,5/6/75

460 Auckland Harbour Board 20 May 1975 MEMORANDUM THE CHIEF ENGINEER

ENGINEERS DEFT

FROM

THE HARBOURMASTER

TO

FOG SIGNALS

For a considerable time I have been increasingly concerned with the inadequacy of some of the fog signal service in the port. This morning's fog, during which a large passenger ship entered the port, emphasises the necessity for immediate action.

The defects reported to me today were -

- (1) Bean Rocks Fog Signal Not working.
- (2) Rangitoto Beacon Fog Signal Not working.
- (3) Kings Wharf Fog Signal Not working.
- (4) Harbour Bridge Fog Signals Irregular.

Bean Rocks replacement siren was tested by my staff and approved and the sanction of the Minister of Marine received 29th April 1971. This is a most important signal, being the only aid, in fog, between Waiheke and Auckland.

Rangitoto Beacon cable problems have persisted for nearly 12 months. This is a most important navigational aid to vessels approaching the port. A temporary N.Z. Notice to Mariners advises the Masters of N.Z. ships of the situation; but such temporary notices are not re-issued overseas. Consequently, unless an overseas ship is in radio communication with Mount Victoria, the Master is unaware of the fact that the fog signal is not working.

The horns at the Harbour Bridge have deteriorated over the years and should be upgraded as soon as possible. Particularly is this necessary as navigation in bridge areas is at present receiving much attention.

The previous Harbourmaster approved the replacement of present outdated and inefficient signals with electronic equipment and this programme should be pursued.

I would again mention the urgency of attention to these matters as I have had complaints from Masters of ships and my Pilots.

1.W. 5 would you a Men 1,3 x 4?

For HARBOURMASTER

He Hechwal Bremes. his Pemberton 15/2 What Com be Cleve to (2) wagetly. To El Ego for report. Families 12 July 15,

19 21 Sept 19)2 MR SMITH FOR SIGNAL PEDLAR EMEMLE A report detailing need together with costs will be forwarded in due (Item A 5.1.) Programmed

MEMORANDUM

19th September 1972

FROM

THE HARBOURMASTER

TO

THE CHIEF ENGINEER

RECEIVED 19 SEP 1972

FOG SIGNALS REPLACEMENTS

Having attended a demonstration of an electronic bell effect fog signal, arranged by Mr. I. Stewart, I consider this a satisfactory replacement for the ageing fog bells now in operation.

In each case, the desired tone, speed and, if necessary, intermittent operation, is to be decided before installation.

HARBOURMASTER

Electr. Eng. North



MEMORANDUM

4th February 1965

FROM

THE HARBOURMASTER

TO THE ENGINEER

BIRKENHEAD - CHELSEA FOG SIGNALS RESOLUTION BUOY

On Thursday 18th February 1965 Birkenhead Fog Whistle will be discontinued. The power of Chelsea Fog siren will be increased and this signal will be connected to the signal control system at Queens Wharf.

About the same date Resolution Buoy will be permanently withdrawn.

Hopy to Shetweal Engineer. The Socks

JOW/HG

-8. FEB. 1965

lev. Goodser to seo

Sh-you.

HARBOURMASTER



OUM 4th February 1965

HARBOIR MASTER

TO THE CHIEF ENGINEER

BIRKENHEAD, CHELSEA FOG SIGNALS

I understand that the alterations to the above fog signals as contained in my memo of 18th November 1960 are possible.

- 1. Disconnect and remove the fog whistle on Birkenhead Wharf.
- 2. Connect the fog siren on Chelsea Ferry Wharf by land line, to the present control system at Queens Wharf.
- 3. Restore the volume of Chelsea fog signal to its full power..

Please arrange to have this work carried out on Thursday 18th February 1965.

I will advise the Marine Department of the date of change over in order that a Notice to Mariners may be issued.

RECEIVED 22
9 FE B 1965
ENGINEERS DEPT. 3

HARBOURMASTER

JOW/HG

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INSTRUCTIONS TO FOREMEN & INSPECTORS

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Signature

Date.

INSTRUCTIONS TO FOREMEN & INSPECTORS Anteland Sarbour Month



Auckland Harbour Board

MEMORANDUM

18th November 1964

THE HARBOURMASTER

TO

THE CHIEF ENGINEER

FOG SIGNALS - BIRKENHEAD AND CHELSEA.

Please arrange for the following alterations to be carried out on the above fog signals.

- Discontinue and remove the fog whistle on Birkenhe ad Wharf.
- Connect the fog siren on Chelsea Ferry Wharf by land line to the present signal operating system at Queens Wharf.
- 3. Restore the volume of Chelsea siren to its full power,

Preliminary enquiries by the Electrical Engineer indicate that these alterations are practicable and Marine Department approval has been obtained.

Would you please advise me at least two weeks in advance when the work will be done. The complete changeover must take place on one day.

Alahahan 16/17/04

Caledrical &

4NOV 1964

ENGINEERS DEP'T.

Mr Goodsis Jam awaying to do this mill be a maintenance. There will be a small cost from the Past Optice for small cost from the live (no from estimate chively the live (no from estimate

could be fiven) but the current souther will remain runchenged.

he Latt Cover with luster please, 3974 A.

INSTRUCTIONS TO FOREMEN & INSPECTORS

WESTHAVEN FOG SIGNAL. Subject CODE NUMBER 360/027/40-49 The General Manager has approved your memo. of 29th. October, please proceed with this work. RKW:MJC RKW:MJC This Form to be filled up & returned to Engineer's Office immediately on completion of Work) This work was completed on	The General Manager has approved your memo. of 29th. October, please proceed with this work. RKW:MJC RKW:MJC This Form to be filled up & returned to Engineer's Office immediately on completion of Werk) This work was completed on		THE ELECTRICAL ENGINEER ENGINEER'S OFFICE, 5th. November,
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MEMORANDUM

29th October, 1964

FROM

THE ELECTRICAL ENGINEER

TO THE CHIEF ENGINEER

WESTHAVEN FOG SIGNAL

Following the memorandum from the Harbourmaster dated 29th September, the N.Z. Post Office advise that this service could be provided at an annual rental cost of approximately £35. As the installation of this remote line involves an amount of re-cabling, there may be a delay of up to eight weeks from the date of authorisation.

Authority to proceed with the installation of this remote line is requested.

SJC: AWJ

Electrical Engineer

Kledubin

Chief Engines

Please moure accordingly. - Please advis Theasurer.

Ac. Cearly

29th September 1964

ENGINEERS DEPT. THE HARBOURMASTER

TO

THE CHIEF ENGINEER

WESTHAVEN FOG SIGNAL.

Now that provision has been made during the electrical alterations at Westhaven and in the present switching apparatus at Queens Wharf I recommend that the bell fog signal on the eastern end of the Westhaven breakwater be connected to and operated from Queens Wharf.

The Custodian who at present operates the signal manually is not always available.

HARBOURMASTER

Colecting Sup -1.001.1964

JOW/HC

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

To THE ELECTRICAL ENGINEER

Date 26th. May, 19 64

Subject FOG SIGNAL BAYSWATER - REMOTE CONTROL FROM MT. VICTORIA.

With reference to your memorandum dated 18th. May, 1964, the Harbourmaster has confirmed that the above leased direct circuit is no longer necessary and the lease of this line may now be terminated.

Would you please arrange accordingly.

WJT:MJC

Engineer to the Board. Chief

(This Form to be filled up & returned to Engineer's Office immediately on completion of Work) This work was completed on___ __at a cost of:-Labour Material Total £ REMARKS: Signature___

E10

Date___

Auckland Harbour Board MEMORANDUM 18th May, 1964 FROM TO THE ELECTRICAL ENGINEER THE HARBOURMASTER Auckland Harbour Board. The bluef Engineer ect Circuits from the N.Z. Post Office, a to Bayswater is still installed, and The hue equipment that this line controlled line retained at the request of the was returned at ther use. Cast Kelsey's request have the lease of this line terminated. future if required. lud thee seems little formet in continuing to pay rent for it, Electrical Engineer 12 Stuber Harhammertin, Do you agree that this line need not now he retained ! J. randan 20.5.64. This line is no longer necessary the - zons

A review of our Leased Direct Circuits from the N.Z. Post Office, reveals that a line from Mt. Victoria to Bayswater is still installed, and annual rental paid. The fog signal equipment that this line controlled

reveals that a line from Mt. Victoria to Bayswater is still installed, and annual rental paid. The fog signal equipment that this line controlled was removed some years ago, but the line retained at the request of the then Harbourmaster, for possible further use.

Your approval is sought to have the lease of this line terminated. This line could be reinstated in the future if required.

SJC: AWJ

Electrical Engineer

l'eluber

Hartansmarlin,

Do you agree that their line
need not now be retained!

Grandoin
20.5.64.

This line is no longer necessary

&B-joss
21-5-64

WORKS & TRAFFIC SOM MITTEE

In referring to the item - Ferry Wharves - Mr. Nathan made a request that the Chief Engineer investigate the practicability of providing a warning light or some other alternative method at the Harbourmaster's Office, Queens Wharf, that would indicate when the electric circuit of a fog signal fails and operates the siren in error or does not shut off the siren as required. - Agreed

This is already provided.

C.P.O. BOX NO. 1259 AUCKLAND TELEPHONE 33-200

REFERENCE ..



Auckland Harbour Board

Quay Street

Auckland, N. Fr.

9th October 1959

Dear Sir,

FOG SIGNALS - DISCONTINUED

As from Wednesday, 14th October 1959, the following Fog Signals will be discontinued:-

- 1. Bayswater Channel. Outer Beacon.
- 2. Bayswater Wharf.
- 3. Northcote Wharf.
- 4. Western Vehicular Ferry Landing.

Please pass this information to all concerned.

Yours faithfully,

M. G. Kelvey. HARBOURMASTER

JOW/HC

COPIES SENT TO:

Foreman of Works, and Electrical Engineer.

13. OCT. 1959

MEMORANDUM

30th September, 1959.

FROM

THE SECRETARY.

TO

THE CHIEF ENGINEER.

FOG SIGNALS

Please arrange for the following fog signals to be removed and taken into store -

Bayswater Beacon fog siren Bayswater Wharf fog whistle Northcote Wharf fog bell Western Vehicular Landing fog whistle

Signals are to be discontinued from and including Wednesday, 14th October, 1959, and with the exception of the Northcote Wharf signal wiring to all signals is to be left intact.

de stubin

SECRETARY.

Thank you very much for your GRL/b dated 26th September, enclosing brochure illustrating the above equipment and giving an indication of price.

My Electrical Engineer, Mr. Aubin, is currently investigating the conomics of automatic fog detection and has already received from you certain technical details. The additional information you now supply is timely and we shall not hesitate to avail curselves of your kind offer to get any further information required in the event of this being necessary for the purposes of the current study.

Yours faithfully,

CHIEF ENGINEER TO THE BOARD

JAG:HEB

28th August, 1957. THE ELECTRICAL ENGINEER THE STORES OFFICER QUOTATIONS FOR AN ELECTRICALLY OPERATED FOG BELL Only two quotations were received for the above item, and it is recommended that the lower offered by Chadburns (Liverpool) Ltd. at £165. O. Od (F.O.B.) be purchased. O.P. Franklin Electrical Engineer OPF/AWJ

28th August, 1957. THE ELECTRICAL ENGINEER THE STORES OFFICER QUOTATIONS FOR A FOG SYREN It is recommended that the fog syren offered by the Allum Electrical Co., Ltd., at £64.10. 6 nett be purchased, as it complies with the specification in all major respects. Three cheaper syrens have been offered by Messrs. A. & T. Burt Ltd., however two of these are unsuitable. The third syren at £40.14. Od is suitable in many respects, but does not have the range specified. O.P. Frankler for Electrical Engineer OPF/AWJ

THE GENERAL MANAGER

(Your memo 15.2.57)

The service line to this signal is provided by the Post & Telegraph Department. The cause of the present complaint was a fault in the Post & Telegraph Department lines, and this fault has been rectified. Our Electrical Engineer reports that, although there have been faults on previous occasions they have been at very infrequent intervals, and the description "the unreliability of the service" is perhaps scarcely merited.

The service is exactly similar to that provided to a telephone, and reliability of the same order could be expected.

CHIEF ENGINEER TO THE BOARD

JRS:HEB

Auckland Harbour Board

MEMORANDUM

15th February, 1957.

FROM THE GENERAL MANAGER

TO THE ENGINEER

FOG SIGNAL STANLEY BAY

Arising from complaints received regarding the uncontrolled starting of this fog signal, the Chairman

has directed me to have the question of the unreliability

Would you please examine the situation in an endeavour to effect some permanent improvement in the position obtaining at the present time.

of the services to the signal investigated.

Q.G. Clarke
GENERAL MANAGER

LM:GW

derduben

11th December, 1956. The Resident Engineer, Auckland Harbour Bridge Authority, C.P.O. Box 3536. AUCKLAND. C.1. Dear Sir. FOGHORNS & FLOODLIGHTS As the type of fog signal may not be decided until experiments have been carried out, I suggest that the small galvanised steel platforms referred to in your letter of November 28th could be about 18" square, and be drilled with four 1/2" clearance holes arranged in a square at 12" centres. Any fog signal tried could then be secured to a mounting plate drilled to suit these holes. Arrangements for ladder access to fog signals and floodlights appear satisfactory, but I would suggest that supports be provided on the ladders so that the user can stand safely with both arms free to work on the equipment. I should be glad to see details of the platforms and ladders in due course. Yours faithfully, RELA/AWJ Chief Engineer to the Board

FREEMAN, FOX & PARTNERS,
FORMERLY
SIR DOUGLAS FOX & PARTNERS

R. E. FORDHAM. C. T. WOLLEY.

R. FREEMAN.

TELEGRAMS: "HABABRIDGE," AUCKLAND

TELEPHONE 11-099 HEW JMN

CORRESPONDENCE TO BE ADDRESSED

C.P.O. BOX 3536, AUCKLAND, C 1

Chief Engineer,
Auckland Harbour Board.
C.P.O. Box 1259.
AUCKLAND.

Dear Sir.

RESIDENT ENGINEER'S OFFICE.

AUCKLAND HARBOUR BRIDGE.

WESTHAVEN RECLAMATION,

AUCKLAND, W 1.

November 28, 1956.

FOGHORNS & FLOODLIGHTS

I have today received the following letter from Messrs. Freeman, Fox & Partners :-

R.850. We are now detailing the supports for the floodlights on piers 1 and 2 and the foghorns on pier 2.

R.851. Please obtain a dimensioned sketch of the foghorns, sufficient for us to provide suitable fixings and access, and send it to us as soon as possible.

R.852. We propose to support the floodlights on crossheads at the ends of steel outriggers from the tops of the piers. Access will be from the bridge deck via steel ladders fastened to the vertical truss members above the bearings.

R.853. We propose to support the foghorns on small galvanised steel platforms bolted to the piers at level +25.00°. Access will be from a boat via galvanised steel ladders bolted to the piers. Suitable timber fenders and galvanised mooring rings will be provided. Suitable cable ducts will be provided in the piers.

Some time ago you told me that you would probably experiment with various types of foghorns before deciding the most suitable type.

Would you kindly let me have either, sketches of the various foghorns you intend to try or a sketch of a suitable platform on which any of the types could be mounted.

Please let me have your comments if any, on the remainder of the letter.

her buten

Yours faithfully,

9th November, 1954.

The Regional Engineer, Post & Telegraph Dept., Chief Post Office, AUCKLAND. C.1.

Dear Sir,

PRIVATE LINES FOR REMOTE CONTROL

The Board has under consideration the provision, on a new vehicular landing to be erected at Birkenhead, of an alarm circuit operated as at other vehicular landings, over lines hired from your Department for fog signal control.

To do this, it would be necessary to separate Birkenhead and Northcote, at present controlled together from Queens Wharf, over private line No. 456, the preferred method being to connect No. 456 between Queens Wharf and Birkenhead with a separate continuation, via Harbour Board relays, from Birkenhead to Northcote.

I should be glad if you would inform me if this could be arranged, and what the additional rental would be.

Yours faithfully,

Chief Engineer to the Board

10th July, 1953.

Your Ref: E. AK. 1/465

The Regional Engineer, Post & Telegraph Dept., Chief Post Office, AUCKLAND. C.I.

Dear Sir.

CALLIOPE DOCK - FOG SIGNAL

I thank you for your letter dated 7th July advising me that the circuit for fog signal control at Calliope Dock Training Pier from Mt. Victoria can now be installed. The charges for this line are noted.

Yours faithfully,

Chief Engineer to the Board

ENGINEER'S OFFICE

Muturdis.

CORRESPONDENCE MUST BE ADDRESSED TO AN OFFICER BY HIS OFFICIAL TITLE, NOT BY MS NAME.

Telephon. No. 32-300



IN REPLYING PLEASE QUOTE THE NUMBER HEREUNDER.

E. AK. 1/465

Regional Engineer's Office, Chief Post Office, AUCKLAND, C.1. 7th July, 1953.

The Chief Engineer, Auckland Harbour Board, P.O. Box 1259, AUCKLAND, C.1.

Dear Sir,

In reply to your letter dated 10th June, 1953, about the provision of a leased direct circuit for fog signal control between Calliope Dock Training Pier and Mt Victoria: I have to inform you that although an estimate of the annual rental involved was furnished to you in a letter dated 19th May,1950, there is no record on my file of a request having been made to provide the facility. However, early action can be taken to install the leased direct circuit and a works-order has been issued to carry out the work.

Due to increases in rental charges since the proposal was first estimated the annual rental will now be £7.0s.0d. and the recoverable costs of installation approximately £2.0s.0d.

Yours faithfully,

Regional Engineer.

Engineers file copy 10th June, 1953. The Regional Engineer, Post & Telegraph Dept., Central Post Office, AUCKLAND. C.I. Dear Sir, FOG SIGNAL - CALLIOPE DOCK TRAINING PIER In May 1950 a request was made for a private line for fog signal control at the Calliope Dock Training Pier from Mt. Victoria. I should be glad to know when you expect to be able to make this facility available. Yours faithfully, Chief Engineer to the Board

Auckland Harbour Board MEMORANDUM

FROM

Electrical Engineer

To

20th February 19 53

THE ENGINEER

Fog Syren Chelsea - Instruction No. 20443

In accordance with Instruction No. 20443 the Fog Syren at Chelsea has been lowered in tone and volume.

The signal is now just audible at Birkenhead with the Birkenhead Fog Whistle operating. During preliminary tests on 3rd February, 1953 the Master of the "Kestrel", when asked to comment, agreed that the above setting would probably be satisfactory for navigation. Further adjustment can be made after experience in fog.

TGP/RGP

Electrical Engineer

hoted for.

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

Mr. T.G. Procter, Electrical Engineer.

To

Date 9th January, 19 53.

Subject FOG SIREN CHELSEA.

It has been asked that the Fog Siren at Chelsea be reduced in pitch as it is almost the same as the local fire alarm.

The Harbourmaster has agreed to a reduction in volume.

Please arrange accordingly.

F : , , , , , ,

9th January, 1953. The Hon. Secretary, Birkenhead Progressive Association, Albert Road, BIRKENHEAD. Dear Sir, In reply to your letter of 22nd September, there is considerable difficulty in adjusting the lip of the pontoon to suit the big variation in height and trim of the various ferry vessels. I will however have this examined to see if an improvement can be made. Regarding the fog siren at Chelsea, I have arranged to have this reduced in pitch as requested. Yours faithfully, NLV.JS. CHIEF ENGINEER TO THE BOARD.

SECRETARIO MASSON DE ROARD Association Auckland Harbour Board RECO. 24 SEP 1952 257 9/1952 Secretary A.J. GALLOP
ALBERT ROAD.

BIRKENHEAD. N.5 22 Soft. 1952. for reply Abour Board. Hurbourn aster. Do you agree to any alteration of he Chelsea fog Segual! d to write to your If the valume can be reduced it may satisfy the local residents and still be effective. wigh. to the damage that has all cars by the lip of Genhead and of the Western a lip in question seems No have too short and deep a bend or similar fault, and the resulting bump - which cannot be avoidedhas resulted in mufflers, exhaust pipes etc. being damaged. The terry Company accepts no responsibility. The dissociation further asks if the fog siren recently installed on Chelsea wharff could be altered. At present the pitch is almost the same as the local fire alarm, and may be heard as far away as Northcote and is most distressing to residents, especially at night, and we suggest that, if it were reduced to half speed it would still be most efficient as a fog signal, Thanking you etc., yours Faithfully. How See.

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

To THE FOREMAN OF WORKS.

Date 6th July, 19 50.

Subject FOG SIGNALS.

Please fabricate fog bell for installation at Northcote as shown on E438/2, similar to that provided at Devonport.

Arrange with Electrical Engineer for supply of electrical equipment.

Fix where directed.

(Copy to Electrical Engineer)

Engineer to the Board.

HARBOUR BOARD MEMORANDUM FOREMAN OF WORKS To Ohe Engineer. I beg to report that Tog-signal Fear. We have a small air-driver tubine on approval from the Goldberg Engineering bo. This fool has a worm reduction gearing and is particularly adaptable operate any gear such as fog signallin devices etc. At the Ance offered \$30 I would recommend that it be pirchased. There are two (2) available if required. There does not appear to be any specific use for there air-driver turbines at the moment + they have therefore been returned Fr. 9.9.52. hu Goodser J. H. Jack aberry FOREMAN OF WORKS

Auckland Harbour Board. MEMORANDUM From 25th July, 1951 The Electrical Engineer To THE ENGINEER FOG SIGNALS CHELSEA WHARF (Instruction No. 18985). The syren previously fitted at the end of the Eastern Tide Deflector has been erected at the end of the passenger wharf at Chelsea. The syren is controlled by a switch in the watchman's office at the main entrance to the Colonial Sugar Refining Coy. Works. A timer is fitted to give four undulating cycles per minute, the periods "off" and "on" being equal. The syren is at a considerable distance from the syren on the Western Reclamation, which undulates on a 40 second cycle, and confusion between the two is most improbable. FOG WHISTLES. Following a request from representatives of the Ferry Masters' Council, the power of the whistles at the W.V.L. and the E.V.L. has been reduced. Previously, confusion was caused because the whistle could be heard above the bell on the St. Mary's Bay Breakwater, and above the fog syren on the Tide Deflector when these points were being approached. The bell and the syren are now predominant, but the whistle can be clearly heard when the breakwater and Tide Deflector respectively have been reached. TGP/AWJ Electrical Engineer Has Kurbournaster agreed to these alterations
Yes Her

Please address reply - "Electrical Engineer"

25th July, 1951.

The Chief Engineer, The Colonial Sugar Refining Co., Ltd., CHELSEA.

Dear Sir,

FOG SYREM ON CHELSEA PASSENGER WHARF

As agreed with you some months ago, a fog syren has now been installed at the end of the passenger wharf. This syren is operated by a switch in your watchman's office.

I should be glad if you would arrange for the watchman to switch the syren "on" in the event of fog during such time as passenger vessels are expected at Chelsea.

I should also be glad if the operation of the syren could be checked weekly, and my office, telephone 43.097, advised in the event of trouble. My staff will not normally visit the wharf other than at three-monthly intervals.

Yours faithfully,

TGP/AWJ

Electrical Engineer

Dealer - Copy passed to Harramonastes. Please address reply -"Electrical Engineer" 25th July, 1951. For attention of Capt. Parker. The Manager, The Devonport Steam Ferry Co., Ltd., Quay Street, AUCKLAND. C.I. Dear Sir, ALTERATIONS TO FOG SIGNALS I should be glad if you would bring the attention of ferry masters to the following. STANLEY BAY. A new syren, pitched higher than the old and about three times as powerful, has been fitted. EASTERN TIDE DEFLECTOR. A new syren, pitched higher than the old and energised for a longer time each cycle, has been fitted. EASTERN VEHICULAR LANDING. The volume of sound from the whistle has been reduced. It can still be heard clearly when the end of the Tide Deflector is reached, but should not now divert attention from the syren on the Tide Deflector. WESTERN VEHICULAR LANDING. The volume of the whistle has been reduced to ensure that attention is not diverted from the bell on the end of the breakwater. CHELSEA PASSENGER WHARF. A syren, to be switched on by the watchman at the Colonial Sugar Refining Co. Works and undulating four times a minute, has been installed. CONTROL OF NORTH SHORE FOG SIGNALS. Signals at Devonport, Stanley Bay and Bayswater are now controlled from Mt. Victoria, except that, on occasion, difficulty is being experienced with the P. & T. lines. Until modified parts can be obtained, hand control may at times be necessary. The Calliope Dock signal is still controlled by the Navy. Birkenhead and Northcote signals are controlled from Birkenhead, but similar trouble to that at Devonport, etc. is being experienced. In due course it will be possible to control these two signals either from Queen's Wharf or Birkenhead. I shall be glad to have observations from you regarding the new arrangements when experience has been obtained. Yours faithfully TGP/AWJ lectrical Engineer

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

The Electrical Engineer, Date 11th June, 19 51.

Subject FOG SIGNAL CHELSEA WHARF C/A.

The Harbour master has requested the provision of a fog signal at Chelsea Ferry Wharf.

Please arrange installation of fog signal and carry out necessary renovation of electrical installation at the same time.

Total estimated cost £100.

JAG.JS.

To

Engineer to the Board.

FOG SIGNALS

These notes cover a conversation with the President and Secretary of the Ferry Masters' Council in my office yesterday. The Harbourmaster met the Council a week or so ago, and in addition to specific requests that the syren on the Eastern Tide Deflector and dolphin in Stanley Bay should be made stronger, and an electric signal provided at Chelsea, had been advised of interference between the whistle and bell at the W.V.L. and whistle and syren at E.V.L. The visit to me arose from a telephone query of mine to the Traffic Manager of the Ferry Coy. in connection with the latter.

W.V.L.

The speed and power of the whistle is such as to prevent the bell on the breakwater at St. Mary's Bay from being heard. It was suggested that the speed and power of the whistle should be reduced. The speed, about 270 blasts per minute, cannot be altered readily, so attention is first being given to the volume by by-passing some of the air.

E.V.L.

Similar action was requested for the whistle at E.V.L. and will be undertaken. In this case the whistle tends to divert attention from the fog syren on the Tide Deflector.

EASTERN TIDE DEFLECTOR FOG SYREN.

This syren was installed in 1931 and is now badly corroded, and must be replaced. A check showed that the governor on the timer was out of adjustment so that the timing was approximately seven seconds on and 21 seconds off. In the Nautical Almanac the syren is described as 'an undulating syren reaching a maximum every 20 seconds'. The governor is being modified to give 10 seconds on and 10 seconds off, and a new syren, available ex A. & T. Burt's stock of about the same power, is being tried. The pitch of this is about an octave higher than the old syren.

STANLEY BAY.

The existing Stanley Bay syren is a small 70 watt syren. This small size was deliberately chosem so as to minimise interference with other signals. It was put into service in August 1947. Reports from ferry masters have always been that it is insufficiently powerful for use in the way desired, namely as a lead across the harbour from Queen's Wharf before turning east and following the North Shore to Devenport. Trials are proposed with a 225 watt syren available ex A. & T. Burt's stock.

CHELSEA.

The Ferry Coy. representatives confirm the necessity for fitting an electric fog signal at Chelsea Wharf to enable the early morning trips with the Colonial Sugar Coy. employees to be run in fog. I have discussed this with Mr. Shepherd of the engineering staff at Chelsea, and he agrees that a 220 volt D.C. fog signal, to be operated by their watchman, could easily be installed. This is being investigated in detail.

REMOTE CONTROL SYSTEM - ALTERATIONS.

In a letter dated 19th January, 1950, the Ferry Coy. requested the Board to give control of the Birkenhead and Northcote fog signals from Birkenhead by the ferry master on duty. The Board's decision was to assume control of its own fog signals from Queen's Wharf and Mt. Victoria. In view of further representations made to me, I now propose to make a small modification to the scheme as originally proposed to enable Birkenhead and Northcote signals to be controlled from Birkenhead as well as from Queen's Wharf. It would only be necessary to use this facility if the public telephone at Birkenhead Wharf was

- 2 out of action, as is understood to be frequently the case. ---- 0 -----Other matters re fog signals outstanding are : WESTERN RECLAMATION. A new signal suitable for A.C. will shortly be required. WHISTLES - PRINCE'S WHARF, BIRKENHEAD & BAYSWATER. Last Saturday morning at 6.30 am I was advised that the whistle at Prince's Wharf was not operating effectively. This whistle had had a shop overhaul only 10 days before. In spite of weekly tests and regular attendance it cannot be said that the mechanism is reliable. The question of replacement compressors is being investigated. Electrical Engineer 17th April, 1951.

Please address reply -"Mectrical Engineer" 30th June, 1950. Standard Telephones & Cables Pty. Ltd., P.O. Box 571, AUCKLAND. Dear Sire, FOG SIGNAL CONTROLS All outstanding queries in connection with the re-organisation of fog signal control have now been finalised, and this letter is for record in confirmation of various discussions with you. To recapitulate, the panel previously supplied is being transferred to the Signal Station at Mt. Victoria. It will be operated from a 12-volt accumulator. The penel to be instelled in place of the old will have six ways with provision for future requirements. A single polarised relay is required for each way for fog signal control. Alarm equipment is required on three of the ways. The arrangement of the alarms would be generally along the lines of our drawing ML/S57, a copy of which is in your possession, but it is not intended that this arrangement should necessarily be adhered to in detail. The float switches and battery at the remote position, and the bell and battery at the control position, will be supplied by the Board, and your

quotation should, therefore, include for the supply only of relays for the remote positions, and for the supply, fixing, connecting and testing of the relays preferable telephone drop type - incorporated in the control equipment.

The mode of operation is that alarm conditions cause the float switch This operates the relay at the remote end and impresses on the line to close, a voltage which operates the alarm relay, and hence the bell at the control station. After about half a minute, the float switch opens automatically, allowing the system to return to normal and the alarm relay to be reset.

It has been found that in order to avoid incorrect operation due to interaction between the slarm system and the fog signal control system, it has been necessary to connect resistances in the alarm circuit. The value of these resistances, shown approximately in the drawing, has been found to be critical, and careful adjustment has been necessary. I hope, therefore, that you may be able to suggest medifications which will render this critical adjustment unnecessary on the new equipment.

Mamufacture should proceed as soon as you receive the Board's order. I should be glad to receive the diagram for the new equipment as soon as it is completed, together with any explanatory notes, so that queries, if any, can be raised before despatch.

Yours faithfully,

* Two ways

Miectrical Engineer

TGP/AWJ

Auckland Harbour Board

MEMORANDUM

From

6th June, 1950

The Electrical Engineer

To

THE ENGINEER

FOG SIGNALS - REMOTE CONTROL FROM NORTH SHORE

Further to my memo dated 31st May 1949, the Regional Engineer, P. & T. Dept., has confirmed availability of the lines required. In so doing, he has put forward revised rental figures and applogised for having quoted incorrect figures previously. I attach hereto a copy of his letter dated 26th May on which the previous figures quoted are shown alongside the new figures.

I am advised verbally that the cost of separate lines from Queen's Wharf to Birkenhead and Queen's Wharf to Northcote is £36.14.9 and £28.18.6 respectively, that is £65.13.3 total, or £13.6.0 in excess of the quotation for the party line.

If it is likely that a vehicular landing will be built at Birkenhead I now recommend the use of single lines to enable an alarm to be provided, to indicate defective operation of the landing, in the Harbourmaster's office, Queen's Wharf, as has been successfully fitted with the Western Vehicular landing.

An application form for the required lines will be prepared, and a requisition for the control panel and relays issued on receipt of an Instruction.

TGP/AWJ

ENCL.

Electrical Engineer

It is likely that a suspended lips velucular landing will be linetalled at Birkenhad and provision should be made for this on the control panel. Party line spendion for United to Brikenhead would do until a new landing in built while to the control of the contr

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

To CHIEF ELECTRICAL ENGINEER Date 1st June, 1950.

Subject FOG SIGNALS.

Please arrange remote control for North Shore fog signals as under:-

- Signals at Devonport, the Naval Base, Stanley Bay and Bayswater to be operated from the Signal Station at Mt. Victoria.
- Signals at Birkenhead and Northcote to be operated from H.M. Office, Queens Wharf, in conjunction with the existing system for the Southern Shore.

JAG/LR.

Engineer to the Board.

EXTRACT FROM BOARD'S RESOLUTIONS OF TUESDAY, 9TH MAY, 1950.

7. BOARD IN COMMITTEE.

Report of Board in Committee, 9.5.50, re (6) Works and Traffic Committee re (f) Fog Signals.

Recommended:

That the report be adopted.

6. WORKS AND TRAFFIC COMMITTEE RE (f) FOG SIGNAIS.

Letter from The Devonport Steam Ferry Co. Ltd., 19.1.1950, regarding control system of Fog Signals on the North side of the Harbour; Engineer's report thereon dated 8.5.1950.

Recommen ded:

That the Engineer's report be adopted.

THE CHAIRMAN.

FOG SIGNALS ON NORTH SHORE.

Fog signals on the North Shore are at present controlled from the individual wharves where the signals are located. The Devonport Steam Ferry Coy. has asked that they be controlled from suitable central points as is now done on the Southern Shore.

This can be done by using Post & Telegraph Department lines and grouping the signals as follows:-

- (a) Signals at Devonport, the Naval Base, Stanley Bay and Bayswater to be operated from the Signal Station at Mt. Victoria.
- (b) Signals at Birkenhead and Northcote to be operated from the Harbourmaster's Office on Queens Wharf, in conjunction with the existing system for the Southern Shore.

The estimated cost of the installation is £200 and the extra rental for land lines would be approximately £80 per amum at existing P. & T. rates (which will probably be increased soon).

At present the annual rental for lines controlling fog signals on the Southern Shore is £65.8.3.

The Company also asks for some alteration in the signal at Northcote Wharf where difficulty is experienced through the echo from the surrounding cliffs. Experiments are being made with baffle boards to try to prevent this, but it is advisable to replace the present whistle by a suitable bell at an estimated cost of approximately £75.

I recommend that the alterations as outlined above be authorised.

ENGINEER TO THE BOARD.

NLV/LR.

Auckland Harbour Board.

MEMORANDUM

To

From

The Electrical Engineer

....

7th May, 1951

1000

THE ENGINEER

FOG SIGNALS

I recommend that new fog syrens be purchased for use at the end of the Eastern Tide Deflector and at Stanley Bay. Complaints regarding both these syrens have been received from the Ferry Coy., and both have deteriorated in condition so that maintenance is excessive.

I have conducted trials with two syrens supplied on approval by Messrs. A. & T. Burt. While these trials are not conclusive, owing to the impracticability of conducting trials in fog, I consider that the syrens should be satisfactory and, therefore, recommend their purchase.

The syren proposed for the Tide Deflector is pitched higher than the old and is roughly the same power. The syren for Stanley Bay is also pitched higher than the old syren, and is about three times as powerful. The pitch and timing of the two new syrens is distinctive, and there should be no danger of confusion between the two.

A covering requisition is attached.

Sphoetes.

TGP/AWJ

Electrical Engineer

Lagree to the above proposals.

To file - Regar approved by MeVasion

Ferrymen Worried Over Standard

Of Fog Signals

Auckland ferrymasters are worried about the efficiency of fog signals in the Waitemata Harbour. The president of the Ferrymasters' Council, Captain F. Mansfield, said today that for months the council had been urging the Harbour Board to put signals in working order, but had received "nothing but evasions and promises."

He quoted the Northcote fog signal

He quoted the Northcote fog signal as an example. "We have found that there is an echo off the cliffs, which gives us a false direction, he said. "We cannot depend on it. We have asked the board to erect baffle plates—simple things that would direct the sound free of the echo from the hills—but nothing has come of it."

the hills—but nothing has come of it."

No lights and no fog signals were operating at Mechanics' Bay on a recent morning, he added. It had become the practice to switch off lights on the eastern tide deflector half an hour before daylight.

The first Stanley Bay service was run without the aid of sound signals because the onus had been placed on the master to switch on the fog signal after he had done the first trip, said Captain Mansfield. "As any master will testify, the first trip in the fog is the worse."

Ferrymasters had been instructed by the directors of the Devonport Steam Ferry Company, Ltd., to take no risks, he added. They had been told to depend entirely on their initiative.

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

THE FOREMAN OF WORKS To

Date 21st April, 19 50.

Subject FOG SIGNAL - NORTHCOTE WHARF M/A.

Please arrange for a suitable sound board to be erected at Northcote Wharf fog whistle, to the Electrical Engineer's requirements.

WJT/LR.

Auckland Harbour Board

MEMORANDUM

From

31st May, 1949

The Electrical Engineer

THE ENGINEER

FOG SIGNALS - REMOTE CONTROL FROM NORTH SHORE

I have investigated further the question of providing remote control for fog signals on the North Shore in the terms of the Devenport Steam Ferry Coy's letter dated 24th May.

2. A revised estimate of the annual rental for control lines has been received from the Post & Telegraph Dept. The following is the most suitable and cheapest arrangement, and as such is recommended for adoption.

ordered 5 lines. Epil + 47. in 19us.

- Transfer existing 4-line control panel from Harbourmaster's office, Queen's Wharf, to Mt. Victoria, for control over separate lines of fog signals at Devonport, Naval Base, Stanley Bay and Bayswater.
- Purchase similar new control panel for Queen's Wharf, but (b) having one extra line for party line control of Northcote of and Birkenhead fog signals, plus one spare, and provision for two future signals if and when required.
- The total estimated cost of additional material and labour is £150.0.0d. The additional annual line rental total would be about £80.0.0d.
- The annual rental for lines controlling fog signals on the South Shore as at present is £65. 8. 3d total.

TGP/AWJ

Electrical Engineer

? Would D.S.T. Co meet cay "he annual line until .

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Auckland Harbour Board

MEMORANDUM

From

7th February, 1949

The Electrical Engineer

To

THE ENGINEER

FOG SIGNALS -REMOTE CONTROL FOR NORTH SHORE

The fog signals on the South Shore are remote controlled from the Harbourmaster's office at Queen's Wharf. The fog signals on the North Shore wharves are controlled by Ferry Coy. employees, and on the Training Pier by the Navy.

2. As it has appeared desirable to bring these under control by the Harbourmaster, a scheme has been investigated in a preliminary manner with a view to ascertaining the cost involved. The cheapest scheme would appear to involve the Board in an annual expenditure of between £120. 0. 0d. and £150. 0.0d. Complaints from the Ferry skippers regarding the existing system have not been official, and it does not appear that the advantage of bringing the control directly under the Harbourmaster is such as to warrant the expenditure required.

TGP/AWJ

Electrical Engineer

FOG SIGNAL - BAYSWATER WHARF.

INSTALLATION OF FOG BELL ON OUTER SOUTHERN DOLPHIN,

SEE FILE NO. 852/7.

Auckland Harbour Board **MEMORANDUM**

FROM The Electrical Engineer

To

8th March.

1948

THE ENGINEER

FOG APPROACH LIGHTS - FERRY WHARVES

My attention was drawn by Capt. J. Thode to an article in "Radio and Electronics" regarding developments in air-port approach light systems. It appeared that such lights, if practicable, might facilitate working of the Ferries in severe fog conditions in the early morning.

- The proposition was put up tentatively to Messrs. Chance Londex, B.T.H. and G.E.C. through their local Agents, together with sketch EL/S 65 attached. It was suggested that a five kilowatt compact source mercury discharge lamp of approximately five kilowatts in an inexpensive fitting might meet requirements.
- Replies indicate that developments in England have not at present progressed sufficiently far for any offers to be made to the Board.
- The matter does not appear to be of sufficient importance to warrant further investigation through American channels, and this memo is offered for record and file purposes only.

TGP/AWJ

Electrical Engineer

APPROX. TRACK OF FERRIES LIGHT BEAM LIGHT BEAM FOG SIGNAL FOG SIGNAL WHISTLE & LIGHT BELL & LIGHT QUEEN S PRINCE'S AUCKLAND HARBOUR BOARD ELECTRICAL DEPARTMENT. FOG APPROACH LIGHTS QUEENS AND PRINCES WHARVES APPROVED S 5 12.47 DRAWING Nº TRACED EL/565

SCALE 400': 1"

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

The Electrical Engineer,

Date 16th January, 19 48.

Subject FOG WHISTLE, NORTHCOTE WHARF M/A.

It is reported that this whistle is not nearly as effective as those on the other wharves, that its tone is poor and it is too far back from the face of the wharf.

Please see how it can be improved.



Copy sent to Mr. Edwards.

15th November, 1945.

The Chief Engineer,
Auckland Electric-Power Board,
Private Bag,
C.P.O., AUCKLAND, C.1.

Dear Sir,

Re FOG SIGNALS

I have to thank you for your letter of 12th November intimating that a switch wire could be run along the power pole line between Western Wharf and the Western Vehicular Ferry Landing.

I would be glad if you will have this work put in hand and charge the cost against the Board.

Lead and return wires of approximately 7/.036 section are required and Mr. S. Edwards will indicate the positions for terminals. Official order No.N.168 herewith.

Yours faithfully,

ENCL:

SUPERINTENDENT & ENGINEER.

The Auckland Electric-power Board

R. H. BARTLEY M.I.E. E., M.I.M.E. GENERAL MANAGER

ADDRESS CORRESPONDENCE TO GENERAL MANAGER OR SECRETARY AOG/EA



Private Rag C. P.O. Auchland C.1.N. Z.

Superintendent & Engineer, Auckland Harbour Board, AUCKLAND, C.1.

12th.November, 1945.

Dear Sir,

Re Fog Signals.

We acknowledge receipt of your letter of the 5th. November in connection with the erection of a switch wire for Fog Signals between Western Wharf and the Western Vehicular Ferry landing.

We have sufficient space available on our poles for this line, and would be pleased to erect it and charge cost to your Board on receipt of your official advice to proceed with the work.

1/036 ample capacity Seader return wires myd.

Yours faithfully,

CHIEF ENGINEER, For GENERAL MANAGER. R. H. Bartley, Esq., General Manager, Auckland Electric-Power Board, Queen Street, AUCKLAND, C.1. 5th November, 1945.

Dear Mr. Bartley,

FOG SIGNALS

This Board is installing a system for remote control of fog signals on the waterfront, and in this connection it is necessary to run a 230 volt switch wire from Western Wharf to the Western Vehicular Ferry Landings. The most suitable way to do this is to run it on spike insulators on the existing power pole line as shown in red on the accompanying sketch.

I shall be glad to know if permission can be given for this to be done.

Yours faithfully,

ENCL: 1. DH: AML.

SUPERINTENDENT & ENGINEER.

2nd November, 1945. The Chairman, A. H. B. FOG SIGNALS. As previously reported the new fog signals have been installed at Birkenhead, Northcote, Bayswater and Stanley Bay on the North Shore, and on Princes Wharf on the Southern side of the Harbour. All but two of the fog signals on the South side have been connected up to the central control board and these will be completed in the near future. BAYSWATER. It would now be possible to obtain and lay a submarine cable and to transfer the Bayswater signal to the outer channel beacon, the estimated cost of cable and installation being approximately $\pounds 450$. I recommend this work be put in hand. Alderices Superintendent and Engineer. DH.MJ



Auckland University College

(UNIVERSITY OF NEW ZEALAND)

Auckland, C1, 7th September, 1945.

N. L. Vickerman Esq., Engineer, Auckland Harbour Board, Quay St., AUCKLAND. C.I.

Dear Mr. Vickerman,

Please find enclosed report relating to the use of infrared rays for tracking aircraft or other vehicles in fog.

When you have finished reading it would you kindly return to Graham Bell and discuss with him the question of a demonstration.

With kindest regards,

Yours sincerely,

Returned & Gffell.

of Vietherman

Auckland Technical Development Branch, Dept. of Scientific & Industrial Research, Box 2225, Auckland J.1.. 26th September, 1945.

MEMO. FOR:

Chairman Inventions Board, Army Headquarters, / WELLINGTON C.1.

Invention Cpl. Grace - Job No. E446

Further to my previous letter of 27/8/45 on the above subject enclosing a report on tests carried out recently I beg to say that, on a suggestion of Professor Leech. the invention has been brought to the attention of Mr. Drummond Holderness M. Inst. C.E., Superintendent, and Mr. N.L. Vickerman Am. Inst. C.E., Engineer, Auckland Harbour Board. Professor Leech, after seeing a demonstration of the apparatus, suggested that the invention could be very usefully applied to the navigation of ferry boats in busy harbours under conditions of fog. He quoted experience in Sydney and in Auckland itself. Messrs. Holderness and Vickerman, after perusal of the report, stated that they were quite satisifed that the invention was sound in principle, but they felt that the next step should be that of determining the power of the source required and the accuracy with which a beam can be laid down through heavy fog to the range that would be required for practical navigational purposes. They consider that it would be well for the Inventions Board to investigate this aspect so that, if satisfactory results were obtained, further development work could be done on Cpl. Grace's invention.

I am in complete agreement with them and beg to recommend that action be taken accordingly.

S/L., Director. The Manager,
Devonport Steam Ferry Co., Ltd.,
Ferry Building,
AUCKLAND, C.1.

7th September, 1945.

Dear Sir,

FOG SIGNAL, BAYSWATER WHARF

Herewith key of switch box for the fog signal on Bayswater Wharf, which is now available for use. As for other North Shore wharves, I should be glad if you would arrange for these signals to be switched on and off as required.

Yours faithfully,

SUPERINTENDENT & ENGINEER.

ENCL: 1 key. DH:AML.

26th July, 1945.

The Manager,
Devonport Steam Ferry Co., Ltd.,
Ferry Building,
AUCKLAND, C.1.

Dear Sir,

FOG SIGNAL, STANLEY BAY WHARF

Herewith key of switch box for the fog signal on Stanley Bay Wharf, which is now available for use. As for other North Shore wharves, I should be glad if you would arrange for these signals to be switched on and off as required.

Yours faithfully,

SUPERINTENDENT & ENGINEER.

ENCL: 1 key.

AUCKLAND HARBOUR BOARD No 5685 Memorandum From to INSPECTOR AT THE ENGINEER I beg to report that tog-whistle. Shanley Bay Whanf. I his instablation is complete Tim wavehing order. The control-switch is in a locked box located on the outside wall of the womens waiting eroom. Milaylor to Milaylor (Cape Gorber Mile) D. Emercely Signature

Standard Telephones and Cables Pty. Ltd.

(Incorporated in N.S.W.)
WELLINGTON, N.Z.

OUR REF. JHP/LMH

Date 17th July, 1945

YOUR REF.

SUBJECT Remote Control Equipment for Fog Signals.

Mr. D. Holderness Superintendent and Engineer Auckland Harbour Board P.O. Box 1259 AUCKLAND.

Dear Sir;

The remote control equipment for fog signals has now been completed, and tested, and is being forwarded today. Two copies of the schematic circuit are attached. The equipment is designed to work off a 12 volt battery, and the line loop resistance must not exceed 600 ohms.

The terminal strips in the control panel and relay panels are designated, and care must be taken to ensure that the (A) and (B) lines are not reversed between the control panel and the relay panel when they are connected together. The earth connections should be made by means of a clip to a water pipe.

Should you require any further information concerning the equipment, we shall be pleased to furnish same. We trust you will find the equipment satisfactory in every way, and we should be glad if you would advise us as to its performance after installation and tests have been completed.

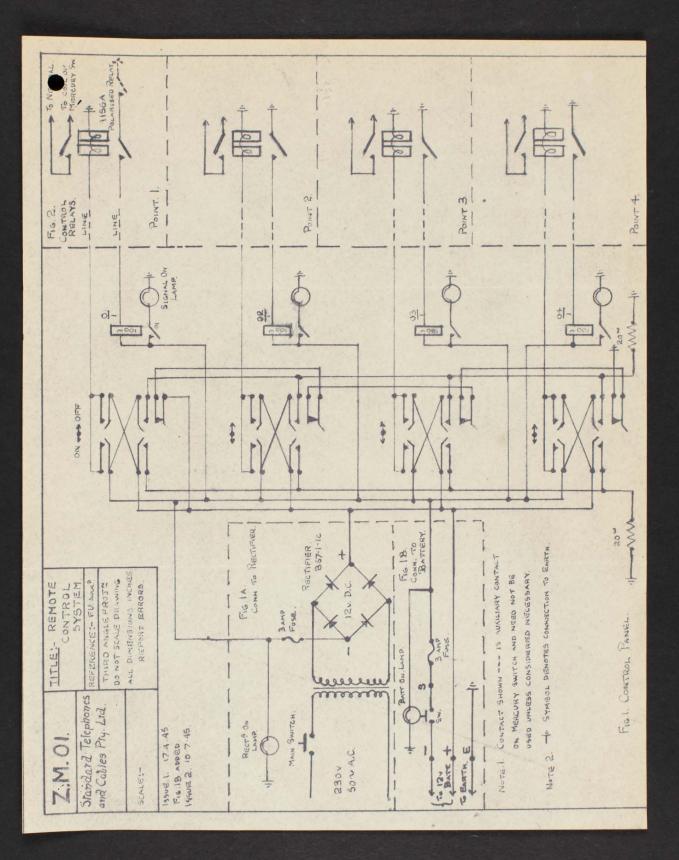
Yours faithfully,

STANDARD TELEPHONES & CABLES PTY.LTD.

J. H. PRICKETT

Copied for reformer

187



3rd July, 1945.

The Manager,
Devonport Steam Ferry Co., Ltd.,
Ferry Building,
AUCKLAND,
C.1.

Dear Sir,

NORTHCOTE WHARF - FOG SIGNAL

Herewith key of switch box for the Northcote fog signal, which is now available for use. The signal is installed at the outer end of the waiting room with the switch box immediately below.

As for Birkenhead, I shall be glad if you will arrange for this signal to be switched on and off as required.

Yours faithfully,

SUPERINTENDENT & ENGINEER.

DH: AML.

460

The District Engineer,
Post & Telegraph Department,
P. O. Box 1034,
AUCKLAND, C.1.

26th June, 1945.

Dear Sir,

YOUR T.E. AK. 1/465

As requested, I return herewith signed application for provision of circuits for operation of fog signals.

It is assumed that annual rental will be in accordance with the figures quoted in your letter dated 7th May, 1945.

Yours faithfully,

SUPERINTENDENT & ENGINEER.

ENCL: 1. DH: AML. T. E. AK. 1/465

POST AND TELEGRAPH DEPARTMENT.

Alemorandum for

District Engineer's Office, P.O. Box 1034, Auckland, C.1. 20th June, 1945.

The Superintendent and Engineer,
Auckland Harbour Board,
P.O. 1259,
AUCKLAND, C.1.

Dear Sirs,

Further to my letter of the 5th instant having reference to the provision of circuits for the operation of fog siren devices, I have to advise that the necessary approval has now been obtained from my Head Office, and it is desired that the attached application form be completed and returned to this office to enable the work to be put in hand.

Yours faithfully,

ENCL.

Wolcownang District Engineer.

COPY SEE ALSO SECRETARY'S FILE 23rd June, 1945. The Manager, Devonport Steam Ferry Co., Ltd., F. C. Box 505, A U C K L A N D. C.1. Dear Sir. FOG SIGNAL - BIRKENHEAD WHARF An electrically operated fog-signal has been installed on Birkenhead Wharf and is now available for use. It is understood that the switching on and off of this signal will be attended to by the Masters of your vessels and for this purpose a key of the box in which the switch is installed has been handed to Captain O'Connor. The fog signal is erected above the eastern end of the new shelter recently prected and the switch - in its box - is installed directly below the signal. I shall be glad of your co-operation in the matter of switching the signal on and off as circumstances may require. Should you require an additional key or keys please let me know and I will have them cut and delivered to you. Yours faithfully, SUPERINTENDENT & ENGINEER. DH/JM

IN REPLYING PLEASE QUOTE THE NUMBER HEREUNDER CORRESPONDENCE SHOULD BE ADDRESSED TO ANOFFICE OF HIS AREA PLANTICE AND ANOTHER PROPERTY.

AND ANOTHER PROPERTY OF THE NUMBER P



DOMINION OF NEW ZEALAND

POST AND TELEGRAPH DEPARTMENT.

District Engineer's Office, P.O. Box 1034, Auckland, C.1. 5th June, 1945.

The Superintendent & Engineer,
Auckland Harbour Board,
P.O. Box 1029,
AUCKLAND, C.1.

Dear Sir,

In reply to your letter of the 24th ultimo, having reference to the provision of circuits for the operation of fog siren devices,

I have to advise that this matter has now been referred to my Head

Office for the necessary approval, and as soon as this is forthcoming,
you will be advised.

Yours faithfully,

District Engineer.

jb)

7th June, 1945.

The Manager, Standard Telephones & Cables Pty. Ltd., Box 638, WELLINGTON, C.1.

Dear Sir:

YOUR Q. 5385

Please supply equipment as quoted in your letters of 19th April, 1st May and 29th May, 1945, for the revised price of £47: 0: Od F.O.R. Wellington.

It is noted that the polarised relays to be provided will have heavy duty silver contacts capable of carrying 12 amp at 230 volts, and it is agreed that this will be quite satisfactory.

Purchasing Officer's official order No.1326 enclosed.

Yours faithfully,

ENCL: 1. DH: AML. SUPERINTENDENT & ENGINEER.

From		THE ENGINEER		
	I beg to report that Remote control of fog-rignals. Putter from Standard Telephones TC. Deted 29 may 45 The heavy anty revitch, fitted to the polanical relays, has sufficient exposeity to handle the any of the existing on produced fog- gears. This cleans up a point I maned in my supout dated 3 nd may 145. Signature			

Standard Telephones and Cables Pty. Ltd.

LONDON OFFICE CONNAUGHT HOUSE ALDWYCH LONDON, W.C.2

TROJAN HOUSE, 125-9 MANNERS STREET, WELLINGTON, C.1

POSTAL ADDRESS: BOX 638, G.P.O., WELLINGTON, N.Z.

TELEPHONE 56-115 TELEGRAPHIC ADDRESS CABLEGRAMS:

29th May, 1945.

Mr. D. Holderness Superintendent and Engineer Auckland Harbour Board G.P.O. Box 1259 AUCKLAND

Our Q. 5385

Dear Sir;

We thank you for your letter of the 24th inst and note that your official order will be forwarded to us. The work will be put in hand immediately.

As A.C. is not available it will not be necessary to provide the rectifier and transformer on the main control panel. Instead a pair of terminals will be provided for connection to a 12 volt battery or suitable generator. The maximum current drain at 12 volts will be 1 amp, assuming all five signals are working, during the period of their operation.

Our offer does not include mercury power relays, but the polarised relays provided will have a heavy duty silver contact capable of carrying 12 amps at 230 volts. If the siren motors do not take more than this amount of current, mercury switches should not be necessary.

The control panel will have five circuits, and five polarised relays will be provided.

In view of the elimination of the rectifier and transformer, the price for the complete equipment will be £47. 0. 0.

Yours faithfully,

STANDARD TELEPHONES & CABLES PTY. LTD.

J. H. PRICKETT.

JHP/IMH

	to THE ENGINEER
in the Houlemen master . The control se centeralized control .	outual witch is located wi gear stone Shed W 21. witch is (pending unfrencted from the ceiling was dise manhed tog-whate.

The Manager,
Devonport Steam Ferry Co., Ltd.,
Ferry Buildings,
AUCKLAND,
C.1.

25th May, 1945.

Dear Sir,

FOG SIGNAL

The extra fog signal asked for by your masters at Prince's Wharf is ready for installation. It had been intended to place this at the north-east corner on the roof of Shed 21, but I am led to understand that the ferry masters would prefer it to be located at the centre of the runway between Sheds 21 and 24, where it will be masked after the vessels entering the basin have passed inside the end of the shed.

Please let me know just where you consider the signal should be located, so that it may be permanently fixed in position and put into operation.

Yours faithfully,

SUPERINTENDENT & ENGINEER.

DH: AML.

Copy sent to Purchasing Officer.

Messrs. Standard Telephones & Cables Pty. Ltd., Box 638, G.P.O.,

24th May, 1945.

WELLINGTON, C.1.

Dear Sir.

Further to our correspondence re remote control of signalling appearatus in this harbour, I have to advise you that the work is to proceed and that an official order for the equipment to be supplied by you will be forwarded by the Purchasing Officer.

I would, however, call your attention to the fact that A.C. is not available on the Board's wharves which are supplied throughout with D.C., so that it will be necessary to substitute an accumulator or small motor generator for the A.C. supply contemplated in your proposals. We have a suitable generator for the purpose and will have no difficulty in obtaining a motor, so that you will not need to do anything in this regard.

It is not quite clear from your letters, but it is assumed that you have included in your offer the actual power relays (mercury switches) to close the supply circuits to the respective fog signals. I shall be glad of your confirmation on this point.

I also wish to make it quite clear that there will now be five sets of relays as indicated in my letter of 26th April instead of four as originally asked for, and that the control panel will be altered accordingly.

I shall be glad if you will put the work in hand and give delivery as soon as possible, as the season when fogs are experienced in Auckland is now upon us and I am anxious to have the centralized control in operation as soon as it can be done.

Please advise me whether there will be any variation in the price quoted as the result of the matters referred to above.

Yours faithfully.

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

To Mr. S. Edwards, Chief Electrician.

Date 24th May, 1945.

Subject FOG SIGNALS - CENTRALIZED CONTROL.

The centralization of control in the Harbourmaster's office, Shed 16, Queen's Wharf, of the fog signals at -

1 signer.

Western Vehicular Landing,
Western Reclamation,
Prince's Wharf,
Queen's Wharf,
King's Wharf,
Eastern Vehicular Ferry Landing,
Eastern Breakwater.

is now to be proceeded with.

and

Control panel and relay equipment has been ordered from Standard Telephones & Cables Pty. Ltd. and arrangements have been made with the P. & T. Department for the use of circuits.

Please push this work ahead so as to bring the centralized control into operation as soon as possible.

Engineer to the Board.

The District Engineer, Post & Telegraph Dept., P. O. Box 1034, AUCKLAND, C.1.

24th May, 1945.

Dear Sir,

Your T.E. AK. 1/465

Your letter as above dated 7th instant, stating that your Department is able to provide circuits for operation of fog warning devices, has been received.

It is noted that the estimated annual rental will be £66:10: Od.

I have to thank you for your assistance in this matter, and to state that the Board has decided to proceed with the installation immediately, or as soon as the various relays and other equipment required are available.

Mr. Edwards, the Board's Electrician, will keep in touch with your officers and arrange details. In the meantime I shall be glad to know whether there is any special form of application to be filled in before the installation can proceed.

Yours faithfully,

DH: AML.

SUPERINTENDENT & ENGINEER.

17th May, 1945. The Chairman, A. H. B. FOG SIGNALS. Advice has now been received that the Post and Telegraph Department is willing to provide telephone circuits suitable for the operation of relays so that fog signals on the south side of the harbour - excepting the Westhaven breakwater signal - may be switched on and off from the Harbourmaster's Office, Queen's Wharf. The cost of the necessary relays and installation approximately £100 and the charge by the Post and Telegraph Department for use of circuits £66.10. O per annum. of circuits ... ··· The cost and annual charges include for the control of an additional signal at the outer end of Princes Wharf, which, although not asked for when the original proposals were put forward, has subsequently been requested by the Ferry Boat Masters with the support of the Manager of the Gompany. The Harbourmaster agrees that this would be a benefit and its installation at an estimated extra cost of £80, together with the centralised control, is recommended for immediate prosecution. It is recommended also that electrically operated fog signals be made up and installed at Birkenhead, Northcote, Bayswater and Stanley Bay Wharves at an estimated cost of £80 per wharf. By concentrating the sound from the fog signal on Bayswater Wharf along the dredged channel it may be found unnecessary to instal additional devices on the outer beacon and I recommend that further action in this regard be deferred pending results of the fog signal on the wharf being Millower observed. Superintendent and Engineer. BOARD'S RESOLUTION DATED, 29th. MAY, 1945. That the report be adopted. DH. MIJ

IN REPLYING PLEASE QUOTE THE NUMBER HEREUNDER CORRESPONDENCE SHOULD BE ADDRESSED TO AN OFFICER BY HIS OFFICIAL TITLE, NOT BY HIS NAME



DOMINION OF NEW ZEALAND

T.E.AK. 1/465.

POST AND TELEGRAPH DEPARTMENT.

District Engineer's Office, P.O. Box 1034, AUCKLAND, C.1. 7th May, 1945.

The Superintendent & Engineer, Auckland Harbour Board, Quay Street, AUCKLAND, C.1.

Dear Sir,

With reference to your letter of the 28th March regarding the utilisation of this Department's circuits in the operation of the fog warning devices installed at various points on the City side of the harbour: I have to inform you that this can be arranged at an estimated annual rental of £66.10s.0d.

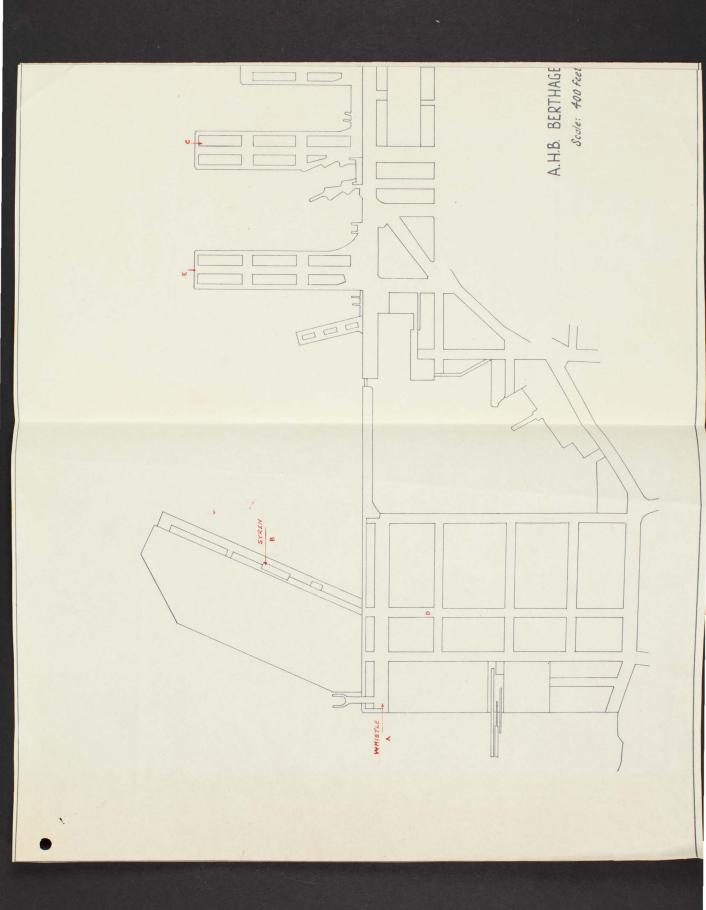
The following list, to be used in conjunction with the lettered plan, is given to assist in the allocation of cost to each separate installation .-

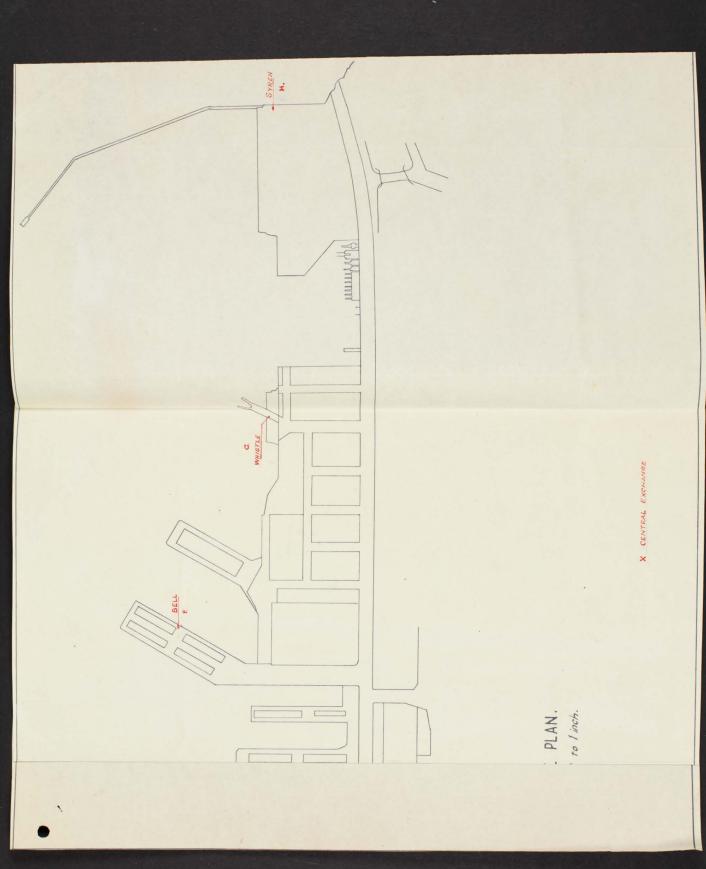
Alarm.	Route.	Estimated.
& Buckwell Mechanic's Bay Devonport Vehicular Ferry.	H - X - C G - X - C	£16. 0. 0d £13. 0. 0d
King's Wharf Princes Wharf Western Wharf	F - X - C E - X - C B - D - X - C	£11. 0. 0d annul Retul £11. 0. 0d so per 9. 4. 9.
WWL. Northcote Ferry	A - D - X - C)	£15.10. Od £66.10. Od - L65.8.3/

Yours faithfully,

District Engineer.

Annual Bantal





MEMORANDUM

FROM

Electrician's Office,

To

3rd May

1945

Auckland Harbour Board.

THE ENGINEER

REMOTE CONTROL OF FOG-SYREN, BELLS AND WHISTLES

FROM HARBOUR MASTERS OFFICE QUEENS WHARF.

Control circuits as set out on the Wiring Diagram supplied by Messrs Standard Telephones and Cables Ltd., would give the service required. They, however, indicate a supply from an A. C. source, as this is not available on Queens Wharf it would be necessary to substitute an accumulator or small motor generator. We have a suitable generator for the purpose but it would be necessary to purchase a motor, also their proposal does not include the actual power relay (mercury switch) to close the supply circuit of the fog-signal. If they have no suitable apparatus for the purpose we would have to make them.

The local Telegraph Engineer's Office raised the question as to whether it would not be better to supplement the visual return signal with an audible one. To this end they suggest placing amicrophone close to the fog-signal itself. Additional relays would then be necessary, also, as the relays are to be installed a considerable distance away from the actual fog-signals, particuarly in the case of the Eastern and Western gears, it would be necessary to install special wiring to the microphones, this together with the additional relays would add considerably to the cost.

On the other hand the main fog-signals are audible at the Queens Wharf tower and as the control proposed by the Standard Telephones and Cables Ltd. permits of each gear being switched on or off separately, it should then be possible for the Officer on watch to listen for each gear as he switched it on, this action, together with the sight-signal indicating that the relay had operated, should be even more reliable than a sound signal over the land line. Over a considerable number of years my experience is that fog-signals start up when switched on, failure is generally due to faults developing after the gear has started up.

WESTHAVEN:- I have recently been informed that the Caretaker at Westhaven only controls the Boat-harbour-wall bell when on duty during the day. At night time a Watchman is sent by taxi from the wharf office to attend to the control. Messrs Standard Telephones and Cables Ltd., point out that their control will operate only on a line having a resistance below a specified figure. In the case of Westhaven it may be found that the length of land line maybe excessive and in that case it appears that some arrangement should be made with the caretaker to operate the control when instructed to do so by a telephone communication.

CHIEF ELECTRICIAN.

Standard Telephones and Cables Pty. Ltd.

(Incorporated in N.S.W.)
WELLINGTON, N.Z.

OUR REF. JHP/IMH

YOUR REF. SUBJECT.

SUBJECT.

Mr. D. Holderness
Superintendent and Engineer
Auckland Harbour Board
G.P.O. Box 1259
AUCKLAND.

Dear Sir;

We have received your letter of the 26th April and are pleased to note that you intend to order the equipment as soon as the necessary assurance regarding circuits is received from the Post & Telegraph Department.

We shall be pleased to provide 5 sets of relays in accordance with your revised requirements, the price for the complete equipment being £52/10/-.

We shall expect to receive your order in due course.

Yours faithfully.

STANDARD TELEPHONES & CABLES PTY.LTD.

J. H. PRICKETT.

Messrs. Standard Telephones & Cables
Pty. Ltd.,
G.P.O. Box 638,
WELLINGTON, C.1.

26th April, 1945.

Dear Sire,

Your letter and quotation in connection with the provision of relays, etc., for remote control of fog signals has been received.

I am still awaiting an assurance from the P. & T. Department that they can provide the necessary circuits and, as soon as this comes to hand, I will send you formal instructions to proceed with the work.

Since submitting the proposals to you, it has been decided to instal an additional fog signal at the outer end of Prince's wharf so that it will now be necessary to have five sets of relays operated from the central control station, and I shall be glad if you will revise your quotation accordingly.

Yours faithfully,

DH: AML.

SUPERINTENDENT & ENGINEER.

Standard Telephones and Cables Pty. Ltd.

[Incorporated in N.S.W.]

LONDON OFFICE CONNAUGHT HOUSE ALDWYCH LONDON, W.C.2 TROJAN HOUSE, 125-9 MANNERS STREET, WELLINGTON, C.1

POSTAL ADDRESS:
BOX 638, G.P.O., WELLINGTON, N.Z.

TELEPHONE 56-115
TELEGRAPHIC ADDRESS
"RELAY," WELLINGTON
CABLEGRAMS:
"RELAY," WELLINGTON

19th April, 1945.

Mr. D. Holderness Superintendent and Engineer Auckland Harbour Board G.P.O. Box 1259 AUCKLAND C.1

Dear Sir;

Further to our letter of the 3rd inst. we have now developed a scheme which we consider will meet the requirements you have laid down for the remote control of signalling apparatus.

A copy of the proposed schematic circuit is attached. The circuit has been tested out in our laboratory and operates successfully provided the resistance of the line loop does not exceed 600 ohms.

The apparatus would consist of a control panel which would be installed at the central point, and four polarised relays which would be installed one at each end of the points where control is to be exercised.

The Control Panel would consist of a case for wall mounting, made of 5 ply wood and painted or varnished to meet your requirements. In this would be mounted the transformer and rectifier, and the keys, relays, etc. associated with the four circuits. The main switch, four non locking key switches, and signal lamps would be mounted on the front panel. The internal wiring would be brought out to suitable terminals, which would be designated.

In order to switch on the signals, it would be necessary first to close the main switch. When this is done the "Rectifier On" lamp would glow, and remain alight while the panel was in operation. The four circuits could then be energised by throwing the corresponding key to the "on" position, from which it will automatically restore itself to the normal position. This would actuate the polarised relay at the distant end.

The operation of the polarised relay would close the circuit for the coil of the mercury switch, and send an earth back over the second

wire to operate the "O" relay in the control panel. The operation of this relay would light the "Signal On" lamp for that particular circuit, and indicate that the starting circuit at the distant end was closed. As an added precaution an auxiliary contact could be fitted to the mercury switch and the earth to the polarised relay fed over this contact. The signal would not then be received at the control panel until both the polarised relay and the mercury switch had operated. This additional contact is shown on the attached drawing in dotted lines for Point 1.

The "Signal On" lamp would remain alight during the time the signal was working ${\scriptstyle \bullet}$

When it was desired to shut down the signal, the corresponding key would be thrown to the off position, from which it would again restore to normal. The polarised relay at the distant end would open the circuit and the "Signal On" lamp would go out.

The polarised relays would be mounted in wooden boxes painted grey, and wired to terminals suitably designated, the boxes being arranged for wall mounting.

Price and Delivery

Our price for the complete equipment as outlined would be £45.0.0, F.O.R. Wellington, exclusive of sales tax, and delivery could be made in 8 weeks after receipt of an order.

Wiring diagrams for the main and relay panels will be provided with the equipment.

We trust this proposal will meet with your approval and we shall hope to receive your esteemed order in due course.

Thanking you in anticipation.

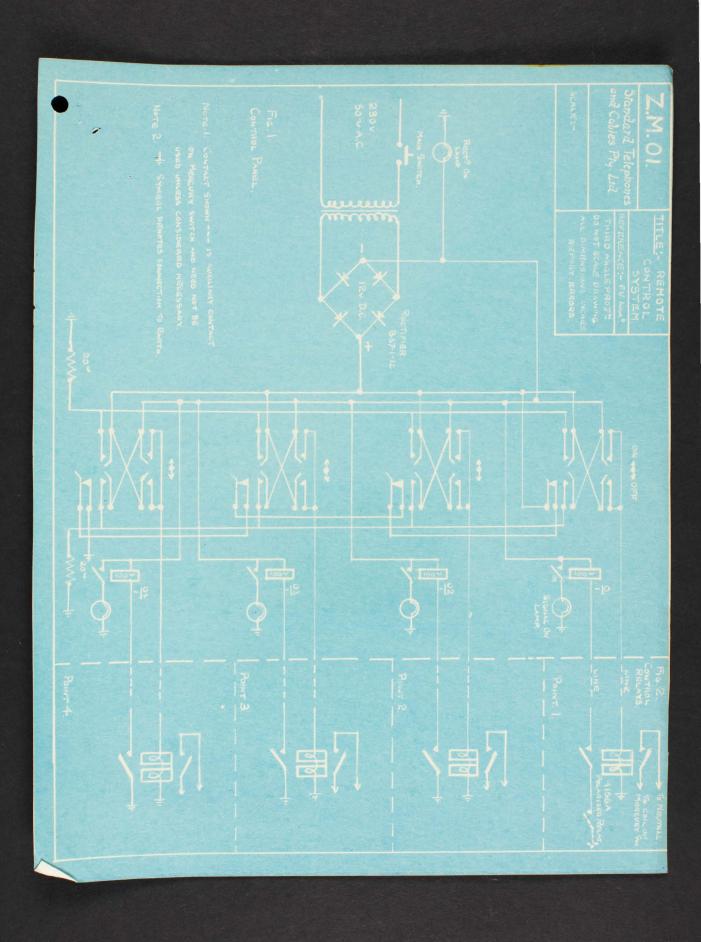
We remain.

Yours faithfully,

STANDARD TELEPHONES & CABLES PTY. LTD.

J. H. PRICKETT.

JHP/LMH



INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE.

To The Chief Electrician.

Date 18th April, 1945.

Subject FOG SIGNALS, OUTLYING WHARVES.

Following our telephone conversation to-day, 18th instant, please make every effort to have five fog whistles erected and in working order in six weeks from date.

I will discuss the location of the fifth signal with you personally.

New Fog Signals

A start has been made with the installation of electrically-operated fog signals for the Birkenhead. Northcote, Bayswater and Stanley Bay wharves. A decision to erect these signals, at an estimated cost of £80 each, was made at a recent meeting of the Auckland Harbour Board. It was also decided to instal a similar signal at the end of Prince's Wharf to assist the ferry masters.

Engineer to the Board.

7th April 1945.

Messrs. Standard Telephones and Cables Pty. Ltd., Box 638, G.P.O. Wellington.

Dear Sirs,

Your letter of the 3rd instant received. In reply to your enquiries number 1 to 4: -

- 1. Your interpretation is correct.
- 2. Your relays would be required to operate (say) 10 amp mercury switches.
- 3. It would, of course, be more satisfactory if indication could be given at the Central Control Station that each individual warning device was functioning. It is recognized however that this would be very difficult and complicated and it will be satisfactory if the indicator merely shows when the starter is in the "on" position.
- 4. Your interpretation is correct.

I am pleased to learn that with these points cleared up you will be able to submit a scheme for approval at an early date.

Yours faithfully,

SUPERINTENDENT & ENGINEER.

Standard Telephones and Cables Pty. Ltd.

[Incorporated in N.S.W.]

TROJAN HOUSE,

TROJAN HOUSE,

125-9 MANNERS STREET, WELLINGTON, C.1

TELEPHONE

ALDWYCH

LONDON, W.C. 2

BOX 638, G.P.O., WELLINGTON, N.Z.

CABLE

"RELAY,

"RELAY,

TELEPHONE 56-115
TELEGRAPHIC ADDRESS
"RELAY," WELLINGTON
CABLEGRAMS:
"RELAY," WELLINGTON

3rd April, 1945.

Mr. D. Holderness
Superintendent and Engineer
Auckland Harbour Board
Box 1259
G.P.O.
AUCKLAND C.1

Dear Sir;

wyloans

We have received your kind enquiry regarding a remote control system for the purpose of controlling warning devices in Auckland Harbour during fog, and in connection therewith would be glad if you would give us some further information on the following points.

- 1. The syren and whistle on Western Wharf would be controlled by a common starting circuit situated at the shore end of Western Wharf, from where a pair of wires would run to the central control station. Is this correct?
 - Are the various motors at present controlled by solenoid contactor starting switches or switches only?
- 3. It is proposed that a visual signal be transmitted back to the central control station operated from the contactor starter switch, which would remain visible during the period of operation. This would indicate that the starter was in the "on" position but would not of necessity indicate that the device was functioning, due to the possibility of a failure in the local power circuit. Would this be considered satisfactory?
- 4. Are we correct in assuming that an independent pair of lines would be available from the central station to each of the following points.
 - (a) The shore end of Western wharf.
 - (b) Bell on Kings Wharf.
 - (c) Whistle on vehicular landing near Parnell Wharf.
 - (d) Syren beyond Parnell Wharf.

may be a acced Briners Way.

T. & C. PTY. LTD. Letter dated 3.4.45 Sheet 2 If you would be kind enough to furnish us with this additional information it will assist us in the preparation of a scheme, which we shall hope to submit for your approval at an early date. Yours faithfully, STANDARD TELEPHONES & CABLES PTY. LTD. J. H. PRICKETT MANAGER. JHP/LMH

28th. March. 1945. The District Engineer, Post and Telegraph Department, POST OFFICE - AUCKLAND, Cl Dear Sir. The Auckland Harbour Board has installed and operates a number of warning devices which are used to assist ferry boats and other vessels to find their way about the harbour and to keep clear of obstructions during fogs. Each of these pieces of mechanism is an independent unit controlled by its own switch and it has been necessary whenever a fog occurs for a man or men to be sent to the various stations to switch them on. After the fog has dispersed a similar visit must be made to switch them off. Because there are only an average of about eight fogs per year, it has until recently not been considered necessary or economical to bring the control points of these widely scatted units to the central station at the Harbour Master's Office on Queen's Wharf where there is a continuous watch on duty, but increasing labour shortage now makes it desirable to do so. The enclosed print shows the present position of the controlling switches, which it is desired now to operate from the position marked "C", at the Harbour Master's Queen's Wharf Office. It would be convenient but is not essential that the remote control relays should be placed at these points except in the case of Western Wherf syren and the Western Vehicular Ferry Landing whistle for which it is proposed a combined control at the shore end of Western Wharf, should be installed. It is desirable that a return signal should be received from each station to indicate that the plant at that point is functioning satisfactorily. I am enquiring from Mesers. Standard Telephones & Cables (Australasia) Ltd. as to the supply of relays and I should be glad to know whether and on what terms it would be possible to utilise your Department's telephone circuits for their operation. Yours faithfully, *ENC. DH:GT SUPERINTENDENT & ENGINEER.

28th March, 1945 Messrs. Standard Telephones & Cables (Australasia) Ltd., G. P. O., Box 638, WELLINGTON. Dear Sirs, The Auckland Herbour Board has installed and operates a number of warning devices which are used to assist ferry boats and other vessels to find their way about the harbour and to keep clear of obstructions during fogs. Each of these pieces of mechanism is an independent unit controlled by its own switch and it has been necessary whenever a fog occurs for a man or men to be sent to the various stations to switch them on. After the fog has dispersed a similar visit must be made to switch off. Because there are only an average of about eight fogs per year, it has until recently not been considered necessary or economical to bring the control points of these widely scattered units to the central station at the Harbour Master's Office on Queen's Wharf where there is a continuous watch on duty, but increasing labour shortage now makes it desirable to do so. The enclosed print shows the present position of the controlling switches which it is desired now to operate from the position marked "O" at the Harbour Master's Queen's Wharf Office. It would be convenient but is not essential that the remote control relays should be placed at these points except in the case of Western Wharf syren and the Western Vehicular Ferry Landing Whistle for which it is proposed a combined control at the shore end of Western Wharf, should be installed. The motors in each case operate on 250 volt A.C. or D.C. as may be available. They vary in size from 1/3 H.P. for bells and syrens to 5/4 H.P. for whistles. It is desirable that a return syrens to 3/4 H.P. for whistles. It is desirable that a return signal should be received from each station to indicate that the plant at that point is functioning satisfactorily. It is believed that arrangements can be made with the Post and Telegraph Department for the use of aerial telephone circuits for transmission of the necessary impulses. I shall be glad if you will submit particulars and probable cost of the necessary relays to operate the above by remote control together with visual indicator at the central station to record that the various units are working. Yours faithfully, DH: GT SUPERINTENDENT & ENGINEER "ENG.

Auckland Harbour Board

MEMORANDUM

FROM

ELECTRICIAN'S OFFICE

To

4th September

1944

AUCKLAND HARBOUR BOARD

THE ENGINEER

REMOTE CONTROL OF FOG-SYRENS, BELLS AND WHISTLES,
OVER POST AND TELEGRAPH DEPARTMENT
SERVICE LINES.

The location of existing switches for control of Fog-signals are shown on the attached plan.

It would be convenient, but not essential, to have the remote control relays placed at these points, except in the case of Western Wharf Syren and the Western Vehicular Landing whistle. For these I would propose a combined control at the Shore end of Western Wharf.

The motors in each case operate on 230 volts A.C. OR D.C. as may be available. They vary in size from 1/3 H.P. for Bells and Syrens to $\frac{3}{4}$ H.P. for whistles. This information would be required by Messrs Standard Telephones & Cables (Australasia) Ltd., in connection with the design of relays. Messrs Standard Telephones & Cables (Aust.) Ltd., address is P.O.Box 638 G.P.O. Wellington.

CHIEF ELECTRICIAN.

Emmel.

- COPY
AUCKLAND HARBOUR BOARD.

MEMORANDUM.

22nd. September, 1944.

The Superintendent & Engineer,
A. H. B.

At a meeting of the Works Committee held on Tuesday last, 19th. instant, the following resolution was passed:-

Your report, 25.8.1944, and report of Harbour-master, 24.8.1944, re Fog Signals.

That consideration be deferred, Superintendent & Engineer to make further investigations and report later to the Committee.

(Sgd.) W.B. Smith.

SECRETARY.

25th August, 1944. The Chairman, A. H. B. FOG SIGNALS. Chelsea, Birkenhead, Northcote and Stanley Bay Wharves are at present each equipped with a gong and ferry boats navigating thereto in fog are dependent upon persons waiting their arrival striking the gong at intervals to guide them to the berth. If it is considered necessary to provide mechanically operated signals at some or all of these places, then electrically operated whistles as at the Eastern and Western Vehicular ferries and at the Training Pier, Calliope Dock, or electrically operated bells similar to the one at Devonport Wharf could be installed at a cost of approximately £80 per wharf, but it would still be necessary for some one to switch such appliances on and off when fogs occur. It would assist matters if this responsibility could be undertaken by the Ferry Company. CONTROL OF FOG SIGNALS ON SOUTH SIDE OF HARBOUR. There is no fundamental difficulty, other than cost and obtaining the necessary materials, in bringing the control point for all fog signals to the Harbourmaster's Office, Queen's Wharf. A detailed estimate has not been prepared but, without including the fog signal on St. Mary's Bay breakwater which could continue to be controlled by the Custodian at Westhaven, it would certainly not cost less than £1500 to run the necessary circuits and install the relays to operate the signals from one central point. Even with constant attention and inspection there is always danger of isolated small motors in exposed positions breaking down so that, if security is to be provided, it would be necessary in addition to provide a visual indicator for each fog signal in order that the operator could be sure it was functioning properly. This would add not less than 50% to the cost. The sole object being the prompt switching on of fog signals it would be wise, before incurring so heavy an expenditure, to explore the possibility of achieving the same result by less costly means. Johnson Superintendent. TH. WIJ

COPY. AUCKLAND HARBOUR BOARD. MEMORANDUM. 10th. August, 1944. The Superintendent, A. H. B. At a meeting of the Works Committee held on Tuesday last, 8th. instant, the matter of fog signals on the Ferry Wharves was under discussion. It was agreed that the Superintendent and the Harbourmaster submit to the Committee a report on the matter. (Sgd.) W.B. Smith. SECRETARY.

EXTRACT FROM INSTRUCTION NO.10481 TO MR. S. EDWARDS, DATED 6th. AUGUST, 1944.

WESTHAVEN BREAKWATER AND QUEEN'S WHARF FOG SIGNALS.

Discuss with Captain Forbes also certain suggestions he has to make about these two fog signals.

He states that the former is masked through its location on the beacon and cannot be heard in certain positions. He suggests it should be raised to the top so as to be heard all round the compass. Please carry out such alterations as you may mutually agree upon.

Captain Forbes would like the Queen's Wharf fog signal improved, either by strengthening the sound or altering the position or both. Discuss this with him and effect the desired improvement.

Anckland Harbour Board MEMORANDUM FROM Electrician's Office To THE ENGINEER

30th December 19 40

FOG

SIGNALS

Wellington Harbour Board Engineer's Letter, 20th December 1940

The following answers refer to the questions in the Engineer's letter:-

The bells on Kings, Queens and Devonport Wharves are all of the continuously ringing type with the exception that the Kings Wharf bell is controlled by a timing gear to give a peal for 10 seconds with an interval of 10 seconds. We have no single stroke bells.

The bells vary in size from twelve (12) to sixteen (16) inches in diameter. Weight - 43 to 49 pounds. They are operated by \(\frac{1}{4} \) H.P. motors to give 120 strokes per minute.

The Harbour Master gives their range as half a mile. The bells were purchased out of stock and the operating gear was made in our workshops. We have no plan of the gear as each was assembled from various parts bought locally.

Three (3) whistles are in use. A small aircompressor is belt driven by a 3 H.P. motor. The whistles are connected directly to the air-compressor and sound 274 times per minute. These gears were also assembled from parts bought locally and give a distinctly sharp sound. I have no information as to the distance they can be heard.

Chief Electrician.

160

- C O P Y -

AUCKLAND HARBOUR BOARD.

No. 9736.

INSTRUCTIONS TO FOREMEN AND INSPECTORS.

3rd. May, 1940.

Foreman of Works.

BAYSWATER FERRY SERVICE - OUTER LIGHTED DOLPHIN.

Authority has been given to the Ferry Co. to erect a bell on the outer dolphin where the light is installed, to be used in times of fog.

Erect an adequate platform and handrail with ladder access and suspend bell which will be supplied to you by Mr. Alison, so as to enable an employee of the D.S.F.Co. to gain access and operate the bell when required.

Arrange this in such a manner so that it does not interfere in any way with the light.

D. Holderness,
ENGINEER TO THE BOARD.
per A.N.T.

- C O P Y -AUCKLAND HARBOUR BOARD. MEMORANDUM. 28th. February, 1940. The Engineer, A.H.B. BAYSWATER CHANNEL FOG SIGNAL. Please note that your report of 1st. instant, together with report of Harbourmaster, 9.2.1940, re the installation of a fog signal on the outermost dolphin in the Bayswater Channel was considered at a meeting of the Board in Committee held on 13th. February 1940, when it was decided that consideration of the matter be deferred. (Sgd). W.B. Smith. Secretary.

1st February, 1940. The Chairman, A. H. B. BAYSWATER CHANNEL - FOG SIGNAL. The Masters of the ferry boats employed on the Auckland - Bayswater service have stated through their employers that, owing to the absence of a sound signal on the outermost dolphin of the Bayswater channel, there is a danger in time of fog of ferry boats missing the channel and running aground. The cost of a submarine cable from the Bayswater Wharf to the outer dolphin and of erecting an electrically operated sound signal would be approximately £300 and the operating cost per annum approximately £10. Although on a few occasions ferry boats have gone aground close to the wharf, I know of no instance in the 30 years the ferry service to Bayswater has been in existence when any ferry boat has missed the entrance to the channel and grounded in a position which would have been avoided had a fog signal been installed in the position asked for and in view of this fact and the comparative infrequence of fogs in Auckland it is questionable whether the high cost would be justified. Even if it were decided to erect a fog signal it is doubtful whether, at the present time, an Import License could be obtained for the necessary submarine cable which would cost approximately £125. If the doubts of the Masters were actually realized and a ferry boat were to go aground, the worst that would be likely to happen would be inconvenience and delay to the passengers on that particular trip, and, in view of the Board's heavy commitments for other more urgent work, I would recommend that no action be taken. Holdenies. Superintendent & Engineer. DH. IMH.

Auckland Harbour Board

MEMORANDUM

FROM

Electrician's Office

To

12th January 1940

THE ENGINEER

BAYSWATER WHARF

FOG WHISTLE

Length of cable required = 880 Yards. Size = 7/029 - 3 Core.

Requirements for cable laid under water are set out on Page 55 of the Wiring Regulations. See Regulation No. 44/52.

The cost of the fog-signal whistle plant on Calliope Dock Training Pier was £52/18/-

2 Dear 1939 quotation for Thoyas I core Tozq VIR. metal strathed 9 amount cuble was \$107-10.10 at some rate & quality 880 gets world cost 88 x \$107-10-10 = \$124-10-5.

Chief Electrician.

Say 2125. White plant as above 60

Say & 250.

AUCKLAND HARBOUR BOARD No 5547 Memorandum 3rd October 1038 From To INSPECTOR AT THE ENGINEER Smeet will I beg to report that Congineers Alant Record Calliope Dock Fog Whistle Moker B.T.H. Rugby Yolfs 119/220 A.C. Winding Repulsion induction

AUCKLAND HARBOUR BOARD 5543 Memorandum from TO INSPECTOR AT ENGINEER THE Q. H. T3 I beg to report that Callione Doc The installation of the fog-white was completed on 27 sent to the Darbour marker. J. Emore

AUCKLAND HARBOUR BOARD.

No.8205.

INSTRUCTIONS TO FOREMEN AND INSPECTORS.

14th. July, 1938.

The Electrician.

CALLIOPE DOCK E. & A. A/C: FOG WHISTLE TRAINING PIER.

Supply and erect at the outer end of the Training Pier a fog whistle exactly similar to those installed at Eastern and Western Vehicular Landings.

Please report on completion.

D. Holderness
ENGINEER TO THE BOARD.
per: A.N.T.

y60-



Auckland Harbour Board

Memorandum

Auckland, N.Z.

14th., July, 1938.

The Superintendent,
A. H. B.

Sir,

FOG SIGNAL, TRAINING PIER CALLIOPE DOCK.

As an aid to navigation during foggy weather, for the ferry steamers and for the Admiralty Launches running to Calliope Dock, I would recommend that a fog signal be placed on the end of the Training Pier at Calliope Dock.

The fog signal to consist of a series of short blasts to be made by an electrically operated whistle similar to the ones at the Eastern and Western Vehicular Landings.

I have been in communication with the Naval Officer-in-Charge at Devonport, who states that such a fog signal will be much appreciated by the Naval Authorities, who will be prepared to attend to the switching on and off of the signal as required.

Yours faithfully,

H. 21. Sirgecuch.

Harbour Master.

Institute of the 7.38

HHS.CJG

· Eastern Scheenlen Landerry - Dog White

bomprems \$13-10.0 Out \$30-99

Western Schwein Landerry

Cost \$34.79

Compressor \$13-10-0 Cost \$34.79

Mahammaster reformed wanter

now Cost approx \$45.

88/140. 20th. April, 1937. The Manager, The Devonport Steam Ferry Co. Ltd., P.O. Box 505, AUCKLAND. Dear Sir, Your letter dated the 7th. instant, enclosing copy of request from the Ferry Union Secretary that a Fog Signal be installed on the outer beacon at the entrance to the Bayswater Channel, has been received. The installation of an automatic fog signal in this position is not justified, but if your Company is prepared to install and operate a manually operated bell or gong, the Board would erect a platform and ladder on the dolphin to give access thereto. Yours faithfully, Superintendent. DH/EC.

31st. May

30

The Harbourmaster.

WESTERN VEHICULAR LANDING - FOG SIGNAL.

A fog signal has been erected on the portal of this landing and is now ready for use when required.

It consists of an electrically driven whistle giving a continuous series of short blasts.

ACTING ENGINEER TO THE BOARD.

9th. June

30

The Harbourmaster.

MASTERN VEHICULAR LANDING - FOG SIGNAL.

an electrically driven whistle similar to that installed at Western Vehicular Landing has been installed on the Eastern Vehicular Landing, and is now available for use.

ENGINEER TO THE BOARD.

25th. June

28

Messrs. Cory-Wright & Salmon, G.P.O. Box 1650, AUCKLAND.

Dear Sirs;

FOG BELL.

I have received yours of 23rd June enclosing blueprints

of electrically driven fog bell.

I note that the price for this is 2114. 0. 0. with 24.10. 0 for semi enclosed wall fixing type starter and D.P. ironelad switch fuse.

I note that the quotation is made on the assumption that the bell will be duty free.

Since receiving your quotation dated January 23rd 1928 I have had a mechanism made in the Board's Workshops, and this is now installed and giving satisfaction.

I have to thank you for the trouble you have taken in

the matter.

Yours truly,

ENGINE R TO THE BOARD.

WELLINGTON:

OMINION FARMERS'
INSTITUTE
FEATHERSTON STREET
POSTAL: G.P.O. BOX 1230
PHONE NO. 43-172
TELEGRAMS & CABLES:
"CORYSAL" WELLINGTON

PRINCIPALS OF FIRM: S. CORY-WRIGHT, B.SC. (ENG.) A.M.I.C.E., M.N.Z. SOC.C.E.

C. W. SALMON, A.M.I.C.E., M.N.Z. SOC.C.E. BAGNALL'S BUILDING ANZAC AVENUE

CORY-WRIGHT & SALMON

ENGINEERS

WELLINGTON

NEW ZEALAND

Codes Used: Bentley's Phrase
A B C (5th Edition)
Universal Trade Code

G.P.O. Box 1650,

AUCKLAND

AUCKLAND, N.Z.

AUCKLAND:

MERCANTILE CHAMBERS

CUSTOMS STREET, E.
POSTAL: G.P.O. BOX 1650
PHONE NO. 43-394
TELEGRAMS & CABLES:
"CORYSAL" AUCKLAND

When replying please quote please quote Ost Reference No.

June 23rd. 1928

The Engineer, Auckland Harbour Board, AUCKLAND.

FOG BELL

Dear Sir,

At this late date we have received from Messrs Chance Bros. an amended quotation for a Fog Bell, which we think might be of interest to you.

ONE - Motor Driven Fog Bell, consisting of 1 cwt Bell, Electric Motor (400 volt 3 phase 50 cycle) Reduction Gear, Mechanism, etc., all as per Drawings Nos. F674 and F675 herewith.

Delivered Your Store, Auckland, Duty and all Charges Paid £114: 0: 0.

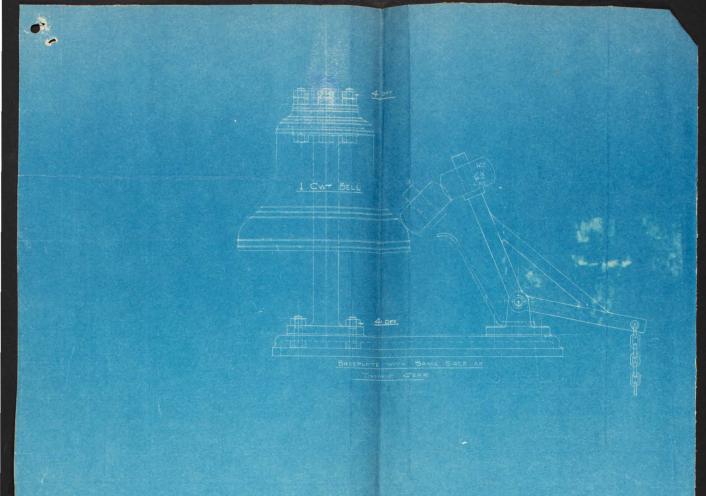
Extra for one semi-enclosed wall fixing type Starter and one D.P. Ironclad Switch Fuse .. £4:10:0

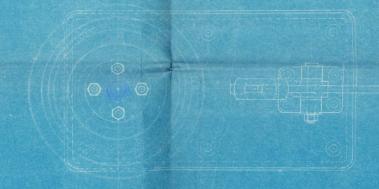
The above quotation is made on the assumption that this Bell and mechanism would be duty free.

Yours faithfully, For, CORY-WRIGHT & SALMON,

ENGINEER.

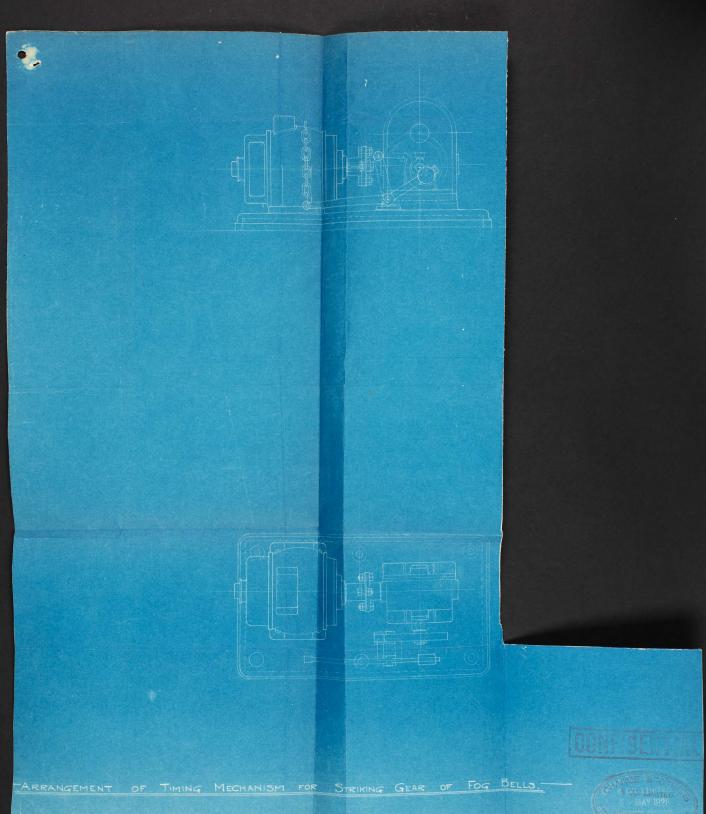
RG:BF





ARRANGEMENT OF I CWT BELL MOUNTED WITH STRIKING GEAR

SCALE 31 TO A FOOT



26th. January

28

Messrs. Cory-Wright & Salmon, Custom Street East, AUCKLAND.

Dear Sirs;

FOG BELL DEVONPORT WHARF.

Referring to your quotation dated 23rd. January for electrically driven fog bell, the price quoted viz. £197-15-0 is far in excess of the importance of the installation.

I will probably arrange to rig up some simple gear locally.

Yours truly,

ENGINEER TO THE BOARD.

the Minister." We have no doubt that the Minister would approve of this electrically driven Fog Bell, and we have accordingly estimated duty on this basis.

We trust that we shall be favoured with your order, which will receive our best attention.

Yours faithfully, For, CORY-WRIGHT & SALMON,

ENGINEER.

RG:BF

BAGNALL'S BUILDING ANZAC AVENUE

CORY-WRIGHT & SALMON

ENGINEERS

WELLINGTON

AUCKLAND

NEW ZEALAND

Codes Used: Bentley's Phrase

A B C (5th Edition)

Universal Trade Code

G.P.O. Box 1650,

AUCKLAND, N.Z.

AUCKLAND:

MERCANTILE CHAMBERS

POSTAL: G.P.O. BOX 1650
PHONE NO. 43-394
TELEGRAMS & CABLES:
"CORYSAL" AUCKLAND

January 23rd. 1928

When replying please quote please quote Ost Reference

The Engineer, Auckland Harbour Board, AUCKLAND.

FOG BELL - DEVONPORT WHARF

Dear Sir,

NETON

WRIGHT

M.N.Z. SOC.C.E.

C. W. SALMON

A.M.I.C.E., M.N.Z. SOC.C.E.

> We have now received advice from Messrs Chance Bros., in response to our enquiry, and can quote you as under :-

ONE - Electrical Motor Driven Fog Bell, suitable for use with 400 volt 3 phase alternating current, and equipped with a Bell weighing 1 cwt. All as illustrated and described on pages 26 and 27 of Chance Bros.' catalogue on the Marine Fog Signals.

Delivered your Store Hobson Street, for the sum of £197:15: 0

We have estimated that this Bell would be under the British Preferential Tariff under Section 370, which states that "Signalling Apparatus, automatic and other, as may be approved by the Minister." We have no doubt that the Minister would approve of this electrically driven Fog Bell, and we have accordingly estimated duty on this basis.

We trust that we shall be favoured with your order, which will receive our best attention.

Yours faithfully, For, CORY-WRIGHT & SALMON,

ENGINEER

RG:BF

AUCKLAND HARBOUR BOARD No 5248 Memorandum To I beg to report that Signature.

