

642. Compass adjusting
755 Com. Dolphin Judges
Bay. 1927. 1941.

FILE NO. 642.

COMPASS ADJUSTING DOLPHIN - JUDGES BAY.

VARIOUS.

755 Com.

W J & J D KEANE LIMITED

W J KEANE, EXTRA MASTER · J D KEANE, MASTER MARINER · LICENSED COMPASS ADJUSTERS · MARINE SURVEYORS · NAUTICAL INSTRUMENTS
25 MacKELVIE STREET AUCKLAND NEW ZEALAND · PO BOX 1189
PHONE BUSINESS 764581 · CABLES KEANCO AUCKLAND



19th March 1982

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

Dear Sir,

For several years we have been experiencing an increase in requests for compass adjustments by foreign going ships, particularly those on regular trips from U.S.A. and the Far East.

These adjustments are for survey requirements and are required every one or two years depending on the country concerned.

Together with the compass adjustment we also often get a request to carry out the visual bearings for the calibration of the ships Radio Direction Finding sets which are covered by similar survey requirements.

As you are perhaps aware there is now no facility in Auckland to enable Radio Direction Finding calibration to be carried out.

It is therefore some concern to us that this service cannot be given particularly as Auckland is considered to be a major world port.

Would it? [The cost of a basic transmitting device as was previously installed on Mt. Victoria and the cost of operating the device when required would be more than covered by fees charged to the ships.

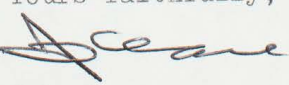
We receive about six requests per year for these calibrations and we would expect an increase in this number once it was known this service was available.

The D.F. set, like the magnetic compass, has been superseded by more sophisticated aids, as regard to everyday navigation, but in both cases they are a legal requirement for foreign going ships of any country which is signatory to the IMCO regulations and to most maritime countries.

Therefore we would except that the calibration of D.F. sets should be a viable proposition on a commercial basis.

We would be pleased to give any assistance or advice in setting up the service.

Yours faithfully,


J.D. Keane
Marine Surveyor
Harbourmaster

copy sent HM.
23/3
23.6

~~Mr. Bay~~ please report with
a draft reply - copy
to GM for info.

I believe this has been talked
about before - is there any justification
22/3

642

Compass Adjusting Dolphin. Judges Bay.

Built by N.A.B. - Nov 1927 - Jan 1928.
 Into Use 23 January 1928.

Charges for Use of Dolphin

100 Tons & under £1. 0. 0
 101 - to 1000 Tons £1. 10. 0
 1001 - to 2000 - £2. 0. 0
 2001 - to 3000 - £2. 10. 0
 (See Reg. (Law 52))

Capital Cost £1495. 6. 0

Co-ordinates of Dolphin
 (from Mt. Eden)

12517 ft. N.

8023 ft. E.

Bearings.

Light Tower King Wharf to Dolphin 103° 49' 45"

Mt. Victoria Flagstaff to Dolphin 198° 59' 15"

For further bearings of other prominent objects
 from the dolphin - See Drawing 5450.

Year	Maintenance Cost. (from Blue Book)	Revenue (from Blue Book)	Remarks.
1926-27	- - -	- - -	Old Dolphin at Saltington Bay written off.
1927-28	6. 6	111. 10. 0	Total Revenue for Year from Compass Dolphin was £123/10/0 of which £112/1 was earned by Dolphin in St. Mary's Bay.
1928-29	8. 12. 8	136. 0. 0	
1929-30	1. 15. 9	97. 0. 0	
1930-31	8. 5. 8	90. 10. 0	
1931-32	7. 14. 11	85. 0. 0	
1932-33	7. 13. 2	63. 0. 0	
1933-34	7. 18. 11	81. 0. 0	
1934-35	294. 6. 3	76. 10. 0	Fenders altered from sloping to vertical.
1935-36	2. 12. 0	93. 0. 0	
1936-37	4. 12. 1	80. 0. 0	
1937-38	1. 12. 6 34.5- 10. 8 £31.8.3	74. 10. 0 98.8. 0 £97.16.4	
1938-39	10. 5. 6 35.5- 11. 11 £29.15.0	87. 0. 0 10.75- 0 £84.11.8	

Inspected by C/Lt 30.11.75. In remarkably good condition.
 Only one bunker filler loose.

Auckland Harbour Board

Nº 10426

INSTRUCTIONS TO FOREMEN & INSPECTORS

ENGINEER'S OFFICE,

To Foreman of Works, Date 6th March 19 41.

Subject COMPASS DOLPHIN JUDGES BAY M/A.

The Harbourmaster reports that the centre mooring post requires attention and the tops of the piles require rounding off slightly as the lines catch on the piles as the Ship swings round the Dolphin at Low water.

Please have these matters attended to.

D. Holderness,

Engineer to the Board per: *Out*

- C O P Y -

AUCKLAND HARBOUR BOARD.

No.7445.

INSTRUCTIONS TO FOREMEN AND INSPECTORS.

20th. August, 1937.

Foreman of Works.

COMPASS ADJUSTING DOLPHIN - MECHANICS BAY.

Provide a suitable hand grip at the head of the access ladder on the dolphin, to give greater safety for men using this.

D. Holderness
ENGINEER TO THE BOARD.

per: A.N.T.

Auckland Harbour Board.

MEMORANDUM

From

The Foreman of Works
A. H. B.

To

THE ENGINEER

29th 10th Sep 1935,

Compass Dolphin, at Judge Bay. Alterations.

Sir

The cost to alter the fenders to vertical on the Compass Dolphin to Drawing B 801/2 is as follows:

Completed. 2/4/35.

Labour.

Carpenters

Joiners

Sawyer.

Labourer asst. Carpenter

" Screw Bolt,

Blacksmith & asst.

Plus 40%

Litter at Drawing Office

" Securing Bolt

Supervision Foreman Carpenter

" Blacksmith

" F.O. 10 Office

64 12 2.

2 3 5 66 15 7

12 10

24 5 2

1 14 1 25 19 3

1 4 1

9 8 1 13 9

6 13 0

15 2 7 8 2

8 14 9

9 6

4 6 10 13 11 1 116 0 8

C.F. 116 0 8

Auckland Harbour Board.

MEMORANDUM

From

The Foreman of Works,
A.H.B.

To

29th May 1935,
THE ENGINEER

Compass Dolphin at Judges Bay, duration,

Material.		8.4				116 0 8
12" x 12" Surf. Timber	2 1/6' 3/18'	}				
14" x 12" " "	6 1/18' 1/10'		42	5	0	
14" x 12" " "	3 1/18'	}				
12" x 12" " "	7 1/20' 1/15'		42	17	6	
108 Spft " "						
13 " Old Timber				2	7	
			85	5	1	

Tr 159 Credit.

12" x 6" Surf. Timber	6 1/11' = 396 Spft.	3 19 2	81 5 11
12" x 2" Pinus Timber	36 1/6'	}	
14" x 3" " "	32 1/7'		
4" x 2" " "	16 1/7' 32 1/2'		6 4 8
3" x 2" " "	32 1/5'		

Tr 196 Credit.

12" x 1 1/2" Pinus Timber	value	1 13 9	4 10 11
2 0 31 1/2 lb Ketel 3/4" Rd	150'	}	21 8 3
3 3 16 1/2 " " 1" " "	140'		0 0
0 0 10 " "			8 9
0 0 21 " "			18 5
60 Only Brass Sky Nuts 1"		2 4 10	
60 " " Rd Washers		19 0	25 19 3
2 Lom Wilsonite		10 9 10	
7 yards She ngle		3 3 0	
		13 12 10	

Tr 81 Credit 8 Bags Wilsonite

20 Spft. Hauri

2 6 8	11 6 2
	5 7
04. £	123 7 10 116 0 8

Auckland Harbour Board.

MEMORANDUM

From

The Foreman of Works
a.s.B.

To

THE ENGINEER

29th May

1935.

Compass Dolphin at Judges Bay, alterations.

Material Cost:-

0 0 20 Lb Wire nails	40			123 7 10	116 0 8
0 0 11 " Galv "	3 10		7 10		
1/2 Shut P.G. Iron 26 5.			1 4		
1 Lb Galv Cloak			6		
12 Lbs. Oxy			6 10		
4 " Staff Grease.			1 5		
2 Gallons Benzine	2 2				
P & S Diff Credit. 1 Qt Benzine	3		1 11		
Lr 69 Debit 1 Bag Welsomite	5 10				
2 Bushels Sand	10				
Lr 81 " 30 Empty Cement Bags.	50		11 8		
2 Only H.S. Plates.			6	124 19 10	

Launches.

"L. Hauvaki" 1/2 tbr. c 10/6 per tbr.			5 3		
" " 1 1/4 " c 10/6 "			13 2		
" " 1 7 1/2 " c 10/6 "			9 3 9		
" " 19 " c 10/6 "			9 19 6		
"L. Waka" 5 1/2 " c 10/6 "	1 15 9				
" 9 1/2 " c 6/6 "	3 1 9				
" 1/4 " c 6/6 "	1 8	4 19 2	25 0 10		

Plant.

Transport 102 1 1/2 Days c 130/- Per Day.

9 15 0

C4 L-275 16 4

Auckland Harbour Board.

MEMORANDUM

From

The Foreman of Works
A. H. B.

To

THE ENGINEER

29th May

1935.

Compass Dolphin at Judges Bay. Alterations,

	P.F.				275 16 4
<u>Workshop Machinery,</u>					
Timber Mill Saw. 3 1/2 ton & 3/3 feet br.				11 4	
Large Circular Saw 1/2 " & 3/3 "				1 7	
Band Saw 4 " & 1/9 "				7 0	
Machinery allocation				1 11 5	2 11 4
<u>Gears & Tools.</u>				4 15 5	
				6 17 1	11 12 6
<u>Cartage.</u>	Post Diff.				3 14 9
					<u>£ 293 14 11</u>

Abstract.

Labour.	116 0 8
Material.	124 19 10
Launches.	25 0 10
Plant.	9 15 0
Workshop Machinery	2 11 4
Gears & Tools.	11 12 6
Cartage.	3 14 9
	<u>£ 293 14 11</u>
Elec Dept crane Charges.	13 7
	<u>£ 294 8 6</u>

Wm Batey
Foreman of Works.

f.
642

Auckland
Sept. 18th 1929.

D. Holderness Esq. M.I.C.E.

Dear Sir

Yours to hand of 14th inst. with
enclosed plan S. 350 of bearings of prominent
objects from the Adjusting Dolphin, for which
I beg to tender you my sincerest thanks
and to assure you that they will be of great
service to me in the future.

Again thanking you for the great trouble
you have taken in securing the very accurate
bearings for me

I remain,
Yours sincerely,
E. D. Ellis.

642
14th. September 29.

Capt. C.D. Iles,
Messrs. Union Steam Ship Co.,
AUCKLAND.

Dear Sir;

I enclose herewith blueprint S.350 giving bearings of prominent objects from the Compass Adjusting Dolphin in Judges Bay.

I trust this will be of service to you and with the other objects for which you already have the bearings, will enable you to meet all emergencies.

Yours truly,

ENGINEER TO THE BOARD.

AUCKLAND HARBOUR BOARD.

Nº 6347

Memorandum.

From ...

FOREMAN OF WORKS

To

30 XI 1928

Compass Adjusting Dolphin
Estimate for Alterations to Tenders in water No 1886

Sir,

I beg to report that estimate for alterations to Tenders on the above Dolphin, is as follows:

	Type 1	Type 2
12x12 Turpentine	12/10 = 1440 sublt 36-0-0	12/20 = 2880 sublt 72-0-0
9 M. Bolts	3 1/2" (5 1/2" length) 12-17-0	7/2 1/2" 25-14-0
Bolts, lagging, covering with machine	3-16-0	7-12-0
Removing & renewing bolts & cutting out concrete	2 men 25 days each 40-0-0	2 men 18 days each 28-16-0
Time removing old timber, dressing & fixing new	2 " 8 " " 16-0-0	2 " 9 " " 18-0-0
Hire of Derrick & pump	6 days @ 17/6 3-15-0	6 days @ 17/6 3-15-0
" Dingley	15-0	15-0
Leverage & launch hire	16-0-0	16-0-0
Credit old timber		172-12-0
		29-0-0
		143-12-0
	129-3-0	

*Instr to 200.
to cut off projecting
pieces of existing tenders
& turn up.*

*OMP Bailey
Foreman Works*

MEMORANDUM

FROM

анв.

To

17 May

1928

THE ENGINEER

Compass Adystr. Dolphin. Rubber Tire Tenders

Erabens: Nos 196978 19735

Box.

The cost of making & erecting eleven (11) Rubber Tyre Fenders for the above Dolphin, is as follows:

Labour

Lawyer preparing timber

Blacksmiths making bolts

" + 40%

Labour screwing bolts

Boxing holes in Concrete for bolts

Carpenters making & erecting fenders

Supervision

Labour

44. 16. 6

Material

25 10. 11

Plant, Law &c

17. "

Machinery & Allocn.

3. 0. 7

Gear & Tools

18. "

Launche

12 13. 3

Cartage

1. 8. 0

89-6-1

Summary.

187

1270- 15 - 8

attached

Mr Buttons

21- 11- 8

Mr. Coe

89. 6

71381.135

Open Case 27 1410-0-0

Further to cost rendered 3. 2. 28, the
Cubical Content of Concrete block is, approxi:
177.95 cub yds.

Carried forward

HH 16 6

MEMORANDUM

FROM

DM
The Foreman of Works.
A. B.

To

17 May 1928

THE ENGINEER

Compass Adjustg. Dolphin. Rubber Tyre Tenders Contd.

Brought forward

HH 16 6

Material.

Rata 135 sapft

Brass. Hex nuts 1/2" (376) c q lbs 33 1/4

" " $\frac{3}{4}$ " (88) 22

1" (22) //

.. Washers $\frac{1}{2}$ " (382) $5\frac{7}{8}$

" " $\frac{3}{4}$ " (88) $2\frac{7}{8}$

Muntz metal 2. 0. 19 $\frac{1}{2}$

Ferrarese 22

File 1

H. S. Blades 2

Plant

Timber Mill Law

Bearing machine

Machinery Allocation

Gear & Tools

sauncho

Cartage

147

3	4
---	---

17 11

307

18 11

12 13 3

180

1 89 6 1

Mr Batey
Foreman of Works.

Eluckland Harbour Board.

MEMORANDUM

FROM

The Resident Engineer,
New Devonport Wharf.

To

11th April 1928.

THE ENGINEER

Compass Adjusting Dolphin.
Kerbing.
Instruction 19098 of 23rd February.

Following is the cost of the above work

Labour:-

Carpenters.

5 17 7

Labourers.

4 2 7 10 2

Launch Hire:-

"Te Waka" 4 hrs @ 6/9

1 7

"Oreere" 1 1/4 " @ 12/6

15 8

"Te Hauraki" 3/4 " @ 12/6

9 5 2 12 1

Cartage:-

R. A. Lewis.

4 4

Stores & Materials:-

Kahikatea 140 ft 12 x 1 1/2

2 15 5

Nails 5 lbs.

10

Grass Rod 3/4" 40 lbs.

1 16 8

Cement 5 Bags @ 5/1 1/2

2 1 1

Pine 200 ft @ 3/10

10

1 1/2 Yds Shingle @ 11/6

17 3

4 Bushels Sand @ 15/

2 10

1/2 Bag Cement @ 5/

2 6 8 6 7

Gear & Tools Hire:-

5 Drills, Cleaner, Cutting ^{1 day} 12

1 2

1 Flat Top Pump ^{2 days} 17 8

8 10

21 11 8

Button

7-
AUCKLAND HARBOUR BOARD

Nº 7044

Memorandum

From

INSPECTOR AT

New Devonport Wharf

To

17th March 1928
THE ENGINEER

ASB

I beg to report that Compass Adjusting Dolphin - Kerb.

The Kerbing was concreted today - and should be stripped & plastered (where reqd.) by about 10 am tomorrow. The concrete will of course be quite green, but if the ship uses the dolphin at high tide, with care, there is no reason why her ropes should bear upon the kerbing at all.

Signature

J. Sutton

612

AUCKLAND HARBOUR BOARD

Nº 7040

Memorandum

From

INSPECTOR AT

Breastwork, Clock Bay

To

THE ENGINEER

AHB

8th March 1928

I beg to report that Compass Adjusting Dolphin

A start has been made erecting the falsework for the concrete kerb on the dolphin. While this falsework is in place it will be inadvisable to use the bollard.

Weather permitting, the kerb will be concreted on Monday next

See

Signature

Dutton

642
Auckland Harbour Board.

MEMORANDUM

FROM

Resident Engineer

New Devonport Wharf

To

THE ENGINEER

21st February 1928

Compass adjusting Dolphin - (Instruction 19664)

Coordinates of Dolphin

(from Mt. Eden)

12517 ft. N.

8023 ft. E.

Bearings:

Light Tower - Kings Wharf to Dolphin 103° 49' 45"

Victoria Flagstaff to Dolphin 198° 59' 15"

Portal, New Devonport Wharf.

Bearings:

Portal to Victoria Flagstaff 202° 29'

Portal to Bean Rock light 89° 16'

J. Dutton

Date 9 Feb 1928

Estimate for Lyre protection for Compass Adjusting Dolphin.

Description	Details	Quantity	Item	Rate	£	s.	d.
gun metal Bolts. One panel	($\frac{1}{2}$ ") 17/c"	= 8.5 linft.					
	($\frac{3}{4}$ ") 6/24", 2/33 4/21	= 24.5 lin					
Eleven panels	= ($\frac{1}{2}$ ") 93.5 linft. ($\frac{3}{4}$ ") 209.5 "						
	= 1643 A cuns @ 32 lb.						
		= 526 lbs @ 1/- lb.			£ 26	6	-
Hardwood for washers.	= 220 linft of 3" x 1 $\frac{1}{4}$ "						
		= 70 suft @ 45/-			£ 1	12	-
Labour.	12 men days				£ 12	-	-
Hire of launches & punts.					£ 10	-	-
					£ 49	18	-
Supervision 10%					£ 5	-	0
					£ 54	18	-
Nuts, Bolt heads & Washers. 112 $\frac{1}{2}$ lbs @ 1/-					£ 5	12	6
					£ 60	10	6

J. H. G. Lasham.

Auckland Harbour Board.

MEMORANDUM

FROM

The Foreman of Works
A.H.B.

To

3rd February 1928.

THE ENGINEER

Compass adjusting Dolphin. Judge Bay. Inst No 19363 & 19691.

Sir

The cost of erecting compass adjusting Dolphin at Judge Bay, as per Blue Print B 801, is as follows:-

Labour.

Joiners & Carpenters.

123 10 3

Blacksmiths.

9 10 5

Plus 60%

3 16 2 15 6 7

Sawyers.

4 2

Labourers.

81 17 7

Fitters.

3 6 10

Drillers.

12 4

Labourers (Brooks)

5 13 11

Supervision

2 6 6 230 18 5

Abstract.

Labour. 230 18 5

Material. 413 9 9

Stone in Rangoon 16 10 0

Plant. 244 13 0

Machinery 1 15 10

Cartage. 9 4 1

Stone of Concrete Works 15 3 4

Machinery acc. 7 11

Gear & Tools. 7 19 3

£1270 15 8

26 Turp Piles = $\frac{28 \cdot 10 \cdot 0}{1530 \text{ lin ft}}$ Cost per lin ft = $\frac{5 \cdot 7 \cdot 21}{1530}$

" Driving " " = $\frac{1 \cdot 5 \cdot 51}{710 \cdot 72}$

Cubic contents of Concrete Block 177.95 cu yds

Wm Batey
Foreman of Works.

Auckland Harbour Board.

MEMORANDUM

FROM

The Foreman of Works.

A. H. B.

To

3rd February 1928

THE ENGINEER

Compass Adjusting Dolphin, Fudges Bay. Instr No 19363 & 19491

18 1/2

230 18 5

Material.

1/65' 12/60' 1/55' Turp. Piles.	241	10	0						
6/55' " "	85	0	0						
6/60' " "	102	0	0	428	10	0			
1 Bar Flat Iron 3" x 1"				1	13	4			
39 1/2 lbs Bolts.				9	18	6			
1 Only File.				1					
2 lbs Shaft Grease.					10				
198 " Wire nails.				1	15	4			
4 1/2 " Cast Bolts.					12	10			
5 lbs & 4 Dg Pa Washers.					1	2			
448 1/2 1/4, 16 Metal 1 1/2"	75	12	6						
96 " " " 1"	12	13	11						
1 Piece " " 2 1/2"	4	9		88	11	2			
32 Lbs 17 1/2 cwt. Cement.	146	7	1						
120 Yards Shingle.	79	4	4	225	11	8			
12 Pieces Pines 15' x 12" x 2"									
24 " " 11 1/2' x 6" x 3" 2nd									
24 " " 16' x 5" x 3" 1st	27	19	3						
760 1/4 188 " " 4' x 12" x 1 1/2"									
816 { 72 " " 6' x 3" x 2" used up									
94 " " 4' x 3" x 2" up									
4 1/2 Tons. Hauri.	1	3	11	29	3	2			
4 Dg the nuts Brass.				3	10	2			
4 " 2 1/2 Dg Brass Washers 1"				1	2	5			
1 lb. Galv Cloths.					10				
200 1/4 3/8" Bowls.				4	5				
1 Gun Spud wall B.					3	6			

Ch. L 791.0.4 230 18 5

Auckland Harbour Board.

MEMORANDUM

FROM

The Foreman of Works,
A.H.B.

To

3rd February 1928.

THE ENGINEER

Compass adjusting Dolphin, Judges Bay, Inst. No 19363 & 19490.

B.Y.

Materials Contd:-

20 Lbs Copper nails.

1/2 " " Tacks.

3 Cases Benzine

2 Oily Bandages.

1/2 Gallon Kerosene.

1/2 Lb. Waste.

9 Lbs. Copper Wire.

1 Oily L.P. Spark Plug.

3 Lbs Ferrocene.

12/18 12"x6" Larp Liner

791 0 4 230 18 5

1 15 11

1

1 19

3

8

9

11 9

2 5

2

26 14 7

822 6 10

Less Credits:-

14 Bags Cement.

1/4 yd. Shingle.

2 Bushels Sand.

45 Lb Bolts.

1 Lin Benzine.

6/60 Larp Pile

4 7 10

3 9

1 6

1 17 6

6 6

102

108 17 1

713 9 9

55 Yards. Stone in Rangitoto
Say c 6/- per yard.

16 10 0

Further credits to be put through
for bolts being reconditioned.

C.F. £ 960 18 2

#



Auckland Harbour Board.

HARBOURMASTER'S OFFICE.

6th. February 1928

To The Engineer.
Auckland Harbour Board.

Sir,

COMPASS ADJUSTING DOLPHIN JUDGES BAY.

I beg to inform you that this dolphin is now being used by all classes of vessels for compass adjusting work.

As you are aware this dolphin is a very solid structure and offers great resistance to vessels going alongside, and I am afraid that damage may be sustained by either the dolphin or the vessel unless further fendering is provided, and would suggest that if possible spring piling be provided.

Yours faithfully,

A. H. Sergeant.

Harbour Master.

23rd. January 28

The Harbourmaster.

^{H. 18. 11. 27}
The new compass-adjusting dolphin which is being erected by the Harbour Board off Judge's Bay is expected to be completed in about three weeks. Wooden piles have been driven and in place of iron and steel all the fittings will be of muntz metal, which is non-magnetic and does not affect ships' compasses. The dolphin is being constructed at a point east of the eastern breakwater, where there is 23ft. of water at low spring tide. The dolphin which was erected recently in St. Mary's Bay is now within the new boat harbour limits, but it can still be used by small craft. Vessels up to 3000 tons will use the new dolphin, and the old one at Islington Bay, always difficult of access for large steamers, will not be used.

JUDGE'S BAY.

be used as from

TO THE BOARD.

23rd. January 28

The Harbourmaster.

COMPASS ADJUSTING DOLPHIN JUDGES BAY.

This is completed and may be used as from
today.

ENGINEER TO THE BOARD.

25th. October 27

The Purchasing Officer.

MUNTZ METAL RODS FOR COMPASS ADJUSTING DOLPHIN.

The most suitable quotation is that of Messrs. Kidd Garrett Ltd. for 1-1/8" and 1" rods from Wellington stocks.

The 30 - 16ft 1-1/8" and 6- 16ft 1" rods will be sufficient and I recommend the acceptance of their offer complete.

I note their offer is subject to sales and will be glad if you will let me know whether they are able to complete the order.

Quotations returned herewith.

ENGINEER TO THE BOARD.



Auckland Harbour Board.

HARBOURMASTER'S OFFICE.

To The Engineer.

15th. October 1927

Auckland Harbour Board.

Sir,

Compass Adjusting Dolphin - Judges Bay.

Confirming my conversation with you this morning, I shall be obliged if you will arrange for the new Compass Adjusting Dolphin off Judges Bay to be ten feet above High Water Spring Tides. This measurment to be taken from the top of the Dolphin, not from the top of the mooring pile in the centre of the Dolphin.

Yours faithfully,

H. Dr. Surgeant.

Harbour Master.

Amended to 8 feet above H.W.S.T. on 18.10.27.

[Signature]

11th. August, 27.

The Purchasing Officer.

COMPASS ADJUSTING DOLPHIN JUDGES BAY.

Twenty turpentine piles will be required for the above, and I suggest that these should be obtained as an extra to Contract No.825.

The numbers required and lengths are as under:-

- 1 - 65ft.,
- 12 - 60ft., and
- 7 - 55ft. long, - all not less than

10" at toe.

The Contractor's price for piles ranging from 30 to 65 feet in length was averaged at $3/7\frac{1}{2}$ d per lineal foot, and it would not be reasonable to expect him to supply these long length piles at the average contract rate.

I suggest that you should obtain from the Contractor a special price for these piles before placing the order.

ENGINEER TO THE BOARD.

1st. July, 27.

The Superintendent.

COMPASS ADJUSTING DOLPHIN JUDGES BAY.

The cost of constructing a non-magnetic compass adjusting dolphin in about four and a half fathoms of water opposite Judges Bay, and suitable for swinging vessels up to say 3,000 Tons, would be approximately £1,000.

ESTIMATE in Eng.
File No.123.

ENGINEER TO THE BOARD.

