UTI/WAT/1#20

C.S.

PUBLIC WORKS.

(Water Supply)

No. 103/30.

1930.

H.E. The Governor.

1930.

18th February.

Previous Paper.

SUBJECT.

WATER SUPPLY TO VESSELS CALLING AT STANLEY.

MINUTES.

1 Minute from H. E. The Governor, 18/2/30.

2

A.C.S.

Please take this up in conjunction with the Whaling Officer, South Shetlands, on the occasion of your forthcoming visit to Deception Is.

[illegible]

21. 2. 30.

3

Note — Spoke with Managers regarding water supplies on their way north. They take in an ample supply at Decep…

Subsequent Paper.

and do not require further supplies at Stanley. I was informed they would keep the matter in mind on the way south next season.

G.R.B.
16.5.30.

B.H.
16-5-30
G.B.

Letter from Crown Agents of 8/5/53. 4

~~Letter from~~ Manager, F.I.C of 4/12/53. 5

~~Letter to Manager, F.I.C. of 9/12/53.~~ ~~6~~

~~7~~ 6 y/h. (5) Draft reply ofc. above.

9/12

ACS above to come - then file back to me.

10/12

8 Letter to Manager, F.I.C. of 10. 12. 53. K10 7.

11/12

DRAFT DESPATCH.

To the Hon ~~From the Honourable~~ *the Colonial Secretary*

from ~~to~~ *His Excellency the Governor.*

(*Copies to be typed* .)

Alterations.	Draft.

Please try, if possible, to obtain orders from the returning whaling fleet when they pass through Stanley for orders for water when they would come back next year. Point out it is cheaper to get it here than at Montevideo and that they should support the Colony they get their incomes from. If they will let us know the approximate amount they want all the necessary arrangements will be made.

A.H.

18/2/30

A.C.S. Please have

filed and

4

ALL COMMUNICATIONS
TO BE ADDRESSED TO THE
CROWN AGENTS FOR THE COLONIES,
THE FOLLOWING REFERENCE AND THE
DATE OF THIS LETTER BEING QUOTED.

EM/810/11

TELEGRAMS (INLAND: "CROWN SOWEST LONDON."
OVERSEAS: "CROWN LONDON."
TELEPHONE: ABBEY 7730.

4, MILLBANK,

LONDON, S.W.1.

8th May, 1953.

Sir,

We have the honour to inform you that following reports of water for ships being transported in unsuitable vessels the Minister of Transport has had under consideration what steps should be taken to minimise the possibility of risks to health which may arise from the carriage of water in old or unsuitably constructed vessels. In consequence the matter has been examined in consultation with the Ministry of Health, and as a result of this investigation a detailed note on the design of water carriers, together with arrangement plans of a model water carrier, has been prepared by the Ministry of Transport. Copies of the note and plans have been circulated to the Dock and Harbour Authorities in the United Kingdom, and copies are now attached for your information.

4a-c
4d-f

It is, of course, realised that probably only the larger Marine Administrations are likely to be interested in a craft of the type proposed, but it is, nevertheless, felt that the design and notes enclosed may be useful even if only a "dumb" water barge of smaller capacity was being considered.

We have the honour to be,
Sir,
Your obedient servants,

F S Blumfield

for the Crown Agents.

The Colonial Secretary,

FALKLAND ISLANDS.

8

12

CA

4 A

Design of Water Carriers

The design of a water carrier depends entirely on the requirements and the prevailing local conditions of the Port at which it is to operate. The principal features to be considered are the water carrying capacity, the overall dimensions, the draught required and whether for service on estuaries, rivers or docks.

For the purpose of a specimen water carrier, a sketch design has been prepared for a double skinned motor vessel, length OA 110' 0" L.B.P. 104' 0", Beam 23' 6" and depth 10' 0" moulded, with a carrying capacity of 300 tons of fresh water, such as would be used in the lower reaches of the Thames.

The hull indicated in the General Arrangement plan and midship section No. 1 is designed for prefabrication, and to be completely welded. Allowance has been made for single screw diesel engine propulsion of about 180 B.H.P., but if extra manoeuvrability is required, the skeg could be omitted, twin screws arranged and a balanced spade type rudder fitted. Such items can only be determined when actual service conditions are known.

Space has been allowed for diesel generators to operate two electric F.W. pumps, each of 60 tons/hr. capacity, an electric bilge and ballast pump, also electric deck and steering machinery. If considered unnecessary the latter could be replaced by hand operated quadrant. The deck machinery also could be hand operated, but with a small crew and anticipated frequent movements, it would seem desirable to have it power operated.

Arrangements have been made for a crew of Master, Engineer, Deck-hand and Boy, which it is understood would under normal circumstances only be on board whilst vessel is operating by day. Sufficient space has been allowed for settee and collapsible bunks for use if vessel is required for night service. Toilet facilities and a W.C. should be provided for their personal hygiene. The accommodation and storage space is designed on generous lines, but the latter could be reduced if a smaller vessel is required.

In view of the difficulties experienced in a previous small double skinned type of ship, an alternative midship section (No. 2) of a more normal form has been prepared, in which the double bottom has been eliminated but the side tanks retained. Maintaining the L.B.P. of 104' 0" the breadth and depth of such a vessel can be reduced by at least 1' 0", which in turn might effect economies in propulsion.

Opinions have been expressed that a double skin at the sides and bottom in way of the cargo is desirable in the larger type of water carrier, but it may be impossible for such an arrangement to be worked on smaller vessels. Practice has shown that there have been but very few complaints or objections to water cargo carried in single skinned vessels which are properly constructed and maintained. In such ships, however, welded hulls would have a distinct advantage over those riveted, as they are capable of withstanding a certain amount of damage without developing leaks.

Although the service of the vessel will be in harbours and estuaries, it is thought that the scantlings of materials used in construction should be up to, or nearly to the rule requirements of a classification society to give adequate robustness for the anticipated arduous service. The scantlings shown on the Midship Section are actually Lloyd's Rule requirements, but they could be slightly reduced if for harbour service requirements.

It will be appreciated that so much depends on the actual local requirements that it is not possible to stipulate any particular hull design, but the General Arrangement and Midship Section plans attached may form a guide. The only requirements which are desirous and common to all vessels are those concerning the stowage and transference of fresh water and personal hygiene for the crew, viz:-

(1) Water Cargo Tanks should be as free as possible from projections, and pipes, etc. in the tanks should be reduced to the absolute minimum.

(2) Water Cargo Tanks should be thoroughly coated internally with a cement

wash, and periodic inspections arranged by the local Licensing Wuthority or Port Authority.

(3) Access to the cargo tanks should be through W.T. hatches, say 2' 6" x 2' 6", fitted on the trunk and with 12" coamings. The hatch covers should be capable of being screwed to a tight bearing and of being locked in the closed position.

(4) Arrangements should be made for filling the tanks through a main filling pipe with branches to the various tanks and a S.D.V. fitted to each branch. The F.W. filling manifold should be provided with a cap for each connection. The caps should have permanent chain attachments to the manifold and should be fitted on the connections when they are not actually in use. The slope of the pipe should be arranged to be self-draining into one or other of the cargo tanks.

(5) In the cargo tanks which are cement washed a flat plate, say 12" dia. should be arranged at a reasonable distance immediately below the filling pipe, to spray and aerate the water and to prevent it falling in a jet on to the cement washed surfaces and possibly causing damage. These plates should be suitably inclined when the filling pipe to the tank is adjacent to a divisional bulkhead.

(6) Air escapes should be provided to the tanks and should be of a goose-neck type 12" high with a wire gauze filter fitted to the open end.

(7) The pumping arrangements for the delivery of fresh water should be capable of pumping water to a head of say 35 to 40 feet. The pumps should be used for no other purpose than the transference of water cargo.

(8) The suction pipes to the delivery pumps should be led from sumps in the cargo tanks, which are protected by perforated strainers.

(9) The suction pipes should be connected to valve boxes which in turn are connected to the pumps in such a manner that water may be pumped concurrently from any two of the tanks to either of the delivery manifolds, port or starboard.

(10) All piping should be galvanised mild steel. The use of white or red lead should be prohibited for the piping and joints should be made with hemp and tallow or some other approved material.

(11) Automatic gauges should be fitted in the Pump Room, suitably graduated to show the amount of water in each of the cargo tanks.

(12) Hoses should be of a rubber lined canvas type and when not in use should be stowed in racks so that they are slightly inclined and so become self-draining. The racks which are raised off the deck and perforated on the bottom to prevent accumulation of water should be fitted with sides, ends and hinged covers for protection. The end length of hose should be fitted with a cap attached to the hose by a chain, so that the open end can be protected in passing to and from the ship.

(13) Suitable crew's quarters which are completely separated from the cargo tanks, should be provided, to include a mess-room and galley separate. Fresh water for the use of the crew should be available from a gravity tank.

(14) A washplace and W.C. should be provided on deck for the use of the crew and personal hygiene should be emphasised and encouraged. A sanitary tank should be provided over the W.C. with proper flushing arrangements.

(15) The bilge pump should be provided with a sea connection for wash deck and sanitary service. Bilge and ballast suction pipes should not pass through the water cargo tanks and there should be no connection of any form to the fresh water systems.

(16) Any wood belting fitted around the ship must not be fastened through the side but should be bedded in and fastened to top and bottom securing bars.

(17) The water boat should carry suitable adaptors to fit any connection to the F.W. storage tank on the ship taking water. They should be kept in a locked cupboard until required and attention should be drawn to the fact that with the addditional precautions to preserve the pure condition of the water cargo, the ship taking water should ensure that their connection and the condition of their F.W. storage tank are maintained at a high standard.

(18) Care should be taken to ensure that the carrier is designed with deck and trunk top having at least the normal round of beam.

(19) Stability is to be sufficient to allow free surface below maindeck level in any two of the tanks at one time in all stages of service draughts. An inclining experiment should be carried out on completion of the vessel.

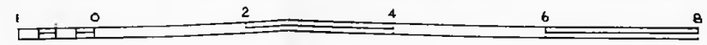
(20) Levelling arrangements or suitable subdivision of wing compartments should be arranged so as to prevent dangerous heeling in the event of side damage.

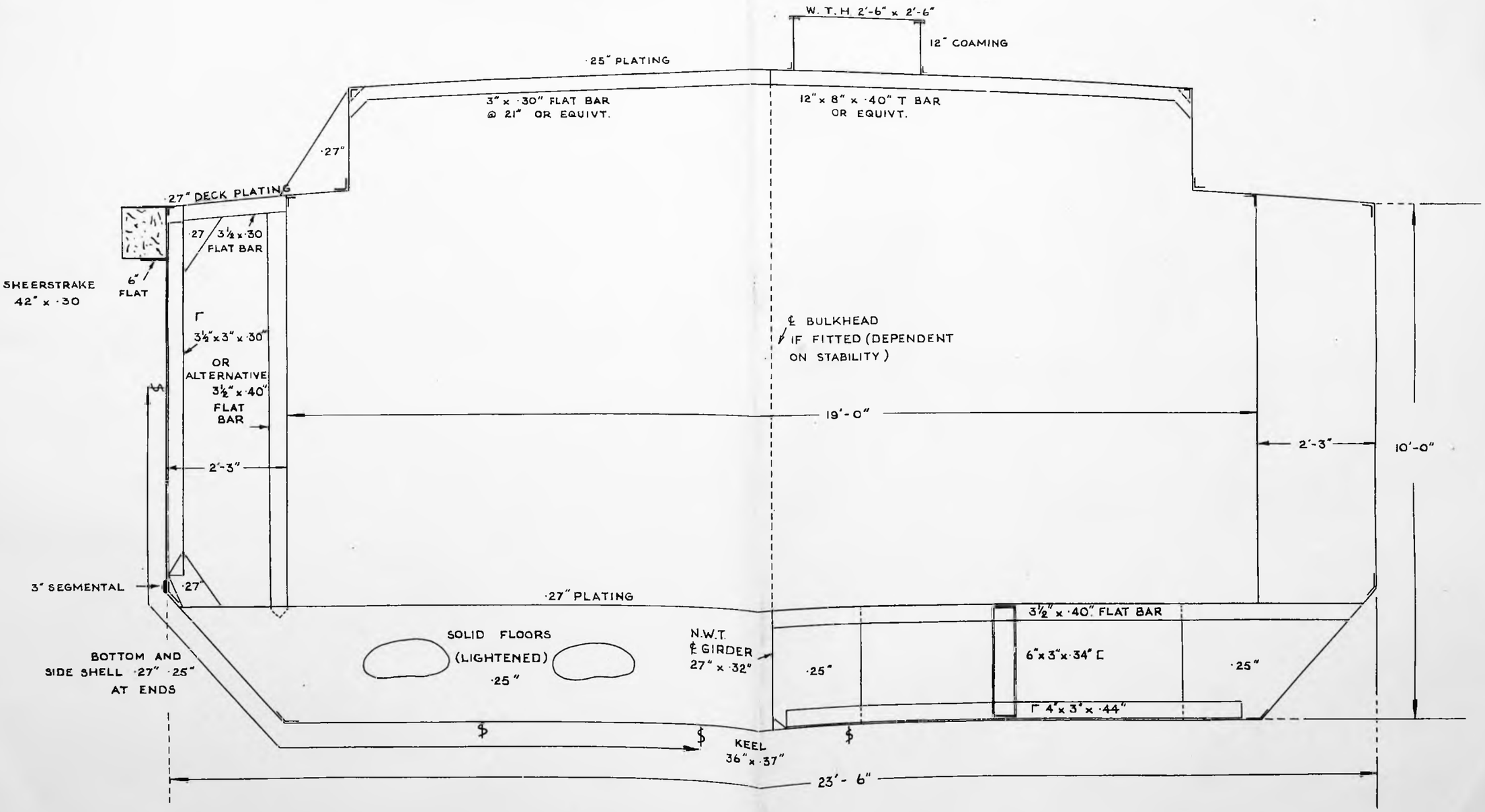
MOTOR WATER CARRIER
MIDSHIP SECTION (No. 1)

ESTIMATED DIMENSIONS: 110'-0" O.A. / 104'-0" B.P. } x 23'-6" Mld. x 10'-0" Mld.

TO CARRY 300 TONS F.W.

Scale of Feet





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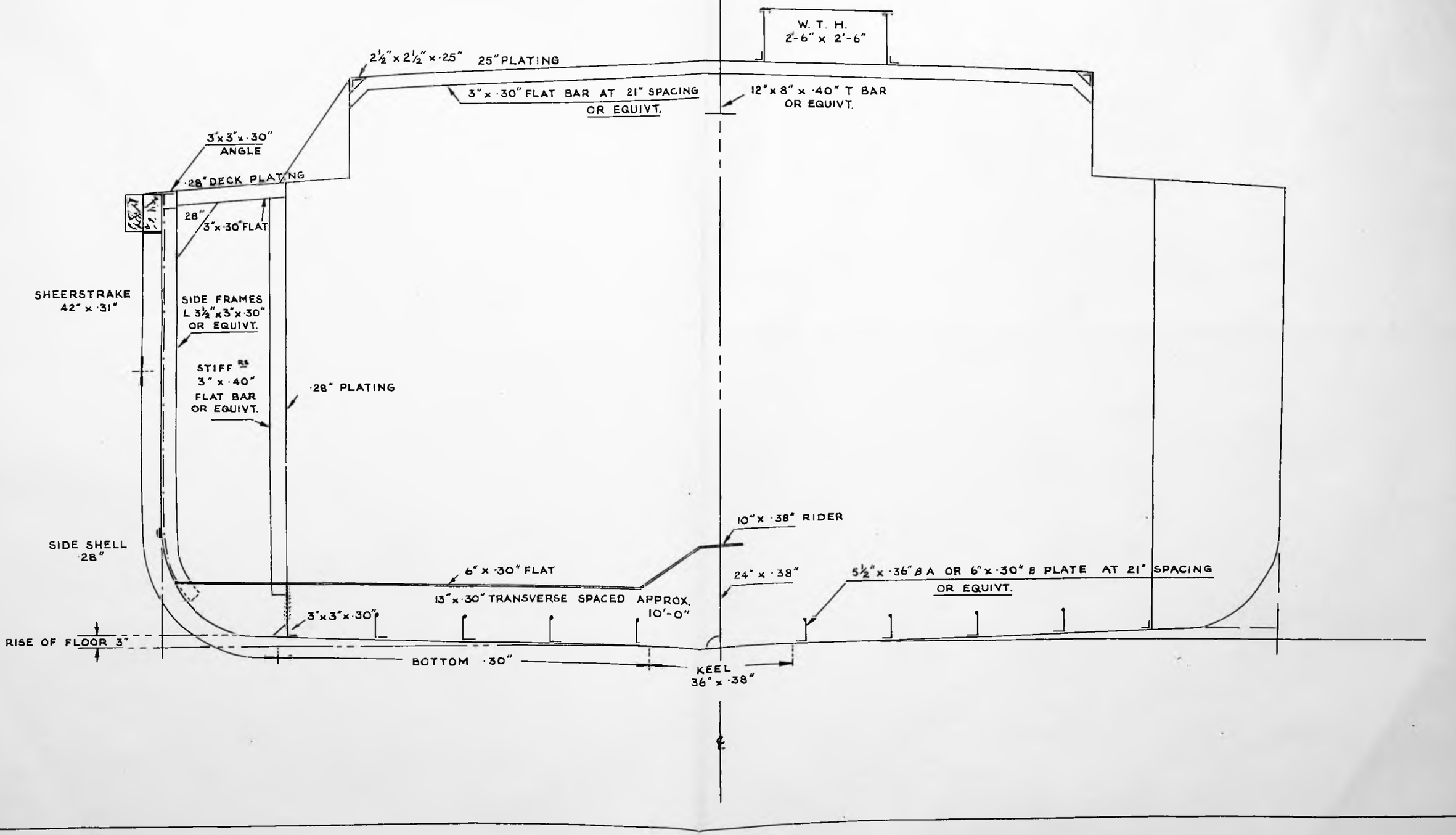
4e

WATER CARRIER
ALTERNATIVE MIDSHIP SECTION (No. 2)

DIMENSIONS 104'-0" x 22'-6" x 9'-0" Mld.

Scale of Feet



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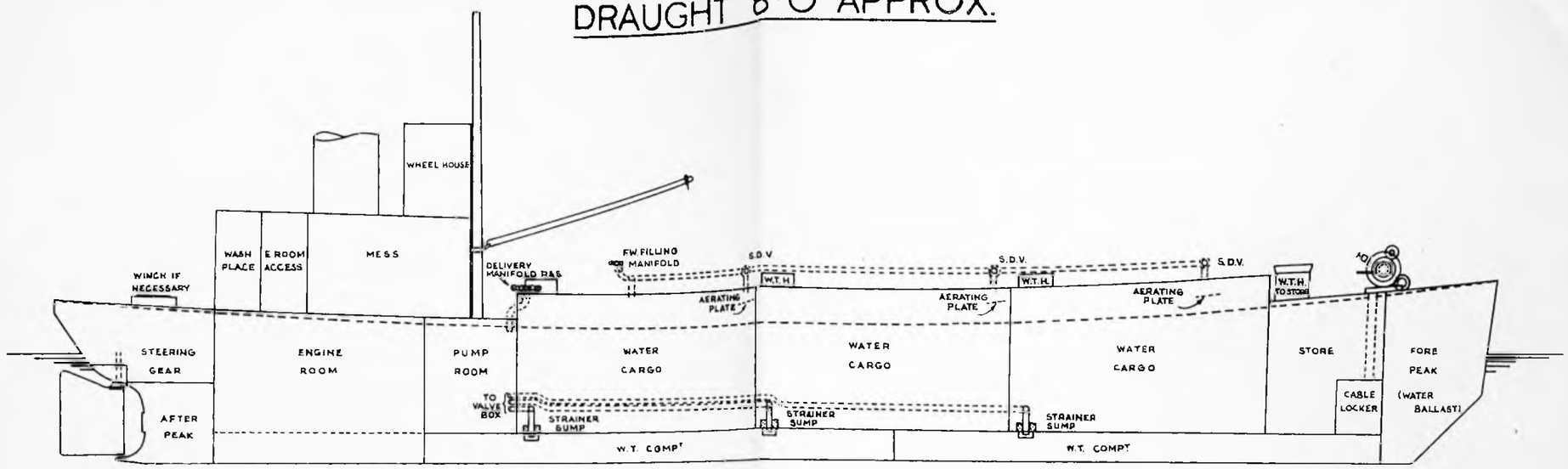
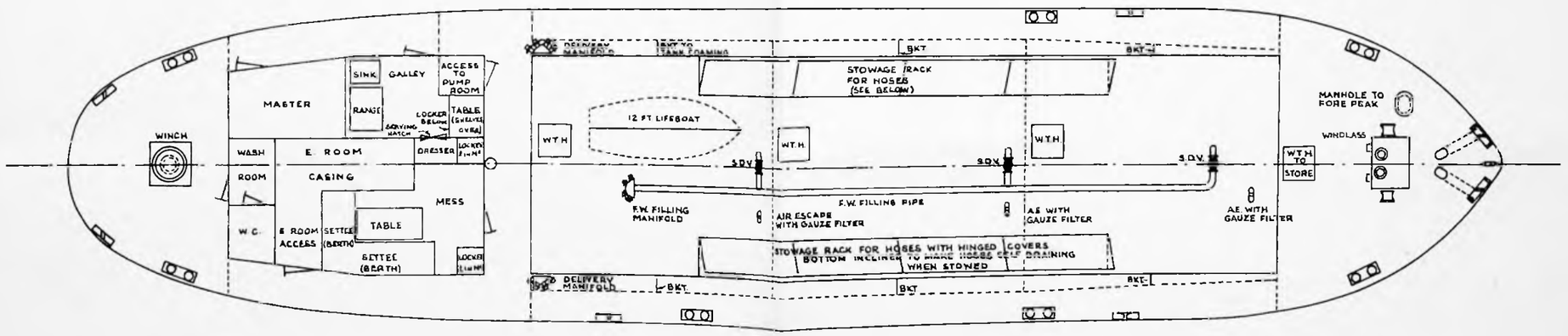
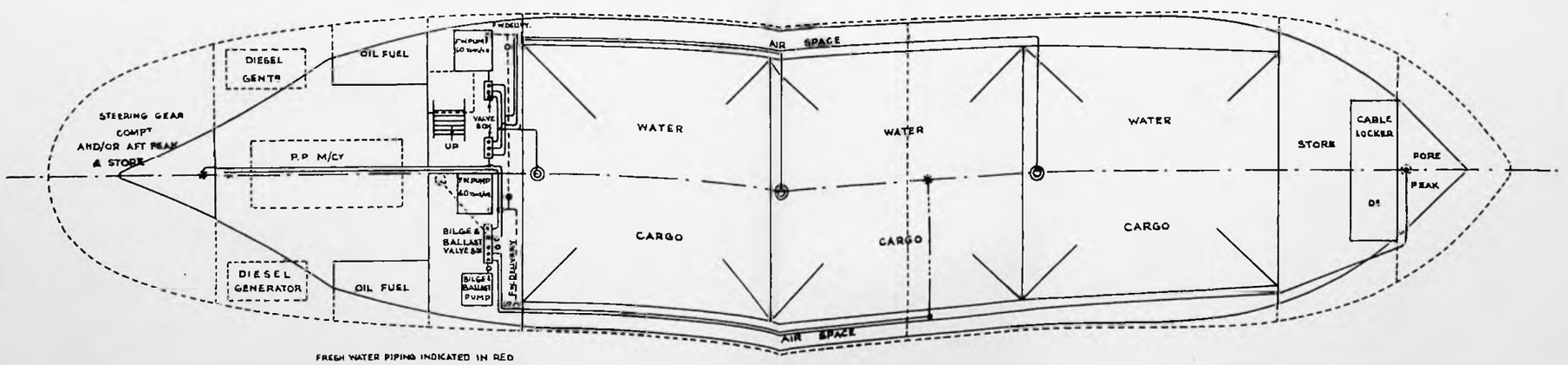
GENERAL ARRANGEMENT

PROPOSED ARRANGEMENT OF A WATER CARRIER FOR 300 TONS FRESH WATER

DIMENSIONS 104 FT. BP. X 23 FT. 6 INS. MID. X 10 FT. MID ESTIMATED DRAUGHT 8'-0" APPROX.







FRESH WATER PIPING INDICATED IN RED
BILGE & BALLAST PIPING INDICATED IN BLUE

SCALE OF FEET

4 3 2 1 0 2 4 6 8 10 12 14 16 18 20 22 24 26 28

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C.D.O./BG./253

The Falkland Islands Company, Limited.

(INCORPORATED BY ROYAL CHARTER 1851.)

REGISTERED 1902.

AGENTS FOR LLOYDS.

TELEGRAMS "FLEETWING PORTSTANLEY" VIA RADIO.

5

Stanley,

4th December, 1953.

Urgent.

Sir,

The m.v."Martin S" came alongside Public Jetty today for fresh water, requiring about 20 tons for the forthcoming Camp voyage, and we have been informed that only 5 tons can be supplied, with no promise of any more.

The Superintendent of Works states there is 1' 11" in the reservoir of which 1' 6" cannot be used, further that the level fell from 2' 0" to 1' 11" in one night. It would therefore appear that failing a heavy fall of rain Stanley may be without water in five days from now.

We can hardly credit that the situation is as desperate as Mr.Livermore would have us believe. If it is indeed true it represents a shocking state of affairs which should be rectified immediately.

There were warnings in plenty during the dry spell about a year ago which was of longer duration than we have had to date this year. Please let us know the facts and what can be done to provide our vessels "Martin S" and "Fitzroy" with their requirements.

I am,
Sir,
your obedient servant,

A. G. Barton

Manager.

Reply at 8

The Honourable
The Colonial Secretary,
Stanley.

C.S.

Issue. We will probably have to do some pumping: what are S/W's observations? MC 9/xii

Discussed verbally with H.E.

~~This has just come in & you may wish to discuss with S.W. this morning.~~ It is the same kind as the road one.

103/50

8

10th December, 53.

Sir,

5 I am directed to refer to your letter of the 4th of December, 1953, and to express regret that it was not possible to supply your vessels with their full requirements of water owing to the drought conditions prevailing.

2. You are however aware of Mr. Pape's investigations and suggestions for improving the Stanley Water Supply and also of the efforts which are being made to implement his recommendations.

I am,
Sir,
Your obedient servant,

(Sgd) C. Campbell

COLONIAL SECRETARY.

The Manager,
Falkland Islands Company, Limited,
STANLEY.

VP