

## STEEL STEAMER OR MOTORSHIP.

Received at London Office

14 DEC 1936

State if Report has been sent on the Freeboard of the Vessel *CP*State if Report is sent on the Machinery of the Vessel *Yes*

Date of completion of report *15th November 1936* Port of *Yokohama* No. *5932*  
 Survey held at *Yokohama* Date First Survey *15th October 1935* Last Survey *5th November 1936*  
 On the (State if Machinery fitted Aft and if Single, Twin or Triple Screw) *Single Screw Motorship "HOYO MARU" (Machinery aft).*  
 State Type (Full Scantling, Complete Superstructure with or without Tonnage Openings) *Full Scantling.* State Type of Erections *Pooh, open bridge & forecastle*

TONNAGE under Tonnage Deck... *4993* CLASS *100A1* State if with freeboard as condition of Class  
 Do. of space or spaces between Tonnage Dk. and Upper Dk. *-* Length from fore part of stem to after part of stern post on summer L.W.L. See Sec. 3 (1a) *L 470.16* Launched *29th Aug. 1936* Yard No. *250*  
 Total *4993* Breadth (greatest moulded) *B 61.02* Builders *Yokohama Dock, Mitsubishi Jukogyo KK.*  
 Gross Tonnage *8692* Depth, at middle of length from top of keel to top of beam at side of uppermost continuous deck. See Sec. 3 (1c) *D 37.50* Owners *Pifpon Tanker Kabushiki Kaisha*  
 Register Tonnage *6042* 1st Longitudinal Number (L x D) *= 17631* Managers  
 2nd Numeral L x (B + D) *= 46320* (Where necessary to be entered in Reg. Book.)  
 REGISTERED DIMENSIONS. FEET. *metre* Residence  
 Length *474.0* *144.47* Proportions—Depth to Length—Uppermost continuous deck to top of keel *12.54* Port of Registry *Tokio*  
 Breadth *61.02* *18.60* Do. Long Bridge to top of keel *metre* *8.997* *X* surveyed while building, afloat, or in dry dock.  
 Depth *37.50* *11.43* Draught Moulded

## FRAMES, DOUBLE BOTTOM AND BEAMS.

	INCHES IN SHIP. 9 M. M.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP. 9 M. M.	Any Departure from Approved Plans to be Noted.
<b>FRAMES, Spacing amidships</b> .....	810	/	<b>Bracket Floors, Frame</b> .....	-	
"    "    from $\frac{3}{8}$ length to Collision bulkhead.....	685	/	"    "    Reversed Frame .....	-	
"    "    in peaks.....	610	/	"    "    Vertical Struts .....		
<b>SIDE FRAMING.</b>			"    "    IN ENGINE ROOM		
Frame Amidships, Angle, [ or ] .....	230 x 90 x 90 $\frac{10}{13}$	$\frac{10}{13.5}$ See letter	<b>Centre Girder, depth and thickness amidships</b> .....	61	
"    "    Extends up to .....	Upper deck	/	"    "    top Angles .....	90 x 90 x 13 DA	
Reversed Frame Amidships, Angle .....	-	/	"    "    bottom Angles .....	130 x 130 x 15 DA	
"    "    Extends up to...	-	/	"    "    IN E. ROOM.	2 - 64	
Depth of Framing Girder.....	230	/	<b>Side Girders, No. each side and thickness A...</b>	1 - 47	
Frames in Uppermost Continuous 'tween Decks, Angle, [ or ] .....	-	/	<b>Margin Plate</b> depth (excl. of flange) and thickness .....	-	
"    "    Second 'tween Decks, Angle, [ or ] .....	-	/	"    "    Vertical Angle to Tank side	-	
"    "    Third " " " " .....	-	/	"    "    Bracket abaft $\frac{1}{4}$ len. from stem .....	-	
Framing in Peaks, Angle or [ .....	9 x 3 1/2 x 475 ALT.	/	"    "    Vertical Angle to Tank side	-	
Diameter and Spacing of Rivets through Frame and Shell Plating amidships .....	7/8 4 1/16	/	"    "    Bracket forward $\frac{1}{4}$ len. from stem .....	-	
State if Frame Joggled .....	Yes	/	"    "    Gussets, spacing and scantling abaft $\frac{1}{4}$ len. from stem.....	-	
<b>PANTING ARRANGEMENTS</b> (Sec. 7), state system and particulars)	Web frames as approved. Bottom plating 82 from 2L to C. 8'10". Bottom frames 150 x 150 x 12	/	"    "    Gussets, spacing and scantling forward $\frac{1}{4}$ len. from stem.....	-	
<b>STRENGTHENING OF BOTTOM FORWARD.</b> State Particulars .....	150 x 150 x 12	/	<b>Tank Side Brackets, height above base line at toe of Frame and thickness</b> .....	-	
<b>SINGLE BOTTOM.</b>			<b>INNER BOTTOM PLATING. ENGINE ROOM</b>		
Floors, Depth and thickness at mid-line in Holds .....	-	/	Breadth and thickness of Middle Line Strake .....	1.20 x .56	/
Height of Brackets at side above base line at toe of frame .....	-	/	Thickness of remainder in Holds .....	-	
Middle Line Keelson, on Floors, Angles, [ or ] .....	-	/	Are Rule requirements complied with regarding increases of scantlings in way of double bottom in E. & B. space and framing in Bunkers and Boiler Room? .....	-	
"    "    Through Plate or Intercoastal Plate...	-	/	<b>BEAMS.</b>		
"    "    Foundation Plate on Floors .....	-	/	Uppermost Continuous Deck, amidships in Wells, Angle, [ or ] .....	LONGITUDINAL FRAMING	
"    "    Flat Plate Keel Angles .....	-	/	"    "    in way of Bridge, Angle, [ or ] .....	200 x 90 x 90 9/32	/
Side Keelsons, No. each side .....	-	/	"    "    Spacing .....	685	/
"    "    thickness of Intercoastal Plate...	-	/	Second Deck, amidships, Angle, [ or ] .....	-	
"    "    Angles .....	-	/	"    "    Spacing.....	-	
<b>DOUBLE BOTTOM. IN ENGINE ROOM</b>			Third Deck, amidships, Angle, [ or ] .....	-	
Solid Floors, thickness and spacing .....	50-47, 810	/	"    "    Spacing.....	-	
"    "    Are Frame and Reversed Frame joggled? .....	Yes	/	Fourth Deck, amidships, Angle, [ or ] .....	-	
Bracket Floors, breadth and thickness at middle line.....	-	/	"    "    Spacing.....	-	
"    "    breadth and thickness at margin plate.....	-	/	Poop Deck, Angle, [ or ] .....	200 x 90 x 90 9/32	/
			"    "    Spacing.....	810	/
			Bridge Deck, Angle, [ or ] .....	180 75 9.5	/
			"    "    Spacing.....	810	/
			Forecastle Deck, Angle, [ or ] .....	250 x 90 x 90 9/32 ALT.	/
			"    "    Spacing .....	127 x 90 x 15 610	/



## PILLARS AND DECKS.

	INCHES IN SHIP. or m. n.	Any Departure from Approved Plans to be Noted.		INCHES IN SHIP.	Any Departure from Approved Plans to be Noted.
<b>PILLARS, No. of Rows.....</b> 2			Stringer Plate, breadth and thickness in way of Bridge .....		
„ in 'tween Decks, Size and Spacing .....			Thickness of Plating abreast Deck openings in way of Wells .....		
„ „ „ „ „			Thickness of Plating abreast Deck openings in way of Bridge .....		
„ in Hold <i>FORE</i> „ <i>I</i> 300 x .70			Thickness of Plating within line of openings...		
„ <i>ENGINE ROOM</i> „ <i>E</i> 300 x 90 x 90 x $\frac{1}{16}$ x .5			If Sheathed, material and thickness .....		
<b>Centre Line Bulkhead.</b>			<b>Third Deck.</b>		
Stiffeners and Spacing..... <i>SEE LONGITUDINAL FRAMING</i>			Stringer Plate, breadth and thickness.....		
Plating, thickness of .....			If Plated, state thickness.....		
<b>STRINGERS AND DECKS.</b>			<b>Fourth Deck.</b>		
<b>Uppermost Continuous Deck.</b>			Stringer Plate, breadth and thickness.....		
Stringer Plate, breadth and thickness in Wells <i>CARGO TANKS</i> 1,650 .80			If Plated, state thickness .....		
„ „ „ „ in way of Bridge 1-17			<b>Poop Deck.</b>		
„ „ „ „ <i>POOP FRONT</i>			Stringer Plate, breadth and thickness .....	1,650 .58 .50	
„ Angle in Wells 200 200 20			Plating, Sheathing, material and thickness ..	.46 .34 3" o.p.	
Thickness of Plating abreast Deck openings <i>OVER LONG. B'HS</i> .80			<b>Bridge Deck.</b>		
in way of Wells <i>REMAINDER</i> .74			Stringer Plate, breadth and thickness.....	1,090 .44	
Thickness of Plating abreast Deck openings <i>ENGINE</i> .42			Plating, Sheathing, material and thickness ..	.30 2" TEAK	
in way of Bridge .....			<b>Forecastle Deck.</b>		
Thickness of Plating within line of openings...			Stringer Plate, breadth and thickness.....	.50	
If Sheathed, material and thickness .....			Plating, Sheathing, material and thickness ..	.50	
<b>Second Deck.</b>					
Stringer Plate, breadth and thickness in Wells... .40					

## SHELL PLATING.

SCANTLINGS.					RIVETING.						
STRAKES.	AS IN VESSEL.				ANY DEPARTURE FROM APPROVED PLANS TO BE NOTED.	EDGES. State if jogged? <i>NO</i>		BUTTS.			
	AMIDSHIPS.		FORWARD.	AFT.		SINGLE OR DOUBLE.	RIVETS. Diam. Spacing cr. to cr.	NO. OF ROWS OF RIVETS.	RIVETS.		STRAPPED OR LAPPED.
	Breadth. Inches.	Thickness. Inches.	Thickness. Inches.	Thickness. Inches.					Diam. Inches.	Spacing cr. to cr. Inches.	
FLAT PLATE KEEL .....	1,400	1.05	.82	.82		Double	1 1/8 4 1/2	5-4	1 1/8	5	Lapped
„ DBLG. (if any)											
BOTTOM PLATING, No. of Strakes ..... 4.....	A+B C+D	.80 .74	.56 .56	.52 .52		"	1 4	5-3	1	4 1/2	"
BILGE PLATING, No. of Strakes ..... 2.....		.74	.56	.52		"	1 4	5-3	1	4 1/2	"
SIDE PLATING, No. of Strakes ..... 4.....		.70	.56	.52		"	7/8 3 1/2	4-3	7/8	3 1/2	"
UPPER DECK, Sheer- strake in Wells.....		1.00	.56	.50		"	1 1/8 4 1/2	5-3	1 1/8	5	"
UPPER DECK, Sheer- strake in Bridge <i>DOUBLED</i> .76						"					
STRAKE BELOW Sheer- strake in Wells.....		.90	.56	.50		"	1 4	3	1	4 1/2	Double straps
STRAKE BELOW Sheer- strake in Bridge <i>at Break off (See plan)</i>						"	7/8 3 1/2	3-2	7/8	3 1/2	Lapped
POOP SIDE PLATING .....			.64	.42							
BRIDGE SIDE PLATING ...						Single	3/4 3	1	3/4	2 5/8	"
FORECASTLE SIDE PLATING			.44								

## WATERTIGHT BULKHEADS.

<b>Total No. of W.T. BULKHEADS in Vessel—</b>	O. T.	10 TO U. DK.
Extending to Upper Deck (Sec. 3 c)	W. T.	1 " U. DK.
„ Deck next below	"	1 " 2nd DK.
As per Rule		

## STIFFENERS.

	Plating Thickness.				
		VERTICAL		HORIZONTAL	
		Scantlings.	Spacing.	Scantlings.	Spacing.
<b>MIDSHIP BULKHEAD, Upper tween decks</b>					
„ „ Second „		SEE SEPARATE LIST.			
„ „ Third „					
„ „ Holds .....					
<b>COLLISION</b> „ (in Hold) .....	.50 to .26	230.90 x 90 x 13.5	610	Panking stops.	1800
<b>AFTER PEAK</b> „ „ .....	.54 to .30	9 x 3 1/2 x 475	610		

## FORGINGS and CASTINGS.

	Casting or Forging.	Scantlings.	Maker's Name.	Any departure from approved plans to be noted.
<b>KEEL, Bar</b> .....		Flat plate		
<b>STEM</b> .....	Forging	280 x 72		
<b>STERN FRAME</b> { Propeller Post .....	Casting		Oshima S. Moko.	
{ Rudder „ .....		Built-up type as approved.		
<b>Speed of Vessel</b> .....		12 KNOTS		
<b>RUDDER—Type</b> .....		Balanced.		
„ A x D .....				
„ Diam. of head .....	Forging	290	Oshima S. Moko.	
„ Mainpiece at top pintle				
„ „ heel ...				
„ how constructed .....	Streamline			Balanced as approved.
„ double or single plate	Double			
„ coupling, vertical or				
„ horizontal .....	Horizontal			

Manufacturer's Name or Trade Mark of the Steel used in the construction of the Vessel (state process of manufacture)

STEEL.

Asano S. B. Co. Yawata Steel Wks. Nippon Kokan K.K. Lanarkshire Steel Co. &amp; Co.

Has the Steel been tested as required by the Rules? Yes.



EQUIPMENT No 47774												LETTER	ANCHORS.		
Number of Certificate.	Anchors.	WEIGHT, EX. STOCK			WEIGHT OF STOCK			TEST, PER CERTIFICATE.				WEIGHT REQUIRED BY TABLE 53.	Description of Anchor.	Makers.	Where and when tested and Superintendent.
		Cwts.	qrs.	lbs.	Cwts.	qrs.	lbs.	Tons.	cwts.	qrs.	lbs.	Cwts.			
1190	1st Bower ...	81	1	14	-			59	0	0	0	-	Halls stockless	Osaka Steel Foundry	Osaka 15/5/36 J. Jo.
1191	2nd " ...	81	3	2	-			59	10	0	0	-	"	"	"
1192	3rd " ...	82	2	20	-			59	10	6	0	-	"	"	"
	Collective weight.	245	3	8								232			
1193	Stream .....	23	0	12	6	2	0	23	4	1	14	11 23 14	Ordinary Stock	"	"

CHAIN CABLES.													HAWSERS AND WARPS.					
Number of Certificate.	Length and size supplied.		Test per Certificate.		WEIGHT OF CHAIN CABLE.			Length and Size per Table 53.		Description.	Makers of Cables.	Where and when tested, and Superintendent.	Material.	Length and Size supplied.		Breaking Test of Steel Wire.	Length and Size per Table 53.	
	Length.	Diam.	Statu- tory.	Break- ing.	Supplied.	Per Rule.	Length.	Diam.	Length.					Cir.	Tons.		Length.	Cir.
	Fathoms.	Ins.	Tons.	Tons.	Cwts.	qrs.	lbs.	Cwts.	Fathoms.	Ins.				Fathoms.	Ins.	Tons.	Fathoms.	Ins.
													TOWLINE...	240	5 1/2	Excess of rule		
									300	2 5/8	Stud and link	Osaka Steel Works.	Osaka 14/7/36 J. Chatsumura	HAWSERS & WARPS	185	8		
2224	304	2 5/8	120 9/16	169 1/2	1123.1	14									185	8		
															185	8		
															185	8		
															185	8		
															185	8		
Iron Stream Chain or Steel Wire		Cir.								Cir.								
	225	4 3/4		Excess of Rule						S. W.	Toho Seiko K. K.	Osaka 26/6/36 S. Soga						

Steering Gear, Steam *Efficient* Steering Gear, Hand *Wires & blocks lead to Capstan.*  
Boats *2 lifeboats* *Good.* Steering Chains, Size and Test *None; direct coupled to engine.* Windlass *Steam efficient.*  
Ceiling in Holds, thickness and material *2 1/2 O.P.* Cargo Battens, thickness, material and spacing *150x50, 180 apart wood*  
Cargo Hatchways.—(Upper Deck) *4, 110x4880 coaming 610x50* Thickness of Hatches *Plate .40*  
*Remainder O.T. hatchways coaming 760x44*  
Size of No. 1 Hatchway (Forward) *No. 2 No. 3 No. 4 No. 5 No. 6*  
Number of Shifting Beams and/or Fore and Afters *2 shifting beams to hatchway fore hold* *34 330 190x60*

Builder's Signature *S. Tsunematsu.*

GENERAL DECLARATION. It should be stated (a) whether the vessel (if not a motorship) is fitted for the carriage and burning of oil used as fuel  
(b) whether the vessel, not being an oil tanker, is fitted for carrying oil as cargo The positions in which oil is carried as fuel or cargo should be indicated, together with the flash point.

*All oiltight and watertight compartments were tested to rule requirements and found satisfactory. All weather decks were hose tested and found watertight. The vessel was built as per approved plans. The workmanship and materials are good. Oil fuel for burning on board is carried in deep tanks forward and aft as indicated on sketch F.P. above 150°F. A copy of the midship section of the vessel as built also copies of forging and casting certificates are forwarded. A summer freeboard of 2.453 metres has been assigned by the Japanese Government.*

The amount of Entry Fee ..... £ 11 : 0 : 0 Fees applied for, 18/11/1936  
Special Survey Fee.... £ 782 : 8 : 9 Received by me, 1.2 37 1/2  
Travelling Expenses, if any *London 35.00 201.74 Kobe 198.25 52.38*  
State whether the Vessel has been built under Special Survey *Yes.*

(Special notations, where part of class, to be stated.)  
*Longitudinal framing at bottom & at deck.*  
I am of opinion the Vessel should be Classed *100 A1 Carrying petroleum in bulk.*  
Signature *A. McClashan.*  
Surveyor to Lloyd's Register of Shipping.

Certificate to be sent to *Yokohama* Date of issue *8/1/37.*

Committee's Minute *TUE. 29 DEC 1936* *TUE 2 FEB 1937*  
Character assigned *+100 A1*

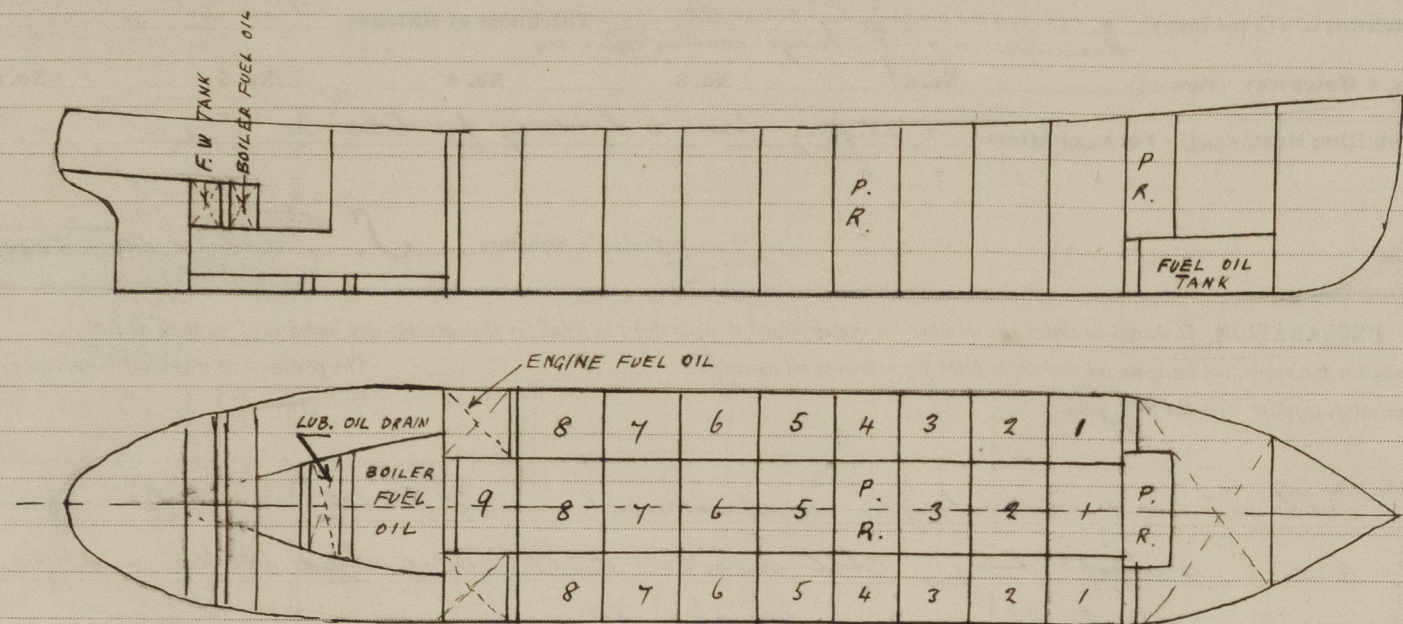
*Carry petrol in Bulk. Lloyd's A & C. Mach. aft. + drive 1136 2 D.B. 1636 C.L. oil engines*  
*Longitudinal framing at bottom and at deck*

*work etc.*



GENERAL REMARKS—(The Surveyor should state the Number of Report and Name of any Sister Vessel. Plans showing Vessel as built should be forwarded and a List of the Plans should be embodied.)

cargo oil tanks Nos. 1 to 9. = 14,686 tons at 38.5 cub. ft. per ton  
 Fuel oil tank forward. = 263 " " " " " "  
 Engine fuel oil tank P.O.S. 753 " " " " " "  
 Boiler fuel oil in D.B. P.O.S. 173 " " " " " "  
 Boiler fuel oil. 102 " " " " " "



SPECIAL NOTATIONS:—Either as part of the vessel's class or for record in the Register Book *Carrying petroleum in bulk*  
*Crusher stern.*  
*longitudinal framing at bottom and at deck.*

Particulars of <b>Drop Test</b> of Cast Steel Anchors, viz.:— Weight, Surveyor's Initials, Number of Certificate, Date of Test.	1st Bower	46.1.16	W. J.	1190	7.5.36
	2nd "	46.1.16	"	1191	"
	3rd "	47.1.3	"	1192	"

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 136.9 ft., R.Q.D. — ft., Bridge 37.2 ft., Forecastle 40.08 ft. (in feet and tenths). When the Poop or Forecastle are joined to the B.D., this should be distinctly stated

No. and Material of Decks *One deck steel*

Official No. 42349 : Signal Letters *J. J. G. K.* Is bottom of vessel coated with cement *epo.* if not give particulars of composition *motor ship*

#### PARTICULARS OF WATER BALLAST.—

Where Fitted.	*Length. Feet inches	Water Capacity. Metric Tons.	Where Fitted.	*Length. Feet inches	Water Capacity. Metric Tons.
Double bottom, aft,			Fore peak tank,		
Double bottom, under Engines and Boilers,			After peak tank,		
Double bottom, if under Engines only,	14.58	173.5	Deep tank, aft,		
Double bottom, if under Boilers only,	2.43	8.6	Deep tank, forward,		
Double bottom, forward,			Other tanks, if fitted,		
			(If necessary, furnish further information by sketch.)		

\* The wells are not to be included in the lengths of the tanks (See Circular No. 1284).

Order for Special Survey No. 30

Date 14/11/1935

Dates of Surveys held while building

1935 15/10, 16/12, 28/12/35, 13/1/1936, 23/1, 3/1, 3/2, 5/2, 7/2, 21/2, 3/3, 12/3, 16/3, 18/3, 21/3,  
 1/4, 1/4, 2/4, 7/5, 7/5, 19/5, 18/5, 22/5, 25/5, 29/5, 8/6, 12/6, 16/6, 17/6, 20/6, 23/6, 24/6, 26/6, 1/7,  
 9/7, 14/7, 17/7, 20/7, 23/7, 30/7, 4/8, 8/8, 12/8, 14/8, 17/8, 18/8, 19/8, 20/8, 24/8, 29/8, 10/10, 19/10,  
 31/10, 5/11/36.

Total No. of Visits 54.

Rpt. 1 \*

Port of Yokohama

Continuation of Report No. 5932 dated 15/2/1936 on the

"HOYO MARU"

Particulars of longitudinal and transverse Framing at Side, bottom, and deck, in way of cargo oil tanks.

	Plates & M. M.	Rivets in long. dir. & spacing	Spacing rivets each side transverse & bulkheads	Rivets in transverse dir. to bulkheads	Number rivets
Bottom longitudinals	17 x 4 x 4 x 66/100	1" 6"	3 1/2	30	7/8
Bar bar at ends	100 x 100 x 15, 1300				
Spacing	810				
Upper deck longitudinal	230 x 90 x 90 x 10/13.5	1" 6"		8	7/8
Spacing	810				

Transverses.

	Depth & thickness	Rivets to shell	Deck	Bilge brackets.
Upper deck	Face angles 150 x 90 x 12	dec. spacing		Depth & thickness 2600, .46
	Lugs to deck 90 x 90 x 11	7/8	4 7/8	
Bottom	Depth & thickness 1220 x .46			Intercostal bottom centre girders.
	Face angles 150 x 90 x 12			Plate 1220, .46
	Lugs to shell 150 x 150 x 12	7/8	4 3/8	Face bar 150 x 90 x 12 L
	Back bar 90 x 90 x 12			Bottom angle 130 x 130 x 15 JL
Spacing transverses	3,240			
				Intercostal upper dk. centre girders.
Web frames spaced	3,240			Plate 915 x .42
	Depth & thickness 380 x .50, 100 FL			Face bar 150 x 90 x 12 L
	Shell angle 90 x 90 x 13	7/8	4 3/4	Deck angle 90 x 90 x 11 L
Transverse frames	230 x 90 x 90 x 10/13.5	1" 5 1/2		See page 1

O.T. Transverse bulkheads.

Plating	Stiffeners	Horizontal Borders	Wing t'k's
	Vertical		
54 bottom	230 x 90 x 90 x 10/13.5	1 t'k	815 x .44 x 90 FL
44	Spaced 810	2	815 x .44 x 100 "
50 top		3	815 x .44 x 130 "
			Centre
			Plate Face bar
		1	840 x .44 150 x 90 x 15 A
		2	915 x .44 8 x 3 1/2 x 45 J
		3	915 x .46 9 x 3 1/2 x 47.5 J

2 O.T. Longitudinal bulkheads.

Plating	Stiffeners Vertical		Horizontal Borders
52 bottom	230x90x90x <sup>10</sup> / <sub>35</sub>	1 top	815 x .44 & 90 FL
44	Spaced 810	2	"
50 top		3	"

Transverse beams to each transverse

To 1st girder	250 x 90 x 90 x 11/14.5
" 2nd "	300 x 90 x 90 x 12/15.5

5m. 0.35.