

# T.S.S. KITANO MARU.

## MIDSHIP SECTION.

SCALE  $\frac{1}{2}$  TO ONE FOOT.

### PRINCIPAL DIMENSIONS.

LENGTH P.P. 465.0  
BREADTH MOULDED 56.5  
DEPTH MOULDED AT MIDSHIP 34.6  
LLOYD'S CLASS 100 A.I. THREE DECK RULES.

### NUMERALS.

HALF BREADTH 28.00  
GIRTH 59.75  
DEPTH 35.67  
123.42  
7.00  
116.42  
LENGTH 463  
5390246 PLATING NUMERAL

### PROPORTIONS.

DEPTH TO LENGTH (TO UPPER DK.) 12.93  
( " MAIN " ) 17.04  
BREADTH TO LENGTH 8.27

EQUIPMENT NO. 123.42 x 463 = 57143.46  
DK. ERECTIONS 15 x (115.25 x 7.75 + 175 x 8) = 3453.28  
DK. HOUSES 232.44 x 7.75 = 1801.41  
62398 EQUIPMENT NUMERAL

FRAMES SPACED 24" APART THROUGHOUT.  
FRAMES 7" x 32" x  $\frac{1}{2}$ " (3" LENGTH) TO FORM 11" GIRDER WITH REVERSE FRAME (LAPPED 5")  
FRAMES 6" x 32" x  $\frac{1}{2}$ " AT ENDS TO FORM 11" GIRDER WITH REVERSE FRAME ( " 3")  
FRAMES IN WAY OF LOWER DECK BEAMS TO FORM 8" GIRDER WITH REVERSE FRAME  
FRAMES DOUBLED IN AFT PEAK ONE TO UPPER DECK & THE OTHER TO BOAT DECK STRINGER PLATE.  
FRAMES IN CELLULAR BOTTOM 32" x 32" x  $\frac{1}{2}$ " (3" LENGTH)  
FRAMES DOUBLE BOTTOM TO BE DOUBLED BETWEEN COLLISION BULKHEAD & 3" LENGTH FORWARD.

BULKHEAD FRAMES 7" x 32" x  $\frac{1}{2}$ " (3" LENGTH) 6" x 32" x  $\frac{1}{2}$ " AT ENDS.

WEB FRAMES FITTED AS PER PROFILE.

REVERSE FRAMES EXTENDING TO UPPER DECK ON EVERY FRAME FOR 3" LENGTH BEFORE & AFT 3" LENGTH EXTENDING UPPER & MAIN DECKS ALTERNATELY EXCEPT IN WAY OF FORECASTLE DK WHERE THEY EXTEND TO FORECASTLE & MAIN DECKS ALTERNATELY.

REVERSE FRAMES IN WAY OF 12" GIRDER 8" x 32" x  $\frac{1}{2}$ " 5" x 32" x  $\frac{1}{2}$ "

FLOOR PLATES AT ENDS OF VESSEL 12" IN PEAKS; IN AFT PEAK TO EXTEND TO SUFFICIENT HEIGHT ABOVE STEERN TUBE.  
TANK FLOOR PLATES 22" (2" LENGTH) IN HOLD 12" UNDER ENGINES 16" IRON UNDER BOILER SPACE.  
ANGLES ON TOP OF FLOOR PLATES IN HOLD 32" x 32" x  $\frac{1}{2}$ " FOR 1" L.  
DOUBLE ANGLES ON TOP OF FLOOR PLATES UNDER ENGINES 42" x 42" x  $\frac{1}{2}$ " BOILER SPACE 32" x 32" x  $\frac{1}{2}$ " IRON STOWS 42" x 42" x  $\frac{1}{2}$ " IRON UNDER THRUST BLOCK SEATS.

TRANSOM FLOOR PLATE 34" x 26"

TANK INTERCOSTAL PLATES 22" IN HOLD (2" L.) 16" UNDER ENGINES 16" IRON IN BOILER SPACE.

ANGLES CONNECTING BOTTOM 32" x 32" x  $\frac{1}{2}$ " FOR 1" L. TOP & ENDS 32" x 32" x  $\frac{1}{2}$ " FOR 1" L.

ADDITIONAL INTERCOSTAL PLATES 22" x 22" TO BE FITTED IN DOUBLE BOTTOM THE 3" LENGTH FORWARD AS FAR AS PRACTICABLE.

THREE EXTRA INTERCOSTAL PLATES ON EACH SIDE IN WAY OF ENGINES.

BULKHEADS 7" x 32" (HALF HEIGHT) ALL EXTENDING TO UPPER DECK & STIFFENED ONLY WITH VERTICAL STIFFENERS, EXCEPT COLLISION & AFT PEAK TANK BULKHEADS, WHERE TO BE FITTED WITH VERTICAL & HORIZONTAL STIFFENERS.

NO. 2. B.H. (FRAME 115 IN HOLD, FRAME NO. 175 IN UPPER TWEEN DECK). VERTICAL STIFFENERS IN HOLD 9" x 32" x  $\frac{1}{2}$ " CHANNEL.

NO. 3. BULKHEAD (FRAME NO. 145). VERTICAL STIFFENERS IN HOLD 9" x 32" x  $\frac{1}{2}$ " CHANNEL.

NO. 4. B.H. (FRAME NO. 120 IN HOLD, FRAME NO. 115 IN UPPER TWEEN DECK). VERTICAL STIFFENERS IN HOLD 10" x 32" x  $\frac{1}{2}$ " CHANNEL WITH ONE SEMI-BOX GIRDER 22" x 32" x  $\frac{1}{2}$ " PLATE & 8" x 32" x  $\frac{1}{2}$ " CHANNEL.

NO. 5. BULKHEAD (FRAME NO. 75). VERTICAL STIFFENERS IN HOLD 6" x 32" x  $\frac{1}{2}$ " CHANNEL WITH ONE SEMI-BOX GIRDER 22" x 32" x  $\frac{1}{2}$ " PLATE & 8" x 32" x  $\frac{1}{2}$ " CHANNEL.

NO. 6. (FRAME NO. 47 IN HOLD & LOWER TWEEN DECK & FRAME NO. 51 IN UPPER TWEEN DECK) & DEEP TANK BULKHEADS. VERTICAL STIFFENERS IN HOLD 10" x 32" x  $\frac{1}{2}$ " CHANNEL.

ALL HOLD STIFFENERS, EXCEPT DEEP TANK B.H. TO HAVE AFTWARD SHIP BRACKETS AT TOP & HEEL.

LOWER TWEEN DECK BULKHEAD STIFFENERS 7" x 32" x  $\frac{1}{2}$ " ANGLES, EXCEPT NO. 9. BULKHEAD WHERE 6" x 32" x  $\frac{1}{2}$ " ANGLES.

UPPER TWEEN DECK BULKHEAD STIFFENERS 5" x 32" x  $\frac{1}{2}$ " ANGLES, EXCEPT COLLISION & AFT PEAK BULKHEADS WHERE 6" x 32" x  $\frac{1}{2}$ " ANGLE.

ALL BULKHEAD STIFFENERS SPACED 36" APART.

COLLISION & AFT PEAK BULKHEAD VERTICAL & HORIZONTAL STIFFENERS 9" x 32" x  $\frac{1}{2}$ " BULB ANGLE SPACED AS PER RULE.

BRIDGE & POOP FRONT BULKHEADS 2" COAMING PLATE 16" STIFFENERS 32" x 32" x  $\frac{1}{2}$ " BULB ANGLE FOR BRIDGE FRONT.

6" x 32" x  $\frac{1}{2}$ " ANGLE FOR POOP FRONT.

SPACED 36" APART, & BRACKETED AT ENDS.

SHAFT TUNNELS 12" IN WAY OF HATCHWAYS WITH 2" WOOD PLANKING.

STIFFENERS 42" x 42" x  $\frac{1}{2}$ " SPACED 42" APART UNDER HATCHWAYS 36" APART.

7" x 32" x  $\frac{1}{2}$ " ANGLE IN WAY OF DEEP TANK 26" APART.

STEM 12" x 32" FORGED IRON, TAPERED FROM L.W.L. TO 9" x 32" AT TOP.

STERN FRAME 15" x 8" DUCTILE CAST STEEL (TWIN SCREW) AS PER PLAN.

RUDDER SINGLE PLATE TYPE WITH FORGED STOCK.

DIA. OF HEAD 11" INCREASED TO 11" DIA. OF MAIN PIECE.

AT HEEL 82" DIA. OF PHINTLES 82" ARMS 112" x 52" TO 6" x 12" AT POINT, 32" THICK ARM ROUND MAIN PIECE.

SPACED ABOUT 4" x 82" APART, THICKNESS OF PLATE 22"

CENTRE GIRDER 49" x 12" x  $\frac{1}{2}$ " LENGTH 12" IRON IN BOILER SPACE BUTTS LAPPED QUADRUPLE RIVETED FOR 1" L. TREBLE AT ENDS.

ENGINE & BOILER CASING PLATES INSIDE HOUSE 12" IN TWEEN DECKS.

COAMING PLATE 16" AT UPPER & MAIN DECKS.

BRIDGE & PROMENADE DECKS.

STIFFENERS 42" x 42" x  $\frac{1}{2}$ " IN TWEEN DECKS.

COAL BUNKER PLATES 12" IRON.

STIFFENERS 7" x 32" x  $\frac{1}{2}$ " IRON ANGLES 36" APART.

ENGINE SOLE PLATES 22"

BUTTS LAPPED DOUBLE RIVETED ALL FORE & AFT, EXCEPT E & B.

SPACES WHERE TREBLE RIVETED.

NOTE: IRON PLATE NOT TO BE JOGGED.

21"-11"

DOUBLE RIVETED ALL FORE & AFT.

32" x 32" x  $\frac{1}{2}$ " B.S.

24" x 26"

24" x 26"

24" x 26"

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24" x 26"

DECK PLANK 5" x 22" TEAK.

TIE PLATE 14" x 8"

7" x 52" x  $\frac{1}{2}$ " BULB ANGLE

BOAT DECK STRINGER PLATE 24" x 22" BUTTS LAPPED DOUBLE RIVETED.

STRINGER ANGLE 3" x 3" x  $\frac{1}{2}$ " WATER WAY ANGLE 22" x 22"

BOAT DECK BEAMS 6" x 3" x  $\frac{1}{2}$ " B. ANGLE SPACED 52" APART IN WAY OF BOAT CLOCKS TO BE DOUBLED.

DECK PLANK 5" x 22" TEAK.

TIE PLATE 16" x 8"

TIE PLATE 24" x 8"

PROMENADE DK. STRINGER PLATE 50" x 20" BUTTS LAPPED DOUBLE RIVETED.

PROMENADE DECK BEAMS 7" x 3" x  $\frac{1}{2}$ " B. ANGLE SPACED 52" APART.

POOP & FORECASTLE DK. PLANK 5" x 32" TEAK.

BOAT DECK PLANK OVER POOP 5" x 22" OREGON PINE.

POOP & FILE DK. STRINGER PLATE 44" x 8" BUTTS LAPPED DOUBLE RIVETED.

STRINGER ANGLE 4" x 4" x  $\frac{1}{2}$ " BUTTS LAPPED QUADRUPLE RIVETED.

STRINGER ANGLE 6" x 6" x  $\frac{1}{2}$ " GUTTER WATER WAY ANGLE 3" x 3" x  $\frac{1}{2}$ "

BRIDGE DECK PLATING 20" BUTTS LAPPED DOUBLE RIVETED.

DECK PLANK 5" x 3" TEAK WHERE EXPOSED. POOP DECK TIE PLATE 24" x 8" 5" x 3" YELLOW PINE ELSEWHERE. BUTTS LAPPED DOUBLE RIVETED.

PILLARS UNDER POOP, BRIDGE & FILE DECKS. 22" DIA. ON ALTERNATE FRAMES (3 ROWS OF PILLARS), EXCEPT WHERE OTHERWISE SPECIFIED.

UPPER DECK PLATING 20" FOR 1" L. IN WAY OF CARGO HATCHWAYS & LARGE OPENINGS, TO BE INCREASED IN THICKNESS (SEE DECK PLAN). BUTTS LAPPED DOUBLE RIVETED FOR 1" L. SINGLE AT ENDS, EXCEPT WHERE OTHERWISE SPECIFIED.

DECK PLANKS 5" x 3" TEAK WHERE EXPOSED.

5" x 3" PINE ELSEWHERE.

SINGLE SINGLE SINGLE SINGLE SINGLE

BEAM CAMBER 14" IN 50 FT.

FORE & AFT CENTRE GIRDER 6" x 32" x  $\frac{1}{2}$ " CHANNEL.

PILLARS 22" DIA. ON ALTERNATE FRAMES (3 ROWS OF PILLARS).

MAIN DECK PLATING 20" 1" L. IN WAY OF CARGO HATCHWAYS & LARGE OPENINGS, TO BE INCREASED IN THICKNESS (SEE DECK PLAN).

BUTTS LAPPED DOUBLE RIVETED FOR 1" L. SINGLE AT ENDS, EXCEPT WHERE OTHERWISE SPECIFIED.

MAIN DECK STRINGER PLATE 75" x 22" FOR 1" L. INCREASED FROM WITHIN THE BRIDGE ENDS TO 1" L. LENGTH FROM EACH END & REDUCED TO 54" x 22" AT ENDS (SEE DECK PLAN).

BUTTS LAPPED QUADRUPLE RIVETED FOR 1" L. TREBLE AT ENDS.

MAIN DECK STRINGER ANGLE 4" x 4" x  $\frac{1}{2}$ " 1" L. IN WAY OF POOP, BRIDGE & FILE DECKS.

SINGLE SINGLE SINGLE SINGLE SINGLE

FORE & AFT CENTRE GIRDER 10" x 32" x  $\frac{1}{2}$ " CHANNEL.

BEAMS.

POOP DECK BEAMS 9" x 52" x  $\frac{1}{2}$ " BULB TEE ON ALTERNATE FRAMES.

BRIDGE DECK BEAMS 9" x 52" x  $\frac{1}{2}$ " BULB ANGLE.

HATCH END BEAMS 10" x 22" x  $\frac{1}{2}$ " B. PLATE & 6" x 32" x  $\frac{1}{2}$ " SINGLE ANGLE.

FORECASTLE DECK BEAMS 6" x 32" x  $\frac{1}{2}$ " B. ANGLE ON EVERY FRAME.

UPPER DECK BEAMS 7" x 3" x  $\frac{1}{2}$ " CHANNEL ON EVERY FRAME.

HATCH END BEAMS (HATCHWAY 26" UNDER IN LENGTH) 11" x 32" x  $\frac{1}{2}$ " CHANNEL & LENGTH OF HATCHWAYS OVER 26" 0" AS PER PROFILE.

UPPER DECK BEAMS 7" x 32" x  $\frac{1}{2}$ " CHANNEL IN WAY OF CARGO SPACE IN BRIDGE HOUSE.

MAIN DECK BEAMS 7" x 32" x  $\frac{1}{2}$ " CHANNEL ON EVERY FRAME.

HATCH END BEAMS (HATCHWAYS 26" UNDER IN LENGTH) 12" x 32" x  $\frac{1}{2}$ " CHANNEL & LENGTH OF HATCHWAYS OVER 26" 0" AS PER PROFILE.

MAIN DECK BEAMS IN CARGO SPACES 8" x 32" x  $\frac{1}{2}$ " CHANNEL ON EVERY FRAME.

LOWER DECK BEAMS 8" x 32" x  $\frac{1}{2}$ " CHANNEL ON EVERY FRAME.

HATCH END BEAMS 12" x 32" x  $\frac{1}{2}$ " CHANNEL.

7" x 32" x  $\frac{1}{2}$ " CHANNEL ON EVERY FRAME.

IN BOTH PEAKS.

HOLD PILLARS (HOLLOW TUBE) TO BE FITTED ON ALTERNATE FRAMES AT CENTRE (AS PER RULE).

ALL REEFED FOR SHIFTING BOARDS.

STRONG BEAM IN MACHINERY SPACE 13" x 12" PLATE & FOUR ANGLES 6" x 42" x  $\frac{1}{2}$ " FOR MAIN DECK.

TO 16" x 20" UPPER

TANK TOP CENTRE STRAKE 49" x 12" x  $\frac{1}{2}$ " L. BUTTS LAPPED TREBLE

IN B.S. 12" IRON RIVETED FOR 1" L.

IN E.S. 12" DOUBLE AT ENDS.

PLATING OUTSIDE OF CENTRE STRAKE 32" x 12" x  $\frac{1}{2}$ " L.

IN E.S. 12" IRON.

ENGINE SOLE PLATES 22"

BUTTS LAPPED DOUBLE RIVETED ALL FORE & AFT, EXCEPT E & B.

SPACES WHERE TREBLE RIVETED.

NOTE: IRON PLATE NOT TO BE JOGGED.

21"-11"

DOUBLE RIVETED ALL FORE & AFT.

32" x 32" x  $\frac{1}{2}$ " B.S.

24" x 26"

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### EQUIPMENT.

2 - BOWER ANCHORS 66 & 65 1/2 CWTs. EX. STOCK (TROTMAN'S).  
1 - STREAM 56" (RODGER'S).  
1 - KEDGE 23" (COMMON).  
STUD CHAIN CABLE 2 1/2" DIA. 300 FATHOMS.  
STEEL WIRE (FOR STREAM) 5 1/2" C. 120  
(TOW LINE) 6" C. 130  
MANILLA ROPE 8" 200  
8" 200

BOAT DECK SHEER PLATE 12" x 22" BUTTS SINGLE STRAP & DOUBLE RIVETED.

PILLARS 22" DIA. SPACED 8-8' APART.

PROMENADE DECK.

SHEER PLATE 15" x 22" BUTTS SINGLE STRAP & DOUBLE RIVETED.

PILLARS 3" DIA. SPACED 8-8' APART.

BRIDGE DECK.

BRIDGE DK. SHEER STRAKE 61" x 22" BUTTS QUADRUPLE RIVETED WITH DOUBLE STRAPS.

POOP & FORECASTLE SIDE PLATING 22" BUTTS DOUBLE RIVETED WITH SINGLE STRAP.

DOUBLE RIVETED THROUGHOUT.

BRIDGE DK. SIDE PLATING 22" BUTTS TREBLE RIVETED WITH SINGLE STRAP.

POOP & FILE DK. SIDE PLATING 22" BUTTS DOUBLE RIVETED WITH SINGLE STRAP.

5" x 22" x  $\frac{1}{2}$ "

15" x 20"

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Section  
Nº 198  
KITANO MARU  
Nagasaki Rpt. 1. 11. 11



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Lloyd's Register  
Foundation

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