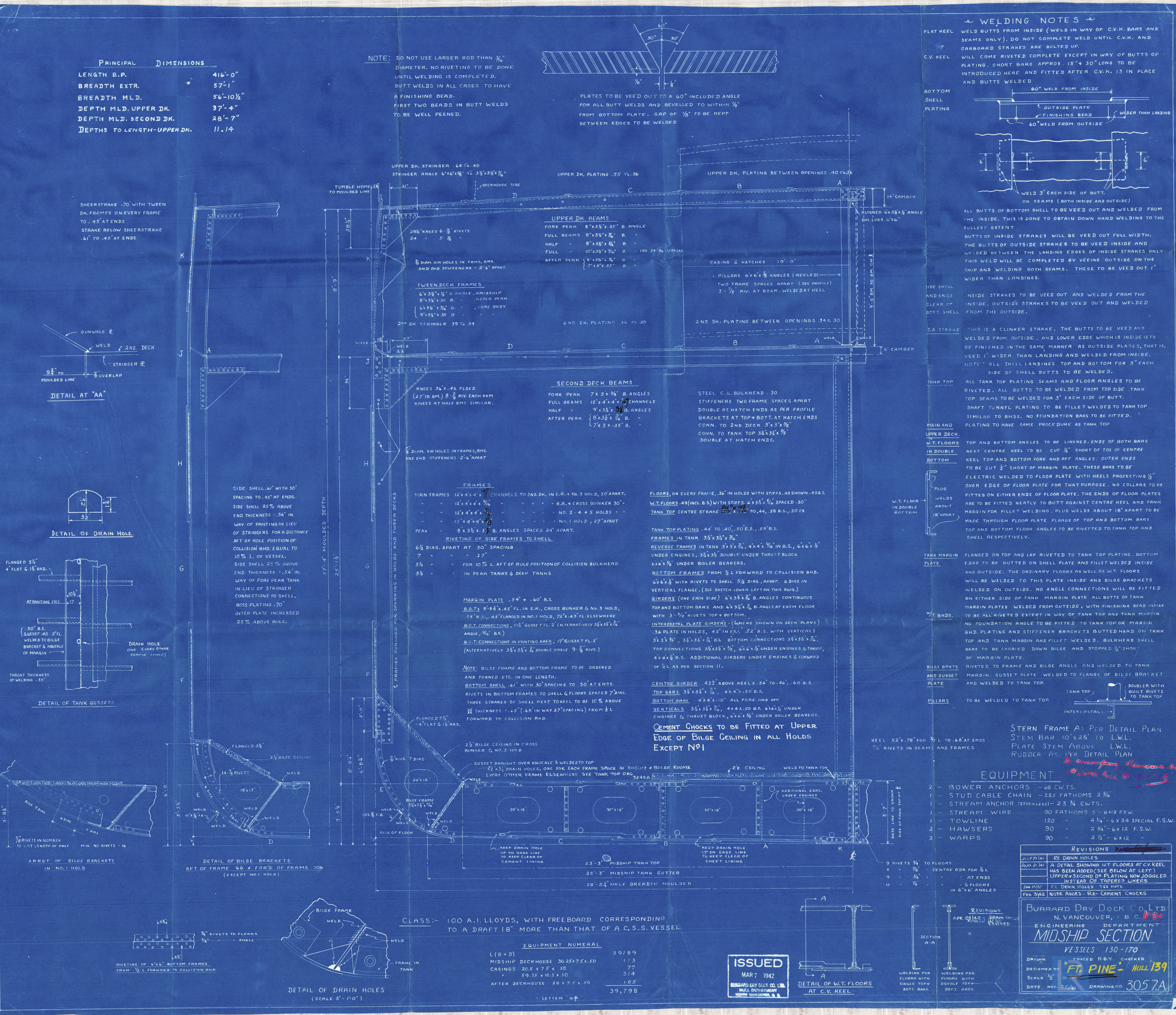
PRINCIPAL DIMENSIONS
LENGTH B.P. 416'-0"
BREADTH EXTR. 57'-1"
BREADTH MLD. 56'-10½"
DEPTH MLD. UPPER DK. 37'-4"
DEPTH MLD. SECOND DK. 28'-7"
DEPTHS TO LENGTH-UPPER DK. 11.14
NOTE: DO NOT USE LARGER ROD THAN 3/16" DIAMETER. NO RIVETING TO BE DONE UNTIL WELDING IS COMPLETED. BUTT WELDS IN ALL CASES TO HAVE A FINISHING BEAD. FIRST TWO BEADS IN BUTT WELDS TO BE WELL PEENED.
60°
30° 30°
1/8" 1/8"
PLATES TO BE VEED OUT TO A 60° INCLUDED ANGLE FOR ALL BUTT WELDS AND BEVELLED TO WITHIN 1/8" FROM BOTTOM PLATE. GAP OF 1/8" TO BE KEPT BETWEEN EDGES TO BE WELDED
WELDING NOTES
FLAT KEEL: WELD BUTTS FROM INSIDE (WELD IN WAY OF C.V.K. BARS AND SEAMS ONLY). DO NOT COMPLETE WELD UNTIL C.V.K. AND GARBOARD STRAKES ARE BOLTED UP.
C.V. KEEL: WILL COME RIVETED COMPLETE EXCEPT IN WAY OF BUTTS OF PLATING. SHORT BARS APPROX. 15" & 30" LONG TO BE INTRODUCED HERE AND FITTED AFTER C.V.K. 13 IN PLACE AND BUTTS WELDED
BOTTOM SHELL PLATING
60° WELD FROM INSIDE
OUTSIDE PLATE
FINISHING BEAD
1" WIDER THAN LANDING
60° WELD FROM OUTSIDE
6" 6" 6" 6"
WELD 3" EACH SIDE OF BUTT. ON SEAMS (BOTH INSIDE AND OUTSIDE)
ALL BUTTS OF BOTTOM SHELL TO BE VEED OUT AND WELDED FROM THE INSIDE. THIS IS DONE TO OBTAIN DOWN HAND WELDING TO THE FULLEST EXTENT
BUTTS OF INSIDE STRAKES WILL BE VEED OUT FULL WIDTH. THE BUTTS OF OUTSIDE STRAKES TO BE VEED INSIDE AND WELDED BETWEEN THE LANDING EDGES OF INSIDE STRAKES ONLY. THIS WELD WILL BE COMPLETED BY VEEING OUTSIDE ON THE SHIP AND WELDING BOTH SEAMS. THESE TO BE VEED OUT 1" WIDER THAN LANDINGS.
SIDE SHELL AND ENDS CLEAR OF BOTT. SHELL: INSIDE STRAKES TO BE VEED OUT AND WELDED FROM THE INSIDE. OUTSIDE STRAKES TO BE VEED OUT AND WELDED FROM THE OUTSIDE.
J.A. STRAKE: THIS IS A CLINKER STRAKE. THE BUTTS TO BE VEED AND WELDED FROM OUTSIDE, AND LOWER EDGE WHICH IS INSIDE IS TO BE FINISHED IN THE SAME MANNER AS OUTSIDE PLATES, THAT IS, VEED 1" WIDER THAN LANDING AND WELDED FROM INSIDE.
NOTE: ALL SHELL LANDINGS TOP AND BOTTOM FOR 3" EACH SIDE OF SHELL BUTTS TO BE WELDED.
TANK TOP: ALL TANK TOP PLATING SEAMS AND FLOOR ANGLES TO BE RIVETED. ALL BUTTS TO BE WELDED FROM TOP SIDE. TANK TOP SEAMS TO BE WELDED FOR 3" EACH SIDE OF BUTT. SHAFT TUNNEL PLATING TO BE FILLET WELDED TO TANK TOP SIMILAR TO BHDS. NO FOUNDATION BARS TO BE FITTED.
MAIN AND UPPER DECK: PLATING TO HAVE SAME PROCEDURE AS TANK TOP
W.T. FLOORS IN DOUBLE BOTTOM: TOP AND BOTTOM ANGLES TO BE LINERED. ENDS OF BOTH BARS NEXT CENTRE KEEL TO BE CUT ½" SHORT OF TOE OF CENTRE KEEL TOP AND BOTTOM FORE AND AFT ANGLES. OUTER ENDS TO BE CUT ½" SHORT OF MARGIN PLATE. THESE BARS TO BE ELECTRIC WELDED TO FLOOR PLATE WITH HEELS PROJECTING ½" OVER EDGE OF FLOOR PLATE FOR THAT PURPOSE. NO COLLARS TO BE FITTED ON EITHER ENDS OF FLOOR PLATE. THE ENDS OF FLOOR PLATES ARE TO BE FITTED NEATLY TO BUTT AGAINST CENTRE KEEL AND TANK MARGIN FOR FILLET WELDING, PLUG WELDS ABOUT 18" APART TO BE MADE THROUGH FLOOR PLATE FLANGE OF TOP AND BOTTOM BARS. TOP AND BOTTOM FLOOR ANGLES TO BE RIVETTED TO TANK TOP AND SHELL RESPECTIVELY.
W.T. FLOOR IN DOUBLE BOTTOM
PLUG WELDS ABOUT 18" APART
TANK MARGIN PLATE: FLANGED ON TOP AND LAP RIVETED TO TANK TOP PLATING. BOTTOM EDGE TO BE BUTTED ON SHELL PLATE AND FILLET WELDED INSIDE AND OUTSIDE. THE ORDINARY FLOORS AS WELL AS W.T. FLOORS WILL BE WELDED TO THIS PLATE INSIDE AND BILGE BRACKETS WELDED ON OUTSIDE. NO ANGLE CONNECTIONS WILL BE FITTED ON EITHER SIDE OF TANK MARGIN PLATE. ALL BUTTS OF TANK MARGIN PLATES WELDED FROM OUTSIDE, WITH FINISHING BEAD INSIDE
W/T BHDS.: TO BE ALL RIVETED EXCEPT IN WAY OF TANK TOP AND TANK MARGIN. NO FOUNDATION ANGLE TO BE FITTED TO TANK TOP OR MARGIN. BHD. PLATING AND STIFFENER BRACKETS BUTTED HARD ON TANK TOP AND TANK MARGIN AND FILLET WELDED. BULKHEAD SHELL BARS TO BE CARRIED DOWN BILGE AND STOPPED ½" SHORT OF MARGIN PLATE.
BILGE BRKTS AND GUSSET PLATE: RIVETED TO FRAME AND BILGE ANGLE AND WELDED TO TANK MARGIN. GUSSET PLATE WELDED TO FLANGE OF BILGE BRACKET AND WELDED TO TANK TOP.
PILLARS: TO BE WELDED TO TANK TOP.
TANK TOP
DOUBLER WITH QUILT RIVETS TO TANK TOP
INTERCOSTAL
SHEERSTRAKE .70" WITH TWEEN DK. FRAMES ON EVERY FRAME TO .45" AT ENDS
STRAKE BELOW SHEERSTRAKE .61" TO .45" AT ENDS.
UPPER DK. STRINGER .64 TO .40
STRINGER ANGLE 6"x6"x5/8" TO 3½"x3½"x7/16"
TUMBLE HOME 5¼ TO MOULDED LINE
21"
DECKHOUSE SIDE
UPPER DK. PLATING .55 TO .36
UPPER DK. PLATING BETWEEN OPENINGS .40 TO .36
14" CAMBER
RUNNER 6"x3½"x½" ANGLE
BM. LUGS 6"x6"
28½"
28½" KNEES 6-7/8" RIVETS
24 " 5-7/8 "
7/8 DIAM. AIR HOLES IN FRMS, BMS. AND BHD. STIFFENERS - 2'-6" APART
UPPER DK. BEAMS
FORE PEAK 8"x3½"x.35" B. ANGLE
FULL BEAMS 8"x3½"x7/16" B. "
HALF " 8"x3½"x7/16" B. "
FULL " 10"x3½"x7/16" B. " FRS. 34-46-128+142
AFTER PEAK 8"x3½"x7/16" B. " / 7"x3"x.35" B. "
CASING & HATCHES 10'-0"
PILLARS 6"x6"x5/8" ANGLES (REELED)
TWO FRAME SPACES APART (SEE PROFILE)
3-7/8" RIV. AT BEAM. WELDED AT HEEL
9'-5" BM TO BM. ON ℄
8'-9"
TWEEN DECK FRAMES
6"x3½"x½" O. ANGLE, AMIDSHIP
8"x3½"x.35 B. " , AFTER PEAK
6"x3½"x7/16" B. " , FORE BODY
8"x3½"x.35 B. " "
2ND DK. STRINGER .39 TO .34
2ND. DK. PLATING .36 TO .30
2ND DK. PLATING BETWEEN OPENINGS .34 TO .30
GUNWALE ℄
WELD
2ND. DECK
STRINGER ℄
9¾" TO MOULDED LINE
1/8" OVERLAP
DETAIL AT "AA"
6" CAMBER
KNEES 36"x.42 FLGED (27" TO BM.) 8-7/8 RIV. EACH ARM
KNEES AT HALF BMS SIMILAR.
36"
SECOND DECK BEAMS
FORE PEAK 7x3x3/8" B. ANGLES
FULL BEAMS 12"x4"x4"x.47 CHANNELS
HALF " 9"x3½"x.38 B. ANGLES
AFTER PEAK 8"x3½"x7/16" B. " / 7"x3x.33" B. "
STEEL C.L. BULKHEAD .30
STIFFENERS TWO FRAME SPACES APART
DOUBLE AT HATCH ENDS AS PER PROFILE
BRACKETS AT TOP & BOTT. AT HATCH ENDS
CONN. TO 2ND DECK 3"x3"x3/8"
CONN. TO TANK TOP 3½"x3½"x3/8"
DOUBLE AT HATCH ENDS.
7/8" DIAM. AIR HOLES IN FRAMES, BMS. AND BHD. STIFFENERS - 2'-6" APART
3½
2½"
1¾"
DETAIL OF DRAIN HOLE.
SIDE SHELL .61" WITH 30" SPACING TO .45" AT ENDS. SIDE SHELL 25% ABOVE END THICKNESS = .56" IN WAY OF PANTING IN LIEU OF STRINGERS FOR A DISTANCE AFT OF ROLE POSITION OF COLLISION BHD. EQUAL TO 10% L. OF VESSEL. SIDE SHELL 25% ABOVE END THICKNESS = .56" IN. WAY OF FORE PEAK TANK IN LIEU OF STRINGER CONNECTIONS TO SHELL. BOSS PLATING .70" OXTER PLATE INCREASED 25% ABOVE RULE.
37'-4" MOULDED DEPTH
25'-1½"
FRAMES PUNCHED FOR SPARRING IN HOLDS AND TWEEN DECKS
FRAMES
MAIN FRAMES 12"x4"x4"x.47" CHANNELS TO 2ND. DK. IN E.R. & No. 3 HOLD, 30" APART.
" " 12"x4"x4"x9/16" " " " " B.R. & CROSS BUNKER 30" "
" " 12"x4"x4"x5/8" " " " " NO. 2-4 & 5 HOLDS " "
" " 15"x4"x4"x5/8" " " " " NO. 1 HOLD, 27" APART
PEAK " 8"x3½"x.34" B. ANGLES SPACED 24" APART.
RIVETING OF SIDE FRAMES TO SHELL
6½ DIAS. APART AT 30" SPACING
7 " " " 27" "
5½ " " FOR 10% L. AFT OF RULE POSITION OF COLLISION BULKHEAD
5½ " " IN PEAK TANKS & DEEP TANKS
MARGIN PLATE .54" & .60" B.S.
B.O.Ts 8'-8¼"x.45" FL. IN E.R., CROSS BUNKER & No. 3 HOLD, .55" B.S., .45" FLANGED IN NO. 1 HOLD, 72"x.43" FL. ELSEWHERE
B.O.T. CONNECTIONS, 10½" GUSSET FL. 2" (ALTERNATIVELY 3½"x3½"x7/16" ANGLE, 9/16" B.S.)
B.O.T. CONNECTIONS IN PANTING AREA, 17" GUSSET FL. 2" (ALTERNATIVELY 3½"x3½"x7/16" DOUBLE ANGLE 9-7/8" RIVS.)
NOTE: BILGE FRAME AND BOTTOM FRAME TO BE ORDERED AND TURNED ETC. IN ONE LENGTH.
BOTTOM SHELL .61" WITH 30" SPACING TO .50" AT ENDS. RIVETS IN BOTTOM FRAMES TO SHELL & FLOORS SPACED 7" DIAS. THREE STRAKES OF SHELL NEXT TO KEEL TO BE 10% ABOVE ℄ THICKNESS = .65" (.68" IN WAY 27" SPACING) FROM ½ L FORWARD TO COLLISION BHD.
FLOORS, ON EVERY FRAME, .36" IN HOLDS WITH STIFFS. AS SHOWN. .49 B.S.
W.T. FLOORS .49 (INCL. B.S.) WITH STIFFS. 6"x3½"x5/16" SPACED .30"
TANK TOP CENTRE STRAKE 84"x.48" TO .44, .58 B.S., .50 F.S.
TANK TOP PLATING .44" TO .40", .50" E.S., .58" B.S.
FRAMES IN TANK 3½"x3½"x7/16"
REVERSE FRAMES IN TANK 3"x3"x7/16", 4"x4"x9/16" IN B.S., 6"x6"x½" UNDER ENGINES, 3½"x3½" DOUBLE UNDER THRUST BLOCK 6"x6"x5/8" UNDER BOILER BEARERS.
BOTTOM FRAMES FROM ½ L FORWARD TO COLLISION BHD. 6"x6"x½" WITH RIVETS TO SHELL 5½ DIAS., APART. 6 DIAS. IN VERTICAL FLANGE. (SEE SKETCH LOWER LEFT ON THIS DWG.)
GIRDERS (ONE EACH SIDE) 6"x3½"x7/16" B. ANGLES CONTINUOUS TOP AND BOTTOM BARS AND 6"x3½"x7/16 B. ANGLE AT EACH FLOOR WITH 3-3/4" RIVETS TOP & BOTTOM.
INTERCOSTAL PLATE GIRDERS (WHERE SHOWN ON DECK PLANS) .36 PLATE IN HOLDS, 42" IN E.S., .52" B.S. WITH VERTICALS 3"x3"x3/8", 3½"x3½"x7/16" B.S. BOTTOM CONNECTIONS 3½"x3½"x7/16", TOP CONNECTIONS 3½"x3½"x3/8", 6"x6"x½" UNDER ENGINES & THRUST, 4"x4"x½" B.S. ADDITIONAL GIRDERS UNDER ENGINES & FORWARD OF ½ L AS PER SECTION 11.
CENTRE GIRDER 43½" ABOVE KEEL x .54" TO .46", .60" B.S.
TOP BARS 3½"x3½"x7/16", 4"x4"x.50 B.S.
BOTTOM BARS 4"x4"x.50" ALL FORE AND AFT.
VERTICALS 3½"x3½"x7/16", 4x4x.50 B.S. 6"x6"x½" UNDER ENGINES & THRUST BLOCK, 6"x6"x5/8" UNDER BOILER BEARERS.
CEMENT CHOCKS TO BE FITTED AT UPPER EDGE OF BILGE CEILING IN ALL HOLDS EXCEPT No 1
FLANGED 5½" 4" FLAT & 1½" RAD.
10½"
AT PANTING FRS. 17
.50" B.S. GUSSET .40 2" FL. WELDED TO BILGE BRACKET & KNUCKLE OF MARGIN
DRAIN HOLE (ONE EVERY OTHER FRAME SPACE)
THROAT THICKNESS OF WELDING .33"
DETAIL OF TANK GUSSETS
FLANGED 3½"
2½" BILGE CEILING
14-7/8" RIVETS
18"x13"
5 DIAS. 6 DIAS. 7 DIAS.
WELD
10"x5/8" F.B.
6'-0"
3'-5½"
6"
RIVS. 5 DIAS 6 DIAS 7 DIAS
3'-8½"
7/8 RIVETS IN NUMBER TO SUIT LENGTH OF KNEE
MIN. NO RIVETS = 16
ARRGT OF BILGE BRACKETS IN NO. 1 HOLD
DETAIL OF BILGE BRACKETS AFT OF FRAME 66 & FOR'D OF FRAME 106 (EXCEPT NO. 1 HOLD)
2'-0"
8'-8¼"
6'-8¼"
3'-5½"
FLANGED 5½" = 4" FLAT & 1½" RAD.
2½" BILGE CEILING IN CROSS BUNKER & NO. 3 HOLD
7/8" RIVS. 7 DIAS.
GUSSET BROUGHT OVER KNUCKLE & WELDED TO TOP
2½"x3½" DRAIN HOLES, ONE FOR EACH FRAME SPACE IN ENGINE & BOILER ROOMS. EVERY OTHER FRAME ELSEWHERE. SEE TANK TOP DRG. 3290A.
2½" CEILING
WELD TO TANK TOP
24"x18"
BILGE FRAME 3½"x3½"x7/16"
30"x18" 30"x18" 30"x18" 30"x18"
ADDITIONAL GDRS. UNDER ENGINES
RISE OF FLOOR
KEEP DRAIN HOLE UP ON GAGE LINE TO KEEP CLEAR OF CEMENT LINING
KEEP DRAIN HOLE UP ON GAGE LINE TO KEEP CLEAR OF SHEET LINING
3'-7"
BASE LINE TO UNDER SIDE OF TANK TOP AT ℄
23'-3" MIDSHIP TANK TOP
25'-3" MIDSHIP TANK GUTTER
28'-5¼" HALF BREADTH MOULDED
KEEL 52"x.78" FOR 3/5 L TO .68" AT ENDS
7/8" RIVETS IN SEAMS AND FRAMES
9 RIVETS ¾" TO FLOORS
8 " 7/8" CENTRE GDR. FOR ½ L
9 " ¾" " " AT ENDS
13 " 7/8" " " 6 FLOORS IN 6"x6" ANGLES
STERN FRAME AS PER DETAIL PLAN
STEM BAR 10"x2½" TO L.W.L.
PLATE STEM ABOVE L.W.L.
RUDDER AS PER DETAIL PLAN
To accompany Vancouver BC 1st Entry Hull Rpt No 5788.
EQUIPMENT
2 - BOWER ANCHORS - 68 CWTS.
1 - STUD CABLE CHAIN - 225 FATHOMS 2 5/16"
1 - STREAM ANCHOR (STOCKLESS) - 23 ¾ CWTS.
1 - STREAM WIRE 90 FATHOMS 5" - 6x12 F.S.W.
1 - TOWLINE 120 " 4 ¾" - 6x24 SPECIAL F.S.W.
2 - HAWSERS 90 " 2 ¾" - 6x12 F.S.W.
2 - WARPS 90 " 2 ½" - 6x12 "
3/4" RIVETS TO FLOORS
7/8" " SHELL
4¾"
RIVETING OF 6"x6" BOTTOM FRAMES FROM ½ L FORWARD TO COLLISION BHD.
BILGE FRAME
WELD
FRAME IN TANK
DETAIL OF DRAIN HOLES (SCALE 3" = 1'-0")
CLASS:- 100 A.I. LLOYDS, WITH FREEBOARD CORRESPONDING TO A DRAFT 18" MORE THAN THAT OF A C.S.S. VESSEL
EQUIPMENT NUMERAL
L(B+D) 39189
MIDSHIP DECKHOUSE 30.25x7.5x.50 113
CASINGS 20.5x7.5x.50 77
" 59.75x10.5x.50 314
AFTER DECKHOUSE 28x7.5x.50 105
39,798
= LETTER "a+"
ISSUED MAR 7 1942 BURRARD DRY DOCK CO. LTD. HULL DEPARTMENT NORTH VANCOUVER, B.C.
DETAIL OF W.T. FLOORS AT C.V. KEEL
SECTION A-A
WELDING FOR FLOORS WITH SINGLE TOP & BOTT. BARS.
WELDING FOR FLOORS WITH DOUBLE TOP & BOTT. BARS.
REVISIONS
APR. 29/42 DRAIN HOLES REVISED.
REVISIONS
JULY 21/41 RE DRAIN HOLES
AUG 21/41 A DETAIL SHOWING W.T. FLOORS AT C.V. KEEL HAS BEEN ADDED (SEE BELOW AT LEFT.) UPPER & SECOND DK. PLATING NOW JOGGLED INSTEAD OF TAPERED LINERS.
JAN. 15/42 RE DRAIN HOLES - SEE NOTE
FEB 3/42 NOTE ADDED - RE- CEMENT CHOCKS
BURRARD DRY DOCK CO. LTD. No 139
N. VANCOUVER, B.C.
ENGINEERING DEPARTMENT
MIDSHIP SECTION
VESSELS 130-170
DRAWN TRACED R.B.Y. CHECKED
DESIGNED BY "FT. PINE" - HULL 139
SCALE ½" =
DATE NOV. 25/41 DRAWING NO. 3057.A