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# AMERICAN BUREAU of SHIPPING

## LOAD LINE CALCULATION

NAME OF VESSEL: S.S. "NOYO"	GROSS TONS 1484	OFFICIAL NUMBER 220,755	PORT OF REGISTRY SAN FRANCISCO, CALIF	YEAR BUILT 1920.	CLASSIFICATION B.C.
TYPE: CARGO VESSEL	OWNER: UNION LUMBER CO.		BUILDER: J.F. DUTHIE & CO.	HULL No. 37	

L = 219'-10"	FREEBOARD DEPTH: MOULDED D = 21.00	DEPTH CORRECTION: Df = 21.04
B = 40'-0"	STRINGER = .04 $\frac{T(L-S)}{L}$	$\frac{219.83}{15} = 14.65$
D = 21'-0"	Df = 21.04	$6.39 \times 130 = 10.80$
Df = 21.04'		

PORT OF SURVEY: SAN FRANCISCO, CALIF.  
DATE OF SURVEY: MAY 11, 1936.  
SURVEYOR'S NAME: C. D. MUES

BLOCK COEFFICIENT AT .85 D: $\frac{35 \times 3513}{220 \times 40 \times 17.85} = .779$	COEFFICIENT CORRECTION: $\frac{.779 + .68}{1.36} \times 26.56 = 28.49$
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TABLE AT 219.83 FT.	26.56
CORRECTED TO .779	28.49
DEPTH	+ 10.80
	39.29
SUPERSTRUCTURE	- 7.33
	31.96
SHEER	+ 5.75
	37.71
CAMBER	
	37.71
OTHER CORRECTIONS (IF ANY)	
FREEBOARD	37.71

SUPERSTRUCTURE CORRECTION: PART OPEN FORECASTLE = 21.5' + (15.5' x .5)	EFFECTIVE LENGTH = 29.25	HEIGHT 7'-6"
BRIDGE =	=	=
POOP = 65'-9"	= 65.75	=
TRUNK =	=	=
BRIDGE: =	$\frac{E}{L} = \frac{95.00}{219.83} = .432$	PERCENTAGE ALLOWED = .2622
100 PER CENT ALLOWANCE	PERCENTAGE ALLOWED	
SUPERSTRUCTURE DEDUCTION = 27.98 x .2622 = 7.33		

STA.	HEIGHT	STANDARD			VESSEL			RULE		
		ORDINATE	MULT.	F (A)	ORDINATE	MULT.	F (A)	ORDINATE	MULT.	F (A)
A. P.	.1 L + 10	31.98	1	31.98	20.88	1	20.88		1	
1/6	.0445 L + 4.45	14.23	4	56.92	1.25	4	5.00		4	
1/3	.011 L + 1:1	3.52	2	7.04	0	2	0		2	
-	-		4			4			4	
1/3	.022 L + 2.2	7.04	2	14.08	0	2	0		2	
1/6	.089 L + 8.9	28.46	4	113.84	4.87	4	19.48		4	
F. P.	.2 L + 20	63.96	1	63.96	41.87	1	41.87		1	
				287.82			87.23			
				87.23						

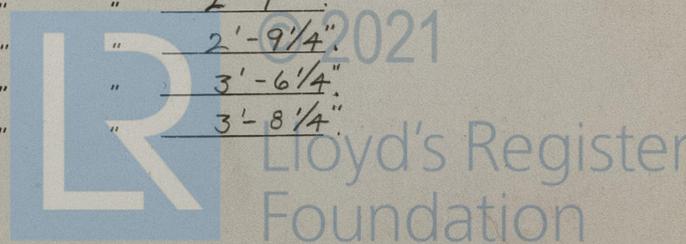
SHEER CORRECTION =  $\frac{200.59}{18} = 11.14 \times (.75 - \frac{.468}{2}) = 5.75$

CAMBER: STANDARD $\frac{40 \times 12}{50} = 9.60$	FRESH WATER ALLOWANCE: $\Delta = 3496$ $T = 18.7$ $\frac{3496}{40 \times 18.7} = 4\frac{3}{4}$ INCHES
VESSEL = 9.60	
DIFFERENCE = $\frac{.00}{4} \times - = -$	

MOULDED DEPTH D	21'-0"
STRINGER PLATE	0 1/2"
OR WOOD DECK	
	21'-0 1/2"
FREEBOARD	3'-1 3/4"
MOULDED DRAFT	17'-10 3/4"
EXTREME DRAFT	18'-0 1/4"

T. + W =  $\frac{17'-10\frac{3}{4}"}{4} = 4\frac{1}{2}"$   
WNA =  $4\frac{1}{2}" + 2" = 6\frac{1}{2}"$   
TF =  $4\frac{1}{2}" + 4\frac{3}{4}" = 9\frac{1}{4}"$

FREEBOARD RECOMMENDED AMIDSHIPS FROM CENTER OF DISC TO TOP OF	STEEL UPPER DECK:	3'-1 3/4"
TROPICAL FRESH WATER LINE	9 1/4" INCHES ABOVE CENTER OF DISC. CORRESPONDING FREEBOARD	2'-4 1/2"
FRESH WATER LINE	4 3/4" " " " " " " " " " " "	2'-9"
TROPICAL LINE	4 1/2" " " " " " " " " " " "	2'-9 1/4"
WINTER LINE	4 1/2" " BELOW " " " " " " " " " " "	3'-6 1/4"
WINTER NORTH ATLANTIC LINE	6 1/2" " " " " " " " " " " "	3'-8 1/4"



LOAD LINE SURVEY:

Has the vessel been surveyed in accordance with Paragraph 11 of the Regulations? YES

Was the general structural condition found satisfactory?

PROTECTION OF OPENINGS:

Are weather deck hatchways efficiently constructed and equal to rule requirements? YES

Are flush bunker scuttles to rule requirements? NONE FITTED

Are companionways to rule requirements? YES

Has the poop an efficient steel bulkhead at fore end? YES

Thickness of plating? 5/16" Coaming? -

Stiffeners? 5" x 3/4" x 3/8" Ls Spaced? 30" Bracketed or clipped? T + B

Are openings closed with Class I or II appliances or less? CLASS I

Has the bridge an efficient steel bulkhead at after end? NO BRIDGE

Thickness of plating? Coaming?

Stiffeners? Spaced? Bracketed or clipped? Are openings closed with Class I or II appliances or less?

Has the bridge an efficient steel bulkhead at fore end? Thickness of plating? Coaming?

Stiffeners? Spaced? Bracketed or clipped? Are openings closed with Class I or II appliances or less?

Has the forecastle an efficient steel bulkhead at after end? YES

Thickness of plating? 5/16" Coaming? -

Stiffeners? 4" x 3 1/2" x 3/8" Ls Spaced? 30" Bracketed or clipped? FREE

Are openings closed with Class I or II appliances or less? CLASS II

Are exposed parts of casings efficiently constructed? NOT EXP.

Thickness of plating? Coaming? Stiffeners? Spaced?

How are exposed machinery casing openings on freeboard deck closed? NOT EXP.

Height of door sill? Have fiddle hatches strong steel covers? YES

Are ventilator coamings of proper height and strongly constructed? YES

Means of closing? WOOD PLUGS AND CANVAS BOOTS

Are there cargo or coaling ports in side below freeboard deck? NONE FITTED

Are doors watertight and efficient? Are airports fitted

with deadlight covers where required? YES

Are scuppers and sanitary discharges fitted with proper valves where required? YES

Are airpipes from ballast and other tanks of proper height above deck? YES

Are they fitted with efficient closing appliances? YES

GUARD RAILS:

Are efficient open rails or bulwarks fitted on exposed portions of freeboard and superstructure decks? YES; BULWARKS ON FREEBOARD DECK; OPEN RAILS ON SUPERSTRUCTURE DECKS.

FREEING PORTS:

Are freeing ports provided as required by rule? YES

PROTECTION OF CREW:

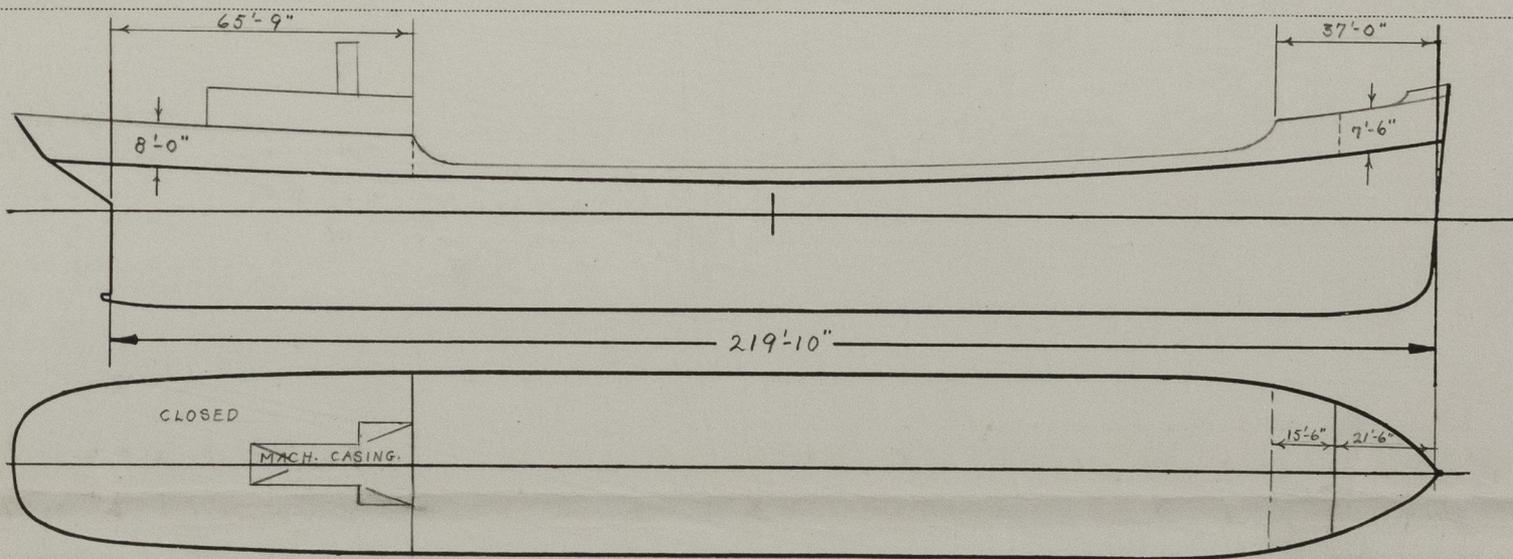
Where is crew berthed? IN FORECASTLE + POOP Are satisfactory means provided for the protection of the crew in getting to and from their quarters? YES

VESSELS CARRYING TIMBER DECK CARGOES:

Does the vessel comply with the supplementary conditions for vessels carrying timber deck cargoes, as set forth in Sec. 43.77a to 43.91 of the Regulations? DOES NOT APPLY

TANKERS AND SPECIAL TYPES:

Does the vessel comply with the supplementary conditions for tankers, as set forth in Sec. 43.92 to 43.106 of the Regulations? DOES NOT APPLY



Show hereon arrangements of erections, location of their bulkheads and overhangs.

The Freeboards, as stated on the other side, being in accordance with the Regulations, it is recommended that the same be assigned.

Chief Surveyor.

Approved at a meeting of the Committee of the American Bureau of Shipping on the day of 19

Secretary.

