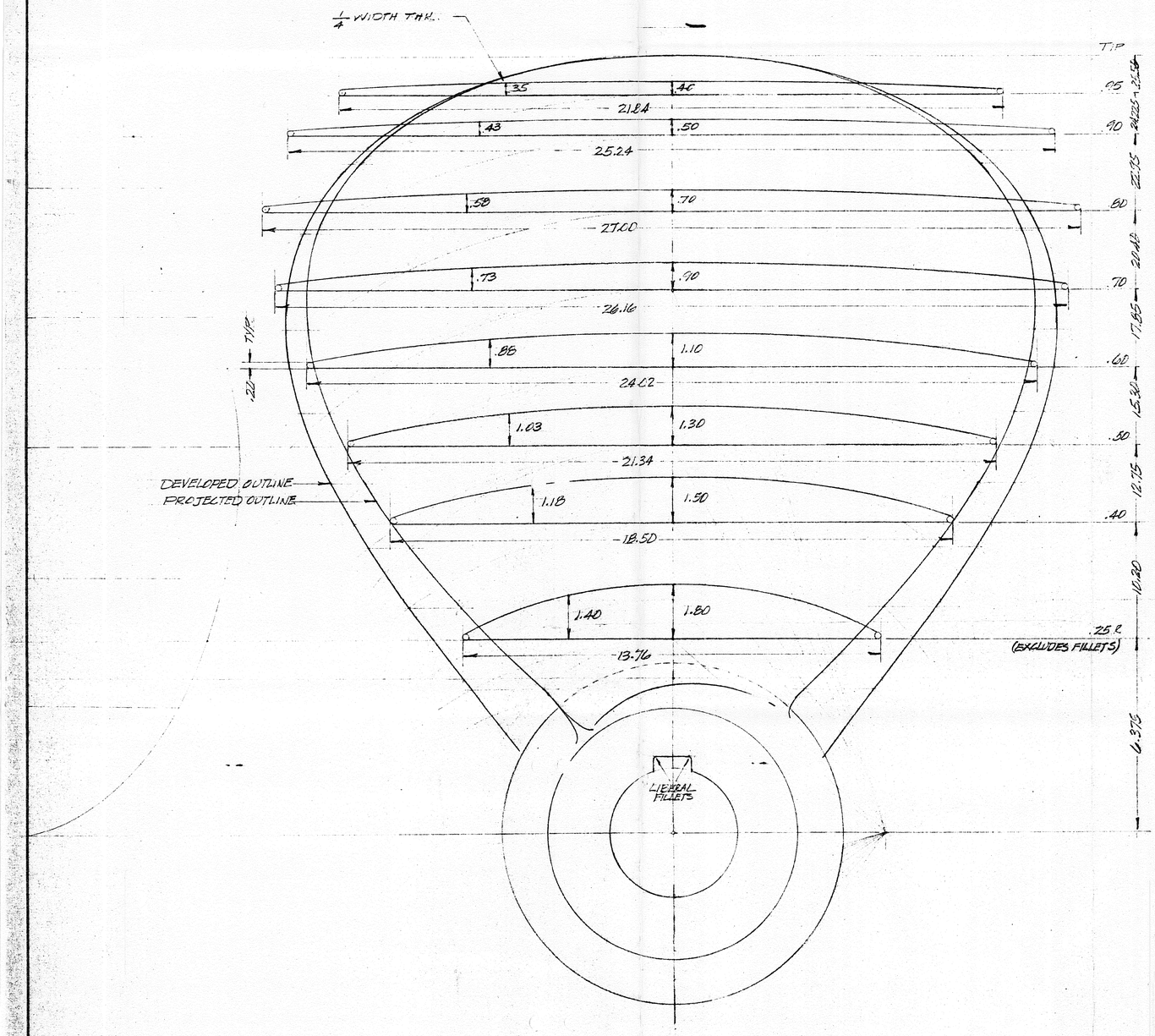

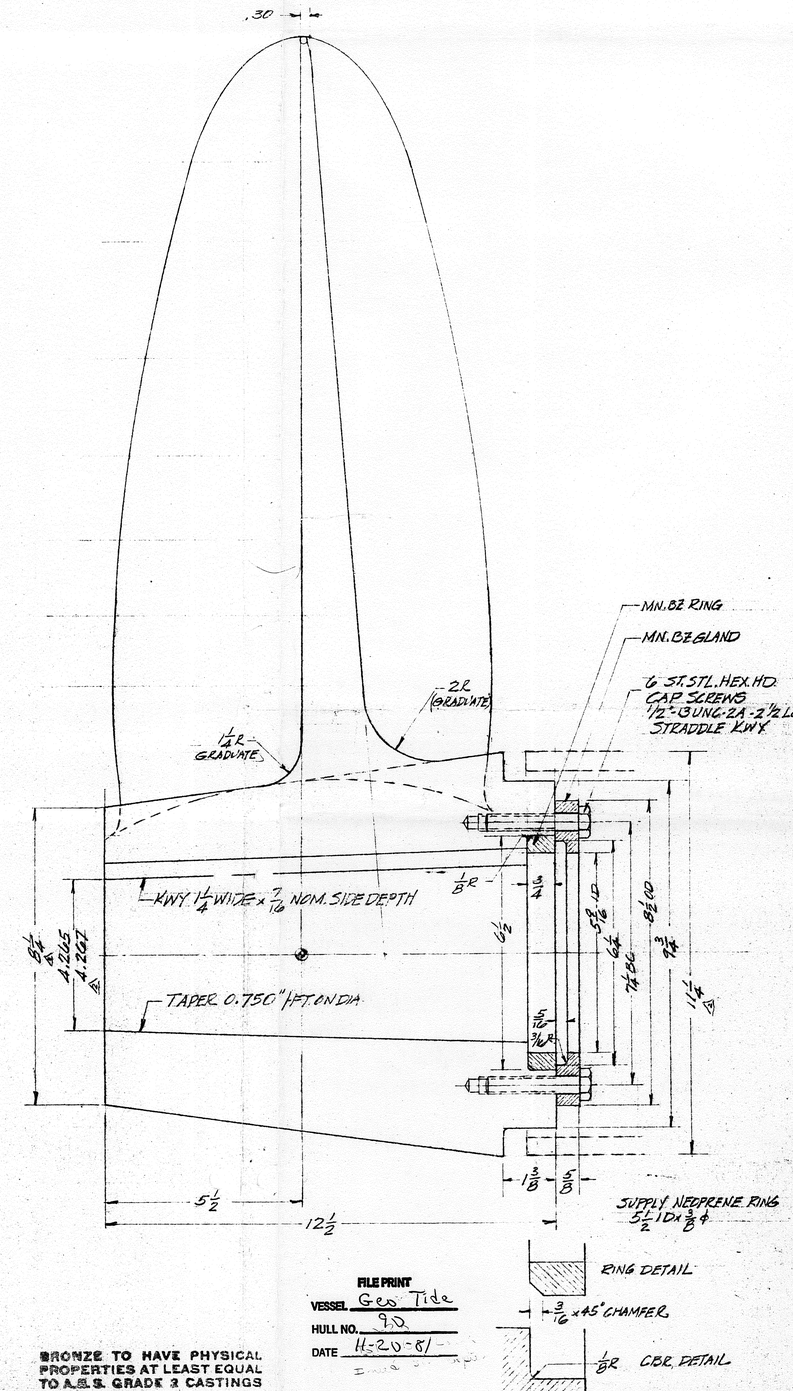

BRONZE TO HAVE PHYSICAL PROPERTIES AT LEAST EQUAL TO A.S.T.M. GRADE 2 CASTINGS

FILE PRINT
VESSEL: Geo Tide
HULL NO.: 90
DATE: 11-20-81

$Wr^2 = 97300$ lb-in^2 (DRY)

ABS CALCULATIONS - WING SCREWS FOR 143 x 26 x 10 TRIPLE SCREW SUPPLY VESSEL, HULL #90 & 85

$H = 0.36$, $R = 1800/3.5 = 514.29$, $N = 4$, $P_{.25} = P_{.7} = 44.5$, $K = 0.863$, $D = 51.1/2 = 4.25$, $W = 13.76$, $f = 68$, $\mu = .30$

$A = 1 + 4\mu K = 1 + 4(.30)(.863) = 1 + 4.3(.863) = 11.66$

$B = \frac{4200}{4}(.30)(.85)\left(\frac{514.29}{100}\right)^2\left(\frac{4.25}{2}\right)^3 = 64.57$

$C = (1 + 1.5\mu K)(13.76 \times 68 - 64.57) = 1987.29$

$t_{.25} = .13\sqrt{\frac{11.66(.036)}{.10(1987.29)(514.29)4}} = 1.750$

Wr² = 97,300 lb-in² (DRY)	
MTL.	MN. BZ
STYLE	SPEC
ROTATION	RH & LH
NO. BLADES	4
PITCH	44
DIAM.	51
PROPELLER DATA	

ALT.	DATE	CHANGE
2	4-21-81	THEIR DWG. C-20(2-10, ALL PER "DESIGN ASSOC. LTR. 4/13/81" & ADDED RING & ROPE GUARD, 5/18/81
1	3/3/81	WAS 6" BORE x 9 x 10 x 1516 HUB

COLUMBIAN BRONZE CORP.
FREEPORT, LONG ISLAND N. Y.

51 x 44 - 4 - R & L - DAR = .85 PROPELLER
MISSISSIPPI MARINE CO.

SCALE	DATE	DRAWING NUMBER
1/2	2-19-81	J-3761
DRAWN BY: T.		
APPROVED BY		ALT. 2

Geo Tide Systems

GX001

DETZGEN 167 Bristol Tracing Paper 7456