

FR. 77  $W = 11 + 25 = 36$

MCL:  $118 \times 36/25 = 170 \checkmark$   
 offered at  $Q = 157$   $1 \times \frac{6}{7} = 146$

MA =  $78.3 \times \frac{36}{25} = 113 \checkmark$   
 required at A =  $113 - 45 = \frac{68}{7.25} = \frac{9.40}{7.8} = 1.2$  thick

FR. 88  $W = 25 + 10 = 35$

MCL  $118 \times 35/25 = 165 \checkmark$   
 offered at  $Q = 157$   $1 \times \frac{6}{7} = 142$

MA =  $78.3 \times 35/25 = 110 \checkmark$   
 above required.

FR 94  $W = 10 + 27 = 37$

MCL  $118 \times 37/25 = 175 \checkmark$   
 offered at  $Q = \frac{39^2 \times 53}{12} = 67 + 89 = 156$   $1 \times \frac{6}{7} = 150$

MA =  $78.3 \times 37/25 = 116 \checkmark$   
 offered  $9 + 45 = 54 + 35.5 = 89.5$   
 $116 - 54 = 62/7.25 = \frac{8.5}{7.8}$

FR 106  $W = 27$

MCL =  $118 \times \frac{27}{25} = 128 \checkmark$   
 offered at  $Q = 156$   $1 \times \frac{6}{7}$

MA =  $78.3 \times 27/25 = 84 \checkmark$

# FORECASTLE DECK

FR. 115  $W = 33$   $a+b = 23.5$   $a = 10$   $b = 13.5$

MCL =  $\frac{33 \times 10 \times 13.5 (10 + 27)}{2 \times 23.5^2} = \frac{165000}{1100} = 150 \checkmark$

offered at  $Q = \frac{39^2 \times 49}{12} = 62 + 113 = 175$

MA =  $\frac{33 \times 10^2 \times 13.5 (20 + 40.5)}{2 \times 23.5^3} = \frac{270000}{26000} = 10.4 \checkmark$

offered at A =  $\frac{15^2 \times 49}{12} = 9$   
 $118 \times 7.5 \times 49 = 43$   
 $7.8 \times 59 \times 7.5 = \frac{35}{87}$

$7.5) 52 \left( \frac{6.9}{7.8} = 0.89 \right)$

FR. 187  $W = 33$   $a+b = 17.5$   $a = 10$   $b = 7.5$

MCL =  $\frac{33 \times 10 \times 7.5 (10 + 15)}{2 \times 17.5^2} = \frac{62000}{610} = 101 \checkmark$

offered at  $Q = \frac{39^2 \times 48}{12} = 60 + 73 = 133 \checkmark$

MA =  $\frac{33 \times 10^2 \times 7.5 (20 + 22.5)}{2 \times 17.5^3} = \frac{105000}{101700} = 99 \checkmark$   $\frac{9}{7} = 1.28$

offered 9  
 $7.8 \times 7.5 \times 48 = 28$   
 $7.8 \times 49 \times 7.5 = \frac{28}{65}$



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# NAKSHOV 118

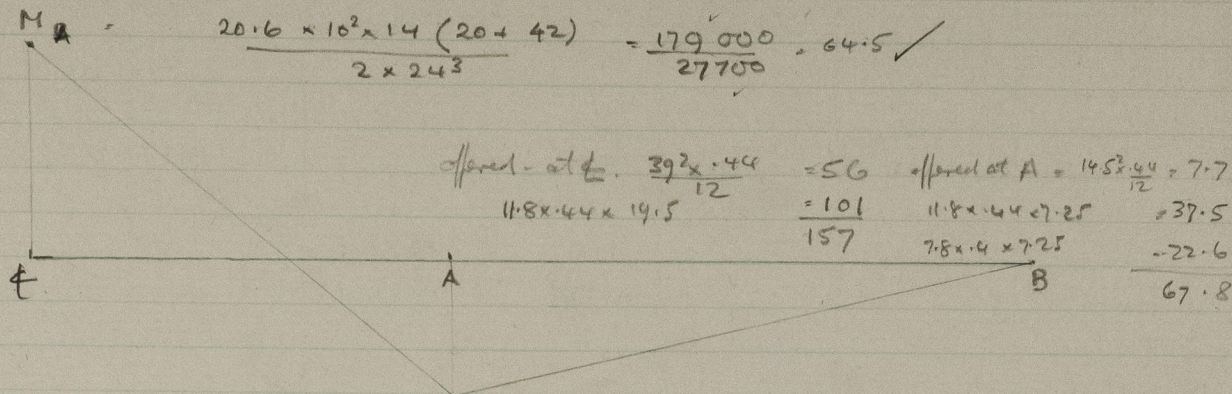
NAKSHOV 118 UPPER DECK H.E. BEAMS.

Channel fixed at C, supported at A and B.

FR. 26.  $W = 41.2 \times 2 = 20.6 \text{ ton}$   $a+b=24$   $a=10$   $b=14$

$$M_{CL} = \frac{20.6 \times 10 \times 14 (10+28)}{2(24)^2} = \frac{110000}{1150} = 103 \times 95?$$

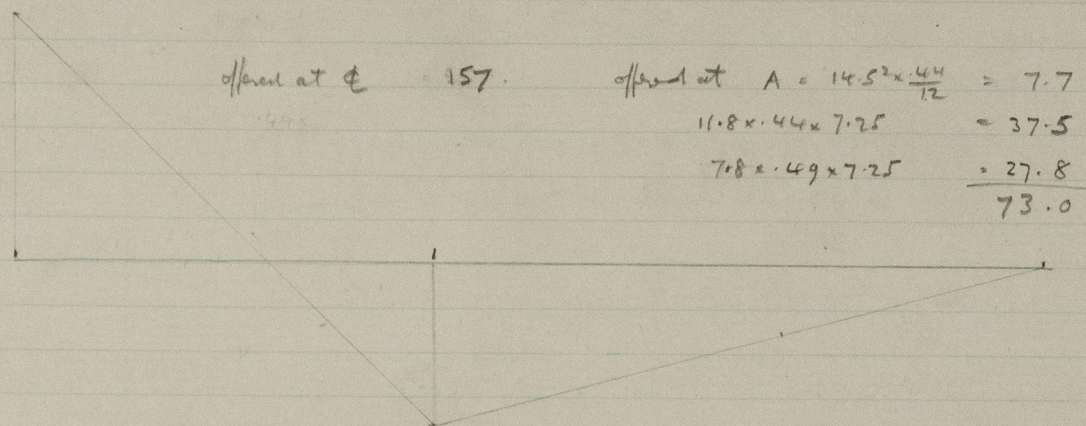
$$M_A = \frac{20.6 \times 10^2 \times 14 (20+42)}{2 \times 24^3} = \frac{179000}{27700} = 64.5 \checkmark$$



FR. 34.  $W = 25$   $a+b=24.5$   $a=10$   $b=14.5$

$$M_{CL} = \frac{25 \times 10 \times 14.5 (10+29)}{2 \times 24.5^2} = \frac{141500}{1200} = 118 \checkmark$$

$$M_A = \frac{25 \times 10^2 \times 14.5 (20+43.5)}{2 \times 24.5^3} = \frac{230000}{29400} = 78.3 \checkmark$$



FR. 45  $W = 25 + 7 = 32$   $a+b=24.5$   $b=14.5$   $a=10$

$$M_{CL} = 118 \times \frac{32}{25} = 151$$

$$M_A = 78.3 \times \frac{32}{25} = 100 \times \frac{6}{7} = 86$$

offered at C: 157

offered at A: 7.7

37.5

$100 - 45.2 = 55$   $\frac{55}{7.25} = 7.6$   $\frac{7.6}{7.8} = 0.97$   $0.97 \text{ thk}$



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