

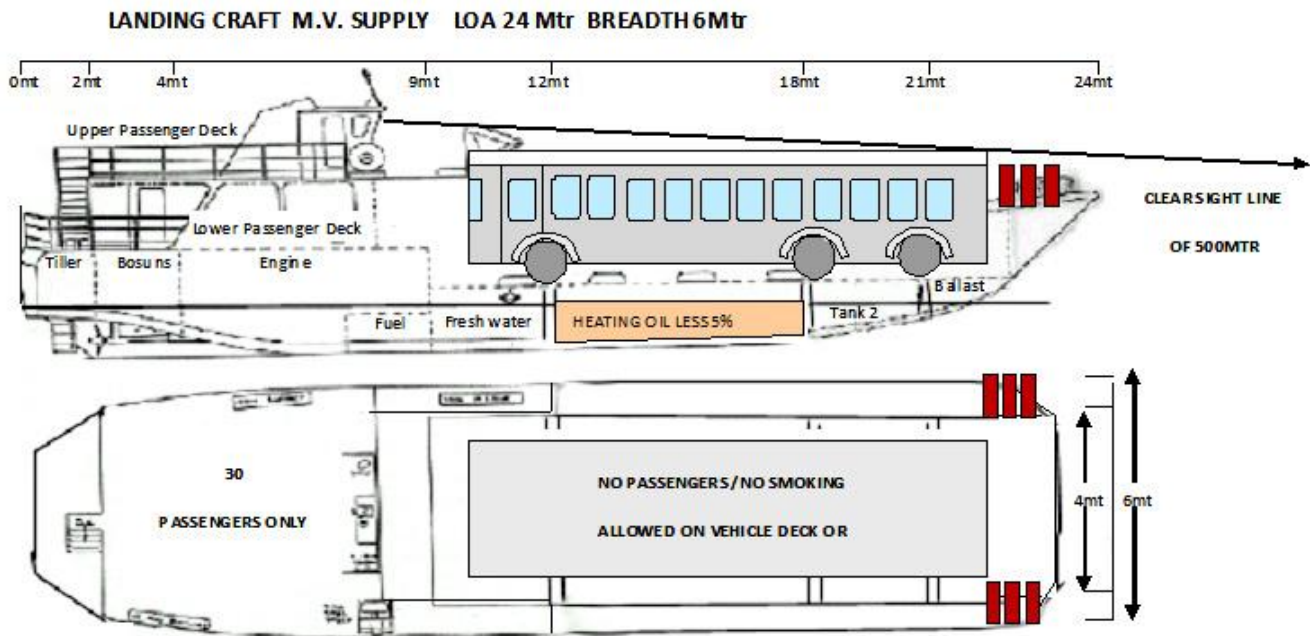
ANSWER - PRACTICAL LOADING ASSIGNMENT TWO

DRAW A SAFE LOADING PLAN FOR:

A six tonne, three axle touring bus with 45 passengers and a driver.
(width overall 2.8 mtrs, overall length 12 mtrs) Front axle at 1.5mtr , middle axle at 7.5mtr & back axle at 10.5mtr from the front bullbar).

20000 ltrs of heating oil (S.G. 0.8). Six jerrycans of petrol (70cm x 70cm x 20cm)

How would you ensure you could float the vessel off the beach after loading the bus?



NOTES:

30 Passengers only permitted on Upper Passenger Deck.

Fuel tank =1000ltr (full). Fresh water=10000ltr. Tank 1= 20000ltr. Tank 2= 5000ltr

Deck beam point load limit of one Tonne spaced at one mtr centres..

Bulkheads point load limit of five Tonnes.

Fill the forward ballast tanks & load 5000 ltrs of heating oil in Tank No2 to plant the vessel onto the beach.

Load bus and remove passengers to after accommodation. Transfer 5000 ltrs of Tank No.2 to Tank No.1 and back out to regain floatation.

Load another 5000ltrs of heating oil in Tank No.2 & load the remaining 10000 ltrs of heating oil into Tank No.1.

When you wish to float off empty the forward ballast tank and transfer 4000ltrs of heating oil to Tank No.1.

Tank No.1- 19000ltrs + Tank No.2 -1000ltrs + Fuel -1000ltrs + Petrol-588ltrs
= 21, 588ltrs x 0.8 = 17.27 Tonne