

## Calculation of Scale Weight of "Atlantic" Tugboat Kit, 1:50

Kit was not based of a specific vessel.

Most similar offshore tug I could find is:

Degirmendere A674

Built in 1974 in Germany for the French Navy

Sister ships Malabar A664 and Tenance A669

Degirmendere was transferred to the Turkish Navy in 1999



|                       | <b>Specs on<br/>Actual Boat, ft</b> | <b>Meas. Of Atlantic<br/>Kit, in</b> | <b>Scale<br/>Factor</b> |
|-----------------------|-------------------------------------|--------------------------------------|-------------------------|
| <b>Length Overall</b> | 167.3                               | 41.73                                | 48.11                   |
| <b>Beam</b>           | 37.7                                | 9.84                                 | 45.98                   |
| <b>Draft</b>          | 18.7                                | <b>4.77</b>                          |                         |

**Draft Calc from Actual Boat  
Divided by Scale Factor**

|                          |           |                                 |              |
|--------------------------|-----------|---------------------------------|--------------|
| <b>Displacement, lbs</b> | 3,174,080 |                                 |              |
|                          |           | <b>Average Scale<br/>Factor</b> | <b>47.04</b> |

### **Calculated Scale Weight of Finished Kit Including Balast**

Displ of Actual Boat Divided by the Cube of Scale Factor, lbs

**30.49                  pounds**

### **Calculation of Hull Speed:**

Hull Speed in Knots = 1.34 X Square Root of LWL in feet  
Waterline Length = +/- 37 inches

|                      |             |
|----------------------|-------------|
| Hull Speed, Knots    | <b>2.35</b> |
| Hull Speed, feet/sec | <b>3.97</b> |