



United States Coast Guard
U.S. Department of Homeland Security



CG-5431
Office of Vessel Activities
Domestic Compliance Division

MI Notice 01-11
April 22, 2011

Marine Inspection Notice

SIMPLIFIED STABILITY TESTS FOR SMALL PASSENGER VESSELS

The Passenger Weight and Inspected Vessel Stability Final Rule was published on December 14, 2010. These regulations included an update of the Assumed Average Weight Per Person (AAWPP) and a change to the assumed vertical center of gravity (VCG) for passengers when conducting a Simplified Stability Test as provided by 46 CFR 178.330. This Notice is provided to assist Marine Inspectors in the evaluation of Simplified Stability Tests (SSTs) pending revision of the SST form (CG-4006). Furthermore, it clarifies procedures for the distribution of test weight for passenger vessels having an upper deck accessible to passengers above the bulkhead deck.

Total Test Weight Required

AAWPP

The Assumed Average Weight Per Person (AAWPP) is determined as provided by 46 CFR 170.090. Beginning December 1, 2011, this weight is 185 lbs (84 kg). Owners/operators may choose to employ an assumed weight greater than AAWPP to conduct the test OR the OCMI may authorize the use of an alternate assumed weight to the AAWPP in writing.

Test Weight

“Test Weight” (W) defines only the weight to be moved during the test and includes the total weight of persons other than required crew, plus the personal effects of those persons. It may also include other variable loads. Weights used to represent missing equipment, stores and required crew shall be considered part of the loaded condition. Although weight of crew is not moved during the test, it is to be considered as part of the “loaded condition” and determined in the same manner as the assumed weight of passengers.

Distribution of Test Weight

Vertical Center of Gravity

Arrange the test weight so that its vertical center of gravity (VCG) is representative of the passengers under normal operating conditions. This should be:

- a) 30 inches (76.2 centimeters) above the deck for those areas where passenger capacity was determined through the “fixed seating” method AND the majority of passengers are assumed to be seated during a normal voyage.

- b) 39 inches (1 meter) above the deck for those areas where passenger capacity was determined through “deck area” or “length of rail” methods.

It is permissible to use different assumed VCGs in different locations on the same vessel assuming that passenger capacity was determined by the appropriate corresponding methods for those locations.

Upper Deck Test Weight

On vessels having an upper deck also accessible to passengers, the distribution shall not be less than the following:

Number of Passenger X assumed weight per person X 1.33 = Weight on Upper Deck

Total Test Weight – Weight on Upper Deck = Weight on Main Deck

The 1.33 factor is applied to assume possible overloading of passengers on the upper deck. Once 100% of the total test weight (W) has been moved to the upper deck, the 1.33 factor is no longer to be applied, as the assumed weight of ALL passengers has been already been placed on the upper deck. If the vessel passes the stability test with 100% of W on the upper deck, there will be no restriction on to the number of passenger permitted on the upper deck based on stability.

Questions concerning this notice may be directed to Office of Vessel Activities, Domestic Compliance Division (CG-5431) at CG5431@uscg.mil or (202) 372-1224.