

LEGEND: Blue = information provided.
Black = calculated values.

Red = table values, etc.
Green = ANSWER

CARGO HANDLING AND STOWAGE

Dry Cargo Operations Computations – Broken Stowage

USCG 2172-DG-2

STEPS

The lower hold of your vessel has a bale cubic of 52,000 cu. ft. You will load a cargo of cases, each weighing 380 lbs. and measuring 3 ft. x 2 ft. x 2 ft. The estimated broken stowage is 15%. How many tons of cases can be loaded?

SOLUTION:

Reference: Marine Cargo Operations

$$\text{Tons of Cargo} = \frac{\text{Hold Volume} \times (1 - \% \text{Broken Stowage})}{\text{Stowage Factor}}$$

$$\text{Tons of Cargo} = \frac{52,000 \text{ ft}^3 \times (1 - 0.15)}{3' \times 2' \times 2'} \times \frac{380 \text{ lbs.}}{2240 \text{ lbs.}}$$

$$\text{Tons of Cargo} = \frac{52,000 \text{ ft}^3 \times 0.85}{12 \text{ ft}^3} \times 0.16964 \text{ tons}$$

$$\text{Tons of Cargo} = 624.85$$

Select the closest answer.

- (A) 137 tons
- (B) 161 tons
- (C) 625 tons
- (D) 969 tons

← ANSWER