



Ship Type: Container/ Bulk      Trade Area: Netherlands

## **Bulletin 392 - 12/04 - Cocoa Beans - Amsterdam**

Amsterdam is one of the biggest importers/exporters of cocoa in the world and the main port for handling cocoa beans in bulk in Europe.

As the new cocoa season begins the Club's correspondent in Amsterdam reminds us of some of the aspects of this particular commodity.

### **“GENERAL**

Cocoa beans are grown on cocoa trees in pods. These pods remain on the trees until they are harvested. When the pod ripens, the colour turns from green to yellow or from red to orange. The average number of cocoa beans per pod is 30 to 40.

After harvesting, the cocoa beans are fermented and are then mainly sun dried. The ideal moisture percentage should be around 7% after drying, the effectiveness of the drying process depends on weather conditions.

The cocoa beans are a soft commodity that easily give off moisture during transport from relatively warm countries to relatively colder countries.

### **TYPE OF TRANSPORT**

In general, in the countries of origin, cocoa beans are packed in jute bags holding 60 – 67 kgs each. Up to the actual loading, the bags of cocoa beans are kept in storage.

Cocoa beans can be carried as follows when transported on board sea-going vessels:

- Bulk            Bulk in bulk carriers  
                    Bulk in containers.
- Bags            Break bulk in general cargo vessels,  
                    Bags in containers/on bolsters.

Containers are mostly stuffed prior to the arrival of vessels and the stowage / particulars depend on the transport agreement between cargo owners and the carrier.

Bulk should preferably be carried in vessels that are fitted with a double hull at the sides (side ballast tanks) and that have sufficient ventilation capacity.

Cocoa beans in bags may be transported in dry cargo vessels if fitted with sufficient ventilation capacity.

### **PROBLEMS WITH COCOA BEANS**

The most frequent problems with cocoa beans in Amsterdam are

- Slack and missing bags
- Damage due to condensation
- Damage by seawater
- Damage by hydraulic oil
- Infestation
- Quality (not relevant for the carrier) regarding mould, bean count, FFA

### **PRIOR TO LOADING**

Cocoa beans are mainly used for the food industry, therefore, the holds should be dry, clean and free from previous cargoes, smell and insects.

Hydraulic cylinders and lines used for the opening of covers should be clean and tight.

## **LOADING**

When loading cocoa beans, in bulk, special attention should be paid to the following aspects, in addition to normal bulk carrier practice:

- Fresh air should be ventilated over the top of the cargo. Generally speaking, this means that wooden ducts have to be made between the fixed ducts and the top of the cargo. Make sure that the wooden ducts can not collapse during the voyage.
- The ballast condition has to be in such a way that no alterations have to be made during the voyage. Pumping cold ballast water in ballast tanks around the cargo space will result in damage. Good ballast management is of utmost importance.
- Attention has to be paid to excessive moisture, lumped cocoa beans, and infestation.

When loading cocoa beans in bags the following has to be considered:

- The bags have to be stowed free from the ship's steel parts by using bamboo mats, (dried) dunnage wood, and/or kraft paper.
- The cargo has to be stowed in such a way that the fresh air can be ventilated all around the stow of cocoa beans. We refer to the UK Club's "Carefully To Carry" publication for more detail.
- Special attention should be paid to discoloured bags, slack bags, number of bags and wet bags.

Cocoa beans contain a high percentage of fat for which reason cocoa fires are almost impossible to extinguish. No smoking in the holds during loading should be allowed. Heating of the cocoa beans from any source should be avoided.

## **VOYAGE**

The cargo has to be ventilated by comparing the dew points of the hold air with the outside air. When the dew point of the outside air is lower, the holds have to be ventilated. Do not compare relative humidity.

When sailing from warm to cold regions the cocoa beans will loose considerable quantities of moisture. This warm and humid air has to be ventilated out of the hold and therefore it has to be tried to ventilate the hold as long and as much as possible. Ventilation openings on the weather deck can be protected from seawater spray in order to be able to continue ventilation. When a vessel enters the discharge port, the covers have to be opened as soon as possible, all weather permitting.

During the whole voyage records should be made of weather conditions and what ventilation has taken place. During the voyage changing the ballast condition should be avoided.

## **DISCHARGING**

As mentioned above, hatchcovers should be opened as soon as possible. Furthermore, the covers should be left open during the times of not working, if not possible, the ventilation should be started again.

Also in the discharge port, the change of ballast condition should be avoided. If fresh ballast has to be taken in, try to find a ballast tank away from cargo spaces."

Further details on Cocoa can be found in the Club's Encyclopaedia

<http://www.epandi.com/miller/encv3.nsf/PANDI+Web+Menu>

Source of information : Niels van der Noll  
Vopak Agencies Amsterdam BV (Club Correspondent)  
Niels.van.der.noll@vopak.com

ETAS expertises BV  
Captain H.Lindenburg (surveyor)