

JAPAN P&I NEWS

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To the Members

Dear Sirs,

Commonly Seen Problems during Loading Fertilizer in China

We have obtained the information on the captioned topic by our correspondent in Qingdao, China, Huatai Insurance Agency & Consultant Service Ltd. We hope it will be of help to you with regard to the safe voyage.

Yours faithfully,

The Japan Ship Owners' Mutual Protection & Indemnity Association

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华泰保险经纪有限公司

CHINA RE

HUATAI INSURANCE AGENCY & CONSULTANT SERVICE LTD.

Circular Ref No.:PNI1502

Date: 25 May 2015

Dear Sir or Madam,

Subject: Commonly Seen Problems during Loading Fertilizer in China

(This circular is prepared by Huatai Qingdao Branch)

In recent years, we handled a number of cases surrounding loading of fertilizer at various ports in China where disputes arose over cargo shortage, cargo caking problem and/or impurities caused by plastic strips broken off from packing bags etc. To provide Club and members with a more detailed picture of the commonly seen problems connected herewith, we summarize the general situation on this issue as follows.

Storage and loading of fertilizer at wharf

1. Yantai port is the largest exporting port of fertilizer in China and handles 70% of the total volume of exported fertilizer from China, among which, urea accounts for 98%, and the rest are ammonium phosphate and ammonium sulfate, etc.
2. Fertilizer is usually packed by bags before loading on board. Most are packed by 50kg/bag and some are packed by 1ton/bag. The 50kg bag has double layer, the outer layer being nylon woven and inner layer being plastic film, sealed by sewing machine. The 1ton bag is also bilayer whilst tied by rope. Urea is always packed with high quality package, which is strong and cannot be damaged easily.



50kg packing bag



1ton packing bag

3. In Yantai, bagged fertilizer is normally stored at the cement platform of open yard, covered with canvas and lashed by ropes outside the canvas. The collected fertilizer is stacked at the yard and there are routes between stacks for stevedore's loading/discharging operation and ventilation. Normally, canvas will be put on the cement platform as dunnage before stacking of fertilizer, when the fertilizer is stacked for 4 layers high, the canvas will be folded to cover the edge of bags of the 4th layer. After that, the fertilizer will be stacked and cover the canvas folded onto the 4th layer. Upon completing of stacking, a canvas will cover the whole stack from above down completely, to prevent caking and wet damage of the cargo. At some other ports in China, the cargo may be transported to the port directly from the factory or shipper warehouse by truck or train.



bagged fertilizer stacks covered by canvas

4. Loading and transporting of fertilizer

There are three ways of loading and carrying the fertilizer:

- 1) Loading bagged cargo and cutting the bags on board, carrying bulk cargo



Steel screens are placed over the hatch of the cargo hold and topped with one or two tier of rope net with mesh of 2cm*2cm. The hatch cover will be closed near to the steel screen, and the gap between the steel screen and hatch cover will be covered with bags to ensure stevedore's safety and prevent the caked fertilizer from falling down to the cargo hold.



After the above preparation is completed, bundles of bags will be lifted over the cargo hold by shore crane, and stevedore on top of the steel screen will cut the bags accordingly. The stevedore will crumb the caked cargo with size larger than 2cm*2cm by tools such as shovel, mallet etc.

As such, so that the fertilizer in bulk or in cakes with size less than 2cm*2cm will drop into the cargo hold. the size of caked fertilizer in bulk normally less than 2cm*2cm (size of rope net



2) cutting the bags at wharf, loading and carrying bulk cargo

The stevedore will cut the bags at wharf alongside the vessel and the fertilizer will drop to the conveyor belt via an iron griddle firstly and then smashed by grinder ashore, the smashed fertilizer will be transferred to storage yard by conveyor belt thereafter loaded on board by grab.



Stevedores are cutting the bags ashore



The fertilizer will drop on the conveyor belt over the iron griddle via the iron griddle



The fertilizer is carried by conveyor belt



The fertilizer is transferred to the storage yard for crushing by grinder



The fertilizer is being loaded on board by grab

3) loading and carrying cargo in bags

The bagged fertilizer are lifted to the cargo hold and piled by stevedore or forklift truck.



Common problems of loading fertilizer

On basis of our experiences, the problems commonly seen during loading of fertilizer are set out as follows:

1. Cargo shortage

Cargo shortage claim is the most common claim at Yantai port. The B/L quantity of fertilizer carried in bulk is normally ascertained by the draft surveys arranged by shipper. If shipper's surveyors tend to over-protect their clients' interests by taking the advantages of their local resources, the B/L quantity may not reflect the actual amount of cargo loaded.

During drafty survey, shipper appointed surveyor and carrier appointed surveyor may have disputes over seawater density, the readings of draft survey and the soundings of ballast water. In case an agreement cannot be reached between the ship interests and the shipper upon completing of loading operation regarding the cargo quantity loaded on onboard, the vessel may be shifted to anchorage by port authority, waiting for the result of negotiation among parties concerned, thus, the vessel's schedule may be affected and time loss may therefore be incurred.

2. Cargo caking

Cargo caking is another frequent problem. Some caked fertilizer is very brittle and easily to be crumbed by mallet or even by hands. Whilst some caked fertilizer is very tough and cannot be crumbed easily. When the cargo is loaded by bag breaking machine, the on-site surveyors and the ship crew cannot get close to the working machine, and then shipper and/or the stevedores will may take such opportunity to load caked cargo on board.

The steel screen is just like a filter which can primarily prevent the caked cargo from loading into the cargo hold. Only dry bulk fertilizer can pass the steel screen (with size of 2cm*2cm) and the caked cargo can pass the steel screen after being cracked, thus big cargo cakes will be left over. Nevertheless, after the cargo is cracked by manpower, some small caked cargo shall still pass the steel screen and be loaded into the cargo hold.



Furthermore, due to the characteristic of fertilizer, caked cargo can still be found in bulk even proper precautionary measures are taken before or during loading operation, normally the ratio of caked cargo is above 2%.



3. Impurities of plastic strips breaking off from bags



During the operation of cutting bags, some plastic strips will be unavoidably mixed into the fertilizer and therefore be loaded into the cargo hold. At Yantai port, the stevedores are required to keep picking out the plastic strips 24 hours a day, however it is impossible to pick out all the plastic strips.

Loss Prevention Recommendations

1. Cargo shortage

1) Considering cargo shortage dispute is quite common, it is suggested that owners try to reach an agreement with charterers beforehand that the cargo quantity (loaded onboard and to be recorded in the Mate Receipt (and/or the B/L)) should be ascertained through the joint draft surveys among the ship owners, charterers and the shipper.

2) In order to prevent potential disputes on the density of the seawater at the time of draft surveys, Master is suggested to prepare densimeter (with relative certificate & calibration records), meantime, the parties concerned should also reach an agreement on the testing method of seawater density whilst doing the draft surveys.

3) When conducting the draft survey, the vessel is suggested to try to reduce the ship heeling and trim as much as possible so as to reduce/avoid the error whilst calculating the ballast water and bunkers onboard.

4) When conducting initial draft survey, the Chief Mate should timely exchange the draft reading figures with attending surveyors (especially the appointed surveyor on behalf of shipper). If there is dispute on their respective draft readings, another joint on-site draft reading should be done immediately until the concerned parties reach a satisfactory agreement on the draft readings. Furthermore, in order to avoid any unnecessary dispute in future, if possible and practical, it is suggested that the ship side can consider making a video about the whole process of draft reading so as to preserve the related evidences.

5) After the initial draft survey, the C/O should immediately verify whether the result of initial draft surveys is correct or not by calculating the vessel's constant. If there is any abnormal result of the vessel constant or great difference over the initial draft survey result, a new joint survey should be arranged as soon as possible until cause of the dispute is found or the dispute is solved.

6) After the completion of initial draft readings, usually the stevedores will start loading operation and several steel screens will be lifted to the hatch coaming. As the weight of each steel screen is about 15 tons, if the initial draft survey needs to be re-carried out by parties concerned, those loaded steel screens will influence the calculation of ship's constant to some extent. As such, if possible, Master can consider asking the stevedore to remove the steel screens on board until the completion of the calculation of the initial draft surveys.

7) When the loading operation is close to completion, the C/O should check the

draft readings frequently and calculate the quantity of cargo loaded onboard so that he can have an idea before the final draft survey is conducted.

8) In case cargo short loading is found after the final draft surveys, the ship side is recommended to require the shipper to replenish. If shipper agrees to replenish, ship side should instruct crewmember to make proper tally about the quantity of the cargo to be supplemented, and the cargo-replenish operation cannot stop until the master is reasonable satisfied. In case the shipper refuses to replenish, ship side should immediately report to parties concerned for coordination accordingly.

9) If possible, after the completion of loading operation, the ship side is suggested to coordinate with parties concerned for joint hatch sealing.

2. Cargo caking and impurity

1) Since the fertilizer caking problem is unavoidable, owners are suggested to reach an agreement with charterers on the endorsement of mate's receipt(and/ or the B/L) beforehand to proper protect their position.

2) During loading operations, Master can dispatch duty crewmember to monitor and inspect the condition of caked cargo and impurities of plastic strips. As for the caked cargo that can be easily cracked, ship side can ask the stevedores to load the same after being cracked; as to the huge caked cargo that cannot be crumbed easily, ship side should reject loading it on board. Regarding the impurities that have been loaded on board and mixed with cargo, such as plastic strips or pieces of plastic film breaking off from bags, extra care should be taken by ship side in monitoring and inspecting the cargo condition in bulk frequently. In case impurities are found, the stevedores should be asked to collect the same timely. Furthermore, ship side is suggested to take photos (as much as practical) to record the cargo condition.

Hope the above is of assistance. Any query or comment, please always feel free to contact us.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Shan Hong", with a stylized flourish underneath.

Shan Hong
Vice President