

The purpose of this Newsletter is to keep an awareness in front of those shipping fruit and others involved in the movement of perishable products of the differences of transportation by container against shipments in specialized reefers on container under deck. As its name implies, the 360 Quality Association promotes the quality advantages of shipping on specialized reefers.

The membership of the 360 Quality Association is presently made up of reefer vessel owners, operators and terminals committed to the specialized shipping mode of transportation. It is an association of people following the same targets. Naturally, a group can be stronger than a single individual.

The Association strives to make sure that the handling of reefer cargoes on specialized vessels is continuously improved in order to provide the customers' cargoes with the care they require. We are specialists, who can handle cargo ensuring the highest possible quality standards which is demanded more and more in the field of perishable shipments. The Association have developed the 360 Quality Code which focuses on the work of seaport terminals and specialized reefer vessels. The Code lays down standards to identify, prevent, measure and control potential damages to cargo. Some 229 reefer vessels have been certified as complying with the exacting provisions of the Code. Technical cooperation by members to ensure consistency in quality so that 360 Quality members can assure their potential customers of highly qualitative results in transportation is an important role.

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## 360 Quality Association and the Attributes of Ambassador Services Terminal

**The 360 Quality Association:** The 360 quality program is a coalition of specialized reefer shipping lines and marine terminals. The goal is to maintain and further improve the quality of the handling, storage and the transport of refrigerated and frozen cargoes. ASI sees the benefit for the shippers and receivers being a member of the 360 quality Association. As such, it becomes necessary for us as a stevedore and a terminal operator to implement procedures and work ethics that will provide the best possible quality for all of the goods that come through our terminal.

We strive to maintain our equipment such as forklifts, cages, spreader bars, clamps, trams and all the other necessary gear to operate our terminal to be in the best condition possible to minimize any damages. We also strive to maintain our warehouse and equipment for cleanliness to insure the products entering in and out of our facility arrives and departs as pristine as when it leaves the farms.

This cleanliness and maintenance lends to the quality and importance of food safety, which has resulted in the implementation of food safety management programs throughout our facility. Our terminal is part of the supply chain and must be able to safely protect food from potential sources of contamination.

Moreover, ASI sees the importance of all entities of the logistical movement of fruits and vegetables be a member of the 360 Quality Association. Since we have been a member we have seen the decline of damages by working together with the other members in our supply chain, by means of the carrier and the load or discharge port terminals, whom are also members. This working together as a team with our brothers in the 360 Quality chain has resulted in a superior product for all of our customers and better yet, the best possible product for the end user.



## 360 Quality Association and the Attributes of Ambassador Services Terminal cont.

### Ambassador Services, Inc.

(ASI) is proud to be a 360 Quality member. ASI is a full-service non-union marine terminal operator since 1994. We bring more than 75 years of combined experience and cargo expertise to the table handling such products as:

- Perishables, including fruit, vegetables and juice products
- Commercial cargo, including cement, aggregate, slag, salt, oil, fuel, gasoline and fertilizers
- Lumber
- Personal and commercial-use vehicles and large equipment
- Passenger Vessels – Servicing Disney Cruise Lines
- Military supplies for ships, installation and overseas action
- Special project cargo, including aerospace parts and payloads
- Disaster relief items

### Combining the Right Resources:

We have the personnel, facilities and equipment to cover your needs from ship to end-user

### Ship to shore care:

- Experienced stevedores dedicated to providing quick turnarounds
- Specialized equipment to reduce loading /unloading times and minimize damage – automated conveyor system, highly efficient tram trains, 40-metric-ton capacity mobile crane, over 100 forklifts, front end loaders and scales
- Onsite inspection and processing services – Customs, Department of Agriculture, ship agency, freight forwarding, container refurbishment

### Abundant storage:

- More than 40.5 Hectares (100 acres) of open-air storage
- More than 28,000 square meters (300,000 square feet) of secure, enclosed dry warehouse space
- More than 255,000 cubic meters (9 million cubic feet) of dockside freezer, chill storage with controlled climate from -23 C to 13 C (-10F to 55F) with up to 95% humidity
- 14,500 square meters (47,000 square feet) of rail slide warehouse space

### Smooth distribution:

- Our own fleet of trucks for seamless, as-needed delivery
- Rail terminal operations with more than 900 meters (3,000 feet) of track with 4.5 hectares (11-acre) access
- Combinations of vessel, truck, barge and rail transport

### Thorough tracking:

- Computerized real-time inventory management
- Ability to track cargo from origin to end user
- Online customer ordering and tracking via Internet account access

### Working Toward the Next Level of Service and Quality with the 360Quality Association

ASI takes pride in offering state-of-the-art service, and we understand that 'state-of-the-art' is a mark that continuously moves. Once we've met it, we strive to re-set it... to raise the bar higher and higher. Innovation enables us to keep improving all areas of our service and quality as a 360 Quality Association member.

### Brian Hubert - Ambassador Services Inc



# Fla Flu Trade & The 360 Quality Connection

## Introduction:

As known by the readers, the 360Q Code is developed by the shipping lines. In this Code, standard damage codes are defined for fruit pallets, frozen cargoes in drums, frozen cargoes in bins and frozen cargoes in cartons on pallets and for break-bulk.

Frozen cargoes in drums, bins and cartons are shipped in the Fla-Flu trade of Seatrade. This cargo is loaded by Ambassador Services Inc. in Cape Canaveral and the majority of the cargo is discharged by Kloosterboer in Flushing. Occasionally, a vessel is discharged in Zeebrugge. Both ports deliver outturn data.

In the 360Q newsletter 2 it was explained what the difference is between the non-360Q and the 360Q supply chain.

## Main differences are:

- The 360Q supply chain has a more holistic approach.
- In the 360Q supply chain measuring points Terminal-in, Vessel-in, Vessel-out and Terminal-out are defined and cargo is measured based on standard damage codes.
- In the 360Q load port procedure acceptance and rejection criteria are defined of frozen cargo.
- Based on cargo measurements and witnessing, feedback is given to load port in order to create awareness.

As the majority of the cargo is discharged in Flushing, cooperation is more focused between ASI and Kloosterboer.

## Standard damage codes for frozen cargo:

In table 1 the standard damage codes for frozen cargoes is presented, developed by the shipping lines.

**Table 1: Standard damage codes for frozen cargoes**

Drums	Bins	Cartons
DA. Leaking, total loss	BA. Leaking, total loss	CA. Total loss
DB. Dented < 2cm	BB. Deformed, damage to packing	CB. Damage to packing materials and or cartons
DC. Heavily dented > 2cm	BC. Fermented	CC. Damage to contents of cartons incl. product exposed
DD. Pallet base damage	BD. Pallet base damage	CD. Pallet base damage
DE. No lid or loose lid	BE. Loose, missing, broken bands	
DF. Space between lid & drum	BF. No lid and/or bad fitted	CF. Product related damage, oil, dirt, debris, blood stained
DG. Overfilled, fermented	BH. Heavily rusted, rust stained, pitting	CG. External damage, wet mould, greasy or hydr. Oil
DH. Heavily rusted		CH. Chafed, scuffed or scratches cartons
DJ. Compression, top under angle		
DX. Missing batch number	BX. Missing batch number	CX. Missing batch number

# Fla Flu Trade & The 360 Quality Connection *cont*

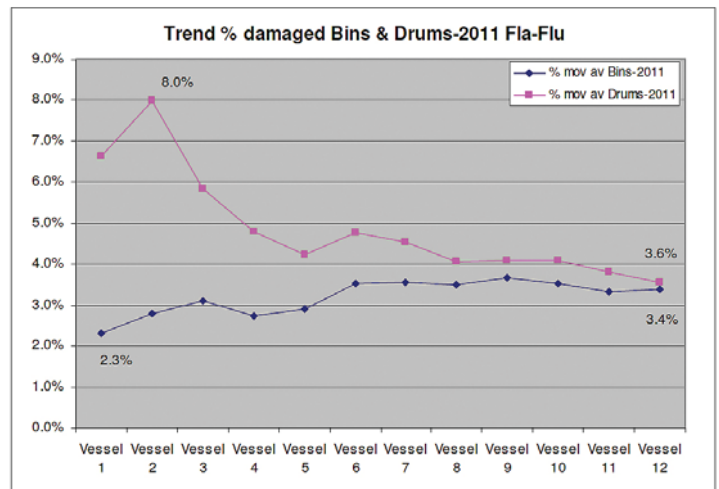
## Performance Fla-Flu trade:

In the last years the performance of the trade is closely monitored through cooperation between Seatrade, load & discharge port. In fig 1 the performance of bins and drums is shown of the present season. Damages on drums are decreased from 8% to 3.6% of the volume and on bins a slight increase can be observed. Damages on cartons are hardly present.

The increase on the bins is caused by 'Loose or broken bands' (code BE). This damage is applicable for the wooden and cartons bins and mostly occurs when the bins are lifted from the pre-slung. Of course a tight stowage is needed to secure the cargo during the sea voyage.

The product in these bins is preserved in an aluminum liner. As well as in the carton as in the wooden bins the product keeps in a liquid condition.

**Fig 1: Performance Fla-Flu**



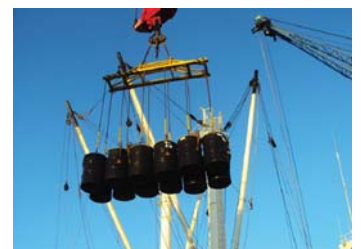
Wooden bins



Carton bins



Handling gear equipment to transport drums



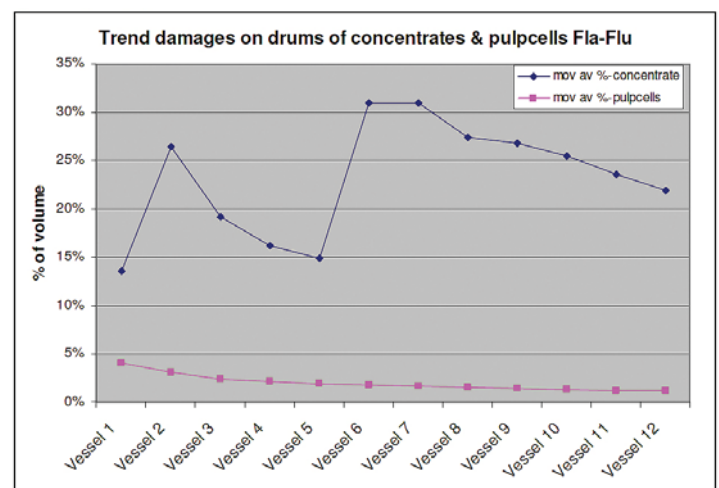
Drums lifted from cargo holds

Juices can be transported in drums, too. About 68% of the damages on drums are due to 'Dents'. Drums which have a completely frozen product inside are less sensitive for dents during the handling process than drums with liquid concentrates. The product is packed in a plastic liner to protect it.

In fig 2, it is noticed that the damages on concentrate drums (product is liquid) are considerable higher than pulp cell drums (product is frozen). The wall thickness of both drums is more or less the same.

The damages on the concentrate drums can be avoided by shipping the drums on pallets and strap them. Disadvantage of this solution is that in general more space is needed and it has a negative impact on the stow factor. On the other hand some receivers do not accept drums with dents.

Through cooperation with our partners in the supply chain we keep trying to find solutions to bring damage ratios down.



**Fig 2: Damages on pulp cell & concentrate drums**

**Wout Van Huijstee - Seatrade**

# Pallet Wise

As explained in previous 360Q newsletter, shipping lines developed and implemented Vessel, Terminal & Trade requirements with the aim to prevent **handling damage** and **contamination of cargo** (food safety).

Below (fig 1) the basic system is presented and its subjects. The 360Q requirements of the vessel focus on the proper working of the vessels systems.

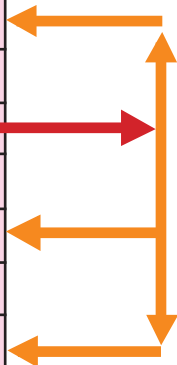
The main focus of the Terminal requirements is the professionalism of the terminal/stevedore. Trade requirements are focusing on control of cargo damages. Through regular feedback from discharge port to load port, based on data, witnessing during loading/discharge and process analysis, discussions will take place how this control of cargo damages can be realised.

**Fig 1: 360Q basic system**

<p><b>Vessels (129):</b></p> <ul style="list-style-type: none"> <li>• Quality policy &amp; awareness</li> <li>• <b>Weather tightness</b></li> <li>• <b>Hydraulic system</b></li> <li>• <b>Gratings</b></li> <li>• <b>Side shoring</b></li> <li>• <b>Cleaning</b></li> <li>• <b>Cargo holds &amp; cooler spaces</b></li> <li>• <b>Reefer equipment</b></li> <li>• <b>Power generation</b></li> <li>• <b>Temperature management</b></li> <li>• <b>Cargo gear</b></li> <li>• <b>Lighting in holds</b></li> <li>• <b>Drains</b></li> <li>• <b>(Appearance)</b></li> </ul>	<p><b>Terminals (73):</b></p> <ul style="list-style-type: none"> <li>• Management</li> <li>• Staff training</li> <li>• Maintenance of equipment</li> <li>• Product contamination &amp; hygiene</li> <li>• <b>Fixed stevedore equipment</b></li> <li>• <b>Rolling terminal equipment</b></li> <li>• <b>Fixed terminal equipment</b></li> <li>• <b>Rolling stevedore equipment used in vessels</b></li> <li>• Product quality</li> <li>• Cargo intake &amp; despatch control</li> </ul>	<p><b>Trade (11):</b></p> <ul style="list-style-type: none"> <li>• Vessels 360Q certified</li> <li>• L &amp; D Terminals 360Q certified</li> <li>• Local L &amp; D procedures in place</li> <li>• Damaged cargo recorded-data delivered</li> <li>• Analysis of data present</li> <li>• DMAIC team in place &amp; implementation of solutions</li> <li>• Follow-up actions</li> </ul>
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**Table 1: Relation between 360Q damage codes**

Damage code	Description
A	Empty and/or missing cartons
B	Damage to packing materials
C	Damage to content
D	<b>Pallet base damage</b>
E	Pallets leaning/collapsed
F	Dirty or stained cartons
G	Wet, mould greasy or oil stained
H	Chafed scuffed or scratched
J	Compression damage
X	Overheight (>2.10)



In these discussions feelings and perception play a significant role. The will to cooperate and to find solutions and look together to the same data, trends and photo's helps to focus and align the discussion. Of course everyone has its own interest, but on the long term the supply chain partners are devoted to each other! Solutions MUST be found to keep our customers happy and to keep in business.















Sometimes cargo is delivered at Terminals in an inferior condition, because transport of pallets takes place in open un-frigerate lorries driving on non hardened roads. Terminal inspection separates the damage pallets and repairs will be executed before these pallets enter the terminal process. Often the terminals will charge truckers when pallets arrive in a bad condition in order to create awareness to shippers.

One of the most important for a fruit pallet is 'the Pallet base' (table 1). This pallet base is in fact the 'corner stone' of the pallet. If the pallet base is damaged then other damages can take place, too. The reader can imagine, if a corner block from the pallet base is absent, that this pallet will lean and packing materials will be damaged, especially when it is discharged from the pre-slung area.

# Pallet Wise cont.

In table 2 the aspects of a correct pallet build-up is presented.

**Table 2: Relation between damage codes and pallet build-up criteria**

Description	Good	Not Good	Damage Code
<p>1.</p> <p><b>Brick structure and not stacked out</b></p> <p><b>Attention: No space between cartons</b></p>			<b>A, B, C, H</b>
<p>2.</p> <p><b>Pallet base</b></p> <p><b>Attention: No damage present</b></p>			<b>D</b>
<p>3.</p> <p><b>Cartons correctly placed on pallet base</b></p> <p><b>Attention: No stack out area's</b></p>			<b>B,H</b>
<p>4.</p> <p><b>Corner protectors correctly placed</b></p> <p><b>Attention: Protectors placed over blocks</b></p>			<b>B, E, H</b>
<p>5.</p> <p><b>Min. 4 horizontal &amp; 2 vertical straps</b></p> <p><b>Attention: Number of straps</b></p>			<b>E, H, J</b>
<p>6.</p> <p><b>Straps with correct tension</b></p> <p><b>Attention: Tension correct to keep pallet stiff</b></p>			<b>E, H, J</b>
<p>7.</p> <p><b>Top carton fixed and properly placed</b></p> <p><b>Attention: Strap on top cover</b></p>			<b>F</b>

# Pallet Wise cont.

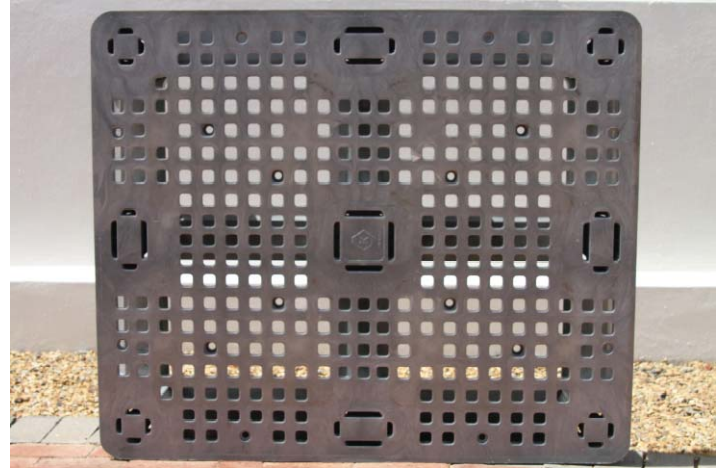
In table 2 the relation is given between the 360Q damage codes and the pallet build-up requirements. The major issue for a pallet is that it should be stiff. To create enough stiffness these 7 attention points are crucial. In fact table 2 visualizes the requirements of the retailers to the shippers and in some packing houses this sheet is used for instruction purposes.

Another angle is that it is known that costs are saved on pallet bases in the beginning of the supply chain. Fumigation requirement (ISPM 15) makes wooden pallets more brittle and that is why they become more sensitive for damaged during the handling process.

A very interesting development is plastic pallets (fig 2). This invention is developed in cooperation between Transology (NykCool) and Stellenbosch University in South Africa.

These pallets are already extensively tested in during shipping operations in the last two years. The plastic pallets are recyclable and guaranteed to carry 5 M/tons Static load for a 5 year period. They are FDA approved and they do not have to be treated with chemicals such as ISPM 15, prior to shipping.

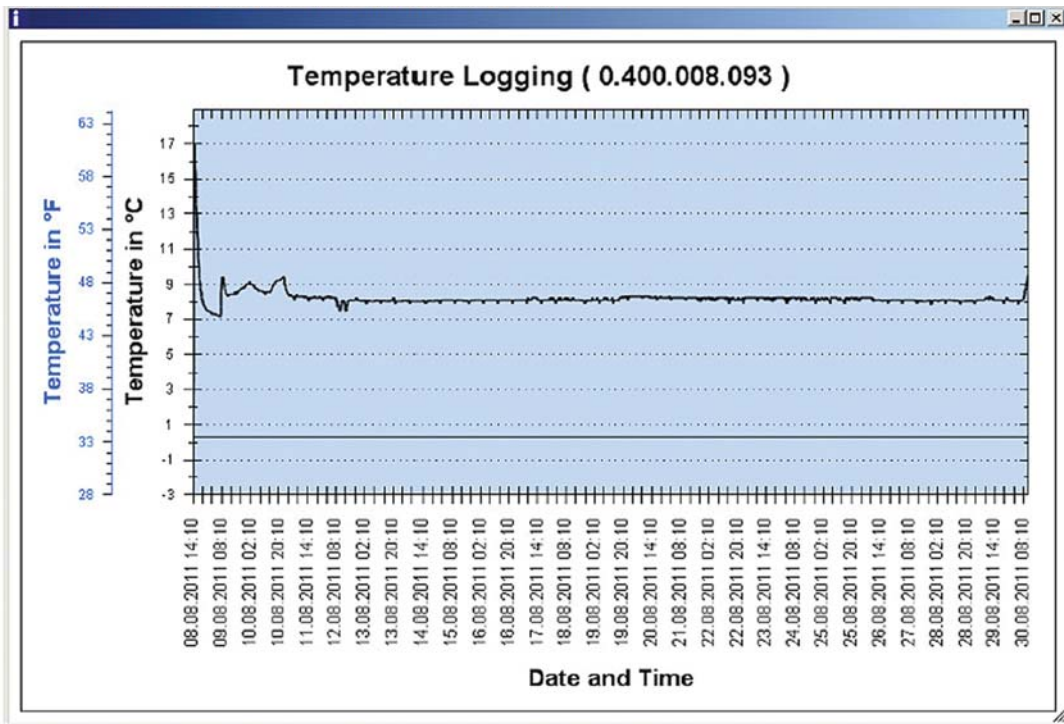
Due to its construction, the plastic pallet has a 38 % better vertical airflow in comparison with a wooden pallet. Each



**Fig 2: Plastic pallet base**

plastic pallet is equipped with an active RFID chip, which sends a signal for arrival and departure and in this way tallying becomes more easy, quick and accurate. Due to the RFID chip the pallet can be easily tracked & traced.

Every 30 seconds the temperature of the pallet is logged. In all stages of the supply chain, from farmer until receiver, the exact temperatures are measured on which the pallet is exposed to. The accuracy of the measurements meets the USDA requirements, too.



**Fig 3: Temperature loggings of plastic pallet equipped with RFID**

As the pallet is guaranteed, there will be no additional repair costs. During process handlings the wooden pallet need to be repaired or replaced frequently, which disturbs the cargo flow to and from the vessel. As plastic pallets do not need these repairs the stability of the plastic pallet during operations is much better than the wooden variant. Imagine what will happen if pallet bases are always in a satisfactory condition? Statistics on cargo damages will reduce dramatically and that is in the interest of our customers!

**Seatrade & NYK Cool**

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NYKCool AB

Seatrade Group NV

Star Reefers UK Ltd

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Belgian New Fruit Wharf Belgium

COOPEUNITRAP RL Costa Rica

FTP Group (Pty) Ltd. South Africa

FRUPOINT Spain

George Hammond PLC UK

Gloucester Terminals LLC (Holt Logistics) USA

K Services LLC USA

Kloosterboer Vlissingen vof The Netherlands

Marmedsa Group Spain

Medway Ports UK

Reefer Terminal SpA Porto Vado Italy

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SIELSA Costa Rica

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