

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 225 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.

## HI-CUBE PALLETS VERSUS STANDARD PALLETS

A lot of fruit is moving by container in various trade lanes. The majority of containers used are reefer hi cubes FEUs. The hi cube mode is very popular view the added quantity of fruit that can be accommodated against that carried on standard height pallets carried under deck on specialized vessels. Although there is a monetary advantage relative to economies of scale there has to be a quality concern relative to hi cube pallets in relation to the weight and compression exerted on the lower carton tiers and the overall stability of the unit. This was highlighted in the Citrus Growers' Association (CGA) of South Africa Logistics News Flash of July 2010 where it reported a road transporter had highlighted that damages are more frequent when transporting hi cube pallets on Tautliner trucks rather than flatbed trucks. Flat bed trucks allow the pallets to be secured under the tarps and proper strapping can be applied. The downside is that the added pressure from the tarps, the strapping and additional netting causes the lower cartons to collapse. Even when hi cube containers are stuffed at the packing house it is indicated by insurers that the probability of damage is greater on a hi cube pallet than a standard height pallet. The CGA also reports that owing to an increased pressure from the industry, a "brain storming" workshop will take place to discuss hi cube pallet transportation involving all key players.

## DURBAN TERMINAL SETS PRODUCTIVITY RECORD

*The following story and photo was sent to us by Maestro's representative in Durban, Neville West.*

The Fresh Produce Terminal (an Affiliate Member of the 360 Quality Association) has set a new record for productivity

at the port of Durban, according to Clinton Smart, Operations Manager for NYKCool, with the successful loading of 4,738 pallets of fruit within a 24-hour loading period.

The cargo was being loaded on the specialized reefer vessel, Ice Rose, destined for Japan.

Said Clinton Smart: "Efficiency is the key when loading sterilization cargo. "It is of utmost importance to load efficiently so that the decks can be



*Ice Rose loading in Durban*

closed and cooling started in order to protect the cargo and to ensure not to exceed the protocol," he added. "The ship was able to bring all pulp sensors below 0.0 celsius in a very short time - the fastest any vessel has taken to stabilize since the start of citrus exports to Japan."

**Well done, all on board and to FPT. This shows the unique collaboration between Members to add quality to reefer transportation.**

# DAMAGE PREVENTION

Observations by **Wout van Huijstee** of Seatrade's 360 Quality Team

Often it is noticed that cargo is not arriving in the discharge ports in a satisfactory condition. Based on witnessing the discharge operations and 360 Quality data, the causes can be determined. To obviate these causes appeared more difficult because one needs to know how the load & discharge ports function. This was the incentive to visit Cape Town & Durban, the key load ports in our trade from South Africa to USA.

In Durban it appeared that the Terminal-in inspection is well arranged. In case pallets are

damaged trucker/shipper will be charged for recoup costs.

Remarkably, in almost in all pallet bases cracks are present. Probably this is due to the heat treatment (ISPM15) requirement, but makes the pallets sensitive for handling in the supply chain.

Seeing the fact that these pallets are sensitive for handling, the remaining process was checked and discussed with the management of FPT Durban. It was agreed that the following measures will be implemented:

- 1** *Pallets should be lifted more during transport in the warehouse to avoid that pallets bases are touching the ground.*
- 2** *Keep a distance on the quay side between pallets before loading into the pallet cage.*
- 3** *Inspection and repairing pallet on the quay side by FPT personnel.*
- 4** *Inspection cargo by an independent inspection body in the cargo holds.*
- 5** *Prepare 24 per-slung pallets to create more space in discharge port when pallet cage is used.*



*Creating damage on the quay*



*Avoiding damage on the quay side*

## DAMAGE PREVENTION *cont*

In Cape Town the situation is different. The cargo arrives in a much better condition. Because the cargo was meant for a USDA voyage, it is received and pre-stowed for a certain time in reefer chambers at the terminal. On the quay side it was seen that still some repair on pallet bases was necessary. After investigation it appeared that flat rusty nails were present between the blocks and

the slats of the pallet base. These flat nails affect the assembling strength of the pallet and this was a complaint received from the discharge port Philadelphia. To avoid damages in the discharge ports, 'chep' pallets were used in the pre-sliling in the hatch squares. When this was discussed with the management of the Terminal it was agreed that:

- 1** *pallets will be inspected before stowage in the reefer chambers.*
- 2** *"Chep" pallets will be only used for the pre-slung pallets*
- 3** *Terminal-in inspection will be intensified on pallet base damages and focusing on flat nails between blocks and slats*



*Flat rusty nails*



*Repair of pallet base*

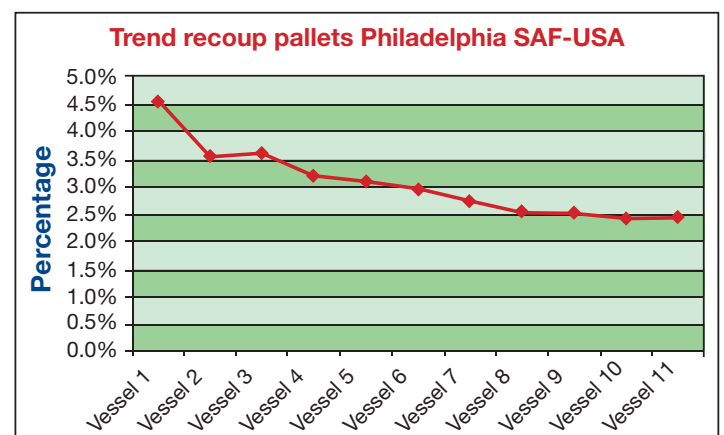
**For Cape Town this resulted in a decrease of recoup pallets in the discharge port from 4.5% to 2.5%:**

From the graph right, it can be seen that by cooperation between load port, discharge port and shipping line, cargo damages can be influenced.

The perfect platform for this cooperation is the DMAIC teams per trade. DMAIC stands for Define, Measure, Analyze, Inform & Control and is a six sigma tool.

The aim of the DMAIC team is to discuss 360 Quality data from load & discharge ports and try to find trends. Feedback and observations during discharge and a positive approach of the all the DMAIC members are essential. Other subjects that can be discussed are:

- process analyses per port
- 360 Quality terminal certification
- feedback to shippers and their involvement in quality cargo



- presentations in export meeting to create awareness

Only by cooperation we can reduce damages and book successes. For the South African trades of Seatrade, we are at the point to shortly start-up such DMAIC teams.



# 360 QUALITY DAMAGE CARGO SURVEYS

## Report by Marine Surveyor, John Kitrilakis Owner of K-Services

In 2007 Seatrade Reefer Chartering (SRC) appointed K-Services to carry out 360 Quality damage cargo surveys for the Moroccan citrus trade to USEC at the ports of Philadelphia, PA, Wilmington, DE and New Bedford CT. Since then we have also become involved with Spanish and South African trade 360 Quality zero damage cargo surveys at these ports.

I take this opportunity to outline the function of K-Services as a 360 Quality zero damage cargo survey inspection entity, our mission and how we go about this business. This article will focus on the Moroccan citrus trade to USA.

Based on the 360 Quality zero damage code we trained selected inspectors and put together inspection teams at these locations to perform this task. We recognize that the 360 Quality concept is a dynamic and interactive process. Our approach is an integrated overview of the entire system and its components. While the prime focus is the condition of the cargo, attention is paid to the condition of the vessels, pier terminals, the ships' crew and terminal labor performance during cargo operations. We record any deficiencies that may have an impact on the cargo itself. It follows that the colleagues involved in vessel and terminal 360 Quality surveys can have a point of reference and may effectively address these issues. We believe that the 360 Quality damage cargo survey is not just completing the damage survey form but to investigate where, why and how damages happen and then make suggestions to minimize the occurrences and their effect.

Since the beginning of our involvement in this venture we built a successful working relation with the terminals, stevedoring companies, receivers and opposing surveyors. Most important we noticed that our input to the Principals initiated changes in the trade that proved beneficial to all parties concerned.

The writer has been actively involved as a marine surveyor with the Moroccan Clementine trades since 2005. Before 2007 the typical base skid of the palletized cases was of the block type that became easily damaged in stow as well as during normal handling. This resulted in unstable pallets that often collapsed with loss of produce. These damaged pallets had to be restacked to be made fit for further transportation for

delivery to the final destination; a labor intensive and time consuming operation. When block type pallets were used for the usual 2,000 to 2,500 pallet shipment in moderate weather –up to 7 in the Beaufort scale which is common in the North Atlantic in the winter months and provided the Master was successful in avoiding heavy weather – there were as many as 50 pallets on average that needed reworking because of broken base skids.

The problem had been adequately documented by the surveyors at the discharge ports and recommendations were made to modify the base skids.

In 2007 with the initiative of SRC and the cooperation of the Moroccan shippers and packing houses the block type base skids were phased out and replaced with standard type pallets.

The damages to the base skids, either in stow or due to handling were dramatically reduced from about 50 pallets on average to about 8 and less.

*The photographs below illustrate the conditions of block and standard pallets*



*Block type base skids*



*Standard type base skids*

Having addressed the base skid issue using the 360 Quality concept during the ensuing years with continuous monitoring and identification of problem areas, improvements were made in packaging (securing bands, elimination of the chimney stacking used for years) as well as in the stowage and method of handling at load and discharge ports. We may discuss these specific topics in future publications.

The concept of the 360 Quality Zero Damage offers a clear view of the conditions through numbers, it eliminates the voluminous verbiage of survey reports of the past and provides a quick and direct reference to the weak areas in the chain that need improvement. Aside from minimizing damages, the 360 Quality concept allows for swift, fair and equitable claims handling and settlement, which is beneficial to the industry.

With the cooperation of all participating entities in the 360 Quality zero damage program it is a fact that this concept is not a utopia.



*Block type base skids*



*Standard type base skids*

# CARRIAGE BY SPECIALIZED REEFER DOMINATES SOUTH AFRICA/JAPAN CITRUS TRADE

The VSS (Vessel Sharing Service) between Universal Reefers and Star Reefers placed 7 specialized reefer vessels into the South Africa to Japan citrus trade in the 2010 citrus season, also taking space on two NYKCool specialized ships.

The service to Japan was appreciated by shippers in preference to containers due to the regularity, reliability, direct transit Durban to Japanese ports and a good fruit out-turn in Japan.

All cargo destined for Japan via the specialized reefer mode, were handled by the 360 aligned terminals of FPT. The ships were able to maintain the onboard Japanese fruit sterilization protocols, including temperature and recording management, to ensure complete satisfaction for exporters and receivers alike.

The specialized reefer mode was thus the preferred shipping and carriage mode on this trade route for 2010. NYKCool also place 7 specialized sailings and out of the total of about 63000 plts of citrus shipped to Japan, about 58000 plts went by specialized reefer and only about 5000 plts by reefer container. It is interesting to note in 2009 about 12000 plts went in container. This mainly reflects that this trade (like the citrus trade from South Africa to the USA) is governed strictly by on board sterilization treatment which specialized reefers are far more suited to handle than in containers. The indications are that the South African shippers will retain this methodology into Japan for 2011.

## TERMINAL CERTIFICATION

Our Affiliated Terminal members also go through a certification process. The latest terminal going through this process is COOPEUNITRAP RL of Costa Rica. They are handling Seatrade's COLORICA and SEAMED banana services as well as Fyffes banana service to Europe. Well done **COOPEUNITRAP!**

