



# Global Project Logistics NEWSLETTER

The Official Voice of the Global Project Logistics Network (GPLN)

January — February 2016

Issue No. 49

## Insider Interview — Improving Cost Efficiency in Sea Freight

**P**lan ahead, avoid peak shipping periods if you can and, above all, speak to the experts. That’s the advice from Terry Churchill of Allseas Global Logistics, who says shippers can make huge savings on freight costs, whether we are talking about consumer goods in containers from China or huge one-off out-of-gauge (OOG) project cargo shipments.

“The thing that doesn’t get considered very often is planning the timing of your shipping – there are peak times where slots are restricted and rates are higher and, if you don’t need to ship in those periods, why would you do it?” he says. “Often people just ship goods because the goods are ready. But if I didn’t have to, I wouldn’t choose to ship in the October/November pre-Christmas rush.

“From a buyer’s perspective, he says: “If you can project volumes, you can negotiate better rates with forwarders and shipping lines. You should be looking for planned distribution as opposed to ad-hoc shipments. The more lead time you have, the better shopping around you can do and the better rates you can access.”

This principle is probably even more critical when it comes to shipping heavy lift and project cargo – a massive genera-

tor or turbine, for example. “You can save vast amounts of money if you plan how you are going to transport the item before it is even built,” says Terry. “Get the forwarder involved so they can advise the best way of doing it. Transport options should be dis-



Interview with Terry Churchill,  
General Manager Allseas  
Global Logistics, UK

cussed at the very beginning, before the item is built or even designed.”

Expert packers and forwarders often lament customers’ failure to consult them early in such a project – a failure which can cost the customers dearly. “We don’t want to be telling the shipper – ‘if you had told us that, we would have done it very differently,’” says Terry. “Part of your internal planning should be to appoint your forwarder as

early as possible, especially in projects, so you proactively design and plan between you – as opposed to ‘you need to come and pick this up now’.”

“Working with the customer from the start will enhance our efficiencies. We can assess how a major item is to be loaded – for example, can things be loaded on their side? We can help design what the goods will look like when they are moved and advise the customer the best way to construct their freight from the cost and loading perspective. For example, a large item in one single piece might cost \$100,000 to ship but if it can be shipped in two pieces to be assembled at the end destination, the cost might be only \$60,000.”

Of course, Terry says, there are instances where last-minute shipping can’t be helped and Allseas will always seek the most effective price. “But the more time you have to look at it and work it out, the better.

If it’s a case of ‘I need a price by 5 p.m.’, then we don’t have much time to make calls and see if there’s a better deal out there. And of course, if a shipper gets close to the deal and ends up doing the transport by air, then that is

very expensive.”

For example, moving a loaded container from China to Europe by sea would cost around \$1,000. The same container moved by air would cost closer to \$50,000.

There is the option to get vessels planned and bookings made early and cancel if necessary nearer the date – if it’s a container, that’s not the end of the world. However, if the booking involved a whole block of containers or a massive OOG piece, clearly the lines would not be happy.

And in any case, says Terry: “If you keep booking and then cancelling with the lines, you lose credibility as a forwarder. The lines would soon note that you had a habit of cancelling; they would no longer pull out all the stops and give the lowest rates. And then everyone loses.”

So what might be on offer? Allseas would normally offer a choice of solutions – for example, rates for a direct sailing in a few days’ time, or for a direct sailing ten days later which might be a little cheaper, and/or for a route that involved transshipment, perhaps adding another seven days overall but reducing

*Continued on page 7*

## From Belarus to Vietnam

**A**s part of a multi-modal transport cooperation, a Lithuanian project specialist and The Freight Vietnam have successfully



moved two BelAZ mining dump trucks from Belarus to Vietnam. Total weight of the shipment was 171 tons spread over nine containers. Both trucks were dismantled into 4 x 40’FR OW/OH + 2 x 40’HC

+ 1 x 40’OT + 2 x 20 DV. The Lithuanian partner who controlled the shipment moved the heavy-duty mining trucks by railway from its origin in Belarus to Klaipeda port, Lithuania, where the cargo was reloaded from rail platforms into flat racks and standard containers. The supersize cargo was transshipped twice in Gdansk, Poland, and Singapore. Total transit time was 45 days. The Freight Vietnam conducted all logistical aspects from terminal handling at deep water port Haiphong over midnight transportation on semi-trailers to final site in Cam Pha, Vietnam. Cam Pha runs one of the major coal mines in Asean.

[www.gpln.net](http://www.gpln.net)



### INSIDE THIS ISSUE

Editorial — A Word From GPLN	2
WWL Express Overhaul for Oil & Gas Industry	4
GPLN Team From Yokohama to Bangkok	6
BIMCO: “Menacing Clouds” for Shipping in 2016	7
DAKO Worldwide Ships Power Plant for Panama	11
Braid Lights Up the South Atlantic Coast	14

## A Word From GPLN

### Dear Reader

We hope that you have started the New Year well and that this will be a healthy and successful year for all of you.

The year 2015 saw almost no growth for the breakbulk and heavy-lift cargo industry, and another challenging year for our industry lies ahead of us. Since mid-2014, oil prices have slumped around 70%, mainly because of a global oversupply and also due to the U.S. shale oil flooding the market.

At the same time, demand has fallen because of a slowdown in economic growth in China and Europe. While China re-evaluates its future development and direction, the shipping industry can expect an uncertain and lower level of support from one of the most important drivers of shipping demand growth in recent times this year.

Furthermore, Iranian oil exports are expected to rise later this year, increasing further the oversupply of oil. Analysts have warned that oil prices could go as low as \$20 a barrel, but are expecting the price to stabilize in the second half of the year as supply from non-OPEC nations slows and demand remains relatively robust.

This situation and the downturn of the Australian mining industry with its impact on shipping and logistics business have unfortunately left our industry in a relatively bad shape, and also affected many companies and shipping lines in the project logistics industry.



Luzius Haffter with various GPLN members exhibiting at PowerLogistics Asia in Singapore (November 2015).

Our own focus is now on our Annual General Meeting which will be held from May 21-23, 2016 in Brussels, Belgium. We are confident that we will reach again a new record attendance, as a multitude of members have already signed up for this conference. Several members will also participate in our Heavy Lift Maritime and Transport seminar, which is scheduled right after the annual meeting on May 24 and just ahead of the Breakbulk Europe event in Antwerp.

Last year we attended several logistics and industry events across the globe and many times we shared our booth with GPLN members. Our traveling season starts this year middle of March with the Breakbulk China Transportation Conference & Exhibition in Shanghai, followed in May by our AGM in Brussels and the Breakbulk Europe Transportation Conference & Exhibition in Antwerp.

As usual we will have the same booth again this year at the Breakbulk Europe event in Antwerp. Please come and visit us there! The

traveling season will come to an end in September with a visit to Breakbulk Americas Transportation Conference & Exhibition in Houston.

We hope to see you all at our conference in Brussels and at many logistics events during this year.

Your GPLN Team

**GLOBAL PROJECT LOGISTICS NEWSLETTER**  
Publisher: Global Project Logistics Network (GPLN)

**Contacts:**

Advertising: [advertising@gpln.net](mailto:advertising@gpln.net)  
Press Releases: [editor@gpln.net](mailto:editor@gpln.net)  
Letters to the Editor: [editor@gpln.net](mailto:editor@gpln.net)  
Subscriptions: [subscriptions@gpln.net](mailto:subscriptions@gpln.net)  
Web: <http://www.gpln.net/>

The Global Project Logistics Newsletter is the official news of the Global Project Logistics Network (GPLN), the world's largest independent project logistics network serving the project cargo, chartering and heavy lift industry.

All material © 2016 GPLN

### NEW GPLN MEMBERS — JANUARY / FEBRUARY 2016

Angola	Luanda	Supermaritime Angola Lda
Benin	Cotonou	Supermaritime Benin SA
China	Shanghai	Shanghai Capital Logistic Transport Co., Ltd.
France	Paris	France Cargo International Cie SA
Ghana	Takoradi	COMEXAS Ghana Limited

## Green Worldwide Moves 9 Evaporator Vessels From China...

**G**reen Worldwide recently loaded nine evaporator vessels bound for a paper and pulp mill in Florida. Fellow GPLN member Protranser attended the loading of the 12007 Dwt Trina in Zhangjiagang in China. Trina, a self-geared heavy-lift ship with 2 x 700-ton cranes, was only the second breakbulk ship to call the new terminal, but under the supervision of Protranser the loading was completed without any issues.

Trina arrived in Jacksonville four weeks later. The nine vessels of which the largest measured 21.8 x 7.3 x 7.8 meters and the heaviest was over 126 metric tons, were discharged using ship's gear directly on to two deck barges standing by along side ship.

The discharge operation was completed in 12 hours, and the two barges were towed down the St. Johns River to a small barge terminal near the paper and pulp

mill.

Using a barge mounted crane, the first vessel was loaded onto a 10-line Goldhofer configuration pulled by



"Big Mike."

With an entourage of escorts, police

cars and bucket trucks, the first vessel moved over the road to the plant directly under the erection crane.

Careful planning of this last leg of

ments made in advance and alternate routes chosen where needed.

"We were able to deliver straight under the erection crane hook in the sequence needed enabling the receiver to only make one pick for each vessel and set in place," says Green Worldwide's project specialist Marcos Borges.

"The customer saved a lot of crane time because of this."

Once the first vessel was off loaded, "Big Mike" went back to the barge terminal to get the next one. For the smaller vessels we were able to deliver two per day, for the larger ones only one.

The entire project was completed on time and within budget. Green Worldwide likes to thank the utility companies and the local police for their availability and assistance, and they thank the local community for their patience while highway U.S. 17 was closed to traffic for the loads to move through. [www.gpln.net](http://www.gpln.net)

## From Shanghai to Savannah

**C**ity Union Logistics of Shanghai, China, provided the through-carriage services for the vapor generator for British Petroleum (BP), with a total volume of approximately 1,500 cubic meters.

The whole service scope included the chartering, on carriage transportation, booking and customs clearance service.

At first City Union Logistics chartered a vessel to carry out the whole ocean transportation from Shanghai to Savannah, U.S., by Rickmers Linie.

After the vessel arrived in Savannah for unloading at the port, we arranged the barge to receive the cargo from the mother vessel, and then carry out the inland water transportation from Savannah to the BP barge site.



Finally we arranged a hydraulic axis modular trailer to receive the cargo from the barge, and for the transportation of this cargo to the BP job site.

In order to ensure the safety of the whole carriage operation, a surveyor was dispatched to the port of Shanghai.

He coordinated all necessary steps with the local port authority, the carrier and other relevant parties, supervising the whole operation.

Furthermore, to ensure the safety of transportation operation in the U.S., City Union Logistics also dispatched a surveyor from their Houston branch to Savannah port and the BP barge site, supervising the whole unloading and transshipment operation.

[www.gpln.net](http://www.gpln.net)

## ... and a Power Plant to Korea

**O**ver the course of the past five months, the project team of Green Worldwide

Shipping, Georgia, USA, has successfully loaded equipment from the ports of Houston and Norfolk in the United States to Busan, Korea for a new power plant.

Due to a very tight delivery schedule, much of the cargo was shipped by container vessel either on flat racks or as breakbulk, including three generators each weighing in excess of 305 metric tons. The generators shipped in three separate lots and were loaded by the 350-ton barge-mounted Samson crane onto a bed of 40' flat racks on board the container vessels.

"A lot of technical planning and coordination went into the execution of this project," says Green Worldwide's project manager Thomas Jorgensen. "The port captain, the carrier, the stevedores, the floating crane operator, the shipper's

surveyor as well as the National Cargo Bureau all came together to ensure all details were accounted for and the meth-



od statement completed well in advance which at the end resulted in three very smooth loading operations"

Green Worldwide's scope is now concluding with the last few air freight shipments of spare parts. [www.gpln.net](http://www.gpln.net)

## WWL Does Express Overhaul for Oil & Gas Industry

**H**andling huge equipment for the oil and gas industry is a challenge in itself, but add in tight deadlines and the task can seem almost impossible. Solving this puzzle requires the right combination of efficient supply chain management and expert service.

In Singapore, the offshore and marine sector has been going through tough times due to falling oil prices and slowing production demand. WWL's Equipment Processing Centre (EPC) in Singapore was recently approached by an offshore company to assist with a dismantled oil rig.

The job involved washing and storing 96 pipe risers and 769 drill pipes, weighing up to 24 ton each and measuring up to 22 meters in length. The equipment needed to be prepared for a buyer in Australia, and the deadline was tight.

EPC Singapore was asked to wash and store a dismantled oil rig. The washing had to meet the standards set by the Australian

Quarantine and Inspection Service (AQIS) and be accredited by its officers in order to be redeployed in Australia.



The WWL team used high-power pressure jets with rotating nozzles to remove mud, barnacles and grease from the pipes.

Accredited quarantine officers were

flowed in from Australia to check on the job before the pipes were shipped to their destination.

The work of storing and washing 96 risers and 769 drill pipes took three weeks, with the team working up to 12 hours a day, including weekends.

The drill pipes were packaged and all

wood was fumigated to meet AQIS standards.

"With the experience of washing rolling equipment units in our team, we were able to take on the challenge of washing this oil and gas cargo to meet Australian standards," says Andy Sahri, a service engineer at WWL Singapore EPC.

The WWL facility in Singapore offers its customers more than 18,200 square metres of storage capacity with a maximum weight of four ton per square meter.

The facility provides round-the-clock security and has a wash bay with recycling functions, five work bays for engineering services and a paint booth big enough to accommodate high and heavy machinery.

The services range from inspection and processing to storage and transportation management and modifications or rectifications to meet customers' requirements, lifting of cargo, full unit painting and documentation.

[www.gpln.net](http://www.gpln.net)

## THE PERFECT HAND OVER

**WW**  
WALLENIUS WILHELMSEN  
LOGISTICS

CREATING  
VALUE  
AT EVERY  
POINT OF  
TRANSFER

When a long, tall or heavy product is delivered by WWL, it's not just another handover. It's the last in a series of tailor-made solutions designed to perfection. It's about providing the right vessels and specially designed equipment to enable smooth transitions between land and ocean. And it's about combining decades' worth of handling expertise with a truly global network. Whether you need reliable shipping from A to B or door-to-door solutions, we work with you to create value at every handover.

Through this approach we help our customers reduce transport risks and increase delivery precision. Find out more about how we can create value together at [bit.ly/WWLcases](http://bit.ly/WWLcases)

TARE 11,0 to.

SWL 180 to.

## Big Job for Quality Freight UK

**Q**uality Freight UK has overseen the movement of two massive Vigan ship unloader units from Tilbury Power Station to Canada Dock in Liverpool.

Quality Freight's client Newport Industries bought the 50 meter long, 140-ton unloaders from RWE utility following the closure of a power station in 2013.

John Keenan, chartering director at Quality Freight UK, oversaw the operation and worked closely with colleagues at RWE and Newport Industries:

"This was a highly complex project, one of the biggest jobs Quality Freight UK has undertaken. We brought in ex-

perienced naval architects Graham and Woolnough for its marine engineering and practical expertise. Dismantling the units involved unbolting them from their legs and dropping on to the quay.

In total, there were more than 20 pieces that had to be broken down."

Vigan mobilized a team to help dismantle the ship loaders.



It was not possible to get crane capacity to the jetty, so a geared vessel with 122-ton capacity cranes was used to handle the cargoes.

"In total, it took four days to dismantle and load at Tilbury and a further day unloading at Liverpool," Keenan added.

www.gpln.net

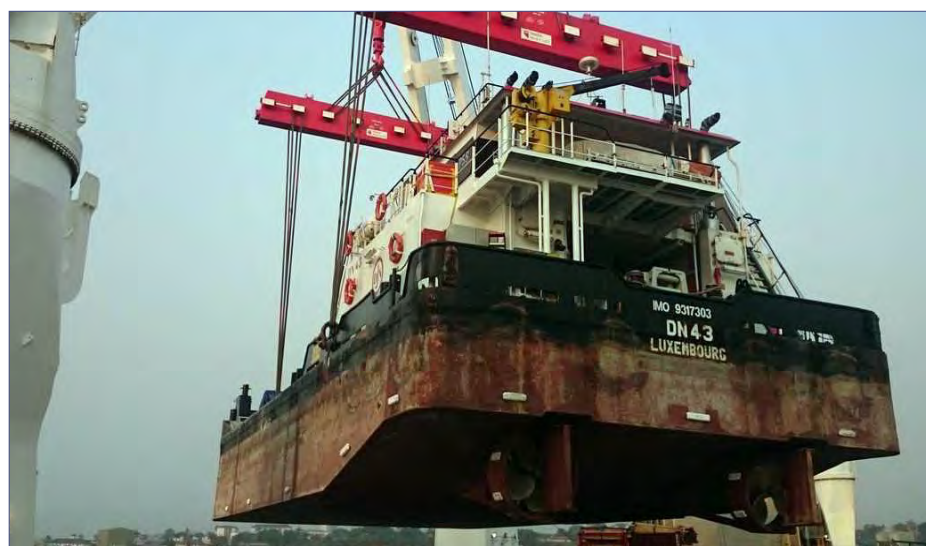
## New COMEXAS Ghana Branch

**C**OMEXAS Ghana has opened their Takoradi branch office beginning of January 2016. In the meantime they have been appointed as port & liner agents of UAL (Universal Africa Lines). UAL is a multipurpose carrier focused on break bulk and project cargo, mainly specialized within the oil & gas industry, offering frequent monthly sailings between the USA (Houston), Europe (Aberdeen, Antwerp) and Ghana

(Takoradi).

UAL is the best solution for out of gauge and heavy lift shipments to Takoradi. Besides this service the Takoradi office will be also handling other logistics services for the oil & gas and mining industries with a focus on out of gauge and heavy lifts. They have recently performed heavy lifts for one of their customers: a multi-pontoon with a weight of 495 tons.

www.gpln.net



## The Freight and CNC Truck On!

**T**he two long-term GPLN members The Freight Thailand and CNC Malaysia have successfully cooperated on a silo transport by land from Nilai, Malaysia to Samut Prakan, Thailand.

The four silos were 18.7 meters long and had a diameter of 3.7 meters. They were trucked on low bed trailers.

Furthermore nine containers were shipped by sea to complete the bulk flower handling system for the consignee. The Malaysian shipper had assigned The Freight Thailand to organize the entire

logistics including comprehensive customs clearance subject to BOI (Board of Investment) privilege of the Thai government.

Low hanging voltage cables had to be lifted up in order to pass through for the large silos.

The weight per silo unit was 13 tons. The silos were trucked in two lots and each lot took up to four days and nights. The Freight also supervised offloading, erection and installation by cranes at consignee site.

www.gpln.net



## THE FREIGHT CO., LTD.

This service is operated by: Consolidated Heavy Lift Ltd.

### BARGE SERVICE

THAILAND / MYANMAR

- From Ranong, Thailand to Myanmar
- Yangon and other key industry centers
- Inland river destinations
- Servicing offshore platforms
- Starting from October 2014



### CARGO TYPES

- Project Cargo
- Break Bulk Cargo
- Structural Steel
- Modules
- Tanks and Boilers
- Concrete Batching Plants
- Pipes
- Trucks, Cranes, Rolling Stock
- Container
- Oil Drilling Rigs



### YOUR BOOKING AGENT

#### MYANMAR

The Freight Co., Ltd.  
# 11 (K), Kabaraye Pagoda Road  
Golden Valley (2), Bahan 11201  
Yangon, Myanmar

Tel : +95 99 7072 9067  
: +95 99 7072 9068  
Fax : +95 1 657 021  
Email : myanmar@the-freight.com

#### THAILAND

The Freight Co., Ltd.  
Bangkok Business Center, 15th Floor  
29 Soi Ekamai, Sukhumvit 63 Road  
Klongton Nua, Wattana  
Bangkok 10110, Thailand

Tel : +66 2 714 2414  
Fax : +66 2 714 2424  
Email : project@the-freight.com

## GPLN Duo Moves Dynamo Meter from Yokohama to Bangkok

A joint effort of GPLN members The Freight, Thailand and Yabuki Kaiun from Japan resulted in a successful delivery of a dynamo meter and an environmental chamber from Yokohama, Japan, to their customer in Bangkok, Thailand.

The total shipment volume summed up to 54 cases stuffed into 12 containers

including flat racks, high cubes and open top containers.

Yabuki Kaiun took care of the logistics from shipper's site to port in Yokohama and vessel booking to Bangkok port.

The Freight ensured safe container discharging and transport to its own 25,000 square meters warehouse in

Pakkret, Bangkok.

The project specialists Kazuko Ogura (assistant manager) and Yuki Okuyama from Yabuki Kaiun's project group machinery and plant department with The Freight's Director Business Development, Felix Schrick, supervised the trans-loading operations onto low-bed and flat-bed trail-

ers in a joint effort. The cargo was then safely transported and discharged at the customer's facilities.

The equipment used consisted of low bed and flat-bed trailers, flat racks, open top and high cube containers, a 25 tons crane, 10 ton fork lifts, etc.

www.gpln.net



LEADING THE  
WORLD OF  
NEUTRAL  
AIRFREIGHT  
WHOLESALE



Scheduled Consolidations  
Back 2 Back  
Airport 2 Door  
Imports Airfreight Wholesale  
Neutral Airport Handling & Brokerage  
Dead & Blocked Space Agreements  
ULD Procurement & Build up  
Cross-Trade  
Part -Full Charters  
Project Airfreight  
Global Tenders & RFQ  
Volume Incentive Discounts  
Wholesale Express  
Global Network  
Centralized Accounting Centers  
Neutrality-Identity Guarantee

CONSOLIDATING THE  
WHOLESALE INDUSTRY

info@aircargogroup.com  
www.AirCargoGroup.com

## Gantry Crane Move for Vietransimex

Vietransimex, of Ho Chi Minh City, was engaged in sea transportation and load in of a 450-ton KE gantry crane. The crane's dimensions were 85 x 25 x 48 meters.

Furthermore, Vietransimex has provided special tools and equipment to receive four IHI container cranes from Zenhua vessel to the port quay and then do the site move from port quay to port yard for maintenance.

The cranes were shipped from Hong Kong international terminal to Vietnam, with the cranes measuring 90 x 24 x 53 meters, weighing 790 tons per unit.

Additionally, Vietransimex has mobilized special equipment to receive directly 20 hot steel buckets (5.5 x 5.5 x 6.6 meters / 65 tons per unit). The job was performed and delivered to Formosa steel plant project in Ha Tinh, northern Vietnam.

www.gpln.net



## BIMCO: “Menacing Clouds” for Shipping in 2016

**R**isk grows for breakbulk cargo owners, as ship owner organization BIMCO predicts another challenging year for shipping in 2016.

While China re-evaluates its future de-

rebalancing of China’s economy from investment to consumer-driven growth is likely to drag economic growth down with it, dwindling hopes of a bounce-back in 2016.

In addition, although the combina-

tion of low unemployment rates and high GDP growth in the U.S. could lead to higher inter-



development and direction, the shipping industry can expect an uncertain and lower level of support from one of the most important drivers of shipping demand growth in recent times this year.

According to BIMCO, China’s usual market forces and the conditions within some Chinese industries have become difficult to predict.

What seems certain, however, is that the

est rates fairly soon, it could also lead to a cooling off period for investments and consumption across the globe.

With this in mind, operators of both container and dry bulk ships could turn their attention to breakbulk cargoes to make up for the deficit in the volumes of their usual cargoes.

[www.gpln.net](http://www.gpln.net)

## Mooring Buoys for Pointe Noire

**L**ysander Shipping in London have for many years been working closely with ship-owners, and when they received the enquiry to ship 19 mooring buoys to Congo, the Lysander team was well prepared and it did not take long to find the perfect vessel.

This shipment went stress-free and smooth from start to finish, not even the heavily congested West African ports on the way could delay the shipment. Customs procedures were handled with ease and well in advance of deadlines, and Lysander also assisted the consignee to issue the ECTN with the Congolese chamber of commerce.

Considering the large dimensions of

the cargo, a total of 1,410 cubic meters, the seven big pieces with a height of 3.7 meters, a width of 4.3 meters and a length of 6.6 meters, it was of utmost importance that the shipper, Balmoral, was able to move the cargo from their

warehouse.

Lysander knew the importance of this and offered transport and storage space in Aberdeen port for the large buoys.

This assisted

Balmoral to easily dispatch the cargo and get all cargo ready at the port in time to meet the vessel.

All arrangements were done within a matter of days and the shipment as followed closely during the full length of the voyage.

[www.gpln.net](http://www.gpln.net)



## Continued From Page 1 — Interview: Improving Cost Efficiency in Sea Freight

the costs significantly.

“It is really a case of balancing out the cost and the transit time,” says Terry. “If you play a longer game and far enough ahead, you can take advantage of a slower transit and cheaper rate. But if you are time-short, the time is the driver and price is secondary.”

Once you have confirmed your slot for that all important container, there’s another important factor to consider – using all of the space you have paid for. Far too often, shippers load containers inefficiently, failing to make the best use of the capacity.

“It is effectively your shipment – make the most of it! Don’t be in a position where you need another container in three weeks’ time for items you could have shipped in the earlier container.

Design boxes so they fit efficiently inside the container, top to bottom, excluding pallets. After all, two feet across

the top, across the length of the container, is a lot of space and you are effectively paying to move fresh air. Again, it’s all down to planning.” And finally, there is the environment.

Reducing packaging, eliminating wastage, making full use of the container’s capacity – these will all reduce your carbon footprint, as well as saving money.

“If you send your goods in two containers instead of five containers because you have used the space properly, that will make a huge difference. Don’t forget, it’s not just about the shipping leg – there is also the road haulage or rail transport around the country to consider, and the carbon footprint across the whole transportation chain. Shipping is the most environmentally friendly method of freight transport. Make the most of it!”

[www.gpln.net](http://www.gpln.net)



## Delivering the difference

Ruslan International, the British heavy air cargo charter specialists, manages the world’s largest fleet of 17 Antonov An-124-100 ‘Ruslan’ freighters.

Offering an unrivalled service for project cargo, we are capable of rising to any outside or heavy air cargo challenge, safely and in the fastest possible time.





**RUSLAN International**

T: +44 (0) 1279 682100 | F: +44 (0) 1279 681139 | E: [sales@ruslanint.com](mailto:sales@ruslanint.com) | [www.ruslanint.com](http://www.ruslanint.com)

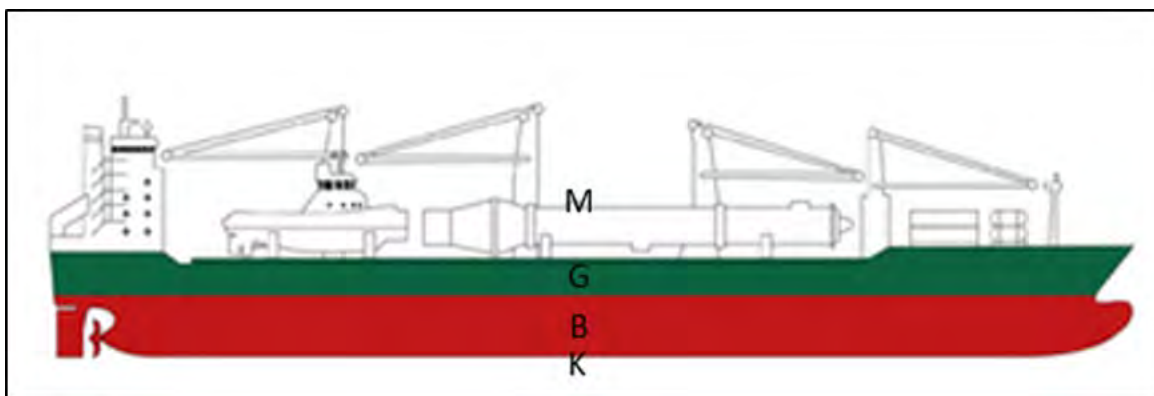


## HEAVY MATTERS

*By Gert Vos*



### METACENTRIC HEIGHT (GM)



Shipping your cargo as seafreight can be done with different type of vessels: container carriers, multipurpose vessels, heavy lift vessels, barges, etc.

In previous articles we spoke about lashing and securing of cargo but also about the stability of the goods in the crane hook and on trailers. Of course stability is also a very important matter in seagoing transport. How do you know how stable the vessel is?

In the drawing here above you see a geared vessel and four specific points are marked:

**G (CoG) = Center of Gravity = mass or weight CoG of ship and cargo.**

**B (CoB) = Center of Buoyancy = CoG of the displaced water.**

**M = Metacenter (virtual point around which the ship rotates).**

**K = Keel of ship.**

**Displacement or displacement tonnage** is the weight of water that a ship displaces when it is floating, which in turn is the weight of a ship (and its contents). *Law of Archimedes*

The stability of a vessel is defined by:

The weight distribution of the ship (depends on stowage of the cargo)

The shape of the underwater body of the ship (this is fixed for a certain type of vessel).

The metacentric height (GM) is a measurement of the initial static stability of a floating body. It is calculated as the distance between the center of gravity of a ship and its metacenter.

A larger metacentric height implies greater initial stability against overturning. Initial stability is the resistance of a boat to small changes in the difference between the vertical forces applied on its two sides and is defined by the GM value.

Metacentric height also has implication on the natural period of rolling of a hull, with very large metacentric heights being associated with shorter periods of roll which are uncomfortable for passengers. So, a sufficiently high but not excessively high metacentric height is considered ideal for passenger ships.

The metacentric height is normally estimated during the design of a ship but can be determined by an inclining test once it has been built.

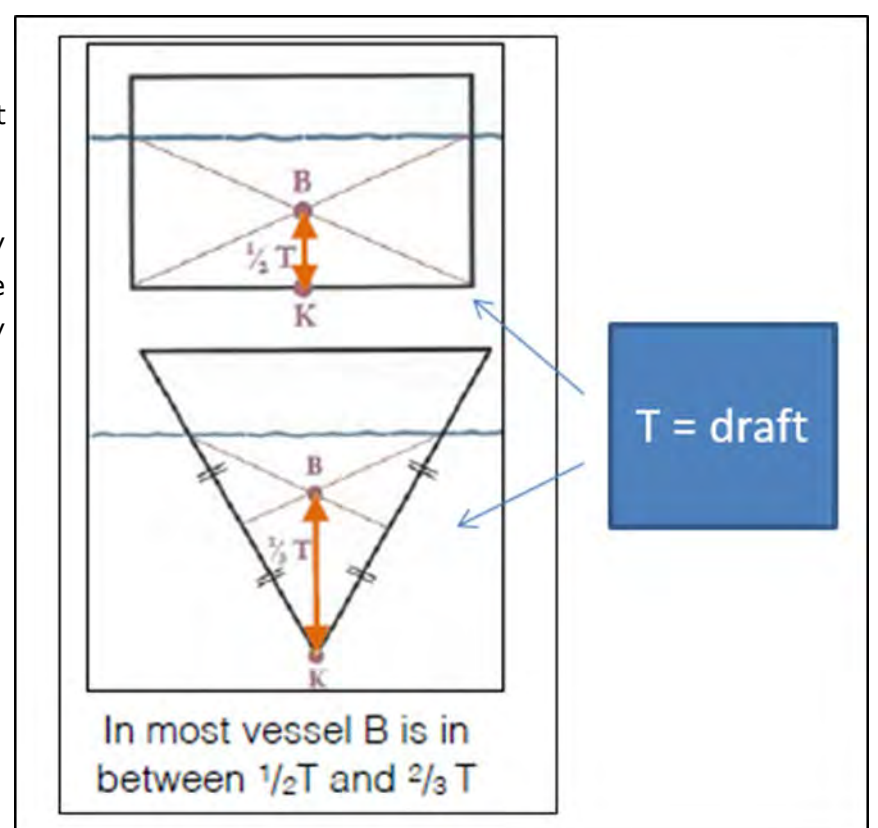
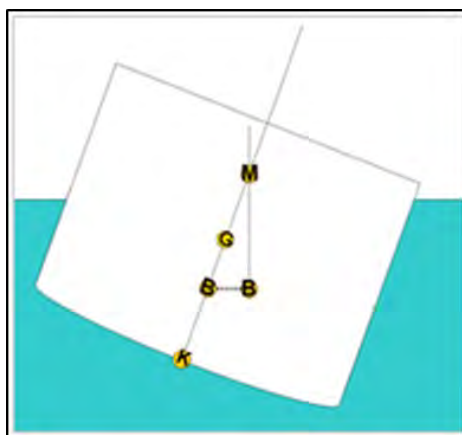
It's very important to know the distance between G and M.

GM value of heavy lift vessel can be changed by pumping ballast in / out.

Average GM for heavy lift vessels: around 1,4 – 2,5 m.

When a ship heeled, the center of buoyancy of the ship moves laterally. It may also move up or down with respect to the water line.

The point at which a vertical line through the heeled center of buoyancy crosses the line through the original, vertical center of buoyancy is the metacenter. The metacenter remains directly above the center of buoyancy by definition.



How can we influence stability:

Ballast in bottom tank CoG of vessel is lowered. GM increases. Stability increases.

Make bottom tank empty. Fill up upper tanks. GM decreases. Stability decreases.

You can also stow cargo on a higher position in the vessel (tween deck or deck). It will decrease stability.

In general:

Using ballast water should decrease the ships heel and lower the overall CoG of the ship.

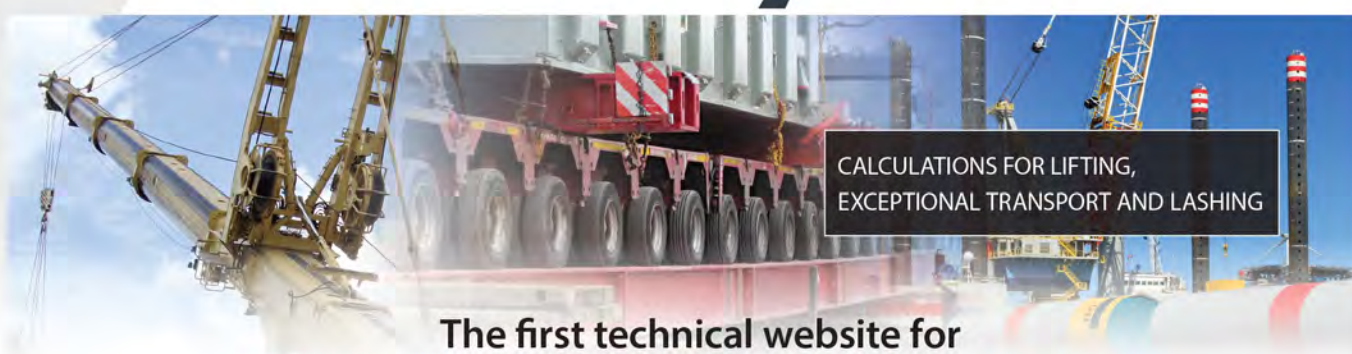
Lifting a cargo that is already on board means that the KG will increase and GM will decrease.

In our next article we will make a GM calculation for a barge, loaded with heavy cargo.

Gert Vos - HTTC

*This article is written for guidance purposes only. No responsibility or arising consequences will be accepted by the writer or publisher for errors in this article.*

## FORTECX'S



**LIFTING • EXCEPTIONAL TRANSPORT • LASHING**

www.FORTECX'S.com

## HEAVY LIFT MARITIME & TRANSPORT SEMINAR

**24TH MAY 2016  
BRUSSELS MARRIOTT HOTEL GRAND PLACE  
BELGIUM**

IMPROVE YOUR TECHNICAL KNOW-HOW  
MINIMIZE YOUR RISK  
GET YOUR STAFF CERTIFIED  
PROVIDE BETTER QUALITY



**FOR MORE INFORMATION AND PRICES PLEASE CONTACT: [marketing@power-lift.net](mailto:marketing@power-lift.net)**

**[www.power-lift.net](http://www.power-lift.net)**

## Power Plant for La Chorrera, Panama

**D**AKO Worldwide Transport has recently finished the transportation of a diesel engine driven power plant with a capacity of approx. 50 MW from different points of origin in northern and southern Europe to La Chorrera, Panama.

The transportation of the heart of the plant consisting of three heavy diesel engines with unit weights of almost 300 tons and the following dimensions of 14,30 x 4,10 x 6,35 meters was done from Trieste via the Panama Canal to Puerto Caimito, and from there up to the final construction site in La Chorrera. The total weight of the transport combination on the road was close to 420 tons.

The engines were discharged in the port of Cristobal by ship's gear and directly loaded on a flat top barge where previously respective stools and beams were installed to receive the heavy lifts.

Engine no. 3 was directly placed on a 16-axle Goldhofer hydraulic trailer with a nominal capacity of 600 tons. The transport proceeded through the Panama Canal, passed by the port of Balboa,



and headed up northeast along the coast line to the small fishing port Puerto Caimito. At this port DAKO Worldwide constructed a jetty for the Ro/Ro discharge of the heavy pieces. The jetty

was built 100 meters into the sea in order to reach the necessary draft during high tide.

In addition to the construction of the pier it was necessary to strengthen three

nized.

A very big problem was the lifting of electricity, telephone and data cables on the whole on-carriage route and especially in the community La Chorrera in order to allow the transport with a height of total 7,10 meters to safely reach the site. At the construction site, DAKO Worldwide and its subcontractor were responsible for the placement of the diesel engines onto foundation. The same applied for the three generators with unit weights of 70 tons which were transported from Cristobal directly by low bed trailers to the site as well as for the heavy transformer.

For the passage of the last bridge before reaching the power plant with a length of 56 meters, DAKO Worldwide used a supporting system on the first section of the bridge and installed an over-bridge with a capacity of 400 tons and a length of 27 meters on the second section. The technically challenging transport was successfully executed..

[www.gpln.net](http://www.gpln.net)

bridges on the way from Puerto Caimito to the power plant next to the city of La Chorrera, remove traffic signs and cut branches of trees.

On the only feasible transport route the crossing of the very busy highway from Panama City up north and the stoppage of all traffic had to be orga-



### Upcoming GPLN Meetings & Events

#### 5th Breakbulk China Transportation Conference & Exhibition

16th — 17th March 2016  
Shanghai World Expo Exhibition & Convention Center, Booth No. 004  
Shanghai, China



#### 13th GPLN Annual General Meeting 2016

21th — 23rd May 2016  
Brussels Marriott Hotel Grand Place  
Brussels, Belgium



#### 11th Breakbulk Europe Transportation Conference & Exhibition

24th — 26th May 2016  
Antwerp Expo, Booth No. 300H4  
Antwerp, Belgium



#### 27th Breakbulk Americas Transportation Conference & Exhibition

27th — 29th September 2016  
George R. Brown Convention Center  
Booth No. 318  
Houston, TX, USA



For all information on upcoming events,  
please contact GPLN's Luzius Haffter at:  
[luzius@gpln.net](mailto:luzius@gpln.net)

## Windmill Blades — More Breakbulk Moves by Aaras Shipping

**A**ARAS Shipping Agencies Private Limited, Pakistan, is pleased to report yet another news about their recent project shipments which were handled in the months of December 2015 and January 2016.

Two breakbulk / project cargo vessel appointed the agency to provide services with complete logistics operations. The

total weight of the cargoes that have been discharged by their stevedores from the two vessels were over 17,000 mega tons, most of the units were long and oversized.

MV Serpentine arrived port Qasim with a power generation project for up to 49.5 MW capacity of a wind mill power project.

The load comprised of 188 packages

of windmill blades, having dimensions of 41 x 2.95 x 3 meters, weighing 455.321 tons and totaling 12,473 cubic meters.

MV Han Ren arrived port Qasim with project parts including 139 packages of wind mill tower section, nacelles and hubs for the same power generation project, weighing 2,217 metric tons and consisting of approximately 16,700 cubic meters.

Additionally, 548 packages for a coal-fired power generation project for up to 2 x 660 MW were on board, comprising of the boiler structure (including stair and platform), the plant's steel structure, bolts, pipes, air pre-heaters, etc., which comprises boiler structure (including the stair and platform), steel structure for plant, high strength bolt, pipes, air pre-heater, etc.

[www.gpln.net](http://www.gpln.net)



**DAKO**  
WORLDWIDE TRANSPORT

**FIRST CLASS IN PROJECTS**



Vagedesstr. 19 | 40479 Düsseldorf, Germany

Tel: +49 (0)211 550264-0 | Fax: +49 (0)211 550264-44

[www.dakoworld.com](http://www.dakoworld.com)

## Briefs

### BATI New Year Masquerade

BATI Group of Shipping Companies celebrated the New Year with a Masquerade Cocktail Party.

On a snowy day in Istanbul, BATI Group dressed up black and wore



masks for their choice. With a magical atmosphere they arrived to BATI Group headquarters and got their drinks and started waiting for the special guests. All the forwarders and shipping lines were invited to this masquerade party.

BATI Group, partners and friends have spent the whole night together and had an amazing party. They would like to thank everybody who joined and had fun. BATI Group can't wait to see everyone again next year with another conceptual party.

Happy new year!!!

### Indial Ships Locomotive

Indial Shipping Pvt. Ltd, India, was the logistics forwarder to load a locomotive at the port of Antwerp, Belgium, to be shipped and unloaded at Mundra port, India.



The unpacked locomotive with a total weight of 51 tons and a volume of 185 cubic meters was lifted and stowed under deck on combined flat

racks, specially engineered as a platform to take the weight of the cargo.

### C.E.R.L. on the Move

C.E.R.L. France delivered one autoclave weighing 90.8 tons from Livorno, Italy, to Fos sur Mer in France. Length of the cargo was 17.9 meters and each 5.45 meters wide and high. Additionally, C.E.R.L. France shipped four airport loaders, each weighing 16.5 tons, from Fos



sur Mer to Nhava Sheva in India, Mumbai's main port also known as Jawaharlal Nehru Port.

### Transformers to Algeria

Seaways Shipping & Logistics Limited, a leading integrated logistics company in India, executed the first lot of 20 transformers of 45KV (49.5 tons each) from Mundra, India, to Skikda, Algeria.



There will be a total of 10 to 15 such shipments in the course of the year ahead. Seaways did export customs clearance and ocean freight under full-liner terms. This is a good opportunity for Seaways to consolidate more breakbulk cargo in this direction to enjoy competitive freight.

## Mega Move From Japan to Kazakhstan

The downstream sector involving the refining and processing of hydrocarbons and modernizing of existing refining capacity is a major priority for Kazakhstan.

Globalink has been involved in the



project logistics service for the modernization of Atyrau Oil Refinery Project for several years and mobilized thousands of tons of project cargoes originating from various parts of the world to Atyrau job site.

Globalink was recently engaged to mobilize 25 meters long, super heavy "high pressure columns" and various

out-of-gauge equipment from Japan to Atyrau, Kazakhstan.

Having decades of experience, Globalink project logistics specialists arranged the delivery of equipment from Japan to Atyrau via the Black Sea - Astrakhan route.

Reloading and securing of 25 meters long columns from vessel on to special heavy lift trailers was a challenging task, but Globalink's project specialists at Astrakhan port were there make it happen.

Despite unfavorable weather conditions and physical obstacles, the equipment was delivered on time, ready for immediate installation on the foundation.

Globalink is truly proud of being part of mega infrastructure development projects in the Caspian region.

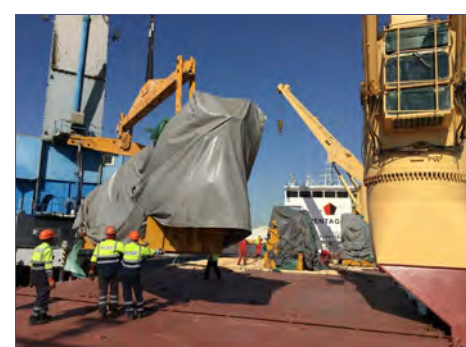
[www.gpln.net](http://www.gpln.net)

## 3 x 55-Ton Generators From Jebel Ali to Karachi

Star Shipping was given the responsibility for distinguishing the task for loading heavy cargo from Jebel Ali to Karachi and has successfully completed the delivery of 3 x 55 tons of generators along with 788 cubic meters cargo.

The scope of services included chartering of the breakbulk vessel and local transportation which was arranged for the delivery to the site locations. This project was challenging due to the lack of regular breakbulk services by shipping lines from Jebel Ali to Ka-

rachi. Star Shipping remains cautiously optimistic about the prospects for project



cargo activities in the coming years which is depending on the economical global situation.

[www.gpln.net](http://www.gpln.net)

**WE TAKE SPECIAL CARE OF YOUR SPECIAL CARGO**

With specialist teams across the world, our global network, and state-of-the-art equipment, Maersk Line Special Cargo can deliver your

project cargo anytime and anywhere. We look forward to seeing you at Breakbulk Europe 2015 in Antwerp, May 20-21. **Your promise. Delivered.**

## Braid Lights Up the South Atlantic Coast

**B**raid Projects USA, of Houston, TX, was tasked to provide the transport of 18 heat recovery steam generators from Asia to the U.S. This project is part of a local plant's repowering program for its two



power generating stations. The reputable company that nominated Braid Projects is a company that designs, manufactures and erects steam generators and auxiliary power generation equipment for electric power producers, public authorities, and industrial applications worldwide.

Braid loaded these units on a heavy lift ocean vessel from Masan, South Korea, for discharge at a U.S. South Atlantic Coast port near the two jobsites.

Upon vessel arrival, a low boy heavy duty trailer was placed ship-side to receive the modules directly from the vessel.

Package #1 was discharged onto the 36-tire Goldhofer transporter utilizing ship's gear with a safe working limit of 450 metric tons.

Once landed on the trailer, the unit was chain secured and taken to the adjacent laydown area where it was staged and stored on pre-positioned steel pedestals and staging cross beams.

The discharge sequence was repeated 16 times until the remaining cargo was removed from the ship. The two largest modules were directly received from ship-side and transported to the jobsite.

The modules staged on the stands and beams were later self-loaded and transported to jobsites for offloading and setting onto foundation. This discharge methodology has enabled the company to avoid handling risks at the port.

The looming deadline and the travel restrictions made the delivery a challenge. Movement was prohibited between the hours of 7 a.m. to 9 a.m. and from 4 p.m. to 6 p.m. In addition to the curfews, permitting across the state was

somewhat difficult and requires a lot of "out of route" miles.

Modules were delivered to the jobsites via 2 x 18 line-Goldhofer trailers in the evening hours and once empty, we were allowed to move the rigs back to the port during the night time hours.

The continuing transport of all equipment took nearly 4 weeks to complete. "Braid planning was essential in completing the project in time despite the challenging circumstances," said the company's president Gus Chalos.

Braid Projects USA, a division of The Braid Group, is a Project Logistics Provider based in Houston, TX, and specialized in over-dimensional and complex material movements by sea, air, rail, barge and truck.

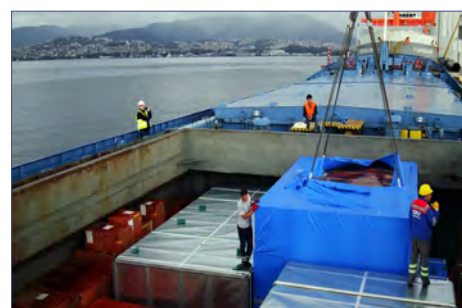
Braid is globally connected and has offices in Houston and various locations all over the globe. Braid Projects is a proud member of the Global Project Logistics Network (GPLN) gathering professionals involved in super heavy lift, heavy lift and project cargo movements.

[www.gpln.net](http://www.gpln.net)

## BATI Loves River Journeys

**B**ATI Group successfully delivered a refinery project to Atyrau from Japan. The company has loaded 70 units (800 cubic meters) from Japan and discharged them in port of Derince, Turkey.

After preparing a special cover for the water sensitive units in Derince, an Omski-type (river-type) vessel was chartered to pass the Volga and Don rivers, as this is a



regular shipment for the company's project team to reach the Caspian Sea.

They have discharged their units in Aktau, Kazakhstan, and transshipped them further by low-bed trucks, which went to the final delivery point of Atyrau, Kazakhstan.

Two transshipments with a 73-ton unit are an easy peasy job for the BATI Group!

[www.gpln.net](http://www.gpln.net)



Project & Heavy Lift Liner Services

## Heavy metal world tour

Gas tanks, boilers, chemical reactors or coke drums: whenever large and heavy units need to be shipped, our experts will take good care of them. Departures every fortnight in our Round-The-World Pearl String Service. More information at [www.rickmers-linie.com](http://www.rickmers-linie.com)



**RICKMERS-LINIE**  
The best way to move your cargo

## LSC Levant Shipping 2015 Projects at a Glance

**C**oming from a project cargo tradition of over 50 years, LSC Levant continued to take part in the most prestigious projects in Turkey in 2015. For the company it's a moment to summarize past achievements, but also to emphasize that they are eager to do more in 2016 for their customers and partners.

For sure it was not one of the busiest years in international trade. But still, thanks to LSC Levant's loyal customers the company kept on doing what they are best at doing.

During the year, two hydro dam turnkey projects were completed, with Artvin project being the biggest. What the company can call the icing on the cake was an MIV piece of 105 tons and 6 meters wide. It was transported for about 1.300 kilometers horizontally to the job site. But since it had to pass through a

narrow power house tunnel, it had to be replaced to an upright position on the hydraulic trailer, it was then possible to complete the delivery to the end of the tunnel. It was one of the most

delivered some urgent parts from an Antonov cargo aircraft in scope of this project. During these projects, many other OOG cargo as well as containers, LTL, FTL trucks that passed

structing machines were shipped from the company group's C. Steinweg GMT Genoa terminal on RORO vessel, received by LSC Levant's Mersin office in Turkey, and machines up to 110 tons each were delivered to job sites in Turkey.

And at the very final day of the year, the company delivered eight passenger boarding bridges and accessories to Ataturk airport, Istanbul, which is the largest in Turkey.

Passenger boarding bridges are becoming an LSC tradition, like metro projects as they already handled five such vessels until now.

Besides above mentioned projects, LSC Le-

vant's forwarding activities cover road, sea, air shipments and also ISO tank / IMO transportation, and they also serve their customers in their four bonded warehouses in Turkey.

[www.gpln.net](http://www.gpln.net)



significant pieces and movements in a contract of 8,830 cubic meters in total.

The second hydro dam contract in Tokat was also completed with the final deliveries of 2 x 136 tons of rotors. LSC Levant also received and

through the company's bonded warehouses and air cargo were successfully handled.

LSC Levant also took part in a very well-known pipe project called TANAP in Turkey. Pipe line con-

## 417-Ton Cable Drums to Incheon

**E**mirates Logistics Air Team transported 173 cables drums from Mussafah, United Arab Emirates, to Incheon, South Korea, through Dubai airports with various carriers. The cable drums were transported from Mussafah yard to DXB/DWC airport by road and airlifted to Incheon, Korea.

The first challenge was to transport the oversize cable drums approximately 140 kilometers from the shipper's warehouse yard to Dubai airports. The customer was working on different package types for this massive movement of a weight totaling 417 tons.

Emirates Logistics had to consider the safety of the movement and equipment manoeuvrability. A large number of 40-foot low / flatbed trailers had to be orga-

nized. Not less important was the coordination with drivers until the airport and the allocation to different carriers and charter operators.

Due to the freighter size consignment,



a comprehensive study on carrier selection was done prior to transport to determine any restrictions on size of the cargo, space availability and second leg connectivity.

With the coordination and physical presence of the company's air team and the shipper's department heads, Emirates Logistics was able to ensure all transportation risks were taken care of and safety aspects addressed.

The company's operation desk was communicating with the transporters, field operation staff, airline build-up staff and airport ground handling.

A total of 41 trailers (40-foot each) were used for the transport of 415 tons of cable roles from shipper warehouse to airports.

For airlifting the consignments, Emirates Logistics opted for six dedicated flights and three scheduled regular carriers.

[www.gpln.net](http://www.gpln.net)

## Luxury Yacht Moving

**D**extrans Projects has successfully completed the delivery of a 86-foot yacht weighting 72 tons in Singapore. This brand new luxury yacht costs more than US\$7 million, the handling had to be delicate involving a spreader bar, special webbing slings and a 300-ton floating crane to discharge the yacht onto the water. The shipping cradle was subsequently stuffed into the container and sent back to the country of origin.

[www.gpln.net](http://www.gpln.net)



U Bein Bridge Amarapura, Myanmar

## BRIDGING THE GAP

# WE ARE YOUR CONNECTION TO SOUTHEAST ASIA

**THE FREIGHT**  
CO., LTD.

[WWW.THE-FREIGHT.COM](http://WWW.THE-FREIGHT.COM)

AIR FREIGHT | SEA FREIGHT | TRUCKING | CUSTOMS BROKER |  
WAREHOUSING | DISTRIBUTION | PROJECT LOGISTICS SERVICES  
AND EQUIPMENT RENTAL FOR OIL | GAS | POWER | MINING |

MYANMAR 

THAILAND 

VIETNAM 