

# Point 2 Point



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## >> UTC OVERSEAS COMMISSIONS CUSTOM-DESIGNED RAIL CAR FOR PROJECT CARGO

Project cargo logistics experts UTC Overseas, Inc. today announced the commissioning of a new custom-designed railcar featuring a 40-foot long depressed center-deck with a 400+ short-ton load capacity. "This railcar will have the longest load deck of any 16-axle depressed-center car currently available in North America," said UTC's Houston-based Vice President for North American Project Development Matt Loll. "Its special features and cost-effective capabilities provide a new and unique project cargo rail option for our customers," adds UTC Houston Senior Project Engineer Joe Sindelar.

"In recent years, the size and weight of the project cargoes our customers have been asking us to handle has been steadily growing," says UTC Project Manager Matt Fielder. "We rely heavily on both water and rail to move such shipments as close as possible to their final destinations and reduce or eliminate complex, time-consuming and expensive over-the-road transport, route surveys, studies and bridge engineering."

"Until now, we have turned to the leasing market when we need specialized rail equipment for complex moves," said Project Manager Jim Lange. "However, the number of such cars available nationwide is extremely limited and they are in high demand. Extensive lead time is often necessary to make sure the right kind of equipment will be available when we need it."

After detailed and extensive evaluations consultations with customers, UTC gave the go-ahead to the manufacture of its own custom-designed 16-axle depressed center car. The UTC rail team agreed on the car's specifications quite quickly. "At present there are less than a half-dozen of these cars available in the leasing market and none of them have a deck longer than 36 feet," Sindelar said. "Our design, developed in response to customer feedback, features a 40-foot deck and less restrictive travel

## UTC INVESTMENTS REFLECT "GOING THE EXTRA MILE" FOR ITS CUSTOMERS

UTC Overseas and its Project Division are recognized as global leaders in the planning and management of complex project cargo logistics worldwide. They have done so by focusing on safe, cost-effective and innovative solutions to the needs of their customers.

Recently, UTC has gone a step further by making major corporate investments in innovative custom-designed systems to expand the transport options available to those customers. As detailed here, the design specifications were developed based on customer consultation and feedback. Learn more about these new investments and what they mean to you in the following two articles.

requirements. It will also create real cost savings for our customers. Overall, it represents an important advance in a market where the size and weight of cargo we are being asked to handle is steadily increasing."

"This is especially true in the power generation and distribution field where a new generation of larger and more efficient plants are being built, and older ones are being extensively refurbished and modernized. For us, that means transport and logistics planning for larger turbines, generators, stators, diesel engines and gensets – sourced both domestically and from overseas, and bound for job sites throughout North America."

UTC selected the manufacturer in the second half of 2013. Construction began in January, and delivery is set for May, 2014. "Our contractor's facilities and engineering team are AAR (Association of American Railroads) certified, assuring that our design is thoroughly reviewed and that the completed unit will meet all necessary rail industry standards and certifications," Sindelar noted.

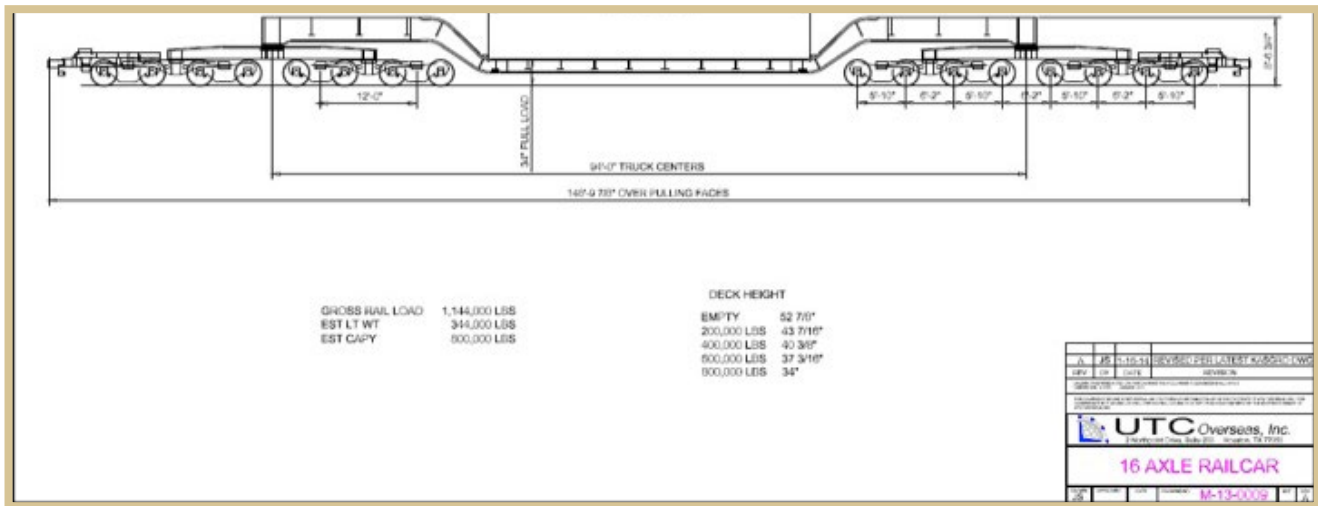


**UTC OVERSEAS COMMISSIONS CUSTOM-DESIGNED RAIL CAR FOR PROJECT CARGO... CONTINUED**

“This major investment is one of the largest in UTC’s history,” notes Executive Vice President Marco Poisler. “It follows the recent production of our own custom-designed “bolster plate” system, allowing rail transport of extra-long project cargoes using pairs of flatcars as mounting points.” (“See related story this issue.”)

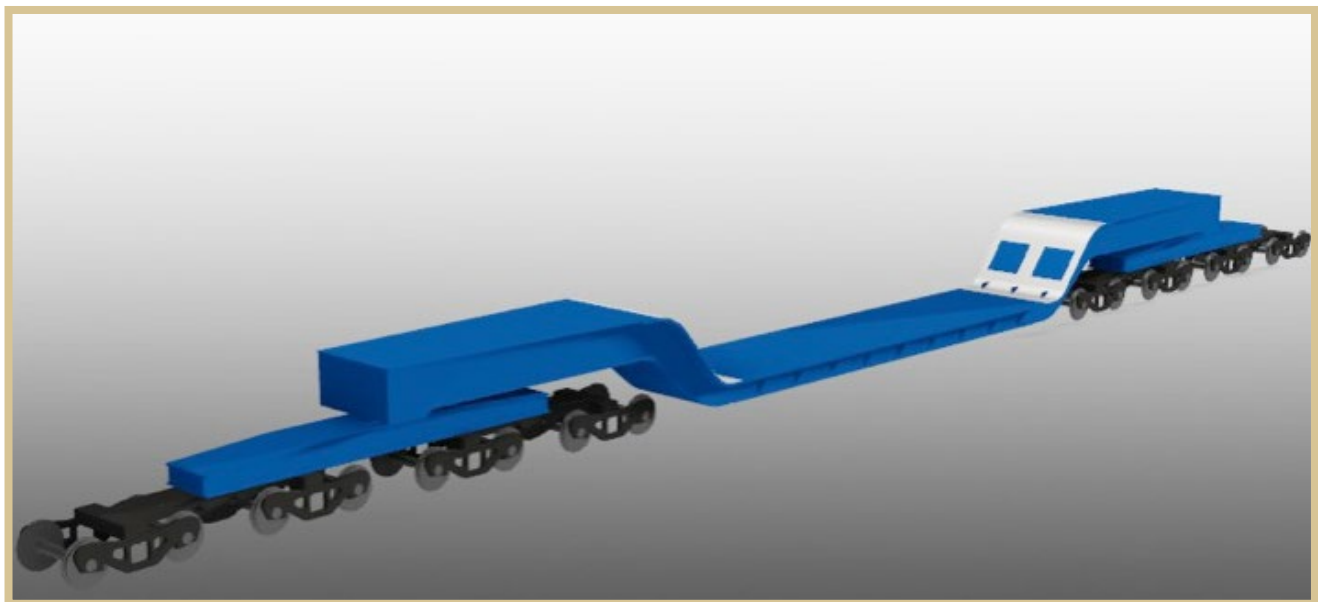
reflects UTC’s continued commitment to listening and responding to the needs of our customers, and providing them with as wide a range as possible of safe and cost-effective options for the handling of their cargoes – door-to-door or any combination along the way. It also emphasizes the continued success and growth of UTC’s Rail Division as one of the industry’s leading providers.”

“Our willingness to make investments of this magnitude



**Complete Specifications – UTC 40-Foot Deck/16-Axle Rail Car:**

- Load Deck Length 40 feet
- Overall Car Length 149'-8"
- Gross Rail Load 1,144,000
- Est. Lightweight 340,000
- Est. Capacity 804,000
- Steel Type T1
- Empty Deck Height 52"
- 200,000 lb. Deck Height 47.5"
- 400,000 lb. Deck Height 43"
- 600,000 lb. Deck Height 38.5"
- Full Load Deck Height 34"



## >> UTC ENGINEERING EXPERTISE CREATES CUSTOM HEAVY RAIL SOLUTION:

Recently, a global engineering firm, specialists in the construction of massive thermal heat exchangers, turned to UTC Overseas to help it move six custom-designed separator units by rail from its plant to an area waterway for barging to its customer's worksite. Exchangers are a key component in the production of "green energy" – capturing heat and moisture from the generation process and re-using it to increase overall output efficiency.

Matt Fielder and Joe Sindelar, part of UTC's in-house rail engineering team, handled the complex engineering involved in designing a set of "bolster plates" to allow each of the massive 80-foot long separator units to ride across the span of two heavy-duty rail cars.

were capable of handling the loads and stresses involved. Our final design was a set of plates, each one ten feet wide, eight feet long and two inches thick. They weighed 26,000 pounds per set, and were designed to handle loads of up to 1.5 million pounds."

Fielder and Sindelar undertook their work knowing that their design would be subject to review by a third-party engineer. "It's a given that custom-designed systems like these are reviewed by an independent party with expertise in this field. Such review is also necessary to obtain the insurance coverage required. There is a lot of time and money tied up in projects like this and we take every possible step to ensure safe and proper cargo handling. Once the design was approved, we located a



"Each of these separators is about 16.5 feet high and 15.5 feet across," Fielder explains. "They weigh about 300 tons apiece and we were tasked with engineering a loaded configuration and securement design that would enable the client to safely rail them in pairs from its plant to the waterway – a distance of about 40 miles.

"We custom-designed a series of bolster plates for use with this project," Sindelar adds.

"Think of it like the link-up system on a tractor trailer truck, but one designed to handle extremely heavy rail loads. The plates come in sets of two....a bottom one with a hole or slot in it, and a second plate with a vertical pin. That upper plate is affixed to the cargo through extensive welded steel clip assemblies, with the pin facing down. The pin then fits down into the bottom plate, which is welded to the rail car. Both plates are heavily lubricated, allowing each end of the cargo, spanning the two cars, to pivot and slide as the cars navigate curves along the way."

"Joe and I spent about six months developing this system," Fielder said. "First we had to draw up the design, including extensive calculations to make sure the plates

steel supplier in the area and then hired rig welders to complete the fabrication near the supplier. Doing so helped minimize fabrication time and the cost of moving the finished plates to the construction plant."

The separators were moved in three two-unit moves to the waterway over a six-month period – the last of them successfully completed in December. "We worked closely with the railroad and their engineering team to plan each custom-ordered move," Sindelar said. "The rail cars were ballasted with an additional 120,000 pounds of steel to counteract the offset center of gravity and obtain overall load stability during transit. Upon arrival at the waterway, the client arranged transfer of the separators to barges for water transport to the customer's power facility on the Georgia coast."

"UTC's in-house rail engineering expertise, and its willingness to invest in the resources needed, led to a customized and cost-effective solution for our customer," added Matt Loll, UTC's Vice President for North American Project Development. "We also made an important addition to our arsenal of project cargo tools "The

## UTC ENGINEERING EXPERTISE CREATES CUSTOM HEAVY RAIL SOLUTION ....CONTINUED



execution of this project again demonstrates UTC's role as a major player in the US rail logistics industry.

"Because of the cost and the specialized demand, very few project cargo logistics firms have their own bolster plate systems. UTC now does, and we purposely designed them to handle loads of up to 750 tons. When you are moving massive heavy-lift cargoes, it is always best to consider every possible option in terms of time and cost -- road, rail, barge, ocean, air -- individually or in combination. UTC's custom-designed rail bolster plate system expands the range of cost-efficient solutions available to our customers."

### >> UTC OVERSEAS OPENS MEXICO OFFICE:

UTC Overseas, Inc. has opened a new office in Mexico City, Mexico, under the direction of Branch Manager Roberto Lange. Lange will report to UTC's Houston-based Vice President for North American Project Development Matt Loll.

"The opening of this office reflects the continued expansion of UTC's global network of local and regional offices in North America, Europe, the Middle East, Asia, Latin America and Australia," Loll said. "It provides us direct market presence in Mexico and Central America, in addition to our network of 16 offices in the U.S. and Canada. It also enables us to strengthen our network of qualified third-party specialist service providers in the region to handle all types of specialty project cargoes."

"The Mexican economy has been strengthening," Lange added. "We see growth opportunities in the transport of project cargoes inbound for the domestic oil and gas business, driven in part by a more favorable climate for private investment in that field."

Longer term, Mexico is beginning to export project shipments for the energy generation and distribution sector. The Mexican office also gives us a direct, hands-on presence in serving Mexican-bound project shipments originated by UTC offices worldwide. That gives our customers the comfort of dealing with one point of contact for these complex cargo movements."

Lange has extensive experience in Latin American freight forwarding and project cargo logistics, beginning as an apprenticeship trainee in Guatemala under the auspices

of the German Chamber of Commerce. "While there, I began working for a Guatemalan-based freight forwarder. I then returned to Germany and helped manage projects in Europe and Latin America before being transferred to the U.S. I joined the UTC team this fall. I look forward to expanding the scope of UTC's operations in Mexico and the region, and working with our global office network to provide reliable, cost-effective service for our customers."

Assisting the Mexican office as a liaison will be Houston-based Project Manager Juan Garcia. A native of Cuba, he has been involved in Latin American freight forwarding, air freight and project cargo logistics for nearly three decades and joined UTC in 2012.

"I have already managed successful UTC projects in Mexico," Garcia said, "and that has helped us identify and partner with qualified third-party resource providers in-country. I look forward to working with Mr. Lange and his team in the expansion of the new Mexican office and our services to customers worldwide."

For more detailed information contact:  
Roberto Lange, UTC Projects Mexico - A division of UTC Overseas Group  
E-Mail: [r.lange@utcoverseas.com](mailto:r.lange@utcoverseas.com)

Mob US: ++ 1-713-392-2178  
Mob MX: ++ 52-1-55-3574-5314  
Skype: lange\_roberto  
and the MEX team at [utcmexico@utcoverseas.com](mailto:utcmexico@utcoverseas.com)

