

# PRESS RELEASE

3 July 2009

## **TANK CONTAINERS HAVE ONE-HALF CARBON FOOTPRINT OF COMPETING DRUMMED SHIPMENTS, ACCORDING TO NEW ITCO STUDY**

An investigation commissioned by the International Tank Container Organisation (ITCO) into the environmental performance of intermodal tank containers reveals that the tank container leaves a carbon footprint that is almost 50 per cent less than that of an equivalent drummed shipment on certain long-haul routes.

The study, which was carried out by the supply chain consultancy group LCP Consulting, concludes that tank containers are the most energy-efficient and environment-friendly way of moving intermediate quantities of bulk liquid materials between and within continents when the journey involves a sea leg. Tanks have been shown to be a much greener alternative than drums and marginally better than flexitanks, another alternative for moving bulk liquids. Tank containers, which are manufactured for a working life of up to 35 years, are able, after suitable preparation, to carry backhaul cargoes. A flexitank, which is authorised only for the transport of non-hazardous liquids, comprises a specially made bulk bag positioned inside a standard freight container. The majority of flexitanks are manufactured as single-trip bags.

The findings of the investigation are given in a document entitled "*Report on the Assessment of the Environmental Impact of Tank Containers Compared with other Handling Methods*". The report is authored by Professor Alan Braithwaite, chairman of LCP Consulting.

LCP Consulting employed its own carbon footprinting methodology in the evaluation of the environmental performance of the alternative transport options. Called Carbon-to-Serve, the methodology was developed by LCP in 2008 to overcome gaps that were identified in other carbon emissions assessment tools and to provide a full appraisal of emissions resulting from each link in the supply chain.

The evaluations in the ITCO-sponsored study were based on a representative supply chain between the Shanghai region of China and the Ruhr Valley in Europe and, where appropriate, the return journey. Both the tank container and flexitank considered in the study had capacities of 24,000 litres while the drummed shipment comprised 80 drums of 213 litres each loaded in a 20-foot freight container for a total payload of 17,040 litres. In addition to the delivery of the consignment itself, the LCP end-to-end assessment took into account aspects such as the manufacture of the respective container, empty leg transportation, cleaning and waste disposal.

The investigation found that, on the basis of grams of carbon dioxide (CO<sub>2</sub>) per round trip litre shipped, the tank container shipment resulted in emissions of 268.9 g/litre, the flexitank 276.9 g/litre and the drummed consignment 502.3 g/litre. “An equivalent and more tangible measure is that the carbon creation for the tank container shipment is about the same as driving two economy class cars from Europe to Shanghai and back,” comments Professor Braithwaite in the final report.

One of the key conclusions in the LCP Consulting study is that for the tank container and flexitank supply chains the most significant carbon steps are the loaded ocean legs which account for more than 95 per cent of emissions. As the drummed shipment is transported by the same ocean carrier, the relatively poor environmental performance of drums stems from other causes. These were identified by the study as the emissions generated by the manufacture of the single-trip drum and the relatively inefficient use of the space available in a 20-foot freight container.

“For the future, the study carried out on our behalf by Professor Alan Braithwaite and his colleagues at LCP Consulting shows that if the carbon footprint of tank container and other containerised shipments is to be further reduced, the atmospheric emissions generated by container ships themselves will have to be cut,” points out Reg Lee, president of ITCO. “While shipping is the most environment-friendly of all the transport modes per tonne-mile of cargo, there is still room for further improvement. In this respect ITCO is pleased to note the many measures currently being implemented by the maritime community to improve bunker fuel quality, reduce ship exhaust emissions, boost engine performance and streamline the efficiency of shipboard systems.”

For further information on the “*Report on the Assessment of the Environmental Impact of Tank Containers Compared with other Handling Methods*” please contact Willy Freson, Secretary, International Tank Container Organisation (ITCO), Telephone: +32 2 783 2270 Fax: +32 2 783 2271 Mobile: +32 475 798 194 E-mail: administrator@itco.be Web site: [www.itco.be](http://www.itco.be) .

### **About the International Tank Container Organisation (ITCO)**

ITCO is an international, non-profit trade association which promotes the interests of the tank container industry on a worldwide basis. ITCO represents the international tank container industry on various public and governmental bodies and advances the tank container concept as a safe, reliable, cost-efficient and environment-friendly method of transporting a wide range of bulk liquids, powders and gases. ITCO’s global membership includes companies involved in tank container manufacturing, leasing, operating and the provision of tank services. The ranks of the tank service providers includes tank cleaning and repair depots, inspection agencies and certification societies.

### **About LCP Consulting**

LCP Consulting is a leading specialist in customer-driven supply chain management. The company identifies where supply chains make major contributions to how businesses operate profitably and compete effectively and utilises fact-based diagnostics to pinpoint exactly where and how to cut costs, enhance operational efficiency and invest for the future. The Carbon-to-Serve™ analytical methodology is exclusive to LCP. It has been developed and applied to a range of industries over the past year to provide an evaluation of not only emissions in the context of the overall supply chain but also the options for change.

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