

# THE GLOBAL TANK CONTAINER INDUSTRY



International Tank Container Organisation

# Agenda

- Introduction
- International Tank Container Organisation ITCO
- Tank Container Industry
- Container Lines and the Tank Container Industry
- Tank Containers -The Benefits



# Introduction

- ITCO and the industry in general have been introspective
  - Industry meetings are held, mainly, via ITCO
  - Mostly of a technical nature
  - Very few external meetings are hosted
  - Meetings with members and Lines are normally commercial
- Today is the initial 'kick off ' meetings to:
  - Involve other members of the industry's supply chain
  - Explain our business and ITCO's role
  - Dispel misunderstandings or misconceptions
  - Invite partners to work with ITCO to resolve any issues and review joint processes for our mutual benefit



# International Tank Container Organisation

## ■ ITCO

- Is a proactive International Trade Organisation promoting the interests of the Tank Container industry
- Represents over 70% of owned or operated tanks

### Mission Statement

ITCO's mission is for tank containers to be the preferred method for transporting bulk liquids, gases and powders focusing on quality, safety and environmental issues.



# ITCO Development

- Formed in 1998
- Merger of two tank container organisations
- Membership of over 100 companies covers five sectors and growing
  - Operators
  - Manufacturers
  - Lessors
  - Service Providers (TSP's)
  - Inspection Bodies
- Governed by an elected council of members
- Full time secretariat based in Belgium
- Technical Committee assisted by a Technical Secretary
- Non-profit organisation funded by member subscriptions
- Interface to public and governmental bodies and trade partners



# Key Objectives

- Worldwide promotion of the tank container concept and the development of the tank container industry
- Establishment of an industry-wide code of practice, setting minimum acceptable standards for the manufacture, operation, cleaning, maintenance and repair, and leasing of tank containers
- Representation of the tank container industry at all levels on a global basis
- Work with and improve awareness of its working partners, not only industry members but also all companies in the supply chain
- Promote the benefits and use of the ecologically friendly tank container unit



# Regulatory and Technical Work

- ITCO has established standards in co-operation with industry and regulatory authorities such as:
  - ITCO Acceptable Container Conditions (ACC) manual
  - Pre Load Pressure Tests
  - Safe Handling of Tank Containers in Port Areas ICHCA
  - Canadian authorities impact testing
  - Working at Height Protocol (based on EU directives)
  - ITCO continues to develop industry improvements
  
- ITCO has been involved with a number of industry studies. The latest being in 2009
  - 'Long term trends and development in the safe handling of tank containers in China'



# Environmental Policy

- ITCO is currently developing an environmental policy in conjunction with its members in order to further enhance the customers awareness of the advantages of a re-usable asset
- The first step is ITCO has commissioned LCP Consulting Ltd , Professor Alan Braithwaite ,to develop and run an ITCO carbon-to-serve analysis.
  - This has started in the first quarter 09 and the conclusions of the study were delivered yesterday.



# Tank Container Industry History...Beginnings

- 1964
  - First design ideas for tank containers (skid tanks)
- 1966
  - First builds
- 1967
  - ISO tank designed
- 1968
  - Trafapak orders first series of ISO tank containers
- 1970s
  - Design and build starts to spread across Europe
  - Early commercial production mainly in Ireland and France
  - Rest of Europe starts to follow



# Tank Container Industry...Development

- Global containerisation and efficiency gains drove the industry
  - 76 x 200 litre steel drums in a 20ft dry box = 15,600 litres
  - A tank could carry 18,000 litres/20,320 Kgs gross weight
  - Agreement on higher road and rail payloads
    - 24,000 litre tanks
    - then 26,000 litre tanks

## Meanwhile...

- Continual design improvements
- Further impact tests
- All the time improving the tank container product
- New requests from customers
- Specialty products increase worldwide



# Tank Container Industry...Outlook

- Current industry capacity is approximately 250,000 tanks
  - 150,000 ISO deep sea tanks
- Average of 4.5 moves per annum for deep sea moves
  - 675,000 moves deep sea
  - 20% empty (revenue earning)
- Over 30 moves per annum in the EU intermodal transport market
- Historically 12,000-15,000 new builds per annum
- Growth has been 10% per annum

## Far East & Middle East...

- Processing of specialised products will move to the Far East to meet demands of the domestic markets
- Also export of higher value products will begin
- Middle East will start to process oil at the expense of Europe and the USA



# The ISO Tank Container

- A standard stainless steel ISO UN portable tank container is suitable for the carriage of the food grade products, non-hazardous chemicals and majority of hazardous liquid products
- Majority of products carried are non-hazardous chemicals, FOSFA cargoes, class 9 or food grade
- Less than 40% of products are classified as hazardous, probably the same proportion as standard dry boxes moved by deep sea lines
- ISO UN Portable Tank containers are constructed of stainless steel, built to a very high standard and can withstand extreme incidents, if they occur



# The ISO Tank Container

- Each tank for transport of hazardous products is rigorously tested and approved by a classification society during construction
- Shipments are subject to a pre load pressure test
- Periodic tests and inspections take place every 2.5 years ,carried out by independent and authorised bodies.
- Some examples of tank container strength...



# The Strength of Tank Containers



Example of a tank which did not leak! Despite heavy damage due to vacuum

# The Strength of Tank Containers



Two more tanks  
which did not  
leak!



# The solution for a seamless liquid supply chain



# Container Lines and the Tank Container

- Limited number of Lines operate their own tanks
- Lines stopped offering this specialised equipment in the 1990's
- Tank containers are provided to the foodstuff chemical and gas industries by specialised operators
- A number of container lines have either refused to accept tank containers or impose severe restrictions, whilst others welcome tank container business

- Why should there be such disparity?
- Especially when the shipper or receiver is probably a major customer to both the Line and the Tank operator and historically moved the product in drums.
- What are the issues today?



# Tank Containers...Benefits

- A tank container has a number of added benefits for a carrier versus a Line's owned dry freight unit
  - No inland cost or absorption
  - No empty repositioning
  - No inventory cost
    - M&R and storage
    - Equipment cost, leased or capital asset
  - Port-port moves simplify booking ,reduce overheads
  - Impact on fleet management overhead costs
  - No USA chassis requirements



# Tank Containers...Benefits

- Tank operators move units on a round trip basis
  - Either empty and full return or full return via another trade lane
  - Tank containers front or head haul are opposite to shipping lines
- Yes...tanks are generally heavy
  - 20% of all moves are empty units
  - The carbon footprint of a tank container is vastly smaller than shipping drums
- 60% of cargoes moved are non hazardous chemicals, FOSFA, Class 9 or food grade
- Tank containers are highly regulated types of packaging
- Clear cargo identification, no mixed cargoes



# Q & A