WE DELIVER EXPERTISE

ENVIRONMENTAL CHALLENGES AND SOLUTIONS

The modern world has a growing demand for ocean transport. However, shipping is considered the most environment-friendly way of moving goods around the world, considerable challenges must be overcome to ensure that this form of transport takes even better account of environmental considerations.

As a company dedicated to ocean transport and logistics, WW's aim is to reduce the impact of its cargo-carrying operations. Its vision is to improve operations continuously in seeking to achieve zero emissions, and thereby contribute to a cleaner global environment.

Emissions to the air

WW aims to cut fuel consumption by its fleet in order to reduce the group's impact on the global environment. The long-term ambition is a zero-emission operation, as symbolised by the Orcelle concept vessel, which utilises wind, solar and wave power.

Carbon dioxide (CO_2) and nitrogen oxides (NO_X) are produced from the combustion of fossil fuels such as bunkers. Burning bunkers containing sulphur also generates gases which contain harmful sulphur oxides (SO_X). Emissions of sulphur oxides partly reflect the percentage of sulphur contained in the heavy oil used on ships.

While carbon dioxide is to be regarded as a greenhouse gas on a global basis, nitrogen and sulphur oxide emissions will be more local in character and primarily affect the immediate environment – particularly in coastal districts. These gases lead to eutrophication and acidification of soil and water, and could be harmful to human beings. This effect will obviously be strongest in ports, even though acid precipitation is also known from more distant areas to which sulphur oxides and nitrogen oxides are carried by the wind.

FUEL SAVING REDUCES CARBON EMISSIONS

Carbon emissions from vessels controlled by WW and operated by WWL were reduced by 1.6% from 2005/2006 to 2007, measured per tonne of cargo shipped per nautical mile sailed during the time spent at sea. This was achieved despite an extremely tight market position, which prevented implementation of several measures available to control speed and consumption performance.

These vessels also managed to cut fuel consumption in general. Using 2.6% less bunkers in 2007 compared with 2006 reduced carbon emission by 32 000 tonnes. The vessels carried 8% more cargo in 2007. Efforts made to deploy the tonnage efficiently, including coastal movements and time in port, have helped to cut bunkers consumption by 10% per tonne of cargo.

Predictions indicate that ocean transport will remain dependent on hydrocarbon fuels in the foreseeable future. Since no satisfactory technology is currently available for cutting carbon

Key figures

- 31.7% reduction in nitrogen oxides in 1999-2007, and 10.9% in 2006-07.
- 53.5% reduction in sulphur oxides in 2000-07, and 19.25% in 2006-07.
- 2.6% reduction in bunkers consumption from 2006-07.

dioxide released from ship's engines, WW sees fuel reduction as the essential means for curbing these emissions.

Fuel-related measures will again focus in 2008 on obtaining both lower consumption and reduced emissions. To reach its zero emission vision, WW will also continue to collaborate both with universities and with other companies to develop alternative fuels and new propulsion technology.

WW is implementing five specific fuel and emission reducing projects:

■ Ambitious newbuildings: reduced fuel consumption combined with higher cargo capacity cuts emissions per cargo unit by 10-15% on the new ro-ro vessels on order compared with the former generation of such carriers. A turbo generator will turn exhaust heat into electricity.

■ Innovative partnership: together with Shell Marine Fuel and Det Norske Veritas, WW has taken the lead in a joint industry project for sustainable propulsion. The project targets are ambitious: reductions of 30% in carbon dioxide, 50% in nitrogen oxides and 90% in sulphur oxides for existing pure car and truck carriers (PCTCs). WW's 10 newest PCTCs from Mitsubishi will serve as a test laboratory.

■ Energy management system to save fuel: WW is testing a decision-making tool, which will help crew to find optimum realtime sailing conditions. A pilot installation has been tested on one vessel, with an estimated 3-5% fuel reduction. Four new installations are expected in 2008.

■ Fuel-saving campaign: in 2008, WW will launch a campaign on its vessels for reducing fuel consumption at sea.

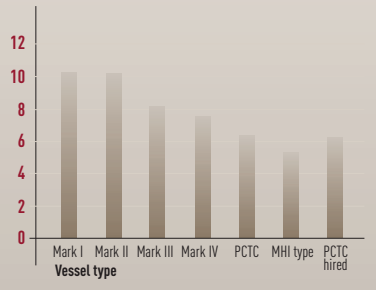
■ Keeping a smooth hull: a completely non-toxic silicon-based antifouling expected to provide a 5% reduction in fuel consumption, is under extensive testing.

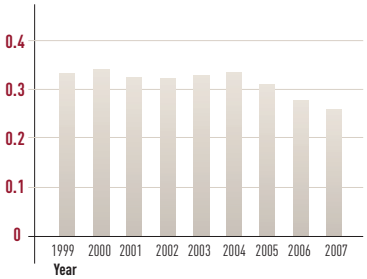
Did you know that...

- WW reduced its bunkers consumption by 2.6% in 2007, cutting 32 000 tonnes in carbon emissions.
- For every tonne of bunkers saved, carbon emissions are reduced by three tonnes
- WW transported 8% more cargo in 2007, but used 10% less bunkers per tonne of cargo.

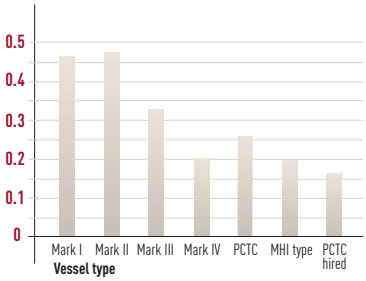
Regulations:
No international agreements currently restrict the release of carbon dioxide from international shipping. However, the IMO encourages voluntary reporting of such emissions.

Average carbon emissions (g/t-km) per vessel type based on main engine kW at 85% load at cargo capacity.





Average nitrogen oxide emissions (g/t-km) by 31 Dec.



Average nitrogen oxide emissions (g/t-km) by vessel type

Fleet renewal and machinery optimisation cut nitrogen oxide emissions

WW established a goal in 1999 of a 25% reduction in nitrogen oxide emissions by 2008. This target was met in 2007, when WW-controlled vessels operated by WWL recorded a reduction of 31.7% in emissions from 1999. If vessels operated by Mark 1 Shipping (owned 50% by WW) are included, the target for 2007 was a 22.3% reduction.

Cutting fuel consumption makes an important contribution to releasing fewer nitrogen oxides to the air. Newer vessels use significantly less bunkers than older ships, since various measures such as hull and propulsion design reduce consumption considerably. Emissions can also be cut to some extent with the aid of engine technology solutions which improve the combustion process.

The market for carrying cars and rolling cargo is tight, and phasing out older tonnage has not been possible. However, WW has introduced several newbuildings to its fleets with reduced nitrogen oxide emissions.

On older tonnage, WW is striving to make technical improvements to existing engines which also help to cut emissions. One example is the modification of slide valves on ro-ro vessels delivered in 2000-01 (Mark IV).

WW is also developing a technology through the Yarwil joint venture which will reduce nitrogen oxide emission by up to 95%. This technology is primarily intended for smaller engines rather than the slow-speed main engines used on WW's vessels. It will be developed further to be applicable on these engines. For more information, see page 84.

WW expects nitrogen oxide emissions to decline gradually towards zero as new vessels are introduced to the fleets and innovative technology is developed.

Did you know that...

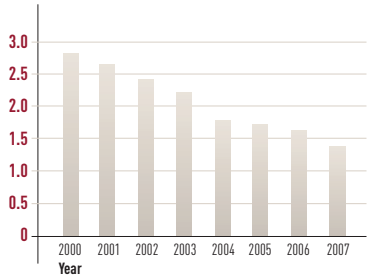
A 31.7% reduction in nitrogen oxide emissions was achieved on WW-controlled vessels operated by WWL between 1999 and 2007.

Three important initiatives to cut nitrogen oxide emissions:

1) Fleet renewal
2) Machinery optimisation
3) Introducing a new technology through Yarwil which can reduce nitrogen oxide emissions by as much as 95%

Regulations:

Emissions of nitrogen oxides at sea are limited by the IMO through Marpol Annex VI to 17 grams per kilowatt-hour for the type of slow-speed main engines used on WW's vessels. These regulations apply only to tonnage built after 2000. In addition, taxes are increasingly being introduced for specific geographical areas to limit emissions further.



Average per cent sulphur in bunkers for WW vessels operated by WWL

Reducing sulphur content cuts sulphur oxide emissions

WW-controlled vessels in WWL consumed some 386 000 tonnes of bunkers in 2007. The average sulphur content of this fuel was 1.37%, which is considerably better than the group's 1.5% goal and 15% down from 1.61% in 2006.

WW's fleet makes considerable use of low-sulphur bunkers. The group accepted an additional cost of about USD 10.5 million in 2007 from buying such fuel.

The goal for 2008 is still to use bunkers with a sulphur content of less than 1.5% worldwide.

Emissions of sulphur oxides can be cut by using low-sulphur bunkers or by scrubbing exhaust gases when this yields a corresponding effect on emissions. WW distributes Krystallon's scrubber system for sulphur oxides and particulate matter, which can cut emissions by up to 98%. For more information, see page 84.

Did you know that...

- The average sulphur content was a low 1.37% in bunkers used by WW-controlled vessels operated by WWL in 2007, down by 15% since 2006
- Using low-sulphur fuel incurred an additional cost of USD 10.5 million for WW in 2007.

Regulations:
Emissions of sulphur oxides are regulated by the IMO through Marpol to 4.5% and by the introduction of geographical areas where the release of sulphur is restricted to 1.5%.

The average sulphur content was a low 1.37% in 2007.

Leaks from refrigeration and fire systems

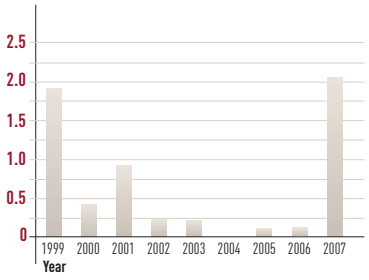
Reducing refrigerant leaks has a high priority, since such escapes can release hazardous gases. A cut of 27.16% was achieved from 2004-2007.

WW continuously monitors refrigerant emissions on the basis of quantities purchased and stocks on each vessel. Old refrigerants on ships are being replaced with a more environment-friendly medium.

Refrigerating systems on WW's ships are used to keep provisions cold and for air conditioning in the crew quarters. None of its vessels have refrigerating systems on their cargo decks. The environmental impact of its fleet is accordingly limited. Systems are subject to systematic maintenance to prevent leaks. WW is replacing old refrigerants to more environmentally friendly solutions on board the vessels.

Older refrigeration systems use refrigerants which contain hydrochlorofluorocarbons (HCFCs), while older firefighting systems often contain halon. Both these gases help to deplete the ozone layer. For more information, see page 86.

DISCHARGES TO WATER



Fleet oil spills (litres)

Ballast water

Ballast water treatment will be installed in WW's fleet once it is commercially available and the regulations are clear. WW's fleet satisfies the applicable regulations for ballast water.

Through one of its subsidiaries, WW has initiated a project to develop a ballast water treatment solution which avoids transferring marine organisms from one region to another. See page 83. One system will be installed and tested during 2008.

Ballast water is often needed when ships are not filled with cargo in order to keep the propeller submerged and to provide sufficient stability. Should WW ships need to take on or discharge ballast for such stability reasons, this is done in the open sea far from land as specified in current regulations. In addition to minor adjustments, that could also apply to internal transfers between ballast tanks.

Bilge water and oil spills

Bilge water from WW's fleet should contain a maximum of five parts per million of oil, and the relevant systems are being gradually upgraded.

Three minor oil spills were registered in 2007, all originating from failures in stern ramp hydraulic hoses. One 200-litre spill of hydraulic oil onto the pier surface was satisfactorily contained and cleaned up with no seepage to the water. Two other leaks, of 0.2 and three litres respectively, were cleaned up by the ship's spill collection equipment to the satisfaction of the local authorities without causing any damage to the environment.

As a future preventive measure, ship managers will be identifying suppliers of double-lined hoses with integral leak detection. Until such equipment can be installed, extra monitoring will be done by vessel crews to check hose integrity.

The group has installed measuring equipment to ensure better registration and improved safety if bilge water must be discharged. On new tonnage and when replacing existing systems, WW assesses separators and other equipment which can reduce discharges below applicable regulatory requirements.

Discharging oily water and oil spills are important issues at the officer conferences held regularly by WW.

Polluted oily water will always occur on a ship as a result of cleaning engine rooms and machinery components, exhaust boilers and the like. A bilge water separator ensures that oily waste from the engines is separated from other water in the ship's bilge system. IMO regulations specify that the maximum permissible level of oil in the bilge is 15 ppm.

Antifoulings

All WW's vessels have been coated with tin-free antifouling since 2002. Antifouling coatings are applied to the hull below the waterline to prevent marine growth. Keeping a hull as smooth as possible reduces fuel consumption and thereby exhaust fumes. IMO regulations specify that all vessels must be coated with a tin-free product from 2008.

A completely non-toxic silicon-based antifouling, expected to provide a 5% reduction in fuel consumption, is under extensive testing. Two vessels were coated in 2007 and a third will follow during 2008. If these trials are successful, WW will consider using the product to coat all the vessels controlled by WW and operated by WWL.

Keeping a hull as smooth as possible reduces fuel consumption and thereby exhaust fumes. IMO regulations specify that all vessels must be coated with a tin-free product from 2008.

Did you know that...

- WW is exploring available ballast water treatment systems
- Bilge water from WW's fleet should contain a maximum of 5 ppm of oil and systems are being gradually upgraded.

5 ppm

WW's vessels are coated with tin-free antifouling.

OTHER DISCHARGES

WASTE FROM OPERATIONS

All WW's vessels comply with international regulations and local restrictions for handling both solid and liquid waste. Refuse and oil residues not burnt in shipboard waste incinerators are delivered to land. The incinerators comply with international technical requirements.

In 2006, a waste management programme was launched in cooperation with Norway's Bellona environmental foundation. A new recycling system will therefore be implemented on all WW ships in 2008. For more information on waste management, see page 85.

LIFE-CYCLE ANALYSES

A life-cycle analysis of WW's vessels was completed in 2007. This identified the environmental burdens which these vessels represent and where in their life cycle such impacts occur. In addition to energy consumption, the analysis covers construction and maintenance materials as well as emissions, waste and dismantling. The results will be used when designing future vessels.

CHEMICALS

WW is concerned to use the least harmful product where such an option exists, and cooperates closely with Bellona in this area. An improved list of chemicals was distributed to the vessels in 2007. WW wants to reduce the quantities of chemicals used, and keeps statistics of its purchases and consumption.

Various types of chemicals are used on the ships, including substances required for special cleaning of machinery components or as additives in boiler water. For more information, see page 86.

US and Korean companies

The figures reported above are from WW-controlled vessels in WWL. WW also owns EUKOR Car Carrier (40%) in Korea and the US-based American Roll-on Roll-off Carrier (50%). Below are some of the focus areas regarding environmental challenges in these companies:

- Fuel reduction is focused, and limiting speed is one of the measures used.
- Low sulphur fuel is used as often as possible to reduce sulphur emissions.
- Oily water separators capable of reaching the 5 ppm target are being installed on the vessels
- Combating ballast water challenges has been another priority area for EUKOR, which has installed treatment systems on its vessels.
- Last but not least, EUKOR is changing to more environmentally adapted refrigerants, as well as silicon antifouling.

ENVIRONMENTAL ACCOUNTING FOR VESSELS OWNED BY WW AND OPERATED BY WWL

	2005	2006	2007
Number of vessels in the statistics (where not specified)	24	25	**23**
Fuel consumption in tonnes	392 780	395 703	**385 998**
Average percentage sulphur content in fuel	1.72	1.61	**1.37**
Sulphur emissions in tonnes	6 587	6 283	**5 306**
Carbon emissions based on IMO formula in tonnes	1 206 409	1 232 990	**1 202 153**
Nitrogen oxide emissions in tonnes	44 872	47 979	**46 096**
Refrigerant leakage reduction, year on year		0.81%	**27.1%**

TARGETS ACHIEVED IN 2007 AND TARGETS FOR 2008

Item	Target 2007	Achieved 2007	Target 2008
Fuel consumed per cargo transported	Reduction	**Reduced 9.95%**	Launch fuel-saving campaign
Fuel consumed per cargo transported per distance reduction from 2005/2006 average	2%	**1.6%**	4%
Reduction in NO_x emissions 1999-2007 accumulated	25% by 2008	**22.3%**	New target in progress
Refrigerant leakage reduction 2004-2009 accumulated	25%	**27.6%**	25%
Ballast water treatment	Select supplier	**Supplier selected**	One trial installation
Fuel-reducing antifouling	Decide on type	**Decided, coated two vessels**	Coat one vessel
Global waste management	Project and implement	**Implementation launched**	Install compactors on all vessels
Bilge water treatment system, 5 ppm	Replace two oily water separators	**Replaced two oily water separators**	Install filters on remaining vessels
Green passport on all vessels	By end 2010	**Two**	
Sulphur content in fuel	1.5%	**1.37%**	1.5%
Onboard electronic decision-making support tool (Marorka)		**One trial installation**	Four installations

GETTING A GRIP ON SOME THORNY ISSUES

ELIMINATING NITROGEN OXIDE EMISSIONS

Wilhelmsen Maritime Services (WMS) has formed a 50-50 joint venture with Yara International to develop and market the first complete solution for eliminating polluting nitrogen oxide (NO_x) emissions from ships. The new company, Yarwil, will develop solutions based on technology already in use by land-based industry and transport and on a number of coastal cargo and ferry vessels in Norway and Sweden.

The system is based on adding a special quality of urea solution to the hot exhaust fumes. The mix passes through a special catalytic converter where nitrogen oxides from the exhaust reacts with the urea solution and is turned into harmless water vapour and nitrogen. Yarwil's technology will initially be offered where nitrogen oxide emissions are governed by official regulations. This includes vessels engaged in trades typically conducted close to land, such as ferries, fishing vessels and supply ships. Cruise liners will also employ the technology.

Yarwil's nitrogen oxide reduction will be tailored to vessel type and size and include customer follow-up, from design and engineering to production, installation, onboard training and support.

Ship's engines produce gases which are harmful to the marine environment. Vessels produce a lot of waste. Is there an "environmental" way to dispose of it? Many of the world's seas are swarming with harmful organisms which arrived in ballast water. Is there a solution in sight? Wilhelmsen Maritime Services is making important progress with these thorny issues.

CUTS SULPHUR OXIDE EMISSIONS

WMS has signed an agreement with BP and Kittiwake's joint venture company Krystallon to market its sulphur oxide (SO_x) and particle matter scrubber solutions. These systems can reduce sulphur emissions from ships by up to 98%. The process also removes around 80% of the particles remaining after combustion.

Operation is based on a scrubber system installed in the ship's funnel. Seawater is pumped into the scrubber, where the calcium carbonate in the water absorbs the sulphur oxides from the exhaust gas to produce harmless calcium sulphate. The system discharges water with very close to natural values and free of oil contamination. The scrubber system will enable shipowners to comply with current and future legislation aimed at limiting sulphur oxide emissions from ships. By using the scrubber system, vessels can burn high sulphur fuel and still fully comply in areas with sulphur emission restrictions.

THE ENVIRONMENT REPRESENTS BOTH SIGNIFICANT CHALLENGES AND SIGNIFICANT BUSINESS OPPORTUNITIES.

REDUCES NEED TO OPERATE DIESEL GENERATORS IN PORT

Wilhelmsen Marine Engineering's experience in the marine business has given birth to entirely new products, like the Shore Connection System for medium voltage. This intelligent connection system, developed for cruise liners and yachts, makes it possible to switch the vessel's electrical system over to the land utility without a blackout. At the same time, the harbour environment is improved since vessels do not have to run their auxiliary diesel generators.

TURNING SHIPBOARD WASTE INTO VALUE

Wilhelmsen Ships Service is developing a global waste management solution for ship generated waste. Named Waste to Value, this service aims to provide a standardised, predictable and environmentally responsible solution for ship's waste.

The system works by separating and recycling the waste. Separated waste is compacted in pre-paid, colour-coded bags in accordance with international standards. The bags are easily recognised and handled by the crew and land-based waste handling companies. Wilhelmsen Ships Service will offer the necessary compacting equipment and colour-coded bags through its global supply network. The service will be based on an annual fixed fee. This will make it simpler for the owner to administer.

BALLAST WATER TREATMENT

The IMO and national maritime authorities have adopted regulations for treating ballast water. These will require future newbuildings and existing vessels to install ballast water treatment plants which neutralise harmful organisms before the ballast water is pumped overboard.

Wilhelmsen Ships Equipment has initiated a project to develop an effective and commercially viable solution to the problem of foreign organisms in ballast water. When approved and launched this year, the solution will be offered on a worldwide basis together with after sales service and support.

Did you know that...

2020

If no action is taken, nitrogen oxide emissions from ships in Europe will surpass land-based emissions by 2020.

1 379

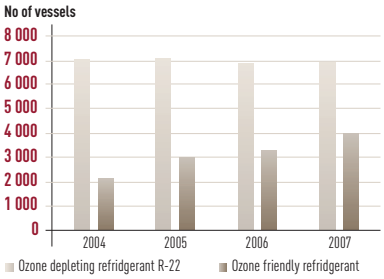
A modern car carrier produces an estimated 1 379 tonnes of nitrogen oxides per year. However, Yarwil's solution can reduce such emissions by up to 95%.

98

The Krystallon scrubber system eliminates 98% of the engine's sulphur oxide emissions.

USD 138 billion:
According to IMO, the annual cost of invasive organismes carried by ballast water in US territorial waters alone is USD 138 billion.

ENVIRONMENTALLY ADAPTED PRODUCTS



Keeping a lid on marine refrigerants

As the world's largest supplier of marine refrigerants, Wilhelmsen Ships Service works proactively with national and international regulatory bodies and leading refrigerant producers to develop and promote workable solutions for the maritime industry.

An important element is Wilhelmsen Ships Service's proactive approach to sharing knowledge on applicable environmental rules and regulations with customers while at the same time offering solutions which ensure compliance. In addition to its range of refrigerants in refillable 56 and 12.3 litre cylinders, Wilhelmsen Ships Service offers a wide range of products and services which help to minimise emissions. These include system components, compressors, refrigerant recovery packages, leak detection systems and recovery cylinders. Each is designed to satisfy the industry's stringent requirements for quality and efficiency.

The Environmental System Inspection (ESI) programme helps to ensure that refrigeration systems are operated under optimal working conditions. The Catch R-22 initiative offers an ozone-friendly alternative. The graph above to the right shows an increase in ozone-friendly alternatives of the last four years. To ensure that ozone-depleting (R-22) substances are destroyed in a legal and environmentally responsible manner, Wilhelmsen Ships Service offers the Enviro Return Management (ERM) programme, a unique waste management system for refrigerants and halons which is recognised by the United Nations Environmental Programme.

An increasing environmental focus on synthetic refrigerants such as R-22, R-404A and R-134a has led to the worldwide phase-out of CFC and HCFC refrigerants such as R-12 and R-22, with particular focus on emission control related to these substances. The Montreal and Kyoto protocols and the EU F-Gas Regulation exemplify the worldwide concern about these issues. The IMO's Marpol Annex VI and major classification societies have adapted these standards to the shipping industry. An example of this is the revision of the European Reg (EC) 2037/2000 on Substances that Deplete the Ozone Layer, where a representative from Wilhelmsen Ships Service was invited to represent the industry.

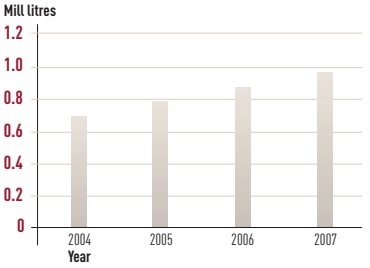
To help prevent bilge oil pollution, Wilhelmsen Ships Service has introduced the Oily Water Pod, a unique Lloyd's Register certified, post-bilge water separator polishing system which reduces the oil content to 5 ppm. It can also handle stable emulsions as now required by Marpol.

Marine chemicals: having it both ways

At Unitor Chemicals, all new environmental chemicals are at least as cost effective as the products they replace. That ensures acceptance and ultimately benefits the environment.

This commitment has led to an increased number of water-based cleaning and degreasing products to replace solvent-based products. Use of water-based chemicals has increased by nearly 19% in a only a few years (see graph to the right). It has helped make Unitor Chemicals the leader in its field.

THE MOST ENVIRONMENTALLY FRIENDLY REFRIGERATION SYSTEM IS THE LEAK-TIGHT SYSTEM.



Sales volume for Gamazyme cleaning agents, litres

The Gamazyme series of bio-enzyme cleaners is the fastest growing product group. They are based on selected, natural bacterial cultures, ideal for cleaning galleys, accommodation areas and waste systems. They replace acids and disinfectants, both of which are hazardous to health and the environment. Sales have risen by 38% in four years (see graph above).

Gamazyme chemicals combined with dosing equipment for safer cleaning of toilet systems are a priority. Some ships have already begun to test such a solution. Launch is planned for 2008.

Waterproof, a fully integrated electronic system for transmitting, analysing and storing data and condition reports from cooling and boiler water systems will also be introduced in 2008. It will ensure optimum water treatment while reducing the need for paper-based documentation.

New environmentally adapted chemicals and equipment for cleaning cargo holds will also be announced in 2008. These will improve cleaning efficiency while reducing the need for chemicals.

STAYING AHEAD OF LEGISLATION

The EU's new registration, evaluation, authorisation and restriction of chemicals (REACH) regime came into force on 1 June 2007 and will be implemented in stages over a 15-year period. It will call for the registration of some 30 000 chemical substances, meaning big changes for both manufacturers and users. The overall goal is to protect human health and the environment from risks posed by hazardous chemicals.

REACH is not currently covered by the European Economic Area (EEA) agreement, and has thus not been adopted by Norway. However, adoption is expected in 2008. Unitor Chemicals conforms to the EU implementation timetable in anticipation of this. Necessary communication with suppliers and government agencies has been established so that the factory and Wilhelmsen Ships Service, as distributor, will be in compliance.

Unitor Chemicals

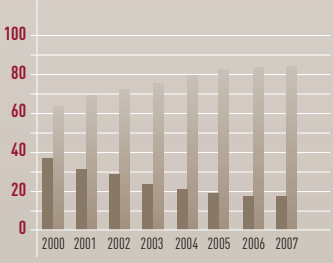
- Owned by Wilhelmsen Maritime Services
- One of the world's leading suppliers of marine chemicals
- Has an environmental management system certified to ISO 14001, specifying good practice for a precautionary approach to the company's environmental impact
- Going beyond simple regulatory compliance, Unitor Chemicals' customers are assured the most environmentally adapted products and services

34%

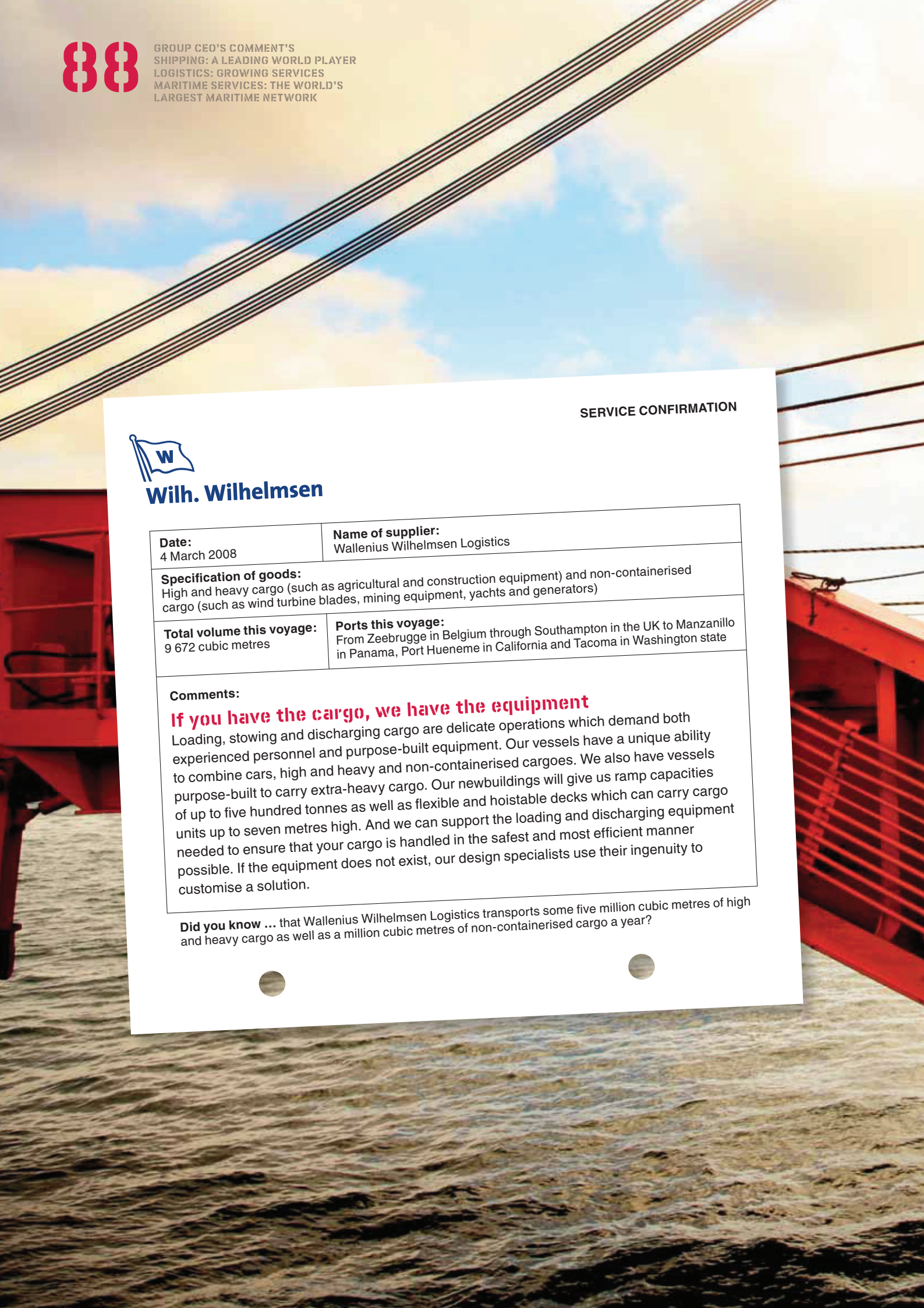
Unitor Chemicals sells to more than 14 000 ships, comprising 34% of the world fleet.

Gamazyme: are bioactive cleaning and washing agents utilising natural processes. Ideal for use when an odour-free and hygienic environment is required, such as bathrooms, toilets, waste systems and galleys. Ranks as the company's most environmentally adapted and fastest growing product group.

Percentage share of environmentally adapted product sales



A modern environmentally-adapted cleansers Conventional solvent-based degreasers:



SERVICE CONFIRMATION

Wilh. Wilhelmsen

Date: 4 March 2008	**Name of supplier:** Wallenius Wilhelmsen Logistics
Specification of goods: High and heavy cargo (such as agricultural and construction equipment) and non-containerised cargo (such as wind turbine blades, mining equipment, yachts and generators)	
Total volume this voyage: 9 672 cubic metres	**Ports this voyage:** From Zeebrugge in Belgium through Southampton in the UK to Manzanillo in Panama, Port Hueneme in California and Tacoma in Washington state

Comments:

If you have the cargo, we have the equipment

Loading, stowing and discharging cargo are delicate operations which demand both experienced personnel and purpose-built equipment. Our vessels have a unique ability to combine cars, high and heavy and non-containerised cargoes. We also have vessels purpose-built to carry extra-heavy cargo. Our newbuildings will give us ramp capacities of up to five hundred tonnes as well as flexible and hoistable decks which can carry cargo units up to seven metres high. And we can support the loading and discharging equipment needed to ensure that your cargo is handled in the safest and most efficient manner possible. If the equipment does not exist, our design specialists use their ingenuity to customise a solution.

Did you know ... that Wallenius Wilhelmsen Logistics transports some five million cubic metres of high and heavy cargo as well as a million cubic metres of non-containerised cargo a year?