

Summary

Letter from the Board

**Maritime and fluvial transport of hydrocarbons:
The other half of the business**

Statistics

p.8 Oil and gas in numbers

Statistical Brochure

Carriers

p.10 Tankers and how they are classified

Increasing use of oil by-products, specially fuels, lubricants and later products from the petrochemical industry, have resulted in huge growth of maritime traffic of crude oil and its by-products.

In 2002, 59% of world oil production was transported in tankers and that same year the fleet of oil tankers represented approximately 40% of the worldwide merchant navy fleet which was over 80% in hands of independent ship owning companies. This development led to different types of vessels being built according to the type of products being transported and their capacity and capability for each type of traffic.

By Lic. Guillermo Gadea, Antares Naviera S.A.

p.18 Shipping companies for the transport of hydrocarbon

Carriers transporting hydrocarbons are an important link in the oil industry's productive chain.

What does this fleet of ships consist of? What is the country's transporting capacity? What are the basic requirements for the transport of hydrocarbons?

These are some of the questions which the editors of Petrotecnia sent to a group of shipping companies specializing in the transport of hydrocarbons.

Answers were received from: Gustavo Germán Pereyra (Antares Naviera S.A.), Raúl Rodríguez (Esso Petrolera Argentina SRL), Federico Gustavo Virasoro (Naviera Sur Petrolera S.A.), Celso Luiz Silva Pereira de Souza (Petrobras Transporte S.A. Transpetro), Jeremy Hudson (Shell CAPSA) and Eric MacCulloch (Ultrapetrol S.A.)

p.50 Traffic Control Center in the Río de la Plata

Argentina's Naval Coastguard (PNA) has therefore taken certain radio-communication measures for the purpose of supporting navigation, safeguarding human lives at sea and controlling the traffic of vessels. The implementation of the System for the Automatic Identification of Vessels (AIS) must be highlighted. This was established once more in accordance with the recent resolution issued by the diplomatic Conference which towards the end of 2002 carried out modifications to the International Agreement for Safety of Human Lives at Sea, which though will only be in force as from July 2004, has already started to be applied by the Prefectura Naval Argentina in the Río de la Plata area.

By Miguel Angel Reyes (PNA)

Ports and Terminals

p.26 Hydrocarbon terminals

Terminals play an important role in the distribution logistics of hydrocarbon production. These are situated at different points all along the sea and river coastlines in the country and each one possesses different characteristics.

The editors of Petrotecnia drew up a questionnaire that was sent to a group of companies with the aim of getting a more comprehensive picture of the movements and operations each company is carrying out.

Answers were received from: Gustavo Antunes, Gabriel Aita and Ricardo Sartuqui (Esso Petrolera Argentina SRL), Julio Tellechea (Oiltanking - EBYTEM S.A.), Jorge Themtham (Pan American Energy), Hugo Pereira (Petrobras Energía), Antonio Allegretta (Repsol YPF), Marcelo Lozano (Shell CAPSA), José Luis Marzocca (Terminales Marítimas Patagónicas S.A.) and Alejandro Walczak (Total Austral).

p.40 Oil-gas-petrochemicals. Port facilities 2

Petrotecnia in its June 2001 edition, published an article about this industry's port facilities. Argentina has 20 ports specializing in this sector's products, situated in the Río de la Plata, Atlantic Ocean, and Paraguay, Paraná and Uruguay Rivers. This second edition dwells on the ports that have suffered some modifications although there have been few changes in the information.

By Natalio Numerosky

Logistics

p.44 Logistics for the marine transport of oil

This consists of an efficient system which helps to achieve important competitive advantages. This sensitive mechanism must be kept operating at all times, being an integral process for planning, implementation and control of the movements and storage of oil.

This infograph shows the constant challenge which the seagoing transport of oil is faced with in order to be able to supply local refineries or the different international markets.

International Trade

p.46 International markets and maritime transport

Oil is a commodity listed on the most important international markets, sold under renowned and guaranteed conditions, with a supply flow guaranteed by the different world producers forming part of this market. It can be transported throughout the world under conditions of safety, and can be stored and refined. There are two clearly differentiated international markets: a contract market and a spot market. Knowing these markets, how quality and price policies interplay, added to operative logistics and maritime transport, help to discover the different worldwide networks operating the oil industry.

By Nicolás Verini

p.56 Isocontainers and transport of special products

Isocontainers are a new cargo system for products, which has been growing around 10% annually since

1990. This allows over 12,000 products to be transported: chemicals and petrochemicals, oil and gas derivatives, agrochemicals and foodstuffs such as vegetable oils, wine, wine alcohol, fish oil, etc.
By Alfredo Friedlander, Hoyer Odfjell

p.66 **Regulated transport of liquid hydrocarbons**
Establishing an institutional regulatory framework for the transport of hydrocarbons for fixed and permanent facilities was undertaken in 1990. Regulation is fundamental in this aspect because the owners of the transporting piping link the hydrocarbon extracting areas with their sales points, whether refineries, or river or ocean terminals in the case of liquids, and consumption centers in the case of natural gas. Therefore this type of transport should comply with the conditions and characteristics of a public service with free access for all carriers.
By Liliana M. Garrido, Subsecretaría de Combustibles(Undersecretariat for fuels)

p.68 **Technology and Safety**
A system for the structural control in oil tankers
In the nineties, the International Maritime Organization recommended the use of structural control systems on large bulk carriers, and since then its use has been extended mainly to oil tankers. As from 1991 different systems have been implemented specially on those carriers operating in the Trans-Alaska Pipeline Service (TAPS) where oceangoing conditions are severe, specially in winter. These systems minimize risks and enable ship captains to obtain information on the structural behavior of the ship and thus make the necessary decisions pertaining to changes in course and speed so as to minimize possible damages.
By Claudio Fassardi, BMT Scientific Marine Services, Inc.

p.72 **Immediate response when oil spills occur**
Quick and efficient response when faced with possible oil spills.
Agreement for Inter-company Cooperation.
In August 1991 the Agreement for Intercompany Cooperation was created to enable quick and efficient responses when faced with possible oil spills in river and ocean coastlines. As a result of research carried out, U\$S 12 million was invested in equipment which was distributed in 14 response centers according to a risk analysis.
By Eduardo Vilches

p.74 **Preventing river and ocean spills. Does the oil industry encourage agricultural production?**
During both river and ocean transport of oil there are always probabilities of spills in the water. To prevent such contingencies, various training exercises have been devised in order offer a quick response to these spills. Prevention exercises have an important ally in the husk of the sunflower seed which reproduces the behavior of oil in water..
By Natalio Numerosky

p.76 **Analysis and trends**
Year 2004 overview and fossil fuels in 2030-2050
Geopolitical volatility in the energy context and the role played by fossil fuels in the 2030-2050 period, were the main subjects dealt with recently during the International Seminar organized by the French Oil Institute (IFP). The year 2003 hit the headlines due to a number of crises affecting major oil producers such as Venezuela, Irak and to a lesser degree Nigeria; China emerging as the second largest world consumer and Russia as oil production leader. The main forecasts for 2000-2030 show sustained growth in the demand for primary energy and a continuing predominance of hydrocarbons covering two thirds of all the world's energy needs for that period.

p.80 **Technology**
Pluspetrol Energy S.A.-Ramos Oilfield.
How a Compression Project is carried out.
During the First Workshop on Natural Gas that was held in Tartagal from 12 to 14 November, 2003, a paper on "Compression Project for the Ramos - Pluspetrol Energy S.A.Oilfield" was presented. The organizing committee chose this paper for publication in the current issue of *Petrotecnia*. This paper depicts how a compression project is carried out for the purpose of accelerating production and tapping reserves in a mature condensate gas field. The main variables analyzed, the problems affecting its development, the type of work carried out and some of the results which show the solutions found for these issues, are presented here.
By Guillermo Boullosa, Pluspetrol S.A.

p.86 **Management**
How to prepare ahead to meet a crisis head on
After September 11, 2001 and the recent tragic events in Madrid, many enterprises and corporations have decided to adopt a plan to prepare them for any crisis which may arise. What is a corporate crisis? It can be defined as any event which could have a significant and negative impact on a company and its business. Therefore, should a contingency occur, it is of the utmost importance to be adequately prepared to face a crisis or even prevent it. Today, most heads of companies agree that in the event of a crisis companies have 'less than two hours to respond!!!!'
By Rubén Wertheimer

p.90 **News**
Company News
p.98 **IAPG News / News from Houston**

