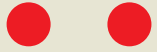


TÜRK LOYDU

INDEPENDENT, IMPARTIAL, RELIABLE, EXPERT



ANNUAL REPORT 2009



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Independent, Impartial, Reliable, Expert



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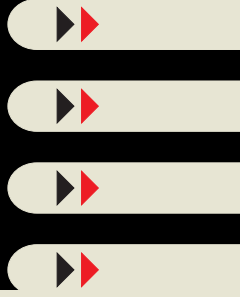


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THE BOARD OF TÜRK LOYDU FOUNDATION

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Prof. Dr. Mustafa İNSEL

DEPUTY CHAIRMAN

Erhan TUNÇAY

ACCOUNTANT MEMBER

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Doç. Dr. İsmail Hakkı HELVACIOĞLU

Metin KONCAVAR

Bülent ŞENER

Hüseyin YUNAK

AUDIT COMMITTEE

Ali ÖNDER

Mehmet TAYLAN

Derya TURGUT

DEPUTY GENERAL SECRETARY

Şevki BAKIRCI

THE EXECUTIVE COMMITTEE OF TÜRK LOYDU COMMERCIAL ENTERPRISE

CHAIRMAN

Prof. Dr. Mustafa İNSEL

MEMBERS

Doç. Dr. İsmail H. HELVACIOĞLU

Metin KONCAVAR

Şevki BAKIRCI

R. Tansel TİMUR

GENERAL MANAGER

Şevki BAKIRCI



Integration of globalization with the financial crisis in 2008 and the effects of the financial crisis which were deeply felt in 2009 resulted in the decline of international trade, the increase in the use of protective measures and the importance of competitiveness. In this period the organizations with strong financial, technical and administrative infrastructures felt the need to have a flexible structure which can adapt to market changes rapidly.

Türk Loydu, encountering the winds of change, has adopted a strategy incorporating a strong head office, fast and reliable service strategy worldwide, and has been continuing necessary infrastructure investments in order to develop cost-effective and high-quality services as a result of rapid adaptation to external conditions since 2006.

Türk Loydu aims to invest in knowledge in order to turn the 2008 crisis into opportunity by increasing the number of expert personnel and developing training programs so as to strengthen expertise of its personnel. The results of these studies have been observed in the development of its quality system, improvements in the Port State Control statistics, development of new-generation Türk Loydu rules, and expansion in industries like energy and infrastructure development requiring up-to-date and different areas of expertise.

The post-crisis preparations have continued throughout 2009 in which we faced financial uncertainties. Türk Loydu aims to increase its maritime fleet and enlarge its international recognition during 2010. We have full faith that Türk Loydu shall enlarge its industrial services and operating areas, and many large projects shall be assured by Türk Loydu in 2010.

Prof. Dr. Mustafa İNSEL

Chairman of Türk Loydu Foundation





Şevki BAKIRCI

General Manager

The 2009 global economic crisis has seriously affected investments, shipbuilding industry and marine trade.

As Türk Loydu, we successfully closed the year 2009 by taking measures in time, having good communication and sharing knowledge with our customers without compromising our service quality despite the crisis.

One of the important indications of ship classification service quality is the Port State Control Memorandum Reports (Paris MoU). According to the ranking by the number of ships that are detained due to their classification fault, Türk Loydu has kept its 6th place in the category of "High Performance Classification Societies" list doing better than many IACS member societies during the port state controls conducted on the ships which entered the ports of the Memorandum member states between 2006 and 2008.

The success that Türk Loydu has achieved by taking place among the "High Performance Classification Societies" for three successive years is going to be an important reference on the application to become a member of International Association of Classification Societies (IACS) and to receive a RO (Recognized Organization) status from the European Union (EU).

The quantitative criteria for the IACS membership, i.e. the number of ships classed and the tonnage have been changed to the qualitative criteria based on the quality system and performance. Türk Loydu may have a chance to become a member of IACS due to this modification. Therefore, the application for the membership of IACS will be made, and audits will be conducted by the relevant parties to obtain "RO" status from the EU in 2010.

In 2009, 93 ships were entered into Türk Loydu's register of ships, while 81 ships were withdrawn. At the end of the year, the number of ships classed by Türk Loydu above 100 GT was 546, and the total tonnage reached 1.206.898 grosses tons. These figures in 2009 indicate that we have exceeded the figures in 2008.

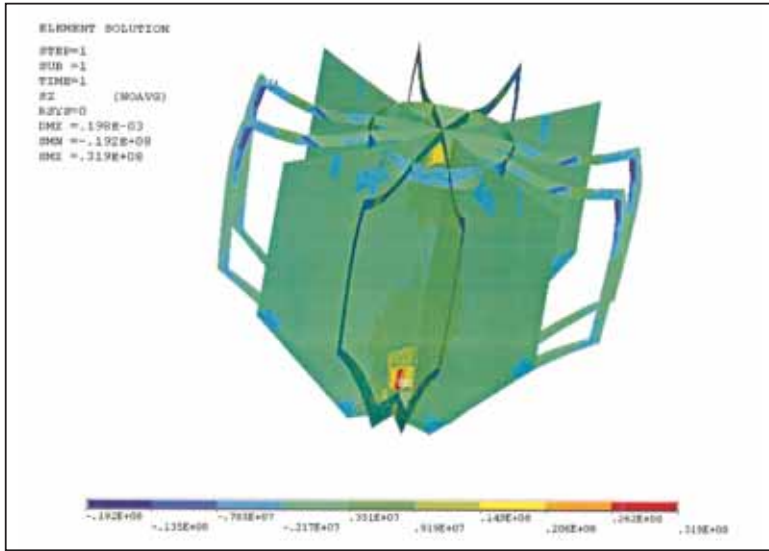


Türk Loydu Foundation Commercial Enterprise Executive Committee: (from left to right) Assoc. Prof. İsmail Hakkı HELVACIOĞLU, Şevki BAKIRCI, Prof. Dr. Mustafa İNSEL (Chairman), Metin KONCAVAR, R.Tansel TİMUR

The naval ships built under Türk Loydu class procured by the Undersecretariat of Defense Industries on behalf of the Turkish Naval Forces have been effective on the development of our new building activities. In addition to 16 "New Type Patrol Boats" started to be built in 2008, the contract to build 8 naval landing crafts (LCT type) was signed in 2009 and the building of the ships started at the end of the year.

Accordingly, there has been a noteworthy increase in our firm, material and product certification activities in marine industry. Within this period, some leading main engine manufacturing companies such as YANMAR and MTU were certified with type approval. In parallel to this progress, the number of the personnel employed by Türk Loydu has been increased in order to satisfy the needs of the activities despite the crisis. The rules of Türk Loydu for the classification are taken as the basis for the execution of our activities. Our efforts to develop our own rules have been stepped up successfully in cooperation with Istanbul Technical University (İTÜ), Faculty of Naval Architecture and Ocean Engineering.





“Türk Loydu Rules concerning Multiple-Point Mooring Systems” developed for the mooring of tankers was published as a rule book in 2009. Within the scope of “Regulations for the Application of the Double-Hull or Equivalent Design Requirements and Safe Operation of Oil Tankers in Cabotage Trade” issued by the Undersecretariat of Maritime Affairs, we have started the condition assessment activities for the evaluation of single-hull tankers ranging from 600 DWT to 5000 DWT for a period as permitted by the regulation in 2009. Our efforts to acquire the accreditations within the scope, indicating our competence continued in 2009.

According to ISO 17024, Türk Loydu added Welding Personnel Certification to its growing accreditation portfolio from the Turkish Accreditation Agency (TÜRKAK) in 2009. Therefore, we will make a large contribution to increasing free movement of welders within the ship building sector where certificates can be used as passports for new employment. 1664 welder certificates were awarded in 2009.

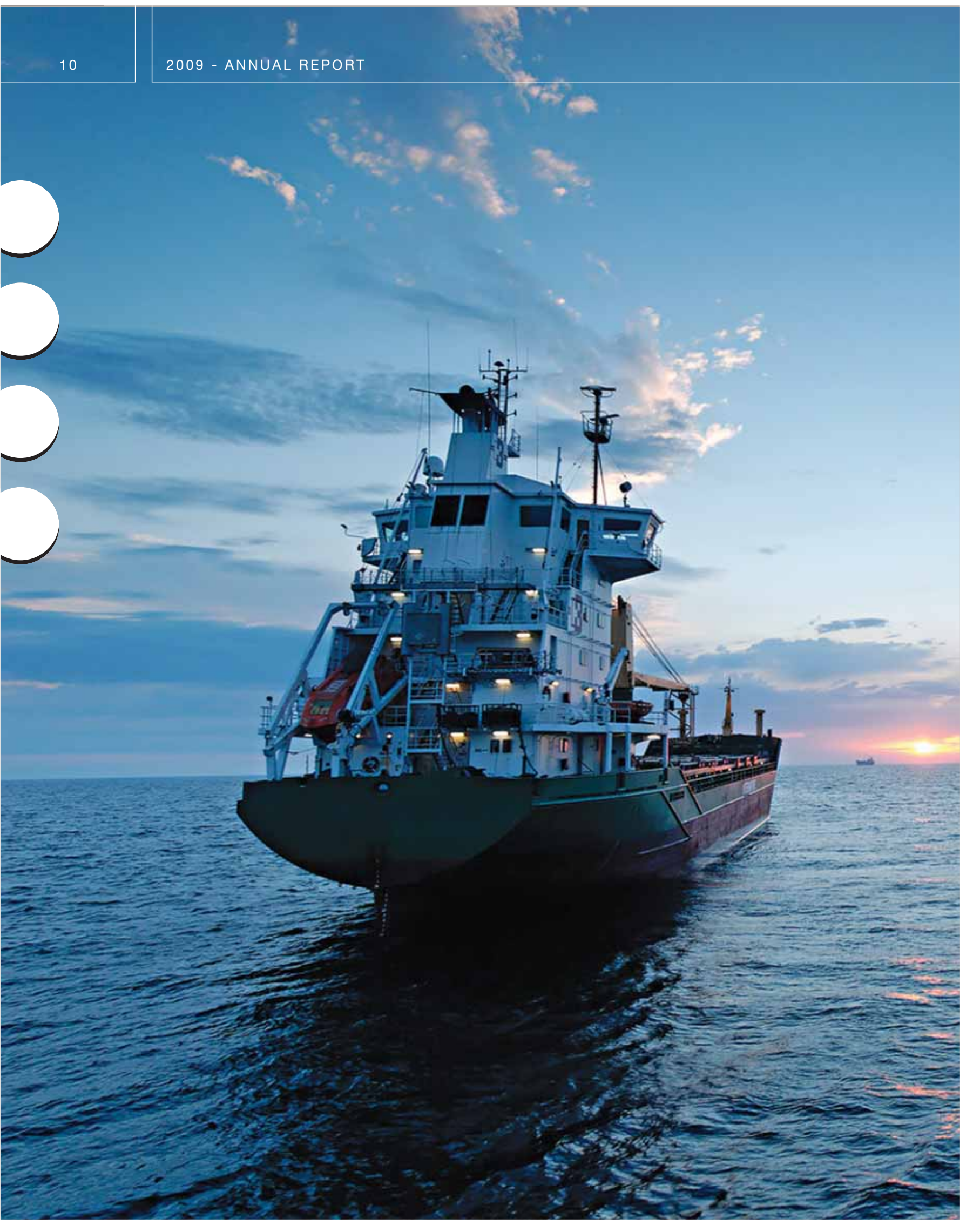
Moreover, fire extinction systems project approval and operational inspections have been added to ISO 17020 inspection body accreditation of Türk Loydu, and various industrial facilities such as AYGAZ, TÜPRAŞ and Mercedes Benz Türk A.Ş., and hotels like CONRAD and the Hilton Hotel Chain benefited from our service. Türk Loydu concentrates on actions that strengthen safety of life and property as well as environmental protection, and mobilizes its resources to improve these areas.

Currently, there has been an increase in the production and utilization of clean renewable energy sources as a result of the increase in the demand for energy and the increase in energy costs, environmental sensitivity and the depletion of traditional energy sources like fossil fuels. Türk Loydu, which published its Wind Turbine Certification Rules in 2008 in order to facilitate the production of wind energy as a renewable energy source, signed the first certification contract with the first domestic manufacturer of wind turbines on account of its efforts in various fairs, symposiums and expositions.

Türk Loydu strengthened its experience in manufacturing and assembly inspection of steel constructions with two significant stadium projects in 2009. Manufacturing and assembly inspections for Kayseri Kadir Has and Rize Yeni Şehir Stadiums have been completed successfully. Furthermore, TPAO has signed contracts for five-year periodical inspection services of three offshore platforms named Akkaya, Ayazlı and Doğu Ayazlı in the Black Sea Region, and the service work has been started.

Türk Loydu had the accreditations for ship tank calibrations (tank capacity calculations) for the international market in 2008, and completed tank calibrations for 32 ships in 2009.

In 2009 Türk Loydu, as a Notified Body with the EU identification number 1785, holds the Notified Body status on 87/404/EC Simple Pressure Vessels Directive and 92/42/EC New Hot Water Boiler Directive, and the notification can be searched on the web site of the EU Notified Bodies.





R. Tansel TİMUR

Head of Marine Division

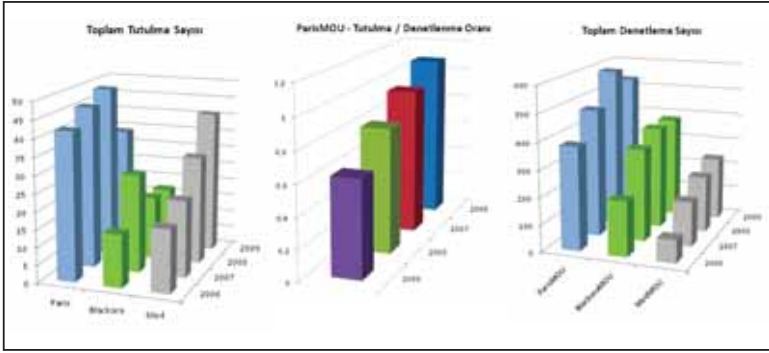
PORT STATE CONTROL ACTIVITIES

According to the PSC inspection results, ships on Türk Loydu fleet showed high performance in 2009. According to the Recognized Organization Performance Table covering the period between 2006 and 2008 published by Paris MoU in 2009, Türk Loydu has maintained its "High Performance" status as it has for the past 3 years, and was in the 6th place as it was last year, over some IACS members. Adopting a new practice, a Non-Programmed Survey was conducted on some ships that were under the PSC performance evaluation, thus detecting any problems before they happened. In addition, the evaluation of many ships under Türk Loydu fleet has been carried out with the PSC perspective by broadening the scope of non-programmed surveys and applying them during the ISM audits.

The cooperation with the Undersecretariat of Maritime Affairs broadened its perspective in 2009: the trainees from the flag state and port states attended the ISM implementation and auditor courses within Türk Loydu premises. As a part of this, the PSC auditors from Russian Novorossiysk and Tuapse ports visited Türk Loydu on 9 and 10 November 2009 and were informed about the activities of our organization.

Recognized Organization Performance Table (2006 - 2008)

Recognized Organization*		Inspections	Detentions	Low/ medium limit	Medium/ high limit	Excess factor	Performance level
Indian Register of Shipping	IRS	172	0	7	0	0,00	High
RINAVE Portuguesa	RP	75	0	4	0	-0,00	
Korean Register of Shipping (Korea Rep.of)	KRS	713	5	21	8	-0,49	
Polski Rejestr Statkow	PRS	1034	8	29	13	-0,58	
China Classification Society	CCS	1024	4	28	13	-1,10	
Russian Maritime Register of Shipping	RMRS	7769	48	176	135	-1,23	
Nippon Kaiji Kyokai	NKK	6558	27	150	112	-1,47	
Bureau Veritas (France)	BV	11897	43	264	212	-1,57	
Turkish Loyd	TL	1497	3	39	21	-1,59	
Lloyd's Register (UK)	LR	14748	51	323	266	-1,60	
American Bureau of Shipping (USA)	ABS	5454	13	127	92	-1,68	
Registro Italiano Navale	RINA	3127	5	76	49	-1,75	
Germanischer Lloyd	GL	14962	31	328	271	-1,76	
Det Norske Veritas	DNV	13278	26	293	239	-1,77	



During the 4th PSC Workshop on 28-30 January 2009 organized by the IMO, bilateral discussions with the PSC managers and auditors from various countries were conducted. Within this scope, on 7-9 July 2009, we took part in the 2009 Black Sea Memorandum in which Russia was the host, and established close relations with the maritime managements of those countries that have shores in the Black Sea, and strengthened Türk Loydu's institutional reputation in this area.

SVEP-TÜRK LOYDU SURVEYOR QUALIFICATION AND TRAINING PROGRAM

As Türk Loydu emphasizes expertise and continuous improvement in areas stated as missions in 2009, it has taken another step in training and initiated SVEP that is a new and improved program in surveyor qualification and training in addition to its modern training facility opened in 2008. SVEP is a program that defines the training and qualification criteria of surveyors working on maritime industry activities and involves 94/57/EC, ISO 17020, ISO 9001, IMO Res 739 (18) and IMO Res. 789 (19). SVEP was developed in accordance with IACS PR7 in the context of Türk Loydu's IACS membership compatibility activities. Thanks to SVEP, Türk Loydu surveyors will also be trained on IMO regulation changes and IACS requirements by implementing training activities that will be the basis of qualification.

All surveyors of Türk Loydu, including newly recruited ones, participated in the SVEP trainings that started in the first quarter of 2009. Moreover, surveyors that will take part as trainers on SVEP activities have started working, and those trainings are planned to have been completed by 2010.

Türk Loydu aims to improve its performance on international affairs and its service quality while enhancing its strength by its well-trained and qualified surveyors with SVEP.



SHIPS CONSTRUCTED UNDER TÜRK LOYDU CLASSIFICATION

The classification of the 16 New Type Patrol Boats under Türk Loydu supervision that are being built for the Undersecretariat of Defence Industries (SSM) in Dearsan Shipyard is proceeding. In this context, the first ship is ready for launching, the outfitting of the second and third ships is proceeding, the block construction of the fourth one and the steel plate cutting for the fifth have already started.

A contract has been signed with the shipbuilder Anadolu Shipyard on 2 July 2009 for 8 sister ships (LCT's - Landing Craft Tanks). This is the third naval ship project conducted by the Undersecretariat of Defence Industries (SSM) and the classification process of these LCTs has been done by Türk Loydu. Project inspection and material certification activities are proceeding and survey activities have started.



Moreover, we have made 29 new building contracts, 20 of which belong to passenger ships (cabotage boat), 3 to pilot boats, 2 to product tankers (with capacities of 400 and 550 DWT), 2 to service boats, 1 to barge and 1 to garbage recovery boat. The building of the tanker with a capacity of 400 DWT was completed and certified. It is expected that a contract will be signed in 2010 with the shipyard and SSM for the new SSM projects of 2 LSTs. (Landing Ship Tanks) These two LSTs are going to be classed by Türk Loydu. The classification contract of a total of 4 "Double-Ended Ferryboats", 2 allowing 80 cars and 600 passengers and the other 2 allowing 80 cars and 400 passengers, was signed with SEFINE Shipyard on November 2, 2009. Plan control and steel material certification activities have already started.



In addition to all these, the classification of 13 passenger ships, 1 Ro-Ro ship and 20 barges was completed in 2009. The classification of 35 yachts, 20 wooden passenger ships and 5 various boats with GRP material and 16 CE conformity assessments has been continuing.



The number of yachts and passenger boats to be constructed from wood, steel and GRP material in 2009 amount to 10 and 14 respectively, and the CE conformity assessment of 11 recreational crafts will be carried out.

MATERIALS, PRODUCTS, COMPANY CERTIFICATION

Türk Loydu has been carrying out the certification of imported products and materials that will be used on board of the ships which are to be built under the supervision of Türk Loydu by its own surveyors all around the world.

The inspections of the propellers to be used on board of İDO's (İstanbul Deniz Otobüsleri A.Ş.) 600-passenger ship at DUNCAN Propeller Ltd/ Newton-Abbott facilities were carried out this year. Type approval certification of diesel engines manufactured by YANMAR Co. Ltd/Amagasaki-Japan Company to be used on board of catamaran passenger boats which were under construction for Iran and classed by Türk Loydu was carried out. We issued a Type Approval Certificate to the engine manufacturer, MTU GmbH-Friedrichshafen, for 4000 Series.



We have strengthened our relations with marine equipment manufacturers. "Türk Loydu Type Approved" product ranges increased; thus, the number of the Türk Loydu certified products reached 130. While there has been an increase in the demand for service suppliers approved by Türk Loydu, the number of those that have taken "Approved Service Suppliers" from Türk Loydu for fire prevention systems, under-water surveys and radio communication equipment testing has amounted to 40.

RELATIONS WITH CLASSIFICATION ORGANIZATIONS

Asia Classification Society (ACS), the national classification society in Iran, became one of the classification organizations that signed a cooperation agreement with Türk Loydu. The agreement which involved the "dual class" condition among the two classification organizations was signed on 9 February 2009, and the first cooperation in this contract has started out with 22 catamaran passenger boats, 2 of which will be manufactured in Turkey, and the rest in Iran.

Türk Loydu Chairman of the Board Mustafa İNSEL, Ph.D., met with Lloyd's Register's General Manager Richard Sadler and Maritime Division Manager Mr. BOARDLEY on his trip to London on 21 April 2009. As agreed at the meeting, Lloyd's Register's Classification Service Division Manager Colin RATCLIFFE visited our company and made inspections there on 24 and 25 June 2009.

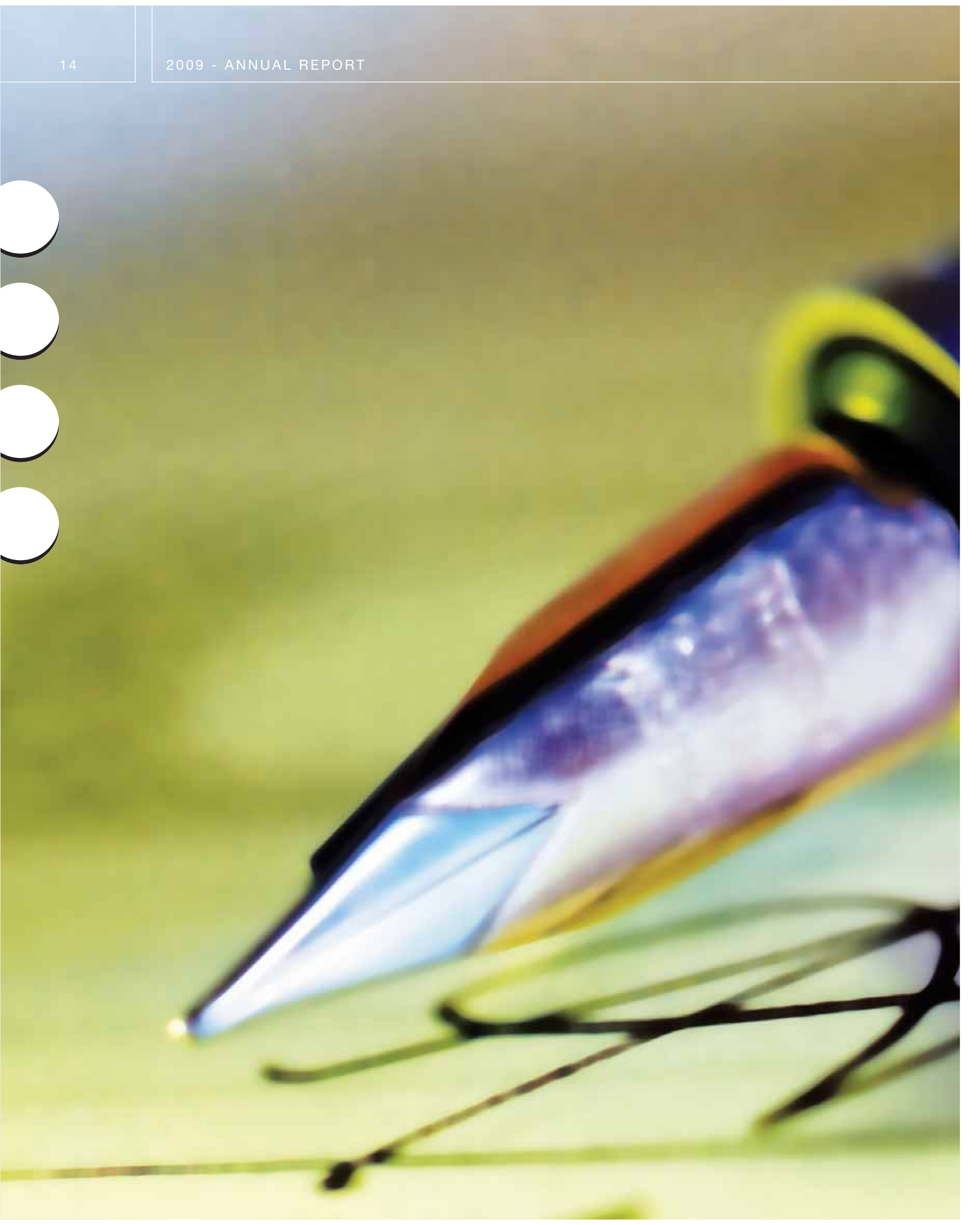
RELATIONS WITH FLAG STATES

In 2009 Jordan joined the Flag States that authorized Türk Loydu about surveys to be conducted on behalf of flag states. After the discussions with Foreign Relations Manager of Jordan Maritime Administration, engineer Numan ELSAİFE, the Protocol that authorized Türk Loydu "case by case" was signed on 6 June 2009.

Our application to Vietnam Maritime Administration about the same matter was delivered by the Vietnam representative of Türk Loydu Doğan ALPER, and a visit to Vietnam is expected to happen in 2010 in order to finalize the Protocol.

In the meeting organized in İstanbul on 7 July 2009 by Maritime Administration of Georgia in which classification organizations authorized by Georgia were invited, Türk Loydu Head of Safety Management Systems Department Okan ÇETİN and Head of Quality, Training and Documentation Department Aydın GÜRBÜZ were present.

In his opening speech, Chairman of Maritime Administration of Georgia Capt. İMNASİHVİLİ showed Türk Loydu as an example, and emphasized the role of Türk Loydu as the Turkish Flag entered the white list in Paris MoU region.





R. Ercan GÜÇ

Head of Plan Control and Research Division

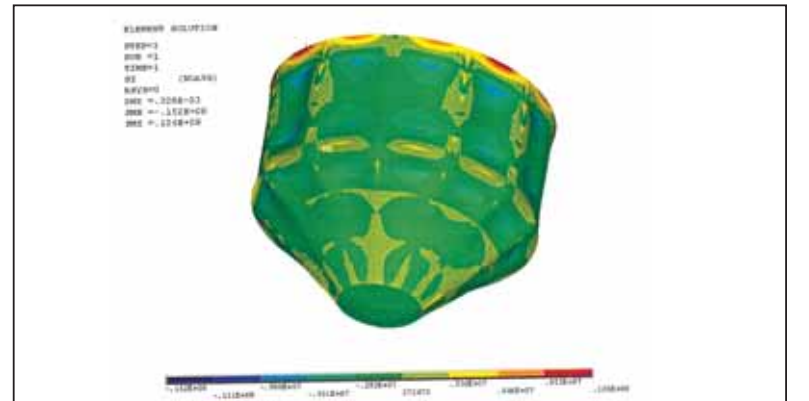
MULTI-POINT TANKER MOORING SYSTEMS

The design and manufacturing of multi-point tanker mooring systems that are used in cargo transfer from tankers are important for safety and environment.

The main parts of these systems are buoys, chains, anchors and concrete blocks. All those parts that are not connected to sea beds are dimensioned according to the loads caused by environmental conditions.

The design and design verification stages can be summarized as determining the main dimensions of the structure depending on the biggest wave in the area, selection of construction, determining the operation conditions, calculating the maximum loads that the structure will endure, and performing the strength and deformation analysis by finite element method. It is important that these determination and analyses be made according to general engineering principles and relevant rules in order to prevent accidents and, therefore, environmental problems.

With safety and environment protection in mind, Türk Loydu was the first to create "Multi-Point Mooring Systems" rules and started applying those rules in its multi-point tanker mooring analyses. Shell & Turcas-Antalya 40000 DWT tanker mooring system analysis can be given as an example on studies regarding this subject in 2009.



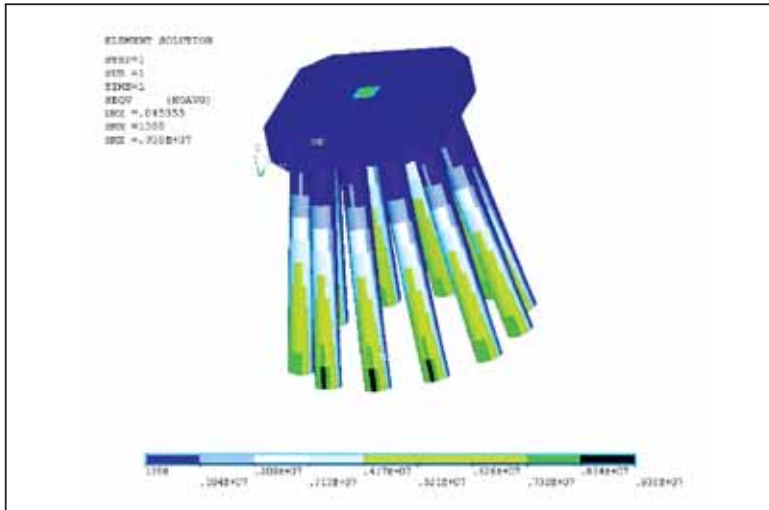
BERTHING ANALYSES

Along with ships sailing safely, their berthing at wharves safely is also a subject that needs to be considered for safety of life and property, and environmental protection.

A berthing analysis, which is important especially for tankers, has usually two stages:

- Simulation studies to determine the loads acting on the wharf
- Strength analyses by finite element method

External loads that affect the wharf are loads that result from wave loads, wind loads, current loads and ship impact loads. While loads of wave, wind and current are determined for each location, ship impact loads are calculated according to empirical load models. By taking these loads into account, strength is evaluated by the finite element analysis. Our organization has performed "Mersin Ship Berthing Analyses" for Petrol Ofisi A.Ş. hereupon.



SUBSEA PIPELINE ANALYSES

Analyses for the subsea pipelines at marine terminals are made in two stages: one before the first installation and the other before the location change. These stages include making floatability and stability calculations and structural analyses. Controls of floatability calculations are made for the buoyancy buoys to be used for the location of pipelines by floating, and stability calculations are made for the concrete blocks to be used after the location of pipelines.

The strength analysis of the movement of pipes out of seabed and floating modes is carried out in the structural analysis.

The analysis of Çekisan subsea pipelines in İstanbul - Ambarlı in 2009 can be given as an example to such a study.

CONDITION ASSESSMENTS OF CABOTAGE TANKERS

Increasing environmental concerns have led to greater inspections and safety requirements on all tankers. In order to prevent oil pollution of marine environment by ships from accidental causes, in 1992, Annex I of MARPOL was amended to make it mandatory for tankers of 5,000 DWT and more ordered after 6 July 1993 to be fitted with double hulls (Regulation 13F) as well as existing ships built before that date, with a phase-in period (Regulation 13G). Other methods of design and construction may be accepted as alternatives "provided that such methods ensure at least the



same level of protection against oil pollution in the event of a collision or stranding and are approved in principle by the Marine Environment Protection Committee based on guidelines developed by the Organization. Following the Erika disaster which happened in 1999, IMO adopted new amendments to 13G of Annex I of MARPOL Convention in April 2001 and December 2003 to accelerate the phase-out of single-hull tankers contained in the 1992 MARPOL amendments. Under the revised regulation 13G, Category 1 tankers should be phased out or converted to a "double hull" by 2005, Category 2 and 3 tankers by 2010.

Under the revised regulation 13G the Administration (Flag State) may permit continued operation of Category 2 or 3 tankers beyond 2010 subject to satisfactory results from the Condition Assessment Scheme (CAS), but the continued operation must not go beyond the anniversary of the date of delivery of the ship in 2015 or the date on which the ship reaches 25 years of age after the date of its delivery, whichever is earlier.

In the case of certain Category 2 or 3 oil tankers fitted with only double bottoms or double sides which are not used for the carriage of oil and extend to the entire cargo tank length or double hull spaces, not meeting the minimum distance protection requirements, which are not used for the carriage of oil and extend to the entire cargo tank length, the Administration may allow continued operation beyond 2010, provided that the ship was in service on 1 July 2001. However, such continued operation must not go beyond the date on which the ship reaches 25 years of age after the date of its delivery.

A state party to MARPOL 73/78 Convention can deny entry of single hull tankers which have been allowed to continue operation under the exemptions mentioned above, into the ports or offshore terminals under its jurisdiction.

A new MARPOL regulation 13H adopted in December 2003 bans the carriage of heavy grade oil (HGO) in single-hull tankers of 5,000 tons deadweight (DWT) and above after 5 April 2005, and in single-hull oil tankers of 600 DWT and above but less than 5,000 tons DWT, not later



than the anniversary of their delivery date in 2008. In the case of certain Category 2 or 3 tankers carrying HGO as cargo, fitted only with double bottoms or double sides, not used for the carriage of oil and extend to the entire cargo tank length, or tankers fitted with double hull spaces not meeting the minimum distance protection requirements which are not used for the carriage of oil and extend to the entire cargo tank length, the Administration may allow continued operation of such ships beyond 5 April 2005 until the date on which the ship reaches 25 years of age after the date of its delivery, provided that the ship was in service on 4 December 2003.

Regulation 13H also allows for continued operation of oil tankers of 5,000 DWT and above, carrying crude oil with a density at 15°C higher than 900 kg/ m³ but lower than 945 kg/ m³, if satisfactory results of the Condition Assessment Scheme warrant that, in the opinion of the Administration, the ship is fit to continue such an operation, having regard to the size, age, operational area and structural conditions of the ship and provided that the continued operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery. The Administration may allow continued operation of a single hull oil tanker of 600 DWT and above but less than 5,000 DWT, carrying HGO as cargo, if, in the opinion of the Administration, the ship is fit to continue such operation, having regard to the size, age, operational area and structural conditions of the ship, provided that the operation shall not go beyond the date on which the ship reaches 25 years after the date of its delivery.

A state party to MARPOL 73/78 Convention can deny entry of single hull tankers carrying HGO which have been allowed to continue operation under the exemptions mentioned above, into the ports or offshore terminals

under its jurisdiction, or deny ship-to-ship transfer of heavy grade oil (HGO) in areas under its jurisdiction except when this is necessary for the purpose of securing the safety of a ship or saving life at sea. The Administration may exempt an oil tanker of 600 DWT and above carrying HGO as cargo from regulation 13H if the ship is engaged in voyages exclusively within an area under its jurisdiction.

Based on exemptions granted to a state party to MARPOL 73/78 Convention, the Turkish Ministry of Transport (the Undersecretariat of Maritime Affairs) has put into effect the Regulation on single hull oil tankers of 600 DWT and above but less than 5000 DWT, carrying heavy grade oil, engaged in voyages exclusively within an area under its jurisdiction.

Under this regulation, single hull oil tankers of 25 years old and more may be allowed for continued operation subject to satisfactory results from Condition Assessment Scheme (CAS) starting from 1 January 2010 over three periodic bottom surveys. The length of each period is two years. If the result of CAS is not satisfactory, single hull oil tankers are not allowed for continued operations.

Our organization conducts design appraisal activities for condition assessment surveys under the above Regulation depending on preliminary results from the Condition Assessment Scheme.

In this context design assessments for 13 tankers were completed in 2009.

ENERGY EFFICIENCY FOR SHIPS

There is a need to take measures in order to reduce emissions that cause global warming or ozone depleting. The International Maritime Organization (IMO) works on solutions on this matter. According to analyses, it is estimated that unless IMO has a mechanism to reduce greenhouse gases (GHG), emission from the ships in 2050 will increase by 200% compared to the figures in 2007.

In addition to the regulations on reducing ship-based air pollution like MARPOL Annex VI, the International Maritime Organization conducts some studies regarding greenhouses gases.

Efforts to reduce greenhouse gases started in 2000, and reducing the emission of CO₂, which is the most important GHG, remains a vital issue today.

The methods proposed by IMO in order to reduce GHG's are as follows:

- **Energy Efficiency Design Index (EEDI) for New Ships**

Emission evaluations are considered to be mandatory starting with the design stage of new ships. As a result of statistical studies, there will be a "Design Index Baseline" for all ship types based on DWT, and all ships will be verified on design stages and will be expected to have an emission rate below the baseline. Verification regarding EEDI will be based upon ship design at first, and upon sea trial after the ship is finished. Verification will be done by Classification Societies.

Furthermore, IMO will pull the baseline curve down depending on technological-engineering advances. Those advances may lead to a form optimization for the ships to use fuel more efficiently, to recycle renewable energy, and to reduce speed or power.

● Energy Efficiency Operational Indicator (EEOI) for Existing Ships

The indicator is used to determine the relationship between transportation work (the amount of load X the distance the load has been transported) and CO2 emission of the ship. The goal here is to calculate an average value with at least the data of one year. Thus, it will be possible to determine how efficient shipping companies can be and whether they can have an emission reduction process. It is required that the feedback on the related results of this voluntary pilot applications be submitted to IMO so that IMO can review the implementation guide.



● Ship Energy Efficiency Management System Plans (SEEMP) for All Ships

All ships will be required to have a SEEMP which will be prepared exclusively for each ship by their owners or managers. The goal is to define methods that can provide energy efficiency for individual ships with this plan, calculate the contribution of this plan to efficiency and create areas of improvement in accordance with evaluations depending on calculations. Continuous improvement on efficiency will be possible by renewing goals after a period of time. Companies that manage ships are expected to guide their companies' energy policies with those plans. Efforts on this area will lead to a decrease in ship-based emissions.

● Creating International Compensation Funds (ICF) or Maritime Emissions Trading Scheme (METS) (Market-Based Reduction Measures)

The aim is to have policies that are applicable to all ships. These policies will serve two basic purposes: to enable the comparison of ship-based emissions with emissions in other sectors, and to encourage the maritime sector to design more efficient ships and have a more efficient management. Two options are being considered under the present circumstances. In one of the options which is creating the International Compensation Fund for GHGs, there will be a funding based on taxes paid depending on fuel consumption, and this fund will be used in order to create an advancement in emission reduction. The other option is the Maritime Emissions Trading Scheme which is used in other sectors as well. In this option the ships which are over the limit emission value purchase the excess capacity from the ships that are not over the limit. It is not precisely clear as to how these options will operate.

Studies of Türk Loydu on this Matter

The above-mentioned advancements in maritime sector will require the use of many different methods which have not been employed so far. In order to have preparations regarding those regulations and to contribute to IMO's efforts on creating these regulations on behalf of our country through pilot implementations, a presentation on this issue was given to two maritime companies in 2009. As a result of these presentations, Türk Loydu will start information support to two volunteer companies for their EEOI efforts in 2010.

SHIPYARD LAYOUT PLANS

One of the goals in ship construction industry is to deliver orders in time and in accordance with appropriate standards. The introduction of new construction methods with the changing and advancing technologies has increased the importance of precautions that will increase capacity and efficiency in shipyard layout plans. Covered and open steel processing areas, slipway and/or dry dock opportunities, machinery-equipment, transportation systems (transportation process within shipyards), lifting capacity and labour force are the main elements that make up the capacity of a shipyard.

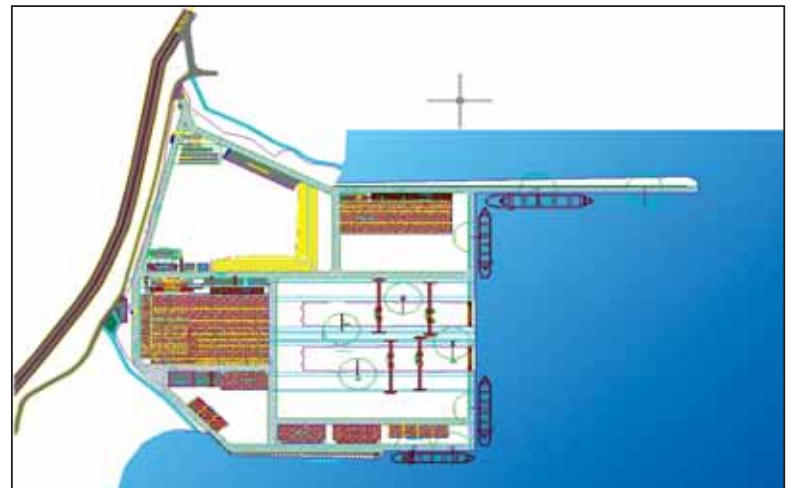
Shipyard efficiency can be increased with the optimum usage of labour, machinery resources and facilities.

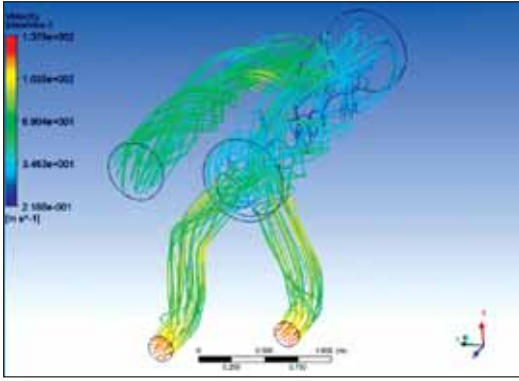
Modern bir tersane yerleşiminin planlanmasında;

- Size and type of the ship to be built
- Annual steel processing capacity
- Material handling and transportation equipment
- Production processes
- Unit size and weight to be fabricated and erected
- Outfitting processes
- Administration and social facilities

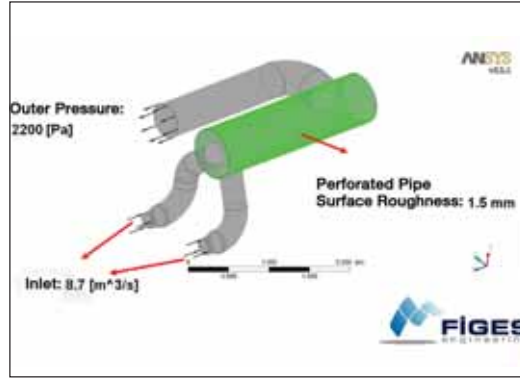
Shipyard layout plans should be in such a way that they should prevent workflow bottlenecks, minimize stalling and delay of units and transportation processes, and should allow making changes.

Our organization has been carrying out the revision and commenting efforts regarding the layout plan of shipyards to be established based on the "Shipyard, Boat/ Hull Manufacture and Slip Places" Regulation issued by the Undersecretariat of Maritime Affairs.

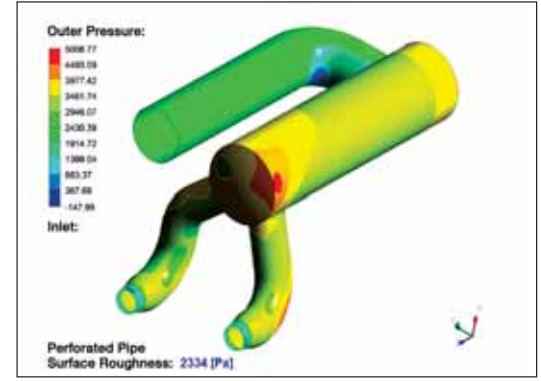




Streamlines of NTPB Dry Type Silencer



NTPB Dry Type Silencer Geometry and Boundary Conditions



Pressure Drop of YTKB Dry Type Silencer

APPROVAL OF EXHAUST SYSTEM BACK PRESSURE AND ACOUSTIC CALCULATIONS WITH COMPUTATIONAL FLUID DYNAMICS (CFD) AND EMPIRICAL METHODS

Computational Fluid Dynamics (CFD), with the ever increasing computer power in calculations, has today become one of the most frequently used tools while solving complex flow problems. It comparably offers a low-cost solution for optimization of important parameters for design by computer simulations since it provides fast solutions and enables engineers to directly focus on design.

These advantages of Computational Fluid Dynamics have made it one of the most frequently used means in maritime sector which involves various complex engineering problems.

Türk Loydu, keeping itself up-to-date in the sector, started to use Computational Fluid Dynamics for the certification of some special products in the plan approval stage in 2009. An excellent example for this would be the CFD utilized plan approval of 16 New Type Fast Patrol Boat Project's (YTKB) exhaust system silencers that are being done in DEARSAN Shipyard for Naval Forces Command by the Undersecretariat of Defence Industries.

The design of silencers used in ship exhaust systems is a complicated problem for both fluid dynamics and acoustics point of view. This problem involves difficult parameters, which are hard to predict, such as exhaust back pressure being under manufacturer's values, noise of the working system being under normal standards or temperature for the silencers being lower than tolerable values. Alongside those parameters, as the working principle of silencers is the sudden broadening and tightening of fluid canal volumes, silencers are much bigger than other systems.

This matter has made the silencer design for ship engine rooms which have narrow and complex volumes an optimization problem. Therefore, since the preferred method used in the supply of these systems in Turkey has been rather expensive but guaranteed so far, the direct export of this item seems to be a low-priced method, but it has become a trial and error method that has a similar cost as the former method. DEARSAN Shipyard has assigned İstanbul Shipyard Command to design and manufacture the silencer in order to increase the domestic contribution in the project. İstanbul Shipyard Command has cooperated with FIGES A.Ş. in the silencer

design which was the first of such efforts in Turkey, and Türk Loydu carried out the plan approval, inspection of manufacturing and finally certification of the resulting product.

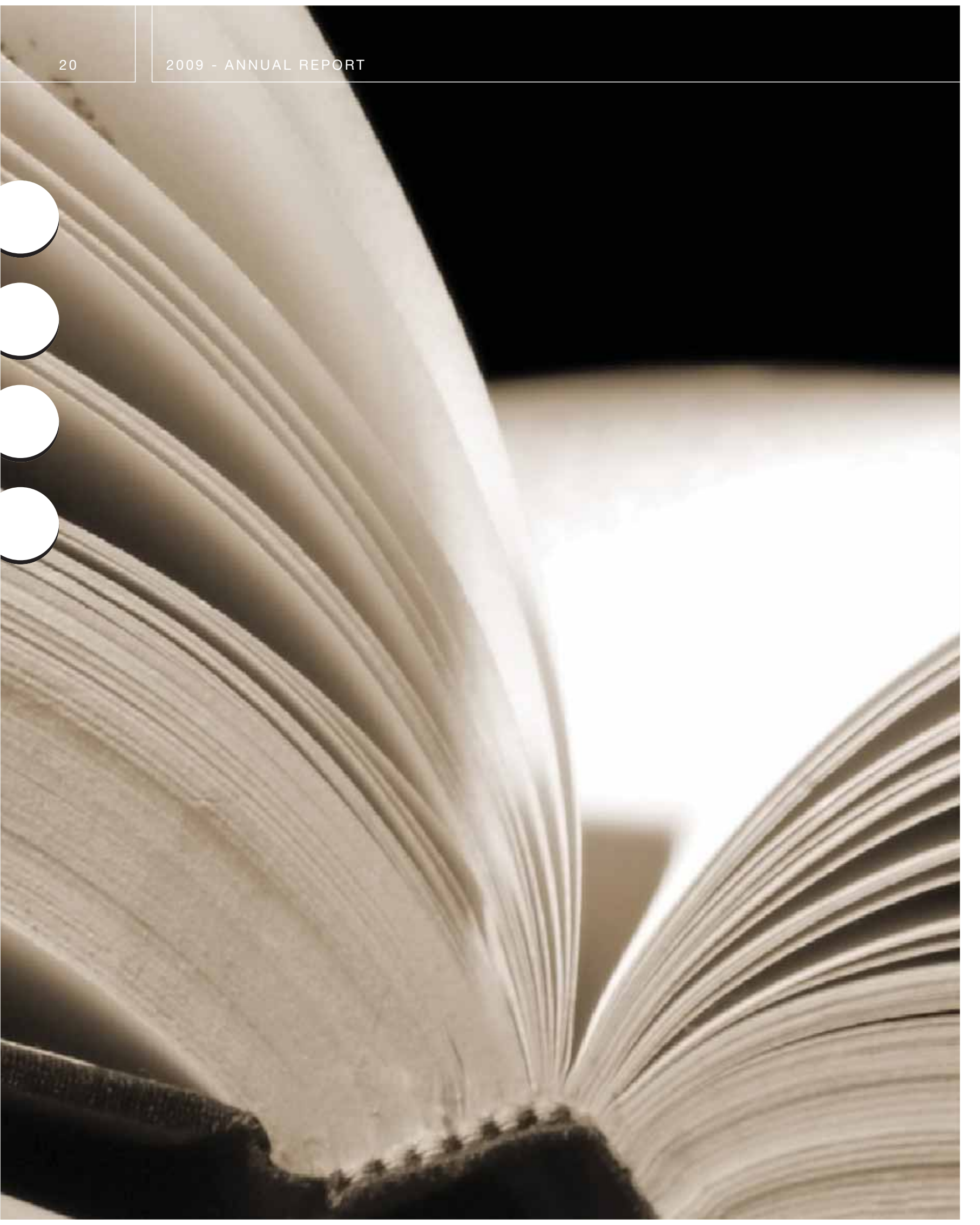
In this design by İstanbul Shipyard Command and FIGES A.Ş., initial parameters such as the flow rate of exhaust outlet, exhaust temperature and noise pressure levels measured at main engine outlet, were taken from the main engine manufacturer as boundary conditions.

A preliminary design was developed on the basis of appropriate volume on the main engine and the geometry was modelled by ANSYS CFX, a computational fluid dynamics software. By the help of flexibility provided, different geometries were tested, until the system back pressure decreased to a satisfactory value according to given permissible pressure values of the manufacturer. Additionally, by applying thermal computational fluid dynamics on the final design, insulation needed on the external wall of the silencer was determined and acoustic calculations were performed utilizing empirical methods in order to check the noise levels.

Türk Loydu Plan Control and Research Department has requested some technical data such as the grid structure of the modelling, boundary conditions and turbulence models used from FIGES A.Ş. in order to check the calculations. The Department itself has also checked the modelled geometry and built geometry, and requested some modifications within the model by performing computational inspections. Additional calculations were requested from FIGES A.Ş. after the evaluation of results, and plan control stage was completed with the checkout of final calculations.

With this new opportunity provided, Türk Loydu Plan Control and Research Department has completed the plan control faster, which is an important step in product certification. In this way, Türk Loydu has enabled shipyards and manufacturers to work faster.

Türk Loydu Plan Control and Research Department aims to provide its customers with faster and more reliable service by continuously searching contemporary tools used to solve advanced engineering problems such as this one, and by training its engineers on this subject, or by employing experienced engineers on this field.



TÜRK LOYDU RULES

Türk Loydu has started operations in order to develop unique rules based on its long-term experience and studies by considering such subjects of increasing importance as developing technology, changing national and international rules, improved standards, environmental safety, occupational health and safety, and efficiency.

In this context, the development of unique Türk Loydu rules such as Classification and Surveys, Hull, Machinery and Electricity has been progressing.

RULES DEVELOPED AND UPDATED IN 2009

Classification and Surveys

Classification and survey rules were updated in accordance with the improvements in international rules.

Part A, Chapter I

Rules for Hull Building

Ship Building Rules were updated in accordance with the improvements in international rules.

Part C, Chapter 8

Chemical Tankers

Chemical Tankers Rules were updated in accordance with the improvements in international rules.

Part C, Chapter 9

Rules for Construction and Classification of Yachts

Hulls, machinery, electricity, fire protection, masts and rigging and stability rules concerning the yachts made of steel, aluminum, wood and fibre reinforced plastic materials were updated in accordance with the improvements in international rules.

Part C, Chapter 24

Chemical Recovery Vessels

This rule is applied to steel-inland and ocean-going ships used for the services in dangerous environments in case of an accident involving chemicals.

Part C, Chapter 32

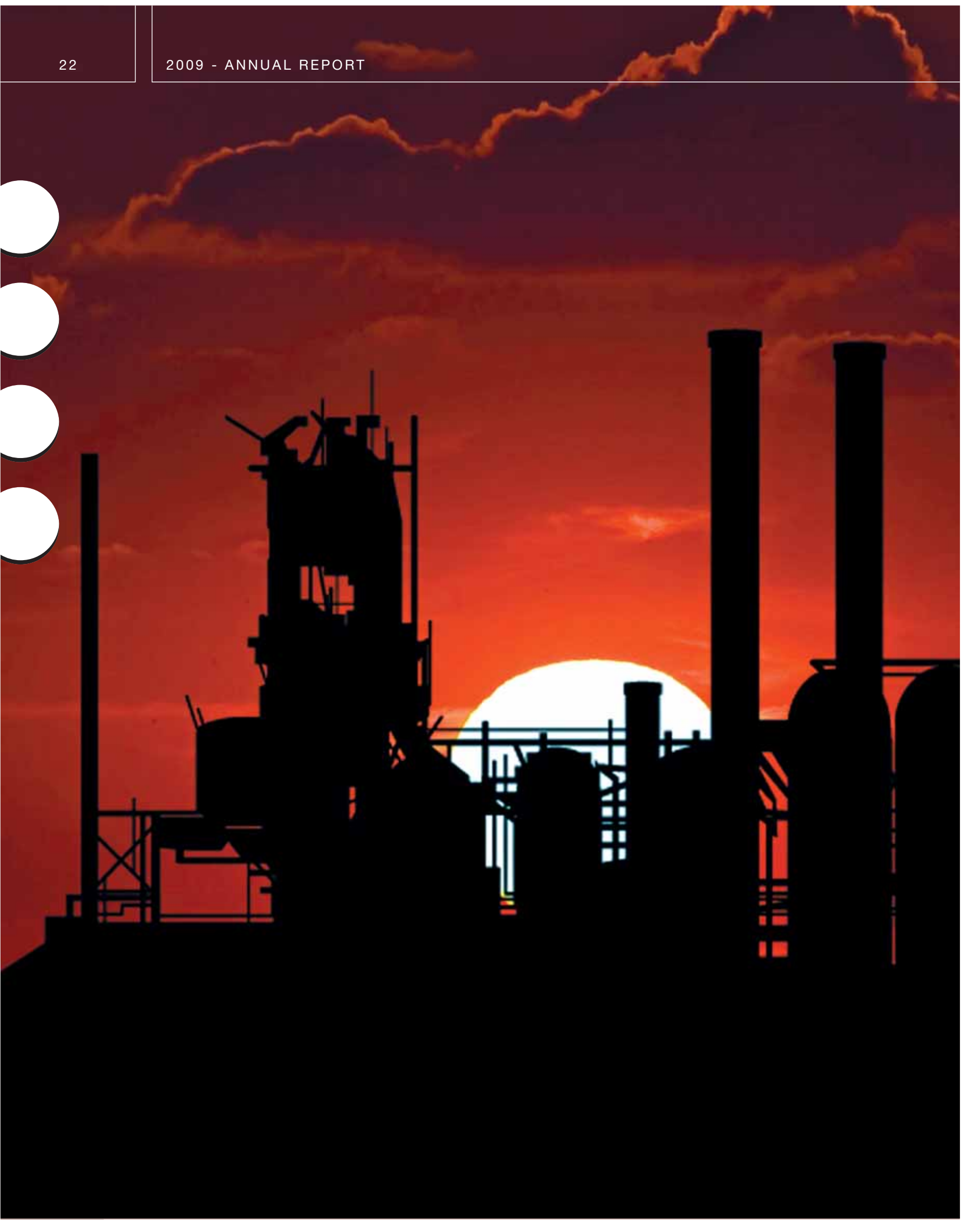
Rigging for Tall Sailing Ships

This chapter contains the rules for the masts and rigging of tall sailing ships.

Part D, Chapter 70

Rules for Multi-Point Mooring System

These rules cover the procedures for positioning and installation of Multi-Point Mooring Systems (MPMS), as well as the strength, stability and corrosion of the construction materials of such systems.





Ayfer ADIGÜZEL

Head of Industry and Certification Division

INDUSTRIAL INSPECTION

PERIODIC CONTROLS OF OFF-SHORE PLATFORMS

Off-shore platforms are fixed or semi- submersible structures on which valve and product refining is done to transfer the product extracted from the oil and natural gas resources under the sea to onshore plants. Controls to be performed on the existing systems in deck and jacket parts of each platform and control periods are determined and each control type is realized within its period for a five-year period. Rules of Türk Loydu concerning Open Sea Structures were published in 2009. Periodic controls of North Marmara Natural Gas Off-Shore Platform of the Turkish Petroleum Corporation (TPAO), which is in Silivri off-shore area, were performed by Türk Loydu between 1988 and 2008.

In 2009 manufacturing and erection at sea controls at the Turkish Petroleum Corporation (TPAO), North Marmara Platform and Akçakoca off-shore area were performed by Türk Loydu. Furthermore, a five-year contract was signed by the Turkish Petroleum Corporation (TPAO) for the periodic controls of the platforms named as Akkaya, East Ayazlı and Ayazlı which were built in 2006-2007.

Above and under water controls of Akkaya and East Ayazlı platforms planned to be performed in 2009 have already been completed.



PIPE MANUFACTURING CONTROL

Factory manufacturing control of oil and natural gas pipelines is done according to API 5L, EN 10208, other relevant standards, customer specifications and relevant ITP. After completion of manufacturing of steel pipes, internal and external surfaces of the pipes are coated with HDPE or Epoxy according to the specified standards. Türk Loydu provided the following services in pipe manufacturing in 2009.

Manufacturing Controls of Ümran Çelik Boru Sanayi A.Ş.

The controls of the pipes with dimensions of 57.250 m., 813x10 mm. and 3.750 m., 815x11 mm manufactured according to the Standard EN 10208-2 by Ümran Çelik Boru Sanayi Anonim Şirketi for Austria ENV Company, and the third party inspections of the natural gas pipes with dimensions of 37.564 m., 508x9.5 mm. manufactured according to the Standard API 5L by Ümran Çelik Boru Sanayi Anonim Şirketi for Algeria CAMEG Company have been provided at the factory.

Pipe Manufacturing Controls of TML İnşaat San.Tic.ve Tur.A.Ş.

The third party manufacturing inspections of the natural gas pipes with dimensions of 8053 m., 1120x20 mm. and 180 m., 1320x14 mm. manufactured by NOKSEL İskenderun Boru Fabrikası for TML İNŞAAT Company have been completed.

İGDAŞ İstanbul Gaz Dağıtım San. ve Tic. A.Ş.

The third party manufacturing controls of 42.280 mt. of natural gas pipelines in various diameters and with different wall thicknesses manufactured at several factories for İGDAŞ according to the Standard API 5L have been completed.



SHIP TANK CALIBRATION

In addition to the tank calibration (preparation of tank measuring scales) of onshore storage tanks, spherical LPG tanks and similar storage tanks services executed since 2005, calibration service for ship tanks was included in the scope of TÜRKAK accreditation in 2008 according to ISO 17020. Data taken from devices on site are analyzed by using a special software program and tank tables are prepared.



Tank calibration services for 32 ships were furnished in this context in 2009.

Tank calibrations of 2 ships for Akbaşoğlu Denizcilik San. ve Tic. Ltd. Şti., 1 ship for Almar Gemi İmalat ve İnşa San. Tic. Ltd. Şti., 1 ship for Alpagül Deniz Hizmetleri ve Taşımacılık Tic. Ltd. Şti., 4 ships for Beşiktaş Denizcilik Taşımacılık San. Tic. A.Ş., 1 ship for D ve K Denizcilik Gemi İnşa Sanayi ve Ticaret A.Ş., 3 ships for Deniz Endüstrisi A.Ş., 1 ship for Düzgüt Gemi İnşa San. A.Ş., 1 ship for Fudaş Dış Ticaret Denizcilik Sanayi ve Ticaret A.Ş., 3 ships for Furtrans Denizcilik Ticaret ve Sanayi A.Ş., 1 ship for Gisan Gemi İnşa San. ve Ticaret A.Ş., 1 ship for Güneş Gemicilik ve Tankercilik A.Ş., 2 ships for Kaptanoğlu Denizcilik ve Tic. Ltd. Şti., 1 ship for Maks Denizcilik Ticaret Ve Sanayi A.Ş., 1 ship for Pruva Denizcilik ve Ticaret A.Ş., 1 ship for Selay Denizcilik San. ve Tic. Ltd. Şti., 1 ship for Seta Gemi Mühendislik Makina İnşaat Otomobil Sanayi ve Dış Ticaret Ltd. Şti., 1 ship for Torgem Gemi İnşaat Sanayi ve Tic. A.Ş., 1 ship for TVK Gemi Yapım San. ve Tic. A.Ş., 3 ships for Oceania Schiffahrts Gesellschaft GmbH Co., 2 ships for Yardımcı Gemi İnşa. A.Ş. have been rendered.



CONTROL of REFINERY- PETROCHEMICAL AND ENERGY PLANTS TÜPRAŞ İZMİT REFINERY MANAGEMENT, İZMİT BAY GSIP PROJECT

Third Party Inspection of Mechanical Manufacturing Erection Project of GSIP 73 / 74 Units in TÜPRAŞ İzmit Refinery

The project was executed in the scope of Tüpraş Türkiye Petrol Rafinerileri A.Ş. İzmit Rafineri Müdürlüğü investments in 2008, and involves the inspection of equipment, general erection and internal details of all piping manufacturing and erection works in units coded 73 / 74 enabling enhancement of gasoline characteristics and production of environmental fuel. The project which started in 2008 continued for one year and was completed in August 2009. Project inspections had been executed according to ASME Sec.IX, ASME B31.3, ASME Sec.VIII, and Technical Specifications of TÜPRAŞ Türkiye Petrol Rafinerileri A.Ş.. WPS, PQR approval, welder certification, radiographic inspection, isometric controls, material inspection, fit-up, painting, insulation, hardness, material analysis, heat treatment approval, controls of tank collector and hot-tap entering, control of Holiday Test, approval of test packages, approval of pressure test for pipelines had been done within the scope of the project.



Alsım Alarko SAN.TES.VE TİC. A.Ş. Kırklareli Kombine Çevrim Doğalgaz Santrali Combined Cycle Power Plant - Expansion Project to Increase the Capacity

The project which started in October 2009 is planned to be completed by the end of the 2010. The following services have been performed according to ASME Sec.IX within the scope of the project: Material inspection, WPS and PQR approval, welder certification, approval of heat treatment procedures, fit-up, supervision of ultrasonic and magnetic particle tests, visual inspection of pipeline welding, evaluation of NDT films and approval of the results, isometric controls, inspection of tank collector and hot-tap entering, painting, insulation, Holiday Test, supervision and approval of pressure tests, and approval of test packages.



LIFT-DOCK CLASSIFICATION AND CONDITION SURVEYS

Lift Dock (Syncrolift) is general term which refers to the system used for transferring vessels to the dockyard by using lifting equipment for maintenance. The number of lifting equipment that the system includes depends on lifting tonnage. The detailed analysis and inspection of platform steel structure, the synchronization of lifting system and the situation of cables are evaluated for the certification of the system.

In this study the surveys for classification entry of a lift-dock with 32 lifting equipment and a lifting capacity of 5423 tons in Misurata City, Libya were conducted. According to Türk Loydu rules and procedures, as it was eligible for certification for three years, the classification certificate was issued for three years. The condition survey of a lift-dock with 10 lifting equipment and a lifting capacity of 450 tons in Zuare City was conducted. Periodic controls planned to be performed annually will proceed for two more years.



STEEL CONSTRUCTION MANUFACTURING CONTROLS

The term steel construction manufacturing controls refers to the certification of eligibility for construction according to the relevant standards and the customer's specifications by executing the controls for manufacturing at factory and erection on site of the steel constructions such as shopping centres, skyscrapers, hangars, bridges which have recently sprung up. Technical requirements which are followed in the control of the eligibility for this type of manufacturing are determined according to the standards AWS D1.1 (Structural Welding Code), EN 1090.

Hattat İnşaat San. ve Tic. A.Ş.- Diamond of İstanbul Tower

The third party inspections of the Diamond of İstanbul Tower which was started to be built in 2006 in Maslak, İstanbul around concrete core continued in 2009 within the scope of the control of manufacturing and erection of steel construction as indicated by AWS D1.1 Structural Welding Code.



Özbakan Makine İnş. San. Taah.ve Ltd. Şti. - Kayseri Kadir Has Stadium

The manufacture of the steel framework of the stadium with a seating capacity of 33.000 started in 2007, and manufacturing and erection control services on site were completed. According to AWS D1.1 code, welders were certified following the approval of welding procedures and procedure approvals within the scope of the project. Manufacturing and erection inspections on site were executed according to technical specifications, and inspection and test plan (ITP) determined by the customer. Manufacturing inspections of steel construction of the stadium were completed in 2009 and the stadium was opened in 2009-2010 football season.



Rize İnşaat Yatırım San. ve Tic. A.Ş.- Rize Yeni Şehir Stadium

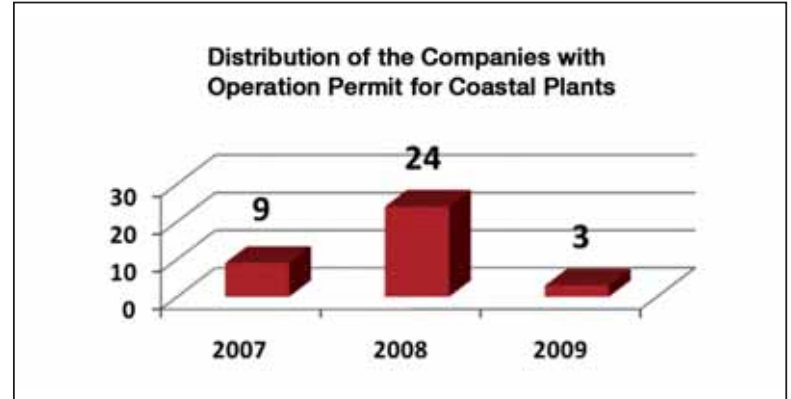
The manufacture of the steel framework of the stadium with a seating capacity of 15.000 started in 2008 summer, and manufacturing controls and erection on site were completed. According to AWS D1.1 code, welders were certified within the scope of the project following the approval of welding procedures and procedure approvals. Manufacturing and erection controls on site were executed according to technical specifications and ITP of the customer. Inspections for the manufacture of the steel construction of the stadium, upper coating of steel roof and polyurethane coating of tribunes were conducted.



INSPECTION SERVICES AS PER REGULATION OF OPERATION PERMIT FOR COASTAL PLANTS

As per the regulation on making modifications in "Regulation for the procedures and rudiments of operation permit of coastal plants" issued by the Undersecretariat of Maritime Affairs in the Official Gazette dated 18 February 2007, the rules necessary to permit the operation of coastal plants were defined and the decision for the necessity of getting permit until 1 July 2010 for the storage tanks, pipelines, fire protection systems, moorings systems, loading and unloading equipment in the plants were issued in the Official Gazette on 1 July 2009 having been postponed twice. Many plants have been provided with the inspection since 2007 and they have obtained their temporary permission. As a result of repeated inspections in 2009, reports were updated for companies which were inspected earlier but had some revisions in the plant before the regulation came into force.

As part of the regulation, inspections were repeated on the jetty in the plant of PETKİM Holding A.Ş. GENERAL MANAMENT - ALIAĞA in 2008 and the report was revised.





CALIBRATION SERVICE FOR INDUSTRIAL PRODUCT STORAGE TANKS

This service includes forming capacity measurement tables in order to determine exactly the volume of the product stored in product storage tanks at the refineries, petrochemical plants, and fuel distribution companies.

Türk Loydu became preferred bidder for the calibration of the storage tanks at TÜPRAŞ- KÖRFEZ Plants in 2008. The contract was renewed in August 2009 and the calibration service was planned to continue until August 2010. Thus, internal and external calibration services for cylindrical, horizontal, vertical and spherical tanks at the plant according to ASTM D 4738 (ISO 7507-2) and calculations according to API 2550 (ISO 7507-1) have been continuing.



The following companies were provided with tank calibration services in 2009:

ÇMYS Madeni Yağlar İmalat İth. İhr. Nak. San. ve Tic. Ltd. Şti. (Tarsus/ Mersin) 6 storage tanks - WILLACY Petrol Atığı İşleme San. ve Tic. Ltd. Şti. (Körfez/ İzmit) 3 storage tanks - HABAŞ Petrol Ürünleri San. Tic. A.Ş. (Yeniceabat/ Bursa) 2 storage tanks - HABAŞ Petrol Ürünleri San. Tic. A.Ş. (Aliğa/ İzmir) 8 storage tanks, HABAŞ Petrol Ürünleri San. Tic. A.Ş. (Saraykoy/ Ankara) 7 storage tanks - GEMSAN Gemi ve Gemi İşl. San. ve Tic. Ltd. Şti. (Körfez/ İzmit) 1 storage tank - TDI A.Ş. İstanbul Liman İşletmesi Müdürlüğü (Sarıyer/ İstanbul) 3 storage tanks, - AYGAZ A.Ş. (Yeniceabat/ Bursa) 2 storage tanks, PETKİM (Aliğa/ İzmir) 3 storage tanks, - PETROL Ofisi A.Ş. (Yeşilkoy/ İstanbul) 7 storage tanks, - Mobil Oil Türk A.Ş. (Beykoz/ İstanbul) 4 storage tanks.

NON-DESTRUCTIVE TESTING SERVICES

Non-destructive test applications are widely used for the detection of faults in weld seams, and surface and internal structure defects of casting and forged materials. Today, advanced imaging techniques using sound waves are preferred to the traditional radiographic test method because of the hazards of radiation. Therefore, the use of Phased Array and TOFD methods instead of traditional ultrasonic testing has been continually increasing. Türk Loydu has included the tests performed by Phased Array and TOFD methods besides the traditional non-destructive tests among its services in 2009.

Non-destructive testing by ultrasonic and magnetic particle methods as per AWS D1.1 Structural Welding Code criteria of the weld seams of steel framework manufactured by INTEM İnş. End. Müh. San. Tic. A.Ş. for the Forum Shopping Center which was built in Bayrampaşa, İstanbul was conducted.

Welds of the steam boiler were inspected by ultrasonic flaw detector, magnetic particle test method, ultrasonic thickness measurement within the scope of condition assessment in the boiler room in Kordsa Global END. İplik ve Kord Bezi San. Tic. A.Ş.. Subsequently, the results were checked and reported.

Ultrasonic and magnetic particle tests for two autoclaves in Trakya Cam Sanayi A.Ş. were carried out.

Ultrasonic and magnetic particle tests for steel roof manufacturing of PATA Makine Mühendislik Müşavirlik Deniz İnş.Sanayi Ticaret Ltd. Şti. - Rize Stadium were performed.



Ultrasonic and magnetic particle tests of LPG tanks (2 x 115 m3) for AYGAZ A.Ş. LÜLEBURGAZ

Ultrasonic and magnetic particle tests of steel roof construction of the 2nd part construction for Çanksız İnş. Tic. San. A.Ş. and Genel İnş. Ltd. Şti. Joint Venture - Foça Plant marine facilities

Ultrasonic and magnetic particle tests of 12 band cylinders bearings blocks for Emre Makina ve Yedek Parça İmalat Tic. ve San. Ltd. Şti.

Ultrasonic and magnetic particle tests of 8 carbon monoxide storage tanks for Güney Doğal Gaz San. ve Tic. A.Ş.

NDT tests of water-cooled hood of 2nd converter for İskenderun Demir Çelik A.Ş. Steel Plant Project

Ultrasonic tests of 12 bandage wheels manufactured for Ereğli Demir Çelik Fabrikaları T.A.Ş.

Ultrasonic and magnetic particle tests of 4 boilers for Trakya Birlik Entegre Tesisleri

Ultrasonic tests of 11 onboard tanks with various capacities and 4 tanks (with capacities of 115 and 180 m3) for Trabzon Gaz LPG San. Nak. Ve Tic. A.Ş.

CERTIFICATION OF WIND TURBINES

There has been a rising demand for renewable, clean energy production and use as a result of the ever-increasing demand in energy, increase in the cost of energy production, environmental sensitivity and decrease in oil reserves.

In recent years, the utilization potential which became evident thanks to the results of measurements made by private and public institutions, technological developments on wind energy and extensive efforts of related



institutions and organizations, particularly of the Ministry of Energy and Natural Resources, to use wind energy created a dynamic environment in many countries, including Turkey, which conduct studies on this subject.

Consequently, many companies in the private sector have conducted necessary studies and applied to EPDK (Energy Market Regulatory Authority) so as to get the necessary license for installation and operation of wind turbines.

The High Planning Council of the State Planning Organization in Turkey aims to increase the capacity of wind turbines which are already in use from 777 MW to 20.000 MW by 2023 according to "Electrical Energy Market and Supply Security Strategy Paper" approved on 18 May 2009.

While these developments on renewable energy market were taking place, Türk Loydu started its first step in energy sector by preparing a book on "Certification Principles for Wind Turbines" and publishing it in 2008. Referring to the international standards (IEC), this book examines structural characteristics of wind turbines, details of the type Approval Certification and Project Certification stages. "Type Approval Certification" of wind turbines consists of evaluation of the design, analysis of quality management system, application of manufacturing/ erection design requirements and prototype tests.

In addition to the steps in type approval certification, "Project Certification" is comprised of evaluation of design specific to the site, supervision during manufacturing, supervision of transportation and erection, and supervision during start-up.

Türk Loydu participated in "Energy Congress" held in Ankara and "Renewable Energy Technologies Fair (RENEX)" held in İstanbul and speeded up publicity activities in the last quarter of 2009. "Type Certification" contract for the 500 kW wind turbine was signed with the local wind turbine manufacturer Soyut Yapı ve Mühendislik A.Ş. on 27 October 2009.

INDUSTRIAL CERTIFICATION



ISO 17024 PERSONNEL CERTIFICATION ACCREDITATION

Accreditation is a kind of passport for products and services to move freely in the international market and is accepted as a necessary requirement for increasing the quality of services by various public or private companies, especially Energy Market Regulatory Authority (abbreviated as EPDK in Turkish).

The welders of the organizations authorized by gas distribution companies as per "Natural Gas Market Certificate Regulation" issued by EPDK should be certified by organizations which have ISO 17024 Personnel Certification Accreditation given by the Turkish Accreditation Agency - TÜRKAK. On 23 June 2009 Türk Loydu obtained ISO 17024 Personnel Certification Accreditation by the Turkish Accreditation Agency -TÜRKAK for relevant welding methods thanks to the experience of training and certification of welding personnel in our country for more than 45 years within the scope of the following standards:

Welder certifications are issued within the scope of ISO 17024 as of 23 June 2009.

Scopes of accreditation are as follows:

- TS EN 287-1:2007 certification of steel welders,
- TS EN 1418:2003 certification of welding operators and resistance welding adjustors for fully mechanized and automatic fusion welding of metallic materials



- API 1104: 2005 certification of pipeline welders
- TS EN 13067:2005 certification of personnel welding plastic

Welder certificates issued by Türk Loydu in the scope of accreditation are accepted unconditionally in the national and international market; therefore, it becomes a password to qualified labour employment abroad.

INSPECTION OF FIRE PROTECTION SYSTEM



Türk Loydu was accredited by TÜRKAK as per ISO 17020 standard for project approval of fire protection systems and inspection in operation in 2009.

Fire in industrial or communal life areas may cause irreversible catastrophic damages. Therefore, it is of vital importance to take the fire under control at the beginning stage and to extinguish it effectively.

An major shortcoming in this field has been corrected by the authority of "fire protection systems project approval and operation supervision" taken in the scope of activities of Türk Loydu in order to increase the efficiency of active extinguishing systems in fire protection, to minimize the risk, to understand the national and international standards correctly and to avoid the wrong applications resulting from information pollution.

With this service of Türk Loydu, it will be possible to issue insurance policy by making a reliable risk analysis in insurance industry and by certifying the compliance with the regulations and standards. It will also be possible to increase operational safety of fire protection systems in the plants; hence, a significant decrease in reimbursement of insurance companies for damages can be obtained. This will play a crucial role in the suitability of fire protection systems between the parties.

Inspections of automatic fire extinguishing systems which work with water, foam, gas, dust, chemicals are obligatory as per "Regulation on Fire Protection of Buildings", and a series of TS, EN, NFPA standards are used during inspections.

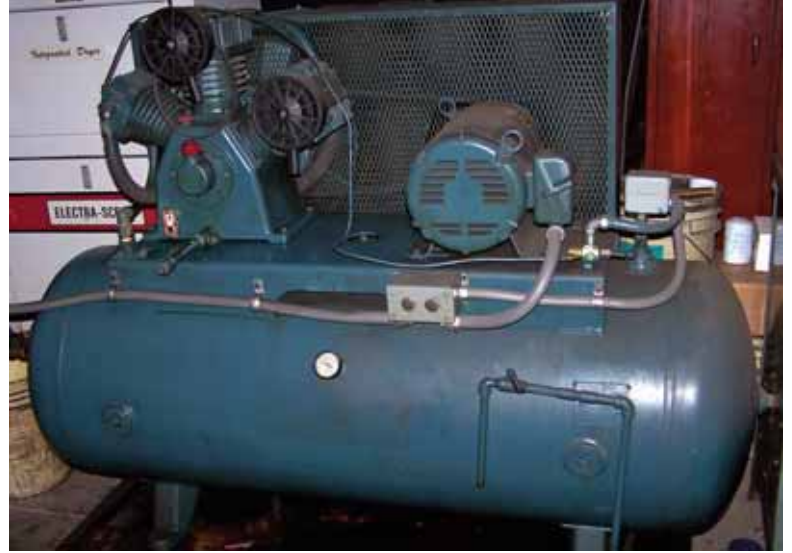
Türk Loydu provided the following services in 2009:

- Project approval of fire protection systems to the companies below: GEMPORT Gemlik Liman ve Depolama İşl. A.Ş., TÜPRAŞ Türkiye Petrol Rafinerileri A.Ş., AYGAZ A.Ş., OXYVIT KİMYA San. ve Tic. A.Ş.

- Inspections of the fire protection systems installations to the companies below:

HILTON ENTERNASYONEL OTELCİLİK A.Ş. Ankara, İstanbul, İzmir Branches, İstanbul CONRAD Hotel, MERCEDES BENZ TÜRK A.Ş. Hoşdere Plant

87/404/AT REGULATION ON SIMPLE PRESSURE VESSELS



As per the Custom Union Agreement, by being accredited to 97/23/AT Regulation on Pressure Vessels in 2006, Türk Loydu was among the top three in Turkey to be a "Notified Body" in the activity areas of the application of the EU technical regulations despite being an organization of a non-member state of the EU as result of extensive studies which continued for six years. Türk Loydu was accredited to 87/404/AT Regulation on Simple Pressure Vessels on 12 May 2009 and to 92/42/AT Regulation on New Hot Water Boilers on 30 June 2009 within its scope.

Our activities on simple pressure vessels had been performed with the authority of a notified body of an EU member country until the date mentioned above.

The above regulation includes welded simple pressure vessels with an internal pressure of higher than 0.5 bar but with a maximum working pressure of not more than 30 bars. These vessels which are mass produced to enclose either air or nitrogen are neither intended to be fired nor exposed to fire.

This regulation has been in force in the member states of the European Union since 1987. It is mandatory in Turkey as of 31 March 2003.

The following studies are being done within the scope of this regulation:

- Design approvals
- Material inspections
- Manufacturing inspections
- Welders qualification tests
- Tests of welding methods
- Inspection of technical file
- Meeting the basic safety requirements of the regulation

Türk Loydu provided 150 compressors with CE conformity assessments within the scope of the above regulation in 2009.

92/42/AT REGULATION ON NEW HOT WATER BOILERS

Türk Loydu became a "Notified Body" in 92/42/AT Regulation on New Hot Water Boilers on 30 June 2009.

This regulation contains the rules to be applied on the manufacturing and use of hot-water boilers fired by liquid or gaseous fuel with a rated output of not less than 4 kW and not more than 400 kW having minimum technical characteristics in order to provide a decrease in environmental pollution and to ensure the security of people, pets and goods. This regulation is also valid for hot water boilers which are mass produced. Hot water boilers fired by gaseous fuel are also in the scope of 90/396/AT Regulation on Appliances Burning Gaseous Fuel. It is obligatory to perform efficiency tests of boilers within the scope of the regulation.

The following studies are being done within the scope of this regulation:

- Design approvals
- Material inspections
- Manufacturing inspections
- Welders qualification tests
- Tests of welding methods
- Type tests (efficiency tests, etc.)
- Inspection of technical file
- Quality system inspections
- Meeting the basic safety requirements of the regulation



CE CONFORMITY ASSESSMENT ACTIVITIES



Türk Loydu has been providing services on conformity assessment as a "Notified Body" for the following regulations:

- 97/23/AT Regulation on Pressure Vessels
- 87/404/AT Regulation on Simple Pressure Vessels
- 90/396/AT Regulation on Appliances Burning Gaseous Fuels
- 92/42/AT Regulation on New Hot Water Boilers

Within the scope of 97/23/AT Regulation on Pressure Vessels, CE conformity assessment activities of the following vessels and accessories with a pressure of more than 0.5 bar have been provided by Türk Loydu:

- Pressure vessels
- Boilers
- Piping installations
- Pressure accessories
- Safety accessories

Türk Loydu, as a Notified Body within the scope of the regulations which it is authorized for, issued CE conformity assessment certificates for the products manufactured by the existing manufacturers all over Turkey in 2009. These products with CE Marks have been exported to the European countries.

Türk Loydu, Notified Body ID number 1785, has issued CE conformity assessment certificates for products such as steam boilers, steam generators, super heated oil boilers, hot water boilers, super heated water boilers, LPG tanks, LNG tanks, LPG transport tanks, compressor tanks, steam sterilizers, LPG tubes, LPG auto gas tanks, hyperbaric pressure chambers, valves, heat exchangers and autoclaves.

Türk Loydu has issued CE certificates for 300 pressure equipment in various capacities and types in 2009.



PRODUCT CERTIFICATION ACTIVITIES

Türk Loydu has performed manufacturing controls and issued certificates for the following products:

BOILERS (Steam boilers, hot water boilers, super heated oil boilers, etc.)

Türk Loydu executes project and calculation approval, material inspection, semi-finished product manufacturing inspection, final inspection and testing and certification services for boilers (boilers, hot water boilers, super heated water boilers, super heated oil boilers, etc.) manufactured in accordance with various design standards (EN 12953, TRD, etc.).

PRESSURE VESSELS (LPG, LNG, air, nitrogen, oxygen tanks, etc.)

Türk Loydu executes project and calculation approval, material inspection, semi-finished product manufacturing inspection, final inspection and testing and certification services for pressure vessels (LPG, LNG, air, nitrogen, oxygen tanks, etc.) manufactured as per various design standards (AD 2000, EN 13445, ASME Sec. 8 Div. 1, etc.).

STORAGE TANKS (Fuel and chemical material storage tanks, etc.)

Türk Loydu executes project and calculation approval, material inspection, semi-finished product manufacturing inspection, final inspection and testing and certification services for storage tanks manufactured as per various design standards (AP 650).

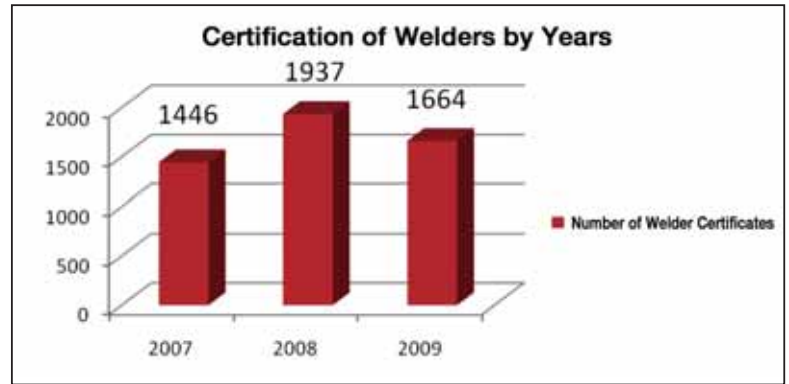
LIFTING EQUIPMENT (Portal cranes, bridge cranes, etc.)

Türk Loydu executes project and calculation approval, material inspection, semi-finished product manufacturing inspection, final inspection and testing and certification services for lifting equipment (cranes, etc.) manufactured as per various design standards.

Türk Loydu executed manufacturing inspection and certification services for 109 boilers with a heating surface of 10-500 m² and 421 pressure vessels with a volume of 1-300 m³ in 2009.



CERTIFICATION OF WELDERS



Welder certification includes certification services given for the examination of welders who will work in welded manufacturing under the surveillance of Türk Loydu surveyors, evaluation of destructive and/or non-destructive test results and certification in accordance with the relevant standards.

Welder certification is done as per EN 287-1, AWS D1.1, API 1104, ASME Sec.IX, EN 13067, API 1004, and national and international standards. Practical and/or theoretical examinations are done as per the relevant standard. Then, the welder is certified according to the destructive and/or non-destructive test results of the test sample welded during the test. Generally, the welder certificate is valid for two years.

The scopes of the welder certificate may vary depending on the welding procedure (gas metal arc welding, electric arc welding, etc.), material (steel, aluminum, plastic) and product type (sheet, pipe, etc.).

Türk Loydu has been issuing welder certificates within the scope of ISO 17024 Personnel Certification Accreditation since 23 June 2009. Türk Loydu conducts certification services of the companies that ask for the certification at their plants, workshops and business premises.

Furthermore, welder examination and certification services for individual welders are conducted within the scope of Türk Loydu - GİSAŞ cooperation project. In 2009, 1664 welders were certified only in this project.

Welders certified by Türk Loydu are employed in industrial areas such as ship building, boiler and pressure vessels, steel constructions, pipelines, natural gas plants, chemistry, treatment, ventilation, plastic, etc.

Türk Loydu issued a total of 1664 welder certificates in 2009. Distribution within the last three years is illustrated on the graphic below.

PERIODIC CONTROLS

According to the Occupational Health and Safety Regulation, periodic tests and inspections with acceptable qualifications by the Ministry of Labour and Social Security should be conducted for the following products:

BOILERS (Steam boilers, hot water boilers, super heated oil boilers, etc.)
PRESSURE VESSELS (LPG, LNG, air, nitrogen, oxygen tanks, etc.)

COMPRESSOR TANKS

LIFTING EQUIPMENT (Portal cranes, bridge cranes, mobile cranes, forklifts, chain hoists, etc.)

Türk Loydu has been accredited as A Type Inspection Body by TÜRKAK as per ISO 17020 standard in order to conduct periodic tests and inspections for the above mentioned products.

According to the Occupational Health and Safety Regulation, hydrostatic tests of boilers, pressure vessels and compressor tanks with a pressure of 1.5 times their working pressures should be conducted annually. In addition to that, periodic control and load tests of lifting equipment should be carried out once every three months.

Within the scope of the "Regulation on Methods and Rules Concerning Operation Permission for Shipyards, Ship Construction and Boatyards" dated 10 August 2008, periodic controls of pressure vessels, lifting machines, explosive and inflammable equipment, electrical equipment should be performed by the institutions accredited as A Type Body by TÜRKAK as per ISO 17020 standard .

Türk Loydu executed periodic controls for 184 boilers and compressor tanks, 2378 lifting machines as per the Occupational Health and Safety Regulation and relevant regulations in shipyards in 2009.



HYDROSTATIC PRESSURE TESTS OF LPG TANKS

In accordance with the regulation issued in the Official Gazette dated 23 December 2000, no. TRKGM-2000/5 Occupational Health and Safety Regulation, hydrostatic pressure tests of LPG tanks should be done once in ten years according to TS 1446 standards and tests for safety valves should be done once in five years according to TS 1446 standards.

During hydrostatic tests, gases within the tanks are removed, tanks are filled with water and the hydrostatic test is carried out at a pressure of 1.5 times the working pressure. Calibrated manometers are used as a pressure indicator during tests.

During tests for the safety valves, calibrated manometers are used, and opening and closing tests are conducted at suitable values of the valves. The hydrostatic pressure test report or safety valve test report is issued by Türk Loydu after the test results.

If LPG tanks are located above ground, these tests are done at the plant site where the tanks are located. If alterations are needed for the tanks or the tanks are located underground, hydrostatic pressure tests of LPG tanks are done at workshop/ manufacturing plant where the alterations are done. Türk Loydu conducted hydrostatic pressure tests and issued test reports for approximately 400 underground or above ground LPG tanks.

The capacities of these tanks range from 5000 meter cube (spherical tank) to 750 litres.





OTHER INDUSTRIAL CERTIFICATION ACTIVITIES

Türk Loydu also provides certification services for the products and services other than boilers, pressure vessels, storage tanks and lifting machines. Some of these services are as follows:

- Certification of materials
- Type approval and periodic control of weld filling materials
- ISO 3834-2 Certification for Welding Proficiency
- Certification for Workplace Proficiency
- Approval of welding methods
- Certification of other products
- Type approval
- Project approval service

Türk Loydu carried out the following certification services in 2009:

- Material certificates for 10 steel panel groups
- 54 welding procedure specification (WPS) approval and welding procedure qualification report (WPQR) approval
- 2 Certifications for Welding Proficiency 3834-2
- 3 Certifications for Workplace Proficiency
- 8 annual repeat test control certificates for welding electrodes
- 30 project approval
- 350 various control and certification services



SYSTEM CERTIFICATION



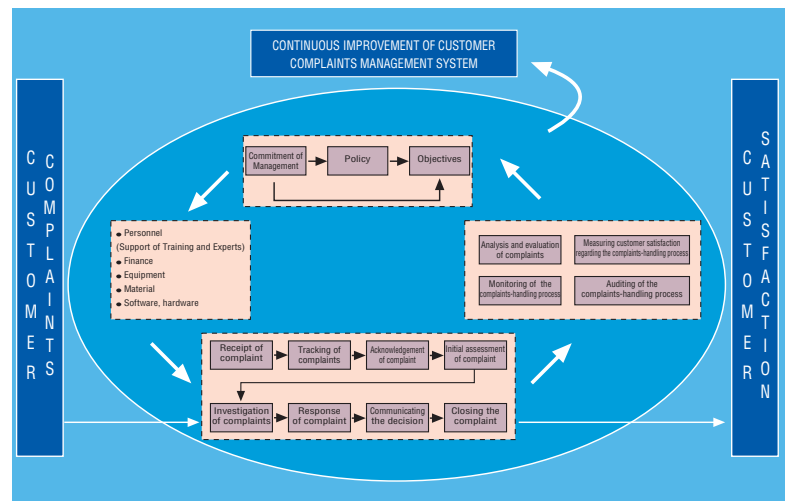
ISO 10002 CUSTOMER COMPLAINTS MANAGEMENT SYSTEM CERTIFICATION

ISO 10002 is a management system guideline regarding the complaints-handling process to be effectively and efficiently designed, planned and operated without considering the type of the product and service.

Nowadays, keeping the current customers in the portfolio requires as much effort and devotion as gaining new ones. The loss of customers causes not only the loss of economical value supplied by the customer but also the loss of image which cannot be compensated. An effectively handled complaints management system prevents the discrepancies and the repeat of the complaints, and fulfils the customer expectations with effective solutions. The system can be used either in integration with ISO 9001 Quality Management System or individually.

According to the research, a substantial number of customers do not forward their complaints but look for an alternative supplier. Therefore, the customer who forwards his/ her complaints to the company and wants to work with the company by contributing to the development of the organization is extremely important. Since customer service plays an important role in a company, feedback must be carefully analyzed and used for the improvement of working processes. Companies have been using ISO 10002 Customer Complaints Management System to show that they care about their customers and to turn the complaints into advantages; thus, they increase their local and international competitive power by encouraging the customer for feedback and providing customer loyalty.

Realizing that companies can be closely involved in international market by establishing and applying a complaints-handling management system suitable for them, Türk Loydu completed the certification studies for ISO 10002 Customer Complaints Management System in 2009, and certification activities will be starting in January 2010.



ISO 30000

SHIP RECYCLING MANAGEMENT SYSTEM CERTIFICATION

Ship recycling is the process by which ships are accepted for recycling by the ship-breaking yards. In Turkey, ship recycling industry was set up in İzmir, Aliğa in order to produce raw materials for the iron and steel factories in that region. The activities have been going on since 1970. Ship recycling is definitely a green industry. Extracting 1.000.000 tons of iron ore in order to produce 200.000 tons of iron causes not only grave environmental damage but also a lot of environmental pollution since this much extraction leads to the use of 3 times more energy and water. However, if the recycling is not done under control, labour health in the recycling facilities and the environment are continuously in danger of toxic materials of scrap ships and insecure working conditions.



The Undersecretariat of Maritime Affairs aiming to recycle the scrap ships without destroying human health and the environment issued the Regulation on Ship Breaking in 2004 and decided to build up a certificate with international IMO (International Maritime Organization) and legal bindingness in order to reach better standards in 2005. The Undersecretariat accepted Hong Kong Convention in 2009. In accordance with these developments, International Organization for Standardization (ISO) did some studies in order to prepare an international standard for ship recycling and developed a new series of standards known as "Ship Recycling Management Systems - ISO 30000".

ISO 30000: 2009 Ship Recycling Management System specifies international standard requirements related to the ship recycling activities in order to develop policies, procedures and targets, and to ensure environmentally sound and safe ship recycling activities in accordance with national and international standards.

Requirements of management system are relevant legal requirements, safety standards and environmental elements for a safe and environmentally sound ship-breaking needed during the ship recycling activities. This standard is applied to all processes like acceptance of the ship for recycling, assessment of the hazards onboard the ship, notification and import requirements of ships to be recycled, carrying out the recycling process in an environmentally sound and safe way, assurance of the supply of such social facilities as first aid, health controls, food and beverages, processing and storage of scrap and material from the ship, management of waste stream and recycling stream management which includes contractual agreements, and documentation controls including applicable notification of the final disposal of the ship.

Since there is no other country executing ship breaking activities within the countries of the Middle and Eastern Europe and the Middle East, Turkey is the only country in Europe and the Middle East that is able to break ships.

Turkey is the most advantageous country in the region thanks to her experience in this industry for many years. Therefore, continuation of these activities by certified plants will make a great contribution to ship recycling industry by accelerating standardization activities on ISO 30000 for environmentally sound and safe ship breaking.

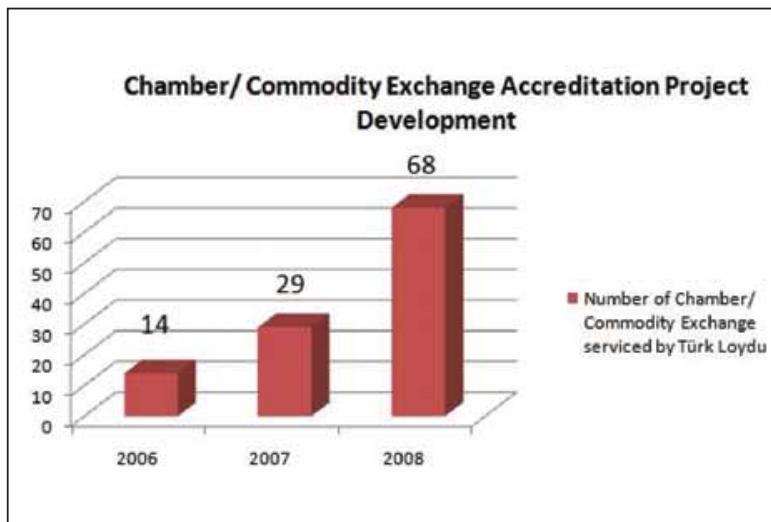




Türk Loydu started its studies for certification as per ISO 30000 in order to help develop the Turkish industry towards the needs of the sector. It became ready to offer certification services for ship recycling and certification sectors thanks to its experience in marine industry, expert staff and know-how by completing its necessary infrastructure of documentation and auditor.

TOBB CHAMBER/COMMODITY EXCHANGE ACCREDITATION SYSTEM

Chamber/ Commodity Exchange Accreditation System is a model developed to improve the service quality in the affiliated chambers and commodity exchanges of TOBB (The Union of Chambers and Commodity Exchanges of Turkey) within the scope of the "Turkish Chamber Development



Audit for the accreditation renewal of 14 chambers were executed in 2009.

Program" in cooperation with Eurochambers-TOBB and ARCHIMEDES by taking into account the Eurochambers, the British Chambers of Commerce's system in which the comments on the German Chamber System were added.

What is the Accreditation of Chamber/ Commodity Exchange?

The accreditation of Chamber/ Commodity Exchange is a system which has the following characteristics:

- It asserts minimum requirements related to the services given by Chamber/ Commodity Exchange.
- Annual performances are assessed by Chamber/ Commodity Exchange.
- The continuity of chamber/ commodity exchange activities are provided with respect to the defined criteria with feedbacks and improvements observed in external audits done in each three-month period.

The Purpose of Chamber/ Commodity Exchange Accreditation Project

- To make business reach throughout Turkey,
- To form embedded companies in order to supply representation, service and support locally, regionally and nationally,
- To make Chamber/ Commodity Exchanges as pioneer organizations representing the benefits of business life, supporting its development with competitive power,
- To obtain added-value to service processes of Chamber/ Commodity Exchanges.

Türk Loydu was qualified in the process of TOBB Chamber/ Commodity Exchanges Accreditation Project in the 3rd period of 2005 by having trainings, and has been conducting audit services of the project since the 4th period of 2006.



MANAGEMENT SYSTEMS CERTIFICATION AT SHIPYARDS

Shipyards are obliged to take certification from the certification companies accredited in ship building industry for quality (ISO 9001), environment (ISO 14001) and occupational health and safety standards (OHSAS 18001) within three years after getting the operation license for shipyards by the Turkish Accreditation Agency - TÜRKAK within the scope of "Regulation on Methods and Rules Concerned with Operation Permission for Shipyards, Ship Construction and Boatyards" which was issued on 10 August 2008 and revised on 13 February 2009 .

Türk Loydu offers certification services within the scope of management systems ISO 9001, ISO 14001 and OHSAS 18001 to shipyards and organizations in ship supplier industry thanks to its know-how in ship-building, accreditation and expert personnel.

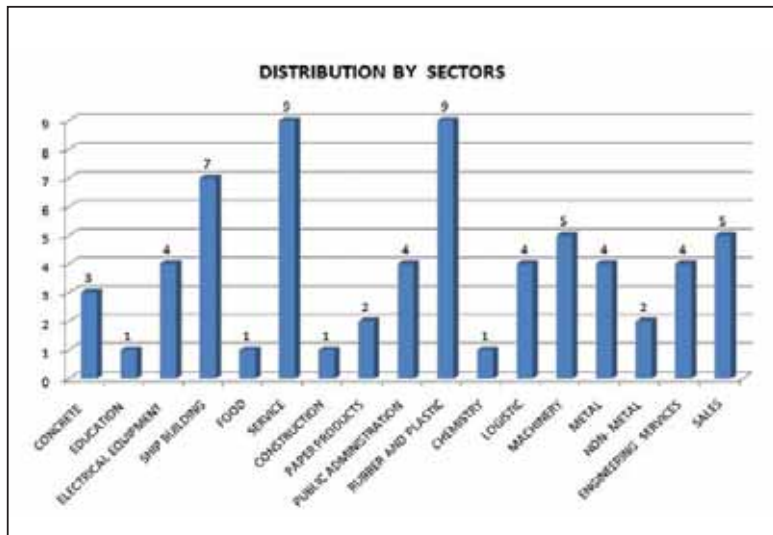
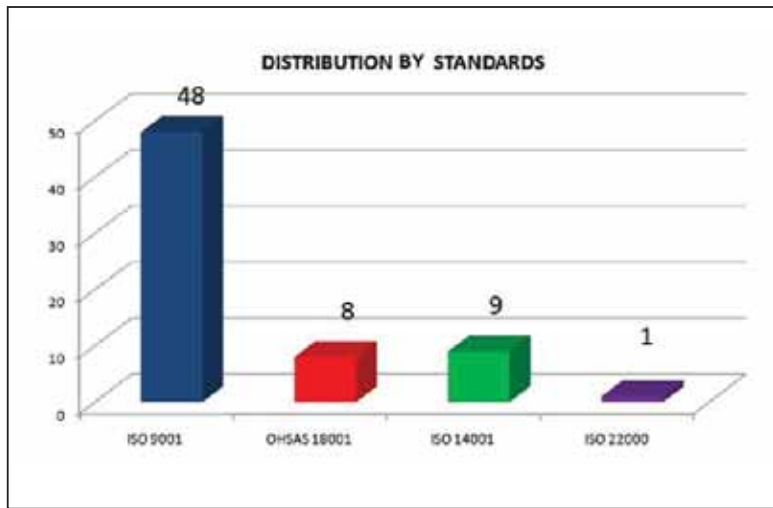
ISO 9001, ISO 14001, OHSAS 18001 MANAGEMENT SYSTEMS CERTIFICATION

66 certificates were issued within the scope of management systems in 2009. Furthermore, 113 periodic audits (surveillance) were performed in certified companies.



Certified Companies:

The distribution of the system certificates issued in 2009 by relevant standards, geographical region and sectors are indicated in the graphs below.



ISO 22000 FOOD SAFETY MANAGEMENT SYSTEMS CERTIFICATION

System Certification Department at Türk Loydu has been maintaining its food safety management systems certification activities which have been performed in accordance with HACCP specification since 2000, as accredited by Turkish Accreditation Agency -TÜRKAK per ISO 17021 standard on the subject of ISO 22000 Food Safety Management Systems certification in 2008. Additionally, the scope of accreditation was extended in 2009 for industrial E category including processed long-term foods (canned foods, biscuits, crackers, vegetable oils, drinking water, carbonated drinks, pasta, flour, sugar, salt, etc.) and they started to offer services to the companies in this product category as accredited.





TÜRK LOYDU FOUNDATION

I - 2009 TÜRK LOYDU SCHOLARSHIPS

TÜRK LOYDU continued to award complimentary scholarships and financial aids for the university students studying in the activity fields of Türk Loydu in 2009 as well. Complimentary scholarships and financial aids are considered to be social responsibility activities of Türk Loydu Foundation. Complimentary scholarships for 53 students in the academic year 2008-2009 continued in 2009. Because of the Foundation Board's decision taken at the beginning of the academic year 2009-2010, the number of students to be provided with complimentary scholarships has been increased by 50% in comparison to the academic year 2008-2009. The foundation has been providing 77 complimentary scholarships for the bachelor's degree, 3 complimentary scholarships for the master's degree, and 2 complimentary scholarships for the doctorate degree in the academic year 2009-2010.

The distribution of scholarships among the institutions is as follows.

- İstanbul Technical University, Faculty of Naval Architecture and Ocean Engineering: 25 (21 bachelor's degrees, 3 master's degrees, 1 doctorate degree)
- İstanbul Technical University, Maritime Faculty: 9 bachelor's degrees
- Karadeniz Technical University (KTU), Sürmene Faculty of Marine Sciences, Department of Naval Architecture and Marine Engineering: 6 bachelor's degrees

- Yıldız Technical University, Faculty of Naval Architecture and Maritime Studies (formerly known as Faculty of Mechanical Engineering, Department of Naval Architecture and Marine Engineering): 13 (12 bachelor's degrees, 1 doctorate degree)
- UCTEA (UNION OF CHAMBERS OF TURKISH ENGINEERS AND ARCHITECTS) Chamber of Electrical Engineers: 3 bachelor's degrees
- UCTEA Chamber of Naval Architects and Marine Engineers: 8 bachelor's degrees
- UCTEA Chamber of Marine Operational Engineers: 3 bachelor's degrees
- UCTEA Chamber of Mechanical Engineers: 3 bachelor's degrees
- UCTEA Chamber of Metallurgical Engineers: 3 bachelor's degrees
- Association of Turkish Ocean Captains: 3 bachelor's degrees
- Turkish Union of Insurance and Reinsurance Companies: 5 bachelor's degrees
- Dependents of the Turkish Naval Forces Members deceased in the 1999 East Marmara Earthquake: 1 bachelor's degree

II - ACADEMIC AND VARIOUS AIDS, RESEARCH and DEVELOPMENT SUPPORT

Research and Development Support:

The Türk Loydu Foundation grants research and development support to those people who conduct research at undergraduate and graduate levels in the fields which the industry needs and becomes involved in.



The Research & Development Allowances granted in 2009

- Financial support was given to Ayhan MENTEŞ and İsmail YALÇIN, research assistants at the Faculty of Naval Architecture and Ocean Engineering, İstanbul Technical University, to support their research abroad.
- Financial support was given to Nermin TEKOĞUL, a staff member at Dokuz Eylül University, The Institute of Marine Sciences and Technology so that she could participate in the studies of TÜBİTAK (the Scientific and Technological Research Council of Turkey) abroad.
- Financial support was given to Murat GURHAN, a student at the Faculty of Naval Architecture and Ocean Engineering, İstanbul Technical University, for his project of Hydrogen Ship (the Independence)
- Financial support was given to the Faculty of Naval Architecture and Ocean Engineering, İstanbul Technical University, for the supply of the materials needed in ship model basin.

Support for Shipbuilding, Ship Maintenance and Repair Sector:

- Türk Loydu has continued its financial support for welding training courses provided at the "TLV-GİSTEM Technical Staff Training and Development Center" which was founded with the collaboration of TÜRK LOYDU FOUNDATION and GİSAŞ Gemi İnşa Sanayii A.Ş. in order to provide the qualified personnel requirement of the sector.

Various Aids:

- Sports equipment for the student teams at the Faculty of Naval Architecture and Ocean Engineering, İstanbul Technical University has been supplied.
- Donation has been granted to Tuzla Sports Club.
- Gelibolu Yakup Aksoy Maritime Industrial Vocational High School has been supplied with one viscosimeter.
- Financial support has been given to the Turkish Maritime Pilots' Association (TUMPA) for the organization of the 43rd General Assembly of the European Maritime Pilots' Association (EMPA).



- Financial support has been given to UCTEA Chamber of Naval Architects and Marine Engineers to be used for the activities on the 23 April National Sovereignty and Children's Day.
- Donation has been granted to İstanbul Technical University Foundation.
- Financial support has been given to İstanbul Technical University Waterbike Team for their participation in the 30th IWR- I International Waterbike Regatta races.
- Financial support has been given to the Faculty of Naval Architecture and Ocean Engineering, İstanbul Technical University for the organization of the 13th International IMAM 2009 Congress.
- Financial support has been given to Pendik Anatolian Maritime Vocational High School.
- Financial support has been given to UCTEA Chamber of Naval Architects and Marine Engineers, İzmir Branch for the organization of ISO (International Standards Organization) TC8 meeting in İzmir.
- Piri Reis Anatolian Maritime Vocational High School has been supplied with financial support.

III - PARTICIPATION IN THE INTERNATIONAL MEETINGS

Participation in the international meetings is sponsored to support the sector.

- Maritime Safety Committee (MSC) 86th Period Meeting organized by the International Maritime Organization (Türk Loydu's participation)
- Marine Environment Protection Committee MEPC, 59th Period Meeting organized by the International Maritime Organization (Türk Loydu's participation)
- Sub Committee on Ship Design and Equipment, 52nd Period Meeting organized by the International Maritime Organization (Türk Loydu's participation)
- Sub Committee on Flag State Implementations FSI, 17th Period Meeting organized by the International Maritime Organization (Türk Loydu's participation)
- Sub Committee on Dangerous Goods, Solid Cargoes and Containers DSC, 14th Period Meeting organized by the International Maritime Organization (Türk Loydu's participation)
- Marine Environment Working Group organized by the European Marine Equipment Council (Türk Loydu's participation)
- Effective Classification Working Group organized by the European Marine Equipment Council (Türk Loydu's participation)
- Maritime Safety Committee MSC 86th Period Meeting organized by the International Maritime Organization (Türk Loydu has sponsored Prof. Dr. Metin TAYLAN from the Faculty of Naval Architecture and Ocean Engineering, İstanbul Technical University and Prof. Dr. Hüseyin YILMAZ from the Faculty of Naval Architecture and Maritime, Yıldız Technical University)



TRAINING ACTIVITIES

Our training programs which are open to general participation organized to meet the educational needs of the sectors within operational activities (Maritime, Marine, Energy, Manufacturing, Food, Transportation, Defence Industry, etc.) of Türk Loydu for the existing and new technical and legal regulations and planned upon the requests of the companies and institutions continued throughout 2009. Instructors are chosen among the experts on their subjects according to the criteria determined in accordance with the programmed training.

The figures regarding the training programs held in 2009 open to general participation and the trainings held upon the requests of company/ institution are given below. The variety of trainings has been increased. The total number of trainings held increased by 66%, and the number of participants by 55% with respect to the figures in 2008.

Total number of trainings held	:	43
Number of participants	:	647

After trainings, satisfaction levels of the participants are measured by questionnaires. Amendments and improvements are done on processes and training programs depending on the feedbacks taken.

TÜRK LOYDU has been performing its training activities extensively and effectively taking into account the needs of the relevant sectors in 7 training rooms, one of which is computerized and has been in use since the last quarter of 2008, in addition to the Prof. Dr. Teoman ÖZALP Conference Hall in which training programs had been previously performed.



TRAINING PROGRAMS HELD BY TÜRK LOYDU



- Informative/ Basic and internal audit trainings given on the basis of the standards ISO 9001 Quality Management System, ISO 14001 Environmental Management System, OHSAS 18001 Occupational Health and Safety Standard, ISO 22000 Food Safety Management System and Integrated Management Systems training formed by the combination of these standards.
- Informative Trainings on Occupational Health and Safety Regulation, and Occupational Health and Safety
- TS EN ISO 14731 (formerly known as EN 719) Informative Trainings on Welding Coordination - Tasks and Areas of Responsibility
- Trainings upon the requests of companies for various joining/ welding technologies (Plastic Welding, Electrical Arc Welding, Gas Metal Arc Welding, TIG Welding, Hard and Soft Brazing, etc.)
- Trainings on International Safety Management System (ISM Code) Application and Audit
- Trainings organized upon the requests of the Undersecretariat of Maritime Affairs (Training on Market Surveillance and Audit under Scope of Recreational Craft Directive)
- Trainings concerning the operations of companies/ organizations (Informative Training for Storage Operators for Sea and Land Tankers - Loading Arms Usage)

INFORMATIVE TRAINING PROGRAMS on OCCUPATIONAL HEALTH AND SAFETY

Before the trainings organized for the workers of the companies/ organizations within the frame of "Regulation on Methods and Rules of Training of Labor for Occupational Health and Safety" issued in the Official Gazette dated 07 April 2004, open and closed areas, work processes of the company which request a training program are examined by taking photographs and shooting videos, and then trainings are performed with the presentation based on these data. The presentation, then, is given to company in form of CD/ DVD for them to use it in their training.

INFORMATIVE TRAINING PROGRAMS on TS EN ISO 14731 (Formerly known as EN 719) WELDING COORDINATION TASKS AND AREAS OF RESPONSIBILITY

The above training is organized for 3 days in order to train the personnel so that they can perform the coordination tasks for welded manufacture which is defined as a specific process and needed by the quality systems as per TS EN ISO 14731: 2006 standard. The main subjects of the training include quality requirements for welding (ISO 3834-1); descriptions, tasks and responsibilities on welding coordination; revision of technical information on welding (description, method parameters, connection types, positions of weld); welding documentation, welding symbols, welding inspection methods, classification of welding defects, acceptance criteria for welding and relevant standards.

APPLICATION AND AUDITOR TRAINING PROGRAMS on INTERNATIONAL SAFETY MANAGEMENT SYSTEMS (ISM CODE)

ISM Code Application Training and ISM Auditor Training have been performed extensively for one day and for three days respectively since the beginning of 2009, based on the fictional trainings within the scope of TÜRK LOYDU Marine Industry Department SQTP (Surveyor Qualification Training Program). These trainings in Turkey took a great deal of attention by the companies in the Turkish marine sector. It shows that the presentation of fictional trainings about marine sector is crucial to the marine sector. These efforts will continue throughout and beyond 2010.

INFORMATIVE TRAINING PROGRAMS on MARKET SURVEILLANCE and AUDIT UNDER SCOPE of RECREATIONAL CRAFT DIRECTIVE

156 personnel of the Undersecretariat of the Maritime Affairs participated in Türk Loydu Marine Division's "Informative Training on Market Surveillance and Audit under Scope of Recreational Craft Directive" that was held in 6 different sessions in İstanbul, İzmir, Antalya and Trabzon. Depending on the development time of technical and legal regulations, similar trainings are expected to take place in cooperation with the Undersecretariat of Maritime Affairs in the following years.



UTILISATION OF TÜRK LOYDU TRAINING/ SEMINAR ROOMS WITHIN THE SCOPE OF EXTERNAL DEMANDS

Türk Loydu training rooms that meet the requirements of the sector in which it is operating are available for trainings, courses and similar activities of various companies, organizations and institutions. It seems that the practice is advantageous and will continue in the future. Some of the main advantages are as follows.

- Training rooms were utilized for the Course on Ship Paint Inspection organized in cooperation with the UCTEA Chamber of Naval Architects and Marine Engineers, the Undersecretariat of Maritime Affairs and MEB Pendik Anadolu Maritime Vocational High School between January 19 and 24, 2009.
- Training rooms were utilized for trainings and seminars of the members of the UCTEA Chamber of Naval Architects and Marine Engineers, and students in related fields on various dates in 2009 either in return for money or free of charge. (e.g. "IMO and International Conventions Seminar", "Introduction Seminar on Solidworks Software", "Introduction Seminar on Solidworks Surface Modeling, "Berth and Sea Trials of Ships" and "Training on MAXSURF CAD Computer-Aided Design Software").
- Trainings on "Ships and Water Vehicles Tonnage Measurement Regulations Certification" for the personnel in Samsun, Çanakkale and Trabzon District Offices of the Undersecretariat of Maritime Affairs, Shipbuilding and Shipyards General Directorate took place in Türk Loydu in April 24, 2009.



- Zeyyat PARLAR Training Room and Prof. Dr. Teoman ÖZALP Conference Room were utilized by FİGES for "LS DYNA" seminar in May 21, 2009 and "modeFRONTIER, Optimization and Stable Design" seminar in June 30, 2009, respectively, in return for the software training activities organized by FİGES Company for TÜRK LOYDU personnel in 2009.

- As part of the prerequisite to have an Occupational Training Certificate required by the Ministry of Labor and Social Security, those shipyard workers who are employed in heavy and dangerous jobs in ship construction, maintenance and repair sector of the Turkish Association of Ship Industrialists (GESAD) have been paying for the training rooms in Türk Loydu for "Professional Development and Orientation Courses" since May 13, 2009. Courses are mostly given on subjects such as "ship welding works", "ship assembly works" and "ship painting and scraping works". According to GESAD, the number of participants in the professional development and orientation courses organized by GESAD reached approximately five thousand workers by the end of 2009.

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