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Ship scrapping in Turkey seen in a European context

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Shipbreaking used to be a quiet, marginal sector of shipping activity, well away from controversy and public attention.

Regulation, sparse in some major sectors of mainstream shipping as well, was practically unheard of, and environmental awareness was not the first thing that sprung to mind when one referred to this "nickel and dime", "down to earth", industry.

During the past few years, mounting pressure from environmental awareness groups that have specifically targeted and successfully campaigned to highlight the prevailing state of shipbreaking mainly in the Indian Sub-Continent, has drawn international attention to and actually resulted in definite moves towards the regulation of this end-of-the-road shipping activity.

A European solution?

Unarguably, the practice of shipbreaking as it is still predominantly carried out in the Indian Sub-Continent is unacceptable in its environmental impact, its effect on workers' health and its safety procedures and operational control systems, at least by any industrialised world standard. At the same time and as a matter of fact, the vast majority of ships being demolished are being scrapped in the Indian Sub-Continent.

As a riposte it has been suggested that a European solution be advocated and a couple of schemes have been proposed towards establishing a "model" scrap yard in Northern Europe. The obvious advantages propounded for such a project would be the undertaking of shipbreaking under a highly "civilised" European environmental, labour and organisational regime. The main snag with such an exemplary operation is of course funding, particularly in the present time of strict monetary regulation and fiscal efficiency.

Such a "model" shipbreaking project, even if undertaken at the existing facilities of a disused - or even otherwise active - European shipyard, would require express and covert subsidies from local, regional, national and EU sources - not only in order to get started, but also to continue to operate ever after.

The mere cost of European labour - skilled, semi-skilled, or even unskilled - coupled with the associated social security costs, as well the cost of complying with all workers' health and safety and associated environmental regulations in Europe, ensures that such a scheme, far from being self-supporting, will always require generous subsidies in order to keep going.

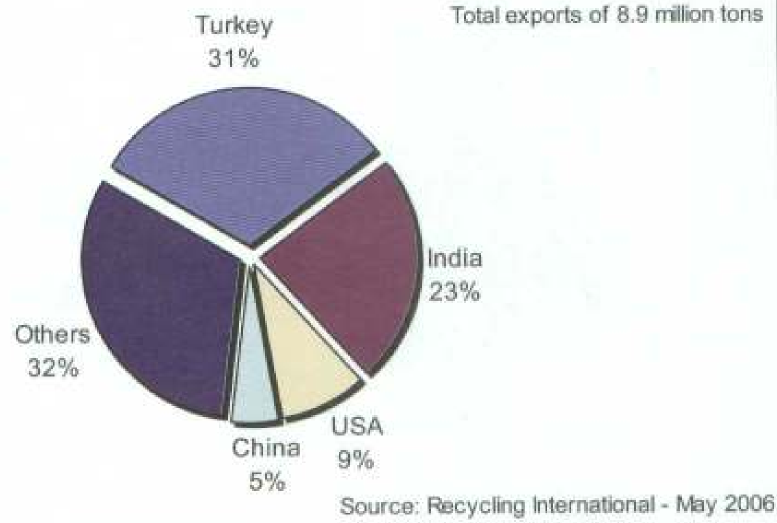
The third way

There is, however, a "third" solution; a politically correct, economically sound, environmentally responsible, socially acceptable and - last but not least - financially self sustainable solution: the ship dismantling industry in Turkey.

Turkey is a member of OECD, a full signatory to the Basel Convention and an active participant in the International Maritime Organization (IMO), the International Labour Organization (ILO), and other pertinent international fora.

Indeed, with regard to the question of the numerous ex-European navy and government-controlled vessels, Turkey's status as a core NATO member and EU candidate-country can hardly go unnoticed. Turkey's physical proximity to Europe, with its East Mediterranean facilities North of the Suez Canal, also facilitate practical arrangements ▶

Figure 1
Top EU-25 Ferrous Scrap Exports in 2005
(% of total)



Source: Recycling International - May 2006

◀ such as towage from European ports and avoiding long, costly and unduly risky transits around the Cape of Good Hope or the Suez Canal that may also entail embarrassing political imbroglios.

Finally, the Turkish demolition industry enjoys the ardent support of the local and central government authorities with which it closely co-operates towards the continuous improvement of the facilities and their operational standards.

Other arguments

Political correctness and geographic proximity are only the opening arguments in favour of the Turkish ship demolition industry.

Turkey is the world's biggest importer of scrap, with annual imports of 12 million tons in 2004 still exceeding those of Korea and China by a comfortable margin, even during the recent boom years when the latter usually steals the world development headlines (Table 1).

Table 1
Top Ferrous Scrap Importers in millions of US Dollars
(Source: International Trade Statistics)

	2002	2003	2004
Turkey	1,018	1,855	3,013
Korea Republic	981	1,257	2,535
China	895	1,405	2,230
Spain	756	1,281	2,097

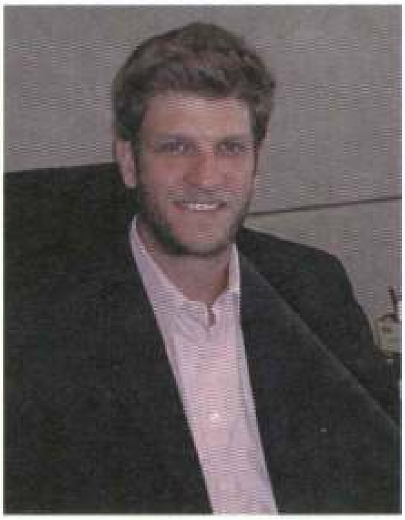
Actually, Turkey is also Europe's largest importer of ferrous metal scrap, absorbing a third of the EU's total metal scrap exports, i.e. about 2.8 million tons in 2005 (see Figure 1, previous page).

On the production side, Turkey's annual steel production figures are among those of the leading European countries in the field, placing Turkey's annual production ahead of e.g. the UK and Spain, on a par with France, and behind only Germany and Italy (see Figure 2, above right).

Good infrastructure

The shipbreaking industry in Turkey is concentrated along a dedicated seafront area within the greater industrial area of the township of Aliaga, situated at a distance of about 60 km North of Izmir on the Aegean sea coast.

It comprises about 30 plots in total, although not all of them may be active at any one ▶



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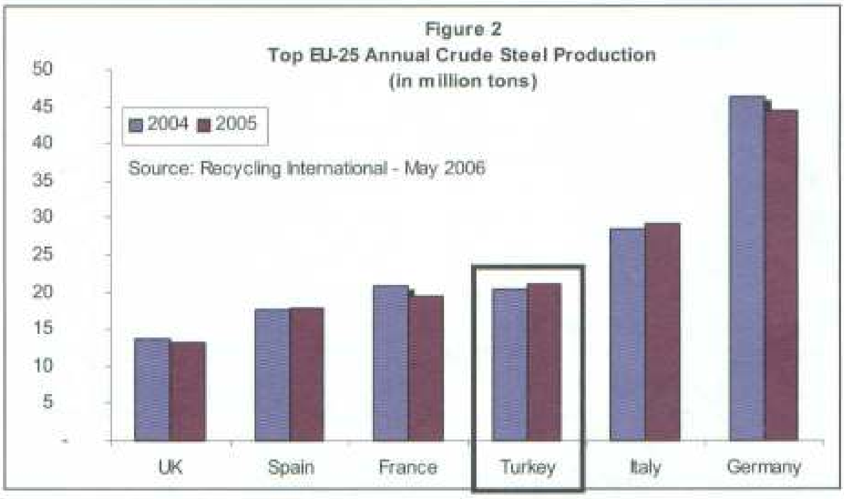

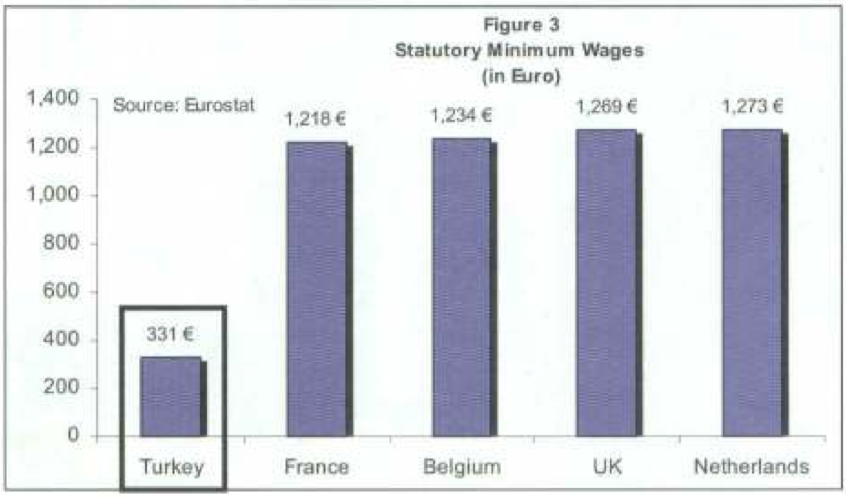

time. The facilities are well supported by the general social infrastructure of this major industrial area. This also comprises major refineries as well as, more importantly, a cluster of five steel mills that are the industry's direct customers and the final users of the area's ship scrap produce. Some of these steel mills also have their own docking areas for receiving scrap metal shipments by direct import from abroad. The total annual steel production capacity of these five steel mills in the immediate vicinity of Aliaga alone amounts to 6 million tons.

The current total maximum annual scrap metal producing capacity of the entire 30 demolition yards is estimated at 1 million tons, and evidently can only meet a small percentage of Turkey's annual demand for scrap metal imports. At its current capacity, the industry therefore serves a real and present need and has, if anything, ample scope for expansion.

Panoramic view of a portion of the Aliaga ship dismantling area in Turkey, taken from the offices of LEYAL Ship Dismantling & Recycling Ltd.

Cost advantages

Supply and demand fundamentals are not the only economic factors underlining the advantages of Turkish shipbreaking. Cost-wise, the industry enjoys an unrivalled advantage over any possible alternative European site. The minimum legal wage, as well as the typical effective wage in the demolition industry in Turkey, is but a fraction of any similar EU cost (Figure 3, previous page). These cost advantages are mirrored in social security expenses. This is a factor of paramount importance in a traditionally labour-intensive industry that has direct consequences on its financial well-being and business sustainability.

Certainly, the industry trend is towards a more capital-intensive future, but on the other hand, employment volume and prospects are quite important for the local and national economy, and are evidently used so often for political benefit even in the most modern EU countries.

This commanding labour-cost advantage is at the same time combined with acceptable social conditions that of course bear no relationship to those prevailing in countries in Asia or the Indian Sub-Continent. The regime of labour conditions, welfare and benefits is styled on European laws and regulations, and is effectively applied and monitored by a number of regulatory authorities at local, regional and state level. Turkey is expending real and serious efforts to bring as many sectors of its economy as possible up to the standards befitting EU membership, and the consequent rapid improvement in labour conditions is obvious as well as continuous.

Asbestos removal operations are performed using specialized equipment and personal protective equipment according to European standards

Environmental issues

In discussing ship demolition today the crux often seems to be the environmental aspects of the operation. In dealing with the environmental challenges consequential to its operations, the Turkish shipbreaking industry, apart from taking great strides towards attaining an internationally acceptable status, has devised a unique way to achieve environmentally-responsible operations that merits some attention and every encouragement.

In a move of exemplary business acumen the shipbreakers of Turkey joined forces and established effective and modern environmental capabilities and operations effected under the auspices of the Shipbreakers' Association of Turkey (SBAT). The Association has undertaken to assist every individual shipbreaker in dealing with the particular environmental challenges presented by

◀ the specific vessel that he may be dismantling at any time by providing expert know-how, trained labour and specialised equipment.

It employs permanent experts who control, co-ordinate and inventory the pollutant removals from ships under demolition which are effected by workers trained to European standards (e.g. German Technical Rules for Hazardous Substances TGRS 519), who in turn use specialised equipment, such as German-made Deconta asbestos locks and vacuum pumps, to decontaminate the ships being demolished.

On the other hand, SBAT acts as an intermediary representing the body of shipbreakers *vis-à-vis* the various local, national and international authorities and interests on matters of environmental operations. As an example, it is SBAT that, acting on behalf of all its members with internationally certified private contractors, arranges the eventual safe disposal of the pollutant wastes resulting from the demolition activities of all its members such as asbestos, PCB cables, liquid waste, oily sludge, etc.

SBAT runs the area's Environmental Management Center and effectively pays for the wages of its dedicated expert personnel on the back of receiving a remuneration for its services to the individual members charged on the volume of wastes that are accounted to each member as a result of each member's own demolition activities.

Vessel Waste Inventory Report is only one in a series of obligatory documents required for obtaining the vessel specific demolition permit from the local authorities.

LEYAL Ship Dismantling & Recycling Ltd. purpose built Environmental Management Center currently serving all Turkish dismantling yards

Gas free and radiation checks are integral parts of the pre-demolition assessment of the vessel

For the past three years and until alternative joint arrangements are put in place, SBAT's Environmental Management Center is housed in a purpose-built dedicated building that has been constructed by, and on the premises of, the leading Aliaga ship demolition company, Leyal Ship Dismantling & Recycling. They have agreed to make its use available to SBAT in order to serve all the other Aliaga shipbreakers as well, for the common benefit.

This building provides office space for SBAT's expert personnel, including computer, archival, educational and storage facilities for wastes and pollution control equipment, acting effectively as the control and command centre for all the environmentally related operations of the area.

Raising standards

On the actual operations front, rapid and sustained developments aim to raise standards to recognised and generally accepted levels. It is characteristic that one of the Turkish shipbreakers, Leyal Ship Dismantling & Recycling, has again been pioneers and recently obtained full ISO 9001, ISO 14001 and OHSAS 18001 certification.

After considerable effort and at significant expense, Turkish shipbreakers have organised the effective and efficient removal ▶

and disposal of asbestos and other hazardous materials from the ships being dismantled by using trained and experienced personnel with European state-of-the-art equipment, supervised by properly certified management, and supported by purpose-built facilities and storage areas.

The German destroyer Rommel *was the first ship intended for demolition to be imported to Turkey under the Basel Convention and EU Reg 259/93 notification procedure.*

Equitable prices

Last but not least, the Turkish demolition industry is in a position to pay equitable prices for the vessels acquired in the free market instead of being absolutely dependent on substantial government subsidies and public funds.

Currently, Turkey suffers a price disadvantage of about US Dollars 150 per light weight tonne, on a delivered basis, compared with prices offered by the Indian Sub-Continent. But this is surely counterbalanced by a really unassailable advantage in favour of Turkey in terms of labour, safety and indeed environmental conditions, between the two regimes.

Prices offered for demolition in Turkey represent a real and effective motive for international shipowners, be it government or private, to commit their obsolete ships for demolition in a socially and environmentally responsible manner, and Turkey should therefore be the first choice for such ships.

Surely it is worth overcoming a slight price disadvantage in order to effect safe and environmentally responsible demolition of ships? For a long time, eminent members of the Shipbreakers' Association of Turkey have been further developing and upgrading their facilities and operations in an effort to meet increasingly strict rules and exact requirements for a safe and environmentally sustainable demolition of ships. They are indeed willing to expend even greater efforts and funds towards achieving this goal.

Let us hope, in turn, that the international community will try to find ways to practically assist and recompense them for these efforts. ■

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