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SHIPBUILDING INDUSTRY  
IN GREECE\*

by

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## I. GENERAL

On December 31st, 1978, the Greek Merchant fleet numbered 4,200 vessels of approximately 37,000,000 Gross Tons representing the 8.5% of the world tonnage.

The size of Greek Merchant Marine is the main reason for the existence of a well founded shipbuilding industry in Greece, due to which :

- a) The Greek shipowners have the opportunity to have a large number of their ships built, converted or repaired in their own country.
- b) A large number of the labor force of the country is occupied and unemployment is being avoided.
- c) Foreign exchange is imported in the country and loss of it, for newbuildings, conversions and repairs in foreign yards, is avoided.
- d) The establishment and development of related supporting industry is encouraged.
- e) The country is being industrially and economically developed and, therefore, there exists, a close and steady tie between the Greek Merchant Marine and the National Economy.

## 2. STATE OF THE GREEK SHIPBUILDING AND SHIPREPAIR INDUSTRY

The shipbuilding industry is divided into three branches : Newbuildings, conversions and repairs. The present situation of the industry in Greece is basically the following :

### A) Major Industry

This consists of four major yards. The Hellenic Shipyards, the Elefsis Shipyards, the Neorion Syrou Shipyards and the Khalkis Shipyards.

This industry is involved with three branches of shipbuilding and the area and nature of its work are such as to be influenced by the same factors, that other shipyards in the world and especially in the Mediterranean region, are affected. It is the basis for the development of the shipbuilding and supporting industry, a source for personnel occupation, means of training and advancement of technology in our country. The potential of these yards along with the future planned ones, is shown in table I.

The potential of the existing yards in 1974 reached 156,778 gross tons whereas their real potential can reach 220,000 gross tons. This reduced potential is caused by the international shipping crisis which prevented these yards from reaching their maximum potential and cancelled their development programs.

Thus "Hellenic Shipyards" have reduced their newbuildings production to 50% approximately of their maximum potential, maintaining it at this level by constructing patrol boats and other fast warships for the Hellenic Navy.

The "Elefsis Shipyards" suspended all newbuildings, the "Neorion Syrou Shipyards" are building auxiliary vessels and the "Khalkis Shipyards" are involved in conversions. In general, however all the major yards have been using their potential in the ship repair section which is continuously being developed by the establishment of new drydocking facilities as <sup>it</sup> is shown in table II.

#### B) Minor and Medium Industry:

This consists of (a) The Shipyards of the Perama-Salamina area, which are involved primarily in newbuildings and conversions and secondarily in repairs, and numerous boatyards around the Athens area which are building fiberglass boats of all kinds. (b) Shipyards and Dockyards in the same area which are mainly involved in ship repairs and conversions.

In the above minor-medium yards ships of up to 5,000 deadweight

Tons are being build and there are plans for expanding their capacity for newbuildings to 10,000-15,000 Deadweight Tons.

The construction of ships of the above sizes in these yards is being thought of as ideal because :

- a) There is a large international demand for ships of this size, and this demand will always exist .
- b) The cost of construction of these ships in Europe is high.
- c) The technological problems which would emerge are simple.
- d) There is a close relation between personnel occupation and materials.

It must be emphasized that also the big yards are looking for orders of newbuildings of similar sizes.

Concerning shiprepairs, the geographical position of Greece is ideal for the development of shiprepairs for serving, mainly the national ship which, if possible, prefers to be repaired at home, but also, the international shipping and basically ship sizes which operate in the Mediterranean or which may be crossing the Suez Canal.

The potential of the Greek yards in the shiprepair section, including the major yards reaches 26,000,000 Deadweight Tons. With the addition of the planned drydocking facilities, the potential of shiprepairs will climb up to 32,000,000 Deadweight Tons approximately.

TABLE I. Existing and Anticipated potential of Greek Shipyards

Shipyard	Completed Production	<u>Potential in G.R.T.</u>	
		Existing Potential	Anticipated Potential
<b>A) <u>In operation</u></b>			
Hellenic Shipyards	97,000	150,000	200,000
Elefsis Shipyards	29,500	70,000	100,000
Neorion Syrou Shipyards	-	-	10,000
Other small Shipyards	38,500	50,000	70,000
	<u>164,000</u>	<u>270,000</u>	<u>410,000</u>
<b>B) <u>Planned</u></b>			
Pyles Shipyards	-	-	150,000
Thessaris Shipyards	-	-	60,000
Lavrion Shipyards	-	-	50,000
Itea Shipyards	-	-	70,000
Kalamata Shipyards	-	-	50,000
	<u>-----</u>	<u>-----</u>	<u>-----</u>
<b>Total</b>	<b>164,000</b>	<b>270,000</b>	<b>790,000</b>

Table II. Operating and planned drydocking facilities in DEADWEIGHT

TONS of drydocked vessel

	<u>In operation</u>		<u>Planned</u>	
	<u>Floating Docks</u>	<u>Graving Docks</u>	<u>Floating Docks</u>	<u>Graving Docks</u>
Hellenic Shipyards	I X 72,000 I X 37,000 I X 66,000	I X 250,000 I X 500,000		
Elefsis Shipyards	I X 25,000 I X 65,000 I X 120,000			I X 150,000
Neorion Syrou Shipyards	I X 20,000 I X 75,000			I X 75,000
Piraeus Port Authority	I X 8,000 I X 35,000	I X 2,500 I X 15,000	I X 10,000 I X 60,000	
Khalkis Shipyards	I X 40,000			I X 80,000
Pylos Shipyards			I X 70,000 I X 35,000	I X 500,000
Thessaloniki Shipyards			I X 30,000	I X 60,000
Lavrion Shipyards			I X 45,000 I X 30,000	
Itea Shipyards			I X 40,000	
Kriti Shipyards			2 X 35,000	
Kalamata Shipyards			2 X 30,000	

Notice : There are numerous shipways in the small yards of the Perama-Salamina area where ships of up to 5,000 DEADWEIGHT TONS are being drawn at shore for drydocking.



### 3. SHIP DESIGN AND RESEARCH

Great progress is being made in the section of ship design. There are quite a few Naval Architecture and Marine Engineering Design firms in Piraeus many of which are using computers. These firms are involved in the design and construction of ships which are being built not only in Greece but also abroad, and their activities are expanding to countries of Africa and Asia.

All the marine classification societies have their representatives in Greece, which also serves as the basis for the Mediterranean region for many of them.

The Greek ships are being inspected for safety of navigation by the Merchant Ships Inspection Service of the Ministry of Merchant Marine which inspects the ships to meet the requirements of the international and national Safety Regulations (SOLAS, INCO etc) checking the designs of the newbuildings, inspecting their construction and surveying them periodically.

There are professional technical societies like the Section of Chartered Naval Architects and Marine Engineers of the Greek Technical Chamber, the Institute of Marine Technology and the Merchant Marine Chamber, all of which are helping in the advancement of ship-building Technology.

Great attention is also given in Naval Architecture research through the department of Naval Architecture and Marine Engineering of the Technical University of Athens.

Recently, a model testing towing tank has been completed which is being used for industrial research in addition to its academic function. Its dimensions are 90 m length x 5 m width x 3 m depth and it has a capacity for testing models of vessels of up to 60,000 deadweight tons.

This model basin can be used in ship research work for Greece as well as for the whole Mediterranean region.

#### 4. CONCLUSIONS

The current crisis is the worst that Greek shipping has ever faced, and has mostly influenced the shipbuilding industry. The situation is getting disappointing due to the fact that there is not foreseeable end of the crisis, mainly because of the following unfavorable factors influencing our shipping :

The first factor is the type of ships as well as their age. The current crisis is not due to circumstances which sometimes sooner or later could be eliminated. It occurred due to the world economic depression. During the depression, ways to cope with it, were searched worldwide, with the help of the present technological development.

From the given solutions new types of specialized ships emerged (RO-RO, CONTAINERS, LASH etc.), which due to their advanced technical characteristics are comparatively more competent.

Greek shipping was not adjusted to the new reality. This resulted to an approximate 7% of the Greek merchant fleet being laid up, while a large number of vessels operate without profit and even with loss.

The Ministry of Merchant Marine took a positive measure by diminishing to seventeen years the age limit of the ships which are allowed to raise the Greek flag.

The second factor is the ever increasing ship operating and working costs.

The ship maintenance costs have also been raised significantly.

Another problem relative to ship repairs is the lack of the necessary number of floating and graving docks.

The result is that many ships flee to foreign yards for repairs and an appreciable amount of capital exchange is lost.

Lately an attempt is being made to establish repair yards with drydocking facilities in various sides of the country, which are sniping centers or passing through points for ships.

The third factor which creates doubts that the crisis is periodic, is the situation of the freight market. The only alternative to the improvement of freight-rates is to reduce the number of the ships being offered and a boost of the world economy.

Unfortunately, the policy that many nations follow, which in order to reduce unemployment in the shipbuilding industry, continue their construction programs, and various shipowners insist to operate their vessels even with some loss, are some of the main reasons which prevent the balancing of demand and supply.



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