

Where Quality Meets  
Your Time Limits...



*"Your Reliable Partner in Turkey"*





Docking  
&  
Repair

Conversion

Newbuilding

HIGH QUALITY

•

QUICK RESPONSE

•

SAFE OPERATION

•

FLEXIBILITY

•

PROFESSIONAL APPROACH

 **GEMAK**  
SHIPYARD



### Floating dock capacities:

- 28,000 tons lifting capacity clear Width= 37 m Length= 233 m
- 9,000 tons lifting capacity clear Width= 26.30 m Length= 163 m
- Slop/sludge removal, tank cleaning, steam supply
- High pressure water jetting up to 1,500 bar
- Grid blasting up to SA2 $\frac{1}{2}$ , 3000 m<sup>2</sup>/day with 30 nozzles capacity
- Tank coating with dehumidifiers, vacuum removers
- Tailshaft withdrawal, surface crack examination
- Propeller repairs and polishing
- 30 ton/day steel renewal capacity
- Availability of certified material at stocks
- One day custom clearances for ships' spares
- Telescopic platforms up to 24 m height
- Specialists for all kind of mechanical and electrical works
- Boiler repairs, engine, turbocharger, governor, piston reconditioning, white metalling

- Berthing capability for vessels up to 350 m at max. draft of 12 m
- Short laying times due to extensive pre-fabrication and advanced planning
- Specialised in lengthening and re-engining (see M/V "KIRKLARELI"), conversion to cement carrier with pneumatic (see M/V "NAZLI-K") and mechanic (see M/V "RED SEA SPIRIT") equipment
- Alterations for draft decrease (see M/V "GECO GAMMA")
- Alterations for compliance with IMO requirements (see M/V "MISTRAL")
- Alterations to meet new operational demands (see M/V "ORION")

- CAD/CAM facilities for precise design and execution
- CNC plasma facilities for steel plates and pipes. Cutting capacity 70 tons/day
- Adequate surface and edge preparation for effective coating application
- Deliveries by time
- Advanced planning techniques
- No restrictions in material supply
- Flexible and Owner oriented effective work management for efficiency designed production facilities

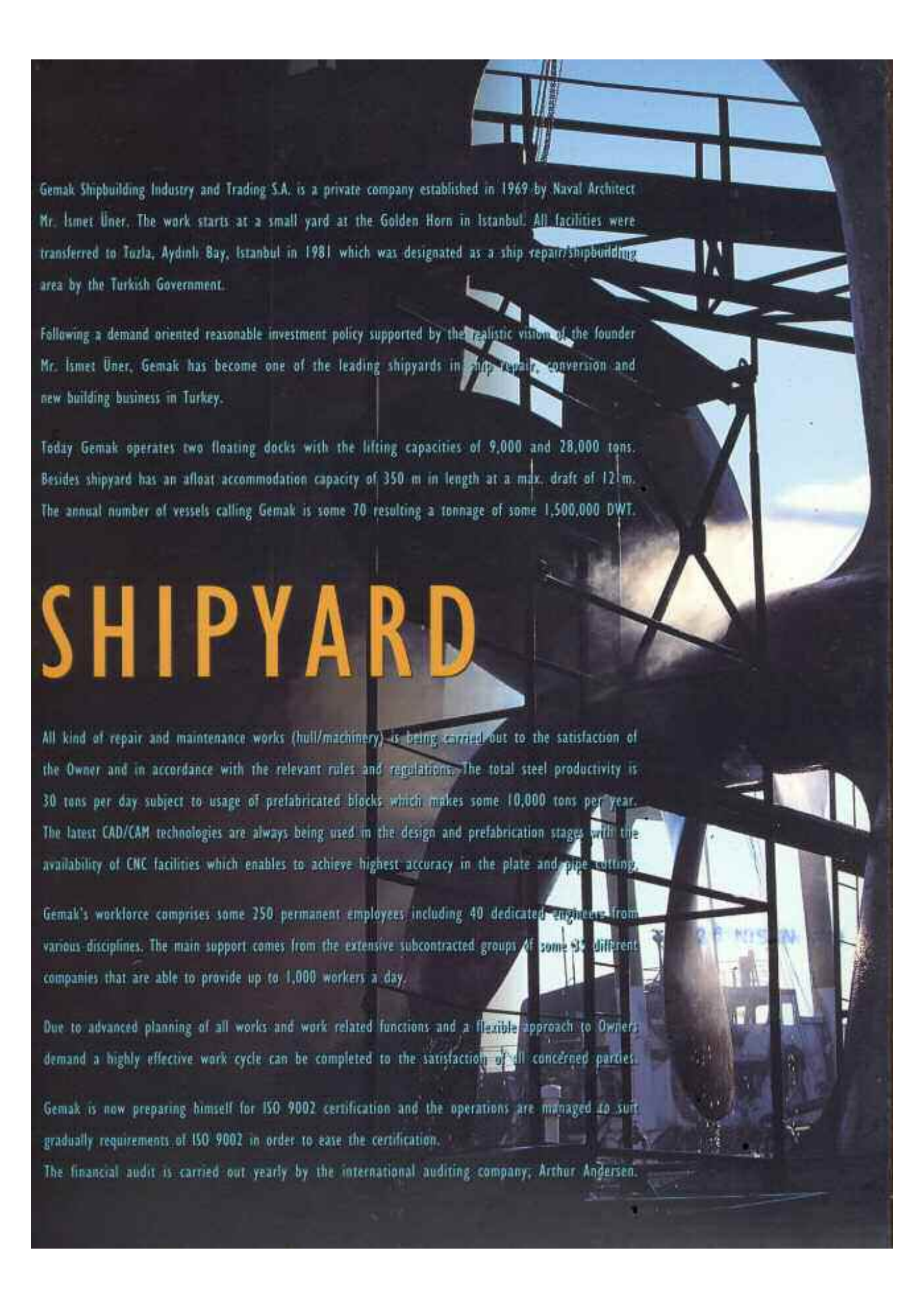






# GEMAK SHIPYARD





Gemak Shipbuilding Industry and Trading S.A. is a private company established in 1969 by Naval Architect Mr. İsmet Üner. The work starts at a small yard at the Golden Horn in Istanbul. All facilities were transferred to Tuzla, Aydınlı Bay, Istanbul in 1981 which was designated as a ship repair/shipbuilding area by the Turkish Government.

Following a demand oriented reasonable investment policy supported by the realistic vision of the founder Mr. İsmet Üner, Gemak has become one of the leading shipyards in ship repair, conversion and new building business in Turkey.

Today Gemak operates two floating docks with the lifting capacities of 9,000 and 28,000 tons. Besides shipyard has an afloat accommodation capacity of 350 m in length at a max. draft of 12 m. The annual number of vessels calling Gemak is some 70 resulting a tonnage of some 1,500,000 DWT.

# SHIPYARD

All kind of repair and maintenance works (hull/machinery) is being carried out to the satisfaction of the Owner and in accordance with the relevant rules and regulations. The total steel productivity is 30 tons per day subject to usage of prefabricated blocks which makes some 10,000 tons per year. The latest CAD/CAM technologies are always being used in the design and prefabrication stages with the availability of CNC facilities which enables to achieve highest accuracy in the plate and pipe cutting.

Gemak's workforce comprises some 250 permanent employees including 40 dedicated engineers from various disciplines. The main support comes from the extensive subcontracted groups of some 35 different companies that are able to provide up to 1,000 workers a day.

Due to advanced planning of all works and work related functions and a flexible approach to Owners demand a highly effective work cycle can be completed to the satisfaction of all concerned parties.

Gemak is now preparing himself for ISO 9002 certification and the operations are managed to suit gradually requirements of ISO 9002 in order to ease the certification.

The financial audit is carried out yearly by the international auditing company, Arthur Andersen.

# Conversion

M/V "NAZLI-K"



Conversion from Bulk Carrier to  
Self-Unloading Cement Carrier

 **GEMAK**  
SHIPYARD



## The Biggest Cement Carrier Conversion in the World

26,367 DWT Turkish flag bulk carrier M/V "NAZLI-K" belonging to Genel Denizcilik Nakliyat A.Ş. of Turkey was converted into a pneumatic self-unloading cement carrier in 1996 with a total unloading capacity of 500 tons per hour.

### A Multinational Cooperation

Gemak Shipyard of Turkey has completed the whole conversion. The cement handling equipment was supplied by H.W. Carlsen of Sweden and the design was provided by Shiptech Pte. Ltd. of Singapore.

### Discharging Capacity of 500 Tons Per Hour

There are two cement discharging pipes each side with 250 tons per hour discharging capacity each and one discharging pipe each side with a capacity of 500 tons per hour. There is also a gravity-discharging boom with a capacity of 500 tons per hour installed on the port side.

In order to provide the necessary compressed air and the vacuum for the operation following equipment was installed in the new constructed machinery room placed on top of No.3 cargo hold;

- Two (2) diesel-compressors , each 650 kW
- Two (2) vacuum pumps , each 230 kW
- Two (2) blowers , each 86 kW
- One (1) blower , each 26 kW
- Two (2) aux. compressors , each 17 kW

The engine room incorporates also the control panel for the cement unloading system and the main switchboard providing the power distribution to the electric motor driven equipment. There are four deck filters consuming each 22 kW and a vertical screw conveyor for the gravity unloading, consuming 126 kW, installed on main deck portside.

### Special Fabric for Cement Fluidisation

Some 3,000 m<sup>2</sup> of special fabric has been bolted onto the new inclined bottom of cargo holds in order to fluidise the cement by compressed air provided from new compressors.

### All Completed in 3 Months

Vessel stayed at the yard for 3 months in which all prefabricated sections totalling of 1,200 tons of steel were installed, together with 25,000 m of cabling and 10,000 m of piping by using 3-D modelling in design and fabrication stages.

### Main Particulars of the Vessel:

Length overall	=	175.10 m
Length b.p.	=	163.07 m
Breadth moulded	=	25.45 m
Depth moulded	=	14.00 m
Full load draft	=	9.95 m



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# Conversion

M/V "KIRKLARELI"



Lengthening and Re-Engining  
of a Container Carrier



**GEMAK**  
S H I P Y A R D

## Lengthening to Increase the Container Capacity

5,400 DWT Turkish flag container carrier M/V "KIRKLARELI" belonging to D.B. Turkish Cargo Lines of Turkey was lengthened by 15.40 m from amidships in 1994 in order to increase container capacity from 154 to 296 TEU.

## New Hydraulic Folding Type Hatch Covers Fabrication

During the conversion height of No.2 hatch coamings are also increased and the new hydraulic folding type hatch covers were fabricated and installed instead of existing rolling type covers. Necessary strengthening on main deck and in the holds was made as per Classification Society rules. The revolving jib type deck cranes were also removed.

## Main Engine and Propulsion Plant Replacement

The second part of conversion was to replacing the main engine of the vessel by a brand new BZA40S type New Sulzer Diesel engine developing 6,528 BHP at 510 RPM. The existing main engine foundation was modified accordingly. The conventional propulsion system was also replaced with a CPP unit type VBS 1080 supplied by MAN-B&W Alpha Diesel.

## All Completed in 7 Months

Conversion took place within 7 months of period while vessel was staying at the yard.

## Main Particulars of the Vessel:

Length overall	=	124.10 m
Length b.p.	=	117.78 m
Breadth moulded	=	17.00 m
Depth moulded	=	9.40 m
Full load draft	=	7.20 m



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# Conversion

M/V "RED SEA SPIRIT"



Conversion from Log Carrier to  
Self-Loading/Unloading Cement Carrier



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SHIPYARD

## The Second Cement Carrier Conversion of Gemak Shipyard

17,556 DWT log carrier M/V "RED SEA SPIRIT" belonging to Belden Shipping of Singapore was converted into a mechanical/pneumatic self-loading/unloading cement carrier in 1998 with a total unloading capacity of 300 tons per hour.

### A Multinational Cooperation

Gemak Shipyard of Turkey has completed the whole conversion. The cement handling equipment was supplied by BMH Marine of Sweden and the design was provided by Shiptech Pte.Ltd. of Singapore.

### 300 Tons Per Hour Discharging and 120 Tons Per Hour Bagging

The unloading is facilitated by two flexible bellows attached to a discharge boom, this allowing continuous tandem loading of trucks without delay. The system installed on board is capable to take over cement from another vessel for self-loading or transfer to the trucks at shore. It is also eligible for feeding a bagging plant installed on board at a rate of 120 t/h.

Following mechanical and electrical equipment was installed on main deck and into the new constructed machinery & control room;

- One (1) Siwertel ship unloader 100005 placed on a gantry movable full length of the cargo area on rails located port / starboard of hatch openings. Unloader total weight 30 metric tons, gantry weight 25 metric tons, gantry rail span 13 m. The unloader is powered by a self contained diesel generator set of 50 kVA,
- One (1) horizontal screw conveyor HSCH 630 - 300 t/h - 92 m 2x37 kW

- One (1) transfer vertical screw conveyor Sec 401-350 t/h 6.5 m, 26 kW
- Bulk discharge boom with two flexible bellows Sec 401-300 t/h to trucks, 120 t/h to bagging machines, 14.5 m 55 kW
- One (1) Nordströms BPQD blow pump unit.
- One (1) Buffer hopper with steel structure 15 m<sup>3</sup>, 5,000 kg
- One (1) fluidisation fan 1,400 m<sup>3</sup>/h, 3.7 kW
- One (1) dust collector 7,200 m<sup>3</sup>/h, 11 kW
- Two (2) blow pump units 2x9 m<sup>3</sup>, 2x3,300 kg
- One (1) air receiver 3 m<sup>3</sup>
- One (1) service air compressor 35 m<sup>3</sup>/h, 6.4 kW
- One (1) diesel driven transport air compressor 7,200 m<sup>3</sup>/h, 516 kW
- One (1) switchgear cubicle

### All Completed in 5 Months

The whole conversion including the 4<sup>th</sup> special survey was completed within 5 months.

### Main Particulars of the Vessel:

Length overall	=	146.00 m
Length b.p.	=	138.00 m
Breadth moulded	=	22.30 m
Depth moulded	=	12.45 m
Full load draft	=	9.95 m



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VESSELS  
70  
A YEAR



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