

The group started its forwarding activities in 1976 with transport from Turkish ports to the Middle East particularly Iraq. Since 1991, it has expanded its forwarding and warehousing activities to Central Asia, China and the United Arab Emirates.

The group is mainly active in multimodal transports in the Central Asia and Middle Eastern countries for general and project cargoes as well as heavy lifts.

The group currently operates 300.000 square meters of warehousing facilities in Turkey, United Arab Emirates, Iraq, Uzbekistan and China.

# PETROFAC SOUTH YOLOTEN GAS FIELD DEVELOPMENT PROJECT

KN Ibrakom were awarded by Petrofac a project to move 600.000 freight tones of project cargo from points all over the world to a gas purification plant in Yoloten / Turkmenistan.

Heavy lift partners Misnak & Caba were chosen to move heavy lift and OOG cargoes originating from global origins to site.

Managing this massive logistics exercise became a greater challenge when the client decided 500.000 freight tones had to be moved within an 8 month window.

The decision was made to ensure all cargoes were delivered within the opening season of the Volga-Don channel.

To understand the scope of the move, the transport included shipping more than 400 heavy lift and OOG items including absorbers weighing 488 tones to a site 1.200 kilometers from the arrival port of Turkmenbashi.

# Routing of the vessels to HOPA and Turkmenbashi



## OPERATIONAL HIGHLIGHTS

- Cargo Dimensions up to: L 40,70 x W 6,30 x H 6,5 meters
- Cargo Weights up to: 4 mt
- 36 HL vessels fixed, 54 sea-river type vessels fixed
- 4 double-banking operations at HOPAPORT
- Quantity: 300 pieces have been transported on hydraulic axles and semi extendible 5 to 8 axle trailers
- Total axles allocated for 45 trips: 1800 axles
- Total distance covered: 277.000 km
- 270 hydraulic axles & 176 semi extendible 5 to 8 axle trailers have been mobilized to Turkmenistan.

## BASIC SAFETY CALCULATIONS

There are many safety calculations that need to be made for all aspects of the journey. We have relayed below the basic criteria for port and road transport operations.

- Trailer stability calculation
- Stability due to hydraulic capacities of trailers
- Geometric stability calculation of trailers
- Lashing and traction calculation
- Ground load calculation
- Payload displacement diagrams
- Loading diagrams and load cases



# HOPAPORT





## Facilities:

- 1346 m quay with 10 m draft
- Truck filling stations with 38.000 cbm liquid tank capacity
- 18.000 sqm modern warehouses
- 10.000 tones wheat silo
- Container terminal (15.000 sqm concrete area)
- 40.000 sqm concrete open yard



HOPAPORT is located on the eastern Turkish Black Sea coast about 35 km from the city of Batumi / GE and about 1000 km from the city of Baku / AZ.



HOPAPORT was privatized June 17, 1997. The privatization was effected by transferring the operating rights for a period of 30 years transferred to our company by TDi.



Since privatization in 1997 HOPAPORT has increased warehousing capacity 18.000 sqm and outside storage capacity to 102.000 sqm.

Other investments include high capacity forklifts, cranes, weighbridges, trailers and additional equipment to enhance port services.

## GENERAL CARGO

Steel products (steel roll, pipe, plate steel, profile, etc.), pallet, big bag and packaged goods are handled at HOPAPORT.

HOPAPORT features outdoor storage space and indoor warehouses, temporary customs and A-type bonded warehouse areas.

The port provides lashing services, professional welding and other requisite facilities for general cargo loading and unloading operations.

## PROJECT CARGO

The receiving, storing and handling of project cargoes has been a regular feature and recently the port was used as a storage and transshipment staging area for a gas processing plant in Turkmenistan.

This involved storage of the units up to 230 tons and double-banking operations were performed for lifts up to 488 tons. Lifting equipment is provided to meet project requirements.

QUAYS	LENGHT (m)	Draft
1- Ore and tank terminal dock	215 m	9,5 m
2- Ro-Ro dock	38 m	5,5 m
3- General cargo dock 1	190 m	10 m
4- General cargo dock 2	100 m	9,5 m
5- General cargo dock 3	198 m	9,5 m
6- General cargo dock 4	180 m	4 m
7- Fishermen's dock	120 m	4 m
8- Military dock	100 m	5 m
9- Grain dock (SILO)	200 m	9,5 m



## BREAKWATERS

There are two breakwaters at HOPAPORT which provide safe, sheltered and calm waters for loading, discharging and double-banking operations.

Primary Breakwater                      2.150 m.

Secondary Breakwater                    470 m.

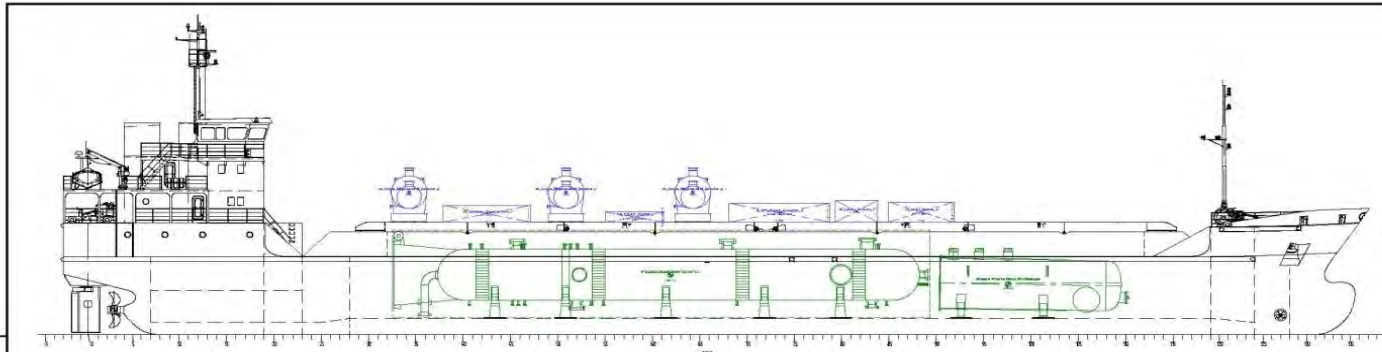
Entry Clearance                          250 m.



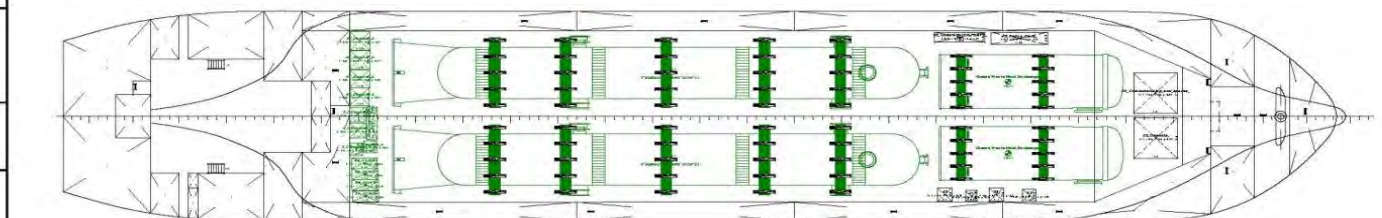
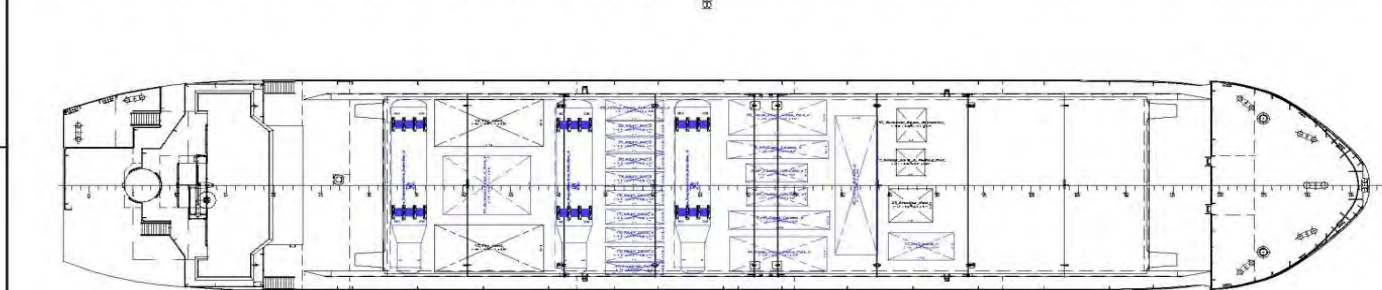


# Operation Phases in HOPA/TURKEY

## STOWAGE PLAN OF ACID GAS ABSORBERS



MP	Name	Qty	M	L	B	H
1	1 Erection Beam_h	1	0.85	2.40	0.70	0.50
2	2 Gaskets_h	1	0.85	0.80	0.80	0.50
3	3 Conn. and spares_h	1	0.25	0.50	0.90	0.50
4	4 Conn. and spares_h	1	0.15	1.10	1.10	0.55
5	5 Conn. and spares_h	1	0.15	1.20	1.10	0.55
6	6 HP Flash Column_d	1	1.62	6.55	1.15	1.40
7	7 HP FLASH COLUMN_d	1	2.99	4.20	1.15	1.40
8	8 HP Flash Column_d	1	2.92	6.95	1.15	1.40
9	9 HP FLASH COLUMN_d	1	2.98	4.20	1.15	1.40
10	10 ACID GAS ABSORBER_h	1	471.11	36.90	5.60	6.44
11	11 ACID GAS ABSORBER_h	1	471.11	36.90	5.60	6.44
12	12 IMT Beam_d	1	4.00	4.50	2.00	1.50
13	13 Top Deck	1	2.00	7.50	3.00	0.50
14	14 Top Deck	1	2.00	7.50	3.00	0.50
15	15 TRAY_29/30_d	1	0.95	4.00	1.10	0.75
16	16 TRAY_29/30_d	1	0.95	4.00	1.10	0.75
17	17 TRAY_29/30_d	1	0.96	4.00	1.10	0.75
18	18 TRAY_29/30_d	1	0.96	4.00	1.10	0.75
19	19 TRAY_#15_d	1	0.75	4.00	1.10	0.75
20	20 TRAY_#16_d	1	0.75	4.00	1.10	0.75
21	21 TRAY_#16_d	1	0.75	4.00	1.10	0.75
22	22 TRAY_#16_d	1	0.75	4.00	1.10	0.75
23	23 Erection Deck	1	3.50	3.00	2.50	1.60
24	24 Compression and spares	1	3.00	3.00	3.00	1.00
25	25 Gaskets	1	3.30	3.00	3.00	1.00
26	26 Lifting Beam & Accessory_d	1	0.85	4.00	1.50	0.70
27	27 Sliding plate & Setting Bolt	1	0.07	2.00	2.00	0.70
28	28 Amma Regeneration Reboiler_d	1	46.74	10.62	2.78	3.71
29	29 Amma Regeneration Reboiler_d	1	46.74	10.62	2.78	3.71
30	30 Amma Regeneration Reboiler_d	1	46.74	10.62	2.78	3.71
31	31 Claus waste Heat Exchanger_h	1	173.10	13.00	4.30	5.10
32	32 Claus waste Heat Exchanger_h	1	173.10	13.00	4.30	5.10
33	33 Claus Down Coma Pipe_d	1	9.40	6.70	2.60	1.25
34	34 Claus Down Coma Pipe_d	1	9.40	6.70	2.60	1.25
35	35 Spreader Beam_h	1	3.10	4.30	0.20	0.25
36	36 CLAU/SLIDE PLATE	1	3.00	2.45	0.72	0.45
37	37 Spreader Beam Accessory	1	2.10	2.00	2.50	0.65
38	38 CLAU WHEEL DRUM SPARE BOLT	1	1.00	1.00	1.00	0.60
39	39 CLAU WHEEL DRUM SPARE GASKET	1	1.10	0.90	0.90	0.35
40	40 Teflon Plate	1	4.50	2.90	0.90	0.90
41	41 Gaskets & bolts	1	0.15	0.80	0.80	0.30
42	42 Lifting Scheme_d	1	7.90	10.30	2.90	1.80
43	43 Shackle 12-ton	1	0.22	1.00	1.10	1.00
44	44 Damper_h	1	0.95	1.55	1.30	0.65
45	45 Damper_h	1	0.62	1.35	1.30	0.63
46	46 Damper_h	1	0.62	1.28	1.36	0.63
47	47 Damper_h	1	0.62	1.26	1.36	0.63
48	48 Spreader Bar_d	1	0.59	4.00	0.90	0.60
49	49 UCP_h	1	0.37	1.88	0.80	2.40
50	50 UCP_h	1	0.37	1.80	0.80	2.40
51	51 UCP_h	1	0.37	1.80	0.80	2.40
52	52 UCP_h	1	0.37	1.80	0.80	2.40
and	Total	52	1,522.44		991.8	cm



				KN-12-001-CPG3			
Rev	Page	of	docum	Sign	Date	Storage and seafastening plan m/v Gelus 3	Unit Mass Scale 1250
			Designed	A. Stanov	2014-09-02		Date Pages
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# LASHING DRAWING OF ACID GAS ABSORBERS

