

# 06 Tank Barge

## 61.50x16.60x3.05 m and 2500 t

PROJECTS / Barges

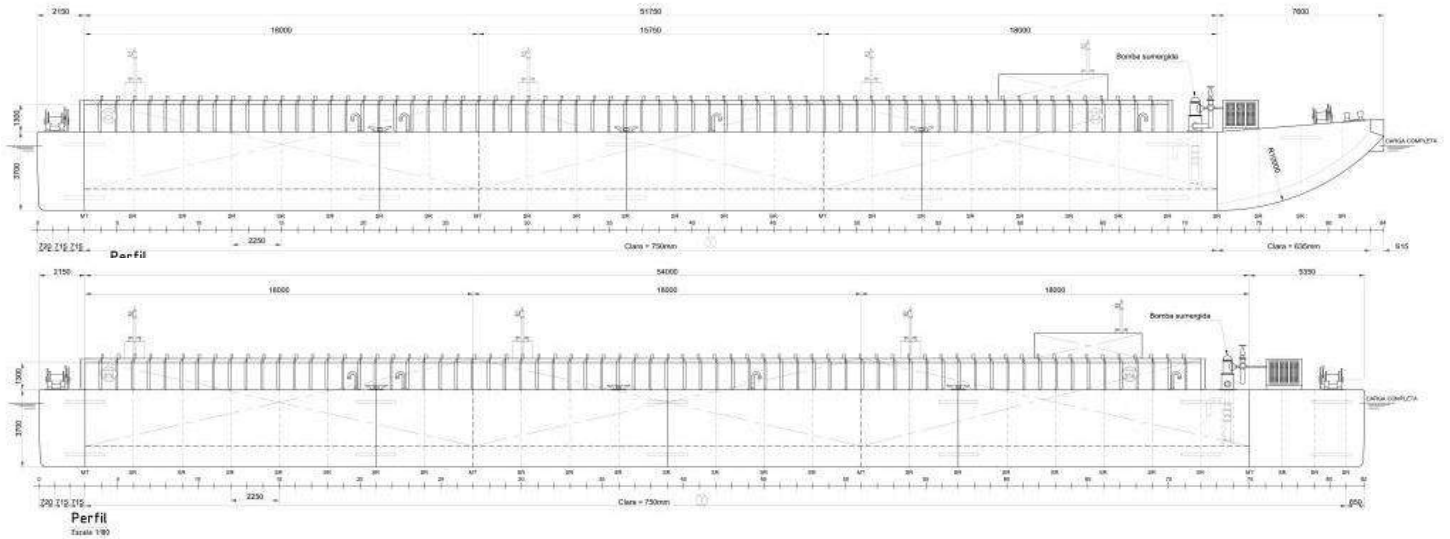


- Basic design

Paraná type barges, optimized for the Hidrovía Paraguay Paraná navigation conditions and complying with the Argentinean regulations (PNA).

They allow transportation of 5000 ton more per convoy in comparison to Mississippi type barges.

En un Convoy de 250 x 50	Mississippi	Paraná	
L Remolcador =	40	40	m
L Barcaza =	59,42	61,5	m
B barcaza =	10,672	16,6	m
Nº Bza. EsLora =	3	3	
Nº Bza. Manga =	4	3	
L convoy =	218,3	224,5	m
B convoy =	42,7	49,8	m
DWT <sub>(GO)</sub> Convoy =	16662	21959	ton



### Characteristics

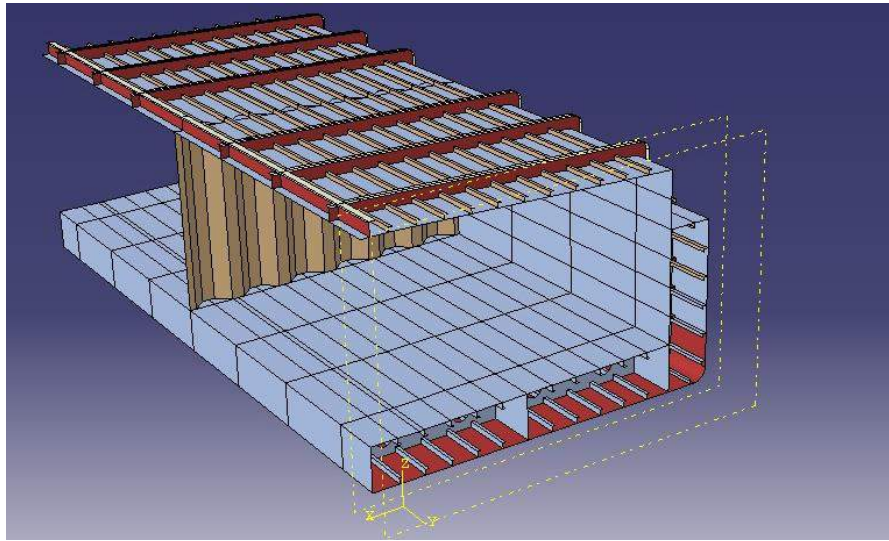
		Rake	Box
Length	L	61.50 m	61.50 m
Beam	B	16.60 m	16.60 m
Draught	D	3.05 m	3.05 m
Depth	D	3.70 m	3.70 m
Cargo volume	V	2900 m <sup>3</sup>	3030 m <sup>3</sup>
Cargo weight	DWT	2436 t	2545 t

### Optional Features

- Pump and their driven engines can be installed underdeck.
- The weight can be reduced employing corrugated decks instead of flat panels.
- The number of tanks can be adjusted as required by the owners.
- In consideration to the ports where they normally operate, the venting system is based in independent P/V valves for each tank.
- The recommended pump is a vertical type, Byron Jackson, Barge Pump. This eliminates the pump room and machinery space, reducing weight and loss of cargo volume. If required, a protection structure for the motor can be provided.
- The structure was designed to be built in 7 main blocks, 5 for the cargo tanks and 2 for the peak tanks. The structure is quasi symmetrical with respect to the centre line. The central tank allows for the simple assembly adjustments. Several blocks of the rake barge are identical to those of the box barges.
- The firefighting system complies with the Argentinean regulations.
- The double bottom and double hull comply with the Argentinean regulations (1 meter).

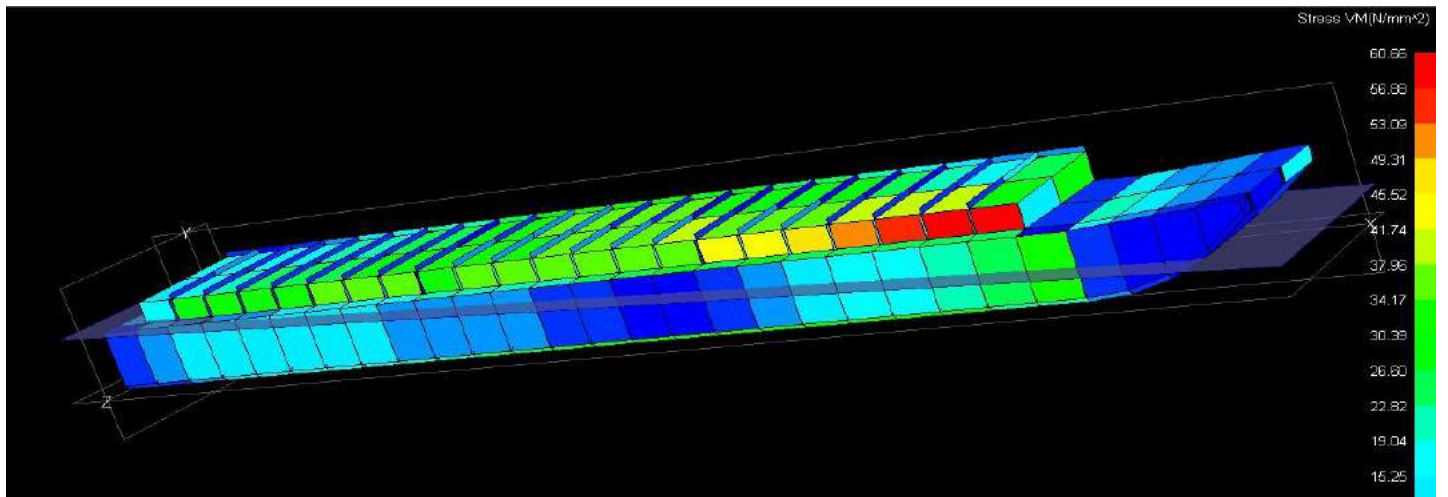
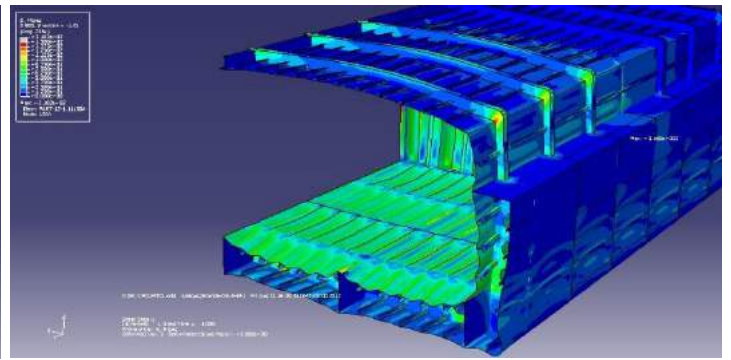
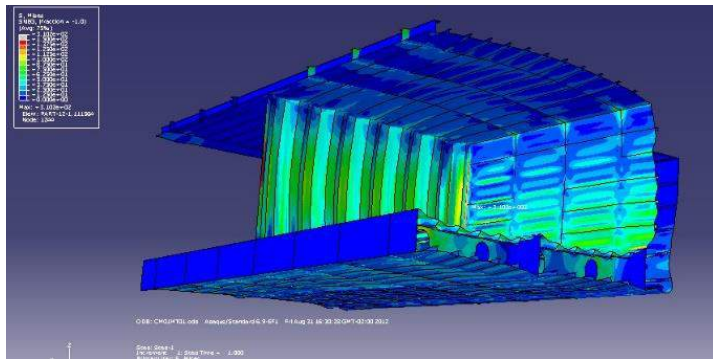


### LOCAL MODEL OF A SECTION



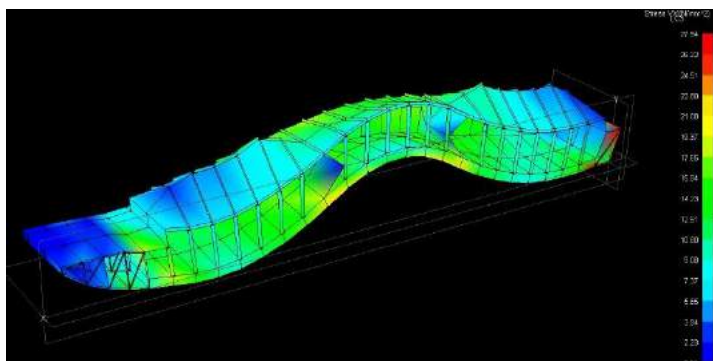
Allows the design of critical components and points in the structure.

The images below show stresses and deformations for different cargo conditions.

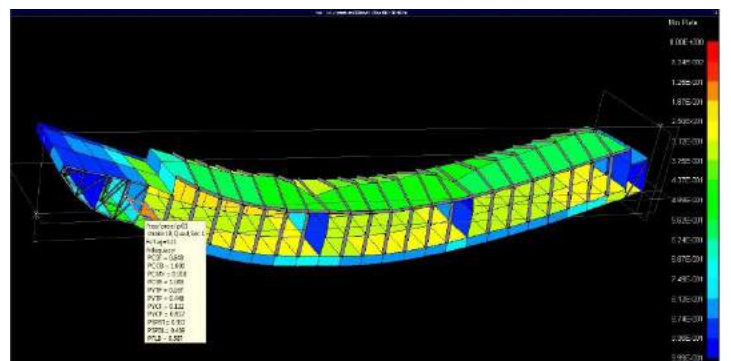


### GENERAL MODEL

Analysis of the "aground condition" on a sand bank.



General model: Load in the ends



General Model: Full cargo; check factors