

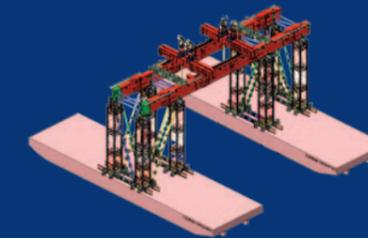
CATAMARAN: OFFSHORE LIFTING MODULAR SYSTEM

THE WORLD... OUR PASSION
SINCE 1955

TECHNICAL BROCHURE

TAILOR-MADE
OFF-SHORE
CATAMARAN

No. 2 BARGES -
STRAND JACKS -
SKIDDING SYSTEM



THE SYSTEM

Starting from the 90' offshore lifting experience and more recent development of Heavy Lifting technology Fagioli realized the Catamaran: a floating modular portal (gantry) designed for the INSTALLATION A/O REMOVAL of jackets, topsides, plinths, modules and medium size offshore structures. It can be equipped by computer controlled 4 or more strand jack up to 1000t/each and link plate system for the connection to the lifting trunnion of the items to be lifted. The catamaran is relocated by means of tug boats and it can be moored by mooring lines connected with deadweights or fixed bollards. This modular solution enhances the possibility of different configurations (span and height) according to clients' needs

FAGIOLI IN-HOUSE ENGINEERING EVOLUTION FROM 90' OFFSHORE GANTRY TO >>>> CURRENT MODULAR «CATAMARAN»



BRENT SPAR DECOM (UK 1996)



DENMARK (2020)

Fagioli catamaran comprises of the following elements:

- **Two levels of tower capping / spreader beams** to ensure that all four legs carry equal loading.
- **N°2 barges** (main dimensions. 65m x 17.25m x 4m)
- **Crosshead beams** spanning between the tower tops that are modular boxed beam connected each other through bolts and pins.
- **N°2 structural portals** connecting the two barges.

Each portal is composed by:

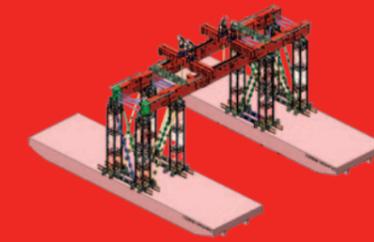
- **N. 4 towers** fixed to base frames to provide stability to the system and to spread the load onto the barges.

- **Square format tower-lift masts** erected in 5.9m modules (base 2.5 x 2.5m). Each tower are composed by 3 modules with a total height of 17,7 meters. On each barge there are 4 towers placed on the corners of a rectangle with dimension 10 x 12 meters.(this data can vary according to Catamaran config.)
- **Overhead shifting system** composed by N. 4 skid shoes and skid track, installed on the top of the crosshead beams for load side shifting.
- **Jack support beams** installed onto skid shoes.
- **4 strand jacks**, installed on top of Secondary Jack Support Beams, capacity up to 1,000 ton each. The jacks are fitted with a number of 50 strands with a diameter of 18mm, each with a safe working load of 15 t (minimum breaking load 38 t).

OVERVIEW

REMOTE CONTROL OPERATIONS

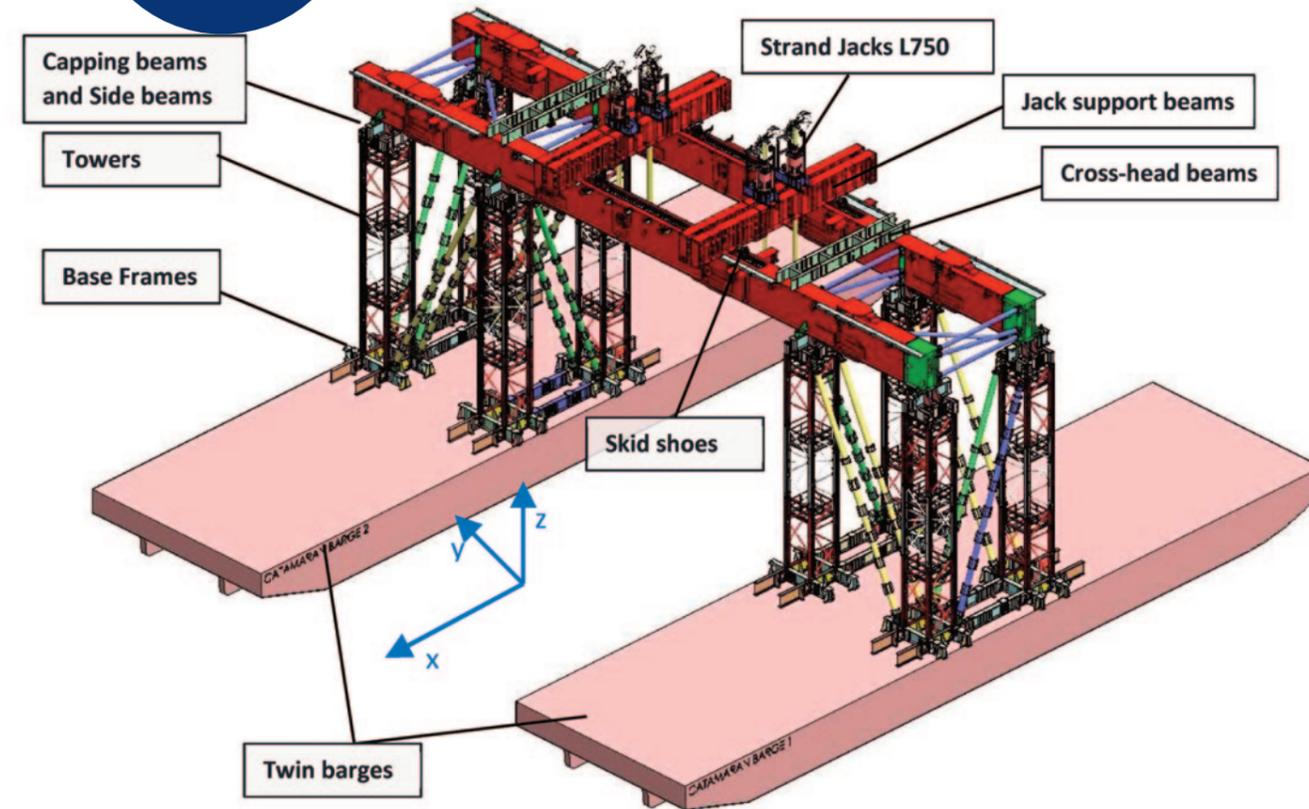
SPECIFIC LOAD TESTS FOR SAFETY OPERATIONS AT OPEN SEA



APPLICATION



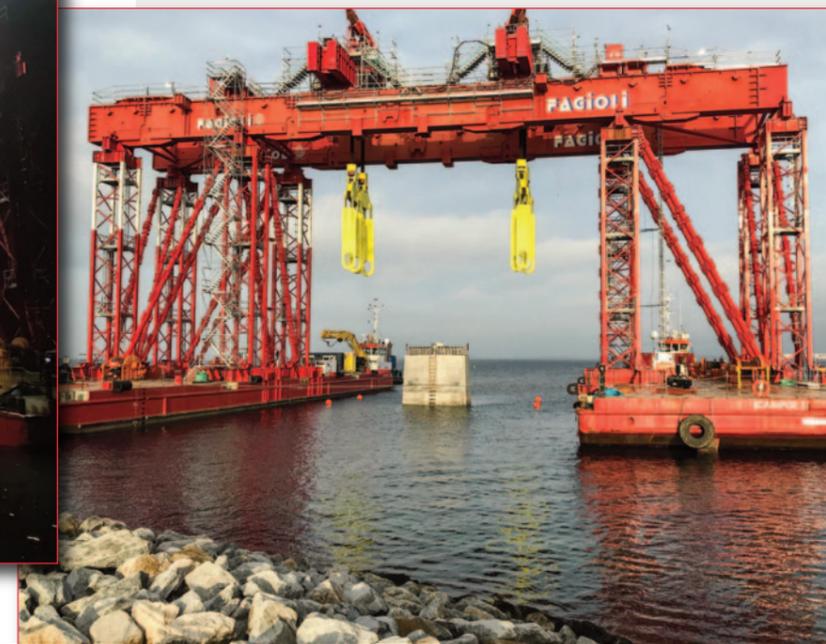
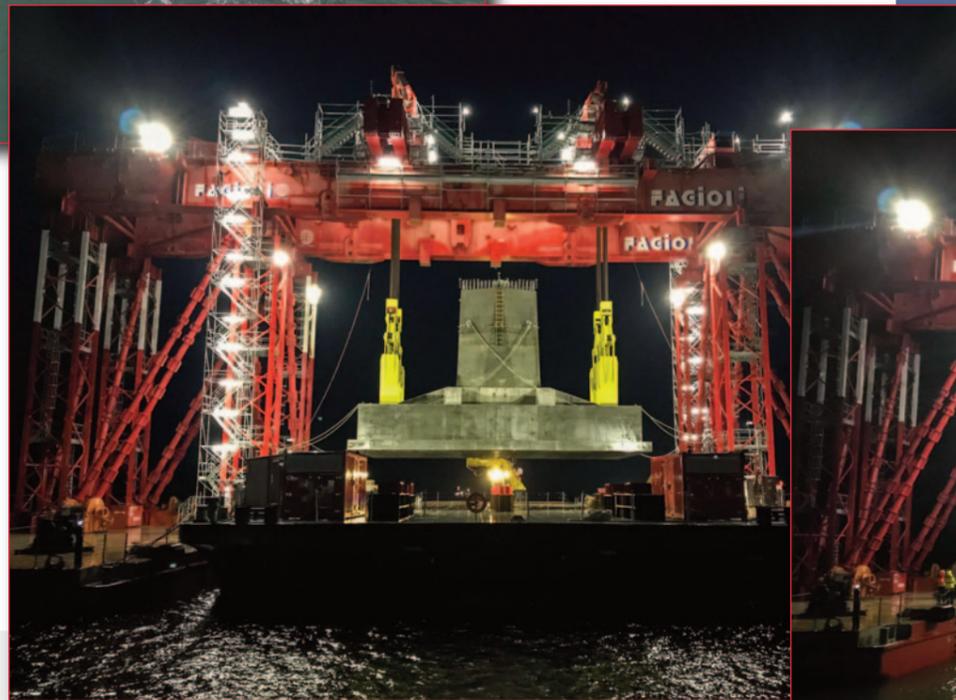
Fagioli Catamaran has several applications in the offshore sector thanks to its revolutionary construction based on barges and tower systems provided with crosshead beams and strand jacking system. By means of the skid shoes it is possible, keeping the catamaran in the same position, to move the load (the prefabricated foundation) in the plane, in both directions, in such a way to achieve a very accurate positioning of the foundation,



Denmark: Installation of a 1,800 ton plinth at open sea

within the tolerances of ± 50 mm. Strand jacks are selected with reference to the max. expected theoretical load, with an usage factor $< 90\%$. The loads are combined each other in order to maximize the effects on each section of the Catamaran.

Fagioli in-house engineering high capability in manufacturing dedicated hardware components allows the catamaran to be fitted and suitable for different heavy items dimensions and weights.



SUMMARY

CATAMARAN	
LENGHT O.A. (m)	65
BREADTH (m)	60,7
DEPTH (m)	4+32,5
MAXIMUM DRAFT (m)	2,65
LIFTING CAPACITY (ton) *	2500
MAXIMUM HOOK EL. FROM WATER LEVEL (m) *	20
WATER POOL DIMENSION (LxW) *	65x26
POWER GENERATION	
DIESEL GENERATOR	NA
TOTAL ELECTRIC POWER (KVA / VOLT)	NA
WINCHES CAPACITY	4 X 35 t
CAPESTAN CAPACITY	4 X 10 t
TOPOGRAPHIC DATA INSTRUMENTS	
GNSS SYSTEM FOR CATAMARAN	LEICA
GNSS SYSTEM FOR LIFTED CARGO	LEICA
OPERATIVE SAILING CONDITION	
MAX WAVE	Hs = 0,8 m
MAX WIND SPEED	12 m/s
OPERATIVE LIFTING CONDITION	
MAX WAVE	Hs = 0,3 m
MAX WIND SPEED	10 m/s
TOWING CONDITION	
TUG BOLLARD PULL REQUIRED	45 t
TWIN BARGES	
LENGHT O.A. (m)	65
BREADTH (m)	17,25
DEPTH (m)	4
MAXIMUM DRAFT (m)	3,25
FRAME SPACING (m)	0,625
CLASS	DNV
FLAG **	Norway **
BALLAST PUMP CAPACITY	NA
DIESEL GENERATOR	NA

(* It can vary according to catamaran config.)

(** barges flag can vary)