



# One-Stop Solution for FPSO Hull, Module Fabrication and Integration

2025



# Contents



1. General Introduction
2. Introduction of Yard Facilities
3. Track Record and Ongoing Projects



# Part One

## General Introduction





CMG

A Diversified Company Established in 1872  
and Headquartered in Hong Kong

Total assets  
~\$2024bn  
(2024)

Owning 2 enterprises  
with the title of  
"Global 500"

13 listed group  
members



## Transportation

We Connect China with the  
World by Operating Ports, Toll  
Roads, Logistics, Shipping  
Fleets, and Shipyards



## Finance

We Provide Services of Banking,  
Securities, Insurance, Fund and  
Asset Management



## Property

We are a Leading Real Estate  
Developer and Operator in  
China



## Emerging Industries

We accelerate the layout of  
emerging industries and  
demonstrate new  
achievements in industrial  
"innovation"



CMG  
(Excluding CMB)



CMB





- ❑ China Merchants Group (CMG), which was founded in 1872 , Founded and headquartered in Hong Kong.
- ❑ CMG is a comprehensive enterprise with diverse business operations. its primary focuses are on **transportation, finance, Property and Emerging Industries.**
- ❑ **China Merchants Industry holdings Co., Ltd. (CMI)** is the only manufacturing company under CMG, and the inheritor of CMG's century-old maritime main business and the bearer of the responsibility of manufacturing power.

## Transportation



### Ports

China Merchants  
Ports;Liaoning Port Group



### Energy shipping

China Merchants Energy  
Shipping;China Yangtze  
Shipping Group



### logistics

Sinoterns & CSC Holdings



### Toll road

China Merchants  
Expressway Network &  
Technology Holdings; China  
Merchants Chongqing  
Communications Research  
& Design Institute



### Trading

China Merchants Hoi  
Tung Trading  
Company

## Finance



### Banking

China Merchants  
Bank



### Securities/Funds

China Merchants Securities,  
Bosera Fund Management



### insurance

China Merchants Life  
Insurance



### Direct investment

China Merchants  
capital;National Fund  
Management Platform



### Others

China Merchants  
Commerce Leasing;China  
Merchants Pingan AMC

## Property



**China Merchants (Shekou)  
Holdings**



**Zhangzhou China Merchants  
Economic and technological  
Development Zone**



**China Merchants Taiping Bay  
Development investment**

## Emerging Industries



**China Merchants Innovation Technology (Group)**



**China Merchants Industry Holdings**



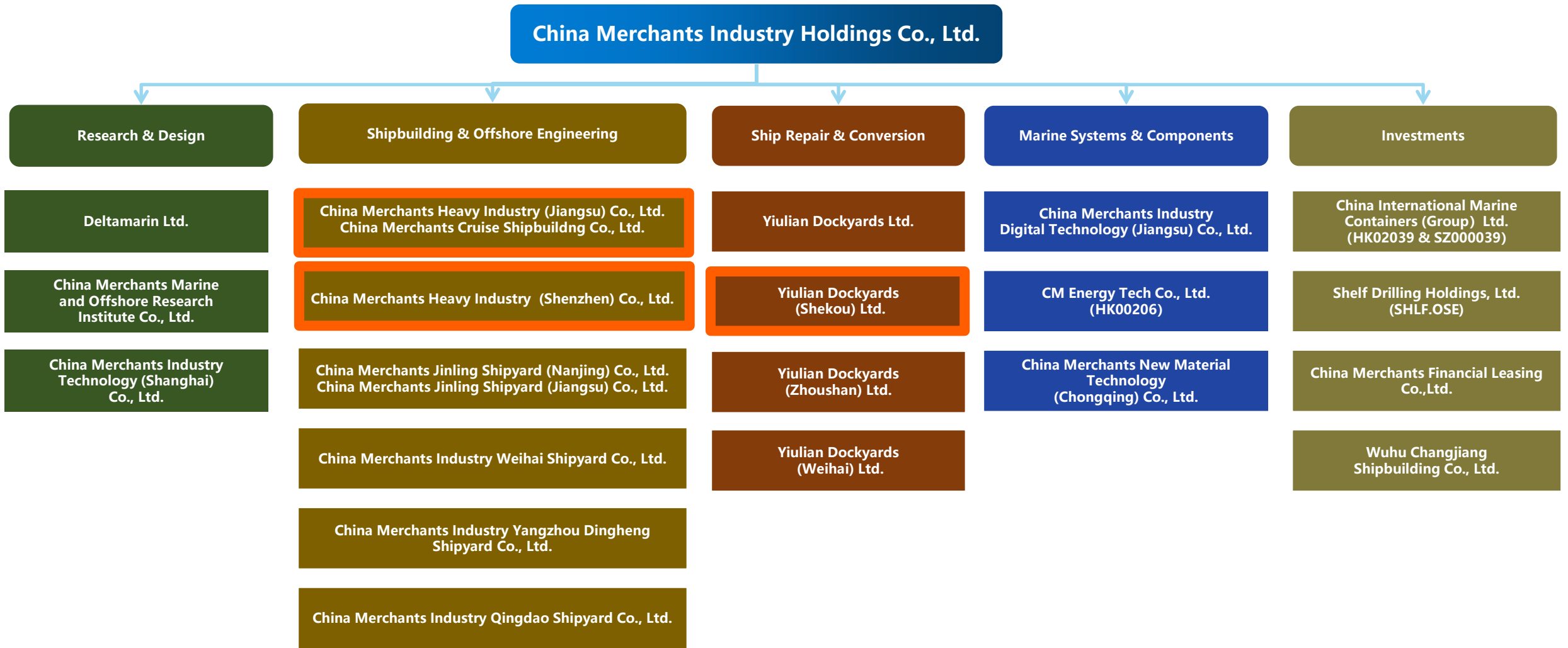
**China Merchants Healthcare Holdings**



**China Merchants Testing &  
Certification Holding**

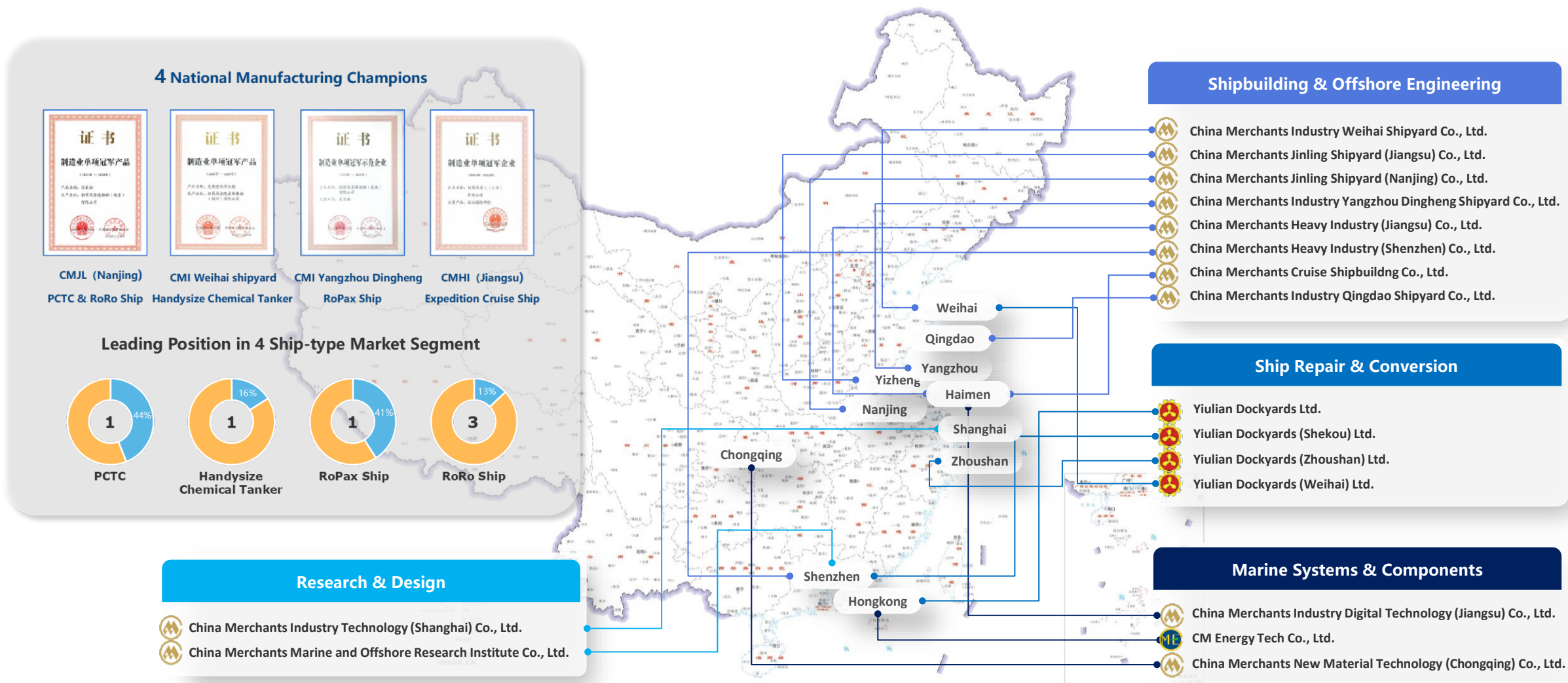
# Business Structure of CMI

Through internal reorganization and external integration, four main business segments including **Research & Design, Shipbuilding & Offshore Engineering, Ship Repair & Conversion, Marine Systems & Components** and Other businesses have been formed. It is cultivating supporting businesses of new materials and critical system and equipment related to equipment manufacturing, in order to build our differentialized competitive advantage focused on high-end, intelligence and green development.



# Domestic Layout of CMI

- ❑ CMI has eight shipbuilding and repair bases and two R&D and innovation institutions in Bohai Bay, Yangtze River Economic Belt, Yangtze River Delta and Guangdong-Hong Kong-Macao Greater Bay Area in China.





# Shipyards of CMI

Shipyard	YLDY (Shekou) / CMHI (Shenzhen)	YLDY (Zhoushan)	YLDY (Honkong)	CMI Weihai shipyard/ YLDY (Weihai)	CMI Qingdao shipyard	CMHI(Jiangsu) / CMCS	CMJL (Nanjing)	CMJL (Jiangsu)	CMI Yangzhou Dingheng
Region	Costal Area	Costal Area	Costal Area	Costal Area	Costal Area	Along the Yangtze River	Along the Yangtze River	Along the Yangtze River	Along the Yangtze River
Area (m <sup>2</sup> )	700,000	550,000	130,000	1,400,000	750,000	2,000,000	350,000	930,000	350,000
Wharf (m)	3,400	1,892	450	2,852	1,090	3,780	870	1,452	600
Dock/Slipway (L x B, m)	Two Dry Docks: 400x83;360x67 Two Floating Docks: 250x36.8;190x27.8	Two Dry Docks: 370x76;310x54	One Floating Dock: 305x45.8	Two Dry Docks: 524x50;393x50 One Slipway: 330x35	Two Dry Dock: 480x76;180x28	Two Dry Dock: 530x130;400x49.8	Four Slipways: 224x34 Four Slipways: 189x36	Two Dry Docks: 370x60;370x50	Two Dry Docks: 230x54;195x48
Service	Ship Repair & Conversion Offshore Manufacturing	Ship Repair & Conversion	Ship Repair & Conversion	Ship Repair & Conversion Specialized Shipbuilding	Shipbuilding	Offshore Manufacturing Cruise Shipbuilding	Specialized Shipbuilding	Specialized Shipbuilding	Specialized Shipbuilding



- Headquartered in Hong Kong, and design company Deltamarin with offices in Finland, Poland, Croatia.





China Merchants Heavy Industry (Jiangsu) Co., Ltd. , wholly owned subsidiary of China Merchants Industry Holdings Co., Ltd., was incorporated on March 26, 2013. mainly engaged in the design, manufacturing and repair of high-tech, high-quality, and high-end ships and offshore facilities . It has been one of the fastest-growing and the most potential offshore and shipbuilding enterprises since its establishment. It focuses on FPSO new build and conversion project and module fabrication and integration project.



ISO 9001



ISO 14001



ISO 50001



OHSAS 18001



GB/T 19580-2012



ISO/IEC 27001



GB/T23001



# Geographic location of Haimen Base/CMHI(Jiangsu)



招商局工业集团有限公司  
CHINA MERCHANTS INDUSTRY HOLDINGS CO.,LTD.

- CMHI(Jiangsu) is located abt. 60km to the outlet of the Yangtze River and abt. 110 km to Shanghai urban area.
- 1.5 hours to Shanghai urban area and 2 hours to Shanghai Pudong airport from CMHI(Jiangsu) by car.
- Wharf waterway depth : -12.5m.





**Mazhou Island is located at the mouth of the Pearl River and the western port area of Shenzhen Port, with a very superior geographical location, open water and good water depth, a total area of about 630,000 m<sup>2</sup>, a coastline length of 3,400m and a docking capacity of nearly 1 million tons.**



It takes 30 minutes from Shekou Ferry Terminal nearby the Mazhou Island to Hong Kong International Airport by hovercraft, as well as 45 minutes to HK Macau Ferry Terminal (HK Central).  
It also takes you only 30 minutes from Mazhou Island to Shenzhen International Airport by car.



# Project Milestones

12 projects has been delivered, including hull conversion & newbuild, and module fabrication & integration projects, we aim to “ One Stop Solution for FPSO in the World ”.



**NANHAI FAXIAN**  
Owner: CACT  
Type: FPSO Conversion  
Delivery: 2011 Shenzhen

**CYRUS**  
Owner: Petro Global  
Service  
Type: FPSO Conversion  
Delivery: 2011 Shenzhen

**SUKSAN SALAMANDER**  
Owner: Teekay /  
Salamander  
Type: FSO Conversion  
Delivery: 2014 Shenzhen

**PREMPRIDE**  
Owner: Mercator  
Type: FSO Conversion  
Delivery: 2015 Shenzhen

**NANHAISHENGLI**  
Owner: CNOOC  
Type: FPSO Conversion  
Delivery: 2020 Shenzhen

**HYSY121**  
Owner: CNOOC  
Type: FSO Conversion  
Delivery: 2020 Shenzhen

**MPFA**  
Owner: SBM  
Type: FPSO New build  
Delivery: 2021 Jiangsu

**SEPETIBA**  
Owner: SBM  
Type: Module FAB  
Delivery: 2021 Jiangsu

**MPFB**  
Owner: SBM  
Type: Hull New Build  
Delivery: 2023 Jiangsu

**BUZIOS AT**  
Owner: SBM  
Type: Module FAB  
Delivery: 2023 Jiangsu

**LUFENG 12-3**  
Owner: CNOOC  
Type: FPSO HULL newbuild  
& Module INT  
Delivery: 2023 Jiangsu

**BUZIOS AT**  
Owner: SBM  
Type: Module FAB&INT  
Delivery: 2024 August





## Part Two

### Introduction of Yard Facilities



## Part Two

### 2.1 Introduction of CMHI (Jiangsu)



# Layout and Major Facilities of CMHI(Jiangsu)



招商局工业集团有限公司  
CHINA MERCHANTS INDUSTRY HOLDINGS CO.,LTD.

- ✔ Total Area of 2 million square meters
- ✔ Wharf Length is 3,870 meters
- ✔ Three 900 ton gantry cranes
- ✔ 2 dry docks ( 500, 000 DWT and 100,000 DWT)



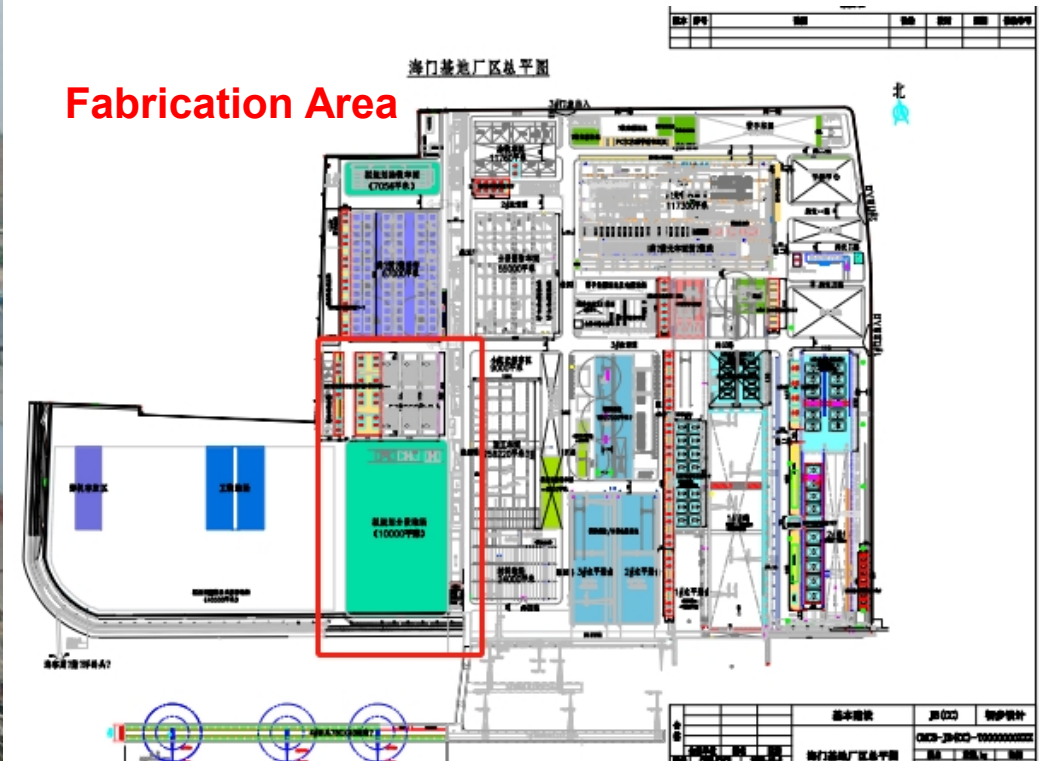


## Topside Module Fabrication Area

## Module Fab Area 1#

48,000 M<sup>2</sup>  
240mx200m

Average Load Bearing: 12 T/m<sup>2</sup>  
Concentrated Load Bearing: 120 T/m<sup>2</sup>





# Topside Module Fabrication Area



招商局工业集团有限公司  
CHINA MERCHANTS INDUSTRY HOLDINGS CO.,LTD.

Module Fab Area 2#

63,600 M<sup>2</sup>  
480mx80&315mx80  
m

Average Load Bearing: 14 T/m<sup>2</sup>  
Concentrated Load Bearing: 120 T/m<sup>2</sup>









**Floating Crane 3,000T@165M**



**Semi-submersible Barge 38,000MT**



**Floating Crane 5,000T 165M  
(ZPMC Xinzhentu 7), Beside CMHI(JS)**



**SPMT (Outsource)**





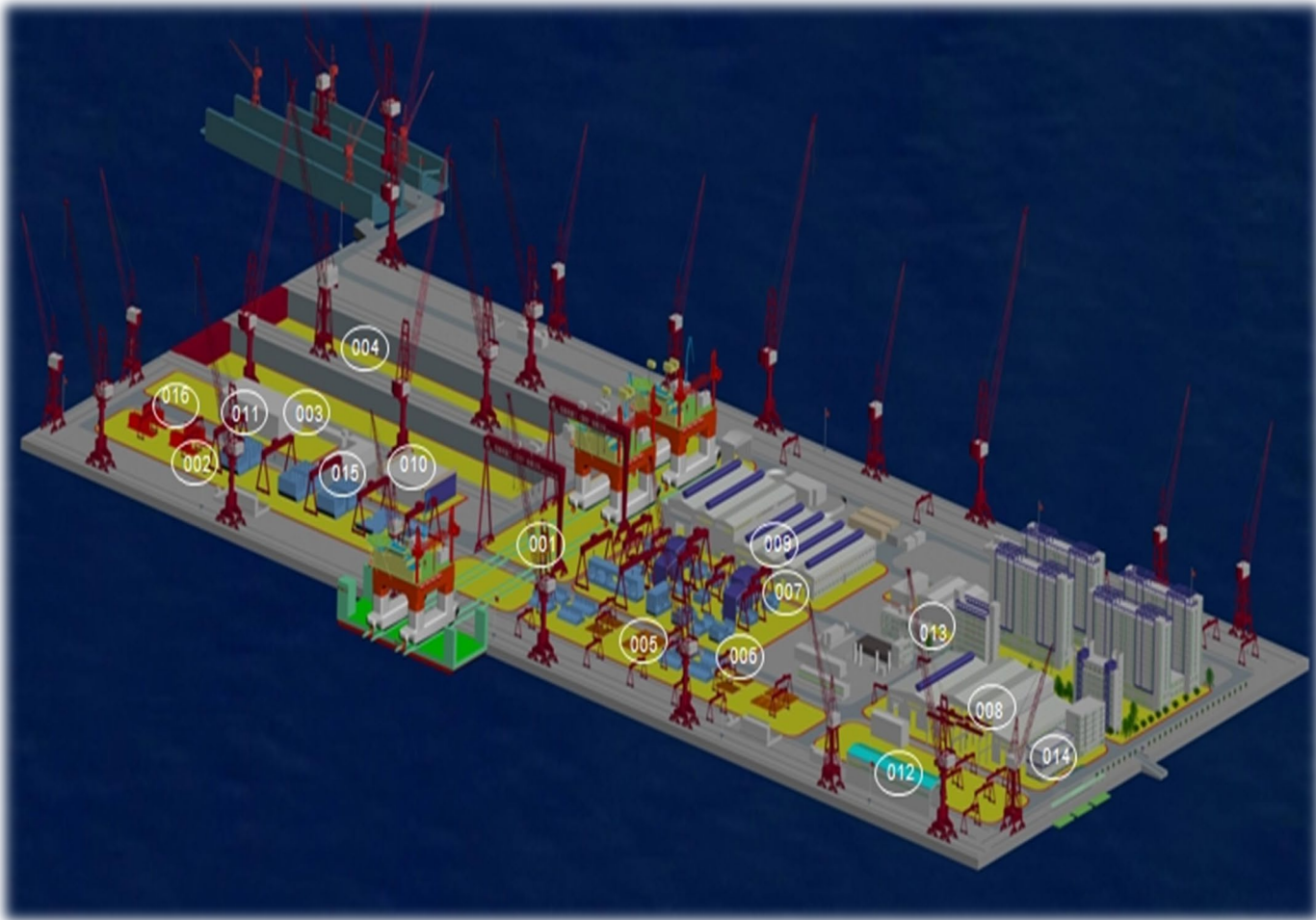
## Part Two

### 2.2 Introduction of CMHI (Shenzhen) & Yiulian



CMHI(shenzhen) yard/Yiulian

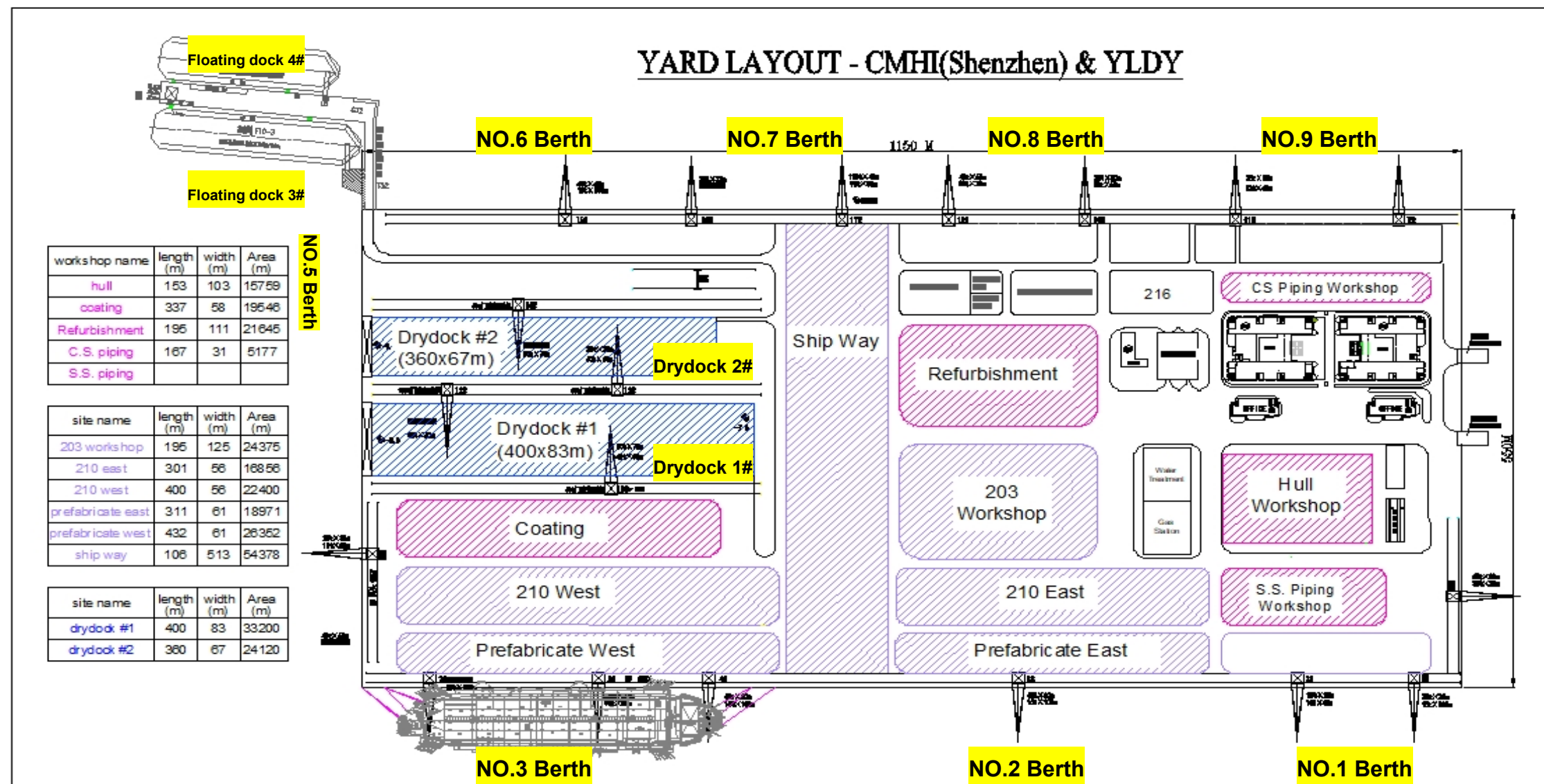
Yard Location and Layout



001	1# SLIPWAY & FABRICATION GROUND	005	ASSEMBLY GROUND	009	MACHINING WORKSHOP FOR STEEL MATERIAL	013	MACHANIAL & ELECTRICAL STOREHOUSE
002	2# SLIPWAY & FABRICATION GROUND	006	BLOCKS PRE-OUTIFFING GROUND	010	SHOT-BLASTING HOUSE	014	MACHANICAL & ELECTRICAL STOREHOUSE
003	1# DRY DOCK	007	BLOCKS FABRICATION GROUND	011	PAINTING HOUSE	015	BLOCKS STORAGE YARD
004	2# DRY DOCK	008	MACHINING WORKSHOP FOR STEEL MATERIAL	012	STELL PLATE CUTTING & STEEL FABRICATINE	016	BLOCKS STORAGE YARD

## CMHI(shenzhen) yard/Yiulian

Yard Location and Layout





Major Facility

❖ Dry Dock

Dock	Length(m)	Width(m)	Area (m2)
Dock NO.1	400	83	33200
Dock NO.2	360	67	24120



Yard Location and Layout for Dry Dock





## Part Three

### Track Record and Ongoing Projects

## ❖ FPSO Hull Newbuild

No.	Project	Client	Class	Contract Effect	Shipyard	Delivery
1	MPFA	SBM	BV	Mar. 2019	CMHI-JS	2021-7
2	MPFB	SBM	BV	Dec. 2019	CMHI-JS	2023-3
3	LUFENG 12-3	CNOOC	CCS	Nov. 2021	CMHI-JS	2023-6
4	MPFC	SBM	ABS	May. 2023	CMHI-JS	2025-2
5	MPFD	SBM	ABS	Jul. 2024	CMHI-JS	Under construction
6	Kutei	Saipem	ABS	Apr. 2025	CMHI-JS	Under construction

## FPSO Hull Newbuild Project

Client: SBM

Scope of Work:

- ✓ E: Basic design--SBM;  
Detail design--CMHI;  
Production design--CMHI;
- ✓ P: CMHI
- ✓ C: CMHI

Achievement:

- ✓ Completion without LTI.
- ✓ HSSE and QAQC KPI are better than SBM Project Target.

- (1) MPF A FPSO Delivered in Jul. 2021
- (2) MPF B FPSO Delivered in Dec. 2022
- (3) MPF C FPSO to be delivered in Feb 2025
- (4) MPF D FPSO to be delivered in mid-2026



LOA:	333m	Width:	60m
Mooring Type:	Multi-point Anchoring Mooring System	Storage:	230M BBL



LUFENG 123 FPSO HULL

Client: CNOOC

Scope of Work:

- ✓ E: Basic design--CNOOC;  
Detail design--CMHI;  
Production design--CMHI;
- ✓ P: CMHI
- ✓ C: CMHI

Achievement:

- ✓ Completion without LTI.
- ✓ HSSE and QAQC KPI are excellent.



Main Description	LOA: 241.5 m	Width	45.2 m	Design Draft	16.7 m
Mooring Type	Internal Turret Mooring System	Storage	122000 m³ crude oil	Depth	25.4 m

## Kutei FPSO Hull

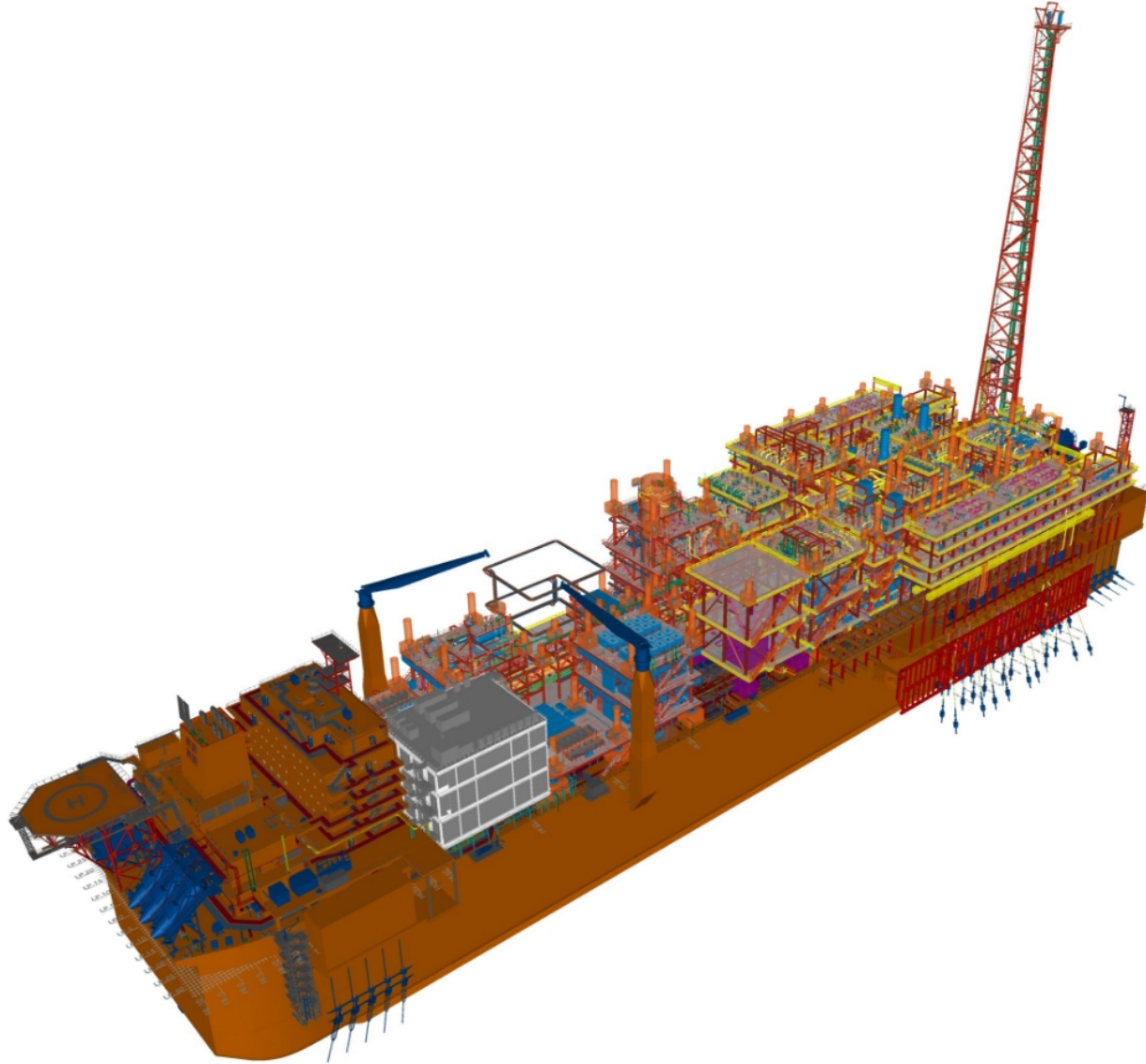
**Contractor: Saipem**

**Client: ENI**

### Scope of Work:

- ✓ E: Basic design--Saipem;  
Detail design--CMHI;  
Production design--CMHI;
- ✓ P: CMHI&Saipem
- ✓ C: CMHI

**Achievement:** on going



## ❖ FPSO Conversion

Project	Client	Repair Period	Shipyard
NANHAIFENJIN	CNOOC(SHENZHEN)	2022.02-2023.09	Yiu Lian Dockyards (Shekou)
NANHAISHENGLI	CNOOC(SHENZHEN)	2020.02-2020.05	Yiu Lian Dockyards (Shekou)
CYRUS	Petro Global Service	3/2015 – 11/2016	Yiu Lian Dockyards (Shekou)
NAN HAI FA XIAN	CACT Operators Group	11/2009~08/2011	Yiu Lian Dockyards (Shekou)
KAMINHO	SAIPEM	Under construction	CMHI-JS



## ❖ Project Name: FPSO Cyrus

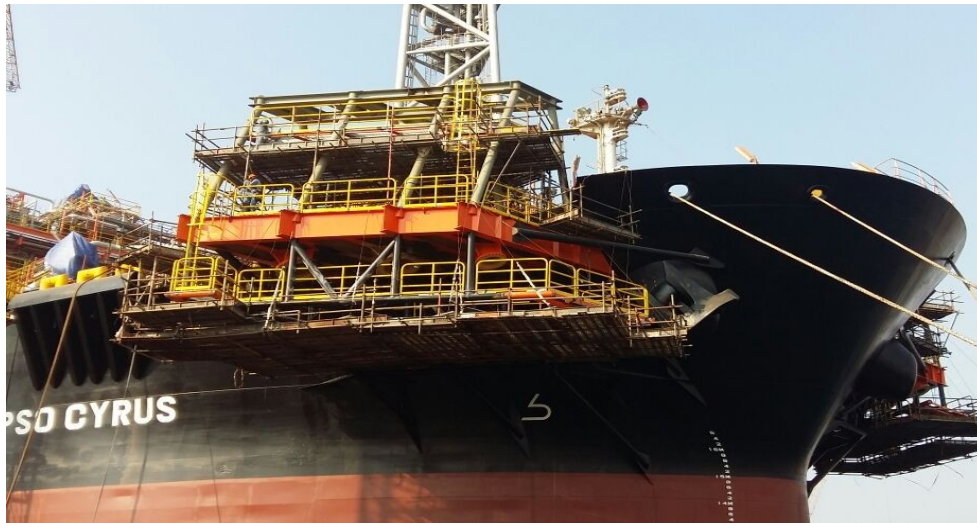


**Chain Stoppers of 12 Point Mooring System Installation**

**Marine Pipe Rack Fabrication and Installation**



**M10 Module - Riser Balcony Fabrication and Installation**



## ❖ Project Name: FPSO NANHAIFENJIN

### Major Conversion Jobs Description:

- Steel Work: 2500MT
- Tank Coating: 840000m<sup>2</sup>
- Supply and Install Cu-Ni pipe : 1000m
- Fabricate and Install Carbon Steel Pipe:  
120 tons
- Fabricate and Install Stainless Steel 316L  
Pipe: 11000 m
- Scaffolding: 247000m<sup>3</sup>



## FPSO Hull Conversion Project

**FPSO: Kaminho**

**Contractor: Saipem**

**Client: TotalEnergies**

**Class: BV**

### Scope of Work:

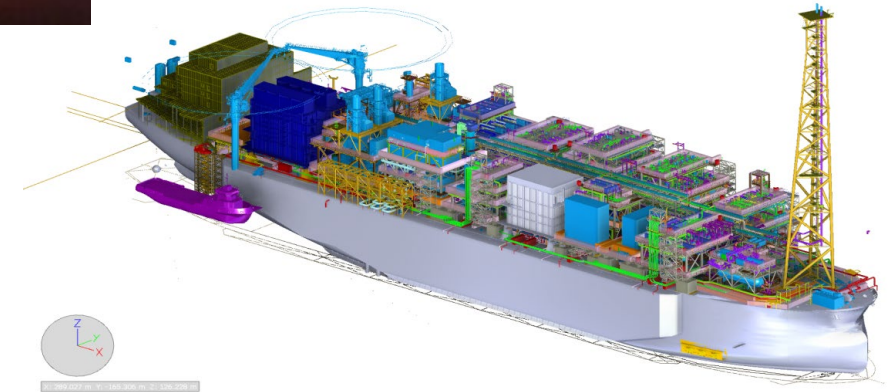
- ✓ E: Basic design\_Saipem;  
Detail design\_Saipem;  
Production design\_CMI;
- ✓ P: CMI
- ✓ C: CMI



- ① Spreadmooring with 12 mooring lines
- ② Working depth more than 1200 meter
- ③ 25 sets of topside modules
- ④ 180 POB
- ⑤ Daily productivity 75,000 barrels oil
- ⑥ Total 1,500,000 barrels oil storage capacity

### Hull Work Scope:

- 1) VLCC Refurbishment, Life extension, Conversion, removal of LQ;
- 2) New building LQ for 180 POB;



Main Description	LOA: 330 m	Width	84 m	Design Draft	21 m
Mooring Type	Spread Mooring System	Storage	150M BBL	Depth	30.5 m



## Module Fabrication - FPSO SEPETIBA, Client: SBM

Project	Year	Weight(Ton)	No. of Modules	Duration(Months)	Client
FPSO SEPETIBA	2021	902	3	10	SBM



**FPSO SEPETIBA**  
– Laydown Area



**FPSO SEPETIBA**  
– Aux. Laydown Area



**FPSO SEPETIBA**  
– Riser Balcony

Project	Year	Weight(Ton)	No. of Modules	Duration(Months)	Client
FPSO ALMIRANTE TAMADARÉ	2021-2023	17,519	8	31	SBM

Module/Descriptions	Total Weight (Gross)
LocalEquipmentRoom	1,830
PowerGenerationModule1+CM/HM	2,115
PowerGenerationModule2+CM/HM	2,636
VRU&TestSeparatorModule+Manifold	3,519
SafetyGap+ManifoldModule	896
Booster&InjectionGasCompressionModule+Manifold	4,113
WaterInjectionModule+Manifold	1,639
FlareTower	771



TS130 Local Equipment Room



TS031 Power Generation Module 1



TS032 Power Generation Module 2



TS011 VRU & Test Separator Module + Manifold



## SBM Buzios AT LER module - TS130, Delivered in 2023

### Scope of work

- ✓ E: CMI / SBM
- ✓ P: CMI / SBM
- ✓ C: CMI
  
- ✓ Gross Weight: 1,829 ton
- ✓ Size: 17m x 27m x 19m(H)

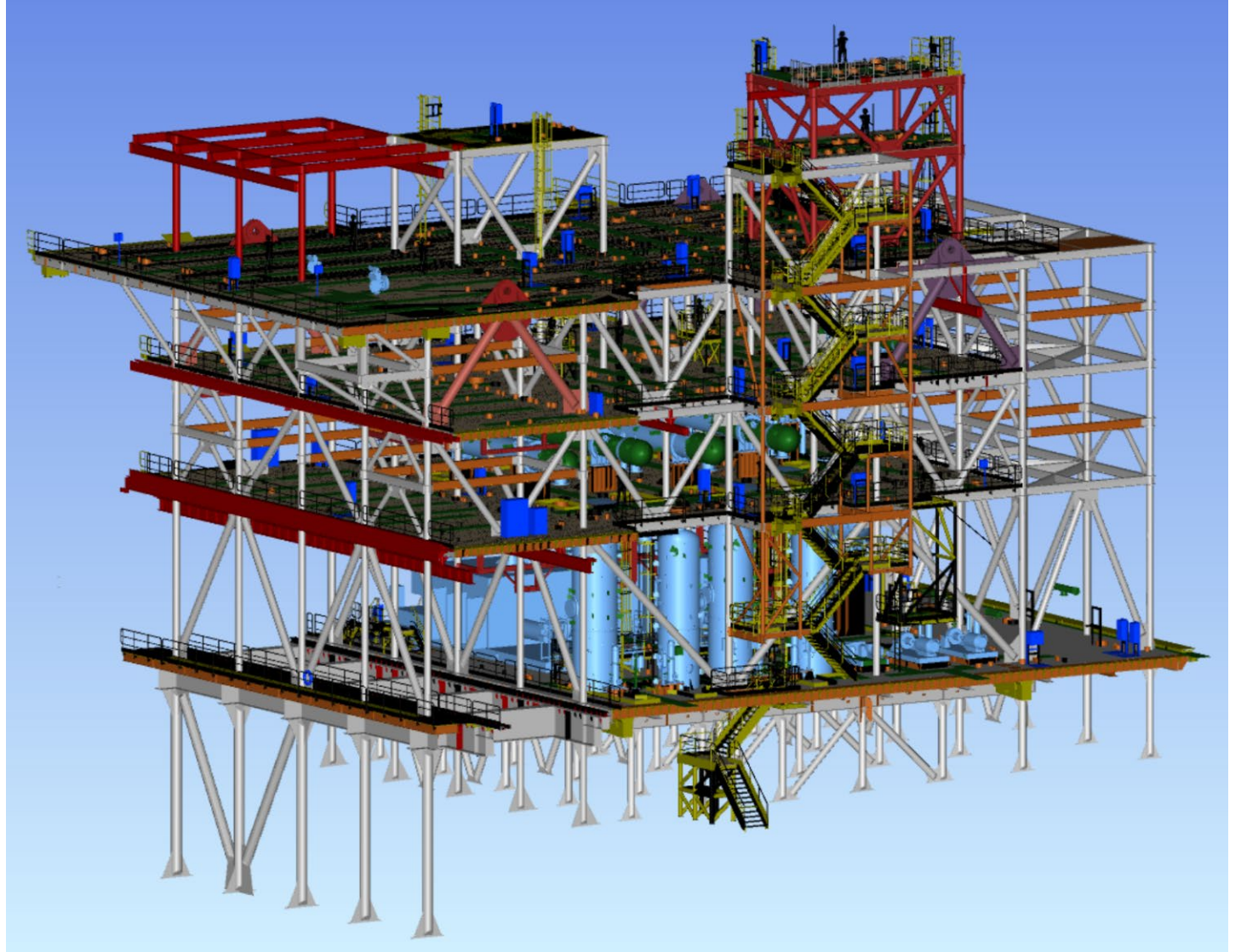




## SBM AT VRU + Test Separator Module + Manifold - TS011, Delivered in 2023

### Scope of work

- ✓ E: CMI / SBM
- ✓ P: CMI / SBM
- ✓ C: CMI
  
- ✓ Gross Weight: 3,521 ton
- ✓ Size: 23m x 40m x 23m(H)

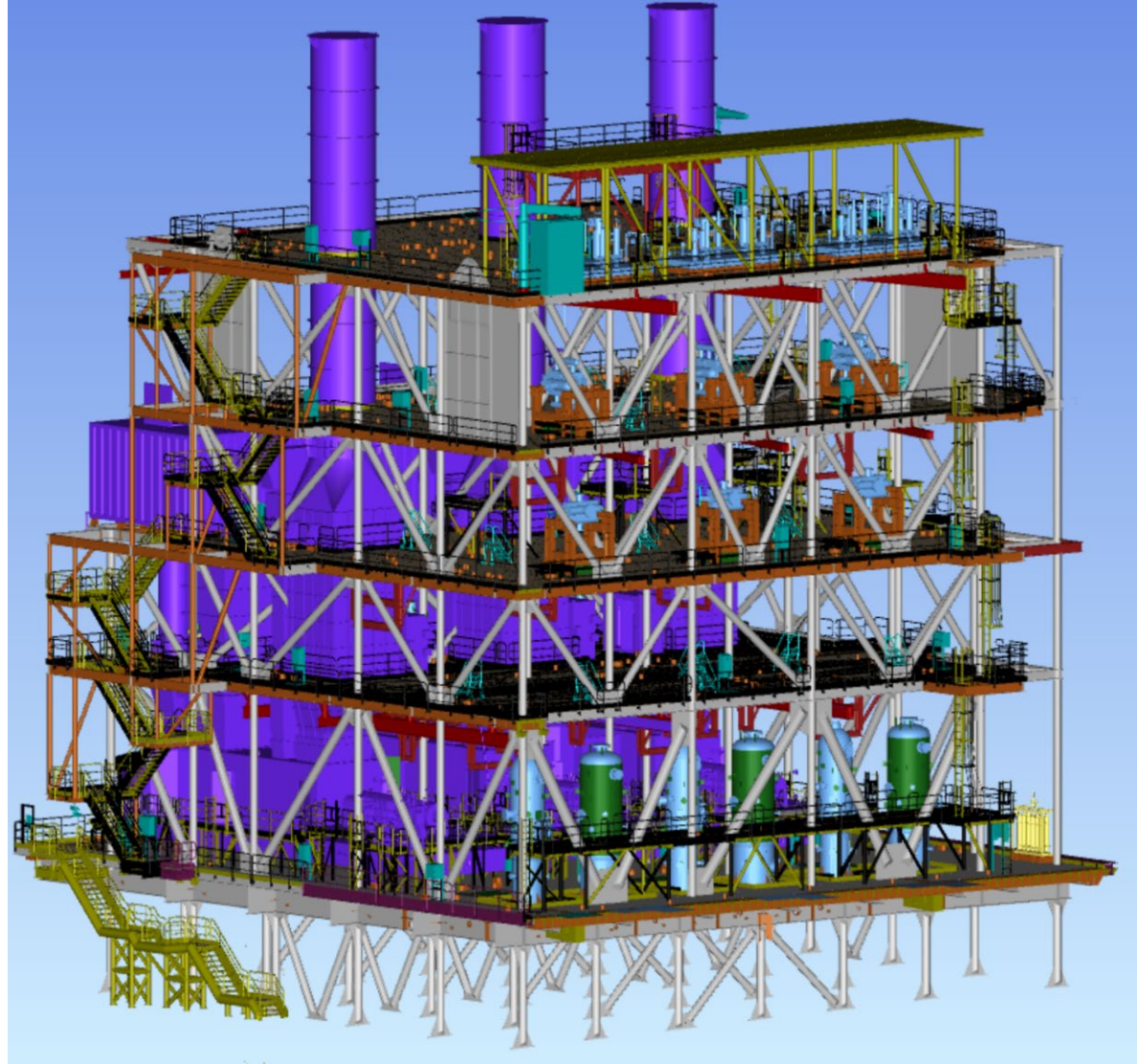




## SBM AT Booster & Injection Gas Compression Module + Manifold - TS013, Delivered in 2023

### Scope of work

- ✓ E: CMI / SBM
- ✓ P: CMI / SBM
- ✓ C: CMI
- ✓ Gross Weight: 4,113 ton
- ✓ Size: 28m x 30m x 30m(H)

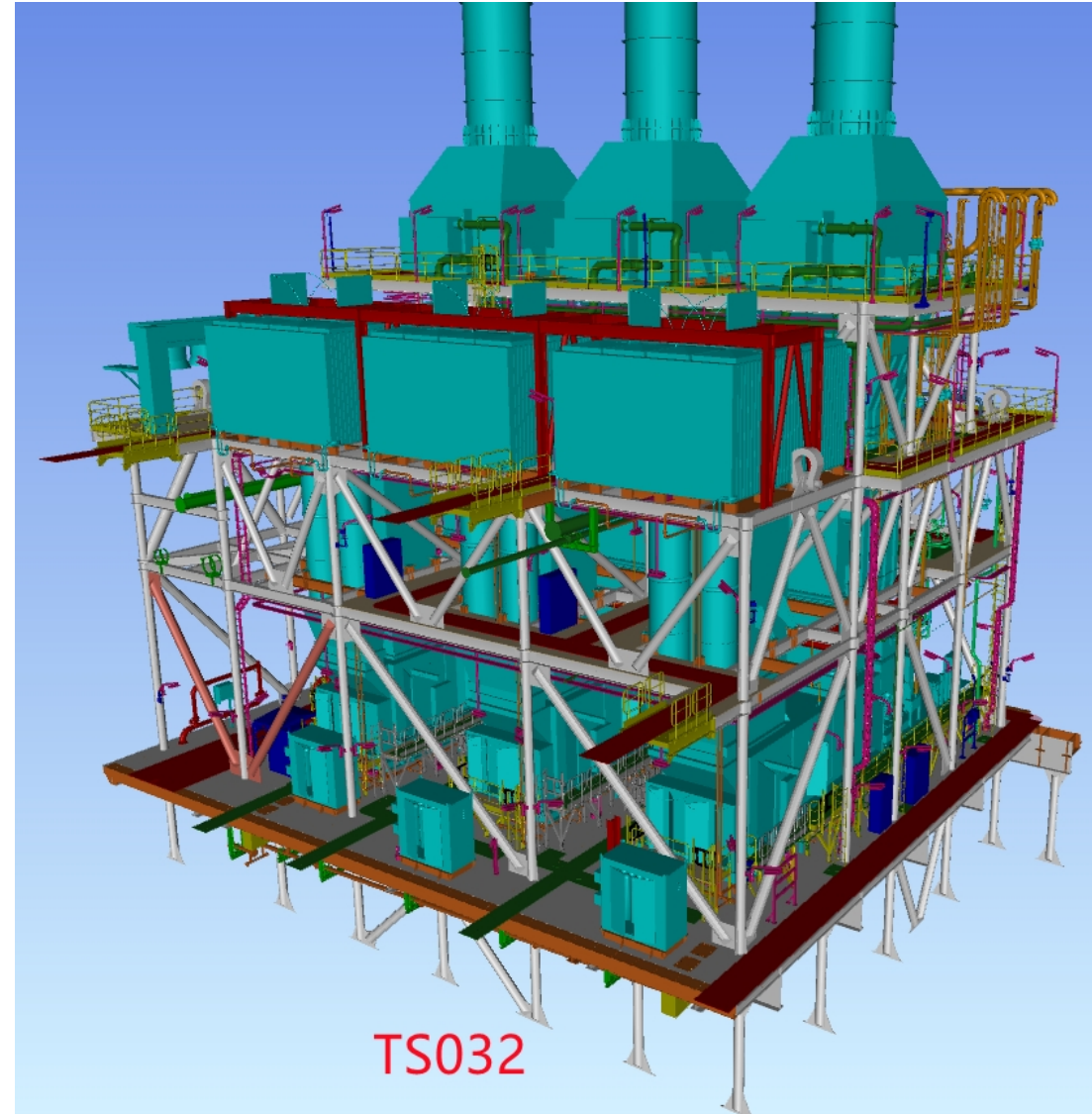




## SBM AT Power Generation Module + WI/CM/HM - TS031 / TS032, Delivered in 2023

### Scope of work

- ✓ E: CMI / SBM
- ✓ P: CMI / SBM
- ✓ C: CMI
  
- ✓ TS031
- ✓ Gross weight: 2,502 ton
- ✓ Size: 28m x 30m x 30m (H)
  
- ✓ TS032
- ✓ Gross weight: 2,723 ton
- ✓ Size: 23m x 29m x 23m (H)

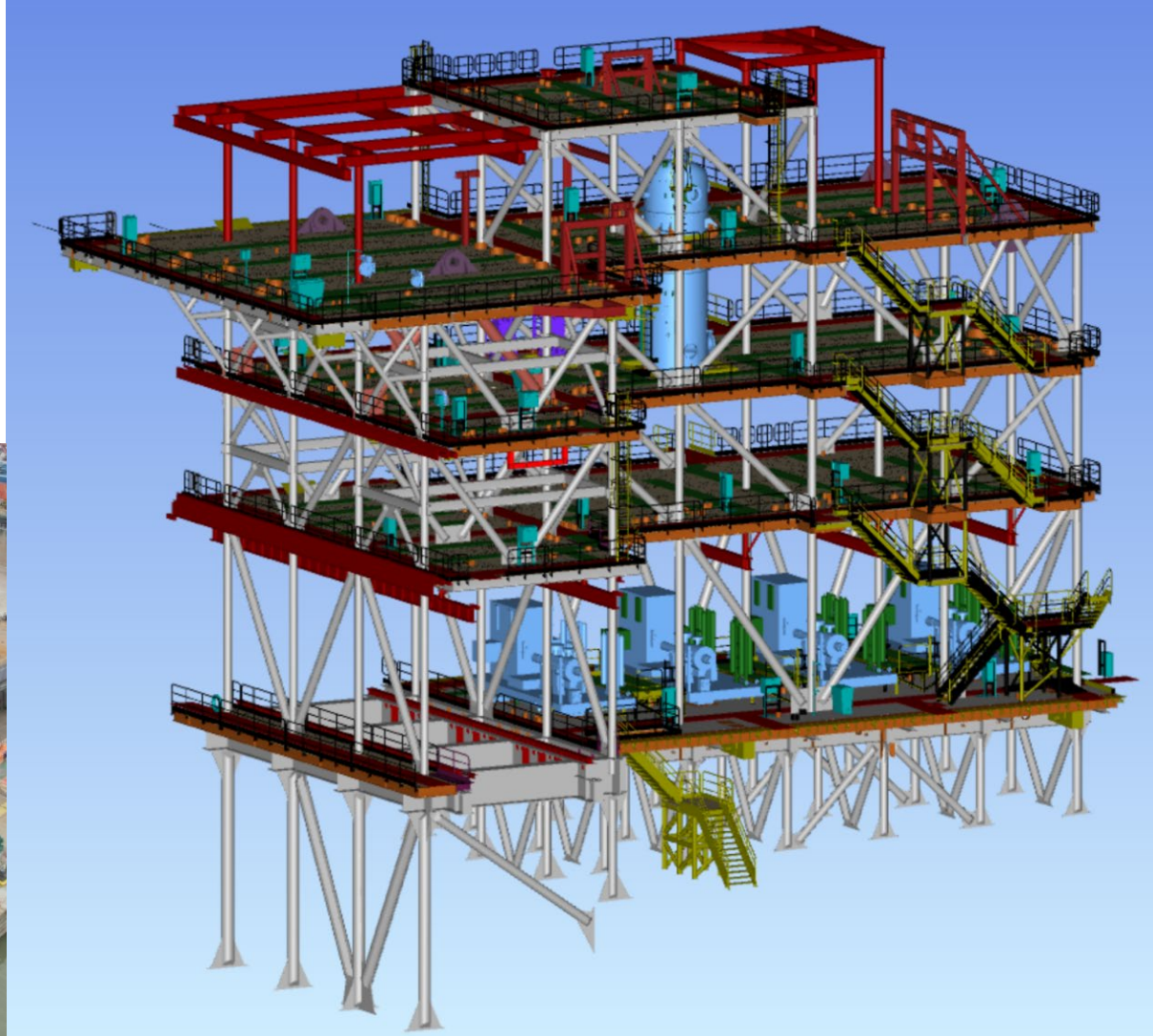




## SBM AT Water Injection Module + Manifold - TS091, Delivered in 2023

### Scope of work

- ✓ E: CMI / SBM
- ✓ P: CMI / SBM
- ✓ C: CMI
- ✓ Gross weight: 1,642 ton
- ✓ Size: 25m x 13.5m x 21m (H)



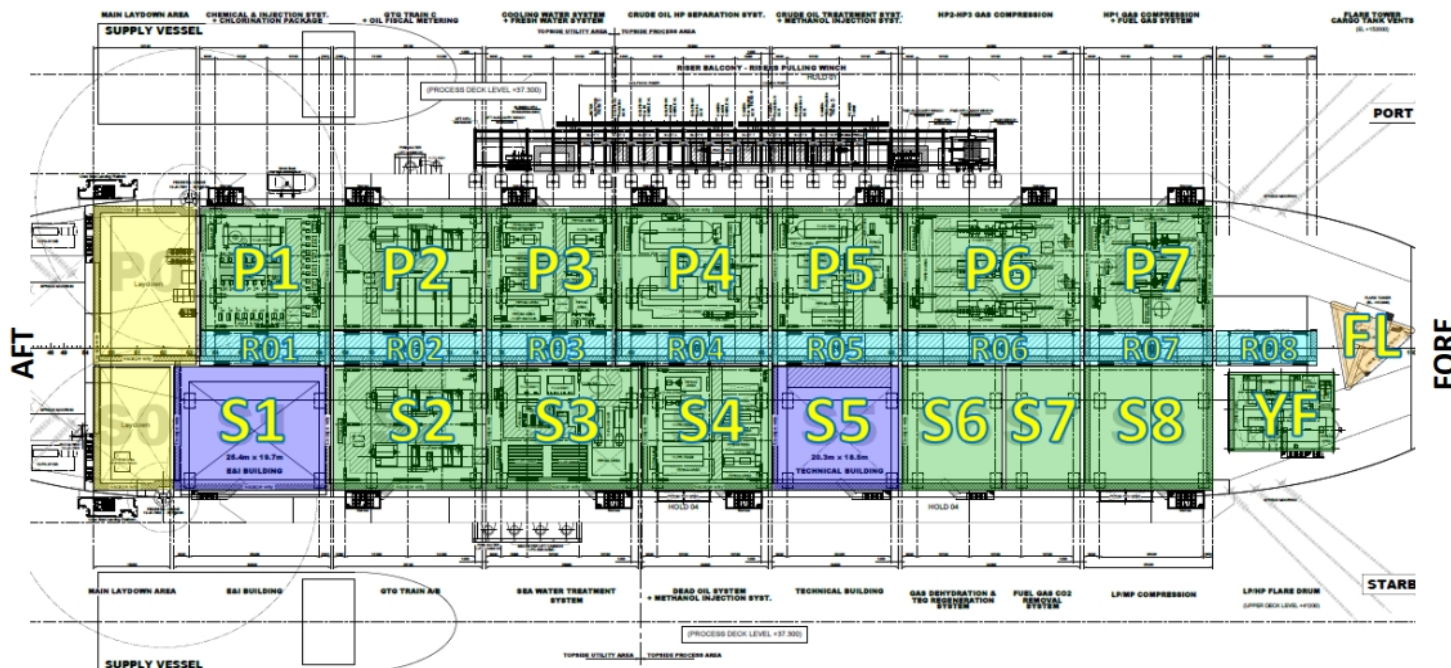
## SBM AT Flare Tower- TS052, Delivered in 2023

### Scope of work

- ✓ E: CMI / SBM
- ✓ P: CMI / SBM
- ✓ C: CMI
  
- ✓ Gross weight: 749 ton
- ✓ Size: 148 m (H)







**SAIPEM Kaminho FPSO Project module integration,  
total 25 modules, Contractual project delivery time:  
Early 2028**

Tag	Module Name	Net Weight(ton)
S01	E&I Building	2,461
S02	GTG Train A/B	2,102
S03	Sea Water Treatment System	2,030
S04	Dead Oil System+ Methanol Injection System	1,597
S05	Technical Building	1,530
S06	Gas Dehydration & TEG Regenatation System	1,469
S07	Fuel Gas CO2 Removal System	654
S08	LP/MP Compression	1,615
P01	Chemical & Injection System+Chlorination System Package	815
P02	GTG Train C+ Oil Fiscal Metering	1,729
P03	Cooling Water System+Fresh Water System	1,705
P04	Cruid Oil HP Separation System	2,800
P05	Cruid Oil Treatment System+Methanol Injection System	2,020
P06	HP2-HP5 Gas Compression	3,831
P07	HP1 Gas Compression+Fuel Gas System	1,685
R01	Pipe Rack-01	138
R02	Pipe Rack-02	249
R03	Pipe Rack-03	225
R04	Pipe Rack-04	421
R05	Pipe Rack-05	337
R06	Pipe Rack-06	442
R07	Pipe Rack-07	237
R08	Pipe Rack-08	146
FL	Flare Tower	537
YF	LP/HP Flare Drum	542
TOTAL		31,317

LUFENG 12-3 FPSO Project Module Integration

LUFENG 12-3 FPSO Delivered in Jun. 2023

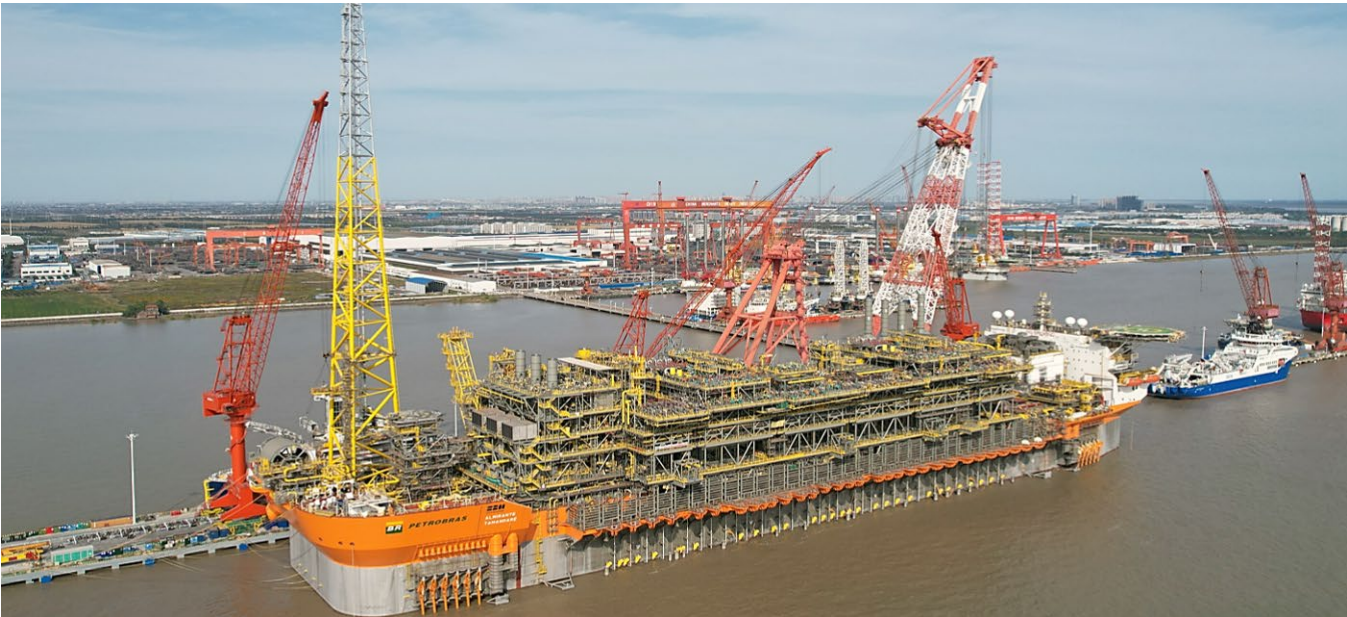


Integrated 17 Modules			
1	Reserve area Module	12	Lay down area Module
2	Oil treatment Module 1	13	Pipe rack A
3	Oil treatment Module 2	14	Pipe rack B
4	Oil treatment Module 3	15	Pipe rack C
5	Fuel oil treatment Module	16	Pipe rack D
6	Metering station Module	17	Flare Tower
7	Heat station Module		
8	Inter Gas treatment Module		
9	Generator Module 1		
10	Generator Module 2		
11	Electrical rooms Module		



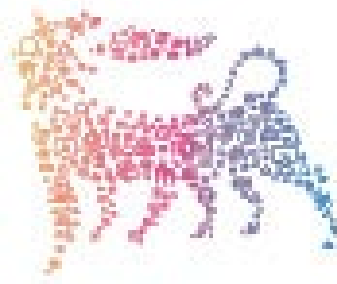
Module Integration

Totally 21 modules, including CMHI fabricated and Owner furnished, are integrated onto MPF B FPSO HULL



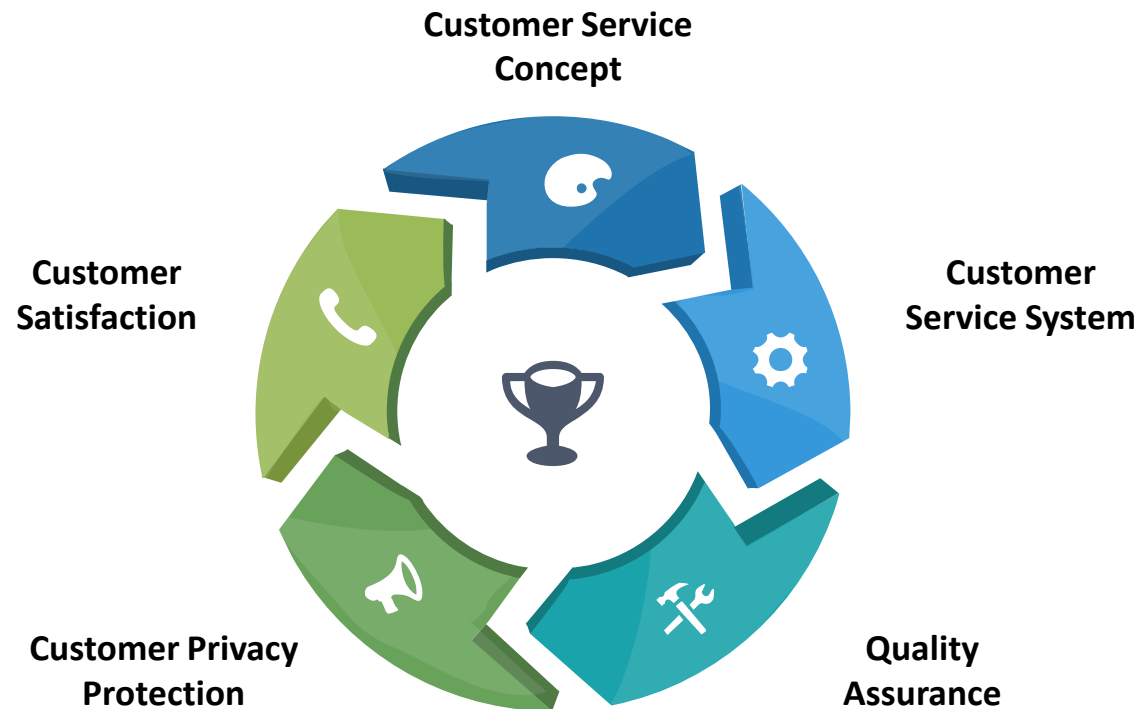
Local Equipment Room	VRU & Test Separator Module + Manifold	Water Injection Module + Manifold
Power Generation Module 1 + CM/HM	Main Gas Compression Module + Manifold	Riser Winch Support
Power Generation Module 2 + CM/HM	Separation Module 2 + Manifold	Chemical Injection Module
Main Laydown Area	CO2 Compression & Gas Dehydration Module	Rundown metering, Dew Point Control & CO2 Membranes Module
Starboard Laydown Aft	Safety Gap + Manifold Module	TEG & Flare Knockout Drum Module
Metering Unit	Booster & Injection Gas Compression Module + Manifold	Service crane support
Separation Module 1 + Manifold	PWT & Seawater Treatment Module 1	Flare Tower







The vision of CMI is to provide to clients good solution for all offshore and marine projects with good quality and safety, specially one-stop-solution for FPSO, including FPSO Hull, Module Fabrication and Integration.







中国领先的科技引领型海洋装备制造企业

The leading Technology-driven Enterprise for  
Shipbuilding & Offshore Industry in China

THANKS

FPSO "Almirante Tamandaré"

Shipyard: CMI Haimen Base

Length Overall: 351m

Moduled Depth: 33.5m

Operating Water Depth : 1,985m

Daily Oil Production: 225,000 barrels

Hull No.: CMHI-225/226

Moduled Breadth: 60m

Lightweight: 136,000t

Displacement: 460,000t

Storage Capacity: 2.2 million barrels