Offshore Living by Emtunga

45 YEARS OF EXPERIENCE HAS LEARNED US TO PRODUCE COST EFFECTIVE SOLUTIONS BASED ON WORLD CLASS EXECUTION

Project Experience - the past 15 years

February 2021



Project Experience - OFFSHORE Introduction

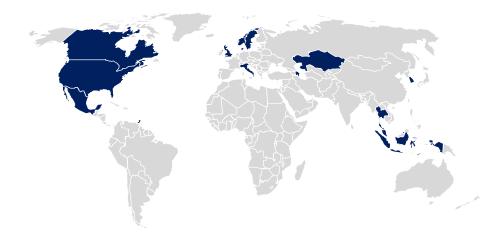
A long and successful track record



SUPPLIER TO THE MAJOR ENERGY COMPANIES

DELIVERIES ALL OVER THE WORLD







Project Experience OFFSHORE - Introduction

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Tailormade Living Quarters – deliveries the past 15 years

Field Name	Operator	Client	Region	Description	Installatio n Type	Delivery Year	Size	Regulations
Azeri Central East(ACE)	BP	BP	Azerbaijan (Caspian)	Living Quarter Module and Helideck	Jacket	2021 (Ongoing)	2700 m ² 260 POB	UK Rules & Regulations
Amherstia	BP Trinidad and Tobago	BP Trinidad and Tobago	Trinidad	Living Quarter Module and Helideck. Replacement LQ on existing platform	Jacket	2018	1100 m ² 70 POB	Trinidad Rules & Regulations
Martin Linge	Total/ Equinor	Samsung Heavy Industries	Norway (NCS)	Living Quarter Module and Helideck	Jacket	2018	3640 m ² 95 POB	NORSOK
Johan Sverdrup	Statoil	K2JV	Norway (NCS)	2 Sub-assemblies of Living Quarter Module delivered to Kvaerner for integration	Jacket	2017	4400 m ² 220 POB	NORSOK
Mahogany B	BP Trinidad and Tobago	BP Trinidad and Tobago	Trinidad	Living Quarter Module and Helideck. Replacement LQ on existing platform.	Jacket	2017	1100 m² 70 POB	Trinidad Rules & Regulations
Shah Deniz Stage 2	BP	BP	Azerbaijan (Caspian)	Living Quarter Module and Helideck	Jacket	2016	2700 m ² 100 POB	UK Rules & Regulations
Chiraq Oil Project (COP)	BP	BP	Azerbaijan (Caspian)	Living Quarter Module and Helideck	Jacket	2013	2630 m² 174 POB	UK Rules & Regulations
Champion 7	Brunei Shell Petroleum	Brunei Shell Petroleum	Brunei	Living Quarters	Jacket	2012	3670 m ² 241 POB	Shell Design & Eng. Practice (DEP) + Local Regulations
Sarawak B-11	Shell	Carigali	Malaysia	Living Quarter Module	Jacket	2008	1099 m ² 42 POB	Shell Design & Eng. Practice (DEP) + Local Regulations
MPF 01	MPF Corp	Cosco	Norway (NCS)	FDPSO Deckhouse	FPSO	2010	3600 m ² 180 POB	DNV
Adriatic	Exxon Mobil	Aker	Italy	Living Quarter Module and Helideck	Gravity Based Structure	2007	2075 m ² 63 POB	Italian Rules & Regulations



Tailormade Living Quarters – deliveries the past 15 years

Field Name	Operator	Client	Region	Description	Installation Type	Delivery Year	Size	Regulations
Cayo Arcas	Pemex	Ica Fluor	Mexico (GOM)	Living Quarters Module	Jacket	2007	2300 m ² 150 POB	Pemex B-1/Mexico
Arthit	PTTEP	PTTEP	Thailand	Living Quarters Module	Jacket	2007	1200 mT 160 POB	UK Rules & Regulations
Ku-Maloob-Zaap & Ha-Ku-H	Pemex	Pemex	Mexico (GOM)	2 off Living Quarter Modules	Jacket	2007	2 x 3000 m ² 2 x 220 POB	Pemex B-1/Mexico
DUQ (Chirag Full Field phase 3)	BP/AIOC	BP/AIOC	Azerbaijan (Caspian)	Living Quarter Module and Helideck	Jacket	2006	2620 m ² 198 POB	UK Rules & Regulations
East Azeri	BP/AIOC	BP/AIOC	Azerbaijan (Caspian)	Living Quarter Module and Helideck	Jacket	2006	2620 m ² 198 POB	UK Rules & Regulations
West Azeri	BP/AIOC	BP/AIOC	Azerbaijan (Caspian)	Living Quarter Module and Helideck	Jacket	2005	2620 m ² 198 POB	UK Rules & Regulations
Kristin	Statoil	Statoil	Norway (NCS)	Living Quarter Module and Helideck	Semi- submersible	2004	3600 m² 104 POB	NORSOK
Central Azeri	BP/AIOC	BP/AIOC	Azerbaijan (Caspian)	Living Quarter Module and Helideck	Jacket	2004	2620 m ² 198 POB	UK Rules & Regulations
Mad Dog	BP	BP	USA (GOM)	Living Quarter Module and Helideck	SPAR	2004	1950m² 128 POB	USCG

Selected experience of our three well-proven delivery models

SINGLE UNIT DELIVERY – ASSEMBLY AT EMTUNGA'S YARD



Martin Linge – Total/Equinor Single unit delivery from Emtunga's Workshop in Gothenburg, Sweden – 2018



Mahogany B – BP Trinidad and Tobago Single unit delivery from Emtunga's Workshop in Gothenburg, Sweden – 2017

MODULE SECTIONS DELIVERY – ASSEMBLY AT LOCAL YARD



Shah Deniz II – BP Module Fabrication in Emtunga's workshop in Emtunga, Sweden and final assembly at Azfen Yard, Baku, Azerbaijan – 2016



Champion 7 – Brunei Shell Petroleum Module Fabrication in Emtunga's workshop in Emtunga, Sweden and final assembly at Profab Yard, Batam, Indonesia – 2012

LOCAL FABRICATION

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Hebron TLQ – BP Fabrication of module sections at Profab Yard, Batam, Indonesia – 2015



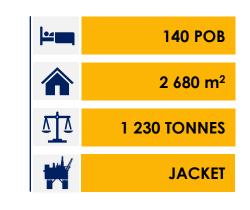
Our most enduring success story: AIOC/BP in Azerbaijan

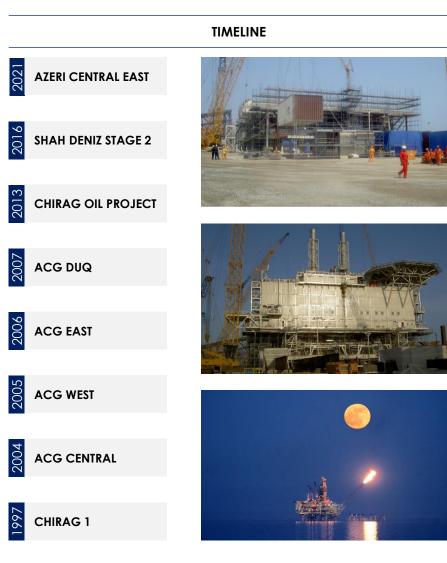
PROJECT DETAILS

- Emtunga has designed, built and commissioned 7 Living Quarters for AIOC(BP and SOCAR) in Azerbaijan since 1997, no 8th is currently ongoing
- Design and fabrication of fully outfitted module sections in Sweden, local assembly on topside and on-shore commissioning in Azerbaijan
- Based on a concept which has been iteratively refined resulting in a low weight and cost efficient design.











Living Quarters Extensions and Upgrades – deliveries the past 15 years

Field Name	Operator	Client	Region	Description	Installation Type	Delivery Year	Size	Regulations
AMCX09 - AMP9 LQ	Brunei Shell Petroleum	AMEC FW	Brunei	Living Quarters Rejuvenation – Architectural and HVAC	Jacket	2020		Shell Design & Eng. Practice (DEP) + Local Regulations
Rowan Stavanger	Rowan Drilling UK	Rowan Drilling UK	Norway	Living Quarters Extension	Jack-Up	2019	216m ² 31 POB	NORSOK, DNV
ETAP ALQ	BP	AMECFW	UK	Living Quarters Extension	Jacket	2015	544 m ² 28 POB	UK Rules & Regulations
Hebron	ExxonMobil	Worley Parsons	New Foundland	18 off self contained Temporary LQ modules - to be utilized during HUC	Concrete Base Straucture (CBS)	2015	615 m ² 59 POB	CSA
Lomond	BG Group	AMEC	UK	Living Quarters Extension	Jacket	2014	475 m ² 24 POB	UK Rules & Regulations
Heimdal	Statoil	Statoil	Norway	Additional Office Modules	Jacket	2013		NORSOK
Mad Dog	BP	BP	GOM	Additional Gym Module + Refurbishment of existing LQ Areas	SPAR	2013		US Coastguard
Songa Delta	Songa Offshore	Songa Offshore	Norway	Additional Accommodation Module and helideck	Semi- submersible	2012	357 m² 16 POB	NORSOK
Mad Dog	BP	BP	GOM	Additional Office Complex	SPAR	2010		USCG
Oseberg West	Statoil	Statoil	Norway	Additional Operator Office Module	Jacket	2009		NORSOK
Balder	Heerma Marine Contractors (HMC)	Heerma Marine Contractors (HMC)	Worldwide	Living Quarters Extension	Semi- submersible	2006	240 m ²	European Standards



Living Quarters Extensions and Upgrades – deliveries the past 15 years

Field Name	Operator	Client	Region	Description	Installation Type	Delivery Year	Size	Regulations
Deepwater Discovery	Transocean	Transocean	USA	Living Quarters Extension	Drillship	2006	40 POB	ABS
Terra Nova	Petro Canada	KBR	Canada	Living Quarters Extension	FPSO	2006	46 POB	LRS Approved
Schiehallion	BP	BP	Shetland Islands	Living Quarters Extension	FPSO	2005	320 m ²	UK Rules & Regulations
Safe Astoria	Consafe Offshore	Consafe Offshore	Worldwide	Living Quarters Extension	Semi- submersible	2004	1230 m ² 200 POB	ABS

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Project Experience OFFSHORE Living Quarters Extensions and Upgrades – selected experience

LIVING QUARTERS EXTENSION – ASSEMBLY OFFSHORE



ETAP, UKCS – BP Fabrication of module sections and trial-fit/assembly inside Emtunga's Workshop in Sweden. Module sections individually lifted and assembled offshore – 2015

LIVING QUARTERS REJUVENATION



AMCX09 - AMP9 LQ , Brunei – Brunei Shell Petroleum Work offshore in Brunei. Design and Procurement managed from Sweden – 2019

LIVING QUARTERS EXTENSION - SINGLE LIFT



Rowan Stavanger – Rowan Drilling UK

Fabrication and assembly of module sections inside Emtunga's Workshop in Gothenburg, Sweden prior delivery. Final single lift installation on rig at quayside, Dundee, Scotland – 2019





Project Experience OFFSHORE

Engineering & FEED Services – deliveries the past 15 years

Field Name	Operator	Client	Region	Description	Installation Type	Delivery Year	Size	Regulations	Man-hours
Mad dog	BP	Worley Parsons	GOM	Design Life Extension – Structural Support Reactions	SPAR	2019 (Ongoing)	NA	US Coast Gard	500
Coral South	ENI	SOFEC	Mozambique	Basic Design of Turret Instrument Room Module	FPSO	2018	150 m ²	Lloyds, DNV	8 000
Cash Maple	PTTEP	Technip FMC	Australia	LQ Pre-FEED	Jacket	2017	2 500m ²	Australian Rules & Regulations (NOPSEMA)	500
Leviathan	BW	BP	Mediterranean	LQ conceptual design for FPSO upgrade	FPSO	2014	4 500m ²		500
Sangachal Terminal	BP	BP	Caspian	Basic Design of Central Control Building extension (CCBx)	Onshore Building	2014	1 600m ²	UK Rules & Regulations	6 000
Amherstia / Mahogany B	BP	BP	Trinidad	LQ FEED for 2 existing platforms.	Jackets (Existing)	2014	2 x 1082m ² 2 x 70 POB	Trinidad Rules & Regulations	6 500
White Rose	Husky Energy	Mustang	New Foundland	 LQ Basic Design LQ FEED Design 	Gravity Based Structure (GBS)	1) 2014 2) 2013	3 500m ² 130 POB	New Foundland Rules & Regulations	10 000
YME	Talisman	YME	Norway	LQ Concept Study	Jack-up	2013	6 600m² 120 POB	PSA, Norsok, NMD and DNV class	1700
Lomond	BG Group	AMEC	UKCS	LQ Concept Study	Jacket	2013	475m ² 24 POB	BG Standard	2 000
Tyonek	Conoco Phillips	Conoco Phillips	Alaska	LQ Concept Study	Jacket	2013	457m ² 32 POB	US Coast Gard	100
Browse CPF	Woodside	Woodsid e	Australia	LQ FEED Validation	Jacket	2013	6 500m ²	Australian Rules & Regulations	850



Project Experience OFFSHORE

Engineering & FEED Services – deliveries the past 15 years

Field Name	Operator	Client	Region	Description	Installation Type	Delivery Year	Size	Regulations	Man-hours
Mad Dog	BP	BP	GOM	LQ Extension Concept Study	SPAR	2012	300m ² 40 POB	US Coast Gard	1 000
Rosebank	Chevron	Worley Parsons	UKCS	LQ Concept Study	FPSO	2012	4 500m² 180 POB	UK Rules & Regulations	1 500
Amherstia / Mahogany B / Cassia	BP	BP	Trinidad	LQ Basic Design / Concept Studies	Jackets	2011 - 2012	30-120 POB	Trinidad Rules & Regulations	10 000
Shah Deniz 2	BP	BP	Caspian	LQ Concept study	Jacket	2011	2 700m ² 100 POB	UK Rules & Regulations	1 000
Dolphin	BG	BG	Trinidad	LQ Concept Study	Jacket (Existing)	2010	1 330m ² 23 POB	Trinidad Rules & Regulations	1 000
ANCDF	Dynasafe	Dynasafe	US	Technical Module	Onshore	2010	n.a	US Building Code	1 000
Big Foot	Chevron	Chevron	GOM	LQ Concept Study	Tension-Leg Platform	2009	2 500m ²	US Coast Gard	500
Northstar	BP	BP	Alaska	LQ Concept Study	Man-made Island	2009	1 500m ²	Alaska Rules & Regulations	500
Chirag (COP)	BP	BP	Caspian	LQ Concept Study	Jacket	2008	2 640m ² 174 POB	UK Rules & Regulations	500
Ekofisk G2/4L	Conoco Phillips	Conoco Phillips	Norway (NCS)	LQ FEED Design	Jacket	2008	10 000m ² 505 POB	NORSOK	20 000
Troll A LQE	Statoil	Statoil	Norway (NCS)	LQ Concept Study	Jacket (Existing)	2007	6 000m ² 150 POB	NORSOK	1 000
Gjöa	Statoil	Statoil	Norway (NCS)	LQ Concept study	Semi- submersible	2006	3 600m ² 120 POB	NORSOK	1 000



Project Experience

Engineering & FEED Services – selected experience

LIVING QUARTERS - PRE-FEED STUDY



Cash Maple, Australia – PTTEP Study performed by from Gothenburg, Sweden to define Living Quarter's functional requirements, GA Layout and input to Schedule and Cost Estimations – 2017

TURRET INSTRUMENT ROOM - FEED AND BASIC DESIGN



Coral South, Mozambique – ENI Design up to Class Approval from a combined team in Gothenburg, Sweden and Houston, Texas – 2018

LIVING QUARTERS - FEED DESIGN



Ekofisk G2/L, Norway – ConocoPhilips Design Study of a 10 000 sqm Living Quarters complex for 505 Persons on Board performed by our in-house engineering team in Sweden – 2008



Technical Modules and Control Rooms - deliveries the past 15 years

Field Name	Operator	Client	Region	Description	Installation Type	Delivery Year	Size	Regulations
Sangachal Terminal	ВР	BP	Caspian	Central Control Bulding extension (CCBx) at Sangachal Terminal outside Baku, Azerbaijan.	Onshore Building	2016	1600 m ²	Local Rules & Regulations
Waimea Field	OSX	Siemens	Brazil	2 number off Drilling Power Modules	Fixed Platform	2013	2 x 367 m ²	Brazilian Rules & Regulations DNV certification
Goliat FPSO	ENI	Wärtsilä	Norway	2 number of Direct Electric Heating (DEH) Modules	FPSO	2012	2 x 37m²	NORSOK DNV certification



Project Experience OFFSHORE Technical Modules and Control Rooms – selected experience

TECHNICAL MODULES



Waimea Field, Brazil – Siemens OGX Drilling Power Modules for Brazil delivered from Emtunga Workshop in Gothenburg, Sweden – 2013



Goliat, Norway – ENI Direct Electric Heating (DEH) Modules delivered from Emtunga Workshop in Emtunga, Sweden – 2012

CENTRAL CONTROL ROOM BUILDING – ONSHORE BUILDING



Shah Deniz Stage II project - Sangachal Terminal – BP Fabrication in Emtunga's workshop in Emtunga, Sweden and final assembly on local site at Sangachal Terminal, Baku, Azerbaijan – 2016



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