

CLV SIEM CARRIER



Vessel Description and Features

Cable Lay Vesse – Siem Carrier

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1. INTRODUCTION

The CLV Siem Carrier was originally built in 1996 as North Sea type platform supply vessel and has been completely upgraded and rebuilt in 2007 at the Orskov Yard in Denmark.

The upgrade and rebuilding of the CLV Siem Carrier was focussed on the following work scopes of the vessel:

- Submarine cable installation works
- ROV survey and intervention works
- Offshore construction support works
- Diving support works

Since completion of the upgrade and rebuilding of the CLV Siem Carrier has completed a.o. the following projects successfully:

Project: Umm Shaif Gas Injection Facilities Project
Location: Umm Shaif Field, Abu Dhabi (Persian Gulf)
Operator: Abu Dhabi Marine Operating Company (ADMA-OPCO), UAE
Main Contractor: Hyundai Heavy Industries, South Korea
Scope: Installation of 1x 1kV MVAC infield composite submarine cables incl. 2x J-tube pull-ins, 5x subsea crossing and the installation of 153x flexible concrete stabilisation mattresses
Total length: 2 km

Project: Ras Gas – Field Operations Project
Location: North Field, Qatar (Arabian Gulf)
Operator: Ras Laffan Liquefied Natural Gas Co., Qatar
Main Contractor: Fugro Survey Middle East, Abu Dhabi/UAE
Scope: ROV inspection and cleaning works on various platforms in line with a planed maintenance schedule

Project: Ras Gas – Field Operations Project
Location: North Field, Qatar (Arabian Gulf)
Operator: Ras Laffan Liquefied Natural Gas Co., Qatar
Main Contractor: RasGas Company, Qatar
Scope: Repair of 1x 8kV MVAC infield submarine composite cable

Project: Pearl “Gas to Liquids” Project
Location: North Field, Qatar (Arabian Gulf)
Operator: Shell Qatar, Qatar
Main Contractor: J. Ray McDermott Middle East, UAE
Scope: Installation of 2x shore end and 1x infield fiber optic submarine cables incl. 2x shore pulls and 4x J-tube pull-ins
Total length: 136 km

Project: Ras Gas Field Development Project Phase 2
Location: North Field, Qatar (Arabian Gulf)
Operator: Ras Laffan Liquefied Natural Gas Co., Qatar
Main Contractor: J. Ray McDermott Middle East, UAE
Scope: Repair of 1x 8kV MVAC infield submarine composite cable

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- Project:** **Salman EPC-3 Offshore Project**
Location: Salman Field, Iran (Arabian Gulf)
Operator: National Iranian Oil Company, Iran
Main Contractor: Iranian Offshore Engineering and Construction Co. Iran
Scope: Installation of 3x 11kV and 1x 1kV MVAC infield submarine composite cables incl. 8x J-tube pull-ins
Total length: 16 km
- Project:** **Qatargas 3 & 4 Offshore Facilities Project**
Location: North Field, Qatar (Arabian Gulf)
Operator: Qatargas, Qatar
Main Contractor: J. Ray McDermott Middle East, UAE
Scope: Installation of 2x electro-hydraulic control umbilical, 2x 13.8kV MVAC shore end and 2x 13.8kV MVAC infield submarine composite cables incl. 2x shore ends, 8x J-tube pull-ins and 2x subsea lay-downs
Total length: 144 km
- Project:** **Maersk Oil Qatar Block 5 Field Development Plan 2005**
Location: North Field, Qatar (Arabian Gulf)
Operator: Maersk Oil Qatar, Qatar
Main Contractor: National Petroleum Construction Company (NPCC), UAE
Scope: Installation of 5x 15kV MVAC infield submarine composite cables incl. 10x J-tube pull-ins
Total length: 57.5 km
- Project:** **Ras Gas Field Development Project Phase 2**
Location: North Field, Qatar (Arabian Gulf)
Operator: Ras Laffan Liquefied Natural Gas Co., Qatar
Main Contractor: J. Ray McDermott Middle East, UAE
Scope: Installation of 2x 8kV MVAC infield submarine composite cables incl. 4x J-tube pull-ins
Total length: 62 km
- Project:** **KJO Field Development Plan Phase 1**
Location: Ras Al-Khafji, Saudi Arabia (Arabian Gulf)
Operator: Al-Khafji Joint Operations (KJO)
Main Contractor: Enppi/PMS/Petrojet/Rawabi, Saudi Arabia
Scope: Installation of 24x 5kV and 7x 36kV MVAC infield submarine composite cables incl. 62x J-tube pull-ins
Total length: 53 km
- Project:** **KJO Field Development Plan Phase 1**
Location: Ras Al-Khafji, Saudi Arabia (Arabian Gulf)
Operator: Al-Khafji Joint Operations (KJO)
Main Contractor: Enppi/PMS/Petrojet/Rawabi, Saudi Arabia
Scope: Installation of 31x J-tube risers at existing platforms
- Project:** **Taurt LNG Train 1 Supply Project**
Location: East Nile Delta, Egypt (Mediterranean Sea)
Operator: Gulf of Suez Petroleum Company (Gupco), Egypt
Scope: Installation and post-lay trenching of 1x electro-hydraulic umbilical incl. 1x shore end and 1x subsea lay-down
Total length: 68 km

In case you require any further information please visit our webpage under www.siemoffshorecontractors.com or contact us.

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2. GENERAL VESSEL DATA

2.1 Vessel Data

Vessel Name:	Siem Carrier
Owners/ Managers:	Siem Offshore Inc.
Type/ Design:	VS 483
Builder:	Ferguson UK
Yard No.:	612
Delivery date:	1996
Flag:	Norwegian
Port of Registry:	Aalesund
Call Sign:	LNJD3
Classification:	LLOYDS +100A1+ DP AA+LMC, UMS
IMO NO:	9121845

2.2 Principal Dimensions

Length Overall:	82.85 m (excl. chute)
Length Overall:	86.88 m (incl. chute)
Length B.P.P.:	75.80 m
Beam Moulded:	19.00 m
Draught Summer:	6.30 m (max)
Draught Summer:	5.00 m (typical with cargo)
Depth Moulded:	7.60 m

2.3 Tonnages

Gross Tonnage:	3,588
Net Tonnage:	1,900
Max. Displacement:	6,990 t
Dead Weight:	4,679 t

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3. MACHINERY DATA

3.1 Propulsion

Main Propulsion:	2 x CPP, 3.4 m, 160 RPM, 2 x spade rudder
Stern Thrusters:	2 x CPP, 10.8 tons thrust
E-Motor:	2 x 440 V, 60 Hz, 746 KW
Forward Thruster:	1 x Retractable Azimuth Thruster, 13.8 tons thrust
E-Motor:	1 x 440 V, 60 Hz, 895 KW
Tunnel Thruster:	1 x CPP, 10.8 tons thrust
E-Motor:	1 x 440 V, 60 Hz, 746 KW

3.2 Power Generation

Diesel Engines:	2 x Wartsila 6R32E, 2460 KW
Aux. Engines:	1 x Caterpillar 3512, 1000 KW (for azimuth thruster) 2 x Scania DI 16 55M, 532 KW
Generators:	2 x Shaft generators, 440 V, 60 Hz, 1760 KW
Power Management:	Megacon
Emergency Generator:	1 x Cummins 167 KW

3.3 Tank Capacities

Diesel Oil:	1,124 m ³
Lube Oil:	Main engines 12.5 m ³ Aux. engines 2.8 m ³
Fresh Water:	1,068 m ³
Ballast:	1,058 m ³

3.4 Performance

Maximum transit speed:	14 kn
Economical speed:	12 kn
Fuel consumption (transit):	8 m ³ /day (economical speed) 13.8 m ³ /day (maximum speed)

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Fuel consumption (DP): 8 m³ /day (subject to load conditions)

Fuel consumption (in port): 1.5 m³ /day

4. NAVIGATION EQUIPMENT

4.1 Dynamic Positioning System

DP Type/ Class: LRS DP AA

ERN: 98, 95, 77

System: KPos - 2

Manufacturer: Kongsberg

Position References: 1 x HIPAP 500 (Kongsberg)
2 x DGPS (Veripos)
1 x Fanbeam (MLD)
3 x Gyro's

Environmental References: 2 x MRU (Motion Reference Units)
3 x Wind Sensors

Power Supplies: 230 VAC / 1 ph
1 x UPS 230 VAC, 2000 VA
1 x UPS 230 VAC, 1000 VA

Software: Kongsberg K-pos 7.0.3

Software Options: Joystick Manual Heading
Joystick Auto Heading
Auto Position Control with DGPS
Auto Position Control with Acoustics
Auto Position Control with Fanbeam
Auto Track
Auto Pilot
Auto Sail
Hand Pilot

4.2 Navigation and Communications:

Radar (main): Furuno FAR 2117 X-band / 3 cm

Radar (secondary): Furuno FAR 2117 X-band / 3 cm

Autopilot: Simrad AP 9 MK II

Gyro: 2 x Simrad GC 80
1 x Sperry Marine Navigat X MK1

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Echo Sounder:	1 x Furuno FE-700
Satellite Navigation:	2 x DGPS Veripos
Direction Finding:	n/a
Weather facsimile:	Subscription from internet
Sart:	2 x McMurdo RT9-3
Inmarsat C:	1 x Thrane & Thrane 3606 E 1 x Furuno IC-215
Inmarsat M:	1 x Thrane & Thrane
V-Sat:	1x Seatel 4006 System 4,096/1,024kb always-on connection with 8x analogue lines
GSM:	1x GSM repeater station with external antenna
Radio Communications:	All according GMDSS Sea Area A3
Internal Communications:	Combined Telephone & PA System Emergency sound powered telephone VHF / UHF communication (between work stations) Clearcom communication (between work stations)

5. DECK EQUIPMENT

5.1 Crane and Lifting Gear

Main Crane:	1x Goodcrane Offshore Knuckle-Boom Crane SWL: 25 ton, maximum outreach: 20.0m
Deck Support Crane:	1 x Effer Foldable Knuckle-Boom Crane SWL: 3.9 ton, maximum outreach: 16.9m (27.3m) 1 x Amco Veba Foldable Knuckle-Boom Crane SWL: 1.5 ton, maximum outreach: 14.1m
Store Crane:	2 x Amco Veba Foldable Knuckle-Boom Crane SWL: 1.5 ton, maximum outreach: 14.1m
Beacon Deployment Crane:	1 x Van Wijk Fixed Boom Crane SWL: 1.0 ton, maximum outreach 4.0m
A&R Winches:	2 x Lemans Electric Winches WLL: 20 tons (on 1 st layer) at 0 – 20 m/min

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5.2 Mooring System

Anchor winches:	Ulstein Brattvaag
Type:	Windlass BFMG 63 with two fixed warping ends
Pull Capacity:	25 tons at 0 – 12 m/min, 0 – 28 m/min with slack rope
Anchors:	2 x 'FLIPPER' Delta 2640 kg fore
Capstans:	Ulstein Brattvaag
Model:	2 x hydraulic capstans each one with a fixed warping head 500 x 638 mm
Pull Capacity:	10 tons at 0 – 18 m/min, 0 – 20 m/min with slack rope

5.3 Available Deck Area & Services

Deck Space Main Deck:	902 m ² , subject to deck layout
Deck Space Mezz. Deck:	350 m ² , subject to deck layout
Deck Cargo Capacity:	approx. 2,400 ton
Cable Tank Capacity:	approx. 1,200 ton

6. ACCOMMODATION AND LIFE SAVING

6.1 Accommodation

Total accommodation:	54 - fully air-conditioned
Single Cabins:	12
Double Cabins:	21
Mess Rooms:	1 x non-smoking day room 1 x smoking day room 1 x internet cafe
Laundry:	4 x washing machines 4 x tumble dryers 1 x drying room
Offices:	1 x project office 1 x client office 1 x survey office (alternatively 3 rd party office) 1 x ships office + bridge conference table

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6.2 Life Saving Equipment

LSA Equipment: provided for 54 persons as per SOLAS requirements

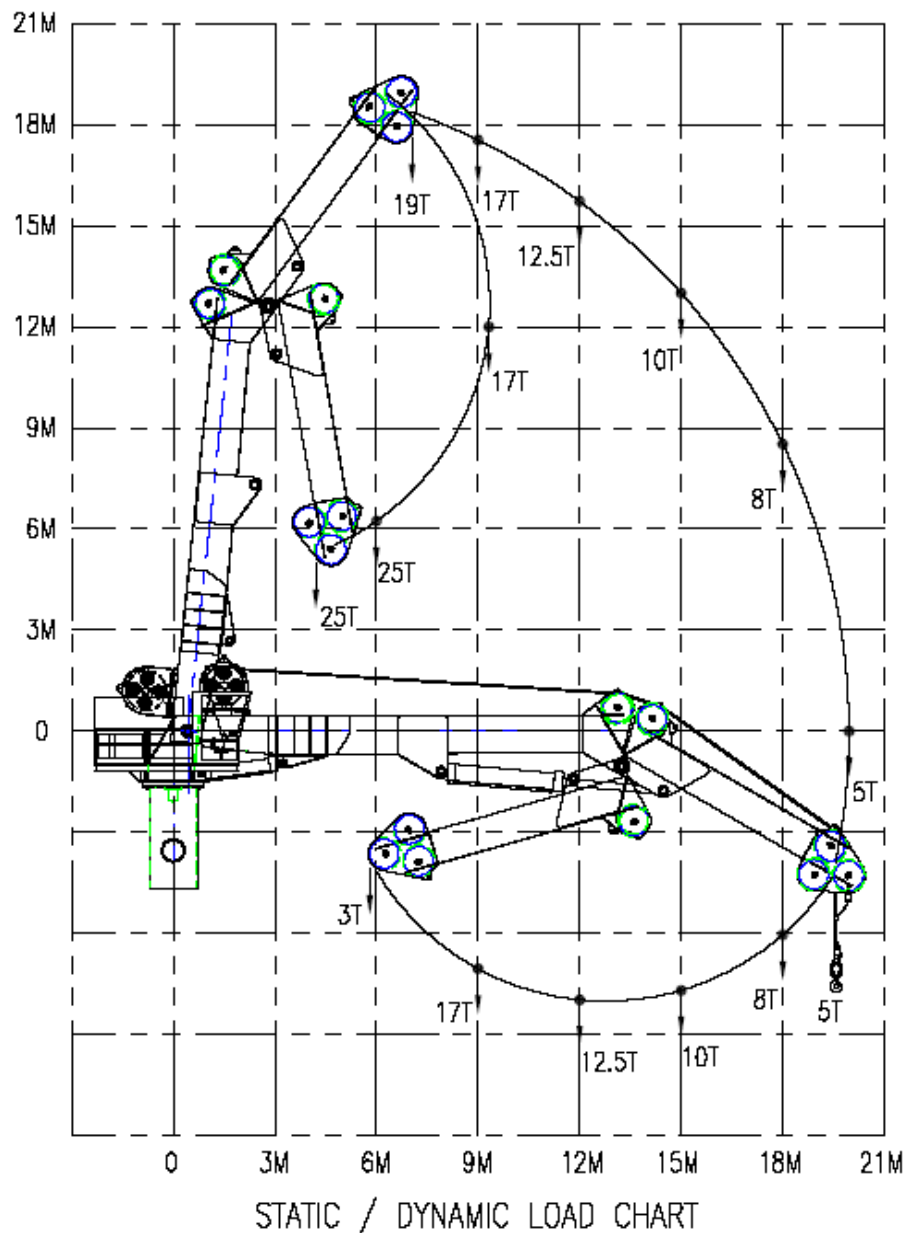
Hand Launched Life Rafts: DSB 3x 35 person each side

David Launched Rescue Boat: 1

Survival Suits: provided for all persons

7. CRANE LOAD CHARTS

7.1 Offshore Knuckle-Boom Crane - Goodcrane



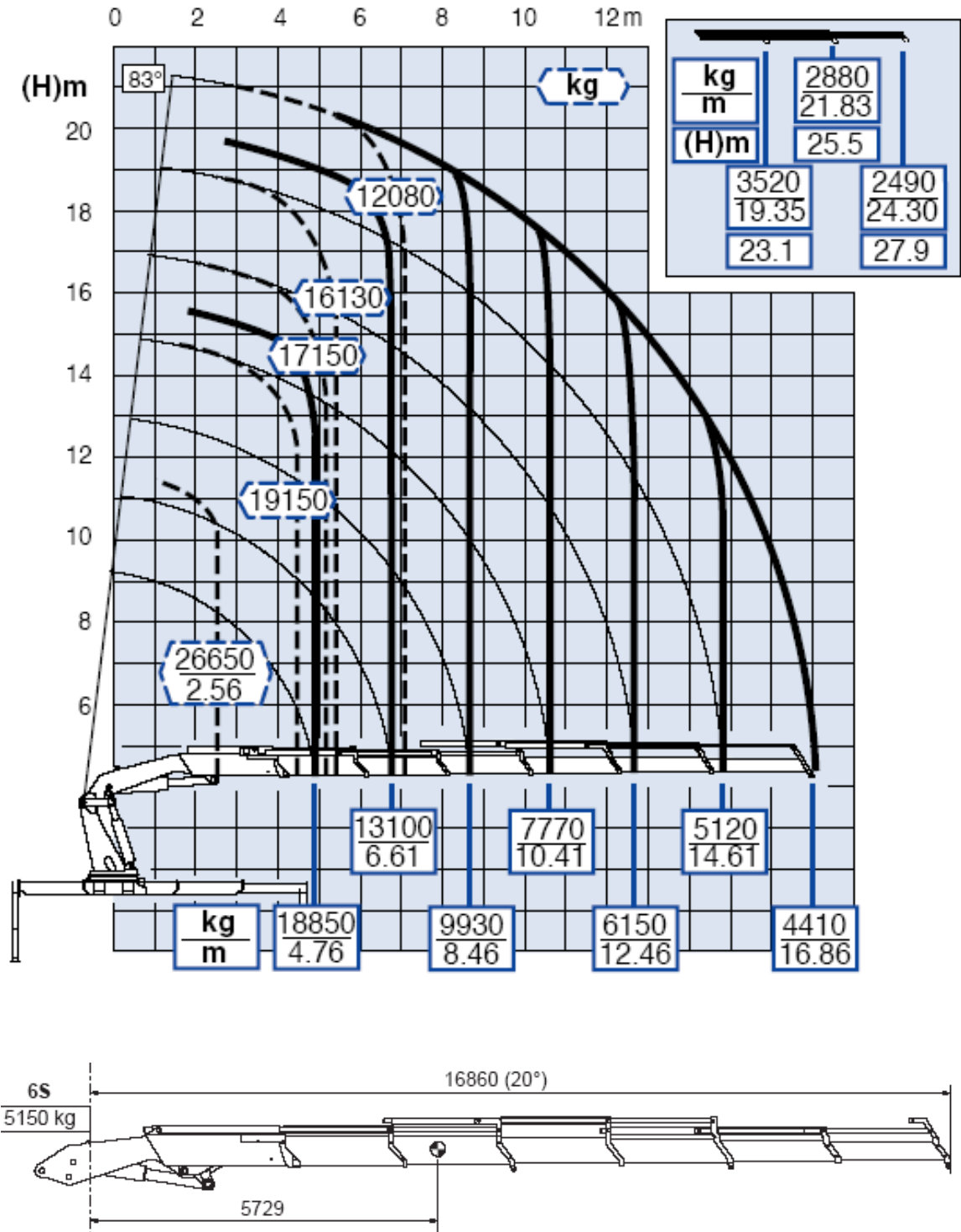
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7.2 Foldable Knuckle-Boom Crane - Effer



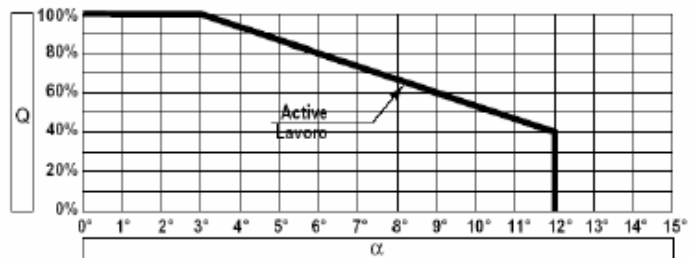
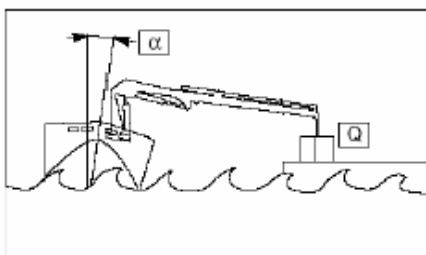
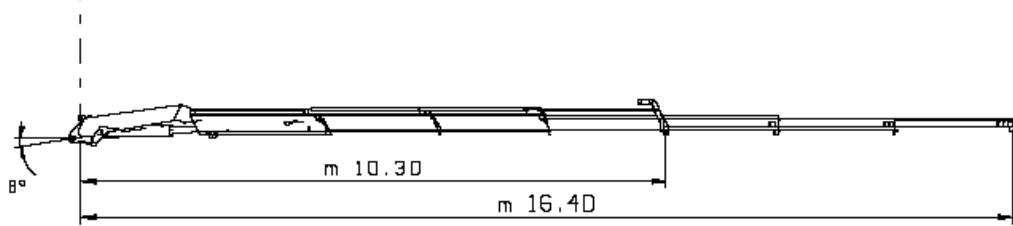
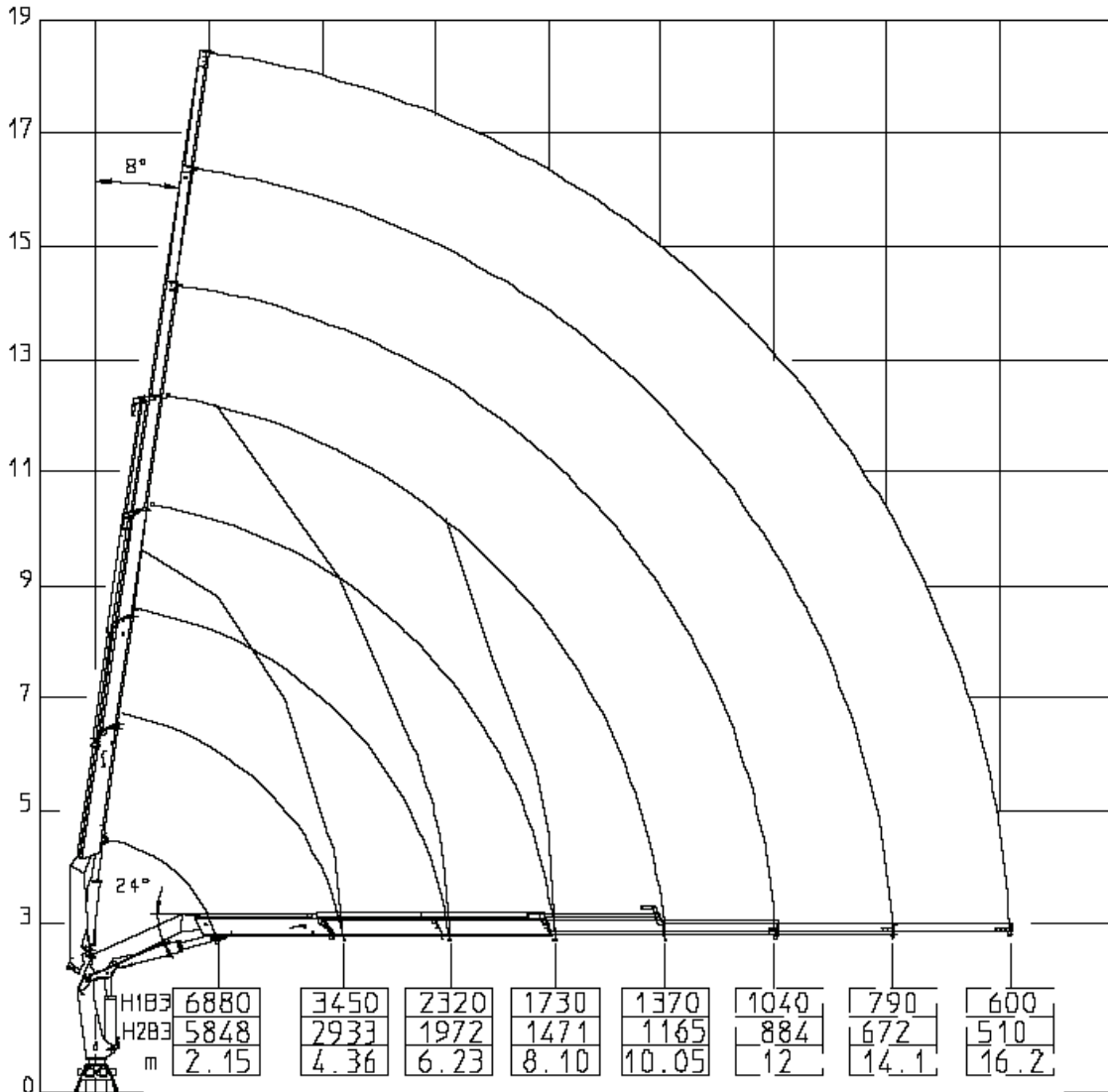
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7.3 Foldable Knuckle-Boom Crane – Amco Veba



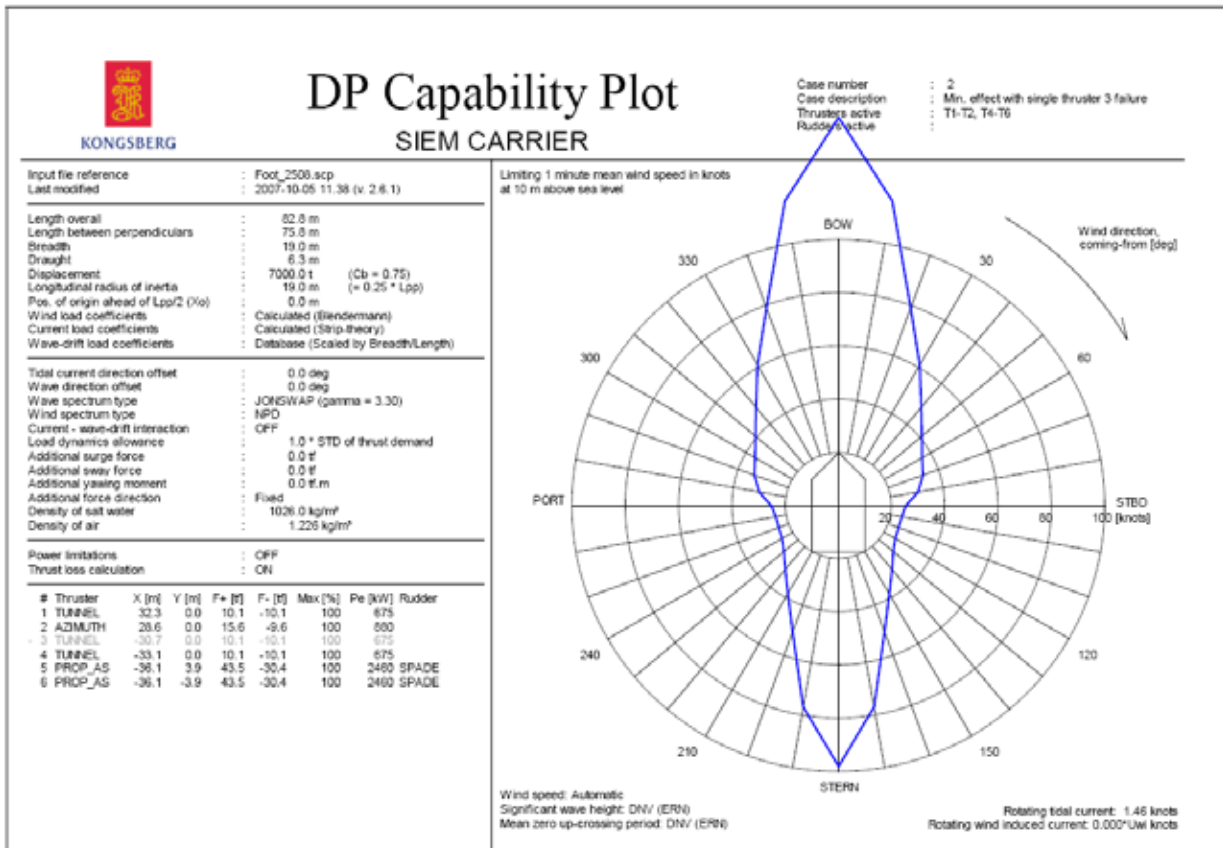
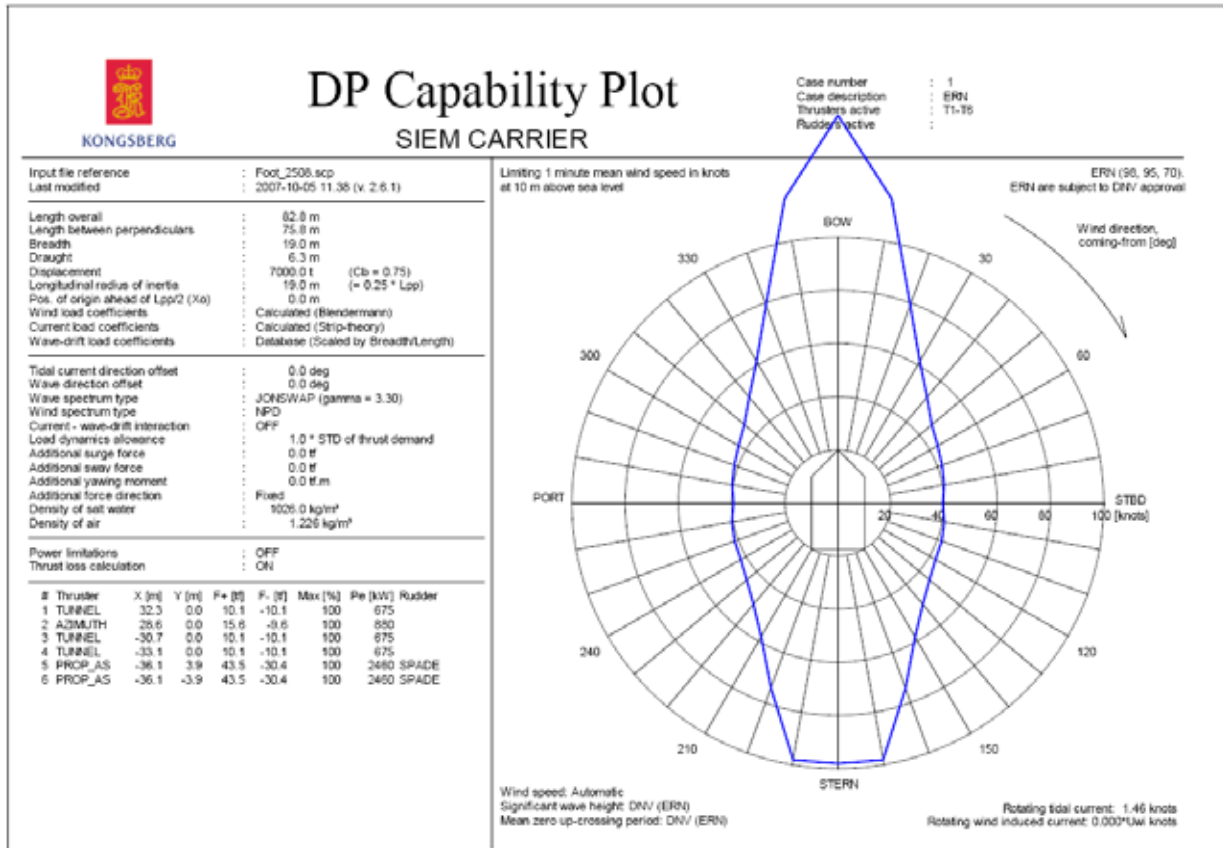
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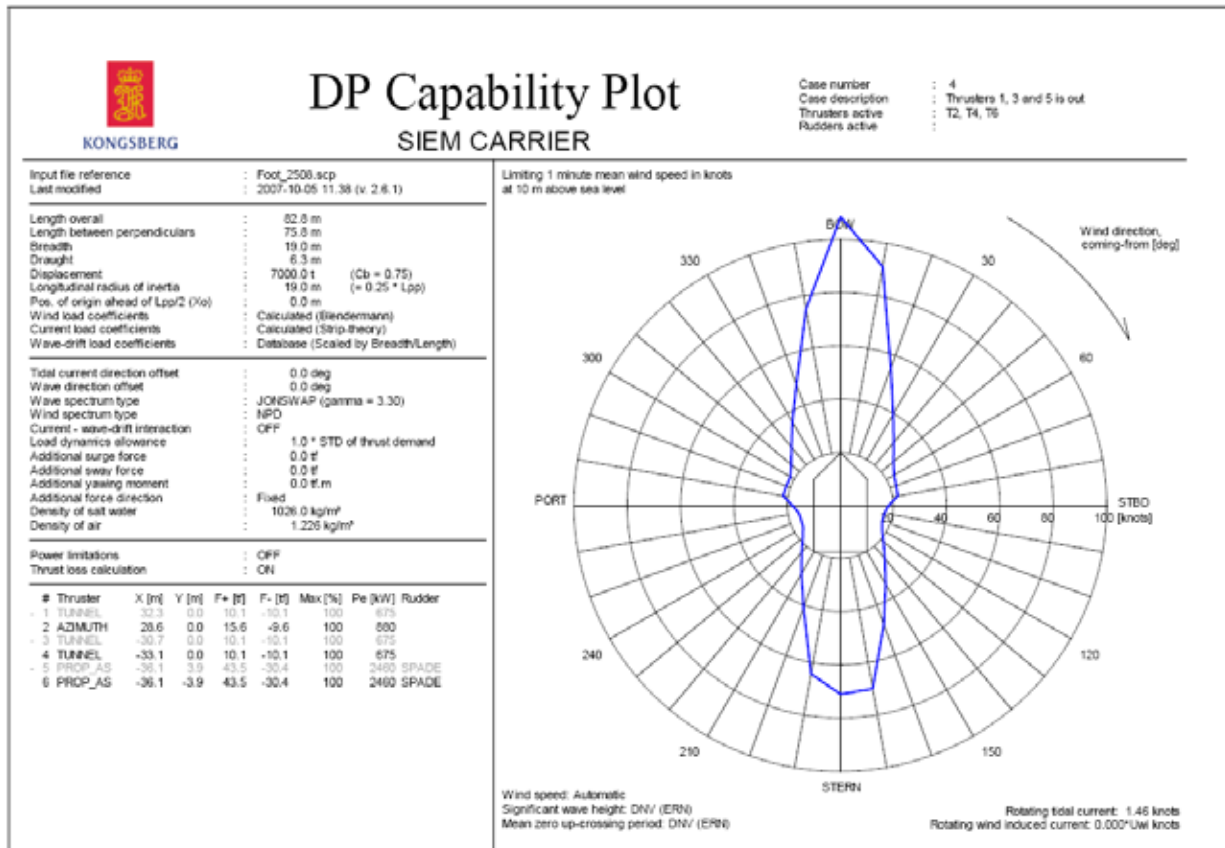
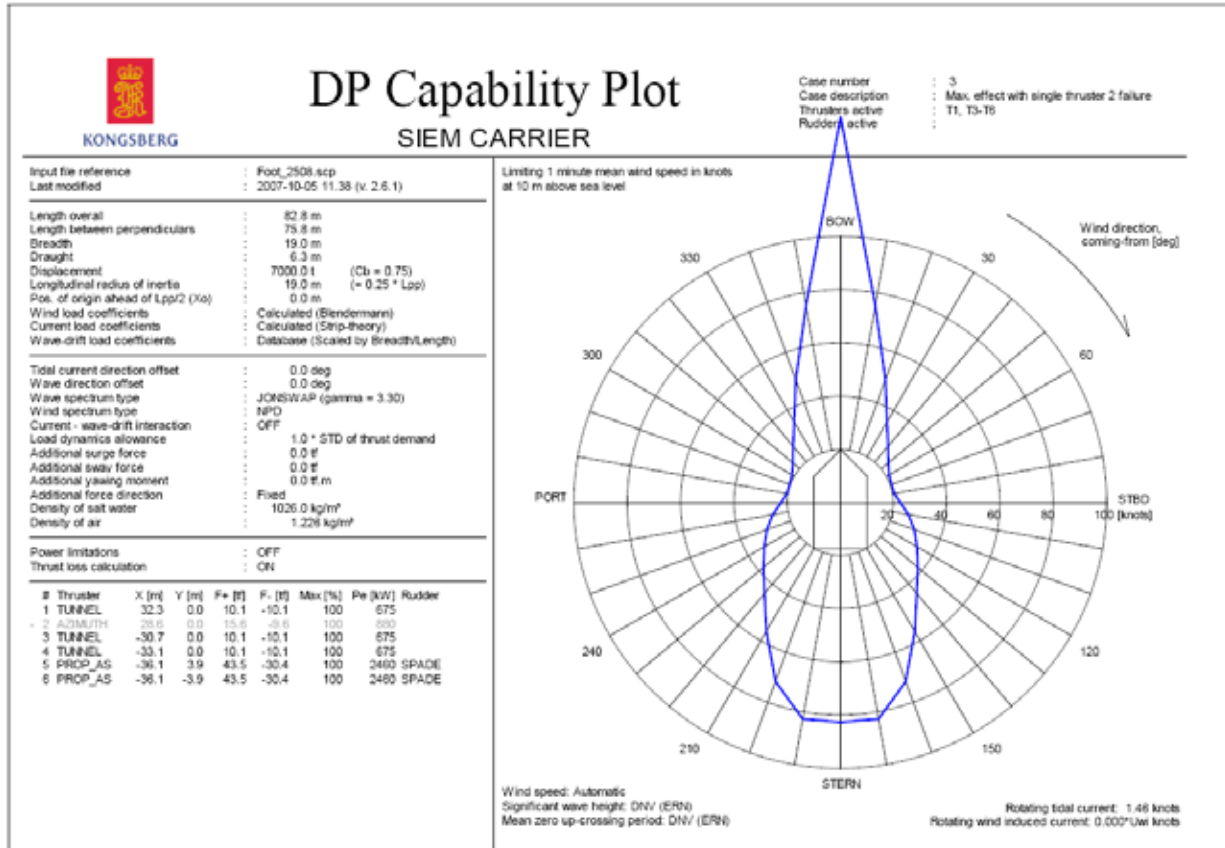
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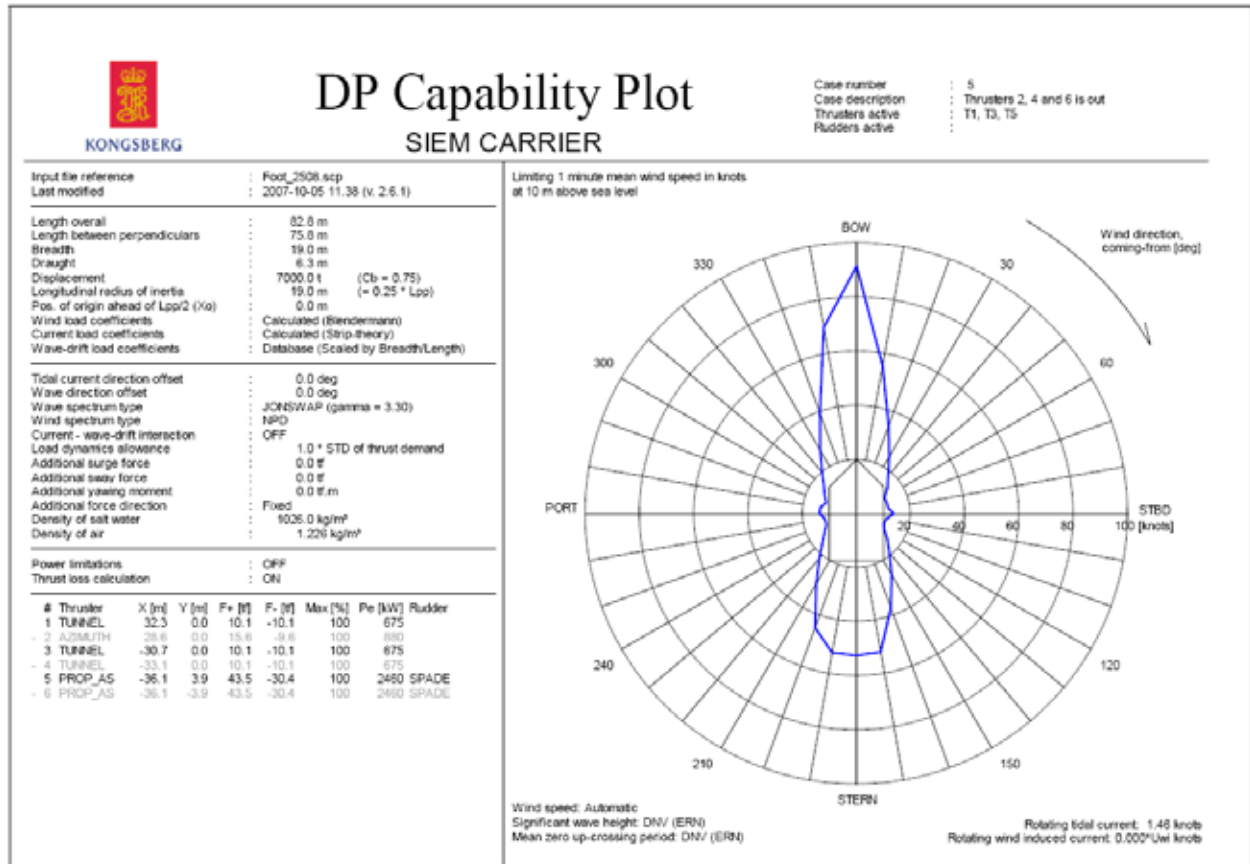
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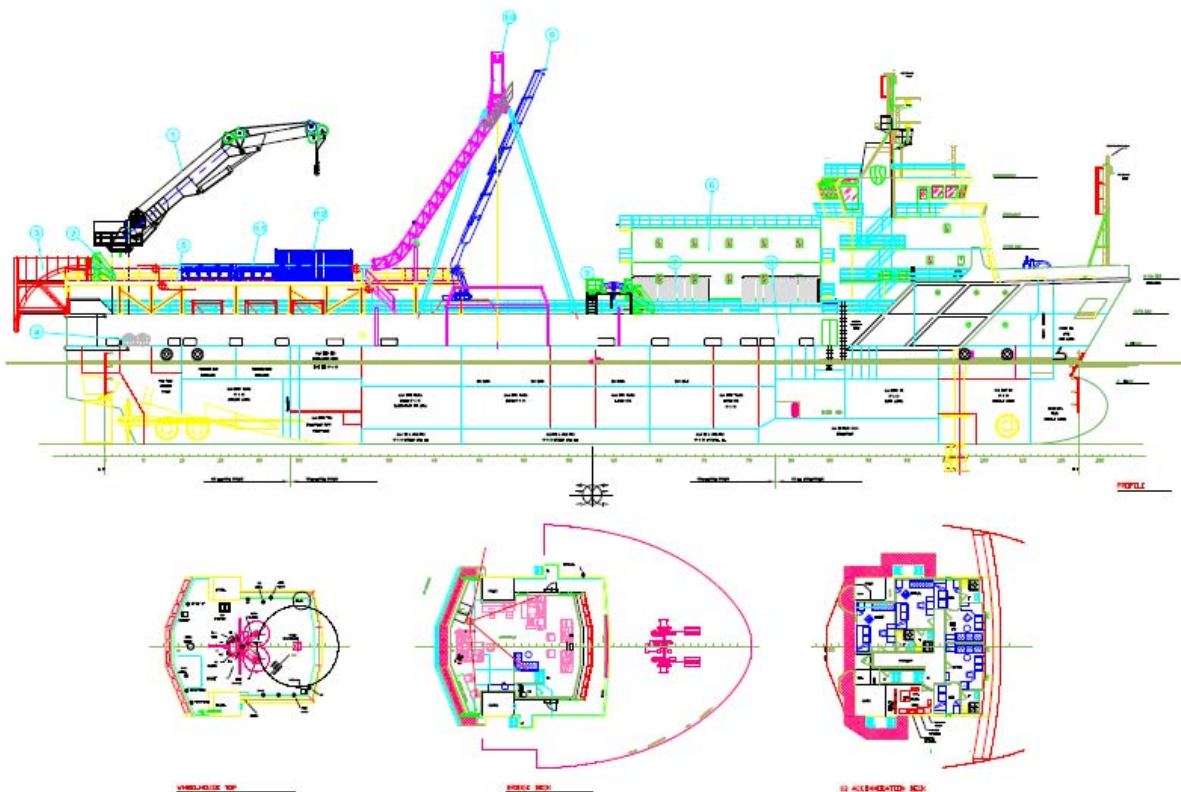
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9. GENERAL ARRANGEMENT



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