

DP2 heavy lift and pipelay vessel



Offshore Pipelay/Construction/Accommodation Vessel

Classification society..... CCS - DP-2 "Pipelay"

Flag..... P. R. China

Length overall (LOA) excl. Stinger105m

Length between perpendiculars (LPP) 100m

Breadth (molded) 26m

Extreme breadth (incl. Anchor racks) 26m

Depth molded to main deck6.5m

Lightship displacement 8573t

Lightship weight..... 6124t

Transit draught2.7~4.7m

Displacement on transit draught.....11112t

Gross tonnage 7677t

Net tonnage 2303t

Transit speed 11.2 knots

Free main deck area	1280m ²
Ballast capacity	1692.19m ³
Engine lub. Oil capacity	23.85m ³
Fuel oil capacity	917.36m ³
Dirty oil	23.85m ³
F.O. Overflow	23.85m ³
Oily bilge	63.6m ³
Fuel oil day tanks	58 m ³
Potable water capacity	477m ³
Fresh water capacity	366m ³
Fresh water generators (RO)	1058US gallons/day

The barge was equipped with lube oil tank, dirty oil tank, sea water settling tanks, and oil treatment units. The barge also have a holding tank and treatment units for sewage with sufficient capacity to fulfill the relevant regulations and IMO requirements. Barge also equipped with 2 tons fork lift.

Air Compressor: The motor-driven engine, with capacity of 120 m³/h at 3.0MPa.

Machinery

Propulsion engines	2×1765KW-LC8250ZLC-2		
Power generation.....	4×1200kw/825r.p.m	400V/50HZ	
	400kw/1500r.p.m	400V/50HZ	
	200kw/1000r.p.m	400V/50HZ	

Thrusters

Main Thrusters	2x WSP240-FP, 2x 1765 KW/825r.p.m
Side Thrusters.....	2x Ct165-CP, 2x 800 KW/1480r.p.m
Forward All-direction Retractable Thrusters.....	WSP165-FP-I, 700 KW/1470r.p.m

Mooring system

Positioning Winches.....8 Sets AMCLYDE MODEL 6000-M2 (7.5t)

Positioning Anchor ability.....

The inner tension 100.8T

The middle layer tension 75T

The outermost pull 55T

Anchor Wire Length:1500m

Rolling up the line speed.....

load rating 750KN*10m/min

underload 150KN*40m/min

Put the line speed 50KN*125m/min

Crane

Main Hook Limited Revolving 300t x 27.5m

Main Hook Full Revolving 300t x 22.5m

1#Aux Hook Full Revolving 50t x 45m

Whip 20t

Starboard Deck Crane

Span 4.5m~ 28m
跨 距

Maximum lifting capacity30T
最大吊重能力

Slewing angle..... 360°Endless
回转角度

Hoisting speed 30 t × 16 m/min
起升速度

Pipe lay system

Capacity: 4"- 60" diameter pipe

Tensioners:120t

Sheltered conveyor system and powered transverse conveyors with elevating and non elevating capabilities,comprising.

Main firing Line: 4 welding stations
1 NDT station (X-Ray or Ultrasonic)
1 coating station

Control Room:

Tension machine and conveying rollers from midship bridge work remote control.

A & R Winch: 120T

Welding Machines:

15 sets of Lincoln 400 Amp. or equivalent, permanently installed on the barge.

2 Gouging sets of Lincoln 600 Amp. D/C.

Cable Laying System

One (1) set of equipment for laying 50mm to 200mm O.D. steel armored cable, which Tensioners system to control the cable tension.

Accommodation

212 Persons. All accommodation areas are centrally air-conditioned \ inclusive spacious galley and mess room, laundry, dry / cold stores, change rooms, TV rooms and recreation facilities. Supplemental facilities

include offices, conference rooms, helicopter arrival/departure lounges,

safety/security office and hospital with separate treatment room, etc.

Barge was furnished with natural and forced ventilation system. Barge

also equipped with both natural and forced ventilation systems.

Safety Appliances

In accordance with SOLAS 74, with relevant SOLAS 83 amendment.

Barge with safety certificate and equipped with requisite lifesaving equipment on board, including fire extinguishers, life rings, life jackets, life rafts, pressurized fire water systems, dry chemical, CO2 fire fighting systems of CCS Standards. Barge also equipped with eye wash and emergency showers at proper location.

**Communication
Equipment :**

VHF air phone IC-A110, Aviation position marker vector 125W,
Aviation handheld radios IC-A24 nautel company USA (119.000
-135.975 MHz)

Helideck

Helicopter model:Bell 412EP

Size: :outer ring Φ 17.86m

maximum bearing capacity: : 8T

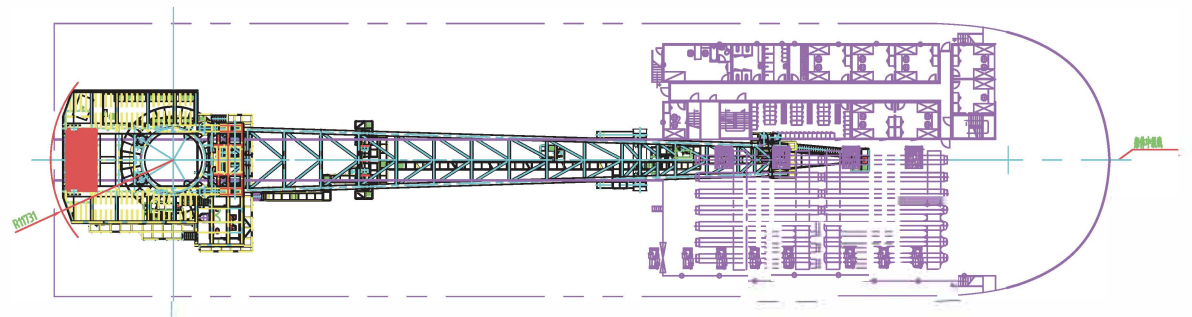
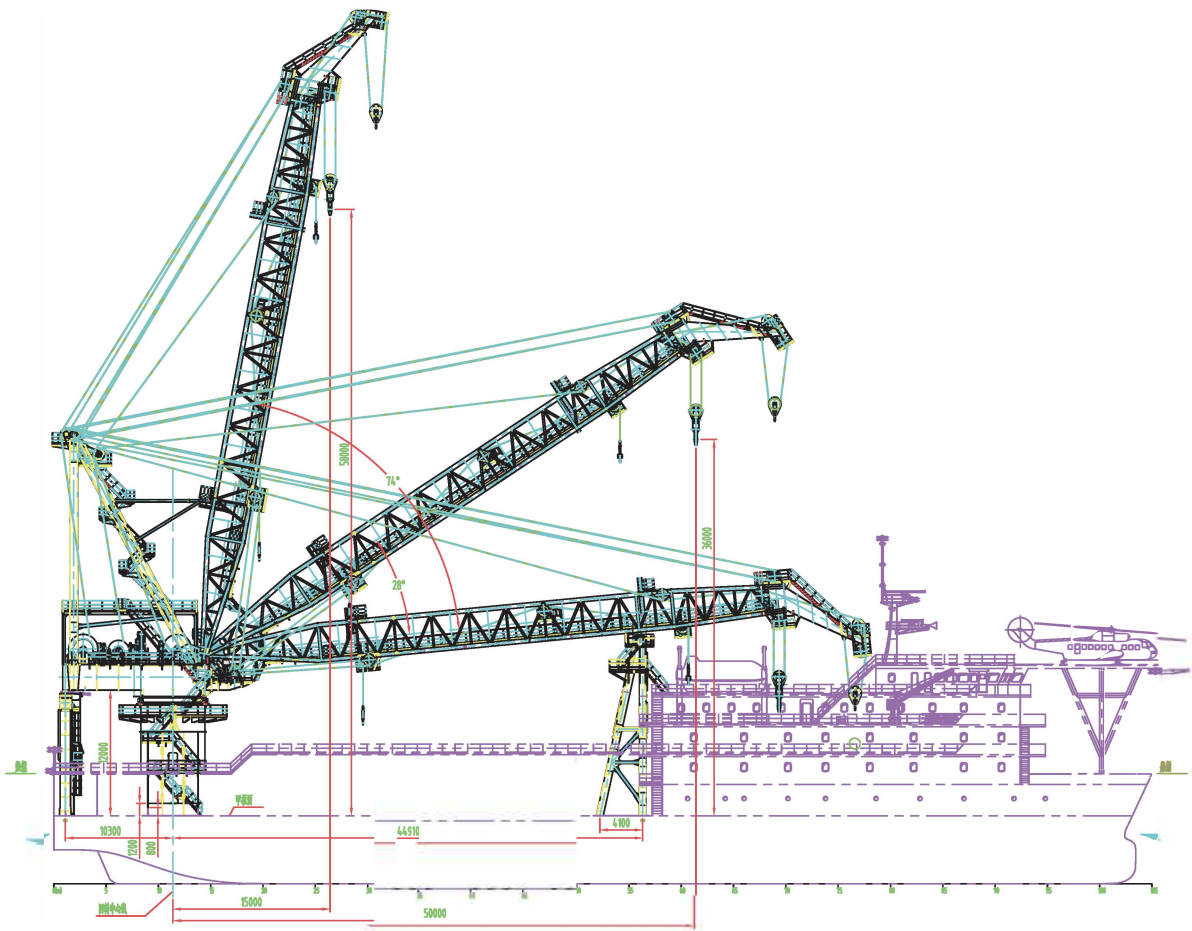
Location of helicopter landing deck: over the bow,

Design Standard:API-RP-2L

Material of helicopter landing deck: Steel construction, deck surface with non-slip type and fireproof coating.

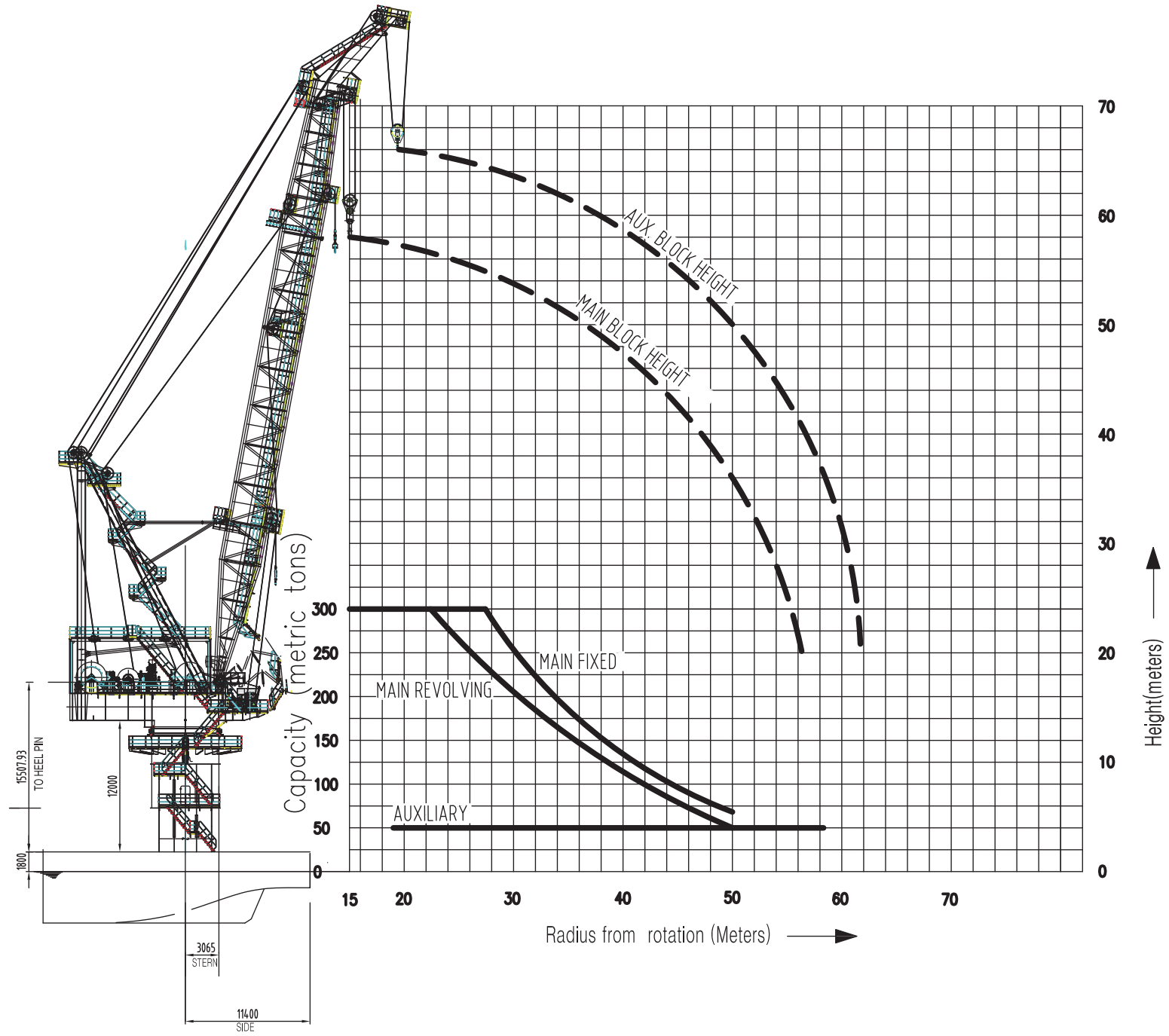
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设计
校对
审核
工艺
标准
制图

The graph of the radius versus the Loads/the Lifting height

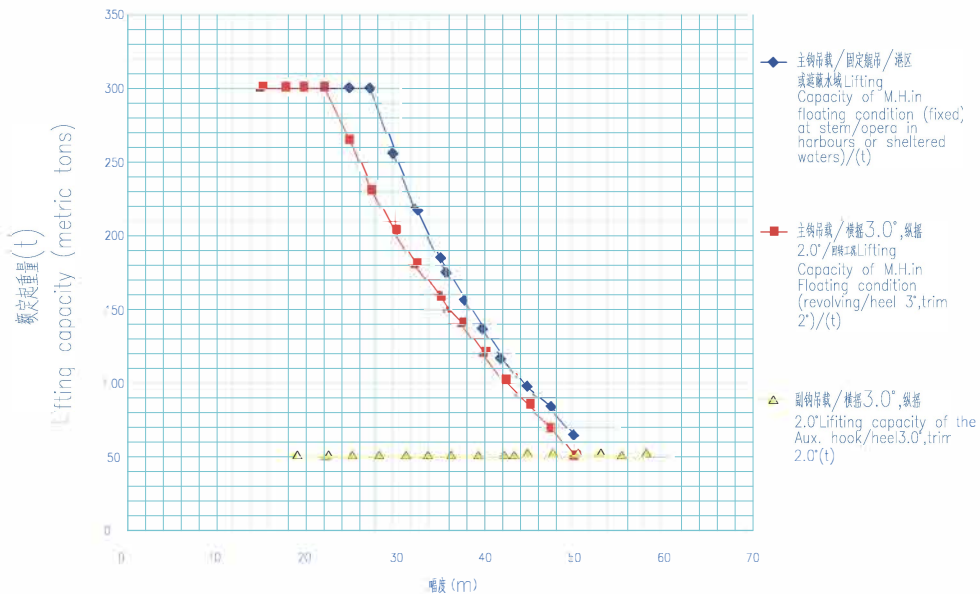


设计
校对
审核
工艺
检查
批准

Angle of the boom (°)	Radius of the Main hook. (m)	Lifting height of the main hook (above deck)	Lifting Capacity of M.H. in floating condition (fixed at stern/ operate in (above deck)	Lifting Capacity of M.H. in floating condition (revolving/heel 3°,trim 2°)/(t)	Radius of the Aux. Hook	Lifting height of the Aux. H. (above deck) (m)	Lifting capacity of the Aux. hook/heel 3.0°, trim 2.0° (t)
79.6	15	58	300	300	19	66	50
76.9	17.5	57.6	300	300	22.8	65.4	50
74.2	20	57.1	300	300	25.6	64.6	50
71.4	22.5	56.4	300	300	28.4	63.6	50
68.6	25	55.6	300	262	31.2	62.5	50
65.8	27.5	54.7	300	230	33.9	61.2	50
62.8	30	53.6	257	202.7	36.7	59.7	50
59.8	32.5	52.3	221	179	39.5	58.1	50
56.6	35	50.8	186	158	42.2	56.2	50
55.3	36	50.2	175	150	43.3	55.4	50
53.4	37.5	49.2	155.7	138.3	44.9	54.1	50
49.9	40	47.3	136.8	119.5	47.6	51.7	50
46.3	42.5	45.1	117	101.5	50.3	48.9	50
42.5	45	42.5	98.5	84	53	45.8	50
38.2	47.5	39.6	81.6	67	55.7	42.3	50
33.5	50	36	65	50	58.3	38	50

幅度—起重曲线图

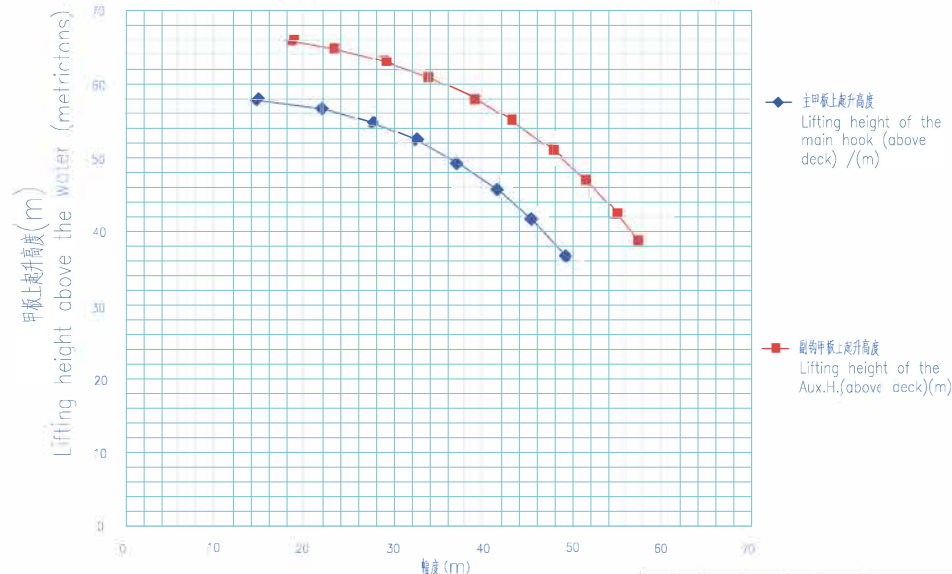
The graph of the radius versus the loads



The distance between the centerline and the hook

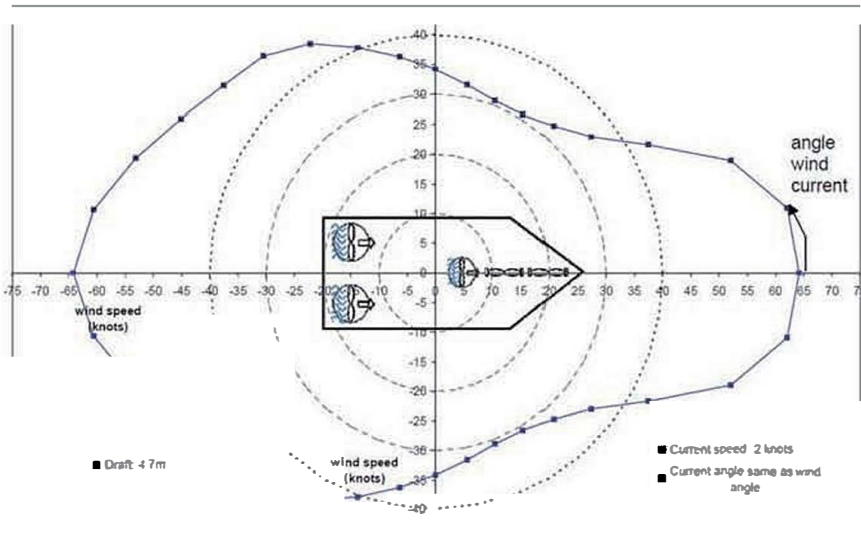
幅度—起升高度曲线图

The graph of the radius versus the lifting height



The distance between the centerline and the hook

DP Plot



Dynamic Positioning (DP) System

The vessel has a PRAXIS Class 2 fully redundant dynamic positioning system. The system consists of one DP Control Station on the navigation bridge.

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Reference systems: 2x DGPS with Anschuetz 、 2x Wind sensor with Praxis、 2x Motion Reference Unit with Praxis

