MARINE PLATFORMS

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G1200 ULTRA DEEPWATER PIPELAY VESSEL SPECIFICATION

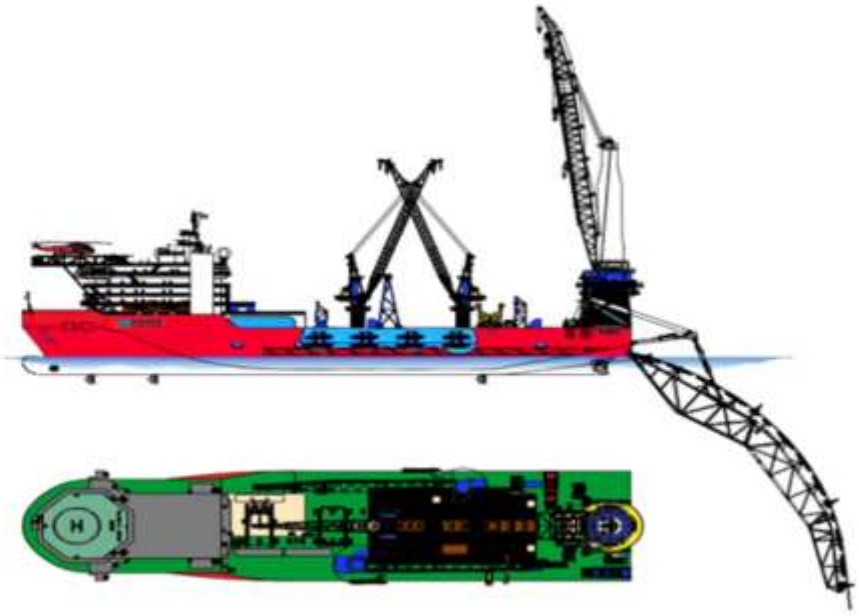
The G1200 can support subsea developments in all the world's oceans.

From ultra deepwater pipelay projects, where high bottom tensions are required, to congested fields mandating high redundancy, the G1200 excels. Even in very shallow waters, the G1200's eight-point conventional mooring system provides near shore access for shorter beach pulls.

As MPL's largest vessels, the versatile G1200 can operate in almost any oil and gas region across the globe. As an enhanced Dynamic Position (DP) Class 2, or S-Lay and heavy lift vessel, she can support shallow and deep subsea developments alike. Her track record of project delivery proves it.

Equipped for continuous pipelay and excellent lay rates, the vessel is optimized to support a range of pipelay projects.

Additionally, upgrades have enhanced her capability to install in-line structures (FLETs, ILS and PLETs*) directly into the firing line. This is fully integrated with the standard S-Lay operations of lineup, welding, NDT, and coating. The G1200 can also undertake heavy lift installations on topside applications.



With modern systems, and DP capability, the G1200 excels in both deepwater and shallow water projects.

A large vessel with a proven track record

Multipurpose, deepwater pipelay and heavy lift capabilities

G1200 with her stinger raised.

G1200 back deck ready for operations.

Pipelay equipment

The rigid S-Lay pipelay system is designed around a conventional central firing line layout, optimized to maximize production of welded pipelines offshore.

The firing line of 10 stations is designed primarily for single joint installation (12.2 m joint lengths) but can conduct double joint production if required. Equipped with five 125Te tensioners, the vessel is also capable of handling in-line structure installations.

With the mass storage of pipe on the main deck, the vessel is fitted with high-capability support rollers and conveyors to safely transport the pipe joints into the firing line for uninterrupted production. Recently installed production tracking software provides real-time data for monitoring purposes.

Stowage capabilities

The G1200 has a large, 2,800 m2 multipurpose deck with storage facilities for up to 3,500Te of pipe. It is also capable of supporting structures and various installation spreads for a range of operations. To improve the efficiency of operations offshore, the 10Te/m2 loading capacity allows storage of large packages of project-specific equipment during transits.

Stinger capabilities

The 79 m & 108m long, 3-section, Ultra and Deepwater Stingers are designed to accommodate a fixed range of pipe catenaries to improve high strain over bend profiles, maximizing the vessel's capability to execute pipelay in a variety of sea state conditions and water depths.
The vessel can also be equipped with a Shallow Water Stinger for project-specific requirements.

Abandonment and recovery system

The G1200 is equipped with a two A&R traction winch with two storage winches for 108 and 64 mm wire ropes, giving dynamic tension capacities of 800Te and 150Te, respectively.

Each system can be utilized for pipelay A&R operations through the central firing line of the vessel, or it may be utilized for the recovery and installation of subsea structures via the main deck over boarding sheaves on the starboard side.

The A&R winches installed beneath the weather deck are fitted with wires as shown below:

- 800Te—2x 3,000 m) / 108 mm diameter Low Rotation (LR) wire
- 150 Te—3,000 m / 64 mm diameter LR wire

Pipeline joints being welded

Expert crew supervising the firing line.

Cranes

The G1200 is equipped with three cranes designed to support heavy lift, pipelay and subsea installations.

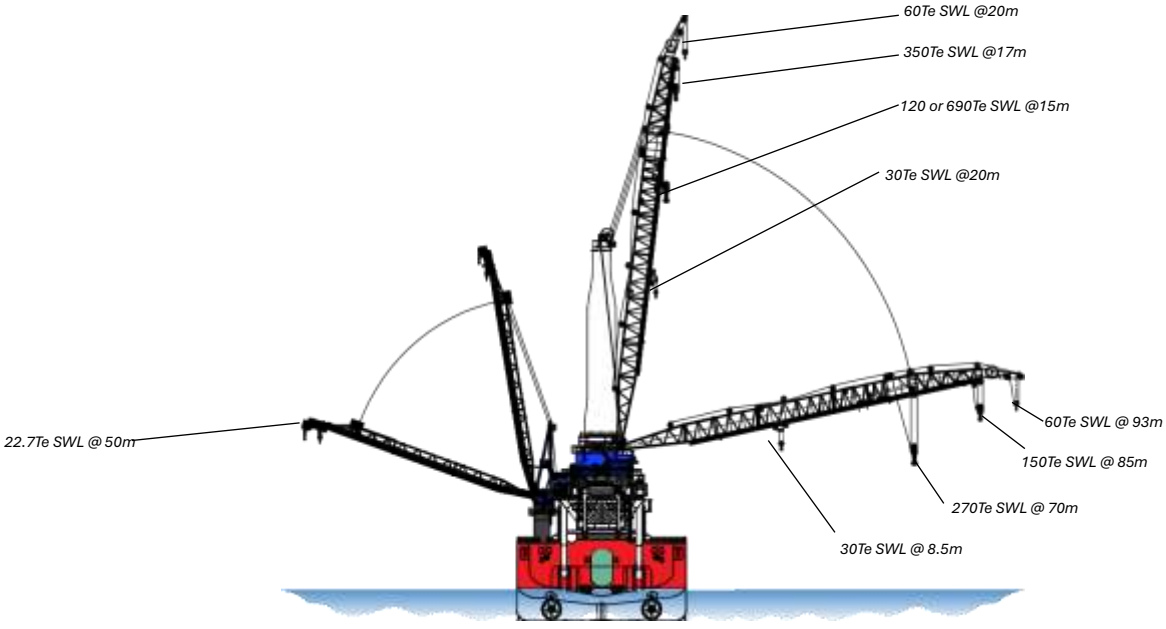
2 x 40Te MSB-12 cranes located on the port and starboard sides of the vessel, with 55 m of reach to service all working areas of the main deck and offshore vessels / barges moored to the G1200. Used for pipe loading and general storage.

1 x 1,200Te PC-37 Heavy Lift Crane located at the stern of the vessel is designed to support jacket installations. The specifically designed crane is equipped with a 1,200Te head block (2 x 14 part) for heavy lift applications; and a secondary 690Te block (2 x 8 part) for subsea installations in water depths of up to 130 m .

The Auxiliary Block (350Te) and Whip Line Block (60Te) are also capable of subsea operations, improving the vessel's ability to support installations and deployments, and for transfers to the vessel's 400Te A&R system.
The Auxiliary Block has a maximum subsea reach of 93 m and the Whip Line Block can be deployed up to depths of 213 m.

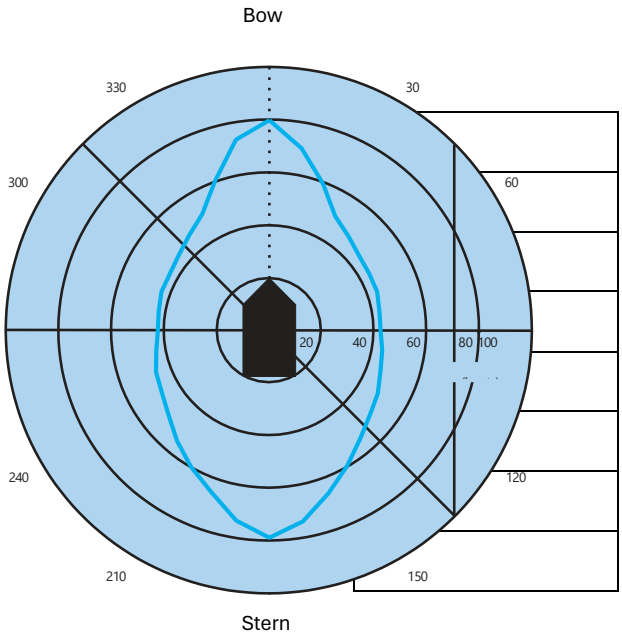
Remotely Operated Vehicles (ROVs)

Two 4000m PET XLX-C work class ROV systems will be fitted to support pipelay and subsea construction activities on the vessel.



Client Accommodation

G1200 Bridge



Considered available power: 100% thruster capacity
Considered current: 1.5 kts.

Shallow water capabilities

The conventional eight-point mooring system of the G1200 is designed to allow the vessel to operate in non-DP waters as shallow as below 10 m. The vessel has the capacity to support beach pull operations and transition to DP pipelay operations.

Together with a shallow water stinger designed to support 4" to 60" pipelines, this provides the G1200 with the versatility required of a single source pipelay and construction vessel.

Station keeping

The main DP control system is a Kongsberg K-Pos DP-22 with K-Pos DP-12 backup system. Two main azimuthing propelling units (2 x main 4.5 MW) are provided aft for propulsion and DP. Additionally, five further retractable azimuthing thruster units (5 x azi 2.4 MW) and one tunnel thruster (0.88 MW) are provided for DP operations. The vessel operates to DP Class 2 (3-way split) during pipelay and heavy lift operations.

Navigation / Integrated Vessel Management System (IVMS)

The vessel is equipped with a Kongsberg K-Thrust for thruster control and conning, plus a comprehensive internal and external communications system, together with K-Chief safety and alarm monitoring to complete the package. The Kongsberg IVMS System satisfies IMO MCS 645 & DP Equipment Class 2 and ABS DP-2 Rules for DP system redundancy and integrates the main vessel control tasks through a common communication infrastructure.

Machinery / propulsion

The vessel's main machinery consists of 6-off diesel driven (3 off MAN 8L 32/40 and 3 off MAN 9L 32/40) generators (three in each of the vessel's two engine rooms) electrically segregated into three separate, independent systems, providing a total of 24.9 MW generated power to the propulsion, pipelay and other consumers. The vessel is fitted with the required machinery redundancies to exceed all class, statutory and performance requirements.

Transit speed.

The G1200 has a maximum service speed of 12 knots for transit between work locations.

Accommodation

The G1200 is equipped with modern, comfortable accommodation for 264 personnel. The spacious onboard facilities include fully outfitted hospital and medical facilities, client accommodation, meeting rooms, gymnasium, and recreation room with movie theater.
The vessel has three Wi-fi networks available: client, project, and welfare.

Specifications

Principle Dimensions:

Length (Overall)	162.3m
Length between PP	150.69m
Breadth (moulded)	37.8m
Depth (moulded)	16.1m (main deck)
Operating Draft (min/max):	5.8 m/6.6 m

Displacement:

Max displacement	32,550Te
Lightship weight	21,400Te.

Pipelaying Systems:

Pipelay method	S-Lay
Workstations	10
Single joint suitable for pipe-in-pipe & piggyback pipeline.	
Pipe diameter (min/max)	4"/60"

Tensioners:

Total tension (nominal/ 625Te/800Te max) with 5 tensioners	
Tensioners	RE.MAC.UT/ Vertical two track, electric
Tensioner capacity	125Te (nominal)/ 160Te (max) each

Abandonment and recovery

Traction winch	2x NOV AmClyde/ TW- 425/250
Deepwater lowering capacity	800Te
Wire rope (length/diameter)	2x 3,000 m/108 mm 3,000 m/64 mm

Pipe Davits:

Type -	Portable
Number of davits -	6
Capacity-	50Te each

Conventional Anchor winches:

Winch-	Skagit/AED 285
Type-	Single drum/electric (modified)

Stinger:

Ultra Deepwater Stinger -	3 sections
Departure angle -	90°
Type-	Fixed, displacement controlled.
Length-	78 m
Deepwater Stinger-	3 sections
Departure Angle-	90°
Type-	Fixed, displacement controlled.
Length-	105.2 m
Shallow water stinger-	1 section.
Type-	Fixed cantilever support.
Length-	38.5 m

Cranes:

Main Crane	NOV AmClyde/PC-37
Type	Post crane/revolving.
Main fixed	1200Te @ 32 m radius
Main revolving	900Te @ 32 m radius
Auxiliary	350Te @ 60 m radius
Whip	60Te @ 89 m radius
Pipe handling crane(s)	NOV AmClyde/MSB-12
Type	Pedestal crane/revolving.
Capacities	
Main	40Te @ 35 m radius
Aux	9Te @ 54 m radius

Deck Capacity:

Free Deck Area	Approximately 2,800 m2 5Te/m2 and 10Te/m2
Variable Deck Load	4,000Te in addition to 80% consumables.

Power plant:

Main engines/generators	MAN
Number	6
Main power	3 x 4,409 kW 3 x 3,919 kW
Emergency power	1 x 1,000 kW

Propulsion:

8 x thrusters	Wärtsilä/LIPS
Propulsion and DP	2 x 4,500 kW azimuth DP 5 x 2,400 kW azimuth retractable 1 x 880 kW tunnel

Dynamic positioning:

DP classification	DP2 with features of DP3
DP system	Kongsberg K-Pos DP-22
Reference systems	3 x DGPS (2 x Veripos LD1, 1 x C-Nav 3050). 1 CyScan Mk2 1 RadaScan 1 HPR (Sonardyne Fusion USBL) 1 HiPAP 501 2 taut wires (Bandak Mk 15B) 3 x Gyros (TSS Meridian Standard) 3 x wind sensors (Gill Ultrasonic). 3 x MU's (MRU-5) 4 x draft sensors tension interface
Positioning and reference systems:	Gyrocompass, dual axis doppler speed logs, auto-pilot, ARPA, radars, and GPS.

Specifications

Capacities:	
Fuel oil-	2,285Te*
Fresh water-	1,435Te
Ballast water-	11,280Te
Endurance (days)-	38 days Transit @ 55 m3/day 59 days DP Operations @ 35 m3/day 46 days Pipelay @ 45 m3/day
Service air-	1 x 7 bar compressor @ 1,075 m3/
Vessel speed :	
Max transit speed-	12 knots
Helideck:	
Rating suitable for-	Sikorsky S61-N, Super Puma and approval for EC225-11t
Size-	Octagonal D=22.4 m, t=9.6
Mooring:	2 x combination mooring/anchor winches 2 x mooring winches. 8 x shallow water pipelay winches
Accommodation:	
264 persons in 110 cabins-	Single cabins: 19 Double cabins: 60 Four person cabins: 31
Hospital Beds-	2
	Gymnasium, internet café, recreation room with movie theatre and satellite TV in all quarters.
Lifesaving appliances:	
Lifeboats-	4 x 66 person
Life rafts-	6 x 25 person 2 x 20 person
1 x fast rescue craft	
Communication:	2 x VSAT, VHF radio, GMDSS and SSB internal telephone, PA/GA system and broadband internet with Wi-Fi
Flag:	TBC
Call Sign:	C6DJ2
Classification:	ABS X A1-Derrick/Pipelaying Vessel (E) X AMS X ACCU X DPS-2 Self-Propelled UWILD, CRC
Year Built:	2010
Owner:	Marine Platforms Limited

HEAD OFFICE
Construction House
18 Adeyemo Alakija Street
Victoria Island,
Lagos Nigeria.

OPERATIONS BASE
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Port-Harcourt, Nigeria.

TECHNICAL SUPPORT CENTRE
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Aberdeen, United Kingdom.

REGISTERED OFFICE
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Sekondi,
Takorodi,
Western Region, Ghana.

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