

Offer Me An Opportunity! Return You Gratification!

## Multifunctional Jack-assisted Platform

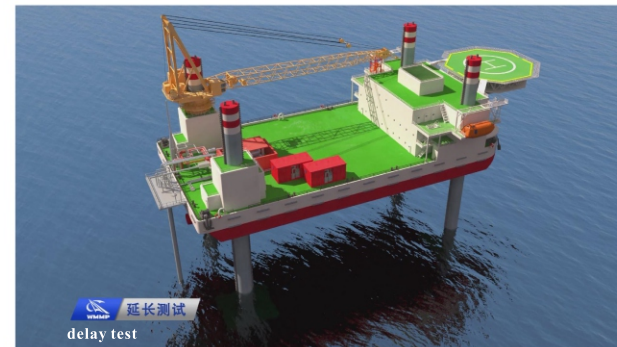
Based on five core system equipment, our company chose the design concepts of "universal platform, modular function, interface standardization". According to different offshore engineering need, offshore construction, wind power installation, gas and oil development and production, reef island construction, life service and other projects or different ocean environment requirement, our company can provide an economic, fast and complete solution for the project.



物资供应  
material supply



生活保障  
life support



延迟测试  
delay test



钻井作业  
drilling operation



井筒支持  
well mention support



岛礁建设  
island construction

Firmly be the Pioneer of Modular Supply and System Integration(EPCI) for Offshore Equipment in China

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V: DXYB2010HG-5



# OFFSHORE MACHINERY EQUIPMENT SOLUTION

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武汉船用机械有限责任公司

## The Pioneer of Modular Supply and System Integration(EPCI) for Offshore Equipment in China

As a prominent professional supplier for Marine and Offshore Engineering Equipment in China, WMMP coordinates two-base resource between Wuhan and Qingdao and orients toward demand of production, construction, service and assurance for ocean resource economy development. By taking the five systematic products, such as "Deck Traction System, Marine cranes, Propulsion and Dynamic-positioning System, Liquid-cargo-handling System and Platform-elevating System" as the core, WMMP provides products in a way of diversity with optimal integrality in size and systematic equipment and the integral solution. Exerts to be the Pioneer of Modular Supply and System Integration(EPCI) for Offshore Equipment in China.

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## Deck Traction System

WMMP can provide deck towing system which is composed of towing winch, stern frame, shark pincer, pinstopper and manipulator. The ancillary integration system with technical service are available. It is used for 6000HP-30000HP multi-purpose vessel. The product performance has reached the advanced level in the world. The systematic integration plan is available in accordance with the individuation needed by customers.



- Windlass
- Towing winch
- Winch
- Manipulator
- Shark pincer and pin stopper
- Stern drum
- Capstan

### Towing winch

There are three towing winches which are high pressure or low pressure or electric drive. The power system can be integrated with deck machinery (windlass, mooring winch, rope-storing winch and capstan). It is designed to have emergency release, auto tension control, dynamic braking, and automatic paying-out and long-distance monitor control.

Pressure Grade: 8MPa for low pressure and 25MPa for high pressure  
Rated Pulling Force: 60t~500t



### Anchorage-positioning System

Monitoring and evaluating function for multi-layer winding winch with tension control, dynamic brake, auto-paying-out and auto-tension.

Rated load at anchorage: 30t~300t  
Rated speed at anchorage: ≥10m/min



### The System for Special Operation Vessel

Underwater positioning and traction system for the special platform: WMMP provides the systematically-integrated assembly for the underwater positioning and the traction suited for the shallow draft service, maintenance, operational platform and engineering vessels.

Rated load: 50kn; Rated speed: 3m/s  
Stern frame: realize the operation for the towing at sea and the underwater handling. Handling Load: 15~50t  
Emergency Assurance System at Sea: Transverse and lengthways compensation, handle for dry cargo and liquid cargo personnel transport between vessel-vessel and vessel-island, modularization design, the installation is simple and easy re-installation, constant control and active heave compensation and quick emergency assurance.  
Conveyance Speed for Liquid Cargo: 500m<sup>3</sup>/h; Weight of Dry Cargo for Conveyance: 2t; Accelerating Speed for Compensation: 0.15~0.25m/s<sup>2</sup>





## Offshore Crane

WMMP is well known as the crane supplier home and abroad. Products include API-A type marine crane, API-C type marine crane, API-E type marine crane, deep-sea initiative compensation technology and Special marine crane. It is widely used for the fixed platform, the floating platform, FPSO, Ocean-offshore support vessel and ocean wind mill installation vessel. WMMP has been accredited with API-2C. It is complied with any requirement for certificate issued by various classification societies.

### API-A type Marine Crane

Luffing cylinder, with a variety of types like: folding arm, telescopic arm, etc. Main application for FPSO, work platform, auxiliary crane for various vessels.

The lifting capacity of the crane: 15-100 t  
Operating radius :20-35m



### API-C type Marine Crane

Luffing rope, A-FRAME structure. Main application for Various of platform equipments, such as oil production platforms, drilling rigs/vessels, FPSO, semi-submersible platforms.

The lifting capacity of the crane: 15-250 t  
Operating radius :25-80m



### API-E type Marine Crane

Luffing rope, King post structure. Main application for Jack-up rigs and deepwater semi-submersible platforms which drilling depth is greater than 300 feet, and other offshore equipments.

The lifting capacity of the crane : 40-300 t  
Operating radius :30-100m



### Deep-sea Initiative Compensation Technology

The company develops the deep-sea initiative compensation technology, which is used for deep water operation lifting cranes, tail crane, and special operation winches, etc. It is suitable for multi-purpose underwater operation vessels, exploration ships, cable-laying ships and other sophisticated offshore equipments.

Service load: 200t  
Rated load compensation speed: 53-70m/min



### Special Offshore Crane

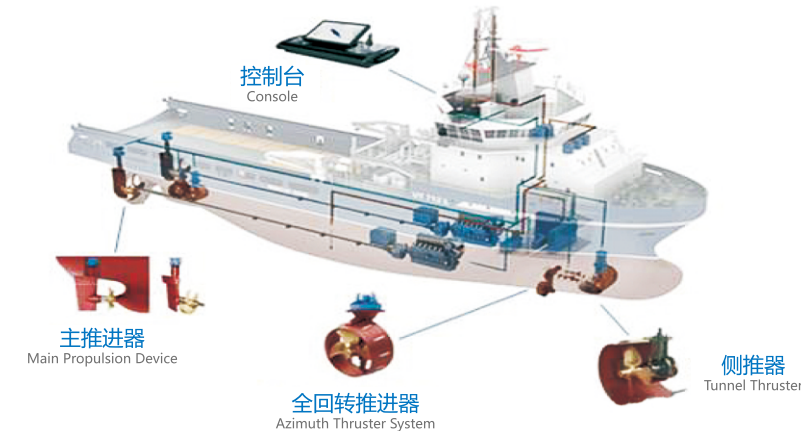
It is designed specially for the offshore wind mill installation and special operation. Based on the requirement for individuality of customers, with the analysis technology. It is focused utmost on the optimal index on the light weigh.

For the floating crane with fixed single arm, the lifting capacity:5000t  
For the floating crane with the full-slewing single arm, the lifting capacity:1000t



## Propulsion and Dynamic Positioning System

WMMP is well known home and abroad for the integrative supplier for the marine propulsion system. The scope of product contains controllable pitch propeller, azimuth propeller, water-jet, which are used as the propulsion and dynamic-positioning system for surface vessel, offshore support vessel and various high-performance vessel. WMMP is in the possession of rich experience in the ancillary integration of the marine propulsion system and dynamic positioning system as well as the technical service capacity.

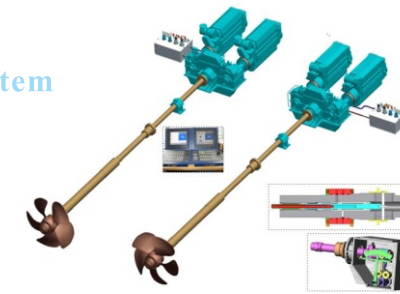


Integrated-assembly is provided for Propulsion and dynamic positioning system

### Adjustable Pitch Propeller Propulsion Plant and System

WMMP has two kinds of CPP, one of which is under the CPP licence of MAN, while the other is named as WMMP. The ancillary integration capacity of the CPP system has come into being.

Diameter of propeller: 7m  
Single shaft power: 60MW



### Full Rotation Propulsion System

There are two forms of azimuth propeller products in WMMP, one of which Fixed Pitch Azimuth Propeller and the other is read as controllable pitch azimuth propeller. And there are two series of azimuth products. The ancillary integration for the azimuth propulsion system has come into being.

Azimuth Power:100KW-5000KW



### Water Jet Propulsion Equipment and System

Under exclusively introduction of Deed of License from DOEN, Australia. WMMP has become a sole enterprise in China producing and selling Water-jet and its integration of power system in a professional way.

Power: 100KW-10MW



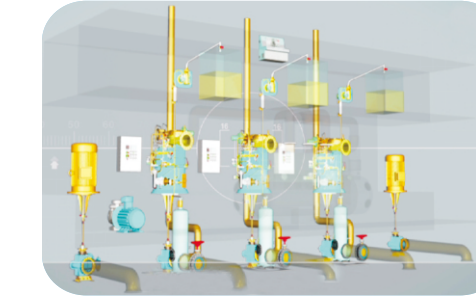
## Crude Oil Loading and Unloading System

Crude Oil Loading and Unloading System includes the pump room system, the electric deep well pump system, hydraulic submersible pump and FPSO conveyance system. The systematically-integrated assembly is provided to suit for large VLCC, crude oil tanker, product oil tanker, chemical vessel and FPSO.

### Pump Room System

Based on long life and trouble free design concept, stable running, low noise, automatic control system and easy to operate.

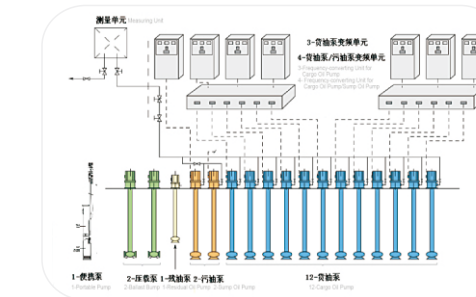
Single Pump Capacity: 1000m<sup>3</sup>/h-6000m<sup>3</sup>/h.



### Electric Deep Well Pump System

Based on the long shaft driven and matrix inverted technology, controls the system redundancy hardware with a high reliability.

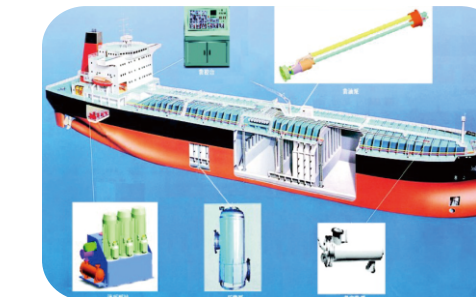
Single Pump Capacity: 50m<sup>3</sup>/h-1600m<sup>3</sup>/h.



### Hydraulic Submersible Pump

Based on essential safety and low noise designed, operate simple.

Single Pump Capacity:50 m<sup>3</sup>/h-2000m<sup>3</sup>/h



### FPSO Conveyance System

FPSO transmission system, includes hydraulic submersible pump, stern lose winch, slick ring, quickly snapped joints, ESD valves, burst valves and control system.

System Capacity: 50m<sup>3</sup>/h-2000m<sup>3</sup>/h



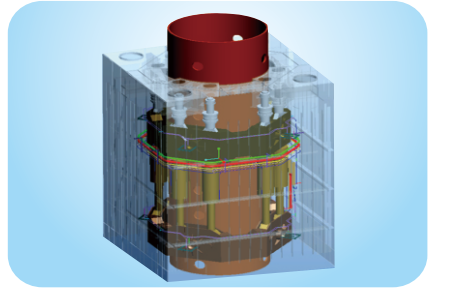
## Jacking-up System for Platform

WMMP has successfully developed the hydraulic pin-type jack-up system, hydraulic pinion and rack jack-up system and electric pinion winch jacking system and rack jack-up system in a independent way, which have been used for 300FT automatic-elevator platform, 90m automatic elevator platform and 36m pin-type jack-up platform. The product performance has reached the advanced level in the world. The systematic integration plan is available in accordance with the individuation needed by customers.

### Hydraulic Pin-type Jack-up System

It is mainly used for the wind mill installation ship, jack-up support platform. The system is composed of control system, hydraulic pumping station, lifting cylinder, pin-type cylinder, dynamic ring girder and static ring girder. It is designed to have a simple structure with lifting and locking function, high reliability and low cost.

Maximum raising force at Single pillar:3600t  
Speed:12m/h



### Hydraulic Pinion and Rack Jack-up System

It is mainly used for Jack-up drilling platform, Jack-up support platform. The system is composed of control system, hydraulic pumping station, installation frame, rack, lifting unit. It is designed to have a compact structure. The rack and the leg for pillar can be provided as required.

Maximum raising force at single lifting unit:200t  
Speed:1.2m/min



### Electrical Rack and Pinion Jacking System

The rated lifting force at single tooth: 330t. Driven by the frequency-converting electric motor, the torque dispersal is doable dynamically with the rack after the integrated-assembly. With independent locking-up device, the lifting speed is 48m/hr. It is suitable for 300ft-400ft jack-up rig.

Maximum raising force at single lifting unit:330t  
Speed: 0.48m/min



### Winch Jacking System

Driven by frequency-converting electric motor, it features the continuous lifting and the independent locking-up device mainly for the offshore self-elevating wind power installation vessels.

Maximum raising force at Single pillar:3000t

