



## LICITACION PUBLICA

Servicio de Perforación con Plataforma Autoelevable, logística y administración portuaria

### Anexo IV – Especificaciones Técnicas de Embarcaciones

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#### 1. Requerimientos Técnicos - Descripción de Embarcaciones de Apoyo

El alcance del trabajo será el establecido en el Anexo II – Alcance del Servicio.

Sujeto a lo estipulado en el mencionado Anexo, se solicitarán las cantidades de embarcaciones que define el Anexo II según las siguientes características:

- PSV 240, DP2
- FSIV / FSV, DP2 Gross Tonnage < (less than) 500 Tn.

#### Notas:

- Las embarcaciones estarán operando durante todo el proyecto como Soporte a las Operaciones de la Plataforma Autoelevable, en el Área 02
- Los puertos de operaciones para las actividades de apoyo logístico serán los puertos de API Dos Bocas Tabasco y, dependiendo de la opción que se aplique según lo establecido en el Anexo II, API Coatzacoalcos, Veracruz.

A continuación, se listan las características principales de las Embarcaciones de Apoyo requeridas para dar soporte logístico a las actividades de la Plataforma Autoelevable:

#### **PSV 240 DP- 2 Specifications**

Year Built: Less than 10 years of service.

#### **Characteristics:**

Length Overall: 240 ft.

#### Capacities

Drill Water	min 500 m3
Potable Water	min 180 m3
Fuel	500/600 m3
Liquid Mud	Min 600 m3
Dry Bulk	Min. 200 m3

#### Cargo Deck

Tonnage	Min 1,400 MT
Clear Area	650/700 m2

#### Electronics & Controls

DP 2  
AIS System



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Satellite Internet  
Satellite Phone

Accommodation

Fully Air-conditioned

Special Equipment

FIFI 1- 2 System  
Life Rafts  
Rescue Boat (SOLAS)  
Capability to install and operate a ROV.

Certifications/Vetting

CLASS Company Certification (no pending issues)  
IMCA *Inspection performed during the last 6 months before February 15<sup>th</sup> 2019*

National Maritime Authority of Mexico (Certifications and Regulations)

Certification for Transport Dangerous Residues and Residues of special handling (SERMARNAT)

**FSIV / FSV DP2 Specifications**

Year Built: Less than 10 years of service.

**Characteristics:**

Length overall	170/200 ft
Gross Tonnage	< (less than) 500 MT
Transit Speed:	18/ 20 Knots

Capacities

Cargo Deck Area	Min 250m <sup>3</sup>
Cargo Deck Loading	Min 400 MT
Fuel Capacity	Min (120/130m <sup>3</sup> )
Liquid Mud	Min 150m <sup>3</sup>
Rig Water Capacity	102m <sup>3</sup>
Potable Water Capacity	Min 10/15 m <sup>3</sup>

Accommodation

Fully Air-conditioned  
Accommodations for 10 people  
Certified to carry min 40 Passengers as Crew Boat

Electronics & Controls

DP 2



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AIS System  
Satellite Internet  
Satellite Phone

#### Special Equipment

FIF1-2 System  
Life Rafts  
Rescue Boat (SOLAS).

#### Certifications/ Vetting

CLASS Company Certification (no pending issues)

*IMCA Inspection performed during the last 6 months before February 15<sup>th</sup>, 2019.*

National Maritime Authority of Mexico (Certifications / Regulations)

Certification for Transport Dangerous Residues and Residues of special handling (SERMARNAT)

## 2 Embarcaciones de Relevo /Adicional.

El oferente deberá prever el uso de una embarcación Relevo / Adicional tipo PSV (DP2) (200” – 240”) la cual será inspeccionada y aprobada por la Empresa.

Será “Relevo” de las embarcaciones de apoyo ante eventuales contingencias durante el período que dure la misma.

Será “Adicional” cuando por necesidades logísticas, la operación requiera otro barco de manera temporal, para complementar la actividad. (Transporte cajas de recorte, fluidos, etc.)

## 3 Seguros

### **DOF: 23/06/2016**

DISPOSICIONES Administrativas de carácter general que establecen las reglas para el requerimiento mínimo de seguros a los Regulados que lleven a cabo obras o actividades de exploración y extracción de hidrocarburos, tratamiento y refinación de petróleo y procesamiento de gas natural.

## 4 Especificaciones técnicas de las Embarcaciones propuestas

El oferente deberá completar la información correspondiente a las Embarcaciones de Apoyo ofertadas de acuerdo a lo especificado en la tabla al final de este Anexo.

Se deberá completar una planilla por Embarcación de Apoyo y una por la Embarcación Relevo / Adicional.



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En caso que alguna característica no corresponda al tipo de embarcación, por favor indicarlo en el casillero correspondiente.



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<b>General</b>	<b>Vessel Offered</b>
Vessel Name (Current/Previous) - Specify all names	
IMO number / Official number	
Flag	
Classification (If changed in last 12 months name of previous classification society and date of change)	
Class Notation - Specify Full Notation	
Place and Year of Build - Specify Yard and Year	
Type of Vessel	
Call Sign	
Vessel's Satcom, email, fax and telex numbers	
Ice Class (specify)	
Deck Strength (if applicable)	
Helipad	
<b>Ownership and Operation</b>	
Registered owner (full style, address and contact details)	
Technical manager (full style , address and contact details)	
Commercial Manager (full style, address and contact details)	
Disponent Owners (if applicable) (full style, address and contact details)	
<b>Dry-docking and Surveys</b>	
Date of last dry-dock	
Date next dry-dock due (see 13.2)	
Date of last annual survey	
Date of last special survey(	
<b>Dimensions</b>	
L.O.A (m)	
Breadth (m)	
Depth Moulded (m)	
Draft (Max) (m)	
Draft Design (m)	
<b>Deadweight/Tonnage</b>	
Deadweight (DWT)	
Gross Registered Tonnage (GRT)	
Net Registered Tonnage	
<b>Propulsion</b>	
Main Engines + Auxiliary Engines. Specify number and	



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type	
Main Propulsion Power (BHP)	
Power output (kW)	
Emergency Power - Specify type	
Propellers - Specify number and Fixed or CP.	
Bow Thruster - Specify number and power	
Stern Thruster - Specify number and power	
Azimuth Thruster - Specify number and power	
Rudders - Specify number	
<b>Bollard Pull (AHTS)</b>	
Continuous (t)	
Achievable (t)	
At Full Electrical Load (t)	
<b>Manoeuvring Equipment</b>	
Dynamic Positioning System - Specify IMO Equip. Class	
Main engines	
Joystick	
<b>Speed &amp; Fuel Consumption (Tons/Day)</b>	
In port - Specify speed and fuel consumption	
Cruising Speed - Specify speed and fuel consumption	
Full Speed - Specify speed and fuel consumption	
In DP/Station keeping Mode	
<b>Bunker SECTION 4 - SPECIFICATIONS AND TECHNICAL DOCUMENTSs</b>	
Bunker SECTION 4 - SPECIFICATIONS AND TECHNICAL DOCUMENTSs	
<b>Deck Equipment</b>	
Crane (t) - Specify number and rating	
Crane Outreach (m) - Specify max	
Windlass - Specify number and rating	
Capstans (aft) - Specify number and rating	
Tugger winch - Specify number and rating	



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<b>Tank Capacities</b>	
Total Fuel Oil (m <sup>3</sup> )	
Max. Fuel Oil Cargo (m <sup>3</sup> ) - Specify amount for delivery	
Drill Water (m <sup>3</sup> )	
Potable Water (m <sup>3</sup> )	
Brine (m <sup>3</sup> )	
Base Oil (m <sup>3</sup> )	
Liquid Mud (m <sup>3</sup> )	
Bulk (m <sup>3</sup> )	
Oil Dispersant (m <sup>3</sup> )	
Oil Recovery (m <sup>3</sup> )	
Ballast (m <sup>3</sup> )	
Special Tanks (m <sup>3</sup> )	
<b>Discharge Rates</b>	
Fuel Oil (m <sup>3</sup> /hr)	
Drill Water (m <sup>3</sup> /hr)	
Potable Water (m <sup>3</sup> /hr)	
Liquid mud (m <sup>3</sup> /hr) (also state if pumps are Centrifugal or Positive Displacement and if drive is hydraulic or electric)	
Bulk (m <sup>3</sup> /hr)	
Brine (m <sup>3</sup> /hr)	
Baseoil (m <sup>3</sup> /hr)	
<b>Deck Load</b>	
Max Deck Load (t)	
Deck Area (m <sup>2</sup> )	
Deck Strength (tons/m <sup>2</sup> )	
Reefer Connections - Specify number and power supply	
<b>Anchor Handling &amp; Towing Equipment</b>	
Winches	
Type	
Capacity	
Brake Load	
Line Pull	
Emergency Release System	
Rope Reel Winch	
Stern Roller	

Shark Jaws	
Karm Forks	
Towing Pins	
Chain Locker Capacities	
A-Frame	
Deck Crane	
Dry brake coupling	
Work wires	
Tow wires	
Spare Wires	
<b>Bridge Equipment</b>	
Radars	
Gyros	
GPS	
DGPS	
Speed Log	
Echo Sounder	
Auto-Pilot	
Wind/Speed Direct	
Magnetic Compass	
<b>Communication Equipment</b>	
GMDSS	
Radio	
Inmarsat	
Navtex	
VHF Radio	
VHF Portable	
UHF Portable	
EPIRB	
SARTS	

<b>Accommodation</b>	
Crew	
Passenger	
Public Rooms/Rescue	
<b>Fire Fighting</b>	
FiFi System	
CO <sup>2</sup> Fixed System	
<b>Life Saving Equipment</b>	
Life rafts	
Fast Rescue Craft	
Daughter Craft (ERRV)	
Immersion Suits	
Smoke Hoods	
Jason's Cradle	
H2S Masks	





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<b>Additional Ratings</b>	
Green Class/Green Passport	
Oil Recovery Capability	
<b>Insurance</b>	
Employers Liability, Workmen's Compensation and Occupational Disease Insurance, including an Alternative Employer endorsement (where applicable) (US \$) - Specify amount per occurrence	
Comprehensive General Liability Insurance (US \$) - Specify amount per occurrence	
Comprehensive Liability Automobile/Motor Insurance (US \$) - Specify amount per occurrence	
Hull and Machinery Insurance including war risk. Name, style and address / contact details of H&M insurers  Insured value:	
Name, style, address and contact details of War risks insurers:	
<b>Protection and Indemnity Insurance</b> including wreck and debris removal and pollution liability Name, style, address and contact details of P&I insurers  Amount of pollution liability cover	



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<b>Crew Information</b>	
	<u>Rank</u> <u>Number</u>
<p>[Specify minimum manning level required during operations: all the roles /ranks required and the number of each role / rank required]</p>	
<p>Please specify any other requirements in relation to manning for example</p>	
<p>Experience of Master and Officers;</p> <ul style="list-style-type: none"> <li>▪ Time served in rank</li> <li>▪ Time served on vessel</li> <li>▪ Time served on Specific Vessel Type</li> <li>▪ Area of operations</li> <li>▪ Number of Rig moves (AHTS)</li> <li>▪ Towing experience (AHTS)</li> </ul> <p>(For any operations within the 500m zone of any installation, it should be noted that Unmanned Machinery Spaces (UMS) procedures should not be used and there should be 2 Mariners on the bridge).</p>	
<p>Nationality of officers: Nationality of crew:</p>	
<p>Winch operator – detail name, time in role, experience, when and where trained</p>	



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DP officers: detail number required, experience / qualifications required of each: Last activities as DP operators.  If officers and / or crew supplied by Manning Agency give name and full style, address and contact details of Agency	
Provide details and demonstrate that vessel complement is qualified, vessel suitably manned for 24 hour operations and compliant with STCW 2010 Manila hours of rest requirements.	
Crew change schedule	
Confirm common language used on vessel	

**Electronic Copies of the following items must be provided;**

<b>Ship Certificates (as applicable)</b>
Certificate of Class
International Tonnage Certificate
International Load Line Certificate
International Oil Pollution Prevention Certificate
International Ship Security Certificate
DGMM Certificate
Safety Management Certificate
SOLAS Safety Equipment Certificate and Supplement
SOLAS Safety Construction Certificate
Safety Radio Certificate
Certificate of Financial Responsibility (COFR)
Certified Bollard Pull
Civil Liability for Bunker Oil Pollution Damage certificate (CLBC)



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Civil Liability Convention Certificate (CLC) (if applicable)

<b>Documents/Drawings</b>	
Vessel Spec Sheet	
Class Status Report	
DP System FMEA (Latest Version) <sup>2</sup>	<p>1. Should be submitted along with description of action list closeout Response.</p> <p>2. As a minimum, the vessel FMEA must meet IMCA standards</p> <p>3. FMEA clearly defines safest mode of operation, the worse case failure(s) and significant</p> <p>4. Single point failures in the summary.</p> <p>5. FMEA has been updated after any major modifications and proving trials have been conducted.</p> <p>6. FMEAs are required to have vessel specific:</p> <ul style="list-style-type: none"> <li>▪ <i>Details of governor failure modes</i></li> <li>▪ <i>Details of AVR failure modes</i></li> <li>▪ <i>Details of main switchboard control power failure modes</i></li> <li>▪ <i>Details of position reference system processing provided by the DP control system</i></li> <li>▪ <i>Details of DP control system consequence analysis feature</i></li> <li>▪ <i>DP control system Input/Output Schedule</i></li> <li>▪ <i>Details of Networks</i></li> <li>▪ <i>Satellite based position references one line diagram</i></li> <li>▪ <i>Hydro-acoustic position references one line diagram</i></li> <li>▪ <i>Other position reference systems (e.g. Taut Wire, Laser based etc) one line diagram(s)</i></li> <li>▪ <i>Details of communications and alert systems provided for the DP operator and their redundancy (systems and power supply)</i></li> </ul>
FMEA Proving Trials	
Annual DP Trial Results <sup>3</sup>	
Date of last DP trials	



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DP Anniversary date (see clause 9.15.6)	
DP Capability Plots <sup>4</sup>	To include conditions for: <ul style="list-style-type: none"> <li>▪ Intact condition at 1.0kts, 1.5kts, and 2.0kts current</li> <li>▪ Displaying vessel effects of worst case failure at 1.0kts, 1.5kts, and 2.0kts current</li> <li>▪ Displaying vessel effects of most common failure</li> </ul>
Lifting Equipment/Winches Inspections	Crane Curves Wire Certificates Latest Inspections Load Tests
Tank Plan	Provide a plan indicating dedicated tanks, Capacity and max SG for each tank
IMCA - CMID (Common Marine Inspection Document) <sup>1</sup> . OVID- OCIMF (Oil Companies International Marine Forum)	IMCA preferred
GA Plan (including back deck layout and winch configuration)	
Vessel Operating Manual	
DP Operating Manual	
ROV Operations Capabilities	Description of Installation and Operation places.