

# Marine Department Shipbuilding Tender No. 5/2018

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Tender Reference: Marine Department Shipbuilding Tender No. 5/2018  
Procuring Department: Marine Department  
Subject: Supply of Ten (10) Deep Bay High Speed Craft for the Hong Kong Police Force within 21 months after the Contract Date

## Amendment as follows:

### 1. Paragraph 3.5.1 of Part VII – Technical Specifications

3.5.1 The Vessel shall be provided with a self-righting system mounted on a frame at the stern of the Vessel, which incorporates an inflatable bag with a heavy-duty coated fabric cover and a CO2 bottle. In the event that the Vessel capsizes, this self-righting system shall be capable of being activated automatically through a hydrostatic release and/or manually by pulling a release handle. The system shall be dimensioned so that it is capable of righting the Vessel at the Light Operational Load Condition as stipulated in Paragraph 1.7.2(e) of this Part VII.

### 2. Paragraph 3.11.5(a)(i) of Part VII – Technical Specifications

#### (i) ~~Single Point Lifting method~~

~~The Vessel shall be installed with a lifting arrangement, complying with the IMO LSA Code as amended and MSC.81(70) as amended or as per the RO's requirement regarding lifting appliances. The lifting frame shall be made of duplex steel. The lifting structure, which is to be demountable, shall be forward of the control console. A Henriksen off load release hook, or other off load release hook having received type approval from any one of the RO listed in Paragraph 2.3.4(a) to (i) of this Part VII shall be used. The swivel, davit docking and remote release shall comply with NORSOK R-002:2017 or equivalent international standard.~~

#### (i) 4-Point Lifting Method

The Vessel shall be designed with strong point lifting attachments permanently fitted to the hull. A spreader shall be provided if the bending stress induced during lifting exceeds the Vessel's permissible tolerance or if the lifting wires/strops would otherwise foul the radar frame or equipment fitted thereto. The design of the lifting attachments, wires/strops and spreader, if any, shall be approved by the RO and shall match, where practical, the lifting facilities at the HKPF's operational bases.

### 3. Paragraph 3.11.8 of Part VII – Technical Specifications

3.11.8 All the lifting devices/accessories shall be designed to withstand at least six (6) times the mass of the Vessel with all the equipment. All devices and accessories shall be certified by the RO in accordance with the laws of Hong Kong prior to delivery. The ~~single~~ 4-point lifting and lifting sling method designs shall be discussed at the kick off meeting and agreed by MD and the HKPF. To avoid the need for costly and unnecessary alteration or modification of existing equipment, the Contractor shall, prior to any construction, submit detailed drawings of both methods so that the HKPF can check dimensional compatibility with its existing lifting facilities.

- (i) Helm;
- (ii) Engine throttle/Waterjet control head;
- (iii) Trim control selector panel (for steerable sterndrive version);
- (iv) Engine monitoring display panel;
- (v) Engine start control;
- (vi) PA/Loudhailer control unit and microphone;
- (vii) A magnetic compass fitted with an independent dimmer switch, installed on the top of the console in line with the coxswain's line of sight dead ahead;
- (viii) Radar and electronic chart display;
- (ix) Engine monitoring display panel;
- (x) Electric horn;
- (xi) Siren and flashing beacon control panel;
- (xii) Navigation lights, search lights and flood lights switch panel as appropriate;
- (xiii) Satellite compass electronic digital display unit;
- (xiv) Fuel tanks level gauge; and
- (xv) Radio communication controls and microphone as appropriate.

#### 3.4.3 The controls, displays and equipment

- (a) All the controls, displays and equipment shall be waterproof, shockproof and suitable for external marine use.
- (b) All indication lights, illumination of instrumentation gauges and panel lighting shall be fitted with dimmers for day and night operation.
- (c) The flat surfaces between controls, displays and equipment shall be coated in a rubberised, matt black coating suitable for the marine environment. Details of the rubberised coating required will be discussed at the kick-off meeting.
- (d) Lockers shall be provided as far as possible, if space permits, to allow for the watertight storage of items of police equipment. The console and locker(s) shall be designed to ensure easy access for the maintenance and repair of equipment mounted, installed or stored therein. Details to be discussed at the kick-off meeting.
- (e) The arrangement shall be designed to protect the crew and persons on board from injury inflicted by the console and the equipment installed in it.
- (f) Sufficient legroom shall be provided to obviate the risk of impact injury during rough weather or violent manoeuvres in both the seated and standing positions.
- (g) A waterproof black/grey cover shall be provided to cover the console down to deck level when the Vessel is not in use.

### 3.5 Self-Righting/Aerial Mounting Frame

- 3.5.1 The Vessel shall be provided with a self-righting system mounted on a frame at the stern of the Vessel, which incorporates an inflatable bag with a heavy-duty coated fabric cover and a CO<sub>2</sub> bottle. In the event that the Vessel capsizes, this self-righting system shall be capable of being activated automatically through a hydrostatic release and/or manually by pulling a release handle. The system shall be dimensioned so that it is capable of righting the Vessel at the Light Operational Load Condition as stipulated in Paragraph 1.7.2(e) of this Part VII.

### 3.10 Transom and Stern

- 3.10.1 The transom and the propulsion systems and their respective attachment to the Vessel shall be designed to comply with the rules of the RO and be capable of operating in WMO Sea State 6.
- 3.10.2 The transom shall be constructed with an inspection hatch of a size agreed by the MD and the HKPF.
- 3.10.3 The design shall provide safe and easy access to the impellers of the waterjets for routine checking and troubleshooting while at sea.
- 3.10.4 The propulsion system shall be protected by a sturdy tube construction, fitted to the stern plate. The stern guard can also be used as a platform when inspecting the jet unit. Details of the design shall be discussed at the kick-off meeting and submitted to the MD for approval before the completion date stipulated in Annex 2 to this Part VII.

### 3.11 Anchor and Chains and Strong Points

- 3.11.1 The Vessel shall be equipped with one hot dip galvanized anchor with certificate issued by the RO and suitable swivel, shackles and secured stowage shall be provided by the Contractor.
- 3.11.2 Two (2) 50 m long 20 mm diameter braided nylon wraps for anchoring and towing shall be provided by the Contractor in a suitable stowage.
- 3.11.3 Two (2) 30 m long 16 mm diameter nylon wraps for mooring shall be provided by the Contractor in a suitable stowage.
- 3.11.4 The strong points shall be designed and installed with sufficient safety factor to prevent material yield of the strong points or surrounding structures to which they are attached in a welded condition. Calculation of the horizontal load shall be in accordance with the requirements of ISO 15084 or other equivalent international standards. The following strong points shall be provided:
  - (a) Anchoring/towing points forward (port and starboard);
  - (b) Towing points fore and aft capable of withstanding the forces involved when towing or being towed by a sister vessel or other craft of similar size. The forward towing point shall be located on the stem immediately below the forepeak. Details of the design shall be discussed at the kick-off meeting and submitted to the MD for approval before the completion date stipulated in Annex 2 to this Part VII;
  - (c) Specialist equipment mounting points shall be provided at the centreline forward and aft and on both sides aft of the console. Each point shall be secured by at least four (4) bolts and be designed for an applied pull-tested load of at least 680 kg at the installed height. Details to be discussed in kick-off meeting; and
  - (d) Lifting strong points for a one-point lift and a four-point lift.
- 3.11.5 Devices for Lifting the Vessel
  - (a) The Vessel shall be provided with two (2) means of lifting for launching and recovery, docking, storage, inspection and maintenance purposes, designed for use with launch mounted davits, fixed jib cranes, telescopic cranes, travel hoists and truck mounted cranes:

~~(i) Single Point Lifting method~~

~~The Vessel shall be installed with a lifting arrangement, complying with the IMO LSA Code as amended and MSC.81(70) as amended or as per the RO's requirement regarding lifting appliances. The lifting frame shall be made of duplex steel. The lifting structure, which is to be demountable, shall be forward of the control console. A Henriksen off load release hook, or other off load release hook having received type approval from any one of the RO listed in Paragraph 2.3.4(a)~~

~~to (i) of this Part VII shall be used. The swivel, davit docking and remote release shall comply with NORSOK R 002:2017 or equivalent international standard.~~

(i) **4-Point Lifting method**

The Vessel shall be designed with strong point lifting attachments permanently fitted to the hull. A spreader shall be provided if the bending stress induced during lifting exceeds the Vessel's permissible tolerance or if the lifting wires/strops would otherwise foul the radar frame or equipment fitted thereto. The design of the lifting attachments, wires/strops and spreader, if any, shall be approved by the RO and shall match, where practical, the lifting facilities at the HKPF's operational bases.

(ii) **Lifting Slings Method**

The Vessel shall be designed to allow the Vessel to be hoisted ashore by means of lifting slings around the hull. The hull structure shall, if it is necessary, be strengthened appropriately and the locations at which the slings are to be positioned shall be marked clearly.

- (b) The lifting points and locations shall be designed and installed with sufficient safety factor to prevent material yield of the strong point or surrounding structure in a welded condition. Detail drawings of lifting attachments and related equipment shall be approved by the RO.

3.11.6 Strong points for mounting the Jason's Cradle referred to Paragraph 3.8.7 of this Part VII shall be provided on both sides of the Vessel. The arrangement shall be designed so that the Jason's Cradle can be rolled into the sea and used to haul a person inside the cradle back into the Vessel. The mounting arrangement shall be discussed at the kick off meeting and agreed by MD and the HKPF.

3.11.7 Cleats shall be mounted fore and aft, port and starboard for the purposes of mooring the vessel. Cleats shall be flush to the gunwales to reduce the chance of entanglement, snagging of equipment and presenting a hazard to personnel should they fall against.

3.11.8 All the lifting devices/accessories shall be designed to withstand at least six (6) times the mass of the Vessel with all the equipment. All devices and accessories shall be certified by the RO in accordance with the laws of Hong Kong prior to delivery. The **single 4-point** lifting and lifting sling method designs shall be discussed at the kick off meeting and agreed by MD and the HKPF. To avoid the need for costly and unnecessary alteration or modification of existing equipment, the Contractor shall, prior to any construction, submit detailed drawings of both methods so that the HKPF can check dimensional compatibility with its existing lifting facilities.

## **3.12 Cradles**

3.12.1 The Contractor shall supply each Vessel with one suitably designed metal slipping cradle with appropriate safety features on which the Vessel can be slipped ashore and tied down during tropical cyclones. The cradle shall have stoppered wheels and shall be designed to be towed by plant within the HKPF's operational base compounds and be steerable for manual positioning. This cradle is not required for use on public roads. The design shall be submitted to the MD for approval.

- (i) Helm;
- (ii) Engine throttle/Waterjet control head;
- (iii) Trim control selector panel (for steerable sterndrive version);
- (iv) Engine monitoring display panel;
- (v) Engine start control;
- (vi) PA/Loudhailer control unit and microphone;
- (vii) A magnetic compass fitted with an independent dimmer switch, installed on the top of the console in line with the coxswain's line of sight dead ahead;
- (viii) Radar and electronic chart display;
- (ix) Engine monitoring display panel;
- (x) Electric horn;
- (xi) Siren and flashing beacon control panel;
- (xii) Navigation lights, search lights and flood lights switch panel as appropriate;
- (xiii) Satellite compass electronic digital display unit;
- (xiv) Fuel tanks level gauge; and
- (xv) Radio communication controls and microphone as appropriate.

#### 3.4.3 The controls, displays and equipment

- (a) All the controls, displays and equipment shall be waterproof, shockproof and suitable for external marine use.
- (b) All indication lights, illumination of instrumentation gauges and panel lighting shall be fitted with dimmers for day and night operation.
- (c) The flat surfaces between controls, displays and equipment shall be coated in a rubberised, matt black coating suitable for the marine environment. Details of the rubberised coating required will be discussed at the kick-off meeting.
- (d) Lockers shall be provided as far as possible, if space permits, to allow for the watertight storage of items of police equipment. The console and locker(s) shall be designed to ensure easy access for the maintenance and repair of equipment mounted, installed or stored therein. Details to be discussed at the kick-off meeting.
- (e) The arrangement shall be designed to protect the crew and persons on board from injury inflicted by the console and the equipment installed in it.
- (f) Sufficient legroom shall be provided to obviate the risk of impact injury during rough weather or violent manoeuvres in both the seated and standing positions.
- (g) A waterproof black/grey cover shall be provided to cover the console down to deck level when the Vessel is not in use.

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- 3.5.1 The Vessel shall be provided with a self-righting system mounted on a frame at the stern of the Vessel, which incorporates an inflatable bag with a heavy-duty coated fabric cover and a CO<sub>2</sub> bottle. In the event that the Vessel capsizes, this self-righting system shall be capable of being activated automatically through a hydrostatic release and/or manually by pulling a release handle. The system shall be dimensioned so that it is capable of righting the Vessel at the Light Operational Load Condition as stipulated in Paragraph 1.7.2(e) of this Part VII.

### **3.10 Transom and Stern**

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- 3.10.2 The transom shall be constructed with an inspection hatch of a size agreed by the MD and the HKPF.
- 3.10.3 The design shall provide safe and easy access to the impellers of the waterjets for routine checking and troubleshooting while at sea.
- 3.10.4 The propulsion system shall be protected by a sturdy tube construction, fitted to the stern plate. The stern guard can also be used as a platform when inspecting the jet unit. Details of the design shall be discussed at the kick-off meeting and submitted to the MD for approval before the completion date stipulated in Annex 2 to this Part VII.

### **3.11 Anchor and Chains and Strong Points**

- 3.11.1 The Vessel shall be equipped with one hot dip galvanized anchor with certificate issued by the RO and suitable swivel, shackles and secured stowage shall be provided by the Contractor.
- 3.11.2 Two (2) 50 m long 20 mm diameter braided nylon wraps for anchoring and towing shall be provided by the Contractor in a suitable stowage.
- 3.11.3 Two (2) 30 m long 16 mm diameter nylon wraps for mooring shall be provided by the Contractor in a suitable stowage.
- 3.11.4 The strong points shall be designed and installed with sufficient safety factor to prevent material yield of the strong points or surrounding structures to which they are attached in a welded condition. Calculation of the horizontal load shall be in accordance with the requirements of ISO 15084 or other equivalent international standards. The following strong points shall be provided:
  - (a) Anchoring/towing points forward (port and starboard);
  - (b) Towing points fore and aft capable of withstanding the forces involved when towing or being towed by a sister vessel or other craft of similar size. The forward towing point shall be located on the stem immediately below the forepeak. Details of the design shall be discussed at the kick-off meeting and submitted to the MD for approval before the completion date stipulated in Annex 2 to this Part VII;
  - (c) Specialist equipment mounting points shall be provided at the centreline forward and aft and on both sides aft of the console. Each point shall be secured by at least four (4) bolts and be designed for an applied pull-tested load of at least 680 kg at the installed height. Details to be discussed in kick-off meeting; and
  - (d) Lifting strong points for a one-point lift and a four-point lift.
- 3.11.5 Devices for Lifting the Vessel
  - (a) The Vessel shall be provided with two (2) means of lifting for launching and recovery, docking, storage, inspection and maintenance purposes, designed for use with launch mounted davits, fixed jib cranes, telescopic cranes, travel hoists and truck mounted cranes:
    - (i) 4-Point Lifting method

The Vessel shall be designed with strong point lifting attachments permanently fitted to the hull. A spreader shall be provided if the bending stress induced during lifting exceeds the Vessel's permissible tolerance or if the lifting wires/strops would otherwise foul the radar frame or equipment fitted thereto. The design of the lifting attachments, wires/strops and spreader, if any, shall be approved by the RO

and shall match, where practical, the lifting facilities at the HKPF's operational bases.

(ii) Lifting Slings Method

The Vessel shall be designed to allow the Vessel to be hoisted ashore by means of lifting slings around the hull. The hull structure shall, if it is necessary, be strengthened appropriately and the locations at which the slings are to be positioned shall be marked clearly.

- (b) The lifting points and locations shall be designed and installed with sufficient safety factor to prevent material yield of the strong point or surrounding structure in a welded condition. Detail drawings of lifting attachments and related equipment shall be approved by the RO.

- 3.11.6 Strong points for mounting the Jason's Cradle referred to Paragraph 3.8.7 of this Part VII shall be provided on both sides of the Vessel. The arrangement shall be designed so that the Jason's Cradle can be rolled into the sea and used to haul a person inside the cradle back into the Vessel. The mounting arrangement shall be discussed at the kick off meeting and agreed by MD and the HKPF.
- 3.11.7 Cleats shall be mounted fore and aft, port and starboard for the purposes of mooring the vessel. Cleats shall be flush to the gunwales to reduce the chance of entanglement, snagging of equipment and presenting a hazard to personnel should they fall against.
- 3.11.8 All the lifting devices/accessories shall be designed to withstand at least six (6) times the mass of the Vessel with all the equipment. All devices and accessories shall be certified by the RO in accordance with the laws of Hong Kong prior to delivery. The 4-point lifting and lifting sling method designs shall be discussed at the kick off meeting and agreed by MD and the HKPF. To avoid the need for costly and unnecessary alteration or modification of existing equipment, the Contractor shall, prior to any construction, submit detailed drawings of both methods so that the HKPF can check dimensional compatibility with its existing lifting facilities.

### **3.12 Cradles**

- 3.12.1 The Contractor shall supply each Vessel with one suitably designed metal slipping cradle with appropriate safety features on which the Vessel can be slipped ashore and tied down during tropical cyclones. The cradle shall have stoppered wheels and shall be designed to be towed by plant within the HKPF's operational base compounds and be steerable for manual positioning. This cradle is not required for use on public roads. The design shall be submitted to the MD for approval.