I N C O R P O R A T E D

Builders of Quality High Speed Fire, Rescue and Patrol Boats

### FireStorm 70





### **Unsolicited Proposal**

Index

### **Executive Summary**

- 1- MetalCraft Marine FiresStorm Introduction
- 2- FireStorm 70 Characteristics
- 3- FireStorm 70 Features
- 4- FireStorm 70 Specification
- 5- FireStorm 70 Arrangements
- 6- MetalCraft Marine FireStorm References

### **Executive Summary**

The purpose of this unsolicited proposal is to make you aware of the advantage our FireStorm 70 could provide to your ports emergency response capabilities. As the leading fireboat manufacturer in North America we pride ourselves on providing the most advance emergency response tools to local, regional and national authorities. The FireStorm line provides public safety, disaster relief and emergency response to governments around the world. Our success is attributed to understanding the environmental condition in which our vessels will operate and customizing our proven hull design to meet the customer's operational requirements. Government organizations trust us to build their life saving/protecting vessels because we deliver the highest quality craftsmanship and most advance systems in a fully integrated package. Our customers have identified the following three attributes as the reason that they selected MetalCraft Marine to build their boat: 1- Performance- Highest top speed and pumping capacity for any fire boat of a comparable size; 2- Value added engineering- Onsite full design and engineering department can provide a superior level of service; and 3- Attention to detail-Ease of maintenance, access to all systems, ergonomic interfaces and use of locally supported components.





### 1- MetalCraft Marine FiresStorm Introduction

MetalCraft Marine is a fully integrated designer and manufacturer of custom high performance patrol, fire, rescue, research and workboats. Boats range from 28' to 70' in length and can reach speeds of 35Kts to 45Kts. Established in 1987 MetalCraft Marine has built over 550 hulls and earned the reputation of being the North American leader in the design and manufacturing of aluminum water-jet propelled boats. MetalCraft Marine's customers include the US Coast Guard, US Navy, Marine Police, Parks Services, Port Authorities and Fire Departments. MetalCraft Marine Inc. has a strategic partnership agreement with Brunswick Commercial and Government Products Group to design and build the hulls for their Sentry product line of high speed aluminum patrol boats.

In 2002 MetalCraft Marine developed the FireStorm - the first purpose built high speed firefighting boat. Our breakthrough design allows for higher pumping capacity, ease of maintenance and low lifecycle costs. We build seven standard models of FireStorm (FS30, FS32, FS36, FS40, FS46/48, FS50 and FS70) and currently have 85 FireStorm's in service around the world. The FireStorm is the most practical watercraft in North America for fire and police departments.

The FireStorm has a proven history of cross-functional emergency response and enforcement duties across multiple government agencies. Many large ports have a fleet of Firestorms to cover large areas with identical boats to reduce response time, crew training costs and maintenance costs. San Diego – 5; Houston – 3; Jacksonville – 2; Miami - 3; Washington DC region - 7; New York - 2; Seattle – 2; Tacoma - 2; Vancouver - 2. The boats perform the roles of security, patrol, emergency response, fire, and rescue for the general public, cruise ship terminal, commercial marine port, international airports and US Military bases. The boats work joint operations in coordination with the US Navy, US Coast Guard, Federal Homeland Security, Federal Bureau of Investigations, and Customs & Border Patrol.

The FireStorm's advantage over its competitors can be measured by its exceptional pumping capacity, maneuverability and high speed over other fireboats. MetalCraft Marine's pumping configuration pushes approximately 50-60% more volume than any other pumping system available on a boat of similar size yielding the greatest firefighting capability available. In addition, it can reach speeds approximately 30% higher than any other fire boat of similar pumping capability resulting in the fastest response times and longest effective range.



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### 2- FireStorm 70 Characteristics

Length	70'-10"
Beam	22'-2"
Draft	3'-6"
Displacement	54 Tonnes
Propulsion Engines	Quad Caterpillar C18 (1150 hp @ 2300 rpm)
Reduction Gears	ZF665
Water Jet	Quad Hamilton Jet HJ403
Control Station	Hamilton Jet MEC electronic joystick control system
Navigation	Furuno integrated navigation electronics (radar/chart plotters/positioning)
Low visibility Camera	FLIR Voyager II
Camera	Multiple CCTV system
Sounding	WASP multibeam underwater imaging
Speed	40 knots
Fuel Capacity	2000 US gallons
Fire Pumps	Four 8FkF 3000 GPM pumps
Water Pumping	17000 GPM at 120 PSI
Roof Fire Monitor	Stang SLP 8 5000 GPM remote monitor w/ 450' reach
Bow Fire Monitor	Twin Elkhart Scorpion 2000 GPM radio frequency monitors w/ 250' reach
Discharges	Three 5" Storz LDH; Two 3" ANSI flanges; gated fire hydrant; gated wye
Fire Fighting Foam	AUTOFOAM SC electronic foam proportioning
Fire Fighting Systems	Onboard breathable air, with SCBA tank fill station
Generator	Two Caterpillar C1.5 13.5kw
Rescue	Transom recovery deck and integral bow recovery ladder
Rescue Craft	Futura Zodiac Mark III w/ Evinrude 40 hp
Lifting Device	HIAB 3.3 tonne-meter hydraulic knuckle boom crane
Crew	3 to 5: Captain; Coxswain; Navigator; Firefighter; Crewman
Medical Station	Defibrillator, medical oxygen and medical birth
Galley	Fridge, microwave, stove, coffee maker, fresh water sink and lounge table
Head	Fresh water marine toilet and sink
Shower	Fresh water enclosed shower compartment and change area
Air Conditioning	Two CruiseAir 48,000 Btu units
Noise at Pilothouse	80db max; 76db at cruise
Crew	3 to 5: Captain; Coxswain; Navigator; Firefighter; Crewman



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### 3- FireStorm 70 Features











### **Firefighting**

- Meets NFPA Type 2
- Uniquely designed sea chest and inline pump arrangement generates water flow in excess of the manufacturers rating
- NFPA certified flow rate of 14,092 GPM at 150 PSI
- Effective water stream distance of 450 feet from the Stang
   5,000 GPM roof mounted monitor
- Inshore pumping capacity of 1000 feet through a 5 inch large diameter discharge hose at 68 PSI
- Onboard Cascade SCBA/SCUBA fill station with high output compressor
- SCBA bottle racking and specialized equipment storage.

### Security

- The multi-mission effectiveness of the FireStorm allows it to perform countermeasures for poaching, foreign fishing, smuggling, illegal immigration, terrorism and piracy.
- Full length rub-rail, side strakes and push knee with integrated collision bulk head provides protection
- The engine room space and oversized access hatches enable easy maintenance and inspection even while underway
- The diesel inboard water jet propulsion provides serviceability, reliability and performance.
- The flush fore deck, oversized rescue platform and push knee ladder provide various boarding options.
- Can be equipped with gun mounts and weapons stations for 360 degree defence coverage
- Ballistics material protection can be integrated into cabin

### **Search and Rescue**

- Mast mounted remote operated Xenon searchlight(s) generate an un-obstructed beam.
- Wraparound deck safety track system enables a crewman to attach a harness and walk unobstructed around the full perimeter of the foredeck clipped onto the boat for hands free work.
- The foredeck push knee allows a stable connection to a surface for safe transfers in unstable water conductions.
- The oversized rescue platform allows water level working space for deployment and recovery of divers.
- The large aft working deck provides space for rescue operations, mass-casualty life rafts and airplane crash recovery.



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### Command

- Onboard thermal imaging and night vision camera systems allows operations to be conducted in low light and low visibility conditions.
- 360 degree visibility and customer specified communication and navigation equipment supports close collaboration during joint operations.
- Command center capabilities can support 10 crew members:
- The galley includes a crew conference area with large display monitor, range, microwave, refrigerator and fresh water sink.
- The full head includes a sink and fresh water shower.

### **Emergency Services**

- MetalCraft Marines emergency medical areas have patient care workstations with dedicated storage for first responder tools and medical supplies.
- The cuddy can accommodate up to four berths with two additional aft deck patient berths / passenger benches.
- The equipment room aft of the main cabin can accommodate onboard defibrillation, medical oxygen and patient monitoring systems.
- An environment control systems providing heating and cooling within a comfortable range.

### **CBRN Defence**

- MetalCraft Marine's entire FireStorm line can be equipped with Hazardous Materials and Chemical, Biological, Radiological, Nuclear and Explosive Defence systems.
- CBRN Defence systems have different capability levels:
  - 1) Crew is protected from CBRN agents through isolation from the environment and air handling systems;
  - 2) CBRN decontamination areas for patients, emergency responders and equipment;
  - 3) CBRN agents are detected through the use of sensors and monitors;
  - 4) Command and control of CBRN threats through integrated emergency management and response capabilities to perform missions in a CBRN environment.



### 4- FireStorm 70 Specification (with options)

### <u>Metal</u>

All structure meets the American Bureau of Shipping High Speed Craft Rules.

### Warranty

- MetalCraft Marine Standard 12 Month Warranty & 10 Year Hull Warranty
- Original equipment manufacturer (OEM) warranties & extended warranties where available

### **Hull Construction**

- Hull is constructed out of 5083 aluminum of 5/16 inch hull bottom and 1/4 inch hull sides
- Continuous through frames and bulkheads are 3/16 inch
- 4 watertight chambers integrated into the hull.
- Fully welded diagonal fender strakes of 3/16 extrusion
- Push knee with collision bulkhead and crumple zone
- Bow mounted tow post is integral to hull structure

### Cabin

- Cabin superstructure with bridge and equipment room and overhead handrails
- Raised bridge accommodates a four station console with seating for 4-6 persons
- Equipment room located on main deck aft of bridge with flush deck walkout
- Roof mounted double tier radar arch with hinged mast and access covers for all wiring runs
- Aft deck air boxes with plenums and extended benches/berths/storage that can table stokes basket
- The cuddy is located below the bridge and has a full head, full galley and four berths with storage

### Deck

- 3/16 self-draining deck with recessed tie downs and 4 lifting eyes integral to hull structure.
- Rescue platform can accommodate the deployment/recovery of a rescue craft, jetski or airboat
- Forward anchor locker with waterproof hatch
- Handrails on cabin, equipment room roof, and aft/forward deck.
- Oversized engine and access hatches for easy maintenance
- Drive shaft guards

### **Propulsion**

All propulsion components are assembled and installed in accordance with manufacturers recommendations.

- Quad diesel engines -Caterpillar C18
- Electric Fast Lube Oil Change System -24 volt DC pump to centralized suction point
- Quad water jet Hamilton Jets HJ403
- Marine gear transmission ZF 665
- Spicer drive shafts



### **Systems**

### **Propulsion System**

- Six rule 3700 GPH bilge pumps with float switch, high water alarm with console switches.
- Two 1000 gal fuel tanks with crossover and duplex Racor fuel filters
- Kaekhaifer Zero effort controls and cables and Jastram hydraulic steering system and destroyer helm
- Caterpillar electronic engine management system and Hamilton Jet modular electronic control system permits operation engine/jet using a remote hand unit
- Groco duplex strainers for propulsion engines seawater system
- MCM custom exhaust system
- FM 200 fire suppression system in engine room

### **Environment Control System**

- Two Heatercraft engine driven 40,000 BTU cabin heaters
- Two 48,000 BTU Cruiseair AC Compressor system with heat coil
- Ventilation system with ducting to all cabins, external make up air and windshield defrost diffusers
- Pressure water system to galley and head with 11 gal hot water tank

### **Firefighting System**

- Firefighting system complies with NFPA 1925 fireboat standard and can be used with a venturi for dewatering
- Twin 3500 GPM Hale FKF pumps and twin 3000 GPM Hale pumps
- Twin 2000 GPM remote Elkhart brass monitors with remote nozzles
- Twin 1250 Elkhart brass manual monitors on the aft deck
- One 5500 GPM Stang remote roof mounted monitor,
- Three 5" Large Diameter Hose Storz connections
- Handline fittings and B14 handline fittings and hoses for ship service
- Williams foam nozzle system (2) on foredeck with Day tank (150 gallons) + 1 nozzle aft deck to (350 Gall reserve)
   +foam pump for transferring foam
- Fire controls and gauges

### **EMS**

- Medical area with stainless sink and refrigerated medical cabinet
- Onboard medical oxygen delivery system
- Automated External Defibrillator

### **Protection**

- Ballistics protection for crew
- Foundations for Gun mounting holes or inserts positioned for maximum firing coverage
- Dedicated tactical equipment storage

### **CBRNE Defence**

- Breathing air system or positive pressure cabin filtration and air handling system
- Air lock entry system, contamination control area and toxic free area
- Chemical & biological agents, radiological, nuclear, and explosives detection equipment
- Chemical & biological agents, radiological, nuclear, and explosives integrated information management system for containment and decision support
- Hazardous material containment suits and filter masks
- Decontamination shower



### **Anticorrosion Systems**

- Corrosion meter
- Slave anodes

### Fit out

### **Surface Coatings**

- Boat hull and cabin are fully sandblasted, painted with International Paint system using epoxy primers and urethane topcoats/antifoul
- Interior exposed aluminum is fully sand blasted and painted with Zolatone multicolor finish
- Deck is fully bead blasted for a non-glare, non-skid, durable and maintenance free finish

### Windows

- 360 degree visibility meets American Boat and Yacht Councils sightlines
- Two fixed aft, two fixed aft sides, two sliders forward side, three front fixed, and door with window in aft of cabin
- Pantograph wipers on front three windows

### Interior

- Engine room, main deck equipment room, accommodation area and bridge fully insulated with fire retardant material, fully clad with PVC temperature cycling material (meets USCG interior flame retardant rating)
- All cabins have Lonmat sound/stress matting (meets OSHA Db sound rating)
- 4 Bostrom Viking suspension seats for helmsman, communication operator, navigator and systems operator
- Interior handrails in main cabin overhead
- Upholstery for main cabin bench and V-berth
- Full head with sink, shower and change area;
- Four berths with storage
- Full galley with range, fridge and microwave
- Wood cabinetry: drawers, shelves, cupboards and dinette/conference table for eight
- Medical area in equipment room with swing out cushioned bench and dedicated storage

### Exterior

- Hyrdraulic knuckle boom Crane, 1500 lbs @ 15'
- 10 man life raft Zodiac w/ hydrostatic release Quantity 2
- 14' Rescue Boat with 20Hp motor, lifting rig and deck mounted cradle
- Large exterior roll up doors with shelving for equipment and tool storage
- Anchor Windlass mounted on bow
- Five inch "D" rubber around perimeter of deck
- Four mooring bit bollards 5 inch pipe with 1 inch bar
- Six 12 inch cleats

### **Electrical**

All electrical complies with the American Boat and Yacht Council Standards

### **General Electrical**

- Wire, Penetrations, heat shrink, cable trays, labeling and schematic included
- Two AC and three DC panels, 14 batteries with boxes, Blue Sea three way switches for cross connection
- 6 DC outlets and 4 AC outlets
- Twin 30 amp shore power with transformers, guest battery chargers and power gates
- Two Onan 13.5 kW generator set



### Lights

- 12 Cabin, 6 V-berth, and 2 engine room red/whites
- Spotlights Carlisle & Finch 125AEV-6
- Emergency Whelan light bar and hull lights
- Four DC halogen deck floods
- Navigation lights

### **Navigation**

- Choice of advanced navigation packages from Furuno, Raymarine, Garmin, Simrad, etc.
- FLIR Voyageur II Night Vision Camera
- Rictchie compass

### Communications

- Deck penetrations and foundations for 2 antennas for customer specified communications system
- 5 person wireless headset Piratecom, permits linking to cell phone and on board radios
- 4 Closed circuit cameras linked to navigation displays
- Data Link for joint operations frequency cameras

### **Miscellaneous**

### **Hardware and Labeling**

- All 316 Stainless Steel fasteners
- Lifting Straps plus hoist HDW
- Labelling

### **Technical Data Package**

- Testing and sea trials
- Weighing of vessel
- Internal design and engineering
- 2 copies of boat manuals
- X-ray shots Quantity x 1 hull bottom seam XRAYS in accordance with CWB/AWS/ABS inspection requirements
- Training



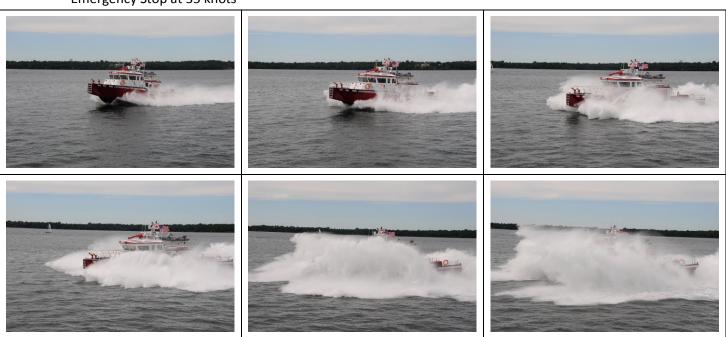
### Equipment

- 6 SCBA tanks
- Thermal Imager for firefighting, with spare batteries and mobile charger

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- EPIRBS (Globalfix 406 Cat I with mounting bracket)
- Handheld Red Flares (Day/Night)
- Parachute Flares (Day/Night)
- Automatic Inflatable PFD's Type IV
- Type II PFD's
- Type III Survival Vests
- Life Preserver Signaling Emergency Strobes. (C-Strobes)
- Whistles
- SOLAS life Ring Buoys with minimum
- Throwable flotation cushions
- Horr
- Primary Anchor Fortress w/ Stainless Steel Chain, Stainless Steel Shackle and 600' Nylon rope
- 2 Secondary Anchors Fortress w/ Stainless Steel Chains, Stainless Steel Shackles, and 300' Nylon ropes
- 40'x 7/8" Black, Nylon Docking Lines; (Bow and Stern).
- 65'x 7/8" Black, Nylon Docking Lines; (Spring Lines).
- Polyform F-Series Fenders (F-11) with 10'x ¾" Nylon Rope ties to each
- Marine binoculars
- Night Vision Marine Binoculars

### Emergency Stop at 35 knots





### 5- FireStorm 70 Arrangements

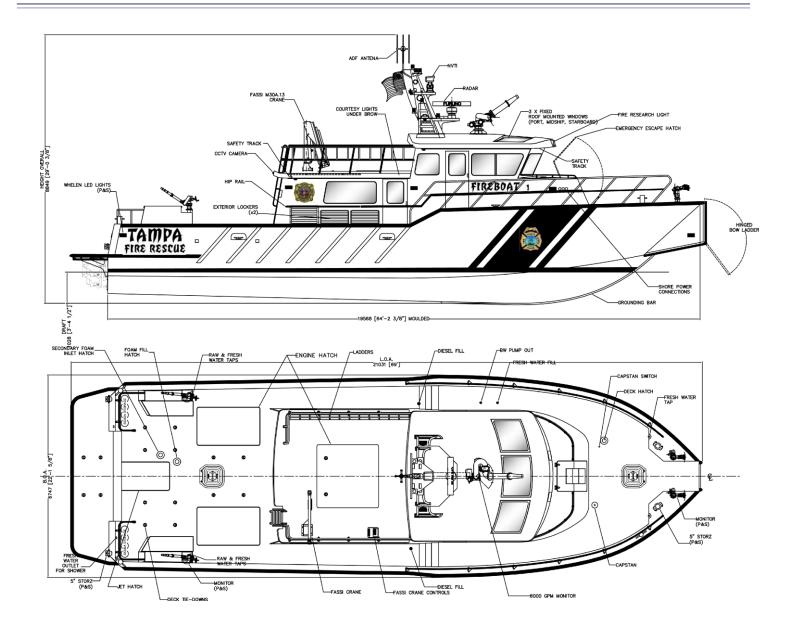
Port of Tampa, Florida FireStorm 70 Emergency Response Vessel

The first high speed National Fire Protection Association (NFPA 1925) Class II fire boat, exceeding 35 knots, having complete redundancy of all ship systems, water pumping exceeding 10,000 gpm at 150 psi, one compartment damaged stability.

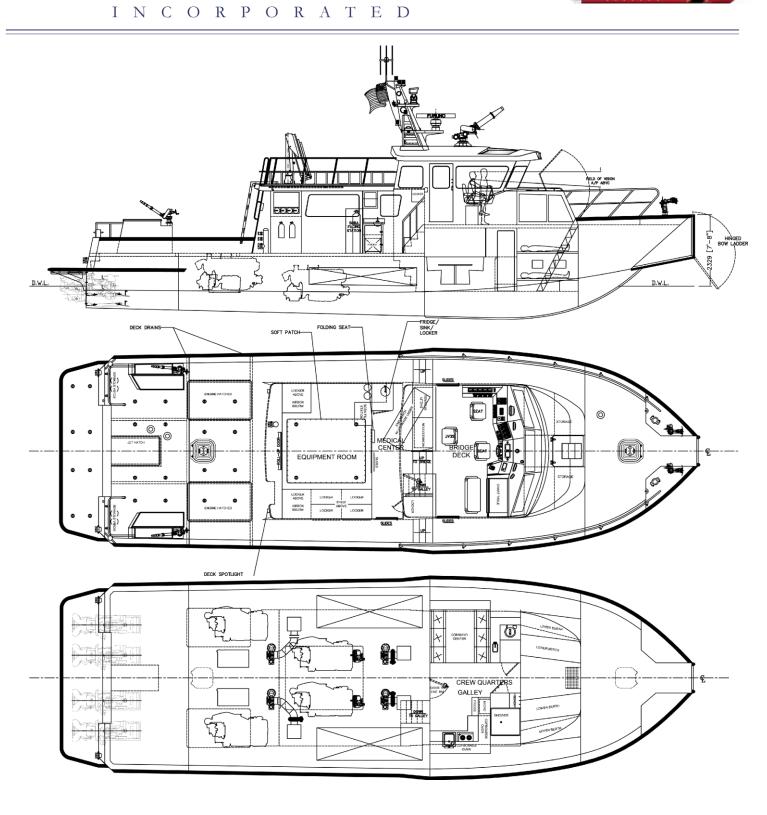
Length	69'
Beam	20'-1/2''
Draft	3'-4"
Displacement	50 Tonnes
Propulsion Engines	Quad IVECO C-13 (825 hp @ 2400 RPM)
Reduction Gears	ZF360
Water Jet	Quad Hamilton Jet HJ364
Control Station	Hamilton Jet MEC control system
Navigation	Raymarine
Low visibility Camera	FLIR Voyager II
Camera	Multiple CCTV system
Speed	35 knots
Fuel Capacity	1000 US gallons
Fire Pumps	Quad 8FkF 3000 GPM
Water Pumping	12000 GPM at 150 PSI
Roof Fire Monitor	Stang SLP 8 5000 GPM remote monitor
Bow Fire Monitor	Twin Elkhart Scorpion 2000 GPM radio frequency monitor
Discharges	Three 5" Storz LDH; Two 3" ANSI flanges; gated fire hydrant; gated wye
Fire Fighting Foam	Electronic foam proportioning
Fire Fighting Systems	Onboard breathable air, with SCBA tank fill station
Generator	Two ONAN 13.5kw
Rescue	Transom recovery deck and integral bow recovery ladder
Lifting Device	FASSI M30A.13
Crew	3
Medical Station	EPIRB, medical oxygen, and
Galley	Fridge, microwave, stove, coffee maker, fresh water sink and lounge table
Head	Fresh water marine toilet and sink
Shower	Fresh water enclosed shower compartment
Air Conditioning	CruiseAir air conditioning system
Noise at Pilothouse	80db

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**Patriot** 

Port of Tampa, Florida

Year: 2009

Yard: MetalCraft Marine, Kingston, ON Design: MetalCraft Marine, Kingston, ON







583 Broadway St. E, Cape Vincent New York 13618 ◆ 347 Wellington Street Kingston Ontario K7K 6N7 www.metalcraftmarine.com (800) 410-8464



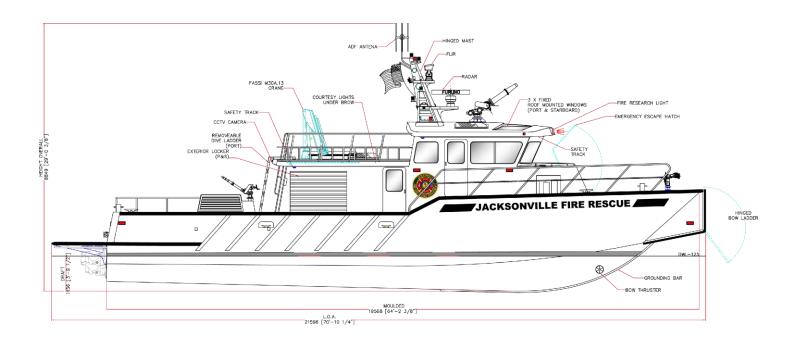


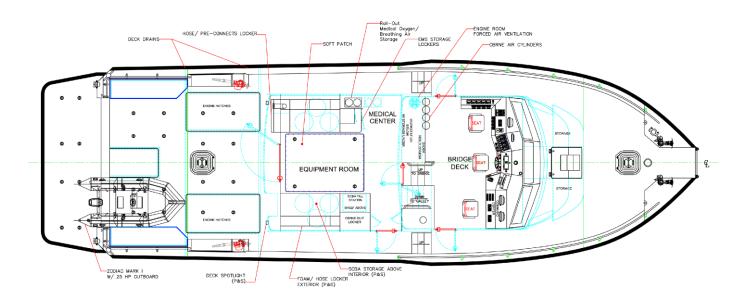
Port of Jacksonville, Florida FireStorm 70 Emergency Response Vessel

The Jacksonville Fire Rescue Department operates both a FireStorm 70 and FireStorm 50 built by MetalCraft Marine. The vessels provide marine firefighting and emergency response capabilities to the St. Johns River and adjacent coastline.

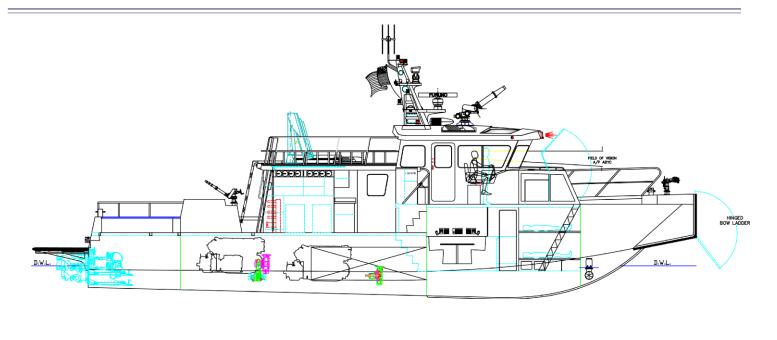
Length	70'-10"
Beam	22'-2"
Draft	3'-6"
Displacement	54 Tonnes
Propulsion Engines	Quad Caterpillar C-18 (1015 hp @ 2300 RPM)
Reduction Gears	ZF550
Water Jet	Quad Hamilton Jet HJ403
Control Station	Hamilton Jet MEC control system
Navigation	Furuno
Low visibility Camera	FLIR Voyager II
Camera	Multiple CCTV system
Speed	36 knots
Fuel Capacity	2000 US gallons
Bow Thurster	IMTRA Side Power
Fire Pumps	Quad 8FkF 3000 GPM
Water Pumping	12000 GPM at 150 PSI
Roof Fire Monitor	Stang SLP 8 5000 GPM remote monitor
Bow Fire Monitor	Twin Elkhart Scorpion 2000 GPM radio frequency monitor
Discharges	Three 5" Storz LDH; Two 3" ANSI flanges; gated fire hydrant; gated wye
Fire Fighting Foam	Electronic foam proportioning system
Fire Fighting Systems	Onboard breathable air, with SCBA tank fill station
Generator	Two Caterpillar C1.5 13.5kw
Rescue	Transom recovery deck and integral bow recovery ladder
Lifting Device	Fassi M30A.13
Crew	3
Breathable Air	10 bottle cascade system
Galley	Fridge, microwave, stove, coffee maker, fresh water sink and lounge table
Head	Fresh water marine toilet and sink
Shower	Fresh water enclosed shower compartment
Air Conditioning	4 Carrier Air (4x 15,000 Btu)
Noise at Pilothouse	80db

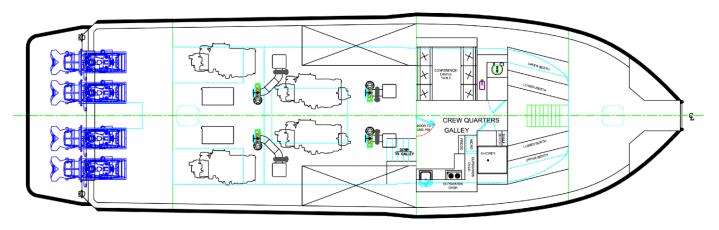


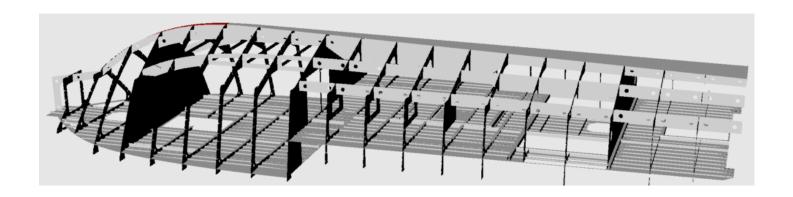














Marine 1

Port of Jacksonville Fire Rescue Department, Florida

Year: 2010

Yard: MetalCraft Marine, Kingston, ON Design: MetalCraft Marine, Kingston, ON













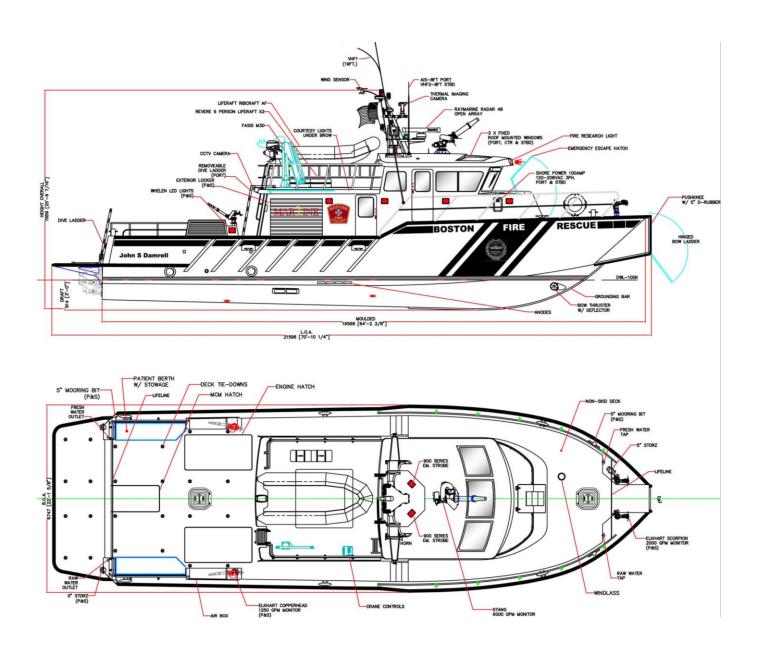


Port of Boston, Massachusetts FireStorm 70 Emergency Response Vessel

This multipurpose vessel is responsible for fast response to marine incidents. In addition to protecting the city's waterfront, the vessel provides safety to the active Boston Harbor recreational boat traffic, commercial port movements, the airport, the cruise ship terminal and LNG tankers.

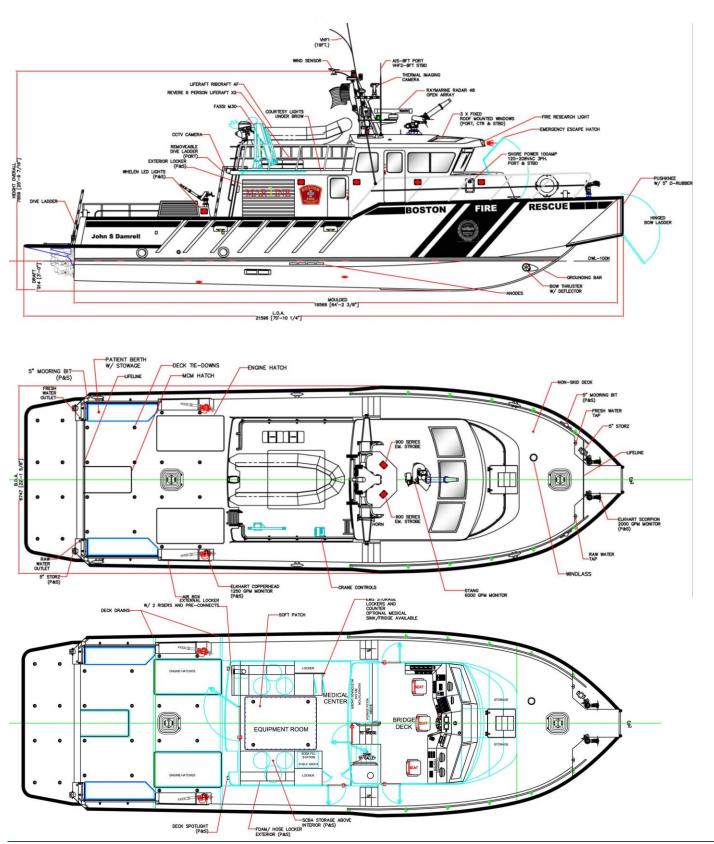
Length	70'-10"
Beam	22'-2"
Draft	3'-6"
Displacement	54 tonnes
Propulsion Engines	Quad IVECO C-13 (825 hp @ 2400 RPM)
Reduction Gears	ZF360
Water Jet	Quad Hamilton Jet HJ364
Control Station	Hamilton Jet MEC control system
Navigation	Raymarine
Low visibility Camera	FLIR Voyager II
Camera	Multiple CCTV system
Speed	35 knots
Fuel Capacity	1000 US gallons
Bow Thurster	IMTRA Side Power
Fire Pumps	Quad 8FkF 3000 GPM
Water Pumping	12000 GPM at 150 PSI
Roof Fire Monitor	Stang SLP 8 5000 GPM remote monitor
Bow Fire Monitor	Twin Elkhart Scorpion 2000 GPM radio frequency monitor
Discharges	Three 5" Storz LDH; Two 3" ANSI flanges; gated fire hydrant; gated wye
Fire Fighting Foam	AUTOFOAM SC electronic foam proportioning
Fire Fighting Systems	Onboard breathable air, with SCBA tank fill station
Generator	Two Caterpillar C1.5 13.5kw
Rescue	Transom recovery deck and integral bow recovery ladder
Lifting Device	HAB-33T
Crew	3
Medical Station	EPIRB, medical oxygen, and
Galley	Fridge, microwave, stove, coffee maker, fresh water sink and lounge table
Head	Fresh water marine toilet and sink
Shower	Fresh water enclosed shower compartment
Air Conditioning	CruiseAir (2x 42,000 Btu)
Noise at Pilothouse	80db Max / 76 Cruise



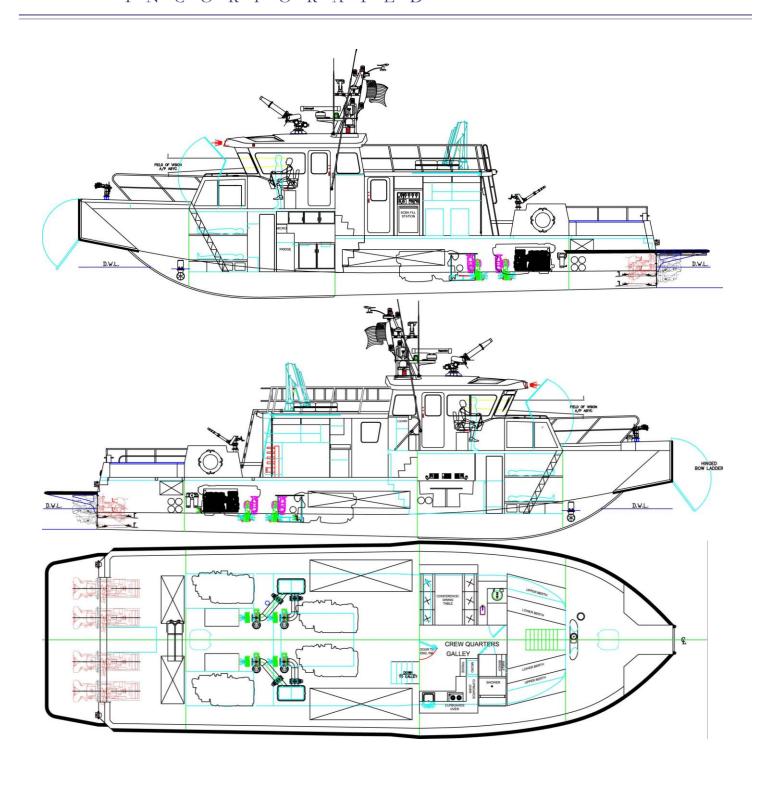




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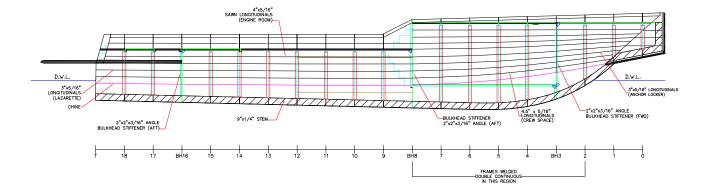








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John Stanhope Damrell

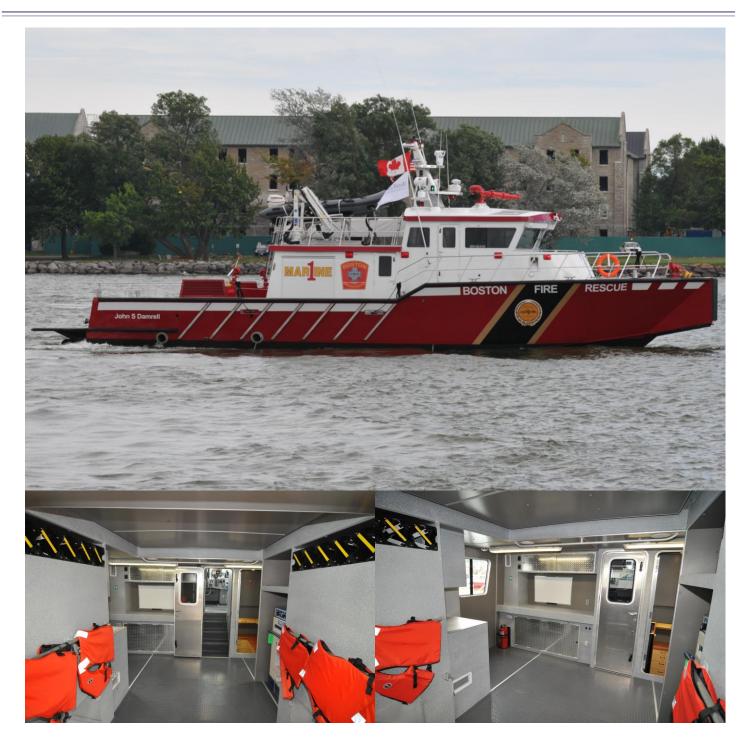
Port of Boston Fire Department Marine Unit, Massachusetts

Year: 2011

Yard: MetalCraft Marine, Kingston, ON Design: MetalCraft Marine, Kingston, ON



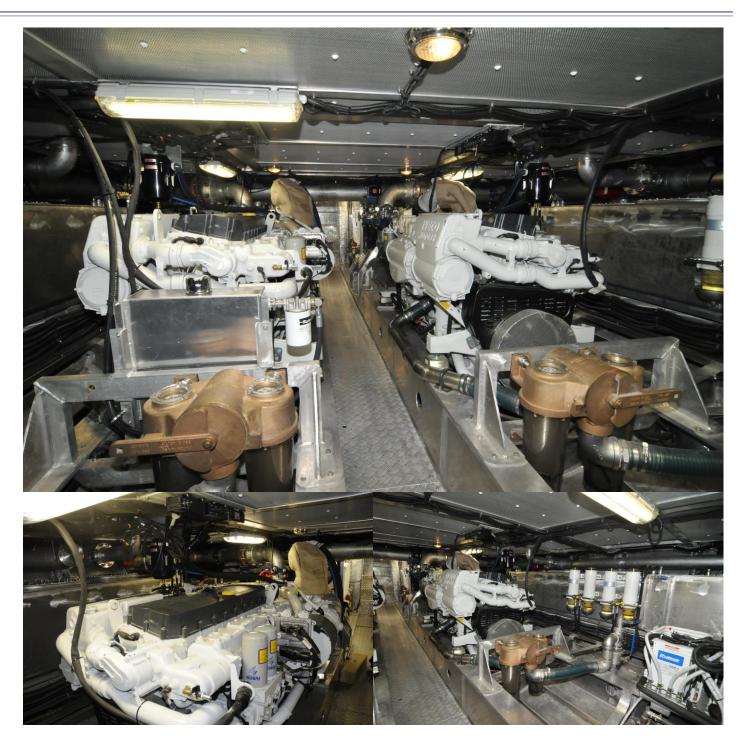
















Port of Wilmington, Delaware FireStorm 70 Emergency Response Vessel

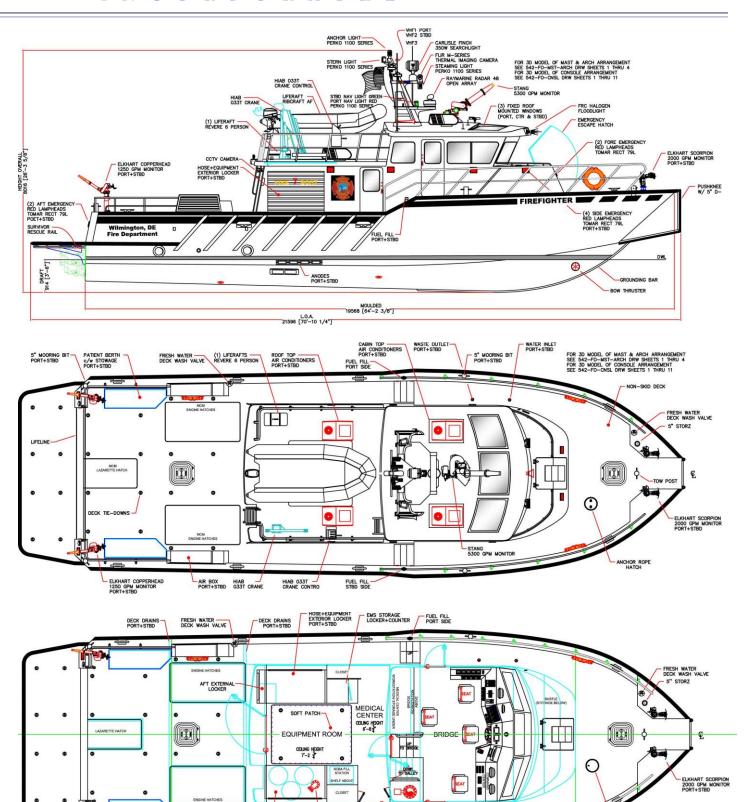
This versatile vessel provides marine rescue, firefighting, security and environmental protection on the Delaware River conducting joint operations with the City of Wilmington Fire and Police Departments along with other Departments in the tri-state area.

Length	70'-10"
Beam	22'-2"
Draft	3'-6"
Displacement	60 US tons
Propulsion Engines	Quad IVECO C-13 (825 hp @ 2400 RPM)
Reduction Gears	ZF360
Water Jet	Quad Hamilton Jet HJ364
Control Station	Hamilton Jet MEC control system
Navigation	Raymarine
Low visibility Camera	FLIR Voyager II
Camera	Multiple CCTV system
Speed	35 knots
Fuel Capacity	1000 US gallons
Bow Thurster	IMTRA Side Power
Fire Pumps	Quad 8FkF 3000 GPM
Water Pumping	12000 GPM at 150 PSI
Roof Fire Monitor	Stang SLP 8 5000 GPM remote monitor
Bow Fire Monitor	Twin Elkhart Scorpion 2000 GPM radio frequency monitor
Discharges	Three 5" Storz LDH; Two 3" ANSI flanges; gated fire hydrant; gated wye
Fire Fighting Foam	AUTOFOAM SC electronic foam proportioning
Fire Fighting Systems	Onboard breathable air, with SCBA tank fill station
Generator	Two ONAN 13.5kw
Rescue	Transom recovery deck and integral bow recovery ladder
Lifting Device	HAB-33T
Crew	3
Medical Station	EPIRB, medical oxygen, and
Galley	Fridge, microwave, stove, coffee maker, fresh water sink and lounge table
Head	Fresh water marine toilet and sink
Shower	Fresh water enclosed shower compartment
Air Conditioning	Four Coleman Sea Mach
Noise at Pilothouse	80db Max / 76db Cruise



ANCHOR ROPE HATCH

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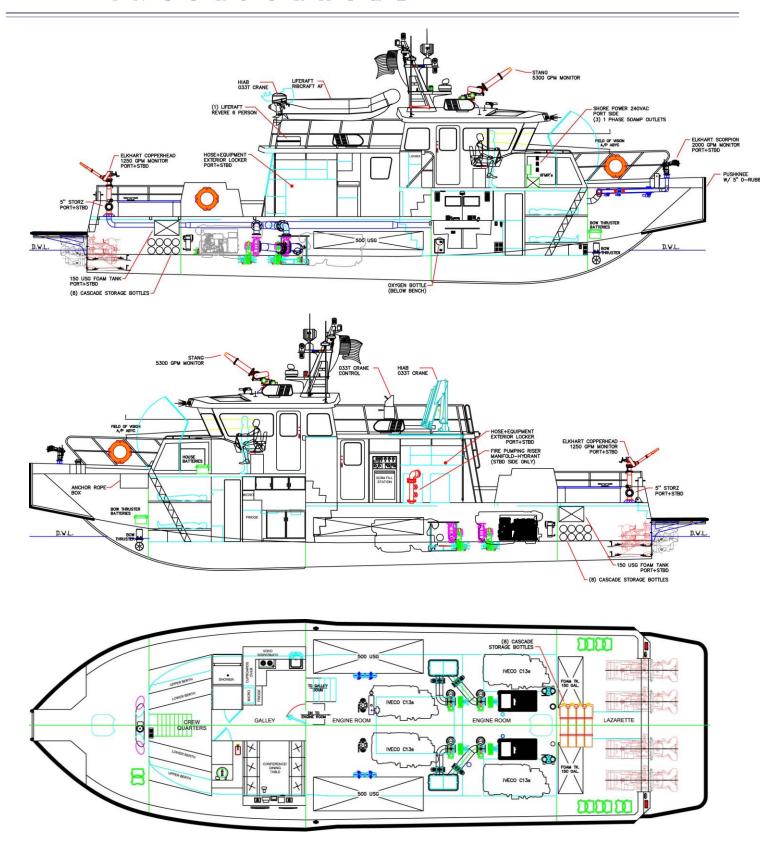


FUEL FILL STBD SIDE

ELKHART COPPERHEAD 1250 GPM MONITOR PORT+STRD HOSE+EQUIPMENT -EXTERIOR LOCKER PORT+STBD



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Fire Boat 7 "Firefighter"

Port of Wilmington Fire Department, Delaware

Year: 2012

Yard: MetalCraft Marine, Kingston, ON Design: MetalCraft Marine, Kingston, ON















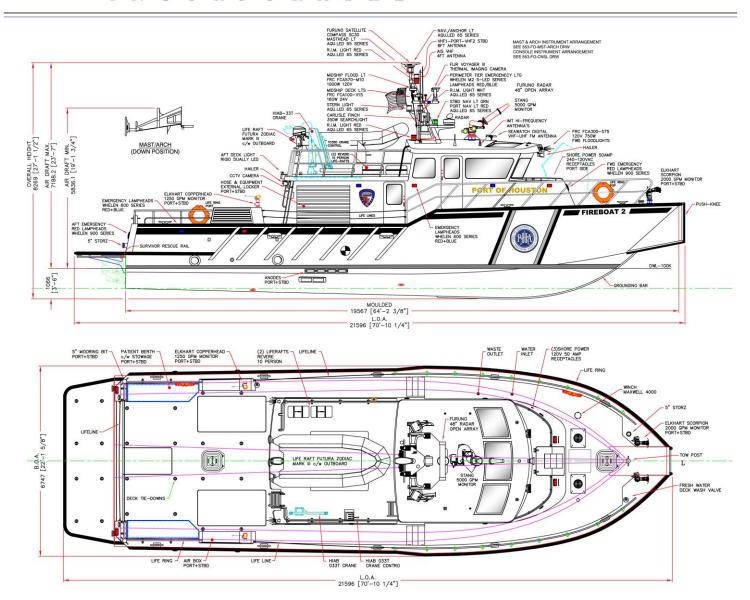


Port of Houston Authority FireStorm 70 Emergency Response Vessel

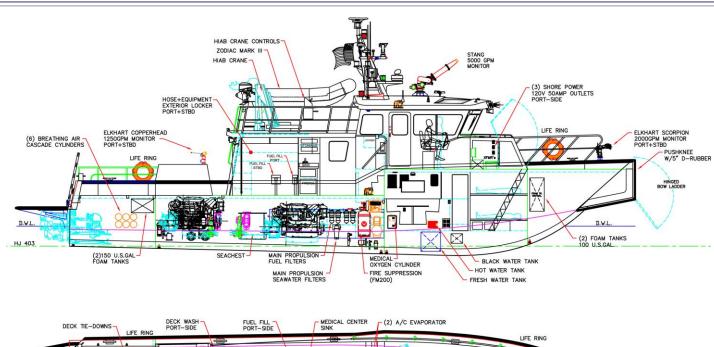
The three boat fleet is responsible for protecting the Port of Houston's 25 mile port, which is the busiest port in the United States in terms of foreign tonnage and includes the one of the most concentrated areas of petroleum refining facilities and petrochemical complexes in the world.

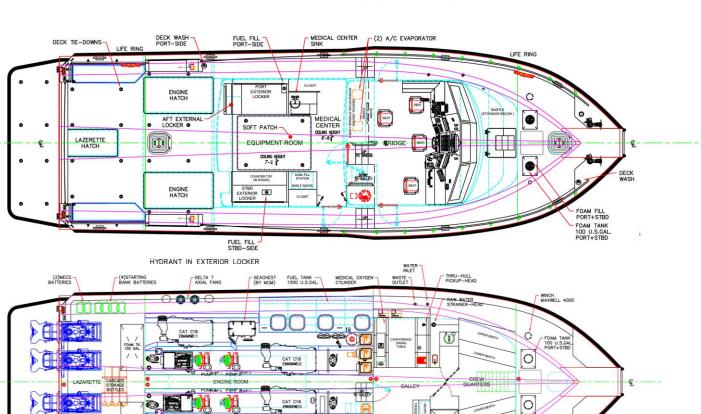
Length	70'-10"
Beam	22'-2"
Draft	3'-6"
Displacement	60 US tons
Propulsion Engines	Quad Caterpillar C18 (1150 hp @ 2300 rpm)
Reduction Gears	ZF665
Water Jet	Quad Hamilton Jet HJ403
Control Station	Hamilton Jet MEC control system
Navigation	Furuno NavNet
Low visibility Camera	FLIR Voyager II
Camera	Multiple CCTV system
Sounding	WASP multibeam
Speed	42 knots
Fuel Capacity	2000 US gallons
Fire Pumps	Quad 8FkF 3000 GPM
Water Pumping	14000 GPM at 150 PSI
Roof Fire Monitor	Stang SLP 8 5000 GPM remote monitor
Bow Fire Monitor	Twin Elkhart Scorpion 2000 GPM radio frequency monitor
Discharges	Three 5" Storz LDH; Two 3" ANSI flanges; gated fire hydrant; gated wye
Fire Fighting Foam	AUTOFOAM SC electronic foam proportioning
Fire Fighting Systems	Onboard breathable air, with SCBA tank fill station
Generator	Two Caterpillar C1.5 13.5kw
Rescue	Transom recovery deck and integral bow recovery ladder
Rescue Craft	Futura Zodiac Mark III w/ Evinrude 40 hp
Lifting Device	HAB-33T
Crew	3
Medical Station	EPIRB, medical oxygen, and
Galley	Fridge, microwave, stove, coffee maker, fresh water sink and lounge table
Head	Fresh water marine toilet and sink
Shower	Fresh water enclosed shower compartment
Air Conditioning	CruiseAir (2x 42,000 Btu)
Noise at Pilothouse	80db Max / 76db Cruise

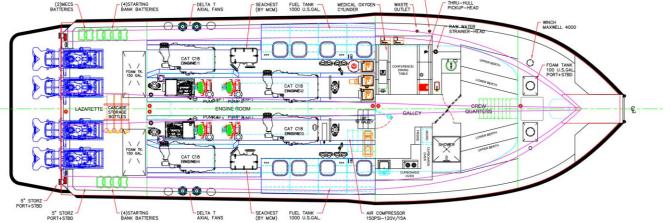






















583 Broadway St. E, Cape Vincent New York 13618 ◆ 347 Wellington Street Kingston Ontario K7K 6N7 www.metalcraftmarine.com (800) 410-8464



Fire Boat 1

Port of Houston, Texas

Year: 2013



INCORPORATED



Fire Boat 2

Port of Houston, Texas

Year: 2013



INCORPORATED



Fire Boat 3

Port of Houston, Texas

Year: 2014





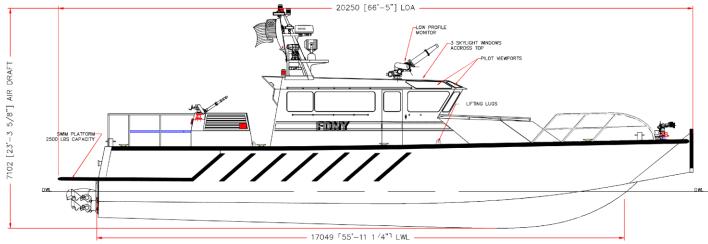
City of New York, New York FireStorm 70 Emergency Response Vessel (delivery spring 2015)

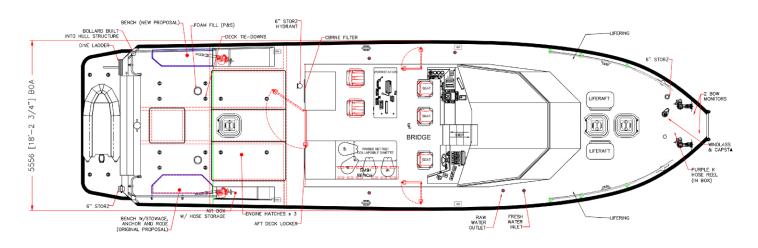
Relatively narrow, light weight and with a steep deadrise, this triple waterjet variant combines high speed response time with exceptional seakeeping. FDNY will use this vessel as their primary platform emergency response platform supplemented with smaller 30' fast rescue craft and larger 100' steel super pumpers.

Length	69'
Beam	18'-3"
Deadrise	22 degrees
Displacement	45 US tons
Propulsion Engines	Triple CAT C18; 1150 HP at 2300 RPM Tier 3
Reduction Gears	ZF665
Water Jet	Triple Hamilton Jet HJ403
Control Station	Hamilton Jet MEC control system
Navigation	Furuno
Monitoring System	Maretron
Low visibility Camera	FLIR Voyager II
Camera	Multiple CCTV system
Spot Lights	Carlisle and Finch
Speed	40 knots
Fuel Capacity	1000 US gallons
Dedicated Pump Engine	One CAT C9
Fire Pumps	Twin Darley ZSP 3000 GPM
Water Pumping	7000 GPM at 150 PSI
Roof Fire Monitor	Stang SLP 8 5000 GPM remote monitor
Bow Fire Monitor	Twin Elkhart Scorpion 2000 GPM radio frequency monitor
Discharges	Two 5" Storz LDH; Two 3" ANSI flanges; gated fire hydrant; gated wye
Fire Fighting Foam	Feecon electronic foam proportioning
CBRNE Systems	Hunter Safety Systems pressurized cabin air filtration
Generator	One CAT C1.5 13kw
Fire Suppression	SeaFire fire detection and automatic suppression system
Rescue	Transom recovery deck
Crew	5
Galley	Fridge, microwave, stove, coffee maker, fresh water sink and lounge table
Head	Fresh water marine toilet and sink
Shower	Fresh water enclosed shower compartment
Air Conditioning	CruiseAir air conditioning system
Heat	HeaterCraft marine heating system
Noise at Pilothouse	80db Max / 76db Cruise

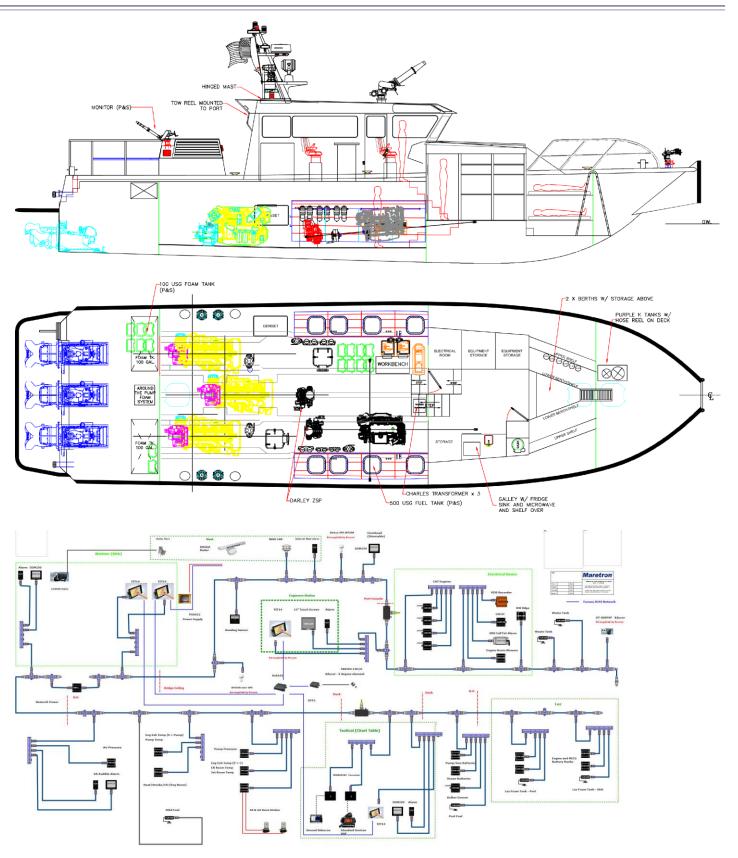














William M Feehan

City of New York, New York

Year: October 2015





















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#### **Fire Boat References for FS 70**

Owner's Name: Tampa Fire Rescue

Owner's Address: Tampa, FL

**Phone #:** 813-690-2059 or 813-917-7526

Contact Name: Chief Scott Ehlers Email: <a href="mailto:Scott.Ehlers@ci.tampa.fl.us">Scott.Ehlers@ci.tampa.fl.us</a>

Captain Donald Bennett Email: tfrsplatt@aol.com

Owner's Name: Jacksonville Fire Department

Owner's Address: Jacksonville, FL

**Phone #:** 904-237-9807 or 904-237-9054

Contact Name: Chief Kurtis Wilson Email: <a href="mailto:krwilson@coj.net">krwilson@coj.net</a>

Head of Maintenance Randy Ellis Email: rellis@coj.net

Owner's Name: Boston Fire Department

Owner's Address: Boston, MA
Phone #: 617-201-0105

Contact Name: Captain Steve Murphy Email: <a href="mailto:Steven.Murphy.bfd@cityofboston.gov">Steven.Murphy.bfd@cityofboston.gov</a>

Owner's Name: Wilmington Fire Department

Owner's Address: Wilmington, DE Phone #: (302) 388-6790

Contact Name: Lt. Michael Khairzada Email: <a href="michael.khairzada@CJ.State.de.us">michael.khairzada@CJ.State.de.us</a>

Owner's Name: Port of Houston Fire Department

Owner's Address: Houston, TX
Phone #: 281-635-9934

Contact Name: Chief Jeremy Kimich Email: jkimich@poha.com

Owner's Name: FDNY

Owner's Address: New York, NY Phone #: 347-231-0415

Contact Name: Chief Michael Buckheit Email: Michael.Buckheit@fdny.nyc.gov