



Office of Marine Safety  
Docket Errata

Matter: Sinking of CFV *Emmy Rose*, November 23, 2020

August 2019 marine survey correction

Ref: DCA21FM007

Email from Marine Safety Consultants regarding Condition and Value Survey Report for F/V *Sasha Lee* 3/9/2022:

“My apologies for the confusion on this UT gauging. Mike and I discussed your email and have reached the following conclusion.

The survey showing heavy wastage and the assumption of 5/16” plate was a mistake on our part and was most likely transposed from another report. The vessel was short hauled one time and the readings were taken.

The survey showing little overall wastage and the assumption of 3/8” plate is the correct report. I have attached our original readings from that UT gauging.

After the original survey in August of 2019, we were approached by a potential buyer in May of 2020 and comprised the summation report of 13 May 2020 with the vessel diagram showing the accurate readings.”

Incorrect text for Underwater Body Ultra-Sonic Gauging:

INTERPRETATION OF RESULTS: Approximately 100 spot reads on the underwater body were taken. Readings showed heavy wastage around 25%. The lowest readings were taken approximately 20’ aft of the stem on the starboard side in the middle of the bottom plate with a reading of (.184). As built plate thickness is unknown, based on our readings the bottom plate appears to be 5/16” (.3125).

Correct text for Underwater Body Ultra-Sonic Gauging:

INTERPRETATION OF RESULTS: Approximately 80 spot reads on the underwater body were taken. Readings showed very little overall wastage around 10%. The lowest readings were taken along the garboard plate on either side as well as on the transom where there was a low reading of (.263) with multiple other low similar readings taken below the net drum ramps. As built plate thickness is unknown, based on our readings the bottom plate appears to be 3/8” (.375)

3/28/22

Brian Young

Major Marine Accident Investigator



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August 14, 2019

File No.: 19-0635

Blue Harvest Fleet  
4 Washington Street  
Fairhaven, MA 02719

Attn: Gene Bergson

## **CONDITION and VALUE** **SURVEY REPORT**

VESSEL : F/V SASHA LEE  
OFFICIAL NO. : 909149  
OWNER : Sasha Lee, Inc.  
24 Centre Street  
New Bedford, MA 02740  
LENGTH (REG.) : 80'  
BREADTH : 23'  
DEPTH : 9.8'  
GROSS TONS : 132  
NET TONS : 90  
PROPULSION : Diesel  
FUEL CAPACITY : 15,000 gallons  
BUILT : 1987 / New Iberia, LA

THIS IS TO CERTIFY THAT the undersigned surveyor did, on August 5, 2019 at the request of, Blue Harvest Fleet conduct a survey of the F/V SASHA LEE while afloat in New Bedford, MA, as well as while short hauled at Fairhaven Shipyard. The purpose of this survey was to ascertain the general overall condition and valuation of the vessel and its suitability for service in fisheries for pre-purchase consideration.

The survey was conducted accompanied in part by current owner's shore engineer Mr. Tony Soares.

### **DESCRIPTION/GENERAL ARRANGEMENT**

SASHA LEE is a flush deck Gulf shrimper style welded steel hull vessel with a raked stem, single hard chine and displacement hull configuration. The vessel is fitted with a round pipe mast supported to port and starboard, fore and aft, with round pipe braces. The mast is fitted with a yardarm with cradles for stowage of the outriggers.

The port and starboard walkways have been closed, forming stowage areas and the overhead has been extended aft on the cargo deck area forming a sheltered area for the trawl winches.

Aft on the work deck are port and starboard pillar style gallows. The structure is braced aft and supports the twin hydraulic net reels, which are suspended over port and starboard net ramps built into the vessel's transom.

The vessel is U. S. documented at the National Documentation Center and licensed to engage in the New England Multi species fisheries trade. The vessel reportedly operates with a Captain and crew of four (4).

### **UNDERWATER BODY**

An examination of the underwater body was made while short hauled in the slings of the travel lift at Fairhaven Shipyard, Fairhaven, MA. The vessel was hauled out at Promet Marine, Providence, RI, in January 2016, in consequence of striking a submerged object. Repairs were made to the stuffing box, the cutlass bearing was replaced and the shaft, bearings and reduction gear re-aligned. In addition, the propeller was repaired, and the entire underwater hull was recoated with anti-fouling paint and new zincs were applied.

The vessel features a raked stem with a single hard chine in a displacement hull configuration. Propulsion is provided by a four (4) blade bronze propeller set in a kort nozzle on a 6" shaft. There is a semi-balanced steel rudder that is skeg hung.

At the transom are two (2) net drum ramps. The bottom shows heavy marine growth with paint coatings near 90%.

On the port side there is a single Fernstrum keel cooler protected by steel guard approximately 20' aft the stem with a single 12" transducer forward.

Just aft is a set of two (2) pipe coolers at the garboard plate extending aft to a single 6" sea chest with steel cover.

On the starboard side there are two (2) transducers and one (1) covered transducer no longer in service. Followed by a set of two (2) pipe coolers with a single Fernstrum keel cooler protected by steel guard. Followed by a 6" sea chest. There is a 3' by 12" doubler just forward the stern tube.

The keel appears to be deflected upwards roughly amidships.

## ULTRA-SONIC GAUGING

In a manner analogous to a shipboard fathometer measuring depth (water thickness), an ultra-sonic gauge determines thickness by the "pulse-echo technique". A precise timing circuit clocks the interval required for a sound pulse to propagate through the test material, reflect from its back wall or inside surface, and return again to the front face of the object. The gauge logic then multiplies this interval by the sound velocity of the test material and converts the total sound path distance into a digital readout of the material thickness in English units. All gauge readings presented in the accompanying sketches are reported as thousandths of an inch (0.001").

The ultra-sonic instrumentation is calibrated for the type of material to be inspected by setting the sound velocity adjustment. This calibration can then be verified with a standard test block or a sample of known dimension. The test material is dabbed with a sound-conducting couplant and the transducer is held firmly in contact with that surface, producing a digital display of the measured thickness.

A satisfactory inspection surface must be prepared before any ultra-sonic measurement by removing marine growth, scale, rust or loose coating. Gauging can be conducted through a tightly bonded paint or epoxy coat, and that additional thickness will not be part of the total measurement and will not require a compensation factor. In this case, readings were taken through paint coatings.

## INSPECTION PROCEDURE

Ultra-sonic measurements were made with a Dakota MMX-6 digital thickness gauge. This is a multi-mode Ultrasonic thickness gauge. The MMX-6 is capable of measuring the thickness of various materials with accuracy as high as  $\pm 0.001$  inches. All readings were made with Ultragel II couplant.

A standard block was used as a reference and the instrumentation readout adjusted to correspond to the exact measurement. Instrument calibration was continually verified by monitoring this reference standard. No instrument "drift" was detected.

Field work and data reduction were performed under the direction of an experienced technician fully qualified as an ultra-sonic technician.

## INTERPRETATION OF RESULTS

Approximately 80 spot reads on the underwater body were taken. Readings showed very little overall wastage around 10%. The lowest readings were taken along the garboard plate on either side as well as on the transom where there was a low reading of (.263) with multiple other low similar readings taken below the net drum ramps.

As built plate thickness is unknown, based on our readings the bottom plate appears to be 3/8" (.375).

### **HULL ABOVE WATERLINE AND WEATHER DECKS**

The hull above the waterline and weather decks are considered in good condition with paint coatings generally intact.

The topsides area at the deck level are fitted with a half-round steel rub rail from the bow aft to the transom.

The weatherdecks appear in good condition.

### **SUPERSTRUCTURE/PILOTHOUSE**

The superstructure, consisting of the raised pilothouse forward, the enclosed air castles and accommodation spaces on the main deck level, are considered in very good condition.

The pilothouse forward is stepped up and raised over a storage area between its deck and the main deck. The pilothouse is fitted with seven (7) forward facing Lexan windows in good condition.

The aft bulkhead of the raised pilothouse is fitted with three (3) rectangular through-bolted Lexan windows offering the vessel's Master fair visibility aft; restrictions to the aft view are from the net reels, mast and ice bins.

Access to the pilothouse is through port and starboard watertight doors and an internal passageway from the accommodations spaces below and aft.

The pilothouse and accommodation spaces were stripped down to bare steel and completely rebuilt including all corroded steel underneath, hoses and wiring, after suffering smoke and fire damage in 2014. The entire structure was coated, insulated and then rebuilt with marine grade plywood with Formica laminate on top and trimmed with custom Mahogany pieces. Work was performed by East Coast Boat Carpenters a well-known and respected repairer in this region. Since then, the spaces have been well-maintained and appear in excellent condition.

The pilothouse is fitted with port and starboard pedestal mounted upholstered chairs with the helm station located on the centerline forward. The area is fitted with electronic communication and navigation equipment, reported to be in good operating condition.

### **NAVIGATION AND ELECTRONICS**

The vessel is fitted with navigation and communications electronics equipment which appears in new condition and reported to be in good working order.

The following is a list of the equipment aboard this vessel:

RADAR	: (1) Furuno 1832 : (1) Furuno NavNet system
GPS	: (2) Furuno Navigator GP-32
VHF COMMS	: (1) Icom IC-M 602 : (1) Standard Horizon Matrix AIS GX 2100 : (1) Icom IC-M 504
SSB RADIO	: (1) Icom IC-M 700 Pro
SOUNDER / PLOTTER	: (1) Standard Horizon GPS Chart CPF 390i : (1) Furuno FCV-292 color video
AIS	: (1) Icom MA-500TR (New)
AUTOPILOT	: (1) Simrad AP35
COMPASSES	: (1) Dirigo 6" magnetic with deviation card dated May 2016.
LOUD HAILER	: (1) Horizon VLH-3000
NMFS MONITORING	: (1) Qualcomm Boatracs
COMPUTER	: (3) CPU towers : (4) Dell LCD monitor screens
MISCELLANEOUS	: (1) Motorola telephone : (1) JVC Stereo system

Additional equipment provided for the navigation of the vessel includes a twin trumpet air horn, bell, navigation and fishing lights, charts, documents and publications required for navigation in the Atlantic Ocean.

A segregated 12V DC power supply, with Phase III charger, is supplied for emergency communications and appears to be in compliance with the Commercial Fishing Vessel Safety Act.

The navigation station is fitted with a Murphy Selectronic alarm panel for the propulsion engine and the bilge spaces. Bilge alarms are activated by float switches located in each bilge space and were not tested during this survey.

## **FIRE PROTECTION AND LIFE SAVING**

The vessel is fitted with hand held portable fire extinguishers installed as follows:

2 -	BC Size I 5#	dry chemical	Pilothouse
2 -	BC Size II 10#	dry chemical	Galley
1 -	BC Size II 10#	dry chemical	Mudroom
2 -	BC Size II 15#	CO2	Engine room
1 -	BC Size II 10#	dry chemical	Forward engine space

Installed portable hand held dry chemical fire extinguishers are fitted with pressure gauges that show proper charge and were found to be in the green at the time of survey. All fire extinguishers were last tested on October 2018.

The vessel is equipped with a deck washdown system as part of the bilge pumping system, which can be used for fire fighting purposes in an emergency.

Life saving equipment consists of the following:

Life raft	: (1) New Wave 6 person, SOLAS A pack last inspected 10/2018, HRU, expires 10/20
EPIRB	: (1) ACR SatFind RLB32 406 ADCD021D614401, reg.: 9/2020, battery expires 8/2019, HRU expires 10/2020. (See recommendations)
Survival suits	: Suits were not available at time of survey.
Distress signal kits	: (6) Handheld, expire 8/2019 : (3) Rockets, expire 6/2019 : (3) Buoyant smoke, expire 1/2019
Life ring buoys	: (3) life rings with line, one (1) with a light (battery exp. 10/2019)
First aid kit	: (1) in wheelhouse

## **MAIN PROPULSION**

Vessel propulsion is provided by a single Caterpillar Model 3412 marine diesel engine rated at approximately 624 HP at 1800 RPMs. This 12-cylinder engine is turbocharged, after cooled with cooling provided by a keel cooler. It is electrically started and fitted with a dry vertical exhaust. This engine underwent a complete overhaul in 2014. Current hours are unknown.



Power is transmitted through a Twin Disc model MG-5222 reverse reduction gear with a 6.10:1 ratio.

The engine is provided with a high-water temperature and low lube oil pressure alarms which sound visibly and audibly in the pilothouse. The cooling system is fitted with a stainless-steel expansion tank fitted with a Murphy switch which sounds an alarm in the pilothouse.

Fuel is provided for the engine through hard piping and flexible rubber hose, with the system provided with double Racor filter separators.

The propeller shaft penetration in the aft engine room bulkhead is fitted with a split packing gland, providing watertight integrity.

The engine space was found in very good condition, very well laid out, neat and clean, though we did note several inches of water/oil in the engine room bilge. (See recommendations).

## **ELECTRICAL**

Electrical power on board is 110/220V AC power and 12V DC power.

Primary AC power is provided by a Caterpillar Model: 3304 four-cylinder marine diesel engine directly coupled to a 65 kW 220V AC generator unit at 1800 RPMs. This engine is electrically started, keel cooled and fitted with a dry vertical exhaust.

The cooling system is fitted with a stainless-steel expansion tank with a Murphy gauge, which sounds audibly and visibly in the pilothouse.

Starting power for the propulsion engine is supplied through two (2) 8D heavy duty marine lead acid batteries.

Also provided for electrical power is a Detroit Diesel Model: 2-71 marine diesel engine coupled directly to a Delco 20 kW 230V AC generator unit at 1200 RPMs. This engine is keel cooled, electrically started and fitted with dry vertical exhaust.

The cooling system is fitted with a stainless-steel expansion tank with Murphy gauges that sound audibly and visibly in the pilothouse. Starting power for this generator is through a single 8D marine lead acid battery with recharging power provided by a Newmar Phase Three charger.

The electrical system onboard appears in excellent condition including wiring, electrical boxes and controllers located throughout the vessel.

Emergency 12V battery power is supplied to the pilothouse equipment through an emergency battery located in the void space below the pilothouse area.

### **AUXILIARY MACHINERY**

Miscellaneous equipment located in the engine room space consists of the following:

- 1 - Ingersoll Rand electric belt driven air compressor and pressure tank
- 1 - Electrically driven hydraulic pump (emergency hydraulic system)
- 1 - GE electric hot water heater
- 1 - Flex 2 fresh water system
- 2 - Electrically driven hydraulic steering pumps with a 25-gallon hydraulic reservoir
- 1 - 20 HP electric motor hydraulic pump

The engine room is fitted with a Caterpillar six-cylinder marine diesel engine which is turbo after cooled and provides power for the hydraulic systems through a PTO Model: 28102. This engine powers four (4) hydraulic pumps for deck machinery use.

The engine is electrically started, keel cooled and has dry vertical exhaust. The fuel system is provided a Racor filter separator unit.

### **TANKAGE/FUEL SYSTEM**

Fuel storage consists of port and starboard wing tanks located in the engine room with a reported total capacity of 15,000 gallons. Each tank is filled and vented from the main deck level. The fuel system is fitted with hard piping and flexible rubber hoses with all equipment provided with Racor filter separator units.

Hydraulic oil is stowed in a bilge tank which is located in the aft port side of the forward engine space and has a reported capacity of approximately 300 gallons. This tank is fitted with a Murphy gauge which sounds audibly and visibly in the pilothouse.

The engine room is provided with a lube oil storage tank with a capacity of 160 gallons.

Fresh water is stowed in the forepeak and has reported capacity of 1600 gallons.

### **BILGE PUMPING/ALARMS**

Main bilge pumping capacity is provided by three (3) Baldor 3 HP electrically driven Flomax 2” bilge and washdown pumps. The bilge system is fitted with two (2) three valve independent manifolds with the port manifold pressurized with two (2) pumps and the starboard manifold with one (1).

The engine room fish hold and lazarette are fitted with high water bilge alarms which sound audibly and visibly in the pilothouse. Bilge alarms were not tested as part of this survey.

## **ACCOMMODATION SPACES**

Accommodation spaces for the crew are located on the main deck below and aft of the pilothouse. This area was also stripped down to bare steel and rebuilt in its entirety as a result of the 2014 fire. Accommodations consist of a 4-bunk room on the starboard side aft of the pilothouse, the crew's head on the port side aft of the pilothouse followed aft on the port side by a 2-man bunk room. All the way aft is the galley area with access door leading to a mud room and finally watertight door on the port side aft leading to the work deck. The entire space fitted with marine grade plywood with Formica laminate and Mahogany trim. The deck coating features rubber tiles and the spaces is fitted with an air-conditioning and heating system. The space is considered in like-new, outstanding condition.

Galley equipment consists of the following:

- Kenmore 4-burner electric range/oven
- Air King range hood
- Four slice toaster
- Stainless steel refrigerator/freezer
- Dual basin sink
- Element 32" LCD TV w/ DirectTV receiver
- Pedestal table with padded bench seating
- Chest freezer (Forward machinery space)

## **CARGO SPACES**

The main hold is located directly aft of the engine room and is accessed through a 32" high x 46 x 48 steel raised coaming on the centerline in the cargo deck area. The coaming is fitted with a two (2) piece stainless steel cover with the inside diameter of the coaming fitted with stainless steel.

The fish hold is subdivided into twelve (12) individual two tier pens. The pens are enclosed with wood batten boards, the entire fish hold is insulated with overhead insulation. The space was not lit at time of survey. Insulation appears in good overall condition, stanchions show moderate scale and rust.

The bilge area is fitted with a high-water alarm and bilge suctions from the engine room pumping system.

## **LAZARETTE**

Furthest aft below the work deck is the lazarette which is accessed through a 6" high x 24 x 24 steel coaming located on the centerline aft and is fitted with a steel cap. The lazarette houses the vessel's two (2) ram hydraulic steering system.

The overall condition of the lazarette is considered fair. Moderate scale and rust were noted, especially in the hatchway. Much of the space was obscured by gear.

The hull framing in the lazarette is reportedly 3 ½" x 3" x 3/8" angle iron mounted 18" on center; the overhead deck beams are the same. The lazarette is fitted with a high-water alarm which sounds audibly and visibly in the pilothouse.

### **DECK, CARGO AND MOORING EQUIPMENT**

There are sufficient cleats and bitts around the periphery of the vessel for mooring and handling of lines.

The cargo deck area forward is fitted with port and starboard Pine Hill seven piston hydraulic trawl winches. Each drum reportedly holds 400 fathoms of 7/8" trawl wire. The trawl wire is led directly aft to the port and starboard gallows frames, which are fitted with BCM 16-inch trawl blocks.

The forward winch area is sheltered by an extended O1 deck level above and raised bulwarks both port and starboard. Control for the trawl winches is a control panel located on the centerline area between the winches.

Located on the O1 deck level are port and starboard Pullmaster H10 hydraulic boom winches.

Also provided is a small hydraulic take out winch pedestal mounted to the mast. There are port and starboard Pullmaster PL-5 cable winches for raising and lowering the outriggers. These are pedestal mounted on the mast.

The mast is constructed of 12" diameter round steel fitted with a single crosstree with cradles for the port and starboard 8" diameter outriggers, which are fitted with 2 ½" pipe braces forward. The outriggers are deck mounted to the O1 deck level and fitted with locking eyes for when the outriggers are down position, pins can be inserted to prevent them from being pushed in an upward position when they strike the sea.

The vessel is provided with port and starboard 6-inch booms, which are pedestal-mounted to the aft superstructure deck and fitted with ladders and cable stayed.

The haul back area aft is fitted with 36 ½" steel bulwarks which are constructed of 5/8" steel plate at the landing area bulwark. The aft bulwark is constructed of 3/8" plating. It is also reported that the net ramps are constructed with 5/8" steel plating and are fitted with removable doors.

Forward of the landing area, the bulwarks rise to meet the O1 deck level for forming a shield for the cargo deck area port and starboard sides. The bulwarks are fitted with five (5) 10" x 20" freeing ports with chain gates per side.

The gallows are constructed of 16" diameter ½" steel wall thickness pillars supporting port and starboard gallows fitted with 16", 20-ton trawl blocks.

Two (2) hydraulically operated chain driven net reels are mounted above the net ramps built into the transom. The net reels are braced with 3" pipe braces.

### **STABILITY**

A Fishing Vessel Stability Booklet for the F/V SASHA LEE, prepared by Thomas P. Farrell Naval Architects dated March 2002 was observed on board the vessel at time of survey.

### **COMMERCIAL FISHING VESSEL INDUSTRY SAFETY ACT**

The Fishing Vessel Safety Act of 1988 and subsequent federal regulations outline safety practices that have been employed by the commercial fishing fleet in this region for many years. This law and the regulations have served to bring regulatory force to the industry in order to enhance and protect property and lives aboard commercial fishing vessels.

The regulations apply to all U.S. uninspected commercial fishing, fish tender, and fish processing vessels, whether documented or state registered. Compliance with specific regulations is based upon a combination of type and length of vessel, length of operations, seasonal conditions, number of persons on board, whether documented or state registered, and the date the vessel was built or converted.

As of October 15, 2015, the inspection conducted to determine compliance with the regulations is no longer a voluntary but, in fact, is mandatory. The US Coast Guard requires that the inspections be conducted at least once every five (5) years, unless a change of service or a change of ownership occurs during that five-year period. In addition, there are regulations promulgated by the National Marine Fisheries Service that requires the inspection decals to be renewed every two (2) years if the vessel is required to be registered with the National Marine Fisheries Service Observer program.

Once an examination has been conducted and the vessel owner complies with all of the Coast Guard's recommendations, they will issue a sticker to be placed in a prominent location in the pilothouse, confirming that the vessel meets the U.S. Coast Guard's Commercial Fishing Industry Safety Act requirements.

The undersigned surveyor conducted this survey using generally accepted surveying practices using the contents of the new federal regulations as a guideline. Our opinions stated herein do not carry the same force as the U.S. Coast Guard's and should not be construed as regulatory force.

The undersigned surveyor is of the opinion that this vessel **is** in compliance with the federal regulations pertaining to commercial fishing vessel safety. During the course of our survey we ascertained that this vessel **has** been inspected by the Coast Guard and was issued a compliance sticker no. 243988 which expires August 2019. (See recommendations).

### **REMARKS**

The general overall condition of this vessel is found to be very good. The pilothouse, accommodation spaces and galley still appear brand new, neat, clean and very well maintained. The machinery space was found to be neat and clean and the vessel is considered to be fit for service as an offshore ground fish vessel. Ownership has been clearly dedicated to the maintenance and upkeep of the vessel.

From a general examination of the vessel while afloat, as far as practical, without making removal to expose concealed parts at the time of survey and without witnessing operation of the vessel, it is the opinion of the undersigned surveyor that the vessel is in satisfactory condition for operation in the fisheries trade once the attached recommendations are addressed.

### **VALUATION**

Fair market value is defined as the most probable price that a vessel would bring in a competitive and open market under all conditions requisite to a fair sale.

Implied in this definition is the completion of a sale as of a specified date and the passing of title from seller to buyer under certain conditions. The buyer and seller are typically motivated, and each party is well informed and well advised, acting on what they consider to be their individual best interests. A reasonable time should be allowed for exposure in the open market, and payment is made without liens or encumbrances remaining on the vessel.

In determining the fair market value two (2) methodologies were utilized, cost approach and sales comparison. These are two of the three methodologies required by the Uniform Standards of Professional Appraisal Practice (USPAP) that a surveyor should consider in estimating the fair market value of a marine asset. The third method, not considered for this purpose, is the income approach. We chose not to use the income approach in this analysis as we do not believe the income approach to be appropriate because it represents more of a business evaluation and is beyond the scope of this appraisal.

Fair market value in this instance does not include fishing permits that are assigned to this vessel.

Fair market value is determined by researching sales comparables, researching trade journals and contacting boat brokers in the region. Fair market value can also be calculated by using the replacement cost less depreciation method. This is used in such instances where sales comparables may be limited due to the size of the market and number of vessels of this type that have been purchased or sold in recent history. Typical sources for determining fair market value are the Marine Safety Consultants, Inc. database, trade journals such as Boats & Harbors Magazine, National Marine Fisherman, various marine websites that post sales listings, and interviews with knowledgeable marine brokers.

Replacement cost is the estimated cost necessary to build a new vessel and outfit it as this vessel is currently outfitted for fishing. Replacement cost is based on research with various shipyards currently building commercial fishing vessels for the northeast fisheries. We usually use a depreciation factor of 2 - 3% per year from the original date of construction. We then compare the estimation of fair market value based on the original, using the traditional method of sales comparables, etc. as to the calculation of the replacement cost less depreciation.

Marine Safety Consultants, Inc. maintains a database of survey histories on fishing vessels, and our opinions regarding recent evaluations of similar vessels was reviewed in the preparation of this report.

Subject to consideration of the preceding remarks, and considering the age of the vessel, its condition in comparison to vessels of like size, age and service, and in consideration of the current market, the following estimated values are considered appropriate:

**ESTIMATED FAIR MARKET VALUE:                 \$375,000.00**

**ESTIMATED REPLACEMENT COST:                 \$2,500,000.00**

This report is based on examination of the vessel, and of those parts, spaces and equipment that could be sighted without removals or operation and is rendered without bias or prejudice. In accepting same, it is agreed that the extent of obligation of this surveyor, with respect thereto, is limited to furnishing a competent survey, and in the making of this report, this surveyor is acting on behalf of the person or firm requesting same and no liability shall attach to this surveyor, for the accuracy, errors and/or omissions therefore.

Naval architecture and marine engineering analysis as usually performed in the design stage of the vessel's construction were not part of this survey and typical subjects such as adequacy of stability and seakeeping were not within the scope of this survey.

Submitted without prejudice,  
MARINE SAFETY CONSULTANTS, INC.



MARK A. BISNETTE  
Marine Surveyor

Enclosures: 1. Photographs  
2. Recommendations



**SURVEYOR'S RECOMMENDATIONS**

VESSEL : F/V SASHA LEE FILE NO. : 19-0635  
OFFICIAL NO. : 909149 DATE OF SURVEY : August 7, 2019

1. We recommend that all safety and survival gear, including survival suits, fire extinguishers, EPIRB, first aid kits, flares and ring buoys are currently serviced and on board prior to engaging in commercial fishing operations.
2. We recommend that the main machinery space bilge be pumped.
3. The Coast Guard Commercial Fishing Vessel Examination sticker expires August 2019. We recommend the vessel has a new exam prior to fishing once the current sticker expires.



MARK A. BISNETTE  
Marine Surveyor