

# CONDITION SURVEY REPORT

**VESSEL-----ANNABELLA**  
**OWNER-----LEE SANDERS**  
**TYPE-----STEEL PUSHBOAT**  
**OFFICIAL #-----546436**  
**REGISTERED TONNAGE----GROSS: 38-----NET: 26**  
**BUILDER-----FLETCHAS SHIPYARD-----YEAR—1973**  
**MAIN ENGINE-----DETROIT DIESEL 12V-71N-GM @ 400  
HP**  
**GEARBOX/TRANSMISSION-TWINN DISC-MODEL 514—5.16:1  
ratio**  
**GENERATOR-----DETROIT DIESEL 2-71N-GM @ 20 KW  
(Removed from vessel)**  
**HAILING PORT-----NONE**  
**SURVEY REQUESTED BY----OWNER**  
**ATTENDING-----JIM COLLUM**  
**DATE OF SURVEY-----5 APRIL, 2014**

**This survey was performed as the vessel lay afloat in Pass  
Christian, MS, at Mathews Brothers, Inc., by James R. Collum,**

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**General Description:**

**This vessel is a small inland style pushboat, shear deck, with a cabin fwd (10' x 11') and the engine space aft. The pilot house sit on a 2' void space, above the fwd cabin, making the height-of-eye @ 17' above the normal water line.**

**Hull Construction is believed to be of 5/16" for shell and scantlings, and the deck house is of ¼" plate, with 5/16" scantlings. The hull is raked at both ends, and presents a flat headlog and sternlog.**

**Propulsion is single screw with one 400 horsepower 12v-71-GM engine, driving what is believed to be a 3 blade 40" stainless wheel.**

**The vessel is not fitted with berthing, and the cabin is unfinished and looks to have been used for storage. All electrical wiring and lighting are in place, however. The pilot house is in fair shape, but need some general house-keeping, as does the entire vessel.**

**Scantlings:**

**Hull-----Plate---Looks to be 5/16"**

**Angles-----Transverse hull bottom, sides, and underdeck—3" x 3" x 5/16" on 20" centers**

**Logitudinals—Two each, girders which serve as the engine foundation, 6" channel iron, with 3 1/2" flanges x 3/8".**

**Deck house—Plate—1/4" thickness**

**Scantlings—5/16" x 3" flatbar on 14" and 16" centers**

**Tankage:**

**Diesel fuel-----Two tanks, running longitudinally on each side of the engine room space, 100" x 62" x 42" with a capacity of about 1000 gallons each**

**Potable Water-----One tank, fwd of the engine space, having the capacity of about 5,000 gallons**

**Fore Peak Tank----void space**

**Aft Peak Tank-----void space**

**The vessel is divided into five compartments, with four watertight bulkheads: Fore Peak Void, Potable water, Engine room, Aft Void, and Aft Peak Void**

**Electronics:**

**One—ICOM Model M302 VHF Radio**

**One---Radar-Koden**

**One---Rudder Angle Indicator**

**One---Murphy Engine alarm system**

**One---Astron Model RS-35A 12volt DC power supply**

**Machinery:**

**One---Model 12V-71N-GM Detroit Diesel Main engine, rated at 400 Horsepower. The engine is keel cooled with dry exhaust, air start, and a Racor fuel filter for primary. Engine Electrical systems are 12 volt.**

**Instrumentation is in the Pilot house, having:**

**One---Tachometer**

**One---Oil Pressure gauge**

**One---Water Temperature gauge**

**One---Drive Oil Pressure gauge**

**One—Amp gauge**

**One---Model 514 Twin Disc transmission/Gearbox—5.16 to 1 ratio.**

**One---Model 2V-71N-GM Detroit Diesel engine driving a 20 KW**

**generator with 208 volt three phase power, and 110 volt single phase power. Engine starter is 12 volt Battery powered. This Generator unit is removed from the vessel, and needs engine repair to function.**

**Pumps:**

**One—Rule-3700-12volt dc submersible bilge pump with automatic float switch, located in the Main Shaft sump.**

**One—1” Wilden air driven pump, used as the primary bilge pump, and piped in as such.**

**Compressors:**

**One—5 HP unit of unknown mfg, located on the port side in the engine space, with a 50 gallon receiver.**

**HVAC—The unit in place is non-operational, and non-repairable. There is one small window unit in the pilot house.**

**Electrical:**

**The vessel is fitted with 120/240 volt AC electrical system and necessary panels and circuit breakers, and 110 duplex receptacles are mounted throughout the vessel.**

**The Lighting distribution panel is located in the Pilot house.**

**A 12 volt DC system for engine alarms, and Generator starting is powered by one 8D battery, with One Lewco, Model 1220-ACD**

**Automatic battery charger.**

**Safety:**

**Fire Extinguishers—Two BC size II dry chemical units—one in the wheel house, and one in the engine space.**

**A 1” pipe hand rail is fitted along the deckhouse sides, port and starboard**

**The pilot house is fitted with a 41” high x 1” pipe, dual coarse handrail around it’s perimeter, and the entire 2<sup>nd</sup> deck**

**Lighting:**

**All navigational lighting is in place for a vessel of this size and type**

**Two 110 volt 10” search lights, mounted on top of the pilot house**

**Adequate marine deck lighting, with globes and cages mounted on the cabin bulkheads**

**500 watt quartz flood lamps are mounted fore and aft for work lights.**

**Adequate interior lighting is available, however the fixture is missing in the cabin storage space.**

**Ground Tackle/Deck Fittings:**

**Two---24” cleat/kevels fwd, one port and one starboard**

**One---24" cleat/kevel midships fwd.**

**Two---24" cleat/kevel aft, one port and one starboard**

**One---8" diameter x 30" high double towing bit, on centerline aft, just aft of deckhouse**

**Two---Patterson, model WMP-20M-6, 6 ton manual facing winches on the foredeck, port and starboard**

**Two—6' x12" push knees mounted port and starboard on fwd headlog, with vulcanized rubber attached**

**Steering:**

**Single, double acting hydraulic rams for the steering and flanking rudders—one ram for each, and one rudder for each. The steering rudder has been converted to electric, full follow-up style with solenoid valve control. The flanking rudder is original with mechanical actuation of the hydraulic valves.**

**An engine driven hydraulic pump provides power for Rudder Hydraulics, with a reservoir tank mounted on the aft bulkhead of the engine space.**

**Miscellaneous:**

**One Kahlenberg dual trumpet air horn**

**20" of fuel was noted available in each diesel tank**

**One box of Racor fuel filters was noted in the storage cabin**

## **Recommendations/deficiencies:**

**1---Install a new generator of at least 10 KW. It would be possible to mount an Air cooled unit on the 2<sup>nd</sup> deck, aft of the pilot house. There are side channel coolers available, if needed.**

**2---Block off the old sewage overboard on the Starboard side of the hull. This opening could sink the vessel. It is wasted away in the engine space.**

**3---Install a new 12 volt 8D battery, in a proper USCG battery box, in the engine space**

**4---Install safety guard over the main shaft aft of the gearbox.**

**5---Install a new main engine jacket water expansion tank, with proper alarm and sight glass**

**6---Put the proper USCG flare kit on board**

**7---Put the required USCG life jackets and work vest on board**

**8---Install new expanded metal guards around both exhaust stacks on the 2<sup>nd</sup> deck.**

**9---Put a new bulb in the port searchlight and insure functionality.**

**10-Install one small semi portable CO2 fire extinguisher unit on the boat deck, and have all extinguishers serviced**

**11-Renew the bottom 4" of all handrail riser pipes on the 2<sup>nd</sup>**



deck.

**12-Label the fuel stations and the potable water station.**

**13-Install an emergency fire pump, with one station on deck.**

**14-Renew the Certificate of documentation**

**15-install proper USCG life rings, one fwd and one aft on the 2<sup>nd</sup> deck**

**16-Replace the wooden floor decking in the engine room space with expanded metal.**

**17-Renew the flame screens on the fuel and potable water tank vents.**

**18-Renew or plate over the wasted areas in the port and aft cabin storage space.**

**19-Renew the ceiling of cabin space, under the pilot house**

**20-Remove the old HVAC unit and discard and plate over the holes. Use window units for AC.**

**21-Install one new VHF radio.**

**22-Fore peak—Renew 10 each, 5' x 3" x 5/16" flatbars on after bulkhead. These are wasted in the center portion**

**Renew 2 each 20' x 3/8" x 3" x 3" bottom transverse angles**

**23-Potable water tank-Renew 1 each 20' x 3/8" x 3" x 3" Transverse bottom angle**

**24-Install a new potable water pump w/hydro tank, and pipe in capabilities to fill the engines with potable water when needed.**

**25-Put Anti-freeze/coolant in the main engine jacket water.**

**26-Plug off the generator side cooler pipes if not utilized.**