

Bay Shore Marine

Engine Sales and Services

7344 Edgewood Rd Annapolis, MD 21403

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Date: 10/10-12/2022 Technician: JEFF LEITCH
Customer's Name: Mike Stewart
Boat Name: Free Range Chicken
Boat Manufacturer and Model: Perry 59'
Type of Boat: Sail x Power Other:
Hull ID Number:
Engine Make: Yanmar
Engine Model: 4JH3-DTE 125 HP @ 3800 RPM's
Serial Number: Port/Single E32083 Starboard
Engine Hours: Port/Single 5068.8 Starboard
Transmission Make and Model: Kanzaki - No ID Plate
Serial Number: Port/Single Starboard
Gear Ratio: Port/Single Starboard
Generator Make and Model: Onan 11.5kw MDKAW-1953B
Serial Number: C050757040 Hours: 5986

SINGLE

Engine Oil Level: Low CONDITION : Dirty Hours on Oil: N/A

Trans Fluid Level: Good Condition of Trans Fluid: Dirty

Type of Trans Fluid: A.T.F.

Power Steering Level: x Condition of PS Fluid: _____

Type of Primary Fuel Filter: Dual Racor 500's W/Vac Guage- Clean

Condition of Supply/Return Fuel Lines And Fuel Shutoff Valve: Good

Condition of External Oil Lines, Fittings, Connections: Rusted condition

Condition of Transmission Oil Lines/Cooler: Good

Condition of Power Steering Lines/Cooler and Steering Cable: x

Coolant Level: Good CONDITION OF COOLANT: Dirty

Coolant Pressure Test Results: Good/Passed

Condition of Coolant Pipes and Hoses: Good

Type/Condition of Thru Hull and Strainer: Bronze Sea Cock W/Groco type strainer.

Valve action is tight- replace sea cock

Condition of Raw Water Hoses: Not wire reinforced water hose- Replace

Condition of Exhaust Hose and Muffler: Good, leak at muffler hose joint.

Siphon Break: YES NO Correctly Installed: YES NO

Condition and Tension of Belts: Good

Condition of Mounts: Original / collapsed

Engine Alignment: Aqua-Drive system installed

SINGLE

Condition of Starter and Wires: Good

Charging Volts of Alternator: 13.30 VDC-Good / Port 24 Volt=29.45 vdc / Starb= 29.48

Condition of Alternator and Wires: Wiring in need of cleaning up

Packing Box Type and Condition: P.S.S. shaft seal- visible corrossion/leaking

Condition of Wiring Harness: Good

Engine Codes from Scanner: N/A

Generator Survey

Engine Oil Level: Good Condition of Oil: Clean Hours on Oil: N/A
Type of Primary Fuel Filter: Racor R20T- Clean

Condition of Supply/Return Fuel Lines And Fuel Shutoff Valve: Good

Condition of External Oil Lines, Fittings, Connections: Good

Coolant Level: Good Condition of Coolant: Clean

Coolant Pressure Test Results: Good/Passed

Condition of Coolant Pipes and Hoses: Good/Original

Type/Condition of Thru Hull and Strainer: Same as the Main /Same condition

Condition of Raw Water Hoses: Same as the Main/Replace

Condition of Exhaust Hose and Muffler: Good/Water lock system W/ seperator

Siphon Break: YES NO Correctly Installed: YES NO

Condition and Tension of Belts: Good

Condition of Mounts: Good

Condition of Starter and Wires: Good

Charging Volts of Alternator: 13.50 DC- Good

Condition of Alternator and Wires: Good

Condition of Wiring Harness: Good

AC Output: 120.3 / 60.3 hz- Loaded Good

Condition of AC Wires: Good

Condition of Sound Shield: Good / base pan is in a very rusted condition

Engine Codes from Scanner: N/A

Survey Findings

Enter Findings Here:

Inspection Report : The cold start up of the main engine was good, the engine started with no delay or problems. There is some noticeable crankcase pressure and minimal exhaust smoke , no fuel sheen is visible on the water. The engine ran well as it warmed up, all cylinders have equal RPM drop as the HP fuel pipes are opened. The engine ran good thru the sea trial, Max RPM'S were reached , WOT loaded RPM's = 3900-4000/ Yanmar Spec is 3800 RPM's. The engine was ran at max loaded speed with no problems.

Survey Items: Main Engine

1>There are several substantial oil leaks, one is from the remote oil filter adapter housing and will need an O-ring replaced. The second one is from an undetermined source and will require some disassembly of the engine to locate the source.

2>The engine mounts are collapsed and need to be replaced, if the large case Alternators are going to be used going forward, it is not recommended to use the same type engine mounts. Using a mount that is less flexible is recommended. The type of mount used will change the amount of time required to replace the mounts.

3>Remove the heat exchanger tube bundle and re-seal the end cover plates- visible corrosion from sea water leaks.

4>Replace the turbo-charger oil return pipe- very rusted condition.

5>Perform overdue service to the engine- following Yanmar service recommendations for 5000 hrs. of use.

The startup and running of the Generator was good with no problems. Th Generator was run loaded for the duration of the sea trial- loaded. A/C output was good.

Survey Items: Generator

6>Remove the heat exchanger & clean as needed- heavy corrosion is visible.

7>Remove the sea water pump - replace seals as needed - heavy corrosion is visible.

8>Perform overdue service as recommended by Onan for 6000 hours of use.

Labor Estimates are a "ballpark " estimate of labor hours only. No materials cost are supplied at this time. Labor charge is estimated at \$160.00 per hour/per tech.

#1> 3/4 Hrs. / Repair 1st leak , diagnostic time only for the 2nd leak.

#2> 20-35 Hrs. 1.0 Tech / 15-20 Hrs. 2nd tech.

#3> 3.0 Hrs.

#4>1.5 Hrs.

#5>No est. Need to research requirements.

#6> 3.0 Hrs.

#7>2.5 Hrs.

#8>No Est. Need to research requirements.

Technician Recommendations

Enter Technician Recommendations here.

Main Engine:

Rebuild/Re-construct the fuel system to reduce the multiple joint/connections , properly mount/secure the filter hanging by wire-ties, eliminate the "outboard" primer bulb from the system. Generally clean up the condition of the fuel lines/routing.

Remove the Aqua-Drive CV Joint shaft for service and the thrust bearing for replacement- due to age/ rusted condition.

Clean up the excess wiring, with multiple un-connected leads from the auxiliary alternators. Generally clean up the wiring in the engine compartment.

Recommendation: Get a good direction of the cost investment of all the repairs needed and value the repairs against the cost of an engine replacement.

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