MARINE ENGINE SURVEYORS & CONSULTANTS MARINE ENGINE SURVEY

158 Research Drive Suite K-L Milford, CT 06460 203-807-7230

M/Y: WOMBAT

SURVEY DATE: MAY 1, 2024

CLIENT:

JOSE FERNANDEZ

CONTACT: 820 SAN PEDRO AVE. CORAL GABLES, FL

CELL:

305-796-9669

EMAIL:

JLFRUNAWAY@GMAIL.COM

PERFORMED GENERAL SURVEY ON VESSEL, MAIN PROPULSION ENGINES, GEARS AND **AUXILIARY GENERATOR**

MAIN ENGINES:

PORT ENGINE MODEL NUMBER: QSB 6.7

ENGINE HOURS: 358

SERIAL NUMBER: 73567977

PORT TRANSMISSION MODEL NUMBER: ZF 2800

SERIAL NUMBER: 20174834

STARBOARD ENGINE MODEL NUMBER: QSB 6.7

ENGINE HOURS: 356

SERIAL NUMBER: 73567960

STARBOARD TRANSMISSION MODEL NUMBER: ZF 2800

SERIAL NUMBER: 20174832

MAIN GENERATOR MODEL NUMBER: K3-8.0KW

SERIAL NUMBER: 07753

GENERATOR HOURS: 427

PAGE 2

SEA TRIAL READINGS:

OIL TEMPERATURE	PORT ENGINE 147	STARBOARD ENGINE 146
OIL PRESSURE	55.1	54.8
WATER TEMPERATURE	172	173
VOLTS	14.1	14.2
IDLE RPM	602	601
FULL LOAD RPM	3340	3340
EXHAUST BOOST PRESSURE	18.9	20.0
TRANSMISSION PRESSURE	50	58
GEAR TEMPERATURE	126	122
ENGINE LOAD	96	99

^{*}NOTE: ITEMS WITH ASTERISK REPRESENT A DEFICIENCY

MAIN GENERATOR READINGS:

OIL PRESSURE	69
WATER TEMPERATURE	176
DC VOLTAGE	13.6
AC VOLTAGE	121/242
HERTZ	61.2

MAIN ENGINE DEFICIENCIES:

PORT ENGINE:

NO DEFICIENCIES FOUND

PAGE 4

STARBOARD ENGINE:

NO DEFICIENCIES FOUND

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MAIN GENERATOR:

NO DEFICIENCIES FOUND

RECOMMENDATIONS:

NONE

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NOTE:

ALL QUOTES ARE ESTIMATED AND DO NOT INCLUDE STATE SALES TAX OR ANY UNFORSEEN DAMAGE OR COMPONENTS THAT HAVE BEEN DAMAGED, OR FEES FOR THE FOLLOWING: DOCKAGE, HAUL OUT, BLOCK OR LAUNCH OF VESSEL, STORAGE FEES, YARD AND/OR FORKLIFT FEES, EXPEDITED FREIGHT OR TRAVEL TIME TO AND FROM VESSEL. QUOTES, TERMS AND PRICING ARE VALID FOR 30 DAYS. PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE. A DEPOSIT IS REQUIRED PRIOR TO THE COMMENCEMENT OF WORK. THE REMAINING BALANCE IS DUE AND PAYABLE IN FULL UPON COMPLETION OF WORK. WE DO NOT GUARANTEE THE TIMEFRAME OF ANY JOB DUE TO THE POSSIBILITY OF BACKORDERD PARTS, MATERIALS OR ISSUES THAT MAY ARISE THAT ARE BEYOND OUR CONTROL.

THE COMMENTS AS STATED IN THIS REPORT ARE BASED ON ENGINE INSPECTIONS THAT WERE PERFORMED TO THE BEST OF OUR ABILITY AND WITH AS MUCH ATTENTION TO DETAIL AS POSSIBLE. THE RESULTS ARE BELIEVED TO BE AN ACCURATE EVALUATION AS TO THE GENERAL CONDITION OF THE ENGINES AT THIS TIME.

HOWEVER, MARINE ENGINE SURVEYORS & CONSULTANTS OFFERS NO WARRANTY EITHER EXPRESSED OR IMPLIED ON THE ENGINES OF **M/Y WOMBAT**. SURVEY RESULTS ARE INTENDED TO REPRESENT THE PHYSICAL CONDITION OF THE VESSEL ONLY ON THE DAY OF THE SURVEY, BASED ON THE FACTS PRESENTED AND DISCOVERED, IN THE OPINION OF THE SURVEYOR. THIS REPORT WILL NOT SPECIFY OR IMPLY ANY TYPE OF WARRANTY OF THE VESSEL OR THE VESSEL'S MACHINERY.

THIS REPORT IS ISSUED SUBJECT TO THE CONDITION THAT IT IS UNDERSTOOD AND AGREED THAT NEITHER THIS OFFICE, NOR ANY SURVEYOR OR EMPLOYEE THEREOF, IS UNDER ANY CIRCUMSTANCES WHATSOEVER TO BE HELD RESPONSIBLE IN ANY WAY FOR ANY ERROR IN JUDGEMENT, DEFAULT OR NEGLIGENCE, NOR FOR ANY INACCURACY, OMISSION, MISREPRESENTATION OR MISSTATEMENT IN THIS REPORT, AND THAT THE USE OF THIS REPORT SHALL BE CONSTRUED TO BE AN ACCEPTANCE OF THE FOREGOING CONDITIONS.

THE LABOR AND MATERIAL ESTIMATES FOR THE DEFICIENCIES FOUND ARE **ONLY** IF THE VESSEL IS PRESENT AT OUR FACILITY IN MILFORD CONNECTICUT FOR THE REPAIRS, AND DO NOT INCLUDE STATE SALES TAX. YOUR RECEIPT OF THIS DOCUMENT IS YOUR ACCEPTANCE THAT YOU AGREE TO IT'S CONTENTS. THIS REPORT IS ISSUED WITHOUT PREJUDICE TO THE RIGHTS OF WHOM IT MAY CONCERN.

THANK YOU FOR THE OPPORTUNITY TO BE OF SERVICE AND IF YOU HAVE ANY QUESTIONS, PLEASE DON'T HESITATE TO CALL.

SINCERELY,
PAUL WALKER, JR.
PRESIDENT, MARINE ENGINE SURVEYORS & CONSULTANTS

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12.5 - 16.3

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Sample ID

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Glycol

Nitration

NaT

Oxidation

A40C

V100C

VIndex

V40C Limit

V100C Limit

Visc Mode

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Visc Mode

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Machine ID: WOMBAT 5-1-2024	WOMBA:	Т 5-1-2024	T 5-1-2024		T 5-1-2024 Component ID: 735679771

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26219	Gl əlqms2		Comments	26219	Sample ID	Abolanie wywierenianie gester wie keine gebeurg.	Fax:	Phone:			CONNE		
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	92 - 124	V40C Limit	
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26222	Sample ID		26222	Gl elqms2		Comments	26222	Sample ID		Fax:	Email:	Phone:			CONN
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5.8 - 8.9	V100C Limit		۵	Molybdenum	Multi-Sou	ES PROPER			Sump	Component	Compo	Compo		Comp	င္၀
C	Visc Mode		×	Manganese × Nickel Manganese × Nickel Manganese Metals (mdd) stepam ebanos-ijlm			UNKNOWN	Oil Type	np Capaci		Component Type: GEARBOX	Component Year: NA	Component Model: 2800	Component Make: ZF	mponent
			×	Manganese	ls (ppm)	NANCE OF	Z		Capacity: 3 Gallons	Location: PORT	e: GEAR	ear: NA	del: 2800	ake: ZF	Component ID: 20174834
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			×	Phosphorus	pm)			User Sample ID		WEST PALM BEACH FL 33409 561-684-7799	MOTORCHECK LAB 2000 N FLORIDA MANGORD 104				
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Sample ID		26223	Sample ID		Comments	26223	Sample ID		Fax:	Email:	Phone:			CONN																			
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∆40C	Phy	4	Silicon	Conta	KNAL CON	ATF	Oil Weight		ä				T: NA	Machine ID: WOMBAT																			
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xəpul√	perties	۵	muissatoq	Wetals	JN. ANALYS	۲J	0																										
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Visc Mode		×	Nickel										urce Metals (ppm)											RPERFOR	UNKNOWN	оіі Тур	Sump Capacity: 3 Gallons Oil Type Oil	Component Location: STARBOARD	Component Type: GEARBOX	Component Year: NA	onent Mod	Component Make: ZF	Component ID: 20174832
		×	Manganese													MANCE OF	Ž		ity: 3 Ga	ion: STAI	pe: GEA	ear: NA	Component Model: 2800	Make: ZF	ID: 2017								
		×	Boron		THE LUBR	No	Oil Changed	llons	RBOARD	RBOX				4832																			
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		×	Phosphorus	(mda			User Sample ID		5	MOTORCHECK LAD 2000 N FLORIDA MANGO RD 104 WEST BALM BEACH EL 2246	A A B																						
		×	oniZ				ıple ID		300) RD 104																							

M ✓ C™ UNDERSTANDING YOUR REPORT

ENGINES

TRANSMISSIONS PISTONS, BEARINGS, HOUSINGS, THRUST TORQUE CONVERTER, THE CASE, THRUST ALUMINUM: WSHERS, BUSHINGS, WASHERS, HOUSINGS, GEAR AND VANE PUMPS COMPRESSION RINGS, LOW FRICTION BALL AND ROLLER BEARINGS, ALLOY OF STEEL CHROMIUM: BEARINGS, LINERS, CHROMATE COOLING **PARTS** SYSTEM BEARINGS, BUSHINGS, THRUST WASHERS, OIL CLUTCH PLATES, BRONZE BUSHINGS, OIL COPPER: COOLER, CLUTCHES, AND AN OIL ADDITIVE IN COOLER OXIDES, BRASS FITTINGS SOME GASOLINE ENGINE OILS. CRANKSHAFT, CYLINDERS, PISTONS, LINERS, GEARS, BEARINGS, SHAFTS, SOME CASES. IRON: BEARINGS, VALVE TRAIN **CLUTCH PLATES** BEARINGS, CONTAMINATION FROM LEADED LEAD: **GEARS GASOLINE** PISTON SKIRTS, BEARINGS, AND BUSHINGS. TIN: SOME BEARING CAGES AIRBORN DIRT, SEAL MATERIAL, GASKETS, AIRBORN DIRT, SEALERS, GASKETS, USED IN USED IN SOME OIL ADDITIVES, SPRAY SOME OIL ADDITIVES, SPRAY LUBRICANTS, SILICON: LUBRICANTS, WHEN FOUND WITH POTASSIUM WHEN FOUND WITH POTASSIUM INDICATES INDICATES GLYCOL ISSUE GLYCOL ISSUE, SAND-CASTED PARTS INDICATION OF GLYCOL OR SALTWATER INDICATION OF GLYCOL OR SALTWATER POTASSIUM: INTRUSION, ADDITIVE IN SOME OILS INTRUSION, ADDITIVE IN SOME OILS FOUND IN SOME OIL ADDITIVES, GLYCOL. FOUND IN SOME OIL ADDITIVES, GLYCOL, ENVIRONMENTAL COMTAMINANT OR SALT SODIUM: ENVIRONMENTAL COMTAMINANT OR SALT WATER WATER MEASURED IN % VOLUME, CAN BE INDICATION OF CONDENSATION, COOLING SYSTEM LEAK, OR WATER: **OUTSIDE CONTAMINATION** GLYCOL: MEASURED IN % VOLUME, IN THE FORMULATION OF MOST COMMERCIAL COOLANTS THIS IS THE RESULTS OF OXYGEN IN THE AIR REACTING WITH THE OIL AT ELEVATED TEMPERATURES. THIS IS A NORMAL PROCESS AS THE OIL AGES. IF AN ENGINE IS OPERATED **OXIDATION:** CONTINUOUSLY AT A HIGH TEMPERATURE FOR EXTENDED PERIODS, OR IF DRAIN INTERVAL IS OVER EXTENDED, OIL CHANGE IS RECOMMENDED. NITRATION: FORMED DURING COMBUSTION PROCESS, LEADS TO ACCELERATED OIL DETERIORATION. NORMAL COMBUSTION BY PRODUCT OF DIESEL FUEL AND APPEARS AS CONTAMINANT IN THE OIL CAUSING AN INCREASE IN VISCOSITY. INDICATE AN INPROPER AIR/FUEL RATIO, DEFECTIVE AIR INTAKE, FAULTY INJECTORS, OR BLOW-BY SOOT: CALCULATED MEASUREMENT OF THE OIL'S ABILITY TO FLOW AND LUBRICATE, INDICATES IF OIL IS TOO THICK OR THIN VISCOSITY: MEASUREMENT OF OIL'S ALKALINE BASE RESERVE, ADDITIVE IN OIL CAPABLE OF NEUTRALIZING ACIDIC CONTAMINANTS, WHEN TBN IS BELOW 3, IT IS AN INDICATION THE OIL IS NO LONGER SERVICEABLE TBN: MEASURED IN % VOLUME, CAN INDICATE FAULTY COMBUSTION, RICH AIR/FUEL MIXTURE FUEL WHEN PRESENT BETWEEN 2%-5%. INJECTOR PROPBLEM OR INTERNAL FUEL LINE LEAK IS TYPICALLY INDICATED WHEN FUEL IS DETECTED AT HIGH LEVELS **DILUTION:**

ACCURACY OF RECOMMENDATIONS IS DEPENDENT ON THE REPRESENTATIVE OIL SAMPLES AND COMPLETELY CORRECT DATA ON BOTH UNIT AND OIL. THIS ANALYSIS IS INTENDED AS AN AID IN PREDICTING MECHANICAL WEAR, NO GUARANTEE, EXPRESS OR IMPLIED, IS MADE AGAINST FAILURE OF THIS COMPONENT, MOTOR CHECK(OIL LAB LLC.) LIABILITY IN ANY CASE IS LIMITED TO THE COST OF THE REPORTED ANALYSIS.