

MARINE DIESEL & ENGINEERING, INC.

525 Greateon Avenue
Davie, FL 33325
(954) 260-5250

VISUAL ENGINE INSPECTION REPORT

DATE:	SEPTEMBER 30, 2026	INSPECTOR:	JACK DIBELLA
PURCHASER:	LES ECK	VESSEL:	70
EMAIL:	leseck@rustyeckford.com	BUILDER:	JOHNSON
BROKER:	JEFF STANLEY	YEAR:	2024
SURVEYOR:	ELITE MARINE	VESSEL NAME:	
		LOCATION:	FORT LAUDERDALE, FL
		HULL NO:	JSY70016A424

IDENTIFICATION AND COLD CHECK INFORMATION

	PORT	STARBOARD
ENGINE MANUFACTURER	CATERPILLAR	CATERPILLAR
ENGINE SERIAL NUMBER	JLE06575	JLE06624
ENGINE MODEL NUMBER	C18	C18
ENGINE HOURS	147	147
TRANSMISSION MAKE	TWIN DISC	TWIN DISC
TRANSMISSION MODEL	MGX 5136 A	MGX 5136 A
TRANSMISSION SERIAL	2569358	2569360
TRANSMISSION RATIO	2:1	2:1

FLUID SYSTEMS CHECK

	PORT	STARBOARD
COOLANT LEVEL	FULL	FULL
COOLANT CONDITION	OK	OK
ENGINE OIL LEVEL	FULL	FULL
ENGINE OIL CONDITION	OK	OK
TRANSMISSION OIL LEVEL	FULL	FULL
TRANSMISSION OIL CONDITION	OK	OK
TRANSMISSION STRAINER	SPIN ON FILTER	SPIN ON FILTER

INSPECTION OF PORT ENGINE

SEA WATER INLET VALVE	OPERATIONAL
SEA WATER INLET HOSE	SERVICEABLE
SEA WATER STRAINER	CLEAN
RAW WATER PUMP	NO LEAKS OBSERVED
RAW WATER PIPING	SECURE
FUEL COOLER	NO LEAKS OBSERVED
AFTER COOLERS	NO LEAKS OBSERVED
TRANSMISSION OIL COOLER	NO LEAKS OBSERVED
RAW WATER DISCHARGE HOSE	SERVICEABLE
RAW WATER HOSES	SERVICEABLE
RAW WATER CLAMPS	SECURE

EXHAUST

DISCHARGE RISERS	BLANKETED/NO LEAKS OBSERVED
EXHAUST HOSE	SERVICEABLE
EXHAUST CLAMPS	SECURE

COOLING SYSTEM

HEAT EXCHANGERS	PLATE STYLE/NO LEAKS OBSERVED
FRESH WATER PUMP	NO LEAKS OBSERVED
COOLANT HOSES	SERVICEABLE
CLAMPS	SECURE
HIGH PRESSURE LINES	SECURE

FUEL SYSTEM

PRIMARY FUEL FILTERS	DUAL RACOR 1000
SECONDARY FILTERS	SINGLE CAT SPIN ON
FUEL SUPPLY HOSE	SERVICEABLE
ENGINE FUEL LINES	SECURE
FUEL MANIFOLD	VALVE ON RACOR
FUEL PRIMING SYSTEM	HAND PUMP

INSPECTION OF PORT ENGINE (CONT'D)

ENGINE AIR INTAKE

TYPE	CAT AIR SEPS
AIR SEP REGULATOR	SERVICEABLE
AIR SEP DRAIN LINES	SERVICEABLE

ENGINE ASPIRATION

TURBO CHARGERS	TWIN WATER COOLED
BLOWERS	N/A
AFTER COOLERS	RAW WATER COOLED
AIR SHUT DOWN SYSTEM	N/A
BOOST HOSE & PIPING	SECURE

ENGINE MOUNTING

TYPE	VIBRATION ISOLATORS
CONDITION	FIRM

CONTROLS

TYPE	ELECTRONIC
OPERATION	OK
SYNCHRONIZER	YES

INSPECTION OF STARBOARD ENGINE

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SEA WATER STRAINER	CLEAN
RAW WATER PUMP	NO LEAKS OBSERVED
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BOOST HOSE & PIPING	SECURE

ENGINE MOUNTING

TYPE	VIBRATION ISOLATORS
CONDITION	FIRM

CONTROLS

TYPE	ELECTRONIC
OPERATION	OK
SYNCHRONIZER	YES

STATIONARY INSPECTION OF ACCESSORIES

	PORT	STARBOARD
ENGINE AIR COMPRESSOR	N/A	N/A
STABILIZER PUMPS	YES	YES
POWER STEERING PUMPS	N/A	N/A
PTO	ON TRANSMISSION	ON TRANSMISSION
BELT DRIVEN ADD ONS	ALTERNATOR	ALTERNATOR
OIL UNDER ENGINES	NO	NO
MISC ENGINE OIL LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
TRANS OIL LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
FUEL LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
COOLANT LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
SALT WATER LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
EXHAUST LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
BOOST LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
HYDRAULIC OIL LEAKS	NO LEAKS OBSERVED	NO LEAKS OBSERVED
CONTROLS	GLENDINNING	GLENDINNING

INITIAL START UP INSPECTION

	PORT	STARBOARD
BATTERY VOLTAGE	24 VDC	24 VDC
ALARM OPERATIONAL	YES	YES
ALL GAUGES TO ZERO	YES	YES

ENGINE STARTED COLD DOCKSIDE

	PORT	STARBOARD
EXHAUST SMOKE	NO	NO
OIL PRESSURE	67	74
TRANS PRESSURE	339	341
R.P.M.	650	650
ENGINE VIBRATION	NO	NO
BATTERY VOLTAGE	28.6 VDC	28.6 VDC
INSPECTED FOR LEAKS	YES	YES
CONTROL OPERATION	GOOD	GOOD

IDLE SPEED OPERATING CONDITION

(CHECK AFTER COOL DOWN FROM RUNNING HARD)

	PORT	STARBOARD
ENGINE RPM	650	650
COOLANT TEMP	180	180
ENGINE OIL PRESSURE	24	24
ENGINE OIL TEMP	200	200
TRANS PRESSURE	339	338
TRANS OIL TEMP	113	111

BACK DOWN TEST

(RUN ONE ENGINE AT A TIME FWD & RVRS UP TO 1500 RPM)

	PORT	STARBOARD
MOUNT MOVEMENT OR RUNOUT	NO	NO
TRANS CUPLING RUNOUT	0	0
TRANS REAR SEAL LEAK	NO	NO
SHAFT SEAL LEAKING WATER	NO	NO
SHAFT MOVEMENT	NO	NO
ENGINE STALLING	NO	NO

OIL SAMPLES TAKEN FROM

PORT ENGINE	YES
STARBOARD ENGINE	YES
PORT TRANSMISSION	YES
STBD. TRANSMISSION	YES
GENERATOR(S)	YES

GENERATOR SET(S)

(COLD CHECKS BEFORE STARTING)

	<u>GENERATOR</u>
MANUFACTURER	ONAN
MODEL	29MDKDS-8127A
SERIAL	H220126597
SPEC	A
KW	29 KW
HOURS	225.4
AC VOLTAGE	240 VAC
DC VOLTAGE	12 VDC
HZ	60
PHASE	SINGLE
WIRED 120 OR 120/240	120-240
OIL LEVEL	FULL
OIL CONDITION	OK
COOLANT LEVEL	FULL
COOLANT CONDITON	OK
BELT TENSION	PROPER
LIFT MUFFLER CONDITION	SECURE
EXHAUST HOSE CONDITION	SERVICEABLE
FRESH WATER PUMP	NO LEAKS OBSERVED
HOSES AND CLAMPS	OK
EXHAUST ELBOW CONDITION	NO LEAKS OBSERVED
GENERAL WIRING	GOOD
SEA STRAINER	CLEAN
SEA VALVE	OPERATIONAL
CIRCUIT BREAKER	HELD LOAD

START UP AND TEST RUN

RUNNING AT FULL LOAD

AC VOLTAGE	119
HZ	60
EXHAUST COLOR	CLEAN
SALT WATER FLOW	GOOD
FRESH WATER TEMP	170
OIL PRESSURE	50

ENGINE SURVEY

VESSEL IS EQUIPPED WITH TWO CATERPILLAR MARINE DIESEL ENGINES, ZF TRANSMISSIONS AND AN ONAN GENERATOR SET. THE OVERALL CONDITION OF THE ENGINE ROOM IS GOOD. THE ENGINES ARE EQUIPPED WITH CAT AIR SEPS AND RACOR FUEL FILTERS. BOTH ENGINES RAN WELL FOR THE DURATION OF THE SEA TRIAL. THE FOLLOWING ARE RECOMMENDATIONS BASED UPON EXTERNAL VISUAL INSPECTION AND SEA TRIAL.

- 1. STARBOARD TURBO BOOST CLAMP IS NOT CLAMPED PROPERLY. RECOMMEND REALIGN CLAMP.**
- 2. THE ENGINES ARE IN LIKE NEW CONDITION. BOTH ENGINES RAN WELL AND PERFORMED ACCORDING TO CATERPILLAR SPECIFICATIONS. RECOMMEND CONTINUE WITH MAINTENANCE AT SPECIFIED INTERVALS.**
- 3. OIL ANALYSIS REPORT READS ELEVATED COPPER AND TIN. THIS IS FROM BREAK IN PERIOD. RECOMMEND CHANGE OIL AND FILTER**

GENERATOR RECOMENDATIONS:

**VESSEL IS EQUIPPED WITH AN ONAN GENERATOR SET.
THE FOLLOWING ARE RECOMMENDATIONS BASED UPON A VISUAL
INSPECTIONAND LOAD TEST USING SHIPS EQUIPMENT:**

GENERATOR:

- 1. THE GENERATOR IS IN LIKE NEW CONDITION. THE UNIT RAN
WELL AND PERFORMED ACCORDING TO ONAN SPECIFICATIONS.
RECOMMEND CONTINUE WITH MAINTENANCE AT SPECIFIED
INTERVALS.**
- 2. OIL ANANYSIS REPORT SHOWS ELEVATED SILICON. SUSPECT
GASKET MATERIAL. RECOMMEND CHANGE OIL AND FILTER.**

**The Opinions and Recommendations set forth in this report were compiled as of this date
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prejudice to the rights of whom it may concern.**