LevelSight™

info@levelsight.io · levelsight.io

SAMPLE

Date 2026-10-24

SEA TRIAL ANALYSIS REPORT

M/Y *Sample Vessel*

VESSEL AND PROPULSION

VESSEL	TEST	ENGINES	READINGS
M/Y Sample Vessel	Free running	2	Entered by hand

PORT MAIN

ENGINE MANUFACTURER	ENGINE MODEL	SERIAL	RATING
Caterpillar	3406E	Not recorded	800 hp @ 2300 rpm
GEAR MANUFACTURER	**GEAR MODEL**	**GEAR RATIO**	**HOURS**
Twin Disc	MG-5114	2.47:1	Not measured
PROPELLER DIAMETER	**PROPELLER PITCH**	**BLADES**	**READINGS**
28.0 in	26.0 in	4	Entered by hand

STBD MAIN

ENGINE MANUFACTURER	ENGINE MODEL	SERIAL	RATING
Caterpillar	3406E	Not recorded	800 hp @ 2300 rpm
GEAR MANUFACTURER	**GEAR MODEL**	**GEAR RATIO**	**HOURS**
Twin Disc	MG-5114	2.47:1	Not measured
PROPELLER DIAMETER	**PROPELLER PITCH**	**BLADES**	**READINGS**
28.0 in	26.0 in	4	Entered by hand

VERDICT PER ENGINE

PORT MAIN

✔ **Properly loaded**

Full throttle 2340 rpm (+1.7% vs rated 2300)

STBD MAIN

✔ **Properly loaded**

Full throttle 2345 rpm (+2.0% vs rated 2300)

Free running: full throttle 1–3 % over rated rpm; bollard pull 93–97 % of rated (manufacturer's sea trial guidance). Readings are judged at full throttle against the references shown.

KEY FINDINGS · 25 PASS · 4 FAIL

FAIL **PORT MAIN · Jacket water temperature differential (ΔT) across the heat exchanger (J-02 over J-03): 21 °F** — reference Max 15 °F → **System Diagnosis, item 1**

FAIL **PORT MAIN · Sea water leaving the heat exchanger (S-05): 136 °F** — reference Max 130 °F → **System Diagnosis, item 2**

FAIL **PORT MAIN · Water into the separate circuit aftercooler (S-02): 74 °F** — reference Max 10 °F above sea water† / Max 85 °F → **System Diagnosis, item 3**

1 more on the System Diagnosis pages.

† Reference value is an estimate based on general marine sea trial and engine test practice, not the engine manufacturer's specification. Confirm against the manufacturer's published data.

KEY NUMBERS AT FULL THROTTLE

ENGINE	RPM	FUEL	BOOST	EXHAUST	COOLANT	BOAT SPEED
PORT MAIN	2340 rpm	40.2 gph	60.9 in Hg	864 °F	183 °F	24.2 knots
STBD MAIN	2345 rpm	40.2 gph	60.9 in Hg	864 °F	183 °F	24.2 knots

READINGS AT EVERY STEP · PORT MAIN

STEP	ENGINE SPEED (rpm)	BOAT SPEED (knots)	COOLANT OUT (°F)	BOOST (in Hg)	OIL PRESSURE (psi)	FUEL PRESSURE (psi)	FUEL RATE (gph)
Low idle	650	6.0	176	2.0	45.0	55.0	Not measured
1000	1000	7.8	177	2.6	45.9	55.5	3.5
1200	1200	9.6	178	4.5	46.8	55.9	5.8
1400	1400	11.5	178	7.3	47.7	56.4	8.9
1600	1600	13.3	179	11.4	48.6	56.8	13.0
1800	1800	15.1	180	16.7	49.5	57.3	17.8
2000	2000	16.9	180	23.2	50.5	57.7	24.2
2100	2100	18.7	181	30.9	51.4	58.2	28.6
2200	2200	20.5	182	39.7	52.3	58.6	33.1
2300	2300	22.4	182	49.7	53.2	59.1	39.4
Full throttle	2340	24.2	183	60.9	54.1	59.5	40.2

Each stage recorded once the readings held steady (rpm within ±2 %, controlled temperatures within ±2 °C for one minute).

READINGS AT EVERY STEP · PORT MAIN (continued)

STEP	EXHAUST (°F)	TRANSMISSION OIL PRESSURE (psi)	AIR TEMP AT AIR CLEANER (°F)	INTAKE MANIFOLD (°F)	CRANKCASE PRESSURE (in H_2O)	BACK PRESSURE (in H_2O)
Low idle	500	260.0	Not measured	Not measured	Not measured	Not measured
1000	536	261.8	Not measured	Not measured	Not measured	Not measured
1200	573	263.6	Not measured	Not measured	Not measured	Not measured
1400	609	265.5	Not measured	Not measured	Not measured	Not measured
1600	646	267.3	Not measured	Not measured	Not measured	Not measured
1800	682	269.1	Not measured	Not measured	Not measured	Not measured
2000	718	270.9	Not measured	Not measured	Not measured	Not measured
2100	754	272.7	Not measured	Not measured	Not measured	Not measured
2200	791	274.5	Not measured	Not measured	Not measured	Not measured
2300	827	276.4	Not measured	Not measured	Not measured	Not measured
Full throttle	864	278.2	95	108	0.8	18.0

Each stage recorded once the readings held steady (rpm within ±2 %, controlled temperatures within ±2 °C for one minute).

STANDARD READINGS AT FULL THROTTLE · PORT MAIN

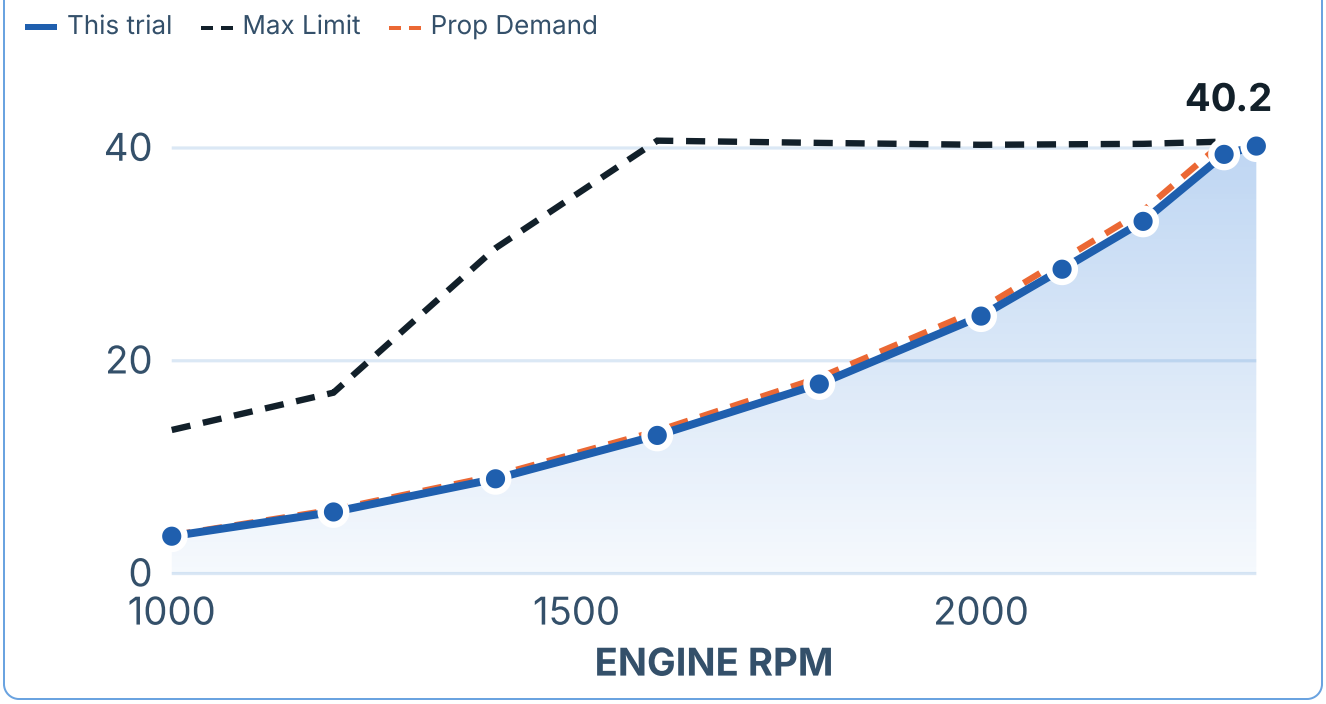
READING		THIS TRIAL	MAX / MIN	SOURCE
Engine speed	PASS	2340 rpm	2325–2370 rpm	manufacturer's published sea trial rpm target (1–3 % over rated)
Boat speed (GPS)		24.2 knots	None published	
Boat speed (log)		Not measured	None published	
J-01T Coolant out temp (before thermostats)	PASS	183 °F	Max 210 °F†	Marine Analyst Service Handbook p.178
J-05T Coolant pump out temp		Not measured	None published	
Coolant in temp (from cooling system)		Not measured	Max 110 °F above sea water†	Marine Analyst Service Handbook
S-02T Aftercooler/Intercooler water in temp		Not measured	Max 10 °F above sea water†	Marine Analyst Service Handbook p.179
S-03T Aftercooler/Intercooler water out temp		Not measured	None published	
S-01P Aftercooler/Intercooler water pump in pressure		Not measured	Max 3.5 psi vacuum	manufacturer's published data
S-02P Aftercooler/Intercooler water pump out pressure		Not measured	None published	
A-01 Air temp at air cleaner	PASS	95 °F	Max 120 °F†	Marine Analyst Service Handbook p.179
A-03T Intake manifold temp	PASS	108 °F	Max 125 °F†	Marine Analyst Service Handbook p.179
A-03P Intake manifold pressure		60.9 in Hg	None published	
A-02 Inlet air restriction		Not measured	Max 15 in H_2O†	Marine Analyst Service Handbook p.179
L-01T Oil temp (to bearings)		Not measured	Max 230 °F†	Marine Analyst Service Handbook p.178
L-01P Oil pressure (to bearings)	PASS	54.1 psi	Min 40 psi†	Marine Analyst Service Handbook p.178
Oil cooler water out temp		Not measured	None published	
F-03 Fuel pressure	PASS	59.5 psi	Min 25 psi†	Marine Analyst Service Handbook p.178
Fuel in temp		Not measured	Max 150 °F†	Marine Analyst Service Handbook
F-01 Fuel rate (flow meter)	PASS	40.2 gph	40.6 gph ±5%	manufacturer's published data, tolerance: Marine Analyst Service Handbook p.105
C-01 Crankcase pressure	PASS	0.8 in H_2O	Max 2 in H_2O†	Marine Analyst Service Handbook p.179
X-01T Exhaust stack temp		864 °F	None published	
X-01P Exhaust back pressure	PASS	18 in H_2O	Max 27 in H_2O†	Marine Analyst Service Handbook p.178
Transmission oil temp		Not measured	None published	
Transmission oil pressure	PASS	278.2 psi	Min 230 psi	marine gear manufacturer's published low-pressure alarm (owner's manual)
Engine room temp		Not measured	Max 120 °F	manufacturer's published data

Every reading on the standard sea trial sheet is listed. *Not measured*: the reading was not taken on this trial. References are the engine manufacturer's published numbers in the LevelSight library, or the handbook rule of thumb where the library has none; readings are judged at full throttle.

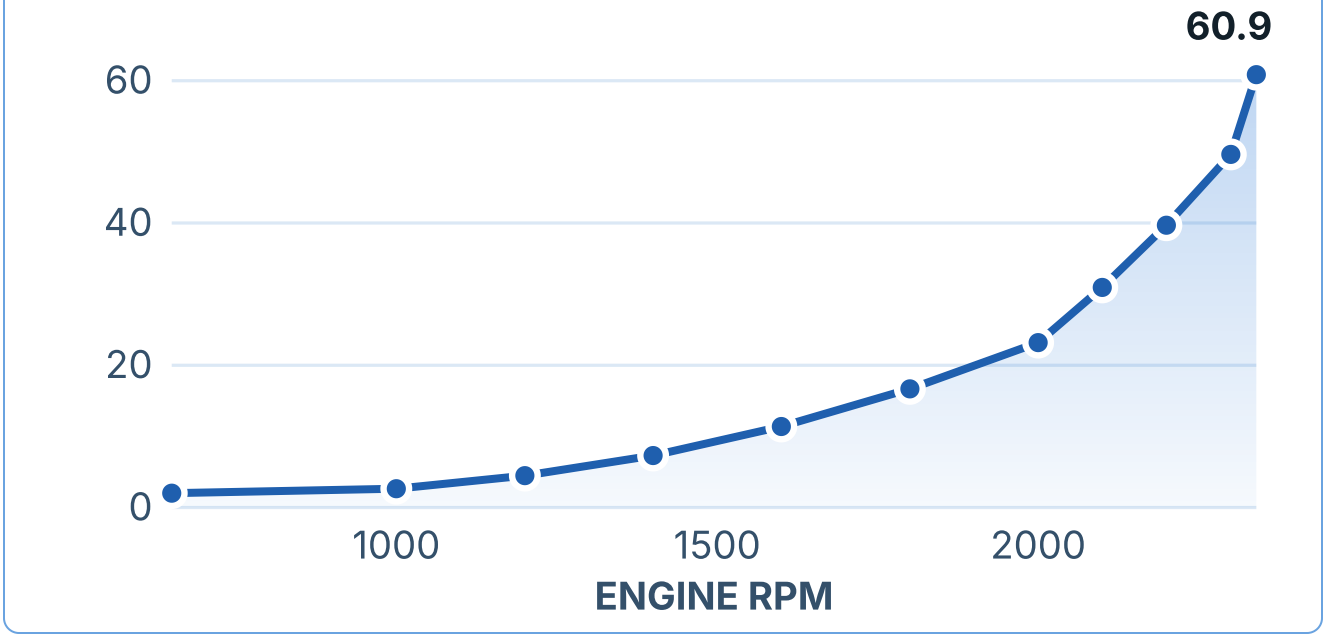
† Reference value is an estimate based on general marine sea trial and engine test practice, not the engine manufacturer's specification. Confirm against the manufacturer's published data.

GRAPHS · PORT MAIN

Fuel rate gph



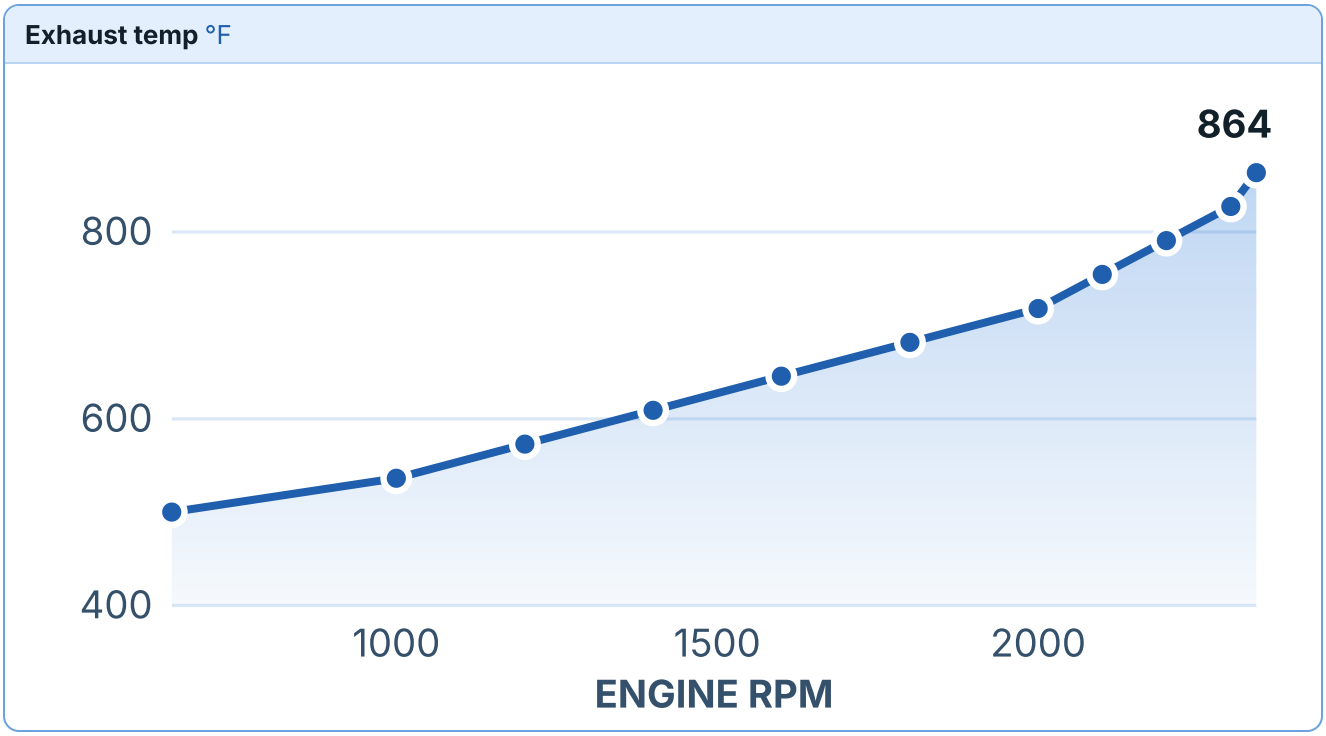
Boost in Hg



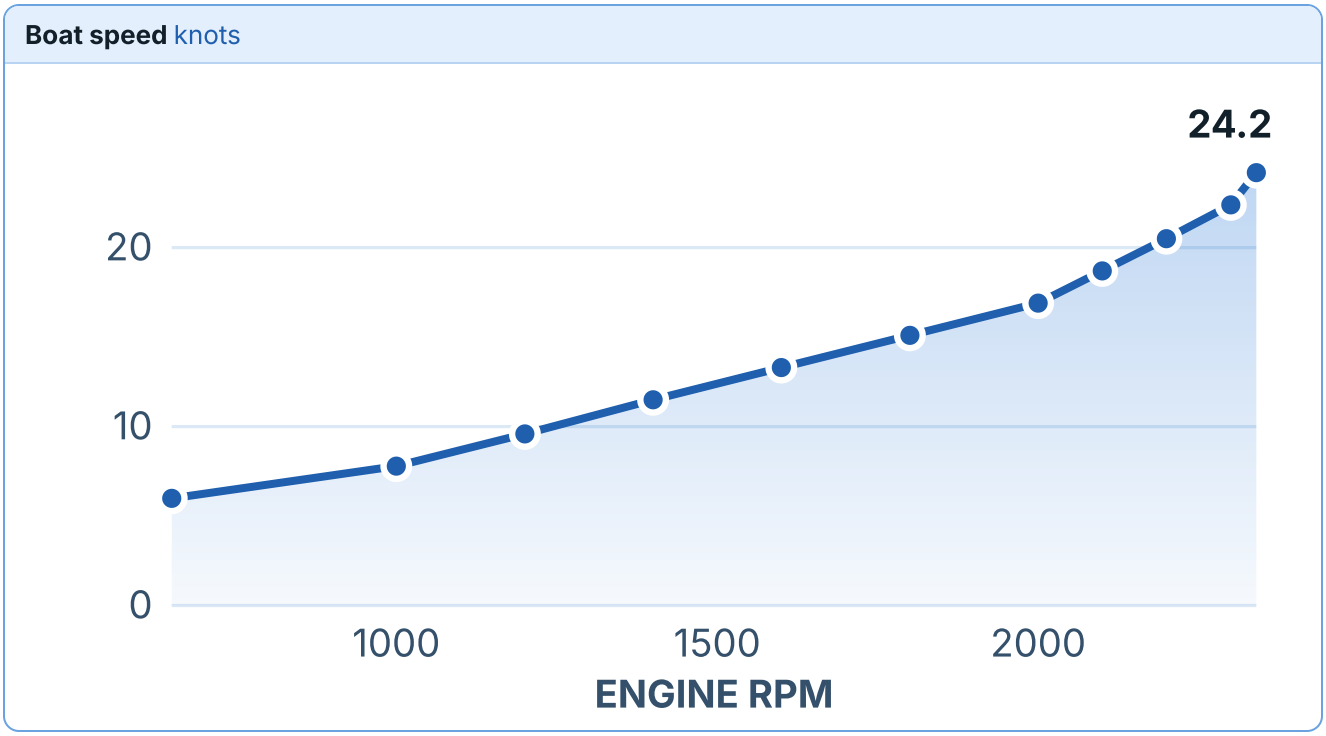
Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

GRAPHS · PORT MAIN (continued)

Exhaust temp °F



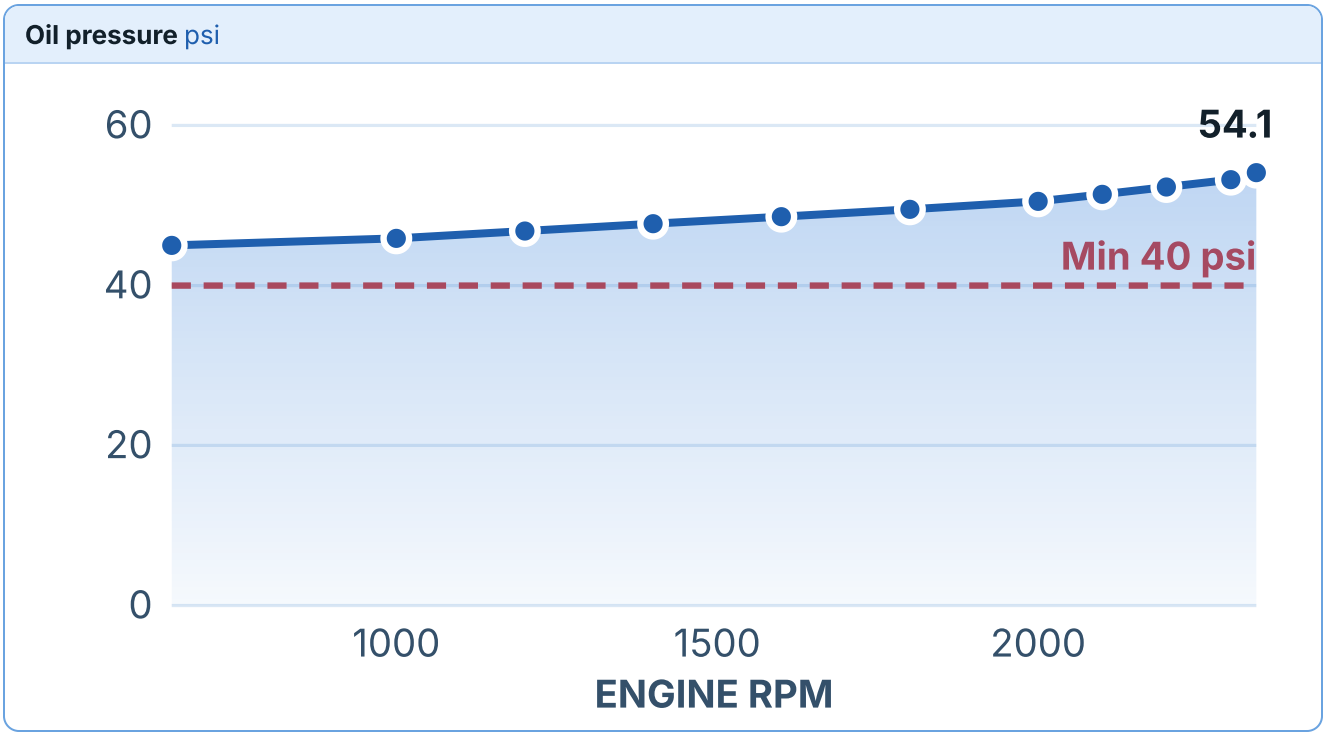
Boat speed knots



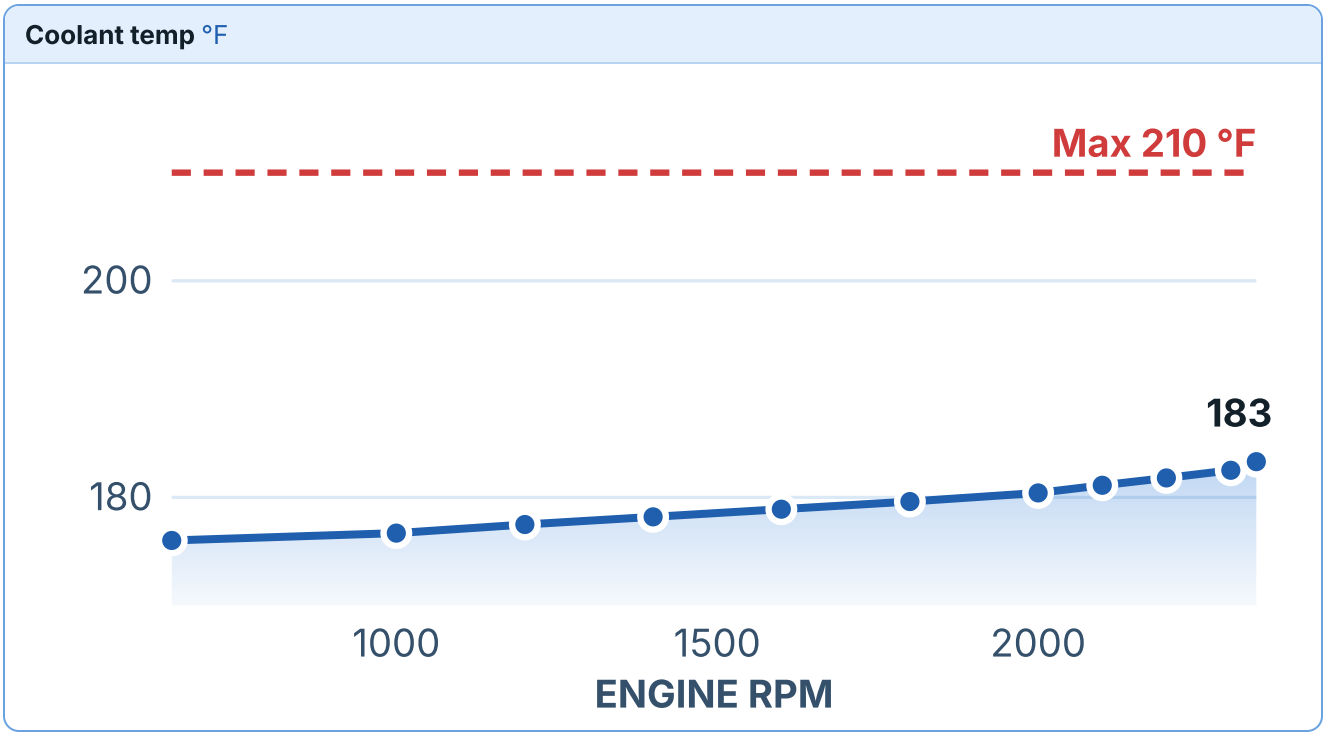
Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

GRAPHS · PORT MAIN (continued)

Oil pressure psi



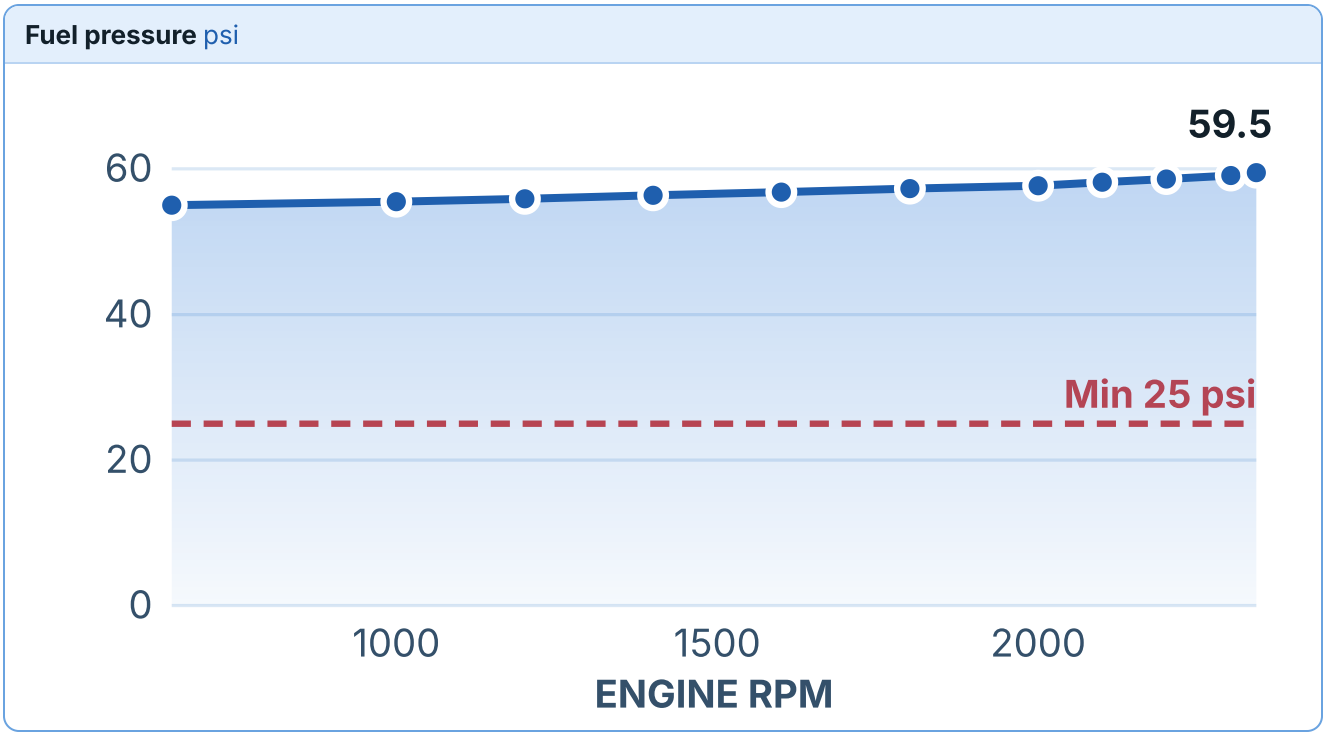
Coolant temp °F



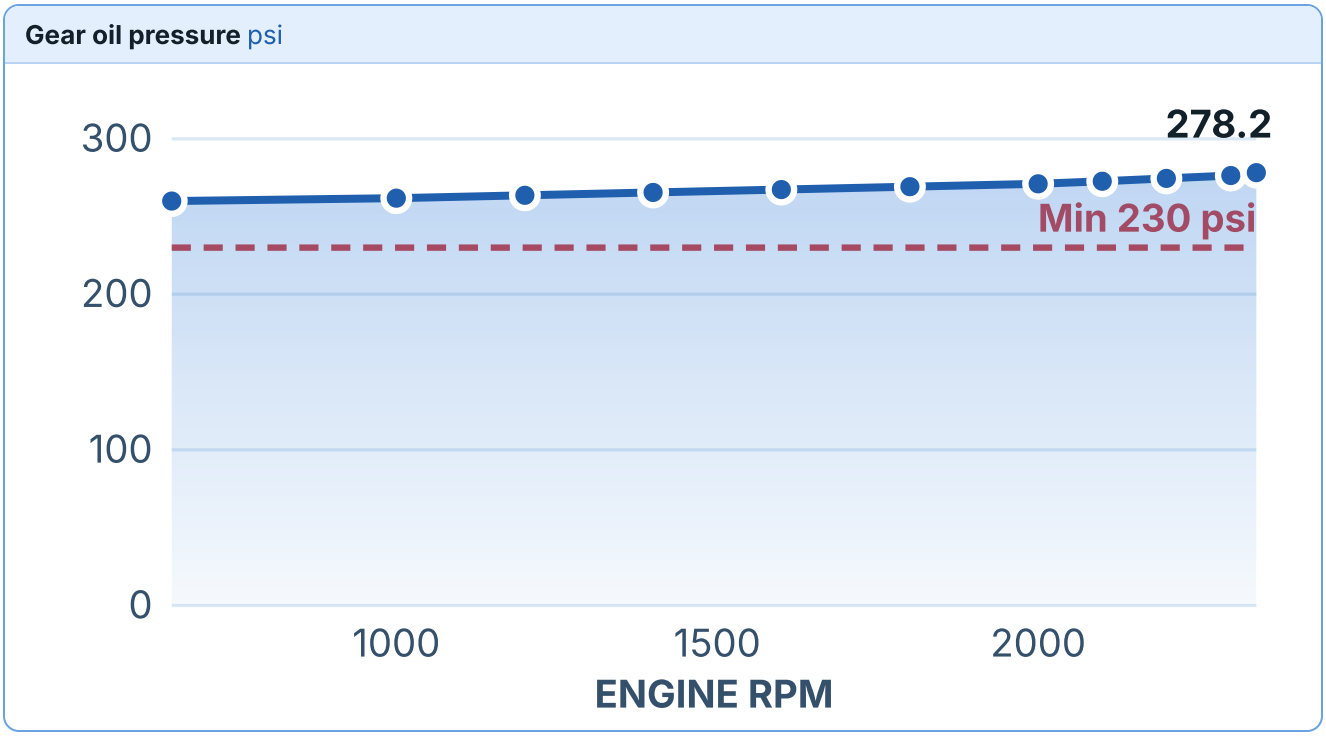
Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

GRAPHS · PORT MAIN (continued)

Fuel pressure psi



Gear oil pressure psi



Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

READINGS AT EVERY STEP · STBD MAIN

STEP	ENGINE SPEED (rpm)	BOAT SPEED (knots)	COOLANT OUT (°F)	BOOST (in Hg)	OIL PRESSURE (psi)	FUEL PRESSURE (psi)	FUEL RATE (gph)
Low idle	650	6.0	176	2.0	45.0	55.0	Not measured
1000	1000	7.8	177	2.6	45.9	55.5	3.5
1200	1200	9.6	178	4.5	46.8	55.9	5.8
1400	1400	11.5	178	7.3	47.7	56.4	8.9
1600	1600	13.3	179	11.4	48.6	56.8	13.0
1800	1800	15.1	180	16.7	49.5	57.3	17.8
2000	2000	16.9	180	23.2	50.5	57.7	24.2
2100	2100	18.7	181	30.9	51.4	58.2	28.6
2200	2200	20.5	182	39.7	52.3	58.6	33.1
2300	2300	22.4	182	49.7	53.2	59.1	39.4
Full throttle	2345	24.2	183	60.9	54.1	59.5	40.2

Each stage recorded once the readings held steady (rpm within ±2 %, controlled temperatures within ±2 °C for one minute).

STEP	EXHAUST (°F)	TRANSMISSION OIL PRESSURE (psi)	INTAKE MANIFOLD (°F)
Low idle	500	260.0	Not measured
1000	536	261.8	Not measured
1200	573	263.6	Not measured
1400	609	265.5	Not measured
1600	646	267.3	Not measured
1800	682	269.1	Not measured
2000	718	270.9	Not measured
2100	754	272.7	Not measured
2200	791	274.5	Not measured
2300	827	276.4	Not measured
Full throttle	864	278.2	106

STANDARD READINGS AT FULL THROTTLE · STBD MAIN

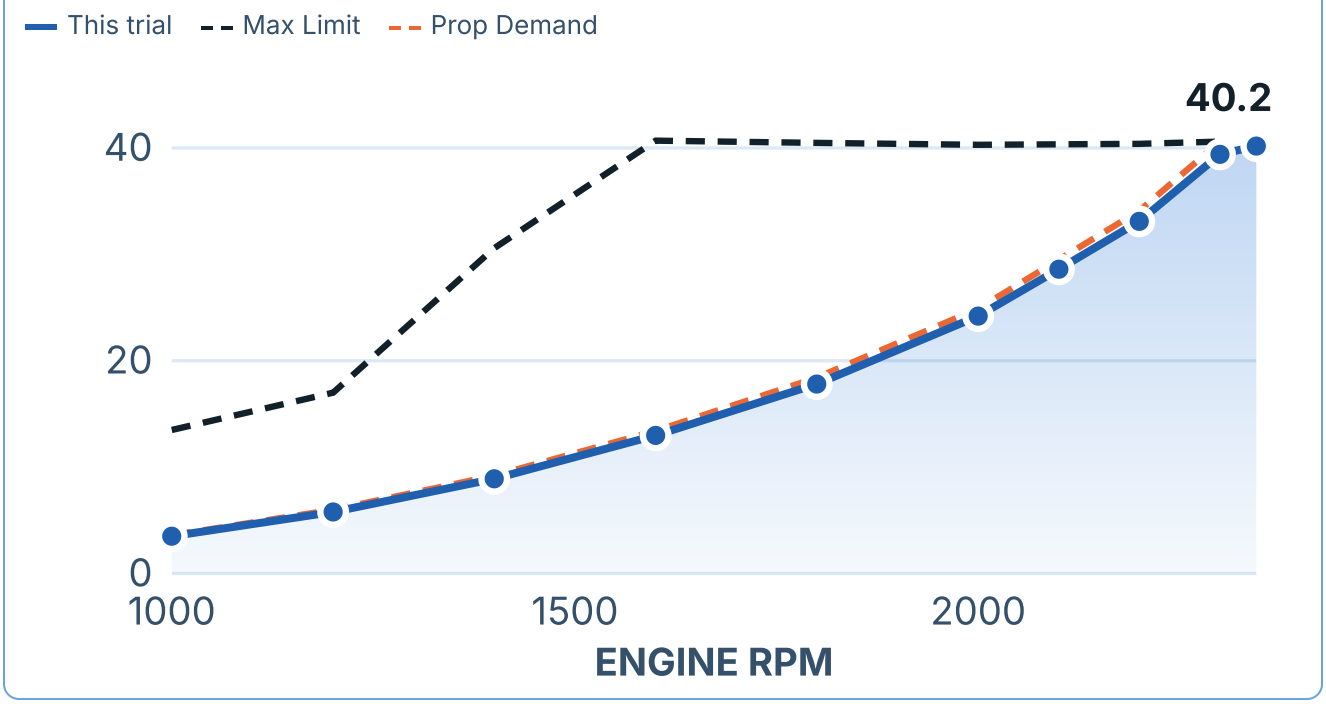
READING		THIS TRIAL	MAX / MIN	SOURCE
Engine speed	PASS	2345 rpm	2325–2370 rpm	manufacturer's published sea trial rpm target (1–3 % over rated)
Boat speed (GPS)		24.2 knots	None published	
Boat speed (log)		Not measured	None published	
J-01T Coolant out temp (before thermostats)	PASS	183 °F	Max 210 °F†	Marine Analyst Service Handbook p.178
J-05T Coolant pump out temp		Not measured	None published	
Coolant in temp (from cooling system)		Not measured	Max 110 °F above sea water†	Marine Analyst Service Handbook
S-02T Aftercooler/Intercooler water in temp		Not measured	Max 10 °F above sea water†	Marine Analyst Service Handbook p.179
S-03T Aftercooler/Intercooler water out temp		Not measured	None published	
S-01P Aftercooler/Intercooler water pump in pressure		Not measured	Max 3.5 psi vacuum	manufacturer's published data
S-02P Aftercooler/Intercooler water pump out pressure		Not measured	None published	
A-01 Air temp at air cleaner		Not measured	Max 120 °F†	Marine Analyst Service Handbook p.179
A-03T Intake manifold temp	PASS	106 °F	Max 125 °F†	Marine Analyst Service Handbook p.179
A-03P Intake manifold pressure		60.9 in Hg	None published	
A-02 Inlet air restriction		Not measured	Max 15 in H_2O†	Marine Analyst Service Handbook p.179
L-01T Oil temp (to bearings)		Not measured	Max 230 °F†	Marine Analyst Service Handbook p.178
L-01P Oil pressure (to bearings)	PASS	54.1 psi	Min 40 psi†	Marine Analyst Service Handbook p.178
Oil cooler water out temp		Not measured	None published	
F-03 Fuel pressure	PASS	59.5 psi	Min 25 psi†	Marine Analyst Service Handbook p.178
Fuel in temp		Not measured	Max 150 °F†	Marine Analyst Service Handbook
F-01 Fuel rate (flow meter)	PASS	40.2 gph	40.6 gph ±5%	manufacturer's published data, tolerance: Marine Analyst Service Handbook p.105
C-01 Crankcase pressure		Not measured	Max 2 in H_2O†	Marine Analyst Service Handbook p.179
X-01T Exhaust stack temp		864 °F	None published	
X-01P Exhaust back pressure		Not measured	Max 27 in H_2O†	Marine Analyst Service Handbook p.178
Transmission oil temp		Not measured	None published	
Transmission oil pressure	PASS	278.2 psi	Min 230 psi	marine gear manufacturer's published low-pressure alarm (owner's manual)
Engine room temp		Not measured	Max 120 °F	manufacturer's published data

Every reading on the standard sea trial sheet is listed. *Not measured*: the reading was not taken on this trial. References are the engine manufacturer's published numbers in the LevelSight library, or the handbook rule of thumb where the library has none; readings are judged at full throttle.

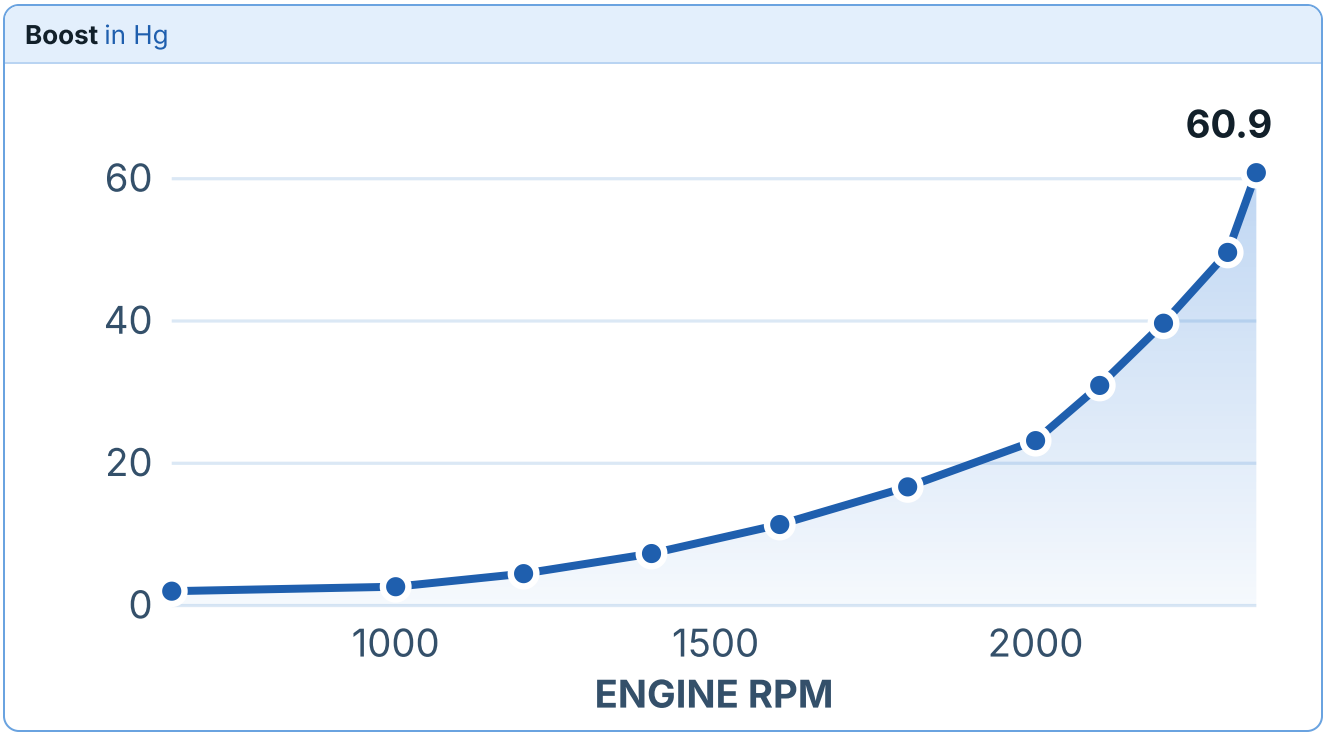
† Reference value is an estimate based on general marine sea trial and engine test practice, not the engine manufacturer's specification. Confirm against the manufacturer's published data.

GRAPHS · STBD MAIN

Fuel rate gph



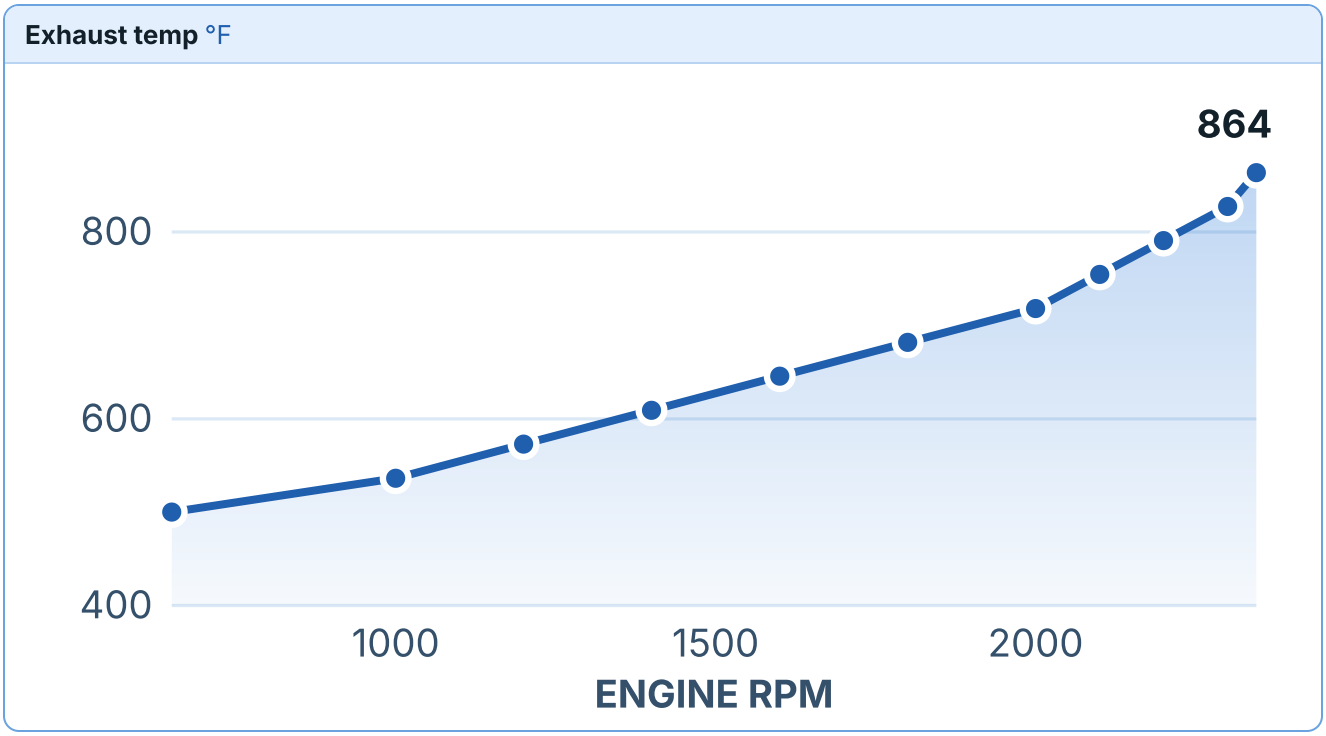
Boost in Hg



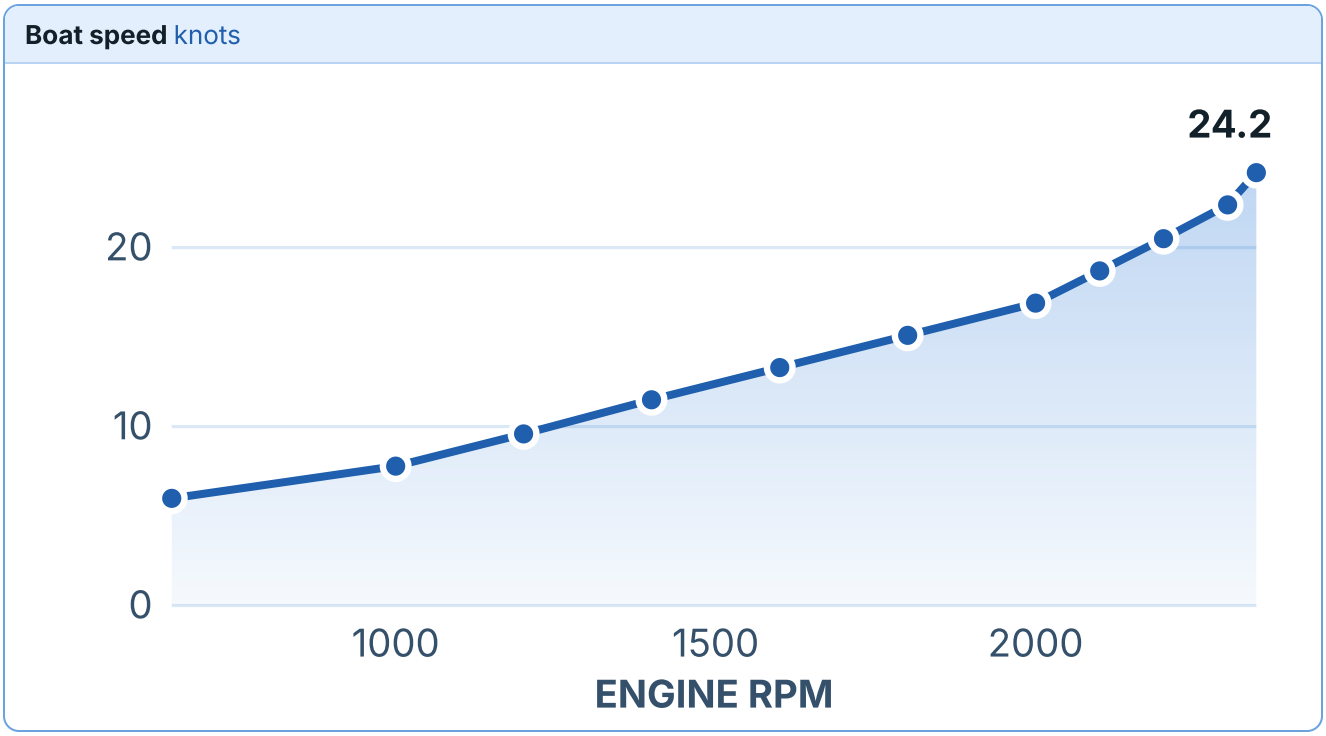
Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

GRAPHS · STBD MAIN (continued)

Exhaust temp °F



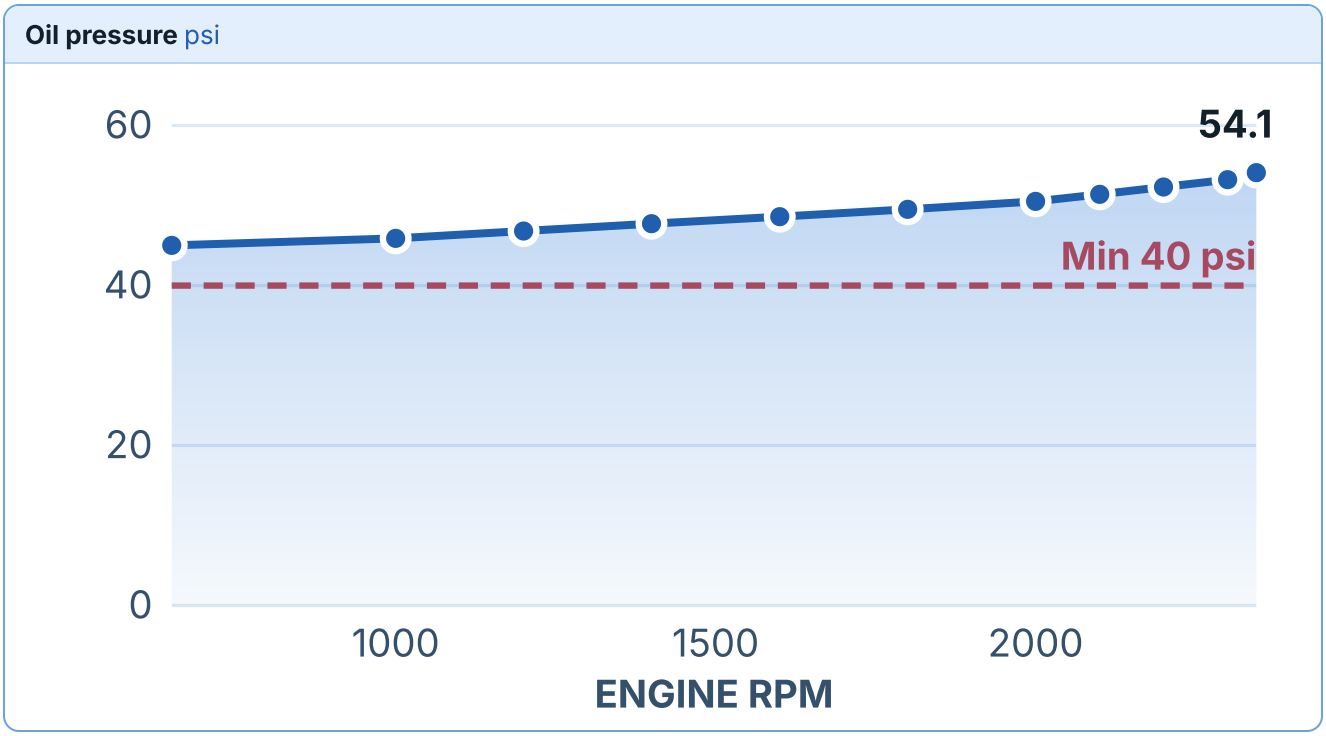
Boat speed knots



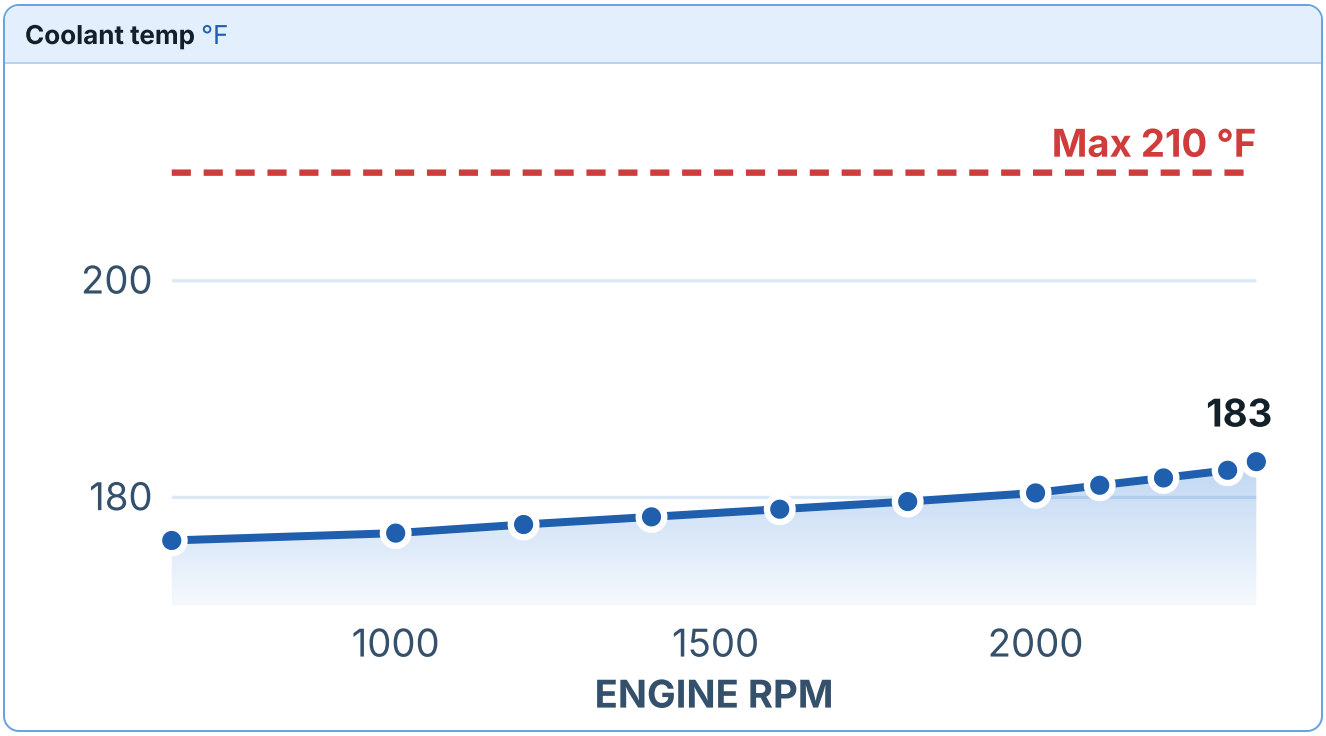
Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

GRAPHS · STBD MAIN (continued)

Oil pressure psi



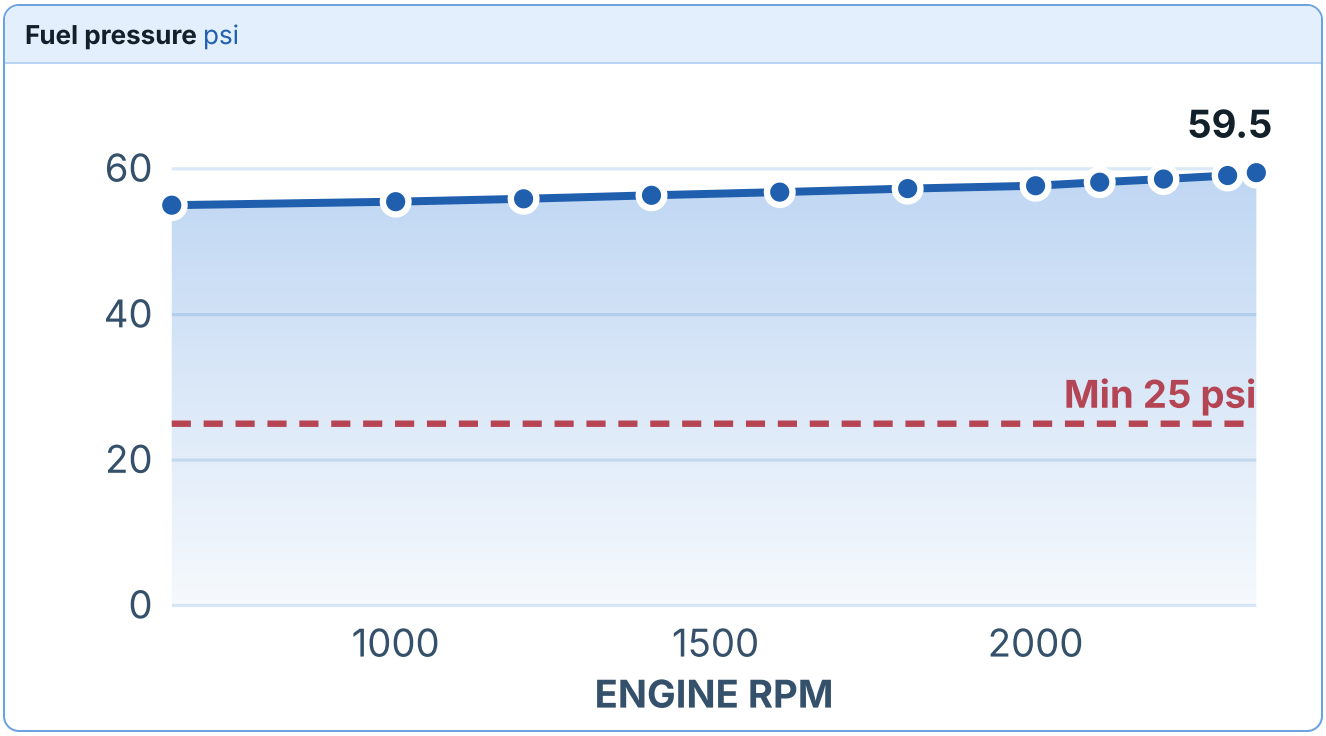
Coolant temp °F



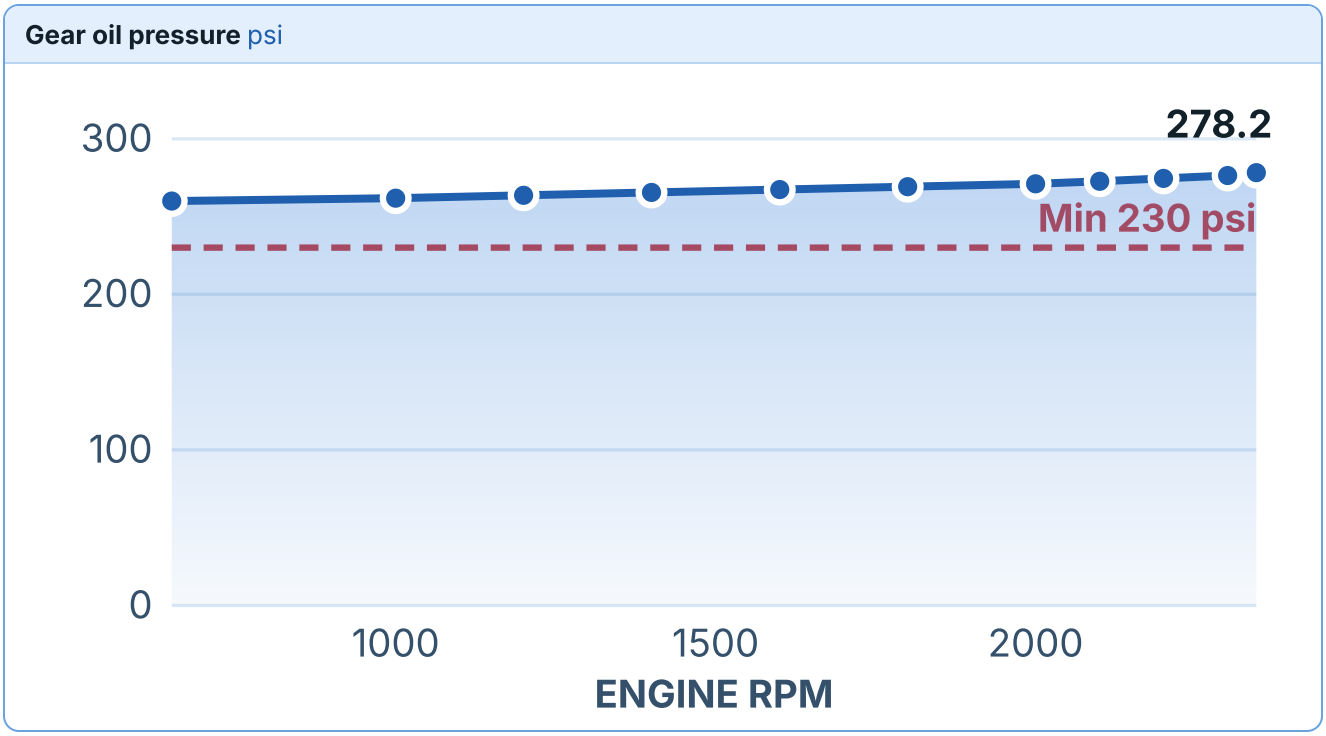
Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

GRAPHS · STBD MAIN (continued)

Fuel pressure psi



Gear oil pressure psi



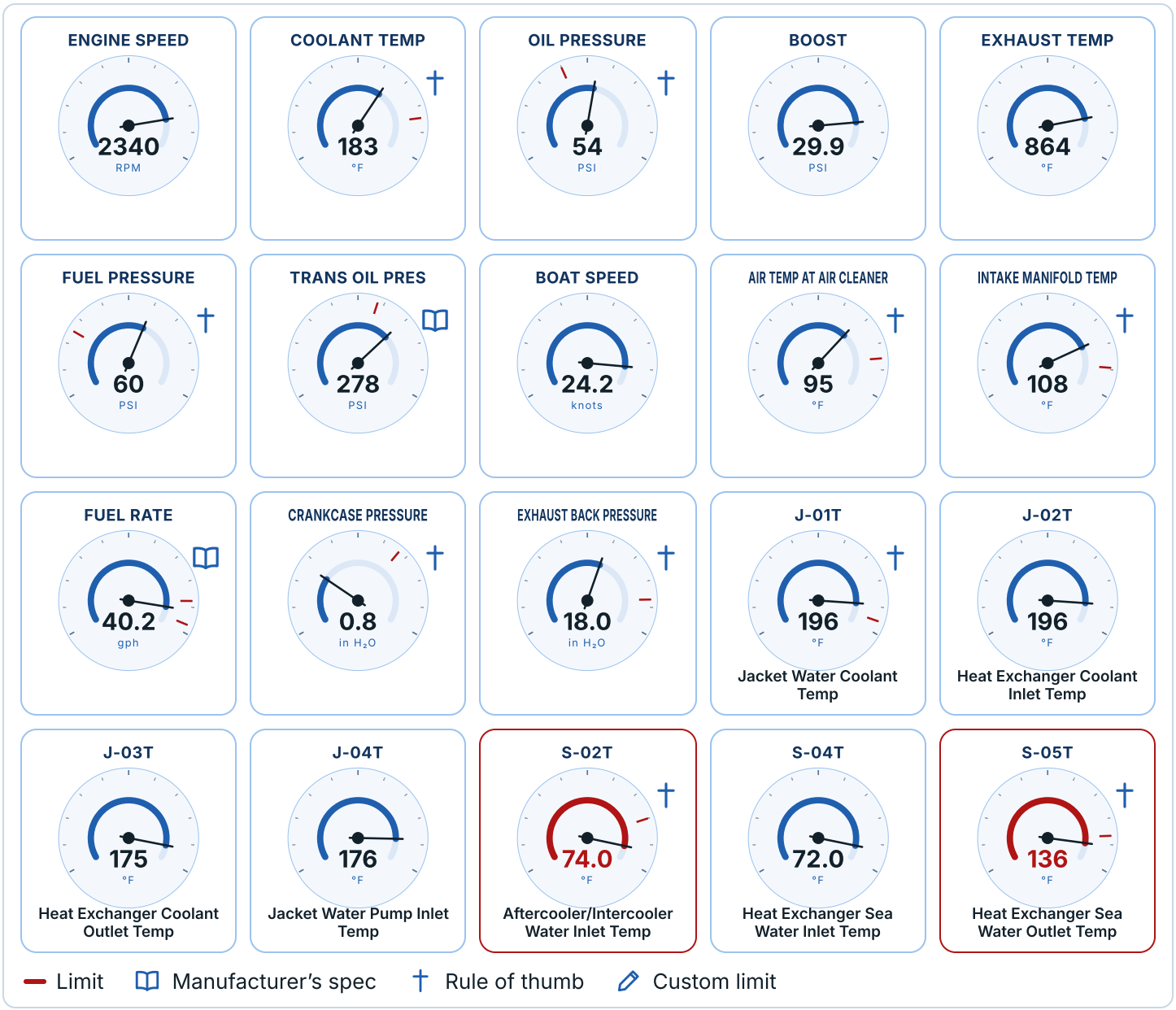
Each reading at every rpm step of the trial. Dashed line: the published Max or Min. Fuel rate is drawn over the engine's Max Limit and Prop Demand curves from the manufacturer's published data, the way Caterpillar's sea trial guide (LEBM0025) shows it.

ALL GAUGES AT FULL THROTTLE · PORT MAIN

ENGINE
PORT MAIN · 3406E

READINGS
20 entered by hand

ENGINE GAUGES · ENTERED BY HAND



ALL GAUGES AT FULL THROTTLE · PORT MAIN, CONTINUED

GAUGES WITH A MAX / MIN

READING	AT FULL THROTTLE	MAX / MIN	SOURCE
ENGINE SPEED	PASS 2340 rpm	2325–2370 rpm	manufacturer's published sea trial rpm target (1–3 % over rated)
J-01T COOLANT TEMP	PASS 183 °F	Max 210 °F†	Marine Analyst Service Handbook p.178
L-01P OIL PRESSURE	PASS 54.1 psi	Min 40 psi†	Marine Analyst Service Handbook p.178
F-03 FUEL PRESSURE	PASS 59.5 psi	Min 25 psi†	Marine Analyst Service Handbook p.178
TRANS OIL PRES	PASS 278.2 psi	Min 230 psi	marine gear manufacturer's published low-pressure alarm (owner's manual)
A-01 AIR TEMP AT AIR CLEANER	PASS 95 °F	Max 120 °F†	Marine Analyst Service Handbook p.179
A-03T INTAKE MANIFOLD TEMP	PASS 108 °F	Max 125 °F†	Marine Analyst Service Handbook p.179
F-01 FUEL RATE (FLOW METER)	PASS 40.2 gph	40.6 gph ±5%	manufacturer's published data, tolerance: Marine Analyst Service Handbook p.105
C-01 CRANKCASE PRESSURE	PASS 0.8 in H_2O	Max 2 in H_2O†	Marine Analyst Service Handbook p.179
X-01P EXHAUST BACK PRESSURE	PASS 18 in H_2O	Max 27 in H_2O†	Marine Analyst Service Handbook p.178

MORE READINGS · ENTERED BY HAND

READING	AT FULL THROTTLE	REFERENCE	SOURCE
J-01T Jacket Water Coolant Temp	PASS 196 °F	Max 210 °F†	Marine Analyst Service Handbook p.178
J-02T Heat Exchanger Coolant Inlet Temp	196 °F	—	no published reference
J-03T Heat Exchanger Coolant Outlet Temp	175 °F	—	no published reference
J-04T Jacket Water Pump Inlet Temp	176 °F	—	no published reference
S-02T Aux Water Pump Out Press + Aftercooler/Intercooler Water Inlet Temp	FAIL 74 °F	Max 10 °F above sea water† / Max 85 °F†	Marine Analyst Service Handbook p.179 / Installation guide LEKM7142 p.123
S-04T Heat Exchanger Sea Water Inlet Temp	72 °F	—	no published reference
S-05T Heat Exchanger Sea Water Outlet Temp	FAIL 136 °F	Max 130 °F†	Installation guide LEKM7142 p.131

Also shown as dials above, each scale from zero to just past the reading.

† Reference value is an estimate based on general marine sea trial and engine test practice, not the engine manufacturer's specification. Confirm against the manufacturer's published data.

ALL GAUGES AT FULL THROTTLE · STBD MAIN

ENGINE
STBD MAIN · 3406E

READINGS
17 entered by hand

ENGINE GAUGES · ENTERED BY HAND



ALL GAUGES AT FULL THROTTLE · STBD MAIN, CONTINUED

GAUGES WITH A MAX / MIN

READING	AT FULL THROTTLE	MAX / MIN	SOURCE
ENGINE SPEED	PASS 2345 rpm	2325–2370 rpm	manufacturer's published sea trial rpm target (1–3 % over rated)
J-01T COOLANT TEMP	PASS 183 °F	Max 210 °F†	Marine Analyst Service Handbook p.178
L-01P OIL PRESSURE	PASS 54.1 psi	Min 40 psi†	Marine Analyst Service Handbook p.178
F-03 FUEL PRESSURE	PASS 59.5 psi	Min 25 psi†	Marine Analyst Service Handbook p.178
TRANS OIL PRES	PASS 278.2 psi	Min 230 psi	marine gear manufacturer's published low-pressure alarm (owner's manual)
A-03T INTAKE MANIFOLD TEMP	PASS 106 °F	Max 125 °F†	Marine Analyst Service Handbook p.179
F-01 FUEL RATE (FLOW METER)	PASS 40.2 gph	40.6 gph ±5%	manufacturer's published data, tolerance: Marine Analyst Service Handbook p.105

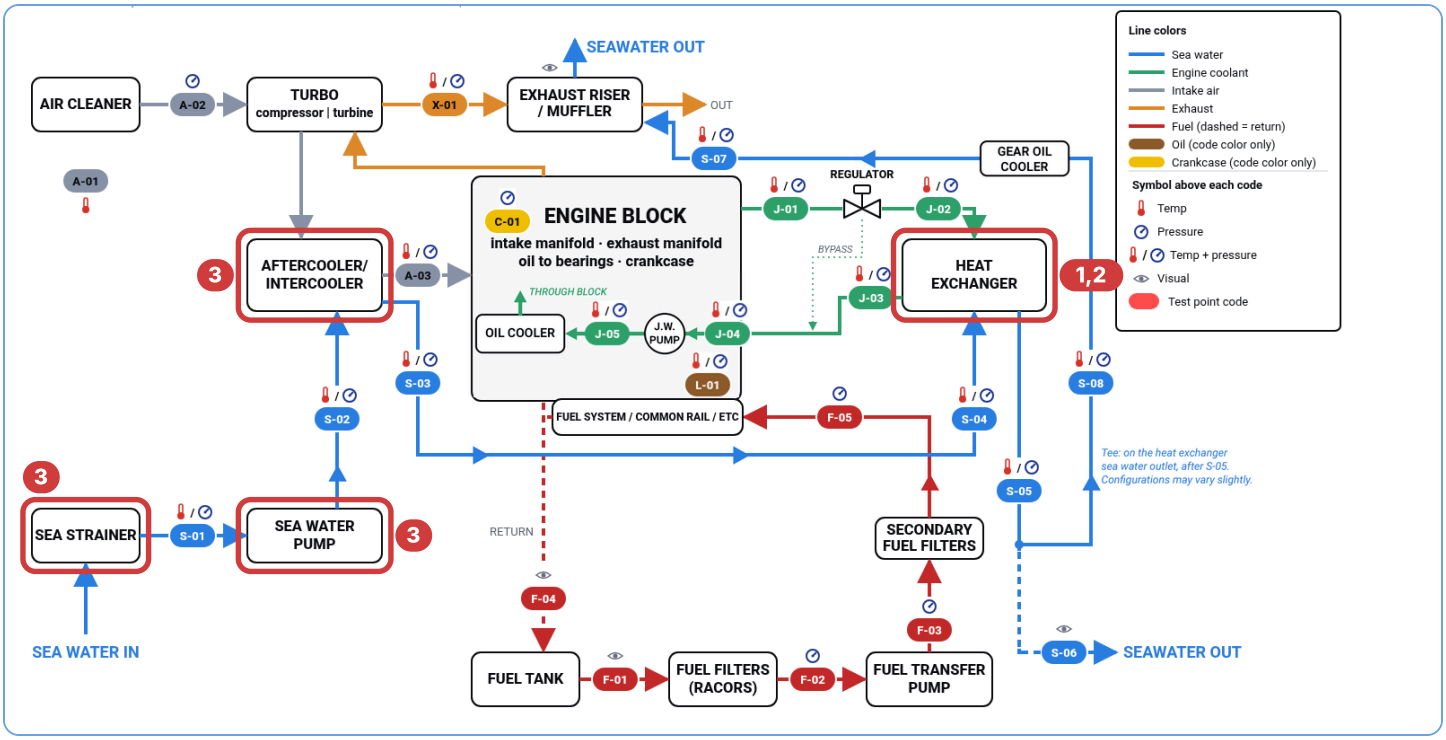
MORE READINGS · ENTERED BY HAND

READING	AT FULL THROTTLE	REFERENCE	SOURCE
J-01T Jacket Water Coolant Temp	PASS 192 °F	Max 210 °F†	Marine Analyst Service Handbook p.178
J-02T Heat Exchanger Coolant Inlet Temp	192 °F	—	no published reference
J-03T Heat Exchanger Coolant Outlet Temp	180 °F	—	no published reference
J-04T Jacket Water Pump Inlet Temp	177 °F	—	no published reference
S-02T Aux Water Pump Out Press + Aftercooler/Intercooler Water Inlet Temp	FAIL 73 °F	Max 10 °F above sea water† / Max 85 °F†	Marine Analyst Service Handbook p.179 / Installation guide LEKM7142 p.123
S-04T Heat Exchanger Sea Water Inlet Temp	72 °F	—	no published reference
S-05T Heat Exchanger Sea Water Outlet Temp	PASS 118 °F	Max 130 °F†	Installation guide LEKM7142 p.131

Also shown as dials above, each scale from zero to just past the reading.

† Reference value is an estimate based on general marine sea trial and engine test practice, not the engine manufacturer's specification. Confirm against the manufacturer's published data.

SYSTEM DIAGNOSIS · PORT MAIN



1 Jacket water temperature differential (ΔT) across the heat exchanger (J-02 over J-03) · 21 °F · Max 15 °F[1]

- Heat exchanger plugged inside: passages fouled or coated[2]
- Low jacket water flow: more pressure drop in the circuit means less pump flow[3]

2 Sea water leaving the heat exchanger (S-05) · 136 °F · Max 130 °F[4]

- Scale: above about 130 °F sea water leaves chalk-like deposits on the tubes[4]
- Low sea water flow: plugged strainer or worn pump impeller[5]

3 Water into the separate circuit aftercooler (S-02) · 74 °F · Max 10 °F above sea water†[6] / Max 85 °F[7]

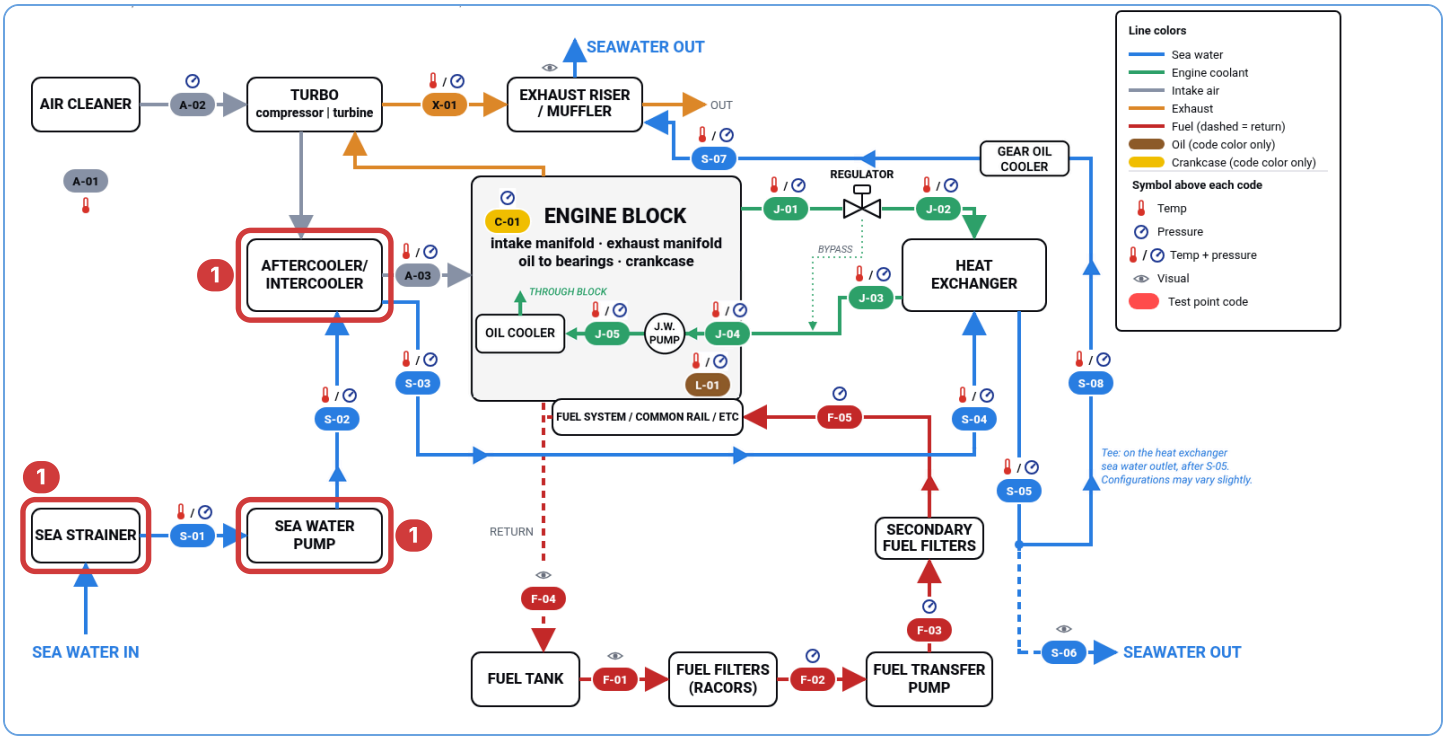
- Sea water pump failure, strainer plugging or low aftercooler flow[8]

Sources: [1] Installation guide LEKM7142 p.129 · [2] Installation guide LEKM7142 p.127 · [3] Installation guide LEKM7142 p.151 · [4] Installation guide LEKM7142 p.131 · [5] Installation guide LEKM7142 p.127, p.128 · [6] Marine Analyst Service Handbook p.179 · [7] Installation guide LEKM7142 p.123 · [8] Installation guide LEKM7142 p.92

Likely causes as published; the small numbers point to the sources listed above. The red numbers on the diagram mark the part each finding points to.

† Reference value is an estimate based on general marine sea trial and engine test practice, not the engine manufacturer's specification. Confirm against the manufacturer's published data.

SYSTEM DIAGNOSIS · STBD MAIN



1 Water into the separate circuit aftercooler (S-02)

· **73 °F** · Max 10 °F above sea water † [1] / Max 85 °F [2]

- Sea water pump failure, strainer plugging or low aftercooler flow [3]

Sources: [1] Marine Analyst Service Handbook p.179 · [2] Installation guide LEKM7142 p.123 · [3] Installation guide LEKM7142 p.92

Likely causes as published; the small numbers point to the sources listed above. The red numbers on the diagram mark the part each finding points to.

† Reference value is an estimate based on general marine sea trial and engine test practice, not the engine manufacturer's specification. Confirm against the manufacturer's published data.

TEST CONDITIONS

TRIAL DATE 2026-10-24	**TEST TYPE** Free running	**VESSEL LOAD** Typical cruising load	**SEA STATE** Light chop
SEA WATER TEMP 54 °F	**OUTSIDE AIR TEMP** 72 °F	**ENGINE ROOM TEMP** 98 °F	**WATER DEPTH** 120 ft
WIND 8 knots NW	**PASSENGERS** 4	**FUEL** 400 gal · 50 %	**FRESH WATER** 150 gal · 100 %
GREY / BLACK WATER 20 gal · 10 %	**BILGE WATER / SLOP** 0 gal · 0 %		

STANDARDS AND SOURCES USED

Manufacturer's marine commissioning and sea trial guidance — test procedure, rpm stages, loading verdicts (free running 1–3 % over rated rpm; bollard pull 93–97 % of rated).
SAE J1349, Engine Power Test Code — readings recorded once steady for one minute.
ITTC 7.5-04-01-01.1 (2017) and ISO 15016:2015 — speed trials on reciprocal headings to cancel current.
Marine Analyst Service Handbook — rules of thumb used where no manufacturer's number is in the LevelSight library, page given with each one.
Engine manufacturer's published data for each engine (rating, rated fuel, boost, exhaust and limits) where the LevelSight library has it.
Marine gear manufacturer's owner's manual — transmission oil pressure: the low-pressure alarm for the gear model.
ABYC P-4, H-32, P-1, P-6 and H-33 — installation standards, cited where this report notes installation items.

SAMPLE DATA. Readings marked Entered by hand were typed on the sea trial form from the engine's gauges, test gauges or an infrared thermometer.

Technician · date

Owner / captain · date