



# Yacht Engine Room Inspection: Diesel, Inboard & Generator Maintenance Checklist

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Inspector Name: \_\_\_\_\_ Date: \_\_\_\_\_

Signature: \_\_\_\_\_

## ***Main Diesel Engine – Mechanical Condition***

Sr No.	Inspection Item	Good	Repair	Replace	NA
1	Diesel engine cranks and fires without excessive starter motor engagement time	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Cylinder head and valve cover inspected for oil seepage or coolant weeping at gaskets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Timing belt or timing chain condition and tensioner inspected per engine hours logged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Diesel engine mounts (rubber isolators) checked for deterioration and sagging under load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Air intake silencer and engine breather hose inspected for collapse or diesel soot buildup	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ***Inboard Drive Train, Shaft & Sterndrive Assembly***

Sr No.	Inspection Item	Good	Repair	Replace	NA
6	Propeller shaft coupling and flexible coupling (Aquadrive or similar) inspected for wear and alignment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	Cutlass bearing condition verified and shaft free-play measured within tolerance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	Sterndrive bellows (inner and outer) inspected for cracking, softening, or diesel oil contamination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	Sterndrive gear oil level and condition checked for milky appearance indicating water ingress	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	Gearbox ahead/astern engagement tested at idle and response under load confirmed smooth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Diesel Fuel System, Lift Pump & Injector Health**

Sr No.	Inspection Item	Good	Repair	Replace	NA
11	Diesel day tank or main tank draw-off inspected for sediment and water in fuel sample	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12	Primary Racor (or equivalent) diesel filter bowl drained and element condition inspected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13	Secondary engine-mounted diesel filter changed per manufacturer hour interval and recorded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14	Diesel lift pump delivery pressure tested and within specified range for the engine model	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15	Fuel injector return lines and high-pressure injection pipes inspected for chafing or weeping diesel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Raw Water & Freshwater Cooling Circuits**

Sr No.	Inspection Item	Good	Repair	Replace	NA
16	Raw water seacock serviced (greased or operated) and free from marine growth obstruction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17	Raw water impeller removed and inspected for blade fatigue cracks and vane set loss	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18	Freshwater expansion tank coolant level correct and antifreeze/corrosion inhibitor concentration checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19	Keel cooler or heat exchanger zinc anodes inspected and replaced if more than 50% depleted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20	Engine coolant temperature at normal operating range and thermostat opening confirmed during run	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Engine Oil, Sump & Lubrication System**

Sr No.	Inspection Item	Good	Repair	Replace	NA
21	Engine sump oil level checked with engine cold and oil color and viscosity assessed on dipstick	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22	Diesel engine oil change completed at manufacturer-specified hour interval and grade confirmed correct	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23	Oil pressure gauge reading at idle and cruising RPM compared against engine specification sheet	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24	Crankshaft seals (front and rear) inspected for oil weeping onto flywheel or drive belt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25	Stern drive or gearbox oil changed per service hours and correct marine gear oil grade used	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Wet Exhaust System & Engine Room Ventilation**

Sr No.	Inspection Item	Good	Repair	Replace	NA
26	Wet exhaust waterlock muffler inspected for diesel soot buildup and water drainage checked	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27	Exhaust mixing elbow (injection elbow) inspected for internal corrosion or restricted water injection holes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28	Anti-siphon valve on raw water injection line tested and confirmed preventing back-flooding at rest	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29	Exhaust hose and transom exit through-hull inspected for diesel soot staining or exhaust gas leaks inside engine room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30	Engine room natural and mechanical ventilation inlets and outlets clear and airflow sufficient at full throttle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Onboard Diesel Generator – Service & Output**

Sr No.	Inspection Item	Good	Repair	Replace	NA
31	Diesel generator starts on first crank and reaches rated RPM within 10 seconds of engagement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32	Generator output voltage (typically 230V AC / 50Hz or 120V / 60Hz) confirmed stable under load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33	Generator diesel fuel filter changed and engine oil changed per manufacturer's hour-based service schedule	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
34	Generator raw water cooling impeller inspected and exhaust water discharge confirmed during operation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35	Generator AC output load tested with yacht's main AC consumers (air conditioning, inverter charger) running simultaneously	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Engine-Dedicated Battery Banks & Charging**

Sr No.	Inspection Item	Good	Repair	Replace	NA
36	Engine start battery capacity tested under load and cold cranking amps (CCA) verified against specification	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37	Engine battery terminals cleaned of sulfate corrosion and connection torque confirmed secure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38	Alternator output charging voltage tested at 13.8–14.4V (12V system) or 27.6–28.8V (24V system) at cruise RPM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39	Engine battery isolator switch operation verified and cross-start circuit (if fitted) tested functional	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
40	Battery electrolyte level checked (wet cell) or state-of-charge verified (AGM/lithium) for engine start bank	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Engine Hour Tracking & Scheduled Service Intervals**

Sr No.	Inspection Item	Good	Repair	Replace	NA
41	Diesel main engine total hours recorded and next service (250 / 500 / 1000 hr) interval identified	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42	Engine logbook entries current with oil changes, impeller replacements, and belt/filter service dates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43	Generator engine hours recorded separately and next service due date confirmed with owner or captain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44	Manufacturer's service manual and spare parts list (impellers, belts, filters, injector seals) present onboard	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45	Outstanding engine defects or deferred service items listed with planned remediation dates documented	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Engine Room Seacocks, Hoses & Diesel Leak Control**

Sr No.	Inspection Item	Good	Repair	Replace	NA
46	Engine room raw water seacock through-hull fitting inspected externally for electrolytic corrosion or weeping	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47	Diesel fuel tank vent and fill deck fittings inspected for correct sealing and no diesel odor in engine room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48	All engine cooling hose jubilee clips (hose clamps) inspected for corrosion and tightness at hose ends	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49	Diesel engine room bilge inspected for diesel sheen and source of any hydrocarbon contamination traced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50	Fuel return and overflow hoses routed back to tank correctly and not discharging into engine room bilge	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>