

## Kachin Mana improvements and maintenance

August 2021	<ul style="list-style-type: none"> <li>• New radar: BG Halo 18"</li> <li>• New Chart Plotter Vulcan 9"</li> <li>• New Transducer</li> <li>• Fixed water leak in engine compartment</li> <li>• Scraped bottom paint and painted</li> <li>• Ground inverter (verified)</li> <li>• Checked for corrosion on heat exchanger and cooling water hose</li> <li>• Replaced impeller</li> <li>• New LED deck lights</li> </ul>
Sept, 2021	<ul style="list-style-type: none"> <li>• New ICOM 424G VHF radio, with remote command mic 4</li> <li>• Replaced Ballmar C614 regulator</li> <li>• Added Navionics card in chart plotter</li> <li>• Replaced all running rigging (except topping lift)</li> <li>• Replaced all clutches</li> <li>• Replaced transmission fluid</li> <li>• Treated cockpit deck teak</li> <li>• Added A/C coolant</li> <li>• Changed oil</li> </ul>
October 2021	<ul style="list-style-type: none"> <li>• Oiled teak floor and bowsprit</li> <li>• Painted anchor</li> <li>• Varnished teak rails and eyebrow</li> </ul>
December 2021	<ul style="list-style-type: none"> <li>• Replaced engine alternator belts (#032977 Westerbeke)</li> <li>• Replaced 2 coolant hoses and added coolant</li> <li>• Added new shower in head</li> </ul>
January 2022	<ul style="list-style-type: none"> <li>• Replaced Raycor fuel-water separator</li> <li>• Replaced Raycor filter on generator</li> </ul>
February 2022	<ul style="list-style-type: none"> <li>• Restored dinghy</li> </ul>
April 2022	<ul style="list-style-type: none"> <li>• Change fuel filter</li> <li>• Replaced oil switch #037323 Westerbeke</li> <li>• Replaced impeller in generator (Fisher-Panda part 23-311)</li> <li>• Replaced oil pressure sensor</li> </ul>
June 2022	<ul style="list-style-type: none"> <li>• Replaced mainsail (Precision Sails)</li> <li>• Replaced water pump (016423 Sherwood F85)</li> </ul>

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July 2022	<ul style="list-style-type: none"> <li>• Replaced kitchen stove (Force 10 Euro 2-burner propane)</li> <li>• Replaced 4 overhead cabin lights</li> </ul>
August 2022	<ul style="list-style-type: none"> <li>• Replaced air conditioner: New Webasto 16,000 BTU AC FCF 1001600GS</li> <li>• Replaced AC water pump: March Seawater Pump 910-851-6644 500 GPH 115 volt</li> <li>• 2022</li> </ul>
August 2022	<ul style="list-style-type: none"> <li>• Replaced anchor light</li> <li>• Equalized house bank</li> </ul>
September 2022	<ul style="list-style-type: none"> <li>• Replaced converter Xantrex Freedom (Defender Marine) XC Pro Marine 300 watt with BT panel</li> </ul>
December 2022	<ul style="list-style-type: none"> <li>• Winterized, motor, AC and Panda generator</li> <li>• Changed oil on generator</li> </ul>
January 2023	<ul style="list-style-type: none"> <li>• Installed Siren Pro-3 battery sensors (bilge, shore power, 2 batteries, temperature, and entry)</li> </ul>
February 2023	<ul style="list-style-type: none"> <li>• Installed 2-200 watt Solar panels</li> </ul>
April 2023	<ul style="list-style-type: none"> <li>• Installed 2 cabin lights (bow)</li> <li>• Installed 3 fans</li> <li>• Added new main A/C breaker with polarity indicator</li> </ul>
March 2023	<ul style="list-style-type: none"> <li>• Fixed radiator leak</li> <li>• Installed new curtains in kitchen</li> <li>• Staysail repaired</li> </ul>
May 2023	<ul style="list-style-type: none"> <li>• Installed PSS Dripless 1<sup>1/4</sup>" shaft</li> <li>• Replaced coolant hoses</li> <li>• Scraped and painted bottom</li> </ul>
June 2023	<ul style="list-style-type: none"> <li>• New Furling Staysail (Precision Sails)</li> </ul>
August 2023	<ul style="list-style-type: none"> <li>• Entire new battery system installed – (2) Xantrex 240 Ah, Victron Multiplus 3000W, Victron Solar regulator, Victron DC-DC charger, Victron Smart Shunt</li> </ul>
October 2023	<ul style="list-style-type: none"> <li>• Change impeller, oil and fuel filter</li> </ul>
February 2024	<ul style="list-style-type: none"> <li>• New Yankee furling sail (<b>Precision Sails</b>)</li> </ul>
March 2024	<ul style="list-style-type: none"> <li>• Added new cutlass bearing</li> </ul>
May 2024	<ul style="list-style-type: none"> <li>• Replaced 30 amp galvanic isolator</li> </ul>

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October 2024	<ul style="list-style-type: none"><li>• Added 3-blade Max Prop</li><li>• Change impeller, oil and fuel filter</li><li>• Completely strip teak to bare wood, all exterior brightwork, 6 coats Cetol (<b>Phipps'</b>)</li></ul>
November 2024	<ul style="list-style-type: none"><li>• Fixed DC outlet at helm</li></ul>
February 2025	<ul style="list-style-type: none"><li>• Added Raycor fuel polisher</li><li>• Added water heater bypass</li><li>• New Panasonic radio</li><li>• New Westerbeke Dash panel with all new gauges (tach =1135 hours)</li></ul>
September 2025	<ul style="list-style-type: none"><li>• Touched up teak, all exterior brightwork, 6 coats Cetol (<b>Phipps'</b>)</li></ul>
October 2025	<ul style="list-style-type: none"><li>• Change impeller, oil and fuel filter</li></ul>
November 2025	<ul style="list-style-type: none"><li>• New head faucet</li></ul>
December 2025	
January 2026	