

NOTE: If you've got an RT27-OB NW edition, you are free to use this design, as-is, without modification...
 Same parts, same battery, same fuses, same everything...
 As it's been fully vetted by Ocean Planet Energy and approved by Lithionics via a paid engagement.
 -Martin

Channel Surfing

2021 Ranger Tug RT27-Outboard
 Upgrade to LiFePO4 (Li3)

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channelsurfing@nethkin.com

Martin Nethkin

Changes made from the NorthWest Edition

Objectives:

Provide off-grid cruising that supports 120volt/AC power for hot water
 Be able to operate for 2 days with 0 watt-hours from solar.
 With solar, no need for shore power at a guest marina during boating season.
 Isolate all charging sources from the house bank to support LFP.
 Install a LFP battery system which is UL Approved.
 Clean up wiring. Follow ABYC standards.
 Centralize fuses into fuse blocks

- Installed a battery monitor (Victron BMV-712)
- Upgraded to 2 x 200 watts of Solar power (solar panels cabled in series).
- Upgraded to a Solar MPPT controller (Victron Smart 100/30 MPPT)
- Moved the T9.9 Kicker to the thruster battery
- Installed a MRBF fuse block for the thruster battery
- Installed a MRBF fuse block for the engine battery
- Installed a Safety Hub 150 fuse block for the house battery
- Installed a 250amp and a 100amp bus bar for 12volt negative
- Reconfigured the Kisae ABSO 20amp battery charger for Engine and Thruster only.
- Added a 60 amp Kisae ABSO battery charger dedicated for the house bank
- Replaced the Engine to House ACR with a Engine to House DC to DC Charger
- Replaced the House to Thruster ACR with a Engine to Thruster DC to DC Charger
- Upgraded solar charging cable from #10 to #6 AWG. Upgraded to a 40amp fuse.
- Upgraded to Li3 320Ah LiFePo4 single house battery, UL approved.

