12v Power Supply

Author	Message
Tanami Joined: 01 Feb 2005 Posts: 6 Location: Nelson Bay NSW AU	Posted: 24 Aug 2005 10:58 am Post subject: 12 volt power supply Hi from Aus Next year we intend taking Tanami (B34) to the Whitsundays for about 6 months and I think I need a bit more power than the standard engine and house batteries. I will be running Autohelm 6000, standard fridge, computer with nav software, and ham radio as the main power consumers. I have considered lots of options to charge another house battery - wind generator, solar panel, another generator on the volvo 2020(19 hp), larger generator What solutions have you installed to give you more power and what charging options? The simplest solution seems to be run the motor for 2 hours per day through an intelligent charging devise. Greg
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WANDA Joined: 22 Jun 2005 Posts: 1	Posted: 05 Sep 2005 09:21 pm Post subject: As we had increased the electrical demand on our boat this we had to do something about the improving the battery charging - it was poor before. Our battery capacity is about 240 ah. We upgraded the alternator to 80 amps and fitted a Sterling Digital booster with voltage sensitive split charge relay. This has certainly improved the time needed to recharge, but we still have to take care using the fridge when the engine is not runningasa the usual boat insulation is not very efficient. Tony Bradley WANDA
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Saloma Joined: 07 Jan 2005 Posts: 5 Location: Liverpool	Posted: 15 Sep 2005 08:34 pm Post subject: 12 Volt Power Supply When we ordered our B34 we were very lucky to have a friend, who had done a lot of research for his own boat and his advice has served us very well. We did not order the boat with the standard fridge, instead we fitted a unit which has a bronze skin fitting through the hull under the galley. This is a heat exchanger which takes the heat from the pipework from the compressor and disipates it to the sea. The fridge control unit also has the ability to detect when the engine is running or the boat is connected to shore power and takes the opportunity to use the power when it is available. The result is that we use just under 3 amps for 2 hours to drive the fridge temperature down to working teperature, but we then maintain that condition using just under 1 amp per hour. We did the installation ourselves but the unit cost £730, which is more expensive than the standard Bavaria unit. We have 2 x 120 amp hour batteries for domestic use with the usual 60 amp hour dedicated engine battery. We have fitted the Adverc, smart charge regulator to our 19hp Volvo engine, with the standard alternator. We also have a 40 amp clever charger for use when we can find shore power. Our electronics package is similar to yours with all equipment from Raymarine. ST6000, Colour chartplotter, radar etc. The most useful bit of kit we have fitted is a battery monitor, which tells us how much of our available power we have used and how many amps per hour we are currently using. This gives us the confidence to leave the fridge on and always know that we have enough power to hand. We have also been able to check how much power every single item on the boat requires, by switching them on and operating them one as a time.

We were quite surprised to find that each of the cabin lights consumes 0.9 amps per hour, exactly the same amount to run one cabin light as it takes to run the fridge. If you count up the number of cabin lights that you have on at any one time, you will soon do as we do, sit in the moonlight with ice in the gin.

I am very satisfied with the set up we have; it is very rare that we have to run the engine specifically to charge the batteries and i would recommend fitting the adverc or similar and a battery monitor. Its great to be able to watch the amps per hour being delivered to the batteries from the alternator and it removes all the guess work and worry that we used to suffer on our previous boats.

If you need more details i can supply, but unfortunatly my file is currently on the boat which is moored in the Menai Straits.

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Boat owner 14years
Raced in Irish sea for 10years
Manufacture and fit own extra equipment
Carry out all maintenance on own B34

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