

# Electrical Budget Worksheet ( Haulback)

1 Calculate your DC Loads:

| Lighting    |                                 | Amps  | Hours   | AH/Day      |  |
|-------------|---------------------------------|-------|---------|-------------|--|
|             | Running Lights                  |       |         | 0.0         |  |
|             | Masthead Tricolor Light         | 0.1   | 12      | 1.2         |  |
|             | Anchor Light                    |       |         | 0.0         |  |
|             | Strobe Light                    |       |         | 0.0         | seldom, if ever used                             |
|             | Spreader Lights                 | 1.1   | 1       | 1.1         |  |
|             | Cabin Light (small)             |       |         | 0.0         |  |
|             | Cabin Light (big incandescent)  | 0.3   | 6       | 1.8         | total of all cabin lights together               |
|             | Cabin Light (flourescent)       |       |         | 0.0         |  |
|             | Instrument Lights               |       |         | 0.0         |  |
|             | Handheld Spot Light             |       |         | 0.0         | doubtful if it will see use                      |
|             | Other                           |       |         | 0.0         |  |
|             | Lighting AH                     |       |         | <b>4.1</b>  |  |
| Galley      |                                 | Amps  | Hours   | AH/Day      |  |
|             | Refrigeration                   |       |         | 0.0         | none   |
|             | Prop Solenoid                   | 0.5   | 1.5     | 0.8         |  |
|             | Other                           |       |         | 0.0         |  |
|             | Galley AH                       |       |         | <b>0.8</b>  |  |
| Electronics |                                 | Amps  | Hours   | AH/Day      |  |
|             | Small autopilot                 | 1.5   |         |             | usage unknown                                    |
|             | large autopilot                 | 2.5   |         | 0.0         | usage unknown                                    |
|             | VHF standby                     | 0.1   | 24      | 2.4         |  |
|             | SSB (receive)                   | 1.0   | 1       | 1.0         |  |
|             | SSB (transmit)                  | 5.0   | 0.5     | 2.5         |  |
|             | SSB Digital controller          |       |         | 0.0         |  |
|             | GPS                             | 0.1   | 24      | 2.4         |  |
|             | Instruments                     | 0.1   | 24      | 2.4         |  |
|             | Weather fax receiver            | 0.3   | 24      | 7.2         | on standby, 1.2 amps when printing fax x 3 hours |
|             | Radar (standby)                 | 0.7   |         | 0.0         | usage unknown                                    |
|             | Radar (transmit)                | 1.5   |         | 0.0         | usage unknown                                    |
|             | AIS                             |       |         | 0.0         |  |
|             | Energy Monitors                 |       |         | 0.0         |  |
|             | Stereo                          |       |         | 0.0         |  |
|             | Computer (screen off)           |       |         | 0.0         |  |
|             | Computer (screen on)            | 0.8   | 2       | 1.6         |  |
|             | Computer (serial adapter)       |       |         | 0.0         |  |
|             | Other                           |       |         | 0.0         |  |
|             | Electronics AH                  |       |         | <b>19.5</b> |  |
| Plumbing    |                                 | Amps  | Hours   | AH/Day      |  |
|             | Fresh Water Pump                |       |         | 0.0         |  |
|             | Bilge Pump(s)                   |       |         | 0.0         |  |
|             | Other                           |       |         | 0.0         |  |
|             | Plumbing AH                     |       |         | <b>0.0</b>  |  |
| Inverter    |                                 | Watts | Hrs/day | AH/Day      |  |
|             | Microwave                       |       |         | 0.0         |  |
|             | Chargers (nicad)                |       |         | 0.0         |  |
|             | Other                           |       |         | 0.0         |  |
|             | Inverter AH                     |       |         | <b>0.0</b>  |  |
|             | Gross Energy Consumption AH/Day |       |         | <b>24.4</b> |  |

2 Alternative Energy Sources

| Device                     | Amps | Hrs/day | AH/day     |                         |
|----------------------------|------|---------|------------|-------------------------|
| Solar, avg                 |      |         | 0.0        | no idea, can only guess |
| Wind, avg                  |      |         | 0.0        |                         |
| Water, avg.                |      |         | 0.0        |                         |
| Contribution of AES AH/Day |      |         | <b>0.0</b> |                         |

3 Net Energy Consumption, AH/Day

**24.4**

4 Desired Hours Between Charging

depends... maybe never

5 Range of Battery Use

don't understand question

6 Recommended Battery Capacity

**400**

7 Alternator Output, Amps

125 amp, but regulated to about 50% state of depletion

8 Charge Efficiency Factor

9 Minimum Minutes to Charge

**no one really knows!!!!**