

BAB V

PENUTUP

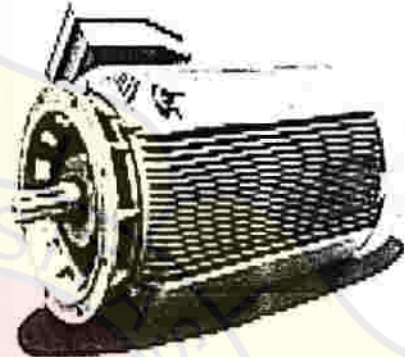
5.1 Kesimpulan

1. Seperti terlihat pada gb 4 dan gb 5, biaya investasi solar cell lebih mahal dari pada motor diesel, tetapi biaya operasionalnya hampir tidak ada.
2. Pada gb.7. terlihat untuk masa operasional kurang dari 8 tahun biaya total untuk motor diesel lebih kecil, jadi untuk kapal yang dioperasikan kurang dari 8 tahun akan lebih menguntungkan menggunakan motor diesel.
3. Penggunaan sistem penggerak kapal dengan solar cell akan sangat menguntungkan untuk jangka waktu yang dari ($>8^{\text{th}}$), hal ini disebabkan biaya perawatan dan operasional untuk solar cell/ panel surya sangat kecil disbanding motor diesel.
4. Biaya total sistem penggerak kapal dengan motor diesel bergerak linier dengan waktu, tetapi tidak demikian dengan solar cell (konstan).

Marine electric motor for ships Dutchi Motors

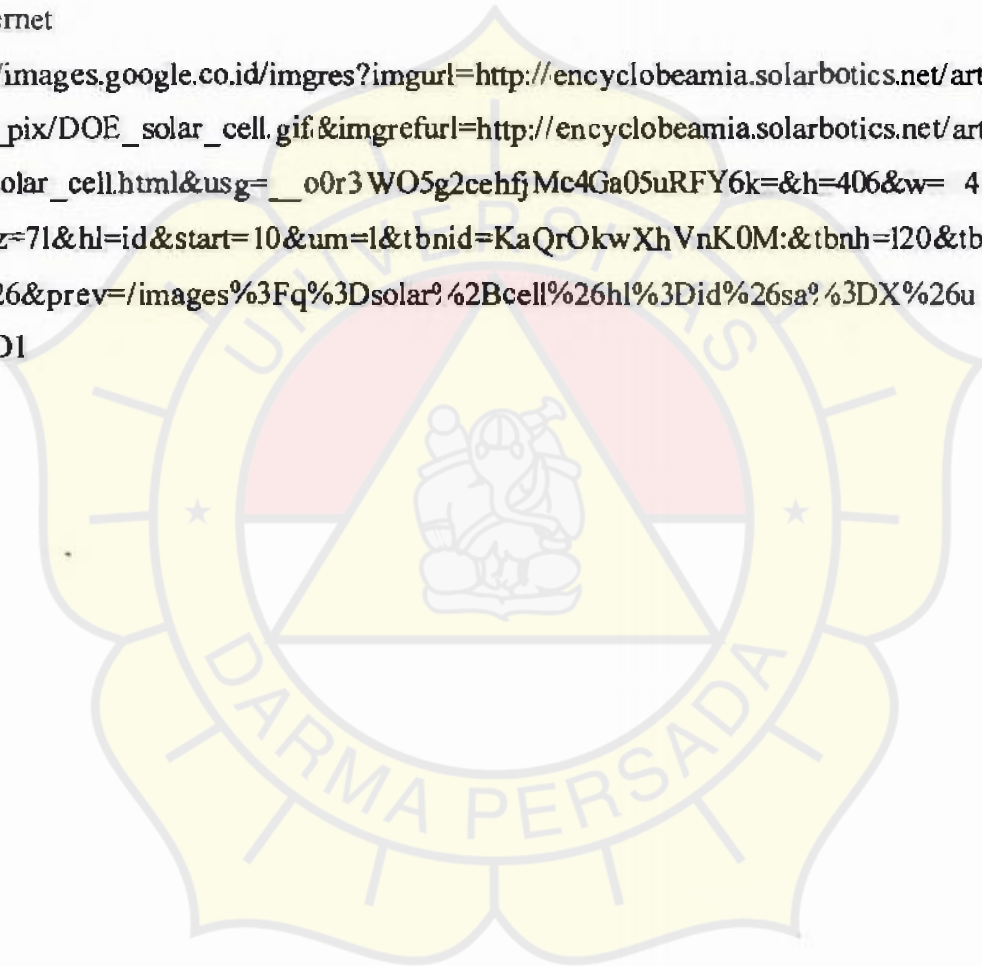
4,5 kW

- Voltage range: 3,0/3,3/6,0/ 6,6 /10,0kV;
- Power range: 4,5 kW;
- IEC size 355 ~ 1200, Iso F (B-rise);
- DMI-HV and DMI-HV-AA in IP55;
- DMI-HV-IP23 and DMI-HV-IP23-H in IP23;
- Quality Bearings (SKF, FAG, NTN).



DAFTAR PUSTAKA

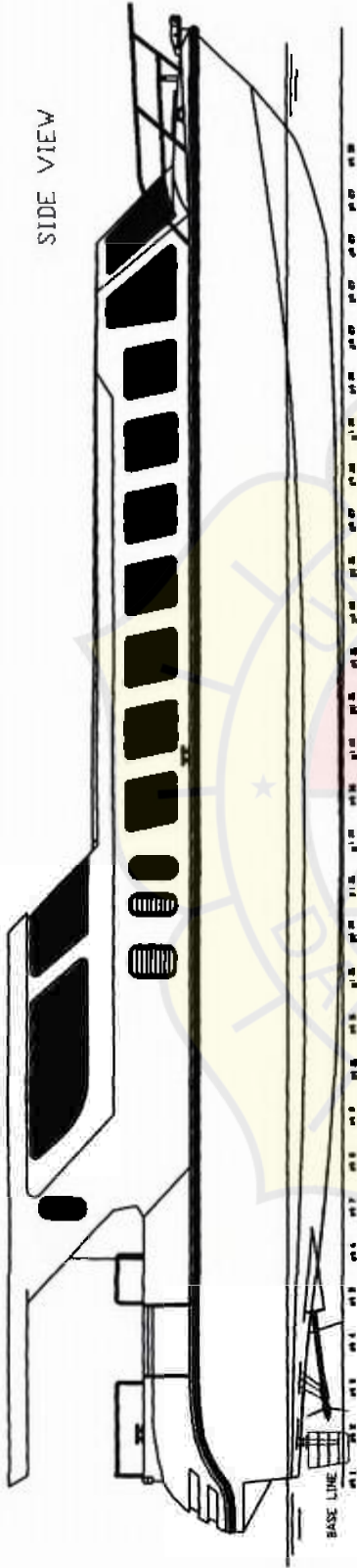
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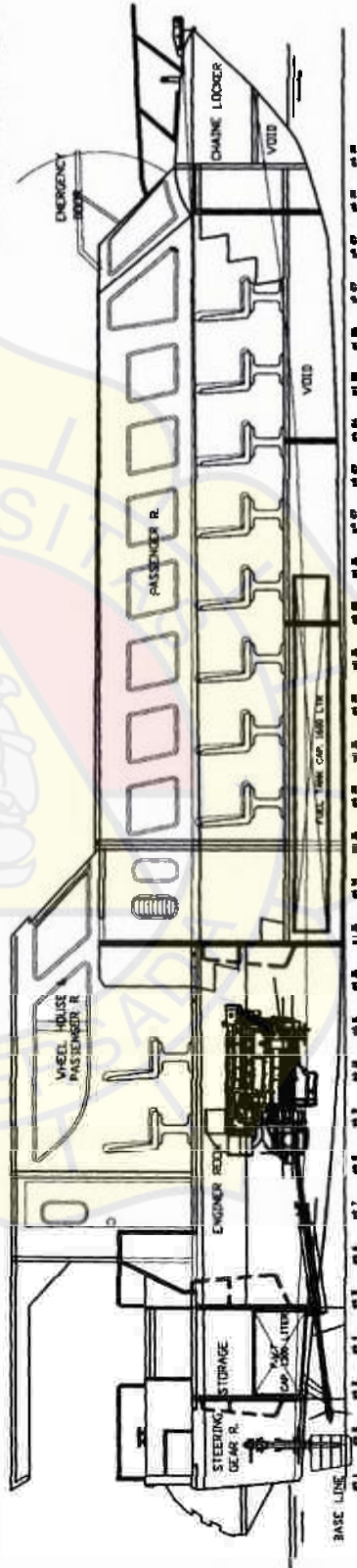
**Tehcnical Data TAMD 41D-HD
(VOLVO PENTA)**

| | |
|---|-----------------------|
| - Cont. rating Out | kW 4,4 |
| | Hp 6,8 |
| - Torque at crankshaft | Nm 191 |
| - Mean piston speed | m/s 3.6 |
| - Specific fuel consumption | g/kWh 221 |
| Radiated heat in percent of Crankshaft power | % 10 |
| - Heat rejection to after cooler In percent of crankshaft power | % 1 |
| - Heat rejection to engine oil cooler In percent of crankshaft power | % 25 |
| - Cooling water heating effect exl oil and After cooler in percent of crankshaft | %90 |
| - Specific exhaust heating effect In percent of crankshaft power | % 59 |
| - Exhaust temperature at the Engine air consumption at 77 ⁰ f, Atmosphier pressur and relative Humidity 30% | kg/s 0,04 |
| - Eahaust gas flow | m ³ /h 250 |
| - Exhaust pipe connecting flange After the turbo charger | °C 345 |
| - Fresh water circulation pump flow | m ³ /h 250 |
| - Sea water pump flow | m ³ /h 1.9 |
| - Specific lubricating oil consumption | - |

SIDE VIEW



CENTER LINE VIEW



PRINCIPAL DIMENSIONS

| | |
|---------------|------------|
| LENGTH OVER | 16.50 M |
| LENGTH MLLC | 16.00 M |
| BREADTH MAX | 4.05 M |
| DEPTH MAX | 1.50 M |
| DRAFT MAX | 0.94 M |
| FUEL OIL TANK | 1000 LITER |
| SPEED MAX | 6 knots |
| CREW | 2 CREWS |

| | | | |
|-------------|------|--------------|--|
| SCALE | 1:50 | DATE | |
| DRAWN BY | MS | NAME OF SHIP | |
| CHECKED BY | MR | TYPE OF SHIP | |
| APPROVED BY | MR | | |

GENERAL ARRANGEMENT

Doc. No. : _____
 Ship No. : _____