Benefits of the Bulbous Bow
Andrew Daley
F/V Royal Mariner 20 years
History

- Installed in 2000
- Advice and assistance from CCFI and MUN Engineering – Dag Friis
- 8 years experience fishing with bulbous bow
- Experienced a number of significant advantages to my vessel performance since installing the bulb
Improved Performance Characteristics

1. Large reduction in head pitch & much softer motion
2. Vessel rolls less and slower motion
3. Handles much better running off & quartering – off in strong winds
4. Steers much straighter in auto pilot
5. Easier to keep on gear in windy weather
Improved Performance Characteristics

6. Vessel drifting & bow stays 30-35 upwind where previously vessel would be broadside and rolling much more

7. Extra buoyancy rose up the bow resulting in the following:
   - Vessel doesn’t bang when sailing into 35-40 knots / wind
   - Does not take water over the bow as before
   - 1500 gallons increased ballast tank capacity
Improved Performance Characteristics

8. Increased speed (1.8 knots) & reduction in the fuel consumption

9. More comfort in working and resting for crew

10. When working in ice, no ice goes in under the hull to hit propeller

• the vessel moves through ice easier than before
Fuel Saving Strategies & Experience

- Reduce by 150 RPM’s / 1.1 – 1.2 Speed and leaving earlier for fishing grounds.
- “Cluster fishing” when possible.
  - All gear inside 3-4 miles.
  - Maintaining clean hull.
- Most efficient trim for steaming, if vessel has ballast tanks or use of fuel for trimming vessel.
Comparison of 2007 & 2008 Fishing – 3 trips

Savings with 1500 RPM reduction / 1.1 - 1.2 speed reduction

<table>
<thead>
<tr>
<th></th>
<th>2007</th>
<th></th>
<th>2008</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Litres</td>
<td>Value$</td>
<td>Litres</td>
<td>Value$</td>
</tr>
<tr>
<td>Fill Up</td>
<td>16,193.50</td>
<td>$12,102.76</td>
<td>18,377.8</td>
<td>$20,264.38</td>
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<tr>
<td>Trip 1</td>
<td>10,474.90</td>
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<td>8,225.6</td>
<td>$9,684.39</td>
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<tr>
<td>Trip 2</td>
<td>17,526.90</td>
<td>$14,124.33</td>
<td>7,746.3</td>
<td>$8,373.42</td>
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<td>Trip 3</td>
<td>12,340.30</td>
<td>$10,064.21</td>
<td>9,506</td>
<td>$10,028.95</td>
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<tr>
<td>Totals</td>
<td>56,535.60</td>
<td>$44,650.27</td>
<td>43,855.70</td>
<td>$48,351.14</td>
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</tbody>
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Savings 12,079.5 litres !
Thank You