SHIP RECYCLING

1. Commercial influences on scrapping decision
2. The Global Ship Recycling Industry: Where it’s done
3. Issues: Supply, Capacity and Prices
4. “Green” Ship Recycling
5. Challenges and Opportunities
Lofs is poised to sell ‘London Pride’

By Tony Gray, Business Editor

FLEET pruning looks set to continue at London & Overseas Freighters, the UK tanker owner which suffered a loss of £14.5 million last year.

After yesterday’s annual meeting, Lof’s managing director Mr Miles Kulundis disclosed that the group was actively considering the sale of the VLCC London Pride.

This 12-year old 259,182-tonnes deadweight tanker is the group’s largest and oldest vessel, and has been a drain on the group’s financial performance.

For some years, Lofs harboured the belief that it would be able to cash in on the London Pride’s earning potential once the market picked up. But, the depression in the tanker market has persisted, and the heavily over-tonnaged VLCC size range has been the worst affected.

A hint that the London Pride’s future in the Lofs fleet was in doubt came in the recent annual report.

The chairman’s statement disclosed the group’s disenchantment with the vessel: “Our VLCC London Pride, is still laid-up and, with the benefit of hindsight, it is evident that our hopes for the future of the VLCC were ill-founded.”

The London Pride has, in fact, been laid-up since December 1981. As she is turbine-powered, it seems likely that the vessel will be scrapped if Lofs proceeds with a sale. In current market conditions, a demolition sale may bring in around £4m for Lofs.

A sale for further trading could involve an additional $0.5m. Whatever the price achieved, it is likely to be below the sterling book value – of £3.56m at Mar 31 1983 – and a loss being carried into the current year’s accounts.

However, the sale would have a beneficial impact on the group’s cash flow.

The departure of the London Pride would leave Lofs with a fleet comprising five tankers: the two 61,000-tonnes general purpose tankers London Spirit and London Glory; and the three 138,000-tonners – one of which is jointly owned – London Glory, London Enterprise, and Overseas Argonaut.

Lofs hopes that this will remain its core fleet for the anticipated recovery in freight rates later this year and next as oil re-stocking takes effect. The group placed all its eggs in one basket through the sale earlier this year of its dry bulk fleet to the Onassis group for $20.55m.

Lofs is not alone in discerning a more imminent recovery in the tanker market rather than for bulk carriers. Some fear the dry bulk market could be facing problems of a similar scale to those that have plagued tanker owners for so long.

It is vital for Lofs, after many years of losses and strain on the company’s cash resources, that the tanker market does improve this winter.

Lofs has a versatile fleet that should be able to capitalise quickly on a rise in freight rates. A phase of oil re-stocking is expected to particularly benefit medium-sized tankers, and the group’s 61,000 and 138,000-tonne vessels fit the bill.

Adapted from Martin Stopford (1997) - Lloyds List July 1983
1. Commercial influences on a scrapping decision

1. Financial performance of the owner
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
3. Market expectations
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
3. Market expectations
4. Operating costs
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
3. Market expectations
4. Operating costs
5. Scrap prices
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
3. Market expectations
4. Operating costs
5. Scrap prices
6. State of second hand market
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
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5. Scrap prices
6. State of second hand market
7. **Book value of vessel in relation to its scrap or resale price**
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
3. Market expectations
4. Operating costs
5. Scrap prices
6. State of second hand market
7. Book value of vessel in relation to its scrap or resale price
8. **Cash flow of the company**
Commercial influences on a scrapping decision

1. Financial performance of the owner
2. Age and size of vessel
3. Market expectations
4. Operating costs
5. Scrap prices
6. State of second hand market
7. Book value of vessel in relation to its scrap or resale price
8. Cash flow of the company
9. **ALIGNMENT of management policies/attitudes with market expectations**
2. The Global Ship Recycling Industry: Where it’s done

- Indian subcontinent
  - India (200)
  - Bangladesh (35)
  - Pakistan (50 of 125)
- China (20)
- Turkey (25)

Note: all figures are approximates

- These 5 countries recycle more than 90% of the world’s fleet.
2. The Global Ship Recycling Industry: INDIA

Continues to lead the Ship Recycling industry in both numbers and green capacity.

Greater focus on green ship recycling. About 70 yards (37%) are fully ISO Certified.

Most ship recycling capacity/yards in the world

KEY ELEMENTS:
- Market Maker / Leader.
- Experienced Recyclers.
- Top price levels for Specialized Vessels.
- Premium for Bunkers, Non-Ferrous Items, certain Machinery Items Such as Main Engine, Generators, etc.
- Wide Variety of Buyers. Buyers range from ULCC buyers to the smallest fishing trawlers. Everything goes!

BEST MARKET FOR:
Specialized High Value Vessels such as ROROS, Reefers, Passenger Ships, Dry Vessels.
2. The Global Ship Recycling Industry: **BANGLADESH**

<table>
<thead>
<tr>
<th>Coastal Location</th>
<th>Bay of Bengal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude</td>
<td>22 26' N</td>
</tr>
<tr>
<td>Longitude</td>
<td>91 44' E</td>
</tr>
<tr>
<td>Number of Plots</td>
<td>35</td>
</tr>
</tbody>
</table>

✓ Embroiled in a legal battle between Environmental Lawyers (BELA) and local ship recyclers (BSBA).
✓ Steel from ships critical for domestic growth and consumption.

**KEY ELEMENTS**
- (Was) Leading Recycler of Tankers
- Beginning to focus on green ship recycling issues
- Several yards now ISO Certified
- Norwegian grant and IMO pushing for training and improvements.
- Increasing number of regulations
- On and off market
- **Financial (USD) crisis**
  - Loans to recyclers
  - International credits
- Difficult market to deliver ships promptly

**BEST MARKET FOR:**
Large LDT tonnage.
2. BANGLADESH MARKET

- Pre Budget fall of USD 15/LT.
- Impact of budget-
  - Increase in duties (TK 500...about USD 7/ton) & VAT (3%.. about USD 15/LT).
  - Fall in local steel prices (about USD 40/ton).
- Market expected to shut down after July 7th, 2011.

Muted buying interest & depressed ship prices by about USD 30/LT LDT.
2. The Global Ship Recycling Industry: **PAKISTAN**

<table>
<thead>
<tr>
<th>Coastal Location</th>
<th>Arabian Sea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latitude</td>
<td>24 48’ N</td>
</tr>
<tr>
<td>Longitude</td>
<td>66 59’ E</td>
</tr>
<tr>
<td>Number of Plots</td>
<td>127 (50 active)</td>
</tr>
</tbody>
</table>

- 2010 was the best year for the recycling industry.
- Increase in Capacity
- Push for improvements.. “partnering” with Turkey

**KEY ELEMENTS:**
- Prompt delivery due to no beaching tides.
- Low D/A
- Good option for owners in the UAE

**BEST MARKET FOR...**
- Tankers
- Small LDT Under Tow Vessels
2. The Global Ship Recycling Industry: **CHINA**

- **Latitude**: 113° 4' E
- **Longitude**: 22° 19' N

- **2010 has seen a significant decline in volume of vessels recycled.**
- **Leading destination for owners wanting green recycling**

**KEY ELEMENTS:**
- Advanced ship recycling market
- Large and emerging Capacity
- Volatility

**DISADVANTAGES:**
- High D/A Costs.
- Lower than Indian Sub-Continent prices.
- Not a keen buyer of Specialized Ships.

**BEST MARKET FOR:**
- Local vessels

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*Source: Clarkson Research Services Limited*
2. The Global Ship Recycling Industry: **TURKEY**

Turkey is the ONLY ship recycling nation that has ratified the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships.

- A sizeable rise in volume of vessels in 2010
- Turkey is a logical choice for Naval, State and EU flag vessels in the EU region that by law require recycling only in the OECD region.

**KEY ELEMENTS:**
- Member of OECD
- Small LDT and under tow vessels
- Key market for green ship recycling

**DISADVANTAGES:**
- Low prices

**BEST MARKET FOR...**
- Small and/or naval vessels located in Europe/Med
3. ISSUES: Fleet Supply

Next 3 years will be busy:

- Massive Order books
- Poor freight rates
- Legislation
- Selective charterers
### VESSEL TYPES

<table>
<thead>
<tr>
<th>VESSEL TYPES</th>
<th>2008</th>
<th>2009</th>
<th>CHANGE (%)</th>
<th>2010</th>
<th>CHANGE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPP/GC</td>
<td>29</td>
<td>176</td>
<td>507%</td>
<td>128</td>
<td>-27%</td>
</tr>
<tr>
<td>Asp+Bitu</td>
<td>3</td>
<td>2</td>
<td>154%</td>
<td>2</td>
<td>65%</td>
</tr>
<tr>
<td>Bulkers</td>
<td>103</td>
<td>262</td>
<td>73%</td>
<td>123</td>
<td>-53%</td>
</tr>
<tr>
<td>Chem&amp;Oil</td>
<td>41</td>
<td>71</td>
<td>154%</td>
<td>117</td>
<td>65%</td>
</tr>
<tr>
<td>Containers</td>
<td>60</td>
<td>198</td>
<td>230%</td>
<td>82</td>
<td>-59%</td>
</tr>
<tr>
<td>Cruise</td>
<td>5</td>
<td>6</td>
<td>20%</td>
<td>3</td>
<td>83%</td>
</tr>
<tr>
<td>FSO/FPSO</td>
<td>5</td>
<td>6</td>
<td>20%</td>
<td>11</td>
<td>-50%</td>
</tr>
<tr>
<td>LNG</td>
<td>4</td>
<td>2</td>
<td>40%</td>
<td>24</td>
<td>-14%</td>
</tr>
<tr>
<td>LPG</td>
<td>20</td>
<td>28</td>
<td>40%</td>
<td>24</td>
<td>-14%</td>
</tr>
<tr>
<td>OBO</td>
<td>3</td>
<td>10</td>
<td>233%</td>
<td>0</td>
<td>-100%</td>
</tr>
<tr>
<td>Other</td>
<td>23</td>
<td>22</td>
<td>230%</td>
<td>53</td>
<td>141%</td>
</tr>
<tr>
<td>Pax (Ferries)</td>
<td>2</td>
<td>24</td>
<td>1100%</td>
<td>32</td>
<td>-71%</td>
</tr>
<tr>
<td>PCC</td>
<td>24</td>
<td>112</td>
<td>367%</td>
<td>32</td>
<td>-71%</td>
</tr>
<tr>
<td>Products</td>
<td>21</td>
<td>34</td>
<td>62%</td>
<td>62</td>
<td>82%</td>
</tr>
<tr>
<td>Reefers</td>
<td>31</td>
<td>33</td>
<td>6%</td>
<td>35</td>
<td>6%</td>
</tr>
<tr>
<td>RORO</td>
<td>9</td>
<td>52</td>
<td>478%</td>
<td>66</td>
<td>27%</td>
</tr>
<tr>
<td>Tankers</td>
<td>35</td>
<td>59</td>
<td>69%</td>
<td>75</td>
<td>27%</td>
</tr>
<tr>
<td>Total</td>
<td>416</td>
<td>1071</td>
<td>157%</td>
<td>839</td>
<td></td>
</tr>
<tr>
<td>Dry (Bulk + GC)</td>
<td>64</td>
<td>235</td>
<td>267%</td>
<td>546</td>
<td>132%</td>
</tr>
<tr>
<td>Wet (Chem+Product+Dirty)</td>
<td>130</td>
<td>384</td>
<td>195%</td>
<td>293</td>
<td>-24%</td>
</tr>
</tbody>
</table>
3. The Challenge: Cape Fleet

Capes: In 2009 less than 1% of the fleet capacity was recycled. In 2010 about 1.5%. In 2011, we expect this figure to be in excess 3.5%...... Future scrapping candidates based on age of 23 years.

### PROFILE OF WORLD CAPESIZE FLEET

<table>
<thead>
<tr>
<th>NO. OF VESSELS (end)</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>JUN-11</th>
<th>ORDER BOOK DELIVERY SCHEDULE</th>
<th>EXPECTED SCRAPPING (23 yrs or &gt;23)</th>
<th>NET ADDITION/DELETION TO FLEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet Totals</td>
<td>862</td>
<td>965</td>
<td>1158</td>
<td>1236</td>
<td>2011</td>
<td>210</td>
<td>111</td>
</tr>
<tr>
<td>Deliveries</td>
<td>44</td>
<td>111</td>
<td>211</td>
<td>111</td>
<td>2012</td>
<td>233</td>
<td>19</td>
</tr>
<tr>
<td>Scrapings</td>
<td>14</td>
<td>8</td>
<td>18</td>
<td>44</td>
<td>2013+</td>
<td>114</td>
<td>46</td>
</tr>
<tr>
<td>Contracting</td>
<td>212</td>
<td>77</td>
<td>123</td>
<td>19</td>
<td>Total</td>
<td>557</td>
<td>176</td>
</tr>
<tr>
<td>Order book</td>
<td>781</td>
<td>747</td>
<td>659</td>
<td>557</td>
<td>% Fleet</td>
<td>45.06%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DWT (M) TONS (end)</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>JUN-11</th>
<th>ORDER BOOK DELIVERY SCHEDULE</th>
<th>EXPECTED SCRAPPING (23 yrs or &gt;23)</th>
<th>NET ADDITION/DELETION TO FLEET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet Totals</td>
<td>153,322,646</td>
<td>172,866,381</td>
<td>208,366,186</td>
<td>223,932,494</td>
<td>2011</td>
<td>56,835,224.00</td>
<td>19,222,786.00</td>
</tr>
<tr>
<td>Deliveries</td>
<td>8,624,578.00</td>
<td>20,987,005</td>
<td>38,082,105</td>
<td>20,138,866</td>
<td>2012</td>
<td>46,073,810.00</td>
<td>3,695,668.00</td>
</tr>
<tr>
<td>Scrapings</td>
<td>2,157,823</td>
<td>1,443,270</td>
<td>2,582,300</td>
<td>6,889,980</td>
<td>2013+</td>
<td>20,264,600.00</td>
<td>8,053,272.00</td>
</tr>
<tr>
<td>Contracting</td>
<td>41,348,696</td>
<td>17,294,407</td>
<td>23,003,958</td>
<td>3,684,000</td>
<td>Total</td>
<td>123,173,634.00</td>
<td>30,971,726.00</td>
</tr>
<tr>
<td>Order book</td>
<td>146,811,940</td>
<td>143,119,342</td>
<td>128,041,195</td>
<td>108,575,256</td>
<td>% Fleet</td>
<td>57.68%</td>
<td></td>
</tr>
</tbody>
</table>
### 3. POTENTIAL SUPPLY

**Number of ships:**
(just the main categories alone destined for demolition as of today.)

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tankers</strong></td>
<td></td>
<td>(Designed for carriage of liquid bulk including oil &amp; products, chemical &amp; other specialized cargoes)</td>
</tr>
<tr>
<td>S / Skin – D/Bottom</td>
<td>999</td>
<td>Over 25 years old and other than S / Skin – D/Bottom</td>
</tr>
<tr>
<td>Over 25 years old and other than S / Skin – D/Bottom</td>
<td>181</td>
<td>1,180 (13% of Fleet)</td>
</tr>
<tr>
<td><strong>BULKERS</strong></td>
<td>541</td>
<td>(30 or &gt; 30 years old)</td>
</tr>
<tr>
<td><strong>CONTAINERS</strong></td>
<td>228</td>
<td>(28 or &gt;28 years old)</td>
</tr>
<tr>
<td><strong>RO-RO &amp; PASSENGER</strong></td>
<td>682</td>
<td>(31 or &gt;31 years old)</td>
</tr>
<tr>
<td><strong>TOTAL NO OF SHIPS</strong></td>
<td><strong>2,631</strong></td>
<td>(Excl. other types)</td>
</tr>
</tbody>
</table>
3. CAPACITY

- Demand exceeds Supply

- Capacity

  2010: 26.6/6.88 mill DWT/LDT
  2009: 28.2/8.1 mill DWT/LDT
  1985: 42.6/9.0 mill DWT/LDT (HISTORICAL HIGH)
  1983: 33.3/7.1 mill DWT/LDT
3. PRICES

Baltic Demolition Assessments (BDA)
4. What IS Green Ship Recycling?

Green recycling is about “Safe & Environmentally Sound” recycling of ships.

- Hong Kong Convention (SR/CONF/45) of the IMO
  - Draft guidelines for the development of the Ship Recycling Plan (SRP).
  - Draft Guidelines for Safe and Environmentally Sound Ship Recycling (MEPC 61/3 Annex 2)
    - Safety and Health in Ship breaking guidelines developed by the ILO.
    - *Pre vs. Post-Hong Kong Convention*

- ISO 30,000
4. Hong Kong Convention – Implications

1. End of Confusion - One common criteria on how to recycle ships in a Safe and Environmentally responsible manner.

2. Does not ignore current recycling markets (beaching, alongside, dry-dock)… designed to help these markets to improve standards.

3. Encourages owners to understand and meet their Corporate Social Responsibility requirements.


5. Will raise ship recycling standards… in the next 3 years “green” will become the norm.
CHALLENGE:
Where will the world’s ageing fleet go?
OPPORTUNITY:
Developing cost effective, environmentally safe & responsible Ship Recycling Program.
Thank you!