



Ministry
of Defence



Recycling of **Ex-Barge Longbow**

Formerly “Ocean Servant II” then “Dynamic Servant”

Disposal Services Authority



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Executive Summary

Former Trials Barge Longbow ceased operational service on the 27 September 2010 and was declared to the Disposal Services Authority in December 2011. In January 2012 an open competition for the disposal of Longbow was undertaken. In May 2012 the DSA awarded preferred bidder status to Turkish Company LEYAL Ship Recycling Ltd whose formal proposal was to conduct the recycling of Barge Longbow at their dedicated ship dismantling facility in Aliaga Turkey.



The former Trials Barge was towed independently and departed from HMNB Portsmouth under commercial tow on the 2 August 2012 and arrived in Turkey on the 24 August 2012.

Background

General Particulars

Date and Place of Build	1976 Sumitomo Heavy Industries (Japan) as "Ocean Servant II, an American Bureau of Shipping Class A1 Barge Submersible*.
Official Ship No	709140
IMO Number	7609116
Date ceased service	27 September 2010
Type of Vessel:	Barge (self propulsion, manoeuvring only) – Converted to a "Class VII ship" for missile trials.
Displacements and tonnage in Tonnes	Current displacement: 9700 tonnes Lightweight: 4510 tonnes Gross: 8650 Net: 2595
Draughts	Fwd: 3.4m Mid: 3.5m Aft: 3.7m
Length OA	108m excluding ramp and buoyancy box.
Breadth	30m mid.
OA height Mast-head to keel	45m
Last Docking	March 2010
Last Refit	Conversion 2004; maintenance since.
Historical Interest	<p>In 1984, the barge was purchased from Weijsmuller by the MoD and converted to a trials facility for use in the Vertical Launch Seawolf missile project and was renamed Dynamic Servant.</p> <p>The barge was renamed Trials Barge Longbow in 1985 once the conversion had been completed.</p> <p>Following the Seawolf trials, Longbow was then moored at Brixham from 1989 under MOD care and maintenance programme until early 2002.</p> <p>It was moved in August 03 to Fleet Support Ltd (FSL), Portsmouth for conversion, for Principal Anti Air Missile Systems tracking & firing trials.</p>

Background on the Disposal Services Authority (DSA)

- The DSA has delegated authority to dispose of all UK MOD surplus equipment in the UK and overseas.
- The DSA's role is to dispose of surplus assets identified by the owner for release into the commercial market.
- The DSA is the only Government Organisation offering a completely managed service for the Re-use, Recycling and ultimately disposal of surplus government assets.

The DSA's primary aim is to sell surplus ships for further use but where this is not possible (for instance, when ships are no longer seaworthy and only suitable for recycling) its objectives are to ensure that the vessel is recycled in a safe and environmentally sound manner, and in compliance with its legal responsibilities as a producer of waste.

Introduction

The DSA conducted a tender exercise for the recycling of Barge Longbow in February 2012 and the vessel was sold on an 'as seen as lying' basis for recycling within the organisation for Economic Co-Operation (OECD) and in full

compliance with the principles of the Basel Convention and all other associated EU & UK legislation including Regulation (EC) No 1013/2006 of the European Parliament and the Council of 14th June 2006 on Shipments of Waste.



Competition

Information and Requirements

The preparation for HM Vessels is carried out by the MOD's Disposal Reserve Ship Organisation (DRSO) in Portsmouth who play a vital part in the process producing an Inventory of hazardous materials (IHM) highlighting the hazardous material on board along with a Type 2 Asbestos Survey. Both of which were included as part of the tender documents. The activity conducted by DRSO demonstrated to ship owners the value in investing in the preparation of vessels for disposal which is of enormous benefit to the UK MOD as it continues to set standards for the dismantling of Government owned vessels.

DRSO played an important part in supporting the towing preparations on deck and contributed to the successful sale and departure of this vessel whose disposal preparations can take many months of hard work to complete.

Tenders were limited to bidders from within the Organisation for Economic Co-Operation and Development (OECD) – as recommended by the UK Ship Recycling Strategy (SRS).

Two bids for further use for Longbow were received and four compliant recycling bids.

The recycling of ships is covered by a range of UK and EU legislation for which Department for Environment, Food and Rural Affairs (DEFRA) is the lead department in the UK. This Legislation includes but is not limited to:

- The Waste Shipments Regulation (EC)
- No 1013/2006 of the European Parliament and of the Council of 14 June 2006
- Parts of the Radioactive Substances Act 1993
- Environmental Protection (Duty of Care)
- Regulations 1991 SI 2839
- Hazardous Waste (England and Wales)
- Regulations 2005 SI 894
- Health & Safety at Work etc 1974
- Control of Asbestos at Work Regulations 2006

Ship Recycling Evaluation

- Following the recommendations of the SRS, the DSA once more convened a Ship Recycling Evaluation Committee, involving representatives from Defra, Maritime Coastal Agency (MCA), DRSO and the DSA to assess the tender responses against set criteria called for in the Strategy. Prospective purchasers were required to produce a detailed Ship Recycling Plan, demonstrating their understanding of all the requirements involved in Ship Dismantling against each of the following:
- Facilities & dismantling methodology
- Health & Safety
- Environmental plans
- Operations, sub-contractors
- Licences & permits
- Media and Trans-Frontier Shipment of Waste (TFS)

The Ship Recycling Plan is paramount to the consideration of offers to purchase and should provide evidence to enable the Evaluation Committee to score against.

Award of Preferred Bidder Status

The DSA awarded preferred bidder status to LEYAL Ship Recycling and a formal contract was awarded in May 2012 once the appropriate consents were obtained, in accordance with the provision of the EC Waste Shipments Regulation 10313/2006.

Recycling of Ex-Trials Barge Longbow

LEYAL Ship Recycling Ltd was required to provide a monthly breakdown of the outturn of metals and waste during the recycling programme.

Audits were conducted by DSA staff during the life of the project which involved a physical inspection of the yard in Aliaga Turkey, together with an audit of weighbridge tickets, licences and consignment notes which were checked against the reported outturn.

Photographic evidence was provided at key stages of the dismantling process, which ensured that

the DSA could be confident on the method and manner in which the Vessels were dismantled and recycled in accordance with the aims of the SRS.

In addition to these checks, LEYAL Ship Recycling Ltd was also subjected to audits and inspections from the UK Environmental Agency, ensuring that LEYAL Ship Recycling Ltd were adhering to all current H&S and Environmental Legislation and the terms of their waste management permit.

Photographic Evidence

The photographic evidence shows the dismantling progress and this coincides with the monthly reports, Demo Schedule and the sales progress.



Below
Longbow - progress of works 18.02.2013 Longbow
partially dismantled with the radar/missile tower
and upper decks already removed and recycled.



Below
Longbow - progress of works 5.03.2013



Photographic Evidence

Longbow-progress of works
10.06.2013 Just the main
deck remains.





Longbow progress
of works 26/12/2013



Longbow's stern, final
stages of dismantling
09/01/2014



Final Outturn

At the start of the project DRSO produce an Inventory of Hazardous Materials (IHM), the purpose of this was to identify what hazards were contained in the vessel which is then compared with the final outturn figures reported to the DSA by LEYAL Ship Recycling.

A detailed outturn of materials (ferrous, non-ferrous, plastics, asbestos, oils etc) is recorded by the company and this information is communicated to the DSA on a monthly basis, with hard copies available for inspection during the regular visits by DSA personnel.

(All figures in Tonnes)	Expected	Actual	Destination
Ferrous Metals	4,000	4,007.560	Recycled
Non-Ferrous Metals	20	2.1	Recycled
Cables	10	19.4	Recycled
Other Products	50	88.52	Sale/Recycled
Waste	30	93.22	Disposed
Total	4,110	4,210.8	

Final Destination	Tonnes	%age of Total
Sold or Recycled	4,117.58	98%
Disposed	93.22	2%
Totals	4,210.8	100%

Conclusion

Barge Longbow was completely recycled on the 10th January 2014.

Barge Longbow is now the 18th Ex-MOD vessel successfully recycled which has complied with all international agreements and principles concerning environmentally sound management of waste.

Since 2008 LEYAL Ship Recycling has won 15 Recycling projects including Ex-HMS Invincible, Royal Fleet Auxiliary Tanker Ex-RFA Oakleaf, Ex-RFA Bayleaf and Six Type 42 Destroyers and Auxiliary Oil Replenishment Tanker Fort George.

The report will be sent out to senior internal stakeholders and a growing number of other foreign Governments as they view the UK MOD as the lead when it comes to recycling warships.

The report will be uploaded on to the DSA website

<https://www.gov.uk/government/organisations/ministry-of-defence/about/procurement#disposals-services-authority>

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