Marine Boiler Services
Green’s - who we are...

Waste to Energy - Biomass – Conventional fuels – Marine boilers

- Worldwide supply from wholly owned UK design, manufacturing and engineering facility
- Founded in 1845 in Wakefield, UK
- Ongoing investment to grow and develop facilities and services
- Reference list of over 2,000 projects
- 24/7 global aftermarket services
ABOUT GREEN’S: HERITAGE

ECONOMY IN STEAM RAISING
DURING THE PRESENT HIGH PRICE OF COAL.
PREMIER AWARD AT PARIS EXHIBITION, 1900.

SAVES 15 TO 25% IN COAL.

Modern Boiler Plant with Green’s Economiser where the profits are NOT going up the chimney.

E. GREEN & SON., Ltd., 2, Exchange St., Manchester.

Green’s Economiser
For all types of Steam Boilers
Cut through pre-heating, saving fuel and money. It is now in use in every part of the world. For details, see your local dealer.

EDWARD GREEN & SON.
PATENTED AND SOLE MAKERS.
14, ST. ANNS SQUARE, MANCHESTER;
1590 ELDON, CLAYTON, 84.
WORKS - WAREFIELD.
WAS A RECORD YEAR FOR GREEN’S.
Here are just some of the highlights...

We supplied products weighing over **3,000 tonnes** consisting of almost **100,000 tubes totalling 3,000 km long.**

Our furthest delivery was almost **17,000 km** to Australia and our nearest was **100 m** from our factory.

We manufactured more than **11 million fins and 90,000 tubes**

Our turnover was up **17% to over £11m**

We recruited for roles across the business including production, sales, support, design and business development.

We were shortlisted for a major manufacturing industry award.

We helped a biomass plant reuse around 20% of its thermal output, enough to make 3,333 cups of tea per second or power around 7,000 homes.

Use of STAAD.Pro means we’re cutting the structural weight of systems by 19.8%. We meet all international standards including AISC and Eurocode. Our Bentley autopipe and FEA system allows optimisation of all our designs.

Our repairs and service team have worked in 14 countries across 4 continents and replaced more than **10,000** tubes.

www.greenspower.co.uk
Green’s

Manufactured products – designed and engineered

- Economisers and flue gas coolers – finned and plain tube
- Air-heaters
- Re-heaters / superheaters
- Waste heat boilers
- Exhaust gas boilers
- Marine boilers
- Fired boilers
- Boiler components
- Parts for boilers (tube plate, plain/pin/finned tubes, shell/furnace, burner mounting tube, headers etc)
- Pre-fab pipework

Aftermarket

- Service
- Site repairs
- Site installation
- Inspection
- Spares

One stop - fully integrated experienced service proposition from full economiser system to spare parts...
Markets

Bespoke products and services for marine, energy and industrial sectors
ABOUT GREEN’S: OUR MARKETS & CUSTOMERS

ENERGY

Customers include:

- Jersey Waste
- London Energy
- Drax
- MWH
- Grimsby Operations
- Viridor
- ENGIE
- Shotton Paper

INDUSTRIAL APPLICATIONS

Customers include:

- James Cropper
- Inovyn
- Palm Paper
- OI Glass
- BASF
- British Sugar
- TATA Steel
- Nalco (Ecolab)
- PX Limited

MARINE

Customers include:

- Damen Shiprepair Brest
- Kuwait Oil Tanker Company (KOTC)
- John Samonas
- Carnival (P&O Cruises)
- Irish Ferries
- Northern Marine Management
- V-Ships
- Hapag Lloyd
OUR FACTORY: MANUFACTURED IN WAKEFIELD – DELIVERED GLOBALLY

- In house engineering & design
- Steel H Plate finning machines
- Finning, Bending, Machining and General Fabrication
- Accredited to ISO 9001 and 14001, ASME S, U & R
- Manufacture to all Marine Classification Societies
• Fully supervised service and repair teams - undertaking working globally in port & at sea
• Boiler service, inspection and detailed reporting (water-tube and smoke-tube, fired and waste heat)
• Boiler repairs – all makes and models
  • Full/partial re-tube
  • Tube repairs
  • Cracked tube plate
  • Refractory
  • Coded welding
  • Shell / casing repairs
• Installation of boilers, economisers, superheaters and heat recovery equipment
SERVICE, SPARES & REPAIRS: **REACTIVE AND PROACTIVE, 24/7**

- Pipework design, fabrication and installation
- Burner & controls breakdown and service
- Spare parts for all makes and models of boiler/burner and steam raising equipment.
- Design and engineering services
- Root cause and failure analysis
SPARES: ANY PART, ANYWHERE - FAST

- Marine boiler/burner and associated spares
- Supply spare parts for almost any make or model
- Global delivery
- Fast turnaround of quotations
- Dedicated team of technical sales engineers
- Currently supply to over 450 Marine customers
- Comprehensive stock of commonly used parts
SPARES: SUPPLYING A GLOBAL MARINE MARKET
RECENT PROJECTS: JOHN SAMONAS & SONS LTD

- Samjohn Dream – 206,610 dwt Bulk Carrier – built 2012

- Full retube of Aalborg Mission XW EGB – frequent repairs

- Manufacture 27 H-Fin Coils (16 days)

- Installation (10 days) in Drydocks World Dubai

- LRS Class approved

John C Samonas says: “Green’s previously worked on Samjohn Liberty and we were impressed by their problem-solving skills and their ability to complete projects in a way that fits in with our tight schedules.”
RECENT PROJECTS: MATRIX SHIP MANAGEMENT – MV OSCAR WILDE

• Oscar Wilde – Car Ferry

• Repairs to SUNROD oil fired boiler (CPBD-30)

• Manufacture:
  • pin-tube elements
  • furnace crown, floor and shell
  • Burner throat and mounting flange

• Installed during dry dock and completed at sea (as further defects found following inspection)

• LRS Class approved

Filip Lefever says: Green’s was chosen out of 3 quotations, not just because they were the cheapest. The quotation and scope were explained very detailed, with no hidden costs afterwards. There were some challenges during the job but they were handled very professionally.
RECENT PROJECTS: CARNIVAL UK - BRITANNIA

• Britannia – Cruise Ship

• Built at Fincantieri, Marghere yard - Italy

• 6 x Marine exhaust gas boilers, built for UK’s largest Cruise ship, launched in 2015

• 18 Vessels in the Carnival Group with Green’s exhaust gas boilers/economisers installed

• We provide service, support and spares to Carnival
RECENT PROJECTS: CARNIVAL UK - ORIANA

- Oriana – Cruise Ship, launched 1995
- Green’s original oil-fired boilers and economisers fitted
- Oil fired boiler tube plate cracks and tube repairs
- All repairs carried our during 2-week cruise.
- Repairs team took care of all repairs, consumables, NDT and liaison with LRS on behalf of Carnival.
- Boiler back in service earlier that estimated
RECENT PROJECTS: **KUWAIT OIL TANKER COMPANY**

- Full exhaust gas boiler inspection and detailed report following an incident on AL SHEGAYA.

- Design and manufacture optimum efficiency H-Fin exhaust gas boiler retrofit coils.

- Installation in ASRY shipyard, Bahrain.

- Supply EGB monitoring and diagnostic system.

- Repeat order for sister vessel; AL SALHEIA.

- Supplied commissioning assistance and training.
RECENT PROJECTS: DAMEN SHIPREPAIR BREST

- Service, repair and overhaul of steam boiler and associated equipment for Class surveys
- Numerous LNG Tankers
- Normally short-notice mobilisation
- Fully supervised Green’s teams of 10-35 engineers
- Boiler tube repairs
- Coded weld repairs to steam pipework
- Valve overhaul
- Boiler, economiser and condenser cleaning
- Refractory repairs
- Reactive work as it is found

“Green’s team is both responsive and proactive, so we have no hesitation in using them for our clients who need a high quality service provided by experienced and qualified professionals to ensure their vessels are back at sea, working at optimum levels as quickly as possible.” Frederic Broudin, Damen Shiprepair
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