



Napier Turbochargers
Your comprehensive
global service provider.

Introduction

Napier Turbochargers are world leaders in the design, manufacture and support of Industrial Turbochargers.

With over 60 years of experience Napier have produced in excess of 50,000 turbochargers with applications in the Marine, Power Generation and Rail Industries and have turbochargers running on fuels ranging from marine diesel oil and natural gas to varying qualities of HFO and landfill gas.

Napier as a company has a long history that began in 1808, during this period Napier have earned a reputation for quality and engineering excellence producing everything from printing presses and franking machines to cars, aero engines and today, the worlds most modern industrial turbochargers.

Napier's tradition of world class engineering has allowed us to achieve an unrivalled pedigree in the area of land, sea and air speed records as highlighted below;

1919 Height Record
30,500 feet

1929 Land Speed Record
231.3 miles per hour

1929 Air Speed Record
336.3 miles per hour

1930 Water Speed Record
100.13 miles per hour

1931 Land Speed Record
246.1 miles per hour

1932 Land Speed Record
253.968 miles per hour

1933 Air long Distance Record
5,309 miles

1939 Land Speed Record
369.74 miles per hour

1947 Land Speed Record
394.196 miles per hour

As well as these records, Napier also won the Schneider Trophy in 1922 and 1927.

Key to the success of Napier has been its ability to develop innovative engineering solutions and cutting edge technology while still maintaining its tradition of producing quality and reliable products – a tradition Napier is proud to carry in to the future.



Factory Overhaul

Reconditioning turbochargers for optimum performance

Within its main location in Lincoln in the UK, Napier operates a state of the art overhaul facility and our skilled workforce provides a fast and reliable service for all Napier products.

Turbochargers returned to the Napier factory for repair or overhaul, are rebuilt to 'as new' condition therefore assisting the engine to achieve optimum performance.

The major benefits of factory overhaul over other service solutions include;

- Turbochargers are completely stripped and cleaned to exacting standards.
- All safety critical components go through a rigorous crack detection process.
- All components are replaced with Napier genuine parts where necessary.
- Rebuild processes mirror that of new equipment.
- Turbocharger is returned to the customer with full OEM warranty.

As part of our factory overhaul service Napier can offer exchange units to allow quick turn around during unscheduled down time and also complete remanufactured turbochargers as an alternative route to reducing costs during emergencies.



Retrofit Products

Allow improved support through new technology

The increasing pressure to improve fuel consumption and reduce harmful exhaust emissions is important to operators of vessels, power plants and rolling stock alike. Napier have designed a series of modern retrofit products that are available as inter-changeable upgrades for NAPIER as well as other OEM turbochargers, allowing a new lease of life for many engine types.

Replacing an older turbocharger with a new high efficiency unit from Napier can:

- Improve engine efficiency and reduce fuel consumption.
- Reduce engine emissions.
- Reduce through life costs.
- Reduce thermal loads on the engine.
- Allow improved support through new technology.
- Offer increased power (where engine auxiliaries allow).

Wherever possible the turbocharger envelope and all major interfaces are maintained, this helps to minimise the cost and operational disruption of any retrofit project.

7

Series Turbochargers

NA297, NA307, NA357, NA397

The highly successful '7' series turbocharger range comprising the NA297, NA307, NA357 and NA397, represents the companies core range of quality products for the latest medium speed, diesel, heavy fuel and gas engines.

The current '7' series product spans outputs from 2MW to 6.5MW per single turbocharger and is based around the companies original cartridge construction and includes the following design concepts:

Air Cooled Operation

Removing the need for water cooling reduces the cost and complexity of installation.

Cartridge Construction

Improving on site maintenance and reducing operational down time.

Squeeze Film Bearing System

Extending service life and reducing through life cost.

Alternative Compressor Options

Enabling better optimisation for different applications and fuels.

Innovative Turbine End Sealing

Unique lip seal design enabling effective sealing at all operating loads.

High Pressure Ratio

Pressure ratio's up to 5:1 can be achieved in a single stage utilising standard materials.

The Napier '7' series turbocharger range has earned a reputation for robust and cost effective operation with many thousands of units running throughout the world. Tens of millions of running hours have been achieved with a wide range of applications and many satisfied customers.

8

Series Turbochargers

NA298, NA358, NA398, NA498

Building on the success of its '7' series product range, Napier is launching into the market its latest generation of high efficiency turbocharger called the '8' series.

The latest aerodynamic and mechanical advances have been combined with feedback from OEM customers and end users, to ensure that the company's latest generation of turbochargers meet the changing market requirements of today and tomorrow. The key statistics of the '8' series product includes;

Increased Pressure Ratio

A pressure ratio of 5.5:1 can be achieved with continuous operation while still maintaining operational life equivalent to the '7' series product.

High Overall Efficiency

Overall efficiency of up to 70% can be achieved depending on application and operating regime.

Cartridge Construction

Using operational experience and feedback from satisfied customers, the simple cartridge construction will be maintained across the '8' series range.

Turbine Sealing

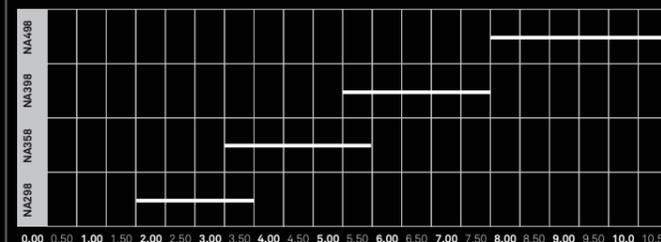
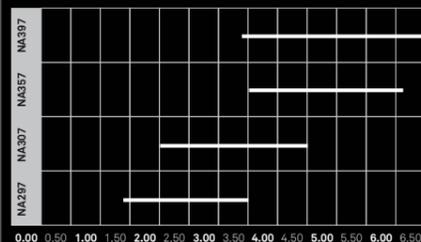
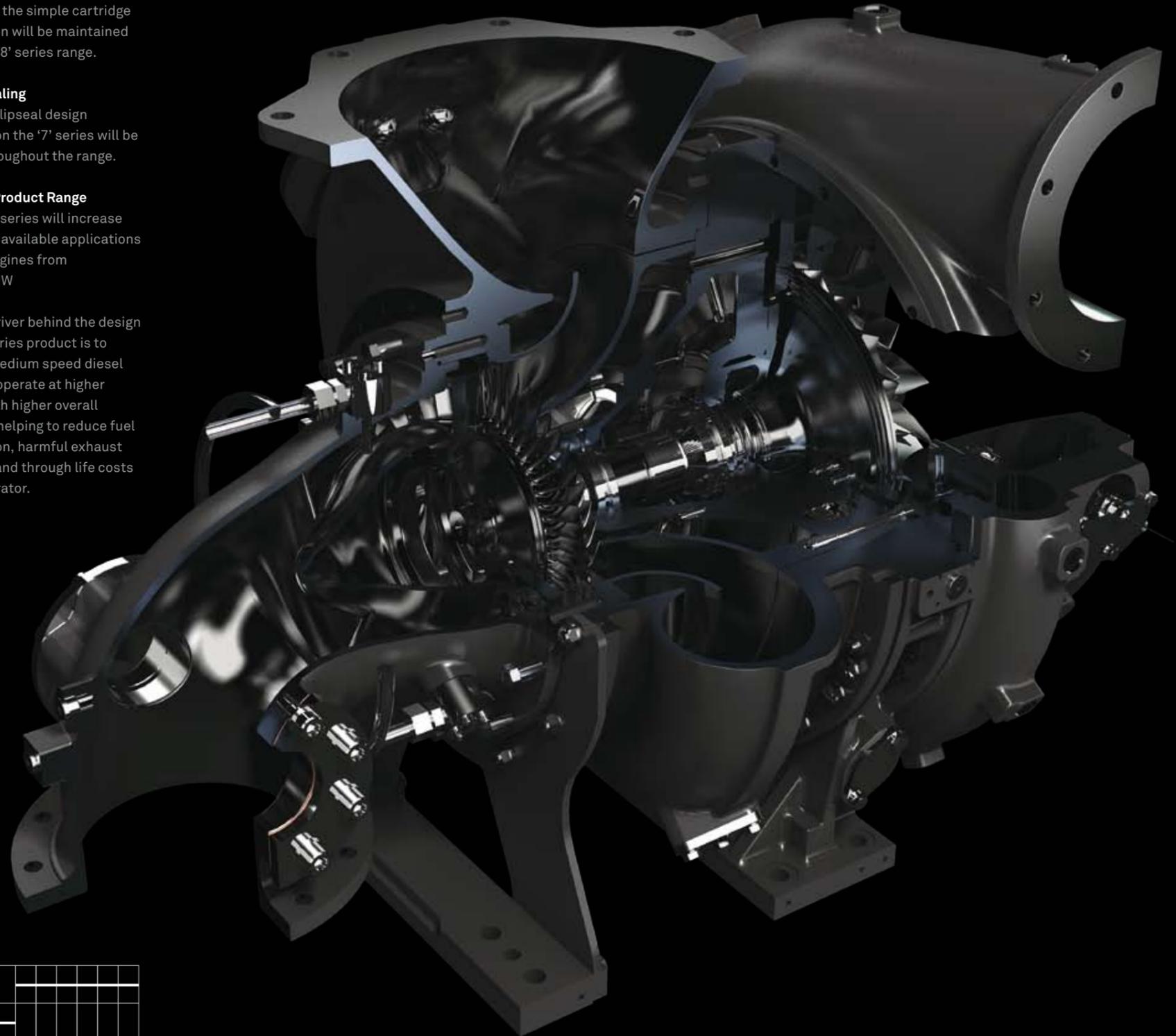
The unique lipseal design pioneered on the '7' series will be utilised throughout the range.

Extended Product Range

The new '8' series will increase its range of available applications covering engines from 2MW-10.5MW

The main driver behind the design of the '8' series product is to allow the medium speed diesel engines to operate at higher powers, with higher overall efficiency, helping to reduce fuel consumption, harmful exhaust emissions and through life costs for the operator.

Model Shown:
7 Series Turbocharger/NA307





Service Support

Support and Expertise from Napier

Napier employs a team of highly skilled and experienced field service engineers, trained to operate on all Napier products utilising technical support and expertise from the product factory. Our customer orientated service team are available 24 hours a day to respond to any emergency and to ensure your asset has the shortest possible operational downtime in any situation.

The Napier service team is also on hand to offer technical support for any queries with regard to the operation and maintenance of Napier Turbochargers. They are also able to design and execute planned maintenance regimes to fit in with your scheduled downtime. Napier's aim is to provide tailored solutions to meet the customers needs and make sure Napier products continue to perform at the optimum level.

Genuine Napier Spare Parts

An extensive range of genuine spare parts for all our turbocharger products

Reducing operational downtime for end users is a philosophy common throughout Napier's service products. In support of this, Napier holds an extensive range of genuine spare parts for all their turbocharger products, both new and old which are available to be shipped anywhere in the world at a moments notice.

All Napier spare parts are manufactured to current specifications, incorporating the latest product enhancements, using identical manufacturing processes to the OEM product and making use of modern material development.

Utilising only genuine spare parts ensures that the performance and reliability of the Napier product range is maintained, unlike alternative sources which may be available.

All parts are supplied with a certificate of conformity and authenticity and carry a full OEM warranty and also support from the product factory, giving operators peace of mind and ensuring as new performance.



Empowerment

Full technical support and training

Increasingly, operators prefer to deal with engine and turbocharger service as a single item rather than dealing with multiple sources to facilitate engine service. In support of this Napier developed its empowerment philosophy which allows our OEM customers the capability to service, overhaul and repair our products.

As part of our empowerment agreement with the engine manufacturer we offer full technical support and training from the product factory, access to all necessary technical information and special tooling; the result being the end user receives an efficient and seamless service for both engine and turbocharger.



Global Support

Our global service agents

Napier turbocharger products are operational in all areas of the globe, running on a wide range of fuels and in a variety of applications.

One common theme among all customers is their need for a fast and reliable service solution to ensure minimum downtime and loss of revenue.

Napier utilises a network of independent service agents in order to offer global support to our customers. Strategically located throughout the globe, our agent's network has been organised to ensure rapid response and availability of service and spare parts, irrespective of location.

Our service agents are trained to the highest standards in our dedicated training facility at the product factory, using only approved Napier spare parts and fully supported with specialist tooling and documentation.

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