

## Gas Turbines

Leaffield has long experience of handling gas turbines from the Royal Navy including both Olympus and Tyne engines originally produced by Rolls Royce.

Once vessels are sold to overseas navies the RN requirement for these engines reduces allowing both used, and occasionally still in service engines to be declared surplus to requirements. Our team of ex Royal Navy engineers work with the Disposal Ships Reserve Organisation – H M Naval base (Portsmouth) to acquire engines and ancillary equipment from ships or UK MoD warehouses which we then store.

Once the equipment is in store we can assess the most appropriate route to provide ongoing support. This might involve return to parts to free up hard to obtain components or it might involve a complete engine overhaul in order to provide an exchange engine to be available on demand to replace any of the engines in the current worldwide installed base of machines. This route can also be utilised to develop engines for a non-maritime platform as the aero-derivative turbines are also in widespread use in industrial applications.

We now have a partnership with one of the UK's major independent Gas Turbine repairers that allows us to use our combined stock of parts and also refurbished parts salvaged from other engines to support the engines in service with overseas navies. This linked to the technical capability to fully strip, repair and overhaul both Tyne and Olympus engines and test them before issuing a warranty and returning them to use is a significant step forward. Without this capability having been developed the OEM's withdrawal of support for these engines would have meant that there was no remaining route to keep these engines, and in turn the ships that they power, in service. The use of modern engineering techniques and advanced coatings means that engines that would previously have been beyond repair can now be successfully overhauled and in some respects rebuilt better than new.



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