



INDUSTRIAL HEROES

WIND

Extend oil life in wind turbines with
Castrol Optigear Synthetic X 320

#WeHelpMakeItHappen

Castrol demonstrates its commitment to wind by helping renewable companies to achieve cost savings and lower environmental impact with better oil technology.

DELIVERING OPERATIONAL PRODUCTIVITY AND ENVIRONMENTAL FRIENDLINESS

As the number one supplier of innovative lubricants and service solutions for the wind sector, Castrol understands the main aims and pains of operators. In particular, we often see that changing the main gearbox oil in wind turbines presents a number of challenges, including:

- Significant cost outlay
- Detailed logistical planning for new oil and flushing oil
- Technician time in often hot and humid conditions
- Costly turbine downtime
- Disposal of used oil
- Environmental impact of oil consumption

For offshore turbines, the challenges are even greater. Even with good quality pure PAO synthetic gear oils with extended drain intervals, there is a need for better oil technology.

THE SOLUTION: CASTROL OPTIGEAR SYNTHETIC X 320

Castrol has developed an additive boost package, Optigear Synthetic X 320 AD, that can be added very simply to the main gearbox oil to replenish additives, and further extend oil life.

ABOUT CASTROL OPTIGEAR SYNTHETIC X 320

Premium synthetic oil for wind turbine gears operating in wide temperature ranges and under high loads.



Suited for high-capacity wind turbine gears.



Delivers best-in-class surface protection.



Proven to reduce friction by up to **30%**.



Unique Microflux Trans-Plastic Deformation (MFT-PD) technology.



Reduces critical gearbox stress, operating temperatures and wear.



Significantly reduces further damage in pre-micropitted gears.



Meets BSI PAS 2060 specification for complete carbon neutrality.

THE BENEFITS FOR OPERATORS

“This is a game changer for the wind industry: reducing carbon footprint, HSSE risk, and levelised cost of energy (LCOE).”

Tier 1 WindTurbine OEM Engineer

Based on test data from field trials, Optigear Synthetic X 320 AD can eliminate at least one main gearbox oil change over the life of the turbine. For some turbine types, it can eliminate two changes.

In either case, major cost savings can be achieved. Eliminating even one gearbox change means eliminating the associated costs of technician time, oil filling, and lost turbine revenue due to unnecessary additional downtime.

As well as these tangible savings, changing oil less frequently brings other important benefits. Operator safety is increased, while environmental risk is reduced, and sustainability is enhanced.

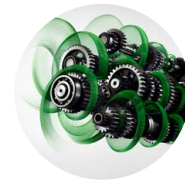
Implementing this cost saving incurs very low implementation outlay and setup time. As soon as the maintenance schedules are updated, the cost savings can begin to flow.

Using a forecasting and planning tool designed specifically for Optigear Synthetic X 320 AD, costs can be smoothed out across a number of years and a typical spike associated with the cost of having many oil changes in one season can be avoided.

KEY TAKEAWAYS

- Castrol’s innovative additive boost package can be used to extend the useful life of Optigear Synthetic X 320 even further than before.
- Removing at least one main gearbox oil change during the lifetime of each turbine can result in significant cost savings.
- Reducing oil usage, as well as using a certified carbon neutral oil for initial fill, helps to minimise the turbine’s impact on the environment.
- A bespoke planning tool facilitates maintenance cost allocation and avoids typical spikes in the maintenance budget.

FEATURED SOLUTIONS:



Castrol
OPTIGEAR



Learn more about Castrol Optigear Synthetic X 320 AD

LEARN MORE

IT’S MORE THAN JUST OIL. IT’S LIQUID ENGINEERING.

