

Decrease the number of costly operations required to lubricate your gearboxes

CARTER  
WT 320

LIFE  
EXTENDER  
WT



TOTAL  
TIG 6



**CARTER WT 320, experience its exceptional service life for yourself**

Extend your drain interval to 10 years and improve the reliability of your gearboxes.

**CARTER WT 320** has demonstrated stellar performance over a long period of time. Designed to provide the optimum balance between **low ageing** and **gear longevity**, **CARTER WT 320** takes gearbox lubrication to a new level.



**LIFE EXTENDER WT, boost your oil's performance**

Your wind turbine has been operating for a very long time using a gearbox oil in which performance additives are now partially depleted.

When combined with **CARTER WT 320**, **LIFE EXTENDER WT** helps prolong the service life of your lubricant whilst ensuring the smooth operation of your gearbox until the next scheduled oil change.

**The WIND+ concept**



**ANAC WIND, customize the monitoring of your gearbox**

TOTAL's extensive experience in the monitoring of in-service gearbox oils has resulted in the development of **ANAC WIND**, a **dedicated analysis for your gearbox**.

**ANAC WIND** incorporates specific standards to improve the diagnosis and anticipate operating faults:

- **Infrared spectrum** to assess the level of degradation and oxidation of your oil in service.
- **Large iron particles content** of over 5 microns to better identify wear level in your gearbox.



**TIG 6, optimize your oil change strategy**

Closely monitor your wind farms' condition with our lubrication software **TIG 6** and **better manage your maintenance schedules**.

- **Plan** your preventive, conditional and corrective maintenance operations.
- **Incorporate** your oil analyses directly and **consolidate** your diagnoses at different territorial scales.
- **Analyze** your all-in maintenance cost.
- **Monitor** your stock of lubricants and spare parts.



**TOTAL, here for you!**

Our application engineers are ready to assist anytime and help you put our products into use. TOTAL will also put you in contact with independent and innovative partners in both onshore and offshore wind turbine maintenance for more complex operations.

**A major player**

With our production, supply chain and commercial presence in more than 150 countries, we deliver a full range of lubricants.

**Support and partnership**

Thanks to local technical presence, we provide a high level of service to optimize your Total cost of Ownership.

**References & OEMs**

TOTAL Lubricants cooperates with equipment manufacturers to create high-technology products for optimal performance and production of your machinery.

5 good reasons for choosing TOTAL

**Quality and environment**

TOTAL Lubricants ISO 9001 certification is the guarantee of a long term commitment to quality. From the initial design stage, our R&D teams seek to develop products that minimize toxicity risks and environmental impact.

**Innovation & Research**

TOTAL invests in biotechnologies to find the most suitable components to reach energy efficiency through formulations designed in our Research Centers.



**TOTAL**  
COMMITTED TO BETTER ENERGY

09/2017 - TOTAL Lubrifiants SA 552 006 454 RCS Nanterre - Photos: 123RF - Illustration & design: GOLDEN Design



**WIND POWER**

TOTAL, a breath of fresh air for your productivity



**TOTAL**  
LUBRICANTS

**Energizing performance. Every day**



**TOTAL**  
LUBRICANTS

**Energizing performance. Every day**



## Ensure your equipment's reliability for longer

Increase your plant's lifetime by providing it with superior and continued protection.

- Prevent wear in all circumstances and reduce bearing failure.
- Regularly analyze your gearbox oil using our dedicated **ANAC WIND** service.

## Improve your long-term competitiveness

Decrease your operating expenses by extending your maintenance cycles.

- Double the time between oil changes using our long-life oils.
- Optimize your oil change strategy with our **TIG 6** maintenance software and our **LIFE EXTENDER WT** performance booster.
- Free yourself from the constraints of the Lithium market by adopting the grease technology **CERAN**®.

## Maximize the output of your facilities

Make use of the slightest breeze and increase efficiency.

- Prefer "high-efficiency" lubricants that reduce friction coefficients and minimize deposit build-ups in circuits.
- Team up with an industrial company involved in university wind power research.

## Your safety, our priority

Take no risks with your plant, your staff and your environment.

- Optimize your performance thanks to our products that are approved and recognized by manufacturers.
- Lubricate your equipments with less harmful formulas that contain no heavy metals or carcinogenic and reprotoxic substances.



## Wind power must become more competitive

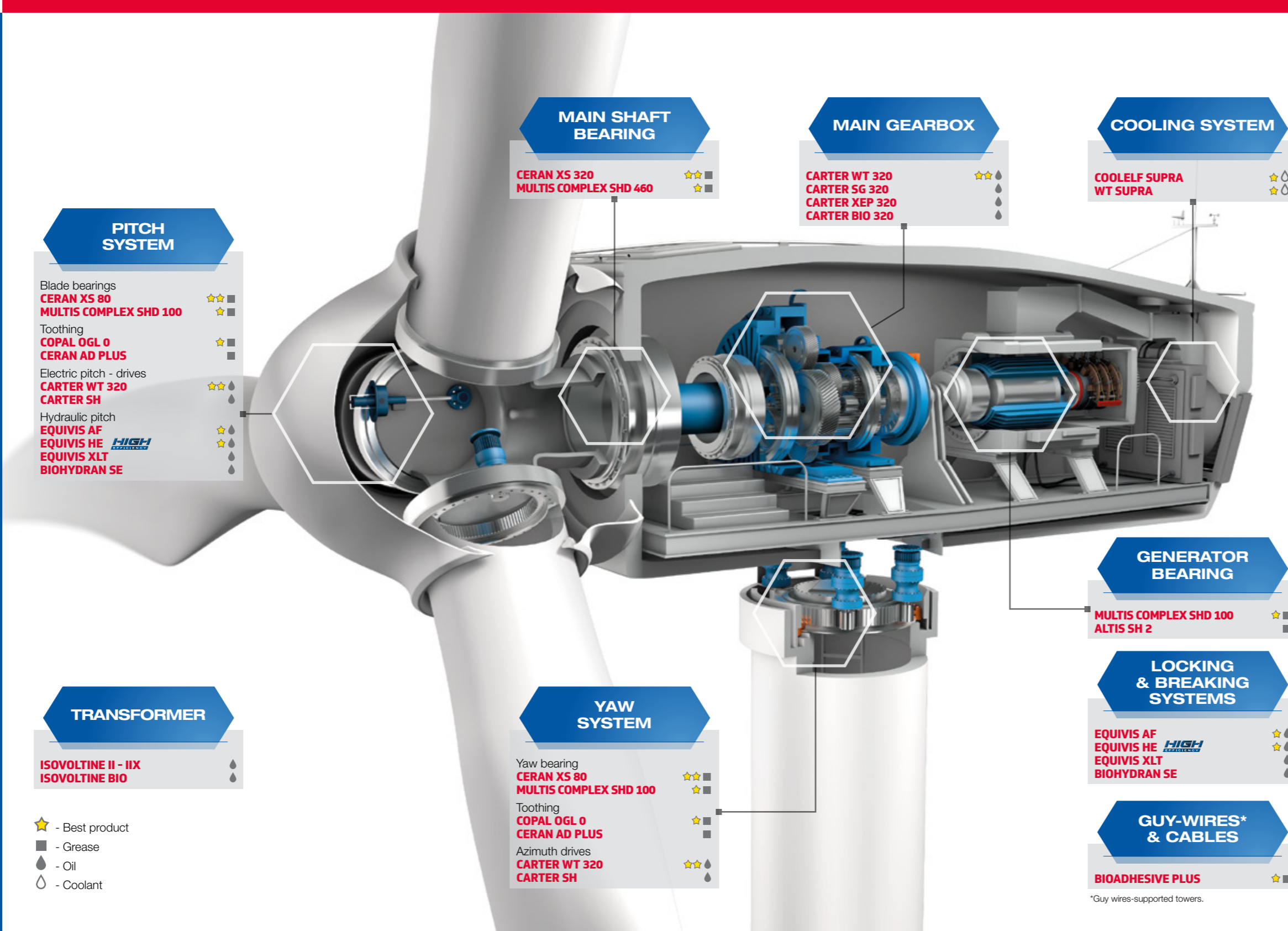
Committed to better energy, TOTAL provides **an innovative solution** for companies in the wind sector keen to **reduce their operating costs**.

## Discover the WIND+ concept

TOTAL helps wind farm operators and O&M service providers to extend maintenance cycles even further by providing an **overall lubrication solution**.

## Need a breath of fresh air?

Put your trust in TOTAL teams to generate **increased productivity**.

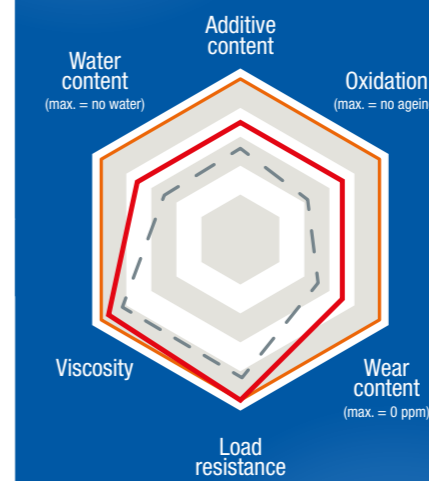


- ★ - Best product
- - Grease
- - Oil
- 💧 - Coolant

## Our most advanced lubricants

### CARTER WT 320

Advanced gearbox oil designed to last more than 7 years\*  
Fully synthetic PAO gear oil



- CARTER WT fresh oil
- CARTER WT after 7 years
- Oil change limit

\*In standard operating conditions.

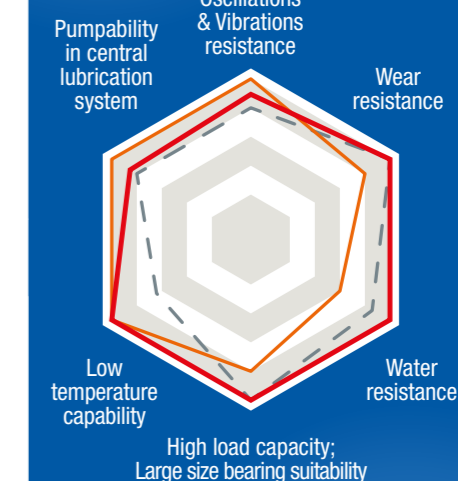


#### BENEFITS

- Extended drain interval
- Enhanced gear longevity
- Improved equipment reliability

### CERAN XS

Next generation grease particularly suitable for offshore wind  
Fully synthetic calcium sulfonate complex grease



- Synthetic PAO - Lithium Complex
- CERAN XS
- Offshore wind standard

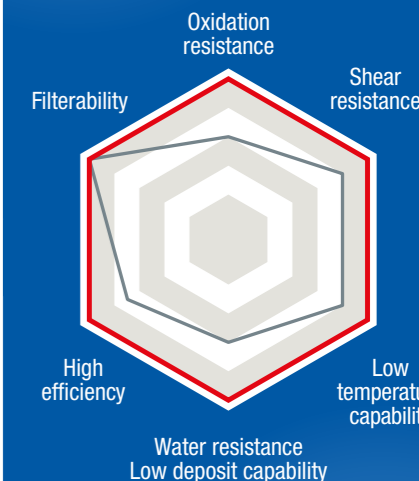


#### BENEFITS

- Durable protection of the bearings against wear
- Natural protection of the bearings against marine corrosion
- Extended regreasing intervals

### EQUIVIS HE

Long-life hydraulic oil ensuring durable performance  
High-performance mineral hydraulic oil



- EQUIVIS HE
- Standard HVP hydraulic oil

Ashless hydraulic oil EQUIVIS AF delivers the same performance.



#### BENEFITS

- Increased energy efficiency
- Improved pitch system accuracy
- Extended drain intervals

\*Guy wires-supported towers.