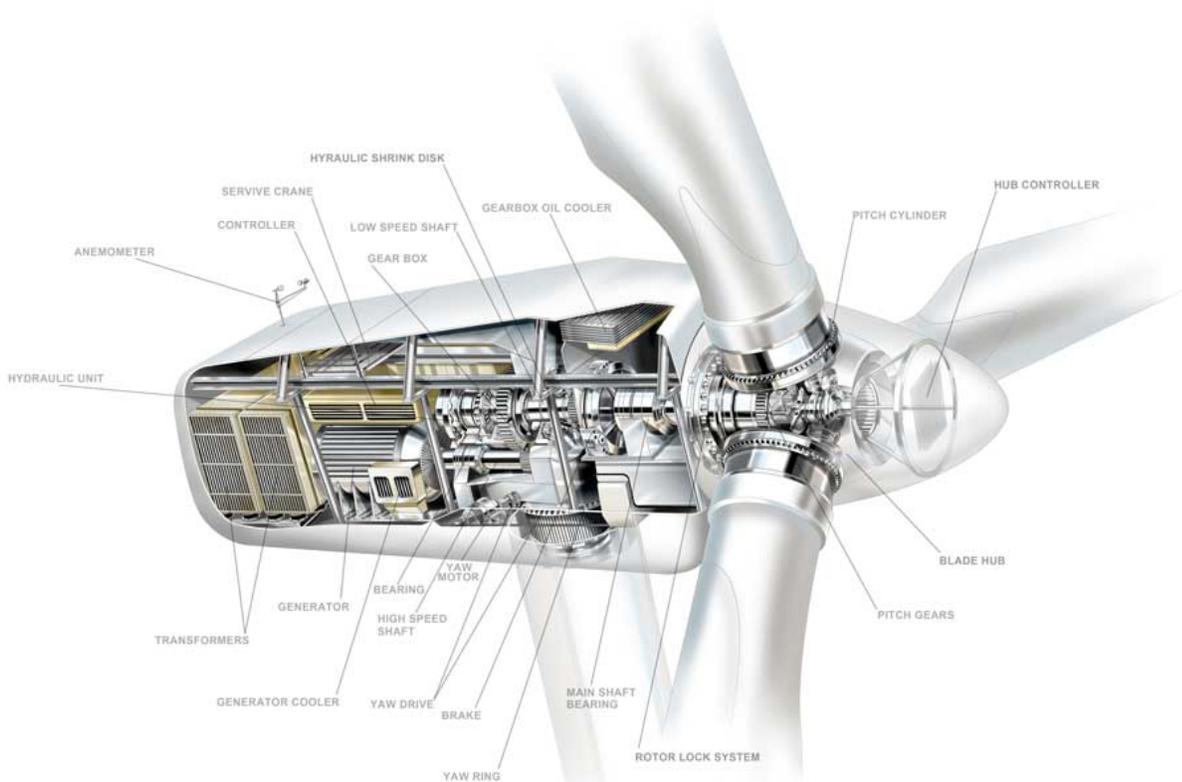




## **SWEPACO LUBRICATION GUIDE: INDUSTRIAL WIND TURBINE**



### **Yaw Gear: SWEPACO 201 (viscosity according to manufacturer)**

Requirements of Yaw Gear lubricant: Excellent protection against scuffing and high level of resistance against micropitting fatigue. Outstanding rust and corrosion protection. 201 offers improved equipment productivity due to reduced unscheduled downtime and maintenance; longer gear and bearing life under high stress operating conditions; extended oil life.

### **Yaw Bearing: SWEPACO 121#2**

Requirements of Yaw Bearing lubricant: Extreme pressure grease with outstanding bearing protection under heavy loads at low-to-moderate speeds and good resistance to water. 121 allows improved flexibility in geographic placement of wind turbines. Excellent wear protection of components; easy start-up at low temperature; extended regreasing interval and reduced service cost.

### **Open Gear: SWEPACO 113#00 or SWEPACO 164**

Requirements for Open Gear Lubricant: The key distinction between these two products is method of application. If it is through a centralized lubrication system, SWEPACO 113#00 is generally recommended. However, SWEPACO 164 is a grease with unexcelled performance in open gears. 164 clings tenaciously to metal, increasing the level of protection and reducing consumption. This state-of-the-art gelling system yields mechanical stability, an inherently high dropping point, reduced wear and excellent corrosion resistance. tackiness with the ability to stay where you put it. We can work with you in order to determine the best product for your open gear orientation.

**Generator: 121 – Arctic Grade**

Requirements of Generator Lubricant: Excellent low temperature pumpability and very low starting and running torque. Chemical stability with protection against wear, rust and corrosion at high and low temperatures. 121 Arctic offers the same benefits as SWEPCO 121#2 but has the advantage of improved pumpability at low temperatures. It is formulated with a lower viscosity base oil which also allows for low starting and running torque.

**Gear Box: Swepeco 201 ISO 320**

Requirements of Gear Box Lubricant: Exceptional oxidation resistance and thermal stability. Excellent low temperature fluidity, low traction coefficient, provide high level of resistance against micropitting fatigue. Outstanding rust and corrosion protection. 201 offers improved equipment productivity due to reduced unscheduled downtime and maintenance; longer gear and bearing life under high stress operating conditions; extended oil life.

**Main Shaft Bearing: SWEPCO 121#2**

Requirements of Main Shaft Bearing Lubricant:

Extreme pressure grease with outstanding bearing protection under heavy loads at low-to-moderate speeds and good resistance to water. 121 allows improved flexibility in geographic placement of wind turbines. Excellent wear protection of components; easy start-up at low temperature; extended regreasing interval and reduced service cost.

**Pitch Gear: SWEPCO 201 (viscosity according to manufacturer)**

Requirements of Pitch Gear Lubricant: Exceptional oxidation resistance and thermal stability. Excellent low temperature fluidity, low traction coefficient, provide high level of resistance against micropitting fatigue. Outstanding rust and corrosion protection. 201 offers improved equipment productivity due to reduced unscheduled downtime and maintenance; longer gear and bearing life under high stress operating conditions; extended oil life.

**Pitch Bearing: SWEPCO 121#2**

Requirements of Pitch Bearing Lubricant: Extreme pressure grease with outstanding bearing protection under heavy loads at low-to-moderate speeds and good resistance to water. 121 allows improved flexibility in geographic placement of wind turbines. Excellent wear protection of components; easy start-up at low temperature; extended regreasing interval and reduced service cost.

**Hydraulic System: SWEPCO 704 ISO 32**

Requirements of Hydraulic System Lubricant: Outstanding shear stability, excellent low and high temperature performance, oxidation resistance, high level of anti-wear properties and excellent film strength characteristics. SWEPCO 704 is ideally suited for high-pressure and tight-clearance hydraulic systems; improved cleanliness and longer life for components (pumps and valves) extended oil and filter life. 704 was specifically formulated for long life service and superior wear control. Result will be a cleaner and more efficient hydraulic system, reduced sludge and varnish, great oxidation resistance and thermal stability.