

WIND TURBINE ROTOR BRAKE MAINTENANCE

IS A BREEZE WITH THE HELP OF
REGAL REXNORD CORPORATION

The primary function of wind turbine rotor brakes is to prevent the rotor from turning while the turbine is in idle mode or during an emergency. It is important to keep these brakes well maintained to help prevent damage to expensive drivetrain components as well as providing a level of safety for maintenance/service teams.

As a general rule, brakes should be inspected at least once every year. However, if turbines have demanding operating schedules, the maintenance interval may need to be shortened as brake parts tend to wear out based on frequency of use.

A careful visual inspection of the brake pads is important since minimum required thickness of the friction material and a consistent pad wear pattern allow the brake to provide and apply full torque, without slipping on the brake disc. The brake caliper and hydraulic system should also be checked for any damaged hoses or oil leaks. Sliding rods (if on brake) should move freely and pad retraction springs should be functioning properly.

While inspecting the rotor brake system, the same attention should be given to the yaw brake system. If caliper-based, the process of replacing yaw brake pads has been made considerably easier with the introduction of a new lifting tool. This time-saving device can be used by a single service technician to remove a worn brake pad and lower it to the floor, then raise a new replacement pad up into position.

As industry leaders in power transmission and motion controls products, Regal Rexnord Corporation offers critical wind turbine drivetrain solutions, including rotor and yaw braking systems.

Our leadership, experience and expertise extend far beyond the initial sale and installation of our wind turbine braking systems. We provide worldwide after-sale support to help ensure that our customers get the longest possible service life from our brakes.

We offer training, technical support, scheduled maintenance, 24/7 global service support, and upgrades. Regal Rexnord Corporation also manufactures long-lasting genuine spare parts, including calipers, brake pads, seal kits, and sensors for all our brake brands. Utilizing genuine replacement parts optimizes brake performance and extends component life.

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The proper selection and application of products and components, including assuring that the product is safe for its intended use, are the responsibility of the customer. To view our Application Considerations, please visit <https://www.regalrexnord.com/Application-Considerations>.

To view our Standard Terms and Conditions of Sale, please visit <https://www.regalrexnord.com/Terms-and-Conditions-of-Sale>.

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HIGHLIGHTS

- Eyes are the most important tool for checking rotor brake system condition
- Optimize life by regularly checking brake caliper, and caliper alignment
- Proper air gap is important for brake performance
- Check brake disc surface for wear or excessive damage
- Visually inspect hydraulic hoses and piping for leaks
- Add drain bottle to each caliper for early detection of internal leakage
- Regularly replace hydraulic oil and oil filter on the rotor brake hydraulic power unit
- Use genuine replacement parts matters, otherwise impacts rotor brake function and performance



