The Best-Kept Secret in “Green"

Why bearings may be the ultimate way to go “green”

In recent years, much of the nation’s - indeed, the world’s - attention has been focused on the need to be “green.” Whether in our homes or at work, we are frequently being exhorted to convert to “green” technology, use “green” products, and adopt a “green” lifestyle in order to save our planet. Well, what exactly does being “green” mean?

In simple terms, to be “green” is to adapt one’s lifestyle so as to do less damage to the environment. In addition to recycling, using renewable and clean energy alternatives to satisfy global power requirements, and meeting the needs of society without damaging or depleting natural resources, being “green” also involves using existing machinery and equipment as efficiently as possible.

The vast majority of people are almost completely unaware of the scope of product generated by the bearing industry as well as the role that we play in designing the machines and devices that keep our world functioning. While conveyances such as bicycles, cars, trains, and airplanes may be most commonly associated with bearings, they represent only a tiny fraction of the vast array of products and applications that rely on these ubiquitous devices. Other less-visible, yet equally essential, bearing applications are found in motors, pumps, and compressors. Without them, there would be no gasoline for our cars, no water for our homes, and no air-conditioning in the summer nor heat in the winter.

So what do bearings have to do with “green” technology?

As noted, being “green” involves ensuring that machinery and equipment operates as efficiently as possible. To that end, the bearing industry is constantly developing bearings that:

- operate at higher speeds;
- generate less friction, which results in cooler operating temperatures and reduced energy consumption;

- support heavier loads;
- use lubricants that are as environmentally friendly as possible;
- last longer;
- cost less to use throughout their service life

Considering the seemingly endless variety of everyday products and applications that depend on bearings, extending their longevity and improving their performance so that less waste is generated and less energy is required to operate them - in other words,
making the most of our existing machines while reducing their impact on the
environment - is the definition of being “green.”

Equally important, though more subtle, is the bearing industry’s role in advising engineers as they develop their new designs. Similarly, the educational materials provided by bearing manufacturers ensure that end users operate their equipment correctly and in the most efficient manner. Helping users and engineers balance the bearing features to achieve optimum machine performance is the ultimate expression of being “green”: taking responsibility for minimizing the impact of human involvement.

BSA wishes to especially thank David Zoesch, Barden/INA/FAG for his help in preparing this Bearing Brief Page