the higher the HF operating temperatures. This means that the equipment will require a higher standard of lubricant performance. Hydraulic fluids formulated to DYNAVIS® Technology standards provide a Viscosity Index as well as higher shear stability, retaining an optimal level of efficiency at higher temperatures."

Meeting demands

With emission norms getting updated, there is a growing challenge for lubricants to meet the emerging demands from OEMs. Says Jha, "There is a growing concern globally on emissions. Emission norms are one of the major external causes for technological changes and new emerging technology coming into the market. Stronger emission norms and demand for fuel efficiency are driving OEMs to keep developing new engine technology at a faster pace. India has also become an export hub for many global players who are demanding higher specification engines and engine oils to meet those specifications. These changing needs put a lot of stress on lubricants and many conventional technology lubricants fail to meet these standards. As the industry faces the challenges of lowering cost of production, stringent emission and environmental norms, we expect a more rapid adoption of leading-edge lubricants that provide energy-efficiency benefits and lower the total cost of ownership." According to him, different changes in the vehicle system should go hand-in-hand in working towards reducing CO_2 emissions; hence, a co-engineering approach with both lubricants and hardware change will help together as a comprehensive approach towards reduction in CO_2 emissions. "It is expected that these factors will result in demand for higher quality lubricants, leading the industry towards wider acceptance of synthetic lubricants," Jha observes.

According to Khemka, emission norms are geared towards reducing the NOx, SO_2 and particulate matter. "The integration of more additives will serve the triple purpose of reducing carbon emissions, lowering operating costs and reducing fossil fuel consumption. Introduction of innovative additive technology will help to achieve greater fuel economy and reduce the emission with the help of EGR and DPF systems," he adds.

Says Vernet, "Specialists in Evonik Oil are working proactively with our customers and OEMs to understand their individual needs and overall expectations for their lubricants. Our people are experts in delivering customised technical service and they work with the support of a highly proficient innovation team capable of offering a variety of solutions to lubricant marketers as well as OEMs. In addition, our technologies and products are designed to increase fuel and energy efficiency, contributing to the reduction of CO_2 emissions."

New products and solutions

Major lubricant companies have come out with new products that conform to the latest emission standards and meet the demands from OEMs. A few developments are on the anvil. Says Jha, "We are planning to launch the Shell Rimula R4 L 15W 40 heavy-duty diesel engine oil. The introduction of Shell Rimula R4 L 15W 40 gives transport operators the chance to gain immediate cost-saving benefits for their vehicles and business. Based on high performance Group II base oils, it is one of the most advanced 15W-40 oil technologies available, and is suitable for virtually all on-highway and off- highway equipment including US 2007, Euro 2, 3, 4 and 5 applications. This product meets API CJ-4 and Volvo VDS-4 performance levels. With this product, operators can benefit from low emissions, improved wear and deposit control and improved oxidation resistance (oil life). This product has received a wide range of approvals and meets the requirements of leading agricultural and construction equipment/engine makers such as Caterpillar, Volvo, Cummins, Deutz and MTU."

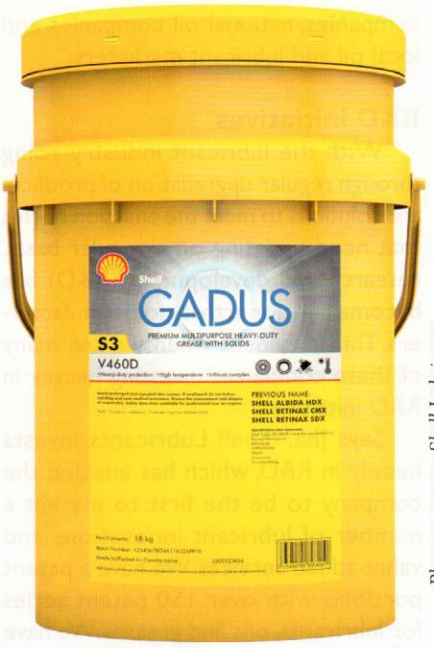

Photo courtesy: Shell Lubricants

Most lubricant companies are investing heavily in the development of the next generation of lubricants.

Pensol has also recently introduced new additions to its range. Khemka says, "PC-11 and GF-6 are the new specifications and have been launched to give better fuel economy with reduced emissions of NOx and particulate emission, along with introduction of lower viscosity HTHS oil for this purpose."

As a leading provider of oil additives, Evonik develops technologies to improve fuel and energy economy as well as productivity. Vernet elaborates, "We offer DYNAVIS® technology for fuel and energy-efficient hydraulic fluids, DRIVON™ technologies for automotive engine, driveline and gear oils, and NUFLUX™ technologies for industrial gear oils. We work with all types of lubricant manufacturers in India - multinational

"The integration of more additives will serve the triple purpose of reducing carbon emissions, lowering operating costs and reducing fossil fuel consumption."

Sanjay Khemka,
Director, Pensol Industries Ltd