Teamwork

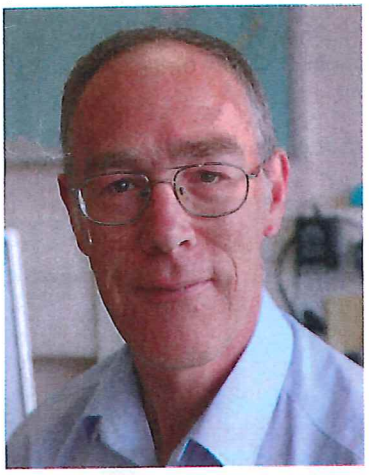
Hydraulics & Pneumatics spoke with Mark Draper, product developer at Shell Lubricants, about the company's strategy regarding hydraulic oil product development, and how it liaises closely with OEM customers to ensure its R&D roadmap is the optimum fit for their requirements.

Many of the mineral and synthetic hydraulic oils currently supplied to OEMs for legacy equipment such as excavators, diggers and dump-trucks have remained largely unchanged for a decade or more, largely because the oils have been proven still to be effective fluids for legacy-type applications.

However, as Mark Draper, product developer at Shell Lubricants, points out, the market is now increasingly moving towards new requirements, such as longer-lasting oil that can ensure longer intervals between equipment servicing to minimise downtime periods and maximise productivity. This, together with some of the newer OEM equipment stressing the hydraulic fluid harder through being designed to operate within more extreme environments and at greater speeds, means hydraulic oil suppliers need to step up to the plate and ensure their R&D and product roadmap is up to the task.

New breed

"Between service intervals, OEMs want the oil to continue to perform essentially as well as it did when it was first use on the plant and equipment," said Draper. "So when the equipment reaches the normal drain interval the oil should work as effectively as it did after its first one and two hours of operation. This is becoming ever more challenging when the newer OEM equipment, in particular, is moving into higher loads and working at far greater speeds, often in highly gruelling terrain. The legacy equipment will continue to be run perfectly efficiently and reliably using the more traditional, proven fluids that have been around for some time, but companies such as Shell must certainly be able to meet the requirements of this more modern breed of equipment."



Mark Draper: "It's all about constructive dialogue between technical personnel on both sides in order to ensure as best as possible that the fluids provided will offer maximum performance from the outset."

Draper also stressed that even legacy equipment can, of course, benefit from the newer ranges of fluid; it is not just a case of the newer offering being specifically applicable for newer machinery.

Continuous development

Draper explains that Shell has developed, and will continue to develop, lubricants for today's most severe applications, while also keeping an eye on possible trends a further 5, 10 or even 15 years down the line. "The type of products we are developing today, such as the newly launched Tellus S2 MX for stationary systems, and Tellus S2 VX for mobile hydraulic systems, will gradually move out to more and more markets," he said. "Higher tier fluids offer specialised benefits such as even longer fluid life, shear stability, energy efficiency, and wider temperature operating windows for outdoor use in colder climates, and we continue to work with the market and OEMs to ensure that these fluids keep up to date with emerging customer and OEM requirements. In terms of our R&D activities that support both the

new product development and the aftermarket space, Draper pointed out that Shell has a strong presence in all the major global regions; the Americas, Europe and the Far East. "We have laboratories in China, Japan, the US and Germany and essentially it's all one global network," he said. "When I start work in the morning I normally deal largely with correspondence from the Far East, then in the afternoon I'm usually dealing with issues coming from the Americas. At Shell, we have dedicated global teams whose core mission is to work very closely with OEMs at a local level. They are in close contact on a regular basis to ensure they are on top of all their requirements, and ready to assist with any queries they may have."

In terms of product development, Draper pointed out that it's never a case of finalising the formulation, blending the oil, launching it to market and moving onto the next project. "A large part of my job and that of our global support teams is to follow the progress of the products in the field to ensure it is performing well in operation," he said.

Close liaison

Draper added that it is also about keeping close to the OEMs in order to understand their needs and those of their customers before new equipment or specifications are finally released commercially. "In this way we can be ready to provide the very best fluid fit for the application. In the case of the new Bosch Rexroth RDE 90245 fluid rating list, the requirements are made available to the industry prior to publication, so we can be in a position to respond. Shell Tellus S2 MX is the first product to be listed that is available today in all the major global markets. So, I believe it is important to have this type of ongoing discussion taking place at all stages of development and deployment in order to be able to work most effectively together."

The precise nature of the relationship between Shell and an OEM customer will always depend on individual circumstances and the individual companies involved, explained Draper. "For example, they may share a draft specification under a confidentiality agreement and ask us how realistic and achievable we believe the project to be. Basically, it's all about constructive dialogue between technical personnel on both sides in order to ensure as best as possible that the fluids provided will offer maximum performance from the outset. In summary, it's really about teamwork between the OEM and hydraulic fluid provider."

www.shell.co.uk/tellus

LEFT: Tellus S2 MX for stationary systems.

RIGHT:Tellus S2 VX for mobile hydraulic systems.