



## LOTOS Hydromil L-HM BA - a Bosch Rexroth RDE 90235 approved premium hydraulic fluid.

LOTOS Oil have launched Hydromil L-HM BA, a premium hydraulic fluid produced using LOTOS own base oils that not only meets Bosch Rexroth RDE 90235 but also Parker Denison HF-1, HF-2, HF-0 specifications. The fluid has been carefully designed to guarantee performance and protection in today's high performing systems and to be ready for the ever-evolving challenges of the future.

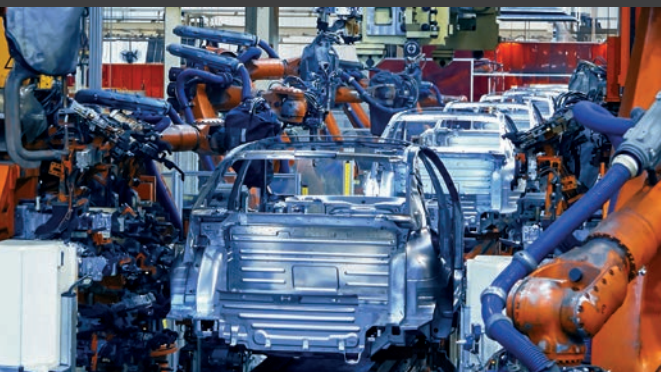
Today's industry demands maximum productivity and optimal efficiency. The machines that drive the industry are therefore facing ever evolving challenges, having to work harder and faster for longer.

Hydraulic systems are no exception. Frequently working under increased operating pressures and performing in the toughest of environments, these systems are working longer and harder than ever before. Combine this with the fact that systems are becoming smaller and lighter to improve efficiency and it's not difficult to understand the increased stress on the hydraulic fluid.

Newer pumps and motors are designed to handle higher power densities whilst still offering long operational lifetimes but can the same be said about the hydraulic fluid?

The speed of advancements in hydraulic equipment design, maybe surprisingly, had previously not been matched by advancements in hydraulic fluid specifications. The performance properties of a fluid have a significant impact on component wear and the general durability of hydraulic systems. Using a fluid that is NOT designed for today's modern systems can cause failure of hydraulic system components and lead to catastrophic failure and costly downtime.

**LOTOS Hydromil L-HM BA offers total protection of the hydraulic system, ensuring the equipment operates at its optimum performance while limiting costly downtime.**



Bosch recognised the requirement for a specification that would guarantee hydraulic fluid performance in modern high performing systems. Bosch engineers therefore developed a premium level specification, namely RDE 90235, to reflect the advancements we have seen in the world of hydraulic systems in recent years.

It's fair to say that up until the introduction of RDE 90235, increases in pressures and pump speeds with respect to hydraulic fluid testing had been small. However, to reflect the huge increases in power densities we see in modern hydraulic systems today, RDE 90235 testing is conducted at 4,000 rpm and a pressure of over 450 bar. These figures represent a huge increase in performance and place enormous stress on the fluid. As part of the test process, technicians examine shear-strain behaviour, wear-protection properties and material compatibility, among other characteristics. It's important to consider thermal stability, wear protection, corrosion protection, elastomer compatibility and oxidation of the fluid as well as hydrolytic stability in order to guarantee hydraulic fluid performance.

Given the tough test conditions of RDE 90235 it's not surprising to learn that most hydraulic fluids on the market today will not meet these requirements. Such fluids are therefore not providing the optimum performance and protection for today's modern hydraulic systems.

LOTOS Hydromil L-HM BA not only meets the Bosch Rexroth RDE 90235 specification but has also been carefully designed to guarantee performance and protection in today's high performing systems.

### BOSCH REXROTH PUMP/MOTOR TEST

A significant increase in performance requirements

