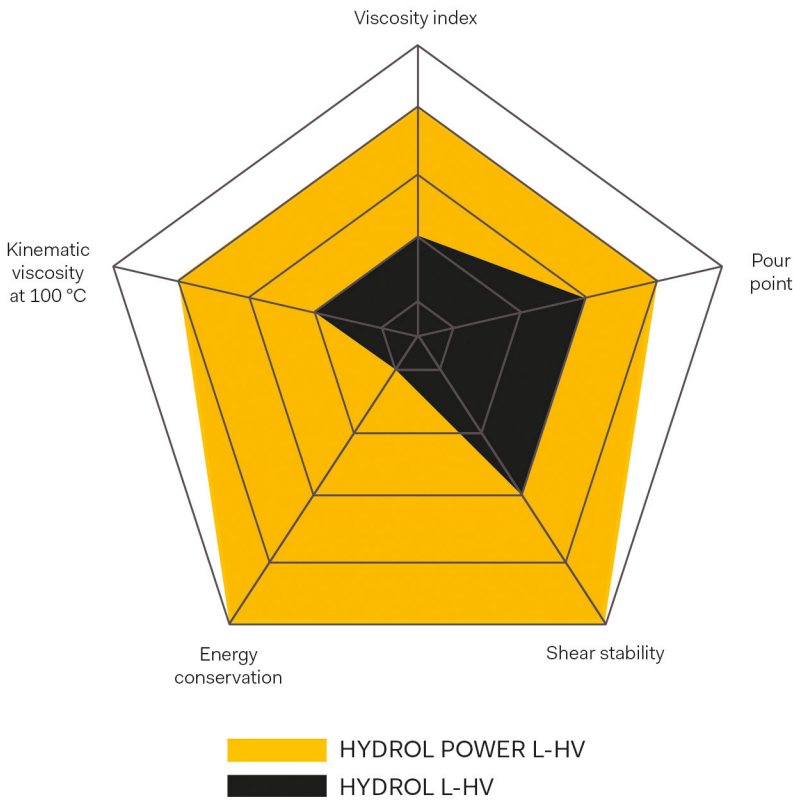


PHYSICAL AND CHEMICAL PROPERTIES

| Parameters | Unit | 32 | 46 | 68 | Standards |
|------------------------------|--------------------|--------------|-------------|-------------|----------------------------------|
| Kinematic viscosity at 40 °C | mm ² /s | 32,2 | 45,5 | 67 | ISO 3104 |
| Viscosity index | - | 180 | 180 | 180 | ISO 2909 |
| Pour point | °C | -39 | -39 | -39 | ISO 3016 |
| Energy conservation | % | >3,5 | >5 | >3,5 | EOA Test Procedure HET 7-2011 |
| Shear stability | mm ² /s | >5,9 | >7,5 | >10 | ASTM D 445 ASTM D 5621 |
| Dynamic viscosity | mPas | <750 15°C | <750 8°C | <750 2°C | ASTM D 6080 |
| Copper corrosion, 3h/100 °C | standard | 1a | | | ISO 2160 |
| Demulsification at 54 °C | min | 10 | 15 | 20 | ISO 6614 |

NOTE: The above values of physical and chemical properties are typical values. Actual values are specified in quality certificates enclosed with each product lot.



QUALITY GRADE

ISO 6743/4 – HV

STANDARDS, SPECIFICATIONS:

ISO 11158

DIN 51524 Part 3

APPROVAL

Parker Denison HF-0, HF-1, HF-2

CONFORMS TO

Bosch Rexroth RE 90220-01

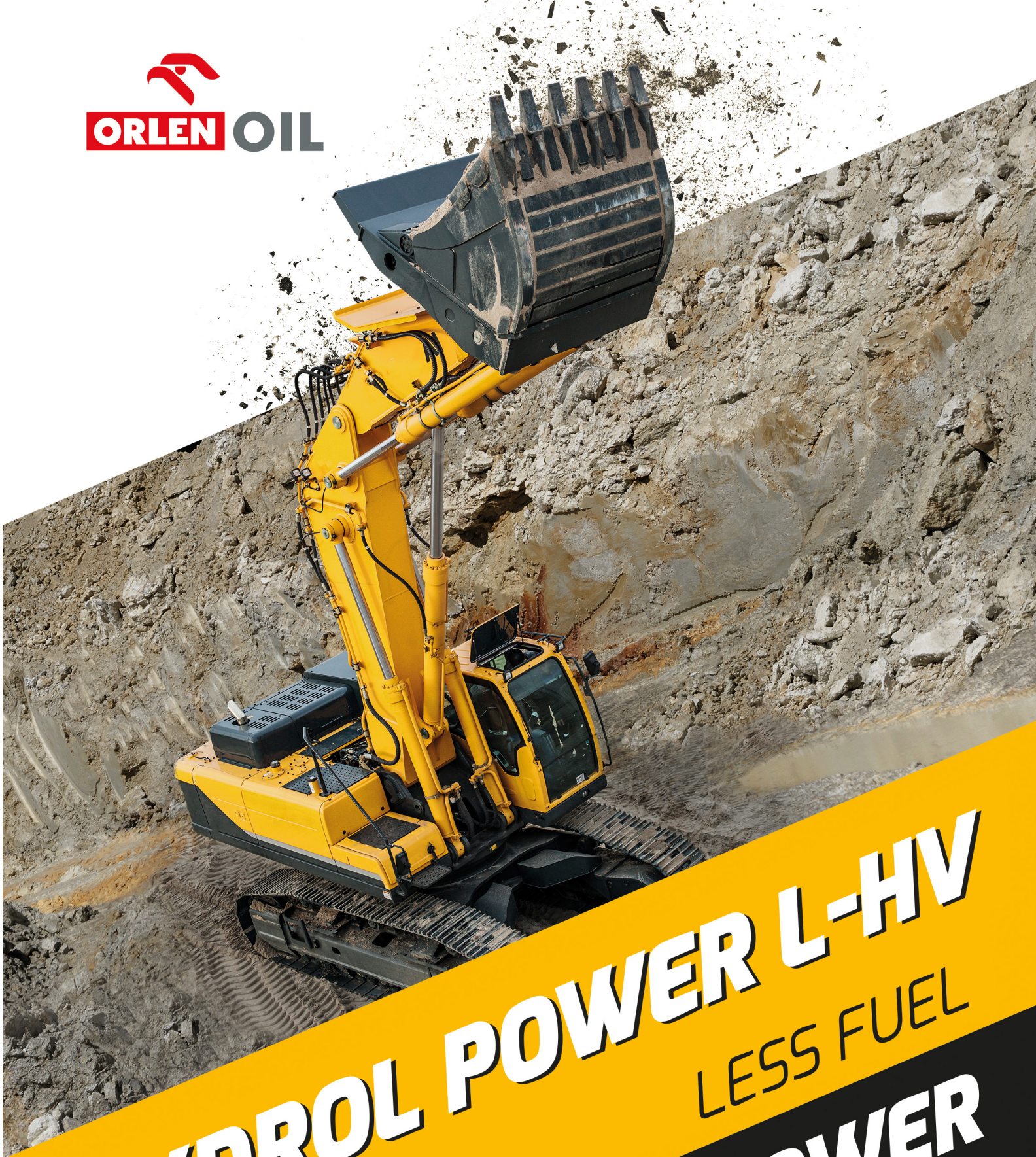
MAG/ Cincinnati Machine P-68, 69, 70

Eaton (Vickers) M-2950-S

Eaton (Vickers) I-286-S

JCMAS HK-1 (ISO 32, 46)

DYNAVIS® Performance Standard



UL. OPOLSKA 114
31-323 KRAKÓW
NIP: 675-11-90-702



ORLEN OIL IN POLAND

LEADER IN THE FIELD OF LUBRICATES

ORLEN OIL is a leading manufacturer and distributor of lubricants, with nearly 20 years of proven track record in the business. **ORLEN OIL** is a member of the **PKN ORLEN S.A.** Capital Group, one of the largest oil corporations in Central and Eastern Europe.

Our consistently growing portfolio of speciality products can cater to the needs of customers from any industrial production sector. Our in-house research and production facilities allow us to create unique and dedicated solutions, that respond to dynamic changes in the demands of the market. **ORLEN OIL's** comprehensive offering of products and services contributes to the optimisation of maintenance costs of industrial sites.

The quality of **ORLEN OIL** products is reflected in the approvals of major recognized industrial machinery manufacturers, such as Flender, Denison Hydraulics, Siemens, Cincinnati Machine, as well as automotive companies, such as Mercedes-Benz, MAN, Renault, BMW, Volkswagen, Volvo, Daimler AG. **ORLEN OIL** has received recommendations from key partners, who use and perform tests on **ORLEN OIL** products.

Our cooperation with global improvement additive manufacturers includes fundamental and application testing of new industrial oil and lubricant technologies. **ORLEN OIL** cooperates with leading Polish research institutions, such as the Oil and Gas Institute of Kraków, the Institute of Fuels and Renewable Energy of Warsaw, or the Kraków University of Technology.

Power Service, our professional oil servicing unit, provides consultancy on the selection of lubricating agents and effective lubrication management under the Total Fluid Management programme.

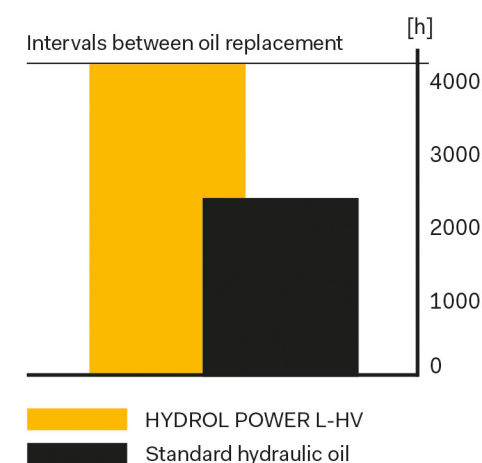
HYDROL POWER L-HV

HIGH VISCOSITY HYDRAULIC OIL WITH DYNAVIS® TECHNOLOGY

HYDROL POWER L-HV is a hydraulic oil with a higher viscosity index and better shear stability. It uses a specially selected formulation, which prevents the formation of acids and residue during the oxidization process, in adverse operating conditions. **HYDROL POWER L-HV** is produced using the **DYNAVIS®** technology by **EVONIK**, which enables reduced fuel consumption, longer intervals between oil changes, as well as increased power and performance of the equipment used.

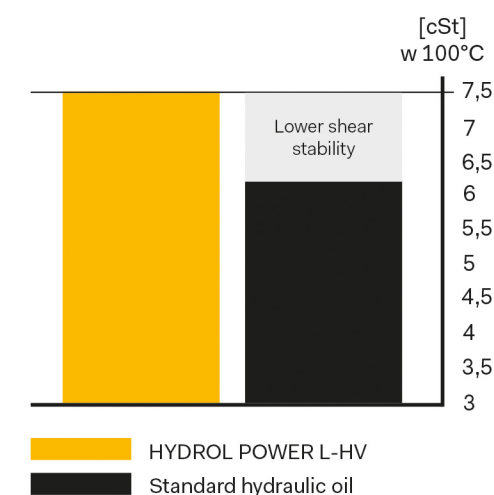
EXTENDED OIL LIFETIME

The oxidization of **HYDROL POWER L-HV** progresses more slowly than in the case of other rival oils. This characteristic helps to extend product lifetime and to reduce costs connected with flushing out and cleaning of the system.



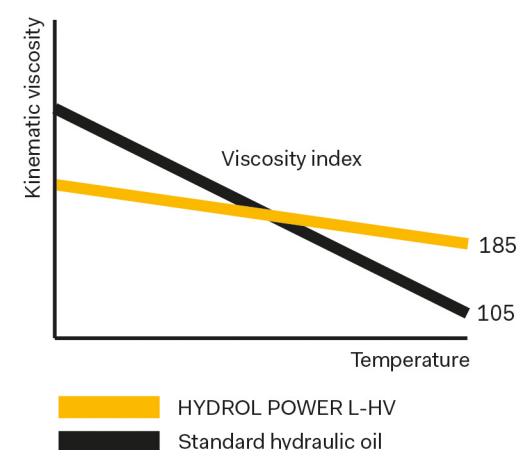
SHEAR STABILITY

HYDROL POWER L-HV ensures excellent lubricating properties, even under heavy loads and in difficult operating conditions.



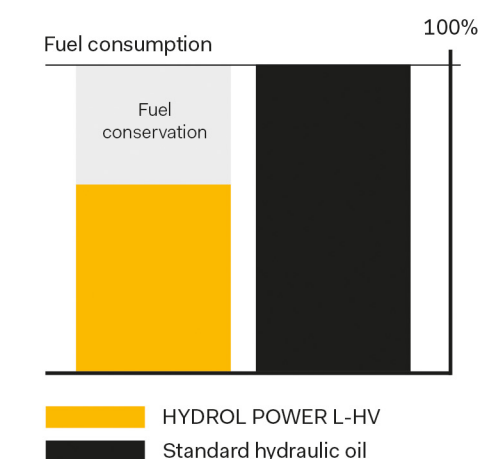
HIGHER VISCOSITY INDEX

HYDROL POWER L-HV offers a high viscosity index and excellent low-temperature performance, which guarantee its operation in a high range of temperatures, and ensure smooth start-up at very low ambient temperatures.



REDUCED FUEL CONSUMPTION

HYDROL POWER L-HV can reduce energy consumption by up to 7%* in stationary machines, and can reduce fuel consumption by up to 15%* in off-road machines, during their operation.



* value of conservation depends on the oil's category of viscosity and on the machine's operating condition