ENGINE PROTECTION PROVEN AFTER 500 HOURS OF OPERATION

INDUSTRY:
Agriculture

APPLICATION:
John Deere 8330 and 6530 tractors

PRODUCT:
MOL Farm Protect E9 15W-40 diesel engine oil

SERVICE:
LubCheck* oil and machine diagnostics

To improve cost efficiency and protect the environment, agricultural machine manufacturers are continually working to develop more advanced machines with low emission diesel engines that require special long life lubricants. A Hungarian farming concern, using advanced operating methods took on the task of testing MOL-LUB's new MOL Farm Protect E9 15W-40 engine oil. The 500 hours of field testing using John Deere tractors proved the outstanding engine life and maximum engine protection provided by MOL Farm Protect E9 engine oil. For certain engine types this oil has allowed us to safely adopt longer oil change intervals: 500 hours instead of 375!

Inside the industry, this enterprise, farming more than 3,700 hectares, is known to be one of the most successful soy producers, thanks to its environment-compatible, self-developed technology.

During 500 hours of testing, MOL Farm Protect E9 15W-40 engine oil proved its excellent engine protection qualities even for machines with long oil change intervals. This oil also completely fulfilled all equipment manufacturer performance requirements. John Deere 8330 and 6530 tractors were used in real life operating conditions. The machines were loaded as per everyday agricultural operations, which means periodically occurring heavy loads: 72% ploughing, 21% field haulage, 6% road haulage and 1% other operations.

Oil samples were taken every 100 hours of operation to check the engine oil's operating condition. The samples were analysed by the internationally acknowledged MOL LubCheck laboratory.

The results proved that MOL Farm Protect E9 15W-40 delivered outstanding engine protection during 500 hours of operation.
The test also proved that changes in oil viscosity were minimal. The oil did not deteriorate and was excellent in dealing with contaminants. Thanks to its stable viscosity level, this engine oil provides optimum lubrication even during extended oil change intervals.

Concentration of ferrous particles from natural machine part wear was far lower than the 75 mg/kg alarm level generally accepted in oil diagnostics. The concentrations of non-ferrous metals from friction bearings were very low as well, thus this oil proved its ability to ensure maximum engine life.

The test proved that MOL Farm Protect E9 15W-40 engine oil can be used for 500 hours of operation risk free whilst still fulfilling machine manufacturer requirements. For certain machine types, this means a decrease in oil consumption by up to 25%. Thanks to efficient wear protection engine maintenance costs can be decreased by up to 15%.

* At the time of the case study the name of our Oil- and machine diagnostics service was called „WearCheck", which changed to "LubCheck" in 2017.

1 CHALLENGE

Using engine oil with extended oil change capability not only provides reliable engine protection but lowers operating costs as well.

2 SOLUTION

Using high performance engine oil and LubCheck oil and machine diagnostics

3 RESULTS

Reliable maximum engine protection for 500 hours of operation, lower oil consumption by up to 25% in certain tractor types. Maintenance costs can be decreased by up to 15%.

LUBCHECK OIL AND MACHINE CONDITION MONITORING

LubCheck diagnostics is the world's leading lubricant-analysis process, which helps to precisely identify the degree of lubricant ageing, degradation and any kind of damage to machines well before its consequences might cause significant losses in production and lead to high repair costs.

STATE-OF-THE-ART LABORATORY

As a pioneer in oil diagnostics and machine condition-monitoring in Central Europe, MOL-LUB Ltd. has been operating a state-of-the art oil testing laboratory for 20 years. The accredited laboratory is a specialist member of LubCheck International and analyses and evaluates several thousand oil samples every year, thus saving its customers significant amounts of money and ensuring more efficient production scheduling.

LUBCHECK DIAGNOSTICS IN 4 SIMPLE STEPS

Sampling	Forwarding samples	Analysis	Expert opinion
Please follow the process described in the attached Information booklet to ensure proper sampling!	Following sampling, please fill in the attached form, and forward the oil sample vessel to the MOL-LUB Ltd. LubCheck laboratory!	The samples received are analysed and a diagnosis is made by lubrication engineering experts.	Test results are summarised within 72 hours and the partner receives an e-mail describing any likely problems and effective preventive maintenance actions to be taken.

WITH THE HELP OF LUBCHECK DIAGNOSTICS

- potential breakdowns can be recognised and identified at an early stage
- any hidden depreciation and irregular operation of machines can be identified and tested
- production losses can be reduced or eliminated
- agricultural equipment repair costs can be reduced
- maintenance will be more precise and easier to plan
- machine oil change intervals can be optimised
- machine reliability can be improved

INDICATORS ARE IMPROVING

- more efficient production scheduling
- optimised lubrication
- significant financial savings
- easy-to-plan maintenance costs

YOUR PARTNER: