

SERVICE LUB

DECEMBER 2017

Agriculture and
public works



PRODUCTS IN THE SPOTLIGHT

LUBRICANTS IN AGRICULTURE

OVERVIEW

A PRODUCT FOR ANY APPLICATION

AGRIBEX 2017

UNIQUE UNIL WINTER PACKAGE



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Agrialle 15W30/15W40

AGRIALLE is a multi-purpose lubricant for agricultural vehicles. It is an STOU lubricant (Super Tractor Oil Universal) that optimally lubricates all parts of agricultural vehicles such as tractors, combine harvesters and chaff cutters.

This universal lubricant is ideal for the rationalisation of your oil stocks: you avoid using incorrect lubricants and keep your stock limited.

Synbio Grease Fluid HIS 68

Synbio Grease is a biodegradable grease. This product ensures the perfect lubrication of axles, couplings, cardan shafts, chains, etc. that come into contact with water, bearings in hydraulic systems and roller spindles. This grease can be used in different sectors such as agriculture, public works and the marine world.

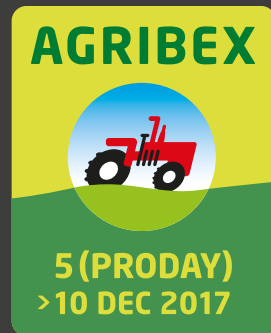
Synbio Grease is extremely environmentally friendly and recommended for general lubrication in agriculture and forestry.

Fluid HIS, a UTTO lubricant (Universal Transmission Tractor Oil), greases all parts (with the exception of the engine) of agricultural vehicles. The anti-wear capability ensures the faultless lubrication of gear wheels, pumps, bearings and the hydraulic system. The anti-friction capability protects the braking system against vibrations and dampens noise. The high viscosity index means the oil retains good viscosity at both high and at low temperatures. Compatibility with seals means they are not damaged or distorted. This results in all parts having a perfect seal.

UNIL creates, innovates and informs...

For more information about our products and services please visit our website: www.unil.com





AGRIBEX 2017

VISIT OUR STAND WITH A CHANCE TO WIN A WINTER PACKAGE FOR YOUR CAR*



In line with tradition, Unil Lubricants will be attending the Agribex fair in hall 5 at Brussels Expo. You can come and visit us from the 5th up to and including the 10th of December. We look forward to meeting you on stand 5113

Agribex is the international trade fair for arable farming, cattle breeding, the garden and green zones. It is Belgium's largest professional agriculture and green space trade fair.

Each day from 10:00 to 18:00.



* For more information see page 12.

The latest technological developments among agricultural vehicles have resulted in higher-performance engines in recent years, that with lower fuel consumption have less impact on the environment. Together with the every-increasingly stringent standards imposed by manufacturers of engines and transmissions, these developments go hand in hand with a real evolution in the use of lubricants in agricultural vehicles.

STOU IS GRADUALLY DISAPPEARING

In line with tradition, STOU (Super Tractor Universal Oil) was often used for the lubrication of tractors. This universal oil was used for the lubrication of the engine, the transmission and all hydraulic systems. The motive behind this was the restriction of the number of oils used.

Besides sustainability, increased productivity and lower maintenance costs, much

more attention is being paid today to lower fuel consumption and fewer emissions from modern engines. Now one multi-purpose oil is no longer sufficient for the modern EURO V and EURO VI engines. Two different products are now required: a specific engine oil and a second oil for the hydraulic system, the brakes and the transmission. The higher quality of the engine oils offers the required performance and helps comply with the requirements set out in the latest emission standards. The aim is also to achieve good fluidity at low temperatures and equally good performance at high temperatures

The latest engine oils developed by UNIL for this purpose are the PALLAS SAE 5W30, 10W30 and 10w40 oils.

FROM UTTO TO SPECIFIC LUBRICATION

With the latest developments in transmission technology in agricultural vehicles

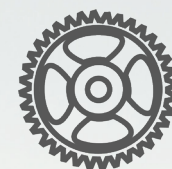
(often fitted with front and/or rear differential), manufacturers are facing increasingly stringent requirements of their lubrication. The use of a UTTO for all systems is therefore becoming less appealing.

Besides the STOU and UTTO fluids, Unil Lubricants has a variety of products in its range that can be used for the lubrication of specific parts of agricultural vehicles. See pages 6 and 7 for a summary of ideal lubrication for your vehicle.

IDEAL LUBRICATION FOR AGRICULTURAL VEHICLES



LUBRICANTS FOR AGRICULTURAL VEHICLES



GEAR WHEELS

The lithium-based greases such as **THERMOPLEX** and **GREASE EP/R** also partly originated for the lubrication of most agricultural applications. These multi-purpose greases are suitable for long-term use in a wide temperature range and for heavy-duty use. This not only enhances operation of the tractor, it also improves the performance of machines for ploughing, rotary cultivation, digging over, sowing, planting, harvesting, cutting, etc.



WINDSCREEN WASHER FLUID

WINDSCREEN ANTIFREEZE is a concentrated windscreen washer with anti-freeze properties. This fluid is manufactured based on numerous biological raw materials that are diluted with water and used in windscreen washing systems in agricultural vehicles. This product works immediately to clean windows while your crop is not affected.



DIFFERENTIAL

GEAR LS is the ultimate lubricant for systems in which API GL-5 LS lubricants are required. This product increases the traction of your agricultural vehicle without any form of engine power loss. Thanks to the Limited Slip (LS) properties of this oil your vehicle also becomes quieter, more effective at the highest torques, reliable under extreme pressure, along with optimal protection with cold starts.



TRANSMISSION

The **MATIC DCT** lubricants were specially developed for use in dual-clutch transmissions (DCT). With this lubricant 100% of the power generated in the engine is transmitted, so there is no loss of energy with the necessary savings as a consequence.

The **MATIC CVT** was in turn exclusively designed for Continuously Variable Transmissions. This lubricant is suitable for transmission systems with both belt and chain.



ENGINE

The **PALLAS** series reduces fuel consumption while improving the power generated by most high quality engines (ACEA E9, E6 and E4).

The **MEDOS** series on the other hand was specially developed to comply with the most stringent requirements set for turbo diesel engines. These lubricants are ideal for the heaviest of agricultural applications.



HYDRAULICS

The **HVB** and **HVC** series are known for their excellent performance in all weather conditions thanks to their wide temperature range.

The **HYDRO NT** series consists of lubricants for hydraulic systems that operate perfectly in a dirty environment. These lubricants have detergent properties and are completely zinc-free.

PRODUCT	VISCOSITY	MAIN STANDARDS	DESCRIPTION
PALLAS 725	15W40	ACEA E7-04-Issue-2-(2007)/E9 • API CJ-4/CI-4PLUS/CI4/CH4/SM/SN • CAT ECF 1a/2/3 • CUMMINS CES 20078/20081 • Detroit Diesel DDC 93K218 • Deutz DQC III-10 • Mack EO-O Premium Plus • MAN 3575 • MB-Approval 228.31 • MTU Type 2.1 • RVI RXD • Renault Truck RLD-3 • Volvo VDS 3/4 •	PALLAS 725 is an all-round high quality LOW SAPS engine oil for heavy diesels. It is the ideal product for the uniformity of lorries, tractors and rolling stock in agriculture or public works. Pallas725 is available with a variety of viscosities and has been formulated to comply with the strict emission requirements imposed on for example Euro 5 and even Euro 6 (for the 10W40).
	5W30		
	10W40	ACEA E9 • API CJ-4/CI-4PLUS/CI4/CH4/SM/SN • CAT ECF 1a/2/3 • CUMMINS CES 20078/20081 • Deutz DQC III-10 LA • Mack EO-O Premium Plus • MAN 3575 • MB-Approval 228.31 • MTU Type 2.1 • RVI RXD • Renault truck RLD-3 • Volvo VDS 3/4 •	
	10W30	ACEA E9-08 issue 2 • API CJ-4/SM • CAT ECF 3 • Cummins CES 20081 • Deutz DQC III-10 LA • JASO DH-2 • Mack EO-O Premium Plus • MAN 3575 • MB 228.31 • MTU Type 2.1 • Renault Truck RLD-3 • Volvo VDS 4 •	
LCM 800	10W40	ACEA A3/B3/E4/E7-08 • API SL/CI4 • CAT ECF 1-a • CAT ECF-2 • CUMMINS CES 20076/20077/20078 • Deutz DQC III-10 • DAF HP-2 • GLOBAL DHD-1 • IVECO • MACK EO-N • MAN 3277 • MB 228.5 • MTU-category 3 • RVI RLD-2/RXD • SCANIA LDF2 • Volvo VDS 3 •	LCM 800 10W40 is an extremely high performance oil adapted for modern 4-stroke diesel engines for transport and public works, while complying with the strictest conditions as regards consumption and load. Suitable for EURO 4 and EURO 5 (SCR technology with AdBlue), not for DPF. Oil change intervals of up to 100,000 km (subject to monitoring by analysis).
MEDOS 700	15W40	ACEA A3/B3/B4/E4/E5/E7 • API CF/CI4/SL • CAT ECF 1a • CAT ECF-2 • CUMMINS CES 20076/20077 • Deutz DQC III-10 • GLOBAL DHD-1 • IVECO • JASO DH-1 • KOMATSU KES07.851.1 • MACK EO-M+/EO-N+ • MAN 3275 • MB 228.3/229.1 • MTU-category 3 • RVI RLD-2 • Volvo VDS 3 • ZF-TE-ML 07C •	S.H.P.D. (Super High Performance diesel) oil consisting of high quality base oils and synthetic components. The perfect engine oil for lubricating old engines up to and including Euro 4 engines with EGR system. Uses range from lorries for motorway transport to heavy diesels for all-terrain work (public works, agriculture and forestry, etc.).
HV-A	ISO VG 32 - 46 - 68	ISO 6743 HV • DIN 51524 Teil 3 HVLP • DENISON HF2 • VICKERS M2950S • VICKERS I 286S • CINCINNATI P69(ISO68)/P70(ISO46) • US STEEL 127/136 • NFE 48603 HV •	HV-A is a hydraulic oil with increased viscosity index to guarantee extremely stable viscosity during temperature changes. The lubrication and protection of machines then remains optimal, also at very low temperatures with the low pour point. HV-A also offers perfect compatibility with rubber seals and bronze. In short, this oil is ideal for use in industry and applications for rolling stock (agriculture, public works, etc.).
Hydralux HV	ISO VG 32 - 46 - 68	DIN 51524 Teil 3 HLP-D • ISO 6743 HV • MAN N698 • NFE 48603 HV • NFE 60200 HV • VICKERS I 286S • VICKERS M2950S •	Hydralux HV is a hydraulic oil with increased viscosity index and detergent properties. This means that Hydralux HV can absorb water (up to 3%) without any danger of corrosion or abnormal wear in the hydraulic system. This specific property makes the oil highly suitable for equipment sensitive to water infiltration and contamination.
Fluid BIO S	ISO VG 46	ISO 6743 HV • DIN 51524 Teil 3 HVLP • Biodegradability according to CEC-L-33-A-93: >95% • Biodegradability according to OECD-301-D: >98% •	Fluid BIO S is a biodegradable hydraulic oil with increased viscosity index. This oil based on synthetic esters offers a perfect lubricating capability (good anti-wear, EP and anti-corrosion properties) even at high pressures. Fluid BIO S is also characterised by good pumpability at low temperatures.
Xanthos	10W40	ACEA E4-08/E7 • ALLISON C4 • API CI-4/GL4 • Case New Holland CNH MAT 3525/3526 • CAT TO2 • John Deere J20C/J20D • MB 228.1 • Massey Ferguson M1139/M1141/M1144/M1145 • NH 410B • VICKERS M2950S • ZF-TE-ML 06A/06B/06C/07B •	Xanthos 10W40 is a multi-purpose lubricant with synthetic components for engines and machines in public works and agriculture. It is an S.T.O.U. (Super Tractor Oil Universal) and recommended for the lubrication of engines, gearboxes, hydrostatic transmissions, hydraulic systems, wet brake systems (very effective in preventing brake noise!) and compressors. In short, a good partner for mixed machinery and for the rationalisation of your oil stock.
Agrialle	10W30 - 15W30 - 15W40	ACEA E4-08/E7 • ALLISON C4 • API CI-4/GL4/GL5 • CAT TO2 • Ford M2C 159B • John Deere J20A/J20C/J27A • Massey Ferguson M1139/M1141/M1144/M1145 • New Holland 82009202 • NH 410B • ZF-TE-ML 06B/06C/07B •	Agrialle, an S.T.O.U. lubricant (Super Tractor Oil Universal), lubricates all parts (engines, hydraulic systems, mechanical transmissions, immersed brakes) in agricultural vehicles: tractors, combines, chaff cutters, etc. The high quality mineral base oil and specific additives guarantee good and reliable protection of the lubricated parts in the short and long term.
Fluid HIS 68	10W30 - ISO VG 68	AGCO POWERFLUID 821XL • ALLISON C4 • API CG-4/GL4 • CAT TO2 • John Deere J20B/J20C/J20D • Massey Ferguson CMS M 1135/1141/1143/1145 • Case New Holland CNH MAT 3505/3509/3525/3540 • CASE MS 1207/1210 • Ford ESN-M2C 86B/86C/134D • FNHA-2-C-200.00 • FNHA-2-C-201.00 • Kubota UDT Fluid • NH 410B • VCE WB 101 • ZF-TE-ML 05F/03E/06K/17E/21F •	Fluid HIS, a UTTO lubricant (Universal Transmission Tractor Oil), lubricates all parts (except the engine) of agricultural vehicles. <ul style="list-style-type: none"> The anti-wear capability ensures the faultless lubrication of gear wheels, pumps, bearings and the hydraulic system. The anti-friction capability protects the braking system against vibrations and dampens noise. The high viscosity index means the oil retains good viscosity at both high and at low temperatures. The low pour point ensures good lubrication at low temperatures. The packing compatibility excludes the deformation of or damage to the packing, while this results in all parts having a perfect seal.
Fluid SVO	ISO VG 32 - 46	API GL4 • ALLISON C4 • CASE MS 1207/1209/1210 • CAT TO2 • Ford M2C 41B/48C/86C/134D • ISO 6743 HV • John Deere J20D • KOMATSU AXO 80 • Kubota UDT Fluid • Massey Ferguson CMS M 1135/1141/1143/1145 • NH 410B • VOLVO WB 101 • VOLVO WB 102 (97304) • ZF-TE-ML 03E/05F/06K •	Fluid SVO is a fully synthetic UTTO oil specially developed for transmissions, hydraulic couplings and immersed brakes. The product satisfies the Volvo WW 102 requirements for wet brakes. This oil has a nature similar to the Fluid HIS 68 in the range, but with its 100% synthetic nature also has a very long life and can be used for extended oil change intervals.
Gear ZF	80W90 - 85W90 - 85W140	API GL5 • MB 235.0 • DAF • KOMATSU KES07.861 • MAN 342 M-1 • MIL-L-2105D • RENAULT • VOITH 3.325-339 • VOLVO 97310/97316 • ZF-TE-ML 01/05A/07A/16B/16C/16D/17B/19B/21A •	Gear ZF is an oil extremely suitable for gear cases (rear drive axles, differentials) in passenger cars, lorries, fork-lift trucks (axles) and agricultural machines (tractor front axles, transmissions and final drives in harvesters, etc.) and can also be used in industrial gearboxes. With its extreme pressure (EP) nature Gear ZF is unsuitable for contact with yellow metals (copper, bronze, etc.), but is ideal for all-round use where an API GL-5 gearbox oil is required.
Supergrease 200	NLGI 2	DIN 51502 KP2K-20 • ISO 6743 ISO-L-XBDHB2 •	Super Grease 200 is a highly adhesive (increased adhesive capacity) multi-purpose lithium/calcium grease, specially adapted to function in extreme temperatures and load conditions such as in public works and agriculture. The grease is highly suitable for bearings, axles, articulations, wheel and hub bearings and central lubricating systems. It is also easy to pump, has good resistance against shocks and centrifuging and it is insoluble in water.
Caliopal	NLGI 2	DIN 51502 KP2K-20 • ISO 6743 ISO-L-XBCHB2 •	Caliopal is a strongly adhesive high quality lubricating grease with a high viscosity base oil. It is a lubricating grease especially for heavily loaded bearings in machines for public works, agriculture and industry. (e.g. bearings in steel rolling mills, dockside cranes and pin and bus connections in earth moving machines) or for the lubrication of exposed gear wheels, heavy chains, tractor saddles, etc. Caliopal is also suitable with the danger of washing out.

Engine oil

Hydraulics

STOU

UTTO

Drive axles and differentials

Greases



NEW CONSTRUCTION WITH THE ENVIRONMENT IN MIND

Phase 1 of the physical extension work at Unil was officially completed in May of this year with the bringing into use of our new building. Much attention was devoted to the most recent developments relating to the environment and safety during the construction of this storage and logistics facility.

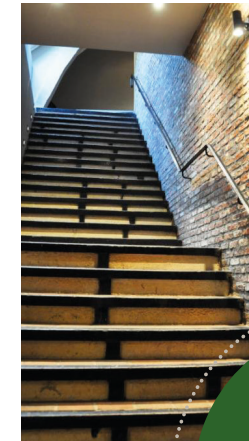
The building is fully bunded and provided with an impervious clay mat to be able to exclude any possible form of leakage or soil

contamination. The considerably sized hall is also fully fitted with LED lighting that is controlled based on natural light intensity and movement detectors.

To minimise the danger of fire, besides the automatic foam extinguishing installation automatically controlled fire doors were fitted with fire-resistance of one hour. The loading space for the electrical fork-lift trucks is fully closed off and provided with hydrogen detection. All energy sources will

be immediately and automatically closed should a danger arise.

Finally, the new construction was exceptionally well insulated. Then the building stays pleasantly cool on hot summer days and warmth can be excellently retained in the winter without the use of extra energy sources.



Go to www.unil.com to find out more about our extension work.



The historical 'Ten Brukom' farmhouse was officially taken over on 10 July 2017. The land and associated industrial area with the magnificent building adjacent to the existing Unil site was purchased in order to further develop the company. The farmhouse dates back to the 17th and 18th centuries.

Although the farmhouse itself is a listed building, a large part of the site on which it stands is designated as an industrial zone. The farmhouse, formerly used as a restaurant, banqueting hall and riding stables, is now dilapidated. It is for this reason that Unil Lubricants decided to work with all the competent authorities to preserve the historic value of the building in a

culturally responsible manner, whilst still integrating it within its business operations. As an example, the office and meeting rooms will eventually be relocated to the farmhouse. Housing the subsidiary - Alpha Maintenance Systems - in the farmhouse is also a possibility.

EXTENSION WITH HISTORICAL FARMHOUSE AND ADJOINING INDUSTRIAL SITE

WINTER PACKAGE

VISIT US AT **AGRIBEX** AND GET A WINTER PACKAGE FOR YOUR CAR.

The cold winter days are almost upon us, and Unil makes sure that you and your vehicle will endure the winter months in complete comfort. We have put a unique winter package together that can be collected from our stand at Agribex.

In this magazine you will find a winter ticket with a personal code. Bring this ticket with you to Brussels Expo between 5 and 10 December and be the lucky owner of one of our **winter packages**.

Collect your winter package from our stand with your enclosed personal code!



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