

“I CHOSE A **BRAND**  
THAT'S **LOOKS LIKE ME,**  
I CHOSE **HAFA**”

# CIVIL ENGINEERING

The use of increasingly high-performance machines in the demanding conditions of construction sites underlines the strategic importance of the choice of lubricants to ensure their maintenance and optimum operation.

HAFA's Civil Engineering range provides an optimum response to these constraints by offering lubricants specially designed to guarantee optimal, long-lasting operation of all the components in your equipment, even in difficult environments. What's more, our team will work closely with you on your day-to-day problems to optimise the durability and performance of your equipment.

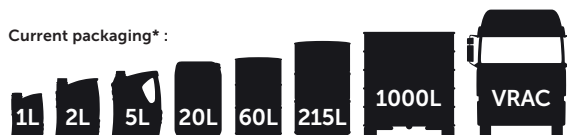


## ENGINE OILS

Discover our range of WOMAC Premium oils, specially designed to meet the requirements of engines used in the Civil engineering sector. Our products are adapted to the engines of construction machinery, and are approved by the manufacturers. With WOMAC Premium, you benefit from top-quality lubrication that guarantees optimum performance and maximum protection for your machines. This ensures increased productivity and gives you peace of mind when working on construction sites.



Designation	Base oil	Grade	Application	Specification	Root code
<b>WOMAC PREMIUM FULL 5W-30</b> 	Synthetic	<b>5W-30</b>	WOMAC PREMIUM FULL 5W-30 has been developed for the lubrication of the latest generation of diesel engines meeting the requirements of the strict TIER 4 Final (Stage IV) emission limitation regulations. WOMAC PREMIUM FULL 5W-30 uses state-of-the-art technology to ensure exceptional performance while reducing fuel consumption. Thanks to its compliance with all ACEA E4/E7/E8/E11 requirements, WOMAC PREMIUM FULL 5W-30 offers simplified maintenance and logistics and reduced risk of error.	ACEA E4/E7/E8/E11 / API CK-4 / Caterpillar ECF-3 / Cummins CES 20081, CES 20086 / DD 93K222, DD93K218 / Deutz DQC IV-18 LA / JASO DH-2 / Mack EOS-4.5 / MAN M3477/M3271-1/M3677/M3775/ M3777 / MB 228.51, MB228.52 / MTU type 3.1, type 2.1 / RVI RLD-3 / Volvo VDS-4.5 / Scania LDF-4	<b>1296</b>
<b>WOMAC PREMIUM FULL 10W-40</b>	Synthetic	<b>10W-40</b>	WOMAC PREMIUM FULL 10W-40 has been developed for the lubrication of the latest generation of diesel engines, meeting the requirements of the TIER 4 Final (Stage IV) emission limitation regulations. WOMAC PREMIUM FULL 10W-40 is formulated using a new additive technology to guarantee optimum operation of post-treatment systems (EGR, SCR or particulate filters). Thanks to its compliance with all ACEA E4/E7/E8/E11 requirements, WOMAC PREMIUM FULL 10W-40 allows for simplified maintenance and logistics and a reduced risk of error.	ACEA E4/E7/E8/E11 / API CK-4 / Caterpillar ECF-3 / Cummins CES 20081, CES 20086 / DD 93K222 / Deutz DQC IV-18 LA / JASO DH-2 / Mack EOS-4.5 / MAN M3477/M3271-1/M3775 / MB 228.51, MB228.52 / MTU type 3.1, type 2.1 / RVI RLD-3 / Volvo VDS-4.5	<b>1288</b>
<b>WOMAC PREMIUM CK-4 5W-40</b>	Synthetic	<b>5W-40</b>	WOMAC PREMIUM CK-4 5W-40 is a synthetic engine oil that meets the requirements of many European and North American manufacturers, suitable for both off-road and on-road applications and for stationary engines. WOMAC PREMIUM CK-4 5W-40 is recommended for lubricating the engines of Civil engineering and agricultural equipment meeting Tier 4 emission standards when these require a SAE 5W-40 viscosity. Thanks to its low ash formulation PREMIUM CK-4 5W-40, ensures optimum operation of exhaust gas post-treatment systems such as particulate filters, SCR (selective catalytic reduction) and catalytic converters.	ACEA E9 / API CK-4 / SN / MB 228.31 / Cummins CES 20086 / DD 93K222 / Ford WSS-M2C171-F1 / Allison TES-439 / Volvo VDS-4.5 / RVI RLD-3 / Mack EOS-4.5	<b>2572</b>
<b>WOMAC PREMIUM E6 5W-30</b> 	Synthetic	<b>5W-30</b>	WOMAC PREMIUM E6 5W-30 is an energy-saving synthetic motor oil. It is specifically designed for lubricating TIER 4i and Tier 4f engines fitted with particulate filters or catalytic exhaust gas treatment. It uses cutting-edge technology to ensure exceptional performance while reducing fuel consumption.	ACEA E6, E7, E9 / API CK-4/SN / Caterpillar ECF-3 / Cummins CES 20086 / DDC DFS 93K222 / Deutz DQC IV-18 LA / JASO DH-2 / Mack EO-S 4.5 / MB 228.51 / MTU Type 3.1 / RVI RLD-3 / Volvo VDS 4.5	<b>1934</b>
<b>WOMAC PREMIUM E6 10W-30</b> 	Semi-synthetic	<b>10W-30</b>	WOMAC PREMIUM E6 10W-30 is an energy-saving Low SAPS lubricant for Tier 4 engines. It has been specially developed to protect new low-emission diesel engines in machinery fitted with particulate filters and exhaust after-treatment systems. It uses state-of-the-art technology to ensure exceptional performance while reducing fuel consumption.	ACEA E6, E7, E9 / API CK-4 / Cat ECF-3 / DD 93K218 / Deutz DQC IV-10 LA / Mack EO-S 4.5 / MAN M3477 / MB 228.51 / RVI RLD-4 / VOLVO VDS-4.5	<b>1297</b>
<b>WOMAC PREMIUM E6 10W-40</b>	Synthetic	<b>10W-40</b>	WOMAC PREMIUM E6 10W-40 is a high-performance Low SAPS lubricant. It is specially formulated for the lubrication of the latest generation of diesel engines, meeting the requirements of Tier 4 emission control regulations. Its level of performance is essential for guaranteeing the efficiency and service life of certain exhaust gas after-treatment systems on these engines.	ACEA E6, E7, E9 / API CI-4 / Cummins CES 20076/77 / Deutz DQC IV-10 LA / Mack EO-N / MAN M 3477 / M 3271-1 / MB 228.51 / MTU type 3.1 / RVI RLD-2 / VOLVO VDS-3	<b>1542</b>



Designation	Base oil	Grade	Application	Specification	Root code
<b>WOMAC PREMIUM E9 10W-30</b> 	Semi-synthetic	10W-30	WOMAC PREMIUM E9 10W-30 is a high-performance synthetic-based lubricant of the Mid SAPS type. It has been specially developed for lubricating the latest generation of diesel engines. It is recommended for agricultural equipment engines meeting Tier 4 pollution control standards. It is formulated using a new technology of additives and Group II base oils, to guarantee optimum operation of exhaust gas post-treatment systems such as particle filters and catalysts fitted to most current engines.	ACEA E7, E9 / API CK-4 / Caterpillar ECF-3 / Cummins CES 20086 / DDC DFS 96K222 / Deutz DQC III-10 LA / Mack EOS-4.5 / MB 228.31 / MTU type 2.1 / RVI RLD-3 / VOLVO VDS-4.5 / Jaso DH-2	1331
<b>WOMAC PREMIUM E9 10W-40</b>	Semi-synthetic	10W-40	WOMAC PREMIUM E9 10W-40 is a high-performance synthetic-based lubricant of the Mid SAPS type. It has been specially developed for lubricating the latest generation of diesel engines. It is recommended for agricultural equipment engines meeting Tier 4 pollution control standards. It is formulated using a new technology of additives and Group II base oils, to guarantee optimum operation of exhaust gas post-treatment systems such as particle filters and catalysts fitted to most current engines.	ACEA E7, E9 / API CJ-4/CK-4 / Caterpillar ECF-3 / Cummins CES 20086 / DDC DFS 93K222 / Deutz DQC III-10 LA / Mack EOS-4.5 / MB 228.31 / MTU type 2.1 / RVI RLD-3 / VOLVO VDS-4.5 / Jaso DH-2	1264
<b>WOMAC PREMIUM E9 15W-40</b>	Mineral group II	15W-40	WOMAC PREMIUM E6 10W-40 is a high-performance Mid SAPS lubricant. It has been specially developed for lubricating the latest generation of diesel engines. It is recommended for agricultural equipment engines meeting Tier 4 pollution control standards. It is formulated using a new technology of additives and Group II base oils, to guarantee optimum operation of exhaust gas post-treatment systems such as particle filters and catalysts fitted to most current engines.	ACEA E7, E9 / API CK-4/SN / Caterpillar ECF-3 / Cummins CES 20086 / DDC DFS 93K222 / Deutz DQC III-18 LA / Ford WSS-M2C171-F1 / Mack EOS-4.5 / MB 228.31 / MTU type 2.1 / RVI RLD-3 / VOLVO VDS-4.5 / Jaso DH-2	1112
<b>WOMAC PREMIUM E4/E7 10W-40</b>	Synthetic	10W-40	WOMAC PREMIUM E4/E7 10W-40 is a high performance Full SAPS lubricant. It is specially formulated for the lubrication of diesel engines meeting the requirements of the Tier 3 / stage III A emission limitation regulations for which an ACEA E7/ E4 performance level is required. It is designed for the most demanding applications, allowing extended drain intervals in accordance with manufacturers' recommendations.	ACEA E4, E7 / API CI-4 / Cat ECF-2 / Cummins CES 20078 / Deutz DQC IV-10 / JASO DH-1 / Mack EO-N / MAN M 3277 / MAN M 3377 / MB 228.5 / MTU type 3 / RVI RLD-2 / VOLVO VDS-3	446
<b>WOMAC PREMIUM E7 10W-40</b>	Semi-synthetic	10W-40	WOMAC PREMIUM E7 10W-40 is a top-of-the-range lubricant recommended for the lubrication of supercharged diesel engines operating in very severe conditions. Thanks to its synthetic-based formulation and high-performance additives, it provides long-lasting lubrication. It is designed for the lubrication of engines used in the agricultural sector, and more specifically for recent technology engines meeting the TIER 3 pollution control standard.	ACEA E7 / API CI-4/SL / Cummins CES 20076/20077 / MAN M3275-1 / MACK EO-N / MB 228.3 / MTU Type 2 / RVI RLD-2 / Volvo VDS-3	349
<b>WOMAC PREMIUM E7 15W-40</b>	Mineral	15W-40	WOMAC PREMIUM E7 15W-40 is a high-end SHPD (Super High Performance Diesel) lubricant, suitable for the lubrication of powerful diesel engines manufactured by European, American and Japanese manufacturers for non-road applications. It provides optimum protection under the severe stresses encountered in heavily loaded engines that meet Tier 3 emissions standards and ACEA E7 requirements.	ACEA E7 / ACEA A3/B4 / API CI-4/SL / Cat ECF-2 / Cummins CES 20077/20078 / JASO DH-1 / MACK EO-N / MAN M3275-1 / MB 228.3 / MTU Type 2 / Volvo VDS-3 / RVI RLD-2	391



## ENGINE OILS

Discover our range of WOMAC Initial oils, specially designed to meet the requirements of engines used in the Civil engineering sector. Our products are adapted to the engines of construction machinery, even without manufacturer approval.

With WOMAC Initial, you benefit from a high-quality oil that provides effective lubrication and reliable protection for your equipment. This extends their life and ensures continued productivity on your public works sites.



Designation	Base oil	Grade	Application	Specification	Root code
<b>WOMAC INITIAL E4 10W-40</b>	Synthetic	10W-40	WOMAC INITIAL E4 10W-40 is a synthetic-based lubricant of the Full SAPS type. It is specially formulated for the lubrication of diesel engines, meeting the emission requirements of Tier 3 or Stage IIIA pollution standards. Its level of performance guarantees effective lubrication in the most severe conditions, and allows extended drain intervals as recommended by manufacturers, significantly reducing vehicle downtime. It is particularly recommended for use in quarries, agriculture and materials handling.	ACEA E4, E7 / API CI-4 / Cat ECF-2 / Cummins CES 20078 / Deutz DQC IV-10 / JASO DH-1 / MTU type 3	10
<b>WOMAC INITIAL E7 15W-30</b> 	Mineral	15W-30	WOMAC INITIAL E7 15W-30 is an energy-saving mineral technology lubricant of the SHPD (Super High Performance Diesel) type. It is designed for the lubrication of engines used in the agricultural sector that comply with the Tier 3/Stage III a pollution control standard.	ACEA E7 / API CI-4/SL / Cat ECF-2 / Cummins CES 20077/20078 / MACK EO-N / MAN M3275 / MB 228.3 / RVI RLD-2 / VOLVO VDS-3	1231
<b>WOMAC INITIAL E5 15W-40</b>	Mineral	15W-40	WOMAC INITIAL E5 15W-40 is a top-of-the-range SHPD (Super High Performance Diesel) type lubricant, SAE 15W-40 grade, particularly suited to the lubrication of diesel engines, whether or not they are equipped with turbochargers contributing to compliance with the anti-pollution standards imposed on Tier 2 / Tier 3 engines (stage II / stage III A). It is adapted to the most severe operating conditions for agricultural activities.	ACEA E5 / API CH-4/SJ / MAN M3275-1 / MB 228.1 / MTU type 2 / Volvo VDS-2	29
<b>WOMAC INITIAL E3 15W-40</b>	Mineral	15W-40	WOMAC INITIAL E3 15W-40 is a superior SAE 15W-40 SHPD (Super High Performance Diesel) lubricant, particularly suited to the lubrication of previous generation turbocharged diesel engines, especially those meeting Tier 2/Stage II emission standards. It is ideal for all agricultural activities, over short or long distances.	ACEA E3 / API CG-4/SJ / MAN 3275-1 / MB 228.1 / VOLVO VDS	215
<b>WOMAC INITIAL E2 15W-40</b>	Mineral	15W-40	WOMAC INITIAL E2 15W-40 is an oil suitable for lubricating older generation diesel engines, whether supercharged or naturally aspirated, which can operate in severe conditions. It is suitable for agricultural machinery engines that require an oil with API CG-4 classification. It is suitable for agricultural machinery engines that require an oil with API CG-4 classification.	ACEA E2 / API CG-4/SH / MAN 271 / MB 228.1 / VOLVO VDS	257
<b>WOMAC INITIAL E2 20W-50</b>	Mineral	20W-50	WOMAC INITIAL E2 20W-50 is an oil suitable for lubricating older generation diesel engines, whether supercharged or naturally aspirated, which can operate in severe conditions exposing the engine to high heat. It is suitable for agricultural machinery engines where the manufacturer authorises the use of a mineral oil with a viscosity of SAE 20W-50 with the specifications cited.	ACEA E2 / API CG-4/SH / MAN 271 / MB 228.1 / VOLVO VDS	19
<b>WOMAC INITIAL CF 10W-30</b>	Mineral	10W-30	WOMAC INITIAL CF 10W-30 is a mineral-based engine lubricant designed for use in petrol and diesel engines for which the manufacturer recommends an API SJ/CF or earlier specification with a SAE 10W-30 viscosity. WOMAC INITIAL CF 10W-30 can also be used in the gearboxes or hydraulic systems of certain models of handling equipment.	API SJ/CF	146

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<b>WOMAC INITIAL CF-4 15W-40</b>	Synthetic	10W-40	WOMAC INITIAL CF-4 15W-40 is a mineral lubricant, recommended for the lubrication of diesel engines of industrial vehicles, whether or not they are supercharged, operating in the most severe conditions in all seasons. HE is suitable for extended drain intervals (up to 30,000 km depending on the manufacturer). He is suitable for engines meeting the Euro II (heavy goods vehicles and buses) and Tier 2/Stage II (public works equipment and agricultural machinery) standards, which regulate pollutant emissions. WOMAC INITIAL CF-4 15W-40 is also recommended for hydraulic systems and torque converters or transmissions in agricultural and Civil engineering equipment when an engine oil is required. He can be used for petrol engines. He is not suitable for engines with particulate filters.	ACEA E2 / API CF/SH / MAN M271 / MB 228.1 / VOLVO VDS	2056
<b>WOMAC INITIAL CI-4 15W-40</b>	Mineral	15W-30	WOMAC INITIAL CI-4 15W-40 is a mineral lubricant dedicated to diesel engines for on-road and off-road applications requiring compliance with the API CI-4 standard and where the SAE 15W-40 viscosity grade is required. He is also suitable for engines with exhaust gas recirculation systems. He provides optimum protection under the severe stresses encountered in heavily loaded engines. He guarantees control of viscosity loss due to shearing and therefore good engine lubrication. This engine lubricant also meets the requirements of the ACEA E7 standard.	API Ci-4 / VOLVO VDS-3 / Renault Vi RLD-2 / Detroit diesel DD93K215 / MTU type 2 / Mack EO-N / MB 228.3 / MAN M3275 / CAT ECF-1a, ECF-2 / Cummins CES 20076	2729

## MONOGRADE OILS

Discover the WOMAC MONO range, a range of monograde oils specially designed to meet the needs of Civil engineering professionals. Each variant of this range is developed for specific applications, offering optimum lubrication in different contexts.

Whether you need a monograde oil with a viscosity of SAE 10W, 20W, 30, 40 or 50, WOMAC MONO has a solution to suit your needs. These oils are recommended for a variety of uses, from hydraulic systems to transmissions and gearboxes of Civil engineering equipment.



Designation	Base oil	Grade	Application	Specification	Root code
<b>WOMAC MONO 10W</b>	Mineral	10W	WOMAC MONO 10W is particularly suitable for hydraulic systems and transmissions where a monograde SAE 10W viscosity engine oil with dispersant/detergent properties is required.	API SG / CD	69
<b>WOMAC MONO 20W</b>	Mineral	20W	WOMAC MONO 20W is particularly recommended when a monograde oil with a viscosity of SAE 20W is required. It is also suitable for certain hydraulic systems such as Liebherr or in the lifting systems of certain Fendt models requiring an engine oil with a viscosity of SAE 20W-20.	API SG / CD	70
<b>WOMAC MONO 30</b>	Mineral	30	WOMAC MONO 30 is particularly recommended when a monograde oil with a viscosity of SAE 30 is required. It can also be used to lubricate various types of equipment such as certain hydraulic systems or gearboxes that leak sulphur additives (powershift gearbox).	API SG / CD	21
<b>WOMAC MONO 40</b>	Mineral	40	WOMAC MONO 40 is particularly recommended when a monograde oil with a viscosity of SAE 40 is required. It can also be used to lubricate various types of equipment such as heavy-duty gearboxes on certain machines.	API SG / CD	22
<b>WOMAC MONO 50</b>	Mineral	50	WOMAC MONO 50 is particularly recommended when a monograde oil with a viscosity of SAE 50 is required. It can also be used in petrol engines requiring an API SG classification.	API SG / CD	1155

## GEAR OILS

Discover the WOMAC Gear range, superior quality transmission oils specially designed to meet the needs of Civil engineering professionals. WOMAC Gear oils offer maximum protection and optimum performance for the transmissions of Civil engineering equipment. Their advanced formulation ensures effective lubrication, reducing friction and wear, resulting in extended life for transmission components.



Designation	Base oil	Grade	Application	Specification	Root code
WOMAC GEAR GL4 75W-80	Synthetic	75W-80	WOMAC GEAR GL4 75W-80 is suitable for the lubrication of delicate and «hard» gearboxes in cold weather and allows extended drain intervals. WOMAC GEAR GL4 75W-80 is specifically designed for gearboxes equipped with Intarder, for synchronised manual transmissions and automated manual transmissions. WOMAC GEAR GL4 75W-80 is also suitable for new gearboxes fitted with carbon synchronisers.	API GL-4 / MAN 341 type E-3/ MAN 341 type Z-4 / VOLVO 97305 / ZF TE-ML 08 / EATON Europe / DAF / IVECO ZF TE ML 02L/01L/16K	1550
WOMAC GEAR GL4 75W-80 FE	Semi-synthetic	15W-30	WOMAC GEAR GL4 75W-80 FE is a synthetic-based lubricant specially designed for the lubrication of manual and robotised gearboxes in industrial vehicles operating under the most severe conditions. WOMAC GEAR GL4 75W-80 FE has been formulated to meet the most stringent requirements of manufacturers. WOMAC GEAR GL4 75W-80 FE is specially adapted for gearboxes equipped with intarder, for Volvo gearboxes requiring a Volvo 97307 level as well as for manual gearboxes of industrial and commercial vehicles from RENAULT TRUCKS, MAN, DAF, IVECO.	API GL-4 / MAN 341 type Z-5 / MB 235.28 / VOITH Class B / VOLVO 97307 / ZF TE-ML 01E, 02E, 16P	1287
WOMAC GEAR GL4	Mineral	80W	WOMAC GEAR GL4 are mineral oils suitable for the lubrication of mechanical transmissions such as mechanical gearboxes, reduction gears, angular gearboxes and steering gearboxes on agricultural or handling machinery, where API GL-4 performance level is required. WOMAC GEAR GL4 is available in 4 viscosities: SAE 80W, SAE 80W-90, SAE 85W-140 and SAE 250. They are designed to operate under normal conditions and are intended for use in low load systems.	API GL-4	232
		80W-90			45
		85W-140			46
		250			233
WOMAC GEAR GL5 S	Semi-synthetic	80W-90	WOMAC GEAR GL5 S are semi-synthetic lubricants suitable for lubricating mechanical transmissions in agricultural equipment and high-performance industrial gears. They are particularly suitable for applications such as bridges, differentials and gear trains used in difficult conditions. They provide effective lubrication to prevent gear seizure.	API GL-5 / MIL PRF-2105 E	347
		80W-140			42
WOMAC GEAR GL5	Mineral	80W	WOMAC GEAR GL5 are extreme-pressure mineral oils that can be used in a wide range of applications: mechanical gearboxes, differentials, final drives, angular gearboxes, hypoid axles in agricultural or handling machinery, where API GL-5 performance level is required. They are designed to operate in severe service conditions (heavy loads or high temperatures).	API GL-5	408
		80W-90		API GL-5 / MIL PRF-2105E / MAN 342 M1 / MAN 342 M2 / NATO O-226 / ZF 05A/12E/16B/16C/17B/19B/21A	43
		85W-140		API GL-5 / MIL PRF-2105E / ZF 05A/12E/16C/21A	44
WOMAC GEAR GL5 LS	Mineral	80W-90	WOMAC GEAR GL5 LS are extreme-pressure mineral lubricants specially designed to lubricate heavily loaded mechanical transmissions fitted with limited-slip self-locking differential systems on agricultural machinery. They can also be used in axles not equipped with automatic self-locking differential requiring an API GL-5 level oil combined with a SAE 80W-90 or SAE 85W-140 viscosity.	API GL-5 LS	242
		85W-140			449

Designation	Base oil	Grade	Application	Specification	Root code
WOMAC GEAR TO4 30	Mineral	30	WOMAC GEAR TO4 30 is a transmission fluid specifically formulated to meet the lubrication requirements of hydraulic circuits, hydraulic brake systems, powershift transmissions, clutches, etc. on CATERPILLAR equipment. It is also perfectly suited to the lubrication of KOMATSU machines.	ALLISON C-4 / CATERPILLAR TO-4 / KOMATSU KES 07.868.1	66
WOMAC GEAR TO4 50	Mineral	50	WOMAC GEAR TO4 50 is a transmission fluid specifically formulated to meet the lubrication requirements of powershift or mechanical transmissions, axles, final drives, etc. on CATERPILLAR equipment. It is also perfectly suited to the lubrication of KOMATSU machines.	ALLISON C-4 / CATERPILLAR TO-4 / KOMATSU KES 07.868.1	403
WOMAC GEAR TPA 80W-90	Mineral	80W-90	WOMAC GEAR TPA 80W-90 is a high performance oil designed for lubricating axles fitted with a limited slip self-locking differential system on agricultural machinery transmission systems. It is suitable for lubricating the specific axles of construction equipment such as Liebherr and Terex, meeting the requirement of a phosphorus content of over 1900 ppm. They can also be used in axles not equipped with self-locking differential requiring an API GL-5.	API GL5 LS / MIL-L-2105D / ZF TE-ML 05C, 07, 12C, 16E, 21C	362
WOMAC GEAR TDL 80W-140	Semi-synthetic	80W-140	WOMAC GEAR TDL 80W-140 is a high-performance, semi-synthetic lubricant for lubricating the entire drive train: axles, reduction gears, differentials, final drives.... WOMAC GEAR TDL 80W-140 is mainly recommended for certain civil engineering and agricultural machinery.	API GL-4 / API GL-5 / API MT-1 / MIL PRF 2105 E / SAE J2360 / MACK GO-J / MAN 3343M / SCANIA STO 1:0	253
WOMAC GEAR TDL S	Synthetic	75W-90	WOMAC GEAR TDL S are 100% synthetic lubricants for lubricating the entire drive train (synchronised or non-synchronised gearboxes, differential bridge, etc.) of all types of non-road vehicles, particularly agricultural machinery, in the most severe conditions of use. These TDL (Total Drive Line) products can be used in gearboxes and axles. Their addition and specific formulation give them very high extreme-pressure properties and excellent load-bearing capacity.	API GL-4 / API GL-5 / MIL-PRF-2105 E / MAN 341 Z2 / MAN 342 M2 / SCANIA STO 1:0 / VOLVO 97310 / ZF TE-ML 02B, 05A, 07A, 08A, 16B/D, 17B	7
		75W-140		API GL-4 / API GL-5 / MIL-PRF-2105 E / MAN 342 M2 / MAN 341 Z2 / SCANIA STO 1:0	1157
WOMAC GEAR ATF D VI	Synthetic	-	WOMAC GEAR ATF D VI is a synthetic fluid for new-generation automatic transmissions complying with the Dexron VI standard. It is a fluid for automatic gearboxes, wet clutches, power steering, steering boxes and transfer cases. It is an ATF fluid that is particularly well suited to handling or agricultural machinery when one of these specifications is required.	ALLISON C-3, C-4 / FORD MERCON, WSS M2C 138 C3, WSS M2C 166H, WSS M2C 922 A1, WSS M2C 924 A, JWS 3309 /, GM DEXRON II, IID, IIE, IIIG, IIH, VI / TASA / JASO M315-2013 1A, MAN 339A, M315-2013 1A-LV, M315-2013 2A / SK, SP-II, SP-III, AW, J2, J3, ATF PA / VOITH 55.6335.xx (G607) / VOLVO CE 97340, 97325, 97335 / ZF TE-ML 05L/09/11A/11B/21L	1786
WOMAC GEAR ATF D III	Semi-synthetic	-	WOMAC GEAR ATF D III is a semi-synthetic fluid for automatic gearboxes, torque converters, power steering and hydrostatic transmissions meeting the Dexron III standard. It is an ATF fluid that is particularly well suited to handling or agricultural machinery when one of the following specifications is required.	ALLISON C-4 / FORD MERCON / GM DEXRON IIIG / MAN 339 Type V-1 / MAN 339 Type Z-1 / MB 236.1 / MB 236.5 / VOITH 55.6335 / VOLVO 97341 / ZF TE-ML 02F/03D/04D/05L/09/11B/14A/17C/21L	30
WOMAC GEAR ATF D II	Mineral	-	WOMAC GEAR ATF DII is a mineral fluid suitable for the lubrication of automatic or semi-automatic transmissions, hydraulic couplings, torque converters, power steering and hydrostatic transmissions, when one of the specifications below is required. It is an ATF fluid of the Dexron II type mainly used for agricultural or handling equipment.	GM DEXRON IID/ MB 236.2 / FORD ESP-M2C166-H/ FORD ESP-M2C138-CJ	49
WOMAC GEAR ATF 33 F/G	Mineral	-	WOMAC GEAR ATF 33 F/G is recommended for all transmissions and hydraulic circuits of agricultural and handling machines for which the manufacturer recommends a Ford M2C 33 F or M2C 33 G type fluid. It is suitable for lubricating automatic gearboxes, torque converters, power-assisted steering systems, hydraulic clutches and hydrostatic transmissions requiring this type of lubricant.	FORD WSS M2C 33 F / FORD WSS M2C 33 G / VOLVO 97330	31

WOMAC GEAR AURAE	Synthetic esters saturated	150	WOMAC GEAR AURAE are low environmental impact gear oils based on saturated synthetic esters, designed for all types of gears for which a CLP DIN 51517 type oil is required. They are designed for the lubrication of spur gears, bevel gears and planetary gears operating under high loads and in areas likely to cause environmental pollution as a result of leaks. They are also ideal for lubricating chains and wire ropes.	DIN 51517 Part 3 CLP	2408
		220			2409

## HYDRAULIC FLUIDS

A vital component of your systems par excellence, a wise choice of hydraulic fluid will ensure the durability of your machines and optimise your systems efficiency. By protecting them from corrosion, reducing wear or minimising the formation of residues, whatever the conditions of use, our WOMAC HYDROL fluids meet all your requirements.



Designation	Base oil	Grade	Application	Specification	Root code
WOMAC HYDROL HV	Mineral	32	WOMAC HYDROL HV are high viscosity index hydraulic oils recommended for industrial or mobile hydraulic power units requiring HV type oil. They are specially designed for hydraulic systems operating in a wide range of temperatures where cold starts are frequent. Thanks to their zinc-based anti-wear additive, they can be used in systems operating under normal conditions.	AFNOR NF E 48 603 HV ISO 6743-4 HV	50
		46			78
		68			139
WOMAC HYDROL HV BLUE	Mineral	68	WOMAC HYDROL HV 68 BLUE are high viscosity index hydraulic oils recommended for industrial or mobile hydraulic power units requiring HV type oil. They are specially designed for hydraulic systems operating in a wide range of temperatures where cold starts are frequent. Thanks to their zinc-based anti-wear additive, they can be used in systems operating under normal conditions. It contains a coloring to detect the slightest leak.	AFNOR NF E 48 603 HV ISO 6743-4 HV	1643
WOMAC HYDROL HV HFO	Mineral	15	WOMAC HYDROL HV HFO are high viscosity index hydraulic oils, recommended for industrial or mobile hydraulic units operating outdoors and requiring an HV or HVLP type oil. They are specially designed for hydraulic systems operating over a wide temperature range, where cold starts and high operating temperatures are frequent. WOMAC HYDROL HV HFOs offer superior performance in terms of filterability and wear resistance thanks to a formulation based on highly refined new mineral base oils and stabilised zinc-based additives.	AFNOR NF E 48 603 HV ISO 6743-4 HV DIN 51524-3 HVLP ISO 11158 HV PARKER HF-0, HF-2 Eaton Vickers I.286 S	1490
		22			37
		32			2255
		46			2394
		68			2281
		100			992
WOMAC HYDROL HV 46 C	Mineral	46	WOMAC HYDROL HV 46 C has been specially designed for use in all hydraulic systems subject to temperature variations. WOMAC HYDROL HV 46 C is suitable for the lubrication of Civil engineering or agricultural equipment as well as any hydraulic system where an HV 46 fluid is required. WOMAC HYDROL HV 46 C is a hydraulic oil with stabilised zinc additives that protect against wear. Its green colour makes it easy to detect the slightest leak.	AFNOR NF E 48 603 HV ISO 6743-4 HV	1863
WOMAC HYDROL HV 46 PO	Mineral	46	WOMAC HYDROL HV 46 PO is an anti-wear hydraulic fluid with a high viscosity index, specially developed to meet the requirements of certain equipment operating under severe temperature and pressure conditions. WOMAC HYDROL HV 46 PO is particularly suited to the lubrication of POCLAIN, RICHIER, PINGON equipment and any hydraulic system for agricultural or Civil engineering equipment where a high performance ISO HV 46 grade fluid is required. WOMAC HYDROL HV 46 PO is a high performance oil with excellent resistance to oxidation, enabling stable performance to be maintained over extended periods of use.	AFNOR NF E 48 603 HV DIN 51524-3 HVLP ISO 6743-4 HV	38



Designation	Base oil	Grade	Application	Specification	Root code
WOMAC HYDROL HVI 46	Minérale	46	WOMAC HYDROL HVI 46 is an anti-wear hydraulic fluid with a specific viscosity improver additive that enables it to be used in extreme temperature conditions or for systems working at high pressures. Thanks to its viscosity index of 180, WOMAC HYDROL HVI 46 is suitable for all heavily loaded hydraulic systems subject to wide temperature variations. WOMAC HYDROL HVI 46 is suitable for a wide range of applications, including Civil engineering, forestry,	NF E 48 603 HV ISO 6743-4 HV DIN 51524-3 HVLP ISO 11158 HV Eaton 35 VQ 25 Eaton 104C	1974
WOMAC HYDROL HV PLUS 46	Mineral	46	WOMAC HYDROL HV PLUS 46 is an anti-wear hydraulic fluid with a specific viscosity improver additive that enables it to be used in extreme temperature conditions. Thanks to its viscosity index of 220, WOMAC HYDROL HV PLUS 46 is suitable for all heavily loaded hydraulic systems subject to wide temperature variations. WOMAC HYDROL HV PLUS 46 is suitable for a wide range of applications, including Civil engineering, forestry, agricultural and industrial machinery.	DIN 51524-3 HVLP AFNOR NF E 48 603 HV ISO 6743-4 HV Eaton I-286S	380
WOMAC HYDROL HV ZF	Mineral	15	WOMAC HYDROL HV ZF are zinc-free hydraulic fluids formulated to meet the technical requirements of hydraulic systems operating in severe conditions, particularly with high temperatures and pressures. WOMAC HYDROL HV ZF oils provide efficient lubrication of hydraulic circuits in precision machines equipped with proportional and servovalve controls, such as machine tools, injection moulding machines, presses and other fixed or mobile equipment.	DIN 51524 part 3 HVLP Denison HF-0, HF-1; HF-2 ISO 6743-4 HV Vickers I-286-S ISO 11158 HV Vickers M-2950-S General Motor LS-2 Bosch Rexroth RE90220	613
		22			496
		32			430
		46			231
		68			468
WOMAC HYDROL HV XLT	Mineral	15	WOMAC HYDROL HV XLT 15 is a hydraulic fluid developed for heavy-duty hydrostatic circuits operating at high pressures and extreme temperatures, particularly at very low temperatures. WOMAC HYDROL HV XLT 15 is also used in hydraulic systems equipped with vane pumps and piston pumps in industry, as well as on forestry, Civil engineering and extrication equipment.	-	640
WOMAC HYDROL HVLPD	Mineral	46	WOMAC HYDROL HVLPD, ISO VG 46 viscosity, is a detergent ash-free, anti-wear hydraulic oil with a high viscosity index. WOMAC HYDROL HVLPD is particularly recommended for systems subject to temperature variations and in harsh environments where the presence of water is unavoidable. WOMAC HYDROL HVLPD is used in the hydraulic systems of Civil engineering machinery or telescopic forklift-trucks where the manufacturer recommends a detergent hydraulic oil.	DIN 51524-3 HVLPD	2055
WOMAC HYDROL HV LL	Mineral group II	46	WOMAC HYDROL HV LL 46 is an anti-wear hydraulic fluid with a high viscosity index, formulated with group II base oils to extend equipment maintenance intervals by resisting thermal and chemical degradation. WOMAC HYDROL HV LL 46 is designed to meet the needs of hydraulic systems in industrial or mobile equipment subject to wide temperature variations. WOMAC HYDROL HV LL 46 is also suitable for hydraulic systems requiring a high degree of load or operating at high pressure.	DIN 51524-3 HVLP ISO 1158 HV ASTM D6158 HV Parker Denison HF-0, HF-1, HF-2 Fives Cincinnati P-70	2541
WOMAC HYDROL HM	Mineral	32	WOMAC HYDROL HM are hydraulic fluids with a natural viscosity index, specially adapted for fixed or mobile hydraulic systems requiring HM or HLP type anti-wear hydraulic oil. They can also be used to lubricate movements by circulation or splashing (bearings, various movements, etc.).	AFNOR NF E 48 603 HM ISO 11158 HM ISO 6743-4 HM	227
		46			228
		68			229
WOMAC HYDROL HM HFO	Mineral	15	WOMAC HYDROL HM HFO are HM or HLP type anti-wear hydraulic oils designed for the lubrication of hydraulic circuits in industrial or mobile equipment. They are designed to operate under normal conditions, particularly with regard to operating temperature and hydraulic circuit pressure. These products are formulated from highly refined new mineral base oils and stabilised zinc-based additives, giving them excellent wear protection and remarkable filterability. They can also be used to lubricate movements by circulation or splashing (bearings, various movements, etc.).	AFNOR NF E 48 603 HM ISO 6743-4 HM DIN 51524 part 2 HLP ISO 11158 HM PARKER HF-0, HF-2 Cincinnati Lamb P- Eaton 104C vane pump test Eaton 35VQ25	213
		22			214
		32			258
		46			239
		68			2582
		100			230
		150			176
		220			177
		320			178

Designation	Base oil	Grade	Application	Specification	Root code
WOMAC HYDROL TO4 10W	Mineral	10	WOMAC HYDROL TO4 10W is a fluid specifically formulated to meet the lubrication requirements of hydraulic circuits, hydraulic brake systems, hydrostatic transmissions, etc. on CATERPILLAR equipment. It is also perfectly suited to the lubrication of KOMATSU machines.	ALLISON C-4 / CATERPILLAR TO-4 / KOMATSU KES 07.868.1	327
WOMAC HYDROL FLUID B	Mineral	46	WOMAC HYDROL FLUID B is a paraffinic hydraulic lubricant with a natural viscosity index, suitable for general lubrication of lightly loaded hydraulic systems by circulation, splashing or under pressure. It is recommended for lubricating the hydraulic systems of tippers, jacks, pit jacks, 2-post, 4-post hydraulic lifts and scissor lifts when the manufacturer recommends an ISO VG 46 viscosity.	AFNOR NF E 48603 HL	41
WOMAC HYDROL UTTO XT	Mineral group II	-	WOMAC HYDROL UTTO XT is an UTTO fluid for lubricating transmissions, hydraulic circuits, clutch systems and submerged brakes on agricultural equipment. WOMAC HYDROL UTTO XT is a high performance lubricant specially formulated from group II base oils to meet the new requirements of a majority of manufacturers in the agricultural, Civil engineering and materials handling sectors. Its response to numerous recent specifications simplifies stock management and reduces the risk of error.	API GL-4 / John Deere J20C / Ford ESN-M2C86C / Ford ESN-M2C134A / Ford ESN-M2C134C / Ford ESN- M2C134D / Ford FNHA-2-C-201.00 / CASE MS 1204 / CASE MS 1206 / CASE MS 1207 / CASE MS 1209 / Kubota UDT / Kubota Super UDT / CNH MAT 3525 / CNH MAT 3540 / MF M1135 / MF M1143 / MF M1145 / MF1127A / NH 410B / NH 420A / Valtra G2-08 / Valtra G2-B10 / Vickers Eaton I-286-S / Vickers Eaton M2950S / Volvo WB 101	2628
WOMAC HYDROL UTTO JVN	Mineral	-	WOMAC HYDROL UTTO JVN is an UTTO SAE 10W-30 ISO VG 68 mineral fluid for transmissions, hydraulic circuits, clutch systems and wet brakes in agricultural equipment. It is a fluid specially developed to meet the stringent lubrication requirements of agricultural tractors and handling equipment. Because it meets different specifications, it is suitable for a wide range of equipment, reducing lubricant stocks and the risk of errors.	API GL-4 / Case New Holland MAT 3525 / Caterpillar TO-2 / FORD M2C 134 D / John Deere J 20 C / MF 1139 / 1143 / 1144 / 1145 / NH-410 B / Volvo WB 101	39
WOMAC HYDROL UTTO RF	Mineral	-	WOMAC HYDROL UTTO RF is an UTTO ISO VG 68/100 mineral fluid for transmissions, hydraulic circuits, clutch systems and wet brakes in agricultural equipment. It is specially formulated to reduce noise and chatter in wet brakes. It is particularly recommended for tractors type like Renault, Fiat etc.	API GL4 / ALLISON C-4 / Caterpillar TO-2 / FIAT AF 87 / FORD M2C 86B / FORD M2C 134A / VOLVO WB 101	113
WOMAC HYDROL UTTO S	Semi- synthetic	-	WOMAC HYDROL UTTO S is a synthetic fluid ISO VG 100 for lubricating transmissions, hydraulic circuits, clutch systems and wet brakes on agricultural equipment. It is particularly recommended for operation in very difficult conditions.	API GL 4	385
WOMAC HYDROL UTTO AURAE	Synthetic esters	-	WOMAC HYDROL UTTO AURAE is a multifunctional hydraulic - transmission oil formulated from natural oils and a combination of high-performance additives, for use in hydraulic/transmission systems with wet brakes, particularly on Civil engineering and agricultural machinery operating in sensitive areas. Its particularly high viscosity index makes it suitable for all-season use.	API GL-4 / John Deere J 20 C	491

# CIVIL ENGINEERING

WOMAC HYDROL AURAE VEG	Vegetable	32	WOMAC HYDROL AURAE VEG is a category of lubricants produced from vegetable oils and adapted to the lubrication of hydraulic circuits. These products are more environmentally friendly and minimise the impact of pollution on natural environments. They are recommended for all applications where oil leaks are likely to pollute the water table or other aqueous environments, such as water treatment plants, dredging boats and platforms, lock hydraulics and other river constructions, etc.	ISO 15380 Catégorie HETG VDMA 24568 Catégorie HETG	2406
		46			2407
WOMAC HYDROL AURAE HEES	Synthetic esters unsaturated	32	WOMAC HYDROL HEES AURAE are high-quality, eco-friendly hydraulic fluids developed from synthetic esters. They are recommended where the risk of leakage or loss of lubricant is likely to pollute the environment. They are used in the following sectors: Civil engineering, river navigation, winter sports resorts, golf courses, etc.	DIN 51502 EL ISO 15380 ISO 6743-4 Catégorie HEES	2391
		46			2390
		68			1560
WOMAC HYDROL AURAE SAT	Synthetic esters saturated	32	WOMAC HYDROL AURAE SAT are high-quality hydraulic fluids developed from saturated esters. Because of their content of raw materials derived from renewable bases, WOMAC HYDROL AURAE SAT oils are products that contribute to the protection and preservation of our environment. These products are recommended for all applications where oil leaks are likely to pollute the water table or other aqueous environments and can be used in all fixed and on-board equipment, in the field of sand and gravel quarries, forestry, river navigation, Civil engineering, winter sports resorts, etc.	ISO 15380 ISO 6743-4 HEES	2402
		46		ISO 15380 ISO 6743-4 HEES DIN 5102-EL	2578
		68		ISO 15380 VDMA 24568 Catégorie HEES	2403
WOMAC HYDROL AURAE SAT 46 ECOLABEL	Synthetic esters saturated	46	WOMAC HYDROL AURAE SAT 46 is a high quality hydraulic fluid, developed from saturated esters, allowing extended intervals. Thanks to its content of raw materials from renewable sources, WOMAC HYDROL AURAE SAT 46 is a product that contributes to the protection and preservation of our environment, and is certified European Ecolabel* compliant. It is recommended for all applications where oil leaks are likely to pollute the water table or other aqueous environments and can be used in all fixed and on-board equipment, in the field of sand and gravel quarries, forestry, river navigation, Civil engineering, winter sports resorts, etc.	ISO 15380 VDMA 24568 Catégorie HEES	2389



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