

Product Catalogue

# IN EXTREME CONDITIONS WE GIVE OUR BEST





For Tireless Machinery





PETRONAS Lubricants International (PLI) is part of the PETRONAS Group.
With 10 blending plants, over 30 sales offices and products distributed in more than 90 countries worldwide, PLI's global network of over 240 scientists, technical professionals and engineers anticipate future mobility challenges and opportunities, then research and develop advanced fluid technology solutions to meet tomorrow's challenges, today.

We want to be the best ally for those looking for efficiency and performance during their daily life: from work to mobility, the Petronas world has always responded to every need.

10



Blending plants

30



Sales Offices



Countries Worldwide

240

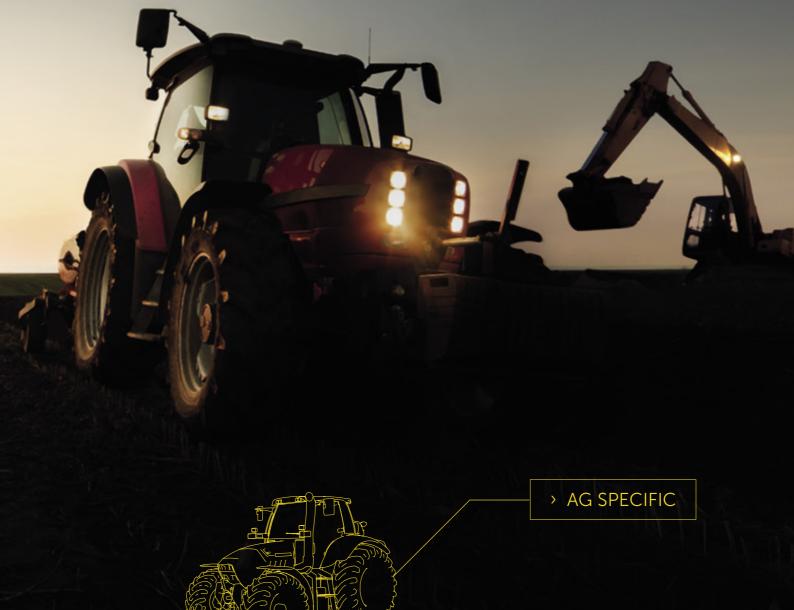


Scientists Professionals Engineers

# THE PERFECT SOLUTION FOR HARD DAILY WORK

There are more burdensome jobs than others, activities that require constant dedication and cause continual physical fatigue, work diluted over time but that needs to keep its high-quality.

Among these, jobs in agriculture and construction stand out, sectors where the only human strength is not enough. Agricultural machinery and construction equipment need to go hand-in-hand with the men's work, being tireless and guaranteeing the best performances. Machinery need the best fluid technology to last longer while working, especially when operating under severe conditions.



> CE SPECIFIC

# KEEP YOUR TIRELESS MACHINERY EFFICIENT

PETRONAS Arbor is the full range of lubricants tailored for agricultural and construction machinery able to keep their efficiency while guaranteeing a longer life-cycle.

PETRONAS Arbor is the perfect solution for high and long-lasting performances for hard daily work, protecting tireless machinery from oxidation, decomposition, wear, and keeping an optimal pistons' cleanliness and viscosity stability.







Sludge slows moving parts down, leading to excessive friction and to deposits on metallic engine parts. PETRONAS Arbor protects the engine from sludge and deposits that can affect the machinery's realibility and its durability.



# WEAR PROTECTION

Hard work take its toll on the machinery, putting extra loads throughout the engine. PETRONAS Arbor has been developed to deliver high levels of wear protection.



# PISTONS' CLEANLINESS

During the diesel engine combustion process, deposits accumulate in the engine, increasing engine wear. PETRONAS Arbor guarantees the operational life of engine components.



Soot leads to a viscosity increase that can affect the engine performance. PETRONAS Arbor with its high resistance against soot can keep high the performance of your engine.

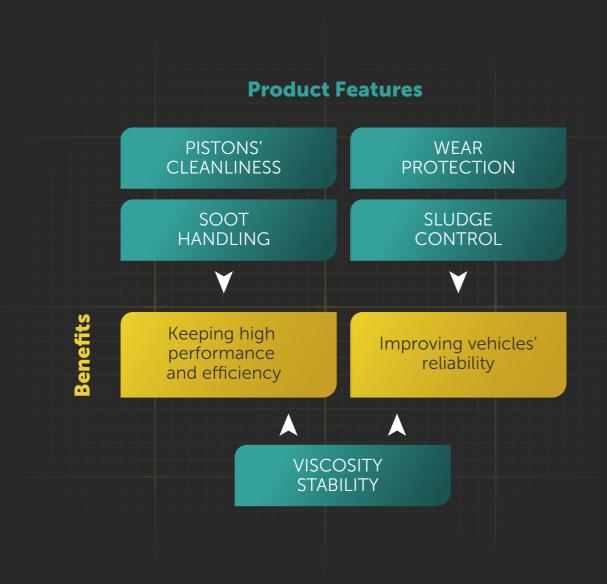


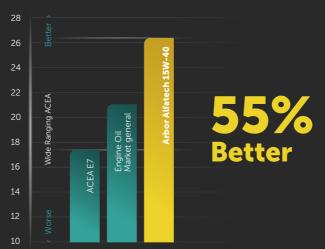
# VISCOSITY STABILITY

Because of its soot handling and its resistance to oxidation, PETRONAS Arbor keeps an optimal viscosity avoiding filters' blockage and protecting the engine longer.

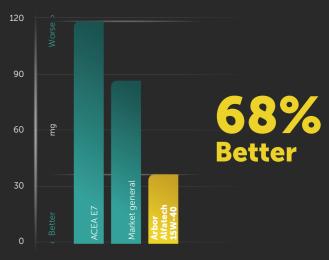
# OUR LUBRICANTS ARE UNRIVALED

The several tests, that compare PETRONAS Arbor to ACEA industry, confirm the quality and efficiency of our range of lubricants for agricultural and construction machinery. It's important that each of their parts is protected; it is crucial that engine, their most valuable asset, is kept strong.

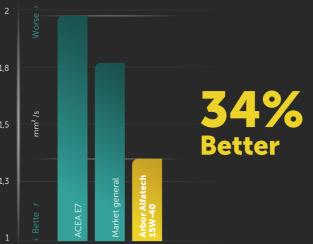




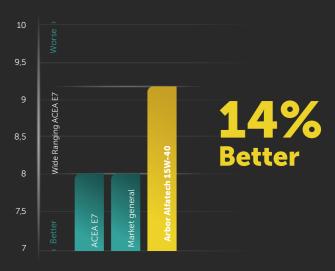




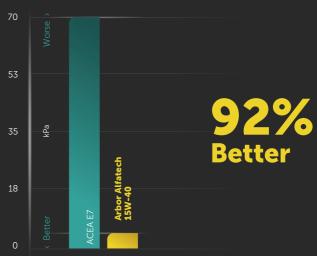














# MAKE WORK FLUID WITH PETRONAS ARBOR FULL RANGE



## Engine Oil

Low SAPS lubricant for the new generation low emission engines of tractors, other farming and earthmoving machines, including those equipped with exhaust gas re-circulation or after treatment systems (EGR; SCR; diesel particulate filter DPF). Also perfectly suitable for engines with traditional technology.

#### **Arbor Alfaprime 10W-30**

**SAE:** 10W-30.

**Specifications:** API CJ-4; ACEA E7/E9;

CAT ECF-3/ECF-2/ECF-1a.

Approvals: Deutz DQC III-10 LA; Renault RLD-3.

Performance level: Cummins CES 20081;

Detroit Diesel DFS93K218;

MACK EO-O Premium Plus; MAN M3575;

MB 228.31; Volvo VDS-4.



code 74607



# **Characteristics**

- > Full compliance with Tier 4 standards that set highly stringent emission limits.
- > high protection, during their ageing, of exhaust systems fitted with DPF also due to the low ash content.
- > The use of specific additives allows excellent control of lubricant thickening caused by the soot generated by combustion.
- Stay- in- grade in all operating conditions, even the harshest. This is the resistance of an oil to viscosity variations.
- > Excellent anti-wear and anti-corrosion properties.
- > High Oxydation Stability.
- > It enables quick lubrication in cold starts, which helps to improve engine protection.

# Advice on use

- > The SAE 10W-30 viscosimetric grade allows the use of ARBOR ALFAPRIME for environment temperatures between - 25°C and + 25 °C
- Oil drain interval (ODI) according to Manufacturer's instructions.



74604

#### **Arbor Alfatech 15W-40**

**SAE:** 15W-40.

**Specifications:** API CI-4/CH-4; ACEA E7/E5; CAT ECF-2, ECF-1a.

Approvals: Cummins CES 20078; Deutz DQC III; MACK EO-N; MTU Type 2; Renault VI RLD-2; Volvo VDS-3.

**Performance level:** 

Cummins CES 20077/76/72/71; MAN M3275: MAT 3507: MAT 3520; MS 1120; MB 228.3; NH 330H; SDFG OM-1991.



74609

#### Arbor Alfatech Synth 10W-40

**SAE:** 10W-40.

Specifications: API CI-4/CH-4; . ACEA E7/E5; Global DHD-1; CAT ECF-2, ECF-1a.

Approvals: Cummins CES 20078; Deutz DQC III; MACK EO-N; MTU Type 2; Renault VI RLD-2; Volvo VDS-3.

Performance level:

Cummins CES 20077/76/72/71; MAN M3275;MB 228.3; SDFG OM-1901A.



74608

#### **Arbor Alfaprime 15W-40**

**SAE:** 15W-40.

**Specifications:** API CJ-4; ACEA E7/E9; CAT ECF-3/ECF-2/ECF-1a.

Approvals: Cummins CES 20081; Deutz DQC III-10 LA; Renault RLD-3.

Performance level:

Detroit Diesel DFS93K218; MAN M3575; MACK EO-O Premium Plus; MB 228.31; Volvo VDS-4.



#### **Arbor Super 15W-40**

**SAE:** 15W-40.

Specifications: API CF-4/SG. Performance level: MIL-L-2104 F;

74610



#### **Arbor Super 20W-50**

**SAE:** 20W-50.

Specifications: API CF-4/SG. Performance level: MIL-L-2104 F; NH 336 G.

74611



#### **Arbor Super 40**

**SAF:** 40

Specifications: API CF. Performance level: MIL-L-2104 E, SDFG OM-1991.

74612



#### **Arbor Super 10**

**SAE:** 10W.

Specifications: API CF.

Approvals: ZF TE-ML 03B, 05K, 21K. Performance level: MB 227.0; MIL-L-2104 E; NH 301C; MS-1121

74614



74638

**SAE:** 10W-40.

Specifications: API CJ-4; ACEA E7/E9.

**Arbor Alfaprime Synth 10W-40** 

Performance level: CAT ECF-3/ECF-2/ECF-1a; Cummins CES 20081; Detroit Diesel DFS93K218; Deutz DQC III-10 LA; MACK EO-O Premium Plus; MAN M3575; MAT 3521; MB 228.31;

13

Renault RLD-3; Volvo VDS-4.



#### Arbor Alfatech 10W-30

**SAE:** 10W-30.

Specifications: API CI-4/CH-4; ACEA E7/E5; CAT ECF-1a.

Performance level: Cummins CES 20078/20077/20076; Detroit Diesel DSF 93K215; Deutz DQC III; MACK EO-N; MAN M3275; MB 228.3; MTU Type 2; Renault VI RLD-2; Volvo VDS-3.

74613

#### Transmission Oil

Multifunctional lubricant for engines, transmissions, hydraulic systems and wet brakes of farm tractors and machinery.

#### Arbor MTF 10W-30

**SAE:** 10W-30.

Specifications: API GL-4.

Approvals: ZF TE-ML 03E, 05F, 17E, 21F.

**Performance level:** 

AGCO POWERFLUID 821XL; Allison C4;

CAT TO-2: Denison HF-0/HF-2:

John Deere JDM J20C;

Massey Ferguson CMS M1145;

Massey Ferguson CMS M1143;

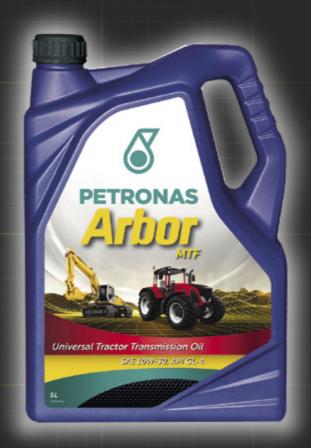
Massey Ferguson CMS M1141; Massey Ferguson CMS M1135;

NH 410 B; Fendt; FNHA-2-C-201.00;

Ford ESN-M2C134-D: MAT 3525:

HCE-102; Kubota UDT Fluid; Valtra G2-08, G2-B10; VCE WB 101;

SDFG OT-1891.



code 76343



# **Characteristics**

- > MTF allows high performance of all types of gearboxes, particularly automatic ones owing to its 10W-30 viscosity grade and special formulation.
- MTF possesses high anti-wear properties of the gears and mechanical components of the transmission deriving from its operation especially under particularly tough operating conditions. The same protective function is
- also carried out on all the parts forming the hydraulic system.
- MTF warrants high performance of the hydraulic system thanks to a high viscosity index which ensures the effectiveness of the servocontrols at all operating temperatures with a thermal stability that keeps the pressure in the lubricating circuit constant.



### **Advice on use**

> The SAE 10W-30 viscosity grade allows the use of MTF all year round. Replace according to the manufacturer's instructions.



76785

#### Arbor MTF Special 10W-30

**SAE:** 10W-30.

Specifications: API GL-4.

Performance level:

AGCO POWERFLUID 821XL; CASE MS 1207; Fendt; Ford ESN-M2C86-B; Ford ESN-M2C86-C; John Deere JDM J20C; MAT3505; Massey Ferguson CMS M1145;

Massey Ferguson CMS M1143; Massey Ferguson CMS M1141; Massey Ferguson CMS M1135;

Renault/Claas (Renault transmissions).



#### **Arbor Multi FX**

**SAE:** 20W-30.

Specifications: API GL-4.

Performance level: Ford M2C 86B; JD J20A; NH 420 A; SDFG OT-1891.

76346



#### **Arbor MTA**

Specifications: Dexron® IID.

Approvals: ZF TE-ML 04D, 05L, 09, 14A, 21L

Performance level: Allison C-4; CAT TO-2; Ford Mercon; NH 530 A; SDFG OF-1691

76788



#### **Arbor TRW 90**

**SAE:** 80W-90

**Specifications:** API GL-5.

**Approvals:** ZF TE-ML 05A, 12E, 16B, 17B, 19B, 21A.

Performance level: MIL-L-2105D; NH 520 A; MS 1316; SDFG OP-1705.

76789



#### **Arbor TRW 90 LS**

**SAE:** 80W-90.

**Specifications:** API GL-5.

Performance level: MIL-L-2105D; NH 520 B; SDFG OP-1705LS.

Arbor Multi FCT

**Specifications:** API GL-4.

Performance level: SDFG OT-1891A.

**SAE:** 10W-30.

76790



#### Arbor TRW 140

**SAE:** 85W-140.

**Specifications:** API GL-5.

Approvals: ZF TE-ML 05A, 12E, 16D, 21A.

Performance level: MIL-L-2105D;

NH 524 A; MS 1316.

76795



#### **Arbor Multi VT**

**SAE:** 10W-30.

**Specifications:** API GL-4.

Approvals: ZF TE-ML 06B, 06D, 06N, 07B.

Performance level: SDFG OT-1801B.

76805

76777



#### Oil Universal STOU

Universal lubricant (S.T.O.U.) for engines, transmissions, hydraulic systems and wet brakes of farm tractors and machinery.

#### **Arbor Universal 15W-40**

**SAE:** 15W-40.

Specifications: API CF-4/SF; API GL-4.

Approvals: ZF TE-ML 06B, 07B Performance level: CAT TO-2; NH 030 C; SDFG OU-1391.



#### **Arbor Universal 10W-40**

**SAE:** 10W-40.

Specifications: API CF-4/SF; API GL-4. **Approvals:** ZF TE-ML 06B, 06F, 07B.

Performance level: NH 026 C.

76782



code 76784

# **Characteristics**

- > Its special formulation together with the fact that it belongs to the category of S.T.O.U. oils give Universal 15W40 a whole host of features as mentioned below.
- High anti-wear properties of the mechanical components of the engine and transmissions.
- **Excellent capability of ensuring cleansing** against the formation of deposits in the engine, transmissions and in the hydraulic circuit.
- > High braking efficiency deriving from the presence of friction modifier additives in the formulation.
- Prompt response of the servcontrols of the hydraulic circuit is ensured by the viscosimetric stability to changes in temperature that determines a high and constant pressure in the system.

# **Advice on use**

> Its SAE 15W-40 viscosity grade allows use for temperatures between -15°C and +40°C.

Replace according to the manufacturer's instructions.



code 76798

#### **PETRONAS** Arbor

#### Brake Fluid

Synthetic brake fluid for the braking systems of farm machines and earthmoving machinery.

#### **Arbor Brake D4**

Specifications: SAE J1704FMVSS 116 - DOT4; ISO 4925 Class 4; ENSAYOS INTA - UNE 26-109-88.

Performance level: NH 800 A; MAT 3632.



#### BF-LHM

**Specifications:** ISO 7308; ENSAYOS INTA - UNE 26-109-88. Performance level: NH 610 A; MAT 3630.

76800



# **Characteristics**

- Being a synthetic brake fluid, Brake D4 features a high boiling point which prevents vapour lock that consists in the formation vapour bubbles in the circuit.
- It also possesses a low yield value that makes it suitable for use at low temperatures.
- > It protects the metal components of the circuit from corrosion and oxidation, ensuring perfect compatibility with the rubbers and seals.



## **Advice on use**

- Its formulation allows it to be used in all weather conditions, even the harshest.
- > Replace according to the manufacturer's instructions.

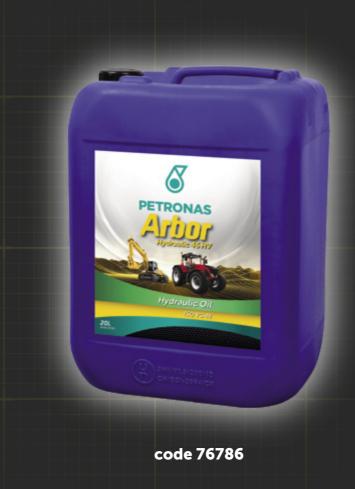
# Hydraulic Oil

This is a hydraulic fluid, with high viscosity index, specifically for high pressure hydraulic systems of farm machines, particularly combine harvesters, and of earthmoving machinery.

#### **Arbor Hydraulic 46HV**

**ISO:** VG 46.

**Performance level:** DIN 51524 HVLP; NH 646 H; SDFG OI-1446HV.



# **Characteristics**

- > The high viscosity index of Hydraulic 46 HV derived from its special formulation makes it possible to obtain perfect operation of the servocontrols under all operating temperature conditions of the machine. This is because the viscosimetric profile is kept constant within a broad range of temperatures ensuring a prompt response of the hydraulic system and high output rate of the pumps, at both low and high
- temperatures, with consequent fuel saving.
- Special additives protect the components of the hydraulic system against wear and corrosion.
- > The demulsive and antifoam properties warrant lubricating continuity preventing cavitation and removing the heat.



# Advice on use

- > Its formulation allows it to be used all year round, with outside temperatures between – 20°C and + 40 °C.
- Replace according to the manufacturer's instructions.



#### **Arbor Hydraulic 68**

**ISO:** VG 68.

**Performance level:** DIN 51524 HLP; Denison HF-0/HF-1/HF-2; NH 668; MS-1216; SDFG OI-1468.

76787



#### **Arbor HTC 46**

**ISO:** VG 46.

Performance level: DIN 51524 HVLP.

76793



#### **Arbor Hydraulic 46 Bio-V**

**ISO:** VG 46.

NH 646 BV.

**Performance level:**DIN 51524 HVLP 46 (except ASTM D 943);

76797



#### Arbor Hydraulic 46

**ISO:** VG 46.

Performance level: DIN 51525; DIN 51524 HLP; Cincinnati Milacron P-70; Denison HF-0/HF-1/HF-2; NH 646; MAT 3508.

76806



#### **Arbor Hydraulic 68 HV**

ISO: VG 68.

Performance level: DIN 51524-3 HVLP 68; Denison HF-0; Cincinnati Milacron P-69; NH 668 HV.

76807



#### **Arbor Hydraulic 32**

ISO: VG 32.

Performance level: DIN 51525; DIN 51524; Denison HF-0/HF-1/HF-2; SDFG OI-1432.

76801

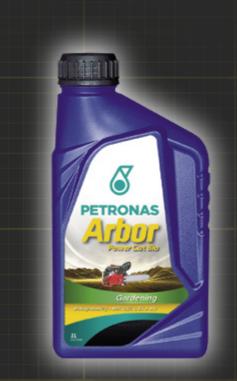
# Gardening

Biodegradable lubricant specifically for saw chains.

#### **Arbor Power Cut Bio**

#### **Recommendations:**

Biodegradability > 90% (CEC-L-33-A-93).



code 76780



#### **Arbor Power**

**SAE:** 30.

**Specifications:** API CF; API SG/CD; CCMC G4/PD2.

74605



#### **Arbor Power Mix**

Specifications: API TC; JASO FC; ISO-L-EGC.

73087



#### **Arbor Power Cut**

No specs.



# **Characteristics**

- > With its special bio-vegetable formulation Power Cut Bio can boast over 90% biodegradability which means high protection of the environment in which it is used preventing contamination. This level of biodegradability has been certified through the CEC-L-33-A-93 method.
- Besides its biodegradable features Power Cut Bio also possesses the following high performance characteristics as chainsaw oil. Excellent adherence capability on the blade and chain which helps to prevent dripping and seizing.
- > High thermal stability that makes it suitable for all environmental and operating conditions (even the toughest).
- > Outstanding cooling capability to prevent overheating the chain.
- Power Cut offers total antirust protection of the blade and chain against the action of the weather and antiwear properties to ensure longer life of blade sharpness and of the chain itself.



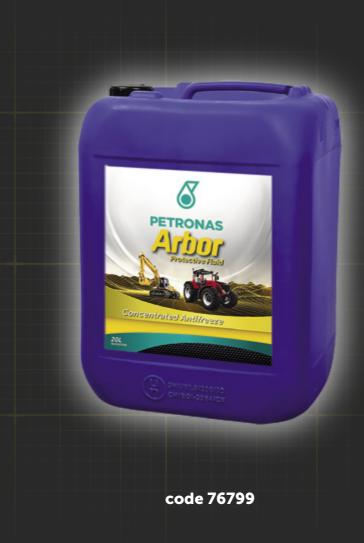
#### Antifreeze

Concentrated, protective antifreeze and coolant fluid, for the engines of tractors, farm machines and earthmoving machinery.

#### **Arbor Protective Fluid**

#### **Recommendations:**

ASTM D 6210 Type 1-FF; NH 900 B; MS-1710; MAT 3620.





# **Characteristics**

- > Fluid to be mixed 50% with water with a formulation that warrants the utmost performance in terms of antifreeze protection and cooling.
- It warrants the utmost removal of the heat generated by combustion and, if mixed 50% with water, protection against freezing down to temperatures of -38°C.
- > It prevents the formation of scaling in the circuit, particularly lime, maintaining its own functional properties unchanged over time.
- > Its composition allows perfect compatibility with all the parts of the circuit, metal and non metal alike (seals for example).



# **Advice on use**

> To be replaced according to the manufacturer's instructions and in any case every two years.

Always top up using the same product and mixing 50% with water. Never use concentrated.



#### **Arbor Freeze -38°C**

**Recommendations:** ASTM D 6210 Type 3-FF; NH 900 B; MS-1710; MAT 3620; SDFG EC-1599A.





#### **Arbor Farmflu**

**Recommendations:** ASTM D 3306 Type I; MS 9769; MB 325.0; SDFG EC-1548G.

76783



#### **Arbor Coolant LG**

**Recommendations:** ASTM D 3306 Type I; CUNA NC 956-16.



#### Grease

This is an Extreme Pressure Lithium and Calcium soap-based multipurpose grease for tractors, farm machines and earthmoving machinery.

#### **Arbor MP Extra**

**Recommendations:** NLGI 2; MAT 3550; NH 710 A; SDFG GR-1202L.



code 76791



# **Characteristics**

- > Its composition is particularly suitable for pressure grease nipples and wheel hub bearings of tractors, farm machines and earthmoving machinery.
- > It possesses high adherence capability which, combined with exceptional mechanical stability and a high drip point allows perfect lubrication eliminating any phenomena that might reduce it:
  - high temperatures;
  - centrifuging due to the movement of the operating mechanical part;
  - the washing action of water.

> The above are joined by high antiwear properties which protect the lubricated mechanical parts in the best way possible.



# **Advice on use**

> NLGI 2 grade allows it to be used all year round. Replace according to the manufacturer's instructions.







