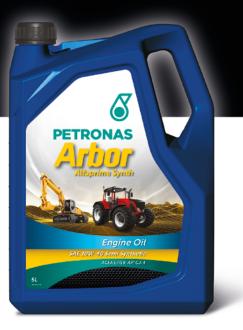


Product Catalogue

IN EXTREME CONDITIONS WE GIVE OUR BEST





THE POWER OF OUR GLOBAL NETWORK

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.



Sales Offices



5()

C (

240

Countries Worldwide



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.



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.



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



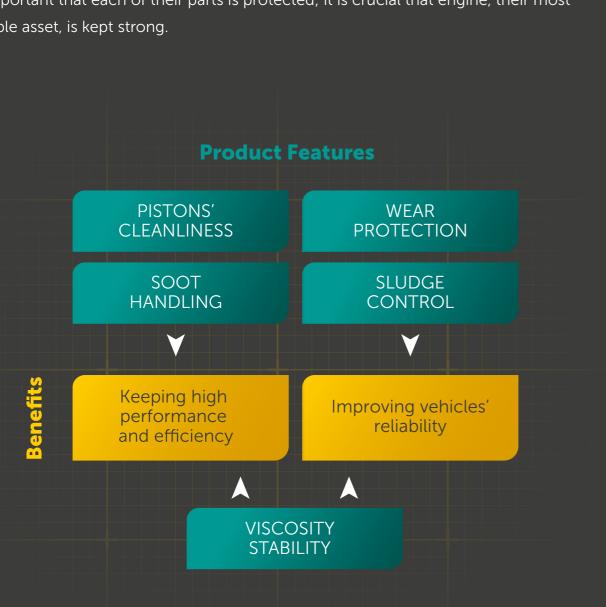
Soot leads to a viscosity increase that can affect the engine performance. PETRONAS Arbor with its high resistance against soot can keep high the performance of your engine.

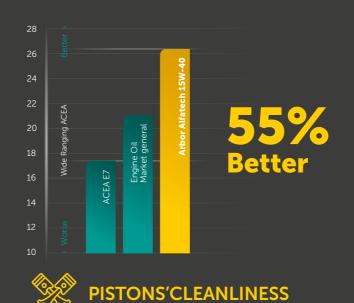


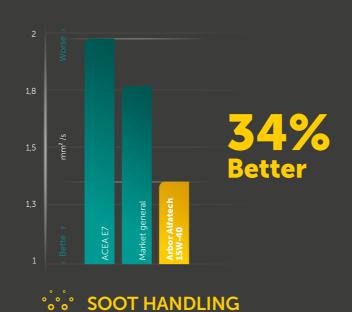
Because of its soot handling and its resistance to oxidation, PETRONAS Arbor keeps an optimal viscosity avoiding filters' blockage and protecting the engine longer.

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.

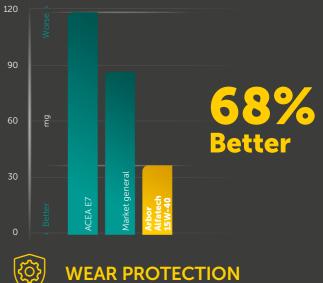




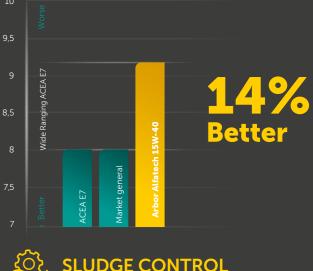


Mack T-8E soot handling capability









SLUDGE CONTROL Cummins ISM sludge rating





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 Synth 10W-40

SAE: 10W-40.

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

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; Renault RLD-3; Volvo VDS-4.



code 74638

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.

[i] 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.



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.

74604

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.



Arbor Super 20W-50

SAE: 20W-50. Specifications: API CF-4/SG. Performance level: MIL-L-2104 F; NH 336 G.

74611

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

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.



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; NH 330 G; MS-1121

74610



Arbor Super 40

SAE: 40 Specifications: API CF. Performance level: MIL-L-2104 E; SDFG OM-1991.

74612



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.

Transmission Oil

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

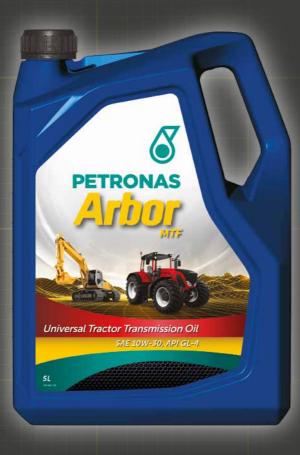
Arbor MTF 10W-30

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



- 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.

i Advice on use

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



Arbor MTF Special 10W-30

SAE: 10W-30.

Specifications: API GL-4.

76785

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 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 LS

SAE: 80W-90. Specifications: API GL-5. Performance level: MIL-L-2105D; NH 520 B; SDFG OP-1705LS.

76790



Arbor Multi FCT

SAE: 10W-30. Specifications: API GL-4. Performance level: SDFG OT-1891A.

76777



76346

Arbor Multi FX

SAE: 20W-30. Specifications: API GL-4. Performance level: Ford M2C 86B; JD J20A; NH 420 A; SDFG OT-1891.



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 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



PETRONAS ALÍDIA NORMANIA

SAE: 10W-30. Specifications: API GL-4. Approvals: ZF TE-ML 06B, 06D, 06N, 07B. Performance level: SDFG OT-1801B.



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. <image>

code 76784

76782

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.

K Characteristics

code 76798

PETRONAS

- 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.

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.

i Advice on use

> Its formulation allows it to be used in all weather conditions, even the harshest.

[i]

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

> It protects the metal components of the circuit from corrosion and oxidation, ensuring perfect compatibility with the rubbers and seals.

> 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.



code 76786



> 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.

l **Advice on use**

- > Its formulation allows it to be used all year round, with outside temperatures between -20° C and $+40^{\circ}$ 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 Hydraulic 46 Bio-V

ISO: VG 46. Performance level: DIN 51524 HVLP 46 (except ASTM D 943); NH 646 BV.

76797



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 HTC 46

ISO: VG 46. Performance level: DIN 51524 HVLP.

76793



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 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).



Arbor Power

SAE: 30. Specifications: API CF; API SG/CD; CCMC G4/PD2.

74605



Arbor Power Cut

No specs.

76781



- > 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.



Arbor Power Mix

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

73087

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.



Arbor Freeze -38°C

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

76792



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

76804

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 li

> 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 Farmflu

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

76783

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 l

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









