

Products & Services Lubricants Guide



TOTAL

Committed to Better Energy

TOTAL AT A GLANCE

TOTAL, A MAJOR ENERGY OPERATOR

Total is a major energy player, which produces and markets fuels, natural gas and low-carbon electricity. Our 100,000 employees are committed to better energy that is safer, more affordable, cleaner and accessible to as many people as possible. Active in more than 130 countries, our ambition is to become the responsible energy major.

TOTAL MARKETING AND SERVICES, SERVING YOUR NEEDS WORLDWIDE EACH AND EVERY DAY

Total Marketing & Services develops and markets products primarily derived from crude oil, along with all the associated services. Our 31,000 employees are present in 109 countries and our products and offers are sold in 150 countries. Every day, Total Marketing & Services serves more than 8 million customers in our network of over 14,000 service stations in 62 countries. As the world's fourth-largest distributor of lubricants and the leading distributor of petroleum products

in Africa, Total Marketing & Services operates 50 production sites worldwide where we manufacture the lubricants, bitumen, additives, special fuels and fluids that sustain our growth.

TOTAL LUBRIFIANTS, CUTTING EDGE R&D IN LUBRICANT INNOVATION FOR OVER 60 YEARS

Total Lubrificants is a leading global manufacturer and marketer of engine oils and lubricants. We have 41 production plants worldwide and more than 5,800 employees in 150 countries. Total Lubrificants offers innovative, efficient and environmentally responsible products and services developed by more than 300 researchers at its R&D center. Total Lubrificants is a partner of choice for the automotive, industrial and marine markets.

THE KEY CHARACTERISTICS OF A LUBRICANT

THE COMPOSITION OF A LUBRICANT

A lubricant is composed of base oil and several additives : anti-oxidant, longlasting anti-wear, anti-rust...

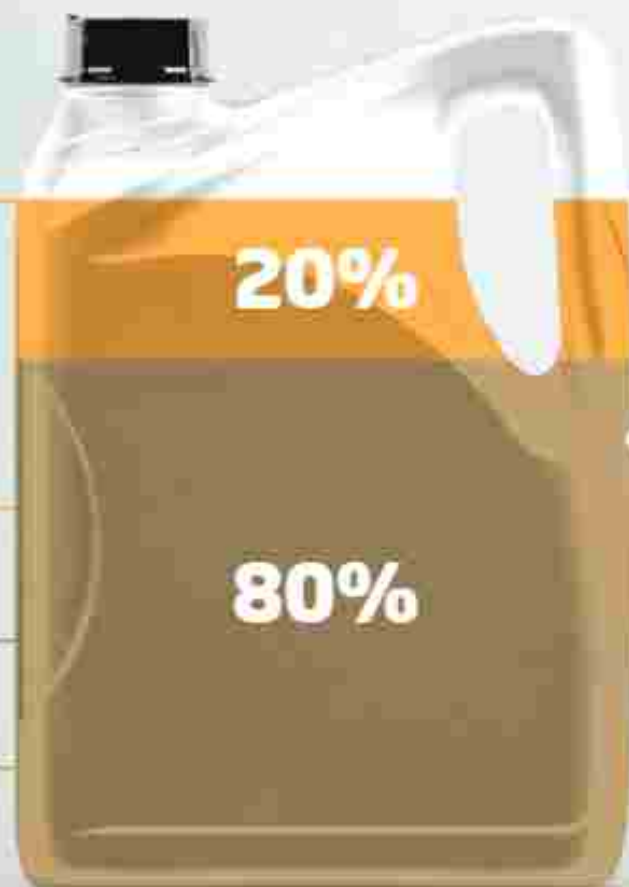
ADDITIVES

The additives are chemical products specially conceived for their capacities to improve some of the oils' characteristics.

The base oil's properties are drastically improved by the integration of performance and polymers additives.

BASE OILS

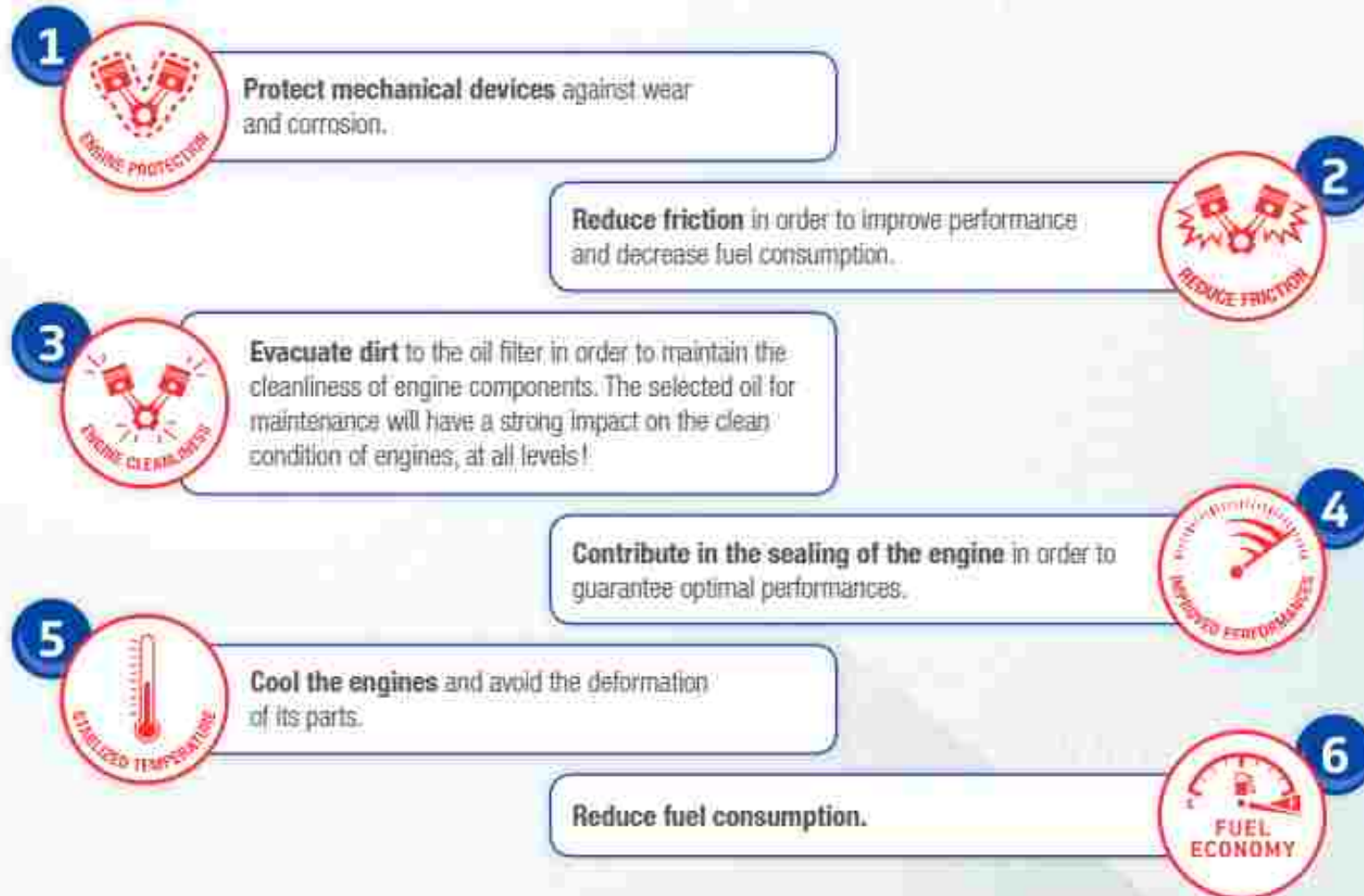
Base oils are the major components of most of the lubricants.



FINISHED LUBRICANT

THE MAIN FUNCTIONS OF A LUBRICANT

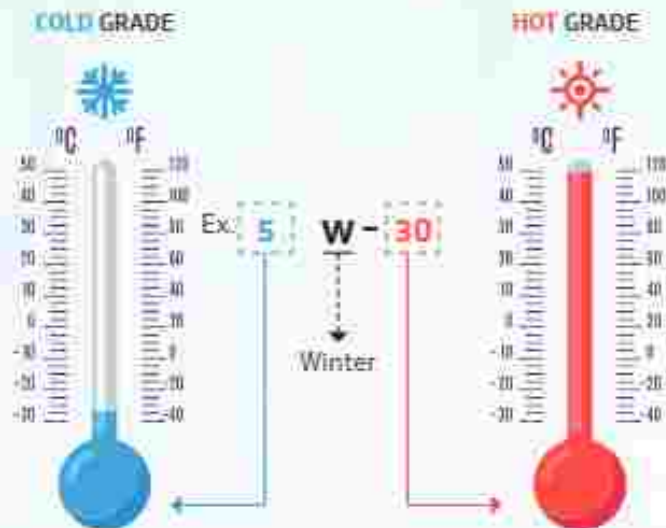
The lubricant plays a key role in the proper functioning of all motor vehicles. Without it, the engine's performance would be impacted, as well as its life span.



THE VISCOSITY AND GRADES OF A LUBRICANT

OIL VISCOSITY

The viscosity of a lubricant, which is its capacity to flow, is determined by its grade. It is indicated by two separated numbers by a letter W which stands for Winter.



1st number = Cold grade
The **lower** the number is, the **more fluid** at cold the lubricant is.

Easy start
at low temperature

2nd number = Hot grade
The **higher** the number is, the **more viscous** at hot the lubricant is.

Engine protection
at high temperature

OIL GRADES



xx indicates viscosity at cold temperatures
(measured at different temperatures)

yy indicates viscosity at hot temperatures
(measured at 100°C and 150°C)

The SAE (Society of Automotive Engineers) has created a classification for lubricant grades in order to characterize viscosity at high and low temperatures.

The grades are stated as follows :

SAE xxW-yy

Multigrade lubricant
(ex: 5W-30, 15W-40)

SAE xxW or SAE yy

Monograde lubricant
(ex: 10W, 30, 40)

The higher the number, the higher the viscosity level.

THE NEW PACKAGING, A NEW VISION OF PERFORMANCE

SIMPLICITY, PERFORMANCE & EFFICIENCY

In 2020, Total Lubrificants ranges have been entirely revamped to offer a high level of efficiency and innovation (new bottles, new labels, new ranges). With Total Lubrificants, a new vision of performance for your everyday life is ahead.

NEW CAN DESIGN

TOTAL small packages are gradually replaced by a new range of upgraded small packages: 250 mL, 500 mL, 700mL, 800mL, 1L, 1.2L & 1.5L, 2L, 3L, 4L, 5L, 6L, 7L & 10L.



BEFORE
WING DESIGN



AFTER
WAVE DESIGN

NEW COLOR STRATEGY

- A new global three-color strategy consistent across all markets that highlights the product upgrade and improves readability within the ranges.
- Platinum gold, Silver, and Bronze strategy applies to blockbusters and the drivetrain range.
- Translucent for coolants.
- Bronze for all the other dedicated ranges.

 **PLATINUM GOLD**
For top-tier product range

 **SILVER**
For mid-tier range

 **BRONZE**
For entry range or dedicated ranges



THE NEW PACKAGING, A NEW VISION OF PERFORMANCE

NEW LABEL ARTWORKS

BETTER PRECISION, LESS OIL LOSS

No more splashes or leaks when pouring your lubricant. The caps have been redesigned for a simple and efficient use.



NEW DASHBOARD CONCEPT

Introduction of a new label design inspired by car dashboards, with panels that display product marketing and technical information (educational pictograms, product features, clear viscosity grade, technical profil indication).



VISCOSITY GRADE AND/OR MAIN OEM APPROVALS



ADDITIONAL FEATURES

Need to authenticate and get more information about one of our products? Just scan the QR code to be redirected to our website.



FRONT OF PACK

USER-FRIENDLY HANDLE

The new big side handle has been rethought to facilitate the carrying and pouring of the product.



PRODUCT'S FEATURES AND/OR BENEFITS



RANGE LOGO

Optimized visibility of the brand and range logo.



MAIN TECHNICAL SPECS AND/OR PRODUCT RTB

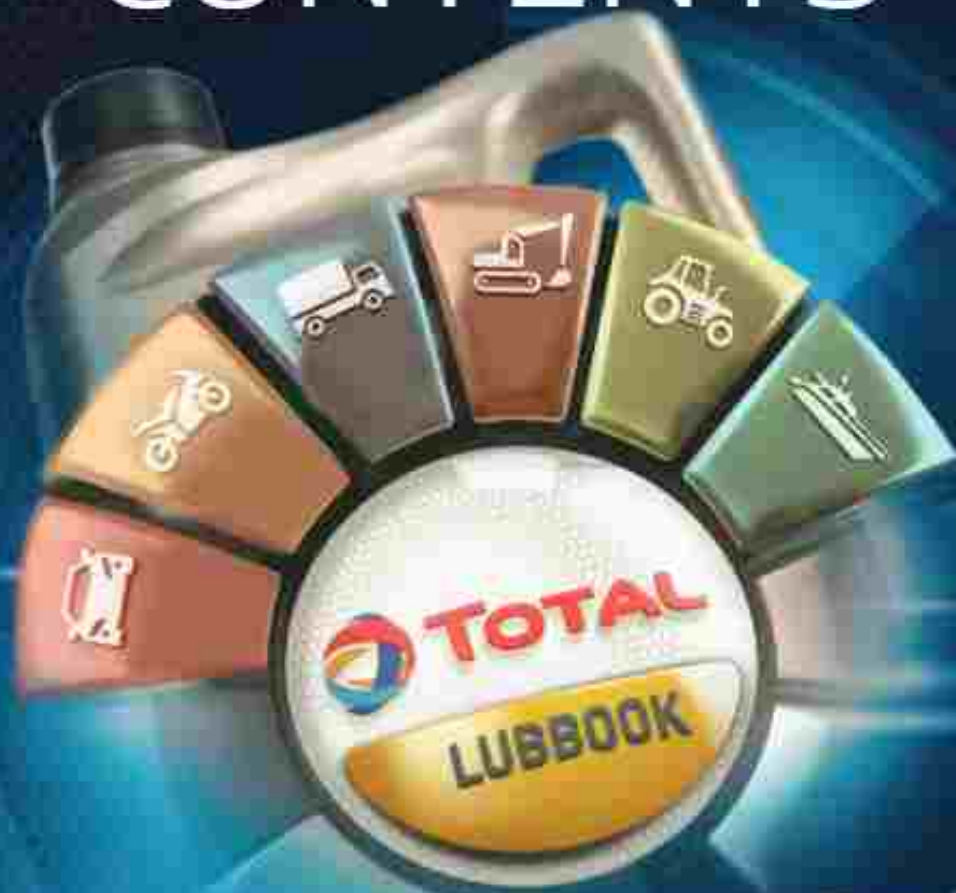
Dedicated starburst to highlight product benefits have been designed to translate the high quality of our TOTAL QUARTZ ranges. Choose yours according to the need of your vehicle.



THE NEW LUB PROJECT



CONTENTS



TOTAL AT A GLANCE

P2



THE KEY CHARACTERISTICS
OF A LUBRICANT

P3



THE NEW PACKAGING,
A NEW VISION OF
PERFORMANCE

P6





◦ PCMO, PASSENGER CAR MOTOR OIL
P12



◦ MCO, MOTORCYCLE OIL
P32



◦ LEISURE NAVIGATION MOTOR OIL
P40



◦ HEAVY-DUTY ON-ROAD MOTOR OIL
P44



◦ HEAVY-DUTY OFF-ROAD LUBRICANTS
P56



◦ AGRICULTURAL VEHICLE LUBRICANTS
P74



◦ MARINE AND RECREATION BOAT LUBRICANTS
P92



◦ TRANSMISSION
P96



◦ COOLANTS AND ANTIFREEZE
P108



◦ HYDRAULIC AND BRAKE FLUIDS
P112



◦ ADBLUE® AND CLEARNOX
P116



◦ BIO-LUBRICANTS
P120



◦ GREASES
P126



◦ EV FLUIDS
P130



◦ TOTAL ANAC
P134



PASSENGER CAR MOTOR OIL

TOTAL QUARTZ

TOTAL QUARTZ, KEEP YOUR ENGINE YOUNGER FOR LONGER	PAGE 14
TOTAL QUARTZ, STATE-OF-THE-ART TECHNOLOGY	PAGE 15
TOTAL QUARTZ RANGE ARCHITECTURE	PAGE 16
TOTAL QUARTZ INEO XTRA	PAGE 17
TOTAL QUARTZ 9000 XTRA	PAGE 17
TOTAL QUARTZ INEO	PAGE 18
TOTAL QUARTZ 9000	PAGE 20
TOTAL QUARTZ 7000	PAGE 22
TOTAL QUARTZ 5000	PAGE 24
TOTAL QUARTZ 4000	PAGE 26
TOTAL QUARTZ 3000	PAGE 26

TOTAL CLASSIC

TOTAL CLASSIC, THE GUARANTEED QUALITY	PAGE 28
TOTAL CLASSIC RANGE ARCHITECTURE	PAGE 29
TOTAL CLASSIC 9	PAGE 30
TOTAL CLASSIC 7	PAGE 31
TOTAL CLASSIC 5	PAGE 31





PASSENGER CAR MOTOR OIL



TOTAL QUARTZ, KEEP YOUR ENGINE YOUNGER FOR LONGER



TOTAL QUARTZ deals with the demands of a diversified customer base every day. From motorsports teams and top racers to real-life experts, such as manufacturers and mechanics, our oil is tailored to meet all customer needs.

TOTAL QUARTZ engineers have capitalized on 60 years of experience to design formulas with unprecedented molecular interactions. Each product contains specific hyperactive molecules that create the desired effect:

- **TOTAL QUARTZ series are empowered with the newest technologies.**
Thanks to a long history of bold R&D, our TOTAL QUARTZ engine oils exceed even the most demanding requirements of car manufacturers.
- **TOTAL QUARTZ products are tested and approved by Major Automobile Manufacturers (Original Equipment Manufacturers – OEMs).**
These product approvals are the official guarantee proving that TOTAL QUARTZ products are 100% compatible with the equipment and technology of these related manufacturers.
- **TOTAL QUARTZ engine oils not only enhance engine cleanliness, boost engine protection but also improve fuel efficiency¹.**

TOTAL QUARTZ: Keep your engine younger for longer!

¹More detailed fuel economy* results are next.

TOTAL QUARTZ, STATE-OF-THE-ART TECHNOLOGY



THE EFFECTIVE ENGINE CLEANING TECHNOLOGY

Clean-Shield technology keeps engines clean from within. Its advanced detergent molecules act as a barrier between oxidized oil compounds, to battle sludge formation.

Fighting against this major breakdown cause, TOTAL QUARTZ with Clean-Shield technology is an oil of choice across the globe to guarantee extended engine life and perfectly clean engine after oil change.



THE NEXT GEN OIL FOR OUTSTANDING PROTECTION

Age-Resistance technology offers unbeatable engine protection. Its unique combination of hyperactive molecules create a strong, thick oil film on all relevant engine parts in order to ensure their smooth performance.

The engine is boosted and free to drive at full capacity throughout its life span, while fighting all sorts of challenges, from oil oxidation to extreme temperatures or dirt.



BEST ENGINE CARE FOR MAXIMISED PERFORMANCE

Eco-Science technology is the latest breakthrough from Total's laboratories. It unleashes the power of all engines. Its cutting-edge friction modifiers reduce friction between parts, allowing for engines to reach their full potential. It offers long-lasting cleanliness, protection against ageing and significant fuel economy, hence an important reduction of carbon and particle emissions. TOTAL QUARTZ with Eco-Science technology is the first choice to answer all consumer needs.



PASSENGER CAR MOTOR OIL

TOTAL QUARTZ, RANGE ARCHITECTURE

TOTAL QUARTZ INEO XTRA

Advanced Synthetic Technology
Low Saps
XTRA Fuel Economy
Hybrid compatible

FUEL ECONOMY

LONGEVITY

TOTAL QUARTZ 9000 XTRA

Advanced Synthetic Technology
Normal Saps
XTRA Fuel Economy
Hybrid compatible

PROTECTION

CLEANLINESS



Up to **4,01%** fuel economy.¹
Meaning, up to **33%** improved Fuel Economy compared to industry limits.²

TOTAL QUARTZ INEO

Advanced Synthetic Technology
Low Saps
Fuel Economy³

PROTECTION

CLEANLINESS

TOTAL QUARTZ 9000

Advanced Synthetic Technology
Normal Saps
Fuel Economy³



Up to **74%** less wear compared to industry limits.²

TOTAL QUARTZ 7000

Synthetic Technology
Normal Saps

CLEANLINESS

TOTAL QUARTZ 5000

High-Performance Technology
Normal Saps

TOTAL QUARTZ 4000,

TOTAL QUARTZ 3000

Multigrade Engine Oil
Normal Saps



Up to **64%** cleaner compared to industry limits.⁴

¹ Based on the ACEA 11111 Fuel Economy test. Based on TOTAL QUARTZ INEO XTRA (SYNTHETIC OIL 70) compared to the industry reference as defined by the European Automobile Manufacturers' Association (ACEA).

² Based on TOTAL QUARTZ INEO XTRA (SYNTHETIC OIL 70) compared to the industry reference as defined by the European Automobile Manufacturers' Association (ACEA).

³ Based on the ACEA 11111 test. Based on TOTAL QUARTZ 9000 (OIL 40) compared to the industry reference as defined by the European Automobile Manufacturers' Association (ACEA).

⁴ Based on the API Sequence II test. Based on TOTAL QUARTZ 5000 (SAE 5W-40) compared to the industry reference as defined by the American Petroleum Institute (API).

⁵ When fully used "Total Economy" products are used.



TOTAL QUARTZ INEO XTRA PRODUCTS

TOTAL QUARTZ INEO XTRA PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ INEO XTRA DYNAMICS	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5	SN-RC	GF-5	ASTON MARTIN Twin Turbo V12 engines: Approved for factory fill and service fill BMW LL-17 FE+ (backward compatible: BMW LL-14FE+)	Jaguar Land Rover STJLR.51.5122 Suitable for Ford WSS-M2C952-A1
TOTAL QUARTZ INEO XTRA EC5	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5	API SP + RC	GF-6A	MB-Approval 229.72 (backward compatible 229.71) Opel / Vauxhall OVO401547 Ford WSS-M2C947-B1 Ford WSS-M2C962-A1 Jaguar Land Rover STJLR 03.5006 Volvo VCC RBS0-2AE	Fiat 9.55535-65X Chrysler MS-12145
TOTAL QUARTZ INEO XTRA FIRST	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5			PSA B71 2010	
TOTAL QUARTZ INEO XTRA LONG LIFE	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5			VW 508.00/509.00 Porsche C20	
TOTAL QUARTZ INEO XTRA V-DRIVE	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5	SN/GF		Volvo VCC RBS0-2AE	
TOTAL QUARTZ INEO XTRA HKR C5	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5	SP	GF-6A	Recommended by Kia Motors	
TOTAL QUARTZ INEO XTRA C5	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5	SN		MB-Approval 229.71 Jaguar Land Rover STJLR.51.5122	



TOTAL QUARTZ 9000 XTRA PRODUCTS

TOTAL QUARTZ 9000 XTRA PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 9000 XTRA FUTURE XT	0W-16	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6B		Suitable for Toyota, Honda, Nissan, Mitsubishi
TOTAL QUARTZ 9000 XTRA FUTURE XT	0W-20	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	Ford WSS-M2C962-A1	Suitable for Toyota, Honda, Nissan, Mitsubishi, Suzuki, Subaru, Mazda Suitable for Hyundai and KIA
TOTAL QUARTZ 9000 XTRA FUTURE FGC	0W-20	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	GM dexos1™ Gen2 approved Ford WSS-M2C962-A1	Suitable for Toyota, Honda, Nissan, Mitsubishi, Suzuki, Subaru, Mazda Suitable for Hyundai and KIA
TOTAL QUARTZ 9000 XTRA HKR GF6A	0W-20	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	Recommended by Kia Motors	



PASSENGER CAR MOTOR OIL

TOTAL QUARTZ INEO PRODUCTS

TOTAL QUARTZ INEO PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS		OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ INEO EFFICIENCY	0W-30	ADVANCED SYNTHETIC TECHNOLOGY			C2, C3			BMW LL-04
TOTAL QUARTZ INEO FDE	0W-30	ADVANCED SYNTHETIC TECHNOLOGY			C2		Ford WSS-M2C950-A Jaguar Land Rover ST.JLR.03.5007	
TOTAL QUARTZ INEO FIRST	0W-30	ADVANCED SYNTHETIC TECHNOLOGY			C1		PSA B71 2312 PSA B71 2302	Jaguar Land Rover ST.JLR.03.5007 Suitable for Toyota
TOTAL QUARTZ INEO HKS	0W-30	ADVANCED SYNTHETIC TECHNOLOGY			C2	SN PLUS / CF	Recommended by KIA with Factory Fill performance	
TOTAL QUARTZ INEO LONG LIFE	0W-30	ADVANCED SYNTHETIC TECHNOLOGY			C3		VW 504.00/507.00 Porsche C30	
TOTAL QUARTZ INEO ECO8	5W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5	SN	Ford WSS-M2C948-B Jaguar Land Rover ST.JLR.03.5004	
TOTAL QUARTZ INEO C1	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C1		Jaguar Land Rover ST.JLR.03.5005	Ford WSS-M2C934-B Ford WSS-M2C934-A
TOTAL QUARTZ INEO C4	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C4		Renault RN 0720 MB-Approval 226.51 MB-Approval 229.51	Fiat 9.55535-S4
TOTAL QUARTZ INEO R-PLUS	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C3		Renault RN17	
TOTAL QUARTZ INEO DID	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN/CF	VW 505.00/505.01 MB-Approval 229.52	GM Dexos 2
TOTAL QUARTZ INEO ECS	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C2		PSA B71 2290	Fiat 9.55535-S1 Iveco 18-1811 SC1 Suitable for Toyota
TOTAL QUARTZ INEO HKS D	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C2		Recommended by KIA with Factory Fill performance	

TOTAL QUARTZ INEO PRODUCTS

INEO

TOTAL QUARTZ INEO PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS		OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ INEO HTC	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN PLUS	PSA B71 2297 PSA B71 2290	
TOTAL QUARTZ INEO LONG LIFE	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN / CF	VW 504.00/507.00 BMW LL-04 MB-Approval 229.51 PORSCHE C30	
TOTAL QUARTZ INEO HZX	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C4	SN / CF	Isuzu Recommended Lubricant (2021)	
TOTAL QUARTZ INEO MC3	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN PLUS / CF	BMW LL-04 MB-Approval 229.52 Approved by Hyundai Kia Motors Corporation Opel / Vauxhall OVD0401547	GM Dexos 2 Chrysler MS-11106 VW 505.01
TOTAL QUARTZ INEO MDC	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			C2, C3	SN/CF	MB-Approval 229.52 GM Dexos 2™ Opel / Vauxhall OVD0401547	Hyundai Kia Motors Corporation
TOTAL QUARTZ INEO C3	5W-40	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN/CF	MB-Approval 229.51 VW 505.00/505.01 PORSCHE A40	Fiat 9.55535-S2 Ford WSS-M2C917-A GM Dexos 2
TOTAL QUARTZ INEO FB0	5W-40	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN/CF	BMW LL-04 MB-Approval 229.52 VW 511.00 Porsche C40 Renault RN 0700/0710	Fiat 9.55535-S2 GM Dexos 2
TOTAL QUARTZ INEO RACING	10W-60	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN/CF	ASTON MARTIN V8 naturally aspirated engines Service fill approved	BMW M-Series



PASSENGER CAR MOTOR OIL

TOTAL QUARTZ 9000 PRODUCTS

9000

TOTAL QUARTZ 9000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 9000 FUTURE GF6	0W-20	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 9000 COG SN PLUS	0W-20	ADVANCED SYNTHETIC TECHNOLOGY				SN PLUS		GWM Spare Parts Numbers available on the TDS or the labels	
TOTAL QUARTZ 9000	0W-30	ADVANCED SYNTHETIC TECHNOLOGY			A5/B5	SL/CF		Volvo VCC 95200377	
TOTAL QUARTZ 9000 ENERGY	0W-30	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SL/CF		MB-Approval 229.5 Volvo VCC 95200356 VW 502.00/505.00	
TOTAL QUARTZ 9000 FUTURE GF6	0W-30	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 9000 FUTURE XT	0W-30	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	Ford WSS-M2C963-A1	
TOTAL QUARTZ 9000 HXR GF6A	0W-30	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	Recommended by Kia Motors	
TOTAL QUARTZ 9000 ENERGY	0W-40	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		ASTON MARTIN: Approved for 4.0L TwinTurbo V8 & 6.0L V12 Naturally aspirated engines MB-Approval 229.5 PORSCHE A40 VW 502.00/505.00 FORD WSS-M2C957-A	
TOTAL QUARTZ 9000 FUTURE GF6	5W-20	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 9000 FUTURE XT	5W-20	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	Ford WSS-M2C960-A1	
TOTAL QUARTZ 9000 ENERGY	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SL/CF		BMW: BMW LL-01 MB-Approval 229.5 VW 502.00/505.00	
TOTAL QUARTZ 9000 ENERGY HKS G-310	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			A5	API/CF		Recommended by HKA with Factory Fill performance	

TOTAL QUARTZ 9000 PRODUCTS

9000

TOTAL QUARTZ 9000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 9000 NFC	5W-30	ADVANCED SYNTHETIC TECHNOLOGY			A5/B5	SL/CF		Ford WSS-M2C913-D (backward compatible WSS-M2C913-C, WSS-M2C913-B) Jaguar Land Rover STJLR.03.5003	
TOTAL QUARTZ 9000 FUTURE GFG	5W-30	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 9000 FUTURE XT	5W-30	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	Ford WSS-M2C961-A1	
TOTAL QUARTZ 9000 FUTURE FGC	5W-30	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A	GM dexos1™ Gen2 approved Ford WSS-M2C961-A1	
TOTAL QUARTZ 9000 DIESEL CI-4	5W-30	ADVANCED SYNTHETIC TECHNOLOGY				CI-4			
TOTAL QUARTZ 9000 COG SN	5W-30	ADVANCED SYNTHETIC TECHNOLOGY				SN		GWM Spare Parts Numbers available on the TDS or the labels	
TOTAL QUARTZ 9000	5W-40	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		PSA B71 2296 - Renault RN 0700/0710 MB-Approval 229.5 - VW 502.00/505.00 Porsche A40	Chrysler MS-12991 Fiat 9.55535-M2
TOTAL QUARTZ 9000 ENERGY	5W-40	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		MB-Approval 229.5 - VW 502.00/505.00 Porsche A40	Chrysler MS-12991 Fiat 9.55535-M2
TOTAL QUARTZ 9000 FGO	5W-40	ADVANCED SYNTHETIC TECHNOLOGY			A3/B5	SP		Renault RN070X/0710 - VW 502.0X/505.00 MB-Approval 229.3	Chrysler MS-12991 Fiat 9.55535-M2
TOTAL QUARTZ 9000 SN	5W-50	ADVANCED SYNTHETIC TECHNOLOGY				SN/CF			
TOTAL QUARTZ 9000 FUTURE XT	10W-30	ADVANCED SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ RACING	10W-50	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SN/CF			
TOTAL QUARTZ RACING	10W-60	ADVANCED SYNTHETIC TECHNOLOGY				SN/CF			Suitable for BMW M-Series



PASSENGER CAR MOTOR OIL

TOTAL QUARTZ 7000 PRODUCTS

7000

TOTAL QUARTZ 7000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 7000 FUTURE GF6	5W-20	SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 7000 FUTURE XT	5W-20	SYNTHETIC TECHNOLOGY				SP	GF-6A	Ford WSS-M2C960-A1	
TOTAL QUARTZ 7000 FUTURE GF6	5W-30	SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 7000 FUTURE XT	5W-30	SYNTHETIC TECHNOLOGY				SP	GF-6A	Ford WSS-M2C961-A1	
TOTAL QUARTZ 7000 FGD	5W-40	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		MB-Approval 229.3 Volkswagen 502.00/505.00 Renault RN 0700	
TOTAL QUARTZ 7000 FUTURE GF6	10W-30	SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 7000 FUTURE XT	10W-30	SYNTHETIC TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 7000 DIESEL CI-4	10W-30	SYNTHETIC TECHNOLOGY				CI-4			
TOTAL QUARTZ 7000	10W-40	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		PSA 671 2300 (backward compatible PSA 671 2294) VW 501.01/505.00 Renault RN 0700/0710	MB 229.3 Fiat 9.55535-G2
TOTAL QUARTZ 7000 S	10W-40	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		PSA 671 2300 (backward compatible PSA 671 2294) VW 501.01/505.00 Renault RN 0700/0710	MB 229.1 Fiat 9.55535-G2
TOTAL QUARTZ 7000 ENERGY	10W-40	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		VW 501.01/505.00	MB 229.3 Fiat 9.55535-G2

TOTAL QUARTZ 7000 PRODUCTS

7000

TOTAL QUARTZ 7000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 7000 DIESEL	10W-40	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		PSA B71 2300 (backward compatible PSA B71 229-4) VW 501.01/505.00 Renault RN 0700/0710	MB 229.3 Fiat 9.55535-G2
TOTAL QUARTZ 7000 DIESEL S	10W-40	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		PSA B71 2300 (backward compatible PSA B71 229-4) VW 501.01/505.00 Renault RN 0700/0710	MB 229.1 Fiat 9.55535-G2
TOTAL QUARTZ 7000 DIESEL T	10W-40	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		MB-Approval 229.3	
TOTAL QUARTZ 7000 SN	10W-40	SYNTHETIC TECHNOLOGY				SN/CF			
TOTAL QUARTZ 7000	15W-50	SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		VW 501.01/505.00	MB 229.1
TOTAL QUARTZ 7000 SN	15W-50	SYNTHETIC TECHNOLOGY				SN/CF			



PASSENGER CAR MOTOR OIL

TOTAL QUARTZ 5000 PRODUCTS

5000

TOTAL QUARTZ 5000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 5000 FUTURE XT	5W-20	HIGH PERFORMANCE TECHNOLOGY				SP	GF-6A	Ford WSS-M2C960-A1	
TOTAL QUARTZ 5000 FUTURE GF6	5W-30	HIGH PERFORMANCE TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 5000 FUTURE XT	5W-30	HIGH PERFORMANCE TECHNOLOGY				SP	GF-6A	Ford WSS-M2C961-A1	
TOTAL QUARTZ 5000 FUTURE GF6	10W-30	HIGH PERFORMANCE TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 5000 FUTURE XT	10W-30	HIGH PERFORMANCE TECHNOLOGY				SP	GF-6A		
TOTAL QUARTZ 5000 SL	10W-30	HIGH PERFORMANCE TECHNOLOGY				SL/CF			
TOTAL QUARTZ 5000 SP	10W-40	HIGH PERFORMANCE TECHNOLOGY				SP			
TOTAL QUARTZ 5000 SN	10W-40	HIGH PERFORMANCE TECHNOLOGY				SN/CF			
TOTAL QUARTZ 5000	15W-40	HIGH PERFORMANCE TECHNOLOGY			A3/B3	SL/CF			MB 229.1 PSA B71 2295 VW 501.01/505.00
TOTAL QUARTZ 5000 DIESEL	15W-40	HIGH PERFORMANCE TECHNOLOGY			A3/B3	SL/CF			MB 229.1 PSA B71 2285 VW 501.01/505.00
TOTAL QUARTZ 5000 SN	15W-40	HIGH PERFORMANCE TECHNOLOGY				SN/CF			
TOTAL QUARTZ 5000 SL	15W-40	HIGH PERFORMANCE TECHNOLOGY				SL/CF			

TOTAL QUARTZ 5000 PRODUCTS

5000

TOTAL QUARTZ 5000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 5000 DIESEL CI-4	15W-40	HIGH PERFORMANCE TECHNOLOGY				CI-4			
TOTAL QUARTZ 5000 SN	15W-50	HIGH PERFORMANCE TECHNOLOGY				SN(CF)			
TOTAL QUARTZ 5000	20W-50	HIGH PERFORMANCE TECHNOLOGY			A3/B3	SL/CF			MB 229.1 PSA 671 2295 VW 501.01/505.00
TOTAL QUARTZ 5000 SP	20W-50	HIGH PERFORMANCE TECHNOLOGY				SP			
TOTAL QUARTZ 5000 SN	20W-50	HIGH PERFORMANCE TECHNOLOGY				SN(CF)			
TOTAL QUARTZ 5000 SL	20W-50	HIGH PERFORMANCE TECHNOLOGY				SL(CF)			



PASSENGER CAR MOTOR OIL

TOTAL QUARTZ 4000 AND TOTAL QUARTZ 3000 PRODUCTS



TOTAL QUARTZ 4000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS		OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 4000 SM	5W-30 10W-30 10W-40	MULTI-GRADE ENGINE OIL				SM, SL/CF		
TOTAL QUARTZ 4000 SL	20W-50	MULTI-GRADE ENGINE OIL				SL/CF		
TOTAL QUARTZ 4000 SL	SAE 40 SAE 50	MONO-GRADE ENGINE OIL				SL/CF		
TOTAL QUARTZ DIESEL 4000 CF-4	10W-30	MULTI-GRADE ENGINE OIL				CF-4		
TOTAL QUARTZ DIESEL 4000 CF-4	20W-50	MULTI-GRADE ENGINE OIL				CF-4, SG		
TOTAL QUARTZ 3000 PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS		OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LOW SAPS	ACEA	API	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ 3000 SJ	20W-50	MULTI-GRADE ENGINE OIL				SJ/CF		
TOTAL QUARTZ 3000 SG	20W-50	MULTI-GRADE ENGINE OIL				SG/CF		
TOTAL QUARTZ 3000 DIESEL	SAE 40	MONO-GRADE ENGINE OIL				CF, SF		

TOTAL QUARTZ RACING PRODUCTS

TOTAL QUARTZ RACING PRODUCTS		FEATURES			INTERNATIONAL SPECIFICATIONS			OEM HOMOLOGATIONS	
COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	FUEL ECONOMY	LTW SAPS	ACEA	API	ILSAC	APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL QUARTZ INEO XTRA DYNAMICS	0W-20	ADVANCED SYNTHETIC TECHNOLOGY			C5	SN-RC	GF-5	ASTON MARTIN Twin Turbo V12 engine: Approved for factory fill and service fill BMW LL-17 FE+ (backward compatible BMW LL-14FE+) Jaguar Land Rover STJLR.51.5122	Jaguar Land Rover STJLR.51.5122 Suitable for Ford WSS-M2C952-A1
TOTAL QUARTZ 9000 ENERGY	0W-40	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SN/CF		ASTON MARTIN: Approved for 4.0L TwinTurbo V8 & 6.0L V12 Naturally aspirated engines MB-Approval 229.5 PORSCHE A40 VW 502.00/505.00 FORD WSS-M2C 937-A	
TOTAL QUARTZ INEO RACING	10W-60	ADVANCED SYNTHETIC TECHNOLOGY			C3	SN/CF		ASTON MARTIN V8 naturally aspirated engines: Service fill approved	BMW M-Series
TOTAL QUARTZ RACING	10W-50	ADVANCED SYNTHETIC TECHNOLOGY			A3/B4	SN/CF			
TOTAL QUARTZ RACING	10W-60	ADVANCED SYNTHETIC TECHNOLOGY				SN/CF			



PASSENGER CAR MOTOR OIL

TOTAL CLASSIC, THE GUARANTEED QUALITY



TOTAL CLASSIC is a high-performance engine oil brand, designed to meet international specifications along with stringent requirements of car manufacturers.

TOTAL CLASSIC, product offer adapted to all passenger car brands.

TOTAL CLASSIC by Total Lubrificants is the guarantee of high-quality products: CLASSIC, the guaranteed quality.

TOTAL CLASSIC, RANGE ARCHITECTURE

- 9** **TOTAL CLASSIC 9**
Advanced Synthetic technology
- 7** **TOTAL CLASSIC 7**
Synthetic technology
- 5** **TOTAL CLASSIC 5**
Mineral technology





PASSENGER CAR MOTOR OIL

TOTAL CLASSIC 9 PRODUCTS



TOTAL CLASSIC PRODUCTS			FEATURES	INTERNATIONAL SPECIFICATIONS		PERFORMANCES
RANGE	COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	ACEA	API	DEM SPECIFICATIONS*
CLASSIC 9	CLASSIC 9 0W-30	0W-30	ADVANCED SYNTHETIC TECHNOLOGY	C1		PSA 871 2312 PSA 871 2302
CLASSIC 9	CLASSIC 9 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY	A5/B5	SL/CF	Ford WSS-M2C913-D Ford WSS-M2C913-C
CLASSIC 9	CLASSIC 9 C1 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY	C1		Ford WSS-M2C934-B
CLASSIC 9	CLASSIC 9 C2 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY	C2		PSA 871 2290
CLASSIC 9	CLASSIC 9 C2-C3 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY	C2, C3	SN/CF	MB-229.52 - GM Dexos 2 Opel / Vauxhall DV0401547
CLASSIC 9	CLASSIC 9 C3 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY	C3	SN PLUS/CF	BMW LL-04 MB-229.52 Chrysler MS-11106 GM Dexos 2 Opel / Vauxhall DV0401547 Suitable for VW 505.00/505.01 Suitable for Hyundai Kia Motors Corporation
CLASSIC 9	CLASSIC 9 C4 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY	C4		Renault RN 0720 - MB-226.51 MB-229.51 - FIAT 9.55535-54
CLASSIC 9	CLASSIC 9 LL 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY	C3	SN/CF	BMW LL-04 - MB-229.51 Porsche C30 - VW 504.00/507.00
CLASSIC 9	CLASSIC 9 GF5 5W-30	5W-30	ADVANCED SYNTHETIC TECHNOLOGY		SN/CF ILSAC GF-5	
CLASSIC 9	CLASSIC 9 5W-40	5W-40	ADVANCED SYNTHETIC TECHNOLOGY	A3/B4	SN/CF	PSA 871 2296 - MB-229.5 - VW 502.00/505.00 Renault RN 0700/0710 - Fiat 9.55535-M2 Chrysler MS-12991
CLASSIC 9	CLASSIC 9 C3 5W-40	5W-40	ADVANCED SYNTHETIC TECHNOLOGY	C3	SN/CF	MB-229.51 - Fiat 9.55535-62 Ford WSS-M2C917-A - GM Dexos 2 VW 505.00/505.01

*With the agreement of

TOTAL CLASSIC 7 AND TOTAL CLASSIC 5 PRODUCTS



TOTAL CLASSIC PRODUCTS			FEATURES	INTERNATIONAL SPECIFICATIONS		PERFORMANCES
RANGE	COMMERCIAL PRODUCT NAME	VISCOSITY GRADE	TECHNOLOGY	ACEA	API	DEM SPECIFICATIONS*
CLASSIC 7	CLASSIC 7 10W-40	10W-40	SYNTHETIC TECHNOLOGY	A3/B4	SN/CF	MB-229.1 PSA B71 2300 and 2294 Renault RN 0700/0710 VW 501.01/505.00
CLASSIC 5	CLASSIC 5 GF5 5W-30	5W-30	MINERAL TECHNOLOGY		SN/ (CF) ILSAC GF-5	
CLASSIC 5	CLASSIC 5 SL 10W-40	10W-40	MINERAL TECHNOLOGY		SL/(CF)	
CLASSIC 5	CLASSIC 5 15W-40	15W-40	MINERAL TECHNOLOGY	A3/B3	SL/CF	
CLASSIC 5	CLASSIC 5 SL 15W-40	15W-40	MINERAL TECHNOLOGY		SL/(CF)	
CLASSIC 5	CLASSIC 5 SL 15W-50	15W-50	MINERAL TECHNOLOGY		SL/(CF)	
CLASSIC 5	CLASSIC 5 20W-50	20W-50	MINERAL TECHNOLOGY	A3/B3	SL/CF	
CLASSIC 5	CLASSIC 5 SL 20W-50	20W-50	MINERAL TECHNOLOGY		SL/(CF)	
CLASSIC 5	CLASSIC 5 SF SAE 40	SAE 40	MINERAL TECHNOLOGY		SF/(CD)	
CLASSIC 5	CLASSIC 5 SL SAE 40	SAE 40	MINERAL TECHNOLOGY		SL/(CF)	
CLASSIC 5	CLASSIC 5 SF SAE 50	SAE 50	MINERAL TECHNOLOGY		SF/(CD)	
CLASSIC 5	CLASSIC 5 SL SAE 50	SAE 50	MINERAL TECHNOLOGY		SL/(CF)	

*Mark for requirements of



MOTORCYCLE OIL

TOTAL HI-PERF

TOTAL HI-PERF, CONTINUOUS SAFETY	PAGE 34
TOTAL HI-PERF, STATE-OF-THE-ART TECHNOLOGY	PAGE 35
TOTAL HI-PERF, 2 SUB-RANGES	PAGE 35
TOTAL HI-PERF RANGE ARCHITECTURE	
TOTAL HI-PERF 4-STROKE MOTORCYCLE	PAGE 36
TOTAL HI-PERF 4-STROKE SCOOTER	PAGE 38
TOTAL HI-PERF 2-STROKE MOTORCYCLE	PAGE 30
TOTAL HI-PERF 2-STROKE SCOOTER	PAGE 39
TOTAL HI-PERF TRANSMISSION OIL	PAGE 39





MOTORCYCLE OIL

TOTAL HI-PERF, CONTINUOUS SAFETY



It's not just the engine and the gearbox that need the right lubricants, but also the chain and the fork of a motorcycle. Total offers a complete range which meets the need of daily used two-wheelers and all other engine types. This range complies with the most stringent international standards.

The TOTAL HI-PERF range derives directly from research aimed at riding performance and has been validated by major motorcycle manufacturers.

- **In the engine :** The products in the TOTAL range provide protection for all engine components: pistons, cams, cylinder sleeves, valve train and crankshaft. The engine stays clean and runs optimally.
- **In the clutch :** TOTAL oils provide a uniform film between the clutch discs. They prevent malfunction and keep discs clean.
- **In the gearbox :** TOTAL technology provides resistance to extreme pressure along with optimum gearbox protection.

TOTAL HI-PERF, STATE-OF-THE-ART TECHNOLOGY



- Enhanced Deposit Control
- Enhanced Oxidation Control
- Enhanced Wear Protection
- Enhanced Clutch Friction Durability



- Reduced Frictional Losses
- No Compromise On Clutch Operation



- Controlled Oil Sump Temperature
- Rapid Thermal Load Spread

TOTAL HI-PERF, 2 SUB-RANGES

- **LUBRICANTS FOR 4-STROKE ENGINES (MOTORCYCLE AND SCOOTER):**
a range developed specifically for 4-stroke engines.
- **LUBRICANTS FOR 2-STROKE ENGINES (MOTORCYCLE AND SCOOTER):**
a special range for 2-stroke motorcycle and scooter engines.

2-STROKE OR 4-STROKE, WHAT IS THE DIFFERENCE?

In order to choose the right lubricant, it is important to know what type of engine you have. This is because 2-stroke and 4-stroke engines need different oil types due to their different lubrication systems. Lubricants for 2-stroke and 4-stroke engines are different and not interchangeable.

	2-STROKE ENGINES	4-STROKE ENGINES
NUMBER OF CYCLES	2	4
LUBRIFICATION TYPE	LUBRICANT CONSUMED	LUBRICANT RECYCLED



MCO, MOTORCYCLE OIL

4-STROKE MOTORCYCLE

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	DURABILITY	FUEL ECO	COOLING EFFECT	MANUFACTURER SPECIFICATIONS
TOTAL HI-PERF 4T 900	10W-40	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 900 FE	10W-40	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 900	10W-30	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 900 FE	10W-30	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 900	10W-60	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 900	5W-40	4-STROKE ENGINE OIL				CFMOTO recommends TOTAL
TOTAL HI-PERF 4T 900	10W-50	4-STROKE ENGINE OIL				CFMOTO recommends TOTAL
TOTAL HI-PERF 4T 700	10W-30	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 700	10W-40	4-STROKE ENGINE OIL				CFMOTO recommends TOTAL
TOTAL HI-PERF 4T 700	15W-50	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 700	20W-60	4-STROKE ENGINE OIL				

4-STROKE MOTORCYCLE

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	DURABILITY	FUEL ECO	COOLING EFFECT	MANUFACTURER SPECIFICATIONS
TOTAL HI-PERF 4T 500	15W-50	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500	20W-40	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500 CE	20W-40	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500 CE	20W-50	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500 (SN)	20W-50	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500	10W-30	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500 (SL)	20W-50	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500	10W-40	4-STROKE ENGINE OIL				
TOTAL HI-PERF 4T 500	15W-40	4-STROKE ENGINE OIL				



MCO, MOTORCYCLE OIL

4-STROKE SCOOTER

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	DURABILITY	FUEL ECO	COOLING EFFECT
TOTAL HI-PERF 4T 900 SCOOTER FE	10W-30	4-STROKE ENGINE OIL			
TOTAL HI-PERF 4T 900 SCOOTER FE	5W-40	4-STROKE ENGINE OIL			
TOTAL HI-PERF 4T 900 SCOOTER	5W-40	4-STROKE ENGINE OIL			
TOTAL HI-PERF 4T 700 SCOOTER	10W-40	4-STROKE ENGINE OIL			
TOTAL HI-PERF 4T 700 SCOOTER CE	10W-40	4-STROKE ENGINE OIL			
TOTAL HI-PERF 4T 500 SCOOTER	10W-30	4-STROKE ENGINE OIL			
TOTAL HI-PERF 4T 500 SCOOTER	20W-40	4-STROKE ENGINE OIL			

2-STROKE MOTORCYCLE

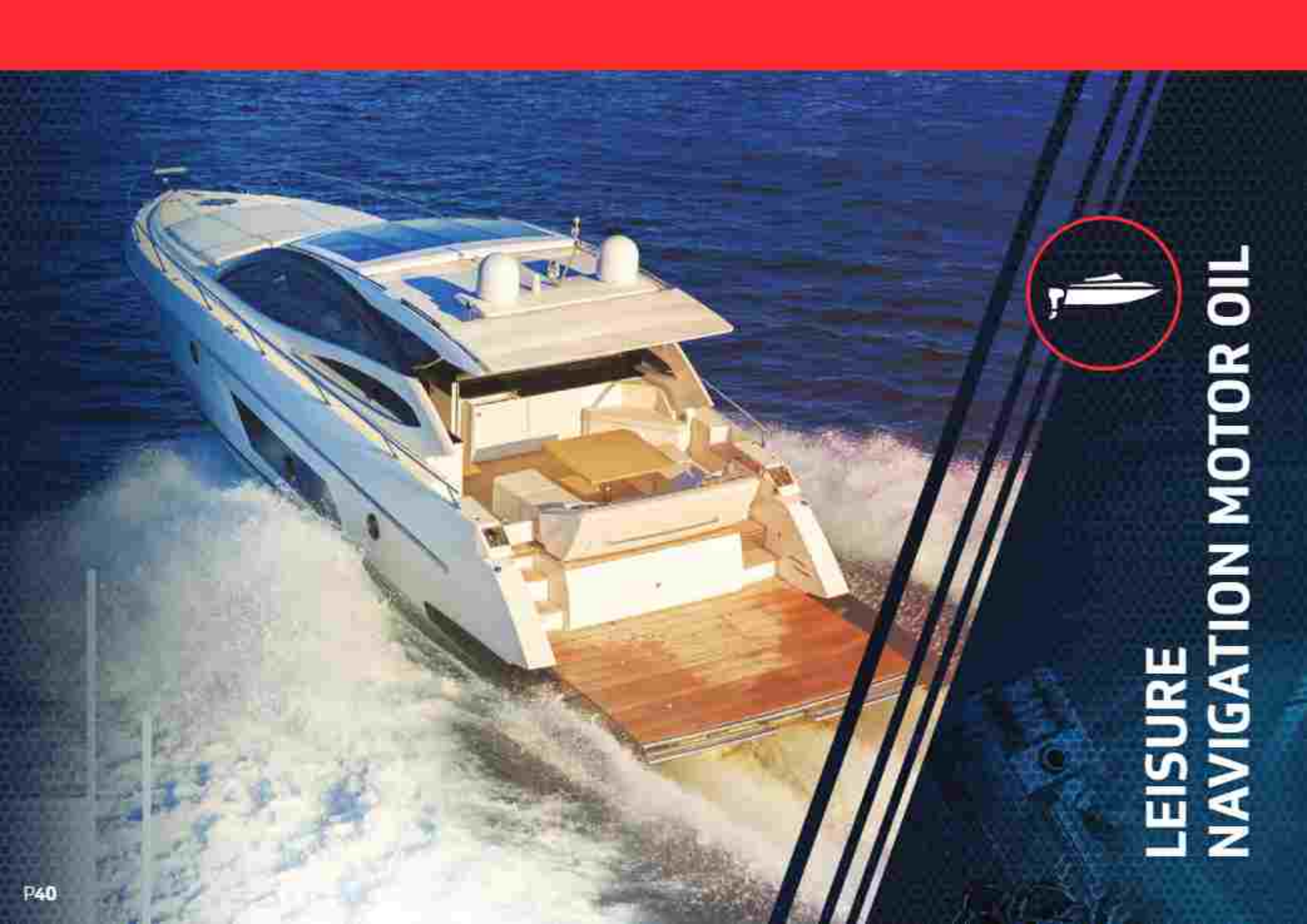
COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	DURABILITY	FUEL ECO	COOLING EFFECT
TOTAL HI-PERF 2T 900		2-STROKE ENGINE OIL			
TOTAL HI-PERF 2T 700		2-STROKE ENGINE OIL			
TOTAL HI-PERF 2T 500		2-STROKE ENGINE OIL			

2-STROKE SCOOTER

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	DURABILITY	FUEL ECO	COOLING EFFECT
TOTAL HI-PERF 2T 700 SCOOTER		2-STROKE ENGINE OIL			

TRANSMISSION OIL

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	MANUFACTURER SPECIFICATIONS
TOTAL HI-PERF GEAR OIL	80W-90	2-STROKE ENGINE OIL	CFMOTO recommends TOTAL



**LEISURE
NAVIGATION MOTOR OIL**

TOTAL NEPTUNA

TOTAL NEPTUNA PAGE 42

TOTAL NEPTUNA RANGE

NEPTUNA SPEEDER 10W-30 PAGE 43

NEPTUNA 2T BIO-JET PAGE 43

NEPTUNA 2T SUPER SPORT PAGE 43

NEPTUNA 2T PAGE 43

NEPTUNA GEAR PAGE 43





LEISURE NAVIGATION MOTOR OIL

TOTAL NEPTUNA, ENGINE & TRANSMISSION OILS



TOTAL NEPTUNA PROPOSES A RANGE OF LUBRICANTS:

Suited to inboard and outboard 4-stroke engines, offering cutting-edge technology for maximum performance.

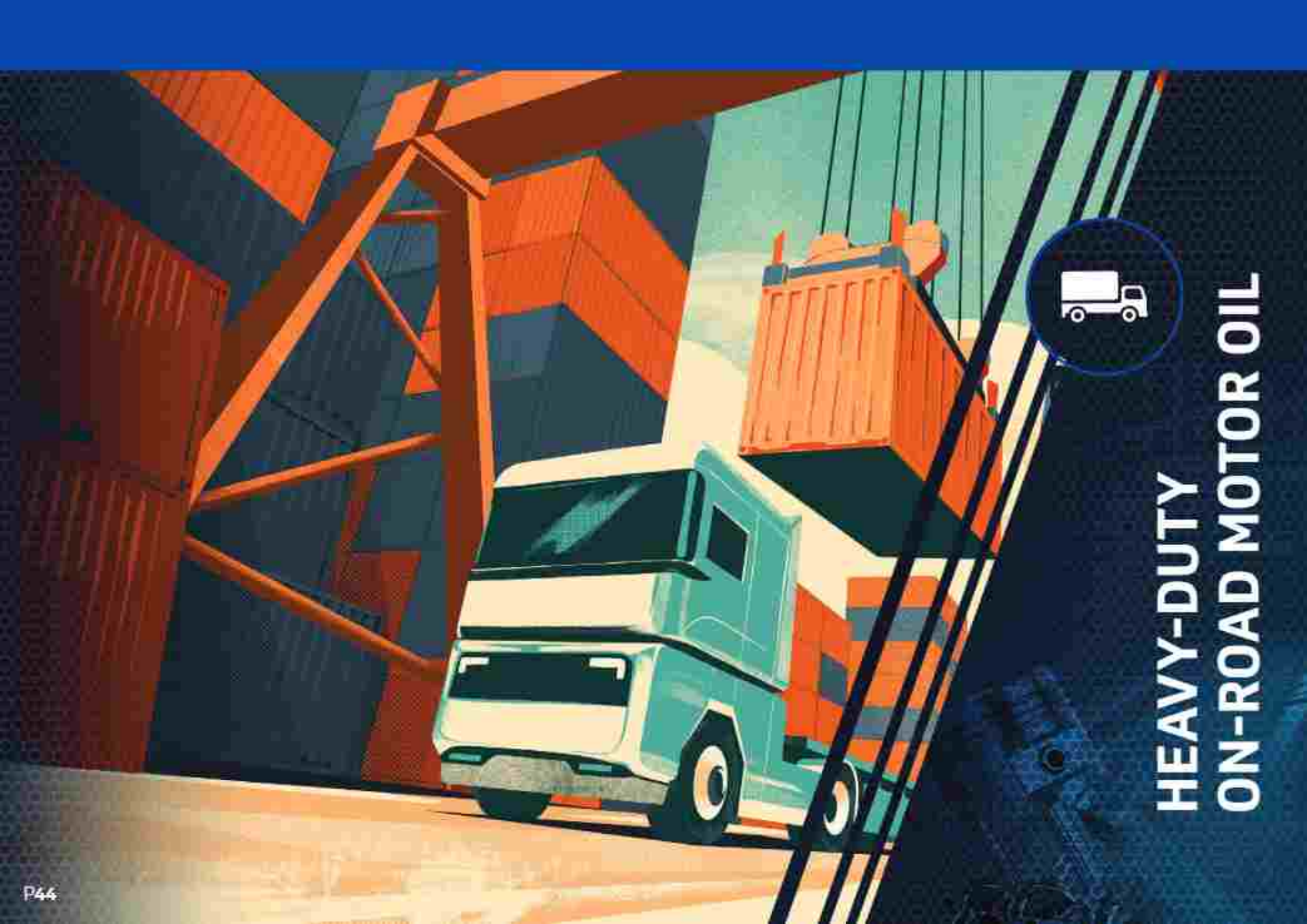
Equally suited to sports and leisure 2-stroke engines, offering high performance and reliability for your engine.

TOTAL NEPTUNA, premium products and tailor-made solutions to increase your operational efficiency.



TOTAL NEPTUNA PRODUCTS

COMMERCIAL PRODUCT NAME	INTERNATIONAL STANDARDS	MANUFACTURER SPECIFICATIONS
NEPTUNA SPEEDER 10W-30	API SM NMMA FC-W (CAT) [®]	Suitable for: <ul style="list-style-type: none"> • BOMBARDIER • EVINRUDE • HONDA • JOHNSON • MERCURY • SEA-DOO • SUZUKI • YAMAHA
NEPTUNA 2T BIO-JET	API TC NMMA TC-W3 [®]	Manufacturer Approval: <ul style="list-style-type: none"> • MSR Engines: JETSURF MOTORIZED SURFBORDS Suitable for: <ul style="list-style-type: none"> • BOMBARDIER • EVINRUDE • JOHNSON • KAWASAKI • MERCURY • SEA-DOO • SUZUKI • YAMAHA
NEPTUNA 2T SUPER SPORT	API TC NMMA TC-W3 [®]	Suitable for: <ul style="list-style-type: none"> • JOHNSON • MARINER • MERCURY • SUZUKI • YAMAHA
NEPTUNA 2T	API TC NMMA TC-W [®]	
NEPTUNA GEAR 80W-90	API GL-5	



HEAVY-DUTY ON-ROAD MOTOR OIL

TOTAL RUBIA

TOTAL RUBIA, APPROVED BY TRUCK MANUFACTURERS	PAGE 46
TOTAL RUBIA, TAKES CARE OF YOUR ENGINE	PAGE 47
TOTAL RUBIA RANGE ARCHITECTURE	PAGE 48
TOTAL RUBIA OPTIMA	PAGE 50
TOTAL RUBIA TIR	PAGE 51
TOTAL RUBIA FLEET HD	PAGE 52
TOTAL RUBIA GAS	PAGE 53
TOTAL RUBIA S	PAGE 53





HEAVY-DUTY ON-ROAD MOTOR OIL

TOTAL RUBIA, APPROVED BY TRUCK MANUFACTURERS



TOTAL RUBIA products are tested and approved more than 200 times by Major Heavy Vehicle Manufacturers. These product approvals certificate that TOTAL RUBIA products are 100% compatible with the engine technology of the related manufacturers.

Premium products and tailor-made solutions to increase your operational efficiency. Total increases uptime and lower maintenance costs, thanks to its TOTAL RUBIA premium engine oil range, tested in real world conditions during fleet tests and approved by Heavy Vehicle Manufacturers, and its ANAC Fleet Management System, based on used oil analysis supported by its technical services team on the field.

Total develops tailor-made lubricants in its state of art R&D center in France. Products are developed in close collaboration with heavy vehicle manufacturers in order to match their sophisticated and most demanding technical requirements.



* For TOTAL RUBIA range in its entirety.

TOTAL RUBIA, TAKES CARE OF YOUR ENGINE



TOTAL RUBIA OPTIMA INNO-BOOST TECHNOLOGY

TOTAL RUBIA OPTIMA products offer excellent engine and after treatment systems protection, with extended drain intervals, for the latest, cleaner engines.

Formulated with **Inno-Boost Technology**, it incorporates right combination of strong antioxidant molecules. These active molecules inhibit the radical formation and keep hydrocarbon chains intact. As a result, the engine oil viscosity remains stable and engine oil keeps its properties for longer time.



TOTAL RUBIA TIR PRO-EFFICIENT TECHNOLOGY

TOTAL RUBIA TIR products are approved by Heavy Vehicle Manufacturers for the great majority of the existing truck park, with a very wide coverage from most demanding EURO VI engines to conventional EURO III engines.

The **Pro-Efficient Technology**, developed by Total Research and Development teams, protects and improves the efficiency of professional engines by ensuring reduced mechanical wear and extended oil drain intervals. Meaning longer engine life, less breakdowns and reduced maintenance costs. In other words, increased efficiency and profitability for your business.



TOTAL RUBIA FLEET HD CLEAN-SHIELD TECHNOLOGY

TOTAL RUBIA FLEET HD Range is designed for high mileage trucks operating in very difficult road and fuel conditions. TOTAL RUBIA FLEET HD products exceed the performance standards defined by the American Petroleum Institute (API) and the European Automobile Manufacturers' Association (ACEA) and meet the requirements of major Heavy Vehicle Manufacturers.

Thanks to their **Clean-Shield Technology**, TOTAL RUBIA FLEET HD products keep engines cleaner even in the presence of hi-sulphur fuels, ensuring engine protection against mechanical wear and making engines run more smoothly for a longer time.



TOTAL RUBIA GAS ANTI-NITRATION TECHNOLOGY

TOTAL RUBIA GAS with **Anti-Nitration technology** uses a combination of high-quality base oils and antioxidants in order to reduce nitrogen oxidation problems on CNG and LNG engines.

Additionally, TOTAL RUBIA GAS high performance detergents help keep spark plugs clean and optimize engine durability.



HEAVY-DUTY ON-ROAD MOTOR OIL

TOTAL RUBIA, RANGE ARCHITECTURE

TOTAL RUBIA OPTIMA

- Increased uptime and lower maintenance costs
- Exceed API CK-4 and FA-4 specifications
- Longer engine oil life
- Excellent equipment longevity

UP TO 76%
IMPROVEMENT AGAINST
OIL VISCOSITY INCREASE*

*compared to API CK-4
Industry limits



TOTAL RUBIA TIR

- Increased uptime and lower maintenance costs
- Outstanding protection against mechanical wear
- Longer Engine Life
- Lower oil consumption

UP TO 81%
LESS MECHANICAL WEAR*

*compared to ACEA E4
Industry limits



TOTAL RUBIA FLEET HD

- Keeps engine parts clean
- Exceeds API and ACEA Specifications
- Longer engine life
- Lower oil consumption

UP TO 67%
LESS DEPOSIT FORMATION*

*compared to API CH-4
Industry limits



TOTAL RUBIA, RANGE ARCHITECTURE

TOTAL RUBIA GAS

In line with its development strategy in Natural Gas Vehicle Fuel Sector, TOTAL has developed an entire range of engine oils satisfying the special requirements of Natural Gas Engines: Compressed Natural Gas (CNG) and Liquefied Natural Gas (LNG).

TOTAL RUBIA GAS is the engine oil range specially developed for Natural Gas Engines (CNG and LNG) widely used in urban transport especially in buses, deliveries and waste collecting vehicles.



TOTAL RUBIA S

Monograde and mineral oil (except for TOTAL RUBIA S 20W-20) for all turbocharged or normally aspirated engines in trucks and buses.

Also suitable for gearboxes, torque converters, hydraulic systems when the manufacturer requires a motor oil of the appropriate quality for these applications.





HEAVY-DUTY ON-ROAD MOTOR OIL

TOTAL RUBIA OPTIMA PRODUCTS



COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL SPECIFICATIONS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL RUBIA OPTIMA 4100 XFE	5W-30			API FA-4	<ul style="list-style-type: none"> • Volvo VDS-5 • Renault Trucks RLD-5 • Mack EO-S 5 • MB-Approval 228.61 	
TOTAL RUBIA OPTIMA 2600 XFE	5W-30			API FA-4	<ul style="list-style-type: none"> • MB-Approval 228.61 	• Cummins CES 20087
TOTAL RUBIA OPTIMA 2100 XFE	10W-30			API FA-4	<ul style="list-style-type: none"> • Cummins CES 20087 • DDC DFS 93K229 • FORD WSS-M2C 214-B1 	
TOTAL RUBIA OPTIMA 1100 FE	10W-30			ACEA E7, E9 API CK-4/CJ-4/CI-4+/CI-4/CH-4	<ul style="list-style-type: none"> • Cummins CES 20086 • DDC DFS 93K222 • Mack EO-S 4.5 • MB-Approval 228.31 • Renault Trucks RLD-3 • Volvo VDS-4.5 • FORD WSS-M2C 171-F1 	<ul style="list-style-type: none"> • DAF • IVECO
TOTAL RUBIA OPTIMA 1100 <i>(Also suitable for CNG/LNG Engines)</i>	15W-40			ACEA E7, E9 API CK-4/CJ-4/CI-4+/CI-4/CH-4/SN	<ul style="list-style-type: none"> • Cummins CES 20086 • DDC DFS 93K222 • Mack EO-S 4.5 • MB-Approval 228.31 • Renault Trucks RLD-3 • Volvo VDS-4.5 • FORD WSS-M2C 171-F1 	<ul style="list-style-type: none"> • DAF • IVECO

TOTAL RUBIA TIR PRODUCTS

TIR

COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL SPECIFICATIONS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL RUBIA TIR 9900 FE <i>(Also suitable for CNG/LNG Engines)</i>	5W-30			ACEA E4, E6, E7, E9 API CJ-4/CI-4/CH-4	<ul style="list-style-type: none"> • Mack EO-O Premium Plus • MAN M 3477/M 3677/ M3271-1 • MB- Approval 228.51 • Renault Trucks RLD-3 • Volvo VDS-4 • Scania LDF-4 	<ul style="list-style-type: none"> • Cummins CES 20081 • DAF • IVECO TLS E9
TOTAL RUBIA TIR 9900 <i>(Also suitable for CNG/LNG Engines)</i>	10W-40			ACEA E4, E6, E7, E9 API CJ-4/CI-4/CH-4	<ul style="list-style-type: none"> • Cummins CES 20081 • Detroit Diesel Power Guard 93K218 • Mack EO-O Premium Plus • MB-Approval 228.51 • Renault Trucks RLD-3 • Volvo VDS-4 • Scania Low Ash 	<ul style="list-style-type: none"> • DAF • MAN M 3575/M 3477/M3271-1 • IVECO TLS E9
TOTAL RUBIA TIR 9200 FE	5W-30			ACEA E4, E7	<ul style="list-style-type: none"> • Mack EO-N • MAN M 3277 • MB- Approval 228.5 • Renault Trucks RLD-2 • Scania LDF-3 • Volvo VDS-3 • VDETH Class A • Isuzu Recommended Lubricant (2019) 	<ul style="list-style-type: none"> • Cummins CES 20076/77 • DAF • IVECO TFE
TOTAL RUBIA TIR 8900 FE <i>(Also suitable for CNG/LNG Engines)</i>	10W-30			ACEA E6, E7, E9	<ul style="list-style-type: none"> • Mack EO-O Premium Plus • MAN M 3477/M 3271-1 • MB-Approval 228.51 • Renault Trucks RLD-3 • Volvo VDS-4 	<ul style="list-style-type: none"> • Cummins CES 20081 • DAF • IVECO
TOTAL RUBIA TIR 8900 <i>(Also suitable for CNG/LNG Engines)</i>	10W-40			ACEA E6, E7, E9 API CJ-4/CI-4/CH-4	<ul style="list-style-type: none"> • Mack EO-O Premium Plus • MB-Approval 228.51 • Renault Trucks RLD-3 • Volvo VDS-4 	<ul style="list-style-type: none"> • Cummins CES 20081 • IVECO TLS E9 • MAN M 3477/M 3271-1 • DAF
TOTAL RUBIA TIR 8800	10W-40			ACEA E4, E7 API CI-4	<ul style="list-style-type: none"> • Mack EO-N • MAN M 3277 • MB- Approval 228.5 • Renault Trucks RLD-2 • Volvo VDS-3 	<ul style="list-style-type: none"> • Cummins CES 20078



HEAVY-DUTY ON-ROAD MOTOR OIL

TOTAL RUBIA TIR PRODUCTS



COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL SPECIFICATIONS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
TOTAL RUBIA TIR 8500	10W-40			ACEA E4, E7 API CF	<ul style="list-style-type: none"> • Mack EO-N • MAN M 3277 • MB-Approval 228.5 • Renault Trucks RLD-2 • Scania LDF-3 • Volvo VDS-3 • VOTH Class A • ZF TE-ML 23A 	<ul style="list-style-type: none"> • DAF • IVECO • Renault Trucks RFD
TOTAL RUBIA TIR 7800	15W-40			API CI-4 PLUS/ CI-4/CH-4/ SL	<ul style="list-style-type: none"> • Mack EO-N • MB-Approval 228.3 • Volvo VDS-3 	<ul style="list-style-type: none"> • Cummins CES 20078 • Caterpillar ECF-2 • Detroit Diesel Power Guard 93K214 • Tata • Ashok Leyland • Eicher • MAN M 3275
TOTAL RUBIA TIR 7400 FE	10W-30			ACEA E7 API CI-4/CH-4	<ul style="list-style-type: none"> • MB-Approval 228.3 • Cummins CES 20078 • Volvo VDS-3 • Renault Trucks RLD-2 • Mack EO-N 	<ul style="list-style-type: none"> • MAN M3275 • Detroit Diesel DFS 93K215
TOTAL RUBIA TIR 7400	10W-40			ACEA A3/B3, A3/B4, E7 API CI-4/CH-4/SJ	<ul style="list-style-type: none"> • Mack EO-N • MB-Approval 228.3/229.1 • Kamaz • Renault Trucks RLD-2 • Volvo VDS-3 	<ul style="list-style-type: none"> • Cummins CES 20078 • MAN M 3275
TOTAL RUBIA TIR 7400	15W-40			ACEA E7 API CI-4/CH-4/SL	<ul style="list-style-type: none"> • Cummins CES 20078 • Mack EO-N • MB-Approval 228.3 • Renault Trucks RLD-2 • Isuzu Recommended Lubricant (2020) (For transfer case only) • Volvo VDS-3 	<ul style="list-style-type: none"> • MAN M 3275 • Caterpillar ECF-1-a • IVECO T2 E7 • DAF • Isuzu • Scarva

TOTAL RUBIA FLEET PRODUCTS



COMMERCIAL PRODUCT NAME	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS
TOTAL RUBIA FLEET HD 500 10W-30, 15W-40, 20W-50	API CH-4/SJ	<ul style="list-style-type: none"> • Mack EO-M • MAN M 3275 • MB-Approval 228.1 • Renault Trucks RD/RD-2 • Volvo VDS-2
TOTAL RUBIA FLEET HD 400 15W-40, 20W-50	API CG-4/SH	<ul style="list-style-type: none"> • Mack EO-L • MAN 271 • MB-Approval 228.1 • Volvo VDS
TOTAL RUBIA FLEET HD 300 10W-30, 15W-40, 20W-50	API CF-4/SG	<ul style="list-style-type: none"> • MAN 271 • MB-Approval 228.1 • Volvo VDS
TOTAL RUBIA FLEET HD 200 15W-40, 20W-40, 20W-50	API CF/SF	
TOTAL RUBIA FLEET HD 200 SAE 10W/30/40/50	API CF/SF	



HEAVY-DUTY ON-ROAD MOTOR OIL

TOTAL RUBIA GAS PRODUCTS

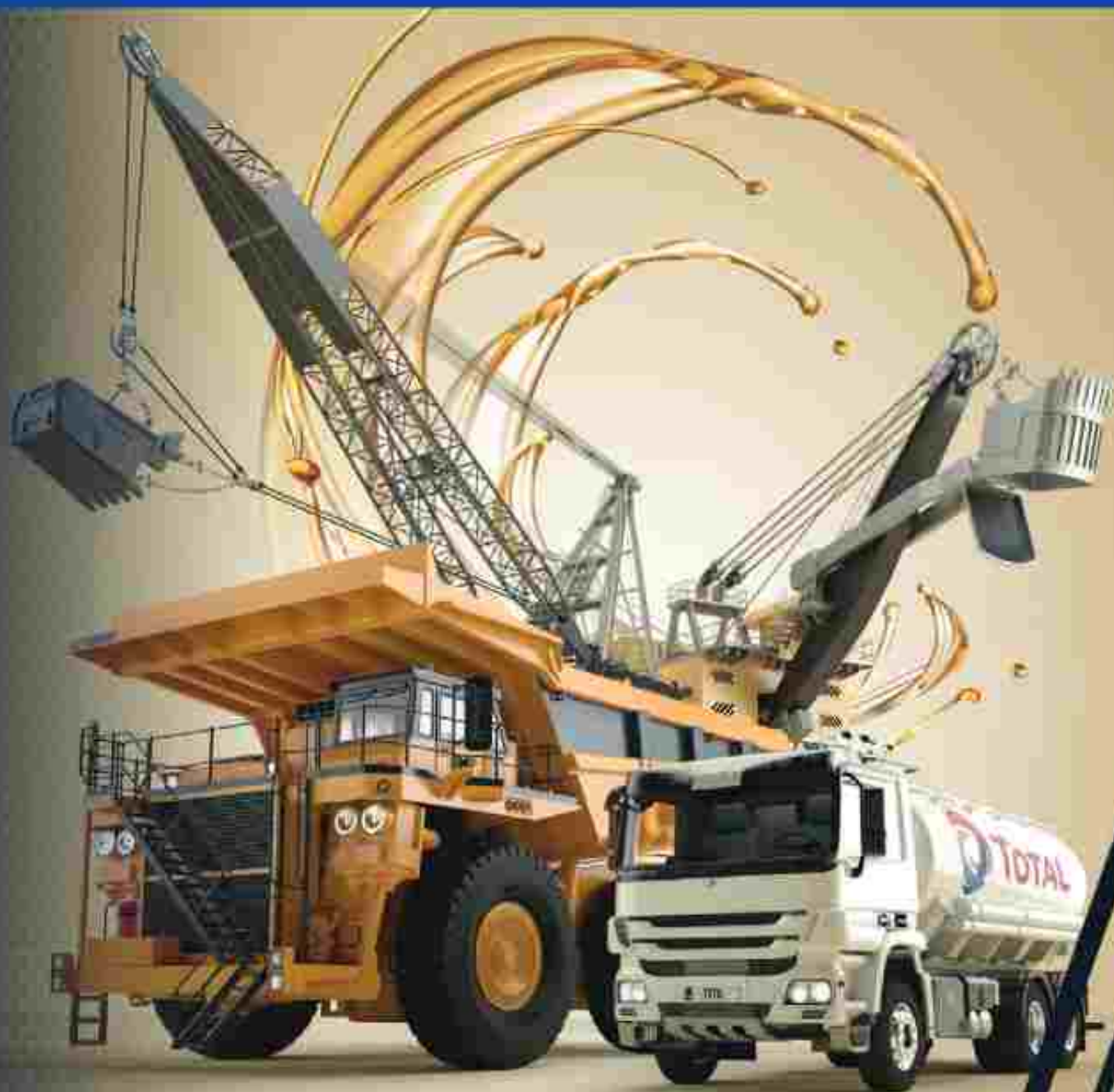


COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURERS APPROVALS
TOTAL RUBIA GAS 9M FE	10W-30			API CK-4 / SN	<ul style="list-style-type: none"> • Cummins CES 20092 / CES 20086 • DDC DFS93K222 • Volvo VDS-4.5 • Renault Trucks RLD-3 • Mack EO-S 4.5
TOTAL RUBIA GAS 9M	15W-40			API CK-4 / SN	<ul style="list-style-type: none"> • Cummins CES 20092 / CES 20086 • DDC DFS93K222 • Volvo VDS-4.5 • Renault Trucks RLD-3 • Mack EO-S 4.5
TOTAL RUBIA GAS 7M	15W-40				<ul style="list-style-type: none"> • Cummins CES 20085
TOTAL RUBIA GAS 5M	15W-40				<ul style="list-style-type: none"> • Cummins CES 20074
TOTAL RUBIA GAS 5M	20W-50				<ul style="list-style-type: none"> • Meets the requirements of. • Cummins CES 20074

TOTAL RUBIA S PRODUCTS

3

COMMERCIAL PRODUCT NAME	GRADE	INTERNATIONAL STANDARDS
TOTAL RUBIA S 10W <i>(Now SX 10W for Europe)</i>	10W	API CF / SF
TOTAL RUBIA S 20W-20	20W-20	API CF / SF
TOTAL RUBIA S 30	30	API CF / SF
TOTAL RUBIA S 40	40	API CF / SF
TOTAL RUBIA S 50	50	API CF / SF



HEAVY-DUTY OFF-ROAD LUBRICANTS

EARTHMOVING, MINING AND QUARRYING

HEAVY-DUTY OFF-ROAD DEDICATED LUBRICANTS	PAGE 58
STAR CONCEPT	PAGE 59
TOTAL RUBIA WORKS	PAGE 62
TOTAL RUBIA SX	PAGE 64
DYNATRANS	PAGE 66
HYDRAULIC FLUIDS	PAGE 70
OTHER PRODUCTS	PAGE 72





HEAVY-DUTY OFF-ROAD

TOTAL IS A STRONG PARTNER OF CHOICE FOR FUEL AND LUBRICANTS FOR ITS CONSTRUCTION AND MINING CUSTOMERS.

Total has developed dedicated range of lubricants suitable for Earthmoving equipment of world's leading manufacturers, working on Construction & Mining Sites operating under extreme temperatures & harsh Conditions.

Total continuously invests in R&D and cooperates closely with equipment manufacturers to comply with all the international standards and approvals required in this sector.

Our Tailor-made solutions for Off-Road, offers customers:

- Reducing Total cost of Ownership
- Exceptional performance that extends the components' life
- Increased Productivity & Reliability of the Equipment.





TOTAL STAR CONCEPT

TOTAL STAR CONCEPT TP offers a complete set of exceptional performance features. It allows all the components of worksite machinery to be lubricated while still satisfying the requirements of the leading equipment manufacturers and international standards.

TOTAL STAR CONCEPT TP MEANS JUST TWO LUBRICANTS FOR YOUR ENTIRE FLEET OF MACHINERY.



THE ADVANTAGES ARE NUMEROUS:

- Less risk of stock outages
- Simpler ordering, procurement and storage of lubricants
- Less risk of product mix-ups when servicing equipment
- Lower transport costs
- Savings on servicing the management of used oil and packaging

TOTAL STAR MAX FE:

Engines / Gearboxes / Hydraulic Systems

TOTAL STAR TRANS:

Axles and final reduction drives / Gearboxes and immersed brakes / Limited slip differentials



TOTAL STAR FUEL ECONOMY products are specially formulated to maximize fuel economy properties without compromising on the engine protection. Our wide range of Fuel Economy solutions are suited for every application, including engines, gearboxes and axles.



HEAVY-DUTY OFF-ROAD

TOTAL STAR CONCEPT PRODUCTS

COMMERCIAL PRODUCT NAME	GRADE	APPLICATIONS	LOW SAPS	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER SPECIFICATIONS
TOTAL STAR MAX FE	ENGINES: 10W-30 GEARBOXES: SAE 30 HYDRAULIC FLUIDS: ISO VG 46	<ul style="list-style-type: none"> Engines Gearboxes (mechanical or powershift) Hydraulic circuits (work or travel) 			Engines: API GL-4 / CK-4 / CJ-4 / C-4 plus / CF-4 / SL ACEA AS/B4, E7, E9 JASO DH-2 Gearboxes: API GL-4	Manufacturer Approvals: • MG Approval 228.31 • Cummins CES 20086 • Detroit diesel 93K222 • Mack ED-S 4.5 • Man M 3575 • MTU Oil Category 2.1 • Renault Trucks RLD-3 • Volvo VDS-4.5 • DGC II-10 LA Meets the requirements of: • Allison C4 / TES 439 • Komatsu Micro Clutch • Caterpillar ECF-3 / ECF-2 / ECF-1-a / HYDRO / TD-4 Suitable for: • ZF TE-ML 07D • Case • Isuzu • Liebherr • Perkins
TOTAL STAR TRANS	80W-110	<ul style="list-style-type: none"> Hypoid and reduction axles Autoblocking differentials with limited slip discs Oil-immersed brake systems 			Axles and final reduction drives: API GL-5 LS Gearboxes and immersed brakes: API GL-4 API MT-1	Axles and final reduction drives: Meets the requirements of: • Caterpillar FD-1 (SAE 50) Gearboxes and immersed brakes: Meets the requirements of: • Caterpillar TO-4 • Komatsu Clutch Limited slip differentials: • Case • Volvo • Liebherr
TOTAL STAR TRANS FE	75W-90	<ul style="list-style-type: none"> Hypoid and reduction axles Autoblocking differentials with limited slip discs Oil-immersed brake systems 			Meets the requirements of: API GL-4 / GL-5 LS / MT-1 SAE J 2360 MIL-PRF 2105 E	Meets the requirements of: • ZF TE-ML 05A / 05C / 07A / 16B / 16F / 17B / 1A / 21C • NH 520B / 524A • Caterpillar FD-1 / TO-4 • JCB • Liebherr

TOTAL CONCEPT TP STAR FOR TEMPERATE COUNTRIES

TOTAL STAR CONCEPT PRODUCTS

TOTAL CONCEPT TP STAR FOR HOT COUNTRIES

COMMERCIAL PRODUCT NAME	GRADE	APPLICATIONS	LOW SAPS	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER SPECIFICATIONS
TOTAL TP STAR MAX HT	ENGINES: 15W-40 GEARBOXES: SAE 40 HYDRAULIC FLUIDS: ISO VG 68	<ul style="list-style-type: none"> Engines Gearboxes (mechanical or powershift) Hydraulic circuits (work or travel) 			Engines: API CH-4 / CH-4 ACEA E7 GLOBAL DHD-1 JASO DH-1 Gearboxes: API GL-4	Engines: Meets the requirements of: • Caterpillar ECF-2 • MB 228.3 • Man M3275 • MTU Cat 2 • Cummins 20076 / 20077 / 20076 • Volvo VD5-3 • Komatsu • Renault Trucks RLD-2 • New Holland NH-330H Gearboxes: Meets the requirements of: • Allison C4 • Caterpillar TO-4 • Komatsu Clutch Hydraulic systems: Meets the requirements of: • JCMAS HK • Case MS 1230 • Komatsu HO-68
TOTAL TP STAR TRANS	80W-110	<ul style="list-style-type: none"> Hypoid (and final reduction) axles Self-blocking differentials with limited slip discs Oil-immersed braking systems 			Axes and final reduction drives: API GL-5 LS Gearboxes and immersed brakes: API GL-4 API MT-1	Axes and final reduction drives Meets the requirements of: • Caterpillar FD-1 (SAE 50/60) Gearboxes and immersed brakes Meets the requirements of: • Caterpillar TO-4 • Komatsu Clutch Limited slip differentials Meets the requirements of: • Case • Volvo • Liebherr



HEAVY-DUTY OFF-ROAD

TOTAL RUBIA WORKS, ENGINE OILS



TOTAL RUBIA WORKS IS OUR HIGH-PERFORMANCE ENGINE LUBRICANT SPECIALLY DESIGNED FOR THE NEWEST ENGINES OF EARTHMOVING, MINING AND QUARRYING MACHINERY.

Approved by major Off-Road Manufacturers, TOTAL RUBIA WORKS products offer excellent engine and after treatment systems protection and withstands very long working periods under severe conditions and high load, with dust and heat.



TOTAL RUBIA WORKS Fuel Economy lubricants have been designed and fully approved to reduce and keep consistent the fuel consumption of off-highway machinery without compromising product performance. The TOTAL RUBIA WORKS range has been certified by the independent Danielson Laboratory (France) for producing excellent Fuel Economy results. TOTAL RUBIA

WORKS Fuel Economy products exceed the performance standards defined by the American Petroleum Institute (API) and the European Automobile Manufacturers' Association (ACEA) and meet the requirements of major Heavy Vehicle Manufacturers.

TOTAL RUBIA WORKS PRODUCTS

COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF	MEETS THE REQUIREMENTS OF
TOTAL RUBIA WORKS 4000 FE	10W-30			ACEA E7, E9 API CK-4 / CJ-4 / CI-4 plus / CI-4 / SN JASO DH-2	<ul style="list-style-type: none"> • Deutz DOC III-10 LA • Volvo VDS-4.5 • MTU Category 2.1 • Renault Trucks RLD-3 • Mack EO-S 4.5 • MB-Approval 228.31 • Cummins CES 20086 • Detroit Diesel DFS 93K222 	• Caterpillar ECF-3 / ECF-2 / ECF-1-a	• Komatsu • Hitachi • JCB, etc.
TOTAL RUBIA WORKS 4000	15W-40			ACEA E7, E9 API CK-4 / CJ-4 / CI-4 plus / CI-4 / SN JASO DH-2	<ul style="list-style-type: none"> • Deutz DOC III-10 LA • Volvo VDS-4.5 • MTU Category 2.1 • Renault Trucks RLD-3 • Mack EO-S 4.5 • MB-Approval 228.31 • Cummins CES 20086 • Detroit Diesel DFS 93K222 	• Caterpillar ECF-3 / ECF-2	• Komatsu • Hitachi • JCB, etc.
TOTAL RUBIA WORKS 4000	10W-40			ACEA E7, E9 API CK-4 / CJ-4 / CI-4 plus / CI-4 / SN JASO DH-2	<ul style="list-style-type: none"> • Deutz DOC III-10 LA • Volvo VDS-4.5 • MTU Category 2.1 • Renault Trucks RLD-3 • Mack EO-S 4.5 • MB-Approval 228.31 • Cummins CES 20086 • Detroit Diesel DFS 93K222 	• Caterpillar ECF-3 / ECF-2 • Iveco FPT TLS E9	• Komatsu • Hitachi • JCB, etc.
TOTAL RUBIA WORKS 3000 FE	5W-30			ACEA E4, E6, E7, E9 API CJ-4 / CI-4 plus / CI-4 / CH-4 JASO DH-2	<ul style="list-style-type: none"> • Deutz DOC IV-10 LA • MTU Category 3.1 • Man M 3477 / M 3677 • MB-Approval 228.51 • Volvo VDS-4 • Mack EO-D Premium Plus • Renault Trucks RLD-3 • Scania LDF-4 • Deutz TFCO 6.1 L6 / 7.8 	• Caterpillar ECF-3 / ECF-2 / ECF-1-a • Liebherr LH 01 ENG LA • Cummins CES 200B1 • Iveco FPT TLS E5 • DAF	• Komatsu • Hitachi • Perkins, etc.
TOTAL RUBIA WORKS 3000	10W-40			ACEA E6, E7, E9 API CJ-4 / CI-4 plus / CI-4 / CH-4 JASO DH-2	<ul style="list-style-type: none"> • Deutz DOC IV-10 LA • Renault Trucks RLD-3 • MTU Category 3.1 • Man M 3477 • Mack EO-Premium Plus • MB-Approval 228.51 • Volvo VDS-4 	• Caterpillar ECF-3 / ECF-2 / ECF-1-a • Liebherr LH 01 ENG LA • Cummins CES 200B1 • Iveco FPT TLS E9	• Bell • Wirtgen • Voegelé, etc.
TOTAL RUBIA WORKS 1000	15W-40			ACEA E5, E7 JASO DH-1 API CI-4/CH-4/SL	<ul style="list-style-type: none"> • Cummins CES 20076 / 20077 / 20078 • Renault Trucks RLD-2 • Deutz DOC II-10 • Man M 3275-1 • Mack EO-N • MTU Category 2 • Detroit Diesel DFS 93K215 • MB-Approval 228.3 • Volvo Trucks VDS-3 • Izuu Drop List 2015 • Allion TES 439 	• Caterpillar ECF-2, ECF-1-a • Iveco FPT T2 E7	• Komatsu • Hitachi • Scania • Mitsubishi • Deere • Perkins • Case • New holland • Liebherr • JCB, etc.



HEAVY-DUTY OFF-ROAD

**TOTAL RUBIA SX,
ENGINE OILS**



MONOGRADE AND MINERAL OIL FOR ALL TURBOCHARGED OR NORMALLY ASPIRATED ENGINES OF CONSTRUCTION AND QUARRY MACHINERY.

Also suitable for gearboxes, torque converters, hydraulic systems when the manufacturer requires a motor oil of the appropriate quality for these applications.



TOTAL RUBIA SX PRODUCTS

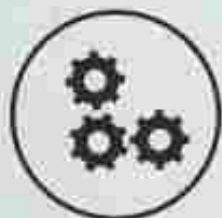
COMMERCIAL PRODUCT NAME	GRADE	INTERNATIONAL SPECIFICATIONS
TOTAL RUBIA SX 10W	10W	API CF / SF
TOTAL RUBIA SX 20W-20	20W-20	API CF / SF
TOTAL RUBIA SX 30	30	API CF / SF
TOTAL RUBIA SX 40	40	API CF / SF
TOTAL RUBIA SX 50	50	API CF / SF



HEAVY-DUTY OFF-ROAD

DYNATRANS

TRANSMISSION AND FINAL DRIVE LUBRICANTS



TOTAL PROPOSES A LARGE SET OF PRODUCT FOR TRANSMISSION AND FINAL DRIVE APPLICATIONS.

DYNATRANS:

DYNATRANS products are high performance lubricants for powershift transmission systems and final drives of earthmoving machinery. Approved by the equipment manufacturers, DYNATRANS ranges are developed to cover all types of applications and provide outstanding performances.

Dedicated to CO2 emissions reduction, DYNATRANS Fuel Economy products are specially formulated to maximize fuel economy properties without compromising on the engine protection. Our wide range of Fuel Economy solutions are suited for every application, including engines, gearboxes and axles.

FLUIDMATIC:

FLUIDMATIC products are high performance lubricants for automatic transmission systems.

TRAXIUM:

TRAXIUM products are high performance lubricants for manual transmission and axle/differentials systems.

TOTAL DYNATRANS PRODUCTS

POWERSHIFT TRANSMISSION FLUIDS

COMMERCIAL PRODUCT NAME	GRADE	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
DYNATRANS VX FE			API GL-4		<p>Suitable with:</p> <ul style="list-style-type: none"> Massey Ferguson CMS M1145 / M1143 • John Deere JEM J200 • Kubota S-UDT AGCO / Allis 821 XL • Valtra G2-08 • Claas / Renault Agriculture Mc Cormick HTX • Case MS 1206 / 1207 / 1209 • New Holland NH 410B / NH 410C CNH MAT 3505 / 3509 / 3525 / 3526 / 3540 • Ford M2C 134D / FNHA 2C 201.00 Komatsu AXD 80
DYNATRANS MPV			API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 • Valtra G2-08 ZF TE-ML 03E / 03L / 05F / 06P / 17E / 21F • Volvo CE WB 101 	<ul style="list-style-type: none"> John Deere JEM J200 • Ford M2C 134-D / FNHA 2C 201.00 • Mc Cormick HTX Claas / Renault Agriculture • Massey Ferguson CMS M1143 • Allison C4 <p>Suitable with: • Massey Ferguson CMS M1141 / M1135 • Case MS 1207 / 1209</p> <ul style="list-style-type: none"> CNH MAT 3505 / 3509 / 3525 / 3526 / 3540 • Caterpillar Cat TO-2 Komatsu AXD 80 • AGCO / ALLIS 821 XL
DYNATRANS ACX	0W-20 10W 30 50 60 ALL GRADES		API GL-4 API GL-4 / CF API GL-4 / CF API GL-4 / CF API GL-4 / CF	<ul style="list-style-type: none"> ZF TE-ML 03C ZF TE-ML 03C / 07F 	<ul style="list-style-type: none"> Allison C4 • Caterpillar TO-4 • Caterpillar HYDD Advanced Allison TES 439 • Komatsu Clutch Test (JCMAS) Caterpillar TO-4 • Caterpillar HYDD Advanced 10 Allison TES 439 • Allison C4 • Komatsu Clutch Test (JCMAS) Caterpillar TO-4 • Caterpillar HYDD Advanced 30 Allison TES 439 • Allison C4 • Komatsu Clutch Test (JCMAS) Caterpillar TO-4 • Komatsu Clutch Test (JCMAS) Caterpillar TO-4 <p>Suitable in transmissions:</p> <ul style="list-style-type: none"> Dana • Eaton-Faller • Rockwell • JCB • etc.
DYNATRANS LS	20W-40		API GL-4	<ul style="list-style-type: none"> ZF TE-ML 05F / 06K / 17E / 21F 	<p>Suitable with: • Case MS 1317 • Hanomag • Hitachi • Komatsu AXD 80 • Komatsu etc.</p>



HEAVY-DUTY OFF-ROAD

TOTAL DYNATRANS PRODUCTS

AUTOMATIC TRANSMISSION FLUIDS

SPECIAL FINAL DRIVE FLUIDS

COMMERCIAL PRODUCT NAME	GRADE	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
FLUIDMATIC D3				<ul style="list-style-type: none"> Mercedes MB-Approval 236.9 • Volvo 97341 Man 339 TYP V1 / Z1 / L1 • Voith H55.6335.xx ZF TE-ML 04D / 14A / 11B 	<ul style="list-style-type: none"> GM Dexron III G / III H • Ford Mercon <p>Recommended for: • Allison C4</p>
FLUIDMATIC XLD FE				<ul style="list-style-type: none"> ZF TE-ML 04D / 14B / 16L / 17C / 20B • Voith H55.6336.xx MAN 339 Typ V2 / Z2 • MB-Approval 236.6 Allison C4 	<ul style="list-style-type: none"> Man 339 Typ Z3 • GM Dexron III H • ZF TE-ML 02F / 14C MB 236.91 • Allison TES-389 • VW TL 52162 Ford Mercon / Mercon V • JASO 1A • Toyota T-IV Hyundai, Kia, Mitsubishi SP-III • Flinda Z-1 • Mazda M-III / M-V Aisin Warner JWS 3309 <p>Recommended for: • ZF TE-ML 11B • Nissan: AT-Matic D, J, K</p>
DYNATRANS FD-1	50 / 60		Caterpillar FD-1		<ul style="list-style-type: none"> Caterpillar FD-1 specification <p>Recommended for: Aodes and final drives of machines without friction discs working under severe conditions of heavy load and high temperature.</p>
DYNATRANS GEA	680		DIN 51 517-3: CLP ISO 8743-6: CKD		<ul style="list-style-type: none"> General Electric (GE) • Transportation Systems specification D50E35E (approval in progress) <p>Suitable for: Spur, helical, bevel and most types of industrial hypoid gearing. Also suitable for ball, roller and other types of antifriction bearings.</p>
DYNATRANS DA	80W-90 85W-140		API GL-5 (LS) • MIL-L-2105D	<ul style="list-style-type: none"> ZF TE-ML 05C / 12C / 21C ZF TE-ML 05C / 12C / 16E 	<p>Suitable for use in: • Liebherr • Terex • Volvo • Case • JCB etc.</p> <p>Suitable for use in: • Case • JCB • Liebherr • Terex • Volvo • Van-Hool etc.</p>

TOTAL DYNATRANS PRODUCTS

MANUAL TRANSMISSION
AND AXLE FLUIDS

COMMERCIAL PRODUCT NAME	GRADE	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
TRAXIUM DUAL 9 FE	75W-90		API GL-4 / GL-5 / ME-1 MIL-PRF-2105E MIL-L-21050 SAE J236D	<ul style="list-style-type: none"> • MB-Approval 235.8 • Man 341 Typ Z2 • Man 342 Typ S1 • Scania STD 1:0 • Scania STD 2:0 A FS • Volvo 97312 • ZF TE-ML 02B / 05A / 12L / 12N / 16F / 17B / 19C / 21A • Meritor 076-N 	<ul style="list-style-type: none"> • MB-Approval 235.8 • Man 341 Typ Z2 • Man 342 Typ S1 • Scania STD 1:0 • Volvo 97312 • Iveco RAS1 • ZF TE-ML 02B / 05A / 12L / 12N / 16F / 17B / 19C / 21A • Meritor 076-N <p>Suitable for use in: • Euron Europe</p>
TRAXIUM AXLE 7	80W-90			<ul style="list-style-type: none"> • ZF TE-ML 12E, 17B, 19B • Man 342 type M-2 • Volvo 97305 • Iveco RAM1 	Recommended for: ZF and Man hypoid gears, with standard drain interval.
	85W-90		API GL-5	<ul style="list-style-type: none"> • Man 342 type M-1 • ZF TE-ML 16D / 17B / 19B / 21A • MB-Approval 235.0 	Recommended for: Man, Mercedes and ZF hypoid axles, according to the recommended oil change interval.
	85W-140			<ul style="list-style-type: none"> • ZF TE-ML 05A / 12E / 16D / 21A • Iveco RAM2 	Recommended for: Lubrication ZF manual transmission with drain interval based on OEM recommendations.



HEAVY-DUTY OFF-ROAD HYDRAULIC FLUIDS



EQUIVIS and **AZOLLA** are high-performance, anti-wear hydraulic oils approved by world's leading manufacturers. **EQUIVIS HE**, designed for Hydraulic systems operating under high temperature and pressure conditions for Off Road range of Equipment with shear stable viscosity index, ensuring better wear protection.

HYDRAULIC FLUIDS PRODUCTS

COMMERCIAL PRODUCT NAME	ISO VG	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS
EQUIVIS ZS	32	AFNOR NF E 48-603 HV ISO 6743 / 4 HV DIN 51524 P3 HVLP JCMAS HK VG46W	<ul style="list-style-type: none"> • Cincinnati Milacron P68 / P69 / P70 • Vickers M-2950S, -I-286
	46		
	68		
	100		
EQUIVIS AF	32	ISO 6743 / 4 HV DIN 51524-3 HVLP	
	46		
	68		
EQUIVIS HE	32	ISO 11158 HV DIN 51524-3 HVLP	<ul style="list-style-type: none"> • Denison HFO, HF1, HF2
	46		
	68		
AZOLLA ZS	32	AFNOR NF E 48-603 HM ISO 6743 / 4 HM DIN 51524 P2 HLP	<ul style="list-style-type: none"> • Cincinnati Milacron P68, P69, P70 • Denison HFO / HF1 / HF2 / (T6H20C) • Vickers M-2950S / -I-286
	46		
	68		
	100		
AZOLLA AF	32	ISO 6743 / 4 HM US steel 136, 127 SEB 181222 SAE MS 1004 DIN 51524 P2 HLP	<ul style="list-style-type: none"> • Cincinnati Milacron P 68, P 69, P 70 • Bosch Rexroth RE 90 220 • Eaton Vickers I-290-S (Industrial), M-2950-S (Mobile) • Denison HFO, HF1, HF2 (approval of T6H20C pump)
	46		
	68		
	68		



HEAVY-DUTY OFF-ROAD

OTHER LUBRICANTS

CARTER:

CARTER are lubricants used for enclosed gears operating under severe conditions.

MULTI PURPOSE GREASES:

Total developed a range of greases dedicated to meet off-road equipment's needs, in different environmental conditions.

Some products are specially designed to adapt to the complexity of your off-road activity, such as MULTIS MINE which is a special mining grease containing 5% solid additives to increase the productivity of operations and protect equipment in the most severe conditions.

TOTAL CARTER PRODUCTS

COMMERCIAL PRODUCT NAME	ISO VG	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS
CARTER EP	150 - 220 320 - 460 - 680	DIN 51517 Part 3 - CLP • ISO 12925-1 CKD AGMA 9005 - E02 (EP) • GB S903-2011	<ul style="list-style-type: none"> • DAVID BROWN S1.53.101 E • AIST 224 • SEB 181226 • JIS K2219-2006 (Class2) • SIEMENS - FLENDER
CARTER SH	150 - 220 320 - 460 - 680	DIN 51517 Part 3 - CLP • NF-ISO 6743-6 category CKD AISI 224 • AGMA 9005 - E02	<ul style="list-style-type: none"> • CINCINNATI MILACRON • DAVID BROWN • FLENDER • USINOR FT 161 • MÜLLER WENIGARTEN
CARTER SG	150 - 220 320 - 460 - 680	DIN 51517-3 : CLP PG • ISO 12925-1 CKT	

MULTI PURPOSE GREASES

COMMERCIAL PRODUCT NAME	COLOR	ROLLING BRG	PIN BUSH	GIRTH GEAR	MLGI GRADE	OPERATING TEMPERATURE (°C)	VISCOSITY AT 40 °C	MULTI PURPOSE GREASES
MULTIS COMPLEX XHV 2 MOLY	● BLACK		***	**	2	-20 to +160	800	CAT/Bucyrus SD 4711 - P&H 520 - Liebherr specifications P1, P2, P3 and OHT - CAT Multi Purpose 3% Moly requirement - Komatsu CLS grease - Epiroc - Sandvik - Hitachi - JCB - Volvo - Atlas Copco
MULTIS MINE 680 Range	● BLACK		***	**	0 to 2	-20 to +160	680	CAT/Bucyrus SD 4711 - P&H 520 - Liebherr specifications P1, P2, P3 and OHT - CAT Multi Purpose 3% Moly requirement - Komatsu CLS grease - Epiroc - Sandvik - Hitachi - JCB - Volvo - Atlas Copco
MULTIS MINE 460 Range		460						
MULTIS COMPLEX HV 2 MOLY	● BLACK	*	**		2	-30 to +160	340	Liebherr specifications P1, P2
ALTIS MV2	● GREEN	***			2	-60 to 180	160	F.L.SMITH MAAG GEAR - SANDVIK ALBEMA - SIDEL - NEGRI BOSSI - KHD
CERAN XS 40 MOLY	● BLACK		***	*	1,5	-50 to 180	40	Komatsu
COPAL OGL Range	● BLACK			***	0	-20 to 150	>1000	Liebherr specifications P3 and OHT
			1	-15 to 150				
			2	-10 to 150				



AGRICULTURAL VEHICLE LUBRICANTS

AGRICULTURE

TOTAL AGRI, YOUR DAILY PARTNER	PAGE 76
TRACTAGRI	PAGE 77
DYNATRANS	PAGE 80
MULTAGRI	PAGE 82
HYDRAGRI AND OTHERS	PAGE 84
PROSYLVA AND PROSYLVA CHAIN	PAGE 86
A-GREASE	PAGE 88
OTHER PRODUCTS	PAGE 90





AGRICULTURE

TOTAL AGRI, YOUR DAILY PARTNER

At Total, we strongly believe that each market deserves a dedicated range of products.

TOTAL AGRI is our exclusive brand to address your demanding Agricultural market needs. TOTAL AGRI products are tested and approved by Major Agricultural & Heavy Vehicle Manufacturers. These product approvals are the official guarantee proving that TOTAL AGRI products are 100% compatible with the equipment and technology of these related manufacturers.

Total increases uptime and lowers maintenance costs thanks to its:

- Premium products and tailor-made solutions to increase your operational efficiency.
- TOTAL AGRI premium ranges, designed from years of research, tested in real world conditions during fleet tests and approved by OEMs.
- TOTAL ANAC AGRI Fleet Management System, based on used oil analysis and supported by its technical teams on the field.

Total develops tailor-made lubricants in its state-of-the-art R&D centers in France and India. Products are developed in close collaboration with Agricultural and Heavy Vehicle Manufacturers in order to meet their sophisticated and most demanding technical requirements.



TRACTAGRI, ENGINE OILS



Approved by Agricultural Manufacturers, TRACTAGRI products offer excellent engine and after treatment systems protection, with extended drain intervals, for both the latest and former engines.

TRACTAGRI products' formulations contain the perfect combination of strong antioxidant molecules. These active molecules prevent unanticipated formation of deposits and keep the hydrocarbon chains intact. As a result, the engine oil viscosity remains stable much longer.



Benefits of using TRACTAGRI Engine Oil:

- Increased uptime and lower maintenance costs
- Exceed API and ACEA specifications
- Outstanding protection against mechanical wear
- Lower oil consumption



Dedicated to CO₂ emissions reduction, TRACTAGRI Fuel Economy products are specially formulated to maximize fuel economy properties without compromising on the engine protection. Our wide range of Fuel Economy solutions are suited for every application, including engines, gearboxes and axles.



AGRICULTURE

TOTAL TRACTAGRI PRODUCTS

COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
TRACTAGRI T4R FE	5W-30			ACEA E4, E6, E7, E9 API CJ-4	<ul style="list-style-type: none"> • Deutz DOC IV-10 LA • Deutz TTCD • MB-Approval 228.51 • MAN M 3677 	<ul style="list-style-type: none"> • Caterpillar ECF-3/ECF-2/ECF-1-a • FPT-Iveco TLS E6 • CNH MAT 3521 • MAN M 3477 / M 3575 • Cummins CES 20061
TRACTAGRI T4R	10W-40			ACEA E4, E6, E7, E9 API CJ-4	<ul style="list-style-type: none"> • Deutz DOC IV-10 LA • Deutz TTCD • MB-Approval 228.51 • MAN M 3477 	<ul style="list-style-type: none"> • Caterpillar ECF-3/ECF-2/ECF-1-a • FPT-Iveco TLS E9 • CNH MAT 3521 • MAN M 3575 • Cummins CES 20061
TRACTAGRI HDZ FE	10W-30			ACEA E7, E9 API CK-4	<ul style="list-style-type: none"> • Cummins CES 20066 • Deutz DOC III-18 LA • MB-Approval 228.31 • Volvo VDS-4.5 	<ul style="list-style-type: none"> • Caterpillar ECF-3/ECF-2/ECF-1-a • CNH MAT 3521
TRACTAGRI HDZ	10W-40			ACEA E7, E9 API CK-4/SN	<ul style="list-style-type: none"> • Cummins CES 20066 • Deutz DOC III-18 LA • MB-Approval 228.31 • Volvo VDS-4.5 	<ul style="list-style-type: none"> • Caterpillar ECF-3/ECF-2/ECF-1-a • FPT-Iveco TLS E9 • CNH MAT 3521
TRACTAGRI HDZ	15W-40			ACEA E7, E9 API CK-4/SN	<ul style="list-style-type: none"> • Cummins CES 20066 • Deutz DOC III-18 LA • MB-Approval 228.31 • Volvo VDS-4.5 	<ul style="list-style-type: none"> • Caterpillar ECF-3/ECF-2/ECF-1-a • CNH MAT 3521

TOTAL TRACTAGRI PRODUCTS

COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
TRACTAGRI HDY	10W-40			ACEA E4, E7 API CF	<ul style="list-style-type: none"> • MAN M3277 • Deutz DQC II-10 • MB-Approval 228.5 	<ul style="list-style-type: none"> • Caterpillar ECF-1-a
TRACTAGRI HDX FE	10W-30			ACEA E7 API CI-4	<ul style="list-style-type: none"> • Cummins CES 20078 • Deutz DQC II-10 • MB-Approval 228.3 	<ul style="list-style-type: none"> • Cummins CES 20077/20076 • Caterpillar ECF-2/ECF-1-a • Case MS 1121 • CNH MAT 3507 • New Holland NH 324H
TRACTAGRI HDX	15W-40			ACEA E7 API CI-4/SL	<ul style="list-style-type: none"> • Cummins CES 20078 • Deutz DQC II-10 • MB-Approval 228.3 	<ul style="list-style-type: none"> • Caterpillar ECF-2/ECF-1-a • Case MS 1121 • FPT-Iveco T2 E7 • CNH MAT 3507 • New Holland NH 330H • MAN M 3275 • Cummins CES 20077/20076
TRACTAGRI HDM	15W-40			API CF-4/GF CCMC D4/P02 MIL L 2104E		



AGRICULTURE

DYNATRANS, TRANSMISSION LUBRICANTS



DYNATRANS products are high performance lubricants for agricultural tractors transmissions : UTTO (Universal Tractor Transmission Oil and axles) and Axles. Approved by the Agricultural and Heavy Vehicle Manufacturers, DYNATRANS ranges are developed to cover all types of applications and provide outstanding performances.


Dedicated to CO₂ emissions reduction, DYNATRANS Fuel Economy products are specially formulated to maximize fuel economy properties without compromising on the engine protection. Our wide range of Fuel Economy solutions are suited for every application, including engines, gearboxes and axles.

TOTAL DYNATRANS PRODUCTS

UTTD RANGE

COMMERCIAL PRODUCT NAME	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
DYNATRANS VZ FE		API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 Valtra G2-B10 • ZF TE-ML 03E/05F/06K 	<ul style="list-style-type: none"> Massey Ferguson CMS M1143 • Ford FNHA 2C 201.00/M2C 134-D John Deere JDM J20C • Mc Cormick HTX
DYNATRANS MPX		API GL-4	<ul style="list-style-type: none"> Valtra G2-08 Volvo CE WB 101 ZF TE-ML 03E/05F/06D/06K/06N/06R/17E/21F 	<ul style="list-style-type: none"> Massey Ferguson CMS M1145/M1143 • John Deere JDM J20C Clas / Renault Agriculture • Ford FNHA 2C 201.00/M2C 134-D Mc Cormick HTX Suitable for: • KUBOTA UDT
DYNATRANS MPV		API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 Valtra G2-08 • ZF TE-ML 03E/03L/05F/06P/17E/21F Volvo CE WB 101 	<ul style="list-style-type: none"> Massey Ferguson CMS M1143 • Allison C4 John Deere JDM J20C • CLAAS / Renault Agriculture Ford FNHA 2C 201.00/M2C 134-D • Mc Cormick HTX
DYNATRANS LS 20W-40		API GL-4	<ul style="list-style-type: none"> ZF TE-ML 05F/06K/17E/21F 	
DYNATRANS CVT 10W-30		API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 ZF TE-ML 06F 	<ul style="list-style-type: none"> Massey Ferguson CMS M1143 • Case New Holland CASE CVX Massey Ferguson DYNA VT • Sleyr CVT
DYNATRANS FR		API GL-4		<ul style="list-style-type: none"> Clas / Renault Agriculture • Massey Ferguson CMS M1135/M1141 • New-Holland NH 420A • Ford WSS-M2C 86B/WSS-M2C 86C
DYNATRANS WS		API GL-4 ISO VG : HV 100		Suitable for: • Massey Ferguson • John Deere • AGCO • Clas / Renault Agriculture • ...
BIOTRANS FX (BIOLube)		API GL-4 ISO 15380 : HEES	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 • ZF TE-ML 06F 	<ul style="list-style-type: none"> Massey Ferguson CMS M1143 • Clas / Renault Agriculture

AXLES RANGE

COMMERCIAL PRODUCT NAME	GRADE	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
DYNATRANS HD	80W-90		API GL-5 • MIL-L-2105D	• ZF TE-ML 05A/12E/16B/17B/21A	
DYNATRANS HD	85W-140		API GL-5 • MIL-L-2105D	• ZF TE-ML 05A/12E/16B/21A	
DYNATRANS LS	80W-90		API GL-5 LS • MIL-L-2105D	• ZF TE-ML 05C/12C/21C	• Clas / Renault Agriculture • Deutz
BIOTRANS LS FE (BIOLube)	75W-90		API GL-5 LS • MIL-L-2105D		<ul style="list-style-type: none"> Clas / Renault Agriculture • Deutz • Liebherr • Volvo CE Torex • Case New Holland • JCB



AGRICULTURE

MULTAGRI, SUPER TRACTOR OIL UNIVERSAL



MULTAGRI products are multifunctional lubricants: STOU (Super Tractor Oil Universal). Exclusively developed for the Agricultural segment, MULTAGRI products provide an all in one solution to lubricate systems: Engine (up to API CG-4/ ACEA E3), Gearbox, Axles with oil immersed brake discs and Hydraulic lift.

TOTAL MULTAGRI PRODUCTS

COMMERCIAL PRODUCT NAME	GRADE	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF
MULTAGRI PRO-TEC	10W-40	ACEA E3 Engines: API CG-4/SF Transmissions: API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 ZF TE-ML 06B/07B 	<p>Engines: • Ford M2C 159B3 • Massey Ferguson CMS M1139/M1144 • John Deere JDM J27</p> <p>Transmissions: • CASE MS 1206/1207 • John Deere JDM J20A/J20C • Ford M2C 86A/M2C 134C/M2C 134D/FNHA 2C 201.00 • Massey Ferguson CMS M1127A/M1135/M1143</p> <p>Automatic transmissions: • Caterpillar T02 • Allison C4</p>
MULTAGRI SUPER	10W-30	ACEA E2 Engines: API CF-4/CE/SF Transmissions: API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 ZF TE-ML 06B/07B 	<p>Engines: • Ford M2C 159B1 • Massey Ferguson CMS M1139/M1144 • John Deere JDM J27</p> <p>Transmissions: • John Deere JDM J20A/J20C • Ford M2C 86A/M2C 134D/FNHA 2C 201.00</p> <p>• Massey Ferguson CMS M1127A/M1135/M1143</p> <p>Automatic transmissions: • Allison C4</p>
MULTAGRI SUPER	15W-40	ACEA E2 Engines: API CF-4/CE/SF Transmissions: API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 ZF TE-ML 06B/07B 	<p>Engines: • Ford M2C 159B3 • Massey Ferguson CMS M1139/M1144 • John Deere JDM J27</p> <p>Transmissions: • John Deere JDM J20A/J20C • Ford M2C 86A/M2C 134D/FNHA 2C 201.00</p> <p>• Massey Ferguson CMS M1127A/M1135/M1143</p> <p>Automatic transmissions: • ALLISON C4</p>
MULTAGRI MS	15W-40	ACEA E2 Engines: API CF-4/CE/SF Transmissions: API GL-4	<ul style="list-style-type: none"> Massey Ferguson CMS M1145 ZF TE-ML 06B/07B 	<p>Engines: • Ford M2C 159B3 • Massey Ferguson CMS M1139/M1144 • John Deere JDM J27</p> <p>Transmissions: • John Deere JDM J20A/J20C • Ford M2C 86A/M2C 134D/FNHA 2C 201.00</p> <p>• Massey Ferguson CMS M1127A/M1135/M1143</p> <p>Automatic transmissions: • Allison C4</p>



AGRICULTURE

HYDRAGRI AND OTHERS, HYDRAULIC FLUIDS



HYDRAGRI is a range of advanced technology hydraulic fluids dedicated to Agricultural equipment. Thanks to their highly technical formulations and numerous international specifications, HYDRAGRI products cover a wide range of uses.

As complementary ranges, HYDROFLO and BIOHYDRAN are also adapted for Agricultural machinery.

TOTAL HYDRAGRI AND OTHER PRODUCTS

COMMERCIAL PRODUCT NAME	ISO VG	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS
HYDRAGRI	32 46 68	AFNOR NF-E48-603 HV ISO 6743-4 HV DIN 51524-3 HMLP	<ul style="list-style-type: none"> • Cincinnati Milacron P50/P60/P70 • Denison HFO/HF2 • Vickers M-2950-S1-286-S
HYDROFLO CT	46	ISO 6743-4 HV DIN 51524-3 HMLP AFNOR NF-E48-603 HV	
BIOHYDRAN SE (BIOLube)	32 46 68	ISO 15380 HEES DIN 51524 (for mineral oil) except DIN 51587 and ISO 13357 AFNOR FR/27/02 Swedish Standard SS 15 54 34 .ICMAS HKB	<ul style="list-style-type: none"> • Denison HF1/HF2/HF6 Suitable for: • Caterpillar CAT BF-2



AGRICULTURE

PROSYLVA AND PROSYLVA CHAIN, GARDENING AND CHAINSAW LUBRICANTS



PROSYLVA is a range of advanced technology lubricants for **Home Farming and Gardening**.



PROSYLVA CHAIN is a range of lubricants suitable for **chainsaws** for the lost oil lubrication of fast-moving machinery: wood chainsaw chains, conveyor belts, ect.

TOTAL PROSYLVA PRODUCTS

COMMERCIAL PRODUCT NAME	INTERNATIONAL STANDARDS
PROSYLVA 4T SYN 10W-40	ACEA A3/B4 API SL
PROSYLVA 4T 15W-40	ACEA A3/B3 API SJ/CG-4
PROSYLVA 2T SYN	API TC JASO FD ISO L-EGC/EGD (deferency level) Suitabel for: HUSQVARNA • ROTAX • STIHL
PROSYLVA 2T Z	API TC JASO FB ISO L-EGE

TOTAL PROSYLVA CHAIN PRODUCTS

COMMERCIAL PRODUCT NAME	ISO VG
PROSYLVA CHAIN CLASSIC	100
PROSYLVA CHAIN EXPERT	150
PROSYLVA CHAIN EXTREM	220
PROSYLVA CHAINBIO (BIOLube)	100



AGRICULTURE

A-GREASE

A-GREASE is a dedicated range of greases developed to meet agricultural equipment's needs, in different environmental conditions.

NEW CARTRIDGES DESIGN TO COME.

TOTAL GREASES PRODUCTS

COMMERCIAL PRODUCT NAME	MECHANICAL STABILITY	THERMAL STABILITY	RESISTANCE TO LOADS	ADHESION	SPECIFICATIONS
A-GREASE COMPLEX HV 2	***	***	***	**	<ul style="list-style-type: none"> • ISO 6743-9: L-XBCEB 2 • DIN 51502: KP2P-30
A-GREASE FIL EP 2	**	**	**	***	<ul style="list-style-type: none"> • ISO 6743-9: L-XBCEB 2 • DIN 51502: KP2K-25
A-GREASE CLASSIC	**	*	**	*	<ul style="list-style-type: none"> • ISO 6743-9: L-XBCEB 2 • DIN 51502: KP2K-20



AGRICULTURE

OTHER PRODUCTS



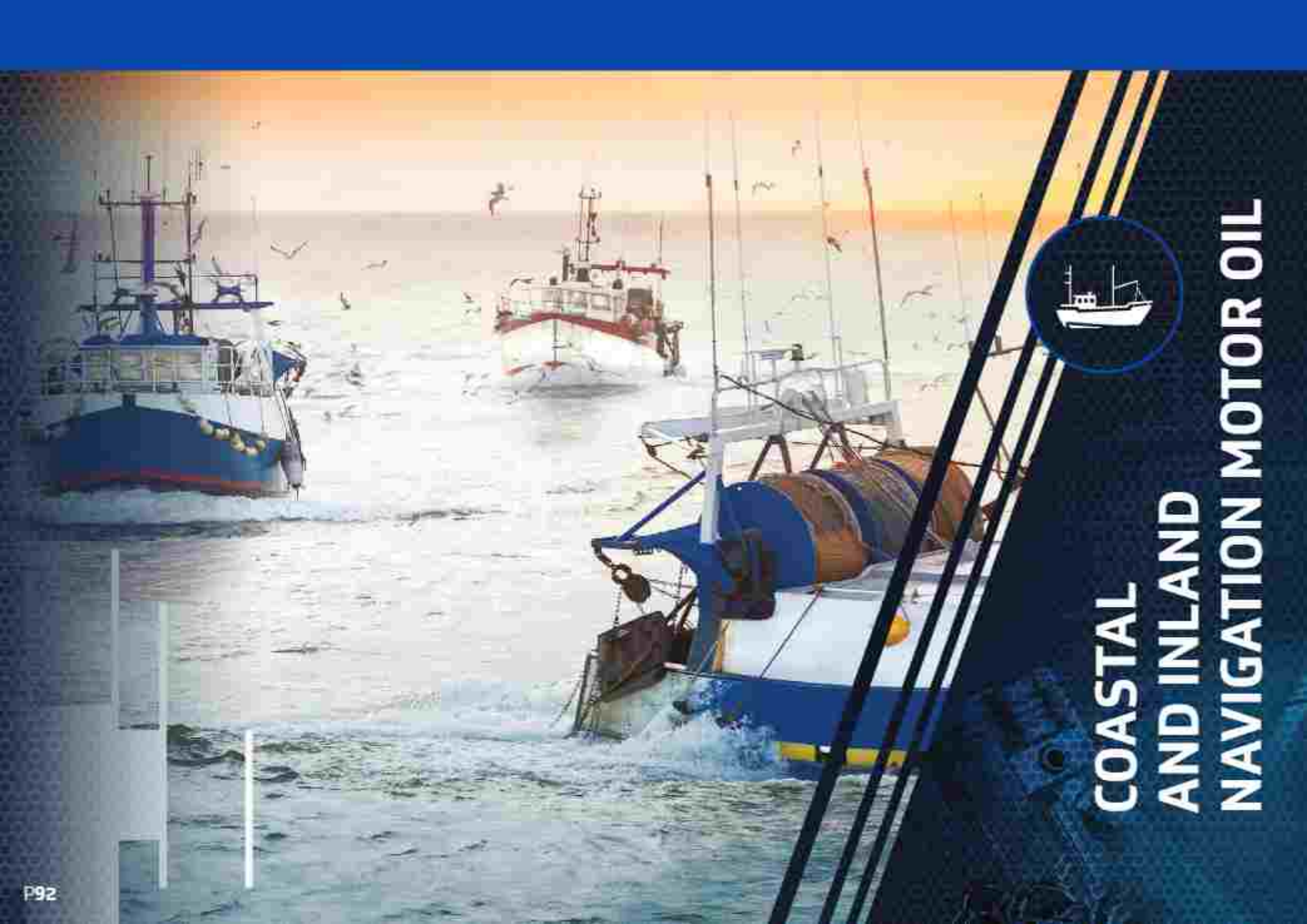
COOLAGRI: Ready to use very long-life coolant for agricultural machinery, based on highly pure mono-ethylene glycol and organic corrosion inhibitors.



AGRITRAITE: Lubricant for the vacuum pumps of milking machines (vane pumps, screw pumps, roots type rotary piston pumps).

OTHER PRODUCTS

COMMERCIAL PRODUCT NAME	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEET THE REQUIREMENTS	SUITABLE FOR	APPLICATIONS
COOLAGRI ORGANIC -37°C Coolant for Agriculture	AFNOR NFR 15-601 ASTM D3306/D4656/D4985/D6210 SAE J 1034 BS 6580	<ul style="list-style-type: none"> • MAN 324 type SNF • MTU MTL 5040 	<ul style="list-style-type: none"> • Daimler MB 326.3 • Deutz D4C CB-14 • Cummins IS series uN14 • Cummins CES 14439 • Liebherr MD1-36-130 	Suitable for: <ul style="list-style-type: none"> • John Deere • Renault Agriculture • Case Liebherr • Case New Holland 	Ready to use very long life coolant for agricultural machinery, based on highly pure monoethylene glycol and organic corrosion inhibitors.
AGRITRAITE 68 Lubricant for Milking machines					Total Lubricant for the vacuum pumps of milking machines (vane pumps, screw pumps, roots type rotary piston pumps).



**COASTAL
AND INLAND
NAVIGATION MOTOR OIL**

TOTAL CAPRANO

TOTAL CAPRANO PAGE 94

TOTAL CAPRANO RANGE:

CAPRANO TDK PAGE 95

CAPRANO TDI PAGE 95

CAPRANO MT PAGE 95

CAPRANO M PAGE 95

CAPRANO TC PAGE 95





COASTAL AND INLAND NAVIGATION MOTOR OIL

TOTAL CAPRANO, ENGINE OILS



The operating conditions of the boats are often far from ideal. Given the constraints imposed on them, their engines need lubricants that provide the best level of performance in all circumstances.

TOTAL CAPRANO high-technology lubricants ideally suit your fishing, coastal and inland marine activities by offering a dedicated range of products:

- Multigrade engine lubricants, for high-speed 4-stroke diesel engines
- Monograde engine lubricants, for 4-stroke and 2-stroke diesel engines
- Special lubricants, for hydraulic systems, stern tubes and reduction drives



TOTAL CAPRANO PRODUCTS

COMMERCIAL PRODUCT NAME	GRADE	LOW SAPS	FUEL ECONOMY	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS OF	SUITABLE FOR
CAPRANO TDK FE	10W-30			ACEA E7, E9 API CK-4/CJ-4/CI-4	<ul style="list-style-type: none"> Cummins CES 20086 Volvo VDS-4.5 Man M 3775 	<ul style="list-style-type: none"> Caterpillar ECF-3/ECF-2/ECF-1-a Cummins CES 20081 Man M 3575 	
CAPRANO TDK	15W-40			ACEA E7, E9 API CK-4/CJ-4/CI-4/SL	<ul style="list-style-type: none"> Cummins CES 20086 Volvo VDS-4.5 Man M 3775 	<ul style="list-style-type: none"> Caterpillar ECF-3/ECF-2/ECF-1-a Cummins CES 20081 Man M 3575 	
CAPRANO TDI FE	10W-30			ACEA E7 API CF-4/CH-4	<ul style="list-style-type: none"> Cummins CES 20078 MTU Oil Category 2 Volvo VDS-3 	<ul style="list-style-type: none"> Caterpillar ECF-3/ECF-1-a Man M 3275 	
CAPRANO TDI	15W-40			ACEA E7 API CH-4/CH-4/SL	<ul style="list-style-type: none"> Cummins CES 20078 MTU Oil Category 2 Volvo VDS-3 ZF TE-ML 04C Baudouin Performance B 	<ul style="list-style-type: none"> Man M 3275 Caterpillar ECF-2/ECF-1-a Cummins CES 20076/20077 FPT-Isoco T2 E7 	<ul style="list-style-type: none"> Mitsubishi
CAPRANO TOH	15W-40			API CH-4/SL	<ul style="list-style-type: none"> Cummins CES 20076 MTU Oil Category 2 ZF TE-ML 04C Baudouin Performance B 	<ul style="list-style-type: none"> Man M 3275 Caterpillar ECF-1-a Volvo VDS-2 	<ul style="list-style-type: none"> MWM Parkinson
CAPRANO MT	30			ACEA E7 API CH-4/CG-4/CF-4/CF	<ul style="list-style-type: none"> MTU Oil Category 2 ZF TE-ML 04A 	<ul style="list-style-type: none"> ZF TE-ML 04B ABC DX/EZ Caterpillar 3116/3126 MUI engines Baudouin Performance A 	<ul style="list-style-type: none"> Wartsila Mitsubishi Motors (J semi-rapides) MWM Mak Mascon Stork
CAPRANO MT	40			ACEA E7 API CH-4/CG-4/CF-4/CF	<ul style="list-style-type: none"> MTU Oil Category 2 ZF TE-ML 04A 	<ul style="list-style-type: none"> ZF TE-ML 04B Caterpillar 3116/3126 MUI engines Baudouin Performance A ABC DX / DZ 	<ul style="list-style-type: none"> Wartsila Mitsubishi Motors (J semi-rapides) MWM Mak Mascon Stork
CAPRANO M	30			API CF	<ul style="list-style-type: none"> Wartsila Vasa 22/22/26 and 32/32LN 	<ul style="list-style-type: none"> Man Diesel and turbo ZF TE-ML 04A/04B Renk Marine gear boxes Reintjes BV 2060/3&4 / BV 1597/3&4 	<ul style="list-style-type: none"> ABC Deutz Baudouin Stork
CAPRANO M	40			API CF	<ul style="list-style-type: none"> Wartsila Vasa 22/22/26 and 32/32LN Wartsila 20/26/32/38/46/46F/64 Wartsila 20DF/32DF/34DF/50DF Sulzer 240/ZA40/ZA40S 	<ul style="list-style-type: none"> Man Diesel et turbo ZF TE-ML 04A/04B Reintjes BV 2060/3&4 et BV 1597/3&4 Flender A66 	<ul style="list-style-type: none"> ABC Deutz Baudouin Stork
CAPRANO TC	40			API CF-2			<ul style="list-style-type: none"> Deutz Diesel 149/53/71/92 Marine



TRANSMISSION

TRANSMISSIONS

TRANSMISSION IN ACTION	PAGE 98
TRANSMISSION, STATE-OF-THE-ART TECHNOLOGY	PAGE 99
TRANSMISSION RANGE ARCHITECTURE	PAGE 100
ADVANCED MANUAL TRANSMISSION FLUID RANGE - TRAXIUM	PAGE 101
STANDARD MANUAL TRANSMISSION FLUID RANGE - TRANSTEC	PAGE 104
ADVANCED AUTOMATIC TRANSMISSION FLUID RANGE - FLUIDMATIC	PAGE 105





TRANSMISSION

TRANSMISSION IN ACTION, GET INSIDE A COMPLETE RANGE OF HIGH-TECH LUBRICANTS

The driveline is an essential element of your vehicle that requires optimal lubrication to exploit its full potential. This is why our lubricants are continuously evolving over time to accompany the evolution of gearboxes and axles technologies. As a result, we offer a full range of high-tech lubricants dedicated to axles, manual and automatic transmissions.



**Excellent viscosity
stability**



**Exceptional friction
and anti-shudder performances**



**Excellent parts material
compatibility**



**Fuel economy
properties**



**Enhanced thermal stability
and oxidation resistance**



**Film-strength
and anti-wear properties**

TRANSMISSION, STATE-OF-THE-ART TECHNOLOGY

BADGE

BENEFITS

RTB

STORYTELLING



**Extended
drain intervals**
Reduce TCO
OEM Approvals
Durability

LIFE-BOOST TECHNOLOGY

Your peace of mind solution

Our products with LIFE-BOOST TECHNOLOGY will maximise the durability of the components and parts of the driveline equipment of your vehicle. We guarantee the Durability of your driveline equipment because our products are approved by the Manufacturers. Our products will offer the best services on your vehicle will require drastically less maintenance providing reduced Total Cost Ownership (TCO) with on top significant extended drain intervals. A solution which offers a peace of mind throughout the normal life time of your vehicle.



Reduce TCO
OEM Approvals
Durability

SAVINGS TECHNOLOGY

Reduce your maintenance costs

Our range of products with SAVINGS TECHNOLOGY is formulated to guarantee long life performances. They will contribute over time to reduce your maintenance costs as your vehicle will run with fewer interruptions. This will guarantee a reduced Total Cost Ownership (TCO) that will make the difference.



OEM Approvals
Durability

APPROVED TECHNOLOGY

Lubricant you can trust

We develop tailor-made lubricants in our advanced R&D center in France in close collaboration with vehicle and equipment manufacturers. By working this way, we fulfil their most specific technical requirements allowing our products to be approved by those manufacturers.



FILM-STRENGTH AND ANTI-WEAR PROPERTIES*

The driveline is an essential element of your vehicle that requires optimal lubrication to exploit its full potential. This is why our lubricants are continuously evolving over time to accompany the evolution of gearboxes and axles technologies. As a result, we offer a full range of high-tech lubricants dedicated to axles, manual and automatic transmissions.

*Only applicable for Traxxas O and Fluidmatic level 3



TRANSMISSION

TRANSMISSION, RANGE ARCHITECTURE

TRAXIUM 9



TRAXIUM 8



TRAXIUM 7



TRAXIUM 6



The driveline is just as important as the engine to maximize your overall vehicle performance
Developed in state-of-art research facilities, Total's range of innovative oils is just what you need for longer protection, higher efficiency and industry-approved performance.



TRANSTEC 5



TRANSTEC 4



Antiwear performance guaranteed under extreme-pressure
Dedicated to manual transmissions, transaxes, steering gears and transferboxes, TRANSTEC lubricants are specifically designed for the lubrication of various applications to give an excellent wear protection under severe oxidation, at high load conditions.



FLUIDMATIC
LEVEL 3



FLUIDMATIC
LEVEL 2



FLUIDMATIC
LEVEL 1



A powerful protective solution to promote oxidation resistance for a longer periode of time
FLUIDMATIC synthetic base oils contribute to the protection of the components of your automatic gearbox and greatly enhance friction performance.



TRAXIUM

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS
TRAXIUM DUAL 9	FE 75W-90	HD	API GL-4 API GL-5 API MT-1 SAE J2360 MIL-PRF 2105 E MIL-L 2105 D	MB-Approval 235.8 MAN 341 type Z-2 MAN 342 type S-1 SCANIA STO 1.0 SCANIA STO 2.0 A FS VOLVO 97312 ZF TE-ML 02B, 05A, 12L, 12N, 16F, 17B, 19C, 21A MERITOR 075-N IVECO RAS1 DAF MACK GD-J Plus
TRAXIUM GEAR 9	FE 75W-90	HD	API GL-4	MB-approval 235.11
TRAXIUM GEAR 9V	FE 75W-90	HD	API GL-4	VOLVO 97315
TRAXIUM GEAR 9	FE 75W-80	HD	API GL-4	ZF TE-ML 01E / 02E / 16P VWTH CLASS C VOLVO 97307 MAN 341 type Z5 MAN 341 type V8 MB-Approval 235.29 IVECO MGS2
TRAXIUM GEAR 9	FE SAE 75W	PC	API GL-4	PSA 671.2316/2317
TRAXIUM AXLE 9	FE 75W-140	HD	API GL-5 SAE J2360 MIL-L 2105 D MIL-PRF-2105E	SCANIA STO 2.0 A
TRAXIUM AXLE 9	80W-90	HD	API GL-5, MT-1 MIL-L 2105 D SAE J2360	MB-Approval 235.20, MAN 342 type M3, MAN 341 type GA1, Scania STO 1.0, ZF TE-ML 05A, 12L, 12M, 16B, 17B, 19B, 21A IVECO MGS2



TRANSMISSION

TRAXIUM

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS	SUITABLE FOR
TRAXIUM DUAL 8	FE 80W-90	HD	API MT-1 API GL-4 API GL-5 MIL-L 2105 D	MAN 341 TYPE Z2 MAN 342 TYPE M2 SCANIA STD 1.0 VOLVO 97321 / MACK GO-J ZF TE-ML 05A/12L/12M/16B/17H/19B/21A NECO RAM1	MAN 341 TYPE E2	
TRAXIUM GEAR 8	FE 75W-80	HD	API GL-4	MAN 341 type E-3/Z-4 ZF TE-ML 01L, 02L, 16K Volvo 97307		
TRAXIUM GEAR 8	75W-80	PC	API GL-4	PSA PEUGEOT CITROEN B71 2330		
TRAXIUM GEAR 8	FE SAE 40	HD	API MT-1	EATON PS-386 (replace PS-164 Rev. J) Mack TO-A Plus Navistar MPAPS B-6816 Type II		
TRAXIUM AXLE 8	FE 75W-140	HD	API GL-5 MIL-L 2105 D	SCANIA STD 1.0		
TRAXIUM AXLE 8	80W-90	PC	API GL-5 (LS) MIL-L 2105 D	PSA PEUGEOT CITROEN B71 2375		
TRAXIUM AXLE 8	FE 80W-140	HD	API GL-5 API MT-1 MIL-PRF-2105E MIL-L 2105 D	SCANIA STD 1.0 ZF TE-ML 05A, 12M, 16D, 21A		
TRAXIUM AXLE 8	80W-140	HD	API GL-5 SAE J2360 MIL-L 2105 D MIL-PRF-2105E	Scania STD 1.0 NECO RAM2	Meets the requirements of Volvo 97321 Meets the requirements of Mack GO-J	

TRAXIUM

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS	SUITABLE FOR
TRAXIUM GEAR 7	80W-85	HD	API GL-4	MB-approval 235.1 ZF TE-ML 17A		
TRAXIUM GEAR 7	85W-90	HD	API GL-4	ZF TE-ML 16A/17A/19A		
TRAXIUM AXLE 7	80W-90	HD	API GL-5 MIL-L 2105 D	ZF TE-ML 12E, 17B, 19B, 21A MAN 342 type M2 VOLVO 97305 IVECO RAM1		
TRAXIUM AXLE 7	85W-90	HD	API GL-5 MIL-L 2105 D	MAN 342 type M-1 ZF TE-ML 16C, 17B, 19B, 21A MB-Approval 235.0		
TRAXIUM AXLE 7	85W-140	HD	API GL-5 MIL-L 2105 D	ZF TE-ML 05A, 12E, 16D, 17B, 21A IVECO RAM2		
TRAXIUM GEAR 6	75W-80	PC	API GL-4			BMW MTF LF-1, LF-2, LF-3, LF-4W, FORO WSD M2C200-C / WSD M2C200-D2, VW G 009 317 / G 052 171 / G 052 178 / G 052 512 / G 052 726, VW G 060 726 / VW G 50 / VW GD 52 527 A2 / GD 70 726 A2, FIAT 9.55550-M21 / M26, VOLVO 97306
TRAXIUM GEAR 6	75W-85	PC	API GL-4			Suitable for: KIA, Hyundai, Nissan, Mitsubishi, Suzuki, Daewoo, Daihatsu and all Car Manufacturers requesting 75W- 85 SAE Grades
TRAXIUM GEAR 7	80W-90	HD	API GL-4	MAN 341 Type Z2/E1 ZF TE-ML 16A/17A/19A		



TRANSMISSION

TRANSTEC

COMMERCIAL PRODUCT NAME	GRADE	APPLICATION	INTERNATIONAL STANDARDS
TRANSTEC 4	75W-90	PC/HD	API GL-4
TRANSTEC 4	80W-90	PC/HD	API GL-4
TRANSTEC 4	85W-90	PC/HD	API GL-4
TRANSTEC 4	85W-140	PC/HD	API GL-4
TRANSTEC 4	SAE 90	PC/HD	API GL-4
TRANSTEC 4	SAE 140	PC/HD	API GL-4
TRANSTEC 4	SAE 80W	PC/HD	API GL-4
TRANSTEC 5	75W-90	PC/HD	API GL-5
TRANSTEC 5	80W-90	PC/HD	API GL-5
TRANSTEC 5	85W-90	PC/HD	API GL-5
TRANSTEC 5	85W-140	PC/HD	API GL-5
TRANSTEC 5	SAE 90	PC/HD	API GL-5
TRANSTEC 5	SAE 140	PC/HD	API GL-5

FLUIDMATIC

COMMERCIAL PRODUCT NAME	APPLICATION	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS	SUITABLE FOR
FLUIDMATIC ELD FE	HD	ZF TE-ML 04D/14B/16L/20B		
FLUIDMATIC SYB T295	HD	ALLISON TES-295 ALLISON TES-468		
FLUIDMATIC DVI MV	PC	GM Dexron® VI		
FLUIDMATIC LV MV	PC	Honda DW-1 Aisin Warner JWS 3324 Toyota Type WS JASO 1A (MS15) Hyundai-Kia NWS-9038 T-5 / SP-IV / SP-IV-RR / SPH-IV		GM Dexron VI Ford Mercon LV / Mercon SP MB 236.12/14/41 Bentley : P/N PY112995PA Audi/Volkswagen : G 052 533, G 055 005 (-A, A2) / G 055 540 (A2) BMW/Mini : P/N 83 22 0 142 516 / 83 22 0 397 114 / 83 22 2 163 514 / 83 22 2 289 720 / 83 22 2 305 397 DSI : H 6-Speed Transmissions Chrysler/Dodge/Jeep : P/N05127382AA, 68043742AA Ford : P/N XT-10-OLV, XT-6-OSP or -DSP GM : P/N 88863400, 88863401, 12378515 Hyundai-Kia : P/N 040000C90SG Jaguar-Land Rover : P/NTYK500050 Maserati : P/N 231803 Porsche : P/N 000 040 304 00 Saab : P/N 93 165 147 ZF 6 Speed AT (6HP)/8 Speed AT (8HP)/9 Speed AT (9HP) Nissan Matic S
FLUIDMATIC CVT MV	PC	Chrysler/Dodge/Jeep/Mopar CVTF+4 Dodge/Jeep/Chrysler NS-2 GM/Saturn DEX-CVT Honda HMMF (without starting clutch) Honda HCF2 Honda Z-1 (CVT model, without starting clutch not Suitable for: 2001-2007 Honda Fit & Jazz) Hyundai-Kia CVT J-1, SP III-CVT Mazda JWS 3320 Mitsubishi CVTF-J1, CVTF-J-4 and J-4+, SP III CVT Nissan NS-1/NS-2/NS-3 Subaru iCVT / iCVT FG / ECVT Suzuki CVTF-TC / NS-2 / CVT Toyota CVTF-TC / CVTF-EE		Audi/Volkswagen TL 521 80 (G 052 180) / TL 521 80 (G 052 516) / Audi Multitronic BMW mini Cooper E2L 799 Daihatsu AMMX CVTF DFE / CVT Fluid DC & DFC Punch CVT Suzuki CVT Green 1&2 / 1V / CVT 3320



TRANSMISSION

FLUIDMATIC

COMMERCIAL PRODUCT NAME	APPLICATION	MANUFACTURER APPROVALS	MEETS THE REQUIREMENTS	SCHEDULE FOR
FLUIDMATIC M7	PC		<p>Asin Warner JWS 3309 / 3317 Chrysler/Dodge/Jeep ATF +3 / +4 Hyundai-Kia SP-IVIII JASO 1A (M315) Toyota D-II / T / T-II / T-IV</p>	<p>Ford Mercon / Mercon V / WSS-M2C922-A1 GM Dexron Type A Suffix A/ID/IE/IG/IIH MAN 339 Type A Mercedes-Benz MB 236.3/9/10/11/91 ZF TE-ML 11A/11B Audi/Volkswagen : G 052 025 (A2) / G 052 162 (-A1, -A2) / G 052 055 / G 052 990 (A2) / G 055 025 (A2) / G 055 000 162 BMW/Mini : P/N 81229400272/275, 81229407858/859, 83220024249/359, 83220026922, 83220402413, 83220403248, 83227542290, 83229407765, 83229407807 Ford : P/N XT-2-QDX (M), XT-2-QSM [Syn], XT-5-QM ou -QM (V), XT-8-QAW (Premium), XT-9-QMM5 (FNR5) GM : P/N 1940700, 1940767, 21005966, 22717466, 88900925, 9988195 Isuzu : P/N 08200-9001 Jaguar : JLM 20238, JLM 20282, JLM 21044 Mazda : P/N XT-9-QMM5 Porsche : P/N 000 043 204 41, 000 043 205 09, 000 043 205 26, 899 917 547 00 (A2) PSA : P/N Z 000168756 Ssang Yong : DSH 5M-66 Subaru : P/N K0140Y0700 VCE : 1273.41 Volvo : P/N 1161521 / 1161540 / 1161640</p>
FLUIDMATIC DCT M7	PC		<p>Audi/Volkswagen TL 052 182 / TL 052 529 Ford WSS-M2C 936-A Mercedes-Benz MB 236.21</p>	<p>Audi/Volkswagen: DQ250, DQ500, DL501, G 055 529, G 052 162, G 052 529 BMW: P/N 83 22 2 148 578 / 83 22 2 148 579 / 83 22 0 440 214 / 83 22 2 147 477 Citroen: 6DCT451 Ford / Getrag: 6DCT450, 6DCT451, 7DCT300 Mercedes-Benz: 6DCT350, 6DCT500 Volvo: P/N 1161838 / 1161839 Mitsubishi: 6DCT470 Porsche / ZF: 7DT45HL, 7DT45HLA, 7DT45FL, 7DPL, 7DT70HLA, 7DT75, 7DT75A</p>
FLUIDMATIC M3	HD	<p>Mercedes-MB-Approval 236.9 Volvo B7341 MAN 339 Typ V1/Z1/L1 Volvo H55.6335.xx ZF TE-ML 040/14A/11B</p>	<p>GM Dexron IIG / IIIH Ford Mercon</p>	<p>Allison C4</p>

FLUIDMATIC

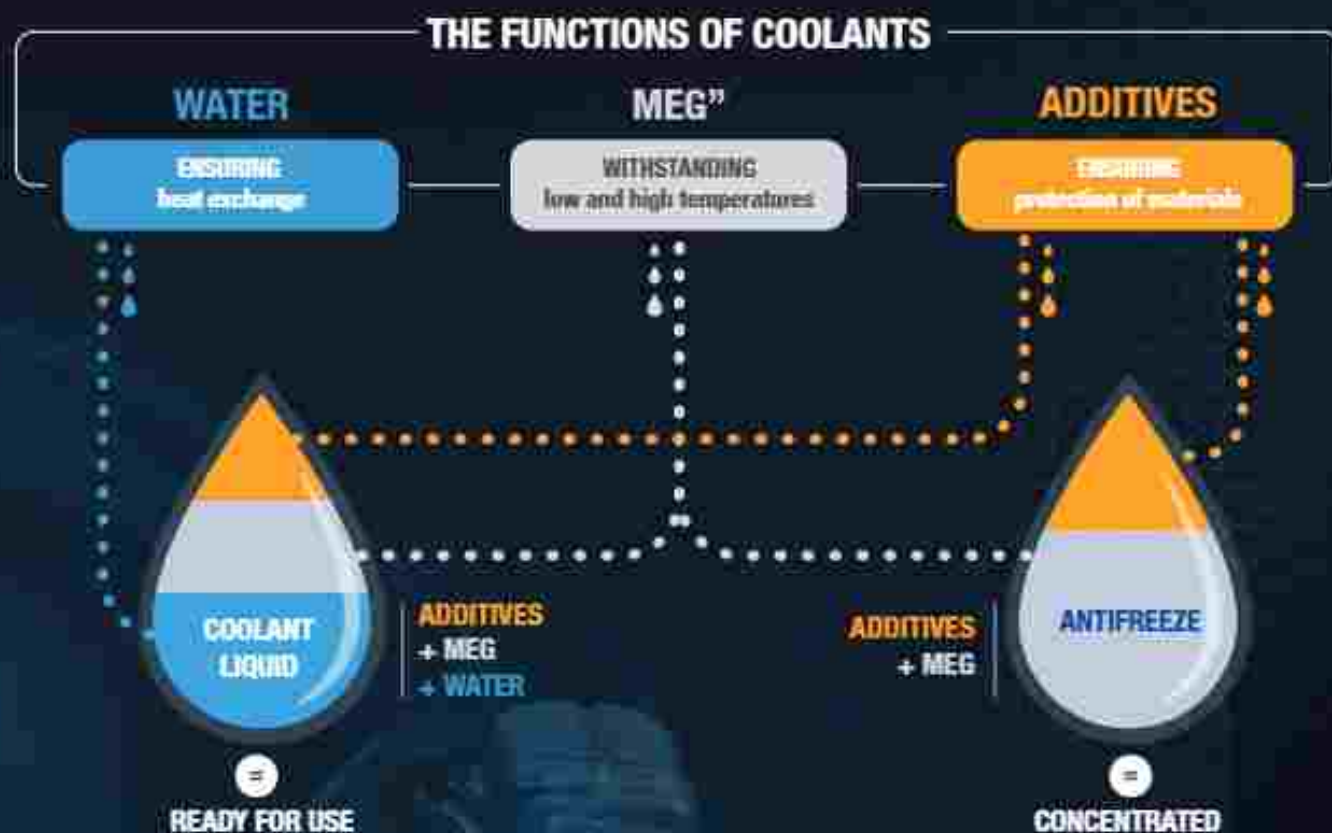
CORRESPONDING PRODUCT NAME	APPLICATION	MANUFACTURERS APPROVALS	MEETS THE REQUIREMENTS	VERTICAL FORM
FLUIDMATIC 102	HD	ZF TE-ML 03D/04D/14A Voith H55.6335.xx MAN 339 Typ V1/Z1 Volvo 97341 Mercedes-Benz MB-Approval 236.9	GM Dexron IID Ford Mercon	Allison C4
FLUIDMATIC 75	PC	Mercedes-Benz MB-Approval 236.14		
FLUIDMATIC AT 02	PC/HD	Mercedes-Benz MB-Approval 236.1 MAN 339 type V1/Z1 VOITH H55.6335.xx ZF TE-ML 04D/14A PSA (4HP14, 4HP16, 4HP20) Allison C4 (n° C4-24842997)	GM Dexron IIIE Ford Mercon	Volvo 97341 BMW Group 24-3.0
FLUIDMATIC ATX	PC/HD	Mercedes-Benz MB-Approval 236.6 MAN 339 Typ V1/Z1 VOITH H55.6335.xx ZF TE-ML 03D/ 04D/08/11A/14A/17C PSA S71 2102	Ford Mercon GM DEXRON® IID	Allison C4 BMW Group 23-3.0, 24-3.0
FLUIDMATIC 001 MV	PC/HD	GM Dexron IIIE / IIIH Ford Mercon		ZF TE-ML 14A Allison C4
FLUIDMATIC 002 MV	PC/HD		GM Dexron® IID Ford Mercon®	ZF TZ-ML 14A
FLUIDMATIC 00	PC/HD	Mercedes-Benz MB-Approval 236.2	GM Type A Suffix A MAN 339 Type A	
FLUIDMATIC F Type	PC		Ford WSS M2C-33F/G	Ford transmissions C3, C4



COOLANTS AND ANTIFREEZE

COOLANTS AND ANTIFREEZE

- **Coolants** help your engine operate correctly by removing surplus heat, thus avoiding overheating and unwanted engine shutdown.
- Since coolants consist mainly of water, the cooling system's metal parts are at risk of corrosion. That is why coolants are chemically enhanced to limit such risks and to prolong engine life.



- **Antifreezes** and coolants must never be chosen without careful thought. The coolant helps your engine run properly. To protect your engine from overheating and corrosion, to guarantee it will start in all weathers, you should select products of renowned high quality.



COOLANTS AND ANTIFREEZE

COOLELF

COMMERCIAL PRODUCT NAME	NATURE	COMPOSITION	INTERNATIONAL STANDARDS	MANUFACTURER SPECIFICATIONS	PRODUCT ADVANTAGES
COOLELF MITO SUPRA -20°C, -37°C	DILUTED	ORGANIC	AFNOR NFR 15-601 ASTM D3306/D4656/ D4985/D6210 BS 6580 JIS K2234 SAE J1034 NATO 5-759	AUDI/SEAT/SKODA/VW TL 774 D/F (G12/G12+) • DAIMLER MB 326.3 • FORD WSS-M97B44-D • MAZDA MEZ-MN 121 D • JAGUAR LAND-ROVER ST.JLR • 6S1.5033 • MAN 324 Typ SNF • DEUTZ DQC CB-14 • GMW 3420 • GE Jenbacher TA 1000-0201 • MWM 2091/11 • CAT 2091/11 • CUMMINS IS series u N14 • KOMATSU 07 892 (2009) • LIEBHERR MD1-36-130 • MTU MTL 5048 • PACCAR DAF 74002 • YANMAR • RENAULT 41-01-0017 S Type D / SAAB / LEYLAND TRUCKS	"Very long life" coolant based on monoethylene glycol and organic corrosion inhibitors.
COOLELF ECO 09	DILUTED	ORGANIC	BS 6580		Contains no borax, amines, nitrites or phosphates.
COOLELF PLUS -37°C	DILUTED	HYBRID	AFNOR NFR 15-601 ASTM D3306/D4656/ D4985 BS 6580	AUDI/SEAT/SKODA/VW TL 774 C (G11) • BMW GS 94000 • PORSCHE TL-774 C (G 11) • FIAT CHRYSLER MS-7170 • GM-OPEL GME L1301 • FORD / MB 326.0 / FIAT-LANCIA 9 55523 / LADA TTM VAZ 1 97.717-97 / CUMMINS 85TB-2 / IVECO standard 18-1630 / MAN 324 Type NF / MTU MTL 5048 / PERKINS / VOLVO 128 6083 /002	"Long life" coolant based upon monoethylene glycol and inorganic corrosion inhibitors (silicates), a long proven coolant and heat transfer technology.
COOLELF MAX -20°C, -37°C	DILUTED	HYBRID	AFNOR NFR 15-601 BS 6580	AUDI/SEAT/SKODA/VW TL 774 C (G11) • GM-OPEL • BMW GS 94000 • VOLVO 128 6083/002 • MB 326.0 • MTU - MTL 5048 • MAN 324 Type NF • CATERPILLAR MWM 0199-99-2091/9 • Opel-GM GMW 3420 • WALDHALL GM 6277M (+B040 1065) • STEYR-DAIMLER PUCH N 05045 • PORSCHE TL-774 C (G11) • VAN HOOB	"Long-life" coolant based upon monoethylene glycol and containing no amines, nitrites or phosphates.
COOLELF SE-OAT		LOBRID	AFNOR NFR 15-601 ASTM D3306, ASTM D4985, ASTM D8210 BS 6580 SAE J1034	MB-Approval 326.5 • VW TL 774-G • CUMMINS CES 14603 • MAN 324 type SI-OAT • SCANIA TB 1451	

GLACELF

COMMERCIAL PRODUCT NAME	NATURE	COMPOSITION	INTERNATIONAL STANDARDS	MANUFACTURER SPECIFICATIONS	PRODUCT ADVANTAGES
GLACELF AUTO SUPRA	CONCENTRATED	ORGANIC	AFNOR NFR 15-601 ASTM D3306/D4656/ D4985/D6210 BS 6580 JIS K2234 SAE J1034 NATO S-759	AUDI/SEAT/SKODA/VW TL 774 D/F (G12/G12+) • MB-Approval 325.3 • FORD WSS-M97B44-D • MAZDA MEZ-MN 121 D • JAGUAR LAND-ROVER ST.JLR • 6S1.5003 • MAN 324 Typ SNF • DEUTZ DOC CB-14 • GMW 3420 • GE Jenbacher TA 1000-Q201 • MWM 2091/11 • CAT 2091/11 • CUMMINS IS series u N14 • KOMATSU 07-892 (2009) • LIEBHERR MD1-36-130 • MTU MTL 5048 • PACAR DAF 74002 • YANMAR • RENAULT 41-01-001 / S Type D / SAAB / LEYLAND TRUCKS / SCANIA / WARTSILA 32-9011	"Very long life" antifreeze based on high purity monoethylene glycol and organic corrosion inhibitors.
GLACELF ECO BS	CONCENTRATED	ORGANIC	BS 6580		Contains no borax, amines, nitrites or phosphates.
GLACELF PLUS	CONCENTRATED	HYBRID	AFNOR NFR 15-601 ASTM D3306/D4656/ D4985 BS 6580	AUDI/SEAT/SKODA/VW TL 774 C (G11) • BMW GS 94000 • PORSCHE TL-774 C (G 11) • FIAT CHRYSLER MS-7170 • GM-OPEL GME L1301 • FORD / MB 325.0 / FIAT-LANCIA 9.55523 / LADA TTM VAZ 1.97-717-97 / CUMMINS B5TB-2 / IVECO standard 18-1830 / MAN 324 Type NF / MTU MTL 5048 / PERKINS / VOLVO 128 6083 /002	"Long life" coolant based upon monoethylene glycol and inorganic corrosion inhibitors (silicates). It contains also an organic inhibitor.
GLACELF MAX	CONCENTRATED	HYBRID	AFNOR NFR 15-601 BS 6580	AUDI/SEAT/SKODA/VW TL 774 C (G11) • GM-OPEL • BMW GS 94000 • VOLVO 128 6083/002 • MB 325.0 • MTU - MTL 5048 • MAN 324 Type NF • CATERPILLAR MWM 0199-99-2091/9 • Opel-GM GMW 3420 • VALDHALL GM 6277M (+8040-1065 • STEYR-DAIMLER PUCH N 05045 • PORSCHE TL-774 C (G11) • VAN HOOB	"Long-life" antifreeze based upon monoethylene glycol and containing no amines, nitrites or phosphates.



HYDRAULIC AND BRAKE FLUIDS



HYDRAULIC FLUIDS

Hydraulic fluids are used in all industries, agricultural, mining and public works machinery, and represent over 10% of the world's lubricant needs. Often considered as commodity oils, we forget that they are high-performance products, without which a machine cannot function.

There exists a large variety of hydraulic fluids, which have different properties in order to meet the requirements of the various applications of the industrial users.

There are some hydraulic fluids offering high-performance products which have numerous properties, the fruit of a quality formulation.

- Their properties are partly provided by the intrinsic quality of the base oils (deaeration, filterability, viscosity index), hence the importance of the selection of the raw materials.
- A quality additivation is necessary to guarantee good performance of the fluid over time.
- The increasing temperature and pressure constraints mean that increasingly higher performance fluids are proposed.



BRAKE FLUIDS

The first vehicles equipped with hydraulic braking systems were launched in 1924. Alcohols, particularly polyhydric alcohols such as glycerol, and glycerol-water mixtures were used as hydraulic fluids. These products didn't match the requirements of today's technology and are only of historical interest.

Currently, there are mainly three classes of brake fluids...

The main used today are glycol-ether based, but mineral oil (Citroën Hydraulic Mineral Liquid LHM) and silicone (DOT 5) based fluids are also available. Silicone oils are mainly used on military vehicles in the United States and mineral oils are used for some specific applications (Citroën, Rolls Royce...).



HYDRAULIC AND BRAKE FLUIDS

HYDRAULIC

COMMERCIAL PRODUCT NAME	APPLICATIONS	INTERMEDIATE STANDARDS	MANUFACTURER APPROVALS
FLUIDE LIO	Orange-coloured synthetic hydraulic fluid for hydraulic power units in Citroën vehicles with "HYDRActive 3" such as the Citroën C5. Do not use where a fluorescent green colour mineral fluid is recommended (TOTAL LHM PLUS).		<ul style="list-style-type: none"> • PSA PEUGEOT-CITROËN S71 2710
FLUIDE OR	Orange synthetic fluid for power steering in Peugeot, Citroën or Renault private passenger vehicles where the manufacturer recommends this fluid. Do not use where a fluorescent green colour mineral fluid is recommended (TOTAL LHM PLUS). Recommended for "extreme cold" applications.	Contains no borax, amines, nitrites or phosphates.	<ul style="list-style-type: none"> • PSA PEUGEOT-CITROËN S71 2710 • MAN 3280 • RENAULT PSFRLT
LHM PLUS	Mineral hydraulic fluid for hydraulic power units in Citroën XM, XANTIA, RX, CX, SM, GS; for hydraulic power units in Citroën ID and JS sold after September 1966 (components painted green); for brake circuits and hydraulic clutch control systems in utility vehicles Citroën N, P and C35; for the Peugeot 405X4 vehicle level adjuster. Not miscible and not compatible with some synthetic fluids.		<ul style="list-style-type: none"> • PSA PEUGEOT-CITROËN S71 2710

BRAKE FLUIDS

COMMERCIAL PRODUCT NAME	APPLICATIONS	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS
TOTAL HBF 5.1	Hydraulic fluid recommended for brake circuits in all vehicles using synthetic fluids where DOT 5.1 level is required and especially for vehicles operating in very severe conditions. It is used in competition. Miscible with other synthetic fluids of chemical type such as DOT 3, DOT 4 and DOT 5.1. Not miscible with mineral base fluids of LHM type and fluids of DOT 5 type with silicon.	<ul style="list-style-type: none"> • SAE J 1704 • ISO 4925 Class 5.1 • FMVSS 116 DOT 5.1 	
TOTAL HBF 4	Hydraulic fluid recommended for brake circuits and clutch systems in all vehicles using synthetic fluid and requiring DOT 4 level. Miscible with other synthetic fluids of chemical type such as DOT 3, DOT 4 and DOT 5.1. Not miscible with mineral base fluids of LHM type or silicon based fluids.	<ul style="list-style-type: none"> • SAE J 1704 • ISO 4925 Class 4 • FMVSS 110 DOT4 	
TOTAL HBF 3	Hydraulic fluid recommended for brake circuits and clutch systems in all vehicles using synthetic fluid and requiring DOT 3 level. Miscible with other synthetic fluids of chemical type such as DOT 3, DOT 4 and DOT 5.1. Not miscible with mineral base fluids of LHM type or silicon based fluids.	<ul style="list-style-type: none"> • SAE J 1703 • ISO 4925 Class 3 • FMVSS 116 DOT3 	

AdBlue®



AdBlue®
CLEARNOX

Diesel

**ADBLUE®
AND CLEARNOX**

ADBLUE®

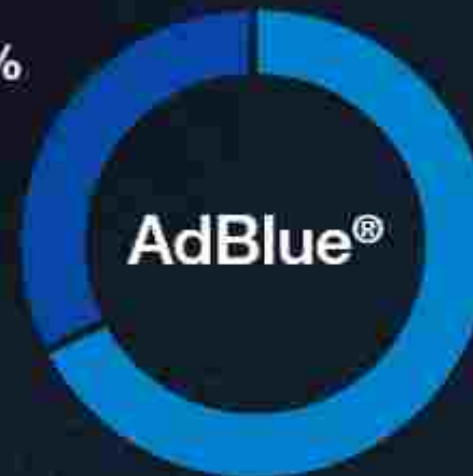
AdBlue® is a Diesel exhaust fluid for vehicles equipped with SCR technology.

Made up of **67.5% deionized water** and **32.5% high-purity urea**, it meets the requirements of the ISO 22241 standard.

AdBlue® is stored in an auxiliary tank separate from the Diesel fuel tank.

32.5 %

HIGH-PURITY
UREA



AdBlue® is colorless, biodegradable and water-soluble.

67.5 %

DEMINERALIZED /
OSMOSIS WATER

HOW DOES IT WORK?

When combined with SCR technology, AdBlue® converts **nitrogen oxide (NO_x)** emissions from Diesel engines into harmless nitrogen and water vapor. Total offers AdBlue in different formats to meet your needs: Pump, 5L, 10L, 208L drum, 1,000 IBC and Bulk

A THREE-STEP PROCESS

- 1 AdBlue® is injected into the exhaust pipe upstream of the SCR catalyst.
- 2 Urea breaks down into ammonia when exposed to hot exhaust gases.
- 3 Nitrogen oxide from the engine is converted to nitrogen (a harmless gas, the main component of the air we breathe) and to water vapor, through a chemical reaction with the ammonia in the SCR catalyst.



CLEARNOX

CLEARNOX, A TOTAL TECHNOLOGY THAT TAKES IT UP A NOTCH

Vehicles can run into problems with plugging of their SCR system depending on how they're used, especially if they make frequent stops or are running at low load. Caused mainly by cyanuric acid crystals, plugging can eventually bring the vehicle to a complete standstill.

Total developed and patented CLEARNOX to solve this problem. Formulated using AdBlue[®], CLEARNOX is a preventive solution that keeps crystals from forming in the SCR system. Using it continuously keeps SCR systems working efficiently.

CLEARNOX is primarily for **business customers** operating buses, trucks, farm machinery, construction equipment and other Heavy-Duty vehicles.





WHAT A SCR MIXER LOOKS LIKE⁽¹⁾



WITHOUT CLEARNOX



WITH CLEARNOX

⁽¹⁾ View of a SCR mixer without the use of CLEARNOX and with the use of CLEARNOX. Tests conducted on a laboratory test bench at 250°C (December 2018, Total Research Solaise).

COMPATIBLE WITH EVERY TYPE OF VEHICLE



DELIVERED IN BULK OR PACKAGED FORM

10-L canister ▶



200-L drum ▶



1000-L IBC ▶





BIO-LUBRICANTS

BIO-LUBRICANTS

WHAT IS A BIOLUBRICANT? PAGE 122

WHAT IS AN ECOLABEL? PAGE 123

ENGINE AND TRANSMISSION OILS PAGE 124

OTHER PRODUCTS PAGE 125





BIO-LUBRICANTS

Total is acutely aware of the need for environmental protection and sustainable development and has developed a complete range of lubricants primarily intended for activities that can present direct risks to the environment if the product leaks or is accidentally spilled.

WHAT IS A BIO-LUBRICANT?

The term "bio-lubricant" applies to all lubricants that biodegrade rapidly and which are non-toxic for human beings and aquatic habitats.

THEY MAY BE BASED ON:

- Plant oils (such as rapeseed oil)
- Synthetic esters manufactured from modified renewal oils

THE KEY ADVANTAGES OF BIO-LUBRICANT:

- Rapid biodegradation
- Low toxicity
- Environmental friendliness
- Good lubricating properties
- High viscosity index
- Longer equipment life



Bio-lubricants are preferably used in all application that may present risks for the environment.

THIS IS THE CASE FOR:

- Lost oils (chainsaw chain oils, 2-stroke engine oils, formwork release agents and greases)
- Oils that may leak accidentally (hydraulic oils, oils for engines, gearboxes, axles, etc.)

The use of bio-lubricants is particularly relevant to certain environments in which environmental protection is a constant concern. This is particularly true of aquatic, mountain, agricultural and forest environments.



WHAT IS AN ECOLABEL?

There are several ecolabels designed to differentiate bio lubricants from conventional lubricants. The European Ecolabel is the most widely accepted and Total has chosen to apply it to its products.

The European Ecolabel, identified by the daisy symbol, can only be used on products which satisfy strict criteria for low environmental impact. It is a label that provides a guarantee of good performance and differentiates genuine bio-lubricants from oils that are simply biodegradable. Total is an active participant in research and awareness-raising programs conducted by national and EU institutions. Total can also propose specific solutions for each of the relevant sectors of activity:

- WATER
- PUBLIC WORKS
- MOUNTAIN AREAS
- FORESTRY AND FARMING



BIO-LUBRICANTS

ENGINE & TRANSMISSION OILS

COMMERCIAL PRODUCT NAME	APPLICATION	FUEL ECONOMY	WRETS	MIGHTAIN	PUBLIC WORKS	FORESTRY/FARMING	ECOLABEL	UNION-GRADABLE	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	SUITABLE FOR
BIOTRAFFIC 3000 FE 1000-30	4 - stroke Diesel engines		Yes	Yes	Yes	Yes		Yes	<ul style="list-style-type: none"> • ACEA E4, E6, E7, E9 • API CJ-4 • JASO DH-2 		Meets the requirements of: <ul style="list-style-type: none"> • Deutz DQC IV-10 LA / Deutz TTC2 • MTU Cat 3.1 • MAN M3477/M3677 • MB-Approval 228.51 • Volvo VDS-4 • Renault Trucks RLD-3 • Scania LDF-4 • Liebherr LH 01-ENG LA • Caterpillar ECF-3/ECF-2/ECF-1-a • Cummins CES-20081 • FPT-Isco T1.5 E6
NEPTUNA 21 110-121	2 - stroke gasoline engines		Yes	Yes		Yes		Yes	<ul style="list-style-type: none"> • NMMA TC-W310 • API TC 	<ul style="list-style-type: none"> • MSR Engines; JET-SURF MOTORIZED SURFBOARDS 	<ul style="list-style-type: none"> • BOMBARDIER • SEA-DOO • EVINRUDE • JOHNSON • KAWASAKI • MERCURY • YAMAHA, etc.
BIOTRANS LS FE 7500-90	Axes, reduction drives			Yes	Yes	Yes		Yes	<ul style="list-style-type: none"> • API GL-5 LS • MIL-L-2105D 		<ul style="list-style-type: none"> • CLAAS / RENAULT AGRICULTURE • DEUTZ • LIEBHERR • VOLVO CE • TEREX • CASE NEW HOLLAND • JCB
BIOTRANS 2X	UTTO			Yes	Yes	Yes		Yes	<ul style="list-style-type: none"> • API GL-4 • ISO 15380 HEES 	<ul style="list-style-type: none"> • Massey Ferguson CMS M 1145 • ZF-TE ML 06P 	

OTHER PRODUCTS

COMMERCIAL PRODUCT NAME	APPLICATION	FUEL ECONOMY	WATER	MILDWASH	PUBLIC WORKS	INDUSTRY/FARMING	ECOLABEL	BIODEGRADABLE	INTERNATIONAL STANDARDS	MANUFACTURER APPROVALS	SUITABLE FOR
BIOHYDRAN SA 46 15 BIOHYDRAN SA 46 15 BIOHYDRAN SA 46 15	Saturated hydraulics			Yes	Yes	Yes	Yes	Yes	<ul style="list-style-type: none"> • ISO 15380 HEES • DIN 51524 (for mineral oils) except DIN 51587 and ISO 13357 • AFNOR FR/27/02 • Swedish Standard SS 15 54 34 • JCMAS HKB 	<ul style="list-style-type: none"> • Denison HF1/HF2/HF6 	<ul style="list-style-type: none"> • Caterpillar BF-2
BIOHYDRAN TMP 100	Stem tubes							Yes	<ul style="list-style-type: none"> • VDMA 24565 HEES • ISO 15380 HEES 		
PROSYLVA CHAINING	Chainsaw chains			Yes		Yes		Yes			
BIOMULTIS EP 2	Grease		Yes	Yes	Yes	Yes	Yes	Yes	<ul style="list-style-type: none"> • ISO 6743-9: L-XCEER2 • DIN 51502: NP2K-30 	<ul style="list-style-type: none"> • Environmentally Acceptable Lubricant (EAL) for the 2013 Vessel General Permit (VGP) 	



GREASES

HIGH-QUALITY GREASES

Total is one of the few oil companies operating plants specializing in the production of greases. Total has a worldwide presence due to its plants based in many countries. They rank among the best in the world today and are considered to be among the most modern.

They are also environmentally friendly (the use of lead and other heavy metals is banned in our products) and discharge no harmful waste.

A GUARANTEE OF A HIGH-TECHNOLOGY PRODUCT

Total Research Laboratory in Solaize (France) uses the highest-performing equipment along with cutting-edge techniques to develop high-technology products. And lastly, laboratory and bench testing and constant contact with equipment manufacturers enable us to improve our greases constantly and anticipate future needs.

A VARIED PRODUCT OFFERING TO MEET OUR CUSTOMERS' DIFFERING NEEDS

Incorrect product recommendation can have serious consequences. Although a modern multi-purpose grease of superior quality can meet the needs of almost 75% of applications requiring grease lubrication, the remaining 25% demand a large number of special greases.



GREASES

COMMERCIAL PRODUCT NAME	COLOR	TRUCK	OFF-ROAD	AGRI	ROLLING BBS	PLANT SEASONS	CHASSIS	NLGI GRADE	OPERATING TEMPERATURE (°C)	VISCOITY AT 40 °C	APPROVALS (MEET THE REQUIREMENT)
Premium CERAN XM 220	● BROWN	☑	☑	☑	***	***	***	1-2	-30 to +180	220	
MULTIS COMPLEX SHD 220	● YELLOW	☑	☑		**	***	***	2	-50 to +160	220	
MULTIS COMPLEX MHD 220	● BLUE	☑	☑	☑	**	**	**	2	-20 to +160	220	
MULTIS COMPLEX XHV 2 MOLY	● BLACK		☑	☑		***	***	2	-20 to +160	800	
MULTIS COMPLEX EP 2	● RED	☑	☑	☑	***	**	**	2	-20 to +160	165	NLGI GC-LB (wheel bearing and chassis lubrication)
MULTIS COMPLEX HV 2	● GREEN		☑	☑	**	***	**	2	-30 to +160	320	
MULTIS FIL EP 2	● GREEN		☑	☑	*	*	*	2	-25 to +120	150	

COMMERCIAL PRODUCT NAME	COLOR	TRUCK	OFF-ROAD	AIR	ROLLING	PLAIN	CRACKS	IN OIL	OPERATING	VISCOSITY	APPROVALS/MEET THE REQUIREMENT
					3000	GEARING		GRADE	TEMPERATURE (°C)	AT 40 °C	
MULTIS EP 2	● LIGHT BROWN	☑	☑	☑	*	*	*	2	-25 to +120	150	
MULTIS MS 2	● GREY		☑			*	*	2	-25 to +130	150	Liether specifications P1, P2 Komatsu CLS grease
MULTIS ZS 000	● GREEN	☑	☑	☑		***		000	-45 to +120	42	Mercedes-Benz Betriebsstoff-Vorschriften Blatt 264 MAN according to Werknorm 283-LI-P00/000 Vogel AG, specification Fieselfett, edition 01/89
MULTIS EP 00	● LIGHT BROWN	☑	☑	☑			***	00	-24 to +120	150	
BIOMULTIS EP 2 BIOMULTIS EP 0	● BROWN		☑	☑	**	*	**	2 0	-30 to +140	150	
COPAL TRUCK FW	● BLACK	☑						2	-20 to +130	>600	



LUBRICANTS RANGE - EV FLUIDS

TOTAL QUARTZ EV FLUID AND TOTAL RUBIA EV FLUID

PIONEERING ELECTRICAL LUBRICATION PAGE 132

RANGE ARCHITECTURE PAGE 133





LUBRICANTS RANGE - EV FLUIDS

TOTAL QUARTZ EV FLUID AND TOTAL RUBIA EV FLUID, PIONEERING ELECTRICAL LUBRICATION

TOTAL QUARTZ EV FLUID AND TOTAL RUBIA EV FLUID RANGES FOR HYBRID AND ELECTRIC VEHICLES.

As hybrids and EVs become increasingly powerful and their battery ranges and charging speeds improve, standard fluids are unable to keep up in terms of robustness, heat resistance and cooling capacity.

TOTAL QUARTZ EV FLUID and TOTAL RUBIA EV FLUID are the first fluid ranges in the market that respond to these vehicles' specific requirements, as well as to their related electrical, thermal and friction constraints.

TOTAL QUARTZ EV FLUID AND TOTAL RUBIA EV FLUID, PIONEERING ELECTRICAL LUBRICATION.



TOTAL QUARTZ EV FLUID AND TOTAL RUBIA EV FLUID, RANGE ARCHITECTURE

EV-DRIVE MP



- Protects against shortcuts and static electricity
- Provides optimal temperature control (even at fast charging and high torque)
- Ensures compatibility with copper coils and polymer materials
- Shows excellent anti-wear properties (gears and rolling bearings)

EV-DRIVE R



- Ensures durability of gears and rolling bearings rotating at very high speed
- Shows optimal anti-foaming and air release properties through the entire lifetime of the vehicles
- Designed for excellent pump stability even at very low temperature

EV-BATTERY



- Allows ultra-fast charging through outstanding thermal management properties
- Provides a very high resistance to ageing
- Protects against shortcuts and static electricity
- Ensures high protection against fire propagation risk

EV-AMT



- Ensures compatibility with copper coils and polymer materials
- Provides optimal temperature control
- Protects against shortcuts and static electricity
- Shows excellent anti-wear properties (gears and rolling bearings)
- Maintains excellent gear shifting comfort and components durability

EV-AT



- Ensures compatibility with copper coils and polymer materials
- Provides optimal temperature control
- Protects against shortcuts and static electricity
- Shows excellent anti-wear properties (gears and rolling bearings)
- Maintains excellent friction properties, foaming and air release performances



ANAC

**SERVICES AND
DIGITAL SOLUTIONS**

TOTAL ANAC

TOTAL ANAC is a preventive maintenance tool and a fleet management system based on used oils analyses ensuring a significant reduction of the TCO of the customer by:

- preventing possible breakdowns,
- regularly following the condition of the lubricant and the wear of the mechanical components,
- reinforcing the lifetime and the reliability of the machines,
- safely optimizing the drain intervals.

Our professional clients are active in the automotive sector (on- and off-road transport), industry and marine (internal and international markets). The TOTAL ANAC diagnostic service is provided worldwide by Total subsidiaries to end users.

More than
10 000
customers worldwide

45
years of experience

More than
7,5 million
oil samples analyzed

Active in
100 countries

A PERSONALIZED AND SECURE ACCESS TO:

anac-diagnosis.com

- consult new reports and previous sample results
- visualize the analysis results in graphical form
- go in depth with personalized requests
- manage statistical modules
- better understand through diagnostic assistance



Reduces downtime of your fleet.

Prevention of possible mechanical breakdowns.



Increases the lifetime of your vehicles.

Decrease of the risk of excessive wear of the mechanical component.



Optimizes the maintenance.

Control of your maintenance budget.



Reduces the Total Cost of Ownership (TCO).

Optimization of the amortization of your vehicle park.



TOTAL ANAC

RANGE OF SERVICES, ANAC FOR AUTOMOTIVE

STANDARD OFFER











PREMIUM OFFER



STANDARD OFFER

PREMIUM OFFER

OFFER	APPLICATION	DESCRIPTION
ANAC PRO		Using a data compensation system, TOTAL ANAC PRO is the solution offered to all fleet managers to accurately identify the wear condition of their vehicle driveline components and reduce the maintenance costs of their vehicle/machine park. A unique colour-code simplifies report reading.
ANAC EXPERT		Measurements of TBN (or TAN) and oxidation, personalized comments by a specialist in engines and lubrication. TOTAL ANAC EXPERT is an in-depth, personalized diagnosis system, recommended for detailed follow-up of component wear and lubricant behaviour, spot analysis and diagnosis in special cases (breakdown, claims, expertise, etc).
ANAC VISIO		TOTAL ANAC VISIO is an in-depth diagnostics system for non combustion driveline components and hydraulic systems in automotive applications. TOTAL ANAC VISIO adds a microscopic examination of the particles in the oil to the analysis of the physico-chemical condition of the lubricant and the wear condition of the component.
ANAC COOLANT		Coolants play a major role in engine protection. TOTAL ANAC COOLANT offers an in-depth diagnosis for the follow-up of cooling liquids and cooling systems.
ANAC TRANSPORT		TOTAL ANAC TRANSPORT , specially designed for road fleets, ensures: - The use of right engine oil to protect exhaust gas emission systems and ensuring the use of LOW SAPS engine oil for new generation of equipments. - The optimization of drain intervals with oxidation analysis.
ANAC CITY		TOTAL ANAC CITY , specially designed for intra-city road fleets (waste collectors, city buses, etc), ensures: - Adapted analysis to city condition usages with T.E.N. control based on OEM requirements. - Adapted analysis to gas engine requirements with nitration and oxidation control.
ANAC OFF ROAD		TOTAL ANAC OFF ROAD , specially designed for off road applications, ensures: - The detection of bigger ferrous particles with FDM (Ferrous Debris Monitor) for transmission & other aggregates. - Advanced oxidation control for transmission oil and TAN follow-up for hydraulic oil to prevent any acid attacks of elastomers, seals and oil thickening.
ANAC AGRI		TOTAL ANAC AGRI , specially designed for agricultural applications, ensures: - The detection of bigger ferrous particles with FDM (Ferrous Debris Monitor) for transmission. - The determination of presence of hydraulic oil in UTTO (Universal Tractor Transmission Oils), avoiding noise and shuddering.

TOTAL LUBRIFIANTS
www.lubricants.total.com

© 2009 TOTAL. Tous droits réservés. 888 avenue de Paris 93 750 82 PARIS FRANCE



TOTAL

Committed to Better Energy