



Introduction to Lubricants

Agenda



- Introduction to Millers Oils
- Technical Services
- Choosing the right oils & Engine specifications
- Difference between OEM approved/non approved
- Millers Oil Automotive range
- Q&A

History



**Founded in 1887
by John Watson
Miller**

ISO 9001:2015

**Own fleet plus
third party
partners for
flexibility and
on-time delivery**

**On site R&D and
QC facility**

**Independent blender
of high quality oils,
lubricants and fuel
treatments**



WHAT MAKES US DIFFERENT

RESEARCH & DEVELOPMENT
QUALITY AND SUPPLY CHAIN SECURITY
CUSTOMER SUPPORT AND SERVICE

RESEARCH & DEVELOPMENT

- On-site laboratory, equipped for product testing across all platforms
- In-house product development and testing
- Innovation and cutting edge technology
- Product benchmarking

QUALITY AND SUPPLY CHAIN SECURITY

Capacity: In-house blending capacity of 30,000,000+ litres per annum

Quality: Each batch is fully QC tested before filling and samples are retained for 12 months

Storage: Stock holding of raw materials and fast moving products in Brighthouse, plus additional depot in Scotland

Logistics: Fleet of delivery vehicles

CUSTOMER SUPPORT AND SERVICE

- Dedicated sales teams for each business sector to ensure specialist customer support
- Customer service team
- Technical help desk for enquiries and troubleshooting
- Used oil analysis and condition monitoring services for preventative maintenance



OUR MARKETS



AUTOMOTIVE



MOTORSPORT



CLASSIC



COMMERCIAL VEHICLE



AGRICULTURE



OFF-HIGHWAY



INDUSTRIAL



PROCESS OILS



Millers Technical

- Independent oil manufacturer based in Brighouse, West Yorkshire.
- Millers Oils blends high quality oils, lubricants and fuel treatments for sectors.



Works



Sectors & Applications



- Automotive
 - Classic
 - Motorsport
 - Commercial Vehicle
 - Agricultural
 - Industrial
- Engine
 - Gear
 - Hydraulic
 - Turbine
 - Compressor
 - Metal Working Fluids – Cutting
 - Coolant/Antifreeze
 - Fuel
 - Process



MILLERS-Xtra

Research & Development Centre



- State of the art R & D Laboratory built in 2011.
- £500,000 investment.
- This allows us to keep abreast with the changing needs of the industry and to develop more refined, efficient and quality products.
- Small company, decision making quicker, react faster and able to release new products quicker.
- Our technical, sales and platform managers work closely together to carry out these projects



Laboratory

- Home to chemists, formulators & technicians.
- New product introduction.
- Product development – optimise and upgrade current formulations
- QC samples - products are tested before they even leave the blending pans. These samples are kept on site for 12 months.
- Oil sampling & analysis.



Technical Services – Helpdesk



- Product recommendations & selection
- Product rationalisation & optimisation
- Lubricant Surveys
- Up to date OEM requirements
- Fleet lists

- What do we need?
 - Make
 - Model
 - Model Variant
 - Engine Size/Power Output
 - Year

Which Oil?

Enter your reg to
find the oil you need

Passenger car & LCV only

YOUR REG HERE

VIEW MY RECOMMENDATIONS

 **+44 (0) 1484 475 060**

 **technical@millersoils.co.uk**

Phone lines are open throughout the week during office hours:

MONDAY	08:30 – 17:00
TUESDAY	08:30 – 17:00
WEDNESDAY	08:30 – 17:00
THURSDAY	08:30 – 17:00
FRIDAY	08:30 – 16:00



Automotive Engine Requirements

Modern Considerations



- Government legislation regarding emissions and efficiency (enhanced fuel economy).
 - Emission control devices (After-treatment systems) - Diesel Particulate Filters (DPF)/Gasoline Particulate Filters (GPF)
 - Viscosity
 - Synthetic type
 - Speciation's – newer specs/viscosities are not always backwards compatible.
-
- Increased oil requirements:
 - Increased power density (greater use of smaller capacity turbo charged engines)
 - Reduced oil capacity
 - Increased service interval

Synthetic Base Type



- Fully Synthetic
 - Semi Synthetic
 - Mineral
-
- Requirements - Spec dependant.
 - Fully synthetic - used instead of a Semi Synthetic or Mineral if allowable by spec.

Manufacturer Requirements



- Specification & Viscosity
- Millers Oils Which Oil guide or Technical Help Desk
- Vehicle warranty

Lubricant Report

Audi (EU), A4, S4, RS 4, 8W, A4 2.0 TFSI (140 kW), 2015-2017

Manufacturer: Audi AG, Ingolstadt, Germany
Drive type: f.w.d.
Cylinder capacity: 1984 cc
Power output: 140 kW / 190 HP / 4200 RPM

Engine CVKB, DBPA, DEMA

Petrol, 4-stroke, 4 cylinder, Line, 4 valves/cyl, Turbo Intercooler, liquid cooled
Cylinder capacity: 1984 cc

Power output:
140 kW
190 HP
4200 RPM
Capacity:
5.2 liter

Use: Flexible (max)

OEM recommendation
year-round VW 508.00

Product recommendation
year-round XF Premium C5 VW 9w20 (8049) (VW Approved)

SAE 0W-20

2017 Audi A4 2.0 TFSI (140 kW)

Lubricant Report

Toyota (EU), GT86, ZN6, GT86 2.0 D-4S, 2012-2019
Manufacturer: Toyota Motor Corporation Ltd, Toyota-Shi, Aichi-Ken, Japan
Drive type: r.w.d.
Cylinder capacity: 1986 cc
Power output: 147 kW / 200 HP / 7000 RPM

Engine FA20

Petrol, 4-stroke, 4 cylinder, Boxer, 4 valves/cyl, liquid cooled
Cylinder capacity: 1986 cc
Power output:
147 kW
200 HP
7000 RPM
Capacity:
Dry fill: 8.3 liter
Service fill: 5.4 liter
Filter capacity:
0.2 liter

Use: Normal
Change 10000 km
Change 12 months

OEM recommendation		
year-round	API: SN-RC	SAE 0W-20
year-round	API: SM-EC	SAE 0W-20
year-round	API: SL-EC	SAE 0W-20
year-round	ILSAC GF-5	SAE 0W-20
year-round	API: SN-RC	SAE 5W-30
year-round	API: SM-EC	SAE 5W-30
year-round	API: SL-EC	SAE 5W-30
year-round	ILSAC GF-5	SAE 5W-30

Product recommendation		
year-round	EE Performance 0w20 (8200)	
year-round	XF Premium C5 9w20 (8175) (BMW, Opel/Vauxhall Approved)	
year-round	XF Premium L SP15w30 (8099)	

2016 Toyota GT86 2.0 D-4S (147 kW)

Viscosity basics :

SAE

0w16

0w20

5w20

0w30

5w30

5w40

10w50

10w40

10w60



Manufacturer Vs Industry body



Which is more important?

It all depends on the suitability for that particular vehicle/application.

- Mercedes Benz 229.51 & VW 504 00 will often be seen on an oil with an ACEA C3 specification.
- Although they are linked with an ACEA C3 this does not mean that just using a ACEA C3 or 'interpreted equivalent' oil will be suitable.
- Each specification will be chosen by a manufacture for considerations such as:
 - Engine design
 - Components used
 - Service life/requirements
 - Contaminants/soot/sludge/water control
 - Fuel quality





European
Automobile
Manufacturers
Association

ACEA (European Automobile Manufacturers Association)

SAPS – Sulphated Ash, Phosphorus & Sulphur

- Low SAPS – ACEA C1, C4
- Mid SAPS – ACEA C2, C3, C5, C6
- Full SAPS – ACEA A3/B4, A5/B5, A7/B7

Differences between the same SAPS categories – HTHS
(Fuel economy)

- C1: fuel economy C4
- C2: fuel economy C3
- C5: fuel economy C2
- C6 based on C5 with LSPI control
- A5/B5: fuel economy A3/B4
- A7/B7 based on A5/B5 with LSPI control



Other industry bodies include:

API (American Petroleum Institute)

e.g. API SN (S = petrol), API CF (C = diesel)

ILSAC (International Lubricants Standardization and Approval Committee)

e.g. ILSAC GF-6A, ILSAC GF-5

Oil Approval/Acknowledgement



- Official sign off from the manufacturer or group that an oil meets the required specification/viscosity.
- Approvals cost money - fees vary from manufacturer.
- Likely used when a vehicle is in the warranty period.
- 'Genuine' oil vs approved oil?
- Industry body specifications cannot be approved.
- Per manufacturer spec, not per product!





Automotive Range

Approved vs Non Approved



Dispelling the myths: OEMs, specifications, approvals, warranties and the Block Exemption Regulation



PRODUCT GUARANTEE

Your vehicle and warranty

Millers Oils certifies that its Trident and Premium engine oils are of 'matching quality' to the original vehicle manufacturer's requirements as outlined within the 'Supplementary guidelines on vertical restraints in agreements for the sale and repair of motor vehicles and for the distribution of spare parts for motor vehicles' - 2010/C 138/05 paragraph 20, which accompany COMMISSION REGULATION (EU) No 461/2010 of 27 May 2010 commonly known as the Block Exemption Regulation.

Trident Professional & XF Premium



Trident Professional

- Engine oil for professional garages and motorfactors servicing the passenger car market.
- Comprehensive vehicle parc coverage with just 10 products.
- Reduces stockholding requirements and minimises risk of misapplication.
- Quality product: surpasses manufacturer standards for fuel economy, emission reduction, wear protection and performance.
- Fully synthetic, premium engine oil for specialist OEM garages, and well informed car owners.
- OEM approvals for warranty peace of mind.
- Dynamic Fluid Technology maximizes protection and enhances performance of engine; targets modern driving challenges including short journeys and Stop Start technology.
- Improved fuel economy.



XF Premium

Trident Professional



WHICH OIL? TRIDENT PROFESSIONAL ENGINE OIL SPECIFICATION CHART

PRODUCT CODE	PRODUCT	OIL TYPE	SAPS LEVEL	SUITABLE APPLICATIONS											
				API	ACEA	BMW	FIAT	FORD & JLR	GM	MB	PSA	RENAULT	VAG & Porsche	OTHER	
8173	TRIDENT C5 5w20	Fully Synthetic	Mid SAPS	SN	C5 A/B1		Fiat 9.55535-CR1	Ford WSS-M2C945-A Ford WSS-M2C948-B Ford WSS-M2C948-A Ford WSS-M2C925-B Ford WSS-M2C925-A Jaguar Land Rover STJLR.03.5004							Chrysler MS-6395 ILSAC GF-5 Asian manufacturers
8144	TRIDENT C1 5w30	Fully Synthetic	Low SAPS		C1			Ford WSS-M2C934-B Jaguar Land Rover STJLR.03.5005							JASO DL-1 Asian manufacturers
8123	TRIDENT C2/C3 5w30	Fully Synthetic	Mid SAPS	SN, CF	C2/C3	BMW Longlife-04	Fiat 9.55535-S3 Fiat 9.55535-S1		GM dexos 2 GM-LL-B-025 GM-LL-A-025	MB 229.52 MB 229.51 MB 229.31	PSA B71-2290 +2014	RN0700 RN0710	VW 502 00 / 505 01 VW 502 00 / 505 00		Asian manufacturers
5999	TRIDENT C3 5w30	Fully Synthetic	Mid SAPS	SN, CF	C3	BMW Longlife-04	Fiat 9.55535-S3		GM dexos 2* GM-LL-B-025 GM-LL-A-025	MB 229.51 MB 229.31			Porsche C30 VW 504 00 / 507 00 VW 506 00 / 506 01 VW 503 00 / 503 01 VW 502 00 / 505 01 - VW 502 00 / 505 00		Chrysler MS-11106 Asian manufacturers
8147	TRIDENT C4 5w30	Fully Synthetic	Low SAPS		C4		Fiat 9.55535-S4			MB 226.51 MB 229.51 MB 229.31		RN0720			Dacia Asian manufacturers
8058	TRIDENT ECO 5w30	Fully Synthetic	Full SAPS	SL, CF	A5/B5 A/B1			Ford WSS-M2C913-D Ford WSS-M2C913-C Ford WSS-M2C913-B Jaguar Land Rover STJLR.03.5003				RN0700			Chrysler MS-6395 Dacia ILSAC GF-4 Asian manufacturers
5995	TRIDENT 5w30	Semi Synthetic	Full SAPS	SL, CF	A3/B4 A3/B3	BMW Longlife-01 BMW Longlife-98	Fiat 9.55535-G1	Ford WSS-M2C913-B Ford WSS-M2C913-A		MB 229.5 MB 229.3 MB 229.1	PSA B71-2296 +2014 PSA B71-2295 PSA B71-2294	RN0700 RN0710	VW 502 00 / 505 00 VW 500 00 / 501 01		ILSAC GF-2 Asian manufacturers
6124	TRIDENT C3 5w40	Fully Synthetic	Mid SAPS	SN, CF	C3	BMW Longlife-04	Fiat 9.55535-T2 Fiat 9.55535-S2	Ford WSS-M2C917-A	GM dexos 2 GM-LL-B-025 GM-LL-A-025	MB 226.5 MB 229.51 MB 229.31	PSA B71-2290 +2014	RN0700 RN0710	Porsche A40 VW 502 00 / 505 01 - VW 502 00 / 505 00		Asian manufacturers
7625	TRIDENT 5w40	Fully Synthetic	Full SAPS	SN, SM, SL, CF	A3/B4 A3/B3	BMW LongLife-01 BMW LongLife-98	Fiat 9.55535-Z2 Fiat 9.55535-N2 Fiat 9.55535-M2 Fiat 9.55535-H2		GM-LL-B-025 GM-LL-A-025	MB 226.5 MB 229.5 MB 229.3 MB 229.1	PSA B71-2296 +2014 PSA B71-2295 PSA B71-2294	RN0700 RN0710	Porsche A40 VW 502 00 / 505 00		Chrysler MS-12991 Asian manufacturers
											PSA B71-2100 +2014				



WHICH OIL? XF PREMIUM ENGINE OIL SPECIFICATION CHART

PRODUCT CODE	PRODUCT	OIL TYPE	SAPS LEVEL	APPLICATIONS												
				API	ACEA	BMW	FIAT	FORD & JLR	GM	MB	OPEL / VAUXHALL	PSM	RENAULT	VAG & Porsche	VOVO	OTHER
8174	XF PREMIUM ENGINE OIL 0w16	Fully Synthetic	—	SP, SP RC, SN PLUS RC, SN PLUS, SN RC, SN	—											ILSAC GF-6B Asian manufacturers
8175	XF PREMIUM ENGINE OIL 0w20	Fully Synthetic	Mid SAPS	SN PLUS RC, SN PLUS, SN, SM	C5	BMW Longlife-17 FE+, BMW Longlife-14 FE+	Fiat 9.55535-DM1 Fiat 9.55535-DS2 Fiat 9.55535-DS9	Ford WSS-M2C947-B1, Ford WSS-M2C952-A1 Jaguar Land Rover STJLR.03.5004 Jaguar Land Rover STJLR.03.5122		MB 229.31	Opel/Vauxhall 0V0401547 **				Volk VCC 950203-2AE	Chrysler MS-12145 ILSAC GF-5 Asian manufacturers
8049	XF PREMIUM ENGINE OIL 0w20	Fully Synthetic	Mid SAPS	—	C5									Porsche C30 VW 508 00 / 509 00		
7779	XF PREMIUM ENGINE OIL 0w20	Fully Synthetic	Mid SAPS	SN RC, SN	C5 A3/B1		Fiat 9.55535-CH1	Ford WSS-M2C945-A, Ford WSS-M2C946-B, Ford WSS-M2C948-A, Ford WSS-M2C925-B, Ford WSS-M2C925-A Jaguar Land Rover STJLR.03.5004								Chrysler MS-4395 ILSAC GF-5 Asian manufacturers
7917	XF PREMIUM ENGINE OIL C2 0w30	Fully Synthetic	Mid SAPS	SN	C2	BMW Longlife-12 FE **	Fiat 9.55535-DS1 Fiat 9.55535-DS1					PSA B71-2312				Chrysler MS-10027 Chrysler MS-12340 Asian manufacturers
8045	XF PREMIUM ENGINE OIL C2 ECO 0w30	Fully Synthetic	Mid SAPS	SN	C2			Ford WSS-M2C950-A Jaguar Land Rover STJLR.03.5007								Asian manufacturers
7918	XF PREMIUM ENGINE OIL C3 VW 0w30	Fully Synthetic	Mid SAPS	SN	C3									Porsche C30 VW 504 00 / 507 00, VW 504 00 / 504 01 VW 502 00 / 503 01, VW 502 00 / 505 01 VW 502 00 / 505 00, VW 500 00 / 501 01		
6228	XF PREMIUM ENGINE OIL C1 5w30	Fully Synthetic	Low SAPS	—	C1			Ford WSS-M2C934-B Jaguar Land Rover STJLR.03.5005								JASO DL-1 Asian manufacturers
6229	XF PREMIUM ENGINE OIL C2 5w30	Fully Synthetic	Mid SAPS	SN, CF	C2		Fiat 9.55535-S1					PSA B71-2290				Asian manufacturers
6230	XF PREMIUM ENGINE OIL C2/C3 5w30	Fully Synthetic	Mid SAPS	SN, CF	C2/C3	BMW Longlife-04	Fiat 9.55535-S3 Fiat 9.55535-S7		GM dexos 2 GM LL-B-025 GM LL-A-025	MB 229.52 MB 229.51 MB 229.5	Opel/Vauxhall 0V0401547	PSA B71-2290 +2014	Ren0700 Ren0710	VW 502 00 / 505 01, VW 502 00 / 505 00 VW 500 00 / 501 01		Chrysler MS-11106 Dacia Asian manufacturers
5842	XF PREMIUM ENGINE OIL C3 VW 5w30	Fully Synthetic	Mid SAPS	SN	C3	BMW Longlife-04	Fiat 9.55535-S3			MB 229.51 MB 229.31				Porsche C30 VW 504 00 / 507 00, VW 504 00 / 504 01 VW 502 00 / 503 01, VW 502 00 / 505 01 VW 502 00 / 505 00, VW 500 00 / 501 01		Chrysler MS-11106 Asian manufacturers
6231	XF PREMIUM ENGINE OIL C4 5w30	Fully Synthetic	Low SAPS	—	C4		Fiat 9.55535-S4			MB 229.51 MB 229.31 MB 228.51			Ren0720			Dacia Asian manufacturers
6221	XF PREMIUM ENGINE OIL ECO 5w30	Fully Synthetic	Full SAPS	SL, CF	A5/B5 A1/B1		Fiat 9.55535-G1	Ford WSS-M2C913-D, Ford WSS-M2C913-C Ford WSS-M2C913-B, Ford WSS-M2C913-A Jaguar Land Rover STJLR.03.5003					Ren0700		Volk VCC 95020377 ***	Dacia ILSAC GF-4 Asian manufacturers
8099	XF PREMIUM ENGINE OIL LSP1 5w30	Fully Synthetic	—	SP, SP RC, SN PLUS RC, SN PLUS, SN RC, SN	—		Fiat 9.55535-CH1	Ford WSS-M2C941-A1, Ford WSS-M2C944-B1 Ford WSS-M2C946-A, Ford WSS-M2C929-A	GM dexos 1 Gen 2 GM dexos 1 Gen 1 GM 609 GM 0718M							Chrysler MS-4395 ILSAC GF-4A ILSAC GF-5 ILSAC GF-4 Asian manufacturers
7725	XF PREMIUM ENGINE OIL 0w40	Fully Synthetic	Full SAPS	SN, CF	A3/B4 A3/B5	BMW Longlife-01 BMW Longlife-06	Fiat 9.55535-Z7 Fiat 9.55535-M2	Ford WSS-M2C927-A	GM LL-B-025 GM LL-A-025	MB 229.5 MB 229.3 MB 229.1			Ren0700 Ren0710	Porsche A40 VW 511 00, VW 502 00 / 505 01	Volk VCC 95020356	AMG Chrysler MS-1263 (SRT) Chrysler MS-10725 SAAB Asian manufacturers
7640	XF PREMIUM ENGINE OIL	Fully Synthetic	Mid SAPS	SN, CF	C3	BMW Longlife-04	Fiat 9.55535-GH2 Fiat 9.55535-T2	Ford WSS-M2C917-A	GM dexos 2 GM LL-B-025	MB 229.52 MB 229.51 MB 229.1	Opel/Vauxhall 0V0401547		Ren0700 Ren0710	Porsche C40, Porsche A40 VW 511 00, VW 502 00 / 505 01		Chrysler MS-11106 Asian manufacturers

EE Performance vs CFS Motorsport



EE Performance

- “Track day ready” engine oil for the passenger car market.
- For drivers of performance cars used on both road and track.
- Perfectly complements the advanced engineering of high performance engines, whilst remaining warranty-safe and legislation compliant for on-road driving.
- All products contain NANODRIVE and ester chemistry.
- Ultimate performance engine oil gives drivers a competitive advantage on the track.
- Fully synthetic triple ester oil with award-winning NANODRIVE low friction technology.
- No specification: no compromise on performance.



CFS Motorsport

Brand Positioning



	Target customer	Target vehicle	Target use	Key features	Key benefits	Differentiator	RRP/L
Trident Professional	- Professional garages - Motorfactors	Older cars (roughly pre-2016 dependent on make and model)	Road	- Meets specification - Broad car parc coverage	- Warranty safe - Reduced stock holding	- Cost efficiency - Simplicity	£6.00
XF Premium	- Specialist OEM garages - Well-informed end users	New cars (roughly 2016 – present dependent on make and model)	Road	- DFT - Approvals	- Maximised engine protection - Enhanced performance - Fuel economy - Peace of mind	- Engine protection - Approvals	£8.00
EE Performance	- Specific performance car garages - Enthusiast end users	Performance cars e.g. VW Golf GTI, Audi RS3, Porsche 911 GT 3RS	Road and track day	- NANODRIVE - Ester - Meets specifications	- Performance - Warranty safe	Best performance for on-road use	£12.00
CFS NT+	Professional race drivers	Purpose-built motorsport cars	Professional track	- NANODRIVE - Triple ester - No specs, no compromise	Performance	Ultimate performance	£16.00

Marketing Support





MILLERS OILS

Advanced Lubricants,
Oils and Fuel Treatments

BUILT ON HISTORY **PERFECTED THROUGH TIME**

T: +44 (0) 1484 713201
www.millersoils.co.uk

    

MillersOilsLtd

MADE IN BRITAIN





TRIDENT PROFESSIONAL

TAKING THE GUESSWORK
OUT OF CHOOSING THE
RIGHT OIL

"THE ONLY OIL YOU'LL EVER NEED"



XF PREMIUM

DYNAMIC FLUID TECHNOLOGY

OEM Approved Fully Synthetic
Engine Oil Range



EE PERFORMANCE

Fully Synthetic Engine Oil

NANO DRIVE ESTER



Thank you

Any Questions?





MILLERS OILS

www.millersoils.co.uk

Sales Enquiries:
Bekki Parsons
Bekki.parsons@millersoils.co.uk
07710138032

Technical Enquiries:
technical@millersoils.co.uk | 01484 475060

