

HIGH TECHNOLOGY LUBRICANTS FOR DAF VEHICLES



TOTAL's innovation

Since 1990, the European Union has set up EURO standards which stipulate the maximum limits which should not be exceeded for polluting emissions by heavy goods vehicles of over 3.5 T. The EURO 4 standard has been compulsory since October 2006 and EURO 5 will come into effect as from October 2009.

AIM:

To meet the increasingly stringent requirements of the latest Euro norms by reduction of polluting emissions.

DAF's CHOICES in terms of

Emission control technologies SCR (Selective Catalytic Reduction)

This is the exhaust gas treatment system which enables the engine to run under the most efficient conditions and which has also been chosen by most European manufacturers of heavy goods vehicles. All of the new DAFs use this technology in order to comply with the polluting gas emission levels as required by the Euro 4 and 5 standards.

Lubricants

DAF refers to ACEA specifications. In the past DAF developed its own specifications for lubricants of grade xW-30 and xW-40 (HP 1 - HP 2 for Euro 3 engines and previous). DAF refers to ACEA E6 for Euro 4 and 5.

THE TOTAL OFFER

AdBlue® (an aqueous solution of synthetic urea)

- Available in the AS 24 and TOTAL network of service stations.
- From Total Lubricants in bulk, IBC (1000L), 208-litre drums, 10-litre cans.

Lubricants

Total has a full range of lubricants meeting DAF's requirements based on the latest technologies of additives (see recommended lubricants table).

The added-value of TOTAL's Fuel Economy (FE) technology:

- **Fuel economy:** on average 1 litre per per 100 km or 3 %* certified by independent organizations such as MILLBROOK, UTAC and TÜV - in august 2009 on products (1) and (2).
- **A reduction in CO₂ emissions** into the atmosphere of 3 tonnes per year per truck (based on an economy of 1 litre per 100 km, on a truck covering 120 000 km a year and whose average fuel consumption is 33 litres per 100 km). N.B. 1 litre of fuel = 2.7 kg of CO₂.

(*) if combined use of FE engine and transmission lubricants



Fuel consumption



-3%

Standard Lubricant Fuel Economy Lubricant



TOTAL lubricants proposed for DAF vehicles

 (1) **RUBIA TIR 8900 FE 10W-30**




Fuel Economy and Low Saps lubricant homologated to **ACEA E6** (level of performance required by DAF for Euro 4 and Euro 5 engines).

NEW

LUBRICANTS FOR ENGINES

	Specific features	Specifications		Euro 3			Euro 4		Euro 5	Lubricants' characteristics	
		ACEA	DAF	All kinds of engine	PE/ XE/ PF/ XF engines	FR/ GR/ PR/ MX engines	FR/ GR engines	PR/ MX engines	Start in cold conditions	Anti-oxidation properties	
RUBIA TIR 8900 10W-40		E4/E6/E7		✓	✓	✓	✓	✓	***	***	
RUBIA TIR 9200 FE 5W-30		E4/E5/E7	HP1 - HP2		✓				****	***	
RUBIA TIR 8600 10W-40		E4/E5/E7		✓	✓		✓		***	***	
RUBIA TIR 7400 FE 10W-30		E5/E7	HP1 - HP2		✓				***	***	
RUBIA TIR 7400 15W-40		E5/E7		✓	✓		✓		**	**	

GEARBOXES

Applications	Product name	Specific features	Specifications
 (2) EATON / ZF manual gearboxes	TRANSMISSION XS FE 75W-80		API GL-4 ZF TE ML 02L
	EP 80W-85		API GL-4 • ZF TE ML 02A
ALLISON automatic gearboxes	TRANSMISSION TI 75W-80		API GL-4 • ZF TE ML 02D EATON
	FLUIDE XLD FE NEW		Allison C4, TES 389 Meets the requirements of Allison TES 295 Dexron® IIIH
	FLUIDE G3		Dexron® IIIIG Allison C4
Axles	TRANSMISSION SYN FE 75W-90 *		API GL-4 / GL-5 SAE J2360 • Axles DAF
	TRANSMISSION RS 85W-140		API GL-5 Level SAE J2360
	TRANSMISSION RS FE 80W-140		API GL-5 Level SAE J2360
	TRANSMISSION XPM 80W-90 **		API GL-5 Level SAE J2360
Retarder Voith	RUBIA TIR 8600 10W-40 RUBIA TIR 8900 10W-40 RUBIA TIR 9200 FE 5W-30		API CF

SPECIAL PRODUCTS

Applications	Product name	Specifications
Clutch	HBF 4	DOT 4
Cab	AÉROHYDRAULIC 520	MIL- H - 606 C
Coolant	COOLELF AUTO SUPRA - 26°C / - 37°C*	DAF 74002
Cooling system anti-freeze	GLACELF AUTO SUPRA *	DAF 74002
Power steering	FLUIDE G3	Dexron® IIIIG Allison C4
Grease (for hubs)	MULTIS COMPLEX EP 2 *	ISO 6743-9 : L-XBEHB2 DIN 51502 KP2P-20

* Recommended and advised by the manufacturer on the Booklet of Specifications for liquids and lubricants.

** Does not apply on LF range. For more information on technical restrictions, please contact our Technical department.

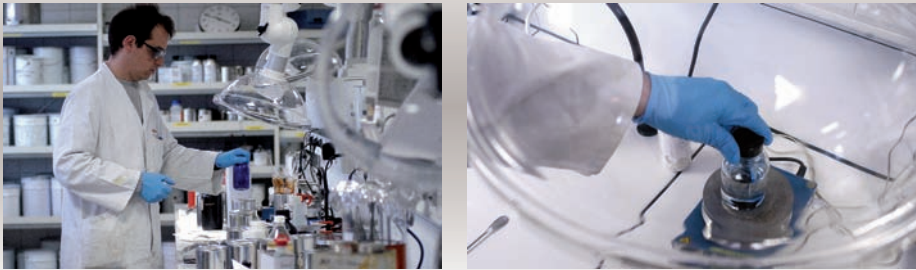
TOTAL expertise

Your requirements:

- To recommend lubricants tailored to your customers' expectations.
- To maintain a competitive advantage.
- To retain your customers and increase your additional sales.
- To train and motivate your workshop and sales teams to promote lubricants.

Our responses:

Product innovations: a **RESEARCH CENTRE** devoted to developing the latest generation lubricants.



Innovative services:

- **ANAC:** a preventive maintenance tool for your fleet thanks to expert and personalised diagnostics of your engines and drive train, using samples of the oils in service.
www.anac-diagnosis.com
- **LUBCONSULT:** on-line management of constructor's recommendations and your lubrication schedules.
www.lubconsult.total.com
- **VISI STOCK:** stock control system (automated level sensing and re-supply).
- **PARCK:** decision-making support software to optimise management of your fleet.

Local sales and technical teams, listening to your everyday needs:

- **RECOMMENDATION** of the products best-suited to your requirements.
- Provision of **MADE-TO-MEASURE TOOLS** to promote your sales, train and motivate your teams.

Efficient logistics thanks to the CALL CENTRES:

If you would like to find out how we can find the best lubricant solution for you, please call **01977636301** or visit www.lubricants.total.com

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You know where to turn **TOTAL**