

HIGH TECHNOLOGY LUBRICANTS FOR MAN VEHICLES



TOTAL

TOTAL, an innovative partner

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.

TOTAL provides the answers for the new technologies developed by MAN

AIMS

RESPONSES



To meet the increasingly stringent requirements of the latest EURO standards by reduction of particulates and nitrous oxides in the exhaust gases.

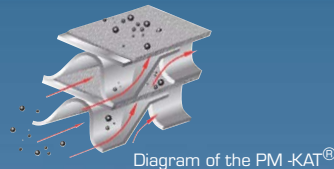
To attain the levels of cleanliness for the different engine parts over and above those required by MAN by proposing high technology products.

MAN's STRATEGY: a two-fold technology

TOTAL's ANSWERS

PM KAT® technology (Diesel Particulate filter)

Used to reduce the particulates in the exhaust gases.



TOTAL Low SAPS technology (lubricants with low sulphated ash, phosphorous and sulphur contents)

- Specification M 3477 required for EGR and PM-KAT® which ensures the longevity of diesel particulate filter sensitive to sulphur and sulphated ashes.



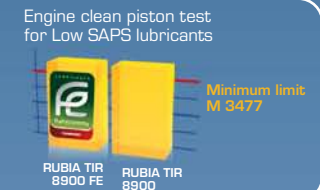
EGR technology: (Exhaust gas recycling)

Used to reduce temperatures and thus reduce nitrous oxides (NOx) in the exhaust gases.



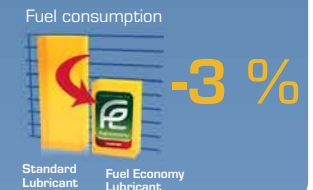
An additives technology specific to Total which:

- Is used to attain the levels of cleanliness for the different engine parts over and above those required by MAN.
- Guarantees long engine life.



The ADVANTAGES of TOTAL Fuel Economy (FE) technology

- **Fuel economy:** if combined use of engine and transmission lubricants, average savings of 1 litre per 100 km or 3 %* - certified by independent organizations such as MILLBROOK, UTAC and TÜV (certification in august 2009 after tests on a MAN Euro 4 truck (MAN TGX 440) 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.



TOTAL lubricants recommended for MAN

		Specifications	Specific features	Composition	Applications	
ENGINE LUBRICANTS	 (1) Low SAPS & Fuel Economy ranges	RUBIA TIR 8900 FE 10W-30 	ACEA E6 M 3477  	• 100 % synthetic technology	• First Low SAPS and Fuel Economy lubricant at grade 10W-30 • Only standard authorised for MAN Euro 4 and 5 engines • Also suitable for V8 TGX vehicles (SCR technology)	
		RUBIA TIR 8900 10W-40	ACEA E6 ACEA E7 M 3477		• 100 % synthetic technology	• Only standard authorised for MAN Euro 4 and 5 engines • Also suitable for V8 TGX vehicle (SCR technology)
		RUBIA TIR 8600 FE 10W-30	ACEA E4 M 3277		• 100 % synthetic technology	• Maximum oil change interval for Euro 3 and previous engines • Excellent detergent and anti-oxidant properties
TRANSMISSION SYSTEM LUBRICANTS	 (2) Manual gearboxes (with or without retarder)	TRANSMISSION XS FE 75W-80 	MAN 341 type Z-4 ZF TE-ML 02L 	• Semi-synthetic	• Specifically developed for heavy duty ZF gearboxes fitted with an integrated retarder (ZF Intarder), where the thermal constraints are the most severe • Recommended for extended drain intervals (up to 300 000 km) on manual gearboxes of MAN commercial vehicles	
		TRANSMISSION TI 75W-80	MAN 341 type Z-3/E-3 ZF TE-ML 02D		• Semi-synthetic	• Suitable for EATON and ZF gearboxes (with or without intarder)
		TRANSMISSION XSV FE 75W-80	API GL-4, MAN 341 type V-R		• 100 % synthetic technology	• Approved for Voith retarders with highly extended oil drain interval
	Automatic gearboxes	FLUIDE XLD FE 	MAN 339 Type V-2/Z-2 	• Semi-synthetic	• Particularly recommended for maximal drain intervals on Voith, ZF and Allison automatic gearboxes of heavy duty vehicles and buses transmissions	
		Axle	TRANSMISSION SYN FE 75W-90	API MT-1, GL-4, GL-5 SAE J2360, MAN 3343 type S 	• 100 % synthetic	• Very high performance lubricant for hypoid axles
TRANSMISSION BM 75W-90	API GL-5, MAN 342 type S1 		• 100 % synthetic	• Very high performance lubricant for optimum protection components bearing very heavy loads such as hypoid axles		
SPECIALTIES	Clutch	FLUIDE DA	M 3289 ZHF	Power steering FLUIDE G3	MAN 339 type V-1/Z-1	
	Cooling circuit	COOLELF AUTO SUPRA -37°C	MAN 324 type SNF	Cab	EQUIVIS ZS 15	HV LP 15
		COOLELF MDX -37°C	MAN 324 type NF and 324 type NF fur Pritarder - Einsatz			
		COOLELF PLUS	MAN 324 type NF			

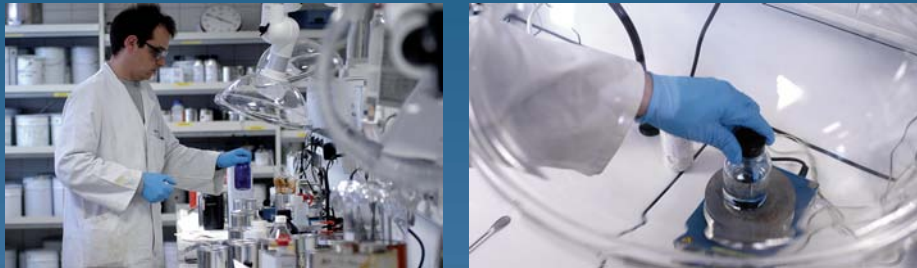
TOTAL, an expert partner

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 answers:

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



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.

Innovative services:

- **ANAC:** a preventive maintenance tool for your fleet thanks to expert and personalised diagnostics of your engines, using samples of the oils in service.
www.anac-diagnosis.com
- **LUBCONSULT:** on-line management of OEM'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.

www.lubricants.total.com



You know where to turn **TOTAL**