



## MOTUL TEKMA ULTIMA 5W-20 LS FE

**Heavy Duty Diesel Engine oil**  
**Low SAPS – Low HTHS – Fuel Economy**  
**Fully synthetic**

### TYPE OF USE

**TEKMA ULTIMA 5W-20 LS FE** is a low-SAPS heavy-duty diesel engine oil developed for modern commercial vehicle engines equipped with advanced exhaust after-treatment systems such as Diesel Particulate Filters (DPF).

It meets the requirements of the latest Scania, MAN and Daimler Truck standards, delivering improved fuel economy while supporting extended oil drain intervals in Euro VI applications. This helps operators optimize maintenance schedules and reduce operating costs.

### PERFORMANCES

#### APPROVALS

MAN M 3977  
SCANIA LDF-5

#### PERFORMANCES

DAIMLER DTFR 15C140 (former MB 228.71)

As fuel efficiency and CO<sub>2</sub> emission requirements become more stringent, OEMs are increasing demands on engine oils to deliver full engine protection while reducing friction through lower viscosity. Heavy-duty manufacturers worldwide are adopting low-viscosity oils, as reduced viscosity directly improves fuel economy. To support this development, modern engines have been redesigned to operate with low-HTHS oils around 2.6 mPa·s.

**MAN M 3977** is MAN's latest heavy-duty diesel engine oil specification, developed primarily for certain Euro VI-d MAN D26 and D38 truck engines and associated with very low-viscosity SAE 5W-20 oils designed to improve fuel economy and reduce CO<sub>2</sub> emissions while maintaining aftertreatment protection.

**Scania LDF-5** (Long Drain Fuel Economy 5) is Scania's latest heavy-duty diesel engine oil specification for certain **Euro VI-d engines**, developed around low-viscosity SAE 5W-20 oils to improve fuel economy while maintaining engine durability and exhaust aftertreatment protection. Oils meeting LDF-5 are formulated to support modern emission-control systems and extended drain intervals.

**Daimler DTFR 15C140** is a Top Tier low SAPS lubricant specification designed for use in high performance heavy-duty diesel engines where advanced aftertreatment systems such as Diesel Particulate Filters (DPFs) are fitted. With a HTHS

We retain the right to modify the general characteristics of our products in order to offer to our customers the latest technical development.

Product specifications are definitive from the order which is subject to our general conditions of sale and warranty.

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viscosity of 2.6-<2.9 mPa.s, these lubricants are designed to provide enhanced fuel economy benefits to the latest Daimler OM471 Euro VI engines.

**MAN M 3977, Scania LDF-5 and Daimler DTFR 15C140 are not backwards compatible with earlier engine oil specifications and are therefore not suitable for older engines.**

## RECOMMENDATIONS

**Due to its low HTHS (High Temperature High Shear) viscosity, this oil can only be used in compatible engines. Please consult the manufacturer's recommendations for more information.**

Oil change: As per the manufacturer's recommendations.

We strongly advise strictly adhering to the oil change intervals specified by the manufacturer.

We also recommend the use of an oil monitoring program to optimize oil change intervals and maximize equipment protection.

## PROPERTIES

|                                 |            |                                   |
|---------------------------------|------------|-----------------------------------|
| Color                           | ASTM D1500 | Scale 4.0 (dark amber / brownish) |
| Viscosity grade                 | SAE J 300  | 5W-20                             |
| Density at 20°C (68°F)          | ASTM D1298 | 0.853                             |
| Viscosity at 40°C (104°F)       | ASTM D445  | 47.2 mm <sup>2</sup> /s           |
| Viscosity at 100°C (212°F)      | ASTM D445  | 8.1 mm <sup>2</sup> /s            |
| HTHS viscosity at 150°C (302°F) | ASTM D4741 | 2.6 mPa.s                         |
| Viscosity Index                 | ASTM D2270 | 144.0                             |
| Pour point                      | ASTM D97   | -45.0 °C / -49.0 °F               |
| Sulfated Ash                    | ASTM D874  | % weight 0.83                     |
| TBN                             | ASTM D2896 | 12.7 mg KOH/g                     |
| Flash point                     | ASTM D92   | 217.0 °C / 423.0 °F               |

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