

# RUBIA WORKS 4000 15W-40



"Low SAPS" lubricant especially developed for earthmoving, mining and quarries machinery engines.

### **SPECIFICATIONS AND APPROVALS**

International specifications ACEA E9/E7 API CK-4/CJ-4/CI-4+/CI-4/CH-4/SN JASO DH-2

#### Manufacturers' approvals

- ✓ DEUTZ DQC III-18 LA
- ✓ MTU Category 2.1
- ✓ MB-Approval 228.31
- ✓ VOLVO VDS-4.5
- ✓ MACK EO-S 4.5
- ✓ RENAULT VI RLD-3
- ✓ CUMMINS CES 20086
- ✓ DETROIT DIESEL DFS 93K222
- ✓ MAN M3775
- ✓ ISUZU Recommended Lubricant (2020)

#### Meets the requirements of

- ✓ CATERPILLAR ECF-3/ECF-2
- ✓ FORD WSS-M2C171-F1

## Especially recommended in engines of machinery

KOMATSU, HITACHI, KOBELCO, JCB etc...



#### **APPLICATIONS**

TOTAL RUBIA WORKS 4000 15W-40 is especially suitable for **engines** used in **earthmoving activities** (quarrying, construction, mining, railroads...) requesting API CK-4 or CJ-4 level.

Furthermore, thanks to its numerous approvals, it can be used also in "On-road" truck engines.

This lubricant withstands very long working periods under severe conditions and high load, with dust and heat.

TOTAL RUBIA WORKS 4000 15W-40 is recommended for engines equipped with Exhaust gas after-treatment system meeting **EURO Stage V (or US EPA Tier 4F)** Standard and, for On-Road, **EURO 6**, as well as previous standards. TOTAL RUBIA WORKS 4000 15W-40 is particularly suitable for American, European and Japanese engines.

Thanks to its specific "LOW-SAPS" technology (low content of Sulphated Ash, Phosphorus and Sulphur), TOTAL RUBIA WORKS 4000 15W-40 is designed for the latest Diesel engines equipped with **post-treatment systems**, such as Diesel particulate filters (DPF) or DENOX catalysator.

#### PERFORMANCES AND CUSTOMER BENEFITS

TOTAL RUBIA WORKS 4000 15W-40 exhibits **excellent thermal stability** ensuring efficient lubrication of hot engine pieces during severe and long working periods.

TOTAL RUBIA WORKS 4000 15W-40 has been especially reinforced in viscosity stability under shearing and oxidation resistance (much higher than simple API CK-4), providing the possibility for the end user to reach or to exceed the maximum manufacturer's drain interval recommendation, even under severe working conditions with bad Fuel quality or with Bio-Diesel fuel. The advanced "LOW-SAPS" formulation TOTAL RUBIA WORKS 4000 15W-40 helps prevent the clogging of the Diesel Particulate

### PHYSICAL AND CHEMICAL CHARACTERISTICS\*

Filter (DPF) and extends the post-treatment system durability.

TOTAL RUBIA WORKS 4000 15W-40		Method	Value
Kinematic Viscosity at 40°C	mm²/s	ASTM D445	115
Kinematic Viscosity at 100°C	mm²/s	ASTM D445	15.3
Viscosity Index	-	ASTM D2270	139
Pour Point	°C	ASTM D97	-33
T.B.N	mgKOH/g	ASTM D2896	10
Sulphated Ash	% m/m max	ASTM D874	1.0

<sup>\*</sup> The features mentioned above are average values obtained with some variability in production and do not constitute a specification.

#### **TOTAL LUBRIFIANTS**

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#### **TOTAL RUBIA WORKS 4000 15W-40**

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