

## TECHNICAL DATA SHEET

# SYNTHETIC SAE 5W-40 API CK-4 HEAVY DUTY MOTOR OIL

PRODUCT # 11165, 11166, 18011

### TEST

### ASTM

### TYPICAL

<b>API Gravity</b>	<b>D-1298</b>	<b>34.4</b>
<b>Specific Gravity @ 60°F</b>	<b>D-1298</b>	<b>0.853</b>
<b>Density @ 60°F, Lbs/US gal</b>	<b>D-1298</b>	<b>7.11</b>
<b>Flash Point, PMCC, °F</b>	<b>D-93</b>	<b>450</b>
<b>Viscosity @ 40°C, cSt</b>	<b>D-445</b>	<b>94.3</b>
<b>Viscosity @ 100°C, cSt</b>	<b>D-445</b>	<b>15.1</b>
<b>Viscosity Index</b>	<b>D-2270</b>	<b>169</b>
<b>Cold Cranking Simulator @-30°C, cP</b>	<b>D-5293</b>	<b>5,738</b>
<b>TBN</b>	<b>D-2896</b>	<b>10.2</b>
<b>Sulfur, wt.%</b>	<b>X-Ray Diffraction</b>	<b>0.340</b>
<b>Sulfated Ash, wt.%</b>	<b>D-874</b>	<b>1.04</b>
<b>Phosphorus, wt.%</b>	<b>ICP</b>	<b>0.111</b>
<b>Zinc, wt.%</b>	<b>ICP</b>	<b>0.122</b>
<b>Color</b>	<b>D-1500</b>	<b>3.5</b>

**Lucas Synthetic SAE 5W-40 API CK-4 HD Motor Oil** is a fully synthetic, premium Heavy Duty Motor Oil designed specifically for operation in extremely cold temperatures. Coupling the synthetic base oils with premium additives results in a lower viscosity in frigid weather and thus easier starting and smoother engine operation before operating temperatures are achieved. Yet at operating temperature, the viscosity and film thickness provide the same protection expected from high-quality SAE 15W-40 oils. This API CK-4 HD Motor Oil is fully backward compatible with prior API standards such as CJ-4. Long drain intervals, better engine cleanliness and lower oil oxidation are all hallmarks of this superior product. Lucas Synthetic SAE 5W-40 is well suited to ultra-low-sulfur fuels and is formulated to keep after treatment devices, such as DPF and DEF systems in good operating condition.

**Lucas Synthetic SAE 5W-40 API CK-4 HD Motor Oil** is recommended for any application where SAE 5W-40 is specified. Meets or exceeds the requirements of API CK-4, CJ-4 and major heavy duty diesel powered trucks, busses and equipment, both on and off road, including: DEUTZ DQC III-18 LA, Detroit Diesel DDC 93K222, Volvo VDS-4.5, Mack EO-S-4.5, Cummins CES 20086, CAT ECF-3, Mercedes Benz 228.31, Deutz DQC III-10, MTU Type 2.1, MAN M 3775 and FORD WSS-M2C171-F1.