

**CHAMPION BLUE FLAME**<sup>®</sup> SAE 5W-40 synthetic heavy duty diesel engine oil is purpose built to be the most robust oil available for maximum engine lubrication and wear protection. It is designed to specifically address the extreme performance demands of turbo, or super-charged, diesel engines modified for higher compression for more horsepower and torque.

### **KEY FEATURES:**

- 100% synthetic SAE 5W-40 formula
- Reported savings of up to 3% better fuel economy improvement compared to SAE 15W-40
- Exceeds API service levels CJ-4, CI-4, CH-4, CG-4, CF-4 and current OEM warranty requirements for extended service
- Meets, or exceeds, pre and post-2007 emissions requirements
- Safe for use in applications equipped with Exhaust Gas Recirculation (EGR) and diesel particulate filters (DPF) systems
- Advanced viscosity and soot control technology for shear stability and engine cleanliness
- High reserve alkalinity chemistry reduces corrosive wear and oil oxidation

#### **PROVEN FUEL ECONOMY SAVINGS:**

EPA testing confirmed properly formulated 5W-40 diesel oil delivered up to 3 percent better fuel economy on-highway compared to conventional 15W-40 diesel oils. Mixed city/highway driving showed an average 1.4 percent fuel economy improvement with no change in driving habits.

#### **APPLICATIONS:**

Diesel Engine Service

- Drain intervals may be extended further with oil analysis.
- 2007-2009 Caterpillar C13 and C15 on-highway engines must follow OEM-recommended drain interval.
- 2007-2010 Dodge 6.7L, Ford 6.4L and GM 6.6L LMM light-duty diesel pickups must follow OEM- recommended drain interval. Drain intervals may be extended with oil analysis.

**Gasoline Engine Service** 

- Suitable for use in 4-stroke gasoline engines.
- Do not use in wet clutch applications

#### **SPECIFICATIONS & APPROVALS:**

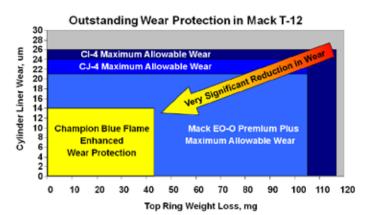
API CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, SN ACEA E7-04, E6, E5-02, E4-99#2, E3 & E2 Detroit Diesel 93K218, 93K215, 93K214 Caterpillar SEBU 6385 Caterpillar ECF-3, ECF-2\*, and ECF-1-a Cummins CES 20081 Ford M2C171-C & D General Motors 9985930 Global DHD-1 JASO DH-2, DH-1, MA Mack EO-O Premium Plus 2007 MAN 271 & 3275 Mercedes Benz p228.31 MTL 5044 (MTU Type 1 and 2) Renault Truck VI RLD-3 Volvo VDS-4, VDS-3, & VDS-2 <image>

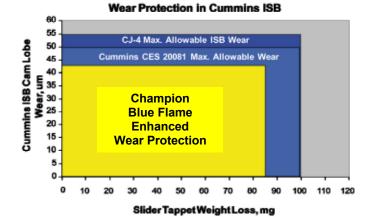
Note: Extended drain intervals are not recommended when using biofuels containing >10% Ethanol or 5% biodiesel (B5). Follow OEM drain intervals or extend drain intervals with oil analysis.

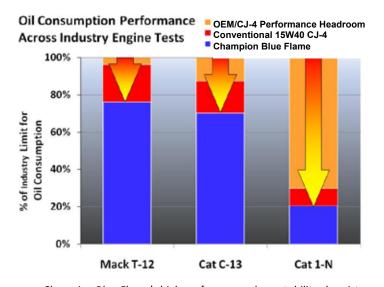
CHAMPION BRANDS, L.L.C. • 1001 Golden Drive • Clinton, MO 64735 ORDER DESK 800-821-5693

## SUPERIOR WEAR PROTECTION: A Closer Look

CHAMPION BLUE FLAME<sup>®</sup> SAE 5W-40 synthetic heavy duty diesel engine oil provides exceptional wear protection as demonstrated below and succeeded in significantly exceeding API and OEM specifications including Detroit Diesel, Mack/Volvo and Cummins.

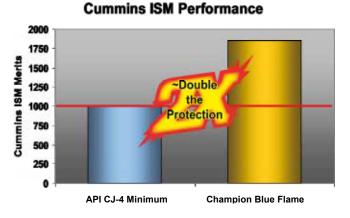






Champion Blue Flame's high performance shear stability chemistry delivers lower oil volatility and consumption than any conventional diesel engine oil and is proven to exceed OEM performance targets.

Mack T-12 Performance



# **TYPICAL PROPERTIES**

SAE Grade	5W-40
Product Code	4373
Appearance/Color	Blue
TBN	9.0
Gravity API @ 60° F	33.4
cSt @ 40°C	95.0
cSt @ 100°C	15.2
Viscosity Index	166
Pour Point ° F	-42
Flash Point ° F	450
Sulfated Ash %wt	<1.0