

# PRO-SPEC® III SYNTHETIC BLEND 15W/40 Multi-Viscosity Motor Oil

- HIGH QUALITY BASE OIL
   SUPERIOR ADDITIVES
   IMPROVED SOOT CONTROL
  - HIGH TBN LEVEL FOR EXTENDED DRAIN INTERVALS
  - REDUCES OIL CONSUMPTION
     IMPROVES FUEL ECONOMY

PRO-SPEC® III MULTI-VISCOSITY MOTOR OIL tackles the numerous problems associated with Exhaust Gas Recirculation (EGR) used in diesel engine designs. When exhaust gas is recirculated to be burned a second time, this gas displaces oxygen, creating cooler combustion. In doing this, many of the exhaust contaminants end up in the engine oil. Oils exposed to EGR systems show an increase in soot, acid number (AN) and viscosity - - while the engine and the oil are both exposed to corrosive/acidic gases, particulate build-up and excessive moisture. PRO-SPEC® III offers superior protection from all these problems and more.



PRO-SPEC® III MULTI-VISCOSITY MOTOR OIL helps provide longer engine life through careful selection of base oils and careful blending of excellent additives.

### PRO-SPEC® III Made With High Quality Base Stock

PRO-SPEC® III is a blend of synthetic oil, which incorporates the purest and finest severely hydro-cracked and hydro-finished base stocks available. This unique combination of base stocks means PRO-SPEC® III provides improved oil flow for superior cold cranking protection. In addition, when high engine operating temperatures are encountered, which is common with low emission engines, this unique synthetic blend ensures a superior oil film of protection for vital moving engine parts.

The pure and highly refined base stocks of PRO-SPEC® III contribute to an oil with low oil volatility. Because of the base stocks ability to resist oxidation during high heat operation, you use less oil due to consumption and evaporation. This means longer service life for the oil and reduced oil consumption, yet better engine protection. PRO-SPEC® III base stock, along with an outstanding additive package, means no varnish, gum or sludge build-up on internal engine parts.

#### **PRO-SPEC® III Contains Superior Additives**

PRO-SPEC® III meets or exceeds diesel engine oil specifications CH-4, CI-4 and CI-4 Plus. This product meets and/or exceeds the gasoline engine specification SL. In addition, PRO-SPEC® III meets and exceeds Mack EO-N Premium Plus 03, Cummins CES-20078, Volvo VDS-3, Global DHD-1 and ACEA E5/E3/B3/A3.

PRO-SPEC® III uses new generation additives in even greater amounts because diesel engine designs expose engine oils to elevated amounts of contamination. Special compounds are needed to neutralize acids, plus suspend and disperse large amounts of soot. PRO-SPEC® III keeps soot and particulate matter suspended (in the form of smaller particles) to prevent wear to liners, rings and the valve train.

Todays engine designs place higher temperatures on the engine oil, which coupled with exhaust gases, could act as a catalyst for oxidation of the oil. An improperly functioning exhaust gas recirculation system can cause much more rapid deterioration of an engine oil. PRO-SPEC® III uses a beefed up oxidation inhibitor to counteract oxidation or sludging. Routine oil analysis & PRO-SPEC® III helps to allow longer drain intervals.

#### PRO-SPEC® III Improved Soot Control

PRO-SPEC® III provides increased soot control. Todays engines are putting even more soot back into the crankcase. Texas Refinery Corp. PRO-SPEC® III contains top of the line dispersants to control soot thickening, sludge, varnish as well as keep other deposit pre-cursors suspended in the oil so that they can be filtered out.

#### PRO-SPEC® III Has A High TBN Level

PRO-SPEC® III is made with a 15 Plus total base number (TBN). This is extremely important since air is 60% nitrogen and some engines take in 16,000 gallons of air per minute. Acidic compounds can form because of all the Nitrogen; therefore, the ability of PRO-SPEC® III to control corrosion is a top priority. The extra protection from the high Total Base Number in PRO-SPEC® III provides exceptional protection to reduce ring and liner wear.

#### **PRO-SPEC® III Reduces Oil Consumption**

A great way to reduce cost is to reduce oil consumption and PRO-SPEC® III does this extremely well. While results will vary, typically by using PRO-SPEC® III, oil make up between drain intervals is greatly reduced, while drain intervals are dramatically extended. This combination, in actual field usage, shows oil consumption cut by as much as 60%. Naturally, individual results will vary with engine and operating conditions.

#### **PRO-SPEC® III Improves Fuel Economy**

It has been proven that a cleaner operating engine is a more fuel efficient engine. Reductions in varnish, gum and sludge in engines help an engine operate at peak efficiency. PRO-SPEC® III contains superior detergent/ dispersant additives to provide high temperature cleanliness, control corrosive wear, help suspend soot and help to neutralize acids. The superior detergent/ dispersant additive package of PRO-SPEC® III is a key reason extended drain intervals are possible along with improved fuel economy.

## SPECIFICATIONS PRO-SPEC® III MULTI-VISCOSITY MOTOR OIL

MEETS AND/OR EXCEEDS MIL-L-2104E, MIL-L-46152E, CID-AA-52039, Caterpillar TO-2, Cummins CES 20076, Cummings CES 20078, Detroit Diesel Power Guard 93K214, Mack EO-N Premium Plus, Mack EO-N Premium Plus 03, Navistar, Allis-Chalmers, Series 3, GM6094M, Ford M2C153E, Ford M2C171C, M2C171D, ACEA E5/E3/B3/A3, Mercedes Benz MB 228.3, Mercedes Benz 229.1, Volvo VDS-3, Global DHD-1, A.P.I. CF-4, CG-4, CH-4, CI-4, CI-4 Plus, SH, SJ, SL. PRO-SPEC III 15W/40 is Allison C-4 Approved (C4-30483901), MAN271, MTU Type 1.

ASTM TEST METHOD	TESTS	15W/40
	Product Code	#6717
D287	API Gravity	27/29
D287	Specific Gravity at 60°F, Typical	.88
D-92	Flash Point, °F, COC, Minimum	400°F. (204°C.)
D-97	Pour Point, Typical	-30°F. (-34°C.)
D-5293	Viscosity @ -20°C, Cold Cranking Simulator cP	5,200
D-5293	Viscosity @ -25°C, Cold Cranking Simulator cP	
D-4684	Viscosity @ -25°C, Mini Rotor Viscosimeter-TP1 cP	14,500
D-4684	Viscosity @ -30°C, Mini Rotor Viscosimeter-TP1 cP	
D-446	Viscosity @ 100°C, cSt, Typical	15.5
D-446	Viscosity @ 40°C, cSt, Typical	119.0
D-446	Viscosity @ 210°F, SUS, Typical	80.0
D-446	Viscosity @ 100°F, SUS, Typical	550.0
D-2270	Viscosity Index	150
D-847	Sulfated Ash, Wt. %, Maximum	1.72%
D-2896	Total Base Number, mg KOH/g	15 Plus
D-664	Total Acid Number, mg KOH/g	2.5
D-892	Foam Tendency/Stability:	
	Sequence I	0/0
	Sequence II	0/0
	Sequence III	0/0
	Calcium, Wt. %, Typical	0.45
	Zinc, Wt. %, Typical	0.14
	Nitrogen, Wt. %, Typical	0.10

Handling Information: For safe handling of the product, read the Safety Data Sheet (SDS).

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