



Product Information Sheet

PIP-246-10

SYNSTAR FULL SYNTHETIC COMMERCIAL HEAVY DUTY DIESEL ENGINE OIL **5W-40 CJ-4/SM 10 TBN**

DESCRIPTION:

Synstar Commercial Heavy Duty Full Synthetic Engine Oil is engineered for 2007 model year and newer diesel engines with advance emission control systems. These systems use exhaust gas recirculation, diesel particulate filters and catalyst that are all sensitive to the wrong oil. The high TBN and outstanding TBN retention will give excellent oxidation control and will provide excellent engine protection in severe service conditions for both new and old engines.

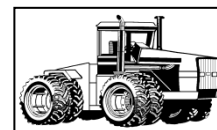
Synstar Commercial Heavy Duty Full Synthetic Engine Oil is formulated with high quality, high viscosity index synthetic base stocks, a proven additive system with the proper balance of metallic detergents and dispersants, multipurpose inhibitors and a shear stable viscosity index improver. Synstar Commercial Heavy Duty Full Synthetic Engine oil CJ-4/SM has been proven to protect diesel particle filter (DFP) emission systems against ash and particle build up. In addition it provides, improved engine protection from soot, deposits, varnish, wear, acids, viscosity shear loss, and oil consumption.

Typical Application:

- Four-stroke naturally aspirated and turbocharged diesel engines.
- New 07' low emission engines with exhaust after treatments devices.
- Pre-2007 engines specifying older API or OEM oil performance categories.
- Using ultra low or low sulfur diesel fuel.

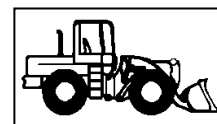
APPLICATION:

Synstar Commercial Heavy Duty Full Synthetic Engine Oil is designed to meet the performance requirements of API CJ-4/SM and OEM service categories: Cummins 20081, Caterpillar ECF-3/2, Detroit Diesel 93K218/15/14, Mack EO-O PP 07, EO-N PP 03', EO-M Plus, EO-M, Volvo VDS-4/3 Mercedes Benz 228.31, Global DHD-1, ACEA E9/E7, JASO DH-2.



FEATURES & BENEFITS:

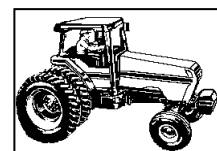
The Full Synthetic formulation will provide excellent cold flow properties provide faster lubrication during cold starts, maximizing engine life.



Emission and Catalyst Protection: The technology was specifically designed to protect catalyst, particulate filters, and other emission components providing less engine down time.



Super deposit control minimizes oil consumption.



Prevents wear by providing stable viscosity at high temperature, high load conditions.

Improved oxidation and rust protection throughout the oil drain interval.



SYNSTAR COMMERCIAL HEAVY DUTY FULL SYNTHETIC DIESEL ENGINE OIL 5W-40 CJ-4/SM 10 TBN

Typical Properties

SAE Viscosity Grade	5W-40
API Service	CJ-4, CI-4 Plus, CI-4, CH-4, CG-4, CF/SM
Viscosity, cSt @ 40°C 100°C	75.16 12.90
Viscosity Index	169
API Gravity / Lbs. gal	34.0/7.119
Pour Point, °C / °F	-45/-49
MRV-TP1, @ -35°C	23700
CCS, cP @ -30°C	6075
Sulfated Ash, % wt.	1.0
TBN (D 2896)	10

The typical properties listed reflect the general characteristics of the product, and are not manufacturing specifications. Normal batch-to-batch variations should be expected.

HEALTH & SAFETY:

A complete material safety data sheet is available upon request. Used motor oil contains combustion by-products which may be harmful. Avoid prolonged or repeated skin contact. Wash clothing and exposed areas with soap and water. Don't pollute - return used oil to a collection center.