



# GRANIT S-3



## DESCRIPTION

GRANIT S-3 are premium quality monograde lubricants formulated with detergent additives and highly refined mineral oils to improve engine cleanliness and lifecycle. They are primarily recommended for the lubrication of naturally-aspirated and turbocharged diesel or gasoline, older technology, engines.

## APPLICATIONS

GRANIT S-3 series consists of general purpose engine oils suitable for normally-aspirated and turbocharged diesel or gasoline engines operating in on-/off-highway applications, such as construction site machinery and earthmoving and agricultural equipment where the sulphur content in the fuel is >0.5%. GRANIT S-3 also complies with the strict CAT TO-2 requirements, so it can be used in heavy duty transmissions where a lubricant of this quality level is required.

## CHARACTERISTICS-BENEFITS

CHARACTERISTICS	BENEFITS
High alkalinity reserves.	Effective engine protection against corrosion in severe service, such as fuel with high content of sulphur (>0.5%).
Excellent protection against rust and oxidation.	Smooth and clean engine running.
Resistance to oil thickening.	Durable performance in severe service; effective deposit control on metallic surfaces.
High level of detergency and dispersancy.	Improved overall engine cleanliness; reduced operating costs.

## PHYSICAL-CHEMICAL CHARACTERISTICS

GRANIT S-3	METHOD	SAE 10W	SAE 30	SAE 40	SAE 50
Density at 15°C, g/cm <sup>3</sup>	ASTM D1298	0,877	0,887	0,889	0,894
Dynamic viscosity, °C/cp	ASTM D5293	-25/6500	-	-	-
Viscosity, Kinematic (cSt) 100°C	ASTM D445	6.0	12.2	14.2	18.7
Viscosity, Kinematic (cSt) 40°C	ASTM D445	35.6	109	140	212
Viscosity index	ASTM D2270	116	102	99	98
TBN, mgKOH/g	ASTM D2896	11.0	11.0	11.00	11.0
Flash point, COC, °C	ASTM D92	212	231	240	249
Pour point, °C	ASTM D97	-33	-24	-24	-18

The abovementioned characteristics represent mean values.

## SPECIFICATIONS

API CD, SF; CCMC D2, G2, PD-2; U.S. MIL L-2104E, L-46152B; Caterpillar TO-2