



LubeWerks® 4SS BU Heavy Duty Diesel Engine Oil



Advanced, Fully Formulated 5W-40 Low Viscosity Heavy Duty Engine Oil

LubeWerks® 4SS BU has CK-4 and ky OEM credentials, and is an ideal solution for commercial transportation in cold-weather climates.

- **Provides ultimate wear protection**
- **High resistance to oxidation**, keeping the oil fresher for longer
- **Reduces friction** to maximize horsepower
- **Superior lubrication flow and pumpability** at high and low temperatures
- **Provides improved fuel economy**
- **Excellent protection** against the formation of sludge and harmful deposits

LubeWerks® DDP Technology Heavy Duty Engine Oils

The life force of any fleet business is its vehicles, so unplanned downtime can have a hugely damaging impact on a company's efficiency and profitability. The right lubricants and greases play a vital role in helping protect critical components against wear, deposits and corrosion, giving fleet managers the peace of mind that their equipment is protected in all conditions, even when operating at maximum load.

LubeWerks® Triple Protection Heavy Duty Engine Oil

LubeWerks® DDP Triple Protection+ heavy duty engine oil builds upon the heritage of Triple Protection technology that customers have come to depend on. Today, it is more advanced than ever before designed to provide harder working protection that adapts to your driving conditions.

DESIGNED FOR DIESELS, WORKS JUST AS HARD IN GASOLINE ENGINES.

Introducing a heavy duty engine oil that performs extremely well in both diesel and gasoline engines, allowing mixed fleet customers to consolidate lubricants for added simplicity in use and storage. Designed to exceed CK-4 specs, LubeWerks® Multi-Vehicle 5W-30 heavy duty synthetic engine oil with DDP Triple Protection+ uses fully synthetic base oils, plus advanced additive technology to provide protection against wear, deposits and oil breakdown.

PLUS:

- Better fuel economy performance
- Excellent high/low temperature protection
- Designed to provide protection under the most severe conditions in diesel or gasoline engines.
- Excellent cold temperature flow for easier start up In extreme cold.

WHAT IS DDP Triple Protection+

DDP Triple Protection+ is the PROTECTION is the PROTECTION+ unique combination of advanced additive technology and synthetic base oils. DDP Triple Protection+ represents protection against wear, deposits and oil breakdown plus better low temperature flow. This unique combination helps to deliver excellent equipment protection, long engine life and maintain viscosity control under high temperatures.

FEATURES AND BENEFITS

- Key industry OEM claims empower you to go to market with confidence.
- Low-viscosity formulations enable you to market innovative solutions for more modern commercial fleets.
- Proven performance, backed by rigorous testing, demonstrates exceptional wear protection and provides peace of mind.

APPLICATIONS AND CREDENTIALS (CON'T)

*All LubeWerks product performance claims are only applicable when the additive package is used with defined base oil(s), viscosity modifier(s) and other required components to produce the applicable viscosity grade in a properly blended finished fluid.

* - Volume treatment rates are approximate as the actual treat rate is dependent on the density of all components in a blend

A - Approved-Formal written approval provided from a governing body such as an OEM, regulatory agency or an industry organization

L - Licensable-Licensable against an active API category

M - Meets-All required testing meets defined specification requirements; however, no formal approval provided, claim is self-certified

S - Suitable for Use (SFU) - Considered suitable for use based on laboratory testing, field testing and engineering judgment (where there is no regulatory prohibition)

A photograph showing the interior of a bus from the passenger perspective, looking out the front windshield at a bright sunset or sunrise. The sun is low on the horizon, creating a strong lens flare and illuminating the interior of the bus. The seats are visible in the foreground, and the road ahead is visible through the windshield.

LubeWerks® 4SS BU
protects your engine every mile.

APPLICATIONS AND CREDENTIALS

Product Performance	Recommended Treat Rate of LubeWerks CV1500 SA
	100.00% by weight
ACEA E11-22 (2022)	A
ACEA E9-16 (2016)	A
API SN	L
API CK-4	L
Cummins CES 20086	A
Deutz DQC III-10 LA	A
Detroit Diesel DDC 93K222	A
CAT ECF-3	A
MTU Type 2.1	A
Volvo VDS-4.5	A
Mack EO-S-4.5	A
MB-Approval 228.31	A
Renault Truck RLD-4	A
FORD WSS-M2C171-F1	A
MAN M 3775	A
MAN M 3575	A

TYPICAL CHARACTERISTICS²

Characteristic	Typical Value	Unit	Method
Physical State	Liquid	-	-
Form	Liquid	-	-
Color/Appearance	Light Amber	-	-
Odor	Characteristic	-	-
CALCIUM	0.129	%	LZ Test Method
NITROGEN	0.16	%	ASTM D 4629
PHOSPHORUS	0.11	%	LZ Test Method
SULFATED ASH	1	%	ASTM D 874
SULFUR	0.3	%	LZ Test Method
ZINC	0.12	%	LZ Test Method
BASE NUMBER (mgKOH/g)	10.2	NeutNo	LZ Test Method
FLASH POINT, C, COC	230	°C	ASTM D 92
FLASH POINT, C, PMCC	200	°C	ASTM D 93
LBS PER GAL @ 15.6 C	7.1	lbs	CALCULATED
POUR POINT, C	-45	°C	ASTM D 5950
SPECIFIC GRAVITY @ 15.6 C	0.852	SPGRAV	ASTM D 4052
VISCOSITY @ 100 C, CST	15.3	CST	ASTM D 445
VISCOSITY @ 40 C, CST	93.9	CST	ASTM D 445

²Not a manufacturing specification

Fire and Explosion Hazard Data			
	Flash Point (method)	Classification	
	200°C PMCC	N/A	
Temperature Recommendations			
Unloading			
	Pumping Temperature	Ambient	
	Maximum Temperature *	70°C	158°F
Storage			
Maximum Temperature for Long-term Storage		45°C	113°F
Blending			
Maximum Base Oil Temperature for Mechanical or in-line Mixing		70°C	158°F
Equipment Recommendations			
Type of Pump	Positive Displacement		
Type of Transfer Line	Ball Launched, Insulated,Steam Traced Using 107°C/225°F Steam Max.		
Transfer Line Size	2-3inch/5-8 cm.		
Heat Source			
Type	Steam 107°C/225°F Max.		
Storage Tank			

ADDITIONAL RECOMMENDATIONS

* Holding the material in excess of this temperature may cause chemical degradation. Use steam for heating and tracing only when the material is in motion to avoid localized overheating. Cold Temperature Storage - If product has been stored below its pour point temperature it should be heated to 21°C/70°F before using.

LubeWerks, Inc. / 1050 Crown Pointe Parkway, Suite 500, Atlanta, GA 30338 / 404-425-9221

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