



# FLEET ULTRA ESP CK-4

*Moly & Boron Friction Modified / Optimized  
Severe Service Heavy Duty Diesel Engine Oils*



**PROTECTION  
LIKE NOTHING  
ELSE™**



## DESCRIPTION

TRIAX Fleet Ultra ESP CK-4 are advanced synthetic blends friction optimized & friction modified heavy duty diesel oils, a next step in the evolution of diesel lubricants. These products are designed for the latest generation of heavy duty diesel trucks while offering full backwards compatibility with older engines. Our oils contain HD Efficient Dynamics technology for superior friction management, increased durability, lower oxidation coupled with out state of the art CRP (Continuously Regenerative Plating) technology with Molybdenum and Boron to dramatically reduce engine wear in virtually every component. Its unique additive blend helps extend drain intervals, optimize functionality in both high and low temperature conditions. This product is designed for both on-highway and off-highway, high torque applications operating in severe low speed/heavy load conditions using low (500ppm) or ultra LOW SAPS (15ppm) sulfur diesel fuels.

## APPLICATIONS

TRIAX Fleet Ultra products are designed to be fully backwards compatible with CJ-4 and CI-4 plus applications. These lubricants are recommended for 2016 and newer heavy duty diesel engines found in commercial trucks, pickup trucks, construction equipment and agricultural equipment. TRIAX FLEET ULTRA ESP products are also recommended for the latest diesel engines from Volvo, Renault, Ford, Caterpillar, UHPD (ultra high performance diesel). Applications include heavy on road transportation, off-road, quarrying, mining including server service heavy duty.

## PERFORMANCE CHARACTERISTICS

**EXTENDED COMPONENT LIFE** - continuous, effective shielding of engine parts under high frictional or thermal load effectively doubling their life. This type of plating is extremely resilient, significantly reducing engine wear and effectively doubling component life.

**TURBO-CHARGER PROTECTION** – Oil left inside the still hot turbocharger pools and having nowhere to go, is rapidly oxidized, becoming a thick sludge and carbon deposits which attach themselves to the turbocharger. TRIAX Fleet Ultra ESP lubricants offer unmatched turbo-charger protection. The high oxidation resistance of the oil and its CRP composition prevents oil burning up inside the turbocharger once the vehicle has been turned off. This extreme resistance to temperature and oxidation virtually doubles turbo-charger life in heavy duty applications.

**UP TO 30% IMPROVED OXIDATION vs CK-4 Requirements** – significantly reduced oxidation vs industry standards for CK-4 approved products

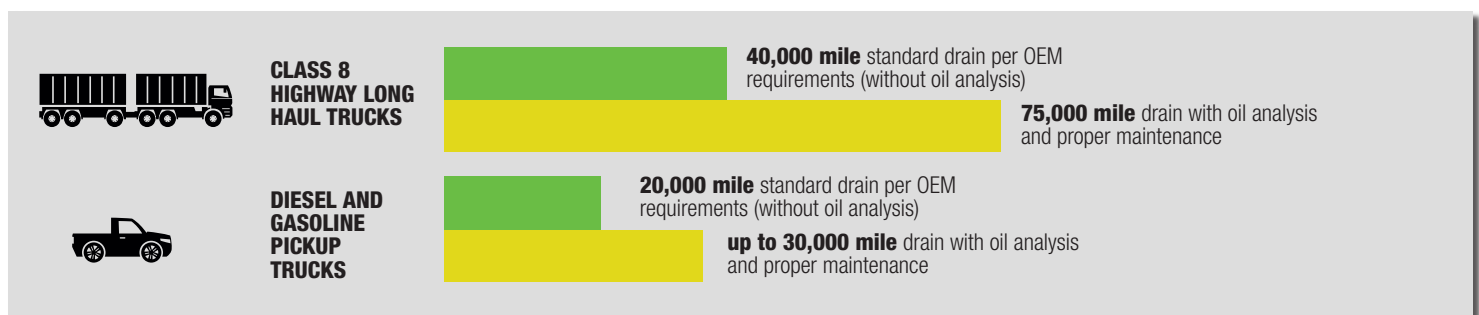
**SIGNIFICANTLY EXTENDED DRAIN INTERVALS** – TRIAX FLEET ULTRA ESP deliver outstanding drain intervals, 75,000 miles or more with oil analysis and proper maintenance, in class 8 transport trucks and triple the drain intervals of regular lubricants for diesel pickup trucks.

**DRAMATICALLY LOWER STARTUP / COLD START WEAR** – CRP Technology with Moly and Boron coats engine parts facilitating dry lubrication and permits effortless startup with dramatically reduced startup wear.

**UNPARALLELED 40% IMPROVEMENT IN SLUDGE / ENGINE DEPOSITS** – Unique dispersant and detergent technology exceeds CAT ECF-3 performance by ~40% in deposit control in CAT C13 Engine Test. Keeps pistons clean for longer engine life and reduced oil consumption

**FORD SPECIFICATION** – TRIAX FLEET ULTRA ESP engine oils in both 10W-30 and 15W-40 SAE grades are exceed the Ford required specification for CK-4 lubricants - FORD WSS-M2C171-F1

## DRAIN INTERVALS CAPABILITIES



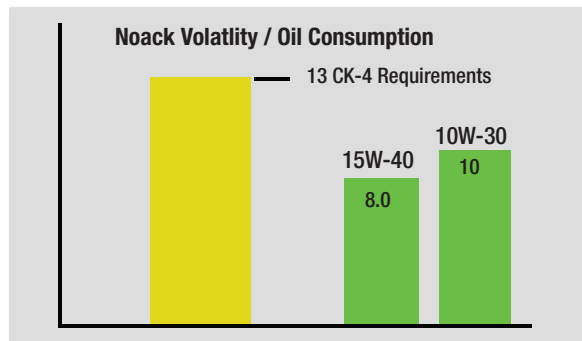


# FLEET UTRA ESP CK-4





*Moly & Boron Friction Modified / Optimized Severe Service Heavy Duty Diesel Engine Oils*

**PROTECTION  
LIKE NOTHING  
ELSE™**

## NOACK VOLATILITY / EVAPORATION UNDER STRESS



## WEAR COMPARISON VS INDUSTRY STANDARD CJ-4

	TRIAX CK-4 FLEET SYN & SYNBLEND	CJ-4 INDUSTRY AVERAGE	RESULT
CAMS	 34.4µm	 55.4µm	38% WEAR REDUCTION
TAPPET	 56 mg	 95 mg	41% WEAR REDUCTION

## PERFORMANCE SUMMARY

- Complete protection for diesel and gasoline emission control systems such as Exhaust Gas Re-Circulation systems (EGR), Selective Catalytic Reduction (SCR) systems and Diesel Particle Filters (DPF).
- Complete compatibility with virtually all major heavy duty diesel engine manufacturers
- Superior extended drain capabilities
- Outstanding friction modifying and wear reducing properties, up to 65% drop in friction coefficient vs industry standards
- Significant improvement in overall engine component wear
- Designed for heavy duty trucks for maximum longevity and protection
- State-of-the-art detergent and dispersant package for outstanding deposit control preventing
- Excellent fluid life and oxidation control, with superior stay-in-grade characteristics
- Permits “dry” lubrication at engine startup and during cold winter months, nearly eliminating engine startup wear and noise
- Permits quick-fill lubrication flow during cold weather start-up, down to -49 C.
- High retention TBN which provide improved acid neutralization and corrosion protection.
- Provides year-round engine protection even in severe operating conditions
- Outstanding stay-in-grade shear stability

PRODUCT SPECIFICATIONS	CHEMICAL INFORMATION	EURO 5		
		10W-30	15W-40	10W-40
• API CK-4, CJ-4, CI-4 Plus, CI-4, CH-4	Specific Gravity@ 60°F	0.8678	0.8731	0.8688
• API SN (15W-40 ONLY)	<b>Viscosity, Kinematic</b>			
• ACEA E9-12, E9-16	cSt at 40°C	74.66	116.30	75.25
• CUMMINS CES 20086	cSt at 100°C	11.1	15.40	12.26
• MACK EOS 4.5	<b>Viscosity Index</b>	<b>144</b>	<b>144</b>	<b>142</b>
• MB 228.31	Flash Point, °C (°F)	210 (410)	210 (410)	210 (410)
• DDC 93K222	Pour Point, °C (°F)	-36 (-32.8)	-36 (-32.8)	-36 (-32.8)
• CATERPILLAR ECF-3	Cold Crank, cP at -25°C	5,940	5,440	5,720
• VOLVO VDS-4.5, VDS-4, VDS-3	Color	5.5	5.5	5.5
• RENAULT VI RLD-4, RLD-3	TBN	10.5	10.5	10
• MTU TYPE 2.1	Molybdenum Complex (ppm)	115-200	115-200	115-200
• DEUTZ DQC III-10 LA	Boron (ppm)	405	405	405
• FORD WSS-M2C171-F1	Nitrogen (ppm)	1428	1428	1428
• MAN 3575, MAN3277 (10W40)	Sulfur (ppm)	2702	2702	2702
• SCANIA LDF-2, LDF-3 Low Ash	Sulfated Ash (ppm)	0.97	0.97	0.97
	Phosphorous (ppm)	965	965	965

**ACTUAL PRODUCTS MAY HAVE SMALL VARIATIONS IN THESE NUMBERS, WHICH IS NORMAL FOR THE MANUFACTURING PROCESS AND DO NOT AFFECT PERFORMANCE**