

SOUTHWEST RESEARCH INSTITUTE



DIESEL FUEL TREATMENT FORMULA 462

Fleet Tested : 16 1990 Cummins 315 engines in Navistar Tractors

Route: East Coast (Florida to New England)

8 Trucks using Standard Diesel Fuel		8 Trucks using Premium Diesel Fuel
	(ECA 13900)	
Mileage Total 368 K. Miles @ 5.92 MPG		Mileage Total 347 K Miles @ 6.22 MPG

4.8% improvement

Trial continuing through **290 K miles** / truck for EPA transient cycle emission

Treatment Characteristics

De Foamer:

1. Better filling
2. Faster Filling

Corrosion Inhibiter & Demulsifier:

1. Corrosion
2. Tank Deposits
3. Filter Life
4. Pump & Injector wear

Stabilizer Benefits:

1. Injector Fouling
2. Pump Deposits
3. Filter Plugging
4. Emissions

Lubricity Benefits:

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1. Pump & Injector Wear

Cetane Improver Benefits:

1. Maximum Power Output
2. Fuel Consumption
3. Cold Operatability
4. Cold Start
5. White
6. HC, CO, Nox & Particulates
7. Noise

Detergent Benefits:

1. Injector Fouling
2. White Smoke
3. Gaseous Emissions
4. Particulate Matter
5. Black Smoke
6. Fuel Economy
7. Engine Noise
8. Combustion
9. Exhaust Temperature

SUMMARY:

REDUCTION IN FUEL INJECTOR FOULING AND ASSOCIATED CHANGES IN COMBUSTION PERFORMANCE

IMPROVEMENT IN COLD STARTING AND A REDUCTION IN COLD START EMISSIONS

IMPROVEMENT IN FUEL ECONOMY

IMPROVEMENT IN OXIDATION FUEL STABILITY

REDUCTION IN FUEL SYSTEM CORROSION

REDUCTION IN FUEL FOAMING

IMPROVEMENT IN FUEL LUBRICITY PROPERTIES

REDUCTION IN UNPLEASANT FUEL ODORS

9. CONTROL OF FUEL - WATER SHEDDING PROPERTIES REDUCTION OF EMISSION VIA CLEAN ENGINES