

# **Gulf Dieselmotive 135**

High performance, zinc-free and chlorine-free railroad engine oils

### **Product Description**

**Gulf Dieselmotive 135** series are high performance, zinc-free and chlorine-free oils specially designed to provide excellent engine cleanliness and oil filter life in the modern railroad diesel locomotive engines. These oils are formulated with an additive package endorsed by engine manufacturers' and meet the requirements of newer diesel locomotive engines of General Electric (GE) and ElectroMotive Division (EMD) of General Motors. Though the newer engines consume significantly less oil and operate at higher temperatures, the excellent TBN retention property and improved oxidation resistance of Gulf Dieselmotive 135 provide superior service and facilitate extended drain intervals. These oils exceed the performance requirements of Locomotive Maintenance Officers Association (LMOA) Generation 5 and API CF/CF-2 and are available in two viscosity grades, viz. SAE 20W-40 and SAE 40.

#### **Features & Benefits**

- Exceptional detergency/dispersancy provides excellent engine cleanliness, especially engine top decks
- Excellent in-service retention of TBN facilitates extended drain intervals
- High thermo-oxidative stability protects against sludge formation providing cleaner engines
- Zinc-free formulation protects silver bearings against corrosion
- Non-chlorinated additive package helps in reducing used oil disposal costs
- SAE 20W-40 helps provide reduced oil consumption, fuel economy, longer oil drain intervals and effective lubrication and oil flow at lower temperatures

# **Applications**

- Railroad diesel locomotive engines specifying LMOA Generation 5 quality oils
- Medium speed two-cycle and four-cycle railroad engines, including newer diesel locomotive engines of GE and EMD of General Motors
- Marine and stationary engines for power generation or off-shore drilling requiring zinc-free oils
- Detroit Diesel 149 series engines operating under severe conditions
- Stationary engines requiring API CF and CF-2 quality oils

### Specifications, Approvals & Typical Properties

Meets the following Specifications		20W-40	40
LMOA Generation 5		Х	Х
API CF, CF-2		Χ	X
EMD of General Motors		Χ	X
GE as Generation 4 Long Life Oils		Χ	X
Has the following Approvals			
General Electric Company approval as generation 4LL lubricating oil		-	Х
for use in GE diesel engines			
Electro-Motive Diesel, Inc. approval for use in EMD engines			Х
Typical Properties			
Test Parameters	ASTM Method	Typical Values	
Viscosity @ 100 °C, cSt	D 445	15.5	15.1
Viscosity Index	D 2270	114	98
Flash Point, ⁰C	D 92	228	246
Pour Point, °C	D 97	-24	-18
TBN, mg KOH/g	D 2896	13.2	13.2
Density @ 15°C, Kg/I	D 1298	0.893	0.898
Sulphated Ash, %wt	D 874	1.52	1.52
Zinc, ppm	ICP	< 10	< 10

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