



## **Powers-All RR ZCF 40 Railroad Engine Oil**

**DESCRIPTION:** **PWRSALL RR ZCF 40** is a premium, locomotive crankcase engine oil designed to provide optimum engine protection for high horsepower, turbocharged two and four cycle engines normally found in railroads, marine and stationary power generation units where **zinc free** oils are required. It is formulated to meet **LMOA Generation 6** quality requirements and is compatible with earlier generation railroad diesel engine oils.

### **FEATURES AND BENEFITS:**

Recommended for Electro-Motive Diesel LMOA Generation 5 and General Electric LMOA Generation 4 Long Life applications.

**PWRSALL RR ZCF 40** utilizes the latest railroad oil chemistry that is both zinc and chlorine free to protect engines fitted with silver bearings while helping to reduce used oil recycling costs and environmental impact.

Excellent detergent, dispersant and anti-wear performance that provides for outstanding engine cleanliness while reducing sludge build-up helping to optimize oil drain intervals and fuel savings.

Good retention of Total Base Number (TBN) to protect engine against corrosive combustion by-products while meeting the needs of both new and older locomotive engines.

### **TYPICAL APPLICATIONS:**

GE and EMD engines designed for use with low sulfur and ultra low sulfur fuels. Fully compatible with older engines formerly using higher TBN oils and high sulfur fuels

Medium speed two-cycle and four-cycle diesel engines typically employed in railroad diesel engines, switching, short line and regional locomotives, including EMD and General Electric

Most diesel marine applications such as tug boats, work boats and auxiliary engines that require a zinc-free additive system

Stationary engines used in power generation, off-shore drilling and mine-haul applications



**40 South Fifth Street Waterbury CT 06708**  
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# PRODUCT INFORMATION



## Powers-All RR ZCF 40 Railroad Engine Oil

Typical Properties:

### PWRSALL RR ZCF 40

SAE Grade		40
Product Code	Test Method	PA335615
Gravity, API	ASTM D-4052	27.9
Density, lbs/gal	Calculated	7.39
Viscosity, cSt @ 40°C	ASTM D-445	146.0
Viscosity, cSt @ 100°C	ASTM D-445	15.0
Viscosity Index	ASTM D-2270	104
TBN	ASTM D-974	9.0
Pour Point, °F	ASTM D-5949	-11
Flash Point, COC, °F	ASTM D-92	498

*\*Note: Values shown are representative of current production and may vary within modest range.*



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