

# LOCO G4-13, G4-17

## HIGH PERFORMANCE ZINC-FREE RAIL-ROAD DIESEL ENGINE OILS

**BULWARK LOCO G4** series oils are high performance, high alkaline diesel engine lubricants formulated with hydro-treated mineral base oils and proven zinc-free additive technology that provides corrosion protection and decreasing of sludge formation in locomotive engines. Non-chlorinated formulation of BULWARK LOCO G4 oils help significantly reduce maintenance costs.

**BULWARK LOCO G4** oils are high quality zinc-free railroad engine oils designed for locomotive engines running on diesel fuel and exceeds latest lubricating oil classification systems requirements such as LMOA Generation V and GE Generation IV Long Life. These products provide unsurpassed engine cleanliness, soot handling, and oil filter life in later models of EMD and GE engines in a wide range of railroad, inland marine and stationary engine applications.

### PERFORMANCE LEVEL\*

- API CF/CF-2;
- General Electric (GE) Generation IV Long Life;
- LMOA Generation V;
- Caterpillar (Pass in CAT 3600s Caterpillar Micro-oxidation test)

### KEY BENEFITS

- Excellent corrosion resistance improves engine service life, helping reduce costs
- Improved engine oil efficiency leads to cost savings and extended oil filter life due to excellent ring and liner wear protection
- High TBN protects against acid formation and engine damage when running on high-sulphur fuels
- High Alkalinity, ml controls corrosive ring and liner wear, reducing maintenance time
- Extended oil drain intervals ensure low oil consumption in modern engines and reduces down time.

### TYPICAL CHARACTERISTICS\*\*

Properties	Test Methods	LOCO G4-13 SAE 40	LOCO G4 -17 SAE 40
Density @ 20°C, Kg/m3	ASTM D4052	0.8903	0.8906
Kinematic Viscosity @ 100° C mm2/s	ASTM D445	13.5	14.1
Kinematic Viscosity @ 40° C cSt Viscosity Index	ASTM D445	133.2	143.3
Viscosity Index	ASTM D2270	96	95
Total Base Number, mg KOH/g	ASTM D2896B	13.8	17.2
Flash Point, COC, °C	ASTM D92	258	254
Pour Point °C	ASTM D97	-20	-20

\* Performance levels indicated may include licensed API specs or specs that our products meet or exceed

\*\* Typical Characteristics are typical values. Minor variations within the permissible tolerance limits maybe expected on the final product.

### STORAGE

All packages should be stored under cover. Where outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and the obliteration of drum markings. Products should not be stored above 60°C, exposed to hot sun or freezing conditions.

This data sheet and the information it contains is believed to be accurate as of the date of printing. However, no warranty or representation, express or implied, is made as to its accuracy or completeness. Data provided is based on standard tests under laboratory conditions and is given as a guide only. Users are advised to ensure that they refer to the latest version of this data sheet. It is the responsibility of the user to evaluate and use products safely, to assess suitability for the intended application and to comply with all applicable laws and regulations. Material Safety Data Sheets are available for all our products and should be consulted for appropriate information regarding storage, safe handling, and disposal of the product. No responsibility is taken by either Bulwark International UK Ltd or its subsidiaries for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from hazards inherent in the nature of the material. All products, services and information supplied are provided under our standard conditions of sale. Please consult our local representative if you require any further information.

Bulwark International UK Ltd, 34 Woodland Road, Sawston, CB22 3DU, United Kingdom. [info@bulwarkauto.co.uk](mailto:info@bulwarkauto.co.uk)