



UNIVERSAL CORVUS 13 RAILROAD ENGINE OIL

Universal Corvus 13 Railroad Engine Oil is for use in high output, medium speed diesel engines. This is a zinc free oil providing excellent protection to silver wrist pins and turbo charger bearings. In addition, there are detergent/dispersent characteristics for a long filter life and engine cleanliness.

Universal Corvus 13 Railroad Engine Oil is a Generation IV and Generation V electro-motive engine oil. It is accepted by EMD and General Electric. This oil is specifically recommended for those railroad, marine and stationary engines which require the use of zinc free, CD quality oils.

<u>PROPERTY</u>	<u>ASTM TEST METHOD</u>	<u>SAE 40</u>	<u>SAE 20W40</u>
Viscosity @ 40°C, cSt	D445	160.70	143.00
Viscosity @ 100°C, cSt	D445	15.50	15.50
Viscosity Index	D2270	100	110
Flash Point, COC, °C (°F)	D92	252 (485)	250 (482)
Pour Point, °C (°F)	D97	-12 (10)	-18 (0)
Color	D1500	3.5	3.5
Gravity, °API	D287	27.4	28.0
Sulfated Ash, % wt.	D874	1.20	1.20
Total Base Number (TBN)	D2896	13	13
Zinc, ppm	D4951	<10	<10
EMD Oxidation-Corrosion Test:			
Demerits at 141°C (285°F)		2.3	2.3
Demerits at 163°C (325°F)		17.8	17.8
Silver Corrosion, mg loss @ 141°C (285°F)		1.7	1.7
Silver Corrosion, mg loss @ 163°C (325°F)		.2	.2
EMD 2-567 Silver Lubricity Test:			
Demerits (average)		16	16
GE Oxidation Test:			
% Viscosity increase @ 38°C (100°F)		5.0	5.0
GE Bronze Friction and Wear Test			
		Pass	Pass
Caterpillar 1G2, 480 hours:			
% Top Groove Fill		10	10
Weighted Total Deposits		300	300

Meets or exceeds the following tests and requirements:

- API Service Classification - CD, CF
- Military Specification - MIL-L-2104C

NOTE: Contains non-chlorinated additive package

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