



# Corvus 13 Railroad Engine Oil

Dyna-Plex 21C® Dyna-Plex 21C® 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/dispersant characteristics for a long filter life and engine cleanliness.

Dyna-Plex 21C Corvus 13 Railroad Engine Oil is a Generation IV and Generation V electromotive 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 20W-40</u> |
|---|-------------------------|---------------|-------------------|
| Viscosity @ 40°C, cSt                     | D-445                   | 160.70        | 143.00            |
| Viscosity @ 100°C, cSt                    | D-445                   | 15.50         | 15.50             |
| Viscosity Index                           | D-2270                  | 100           | 110               |
| Flash Point, COC, °C (°F)                 | D-92                    | 252 (485)     | 250 (482)         |
| Pour Point, °C (°F)                       | D-97                    | -12 (10)      | -18 (0)           |
| Color                                     | D-1500                  | 3.5           | 3.5               |
| Gravity, °API                             | D-287                   | 27.4          | 28.0              |
| Sulfated Ash, % wt.                       | D-874                   | 1.20          | 1.20              |
| Total Base Number (TBN)                   | D-2896                  | 13            | 13                |
| Zinc, ppm                                 | D-4951                  | <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) |                         | 0.2           | 0.2               |
| 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