



Railroad Industry Products

The webinar will begin in less than 10 minutes.

David Turner, CLS, OMA-I, CLGS



Railroad Industry Products

The webinar will begin in less than 5 minutes.

David Turner, CLS, OMA-I, CLGS



Railroad Industry Products

David Turner, CLS, OMA-I, CLGS

David Turner, CLS, OMA-I, CLGS

- CITGO Sr. Technical Services Representative
- BS, Chemical Engineering
- 40 Years Experience in Lubricants
- STLE Certified
 - Certified Lubrication Specialist
 - Oil Monitoring Analyst I
- NLGI Certified
 - Certified Lubricating Grease Specialist
- Active in STLE, NLGI, and ASTM





Agenda

- The North American Railroad Industry
 - Major Railroad Equipment
 - Market Trends
 - CITGO Products for the Railroad Industry
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The North American Railroad Industry

- Major North American Freight Railroads (Class I)
 - Canadian National (CN)
 - Canadian Pacific (CP)
 - Burlington Northern Santa Fe (BNSF)
 - Union Pacific (UP)
 - CSX Transportation (CSX)
 - Norfolk Southern (NS)
 - Kansas City Southern (KCS)
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The North American Railroad Industry

- Other North American Railroads
 - Class II (Regional railroads)
 - Class III (Shortline railroads)
 - There are approximately 700 Class II and III railroads.
 - Class II and III railroads have limited track, typically ranging from a few miles to less than 1500 miles. Most Class II railroads have a few hundred miles of track.
 - Many Class II railroads provide regional connector service between Class I railroads
 - Most Class III railroads serve specific industrial sites or places such as ports.
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Major Railroad Equipment

- Locomotives
- Rail Cars
- Track
- Switches



Locomotives

- Major locomotive manufacturers
 - Progress Rail (Electro-Motive Diesel)
 - GE Transportation



Railcars

- Box Car
- Tank Car



- Flat Car



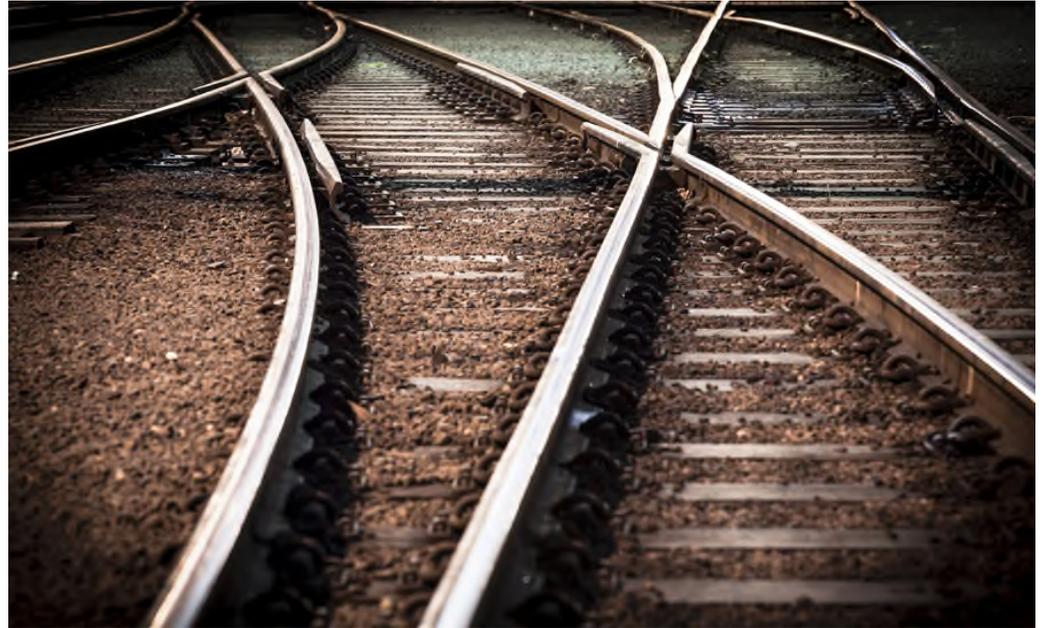
- Gondola Car



- Hopper Car



Track and Switches



Market Trends





CITGO Products for the Railroad Industry

- Railroad Diesel Engine Oils
 - Railroad Car Journal Oil No. 9
 - Jet Lubricant TM
 - Railroad Curve Greases
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Railroad Diesel Engine Oils

Product	RD-969	RD-1069	RD-2069 LE
SAE Grade	SAE 40	SAE 20W-40	SAE 20W-40
Viscosity Index	102	116	110
Sulfated Ash, %	1.0	1.0	1.15
Total Base Number	9.0	9.0	11.0
LMOA Generation	6	6	7
EPA Tier	4	4	4

Zinc and Chlorine free

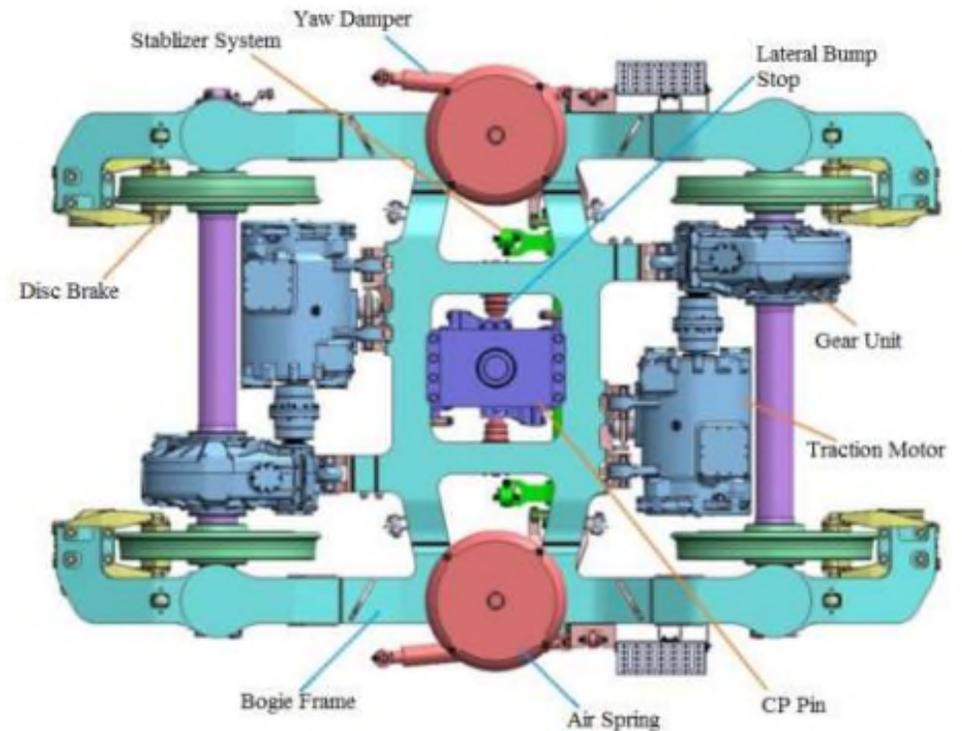


Railroad Car Journal Oil

- **Railroad Car Journal Oil No. 9**
 - Conforms to the requirements of AAR Specification M-936-84 for “All-Year Journal Box Lubricating Oil”
 - Lubrication of locomotive and railroad car journal bearings
 - Low pour point
 - High viscosity index
 - Rust and corrosion prevention
-

Traction Motor Gear Lubricant

- **Jet Lubricant TM**
- Sodium Soap
- High viscosity base oil
- 6500 – 8000 cP @ 200°F



Train set bogie with traction motor and gearbox assembly



Rail Curve Greases

Railroad Curve Greases

Product	Summer	Winter
NLGI Grade	1	0
Thickener	Anhydrous Calcium	
Base Oil Viscosity	20 cSt @ 40°C	
Solid Additive	Graphite, 12%	
Color	Gray	



Questions

- Please post your questions using the Q&A function.
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How to Contact Us

- **Lubes Answer Line**
 - 800-248-4684
 - 8:00 AM - 12:00 PM, 1:00 PM – 5:00 PM CT
 - Monday through Thursday
 - 8:00 AM - 12:00 PM, 1:00 PM – 4:30 PM CT
 - Friday
 - lubeshelp@citgo.com
 - Available 24/7
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Future Webinars

2022 Webinars will be announced in January
