



*AFFILIATED AGENCIES*

*Orange County  
Transit District*

*Local Transportation  
Authority*

*Service Authority for  
Freeway Emergencies*

*Consolidated Transportation  
Service Agency*

*Congestion Management  
Agency*

February 3, 2022

NOTICE TO BIDDERS

**SUBJECT: INVITATION FOR BIDS (IFB) 1-3937  
ENGINE OIL**

This letter shall serve as **ADDENDUM NO. 1** to the subject IFB issued by the Orange County Transportation Authority (Authority).

**Question 1:**

Who is the current vendor/supplier of the OCTA 15w40 contract?

**Response 1:**

Valvoline LLC

**Question 2:**

What is the current brand and description of engine oil on the contract?

**Response 2:**

Valvoline Premium Blue 9200 One Solution 15w40

**Question 3:**

What is your current pricing per gallon?

**Response 3:**

\$7.68 per gallon

**Question 4:**

Average quantity of gallons delivered per order to each location?

**Response 4:**

Between 3,000 and 5,000 at each location.

**Question 5:**

Total gallons purchased (so far) on previous annual contract?

**Response 5:**

Estimated 13,000 gallons.

**Question 6:**

Please see attached specification sheet that meets your Cummins requirements. DURON GEO Long Drain (LD)

**Response 6:**

DURON GEO Long Drain (LD) is on the Cummins registered list of CES20092 approved oils. Please see Attachment No. 4.

**Question 7:**

What are the specific names of your current products?

**Response 7:**

Valvoline Premium Blue 9200 One Solution 15w40

**Question 8:**

Please advise if these brands will be acceptable? I have listed three brands. And please confirm if they will be acceptable as equals to Engine Oil Low Ash for Cummins ISL-G, L9N Natural Gas Engines.

**Response 8:**

All products submitted for bid must meet specifications as stated in the scope of work. Please see Attachment No. 4.

Delo® 400 SNG and Shell Rotella® T4 NG Plus are on the Cummins registered list of CES 20092 approved oils.

Tomlin Scientific Superb Heavy Duty Diesel engine oil is not on the Cummins registered list of CES 20092 approved oils.

**Question 9:**

Can you please state who is the incumbent?

**Response 9:**

Valvoline LLC

**Question 10:**

Can you please supply current invoices for the current product used?

**Response 10:**

Please see Attachment No. 1.

**Question 11:**

What is a typical delivery amount of gallons?

**Response 11:**

Estimate 3,000 gallons.

**Question 12:**

What is the average gallon amount per each delivery?

**Response 12:**

Estimate 3,000 gallons per base. The average gallon amount is 3,000 – 5,000 for both bases.

**Question 13:**

What size tank is currently utilized for your Engine oil now?

**Response 13:**

10,000 gallons inground.

**Question 14:**

Is the tank above ground? Or underground?

**Response 14:**

Underground.

**Question 15:**

Can you please supply the awarded bid tabulation? For the current contract?

**Response 15:**

Please see Attachment No. 2.

**Question 16:**

Will all applicable taxes be required on the pricing sheet? Including sales tax?

**Response 16:**

No need to include taxes in the price per gallon as California taxes will be the same for all bidders.

**Question 17:**

Can you please confirm. If we need to have all applicable taxes included on price summary sheet?

**Response 17:**

Refer to price summary sheet in Exhibit B.

**Question 18:**

What is your current sales tax rate on engine oil?

**Response 18:**

Current sales tax rate in Santa Ana is 9.25% and 8.75% in Garden Grove.

**Question 19:**

What is the average amount of gallons delivered to each site location? On annual basis?

**Response 19:**

Between 3,000 and 5,000 gallons at each location per delivery. Annual estimate of 25,000 gallons.

**Question 20:**

Will OCTA accept ACH as form of payment? Instead of check. Please advise.

**Response 20:**

Yes, please see ACH memo in Attachment No. 3.

**Question 21:**

Will OCTA accept monthly price adjustments? Due to the current circumstances, COVID-19. Suppliers will not fix price for a year out. Please advise.

**Response 21:**

No, the IFB requests a firm-fixed price for a one-year term.

Bidder must acknowledge receipt of this Addendum No. 1 on Bid Form. Bidders are reminded that bids are due at or before **11:00 a.m., February 8, 2022.**

Sincerely,

*Rhea Aninzo*

Rhea Aninzo  
Buyer



# INVOICE

Valvoline LLC  
100 Valvoline Way  
Lexington KY 40509  
USA

Remittance instructions below

<b>Invoice Number</b> 133214528	<b>Invoice Date</b> 28 Jul 2021	<b>Due Date</b> 27 Aug 2021
<b>P.O.Number</b> C01999	<b>Payment Terms</b> Net 30 Days	<b>Payer Number</b> 702128
<b>Shipped From</b> SANTA FE SPRINGS JOHN ST BLK	<b>Sales Order Num</b> 9298087	<b>Bill-To Number</b> 702128
<b>Bill of Lading Number</b> 3001211587	<b>Incoterms</b> : DAP Dest Prepaid	<b>Ship-To Number</b> 702145

**Billing address**  
ORANGE COUNTY TRANSIT AUTHORITY  
550 MAIN ST  
ORANGE CA 92863

**Shipping address**  
ORANGE COUNTY TRANSIT AUTHORITY  
GARDEN GROVE BASE  
11790 CARDINAL CIRCLE  
GARDEN GROVE CA 92843

Qty.	UoM	Material Number	Material Description	Batch Number	Billing Qty	UoM	Unit Price	Amount USD
4,964.000	GAL	891001	VAL PB ONE SOLUTION GEN2 15W40 BULK California Recyc Fee California Motor Oil  District Tax State Tax County Tax	0002134767	4,964.000	GAL	7.6800 0.2400 /GAL 0.0500 /GAL	38,123.52 1,191.36 248.20
			1.5000 % 6.0000 % 1.2500 %				593.45 2,373.78 494.54	
			<i>Carlos Ortiz</i> 09/07/21 Ok to Pay Account Number 2162-D2108-F30-7713					

California Recyc Fee 1,191.36  
California Motor Oil 248.20

Should you have any questions regarding this invoice, please contact  
TERESA O'KEEFE  
at 855-870-0468

**Invoice Total :**  
**USD 43,024.85**

**Remit to**  
P.O. Box 74008513  
Chicago IL 60674-8513

**ACH Credit**  
Valvoline LLC  
Account Number:359681572046  
KeyBank NA  
Bank-ID: 041001039

**Wire transfer**  
Valvoline LLC  
Account Number:31021912  
Citibank NA  
Bank-ID: 021000089

Please refer to the invoice number on the remittance.  
Please return remittance advice with your payment.

**Comments:**

Federal ID number 61-1782197 D-U-N-S number 08-029-8733  
The terms and conditions of this sale are set forth at <http://www.Valvoline.com/salesterms>.





# INVOICE

ORIGINAL  
Page 1(1)

Valvoline LLC  
100 Valvoline Way  
Lexington KY 40509  
USA

Remittance instructions below

<b>Invoice Number</b> 133303526	<b>Invoice Date</b> 07 Oct 2021	<b>Due Date</b> 06 Nov 2021
<b>P.O.Number</b> CO1999	<b>Payment Terms</b> Net 30 Days	<b>Payer Number</b> 702128
<b>Shipped From</b> SANTA FE SPRINGS JOHN ST BLK	<b>Sales Order Num</b> 9372677	<b>Bill-To Number</b> 702128
<b>Bill of Lading Number</b> 3001280810	<b>Incoterms</b> : DAP Dest Prepaid	<b>Ship-To Number</b> 702146

**Billing address**  
ORANGE COUNTY TRANSIT AUTHORITY  
550 MAIN ST  
ORANGE CA 92863

**Shipping address**  
ORANGE COUNTY TRANSIT AUTHORITY  
SANTA ANA BASE  
4301 WEST MACARTHUR BLVD  
SANTA ANA CA 92704

Qty.	UoM	Material Number	Material Description	Batch Number	Billing Qty	UoM	Unit Price	Amount USD
4,959.000	GAL	891001	VAL PB ONE SOLUTION GEN2 15W40 BULK California Recyc Fee California Motor Oil  District Tax State Tax County Tax	0002139160	4,959.000	GAL	7.6500 0.2400 /GAL 0.0500 /GAL  2.0000 % 6.0000 % 1.2500 %	37,936.35 1,190.16 247.95  787.49 2,362.47 492.18

Approved to pay Contract C01999 account 2168-D2108-F30-7713

						<b>California Recyc Fee</b>	<b>1,190.16</b>
						<b>California Motor Oil</b>	<b>247.95</b>
Should you have any questions regarding this invoice, please contact  TERESA O'KEEFE at 855-870-0468						<b>Invoice Total :</b> <b>USD</b>	<b>43,016.60</b>

<b>Remit to</b> P.O. Box 74008513 Chicago IL 60674-8513	<b>ACH Credit</b> Valvoline LLC Account Number:359681572046 KeyBank NA Bank-ID: 041001039	<b>Wire transfer</b> Valvoline LLC Account Number:31021912 Citibank NA Bank-ID: 021000089
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Please refer to the invoice number on the remittance.  
Please return remittance advice with your payment.

**Comments:**

Federal ID number 61-1782197 D-U-N-S number 08-029-8733  
The terms and conditions of this sale are set forth at <http://www.Valvoline.com/salesterms>.



Print date

08 Oct 2021

## PRICE ANALYSIS

## ENGINE OIL

				INITIAL YEAR 04/01/20 - 03/31/21	OPTION YEAR 04/01/21 - 03/31/22			
SAE 15w40 Engine Oil Cummins CES 20092								
	ESTIMATED ANNUAL USAGE	UNIT OF MEASURE	MANUFACTURER	UNIT PRICE	EXTENDED PRICE	UNIT PRICE	EXTENDED PRICE	LUM SUM TOTAL
Valvoline LLC	25,000	Gallon	Valvoline Premium Blue 9200 One Solution 15w40	\$7.68	\$192,000.00	\$7.68	\$192,000.00	\$384,000.00
Southern Counties Lubricants, LLC	25,000	Gallon	Phillips 66	\$7.42	\$185,500.00	\$8.00	\$200,000.00	\$385,500.00
Van De Pol Petroleum	25,000	Gallon	Purus TFO 15w40	\$7.83	\$195,750.00	\$8.43	\$210,750.00	\$406,500.00
The Jankovich Company	25,000	Gallon	Mobil Delac Modern CNG 15w40	\$8.01	\$200,250.00	\$8.53	\$213,250.00	\$413,500.00
AAA Oil, Inc.	25,000	Gallon	Citgo Citgard CNG/LNG Engine Oil 15w40	\$8.50	\$212,500.00	\$8.85	\$221,250.00	\$433,750.00
A.P. Fischer Inc.	25,000	Gallon	Valvoline	\$10.70	\$267,500.00	\$10.70	\$267,500.00	\$535,000.00
Patten Energy Enterprises, Inc.	25,000	Gallon	Total Lubricants	\$9.50	\$237,500.00	\$9.75	\$243,750.00	\$481,250.00
Keyion Group, Inc.	25,000	Gallon	Pro One Inc	\$11.34	\$283,500.00	\$11.98	\$299,500.00	\$583,000.00
SC Commercial, LLC dba SC Fuels	25,000	Gallon	Valvoline	\$12.04	\$301,000.00	\$12.28	\$307,000.00	\$608,000.00
Orange Line Oil Company	25,000	Gallon	Total Rubia 9M 15w40 CK- F-CNG, LNG, heavy-duty engines.	\$11.89	\$297,250.00	\$13.04	\$326,000.00	\$623,250.00





## ACH NOW AVAILABLE

Dear Sir or Madam,

Orange County Transportation Authority (OCTA) would like to invite you to participate in our ACH Payment program. In lieu of receiving a check for goods and/or services provided to OCTA, your company's payment would be sent via electronic transfer and automatically credited to your account at your financial institution.

To enroll, vendors must complete the online "**OCTA ACH Vendor Payment Authorization Agreement**" form located on <https://cammnet.octa.net/events-calendar/>

The username and password to access the form will be

Username: [achvendor@outlook.com](mailto:achvendor@outlook.com)

Password: OCTA\_VendorACH600

Benefits of ACH payments:

- Fast
- Safe and secure
- Convenient
- Paperless

Once you are signed up and verified, an electronic remittance advice will be emailed to your company and your bank account will be credited for approved invoice payments. The remittance advice would include statement-type information such as invoice number, invoice date and amount paid.

If you do not wish to be part of the ACH Payment program, you may discard this notice. OCTA will continue to mail checks for payment.

If you have any questions. Please contact your OCTA Accounts Payable staff representative or call 877-272-7224 –(877-27-AP ACH).

Thank you,

Orange County Transportation Authority

Accounting & Financial Reporting



# DELO<sup>®</sup> 400 SNG

## SAE 15W-40



### PRODUCT DESCRIPTION

"Delo. Let's go further.<sup>®</sup>"

Delo<sup>®</sup> 400 SNG SAE 15W-40 with ISOSYN<sup>®</sup> Technology is a premium CNG/LNG oil formulated to deliver outstanding protection and long drain performance in a wide variety of compressed natural gas (CNG), liquefied natural gas (LNG) and liquefied petroleum gas (LPG) fueled, spark-ignition mobile engine applications. It has demonstrated excellent field performance in natural gas engines, and has the capability to help customers minimize operating costs in CNG/LNG engines of municipal bus service, linehaul and delivery truck service, waste truck operations and off-road equipment.

### CUSTOMER BENEFITS

Key benefits of Delo 400 SNG SAE 15W-40 include:

- **Alternative Fuel Performance** — Delivers great performance for medium and heavy duty vehicles using CNG, LNG or LPG.
- **Excellent Engine Cleanliness** — Excellent ratings for sludge control; and valve, or piston deposits in field trials and engine tests.
- **Superb oil oxidation/nitration control for long oil service intervals.**
- **Low Wear Performance** — Offers excellent liner and piston ring protection in alternative fuel engines.
- **Extended Oil Drain Performance** — Delivers long drain performance protection despite high stress of CNG combustion.

- **Warranty Plus Protection** — warranty protection provided for CNG/LNG engines using Delo 400 SNG.<sup>1</sup>
- **Access to Chevron's Lubrication and Industry Knowledge** — Helps maximize your bottom line business results.

### FEATURES

Delo 400 SNG is formulated with Chevron's ISOSYN Technology, which incorporates premium base oils, shear stable viscosity modifier and a low ash additive package specially formulated for long-service ignited, CNG/LNG engines in stressful, high temperature conditions.

In heavy duty natural gas vehicles, Delo 400 SNG:

- Promotes engine reliability and durability through exceptional wear protection
- Minimizes valve recession and deposits
- Helps minimize oil consumption

### APPLICATIONS

Delo 400 SNG SAE 15W-40 can be used in various applications as follows:

- LNG/CNG Linehaul truck service
- LNG/CNG Delivery truck service
- LNG/CNG Waste truck service
- LNG/CNG Cement truck service
- LNG/CNG Oil Field truck servicing
- CNG Municipal Bus Service
- Light Duty CNG pick-up trucks

<sup>1</sup> See Warranty Plus for details and limitations.

Product(s) manufactured in the USA and Colombia.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

15 May 2020  
HDMO-36

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**Delo® 400 SNG** — Continued

The types of CNG/LNG engine models that Delo® 400 SNG is recommended for include:

- Cummins ISL G (8.9L)
- Cummins ISX12 G
- Cummins ISX12 N
- Cummins L9 N
- Detroit Diesel Series 50G
- Detroit Diesel Series 60G

**APPROVALS**

Delo 400 SNG is recommended for engines in medium and heavy duty vehicles fueled by CNG, LNG or LPG.

Delo 400 SNG is approved against **Cummins** Engineering Standard CES 20092 and meets all of the requirements of **Cummins** Engineering Standard CES 20085.

It is suitable for use under:

- **Detroit Diesel** 93K216
- **Hino** CNG
- **Hyundai** CNG
- **Isuzu** CNG
- **Mack** CNG
- **Renault** RGD
- **Volvo** CNG

**TYPICAL TEST DATA**

<b>SAE Grade</b>	<b>15W-40</b>
<i>Product Number</i>	235116
<i>SDS Number</i>	
<i>U.S.</i>	50030
<i>Canada</i>	50031
<i>Mexico</i>	50032
<i>Colombia</i>	50033
Density at 15°C, kg/L	0.87
Viscosity, Kinematic	
cSt at 40°C	115
cSt at 100°C	15.4
Viscosity Index	141
Viscosity, Cold Crank °C/Poise	-20/54
Flash Point, °C(°F)	238(460)
Pour Point, °C(°F)	-36(-33)
Sulfated Ash, wt %	0.89
Acid Number, ASTM D664, mgKOH/g	2.1
Base Number, ASTM D2896, mgKOH/g	7.0
Base Number, ASTM D4739, mgKOH/g	6.5
Phosphorus, ppm	770
Zinc, ppm	840

Minor variations in product typical test data are to be expected in normal manufacturing.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

# Tech Data



## DURON™ GEO LD NATURAL GAS MOBILE ENGINE OILS

### Introduction

DURON GEO Long Drain (LD) 15W-40 and 10W-30 natural gas mobile engine oils deliver superior engine protection and extended drain\* capabilities for Compressed Natural Gas/Liquefied Natural Gas (CNG/LNG) engines in mobile applications as well as mixed fleets. They are API CK-4 licensed and Cummins CES 20092 and CES 20086 approved.

Specifically designed for extended drain intervals while protecting critical engine parts, DURON GEO LD can help minimize downtime and service costs by keeping units on the road longer. In addition to extended oil drains, DURON GEO LD's proven technology helps mixed fleets with natural gas, diesel and gasoline engines start with ease in cold weather, while retaining protection under high temperature operating conditions. With DURON GEO LD's best-in-class all-weather protection, engines perform the way they were meant to while critical engine parts remain lubricated and protected.

Made with base oils that are 99.9% pure and blended with proven premium additives, DURON GEO LD outperforms demanding OEM specifications such as Cummins CES 20092.

### Features and Benefits

- **Extended Drains\***
  - Extending oil drains can help minimize downtime, maintenance costs and waste to the environment
- **Less Oil Consumption**
  - Low volatility base oils decrease vapourization so less oil is lost, efficiency is improved, and the oil retains more of its fresh oil properties
  - Reduces oil top-up frequency
- **Mixed Fleet Solution**
  - For use in CNG/LNG, diesel and gasoline engines
  - Allows for product consolidation
  - Reduces potential for product misapplication

- **Advanced Engine Protection**
  - Ultra pure, consistent quality base oils in combination with specialty performance additives help to minimize engine sludge and deposits, thereby maintaining excellent engine condition
  - Protection and performance that exceed the expectations of the leading OEMs
  - Optimized oil ash content to suit engine operating conditions
- **Better Low Temperature Pumpability**
  - Exceptional cold start protection
  - Excellent low temperature pumpability to protect equipment
- **Better Shear Stability**
  - High Viscosity Index (VI) base oils and shear stable viscosity modifier help maintain proper oil viscosity for reduced engine wear and improved engine protection over the life of the oil
- **Better Component Protection from Corrosion**
  - Extended component life through corrosion protection in presence of contaminants and acidic degradation products
- **Better Resistance to Oxidative Thickening**
  - Helps maintain peak fuel economy
  - Enables extended drain intervals
  - Ensures continued low temperature protection

### Applications

DURON GEO LD is recommended for use in natural gas, diesel and gasoline engines that require excellent wear control. It is recommended for use where oils meeting **Cummins CES 20092** is specified, and is fully backserviceable to **CES 20085 specification**. For engines requiring Cummins CES 20074 approvals (lean burn engines), use SENTRON VTP 10W-40.

DURON GEO LD engine oils are also suitable for use in diesel powered engines, including heavy duty and light duty trucks as well as passenger cars where API CK-4/SN, CJ-4, CI-4 Plus, CI-4, CH-4 or earlier specifications are required. Consult the owner's manual.

### What is the HT difference?












Petro-Canada Lubricants starts with the HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



\*Extending drain intervals should always be undertaken in conjunction with an oil analysis program. Refer to owner's manual or operations and maintenance manual for complete information.

## Approvals and Recommendations

★ Approved   ● Suitable For Use   ✓ Meets Specifications

PRODUCTS	DURON GEO LD 15W-40	DURON GEO LD 10W-30	PRODUCTS	DURON GEO LD 15W-40	DURON GEO LD 10W-30
	✓ E9	✓ E9		★ EOS-4.5	★ EOS-4.5
	★ CK-4/SN	★ CK-4/SN		✓ 228.31	
	✓ ECF-3	✓ ECF-3		✓ Type 2.1	
	★ CES 20092, CES 20086	★ CES 20092, CES 20086		★ RLD-4	★ RLD-4
	★ DFS 93K222	★ DFS 93K222		★ VDS-4.5	★ VDS-4.5
	● DH-2	● DH-2			

## Typical Performance Data

PROPERTY	ASTM TEST METHOD	DURON GEO LD 15W-40	DURON GEO LD 10W-30
Kinematic Viscosity, cSt @ 40 °C cSt @ 100 °C	D445	117 15.1	85.4 12.4
Viscosity Index	D2270	134	141
Pour Point, °C / °F	D5950	-39 / -38	-45 / -49
High Temperature High Shear, Viscosity, cP @ 150 °C	D4683	4.1	3.6
Flash Point, COC, °C / °F	D92	225 / 437	221 / 430
Cold Cranking Viscosity, cP @ -20 °C/ -4 °F cP @ -25 °C/ -13 °F	D5293	6,480 -	- 6,610
Borderline Pumping Viscosity, cP @ -25 °C/ -13 °F cP @ -30 °C/ -22 °F	D4684	19,280 -	- 18,390
Base Number (BN), mg KOH/g	D2896	10	10
Sulphated ash, % wt	D874	0.9	0.9
Zinc, mass %	D4951	0.087	0.087

The values quoted above are typical of normal production. They do not constitute a specification.

To order product or to learn more about how Petro-Canada Lubricants can help your business visit: [lubricants.petro-canada.com](http://lubricants.petro-canada.com) or contact us at: [lubecsr@petrocanadalsp.com](mailto:lubecsr@petrocanadalsp.com)



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Beyond today's standards.™

LUBRICANTS



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**My Engines**

**Engine Content**

Content For Engine Serial Number (ESN):

How do I locate my ESN?  
VIN To ESN Reference  
TSB Smart Filter

**Generator Set / Alternator Content**

Content for Serial Number (SN):

**OR**

Current Plant: None  
Current Model: None  
Current Spec: None

Search by Plant, Model, or Spec

Literature Search  
PGBU Smart Filter  
PGBU Warranty System

**Information**

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**My Applications**

## Oil Registration List

### Cummins Engineering Standards - 20092

Endorsed and Recommended by Cummins - Valvoline™ Premium Blue™



Click here to view the Valvoline™ product name cross reference chart.

Company Name	Product Name	Vis Grade
Valvoline	Premium Blue 9200 - One Solution 10W-30	10W-30
Valvoline	Premium Blue 9200 - One Solution 15W-40	15W-40

### Alternatives

Company Name	Product Name	Vis Grade
Petro-Canada Lubricants Inc	Duron GEO LD 10W-30	10W-30
Petro-Canada Lubricants Inc	Duron GEO LD 15W-40	15W-40
TongYi Petroleum Chemical Co.	TongYi Long Range Gas Engine Oil LPG/CNG	10W-30
TongYi Petroleum Chemical Co.	TongYi Long Range Gas Engine Oil LPG/CNG	15W-40

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 Need Assistance? Please click on the Contact Us button in the top right corner of any page.

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## Technical Data Sheet

# Shell Rotella® T4 NG Plus 15W-40

- Versatile CNG/LNG Engine Oil

## CNG/LNG, Heavy Duty Diesel and Passenger Car Engine Oil

Shell Rotella® T4 NG Plus oil is specially formulated to provide hard working protection under the full range of pressures & temperatures in natural gas engines. Suitable for mobile vehicles operating with 100% LNG/CNG fuel, approved for use in Cummins LNG/CNG engines.



### Performance, Features & Benefits

- **Advanced piston and engine cleanliness**  
Optimized balance of detergent and dispersancy provides good piston and engine cleanliness ensuring long and efficient engine operation.
- **Ignition system protection**  
Optimized formulation containing additives to control deposit formation in the combustion chamber to help prolong the life of valves and spark plugs.
- **Emissions system compatibility**  
The low ash formulation helps protect the exhaust catalysts and particulate filters found on the latest low emission vehicles.
- **Suitable for Natural gas, Diesel and Gasoline engines**  
Customer with mixed fleets can benefit from a one oil solution, thus minimizing maintenance complexity.

### Main Applications



- **Mobile LNG / CNG fuelled heavy duty vehicles**  
For buses and trucks fitted with engines designed to run on 100% LNG / CNG.
- **Diesel and gasoline engines**  
Suitable for use in heavy duty diesel and gasoline engines requiring API CK-4/SN performances.

### Specifications, Approvals & Recommendations

- API CK-4
- API SN
- Caterpillar ECF-3, ECF-2
- Cummins CES 20092, 20086
- Detroit Fluids Specification 93K222
- Mack EO-S-4.5
- Volvo VDS-4.5

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

## Typical Physical Characteristics

Properties			Method	Shell Rotella® T4 NG Plus 15W-40
Kinematic Viscosity	@100°C	cSt	ASTM D445	15.0
Kinematic Viscosity	@40°C	cSt	ASTM D445	113.0
Viscosity Index			ASTM D2270	133
Density	@15°C	kg/l	ASTM D4052	0.878
Sulfated Ash		%	ASTM D874	0.9
Total Base Number		mg KOH/g	ASTM D2896	8
Phosphorus, Max % wt			ASTM D4952	0.080
Flash Point (COC)		°C	ASTM D92	234
Pour Point		°C	ASTM D97	-33

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

## Health, Safety & Environment

### • Health and Safety

Shell Rotella® T4 NG Plus 15W-40 is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from your Shell representative.

### • Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

## Additional Information

### • Advice

Advice on applications not covered here may be obtained from your Shell Representative.





# TOMLIN SCIENTIFIC

## SUPERB Heavy-Duty Diesel Engine Oil

### Description:

- SUPERB Heavy-Duty SAE 30, SAE 40, SAE 50, LE10W30, LE15W40

### Typical Applications:

- SUPERB Heavy-Duty Engine Oils are high-performance synthetic-blend products formulated for a wide range of high output engines.
- Acceptable for use in passenger cars, trucks and heavy equipment where the manufacturer recommends an API CK-4, CJ-4, CI-4 performance rating.
- Manufactured using high quality, high viscosity index base stocks and a premium additive package that ensures valve train-wear protection.
- The superior thermal and oxidative stability prevent corrosion and oxidation.
- Specifically formulated prevent the formation and accumulation of sludge deposits that allows for extended drain intervals.

### SUPERB Heavy-Duty Diesel Engine Oils meet the following specifications:

- API CK4, CJ4, CI4, CH4, CG4, CF4, CF, SM, SL, SJ
- MACK EOM, EO-L, EOL+, EO-N PP-07
- Cummins CES 20072,20076,20071,20077,20081
- Volvo VDS/VDS-2, VDS-4
- Man 271, 3275
- Detroit Diesel 75E270 Power Guard 93K218
- Allison C4
- ACEA E3, B3, A3, E7
- Mercedes Benz 228.1, 228.3
- MTU Types 1 and 2
- Navistar TSE-97-12-03
- Caterpillar TO-2, ECF-3

### Typical Specifications:

Viscosity Grade	ASTM	SAE 30	SAE 40	SAE 50	LE 10W-30	LE 15W-40
Viscosity,	D-445					
@ 40°C, cSt		95.0	131.0	222.0	63.0	116.0
@ 100°C, cSt		11.4	14.0	19.8	10.4	15.0
Viscosity Index	D-2270	108	104	103	154	135
Flash Point (PMCC) °C	D-92	>170	>170	>170	>170	>170
TBN	D-2896	8.5	8.5	8.5	8.5	8.5
Sulfated Ash, wt.%	D-874	1.34	1.34	1.34	0.8	0.8

The product information and specifications contained herein have been compiled for the convenience of the user. Tomlin Scientific is not responsible for misuse or misapplication of its products. Always confirm that the product selected is consistent with the original manufacturer's recommendation.



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