

Fuel type	Product	Benefits	ISO viscosity grades	Technology	Specifications and approvals <small>(Full details of approvals for all products can be obtained from your Shell representative. Approvals and claims will vary by viscosity grade.)</small>
Natural gas or mild sour gas	Shell <b>Mysella XL</b>	<ul style="list-style-type: none"> <li>Extended oil life</li> <li>Extra protection against deposits and corrosion</li> </ul>	40, 30, 15W-40	Mineral oil	Meets requirements of Caterpillar Approved by Cummins (as "premium grade – long change interval"); MWM; GE Jenbacher 2, 3 and 6 series; MAN high-speed engines; MDE Dezentrale Energiesysteme; Perkins Engines; Rolls-Royce Bergen K-G1, K-G2, K-G3, K-G4 and B; Wärtsilä; and Dresser Waukesha (special approval for cogeneration)
Natural gas or mild sour gas	Shell <b>Mysella LA</b>	<ul style="list-style-type: none"> <li>Reliable protection</li> <li>Low ash content for four-stroke engines</li> </ul>	40, 30	Mineral oil	Meets requirements of Caterpillar and Dresser Waukesha Approved by Cummins QSV81/91G 14 and 16 bar BMEP; MWM; Dresser-Rand; GE Jenbacher 2, 3, 4 and 6 series; MAN medium-speed engines; MDE Dezentrale Energiesysteme; MTU; Perkins Engines; Rolls-Royce Bergen K-G1, K-G2 and K-G3; Ruston; and Wärtsilä
Natural or sour gas	Shell <b>Mysella MA</b>	<ul style="list-style-type: none"> <li>Extra protection</li> <li>Medium ash content for four-stroke engines</li> </ul>	40	Mineral oil	Natural gas approvals: GE Jenbacher 2 and 3 series; MDE Dezentrale Energiesysteme; MAN high-speed engines; and Dresser Waukesha (special approval for cogeneration) Sour gas approvals: GE Jenbacher 2 and 3 series; MAN high-speed engines; Rolls-Royce Bergen; and Ruston
Heavy fuel, high sulphur	Shell <b>Argina XL</b>	<ul style="list-style-type: none"> <li>Extra protection</li> <li>BN 50</li> </ul>	40	Mineral oil	Approved by MAN medium-speed engines; and Wärtsilä
Heavy fuel, medium sulphur	Shell <b>Argina X</b>	<ul style="list-style-type: none"> <li>Extra oil life</li> <li>BN 40</li> </ul>	40, 30	Mineral oil	Meets requirements of Daihatsu; Mitsubishi Heavy Industries; and Niigata Approved by Caterpillar-MaK; MAN medium-speed engines; SEMT-Pielstick; and Wärtsilä
Heavy fuel, low sulphur or high oil consumption	Shell <b>Argina T</b>	<ul style="list-style-type: none"> <li>Reliable protection</li> <li>BN 30</li> </ul>	40, 30	Mineral oil	Meets requirements of Daihatsu; Mitsubishi Heavy Industries; and Niigata Approved by Caterpillar-MaK; MAN medium-speed engines; SEMT-Pielstick; and Wärtsilä
Gasoil or liquid biofuel	Shell <b>Gadina AL</b>	<ul style="list-style-type: none"> <li>Extra protection</li> <li>Extra long oil life</li> </ul>	40	Mineral oil	Approved by Caterpillar-MaK; and MAN medium-speed engines
Gasoil or liquid biofuel	Shell <b>Gadina</b>	<ul style="list-style-type: none"> <li>Reliable protection</li> <li>Reliable oil life</li> </ul>	40, 30	Mineral oil	Meets requirements of Daihatsu; and Mitsubishi Heavy Industries Approved by Caterpillar-MaK; MAN medium-speed engines; SEMT-Pielstick; and Wärtsilä
Distillate diesel or fatty-acid methyl ester	Shell <b>Rimula</b> grades	Complete range of products from mineral to synthetic oil grades		Mineral oil	



### COMPREHENSIVE PRODUCT AND SERVICE PROVISION

Shell Lubricants is named the number one lubricants supplier [Kline & Company, 2009] and has a 60-year history of innovation. We are constantly investing to develop better lubrication solutions, as demonstrated by

- Shell Turbo GT – a fully synthetic, top-tier industrial gas turbine oil
- Shell Diala S3 ZXI – a premium inhibited electrical insulating oil.

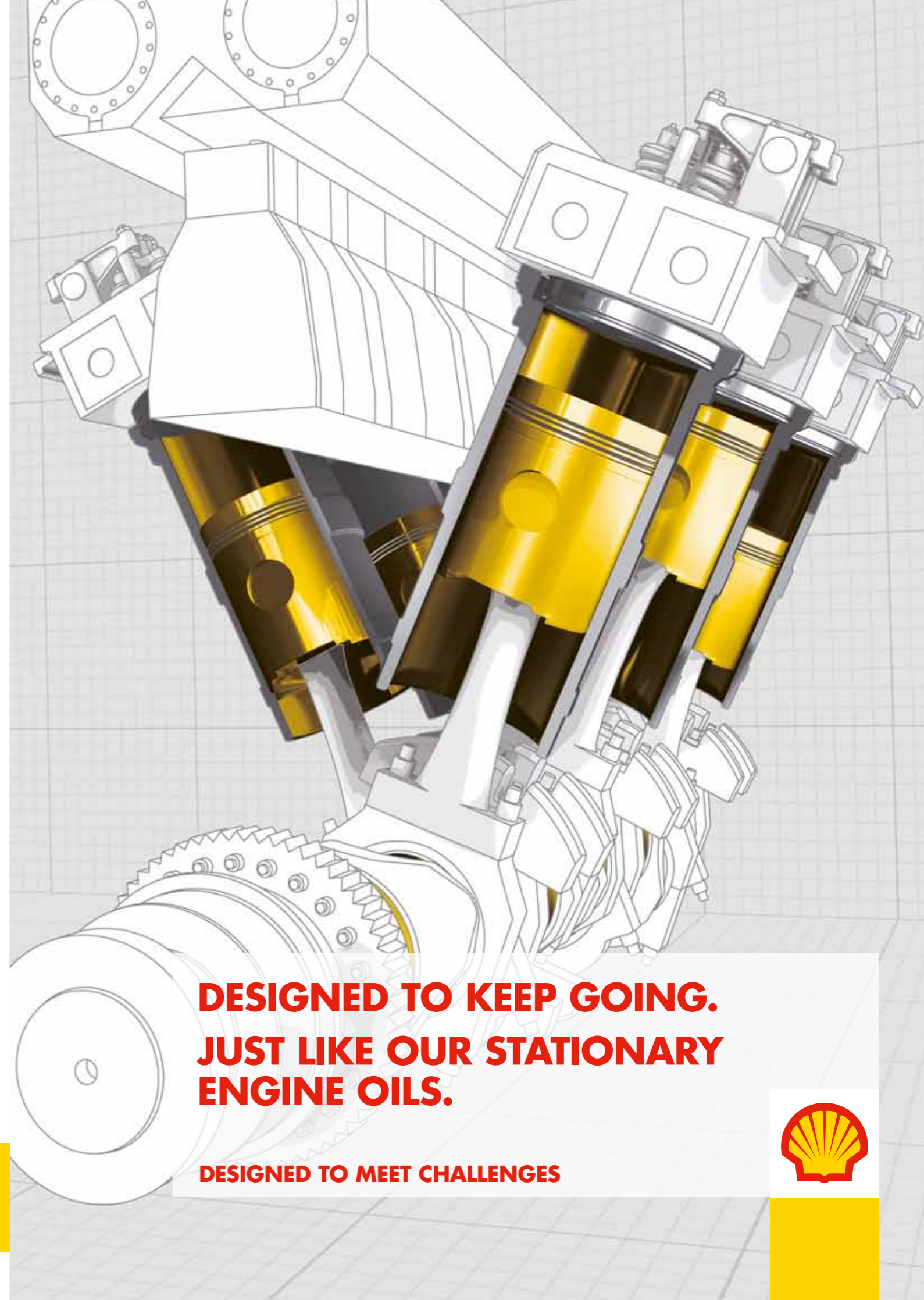
In addition, Shell provides the excellent Shell LubeAnalyst oil condition monitoring service, which is designed to help you improve your business performance.

Whatever your needs or application, Shell can provide a full range of oils and greases, including synthetic, high-performance products and additional services.

"Shell Lubricants" refers to the various Shell companies engaged in the lubricants business.

For more information, please contact

[shell.com/lubricants](http://shell.com/lubricants)



**DESIGNED TO KEEP GOING.  
JUST LIKE OUR STATIONARY  
ENGINE OILS.**

**DESIGNED TO MEET CHALLENGES**



**EVERY PART OF YOUR MACHINE OR PROCESS HAS BEEN METICULOUSLY ENGINEERED, SO YOU WANT TO BE SURE THAT YOU CHOOSE A LUBRICANT THAT HAS BEEN DESIGNED TO HELP KEEP YOUR EQUIPMENT WELL PROTECTED AND WORKING EFFICIENTLY.**

Shell offers a complete range of lubricating oils for stationary power-generation engines burning gas, heavy fuel, gas oil or liquid biofuel. These products have been designed to help make it easy for equipment operators to select the oil that will best deliver value to their operations through

- **enhanced equipment protection**
- **long oil life**
- **high system efficiency**

### EQUIPMENT PROTECTION

All Shell's power-generation engine oils are designed to minimise deposit build-up and to keep your engine clean. For instance, Shell Argina has been specifically formulated to keep piston undercrowns clean, thereby maintaining cooling performance and preventing hot corrosion. For gas engines, Shell Mysella XL has been designed to provide superior deposit control, even in engines with very high piston temperatures. This helps maintain excellent ring belt cleanliness and cylinder liner protection.

### OIL LIFE

Optimising oil life is central to Shell's development of power-generation engine oils. Shell Argina is available with a range of base numbers; correct product selection and oil condition monitoring can help to optimise an operator's cost of ownership. Shell Mysella XL has set a new standard for oil life in modern high-efficiency gas engines and has been categorised as a premium grade or long-drain-interval oil by several engine manufacturers.





### SYSTEM EFFICIENCY

Engine efficiency is enhanced through the retention of factors such as component cleanliness, consistent oil viscosity and efficient cooling – all Shell's products are designed with these in mind. Shell Gadinia AL has been shown to successfully help reduce the formation of the liner lacquer that can result in high oil consumption and, ultimately, piston seizure.

## A RANGE OF STATIONARY ENGINE OILS DESIGNED TO MEET YOUR NEEDS

To meet the challenges of a wide range of applications, Shell has designed a portfolio of oils that helps you to choose a product to best match your needs.

### APPLICATION ICON KEY

-  Power engine
-  Power station
-  Natural gas
-  Pipeline

THE SHELL ARGINA RANGE	THE SHELL GADINIA RANGE	THE SHELL MYSELLA RANGE
Heavy fuel oil: ISO 8217 DMC and RMA to RMK	Industrial or marine gas oil: ISO 8217 DMX, DMA and DMB, and liquid biofuel	Natural gas or mild sour gas
		Natural or sour gas

**INCREASINGLY EFFICIENT PROTECTION**  
**PREMIUM TIER 3**  
**MAIN LINE TIER 2**

#### Shell Argina XL

- Extra protection
- BN 50



#### Shell Gadinia AL

- Extra protection
- Extra long oil life



#### Shell Mysella XL

- Extended oil life
- Extra protection against deposits and corrosion



#### Shell Argina X

- Extra oil life
- BN 40



#### Shell Gadinia

- Reliable protection
- Reliable oil life



#### Shell Mysella LA

- Reliable protection
- Low ash content for four-stroke engines



#### Shell Mysella MA

- Extra protection
- Medium ash content for four-stroke engines



### SHELL SERVICES FOR POWER COMPANIES

Shell's offer extends beyond the oil. With services such as support with commissioning, flushing, filling and filtration as well as ongoing oil condition monitoring and top-up advice, Shell can contribute to helping you to run your operation efficiently and cost-effectively.

### REAL-WORLD VALUE DELIVERY

The Shell range of stationary engine oils has brought significant savings to operators. For instance, one power plant reports saving \$39,000<sup>1</sup> a year when it switched to Shell Argina XL after suffering heavy soot and deposit build-ups in its diesel engines.

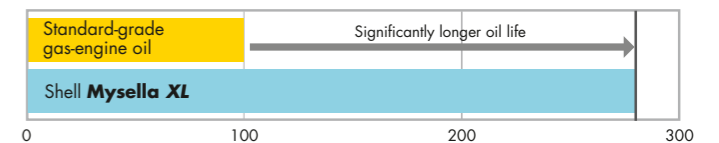
Another power plant adopted Shell Mysella XL in an effort to reduce high oil consumption, and reportedly saved \$23,400<sup>1</sup> a year through

- reduced downtime
- increased oil life
- longer oil-drain intervals.

<sup>1</sup> Savings reported by individual customers. Actual savings may vary, depending on the application, the current oil used, the maintenance procedures and the condition of the equipment.

*Shell Mysella XL – For significantly longer life*

The longer the oil life, the less fluid maintenance is required to help your equipment to operate for longer without interruption. Shell Mysella XL has set a new standard for oil life in modern, high-efficiency gas engines and has been categorised as a premium, long-drain-interval oil by several engine manufacturers. By resisting breakdown through oxidation and nitration, it has been shown to offer significantly longer oil life in high-speed gas engines compared with other gas-engine oils in the Shell range.



Higher is better  
Oil life (% of life of standard grade)

Comparison based on a trial in a Caterpillar 3400 series engine