



*Always moving forward*

# Lukoil Efforse Offer Milano, 24/01/2016

**Ruggero Carlesso**  
**LUKOIL Lubricants Europe Oy Italian branch**  
**Key Accounts Manager Industry**



# LUKOIL panoramica generale



**20**  
anni di  
storia

come maggiore  
compagnia russa  
verticalmente  
integrata

**1<sup>a</sup>**

compagnia russa con  
quotazione ufficiale  
alla Borsa di Londra

**3<sup>a</sup>**

compagnia petrolifera  
privata per riserve  
comprovate

**3<sup>a</sup>**

compagnia di petrolio  
privata per  
produzione

**7<sup>a</sup>**

compagnia  
petrolifera e del gas  
mondiale per  
grandezza

**1,0%**

delle riserve globali  
di petrolio

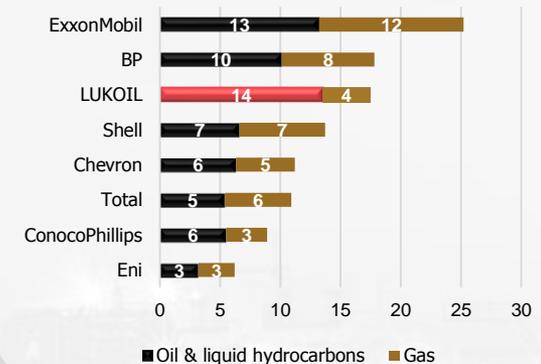
**2,1%**

della produzione  
globale di petrolio

Dati generali	2014	2013
Nome della compagnia	JSC LUKOIL	
Data di fondazione	25 novembre 1991	
Quotazione di borsa	LSE, FWB, RTS	
Sede principale	Mosca, Russia	
Fatturato annuo	139,2 miliardi di USD	133,7 miliardi di USD
Capitale sociale	33,2 miliardi di USD	52,3 miliardi di USD
Utile netto	4,75 miliardi di USD	7,83 miliardi di USD
Utile netto per azione	6,29 USD	10,38 USD
EBITDA	15,98 miliardi di USD	16,67 miliardi di USD
Numero dei dipendenti	111 500	111 000
Sito web della compagnia	<a href="http://www.lukoil.com">www.lukoil.com</a>	
Relazioni annuali	<a href="http://www.lukoil.com/new/finreports/2012">http://www.lukoil.com/new/finreports/2012</a>	

## Riserve d'idrocarburi accertate da società petrolifere e del gas internazionali (2013), bln boe <sup>1</sup>

Hydrocarbon reserves (2013), bln boe



<sup>1</sup> Il volume d'idrocarburi è calcolato come volume di petrolio greggio più volume di gas commercializzabile convertito da th. m<sup>3</sup> a boe usando il coefficiente 5.885



1. Motori a Benzina
2. Motori a Gasolio
3. Motori a GPL
4. Motori a Metano
5. Motori a Biogas
6. Motori a Olio Vegetale

**Il focus sono i motori a gasolio, metano e biogas:**

- ▶ **Lukoil Avantgarde per i motori a gasolio**
- ▶ **Lukoil Efforse per i motori a gas.**

## Quali clienti?



1. **Società industriali** (alimentari, chimica, carta, discarica...)
2. **Aziende Agricole** (culture ed allevamenti)
3. **Enti Pubblici**, solitamente gli impianti sono gestiti da società terze (Ospedali; Acquesdotti ...),
4. **Villaggi turistici e Hotels, centri commerciali e Outlet**; anche questi impianti sono gestiti da società terze



# L'offerta di Lukoil Lubrificanti



Application	Fuels	Lubs	Lukoil Lubricants		Approval & Specs
Caterpillar; Dresser Waukesha; Cummins MWM; GE-Jenbacher serie 2, 3, 4 e 6; MAN engine low speed; MTU; Perkins Engines; Rolls-Royce; Ruston; Wärtsilä	Natural gas, low sulphur level	TBN level requested 5.5; SO4 ashes max 0,5%	Lukoil Efforse XDI 4004 (semi- sint)	Lukoil Efforse 4004 (mineral)	MAN 3271-2 DEUTZ 0199-99-2105/7
GE-Jenbacher serie 2 e 3; MAN engine high speed; Dresser; Waukesha Rolls-Royce Bergen; Ruston			Lukoil Efforse HD 4900		MAN 3271-4 GE-JENBACHER TA 1000-1109 MDE 57 AP 2008 MTU BR 400  MIL-L-2104B/C API CC



## Dipende dalla composizione del gas L'analisi del Gas è raccomandata!

elevato contenuto di zolfo



elevato TBN (9)



SO<sub>4</sub>-ashes max. 1%



**LUKOIL EFFORSE HD 4009**  
(mineral, medie ceneri)

basso contenuto di zolfo



basso TBN (5.5)



SO<sub>4</sub>-ashes max. 0,5%

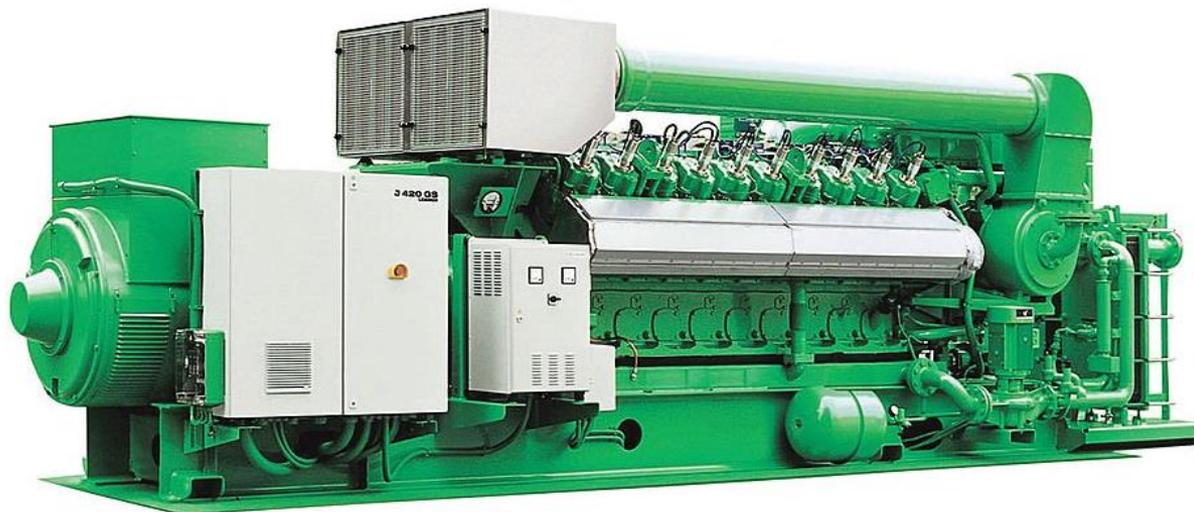


**LUKOIL EFFORSE XDI 4004**  
(semi-synth., basse ceneri)  
**LUKOIL EFFORSE 4004**  
(mineral, basse ceneri)

# LUKOIL oils for stationary engines - releases



Olio motore	Idoneo per	Approvazioni
LUKOIL EFFORSE XDI 4004	MAN 3271-2, DEUTZ 0199-99-2105/7	GE-JENBACHER TA 1000-1109
LUKOIL EFFORSE 4004	MAN 3271-2	DEUTZ 0199-99-2105/7 GE-JENBACHER TA 1000-1109
LUKOIL EFFORSE HD 4009	MIL-L-2104B/C API CC	MAN 3271-4 MDE 57 AP 2008 MTU BR 400 GE-JENBACHER TA 1000-1109





ANALYSIS	METHODE
Viscosity 40°C and 100°C	ASTM D 445/DIN 51562
T.B.N., total basic number	ASTM D 2896/DIN 3771
T.A.N., total acid number	ASTM D 664/DIN 51598
Insolubles	% weight 0,3 um
Oxidation	FTIR
Nitration	FTIR
H2O	Karl Fisher
Metals+Silicon+Sodium	ICP-AES
Ethilene Glycol	%

Il risultato di analisi di Lukoil contiene commenti e suggerimenti per il servizio di manutenzione; esso viene fornito in 3 giorni lavorativi dall'arrivo del campione al laboratorio.



## Type of analyses

Analyses from kit 1 are included in the kits 2,3,4,5

More information about our test methods online: [www.oelcheck.com](http://www.oelcheck.com), Button "Oil Analysis Tests"



Kit	Hydraulic	Bio Hydraulic	Gear	Wind Mill Gear	Diesel/Gasoline Engines	Vegetable oil Engines	Gas Engines	Grease
1 white	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum, PQ-Index</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium, Water %</p> <p><b>Oil condition:</b> Viscosity at 40° + 100°C, Viscosity-Index, Oxidation, Appearance</p>	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum, PQ-Index</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium</p> <p><b>Oil condition:</b> Viscosity at 40° + 100°C, Viscosity-Index, Appearance</p>	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum, PQ-Index</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium, Water %</p> <p><b>Oil condition:</b> Viscosity at 40° + 100°C, Viscosity-Index, Oxidation, Appearance</p>	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum, PQ-Index</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium, Water %</p> <p><b>Oil condition:</b> Viscosity at 40° + 100°C, Viscosity-Index, Oxidation, Appearance</p>	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum, PQ-Index</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium, Soot, Glycol, Fuel, Water %</p> <p><b>Oil conditions:</b> Viscosity at 40° + 100°C, Viscosity-Index, Oxidation, Nitration, Sulfation, Sludge carrying properties</p>	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum, PQ-Index</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium, Soot, Glycol, Vegetable oil, Water %</p> <p><b>Oil conditions:</b> Viscosity at 40° + 100°C, Viscosity-Index, Oxidation, Nitration, Sulfation, Sludge carrying properties</p>	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum, PQ-Index</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium, Glycol, Water %</p> <p><b>Oil conditions:</b> Viscosity at 40° + 100°C, Viscosity-Index, Oxidation, Nitration, Sulfation</p>	<p><b>Wear metals:</b> Iron, Chrome, Tin, Aluminium, Nickel, Copper, Lead, Molybdenum</p> <p><b>Additives:</b> Calcium, Magnesium, Zinc, Phosphorus, Barium, Boron</p> <p><b>Contaminants:</b> Silicon, Potassium, Sodium, Lithium</p>
2 black	Particle Count acc. ISO 4406, SAE 4059	Cleanliness acc. ISO 4406, SAE 4059	NZ	NZ	BN	AN Fuel content	BN	FQ-Index Ease oil condition (FT-IR)
3 yellow	Particle Count acc. ISO 4406, SAE 4059 Water acc. to KF	Cleanliness acc. ISO 4406, SAE 4059 NZ, Density, Water acc. to KF	NZ Water acc. to KF	Optical Particle Analysis incl. Particle Count	BN AN	BN AN Fuel content	BN i-pH-value	FQ-Index Ease oil condition (FT-IR) Water acc. to KF
4 red	Particle Count acc. ISO 4406, SAE 4059 Water acc. to KF NZ	Particle Count acc. ISO 4406, SAE 4059 NZ, Density Water acc. to KF	NZ Optical Particle Analysis incl. Particle Count	NZ Optical Particle Analysis incl. Particle Count	BN AN i-pH-value	BN AN i-pH-value Fuel content	BN AN i-pH-value	FQ-Index Ease oil condition (FT-IR) Water acc. to KF Feeding test
5 blue	Particle Count acc. ISO 4406, SAE 4059 RULER		NZ Optical Particle Analysis incl. Particle Count Water acc. to KF	NZ Optical Particle Analysis incl. Particle Count Water acc. to KF	BN AN i-pH-value Solid contaminants	BN AN Fuel content i-pH-value Solid contaminants	BN AN i-pH-value SAN	FQ-Index Ease oil condition (FT-IR) Water acc. to KF Penetration
OELCHECK recommendation	Kit 2 (mobile hydraulic) Kit 4 (industrial hydraulic)	Kit 3/Biokit	Kit 2 (spur gears) Kit 4 (windmill gears)	Kit 4	Kit 2	Kit 2	Kit 3 (natural gas) Kit 4 (dump/sewage gas)	Kit 5



## Il nostro servizio – il tuo successo!

- **Supporto presso l'impianto**
- **Servizio Back Office**
- **Sviluppo prodotti**
- **Training tecnici**
- **Condivisione delle informazioni tecniche**



**WE SUPPORT YOU!**

[technics.lubes@lukoil.com](mailto:technics.lubes@lukoil.com)

