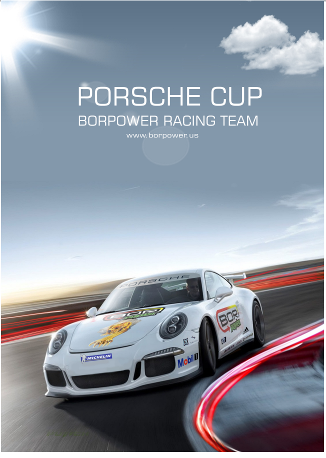
BORPOWER NANOGREEN
PRODUCT CATALOG
HIGH TECH NANO COATINGS & LUBRICANTS

AUSTRIAN TECHNOLOGY

NANO GREEN BORPOWER NANOGREEN TINIEST NANOPARTICLES FOR A GIGANTIC EFFECT !

www.borpower.us



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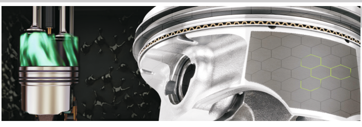
BORPOWER NANOGREEN

Once BORPOWER MS-ULTRA is applied to the existing engine oil, approximately 60% of the MCDP nano boron diamond crystals adhere to the engines lubricated metallic surfaces. This proprietary process is effective in surface hardening and provides a much higher quality surface by creating an almost frictionless wear surface.

The remaining 40% of the MCDP nano boron diamond crystals disperse homogeneously within the existing lubricant molecules and continually fill surface scars and irregularities in metal contact surfaces while the engine is operating. The effect can be described as if the MCDP nano boron crystals are in fact nano scale liquid ball bearings working at a microscopic level to minimize friction.

No mineral oil or synthetic lubricant is as effective alone in preventing particle spilt, or thermal breakdown occurring from friction and combustion pressure. BORPOWER MS-ULTRA is unique because the physical characteristics of the MCDP nano boron crystals have a significantly higher heat capacity and far greater thermal conductivity. Boron with a Vickers scale hardness of 50 GPa is the second hardest mineral after a diamond which averages 70-100 GPa. The metal used in production engine components has a Vickers hardness of 9-10 GPa.



FUNCTIONS OF BORPOWER MS-ULTRA SERIES

1) BORPOWER MS-ULTRA products provide not only superior combustion but also contribute to a significant reduction of carbon and sulfur buildup within the combustion chamber.
2) During the power stroke in an engine the combustion chamber receives an instantaneous thermal load of over 4,500 Degrees Fahrenheit. This cyclical heat generation deforms the chemical structure of even the latest modern synthetic lubricants resulting in carbon buildup and eventual carbonization. BORPOWER MS-ULTRA series minimizes carbon generation by minimizing friction due to its unmatched heat capacity and thermal conductivity in a commercially available product. Moreover, it extends the life of moving mechanical parts and decreases maintenance by helping keep ancillary system equipment running longer.
3) In some engines, the gradual loss of lubricant due to overheating is a significant issue. BORPOWER MS-ULTRA decreases the carbonization rate of the existing lubricant by reducing friction. Lubricant costs are reduced because lubricant loss in unit time is minimized.
4) Prevents pressure loss in pumps due to abrasion, protects engine oil pump gears resulting in an increase in operation lifespan.
5) Creates a nanometric protective shield on and around all surfaces that are in contact with the MCDP nano boron crystals and provide the best protection available in the market.
6) When used in a new engine, BORPOWER MS-ULTRA protection is started from day one resulting in the engine being protected from deformation and other damage from the beginning of its life.
7) Due to the unmatched heat conductivity of boron nano crystals, issues such overheating resulting in bearing seizure is virtually eliminated.

ADVANTAGES OF BORPOWER MS-ULTRA SERIES

·Reduction in fuel consumption between 5% and 19%
·Increases in power up to 10%
·Extends lubricant life by up to 50%
·Decreases CO2exhaust emissions between 8% and 30%
·Reduction of vibration and noise (db) in the environment
·Decreases lubricant consumption and prevents overheating
·Minimizes abrasion throughout engine including pressure relive valves
·Reduction in cold weather start wear due to superior protection qualities
·Reduction in carbon generation
·Resistance to molecular breakdown due to high temperature and pressure
·Continuous protection with regular use
·Keeps engine and bearings clean and prevents ash generation
·Prevents sludge and debris generation through high heat conductivity
·Protection against corrosion
·Prevents crank fractures due to bearings, piston rods and main bearings
·Extends the life of turbo units by preventing overheating and abrasion of the impeller shaft which is the main failure point in turbocharged engines
·Use in new engines as preventative maintenance

MS 250 ULTRA SERIES FOR PASSENGER VEHICLES
BORPOWER MS 250 ULTRA when used regularly at every oil change, achieves not only a reduction in fuel consumption and noxious emissions but also a significant reduction of component wear in reciprocating engines. One bottle (250 ml) of BORPOWER MS 250 ULTRA is the recommended amount to add for Gasoline, Diesel and LPG engines with up to 5 liters of oil capacity.

BENEFITS
·Reduction in fuel consumption between 5% and 19%
·Increases in power up to 10%
·Extends lubricant life by up to 50%
·Decreases CO2exhaust emissions by up to 30%
·Reduction of vibration and noise (db) in the environment
·Prevents overheating
·Decreases maintenance and repair costs

One bottle (250ml) of BORPOWER MS 250 ULTRA is recommenced for gasoline, diesel and LPG engines with up to 5 liters of oil capacity.

MS 600 ULTRA SERIES FOR LIGHT COMERCIAL VEHICLES
BORPOWER MS 600 ULTRA when used regularly at every oil change, achieves not only a reduction in fuel consumption and noxious emissions but also a significant reduction of component wear in reciprocating engines. One bottle (600 ml) of BORPOWER MS 600 ULTRA is the recommended amount to add for Gasoline, Diesel and LPG engines with 6 to 18 liters of oil capacity.

BENEFITS
·Reduction in fuel consumption between 5% and 19%
·Increases in power up to 10%
·Extends lubricant life by a minimum of 50%
·Decreases CO2exhaust emissions by up to 30%
·Reduction of vibration and noise (db) in the environment
·Prevents overheating
·Decreases maintenance and repair costs

One bottle (600ml) of BORPOWER MS 600 ULTRA is recommenced for gasoline, diesel and LPG engines with up to 6- 18 liters of oil capacity.

MS 900 ULTRA SERIES FOR HEAVY COMERCIAL VEHICLES
BORPOWER MS 900 ULTRA when used regularly at every oil change, achieves not only a reduction in fuel consumption and noxious emissions but also a significant reduction of component wear in reciprocating engines. One bottle (900 ml) of BORPOWER MS 900 ULTRA is the recommended amount to add for Gasoline, Diesel and LPG engines with 19 - 40 liters of oil capacity

BENEFITS
·Reduction in fuel consumption between 5% and 19%
·Increases in power up to 10%
·Extends lubricant life by a minimum of 50%
·Decreases CO2exhaust emissions by up to 30%
·Reduction of vibration and noise (db) in the environment
·Prevents overheating
·Decreases maintenance and repair costs

One bottle (900ml) of BORPOWER MS 900 ULTRA is recommenced for gasoline, diesel and LPG engines with 19 to 40 liters of oil capacit

GBX GEAR | For Manual Transmission Only
BORPower® GBX-Gear, the gear nano treatment, is recommended for application in the gear or transmission box of machines and mechanisms in the private, commercial or industrial sector.
BORPower® GBX-Gear is first in the world, because it is not like many lubricant additives which trigger chemical reactions, but the effect is PURELY PHYSICAL.

BENEFITS
· Facilitates gear changes
. Longer service life of mechanical components
. Extends maintenance intervals
. Prevents overheating
. Highly active anti-wear
. Reduces friction & wear
. Protects against rust & corrosi

BORPower® GBX-Gear (250 ml) for transmission with an oil capacity of 5 liters. Do not forget to shake the bottle for at least 2 minutes and your vehicle before and after the fill at least 10 minutes to drive.

NANOFUEL DPF | ForOne Diesel Particulate Filter Cleaner
Nano technological particulate filter cleaner, designed for cleaning and renewal clogged diesel particulate filter (DPF) for diesel vehicle engines. The most economical way of particulate filter cleaning and protection! The product is miscible used in all diesel engines and with all diesel fuels. Specifically, short-haul trucks and city vehicles are mainly affected by the problem of clogged diesel particulate filter.

BENEFITS
. Cleans the whole oil circuit of the engine
. Reduces friction & wear
. Extends maintenance intervals
. Protection against rust & corrosion
. Prevents oil sludge
. Longer service life of engine parts
. Gentle and fast cleaning
. Neutral materials located against seals in the engine and other
. Exhaust emissions are optimized
. Preventing lubricant starvation
. High efficiency
. No additional environmental impact
. Easy to use

NANOFUEL FLUSH | Motor Interior Cleaner
BORPower® NanoFlush is a nanotechnological motor interior cleaner that cleans all the oil circuits and ensures long cleanliness. The perfect solution to clean around the engine inside. It removes residues and carbon from piston rings and upper cylinder area. It neutralises harmful engine acids.

BENEFITS
. Permanent and complete filter cleaning during vehicle operation
. No installation and removal, no downtime, no interference
. Reduces the ignition temperature of the soot collected in diesel particulate filter
. No formation of secondary emissions
. Solves typical contaminants in diesel particulate filters
. Effective with all closed diesel particulate filters
. Ensures optimum driveability, engine performance and low fuel consumption
. Reduces operational costs

Shake the bottle for at least 1 minute (the distribution of the nanocrystals). Please fill one bottle (200 ml) of the diesel particulate filter cleaner per 50 liters of fuel in the fuel tank.

NANOFUEL FORONE | Gasoline System Cleaner
BORPower® NanoFuel ForOne is a nanotechnological fuel system cleaner that can be safely used in fuel tanks of all GASOLINE vehicles. BORPower® NanoFuel ForOne has a cleaning effect starting from the fuel tank up to the combustion chambers. Provides more driving enjoyment thanks to optimized power yield. The engine starts better and also runs quieter.

BENEFITS
. Higher octane
. Higher power output
. Better handling
. Improves acceleration of the vehicle
. Cleans the intake system
. Proven catalyst
. Ideal lubrication of the injectors
. Prevents corrosion in the fuel system
. Reduces emissions

Shake the bottle for at least 1 minute (the distribution of the nanocrystals). Please fill one bottle (200 ml) of the System Cleaner per 50 liters of fuel in the fuel tank. Fill up your fuel tank always full when you use the product and place the product on a regular basis, so that you can reap the benefits permanently

NANOFUEL FORONE | Diesel System Cleaner
BORPower® NanoFuel ForOne is a nanotechnological fuel system cleaner that can be safely used in fuel tanks of all DIESEL vehicles. BORPower® NanoFuel ForOne has a cleaning effect starting from the fuel tank up to the combustion chambers. Provides more driving enjoyment thanks to optimized power yield. The engine starts better and also runs quieter.

BENEFITS
. Higher octane
. Higher power output
. Better handling
. Improves acceleration of the vehicle
. Cleans the intake system
. Proven catalyst
. Ideal lubrication of the injectors
. Prevents corrosion in the fuel system
. Reduces emissions

Shake the bottle for at least 1 minute (the distribution of the nanocrystals). Please fill one bottle (200 ml) of the System Cleaner per 50 liters of fuel in the fuel tank. Fill up your fuel tank always full when you use the product and place the product on a regular basis, so that you can reap the benefits permanently.

NANOLUBE ULTRA | Nano Boron internal coating for industry
BORPower® NanoLube Ultra is a nano coating specifically designed to be used in the industry sector. It can be used together with semi-synthetic, synthetic, organic and high performance coatings in reducer systems, compressors, generators, conveyors, elevators, conventional and CNC benches, engineering vehicles, all sorts of metal and antifriction bearings, fan bearings, separators and even moulds, in short, in every field where closed loop lubrication is used (and in some cases, in open loop lubrication systems).

BENEFITS
. Lower break
. Decreases exhaust emissions up to 15%
. Provides up to 15% energy saving (electricity, fuel)
. Provides up to 10% performance improvement
. Prevents overheating
. Reduces oil temperature (up to 10° C)
. More power for turbines and compressors

BORPower® NanoLube Ultra was developed specifically for the industrial sector. During use, you will receive detailed information by our team.

MARINE ULTRA | Nano Boron internal coating for ship engines:
BORPower® Marine Ultra is a nano coating specifically designed to be used in the marine industry. In high tonnage ships, tank ships, military ships, cargo steamers, bulk ships, touristic ships, coasters, passenger ships, speed boats and fishermen's boats, engines are one of the most important factors driving costs up and creating spare part and material problems in maintenance. BORPower® Marine Ultra provides big advantages, the first among them saving from fuel.

BENEFITS
. Decreases exhaust emissions up to 15%
. Higher fuel economy
. Low friction and heating
. noticeable reduces the maintenance costs related to the engine because boron coats the interior surface of engine
. Increased performance
. Longer service life of mechanical components

BORPower® Marine Ultra was designed specifically for the maritime industry. During use, you will receive detailed information by our team.

Money **SAVED**, Emissions **REDUCED**,
Engine **PROTECTED**
and ultimate driving Pleasure **ENSURED** !

MS-900
NANO GREEN

NANO TECHNOLOGY COATINGS
www.borpower.us

BOR power
NANO GREEN

Certificate

BAM The Federal Institute for Materials Research and Testing

TÜV NORD

DNV

SGS ISO 9001:2008

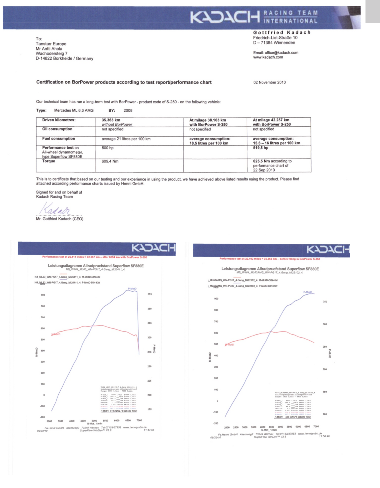
RÖNTGENLABOR Dr. Ermrich Röntgendiffraktometrie Röntgenfluoreszenzanalyse

UKAS MANAGEMENT SYSTEMS

IQNet

HJS Emission Technology

KADACH RACING TEAM INTERNATIONAL



KADACH RACING TEAM INTERNATIONAL

Gottfried Kadach
Friedrich-List-Straße 10
D – 71364 Winnenden

Email: office@kadach.com
www.kadach.com

To:
Tanstarr Europe
Mr Antti Ahola
Wachodersteig 7
D-14822 Borkheide / Germany

Certification on BorPower products according to test report/performance chart

02 November 2010

Our technical team has run a long-term test with BorPower - product code of S-250 - on the following vehicle:

Type: Mercedes ML 6,3 AMG **BY:** 2008

Driven kilometres:	**35.363 km** *without BorPower*	**At milage 38.163 km with BorPower S-250**	**At milage 42.257 km with BorPower S-250**
Oil consumption	not specified	not specified	not specified
Fuel consumption	average 21 litres per 100 km	**average consumption: 18.5 litres per 100 km**	**average consumption: 15.6 – 16 litres per 100 km**
Performance test on All-wheel dynamometer, type Superflow SF880E	500 hp		**519,8 hp**
Torque	609,4 Nm		**625.5 Nm** according to performance chart of 22 Sep 2010

This is to certificate that based on our testing and our experience in using the product, we have achieved above listed results using the product. Please find attached according performance charts issued by Henni GmbH.

Signed for and on behalf of
Kadach Racing Team

Kadach
Mr. Gottfried Kadach (CEO)

KADACH

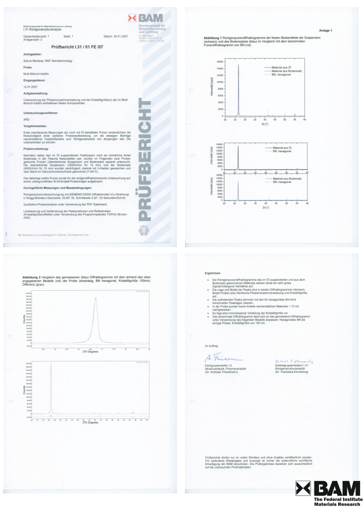
Performance test at 26.411 miles = 42.257 km – after 6894 km with BorPower S-250

Leistungsdiagramm Allradpruefstand Superflow SF880E

KADACH

Performance test at 22.102 miles = 35.363 km – before filling in BorPower S-250

Leistungsdiagramm Allradpruefstand Superflow SF880E



PRÜFBERICHT

BAM The Federal Institute for Materials Research and Testing

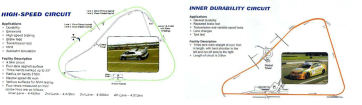
LorryLogic Report

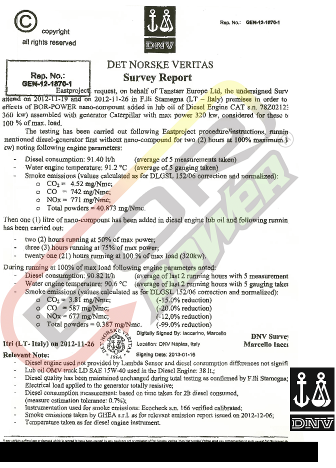
Section 6 D **The MIRA Track Details (Utilised on the 4th and 9th of October 2008)**

MIRA's extensive proving ground provides an unparalleled venue for product development and validation.

A comprehensive range of circuits and facilities enables our customers to carry out a wide range of tests in a controlled and secure environment, irrespective of vehicle type – motorcycles, cars, commercial, off-highway and military vehicles. Whatever your objectives – vehicle performance, durability, NVH, ride quality, braking or chassis development – you will find a range of solutions including extensive support services to assist you in achieving the levels of quality required for your future test programmes.

Aerial view of MIRA proving ground and test track facility – The triangular mint green circuit is the high speed circuit used in part one of the evaluation.





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DNV

Rep. No.: GEN-12-1870-1

Rep. No.: GEN-12-1870-1

DET NORSKE VERITAS
Survey Report

Eastproject request, on behalf of Tanstarr Europe Ltd, the undersigned Surv attend on 2012-11-19 and on 2012-11-26 in F.lli Stamegna (LT – Italy) premises in order to effects of BOR-POWER nano-compount added in lub oil of Diesel Engine CAT s.n. 78Z0212 360 kw) assembled with generator Caterpillar with max power 320 kw, considered for these t 100 % of max. load.

The testing has been carried out following Eastproject procedure/instructions, runnin nentioned diesel-generator first without nano-compound for two (2) hours at 100% maximum l kw) noting following engine parameters:

- Diesel consumption: 91.40 lt/h (average of 5 measurements taken)
- Water engine temperature: 91.2 °C (average of 5 gauging taken)
- Smoke emissions (values calculated as for DLGSL 152/06 correction and normalized):
  - CO_2 = 4.52 mg/Nmc;
  - CO = 742 mg/Nmc;
  - NOx = 771 mg/Nmc;
  - Total powders = 40.873 mg/Nmc.

Then one (1) litre of nano-compount has been added in diesel engine lub oil and following runnin has been carried out:

- two (2) hours running at 50% of max power;
- three (3) hours running at 75% of max power;
- twenty one (21) hours running at 100 % of max load (320kw).

During running at 100% of max load following engine parameters noted:

- Diesel consumption: 90.82 lt/h (average of last 2 running hours with 5 measurement
- Water engine temperature: 90.6 °C (average of last 2 running hours with 5 gauging take
- Smoke emissions (values calculated as for DLGSL 152/06 correction and normalized):
  - CO_2 = 3.81 mg/Nmc; (-15.0% reduction)
  - CO = 587 mg/Nmc; (-20.0% reduction)
  - NOx = 677 mg/Nmc; (-12,0% reduction)
  - Total powders = 0.387 mg/Nmc. (-99.0% reduction)

Itri (LT- Italy) on 2012-11-26

Digitally Signed By: Iaccarino, Marcello
Location: DNV Naples, Italy
Signing Date: 2013-01-16

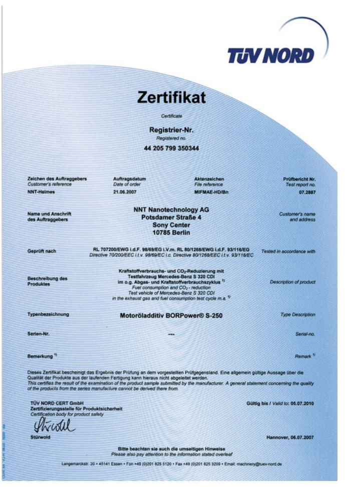
DNV Surve
Marcello Iacc

Relevant Note:

- Diesel engine used not provided by Lambda Sensor and diesel consumption differences not signifi
- Lub oil OMV truck LD SAE 15W-40 used in the Diesel Engine: 38 lt.;
- Diesel quality has been maintained unchanged during total testing as confirmed by F.lli Stamegna;
- Electrical load applied to the generator totally resistive;
- Diesel consumption measurement: based on time taken for 2lt diesel consumed, (measure estimation tolerance: 0.7%);
- Instrumentation used for smoke emissions: Ecocheck s.n. 166 verified calibrated;
- Smoke emissions taken by GHEA s.r.l. as for relevant emission report issued on 2012-12-06;
- Temperature taken as for diesel engine instrument.

DNV

[redacted]



TÜV NORD

Zertifikat

Certificate

Registrier-Nr.
Registered no.
44 205 799 350344

Zeichen des Auftraggebers *Customer's reference*	Auftragsdatum *Date of order*	Aktenzeichen *File reference*	Prüfbericht Nr. *Test report no.*
NNT-Heimes	21.06.2007	MIFMAE-HD/Bn	07.2887

Name und Anschrift des Auftraggebers	**NNT Nanotechnology AG** **Potsdamer Straße 4** **Sony Center** **10785 Berlin**	*Customer's name and address*
Geprüft nach	RL 707200/EWG i.d.F. 98/69/EG i.V.m. RL 80/1268/EWG i.d.F. 93/116/EG *Directive 70/200/EEC i.t.v. 98/69/EC i.c. Directive 80/1268/EEC i.t.v. 93/116/EC*	*Tested in accordance with*
Beschreibung des Produktes	Kraftstoffverbrauchs- und CO_2-Reduzierung mit Testfahrzeug Mercedes-Benz S 320 CDI im o.g. Abgas- und Kraftstoffverbrauchszyklus [1] *Fuel consumption and CO_2 - reduction* *Test vehicle of Mercedes-Benz S 320 CDI* *in the exhaust gas and fuel consumption test cycle m.a.* [1]	*Description of product*
Typenbezeichnung	**Motoröladditiv BORPower® S-250**	*Type Description*
Serien-Nr.	---	*Serial-no.*
Bemerkung [1]		*Remark* [1]

Dieses Zertifikat bescheinigt das Ergebnis der Prüfung an dem vorgestellten Prüfgegenstand. Eine allgemein gültige Aussage über die Qualität der Produkte aus der laufenden Fertigung kann hieraus nicht abgeleitet werden.
This certifies the result of the examination of the product sample submitted by the manufacturer. A general statement concerning the quality of the products from the series manufacture cannot be derived there from.

TÜV NORD CERT GmbH
Zertifizierungsstelle für Produktsicherheit
Certification body for product safety

Stürwold

Gültig bis / *Valid to*: 05.07.2010

Hannover, 06.07.2007

Bitte beachten sie auch die umseitigen Hinweise
Please also pay attention to the information stated overleaf

Langemarckstr. 20 • 45141 Essen • Fon +49 (0)201 825 5120 • Fax +49 (0)201 825 3209 • Email: machinery@tuev-nord.de

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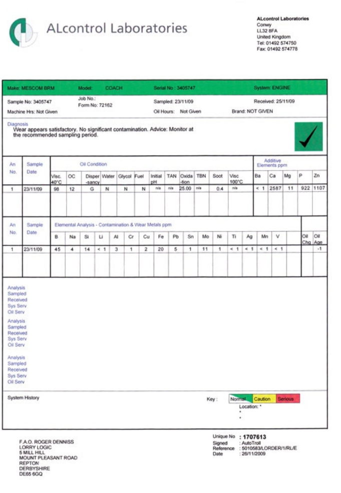
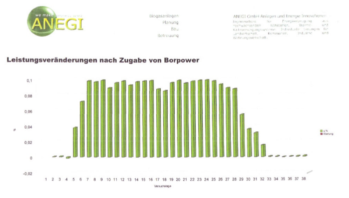
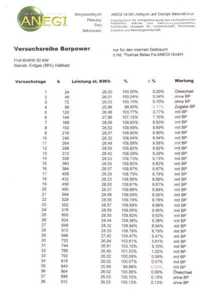


ALcontrol Laboratories



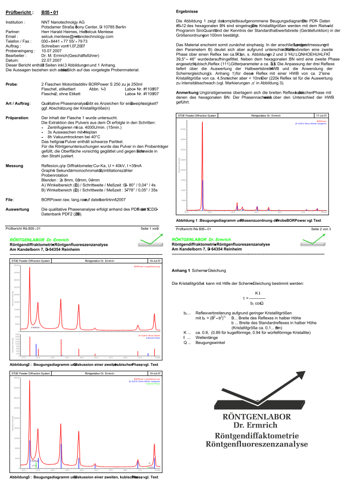
ANEGI

Leistungsveränderungen nach Zugabe von Borpower

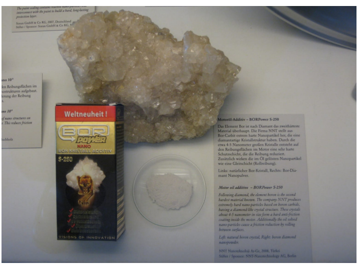


ANEGI

Versuchsreihe Borpower



RÖNTGENLABOR Dr. Ermrich
Röntgendiffraktometrie
Röntgenfluoreszenzanalyse



Motoröl-Additiv – BORPower S-250

Das Element Bor ist nach Diamant das zweithärteste Material überhaupt. Die Firma NNT stellt aus Bor-Carbit extrem harte Nanopartikel her, die eine diamantartige Kristallstruktur haben. Durch die etwa 4-5 Nanometer großen Kristalle entsteht auf den Reibungsflächen im Motor eine sehr harte Schutzschicht, die die Reibung reduziert. Zusätzlich wirken die im Öl gelösten Nanopartikel wie eine Gleitschicht (Rollreibung).

Links: natürlicher Bor-Kristall, Rechts: Bor-Diamant Nanopulver.

Motor oil additive – BORPower S-250

Following diamond, the element boron is the second hardest material known. The company NNT produces extremely hard nano-particles based on boron carbide, having a diamond-like crystal structure. These crystals about 4-5 nanometer in size form a hard anti-friction coating inside the motor. Additionally the oil solved nano-particles cause a friction reduction by rolling between surfaces.

Left: natural boron crystal, Right: boron diamond nanopowder.

NNT Nanoteknoloji Ar-Ge, 2008, Türkei
Stifter / Sponsor: NNT-Nanotechnology AG, Berlin

Borpower products have been demonstrated at the Deutsches Museum-Technology Department, as one of the leading innovations in Nano Lubricants industry.

Munich / GERMANY

F1 World Champion **Mika Hakkinen** has raced with Borpower in Lapland Rally.

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INNOVATION & TECHNOLOGY

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jon.griffin@birminghammail.net

Nanotechnology drives fuel efficient engine oil

AUTOMOTIVE

■ New lubricant seen as 'holy grail' of development

JON GRIFFIN
Business Staff
jon.griffin@birminghampost.net

A high-tech lubricant hailed the 'holy grail of vehicle oil' has been launched at an industry event at the National Exhibition Centre, Birmingham.

The London firm behind the venture – NanoBoron UK – says the oil has been scientifically proven to improve fuel consumption more than 10 per cent, reduce engine wear and corrosion and help the environment.

The firm's technical manager Dr Mounir Adjrad said: "BORPower is an oil additive scientifically proven in Europe, the US and now the UK to improve consumption.

"Launched at the Bus Expo show at the NEC after UK trials by vehicle engineering test specialists at the Motor Industry Research Association (MIRA) research facility it produced fuel consumption savings of over 10 per cent.

> "In the average year, a fleet of ten 18 tonne vehicles developing 230 hp operating at 50,000 miles each could save £20,538

Dr Mounir Adjrad

"In other words the cost of a litre of diesel for BORPower users would be reduced from £1.14 to £1.03 or the trip from London to Edinburgh will be reduced from 330 to 297 miles.

"In the average year, a fleet of ten 18-tonne vehicles developing 230 hp operating at 50,000 miles each could save £20,538 based on a 12.6 mpg per vehicle. From owner-operators to fleet managers, achieving reduction of costs especially with the current volatile fuel prices, is a major headache and many will have heard of so-called 'additives.' However, BORPower is different."

Dr Adjrad said the oil was the only product "with publicly declared tests and certificates from around the world, performed by independent organisations showing a reduction in fuel consumption based scientific formula, approved by vehicle bodies and governments."

The new lubricant has produced fuel consumption savings of more than 10 per cent

He said: "It is based on a physical process, not involving any chemical reaction with the engine oil, making BORPower non-toxic, non-acidic, and environmentally-friendly. Other products last from 1,000 to 25,000 miles whereas BORPower lasts up to 40,000 miles.

"The quality and effectiveness of BORPower has been validated several times by accredited industrial and scientific research and testing facilities in the USA and Europe and the UK.

"Each facility, including Southwest Research Institute San Antonio Texas, USA and TÜV NORD Germany (Technical Inspection Agency), Hanover, found BORPower improved fuel efficiency up to 15 per cent."

He said BORPower was the combination of the use of the chemical element Boron and nanotechnology.

"Nanotechnology is the relatively unknown but growing field dealing with the tiny world of atoms and molecules. One nanometer (nm) is one billionth, or 10-9 of a metre. The comparative size of a nanometer to a metre is the same as that of a marble to the size of the earth. Checking over the periodic table Boron has the symbol B, atomic number 5, has a small density, and is very heat resistant. The raw boron goes through the nanotechnology process and becomes boron diamond powder, frequently called the 'brother of diamond' due to its hardness of 9.3 Mohs, just below the diamond (10 Mohs) the hardest substance known to man."

He said BORPower worked by building boron metal films in the engine's inner parts which prevents direct contact between the frictional surfaces responsible for abrasion, friction and heat.

"BORPower helps by cooling down these frictional surfaces and sealing them." Announcing the launch of BORPower in the UK, NanoBoron UK Director Ismail Cikci said: "In today's volatile financial markets businesses need to save every penny. After comprehensive trials across the globe we are the only company to publicly declare independent test results which confirm BORPower works to save money."

New safety passport scheme for Britvic

Soft drinks business Britvic will pioneer an ultra-secure high-tech safety passport scheme at its factory in Rugby.

Britvic will undertake a training programme to ensure its 140 employees hold safety passports for the food and drinks industry developed by Safety Pass Alliance (SPA) of Southam.

New employees will undergo training as part of their induction.

Martin Berry, quality health safety and environment specialist at Britvic, said: "We have been looking at ways of improving our induction process and in talking to SPA we recognised their two-day safety passport course covers all the health and safety issues in our industry."

He said three Britvic staff were qualifying as trainers. "It will be invaluable to existing operators. Some of them have been here for 15 years and times have changed. The fact everyone has to renew their passport every three years means everyone is kept up to date with the latest health and safety legislation."

Ray Gibbs, managing director of SPA, said the safety passport had been developed specifically at the request of the food and drinks sector which involved companies such as Nestle UK, Northern Foods, Geest, Cadbury Trebor Bassett and Bass Brewers.

He said SPA had introduced safety passports in other sectors where leading companies reported a dramatic reduction in accidents.

Britvic says the passport is a "robust and secure" card – similar to a UK driving licence – that displays a tamper-proof photograph of the successful trainee.

Remote back-up storage service

A remote backup data storage service for organisations without their own server has been launched by a West Midlands self storage company.

Rugeley Self Storage says its standard service allows automatic back-up, through its own software, of up to two gb daily, with further capacity available in one gb packages.

Smaller businesses, such as solicitors and accountants, can have automatic back-up of their data into a remote and secure location without having to finance their own server. Data is stored on Rugeley Self Storage's secure servers in its state-of-the-art facility on Towers Business Park in Rugeley.

Tim Morley, a director of the company, said companies were still not backing up their data, or using external hard drives attached to PCs in the same office - with the accompanying risk of losses.

PRODUCTS&IDEAS

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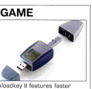
TOTALLY EXHAUSTED

■ BOSAL UK has launched a new range of exhaust products for the UK bus and coach market. The company has released complete systems and components for well over 100 models from 15 bus and coach marques. Those applications cover many of the leading bus makes, including Volvo, Scania, Mercedes-Benz, Leyland, Ford, MAN and MCW. There's even a system available for the venerable AEC Routemaster!

CIRCLE READERLINK 109

GENERATION GAME



■ The VDO Downloadkey second generation model brings more features to ensure downloading digital tachograph and driver data is quicker and easier for drivers and fleet operators. To significantly reduce the time it takes to download digital tachograph data, the Downloadkey II features faster processors and is set to only download 'since last download' rather than the entire data. The 16 times larger memory provides more capacity for approximately 1,500 bi-monthly downloads. Other highlights include a traffic light indicator which clearly displays the download status and its memory capacity.

CIRCLE READERLINK 110

ON YOUR GUARD

■ WABCO has released OnGuardMAX, the industry's first autonomous emergency braking system. Integrating diverse data about road traffic from video and laser distance sensors, the company's new system processes this complex information to significantly enhance object dimensioning and anticipate imminent danger. OnGuardMAX detects, analyzes and reacts to moving as well as stopped vehicles as the system simultaneously interfaces with braking and other systems in the truck such as engine, transmission and stability control to assist the driver. It ensures the most effective deceleration and can bring the vehicle to a complete stop.

CIRCLE READERLINK 111

LETS TALK ABOUT FLEX

■ A new range of PROCOOL single phase 230V/50Hz portable spot coolers from Ecotechnics is now available in the UK, through Flextraction. There are three coolers in the range, PROCOOL 9000, 17000 and 24000. They are designed as portable air conditioning systems delivering cool, dry air to an area or areas, where a reduction in temperature is called for. They are ideal for use in industry to improve the working conditions in working areas that do not have air conditioning, such as automotive workshops.

CIRCLE READERLINK 112

TOO MUCH TO BEHR

■ The new disinfection unit EVIDIS, from Behr Hella Service, provides a healthy vehicle climate free of bad smells and bacteria. With this unit, the air-conditioning evaporator, ventilation system and vehicle interior can be disinfected quickly and safely, driving out the unpleasant smell that can arise on the evaporator due to bacteria and fungal infestation. The unit, which weighs two kilograms, is the size of a toaster and is suitable for all vehicles with a 12-volt vehicle electric system.

CIRCLE READERLINK 113

FEEL THE POWER

■ BORPOWER is an oil additive scientifically proven in Europe, the US and now the UK to improve fuel consumption. After recent rigorous UK trials by vehicle engineering test specialists at the Motor Industry Research Association (MIRA) research facility, it produced fuel consumption savings of over 10%. In other words the cost of a litre of diesel for BORPower users would be reduced from £1.14 to £1.03 or the trip from London to Edinburgh will be reduced from 330 to 297 miles.

CIRCLE READERLINK 114

Industrial News

BORPower®: The holy grail of fuel

Scientifically proven in the UK to improve fuel consumption by up to 15%, reduce engine wear and corrosion and save the environment. After years of failed attempts the holy grail of vehicle oil has finally been found. BORPower® is an oil additive scientifically proven in Europe, the US and now the UK to improve fuel consumption. Available in the UK now, after recent rigorous trials by independent vehicle engineering test specialists at the Motor Industry Research Association (MIRA) research facility it produced fuel consumption savings of up to 15%.

Why is BORPower® different? From owner operators to large fleet managers, the reduction of vehicle costs, especially with the current volatile fuel prices, is a major headache and many will have heard of so-called 'additives'. However, BORPower® is different. It is the only product:

with publically declared tests and certificates by independent bodies, approved by vehicle associations from around the world.

based upon a physical process; Boron and nanotechnology, not involving any chemicals.

Therefore it's chemically inert, making BORPower® non-toxic, non-acidic and therefore environmentally friendly.

that's an all-in-one, long term solution. Other products last from 1,000 miles (liquid lubricants) to 25,000 (solid lubricants) whereas BORPower® lasts for up to 40,000 miles.

BORPower® is available via www.nanoboron.co.uk or 0845 463 5438.

Meeting needs of enclosure users

With impressive new premises and its build to order programme, ETA Enclosures is taking a no compromise approach to the supply of industrial enclosures.

If you ever needed evidence of ETA's commitment to the UK enclosure market, you only have to look at its impressive new, purpose-built 20,000 sq ft logistics facility in Rotherham. Not only does it significantly increase the levels of stock that the company can hold, it also provides a dedicated assembly area for ETA's full range of Suite cabinets, allowing customers to specify fitted accessories prior to delivery.

A wide range of products are available for immediate delivery, including wall-mount enclosures in mild steel and stainless steel, free-standing cabinets in both Mono-bloc and Suite styles, consoles and desk units, fibreglass enclosures, and much more.

ETA says it understands the importance of supplying not only the empty enclosure but also any contemporary items such as power distribution and thermal management products. To that end, it has partnered with two of the biggest names in the market – Wohner, which manufactures power distribution systems, and Cosmotec, a leading manufacturer of cabinet cooling systems.

Tel: 01709 386630

Industrial News

ALL AT SEA | NOVEMBER 2009 | www.allatsea.co.uk

Nanotechnology aims to beat rising fuel costs

IN the wake of red diesel fuel increases and recession belt-tightening, what if you could achieve a 15 per cent improvement in fuel economy and CO2 emissions by simply pouring a bottle of liquid into your boats engine? Nanotech Marine says the launch of a revolutionary new engine oil additive, BORPower, aims to make the fantasy a reality.

BORPower is an engine lubricant that has been developed using the chemical element Boron and the hi-tech science of nano-technology.

Put simply, the product claims to reduce engine friction to a very low level, leading to more efficient operation. That means improved fuel economy and lower CO2 emissions, says Nanotech.

BORPower products are the result of more than 15 years of research and development. It is aimed at every user boat owners, industrial machinery users, private motorist, company car users, taxi and HGV operators, commercial fleet managers.

According to Nanotech, independent testing carried out by TUV NORD Technical Inspection Agency in Germany has validated the claims for BORPower and additional evaluation has also been carried out in the UK by Roger Denniss, a transport engineer with 40 years of testing experience.

Roger Denniss tested BORPower at the Motor Industry Research Association, MIRA, following the IRTE/BTAC type1 test cycle. The test demonstrated a reduction by 10.8 per cent in fuel consumption after addition of BORPower. Following a before and after trial with the product he concluded: Ive never seen results as good as these.

Using breakthrough nanotechnology in conjunction with Boron, a chemical element with unique properties, the product is a world first. The performance benefits are derived from its ability to create an almost frictionless environment inside the engine, says Nanotech.

And the company adds that perhaps the most impressive benefit is that it can actually boost the power output of your engine. Testing was carried out at MAHA in Zurich, Switzerland, in 2007 using a Renault engine. Over a series of runs, a BPH improvement of up to nine per cent was achieved.

It works on all four stroke engines, whether they run on petrol, diesel or LPG. And it is easy to use to use - shake the bottle and tip the contents in with your engine oil.

It starts to work immediately but the best results will be achieved after ten to 15 hours of engine operation. Because of the way the product coats the engine components, the results last long after any subsequent oil change.

One of the key benefits of using BORPower is that it saves you money, for example it can lower fuel consumption by up to 15 per cent, says Nanotech. Take a 43-foot power boat with twin engines of 370HP each and an official combined fuel consumption figure of 16.1 GPH which could be reduced to 13.7GPH.

Even a ten per cent improvement would make a real difference to the owners bank account, with more than £1,226.00 being saved on fuel costs over a year*.

Nanotech says testing has revealed that it can improve the quality and performance of the engine oil and even the life of the engine itself by up to 100 per cent. It is recommended that every user follows the servicing schedule of their engine but use of BORPower can cut the amount of work required at each service interval.

**Assuming a fuel consumption of 16.1GPH with 200 hours of engine operation per year and the cost of the fuel £3.81 per gallon, the annual cost would be £12,268.22. A ten per cent saving on your fuel cost would be £1,226.62 per year.*

Nanotech Marine Ltd
www.nanotechmarine.com
info@nanotechmarine.com
Tel: 02380 458888

BOR
NANO
BORON CRYSTAL LUBRICANT

PRODUCTS & IDEAS

BITE THE BULLETIN

Using over 25 years in the supply and distribution of exhausts and catalysts, CES says it offers technical expertise that is second to none, as is its product knowledge and range.

The latest additions to its comprehensive range includes:

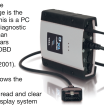
- Catalysts Saab 9-3 1.8t, Vauxhall Frontera 2.2TDSL, Mazda Premacy and BMW 320d (Euro IV specification).
- Expanded range of type approved cats to over 900 part numbers.
- Exhaust systems Nissan Figaro 1.0 turbo, Toyota Estima/Lucida, BMW Z3/Z4, LDV Maxus 2.4TD and Nissan 350Z.

Updates on this type of product can be found in the companys forthcoming technical bulletin on exhausts and cats. It also highlights the range of emission control components, such as diesel particulate filters (DPFs). CES believes this relatively new technology is set for massive growth because of the pending Euro V and Euro VI emissions regulations.

ces uk
www.cesuk.com

Request readerlink 055

FLIGHT OF THE NAVIGATOR



TEXAs addition to the NAVIGATOR TX range is the NAVIGATOR TXC. This is a PC based multi-brand diagnostic interface. The TXC can communicate with cars equipped with an EOBD socket (vehicles manufactured after 2001).

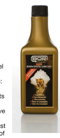
In particular the NAVIGATOR TXC allows the following functions:

- Self-diagnosis to read and clear the error memory, display system parameters and status of the ECU.
- Activation, adjustment and configurations which are essential to carry and complete the repair.
- Resetting of service and maintenance systems.
- Configuration of ECUs, reprogramming of keys and remote control.

With the release of IDC3 CAR version 32 software, Texa has added an additional new feature TGS2 Texa Global Scan 2. This offers the technician an automatic system search and identification across a wide range of vehicle makes and models.

Request readerlink 057

BOR IN ORDER



Launched with the claim to be the holy grail for vehicle oil, NANOBORON UKis clearly confident that in the shape of BORPower it has a product from which you can derive numerous benefits. It is an oil additive which the company says has been scientifically proven to improve fuel consumption.

Other product benefits include: extended engine life span (up to 100%), reduced maintenance costs and prolonged service intervals. Efficiency-wise, it is said to improve engine power, lessen engine wear, reduce oil temperature and also last up to an impressive 40,000 miles of vehicle use. Finally, the product is environmentally friendly being non-toxic, non-acidic and chemically inert which results in less emissions, waste and engine noise.

Request readerlink 056

CHASSIS COME HOME

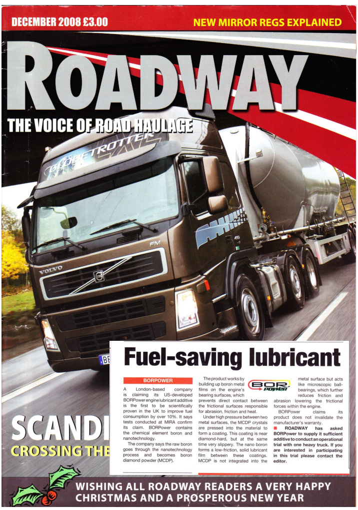
A further range extension has been announced for TRW AUTOMOTIVE AFTERMARKETs chassis programme, Comprising 70 new products, the range extension covers 1,237 applications. Behind this extension is the companys belief that forward thinking businesses those who understand their market, their customers and who have the right, positive attitude, will weather the economic storm that we currently find ourselves in.

The range extension comprises: four brake drums, two new brake discs, 19 brake pads, seven brake shoes, one shoe fitting kit, one master cylinder, eleven hoses and 25 steering and suspension parts.

Applications for the new references cover a wide spectrum of marques and models, and include the popular: Toyota Auris, Toyota Yaris, Vauxhall Astra and Vauxhall Zafira.

Request readerlink 058

44 PROFESSIONAL MOTOR FACTOR JANUARY/FEBRUARY 2009



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Fuel-saving lubricant

BORPOWER

A London-based company is claiming its US-developed BORPower engine lubricant additive is the first to be scientifically proven in the UK to improve fuel consumption by over 10%. It says tests conducted at MIRA confirm its claim. BORPower contains the chemical element boron and nanotechnology.

The company says the raw boron goes through the nanotechnology process and becomes boron diamond powder (MCDP).

The product works by building up boron metal films on the engine's bearing surfaces, which prevents direct contact between the frictional surfaces responsible for abrasion, friction and heat.

Under high pressure between two metal surfaces, the MCDP crystals are pressed into the material to form a coating. This coating is near diamond-hard, but at the same time very slippery. The nano boron forms a low-friction, solid lubricant film between these coatings. MCDP is not integrated into the metal surface but acts like microscopic ball-bearings, which further reduces friction and abrasion lowering the frictional forces within the engine.

BORPower claims its product does not invalidate the manufacturer's warranty.

■ **ROADWAY has asked BORPower to supply it sufficient additive to conduct an operational trial with one heavy truck. If you are interested in participating in this trial please contact the editor.**

Motor Racing Sponsorship