



# Welcome









## **Our Team in Arab Countries Gert Horstmeyer MD Rose Miri Manouk Dr. Naeim Hermez**





### The Health-check for Engines and Components



## For more Safety and Quality

### Evaluation

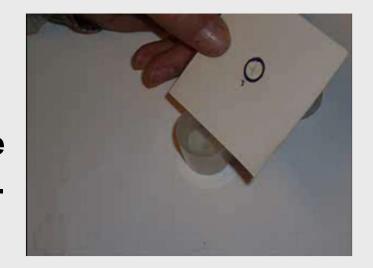
- What has to be evaluated?
- Garages
  - Fault research?
- Second hand cars
  - Buy a lemon?
- Construction machines / farming machinery
  - Working hours/ inspections?
- Preventative Maintenance
  - Saving costs and money
- Safty on the Roads and better air
  - Support Government duties and traffic safety

## The Invention

# Why does it work?Chromatographical effect

### This is how chromatographic works

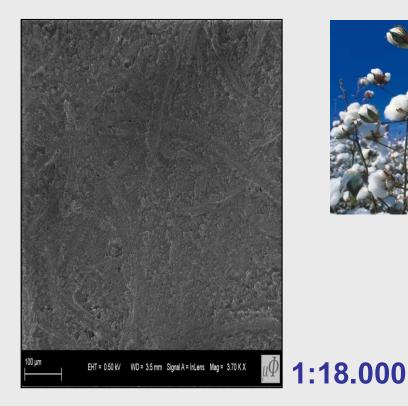
Adsorption and desorption are in a dynamic balance. This makes the segregation of substance compounds in chromatography possible.



## The Refinement

## Basic Material: Cotton (Lintas) Refinement









treated

### **Two product lines:**



Simple. Fast. Reliable.

#### The Health Check for Motors and Components



MOTORcheckUP is easy to use; one drop of oil onto the test paper. First results can already be seen within 2 to 15 min, particularly if there are serious problems. The final results will take longer depending on the health state of the engine and condition of the oil.

You can inspect almost everything in and on a vehicle, but not inside the motor. Up until now, it has not been possible to detect motor defects which could lead to serious damage, without costly intervention.

BUT now it is possible, simply, with... MOTORcheckUP. Just as a doctor takes a drop of blood to check your health, MOTORcheckUP only needs a single drop of oil to find out if the motor is "healthy", or not. Recognising possible defects early can save money on costly repairs, increase the life of the motor and improve vehicle's performance.

MOTORcheckUP tests for contaminants in the oil, including coolant and fuel, indicating the seriousness of the issue.



**Registration No.** Make / Model: Mileage Total/Oil: Date:



Euro Patent Reg. No. EP1825256

Eligible for all 4-stroke-engines

Made in Germany



The Health Check for Your Operating Fluids.



Play it safe and check your operating fluids regularly. In industrial plants, ships, trucks, boats, cranes, excavator, construction equipment, fork lift, pumps, transmissions, agriculture equipment, vehicles. Test the condition, wear, and ageing of the relevant fluids for the following components:

- Breaks
- Power steering / hydraulic
- Manual Transmission ۲
- Automatic transmission

| Licence Number:  |  |
|------------------|--|
| Operating hours: |  |
| Working hours:   |  |
| Milage:          |  |

Just one drop of that specific operating fluid is enough to check the condition and the safety of the particular component.

Easy.Safe.Quick.

FLUIDcheckUP helps

- Save in fluids costs
- Lower Emission
- **Keep Warranties**
- Improve performance
- **Extend Lifetime**





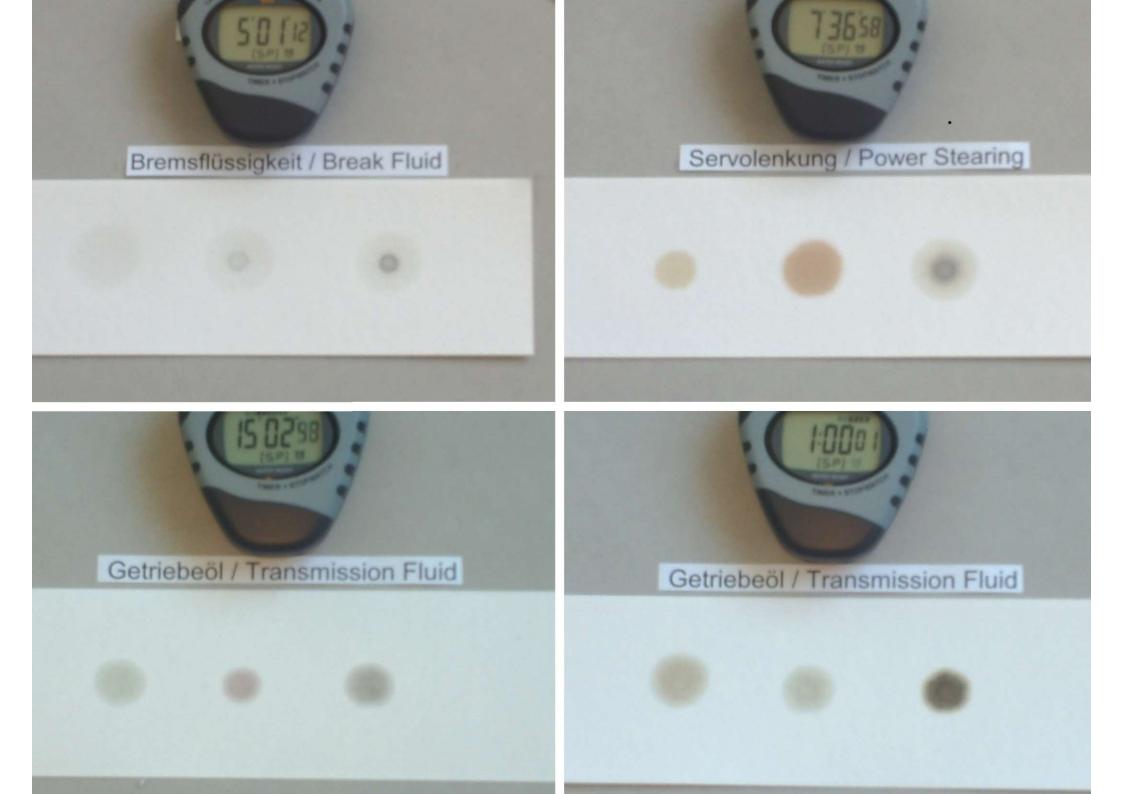
## Applications



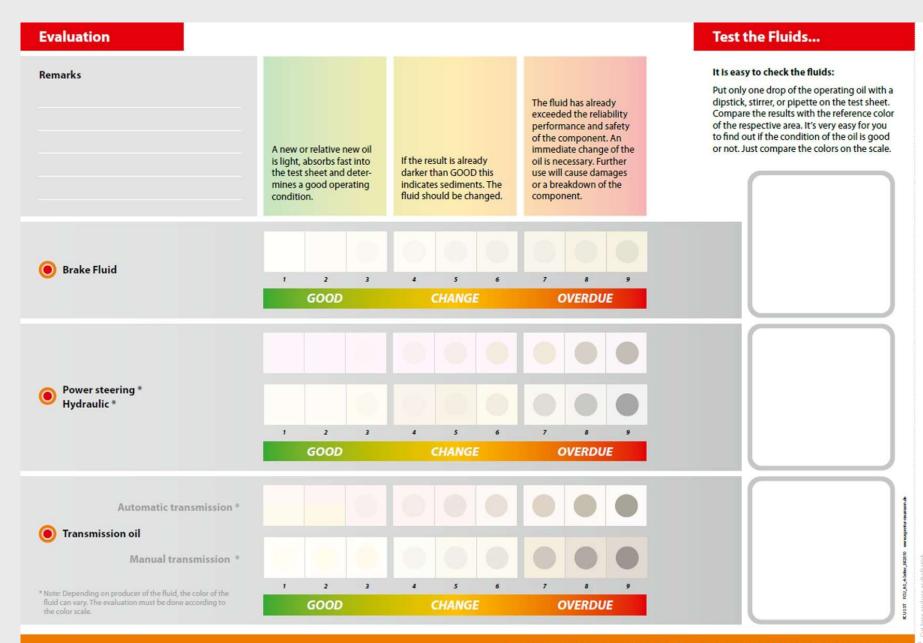
- Power steerings
- Brakes
- Automatic / Manuel Transmissions
- Hydraulic, Pumps
- Transmissions in Industry
- Wherever something moves...

### Easy.Safe.Quick.











### **Compare: patient / doctor** *one drop of blood suffices to check the health of the patient*

The conversely: car / engine only one drop of the fluids/oil is enough – identical to a blood test

















Mode of action, effects, early detection of defects or damages of the engine and the simple evaluation and interpretation of MOTORcheckUP based on four samples.

C MOTORcheckUP 2010



#### The 4 Spots

#### Accruement and Signification

One drop of oil applied to the special test paper will generate concentric circles that give you indications on the condition of your engine.

The Centre Spot (1) indicates grime and other possible pollutions or stains. According to the state of combustion of the engine and the mileage of the oil, a corresponding grime spot will from. If the oil was in use for many miles and is in bad condition, the inner circle will probably cover the circles 2 and 3. A "healthy" enginge with a mileage of 3.000 or 6.000 miles normally shows easily visible circles.



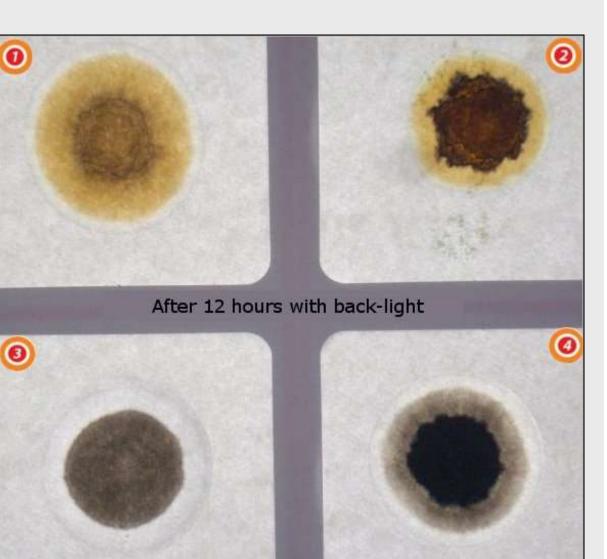
The circle in the middle (2) indicates the condition of the oil itselfs. For petrol engines applies: the older the oil, the darker (Brown) the result. For diesel fuel engines applies: the color can range from light grey to dark black. If the engine proces too much grime, often there will be no difference between circles 1 and 2. If the engine itself is in good condition, but the motor produces too much grime, then one more layer is formed around the brown (or black for Diesel) spot in the middle and this circle will be in lighter colour, which indicates that the condition of the oil is ok.

The boundary layer of the middle circle (3) indicates presence of water. In this case the test medium will show peaks immediately. When teh water content is high, you will see a clear result within a few minutes. Also the results 1,2 and 4 can be covered. The test distinguishes two kinos of water: condense water and cooling water (with glycol). Both will form the typical peaks at the edge of the circle. If cooling water with glycol is in the oil, you will see a yellow corona around the circle after approximately 30 minutes, which will spread out even more.



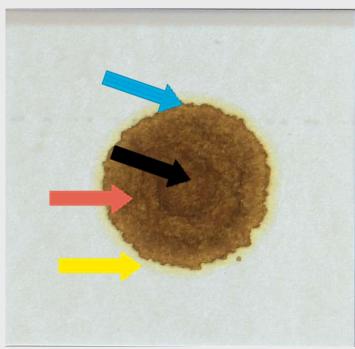
Outer circle (4) If fuel is in the oil, a light/transparent ring will form around the outer circle (the coloring in *this* layout is only to make it clearer). This ring will appear after a short while when the drop permeates in the test paper. The prethering spreads out, the higher the fuel content. If this we sparent ring is visible after several hours, then the result is "Medium" and that indicates that everything is ok.

When defects are assessed, resolve first - change oil, after 300 to 600 miles do the MOTOR checkUP test again. If there are defects still existing, you will see them again clearly.



The look against light make the test results visibly much better and easy to evaluate.

## Evaluation Gasoline

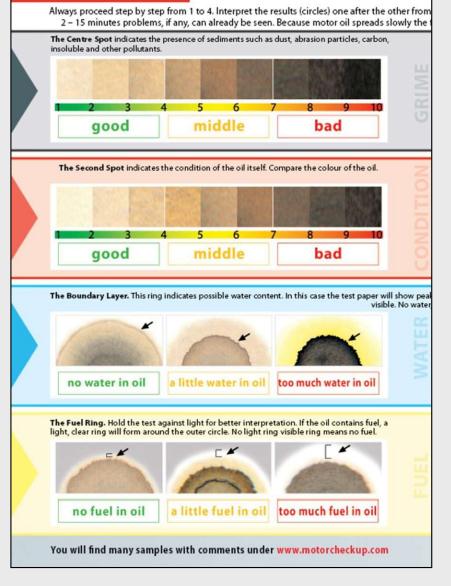




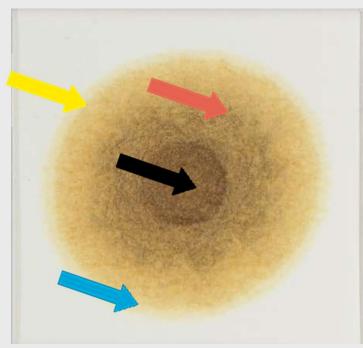
Odometer reading: 45.057 km Running km of oil: 13.474 km Type: Audi A3 Sportback 1,6 Registrating date: 29.06.2007



#### GASOLINE engines



## **Evaluation Gasoline**



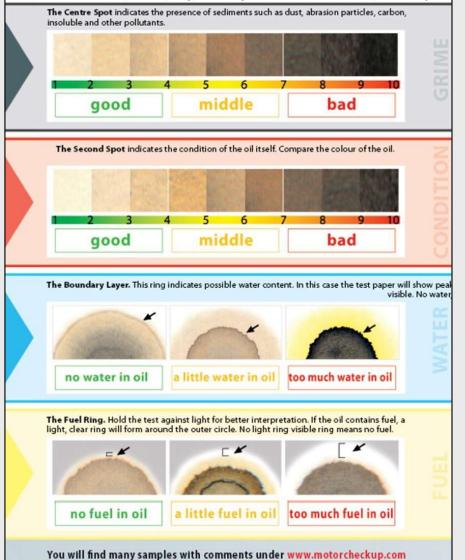


Odometer reading: 115.312 km Running km of oil: 10.231 km Type: Hyundai Tucson Registrating date: 19.08.2005

#### **Test Interpretation**

#### **GASOLINE** engines

Always proceed step by step from 1 to 4. Interpret the results (circles) one after the other from 2 – 15 minutes problems, if any, can already be seen. Because motor oil spreads slowly the t

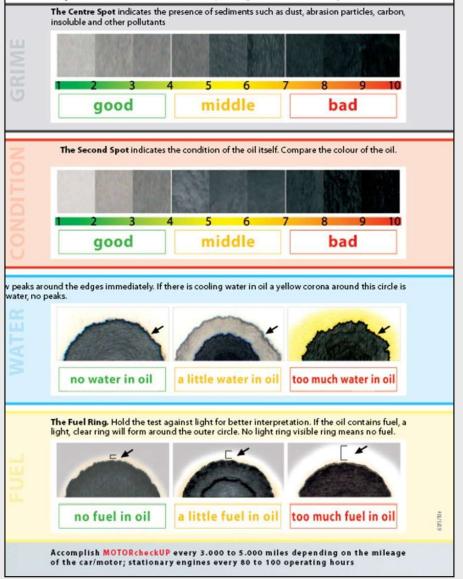


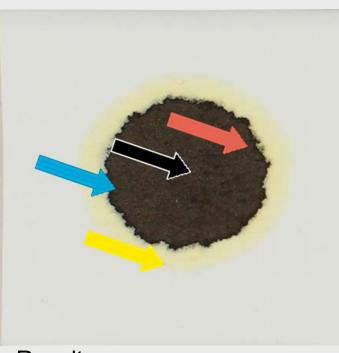
## **Evaluation Diese**

#### DIESEL engines

#### **Test Interpretation**

from inside to outside with the colours e.g. graphics on this side. After the absorbing process the final analysis is shown after 3 to 10 hours depending on the condition (age) of the oil.





Result:

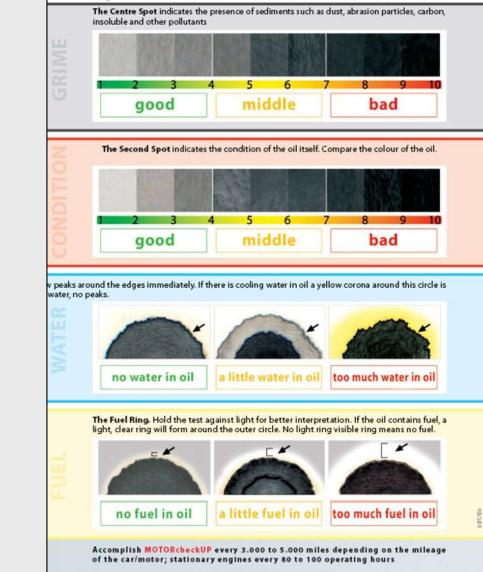
Odometer reading: 57.599 km Running km of oil: 25.499 km Type: VW Bus Registrating date : 25.09.2007

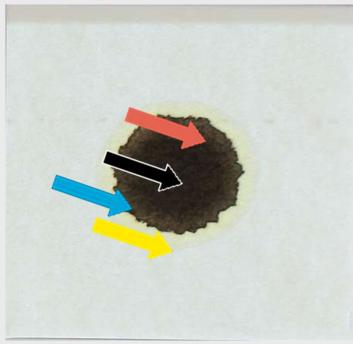
## **Evaluation Diese**

#### DIESEL engines

#### **Test Interpretation**

from inside to outside with the colours e.g. graphics on this side. After the absorbing process the final analysis is shown after 3 to 10 hours depending on the condition (age) of the oil.







Odometer reading: 65.476 km Running km of oil: 7.476 km Type: VW EOS 2,0 TDI Registrating date : 07.09.2006

### Cooling water problem

A massive cooling water problem in a DAEWOO with just 13.360 km



### Our guarantee





### Target groups, users

- Cars, trucks, Motor Cycles, Aeroplanes
- Construction machines
- Forest- and agricultural machines
- Bus operators, fleets, Fire Police,
- Stationary engines
- Emergency generators
- Spectrum: All 4-stroke-engines

From Lawn mower, tractors up to tanks

### **Benefits and Advantages**

- For more Safty,
- Preventive Maintenance in Fleets, Taxis, Busses
- MOTORcheckUP is ideal for marketing and sales promotion:
- More sales, Higher usage rate,
- More customers
- Better image
- More profit



- Laboratory analyses are more accurate than MOTORcheckUP
- But
  - Expensive and time-consuming
  - Far more time until a result is available
  - Report is complicate to evaluate even for experts, judges, garages etc.



That is not comparable



### From Classic to Digital:



## The presentation film <a href="https://youtu.be/EXf-2-D7EwA">https://youtu.be/EXf-2-D7EwA</a>





### iDiA- the intelligent diagnostic



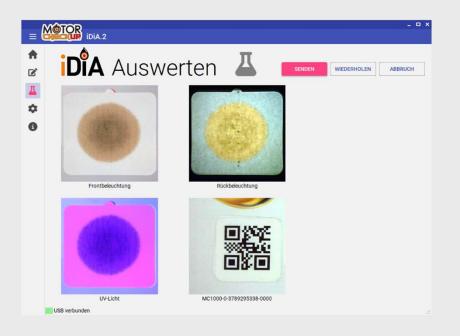
#### **Register the individual test**



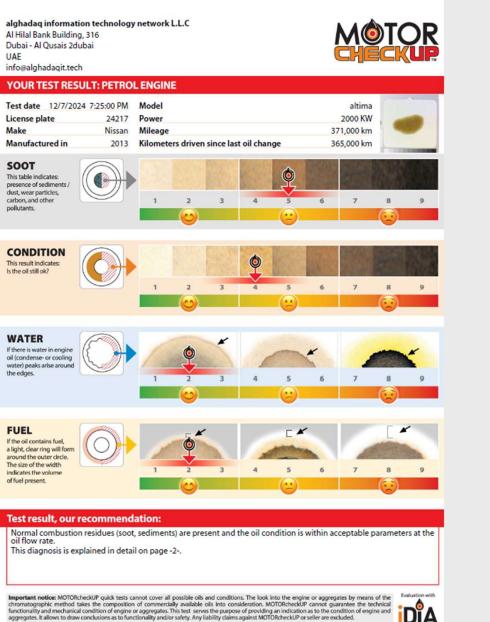
after maturation process return just press **TEST** 



#### drip just one dop of oil onto it



### **iDiA- the report**



#### the in diagnose sys

#### DÎA

/ dust, wear particles.

carbon and other

If there is water in

cooling water) peaks

engine oil (condense- or

arise around the edges.

If the oil contains fuel, a

light, clear ring will form

around the outer circle.

The size of the width

indicates the volume

of fuel present.

pollutants.



#### The test result for soot, condition, water, fuel, possible causes and effects

Important: In order to interpret the test results correctly, the oil change interval has to be taken into consideration. The greater the mileage of the oil, the darker the result can be for soot and oil condition. The content of water and fuel can also increase relative to the mileage. Example: The scale position 4 - 6 (see arrow) of the condition of a 20.000 mileage of oil is normal; the positioning in the 4-6 scale (see arrow) of the oil condition with only a 10,000 km mileage is unusual. For this reason the evaluation is always relative to the mileage.

Compare the result, i.e. what are the causes of a particularly poor result (7-9) and what effects it may have!



Causes: Imperfect combustion: incorrect tuning of carburettor: awkward driving habits; defective fuel injection; blocked full flow filter, defects of exhaust or turbo; incorrect fuel grade. Consequences: grime deposits in piston ring slots can cause jamming of pistons; grime deposits on valves and piston effect the heat exchange; reduction in tolerances; increase in wear and tear on all components, increase in fuel consumption, poor emission results.

9



excessive wear are an indication of underlying technical defects.

5

Causes: Exceeding oil change intervals, intermittent overheating, ices: Abnormal wear and tear on all components. Increase in fuel consumption and decrease in engine performance.

We recommend an immediate oil change

Excessive amount

of water

WATER

No or little water content present A moderate level of water is in the oil. present. We recommend to

repeat the test within a mileage of 500 to 1.000 kilometres.

Causes: Water gets as condense water or cooling water /glycol into the oil: reasons: faulty gaskets, oil cooler gasket porously, cylinder head gasket or cooling system leakage. Consequences: Water, be it as condensate or coolant, reaches the engine due to one or more of the following defects: Damaged gaskets, leaks in coolant circuit, cylinder head gasket damaged, corrosion of oil cooler. Expensive engine repairs are highly likely



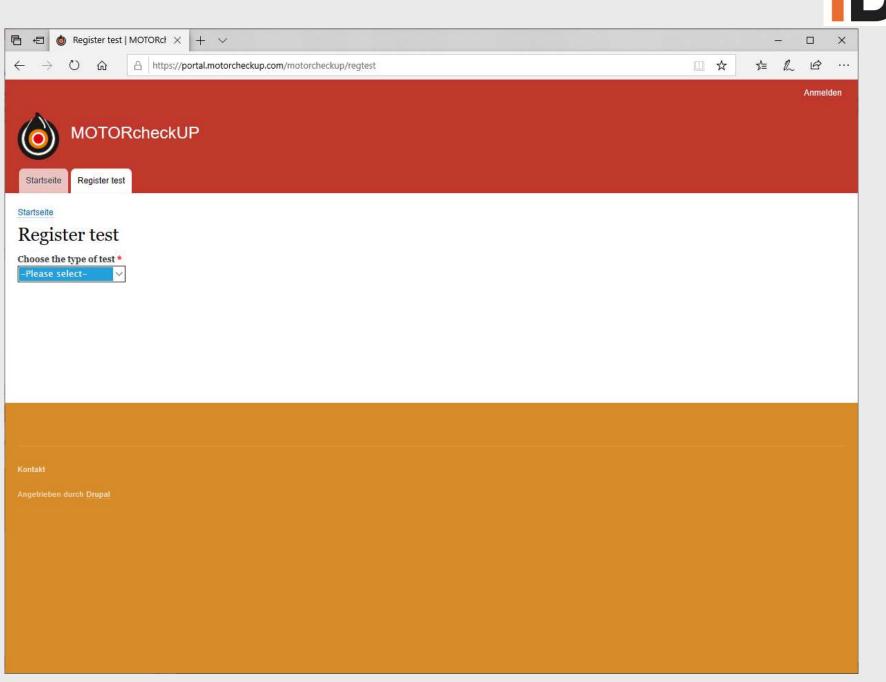
No or an insignificant amount of fuel present.

Fuel is present and causes should be examined. Increased fuel content in the oil can lead to a dilution of the oil and as such to degraded lubricating properties.

Causes: Incorrect ignition timing, high speed driving with cold engine; incorrect carburettor setting, valve settings incorrect: injection nozzle

defect. Consequences: Increased fuel consumption, thinning of engine oil, danger of over-heating, reduced lubricating properties, increased wear on pistons, cylinders, ball bearings.

#### iDiA- online register by mobile phone, PC



#### iDiA- online register: select test type



| Register test   MOTORcł × + ∨  |   | -  | - |        | ×  |
|--|---|----|---|--------|----|
| ← → Ů ⋒ A https://portal.motorcheckup.com/motorcheckup/regtest   | ☆ | ZĘ | h | È      |    |
| MOTORcheckUP<br>Startseite Register test   |   |    |   | Anmeld | en |
| Startseite<br>Register test<br>Choose the type of test *<br>-Please select-<br>Engine Oil<br>Transmission oil<br>Power-steering fluid<br>Brake fluid |   |    |   |        |    |
|  |   |    |   |        |    |

#### iDiA- online register: fill in data



| <ul> <li>Note:</li> <li>Register test</li> <li>Encose the type of test *</li> <li>Engine OI</li> <li>QR code: *</li> <li>MC1000-0-6050057915-0000</li> <li>License Plate: *</li> <li>U. CM 403</li> <li>Car maker: *</li> </ul> | 🛄 ☆ 🎓 ใ ビ |
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| Choose the type of test *<br>Engine Oil<br>QR code: *<br>MC1000-0-6060057915-0000<br>License Plate: *<br>UL CM 403<br>Car maker: *  |           |
| Engine Oil<br>QR code: *<br>MC1000-0-6060057915-0000<br>License Plate: *<br>UL CM 403<br>Car maker: *   |           |
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| License Plate: *<br>UL CM 403<br>Car maker: *   |           |
| UL CM 403 Car maker: *  |           |
| Car maker: *  |           |
|   |           |
| DAMA C  |           |
| DIMA  |           |
| Car model: *  |           |
| X1 2.0L xDrive20i   |           |
| Year of manufacture: * 2010   |           |
| Engine power (KW): *  |           |
| 103   |           |
| Total distance traveled: •  |           |
| 88990   |           |
| Km since last oil change: *   |           |
| 27000   |           |
| Select fuel type: * Petrol  V   |           |
| Email:  |           |
| gallus.ingbuero@gmail.com   |           |
| Language: *   |           |
| Englisch 🗸  |           |
| Send  |           |

iDiA- online register - advantages and benefits



- Individual and flexibel
- For workshops with smaller usages
- Registration with all day work tools (mobile, PC)
- Easy to handle and understandable
- Modern and sophisticated
- Ideal for DIY
- Extensive range of applications
- More sales more turnover

### **iDiA life presentation**







## Thank You For Your Attention



