

FABLAB: TRIBODIAGNOSTIKA

Nové trendy v tribodiagnostice

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PSZ/12

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ŠKODA
SIMPLY CLEVER

TRIBODIAGNOSTIKA - PRESENT

Actual status overview



Analysis

„ We measure all key parameters of lubricants“



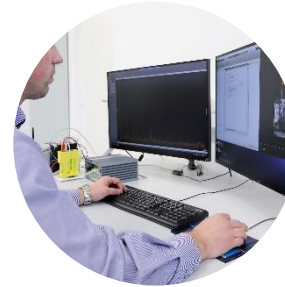
Filtration

„ Carefull care we prolong the life of lubricants“



Inovation

„ We develop new procedures in Tribodiagnositics“



Digitalization

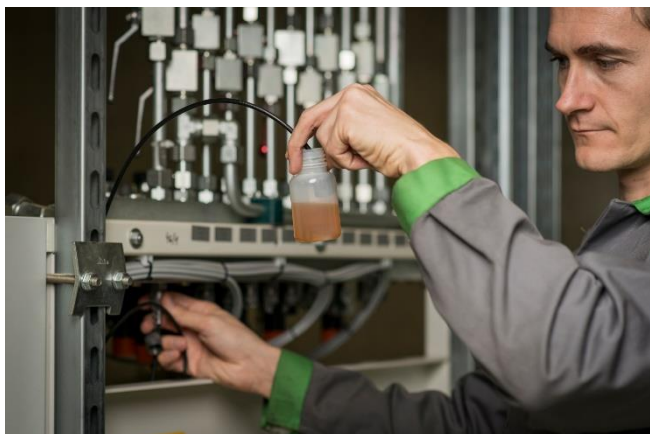
„We digitize expediently“

- Care of 420 machine
- 500 m³ of oil
- 869 sampels/years
- Savings 600 ths./year



Oil care evolution

Timeline to Fluidmanagement



Oil sampling from the machine



Laboratory sample analysis



By-pass oil filtration



News in tribodiagnositics

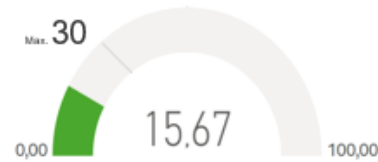
New procedures and principles

Online
monitoring

Installation of sensors on key
machines and online
monitoring of oil and
machine status
(2021 – PXL 1, 2, 3)

Actual condition and trend of machine PXL 2 (M4)

Water amount (%RH)



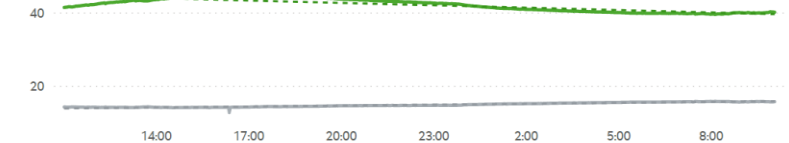
Oil temperature (°C)



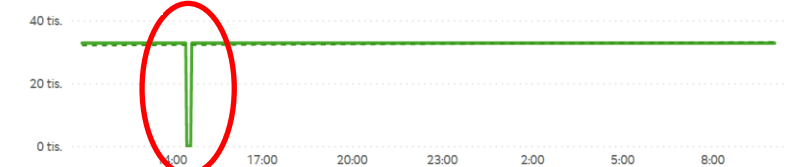
Code mech. particles (ISO 4406)

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● Temperature (°C) ● Water amount (%RH)

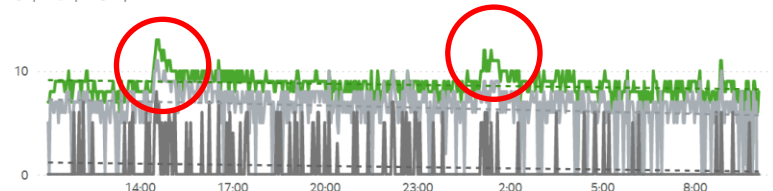


Flow



Mechanical particles amount

● 4µm ● 6µm ● 14µm



News in tribodiagnostics

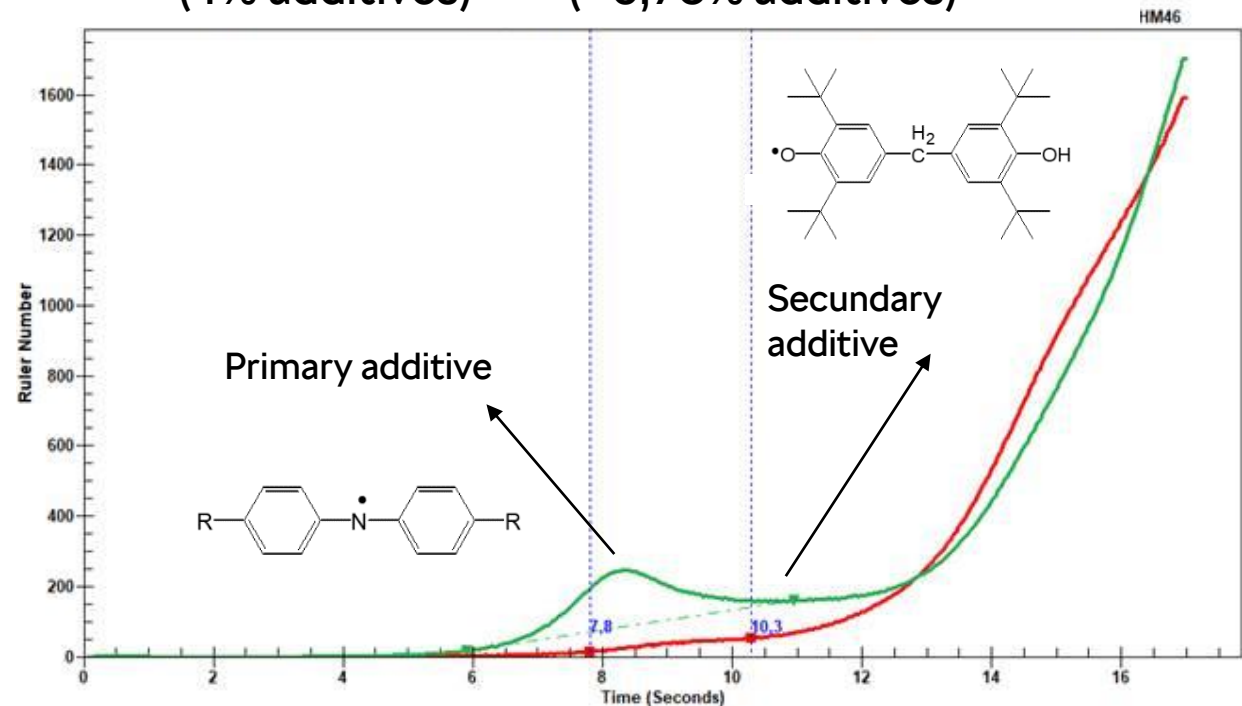
New procedures and principles



**Oil additives
replenishment**

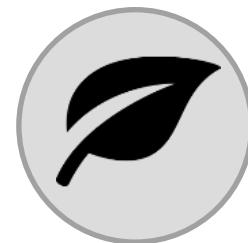
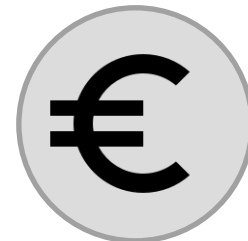
**By adding additives to old
oils, we will extend the life of
oils by a total of 15 years**

new oil (1% additives) **„dead“ oil (<0,75% additives)**



TRIBODIAGNOSTIK - FUTURE

- New kinds of oil– increase of filtration volumes by 10% (Saving 120 ths. € / year)
- Extension of knowledge in Online Monitoringu
- PoC - Oil additives replenishment (Saving 25 ths. € / year)
- Sustainability, CO₂ - reduction (1L Öl = 2,3 kg CO₂ => 500 m³ = 1 150 t CO₂)
- Total saving – 745 ths. € / year
- Oil life = Machine life



THANKS FOR YOUR ATTENTION!



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