

# Reduction of wear on the camshaft on board M/F Peter Wessel after QMI treatment.

## QMI SCANDINAVIA



Engines:	Average:				After treatment :				Average % reduction		
	1	2	3	4	1	2	3	4	4	Average wear	
Aluminium	2,0	1,0	2,0	2,0	1,75	1,0	1,0	1,0	1,0	1,0	43 %
Fe	21,0	20,0	18,0	19,0	19,50	9,0	7,0	5,0	7,0	5,0	64 %
Cr	0,1	0,0	0,2	0,2	0,13	0,0	0,0	0,0	0,0	0,0	100 %
Cu	22,0	21,0	19,0	19,0	20,25	4,0	6,0	5,0	3,0	4,5	78 %
Ni	2,8	2,3	2,7	2,5	2,58	0,0	0,0	0,0	0,0	0,0	100 %
Pb	2,2	1,1	2,6	2,5	2,10	0,4	0,0	0,0	0,6	0,25	88 %
Lead											79 %

Total reduction in % of the six metals:

### Reduction of wear on the camshaft on board M/F Peter Wessel after QMI treatment.

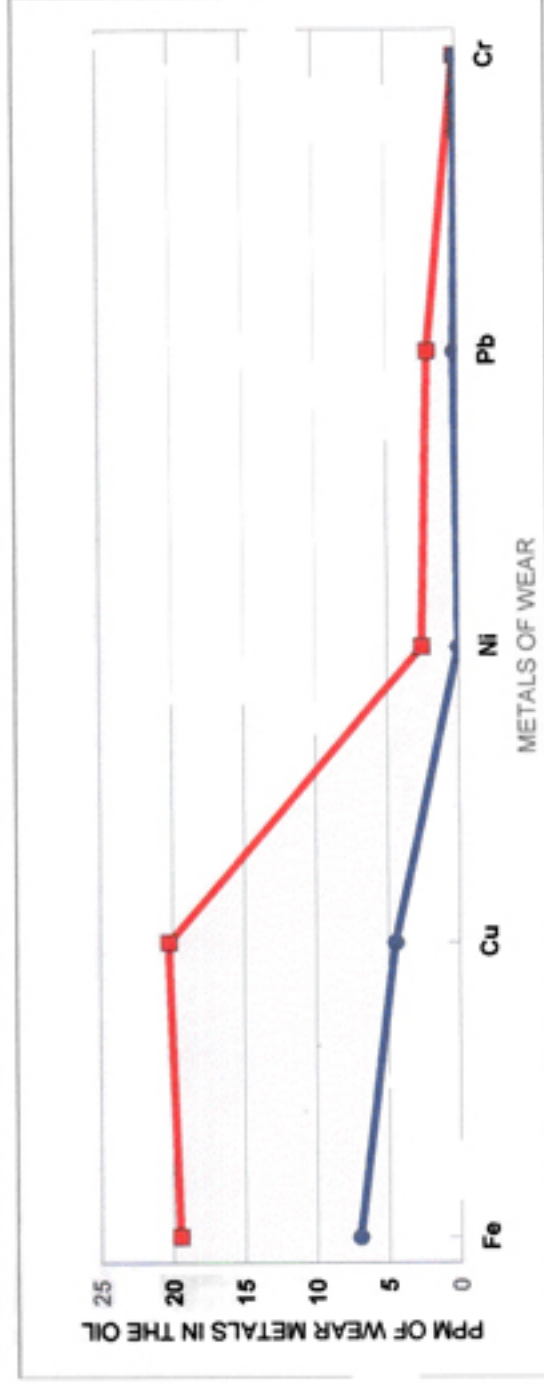
Average ppm before treatment

Fe	19,50
Cu	20,25
Ni	2,58
Pb	2,10
Cr	0,13

Average ppm after treatment

7,0
4,5
0,0
0,25
0,0

### Reduction of wear on the camshaft on board M/F Peter Wessel after QMI treatment.



RED COLOUR: BEFORE TREATMENT  
BLUE COLOUR: AFTER TREATMENT



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## TESTBERICHT

### SX - 6000 in einem BMW M3 - MOTOR

Im Auftrag der Firma QMI, Deutschland haben wir die Wirksamkeit der Motorenbehandlung von SX-6000 in einem BMW M3 Motor des neuesten Typs (6 Zyl.) S 50 B 30 getestet. Dieser Motor ist bekanntlich schon werksseitig auf Höchstleistungen getrimmt.

Der Motor war zu Testzwecken auf unserem Prüfstand des Typs "Super Flow 7420" montiert. Vor der SX-6000 - Zugabe hatten wir den Motor schon gut eingefahren und unter vollkommen genormten Bedingungen mindestens 30 Leistungsmessungen innerhalb von 2 Wochen gefahren, bei denen die Streuung der Meßergebnisse maximal +/- 0,3 % betrug, also +/- 1 PS bei einer gemessenen Leistung von 210 kW (286 PS).

Nach Zugabe der SX-6000 - Gleitbeschichtung gemäß Herstellervorgabe wurde der Motor 5 Stunden gefahren, bevor wir die ersten Leistungsmessungen durchführten. Während der Zeit, wo die Meßläufe gefahren wurden, stimmten alle äußerlichen Faktoren (z.B. Lufttemperatur, Feuchtigkeit) mit den Bedingungen der früheren Läufe überein, bzw. wurden durch Anwendung der genormten Faktoren ausgeglichen.

Die Ergebnisse (siehe Grafik) zeigen, daß SX-6000 eine Leistungssteigerung ab 3000 U/min je nach Last und Drehzahl zwischen 1 und 5 PS bringt. Es ist statistisch unmöglich, diese höheren Werte dem Zufall zuzuschreiben.

Eine Senkung der Öltemperatur durch die geminderte Reibung wurde registriert. Besonders bei Vollast, wo zum Beispiel bei 6000 U/min und 100% Motorlast die Temperatur von 105° C auf 100° C zurückging.

Der Test wurde im Januar 1995 gefahren.

Lenz Motorentechnik GmbH

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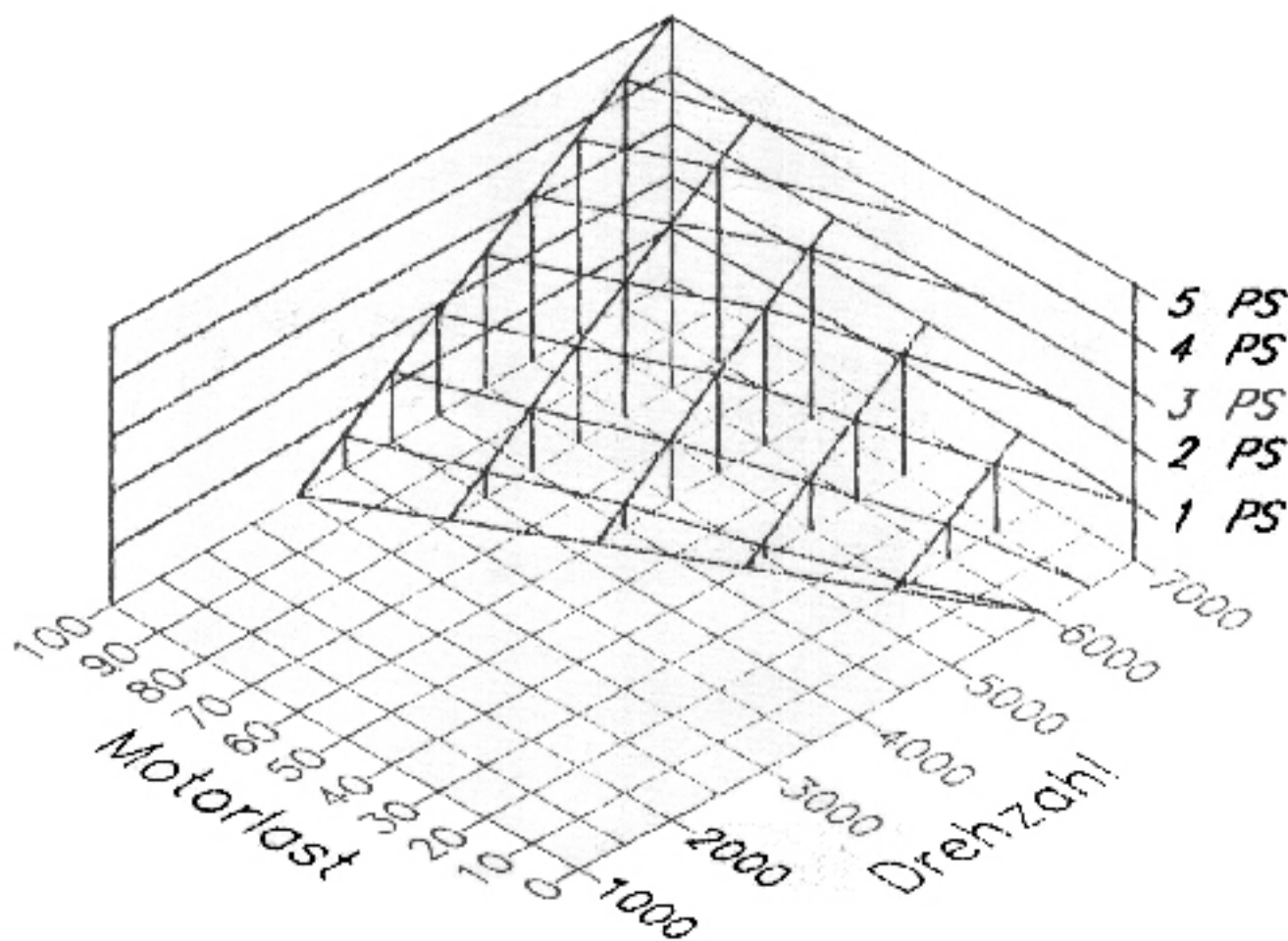
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## BMW M3-S50B30

### Mehrleistung durch SX6000



# QMI Behandling av hjelpemotor på "M/F GULEN"

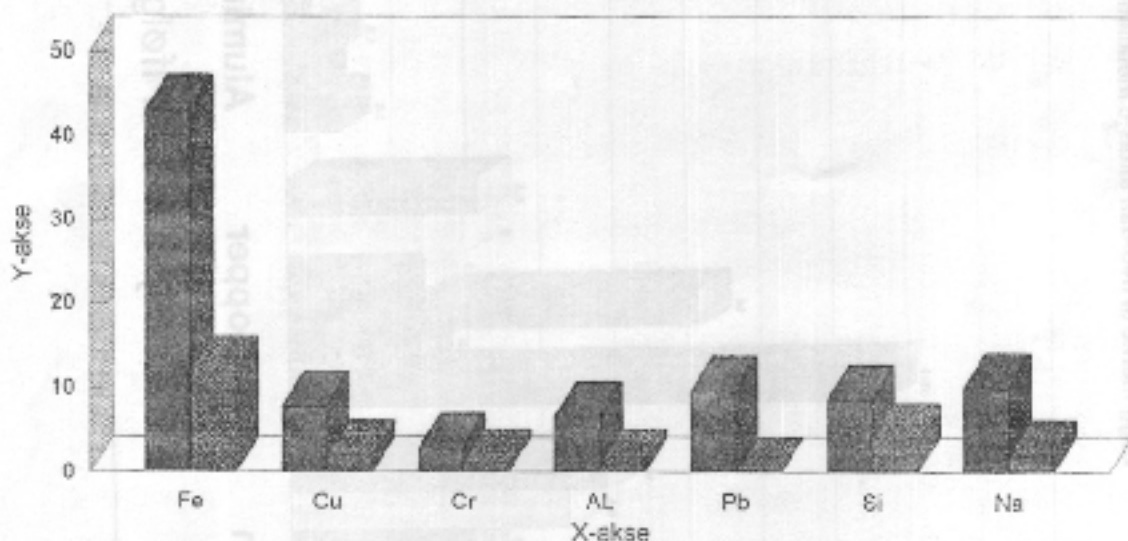
## Volvo TMD 102

14.05.93	10.02.94	01.05.94	19.05.94	20.04.95	Gjennomsnitt	QMI behandling 29.04.95	06.10.95.
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Fe	19	61	61	32	43	43,2	12
Cu	12	7	7	3	20	7,8	2
Cr	2	2	2	2	6	2,8	1
Al	7	6	6	5	9	6,6	1
Pb	10	10	10	7	11	9,6	0
Si	11	8	8	8	8	8,6	4
Na	14	17	17	12	10	10	2

### QMI Behandling av hjelpemotor på "M/F GULEN"

Volvo TMD 102



■ Snitt av 5 oljeprover før QMI behandling ■ 4 mnd etter QMI behandling

# QMI European Operations

*present*

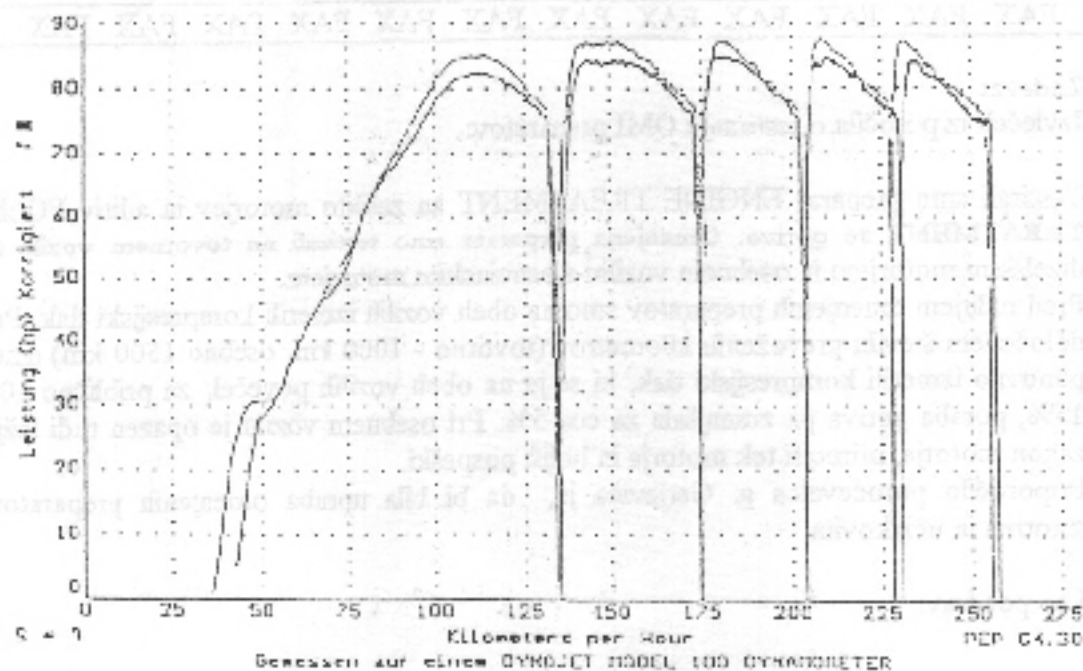
a new dimension in care and maintenance of motorcars, machinery and industrial equipment

## QMI Engine Treatment

have a look what happened to the engine of a Honda CBR600F2

CBR600F2. 003 - Test run, with standard good quality engine oil

CBR600F2. 006 - Test run, with standard good quality engine oil and QMI with PTFE Engine Treatment



CBR600F2. 003 19.4 °C 983.7-10. mBar 520 m

CF = 1.03

Oiltemperature 81 °C

CBR600F2. 003 22.3 °C 953.2-10. mBar 520 m

CF = 1.05

Oiltemperature 73 °C

Significant points are:

4 DIN-hp increased performance

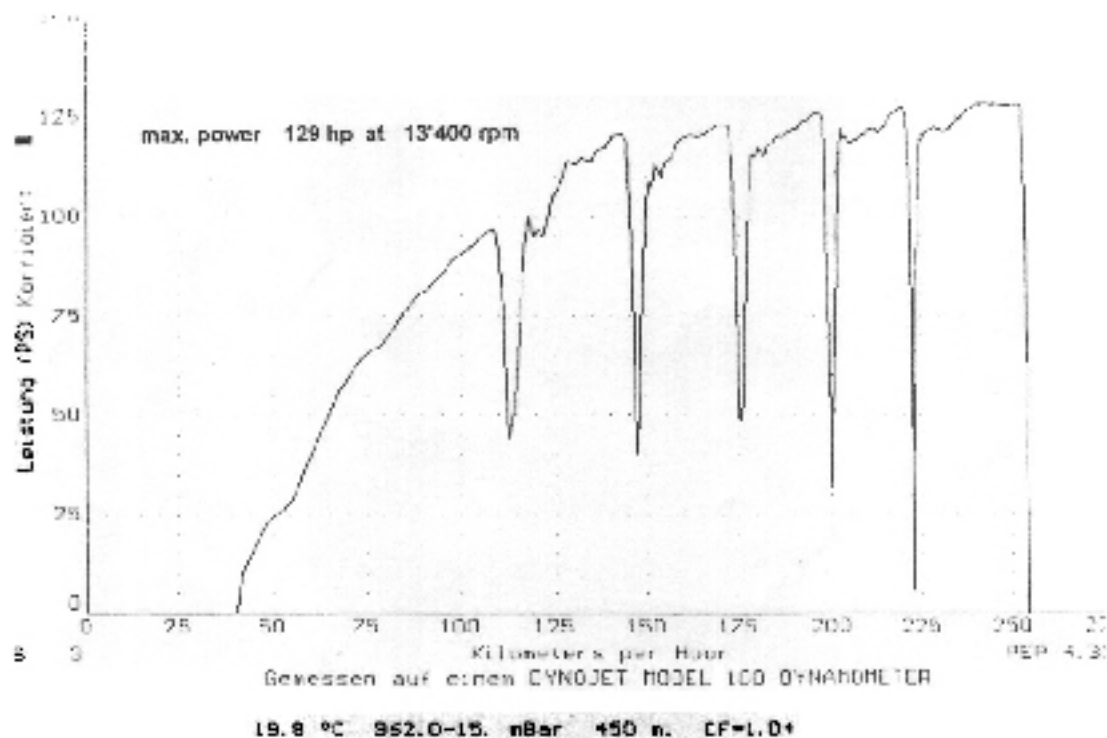
8 °C reduced Oil-temperature



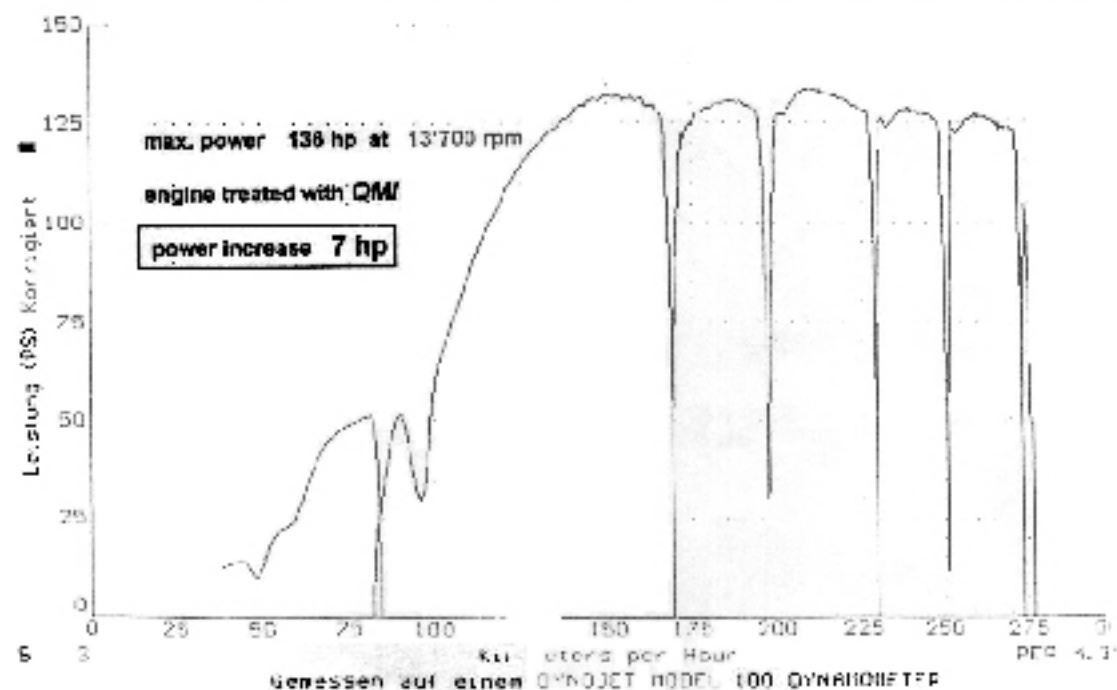
Power - Test on Dynojet Model 100 Dynamometer  
14. Sept. 1994 A at 09:45h / B at 11.30h

KAWASAKI model ZXR 750 R  
750 ccm Suberbike - Racer

TESTRUN **A** with normal brand Racing-oil **WITHOUT QMI** with PTFE Engine Treatment  
hp - output measured at rear wheel, no alternator and starter-motor fitted, top speed-readings not relevant



TESTRUN **B** with normal brand Racing-oil **WITH QMI** with PTFE Engine Treatment



# ROAD & TRACK

FEBRUARY 2004

## NASCAR: TEFLON TRICKS

BY TOM COTTER

though Dale Earnhardt, Inc. (DEI) attributes Dale Earnhardt Jr. and Michael Waltrip don't realize it, they owe their dominance at the Daytona 500 to a chance conversation between J. J. Foyt and Harold Elliott in 1976. Elliott was building engines for Junior Johnson's team at the time, when Foyt offered Elliott a set of Teflon-coated engine bearings.

"He was using them in Indy cars, and I told me to give them a try in our stock cars," says Elliott, owner of HMI Custom Precision Coatings in Mooresville, North Carolina. "I ran one bearing in the Southern 500 and after 500 miles, they looked like new." Clearly, he was on to something. Today, Elliott's clients include NASCAR's biggest names: Yates, Roush, Yates, Petty and of course, DEI. Dale [Sr.] and I were friends," he says, and he was one of the first believers in Teflon-coating parts. Not just engine parts, but in the entire driveline.

As the engine builder for Rusty

Wallace's 1949 Championship team, Elliott knows not all horsepower is found in the engine. "A 700-horsepower engine on the dyno only has 450 horsepower when you shut the hood," he says. "The rest is lost in the drivetrain." "So for more than two decades Elliott has been developing methods of finding some of that lost horsepower.

Coating accomplishes three things: heat dissipation, lubrication and oil shedding. "By ceramic coating the tops of the pistons, lubrication and oil [less fuel], which means more horsepower and better gas mileage," he says. Teflon coating parts such as the crankshaft, transmission gears, and the ring and piston sheds excess oil and eliminates rotational mass.

"Basically, when an uncoated crankshaft or gears rotate, they pick up oil, then more oil sticks to that oil, and the part grows in size and weight," he says. That mass eats up horsepower."

Twenty years ago, Elliott, stumbled across another breakthrough by accident. "We were in a crash getting

Rusty's car ready for qualifying, and forgot to put lubricant in the rear end, which had been coated," he says. "Well, we set a record and won the pole, and only later did we realize that we forgot the fluid in the rear end.

"Today I promote running the lightest oils possible in a Teflon coated engine, transmission and rear end, because race cars run cooler and stronger." Total cost to coat all the essential drivetrain parts in a NASCAR Nextel Cup car? About \$2000.

So if any of the DEI cars run well during these year's Daytona 500, now you know why—thanks to Teflon, these cars are just as slick inside as they are aerodynamically.



## What NASCAR has known for years...



PTFE

\*Slickest Substance Known To Man

- 🏎️ Prolongs Engine Life
- 🏎️ Improves Performance
- 🏎️ Reduces Engine Friction

Teflon is DuPont's Registered Trademark and part of the PTFE Family



has made affordable.

