THE „FLIGHT RECORDER“ FOR THE VEHICLE

Brief description MDeco

DO THEY ALREADY MEASURE OR DO THEY STILL ESTIMATE?

For the implementation of an eco-training, it is essential to clearly show the participant the difference between a fuel-saving driving style and his or her previous one. For this purpose, the recording and evaluation of exact driving data such as consumption, revolutions per minute, acceleration, etc. is indispensable for the learning success. The MDeco fulfils these tasks and enables the instructor to increase the quality of his training.

THE DATA ACQUISITION IN THE VEHICLE

The MDeco, developed in cooperation with ADAC Fahrsicherheit GmbH, is used to store all relevant driving data from training drives in the vehicle and to subsequently evaluate the results on a PC. Connecting the MDeco recorder to the vehicle‘s data bus makes it possible, like a flight recorder, to record all the data of the drives to the second. The training system has a built-in touch screen to display information live while driving.

The participant logs on to the system using a chip card. The recorded ride data is then automatically assigned to the respective person. The name of the trainer and a description of the measure can also be stored.

The trainers can scroll between the different pages of the live display during the training ride so that the participant can learn more about his or her driving behaviour. The data storage is of course independent of this. The display of the result allows a first balance of the finished ride already in the vehicle.

The described functions mean an immense simplification of work compared to the previous methods. The trainer can now concentrate exclusively on communicating the learning objectives and does not have to count values or note them down on paper.

A wide range of parameters can be analysed and clearly communicated to the drivers. These include, among others:

- Average speed (km/h)
- Average rotational speed (1/min)
- Average rotational speed (1/km)
- Average consumption (l/100km)
- Kilometres travelled (km)
- Instantaneous speed (km/h)
- Instantaneous rotational speed (1/min)
- Momentary acceleration (m/s^2)
- Momentary delay (m/s^2)
- Fuel quantity (l)
- Journey time (hh:mm:ss)
- Standing time of the travel time[2] (%)
- Date of the trip (01-01-2001)
- Start of the ride (hh:mm:ss)
- CO2 emissions per kilometre[2] (g/km)
- Total CO2 emissions (kg)
- Accelerator pedal position[1] (%)
- Braking time[2] (hh:mm:ss)
- Brake actuations
- Retarder insert
- Clutch actuation[1]
- Gear engaged
- Gear change
- Mileage[1]
- Standstills[2]

[1] Only display in the unit

[2] Calculation takes place in the evaluation

THE ANALYSIS OF THE RIDES IN THE TRAINING ROOM

All information from the training rides can then be transferred to a PC and stored using a chip card. Afterwards, the information is evaluated and visualised by the analysis programme MDSeco.

With the help of the simple menu navigation, the respective rides of the participants are selected and compared with each other in the diagram display. A total of 10 different parameters can be analysed and clearly communicated to the participant.

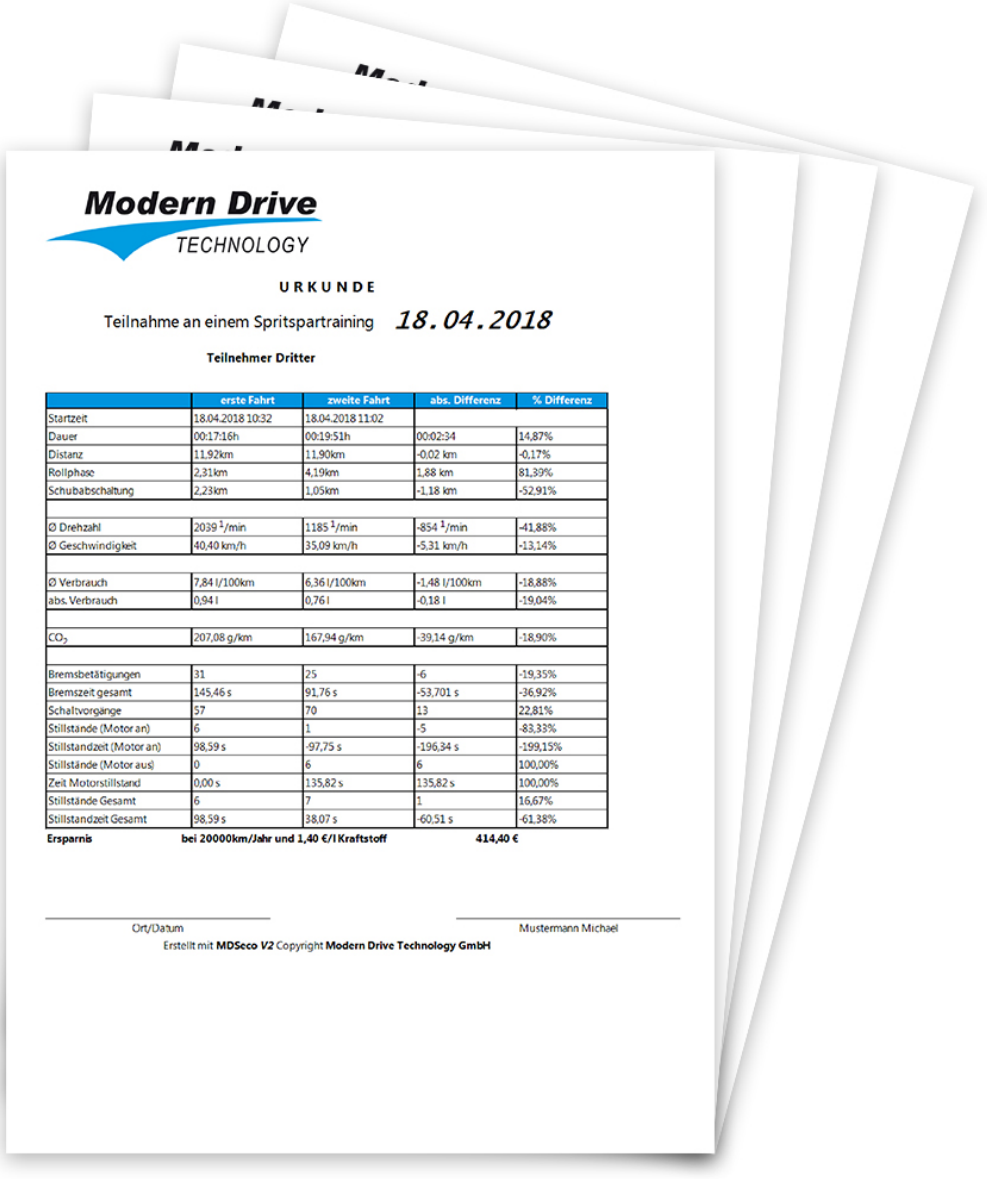
For a precise analysis of individual traffic situations, a journey can be slowed down, accelerated or replayed in real time with all stored values using the video function of the cockpit display.

Of course, the data of the first and second ride of a participant can also be used to create a certificate. At the push of a button, the participant is thus presented with the result of his or her training.

REPRESENTATION DIAGRAM

DISPLAY VIDEO FUNCTION

PRESENTATION CERTIFICATE



Modern Drive
TECHNOLOGY

URKUNDE

Teilnahme an einem Spritspartraining *18.04.2018*

Teilnehmer Dritter

	erste Fahrt	zweite Fahrt	abs. Differenz	% Differenz
Startzeit	18.04.2018 10:32	18.04.2018 11:02		
Dauer	00:17:16h	00:19:51h	00:02:34	14,87%
Distanz	11,92km	11,90km	-0,02 km	-0,17%
Rollphase	2,31km	4,19km	1,88 km	81,39%
Schubabschaltung	2,23km	1,05km	-1,18 km	-52,91%
Ø Drehzahl	2039 ^{1}/min	1185 ^{1}/min	-854 ^{1}/min	-41,88%
Ø Geschwindigkeit	40,40 km/h	35,09 km/h	-5,31 km/h	-13,14%
Ø Verbrauch	7,84 l/100km	6,36 l/100km	-1,48 l/100km	-18,88%
abs. Verbrauch	0,94 l	0,76 l	-0,18 l	-19,04%
CO_2	207,08 g/km	167,94 g/km	-39,14 g/km	-18,90%
Bremsbetätigungen	31	25	-6	-19,35%
Bremszeit gesamt	145,46 s	91,76 s	-53,701 s	-36,92%
Schaltvorgänge	57	70	13	22,81%
Stillstände (Motor an)	6	1	-5	-83,33%
Stillstandzeit (Motor an)	98,59 s	-97,75 s	-196,34 s	-199,15%
Stillstände (Motor aus)	0	6	6	100,00%
Zeit Motorstillstand	0,00 s	135,82 s	135,82 s	100,00%
Stillstände Gesamt	6	7	1	16,67%
Stillstandzeit Gesamt	98,59 s	38,07 s	-60,51 s	-61,38%

Ersparnis **bei 20000km/Jahr und 1,40 €/l Kraftstoff** **414,40 €**

Ort/Datum

Mustermann Michael

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