

CHAPTER 10
RESULTS OF THE EXPERIMENT
ON FUEL-CONSUMPTION
MEASUREMENT IN DECELERATION
MODE (TBS-6)

The factors and levels considered in the analysis of variance of the data produced by experiment TBS-6 are presented in Table 10.1.

In this experiment the vehicles started from the beginning of a level section at a given speed and, from a given point, the driver maintained the vehicle in gear, stepped on the brake and stopped the vehicle in the shortest possible space, using the clutch at the last moment. Thus, the smaller the space run between the point where braking began and that where the vehicle stopped, the less the time spent on this space and the less the volume of fuel consumed. It is possible, therefore, that the ratio between the volume of fuel consumed and the time spent remain unchanged for the different level combinations of the factors considered.

TABLE 10.1 - FACTORS AND LEVELS CONSIDERED IN THE TBS-6 ANALYSIS

FACTORS	LEVELS
Vehicles Repeated Within the Classes	1, 2 (Kombi, MB 1113 Truck)
Roughness	(Paved Surface) Low (< 40 QI) High(> 90 QI) (Unpaved Surface) Low (<100 QI) High(>140 QI)
Initial Speed	1, 2, ... V
Types of Surfacing	Paved, Unpaved

The results of the analysis support this hypothesis since the influence of these factors on fuel consumption were not found significant.

Table 10.2 presents the estimated mean and standard deviation of fuel consumption for each type of vehicle, as well as the number of observations and maximum and minimum consumptions measured.

TABLE 10.2 - FUEL CONSUMPTION DURING DECELERATION (TBS-6)

VEHICLE	N° OF OBSERVATIONS	FUEL CONSUMPTION (ml/sec)			
		MEAN	STANDARD DEVIATION	MINIMUM	MAXIMUM
Car	16	0.50	0.19	0.28	0.97
Bus	6	1.57	0.61	1.17	2.68
Utility	26	0.66	0.18	0.31	1.03
Light Truck (G)	14	4.81	1.74	1.50	6.75
Light Truck (D)	14	2.53	0.93	1.21	4.38
Heavy Truck	20	2.04	0.63	0.80	3.25
Semi-Trailer	6	2.41	0.18	2.21	2.71