

STUDY ON THE DRIVER ERGONOMIC POSITION INSIDE DIFFERENT TYPES OF VEHICLES

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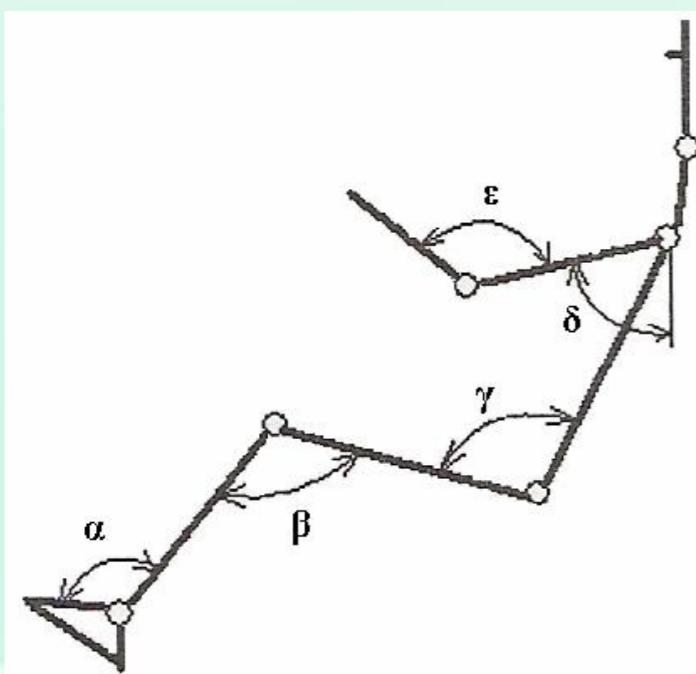
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INTRODUCTION

The role of ergonomics is to increase the efficiency and productivity of production and improve health, safety and comfort of people in their work environment. Ergonomics relies on a large number of scientific disciplines including physiology, biomechanics, psychology and anthropometry. An important component of ergonomic research of a vehicle is a prediction and development of a passenger's space in the vehicle.

The interior of the car can have a significant impact on both mental and the physical health of drivers and passengers. Seats in the vehicle are one of the main issues during the design because they determine the position of passengers in relation to all other components in the vehicle. During driving, especially in long periods, seat comfort is very important. Comfort is defined as a condition where the traveler feels relaxed and where you do not feel pain, heat, cold, etc

RESULTS AND DISCUSSION



Angles of driving position

For this experiment we will analyze three driving position:

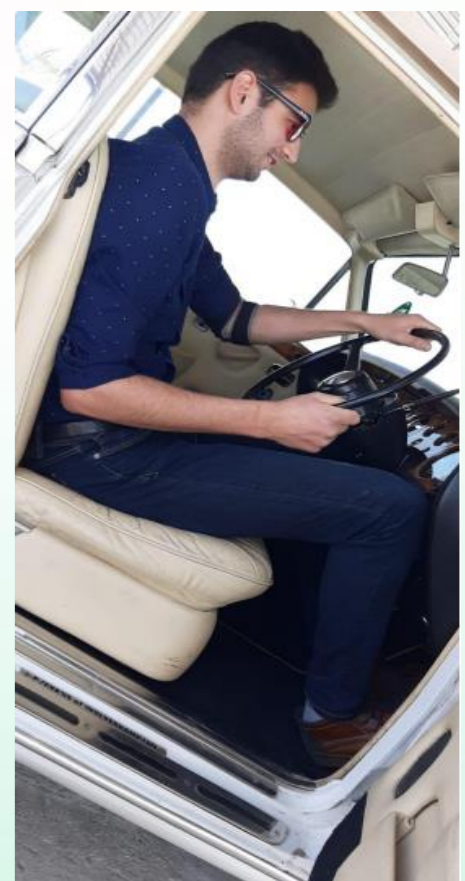
- The driving seat will be put in at the maximum distance from the steering wheel;
- The driving seat will be put in the position that offer the most comfort for the driver;
- The driving seat will be put in at the minimum distance from the steering wheel.

Table 1 - Driving position for Cadillac Deville Sedan

Angle [°]	Driving position		
	Position 1	Position 2	Position 3
α	82	85	65
β	123	92	60
γ	87	88	90
δ	80	70	140
ε	152	121	100

Table 2 - Driving position for Rolls Royce Silver Wraith II

Angle [°]	Driving position		
	Position 1	Position 2	Position 3
α	81	88	92
β	101	110	119
γ	101	98	94
δ	51	48	45
ε	85	92	100



Driver positions for the three scenarios

CONCLUSIONS

It can be observed that both car manufacturers, even in the 70s, take in consideration that the driver need to have a good driving position. After measurements one can observe that in both cars the driver was able to find a good driving position, but for all the reduced comfort scenarios it has to be taken into consideration the specific height and overall general dimensions of the driver, because different scenarios can be applied to different drivers from a physical point of view.