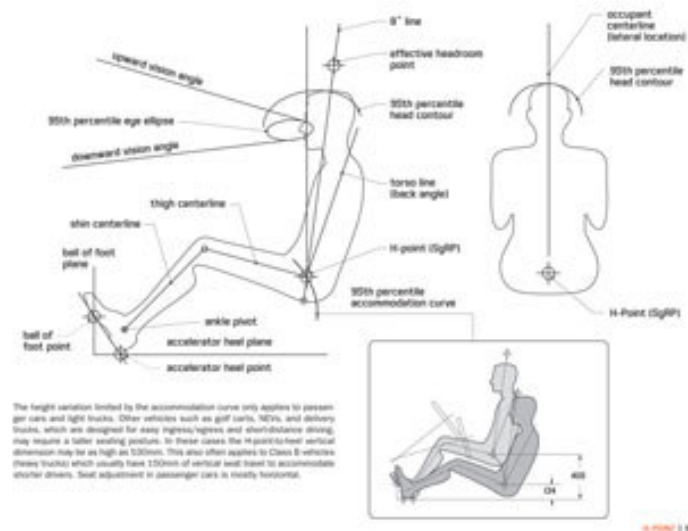


OCCUPANT PACKAGE READING 04 QUESTIONS

- 1) What influences, directly or indirectly every aspect of the vehicle's design?
- 2) When it is said that cars and trucks should be designed from the inside out, are they referring to the interior system or the occupant package?
- 3) What are the two main objectives when setting up the driver and passenger's occupant package?
- 4) What is the title of this book and the most important reference point in the occupant package? What is another name for this reference point?
- 5) Sketch the side and rear profile of a manikin that would be shown in the driver's position. Note on your sketch where the point named in Question Number 4 is located on the manikin.



- 6) Every car company uses several manikins to suit their purpose. However, what size is the most popular in occupant packaging design and why?
- 7) Using the manikins, helps car designers set up and design interior systems, locate _____, complete _____, position the _____, establish the _____ and even place the _____.
- 8) The sitting manikin can be utilized in two halves. What are they and what are they establishing?

Define the following terms:

9) Accommodation Curve (SAE J1516-1517)

10) Accelerator Heel Point

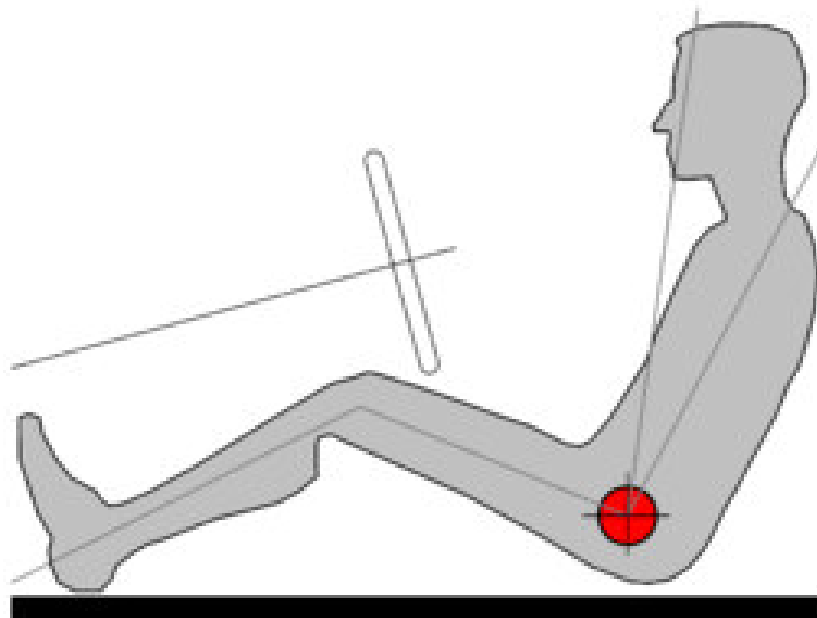


11) Accelerator Foot Plane

12) Vision Angles

13) Label and point to where the following elements are located on the manikin image below.

- * Upward and Downward vision angle
- * 95th percentile eye ellipse
- * Thigh centerline
- * Accelerator heel point
- * Shin centerline
- * H-Point
- * Torso line (back angle)
- * 95th percentile head contour
- * Big Gulp reach point
- * 95th percentile accommodation curve



14) True or False. The Torso Line defines the back angle inclination.

15) The H-Point- to- Heel vertical dimension would be higher on a pick-up truck or sports car?

16) What are the factors that the driver's height and posture are governed by?

- a. _____
- b. _____
- c. _____
- d. _____
- e. _____



17) Based on the chart shown on page 93, what type of vehicle has the lowest H-Point to Ground height?

18) Based on the chart shown on page 93, what two types of vehicles have similar H-Point to Ground heights?

19) When setting up the rear occupants, what does the "Couple" dimension refer to?

20) How is the rear occupant's leg posture different than the front occupants?



21) Why would the demographics for the rear occupants be different than for the front occupants?

22) What does "Theater" seating refer to in occupant seating?

23) On page 94, is an illustration of the major dimensions that set up the interior environment around the occupant package. Using the same measurement system for every project ensures that there are no confusion and the package database remain consistent.

What does the code A61 stand for? _____

What does the code H30 stand for? _____

What does the code W5 stand for? _____

What does the code W20-2 stand for? _____

24) What are these measurements in?

- a. Millimeters
- b. Centimeters
- c. Inches
- d. Feet

25) Why doesn't the chart in the Sport Car row have any data measurements for the rear occupants?



Refer to the table shown on page 95 of the H-Point book. The table shows dimensions taken from current production vehicles. Find the vehicle in the chart that matches your concept vehicle type the closest. First fill in the missing dimension point titles. Then fill in the chart below using these numbers to set up an initial package, for your concept. (Remember these numbers may change as you design, but it help establish a proven benchmark.)

Driver and Front Passenger									
	Heel to Ground	Chair Height	H Point to ground	Back Angle			Downw'd Vision Angle		
Vehicle Type	(Ref)	H30	H5	A40	H61	A60	A61		

Rear Occupants					
	Couple	Chair Height			
Vehicle Type	L50	H30-2			