

Vehicle Design- Exercise 4

Read Pages 88-95 in the H-Point Book. Do Exercise 4- Occupant Packaging
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PACKAGING- STUDENT FIRST & LAST NAME and "share" it with me granting me permission to edit
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Exercise 4 - OCCUPANT PACKAGING

Set up the occupant package based on the functional objectives and benchmark studies. Accurately position the SAE 95th percentile male driver in front and rear views. Include all of the theoretical construction lines and datums, including the H-point, Heel point, ball of foot, shin and thigh centerlines, back angle, effective headroom (8 degree) line, headform and eye ellipse with vision angle lines. Next locate the rear passengers also using the 95th percentile manikins.

To help set up the occupants prioritize the following:

Aerodynamics and Handling • Comfort and space • Ingress /Egress • Safety & Security • Package Efficiency • Ground Clearance • Durability • Load Carrying

Establish some key target dimensions for each row of occupants

H-POINT HEIGHT FROM GROUND

CHAIR HEIGHT (H-Pt. to Heel)

BACK ANGLE

FORWARD VISION ANGLES

EFFECTIVE HEADROOM

SHOULDER ROOM

LATERAL LOCATION

COUPLES (if applicable)