Problem 5-4

In this problem you will check a position tolerance. Consider the part with the two pins in Exercise Problem#1 and shown below. The part geometry is sampled by a CMM and the pattern of points representing both fit features and the sole datum are shown. The size limits are 25H9 for the center hole and 15h12 for the pins. The center hole has a perpendicularity tolerance of zero at MMC. The pattern of pins has a position tolerance specification with respect to the contact surface datum-A and the center hole fit datum-B. The GO gage, shown in the following page, is made up of two holes and a pin in the center plus the datum plane. Move and rotate the gage if necessary to determine if the part passes the gage test. Based on this information, is this part within position tolerance? Note that both the part surface samples and the gage are 3D but only a 2D pattern can be shown on the plane of paper.

