



FIGURE 15.21 Hook coverage. (FKI Industries, Inc.)

It is important to specify the allowable installation tolerances for the runway steel beams because, according to AISC *Design Guide 7*, “standard tolerances used in the steel frameworks for buildings are not tight enough for buildings with cranes. Also, some of the required tolerances are not addressed in the standard specifications.” There have been cases when crane operation was impaired even when the standard erection tolerances were followed.

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REVIEW QUESTIONS

- 1 What components of the overhead crane beam resist the horizontal thrust?
- 2 Which of the two cranes systems is likely to be more expensive: (a) the 10-ton crane with 80-ft span and CMAA Class A or (b) the 10-ton crane with 90-ft span and CMAA Class E?
- 3 The value engineering review by the owner has focused on the horizontal tie-back connections between the crane girders and the building columns. The review suggested that the proprietary linkage specified in the contract documents be replaced with a less-expensive vertical plate welded to the girder and the column. Should this suggestion be accepted? Why or why not?
- 4 What are the three ways of supporting overhead crane girders?