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## Ila

### DISCUSSION LIBRE • FREIE DISKUSSION • FREE DISCUSSION

#### Discussion of the Paper "Composite Steel-Deck-Reinforced Concrete Systems Failing in Shear-Bond" by R.M. Schuster

Discussion de la contribution "Composite Steel-Deck-Reinforced Concrete Systems Failing in Shear-Bond" par R.M. Schuster

Diskussion des Beitrages "Composite Steel-Deck-Reinforced Concrete Systems Failing in Shear-Bond" von R.M. Schuster

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Static and fatigue tests on steel-deck-reinforced concrete slabs similar to those reported by R.M. Schuster were carried out at Cambridge University, England, in 1970-71. It was found that ultimate strength of the composite slabs was strongly influenced by two variables not discussed in the present paper.

The first is the detail at the edge of the slab. If the outermost corrugation of the decking can separate from the slab due to transverse bending of the deck, then the longitudinal shear strength is less than when the free edge of the decking is embedded in the slab in some way. For example, the edge detail shown in Fig. 1 of the paper would perform better than that shown in Fig. 3. The effect is of course more significant in narrow laboratory specimens than it is in practice.

The second variable is the roughness of the dimples or corrugations provided in the inclined sides of the sheets. Measurements on sheets provided by one of the same suppliers that R.M. Schuster used showed that the dimple depths ranged from 0.6 mm to 1.1 mm. The mean depths for individual sheets were more uniform (0.79 to 0.97 mm), but it is likely that the variation is sufficient to influence the shear strength of composite plates in which these sheets are used.