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混凝土倒T形叠合连续板的试验研究

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摘要: 按照实际用于工程的倒T形叠合连续板的设计和构造要求制作试件, 采用普通粘土砖荷重块分级施加均布荷载的方法, 进行了倒T形叠合连续板均布静荷载试验. 研究了其二阶段浇注混凝土共同工作的可能性和可靠性、在各个特征荷载作用下的试件力学性能以及试件的开裂和破坏的形态与规律. 试验结果表明: 倒T形叠合连续板这种新的叠合板型式具有良好的整体工作性能, 延性好, 其正截面受弯承载力基本上可以按照整体浇注的连续板要求进行设计; 此外, 倒T形叠合连续板具有叠合面开裂的受剪破坏形态, 在设计中应对叠合面受剪承载力进行计算, 不足时应采取适当的构造措施.

关键字: 叠合板; 倒T形板; 连续板; 特征荷载

Experimental study on the RC invertible T slab-continuous composite slab

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Abstract: According to the designing structure requirement of the invertible T slab-composite continuous slab to be applied to the actual engineering, the specimens are made and the tests under a uniformly distributed load are conducted. Possibility and reliability of the common work between concrete layers to be poured on two stages of the composite continuous slab are studied and the properties of the specimens under the action of feature load are researched. Form and law of the specimens cracking and destruction have been investigated. Experiments indicate that a new form of the invertible T slab-composite continuous slab is possible and reliable. The tests supply important basis for the design method study and engineering application of the composite slab.

Key words: composite slab; invertible T slab; continuous slab; feature load

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