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III

Introduction to Theme III

Introduction au thème III

Einführung zum Thema III

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Two new developments in applications of mass produced steel building components have occurred since the introductory report was published. New developments have occurred in storage rack buildings and in the Republic Residential Housing System.

STORAGE RACK BUILDINGS

The new development in rack supported buildings is the remarkable increase in height. A rack building 75' high was built by Conco, Inc. at Mendota, Illinois-near Chicago. This building is approximately 15' wide and 90' long. It was built primarily by Conco for test purposes and to store in-process material. I understand Dexion has constructed a rack building near London, England for the Ford Motor Company that is 110 feet high. In the United States, Stouffer's Foods has erected a rack building warehouse 300' long and 120' high at Solon, Ohio near Cleveland.

REPUBLIC RESIDENTIAL HOUSING SYSTEM

The new development in Republic Steel Corporation's Residential Housing System is the completion of the Phase I development project for Operation Breakthrough sponsored by the United States Government Department of Housing and Urban Development. Four houses of the Republic Residential Housing System are now under construction in Kalamazoo, Michigan. The general structural design of the Republic System is rather elementary and consists of components field-assembled into modules. The design incorporates formed steel joists and grade beams for the floor framing. The grade beams rest on concrete foundation piers. The floor, wall and roof panels are load bearing panels of sandwich construction. The house has four subsystems: electrical, kitchen-laundry, bathroom, and heating-air conditioning.

The electrical power distribution system design allows complete factory fabrication of the house wiring system, including subsystem connections, receptacles, and switches. Installation of wiring in a house consists of merely placing the prefabricated wiring harness in wireways located in the perimeter grade beams.

The factory assembled Tappan kitchen-laundry subsystem includes range, refrigerator, disposal, dishwasher, range hood, washer, dryer, and hot water heater. Only one electrical, one cold water, and one sewer line connection are necessary to make the kitchen functional.

The factory-assembled American Standard bathroom has all the usual fixtures plus its own individual hot water heater. All plumbing and wiring is completed in the factory, requiring just three utility connections to make a bathroom operational.

The HVAC subsystem is unique in that it is the result of the HVAC manufacturer designing the whole subsystem including the air distribution system. The hollow grade beams provide a perimeter duct distribution system for each module.