

## Экспериментальное исследование прочности и податливости вертикального сварного стыка

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1960–70-  
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 125- 160 — 550

## Experimental study of the strength and suppleness of a vertical welded joint

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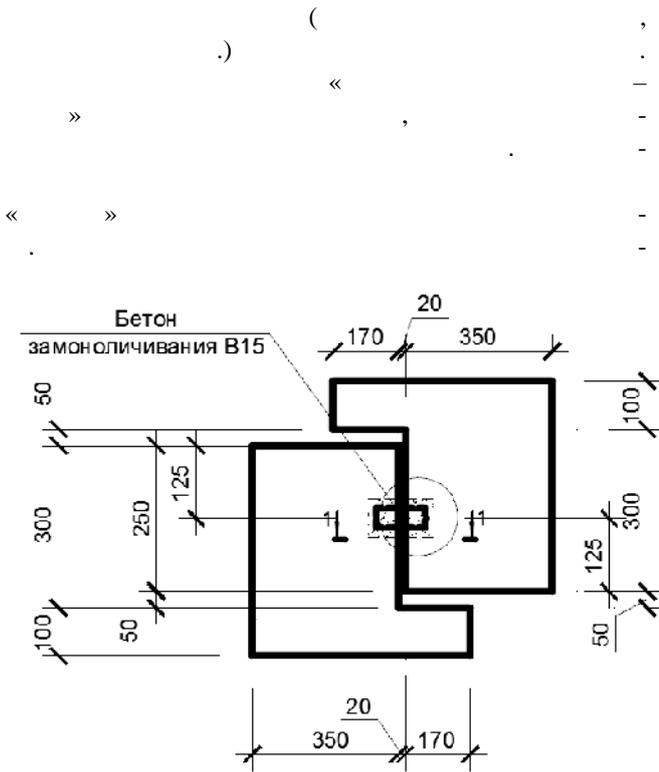
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*The issue of the relevance of panel construction in Russia is still being worked out, but the service life of typical all-Union series of panel houses of the 1960-70s comes to an end, in this connection there is a need for a reliable assessment of the stress-strain state of the buildings. Butt joints of panels, referred to as shear connections, are the most important elements of the bearing system of the panel building. One of the most frequently used wall panel joints in existing large-panel construction is a welded, encased joint. Since the panel building of the 1960-70s is a significant part of the RF housing stock, the study of welded inter-panel connection is of great importance. In this paper, an experimental study of a welded encased joint with shear stress was carried out. The test was carried out only for shear, since the main static purpose of the vertical butt joints of the panels is to ensure the perception of the shear forces arising in the joints when the mating walls work together. The object of the study is a fragment of the vertical wall connection of the 125 series of large-panel residential buildings, whose thickness is 160 mm, and the total height is 550 mm. As a result of the work, the stress-strain state of the sample has been analyzed and the dependence of the weld joint strain on the applied load has been obtained. Execution of the study and the results obtained should be considered as the beginning of the study of the operation of welded joints. The test results can be taken as a basis for the development of a procedure for calculating the compliance of welded joints of different designs and their load-bearing capacity.*

**Keywords:** shear bonding; nonlinear deformation; embedded parts welding; forces redistribution.

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 I-511, I-515/5, I-331, I-335, I-447).  
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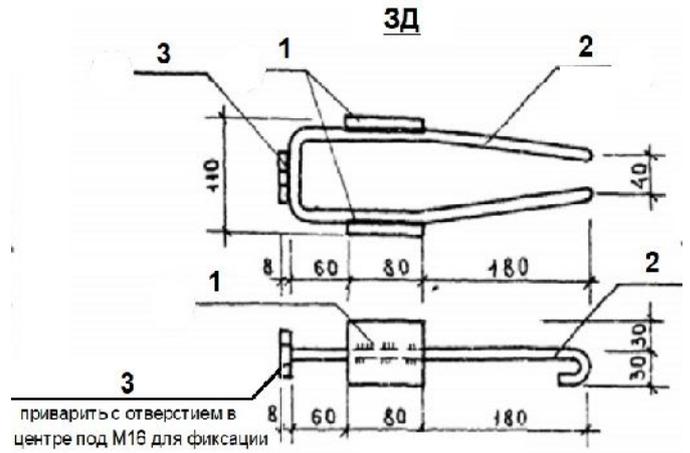
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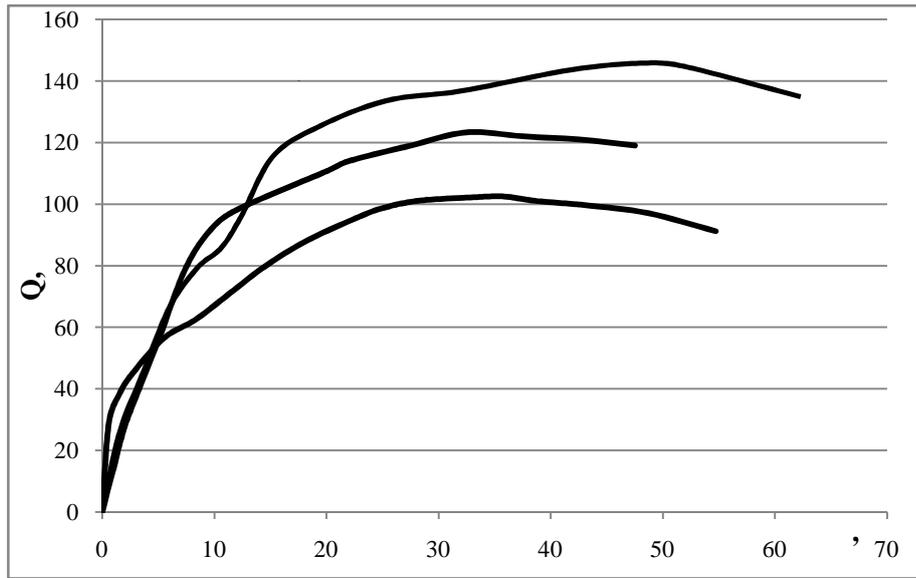
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