Parameters of separated charges underwater delayed explosion

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The article considers numerical investigation of the explosion in the water of three and five spherical charges having the same total weight, arranged in a straight line at a distance of 10 charge radii taking into account the time delay of triggering. The delay times are selected from the condition of the simultaneous arrival of water shock waves from the charges into a certain point in space. The dynamics and parameters of the explosions with simultaneous blasting and blasting of these charges with different delay times are compared. It is shown that by choosing the delay time when exploding spaced charges a substantial increasing of water shock wave pressure can be obtained in a certain range of the space in a plane of symmetry of charge placement. At the same time the increase in the delay time shifts the maximum pressure point to the center of the charge symmetry.

Keywords: explosion, maximum pressure, spherical charge, shock wave, the specific pressure pulse, numerical simulation.

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