

















**Fig. 7.** Dependence  $\sigma_{rr}(t)$  at the interface between layers ( $r = r_1$ ) in two-layer cylindrical construction at repeated loading by pressure pulses of rectangular shape.

## 5. Conclusion

The results of calculations allow us to make conclusion on possibility of the application of developed method of calculating stress-strain state in layered cylindrical constructions, subjected to multiple local dynamic loads with high accuracy and taking into account the peculiarities of arising wave processes.

The above-described results is most appropriate to use at *a priori* and *a posteriori* analysis of the results of state diagnostics for advanced constructions made of new anisotropic layered composite materials, by using acoustic methods of nondestructive testing in mechanical engineering, shipbuilding, aircraft construction, etc.

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