

Abstract Submitted
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Low-Velocity Impact Characteristics of Iron and Steel¹ SARAH THOMAS, ROBERT HIXSON, LYNN VEESER, CAMERON HAWKINS, National Security Technologies, LLC. — Steel samples have been subjected to low-velocity symmetrical impact on the order of 200360 m/s in order to determine both their spall characteristics and the alpha-phase Hugoniot. In addition, older data, some of which is for pure iron, have been mined for this information. We present spall strength and tensile strain rate of our data, as well as other data. We have also studied the Hugoniot for the alpha phase of recently and previously obtained data, and compare them with prior reports of the alpha-phase Hugoniot. A comparison of the Hugoniot elastic limit (HEL) for iron and a number of different types of steel, including 1018, HY100, and A36, is presented.

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