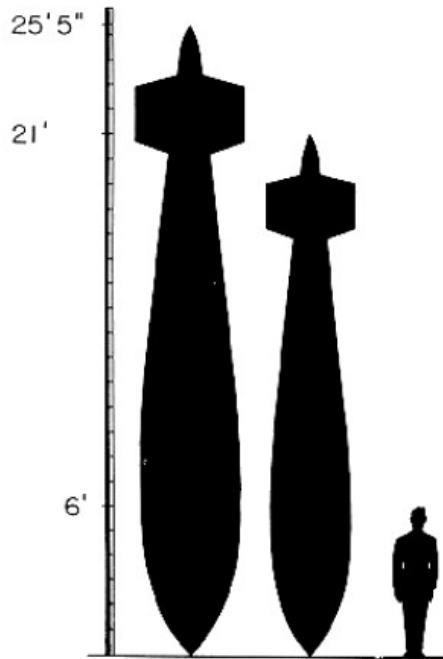


22,000lb Grand Slam Bomb



The Grand Slam was an enlarged version of Barnes Wallis' 12,000lb Tallboy bomb. This mammoth bomb was the largest conventional bomb dropped during the Second World War weighing in at 22,400lb - the empty weight of a Wellington bomber was around 18,000lb. The bomb was used on specialised targets such as submarine pens and viaducts, the Grand Slam would penetrate deep underground and then create a heavy shock wave.

As with Tallboy the Grand Slam was dropped by the Lancaster

bomber, several modifications were required including usually the removal of all but the rear turrets, it was however possible to have the rear and mid-upper turrets if the maximum ammunition carried by the rear turret was reduced to 5,000 rounds. Maximum take of weight was 72,000lb and the maximum allowable speed with the bomb attached was 250mph. The bomb caused vibration of the rear fuselage which could be felt in the entire aircraft (this was caused by the crutches for the store and was later fixed). Handling was found to be not entirely satisfactory, though acceptable.

Grandslam bomb specifications

Bomb	22000-lb DP Mk I
Construction	Steel
Usual weight	22,400lb (10,181kg)
Charge/weight ratio	42%
Total length	74.7cm)
Body length	46.84cm)
Body diameter	50.81cm)
Wall thickness	75.75in (4.44-19.68cm)
Tail length	160in(406.4cm)
Tail width	52in(132.08cm)
Filling	orpex

Sources - AVIA 46 285, AVIA 46 163