

4000lb General Purpose Bombs

In 1940 there was no heavy or medium cased bomb greater than 1900lb so in December 1940 Messrs. Vickers were asked to develop a 4000lb bomb on the lines of the existing GP bomb. The proposed characteristics of the new bomb were...

- A similar shape and size of the 4000lb HC bomb.
- Maximum possible charge to weight ratio
- Nose and tail fuzeing
- Strength to withstand impact on a modern multi-storied building or metalled road from 2000 feet.
- Ballistics similar to current GP bombs

By February 1941 two sketches of suggested designs had been submitted, one having a parallel and the other a streamlined outline, these were presented to the director of steel castings and the streamlined outline was acceptable for production. The design gave the bomb a 30% charge to weight ratio with a 1.5" thick wall, filling either TNT or 50/50 Amatol depending on supplies.

Information was requested on how the bomb was expected to perform but data from previous bomb trails was lacking and it

was felt that data from trails of smaller bombs would not be much use anyway. In April 1941 it was decided to place an experimental order for 100 bombs which could be increased to 200 at short notice if the bombs proved useful. By August 1941 the first 2 development bombs had been completed and arrangements for filling were made. The next 2 bombs were sent for installation trails were installation in a Halifax and Lancaster were found to be satisfactory except for some modifications to the bomb carrier and the Halifax bomb doors wouldn't quite close.

By March 1942 functioning and ballistics trials hadn't been completed but Bomber Command asked the Air Ministry for the production of a reasonable quantity of 4000lb GP bombs. 500 bombs were requested for the next 6 months. By April 1942 14 bombs were available and another 16 could be ready in 3 weeks. Ballistics and detonation trials had been completed by May, ballistics were found to be good as was detonation with both instantaneous and 0.12 delay but the fragments were judged to be somewhat large.

By July 1943 the bomb had been approved for use, by March 1943 bomber command decided that 200 bombs would meet their requirements as the 4000lb MC bomb was now available. Production was ceased in April. 245 bombs were produced with 217 being dropped.

4000lb General Purpose bomb specifications

Bomb 4000-lb GP Mk I-II

Construction Steel

Usual weight (1630.45kg)

Charge weight ratio

Total length (270.51cm)

Body length (201.42cm)

Body diameter (62.23cm)

Wall thickness (3.42cm)

Tail length (59.69cm)

Tail width

Filling Amatol 60/40 or Amatex 51/40/9

Sources - AVIA 46 285