Belcher Bits BB-42: Massive Ordnance Penetrator (MOP) 1/48

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Background

In WWII, Barnes Wallis' Tallboy bombs were designed to penetrate the earth deeply and do damge through transmitted shock of the underground explosion. However, their hardened cases made them effective against concrete structures, and they were used to great effect on submarine pens, making them the first 'bunker busters'. The concept continues today, and precision guided munitions means these weapons can be aimed and hit heavily reinforced underground bunkers.

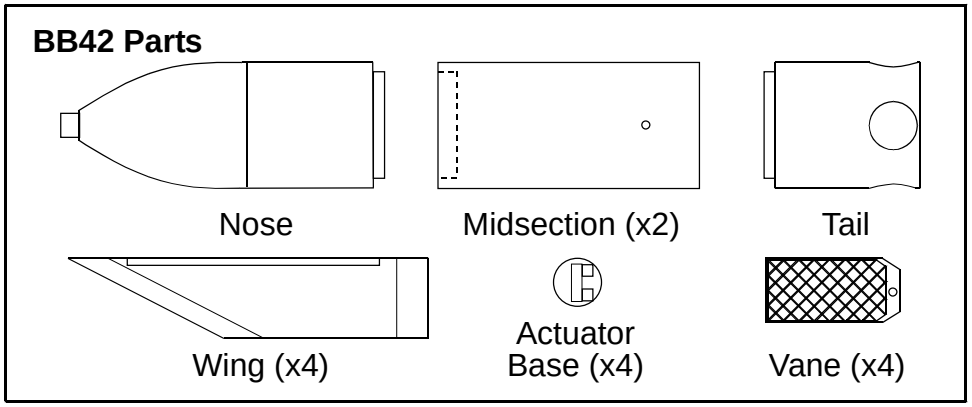
The BLU-109 was a 2000 lb hardened warhead which could be fitted with a Paveway guidance kit as the GBU-24. In the first Gulf War, it was found ineffective against deep hardened bunkers. The 4500 lb GBU-28 succeeded this and and first models had a body made from old howitzer barrels. When even more capability was required, the Massive Ornance Penetrator (MOP) was developed. It weighs 30,000 lb, and at 20.5 feet long and 31.5" in daimeter, can just fit in a B-2 bomb bay. It uses GPS guidance, steered through Russian-style grid vanes. It can penetrate 200 feet of earth, and a thick layer of reinforced concrete (actual penetration figures are unknown; what has been touted on the internet sounds implausible). It has been standardized as the GBU-57 but small production run likely means this weapon is still being developed.

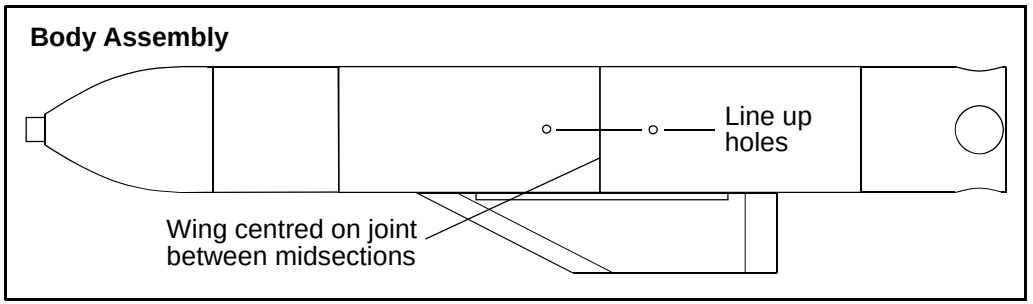
Assembly

Like all resin kits, remove the parts from their bases / sprues and wash thoroughly to remove any release agents. The two centre piece halves have one flat face, while the nose and tail are raised on cylindrical standoffs which are designed to fit inside the ends of the middle section, so clean those ends up and test fit everything.

Note the midsection parts have four small holes around the base. Match up the flat ends of the midsection halves (lining up those holes) and glue together; use a V-block if you have one, or against a straight edge on a flat surface. Fill the seam. Glue on the nose and tail sections and fill seams. Those little holes indicate where the wings attach. I recommend you use small lengths of brass or steel wire to pin the but joints, and you can fill the seams.

The steering vanes are the visual treat of this model; they require careful sanding to the bottom surface to open up the vanes. Work slowly on a flat surface. You may need a square mouse-tail file to open up a couple, but go gently. The vanes are thin and somewhat fragile. When all four are cleaned up, they can each be glued to the actuator base. The bottom of the vane glues onto the small raised step of the actuator, the little nub facing away from the small rectangular bits on





Assembly cont'd.

the actuator. The units glue into the tail section recesses; the nub points back. If you want to add a bit more visual appeal, you can turn the actuators slightly (it's like dropping the ailerons, but fancier!)

Painting

Few photos exist; the factory photo (below) is overall light grey with a blue stripe around the nose, while a test round seemed to be white with black wings. Steering vanes appear to be natural metal.

References

1. Various internet searches for photos and info.