

J334-1-30

Figure F1-19. AN-M1A2, AN-M1A3 and AN-M1A4 Fragmentation Cluster – Typical

AN-M1A2, AN-M1A3, AND AN-M1A4 FRAGMENTATION CLUSTER. (A-1E and A-1E-5 only).

The 100-pound fragmentation bomb cluster AN-M1A2, consists of six 20-pound AN-M41A1 fragmentation bombs assembled in an AN-M1A3 cluster adapter. The AN-M1A3 is a "quick-opening frame" mechanical type of adapter which holds the bombs in two banks of three bombs each and releases them upon withdrawal of the arming wires from the toggle strap clamp. The bomb cluster is issued unfuzed but assembled; fuzing is performed before the cluster is loaded on the aircraft. The AN-M1A3 cluster adapter has four sheet metal bomb supports spaced at intervals on two tubes. Three flat steel suspension lugs and two side plates are attached to the upper tube. Two spring straps are fitted to the bottom tube. Fuze vane lock springs fit into a ferrule in front of the spring strips. Three lock springs pass through the front support and three through the third support. The fuze vane lock springs prevent the rotation of the fuze arming vanes while the bombs are in the cluster. Two metal straps hold the bombs in place against the adapter; their free ends are locked in place by a toggle strap clamp secured by the arming wire. When the cluster is released armed, the arming wire is pulled out, the strap clamp opens, and the bombs are freed from the adapter. The spring strap aids in forcing the bombs away from the adapter. Flat steel lugs located on the upper tube provide for two point, 14-inch suspension. The nose bomb fuze AN-M158 is authorized for use with this cluster.

PHYSICAL CHARACTERISTICS.

Weight:

- a. Weight of assembled bomb with six AN-M41A1 frag bombs and fuzes: 128.0 pounds.
- b. Weight of each AN-M41A1 fragmentation bomb: 20.0 pounds.
- c. Weight of AN-M1A3 adapter: 8 pounds.

Dimensions:

- a. Length of assembled bomb: 46.6 inches.
- b. Width of assembled bomb: 8.9 inches.
- c. Height of assembled bomb: 10.3 inches.

Components of a complete AN-M1A2 fragmentation bomb cluster:

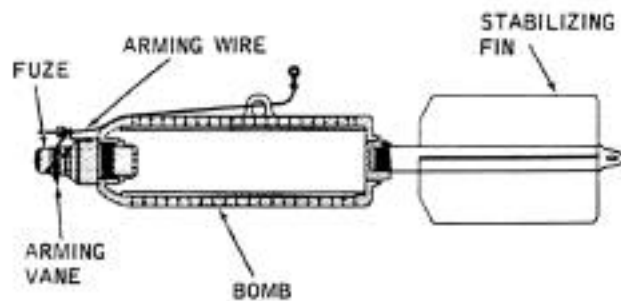
- a. Fragmentation bomb AN-M41A1; six each.
- b. Adapter, cluster, AN-M1A3.
- c. Fuze, impact, nose, or AN-M159; six each.

Suspension requirements:

- a. Rack, bomb, 14-inch spacing double-lug with arming solenoids.

AN-M41A1 BOMB.

The AN-M41A1 bomb is a mechanically fuzed, TNT-filled fragmentation bomb. No individual suspension lugs are provided on the bomb; therefore, this bomb is issued only in cluster form. A mechanical-type AN-M158 nose fuze is utilized for bomb arming. The fuzed bomb is 22.35 in length and 3.64 inches in diameter, and weighs 19.8 pounds, of which 2.7 pounds is the weight of the TNT.



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Figure F1-20. M41A1 Fragmentation Bomb