



TYPE 84 AT mine



Year of production: - 2009

COLOUR: - GREEN.

CASE MATERIAL: STEEL AND BAKELITE / PLASTIC

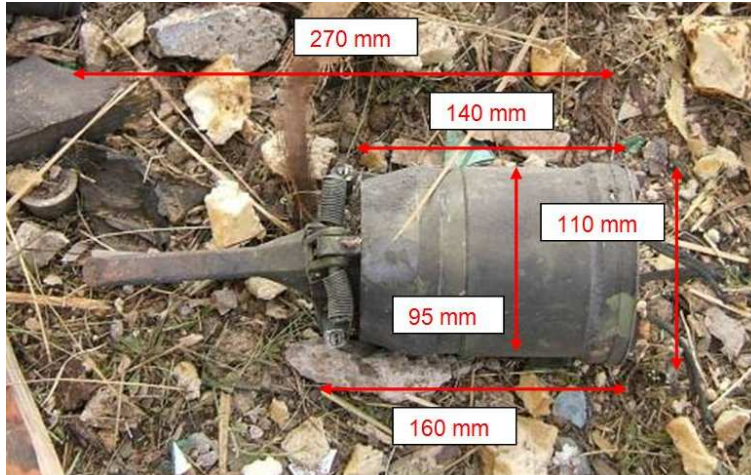
DIAMETER: 110 - 114MM

HEIGHT\LENGTH: 160MM

WEIGHT: 3.125 Kg

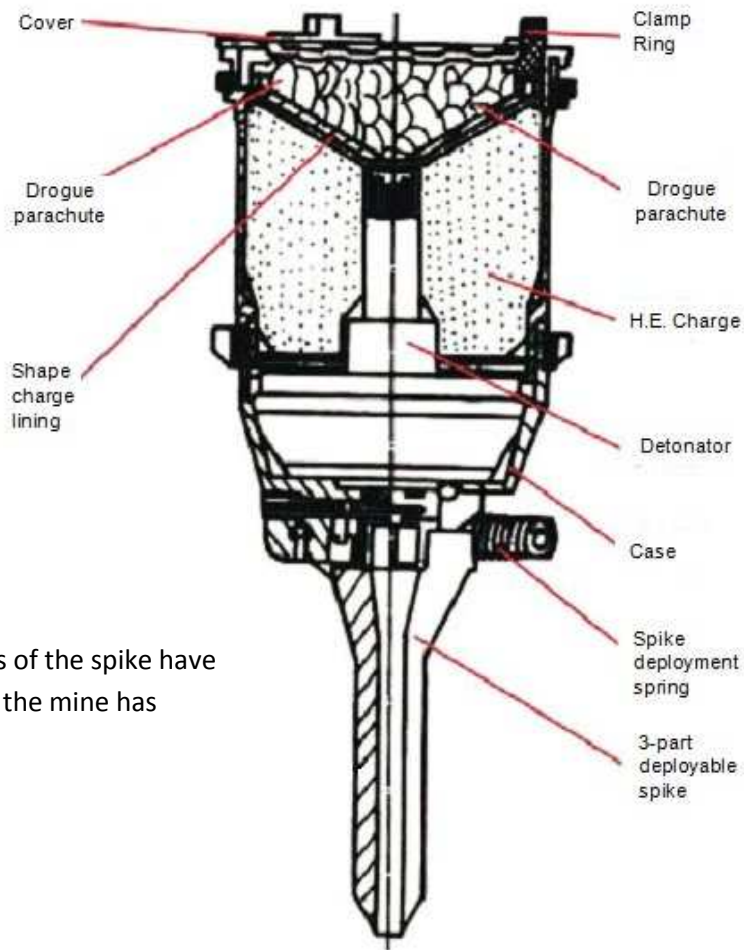
HIGH EXPLOSIVE WEIGHT: 780g RDX

Note: *This information is provided in good faith and represents the best available information held at LMAC at this time. Operators should check the content. LMAC accepts no liability for errors or omissions. Please notify LMAC of any edits you believe would be useful.*



The Type 84 AT mine is an air-dispersed mine that uses a Misznay Schardin (MS) Warhead to penetrate armoured vehicles. It is believed that two variants occur in Libya. These are referenced as the GLD 220 and GLD 220A. The GLD 220 electrically disarms after approximately 72 hours when the battery becomes sufficiently discharged. The GLD 220A detonates after 4.5, 13.6, 22.8, 36.4 or 72 hours. The time appears to be factory set with no apparent provision for alternation on the munition itself.

The mine is made up of a main mine casing enclosing an H.E. charge of RDX, a Misznay Schardin shaped charge lining, detonator, drogue parachute, and landing spike as shown in the schematic below.



When the three parts of the spike have sprung into position, the mine has armed as designed.



Mine deployment

The Type 84 AT mine is dispensed from a rocket variously described as CBL 112 and the **TYPE 122-15 ATML**.

Calibre: 122 mm

Length: 863 mm

Total mass: 63.26 kg (approx)

The rocket is comprised of an ejection charge (motor), main body containing six scatterable mines, and a nose cone.

Most Type 84 mines found in Libya have been ejected from Ammunition Storage Areas by explosion, so have not been deployed as designed. Many are located still inside their rockets.

The design deployment of the Type 84 mines used a rocket launcher vehicle as shown below.



عربة إطلاق الصواريخ

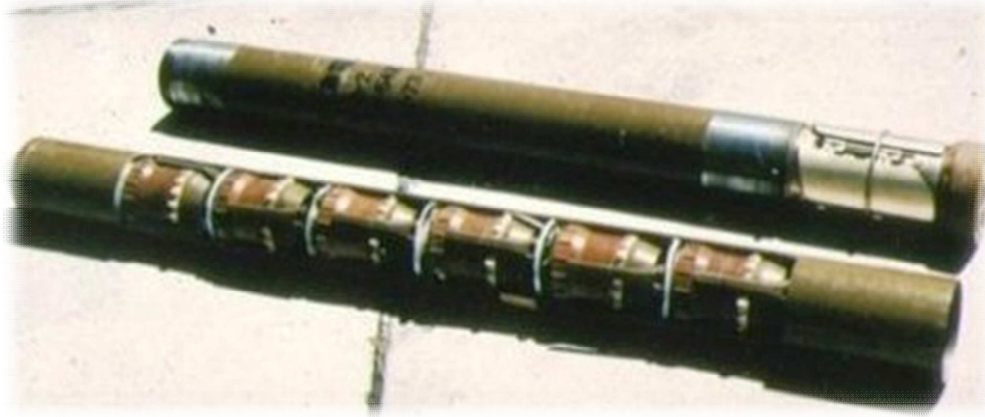
Rocket Plate Vehicle



عيار 122-15 ATML صواريخ زرع الألغام المستخدمة أثناء الحرب في ليبيا

Rocket for dispersing the mines - type 122-15 ATML

the rocket carries 6 mines
عدد 6 ألغام في الصاروخ



صاروخ زرع ألغام عيار 122-15 ATML
MINE ROCKET TYPE 122-15 ATML
showing mines inside



For reference, this page shows pictures of the mine and parts of the mine as they may be found.





Clearance accidents

There have been two recorded accidents with the Type 84 AT mine during clearance in Libya. The first involved a partially destroyed device that functioned and amputated the operative's hand. The second functioned when the operative was apparently working on it, killing him instantly. This is a HIGH RISK munition.





Recommendations

The Render Safe Procedures (RSPs) described below have been reported to have been used successfully in Libya.

LMAC ACCEPTS NO RESPONSIBILITY OR LIABILITY FOR THEIR USE. OPERATORS USING THESE PROCEDURES DO SO AT THEIR OWN RISK.

MAKE YOUR OWN RISK ASSESSMENT!

Render Safe Procedures (RSPs)

When a Type 84 mine may have armed, one of the following RSPs are recommended depending on circumstances:

1. High Velocity Kinetic initiation using a rifle from a safe distance using protective cover. The use of a 12.7 mm (.50 in) rifle is recommended. Use of calibres less than 12.7 mm is not recommended.

The mine may be disrupted, detonate or deflagrate. Wait thirty minutes before approaching it and, if necessary, finish the demolition using an explosive charge without moving a partially disrupted device.

2. Explosive demolition. Suitable for recently deployed mines or mines that have been dispersed by an explosive event. THE MINE SHOULD HAVE BEEN UNDISTURBED FOR A MINIMUM OF 73 HOURS BEFORE YOU APPROACH IT.

First remotely or semi-remotely (from a protected position) move a heavy iron (magnetic) object as close to the mine as practicable. If the magnetic influence fuze functions, the mine will detonate.

When the mine does not detonate, wait thirty minutes. Either place sandbags around the mine if they are needed to limit damage caused during demolition, or remotely move the mine into a prepared pit. If you move the mine, wait another thirty minutes before continuing.

Then place High Explosive charge(s) as close to the mine as possible without disturbing it. When the functioning of the shaped charge will not cause unwanted damage (as when the mine is in a pit) one charge of at least 60g Plastic Explosive (or equivalent) on the side of the mine should be sufficient. When it is necessary to disrupt the shaped charge effect, a second charge should be placed on the top of the mine, as close as possible to the shaped charge liner.

3. Destruction using chemical pyrotechnics able to burn through the mine casing can be conducted using approved SOPs.

4. When mines are still inside their rocket, a demolition charge 150 gm HE is reported to have ensured shock wave propagation through the carrier rocket casing.