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- There is a need constantly to update information on mines including:
 - Mines encountered in theatre, including pictures in any form.
 - Use, technical, habits, marking and recording systems.
 - Any technical data; eg pamphlets, drawings etc.
- All information sent to the UK landmine focal point, the UK MITC, will be put to good use.

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Battlefield Engineering Wing

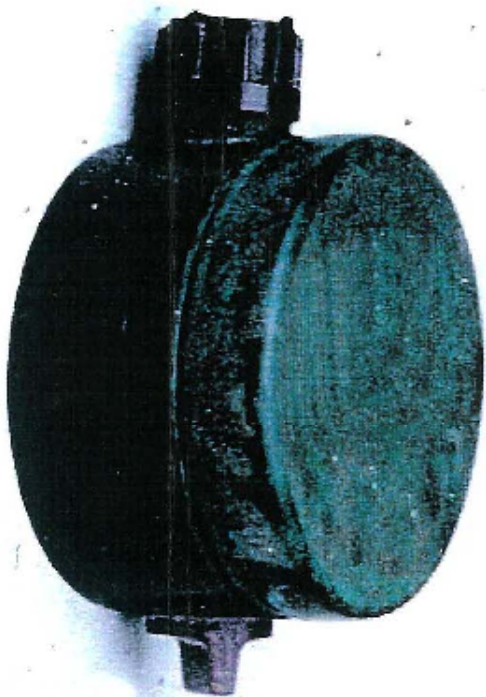


MINE HANDBOOK GEORGIA (ABKHAZIA)



ANTI PERSONNEL MINE - BLAST

PMN 1



DESCRIPTION

The PMN has been in service since the late sixties, both in the former WP forces and China. The case is made from duroplastic, with a black rubber cap secured by a metal clasp which may be removed to make detection harder. The case has a plug on either side: one retains the firing mechanism, the other holds the detonator assembly. Once the mine has been positioned the arming process is begun by removing the safety pin. The spring loaded mechanism takes 15-20 minutes to cut through a lead retaining strip, after which the mine is armed. Once armed, the firing pin assembly is held in place by a central cylinder known as a retaining well, and is released when pressure is applied to the top plate. This mine has no integral anti handling devices.

TECHNICAL DETAILS

Length	(mm):	-	Effective range (m):	-
Height	(mm):	56	Material	Plastic
Width	(mm):	-	Colour	Green, brown or black
Diameter	(mm):	112	Operation	Blast/pressure 8-25kg
Gross weight	(g):	550	Fuze	-
Explosive	(g):	240	Markings	-

Alternative designators: - Date introduced/recovered: -

Manufacturing country: Russia

ANTI PERSONNEL MINE - BLAST

MS - 3



DESCRIPTION

The MS - 3 is a pressure released booby trap based on the PMN. It uses the same bakelite body, but the overall height is slightly greater, with a cone in the centre of the rubber covered pressure plate. It is almost indistinguishable from the PMN apart from weight, being slightly heavier.

The method of operation is similar to the PMN. The spring loaded striker is retained by a safety pin until the mine is armed. In normal use, an AT mine or other object exceeding 5kg is placed on the pressure plate of the MS - 3, this pushes the striker down in the path of the striker, which will detonate the mine if the pressure is released.

TECHNICAL DETAILS

Length	(mm):	-	Effective range (m):	-
Height	(mm):	65	Material	Bakelite/ rubber
Width	(mm):	-	Colour	Brown or black
Diameter	(mm):	112	Operation	Blast /pressure release 6 Kg
Gross weight	(g):	630	Fuze	Integral
Explosive	(g):	310	Markings	MC - 3

Alternative designators: - Date introduced/recovered: -

Manufacturing country: Russia

ANTI PERSONNEL MINE - BLAST

PMN 2



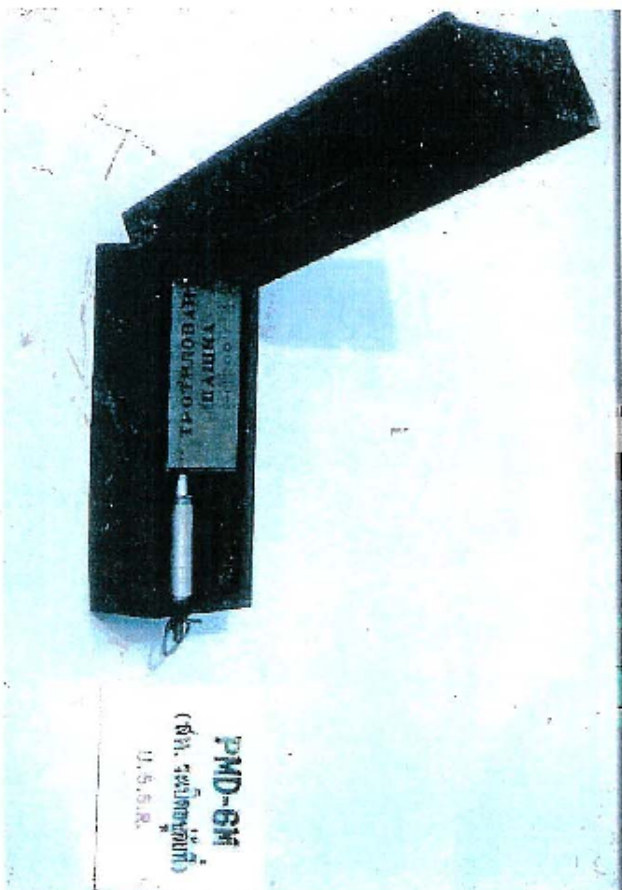
DESCRIPTION

The PMN 2 AP blast mine has a cylindrical shaped body made from olive drab drab polycarbonate. It is generally very similar to the PMN, though a little smaller. The pressure plate on this mine is a large rubber cross instead of the rubber circular mantle on the PMN. This mine has no integral and handling devices.

TECHNICAL DETAILS	
Length (mm):	-
Height (mm):	54
Width (mm):	-
Diameter (mm):	125
Gross weight (g):	450
Explosive (g):	100
Effective range (m):	-
Material:	Plastic/rubber
Colour:	Green
Operation:	Blast/pressure 15Kg
Fuze:	Integral
Markings:	-
Alternative designators:	-
Date introduced/recovered:	-
Manufacturing country:	Russia

ANTI PERSONNEL MINE - BLAST

PMD - 6



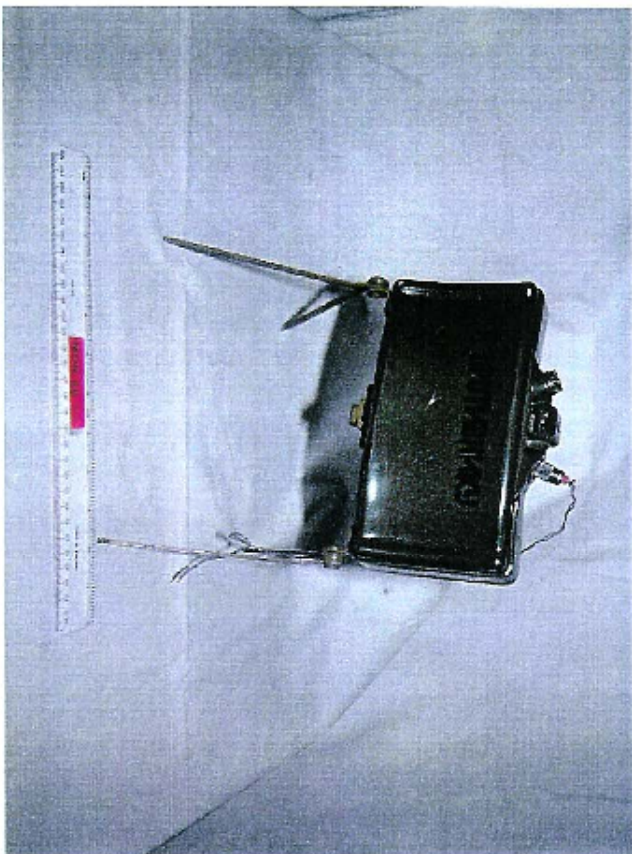
DESCRIPTION

The PMD - 6 is one of a range of "shoe box" mines developed before WW2, with a number of variations since. The mine consists of a wooden box with a hinged lid that overlaps the sides. The fuze is inserted into a hole in the end of the box opposite the hinge. The detonator rests in a 200g block of TNT housed inside the box. The lid of the mine is deeply slotted to fit over the fuze, allowing the lid to rest on the striker retaining pin. Some mines have a safety rod to prevent premature detonation. In the PMD - 7's variant, the lower part of the mine is made from a solid piece of wood, hollowed out to hold a charge. Specifications of these mines may vary, particularly when manufactured in the field.

TECHNICAL DETAILS	
Length (mm):	200
Height (mm):	65
Width (mm):	90
Diameter (mm):	-
Gross weight (g):	500
Explosive (g):	200
Effective range (m):	-
Material:	Wood
Colour:	Natural wood
Operation:	Blast pressure 1-10Kg
Fuze:	MUV, MUV-2, MUV-4
Markings:	-
Alternative designators:	PMD 6, PMD-7 Ts
Date introduced/recovered:	-
Manufacturing country:	Russia

ANTI PERSONNEL MINE – FRAGMENTATION

MON 50



DESCRIPTION

The MON 50 is the smallest of the Soviet directional anti-personnel mines used in the defensive and ambush roles. The mine gives the impression of being a copy of the American M18A1 Claymore, but there are noticeable differences. The mine consists of a moulded plastic rectangular case with 2 pairs of scissor legs: the casing is convex from the front. The casing contains the internal fragmentation matrix made up of steel balls or short steel cylinders, which is backed by plastic explosive. The mine has two detonator wells: on top, either side of the peep sight. The mine covers a 60 degree arc out to 50m, there is a secondary danger area from blast to the rear.

TECHNICAL DETAILS

Length (mm):	225	Effective range (m) :	50m to the front
Height (mm):	155	Material :	Plastic
Width (mm):	64	Colour :	Green
Diameter (mm):	-	Operation :	Directional/fragmentation: trip or command detonated
Gross weight (kg):	2.1	Fuze :	UMK, NVU-P, MUV series
Explosive (kg):	0.71	Markings :	Stencilling on rear 'MOH-50'

Alternative designators: -

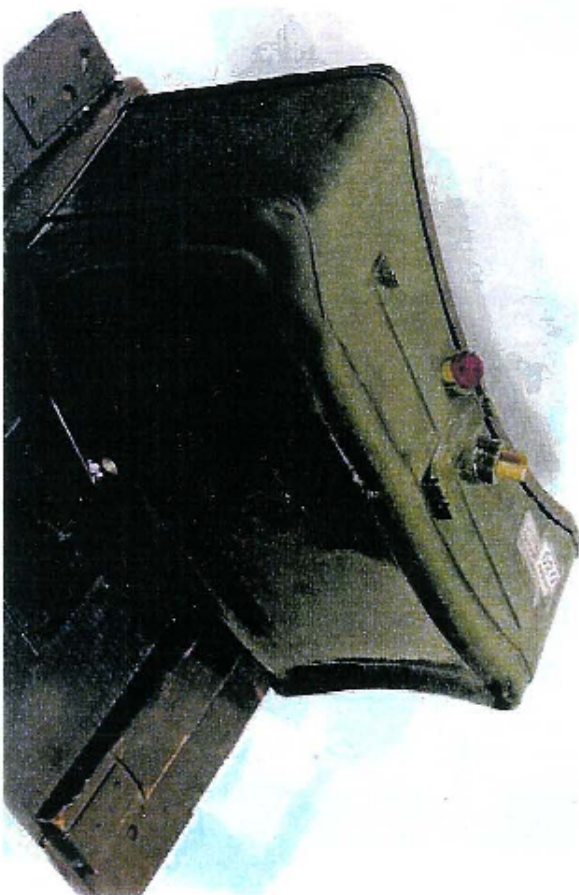
Date introduced/recovered: -

Manufacturing country: -

Russia

ANTI PERSONNEL MINE - FRAGMENTATION

MON - 90



DESCRIPTION

MON -90, a larger version of the MON - 50, is a large directional fragmentation mine of the 'Claymore type'. The mine casing has a concave rear face and a convex front face, which houses the fragmentation of ball bearings or chopped steel rod set in a resin matrix. The mine has two angled fuze wells in the top surface and a mounting bracket underneath. It may be replaced using a swivelling bracket which incorporates a clamp and a tree spike. MON - 90 has a webbing carrying handle underneath, but unlike most 'Claymore's', no folding scissor legs. The figure 90 denotes the effective range of the mine. The mine can be command detonated, or have mechanical fuzes inserted incorporating trip wires etc.

TECHNICAL DETAILS

Length (mm):	345	Effective range (m) :	90m to the front
Height (mm):	202	Material :	Plastic
Width (mm):	153	Colour :	Green
Diameter (mm):	-	Operation :	Directional/fragmentation: trip or command detonated
Gross weight (kg):	12.1	Fuze :	MUV series: VPF: electrical MD-5M, VP - 4, VPr-12/13, MVE 72
Explosive (kg):	6.2	Markings :	Stencilling on rear 'MOH-90'

Alternative designators: -

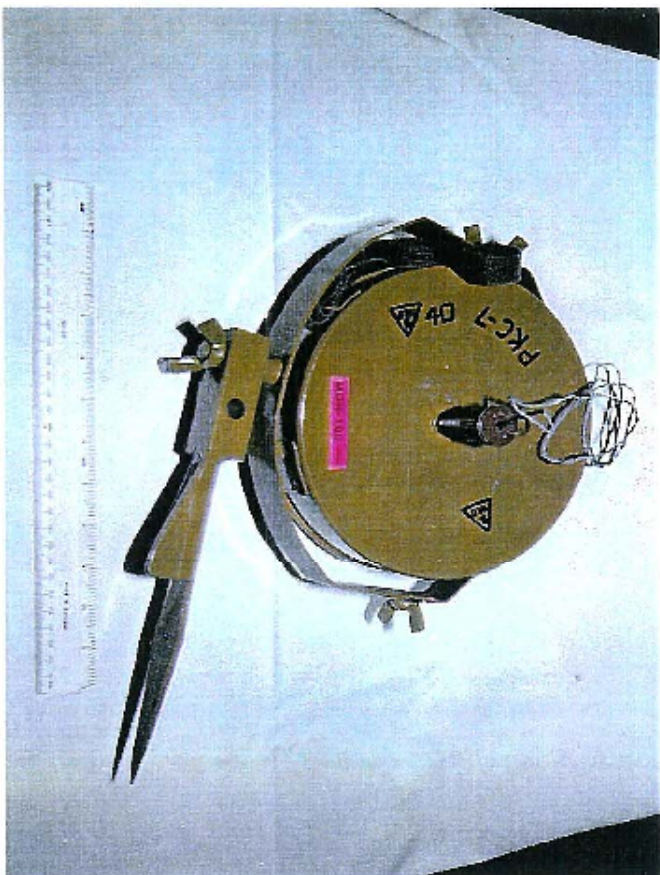
Date introduced/recovered: -

Manufacturing country: -

Russia

ANTI PERSONNEL MINE - FRAGMENTATION

MON 100



DESCRIPTION

The MON 100 is a fairly large directional fragmentation AP mine; the figure 100 supposedly designates the effective range in metres. The mine is round with a convex back and concave front. In the centre of which is the detonator well. The mine is made from sheet steel and incorporates a canvas carrying strap. The steel fragmentation face is backed by plastic explosive. The mine is normally mounted on a steel fixing bracket but may sometimes be strapped to trees. The mine contains some 400 steel fragments which can cover a width of 6.5m to 9.5m at 100m.

TECHNICAL DETAILS

Length (mm):	-	Effective range (m) :	100
Height (mm):	-	Material :	Metal
Width (mm):	82.6	Colour :	Green
Diameter (mm):	236	Operation :	Directional/fragmentation: trip
Gross weight (kg):	5	or command detonated	
Explosive (kg):	2	Fuze :	MUV, MUV-4, MVZ-72,
		Markings :	electrical detonation
			Stencil on side 'MOH-100'

Alternative designators: -

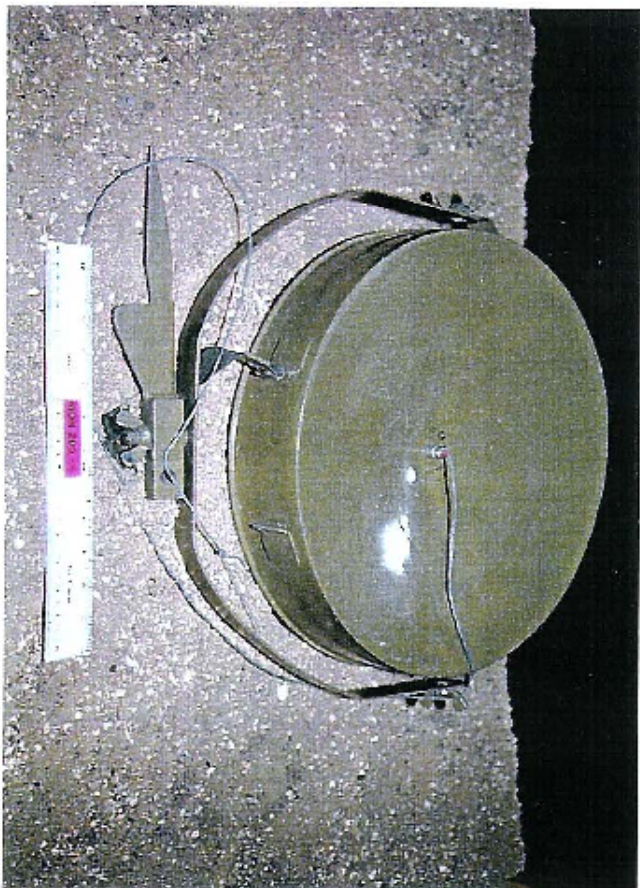
Date introduced/recovered: -

Manufacturing country: -

Russia

ANTI PERSONNEL MINE - FRAGMENTATION

MON 200



DESCRIPTION

The MON 200 is a very large directional fragmentation AP mine; the figure 200 supposedly designates the effective range in metres. The mine is round with a convex back and concave front. In the centre of which is the detonator well. The mine is made from sheet steel and incorporates a canvas carrying strap. The steel fragmentation face is backed by plastic explosive. The mine is normally mounted on a steel fixing bracket but may sometimes be strapped to trees. The mine contains some 900 steel fragments which can cover a width of 10.5m to 14.5m at 200m.

TECHNICAL DETAILS

Length (mm):	-	Effective range (m) :	200
Height (mm):	-	Material :	Metal
Width (mm):	130	Colour :	Green
Diameter (mm):	434	Operation :	Directional/fragmentation: trip
Gross weight (kg):	25.00	or command detonated	
Explosive (kg):	12.00	Fuze :	MUV, MUV-4, MVZ-72,
		Markings :	electrical detonation
			Stencil on side 'MOH-200'

Alternative designators: -

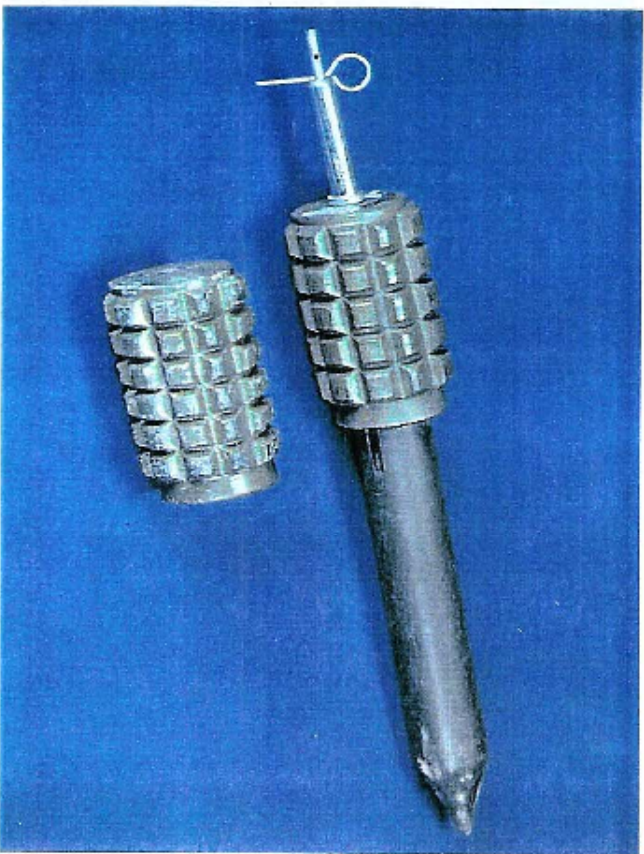
Date introduced/recovered: -

Manufacturing country: -

Russia

ANTI PERSONNEL MINE FRAGMENTATION

POMZ 2 & POMZ 2M



DESCRIPTION

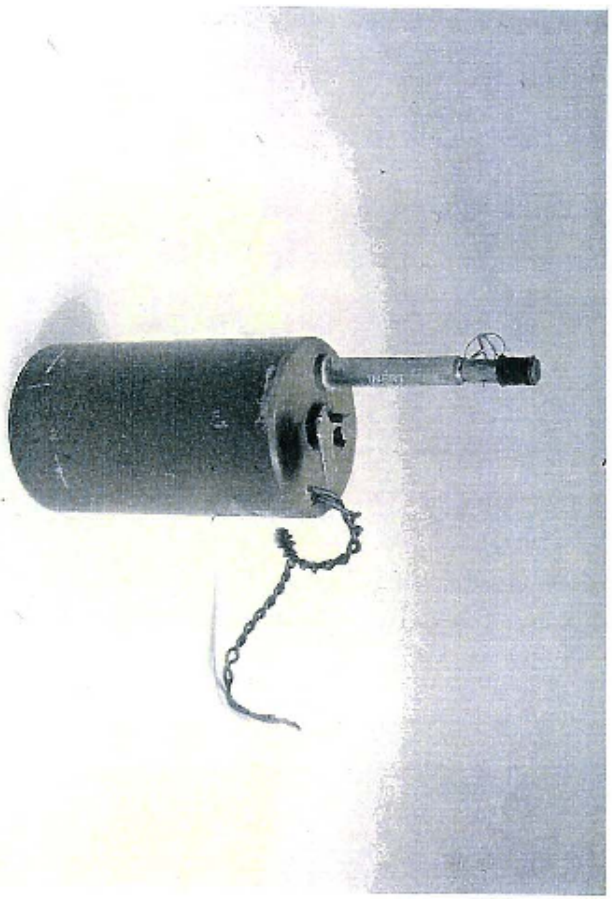
The POMZ 2 dates from the 1940s and consists of a cast iron fragmentation body containing a cylinder of cast TNT, mounted on a wooden stake. The POMZ 2 has six rows of fragmentation and an unthreaded fuze well. The OZM 2M, a later development is slightly shorter and lighter and has only five rows of fragmentation and a threaded fuze well. The POMZ 2 and 2M are normally laid in clusters of four or more mines with interlinking trip wires.

TECHNICAL DETAILS

Length (mm):	-	Effective range (m) :	10 - 20
Height (mm):	135(body)	Material :	Metal
Width (mm):	-	Colour :	Green, brown
Diameter (mm):	64	Operation :	Omni directional fragmentation; trip or tension
Gross weight (Kg):	2.3	Fuze :	MUV
Explosive (g):	75	Markings :	MUV
Alternative designators:	-	Date introduced/recovered:	-
Manufacturing country :	Russia		

ANTI PERSONNEL MINE - FRAGMENTATION

OZM 3



DESCRIPTION

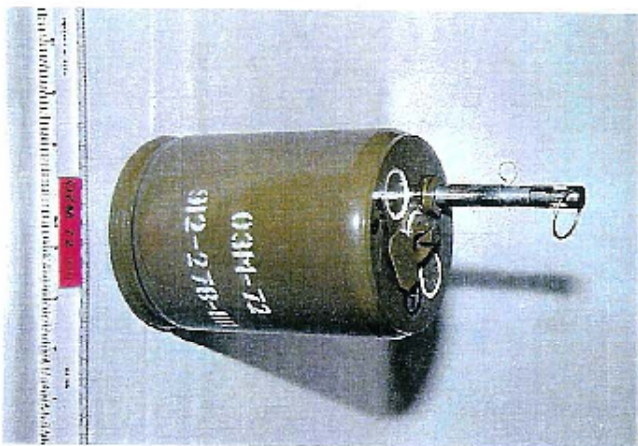
The OZM family of mines are bounding fragmentation mines originally improvised from artillery shells with a charge to launch and explode the shell at chest height. The OZM 3 has a cylindrical steel body with the fuze protruding from the top. The thin outer case encloses the fragmentation mine, complete with short delay detonator, propelling charge and a tether wire which determines the bounding height. When initiated the mine launches the inner body 1.5m to 2.4m into the air where it explodes sending fragments in all directions. The mine has a detonator plug on the top, and also has two electric wires.

TECHNICAL DETAILS

Length (mm):	-	Effective range (m) :	25
Height (mm):	120	Material :	metal
Width (mm):	-	Colour :	Green
Diameter (mm):	75	Operation :	Omni directional fragmentation; trip, command (1 - 3 Kg pull)
Gross weight (Kg):	3.00	Fuze :	MUV, MUV-2, MUV-4 VPF
Explosive (g):	75	Markings :	Stencil on side 'O3M-3'
Alternative designators:	-	Date introduced/recovered:	-
Manufacturing country :	Russia		

ANTI PERSONNEL MINE – FRAGMENTATION

OZM 72

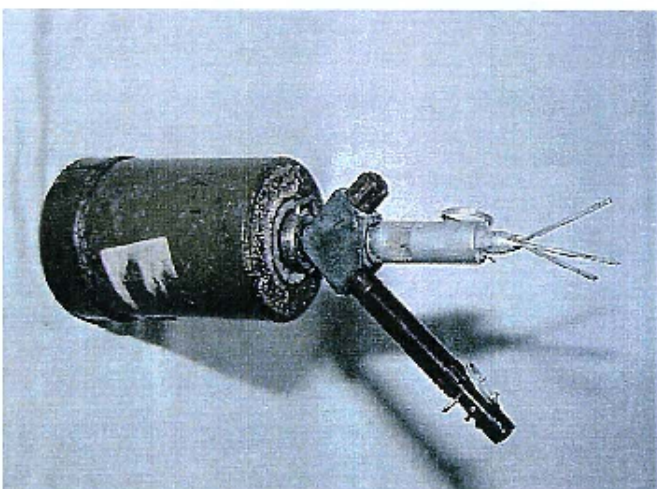


DESCRIPTION
 The OZM72 is a bounding fragmentation mine, it is cylindrical in shape, the outer casing is rolled from sheet steel. This casing houses the mine body which has steel end plates and detonator or igniter wells, a central explosive core and steel fragmentation cast into an explosive resin matrix that forms the majority of the body. The outer case and the body are joined by a steel wire approximately one metre in length. The top plate of the mine has a central detonator well plugged with a winged nut. Either side of this are plugged wells. It is thought that one will take an electric igniter to function the OZM72 as a bounding mine, the other an electric detonator for immediate command detonation. The fuze socket, for use with MUV and RO series fuzes, is offset from the centre.

TECHNICAL DETAILS	
Length (mm):	173
Height (mm):	-
Width (mm):	-
Diameter (mm):	108
Gross weight (kg)	5.00
Explosive (g):	500
Effective range (m) :	30
Material :	Metal
Colour :	Green
Operation :	Omnidirectional bound fragmentation; trip command 1-3 Kg
Fuze :	MUV-3, MUV -4, NVU -P
Markings :	Stencilling side of casing
Alternative designators:	-
Date introduced/recovered:	-
Manufacturing country :	Russia

ANTI PERSONNEL MINE – FRAGMENTATION

PSM -1



DESCRIPTION
 The PSM -1 is a bounding fragmentation anti-personnel mine of conventional design and operation. The mine may be fitted with two MVN-2M pressure igniters as well as a plastic MUV -2 tripwire igniter. Activation of any of the igniters will cause the mine warhead to be ejected from the buried mine body up to a height of 0.5m to 1.5m. The mine body then explodes sending fragments out to a lethal radius of 20m and a wounding radius of up to 40m. The mine may also be command activated by an EVU -3 electrical fuze.

TECHNICAL DETAILS	
Length (mm):	-
Height (mm):	112(249+fuze)
Width (mm):	-
Diameter (mm):	75
Gross weight (kg)	2.45
Explosive (g):	170
Effective range (m) :	20m
Material :	Metal
Colour :	Green
Operation :	Omnidirectional bound fragmentation; trip command 1-5Kg
Fuze :	MUV-2, MVN-2M, EVU-3
Markings :	
Alternative designators:	-
Date introduced/recovered:	-
Manufacturing country :	Bulgaria

ANTI TANK MINE - BLAST

TM - 46

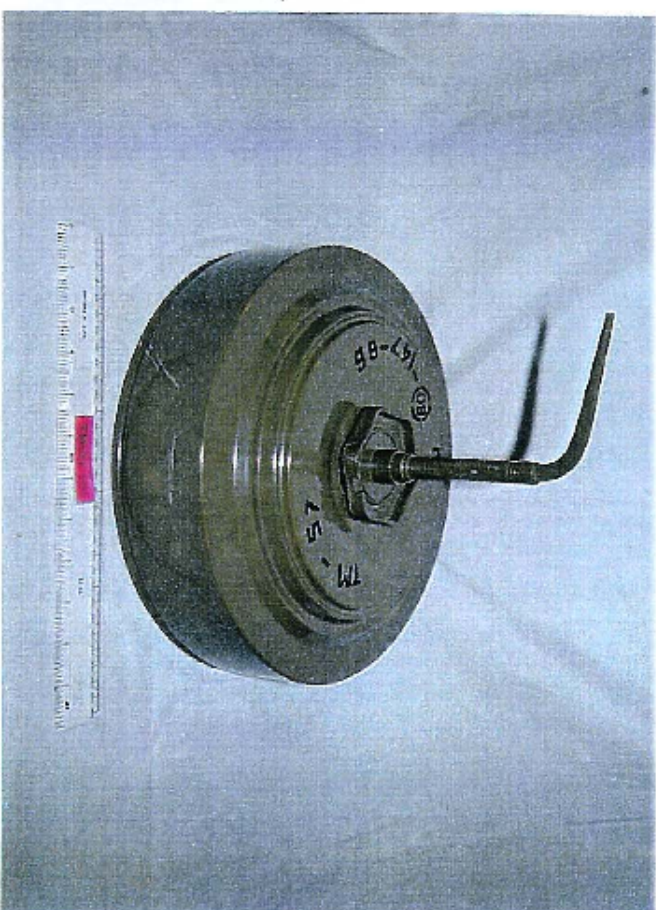


DESCRIPTION

The TM - 46 is made of thin sheet steel with an obvious seam joining the top pressure plate assembly to the lower body. The top plate has concentric stiffeners and a central fuze well. The pressure plate is a two stage diaphragm and is reinforced in the centre by a 2mm plate which is spot welded to the cover assembly skin. The fuze well has a threaded cap with a knurled edge. There is a rigid metal carrying handle which is mounted around the filler plug on the side of the mine. The TMN - 46 has an auxiliary fuze well located on the underside of the case intended for the use of anti lift devices. The base of the mine is stamped with six stiffening ribs at regular intervals.

ANTI TANK MINE - BLAST

TM - 57



DESCRIPTION

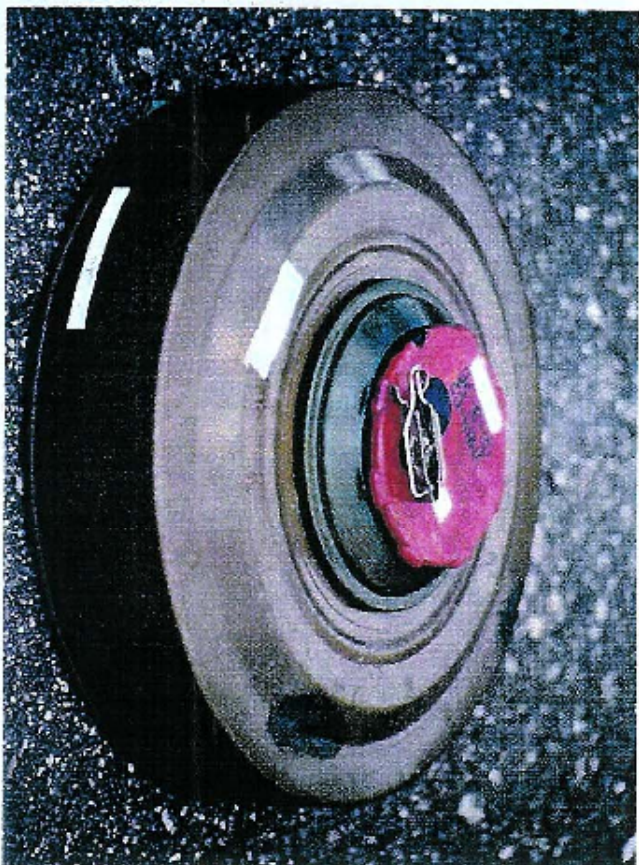
The TM - 57 is made of thin sheet steel, it is round with a truncated conical cover assembly. It has five to seven ribs embossed on the base. The fuze well is located centrally on the pressure plate. The mine has an auxiliary fuze well located on the side of the case for use with anti handling devices.

TECHNICAL DETAILS	
Length (mm):	-
Height (mm):	110
Width (mm):	-
Diameter (mm):	317
Gross weight (Kg):	8.6
Explosive (Kg):	5.7
Effective range (m) :	-
Material :	Metal
Colour :	Olive drab, Light/dark green
Operation :	Blast; pressure, tilt; 120-400Kg
Fuze :	MV - S, MVSh 46 tilt
Markings :	TMH - 46
Alternative designators:	-
Date introduced/recovered:	-
Manufacturing country :	Russia

TECHNICAL DETAILS	
Length (mm):	-
Height (mm):	100
Width (mm):	-
Diameter (mm):	300
Gross weight (Kg):	8.5
Explosive (Kg):	6.4
Effective range (m) :	-
Material :	Metal
Colour :	Khaki, green
Operation :	Blast; pressure, tilt; 120-400Kg
Fuze :	MVZ57, MVSh tilt rod
Markings :	TM - 57
Alternative designators:	-
Date introduced/recovered:	-
Manufacturing country :	Russia

ANTI TANK MINE – BLAST

TM – 62



DESCRIPTION

TM - 62 is the name given to a family of mines each of which differ in their construction, which is as follows: TM - 62M metal casing. TM - 62P plastic casing. TM - 62D rectangular wooden case.

TM - 62B waterproofed cardboard casing. The TM - 62 is a progressive development of the TM - 57 and appears similar, the exception being the TM - 62D. These mines have a built in firing delay of approximately two seconds ensuring that detonation occurs well under the vehicle body. The most obvious difference between the TM - 57 and TM - 62M is the larger fuze diameter of the TM - 62 at 125mm which can take pressure operated, tilt or magnetic influence fuzes.

TECHNICAL DETAILS

Length (mm):	Height (mm):	Width (mm):	Diameter (mm):	Gross weight (Kg):	Explosive (Kg):	Effective range (m):	Material Colour	Operation	Markings
-	83(12+fuze)	-	317	10.32	7.00	Various see text	Brown green	Blast, pressure, tilt, influence 150-500Kg	MVN 72, MVCh-62 and tilt

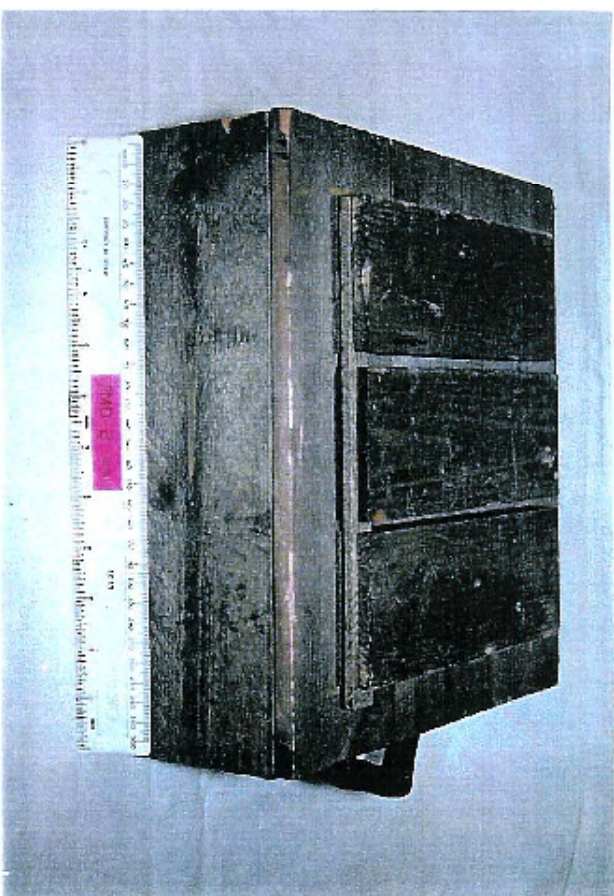
Alternative designators: -
Date introduced/recovered: -

Manufacturing country: Russia

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ANTI TANK MINE – BLAST

TMD – B



DESCRIPTION

The TMD B is an almost square simple wooden construction with variable specifications when made in the field. The mine has a canvas carrying handle and a lid consisting of three short planks set side by side in the centre of the top side, these form the pressure plate. The central plank is hinged to allow insertion of the igniter. Once the igniter has been positioned the hinged plank is locked in place by a thin locking slat that is pushed sideways into a groove cut in the ends of all three planks. The main charge normally consists of two blocks of pressed explosive wrapped in waterproof paper but cast TNT is sometimes used. The booster is usually a cast cylindrical charge with a central hole for the detonator. The TMD B should not be confused with the much more advanced TM-62D.

TECHNICAL DETAILS

Length (mm):	Height (mm):	Width (mm):	Diameter (mm):	Gross weight (Kg):	Explosive (Kg):	Effective range (m):	Material Colour	Operation	Markings
320	140	280	-	7.7	5.00	-	Wood	Natural wood	Pressure 200 - 500Kg

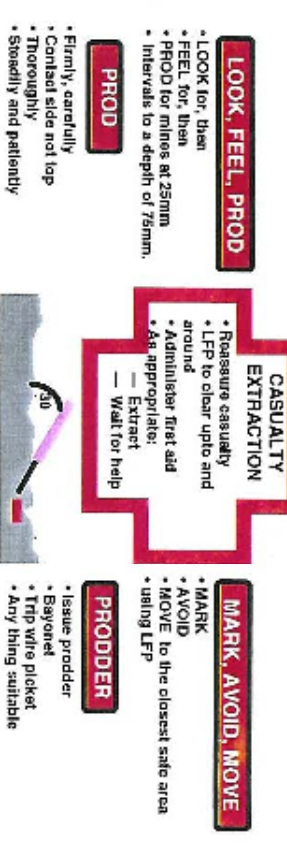
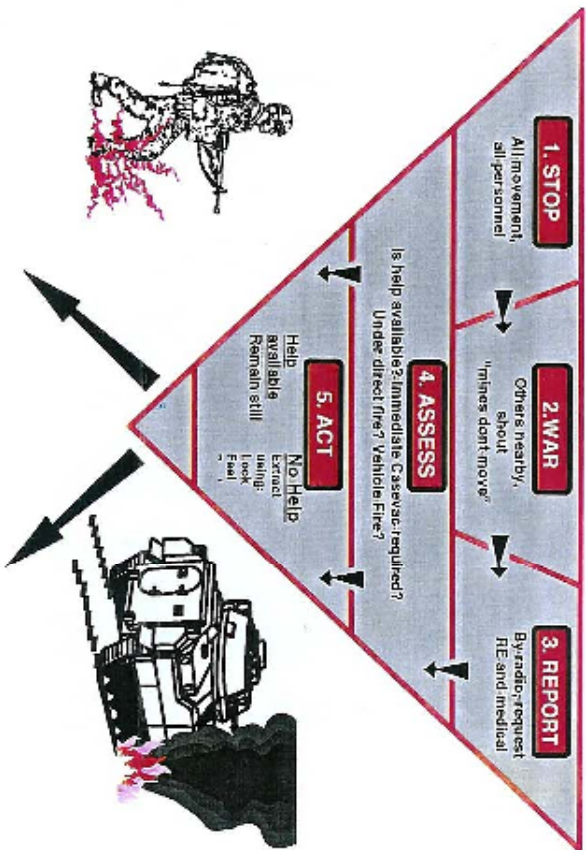
Alternative designators: -
Date introduced/recovered: -

Manufacturing country: Russia

Markings: TMB – B yellow/black stencil

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MINE ENCOUNTER - IMMEDIATE ACTION



MINE DATA

FROM: TO: DTG:	LOCATION: MAP DETAILS: GRID REF.				
TYPE	COLOUR	SHAPE	MARKING	QUANTITY	REMARKS
APERS					
A/TANK					
UXO					
UNKNOWN					
ACTION TAKEN					
NOTE	Mineralogical location report of TAM page 4 & 7.				



MINE AWARENESS

MINE INFORMATION & TRAINING CENTRE



MINES - WHERE?	INDICATORS	PRECAUTIONS	ASSISTANCE
<ul style="list-style-type: none"> • Contamination lines • Routes, gravel roads • Military establishments • Road blocks checkpoints • Strategic areas • Abandoned equipment • Abandoned buildings • Defensive positions • Field surficators 	<ul style="list-style-type: none"> • Mine signs • East signatures • Mine casewells • Mines cabins • Mine packaging • Unranged fields • Disturbed ground • Trip wires and cables • Mined areas may not be marked 	<ul style="list-style-type: none"> • Attend mine awareness training • Obtain mine information • Use local knowledge • Stick to approved routes • Stay on known safe areas • Stay on kerastone/concrete • Avoid verges • Plan routes • Think mines 	<ul style="list-style-type: none"> • Mine desk • Advice • Training • UK MITC

DON'T TOUCH MINES/UXO

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