

DEPARTMENT OF THE ARMY TECHNICAL BULLETIN

OPERATOR, FIELD AND SUSTAINMENT INFORMATION FOR GRENADE, HAND, RUBBER BALL, NON-LETHAL, GG04

Headquarters, Department of the Army
13 February 2007

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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letter or DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Logistics Research and Engineering Directorate (AMSRD-AAR-AIL-LS), U.S. Army RDECOM, Armament Research, Development and Engineering Center, Picatinny Arsenal, NJ 07806-5000. You may also send in your recommended changes via electronic mail or by fax. Our e-mail address is LSB@PICA.ARMY.MIL. Our fax number is DSN 880-4633, Commercial (973) 724-4633. A reply will be furnished to you.

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SECTION I INTRODUCTION

This bulletin provides pertinent information for the Grenade, Hand, Rubber Ball, Non-Lethal, GG04. This bulletin must be used in conjunction with grenade operator's technical manuals (TMs) and field manuals (FMs).

This bulletin contains data that will be incorporated in the following technical manuals:

TM 43-0001-29 - Army Ammunition Data Sheets for Grenades (FSC 1330).

TM 9-1330-200-12 - Operator's and Organizational Maintenance Manual for Grenades.

TM 9-1330-200-34 - Direct Support and General Support Maintenance Manual for Grenades.

SECTION II SAFETY CONSIDERATIONS

WARNING

All personnel within 30 meters from the impact point must wear double hearing protection (plugs and muffs) to avoid injury.

All personnel within 30-63 meters from the impact point must wear single hearing protection (plugs or muffs) to avoid injury.

All personnel within 20 meters from the impact point must wear eye protection, helmet, and protective vest to avoid injury.

If grenade fails to function (i.e., dud), notify authorized explosive disposal personnel and observe 30-minute waiting period. Do not touch or handle a dud grenade.

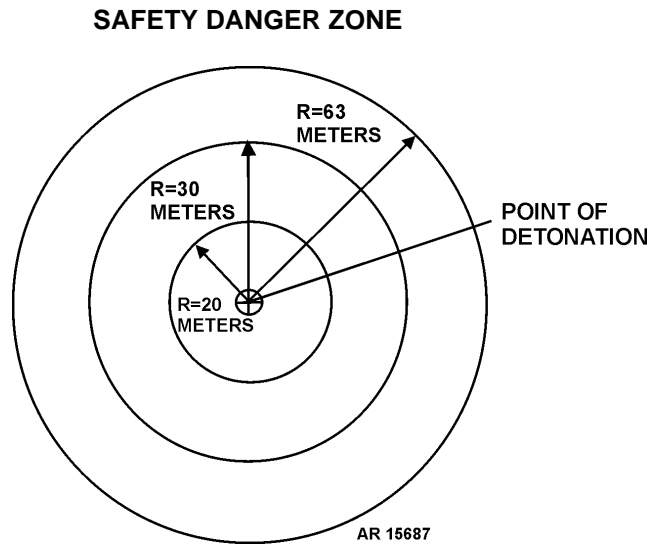
Do not practice “cook-off” with this grenade; it has a short fuze delay time of 2.6 ± 0.9 seconds.

Human target participation is not allowed during training.

NOTE

Grenades should remain in shipping/storage containers when transported by vehicle.

Retain the grenade pin after removal for reinsertion to safe the grenade, if required.



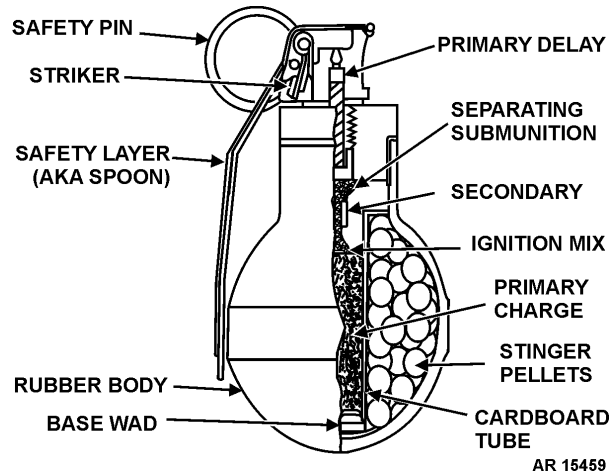
NOTE

Personnel within radius $R = 20$ meters require personnel protection equipment (i.e., eye protection, helmet, and protective vest) and double hearing protection.

Personnel within radius $R = 30$ meters require double hearing protection.

Personnel within radius $R = 63$ meters require single hearing protection.

SECTION III INFORMATION AND PROCEDURES TO BE INCORPORATED INTO MAINTENANCE TECHNICAL MANUALS



Use:

The GG04 Non-Lethal Rubber Ball Hand Grenade is intended for use in crowd control situations where the use of non-lethal force is desired. It will be used by tactical/combat forces and military law enforcement personnel. The GG04 is hand-thrown.

Description:

The GG04 consists of a grenade body, fuze, black powder separation charge, pressed black powder delay, bursting charge, and rubber balls. The grenade weighs 0.584 pound (0.265 kg) and is 5.25 inches (13.34 cm) long. It has a diameter of 3.13 inches (7.94 cm). The grenade body is a hollow rubber sphere that contains a fuze well. It is black with "Grenade, Non-Lethal" in white lettering. The grenade fuze is a M201A1 pyrotechnic delay ignition fuze. The fuze weighs 1.8 ounces (51.03 g) and is 3.9 inches (9.91 cm) long. It contains 6.94 grains (0.45 g) of zirconium nickel alloy delay composition/titanium powder/potassium perchlorate. The separation charge is 15 grains (0.97 g) of black powder, the delay is 15 grains (0.97 g) of pressed black powder, and the bursting charge is 123 grains (7.97 g) of flash powder (aluminum, magnesium, potassium perchlorate). The grenade contains a minimum of 100 rubber balls. Each rubber ball has a hardness of 70 to 80 on the Durometer "A" scale and a minimum diameter of 0.25 inch (0.64 cm).

Function:

The safety pin is removed, allowing the safety lever to be released either when the grenade is thrown or launched. Release of the safety lever allows the spring-loaded striker to impact the primer, initiating the explosive train in the fuze. This causes the fuze to ignite the separation charge, which separates the fuze/fuze well from the grenade and initiates the pressed black powder delay. When the delay burns through, it initiates the bursting charge. The burning of the bursting charge generates gas, which causes the rubber body of the grenade to rupture and disperse the rubber balls. The burning of the bursting charge also generates a flash and a report. There is a 2.6 ± 0.9 second delay between releasing the safety lever and the functioning of the grenade.

Tabulated Data:

Grenade (w/fuze):	
NSN	1330-01-454-0132
PN	HS/4083/C97/1138
DODAC	1330-GG04
Model	GG04 Non-Lethal Rubber Ball Hand Grenade
Body	Rubber
Weight	0.584 lb (0.265 kg)
Length (max.)	5.10 in. (133.4 mm)
Color	Black w/white markings
Explosive Filler:	
Type	Pyrotechnic Charge System
Weight	123 grains (7.977 g)
Fuze:	
Model	Modified M201A1 Precision
Type	Pyrotechnic delay-igniting
Primer	M39A1
Delay Time	2.6 ± 0.9 sec
Weight	1.8 oz (51.03 g)
Length	3.875 in (99.1 mm)
Color	Black
Safety device(s)	Safety pin

Drawings:

Grenade assembly	925038
M201A1 Fuze.....	201075
Grenade body	920054
Packing:	
M2A1 Container	7308221
Wirebound box	7308222

Unit of Issue:

Each packed 6 grenades packaged in a M2A1 Ammunition Container; 2 containers in a wire-bound box

Packing Data:

M2A1 Container:	
Weight (w/contents)	9.4 lb
Dimensions.....	12-1/32 x 6-3/32 x 7-1/2 in.
Cube	0.32 cu ft
Wirebound Box:	
Weight (w/contents)	27 lb
Dimensions.....	12-3/16 x 12-1/16 x 7-9/16 in.
Cube	0.89 cu ft

Shipping and Storage Data:

XM104 NLBHG (Assembled w/Fuze):		
Hazard class/division and storage compatibility group		1.4G
DOT hazard class		1.4G
UN number.....		0297
DOT Container Marking:		
PSN		Ammunition, Illuminating
UN number.....		0297
NSN.....		1330-01-454-0132
DOT label		Explosive 1.4G
Explosive weight for QD determination.....		0.0249 lb (0.011294 kg)

By Order of the Secretary of the Army:

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DISTRIBUTION: To be distributed in accordance with the initial distribution number (IDN) 344870 requirements for TB 9-1330-211-14.

